Workshop Manual
Audi A6 2005 ➢
Electrical system

Edition 08.2014

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

List of Workshop Manual Repair Groups

Repair Group

27 - Starter, current supply, CCS

90 - Gauges, instruments

92 - Windscreen wash/wipe system

94 - Lights, bulbs, switches - exterior

96 - Lights, bulbs, switches - interior

97 - Wiring

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

All rights reserved.
No reproduction without prior agreement from publisher.

Copyright © 2015 Audi AG, Ingolstadt

Contents

27 - Starter, current supply, CCS 1
1 Contact corrosion 1
2 Battery 2
2.1 Battery - general notes 2
2.2 Maintenance-free batteries 2
2.3 Disconnecting and connecting battery 2
2.4 Removing and installing earth cable with battery monitor control unit J367 4
2.5 Removing and installing battery 5
2.6 Removing and installing reinforcement for battery box 10
2.7 Checking battery 10
2.8 Preparations before measuring no-load voltage 10
2.9 Charging battery 11
2.10 Preparations before charging battery 11
2.11 Preparations for back-up power supply of battery 12
2.12 Removing and installing battery cut-off relay J655 - vehicles up to approx. 06.2004 13
2.13 Removing and installing battery isolation igniter N253 - vehicles from approx. 07.2004 onwards 13
2.14 Removing and installing retainer for battery cut-off relay J655 or battery isolation igniter N253 13
2.15 Removing and installing energy management control unit J644 14
3 Removing and installing alternator 17
3.1 Vehicles with 2.0 ltr. TFSI engine 17
3.2 Vehicles with 2.4 ltr. MPI engine 18
3.3 Vehicles with 2.8 ltr. FSI, 3.0 ltr. TFSI and 3.2 ltr. FSI engine 21
3.4 Vehicles with 3.0 ltr. MPI engine 22
3.5 Vehicles with 4.2 ltr. MPI engine 24
3.6 Vehicles with 4.2 ltr. FSI engine 28
3.7 Vehicles with 5.0 ltr. TFSI engine 31
3.8 Vehicles with 5.2 ltr. FSI engine 33
3.9 Vehicles with 4-cylinder unit injector TDI engine 35
3.10 Vehicles with 4-cylinder common rail TDI engine 38
3.11 Vehicles with 6-cylinder TDI engine 41
4 Checking and servicing alternator 48
4.1 Checking alternator 48
4.2 Servicing alternator 48
5 Removing and installing starter 49
5.1 Vehicles with 2.0 ltr. TFSI engine (manual gearbox) 49
5.2 Vehicles with 2.0 ltr. TFSI engine (automatic gearbox) 50
5.3 Vehicles with 2.4 ltr. MPI engine (manual gearbox) 51
5.4 Vehicles with 2.4 ltr. MPI engine (automatic gearbox) 51
5.5 Vehicles with 2.8 ltr. FSI, 3.0 ltr. MPI, 3.0 ltr. TFSI and 3.2 ltr. FSI engine 52
5.6 Vehicles with 4.2 ltr. MPI engine 53
5.7 Vehicles with 4.2 ltr. FSI engine 57
5.8 Vehicles with 5.0 ltr. TFSI engine 62
5.9 Vehicles with 5.2 ltr. FSI engine 64
5.10 Vehicles with 4-cylinder unit injector TDI engine 65
5.11 Vehicles with 4-cylinder common rail TDI engine 67
5.12 Vehicles with 6-cylinder TDI engine 68

90 - Gauges, instruments 70
1 Instrument cluster 70
1.1 Removing and installing instrument cluster 70
1.2 Pin assignment at multi-pin connectors on instrument cluster 74

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.3 Pin assignment on fuel gauge senders . . . 74
1.4 Pin assignment at coolant temperature sender G62 . . . 75
1.5 Removing and installing ambient temperature sensor G17 (Audi A6, Audi S6) . . . 85
1.6 Removing and installing ambient temperature sensor G17 - Audi RS 6 . . . 85
1.7 Removing and installing radio-controlled clock receiver J489 (saloon) . . . 85
1.8 Removing and installing radio-controlled clock receiver J489 (Avant) . . . 86
2 Cigarette lighter, socket . . . 87
2.1 Removing and installing cigarette lighter U1 . . . 87
2.2 Removing and installing flashing blue light socket - Audi A6 Security . . . 88
2.3 Removing and installing rear cigarette lighter U9 . . . 88
2.4 Removing and installing 12 V socket 2 U18 . . . 90
3 Horns . . . 91
3.1 Removing and installing treble horn H2 / bass horn H7 - Audi A6, Audi S6 . . . 91
3.2 Removing and installing treble horn H2 / bass horn H7 - Audi RS 6 . . . 91
3.3 Removing and installing horn and dual tone horn H1 - Audi A6 Security . . . 92
3.4 Removing and installing horn for special signals/loudspeaker - Audi A6 Security . . . 92
4 Data bus diagnostic interface . . . 94
4.1 Data bus diagnostic interface J533 . . . 94
4.2 Data bus diagnostic interface J533 in conjunction with MMI basic / MMI basic plus - layout . . . 94
4.3 Data bus diagnostic interface J533 in conjunction with MMI - layout . . . 95
4.4 Removing and installing data bus diagnostic interface J533 . . . 96
4.5 Connector at data bus diagnostic interface J533 - vehicles up to model year 2008 . . . 97
4.6 Connector at data bus diagnostic interface J533 - vehicles from model year 2009 onwards . . . 98

92 - Windscreen wash/wipe system . . . 100
1 Contact corrosion . . . 100
2 Windscreen wiper system . . . 101
2.1 Moving windscreen wipers to service position . . . 101
2.2 Renewing wiper blade . . . 101
2.3 Removing and installing wiper arms . . . 102
2.4 Adjusting wiper arms . . . 103
2.5 Removing and installing wiper motor V with wiper motor control unit J400 . . . 104
2.6 Renewing wiper motor V with wiper motor control unit J400 . . . 105
3 Windscreen washer system . . . 107
3.1 Removing and installing filler neck for washer fluid reservoir . . . 107
3.2 Removing and installing washer fluid reservoir . . . 107
3.3 Removing and installing washer fluid level sender G33 . . . 108
3.4 Removing and installing washer pump V5 . . . 109
3.5 Removing and installing washer jets - vehicles up to 01.2007 . . . 110
3.6 Removing and installing washer jets - vehicles from 02.2007 onwards . . . 110
3.7 Adjusting washer jets . . . 111
4 Rear window wiper and washer system (Avant) . . . 112
4.1 Exploded view of rear window wiper . . . 112
4.2 Renewing wiper blade . . . 112
4.3 Removing and installing wiper arm . . . 113
4.4 Adjusting wiper arm . . . 114
4.5 Removing and installing washer jet . . . 114
4.6 Adjusting washer jet . . . 115
4.7 Exploded view of rear window wiper motor . . . 115
4.8 Removing and installing rear window wiper motor V12 . . . 116
4.9 Removing and installing washer fluid reservoir . . . 117
4.10 Removing and installing windscreen and rear window washer pump V59 . . . 117
5 Headlight washer system . . . 118

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.1 Removing and installing headlight washer jets . . . 118
5.2 Adjusting washer jets . . . 119
5.3 Removing and installing washer fluid reservoir . . . 119
5.4 Removing and installing headlight washer system pump V11 . . . 120
6 Washer fluid hoses . . . 121

94 - Lights, bulbs, switches - exterior . . . 122

1 Halogen headlights - up to 05.2008 . . . 122
1.1 Exploded view of halogen headlight . . . 122
1.2 Removing and installing headlights (to renew components on front end of vehicle) . . . 123
1.3 Removing and installing headlights (old headlight is fitted again) . . . 125
1.4 Adjusting headlights . . . 127
1.5 Preparations before working on headlights . . . 129
1.6 Renewing headlight dipped beam bulb M29 / M31 . . . 137
1.7 Renewing headlight main beam bulb M30 / M32 . . . 138
1.8 Renewing side light bulb M1 / M3 . . . 139
1.9 Renewing front turn signal bulb M5 / M7 . . . 140
1.10 Removing and installing headlight range control motor V48 / V49 . . . 141
1.11 Installing repair kit for headlight housing . . . 142
1.12 Adapting headlights for driving on the left side of the road . . . 142
1.13 Adapting headlights for driving on the right side of the road . . . 143

2 Halogen headlights - from 06.2008 onwards . . . 145
2.1 Exploded view of halogen headlight . . . 145
2.2 Removing and installing headlights (to renew components on front end of vehicle) . . . 146
2.3 Removing and installing headlights (old headlight is fitted again) . . . 148
2.4 Adjusting headlights . . . 150
2.5 Preparations before working on headlights . . . 152
2.6 Renewing headlight dipped beam bulb M29 / M31 . . . 160
2.7 Renewing bulb for main beam headlights/daytime running lights M30 / M32 , L174 / L175 . . . 161
2.8 Renewing side light bulb M1 / M3 . . . 162
2.9 Renewing front turn signal bulb M5 / M7 . . . 163
2.10 Removing and installing headlight range control motor V48 / V49 . . . 164
2.11 Installing repair kit for headlight housing . . . 165
2.12 Adapting headlights for driving on the left side of the road . . . 165
2.13 Adapting headlights for driving on the right side of the road . . . 166

3 Halogen headlights (USA vehicles) . . . 168
3.1 Exploded view of halogen headlight . . . 168
3.2 Removing and installing headlights (to renew components on front end of vehicle) . . . 169
3.3 Removing and installing headlights (old headlight is fitted again) . . . 170
3.4 Adjusting headlights . . . 173
3.5 Preparations before working on headlights . . . 175
3.6 Renewing headlight dipped beam bulb M29 / M31 . . . 180
3.7 Renewing headlight main beam bulb M30 / M32 . . . 181
3.8 Renewing front turn signal bulb M5 / M7 . . . 182
3.9 Installing repair kit for headlight housing . . . 183

4 Gas discharge headlights or gas discharge headlights with dynamic cornering lights (adaptive light) - Audi A6 up to 05.2008, Audi S6 . . . 184
4.1 Safety precautions when handling gas discharge bulbs . . . 184
4.2 Exploded view of gas discharge headlight . . . 184
4.3 Removing and installing headlights (to renew components on front end of vehicle) . . . 186
4.4 Removing and installing headlights (old headlight is fitted again) . . . 188
4.5 Adjusting headlights . . . 191
4.6 Preparations before working on headlights . . . 194
4.7 Renewing gas discharge bulb L13 / L14 . . . 204
4.8 Renewing daytime running light bulb L174 / L175 . . . 206

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.9 Renewing side light bulb M1 / M3 . . . 207
4.10 Removing and installing left/right headlight screen adjustment solenoid N395 / N396 . . . 208
4.11 Removing and installing swivel module position sensor G474 / G475 . . . 208
4.12 Renewing front turn signal bulb M5 / M7 . . . 209
4.13 Removing and installing dynamic cornering light control motor V318 / V319 . . . 209
4.14 Removing and installing headlight range control motor V48 / V49 . . . 210
4.15 Removing and installing gas discharge bulb control unit J343 / J344 . . . 211
4.16 Removing and installing output module for headlight J667 / J668 . . . 212
4.17 Removing and installing starter unit for gas discharge bulb . . . 213
4.18 Installing repair kit for headlight housing . . . 214
4.19 Adapting headlights for driving on the left or right side of the road - vehicles with adjustment lever . . . 215
4.20 Adapting headlights for driving on the left or right side of the road - vehicles without adjustment lever . . . 217

5 Gas discharge headlights or gas discharge headlights with dynamic cornering lights (adaptive light) - Audi A6 from 06.2008 onwards . . . 219
5.1 Safety precautions when handling gas discharge bulbs . . . 219
5.2 Exploded view of gas discharge headlight . . . 219
5.3 Removing and installing headlights (to renew components on front end of vehicle) . . . 221
5.4 Removing and installing headlights (old headlight is fitted again) . . . 223
5.5 Adjusting headlights . . . 226
5.6 Preparations before working on headlights . . . 228
5.7 Renewing gas discharge bulb L13 / L14 . . . 237
5.8 Removing and installing adapter cable for gas discharge bulb . . . 239
5.9 Renewing bulb for additional main beam/cornering light M67 / M68 , L148 / L149 . . . 240
5.10 Renewing LED module for daytime running light and side light L176 / L177 , M1 / M3 . . . 241
5.11 Removing and installing left/right headlight screen adjustment solenoid N395 / N396 . . . 241
5.12 Removing and installing swivel module position sensor G474 / G475 . . . 241
5.13 Renewing front turn signal bulb M5 / M7 . . . 242
5.14 Removing and installing dynamic cornering light control motor V318 / V319 . . . 242
5.15 Removing and installing headlight range control motor V48 / V49 . . . 243
5.16 Removing and installing gas discharge bulb control unit J343 / J344 . . . 244
5.17 Removing and installing output module for headlight J667 / J668 . . . 245
5.18 Installing repair kit for headlight housing . . . 245
5.19 Adapting headlights for driving on the left or right side of the road . . . 246

6 Gas discharge headlights or gas discharge headlights with dynamic cornering lights (adaptive light) - USA vehicles; Audi A6, Audi S6 . . . 247
6.1 Safety precautions when handling gas discharge bulbs . . . 247
6.2 Exploded view of gas discharge headlight . . . 247
6.3 Removing and installing headlights (to renew components on front end of vehicle) . . . 249
6.4 Removing and installing headlights (old headlight is fitted again) . . . 251
6.5 Adjusting headlights . . . 254
6.6 Preparations before working on headlights . . . 257
6.7 Renewing gas discharge bulb L13 / L14 . . . 263
6.8 Renewing daytime running light bulb L174 / L175 . . . 265
6.9 Removing and installing left/right headlight screen adjustment solenoid N395 / N396 . . . 266
6.10 Removing and installing swivel module position sensor G474 / G475 . . . 266
6.11 Renewing front turn signal bulb M5 / M7 . . . 267
6.12 Removing and installing dynamic cornering light control motor V318 / V319 . . . 268
6.13 Removing and installing headlight range control motor V48 / V49 . . . 268
6.14 Removing and installing gas discharge bulb control unit J343 / J344 . . . 269
6.15 Removing and installing output module for headlight J667 / J668 . . . 270
6.16 Removing and installing starter unit for gas discharge bulb . . . 271
6.17 Installing repair kit for headlight housing . . . 272

7 Gas discharge headlights with dynamic cornering lights (adaptive light) - Audi RS 6 . . . 274
7.1 Safety precautions when handling gas discharge bulbs . . . 274

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

7.2 Exploded view of gas discharge headlight . . . 274
7.3 Removing and installing headlights (to renew components on front end of vehicle) . . . 275
7.4 Removing and installing headlights (old headlight is fitted again) . . . 278
7.5 Adjusting headlights . . . 281
7.6 Renewing gas discharge bulb L13 / L14 . . . 283
7.7 Renewing daytime running light bulb . . . 284
7.8 Removing and installing left/right headlight screen adjustment solenoid N395 / N396 . . . 285
7.9 Removing and installing swivel module position sensor G474 / G475 . . . 285
7.10 Renewing front turn signal bulb M5 / M7 . . . 285
7.11 Removing and installing dynamic cornering light control motor V318 / V319 . . . 285
7.12 Removing and installing headlight range control motor V48 / V49 . . . 286
7.13 Removing and installing gas discharge bulb control unit J343 / J344 . . . 287
7.14 Removing and installing output module for headlight J667 / J668 . . . 287
7.15 Removing and installing starter unit for gas discharge bulb . . . 288
7.16 Installing repair kit for headlight housing . . . 289
7.17 Adapting headlights for driving on the left or right side of the road . . . 289

8 Side marker light (USA vehicles) . . . 291
8.1 Removing and installing front side marker light . . . 291
8.2 Renewing front side marker light bulb M33 / M34 . . . 291

9 Daytime running lights - Audi S6 . . . 293
9.1 Removing and installing daytime running light . . . 293

10 Fog lights . . . 294
10.1 Removing and installing fog lights - Audi A6 up to 05.2008 . . . 294
10.2 Renewing fog light bulb L22 / L23 - Audi A6 up to 05.2008 . . . 294
10.3 Removing and installing fog lights - Audi A6 from 06.2008 onwards . . . 295
10.4 Renewing fog light bulb L22 / L23 - Audi A6 from 06.2008 onwards . . . 296
10.5 Removing and installing fog lights - Audi S6/Audi RS 6 . . . 296
10.6 Renewing fog light bulb L22 / L23 - Audi S6/Audi RS 6 . . . 296
10.7 Adjusting fog lights . . . 297

11 Turn signal repeater in wing . . . 299
11.1 Removing and installing turn signal repeater bulb M18 / M19 . . . 299

12 Turn signal repeater in exterior mirror . . . 300
12.1 Exploded view - lane change assist warning lamp . . . 300
12.2 Removing and installing exterior mirror turn signal bulb L131 / L132 . . . 300

13 Entry light in exterior mirror - version 1 . . . 303
13.1 Removing and installing entry light in exterior mirror W52 / W53 . . . 303

14 Entry light in exterior mirror - version 2 . . . 305
14.1 Exploded view of entry light in exterior mirror . . . 305
14.2 Removing and installing entry light in exterior mirror W52 / W53 . . . 305

15 Rear lights - Saloon - up to 05.2008 . . . 309
15.1 Exploded view of tail light cluster . . . 309
15.2 Removing and installing tail light and bulb carrier . . . 310
15.3 Aligning tail light cluster with body contour . . . 312

16 Tail light cluster - Saloon - from 06.2008 onwards . . . 313
16.1 Exploded view of outer tail light cluster . . . 313
16.2 Removing and installing tail light and bulb carrier . . . 313
16.3 Aligning tail light cluster with body contour . . . 315
16.4 Exploded view of inner tail light cluster . . . 315
16.5 Removing and installing inner tail light cluster . . . 316

17 Tail light cluster - Avant - up to 05.2008 . . . 317
17.1 Exploded view of outer tail light cluster . . . 317
17.2 Removing and installing tail light cluster and outer bulb carrier . . . 318
17.3 Aligning tail light cluster with body contour . . . 319
17.4 Exploded view of standard inner rear light . . . 319

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

17.5 Exploded view of LED inner rear light . . . 321
17.6 Removing and installing inner tail light cluster . . . 321
17.7 Removing and installing reversing light bulb M16 / M17 , rear fog light bulb L46 / L47 , tail light bulb M2 / M4 . . . 323
18 Tail light cluster - Avant - from 06.2008 onwards . . . 324
18.1 Exploded view - outer LED tail light cluster . . . 324
18.2 Removing and installing tail light cluster and outer bulb carrier . . . 324
18.3 Aligning tail light cluster with body contour . . . 325
18.4 Exploded view of LED inner rear light . . . 326
18.5 Removing and installing inner tail light cluster . . . 327
18.6 Removing and installing bulb holder for reversing light bulb M16 / M17 , rear fog light bulb L46 / L47 . . . 328
19 High-level brake light - Saloon . . . 330
19.1 Removing and installing high-level brake light - Audi A6 . . . 330
19.2 Removing and installing high-level brake light - Audi A6 Security . . . 330
20 High-level brake light - Avant . . . 332
20.1 Removing and installing high-level brake light . . . 332
20.2 Preparing high-level brake light for installation . . . 333
21 Number plate light . . . 334
21.1 Removing and installing number plate light X . . . 334
22 Steering column switch module . . . 335
22.1 Steering column switch module . . . 335
22.2 Exploded view - steering column switch module . . . 335
22.3 Removing and installing steering column switch module . . . 336
22.4 Removing and installing return ring with slip ring . . . 337
22.5 Removing and installing steering angle sender G85 . . . 339
22.6 Removing and installing steering column electronics control unit J527 . . . 339
22.7 Pin assignment at steering column electronics control unit J527 (front) . . . 340
22.8 Pin assignment at steering column electronics control unit J527 (reverse side) . . . 342
22.9 Removing and installing turn signal switch E2 . . . 343
22.10 Removing and installing cruise control system switch E45 . . . 344
22.11 Removing and installing intermittent wiper switch E22 . . . 344
23 Entry and start authorisation switch E415 . . . 346
23.1 Removing and installing entry and start authorisation switch E415 . . . 346
23.2 Pin assignment at entry and start authorisation switch E415 . . . 347
24 Parking aid . . . 348
24.1 Overview of parking aid . . . 348
24.2 Removing and installing parking aid control unit J446 (saloon) . . . 349
24.3 Removing and installing parking aid control unit J446 (Avant) . . . 349
24.4 Removing and installing front parking aid warning buzzer H22 - 8-channel parking aid . . . 351
24.5 Removing and installing rear parking aid warning buzzer H15 on belt guide (left-side) - Saloon up to model year 2006 . . . 351
24.6 Removing and installing rear parking aid warning buzzer H15 on belt guide (right-side) - Saloon from model year 2007 onwards . . . 352
24.7 Removing and installing rear parking aid warning buzzer H15 on belt guide (left-side) - Avant up to model year 2005 . . . 352
24.8 Removing and installing rear parking aid warning buzzer H15 on belt guide (right-side) - Avant from model year 2006 onwards . . . 352
24.9 Removing and installing senders for parking aid (front) . . . 353
24.10 Removing and installing rear parking aid senders . . . 353
25 Automatic headlight range control . . . 355
25.1 Overview of automatic headlight range control . . . 355
25.2 Removing and installing control unit J431 / J745 . . . 355
96 - Lights, bulbs, switches - interior . . . 357
1 Lights and switches in dash panel . . . 357

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.1 Removing and installing light switch . . . 357
1.2 Removing and installing steering column adjustment switch E167 . . . 357
1.3 Removing and installing alarm switch in driver's footwell - Audi A6 Security . . . 358
1.4 Removing and installing switch panel for instrument cluster . . . 359
1.5 Removing and installing glove compartment button E316 and display unit button E506 . . . 359
1.6 Removing and installing headlight range control regulator E102 . . . 361
1.7 Removing and installing hazard warning light switch E3 . . . 361
1.8 Removing and installing warning lamp for airbag deactivated on front passenger side K145 . . . 362
1.9 Removing and installing switches in dash panel . . . 362
1.10 Removing and installing front heated seat regulator E94 / E95 . . . 362
1.11 Removing and installing glove compartment light switch E26 . . . 363
1.12 Removing and installing glove compartment light . . . 363
1.13 Removing and installing footwell light (front) . . . 364

2 Lights and switches in front doors . . . 365
2.1 Removing and installing mirror adjustment switch . . . 365
2.2 Removing and installing operating unit for window regulator in driver door E512 . . . 366
2.3 Removing and installing window regulator switch in front passenger door E107 . . . 366
2.4 Removing and installing interior locking switch E150 / E198 (central locking button) . . . 367
2.5 Removing and installing driver seat/front passenger seat memory operating unit E97 / E277 . . . 367
2.6 Removing and installing rear lid remote release button E233 and fuel tank flap release button E319 . . . 368
2.7 Removing and installing bulb for door opener light . . . 368
2.8 Removing and installing central locking deadlock function warning lamp -SAFE- K133 . . . 369
2.9 Removing and installing interior door lighting strip . . . 369
2.10 Removing and installing door contact switch . . . 370
2.11 Removing and installing door warning lamp and entry light . . . 370

3 Lights and switches in rear doors . . . 371
3.1 Removing and installing rear left/rear right window regulator switch, in door E52 / E54 . . . 371
3.2 Removing and installing rear interior locking switch E273 / E274 (central locking button) . . . 371
3.3 Removing and installing bulb for door opener light . . . 372
3.4 Removing and installing interior door lighting strip . . . 372
3.5 Removing and installing ashtray light in door (rear) . . . 373
3.6 Removing and installing door contact switch . . . 373
3.7 Removing and installing door warning lamp and entry light . . . 373

4 Lights and switches in centre console . . . 375
4.1 Removing and installing ashtray light (front) . . . 375
4.2 Removing and installing parking brake switch F234 . . . 375
4.3 Removing and installing entry and start authorisation button E408 . . . 379
4.4 Removing and installing selector lever position display Y26 . . . 380
4.5 Removing and installing special signal switch - Audi A6 Security . . . 380
4.6 Removing and installing heated rear seat switch with regulator E128 / E129 . . . 381
4.7 Removing and installing alarm switch in rear centre console - Audi A6 Security . . . 381
4.8 Removing and installing footwell light (rear) . . . 382

5 Lights and switches in luggage compartment . . . 383
5.1 Removing and installing luggage compartment light - Saloon . . . 383
5.2 Removing and installing luggage compartment light - Avant . . . 383
5.3 Removing and installing bulb for luggage compartment light - Avant . . . 384
5.4 Removing and installing rear lid light - Avant . . . 385
5.5 Removing and installing alarm switch in luggage compartment - Audi A6 Security . . . 386
5.6 Removing and installing contact switch in lock cylinder for rear lid, anti-theft system and central locking system F124 . . . 386
5.7 Removing and installing button to close rear lid in luggage compartment E406 . . . 387

6 Lights and switches in roof trim . . . 388

Copyright by AUDI AG. This content is for personal or educational purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6.1 Removing and installing vanity mirror light W14 / W20 . . . 388
6.2 Removing and installing contact switch for vanity mirror F147 / F148 . . . 388
6.3 Removing and installing interior light/reading light (front) . . . 388
6.4 Removing and installing LED for background lighting . . . 389
6.5 Renewing bulbs for interior light (front) . . . 390
6.6 Renewing bulbs for reading light (front) . . . 390
6.7 Removing and installing sliding sunroof adjustment regulator E139 . . . 391
6.8 Removing and installing garage door operation control unit J530 . . . 392
6.9 Removing and installing garage door operating unit E284 . . . 392
6.10 Removing and installing interior light/reading light (rear) with rectangular lens . . . 392
6.11 Renewing bulb for interior light/reading light (rear) with rectangular lens . . . 393
6.12 Removing and installing interior light/reading light (rear) with round lens . . . 393
6.13 Renewing bulb for interior light/reading light (rear) with round lens . . . 394

7 Immobiliser . . . 395

8 Entry and start authorisation system . . . 396
8.1 Overview of entry and start authorisation system . . . 396
8.2 Overview of keyless entry system . . . 397
8.3 Exploded view of exterior door handle for keyless entry system . . . 398
8.4 Removing and installing front exterior door handle switches F272 / F273 . . . 399
8.5 Removing and installing rear exterior door handle switches F274 / F275 . . . 399
8.6 Removing and installing central locking button in front exterior door handle E369 / E370 . . . 399
8.7 Removing and installing central locking button in rear exterior door handle E371 / E372 . . . 400
8.8 Removing and installing interior aerial 1 for entry and start authorisation R138 . . . 400
8.9 Removing and installing front passenger side aerial for entry and start authorisation R135 . . . 401
8.10 Removing and installing driver side aerial for entry and start authorisation R134 . . . 401
8.11 Removing and installing luggage compartment aerial for entry and start authorisation R137 . . . 402
8.12 Removing and installing aerial reader unit for keyless entry system J723 . . . 402

9 Ultrasonic interior monitoring . . . 403
9.1 Removing and installing interior monitoring deactivation switch E183 and alarm system off switch E217 . . . 403
9.2 Removing and installing interior monitoring sensor G273 . . . 403
9.3 Removing and installing alarm horn H12 . . . 404
9.4 Removing and installing vehicle inclination sender G384 . . . 404

10 Lane change assist . . . 405
10.1 Overview of lane change assist . . . 405
10.2 Removing and installing button for lane change assist E530 . . . 406
10.3 Removing and installing lane change assist warning lamp in exterior mirror K233 / K234 . . . 406
10.4 Removing and installing lane change assist control unit J769 / J770 . . . 408
10.5 Calibrating lane change assist - test equipment layout . . . 409
10.6 Calibrating lane change assist control unit J769 / J770 . . . 410

11 Towing bracket . . . 416
11.1 Socket for towing bracket . . . 416
11.2 Removing and installing trailer detector control unit J345 (saloon) . . . 416
11.3 Removing and installing trailer detector control unit J345 (Avant) . . . 416

97 - Wiring . . . 419

1 Contact corrosion . . . 419

2 Component protection . . . 420

3 Relay carriers, fuse carriers . . . 421
3.1 Removing and installing plenum chamber electronics box (left-side) . . . 421

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.2 Removing and installing relay and fuse holder in electronics box (plenum chamber, left-side) . . . 423
3.3 Removing and installing connector point in electronics box (plenum chamber, left-side) . . 425
3.4 Removing and installing electronics box (plenum chamber, right-side) . . . 426
3.5 Removing and installing main fuse holder in electronics box (plenum chamber, right-side) . . . 430
3.6 Removing and installing auxiliary relay carrier in electronics box (plenum chamber, right-side) . . . 432
3.7 Removing and installing suppression filter C24 . . . 434
3.8 Unplugging door separating connector (left-side) . . . 436
3.9 Unplugging door separating connector (right-side) . . . 437
3.10 Removing and installing fuse holder A SA in luggage compartment . . . 437
4 Relay carriers, fuse carriers (vehicle interior) . . . 439
4.1 Removing and installing fuse holder in dash panel (left-side) . . . 439
4.2 Removing and installing CAN separating connector (left-side) T46a . . . 440
4.3 Removing and installing onboard supply control unit J519 . . . 441
4.4 Removing and installing relay and fuse carrier behind dash panel (driver's side) . . . 442
4.5 Removing and installing 2-position relay and fuse carrier behind dash panel (driver's side) . . . 443
4.6 Removing and installing connector point at A-pillar (left-side) . . . 444
4.7 Removing and installing bracket with fuse holder at dash panel (right-side) . . . 444
4.8 Removing and installing fuse holder at dash panel (right-side) . . . 445
4.9 Removing and installing CAN separating connector (right-side) T46b . . . 446
4.10 Removing and installing onboard supply control unit 2 J520 . . . 446
4.11 Removing and installing special vehicle control unit J608 . . . 447
4.12 Removing and installing connector point at A-pillar (right-side) . . . 447
5 Relay carriers, fuse carriers (luggage compartment) . . . 448
5.1 Removing and installing relay and fuse holder in luggage compartment (right-side) . . . 448
5.2 Removing and installing luggage compartment fuse holder (right-side) . . . 450
5.3 Removing and installing personal danger alarm control unit J476 - Audi A6 Security . . . 451
5.4 Removing and installing encoding connector for siren special signal system - Audi A6 Security . . . 452
6 Repairing wiring harnesses and electrical connectors . . . 453
7 Repairing connector housings and electrical connectors . . . 454
8 Releasing and dismantling connector housing . . . 455
9 Cleaning contact surfaces with contact surface cleaning set VAS 6410 . . . 456
10 Repairing aerial wires . . . 457
11 Fibre optic cables . . . 458
12 Vehicle diagnostic, testing and information systems . . . 459

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

27 – Starter, current supply, CCS

1 Contact corrosion

(ARL003892; Edition 08.2014)

Contact corrosion can occur if unsuitable fasteners (bolts, nuts, washers, etc.) are used.

For this reason, only fasteners with a special surface coating are fitted.

Furthermore, rubber components or plastic components and adhesives are made of non-conductive material.

Always fit new components if you are not sure that the old components are suitable ⇒ Electronic parts catalogue .

Note:

- We recommend the use of genuine replacement parts only; they have been tested and are compatible with aluminium.
- We recommend using Audi Genuine Accessories.
- Damage resulting from contact corrosion is not covered by warranty.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2 Battery

Observe notes on contact corrosion ⇒ page 1 .

2.1 Battery - general notes

⇒ Electrical system; General information; Rep. gr. 27 ; Battery

2.2 Maintenance-free batteries

⇒ Electrical system; General information; Rep. gr. 27 ; Battery

2.3 Disconnecting and connecting battery

Procedure

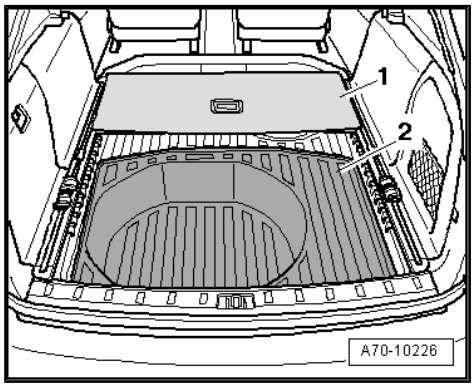
– Switch off ignition and take out ignition key.

Saloon:

– Lift luggage compartment floor covering and secure.

Avant:

– Remove luggage compartment floor -1- and cover for moulded insert (deep version) -2-.

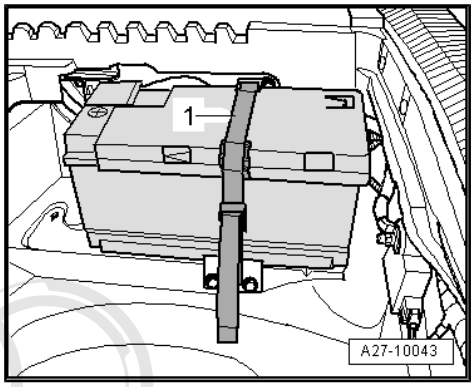


All vehicles:

– Release battery securing strap -1- (if fitted).

Note

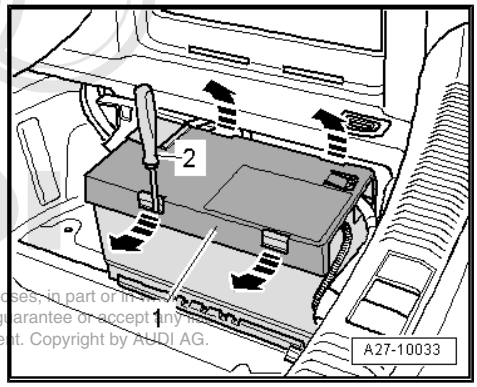
If no quick release fastener is fitted on battery securing strap, securing bolt for battery securing strap must be unscrewed.



– Release the retaining clips -arrows- using a screwdriver -2- and remove the cover -1- for the negative terminal.

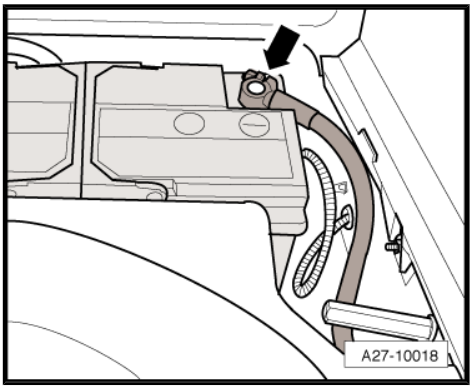
Note

Illustration shows moulded cover removed.



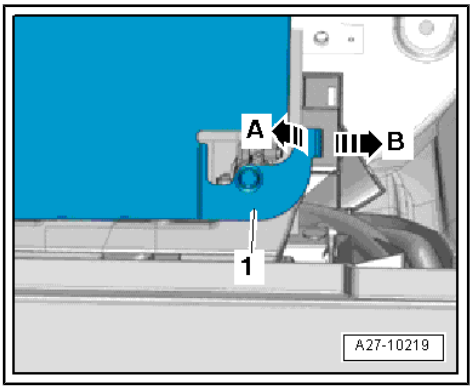
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Loosen nut several turns and disconnect battery clamp -arrow- of earth cable from battery terminal.



Vehicles with battery monitor control unit - J367- :

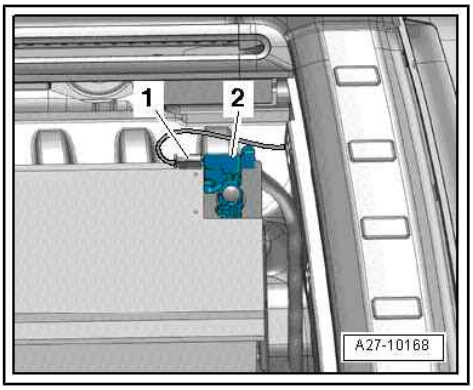
– To open cover -1- over negative battery terminal, release retaining tab -arrow B- and swivel cover upwards -arrow A-.



– Unplug electrical connector -1- at battery monitor control unit - J367- -item 2-.

All vehicles (continued):

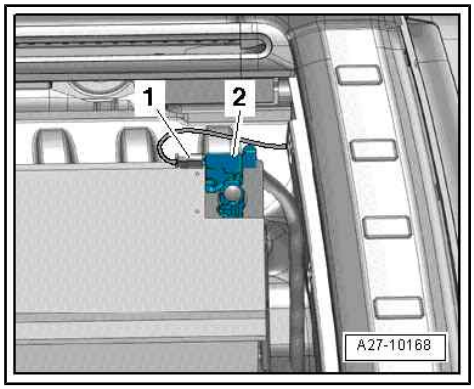
– When connecting battery, attach battery clamp of earth cable to negative battery terminal “–” by hand and tighten nut.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Vehicles with battery monitor control unit - J367- :

– Re-connect electrical connector -1- at battery monitor control unit - J367- -item 2-.



All vehicles (continued):

The following measures must be carried out after re-connecting battery:

- Activate automatic open/close function of electric window regulators - see ⇒ Owner's Manual .
- Synchronise spare keys and additional keys to ensure correct remote control operation. To do so, insert key in ignition lock, switch on the ignition and then off again, then remove the key.
- Interrogate event memories of all control units and erase “Low voltage” fault if necessary ⇒ Vehicle diagnostic tester.

Note

After reconnecting the voltage supply, it is possible that the ESP warning lamp will not go out until the vehicle has been driven several metres.

Tightening torque

Component	Nm
Battery clamp to battery terminal	6

2.4 Removing and installing earth cable with battery monitor control unit - J367-

Removing

– Switch off ignition and take out ignition key.

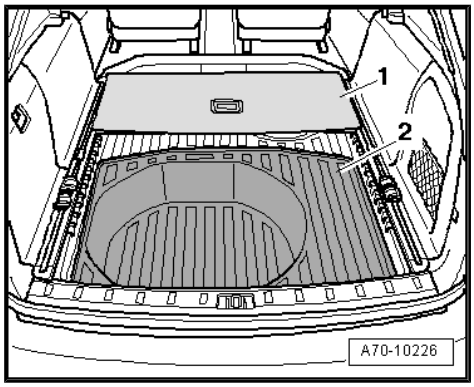
Saloon:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Lift luggage compartment floor covering and secure.

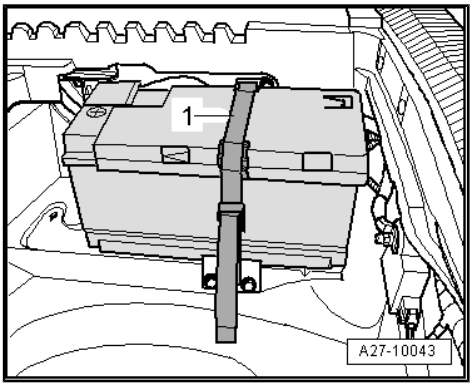
Avant:

– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



All vehicles:

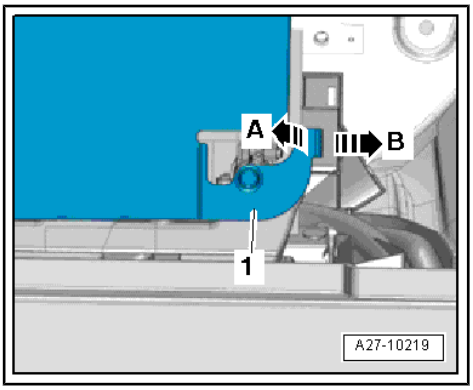
– Release battery securing strap -1- (if fitted).



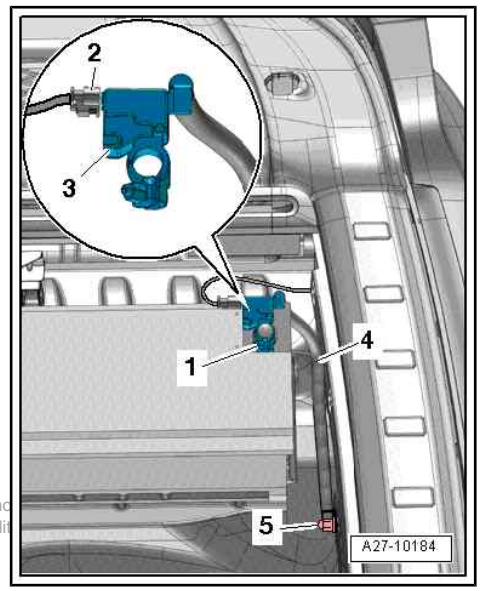
Note

If no quick release fastener is fitted on battery securing strap, securing bolt for battery securing strap must be unscrewed.

– To open cover -1- over negative battery terminal, release retaining tab -arrow B- and swivel cover upwards -arrow A-.



– Slacken off nut several turns and disconnect battery clamp -1- of earth cable from battery terminal.
– Unplug electrical connector -2-.
– Remove nut -5- and detach earth cable -4- with battery monitor control unit - J367- -item 3-.



Installing

Installation is carried out in the reverse order; note the following:

– Connect battery ⇒ page 3 .

Tightening torque

Component	Nm
Earth cable to body	18

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.5 Removing and installing battery

Removing

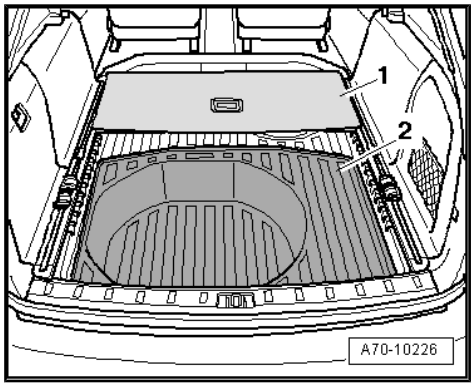
– Switch off ignition and take out ignition key.

Saloon:

– Lift luggage compartment floor covering and secure.

Avant:

– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.

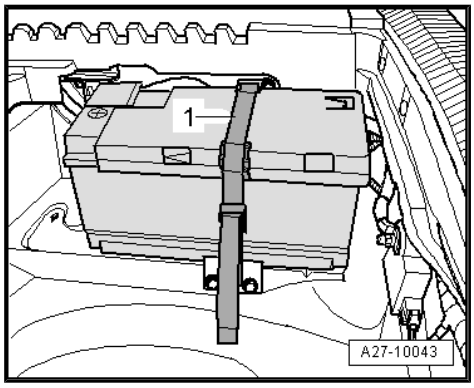


All vehicles:

– Release battery securing strap -1- (if fitted).

Note

If no quick release fastener is fitted on battery securing strap, securing bolt for battery securing strap must be unscrewed.

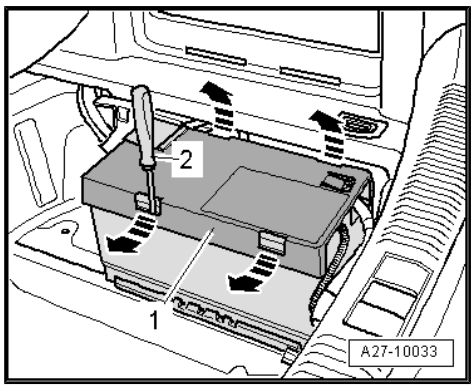


– Release retaining clips -arrows- using screwdriver -2- and remove cover -1- for negative terminal.

Note

...ctet...copyright. Copying for private or commercial purposes, in part or in whole, is not ...itted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

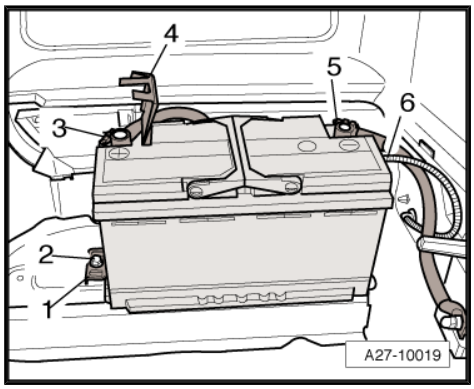
Illustration shows moulded cover removed.



– Connect battery charger to provide back-up power supply ⇒ page 12 .

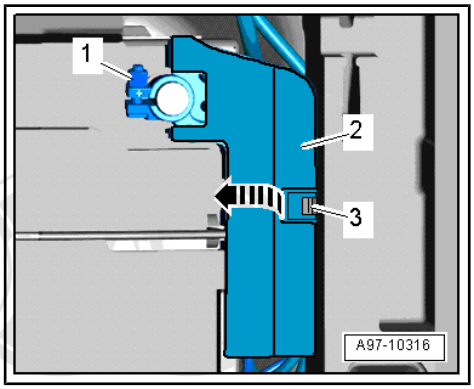
– Remove cover -4- over battery positive terminal.

– Disconnect earth cable -5- and positive cable -3- at battery.



Vehicles with fuse holder on positive wire:

– Loosen nut -1- several turns and disconnect battery clamp of positive cable together with fuse holder A -item 2- from battery terminal.



Note

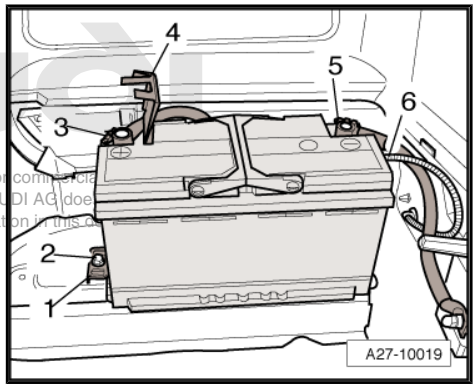
Disregard -item 3- and -arrow-.

All vehicles (continued):

– Disconnect hose -6- for central gas venting system.

– Unscrew bolt -2- on battery retainer plate -1-.

– Lift battery out of luggage compartment (right-side).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

WARNING

Observe environmental requirements.

- ***When disposing of used batteries, always observe the required disposal procedures for batteries and sulphuric acid ⇒ Electrical system; General information; Rep. gr. 27 ; Battery .***

Installing

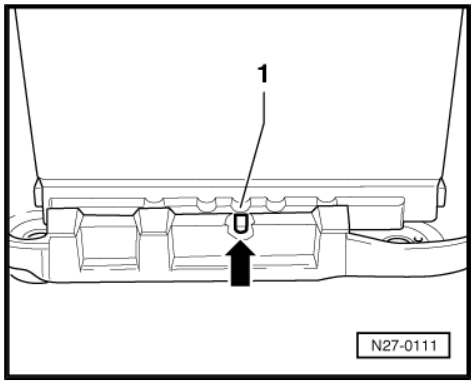
Installation is carried out in the reverse order; note the following:

Note

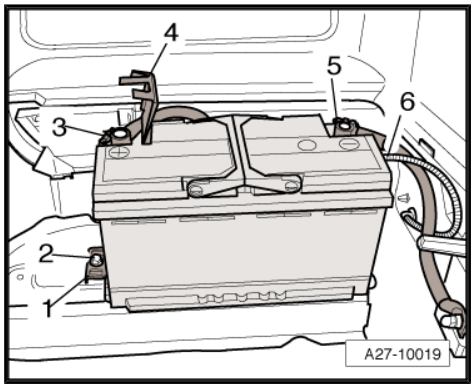
- *We recommend using the battery indicated in the electronic parts catalogue to ensure optimum operation of the energy management control unit - J644- .*
- *Only install maintenance-free batteries with the specifications "TL82506" (from December 1997 onwards) and "VW75073" (from August 2001 onwards).*
- *If a leakproof, deep-cycle VRLA or AGM battery was fitted as original equipment, this type of battery must also be installed as a replacement.*
- *Batteries from the Audi parts range feature a base strip adapter for matching to different retainer flanges. The battery operating instructions give details of when and how to use the base strip adapter.*

– Insert battery in battery carrier so that lug at rear of battery carrier -arrow- engages in recess in battery base strip -1-.

• It should no longer be possible to move the battery.



– Secure battery retaining strap -1- with bolt -2-.



Note

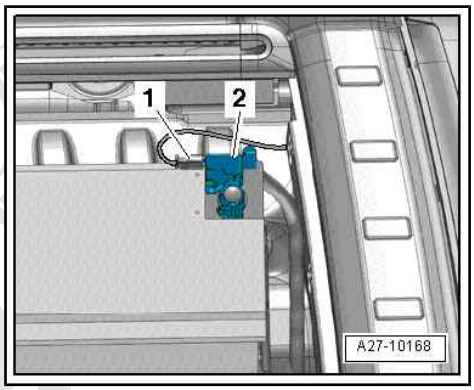
Lug on battery retainer plate must engage in recess on battery base strip.

Connect up battery in the following sequence with ignition and electrical equipment switched off:

– First connect battery clamp -3- of positive cable by hand to positive battery terminal “+” and tighten nut.

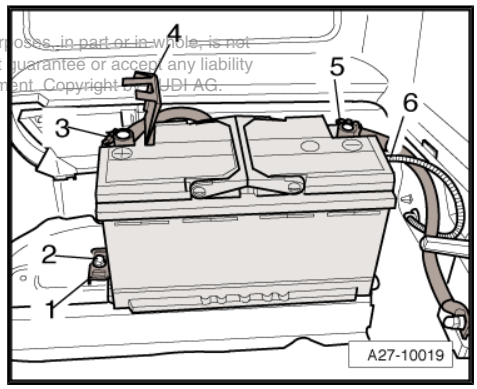
Vehicles with battery monitor control unit - J367- :

– Unplug electrical connector -1- at battery monitor control unit - J367- -item 2-.



All vehicles (continued):

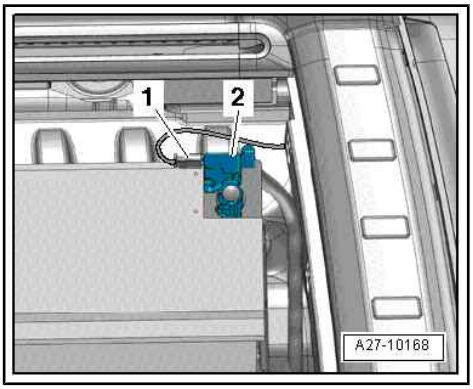
– Attach battery clamp -5- on earth cable to negative battery terminal “–” by hand and tighten nut.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © AUDI AG.

Vehicles with battery monitor control unit - J367- :

– Re-connect electrical connector -1- at battery monitor control unit - J367- -item 2-.



All vehicles (continued):

– Attach hose -6- for central gas venting system.

– Close cover -4- over battery positive terminal.

– Check that battery is firmly secured following installation.

– Switch off back-up power supply from battery charger.

– If the battery is renewed, the new battery must be adapted ⇒ Vehicle diagnostic tester.

Procedure

⇒ Vehicle diagnostic tester is connected.

– Select `Diagnosis` mode and start diagnosis.

– Select `Test plan` tab.

– Select `Own test` then the following options one after the other:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Body
- Electrical system
- 27 - Starter, current supply
- Electrical components
- A - Adapt battery after replacing

Further instructions are given by ⇒ Vehicle diagnostic tester.

If battery was removed and installed without back-up power supply, perform following procedures after connecting the battery:

- Activate automatic open/close function of electric window regulators - see ⇒ Owner's Manual .
- Synchronise spare keys and additional keys to ensure correct remote control operation. To do so, insert key in ignition lock, switch on the ignition and then off again, then remove the key.
- Interrogate event memories of all control units and erase “Low voltage” fault if necessary ⇒ Vehicle diagnostic tester.

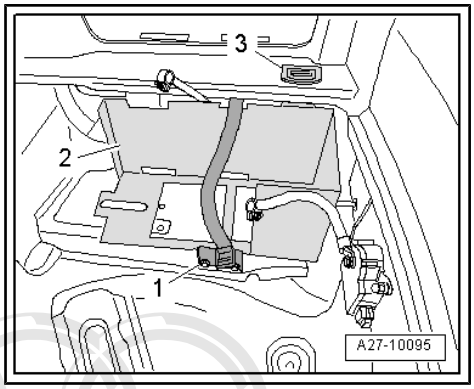
Note

After reconnecting the voltage supply, it is possible that the ESP warning lamp will not go out until the vehicle has been driven several metres.

Tightening torques

Component	Nm
Bolt to retainer plate	24
Battery clamp to battery terminal	6
Additional clamp to battery terminal	6

2.6 Removing and installing reinforcement for battery box



Removing

– Remove battery ⇒ page 5 .

– Unscrew bolts and detach fastening ring -3-.

– Lift reinforcement -2- for battery box over bracket -1- for securing strap and remove reinforcement for battery box from luggage compartment.

Installing

• Tightening torque ⇒ Rep. gr. 70

Install in reverse order.

2.7 Checking battery

⇒ Electrical system; General information; Rep. gr. 27 ; Checking battery

2.8 Preparations before measuring no-load voltage

Before measuring no-load voltage of battery, it is necessary to perform the following steps:

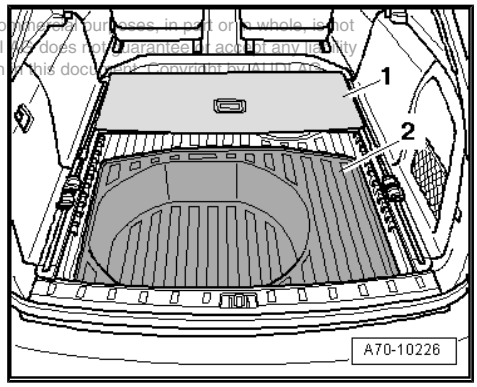
Vehicles with earth stud in luggage compartment

Saloon:

– Lift luggage compartment floor covering and secure.

Avant:

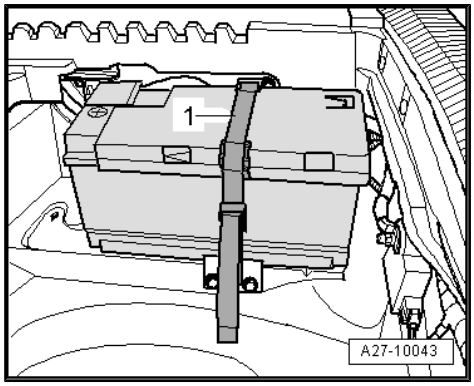
– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



Copyright by AUDI AG. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

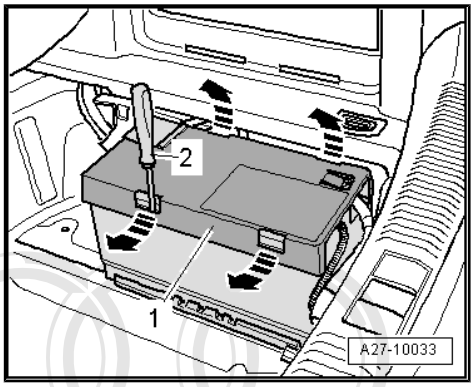
– Release battery securing strap -1- (if fitted).



Note

If no quick release fastener is fitted on battery securing strap, securing bolt for battery securing strap must be unscrewed.

– Release the retaining clips -arrows- using a screwdriver -2- and remove the cover -1- for the negative terminal.



Note

Illustration shows moulded cover removed.

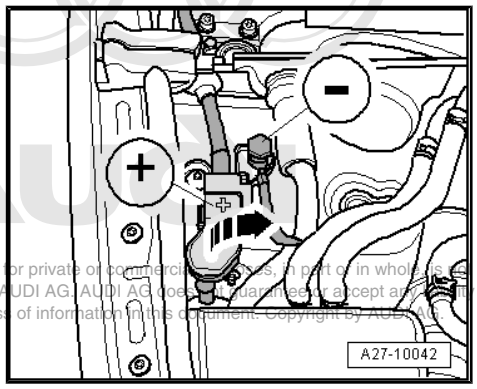
– Remove cover over battery positive terminal.

– Connect tester to positive terminal “+” and negative terminal “–” ⇒ Electrical system; General information; Rep. gr. 27 ; Checking battery .

Vehicles with earth stud in engine compartment

– Remove cover -arrow- over positive terminal.

– Connect tester to remote positive terminal “+” and remote negative terminal “–” ⇒ Electrical system; General information; Rep. gr. 27 ; Checking battery .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.9 Charging battery

⇒ Electrical system; General information; Rep. gr. 27 ; Charging battery

2.10 Preparations before charging battery

Procedure

WARNING

Risk of explosion due to a discharged battery with “magic eye”.

- ***The battery must NOT be checked or charged if the indicator of the “magic eye” is colourless or yellow. Do NOT jump start the vehicle. There is a risk of explosion when checking or charging the battery or jump starting the vehicle. The battery must be renewed.***

Before connecting battery charger, it is necessary to perform the following steps:

Note

Wherever possible, the battery should be installed in the vehicle and connected while it is being charged. Otherwise, the charging current will not be taken into account in the capacity calculation of energy management control unit -J644- .

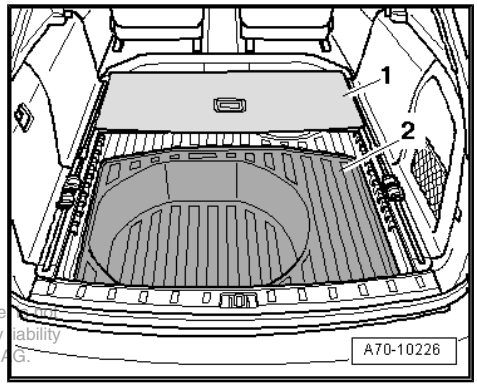
– Switch off ignition and all electrical equipment; then take out ignition key.

Saloon:

– Lift luggage compartment floor covering and secure.

Avant:

– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



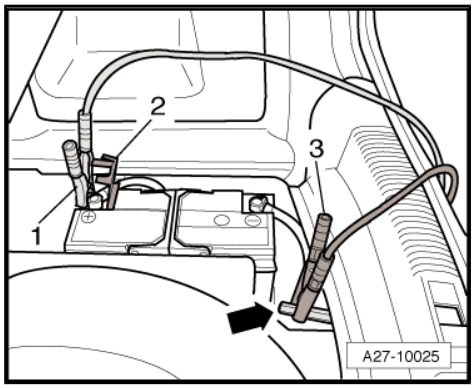
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Vehicles with earth stud in luggage compartment:

– Remove cover -2- over battery positive terminal.

– Connect red clamp “+” -item 1- of battery charger to positive terminal of battery.

– Connect black clamp “–” -item 3- of battery charger to earth stud -arrow- of energy management control unit -J644- .



Vehicles with earth stud in engine compartment:

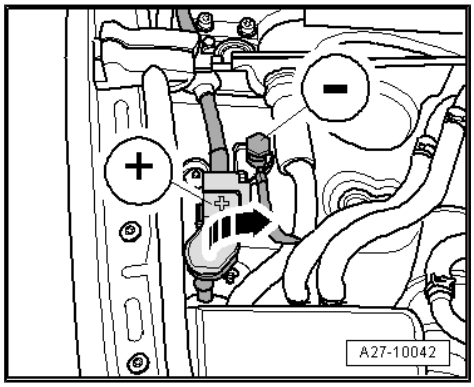
– Remove cover -arrow- over positive terminal.

– Connect red clamp “+” of battery charger to remote positive terminal of battery and black clamp “–” to remote negative terminal.

All vehicles:

– Plug in mains connector of battery charger and switch on battery charger ⇒ Electrical system; General information; Rep. gr. 27 ; Charging battery .

– Leave rear lid open during charging.



2.11 Preparations for back-up power supply of battery

Procedure

Before connecting battery charger, it is necessary to perform the following steps:

– Switch off ignition and all electrical equipment.

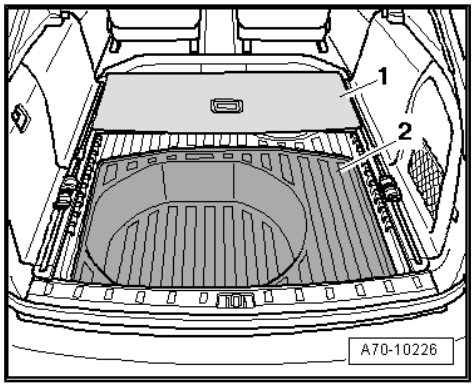
Vehicles with earth stud in luggage compartment

Saloon:

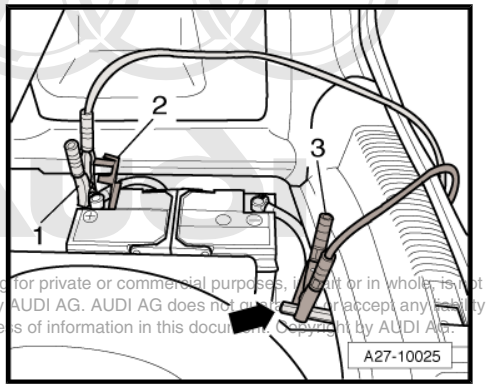
– Lift luggage compartment floor covering and secure.

Avant:

– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



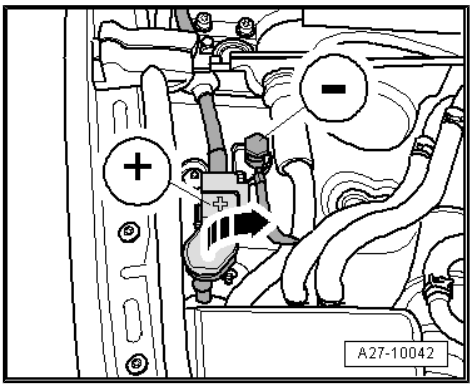
– Remove cover -2- over battery positive terminal.
– Connect red clamp “+” -item 1- of battery charger to battery clamp “+”.
– Connect black clamp “–” -item 3- of battery charger to earth stud -arrow- of energy management control unit -J644- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Vehicles with earth stud in engine compartment

– Remove cover -arrow- over positive terminal.
– Connect red clamp “+” of battery charger to remote positive terminal of battery and black clamp “–” to remote negative terminal.



All vehicles:

– Plug in mains connector of battery charger and switch on battery charger ⇒ Electrical system; General information; Rep. gr. 27 ; Charging battery .

2.12 Removing and installing battery cut-off relay - J655- - vehicles up to approx. 06.2004

The battery cut-off relay - J655- must be renewed if defective or if it has been triggered.

– Renew battery cut-off relay - J655- ⇒ Rep. gr. 69 .

2.13 Removing and installing battery isolation igniter - N253- - vehicles from approx. 07.2004 onwards

Battery isolation igniter - N253- must be renewed if defective or if it has been triggered.

– Renewing battery isolation igniter - N253- ⇒ Rep. gr. 69 .

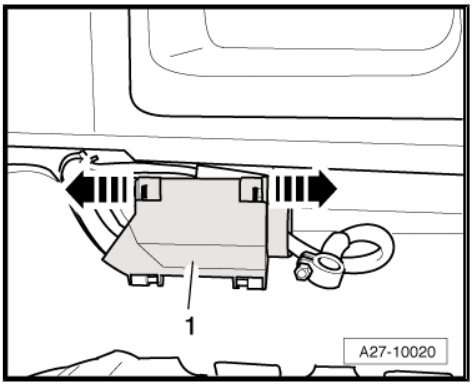
2.14 Removing and installing retainer for battery cut-off relay - J655- or battery isolation igniter - N253-

Removing

Note

All cable ties which are released or cut open when removing must be fitted in the same position when installing.

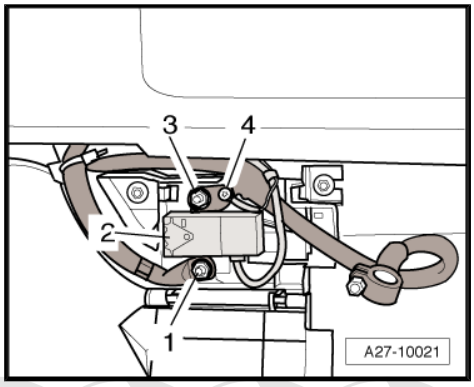
– Remove battery ⇒ page 5 .
– Release the catches -arrows- and open the flap -1-.



Vehicles up to approx. 06.2004:

– Unscrew nuts -1- and -3- at positive cables.

– Detach the battery cut-off relay - J655- -item 2- from the retainer.



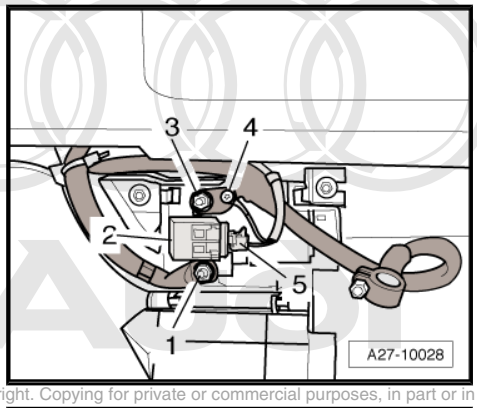
Note

Disregard -item 4-.

Vehicles from approx. 07.2004 onwards:

– Unscrew nuts -1- and -3- at positive cables.

– Detach the battery isolation igniter - N253- -item 2- from the retainer.



Note

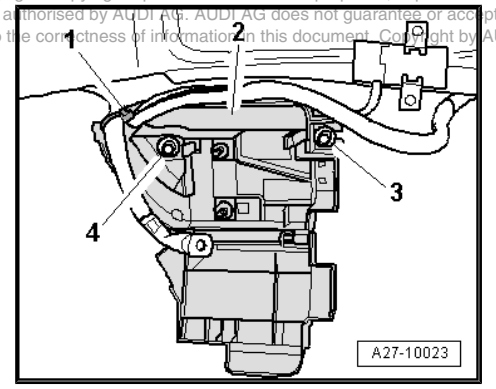
Disregard -item 4- and -item 5-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

– Unscrew nuts -3- and -4-.

– Cut through cable tie -1- and detach the retainer -2- from the body.



Installing

Installation is carried out in the reverse order; note the following:

Note

Refit all cable ties at the same locations when reinstalling.

– Install battery ⇒ page 7 .

Tightening torques

Component	Nm
Retainer to body	3
Positive cables to battery cut-off relay - J655- or battery isolation igniter - N253-	20

2.15 Removing and installing energy management control unit - J644-

Removing

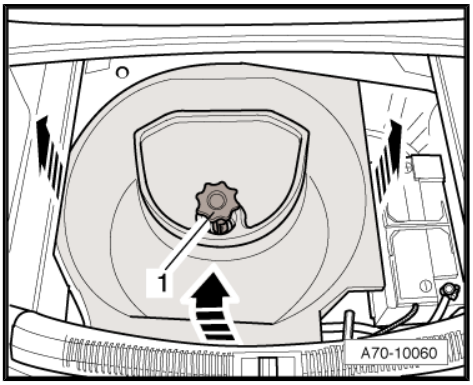
Note

Charger must NOT be connected during removal and installation.

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

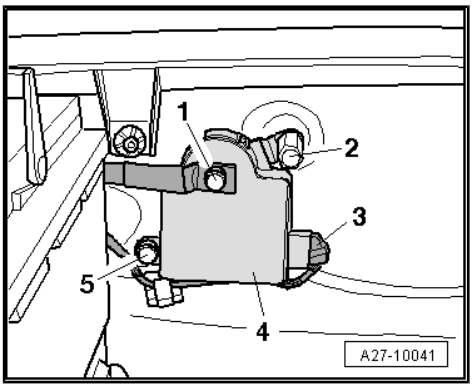
Vehicles with moulded cover:

– Remove securing bolt -1- (if fitted).
– Remove the moulded insert from the spare wheel well -arrows-.



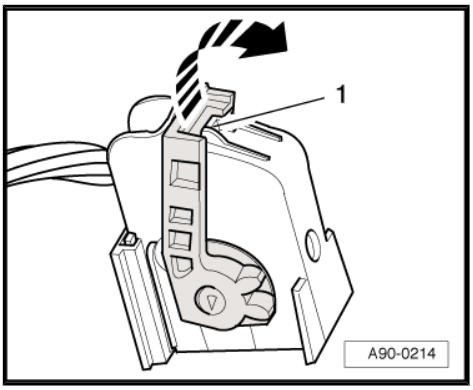
All vehicles:

– Unscrew earth stud -2- and cap nut -5-.
– Remove the energy management control unit - J644- -item 4-.
– Detach earth cable -1- leading to battery from energy management control unit - J644-.
– Unplug electrical connector -3-.

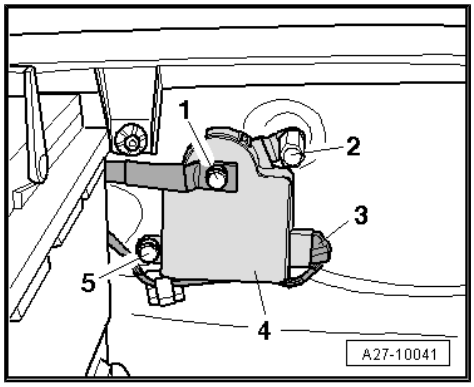


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the accuracy or completeness in this document. Copyright by AUDI AG.

– To do so, press the catch -1- and turn the retaining clip in the direction of the -arrow-.



Installing



To ensure the correct function of energy management control unit -J644- it is important to keep to the following sequence during installation:

1 - Secure earth cable -1- to battery at energy management control unit - J644- .

2 - Secure energy management control unit - J644- -item 4- to body by screwing in and tightening earth stud -2- and cap nut -5-.

3 - Connect earth cable to battery.

4 - Plug in electrical connector -3- at energy management control unit - J644- .

5 - Perform measures required after connecting battery ⇒ page 3 .

Energy management control unit - J644- must be re-encoded after renewing ⇒ Vehicle diagnostic tester.

– Select function or path:

Vehicle brand
Vehicle type
Engine code
61 Battery control
J644 Energy management control unit, coding (Repair Group 27)

– Continue to follow the instructions on the display of the vehicle diagnostic tester.

Tightening torques

Component		Nm
Control unit	Earth stud	20
to body	Nut	20
Earth cable to control unit		9

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

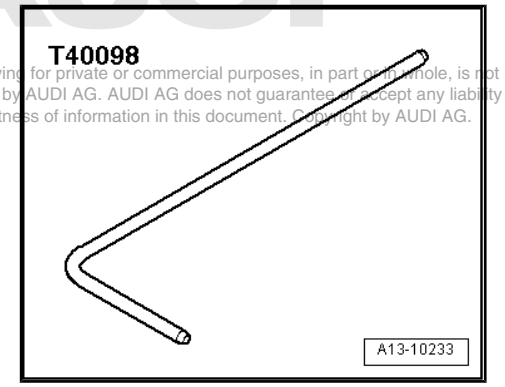
3 Removing and installing alternator

Observe notes on contact corrosion ⇒ page 1 .

3.1 Vehicles with 2.0 ltr. TFSI engine

Special tools and workshop equipment required

- Locking tool - T40098-

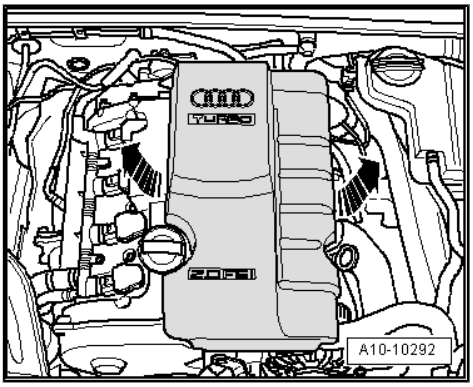


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

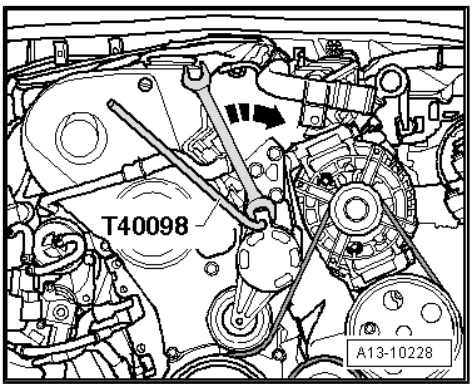
– Detach engine cover -arrows-.



Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

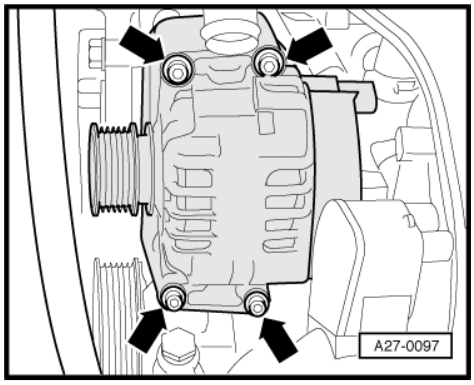
- *Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.*



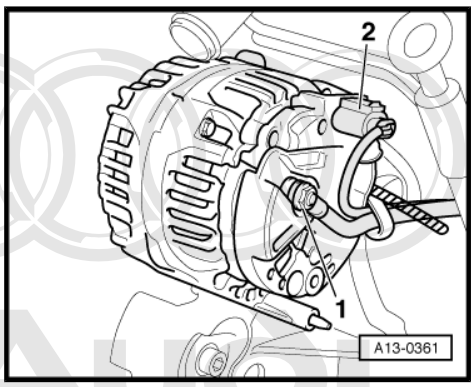
– To loosen poly V-belt, pivot tensioner for poly V-belt in direction of -arrow- and lock in place using locking pin - T40098- .

– Take off poly V-belt.

– Unscrew bolts (top and bottom) -arrows- and pivot alternator forwards.

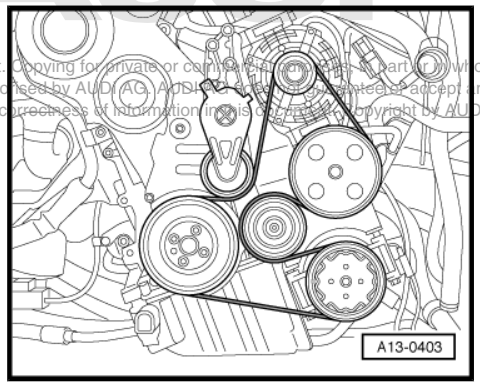


– Unplug electrical connector -2-.
– Unscrew terminal 30/B+ -item 1-.
– Take out alternator.



Installing

Installation is carried out in the reverse order; note the following:



Copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Make sure poly V-belt is properly positioned and correctly routed.
– Connect battery. Steps required ⇒ page 3 .
– Start engine and check that belt runs properly.

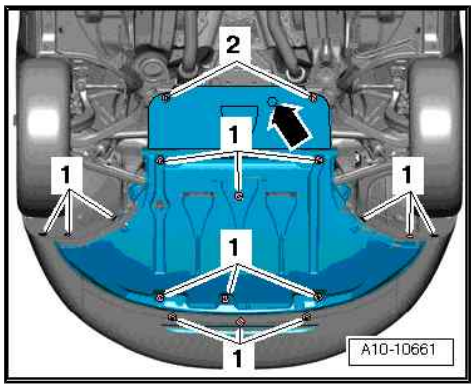
Tightening torques

Component	Nm
Alternator to engine	23
Terminal 30/B+ to alternator	16

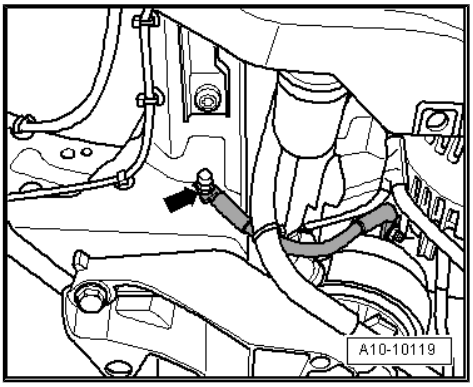
3.2 Vehicles with 2.4 ltr. MPI engine

Removing

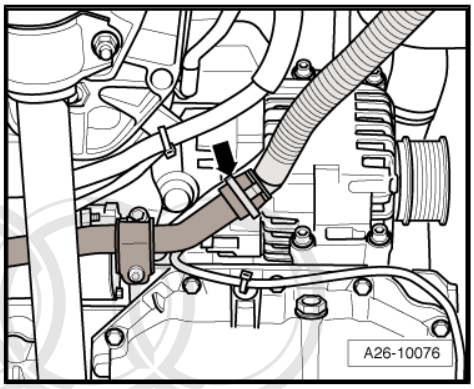
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.
– Vehicles with air suspension: remove bracket with air supply unit ⇒ Rep. gr. 43 .



– Unscrew earth cable -arrow- from longitudinal member (right-side).



– Detach air hose going to combination valves for secondary air at location marked with an -arrow-.

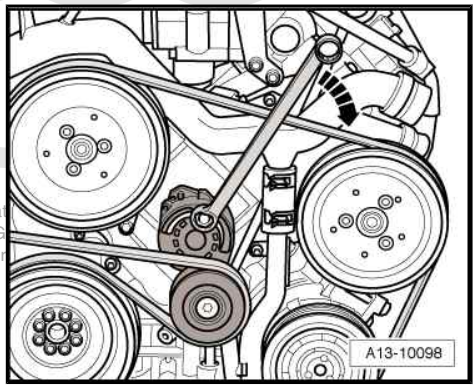


Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***

Protected by copyright. Copying for private
permitted unless authorised by AUDI AG
with respect to the correctness of infor



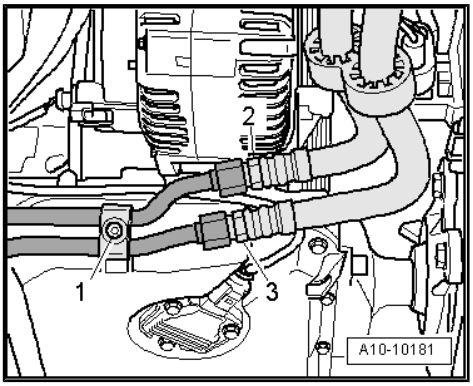
– To slacken poly V-belt turn tensioner in direction of -arrow-.
– Remove poly V-belt from alternator pulley.
– Release pressure from tensioner.

Vehicles with automatic gearbox:

Note

Observe rules for cleanliness when working on automatic gearbox ⇒ Rep. gr. 00 .

– Remove nut -1- for ATF lines.

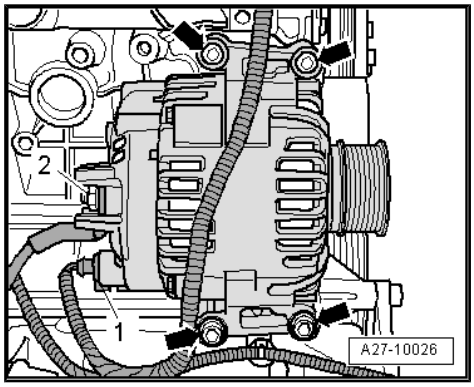


Note

Disregard -item 2- and -item 3-.

All vehicles (continued):

– Unplug electrical connector at oil level and oil temperature sender - G266- and move clear wiring harness at alternator.
– Unscrew bolts -arrows- and detach alternator.
– Unplug electrical connector -1-.
– Unscrew terminal 30/B+ -item 2-.



Installing

Installation is carried out in the reverse order; note the following:

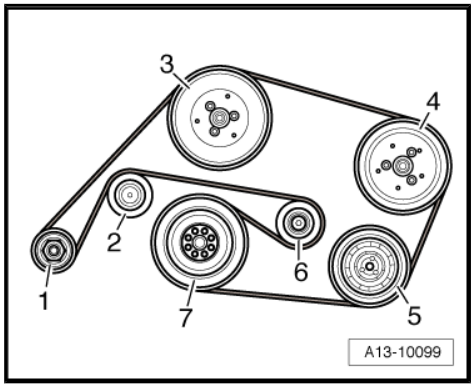
Vehicles with automatic gearbox:

– Secure ATF lines ⇒ Rep. gr. 37 .

All vehicles (continued):

Installation is carried out in the reverse order; note the following:

– Fit poly V-belt onto pulleys in the following sequence:



1 - Alternator
2 - Idler roller
3 - Coolant pump
4 - Power steering pump
5 - Air conditioner compressor
6 - Tensioner for poly V-belt
7 - Vibration damper

Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Vehicles with air suspension: install bracket with air supply unit ⇒ Rep. gr. 43 .
– Connect battery. Steps required ⇒ page 3 .
– Start engine and check that belt runs properly.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Tightening torques

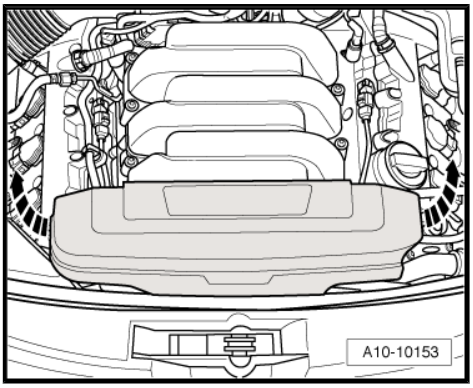
Component	Nm
Alternator to engine	22
30/B+ terminal to alternator	16

3.3 Vehicles with 2.8 ltr. FSI, 3.0 ltr. TFSI and 3.2 ltr. FSI engine

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

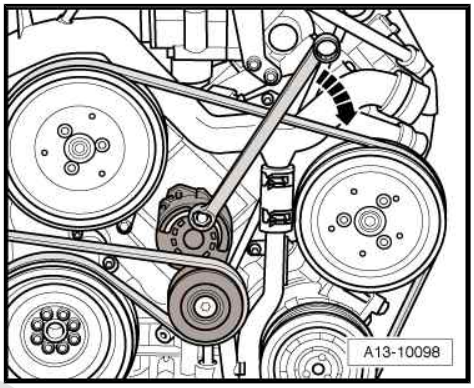
– Pull off front engine cover panel -arrows-.



Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***



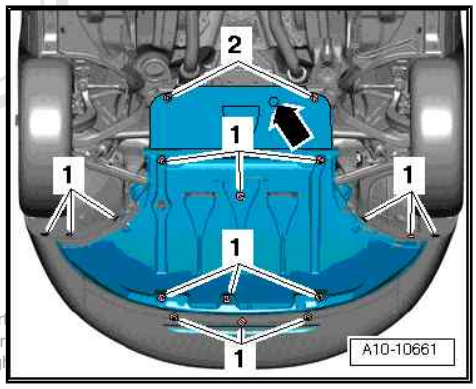
– To slacken poly V-belt turn tensioner in direction of -arrow-.

– Remove poly V-belt from alternator pulley.

– Release pressure from tensioner.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.

– Vehicles with air suspension: remove bracket with air supply unit ⇒ Rep. gr. 43 .



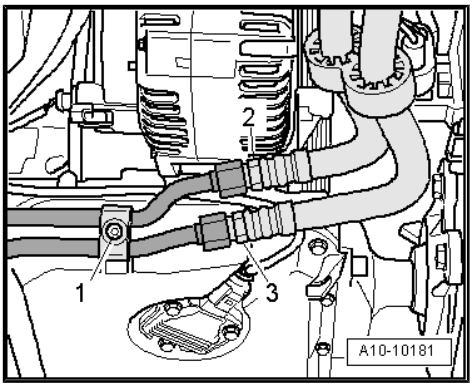
Protected by copyright. Copying for private or commercial purposes, in part
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or
with respect to the correctness of information in this document. Copyrigh

Vehicles with automatic gearbox:

Note

Observe rules for cleanliness when working on automatic gearbox ⇒ Rep. gr. 00 .

– Remove nut -1- for ATF lines.

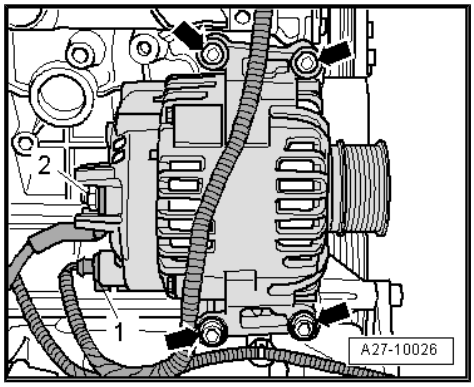


Note

Disregard -item 2- and -item 3-.

All vehicles (continued):

– Unplug electrical connector at oil level and oil temperature sender - G266- and move clear wiring harness at alternator.
– Unscrew bolts -arrows- and detach alternator.
– Unplug electrical connector -1-.
– Unscrew terminal 30/B+ -item 2-.



Installing

Installation is carried out in the reverse order; note the following:

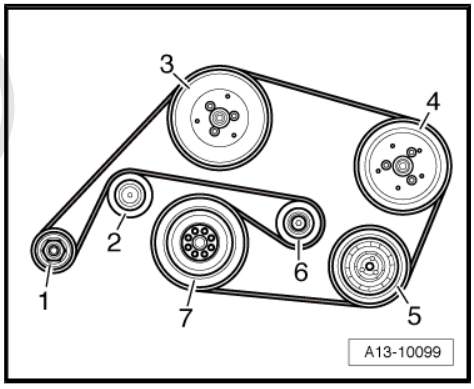
Vehicles with automatic gearbox:

– Secure ATF lines ⇒ Rep. gr. 37 .

All vehicles (continued):

– Fit poly V-belt onto pulleys in the following sequence:

1 - Alternator
2 - Idler roller
3 - Coolant pump
4 - Power steering pump
5 - Air conditioner compressor
6 - Tensioner for poly V-belt
7 - Vibration damper



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Vehicles with air suspension: install bracket with air supply unit ⇒ Rep. gr. 43 .
– Connect battery. Steps required ⇒ page 3 .
– Start engine and check that belt runs properly.

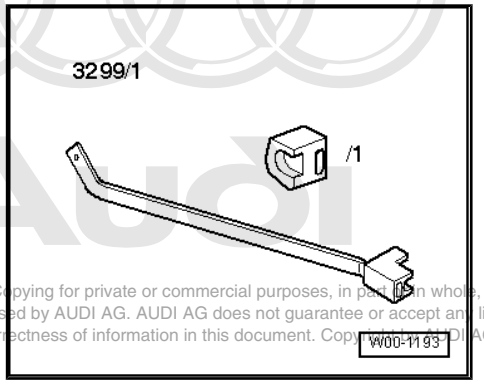
Tightening torques

Component	Nm
Alternator to engine	22
30/B+ terminal to alternator	16

3.4 Vehicles with 3.0 ltr. MPI engine

Special tools and workshop equipment required

♦ Poly V-belt lever - 3299- with -3299/1-

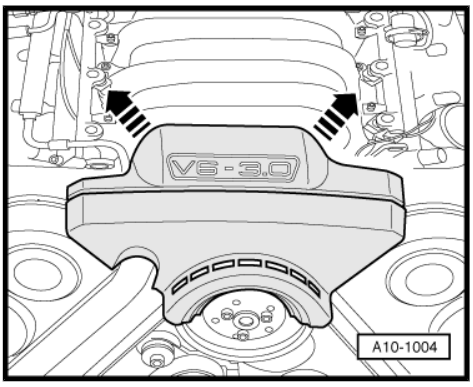


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

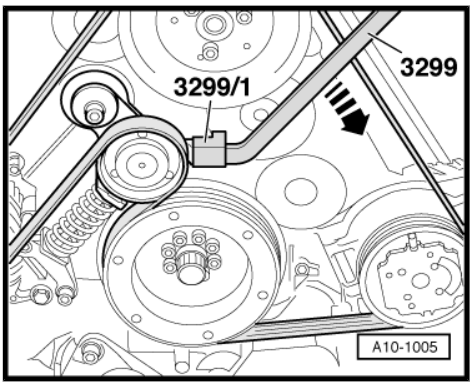
– Pull off engine cover (front) -arrows-.



Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

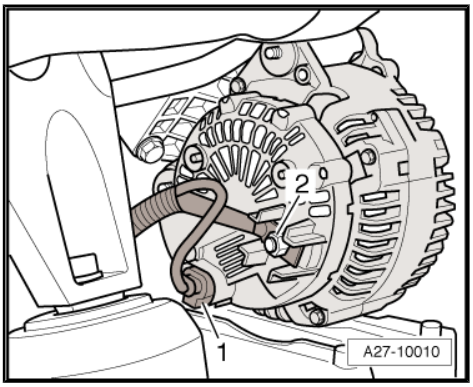
♦ *Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.*



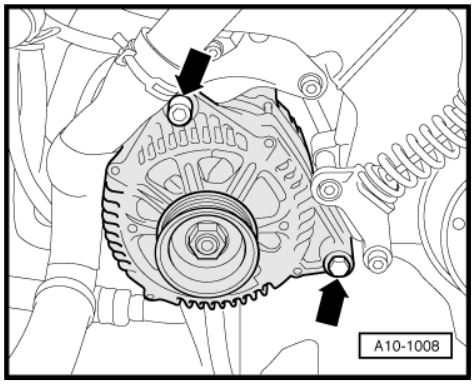
– To slacken poly V-belt, use lever for poly V-belt - 3299- with -3299/1- to swivel belt tensioner in direction of -arrow-.

– Detach poly V-belt from power steering pump pulley.

– Detach wires -1- and -2- at alternator.



– Unscrew bolts -arrows- and detach alternator.



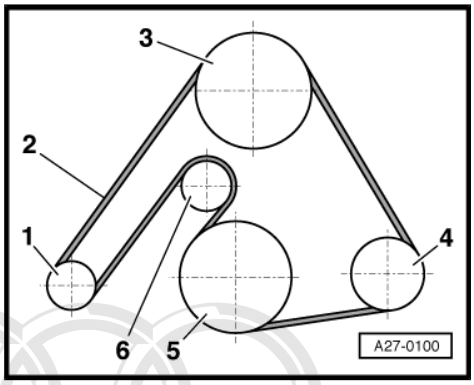
Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release bushes of alternator mount.*

Installing

Installation is carried out in the reverse order; note the following:

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.



Note

Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

– Fit poly V-belt -2- onto pulleys in the following sequence:

1 - Alternator

3 - Power steering pump

4 - Air conditioner compressor

5 - Vibration damper

6 - Tensioning roller

Note

When installing poly V-belt, make sure it is properly seated on pulleys.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Connect battery. Steps required ⇒ page 3 .

– Start engine and check that belt runs properly.

Tightening torques

Component	Nm
Alternator to engine	23
30/B+ terminal to alternator	16

3.5 Vehicles with 4.2 ltr. MPI engine

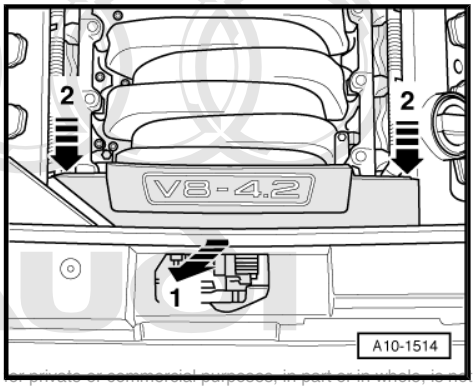
Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Drain off coolant ⇒ Rep. gr. 19 .

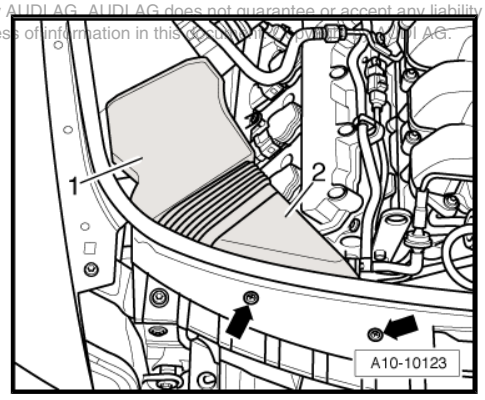
– Move lock carrier to service position ⇒ Rep. gr. 50 .

– Detach the front engine cover panel -arrow 1- and -arrows 2-.

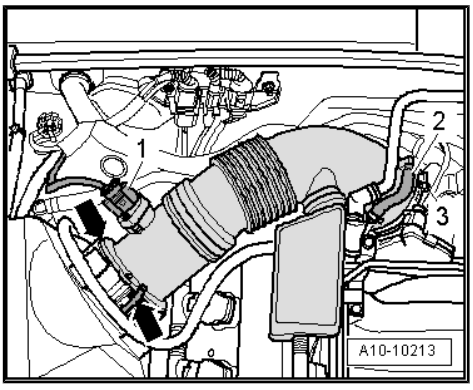


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

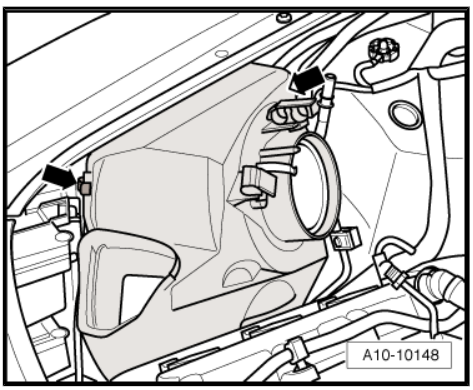
– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



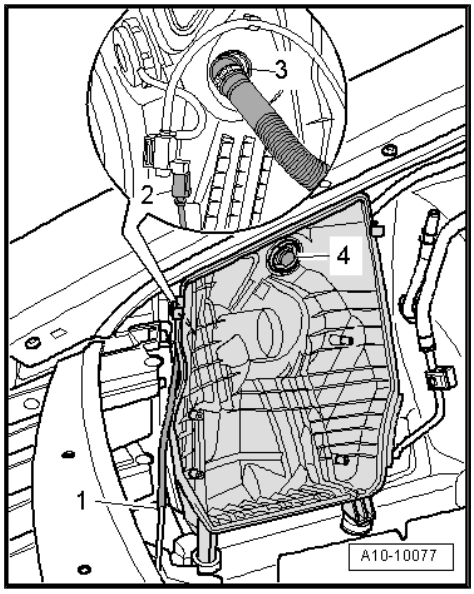
– Disconnect vacuum line -2-.
– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose. To do so, release hose clip -3- and clamps -arrows-.



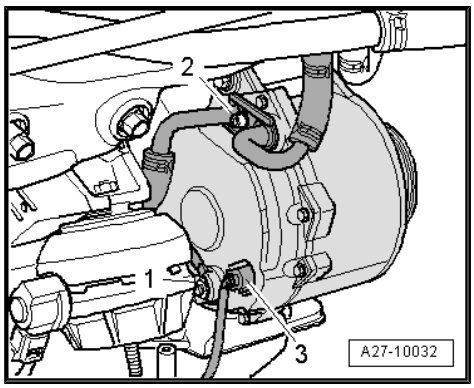
– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .
– Disconnect hose -3- going to secondary air pump.
– Detach air cleaner (bottom section).
– Vehicles with air suspension: remove bracket with air supply unit ⇒ Rep. gr. 43 .



– Unscrew bolt -2- and detach bracket.
– Pull water pipes out of alternator.
– Detach wires -1- and -3- at alternator.

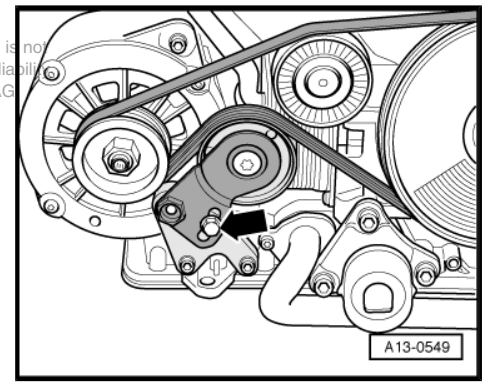


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Caution

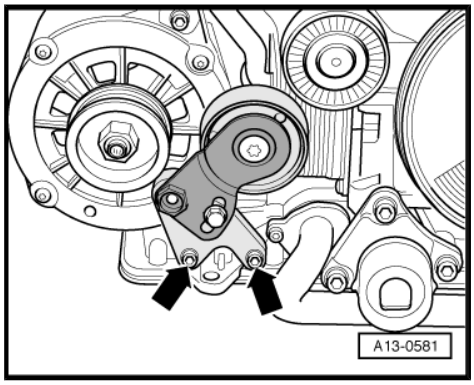
Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***

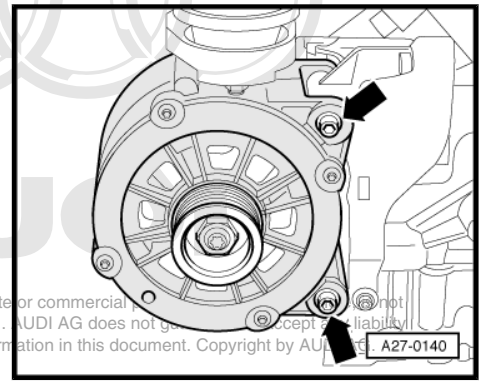


– Unscrew securing bolt -arrow- and remove poly V-belt.

– Unscrew bolts -arrows- and remove tensioning roller.



– Unscrew bolts -arrows-.



Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release bushes of alternator mount.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove alternator.

Installing

Installation is carried out in the reverse order; note the following:

Note

- *Secure all hose connections with the correct type of hose clips (same as original equipment) ⇒ Electronic parts catalogue .*
- *Renew O-rings.*

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

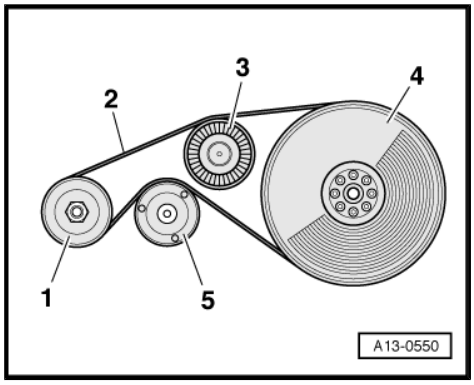
– Fit poly V-belt -2- onto pulleys in the following sequence:

1 - Alternator

3 - Idler roller

4 - Vibration damper

5 - Tensioning roller



Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Install lock carrier with attachments ⇒ Rep. gr. 50 .

– Vehicles with air suspension: install bracket with air supply unit ⇒ Rep. gr. 43 .

– Connect battery. Steps required ⇒ page 3 .

– Fill with coolant ⇒ Rep. gr. 19 .

– Start engine and check that belt runs properly.

Tightening torques

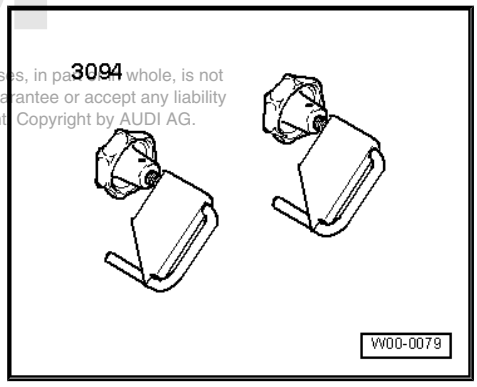
Component	Nm
Alternator to bracket	22
Tensioning roller to bracket	22
30/B+ terminal to alternator	16
Bracket for coolant pipes to alternator	9

3.6 Vehicles with 4.2 ltr. FSI engine

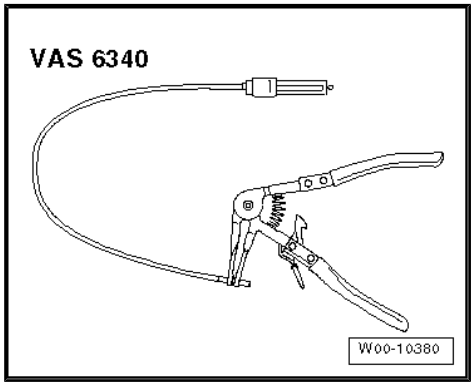
Special tools and workshop equipment required

♦ Hose clamps up to 25 mm - 3094-

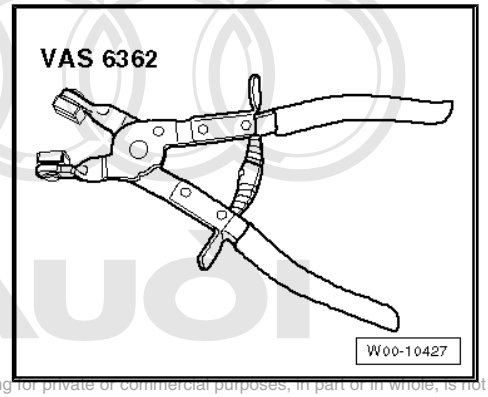
Protected by copyright. Copying for private or commercial purposes, in part or whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



♦ Hose clip pliers - VAS 6340-



♦ Hose clip pliers - VAS 6362-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctnes

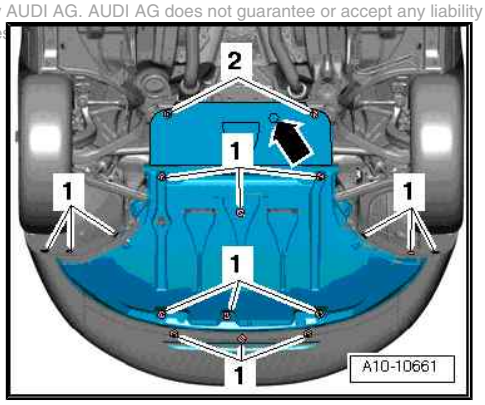
Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Unfasten quick release fasteners -1- and -2-.

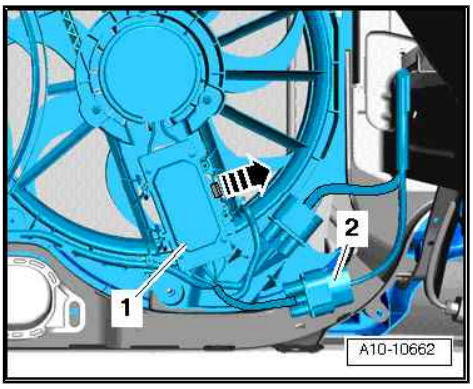
– Pull pin out of fastener -arrow- and remove noise insulation.

– Vehicles with air suspension: remove bracket with air supply unit ⇒ Rep. gr. 43 .



– Take electrical connector -2- out of retainer and disconnect.

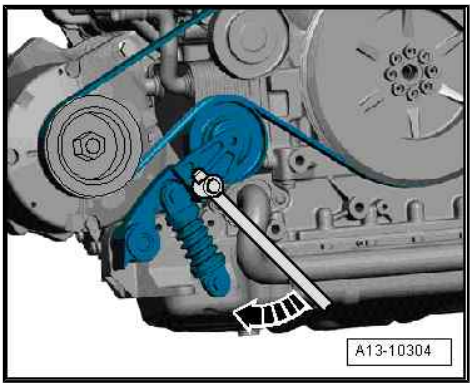
– Release retaining clip -arrow- and move radiator fan control unit - J293- -item 1- clear to one side.



Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

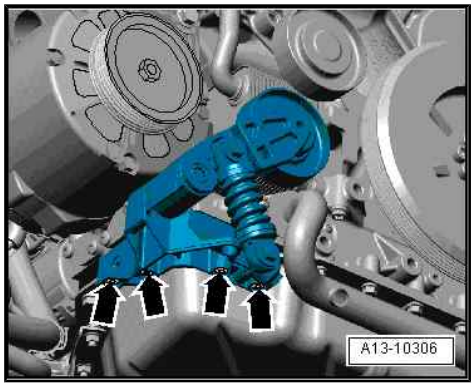
♦ ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***



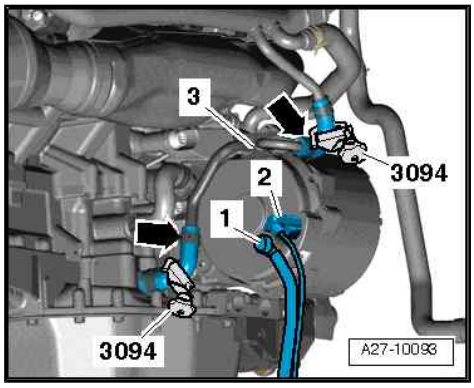
– To slacken poly V-belt, pivot tensioner in direction indicated -arrow-.

– Remove poly V-belt from tensioner and release tensioner.

– Unscrew bolts -arrows-.
– Remove the poly V-belt tensioner from sump (top section).



– Clamp off coolant hoses -2- and -3- with hose clamps - 3094- .

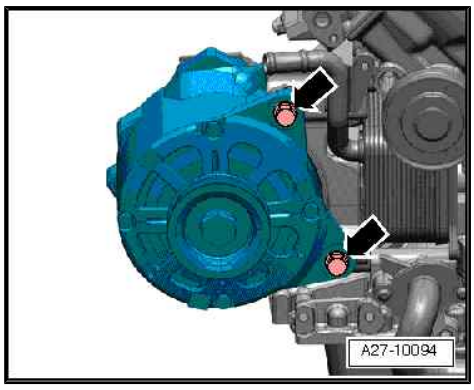


Note

Place a cloth beneath the separating point to catch draining coolant.

– Detach coolant hoses -arrows- from coolant pipes.
– Unplug electrical connector -2- on alternator.
– Unscrew terminal 30/B+ -item 1-.

– Unscrew bolts -arrows- and detach alternator.



Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release bushes of alternator mount.*

Installing

Installation is carried out in the reverse order; note the following:

Note

Secure all hose connections with the correct type of hose clips (same as original equipment) ⇒ Electronic parts catalogue .

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

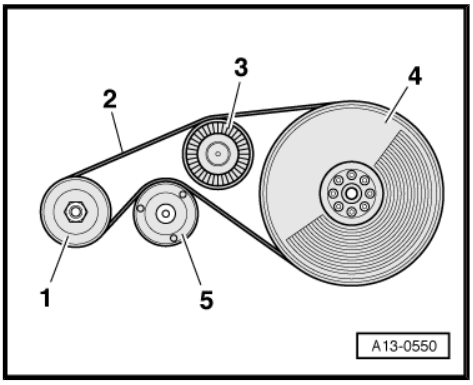
– Fit poly V-belt -2- onto pulleys in the following sequence:

1 - Alternator

3 - Idler roller

4 - Vibration damper

5 - Tensioning roller



Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Install poly V-belt ⇒ Rep. gr. 13 .
– Vehicles with air suspension: install bracket with air supply unit ⇒ Rep. gr. 43 .
– Connect battery. Steps required ⇒ page 3 .
– Fill with coolant ⇒ Rep. gr. 19 .
– Start engine and check that belt runs properly.

Tightening torques

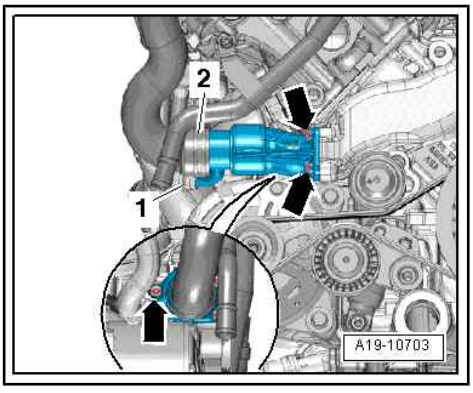
Component	Nm
Bracket for coolant pipes to alternator	9
Alternator to engine	23
Terminal 30/B+ to alternator	16
Poly V-belt tensioner to sump (top section)	22

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

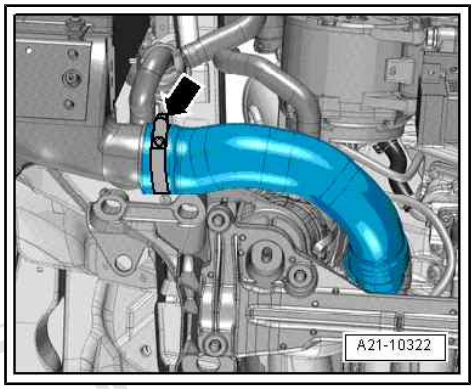
3.7 Vehicles with 5.0 ltr. TFSI engine

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Drain off coolant ⇒ Rep. gr. 19 .
– Remove radiator ⇒ Rep. gr. 19 .
– Remove poly V-belt ⇒ Rep. gr. 13 .
– Detach coolant hoses -1- and -2-.
– Remove bolts -arrows- for coolant connection.



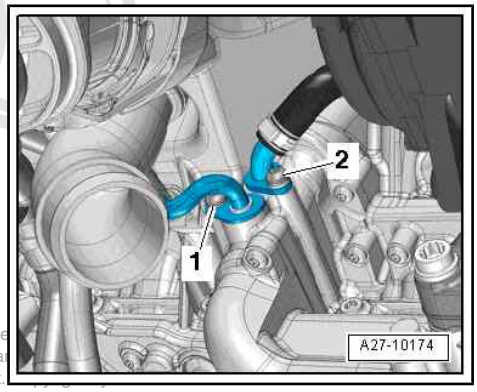
– Loosen clip -arrow- and remove charge air hose from charge air cooler.



– Remove bolt -2- and detach coolant line from cylinder block.

Note

Disregard -item 1-.

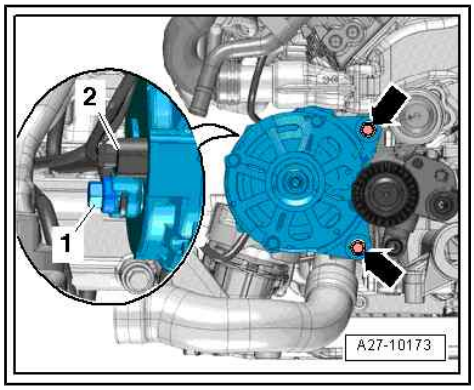


Protected by copyright. Copying for private or commercial purpose
permitted unless authorised by AUDI AG. AUDI AG does not gua
with respect to the correctness of information in this document.

– Unplug electrical connector -2- on alternator.
– Unscrew terminal 30/B+ -item 1-.
– Unscrew bolts -arrows-.

Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release threaded bushes of alternator mount.*



– Remove alternator.

Installing

Installation is carried out in the reverse order; note the following:

Note

- *Renew O-ring and seals.*
- *Secure all hose connections with the correct type of hose clips (same as original equipment) ⇒ Electronic parts catalogue .*

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

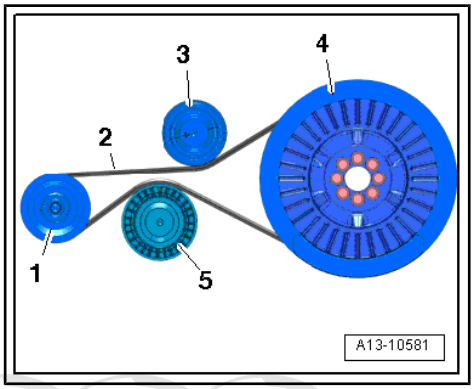
– Fit poly V-belt -2- onto pulleys in the following sequence:

1 - Alternator

3 - Idler roller

4 - Vibration damper

5 - Tensioning roller



Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Install radiator ⇒ Rep. gr. 19 .

– Connect battery. Steps required ⇒ page 3 .

– Fill with coolant ⇒ Rep. gr. 19 .

– Start engine and check that belt runs properly.

Tightening torques

Component	Nm
Alternator to bracket	22
Poly V-belt tensioner to sump (top section)	22
30/B+ terminal to alternator	16

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.8 Vehicles with 5.2 ltr. FSI engine

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

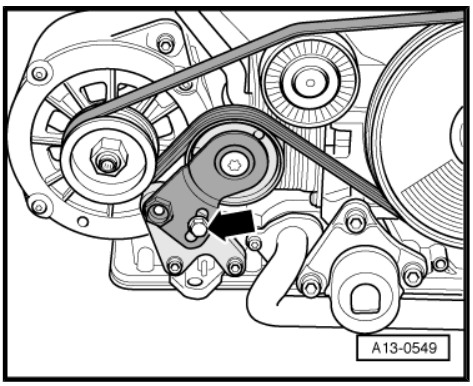
– Drain off coolant ⇒ Rep. gr. 19 .

– Remove radiator ⇒ Rep. gr. 19 .

Caution

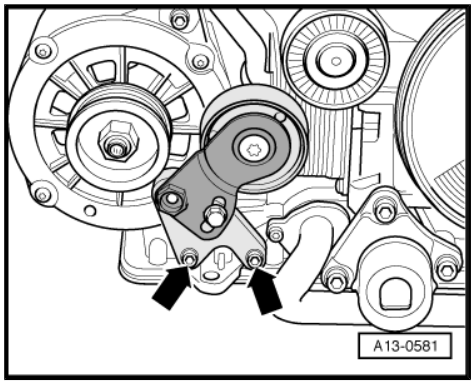
Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***

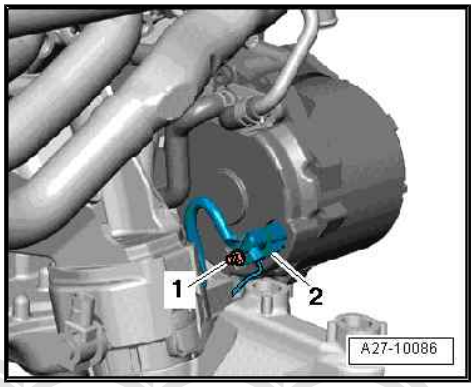


– Unscrew securing bolt -arrow- and remove poly V-belt.

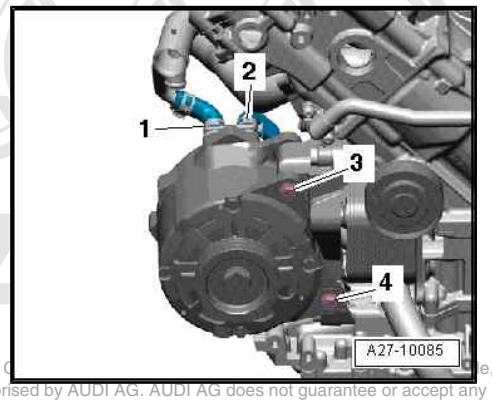
– Unscrew bolts -arrows-.
– Remove the poly V-belt tensioner from sump (top section).



– Unplug electrical connector -2- on alternator.
– Unscrew terminal 30/B+ -item 1-.



– Remove bolts -3- and -4-.



Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release threaded bushes of alternator mount.*

– Remove alternator.
– Detach coolant hoses -1- and -2- at alternator.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

Note

Secure all hose connections with the correct type of hose clips (same as original equipment) ⇒ Electronic parts catalogue .

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

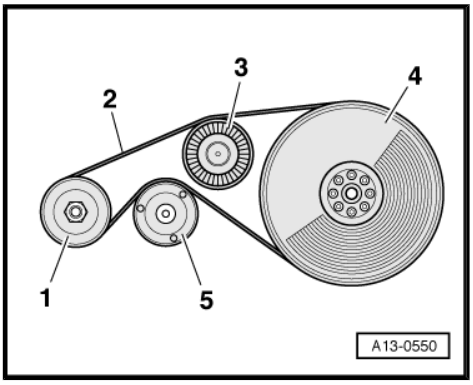
– Fit poly V-belt -2- onto pulleys in the following sequence:

1 - Alternator

3 - Idler roller

4 - Vibration damper

5 - Tensioning roller



Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Install radiator ⇒ Rep. gr. 19 .
– Connect battery. Steps required ⇒ page 3 .
– Fill with coolant ⇒ Rep. gr. 19 .
– Start engine and check that belt runs properly.

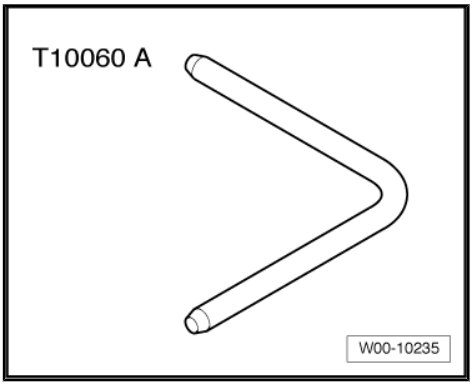
Tightening torques

Component	Nm
Alternator to bracket	22
Poly V-belt tensioner to sump (top section)	22
30/B+ terminal to alternator	16

3.9 Vehicles with 4-cylinder unit injector TDI engine

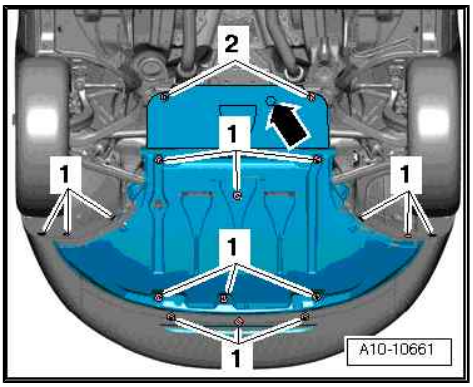
Special tools and workshop equipment required

♦ Locking pin - T10060 A-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

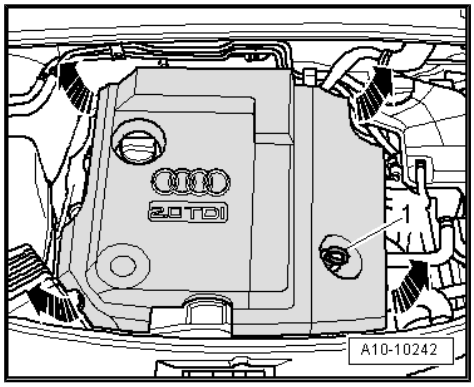


Note

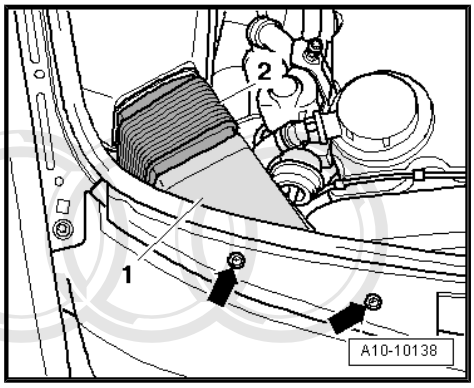
Fit poly V-belt with the assistance of a second mechanic to avoid the need of moving the lock carrier to service position when removing and installing poly V-belt. To fit the poly V-belt without moving the lock carrier to service position, work must be performed from top and bottom of engine compartment at the same time.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.

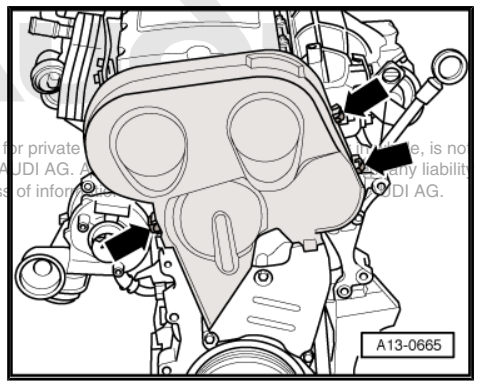
– Pull oil dipstick -1- out of guide tube.
– Pull off engine cover panel -arrows-.
– Re-insert dipstick in guide tube.



– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.
– Detach bonnet seal from lock carrier.



– Unfasten clips -arrows- and remove upper toothed belt guard.

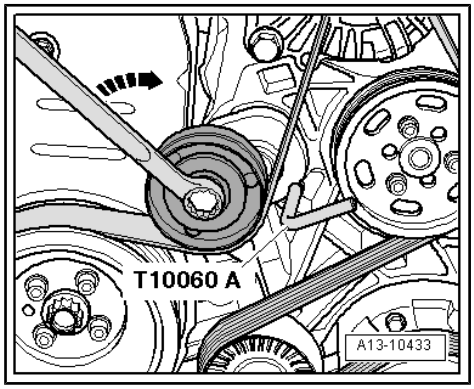


Protected by copyright. Copying for private
permitted unless authorised by AUDI AG.
with respect to the correctness of infor
DI AG.

Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

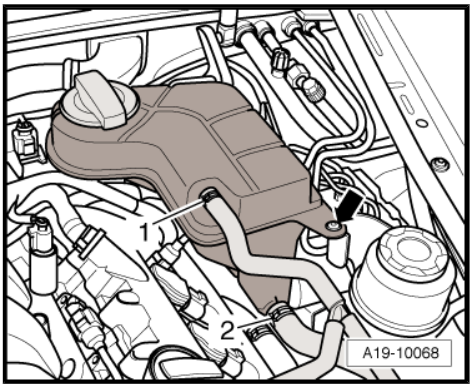
- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***



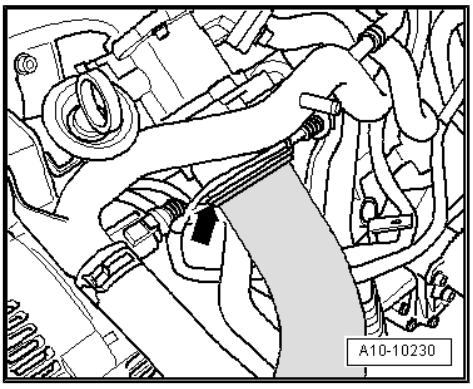
– To loosen poly V-belt, pivot tensioner for poly V-belt in direction of -arrow- and lock in place using locking pin - T10060 A- .
– Take off poly V-belt.

– Unbolt coolant expansion tank -arrow-.

– Unplug electrical connector to coolant shortage indicator switch - F66- on bottom of coolant expansion tank and move coolant expansion tank clear to one side with coolant hoses -1- and -2- connected.



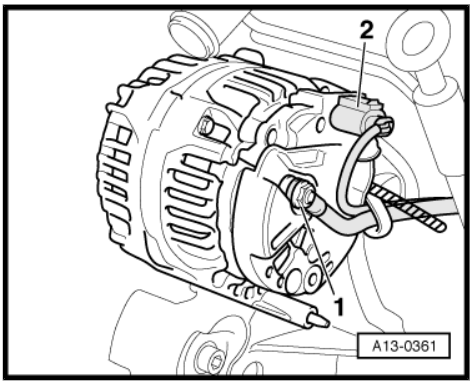
– Lift retaining clip -arrow- slightly and remove air pipe on intake manifold flap motor - V157- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew electrical wire -1- at alternator.

– Unplug electrical connector -2-.

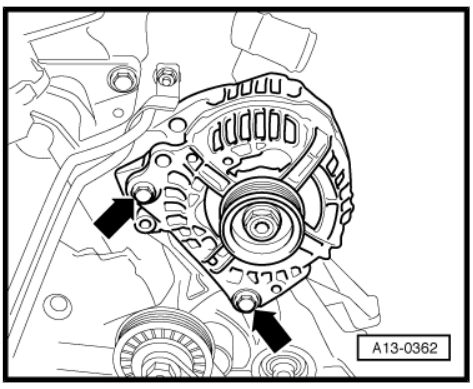


– Unscrew bolts -arrows-.

Note

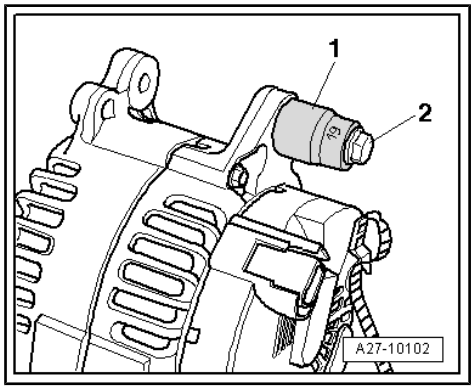
- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release bushes of alternator mount.*

– Remove alternator.



Note

- *If alternator sticks in bracket, apply a 1/2 inch socket (19 mm) -item 1- at sliding bush.*
- *Screw a bolt (M8x45) into sliding bush – and then pull bush out of alternator by screwing in securing bolt -2-.*



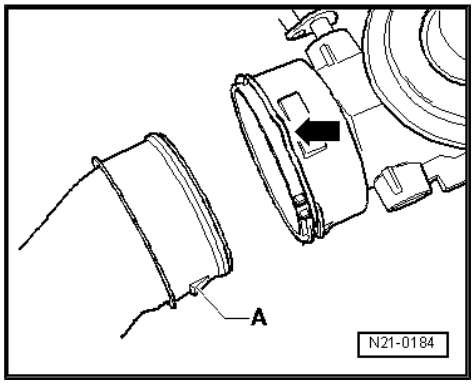
Installing

Installation is carried out in the reverse order; note the following:

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

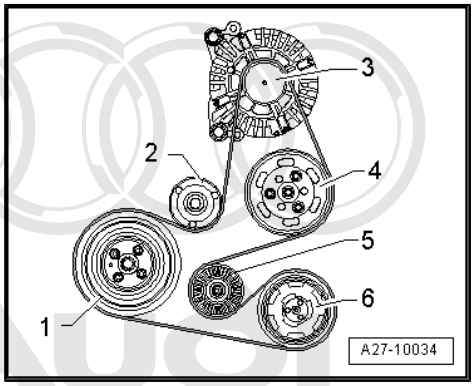
Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.



– Make sure that retaining clip -arrow- engages in retaining lug -A- with an audible click when fitting air intake hoses with plug-in connectors.

– Fit poly V-belt onto pulleys in the following sequence:

1 - Vibration damper
2 - Tensioner
3 - Alternator
4 - Power steering pump
5 - Idler roller
6 - Air conditioner compressor



Note

When installing poly V-belt, make sure it is properly seated on pulleys.

Copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Connect battery. Steps required ⇒ page 3 .

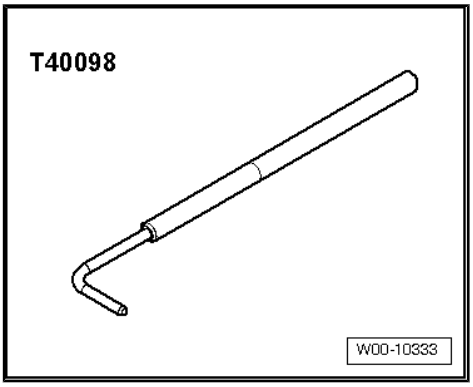
Tightening torques

Component	Nm
Alternator to bracket	22
30/B+ terminal to alternator	16

3.10 Vehicles with 4-cylinder common rail TDI engine

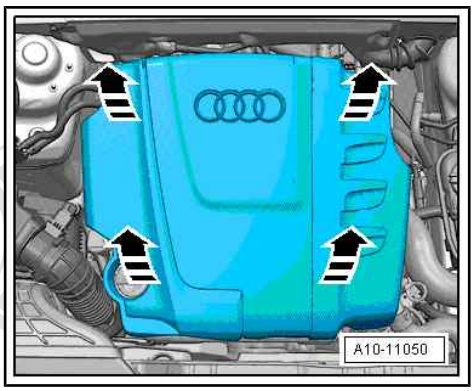
Special tools and workshop equipment required

♦ Locking tool - T40098-

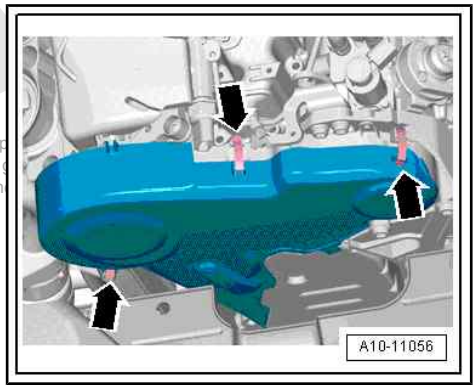


Removing

– Detach engine cover panel -arrows-.



– Unfasten retaining clips -arrows- and remove toothed belt cover (top).

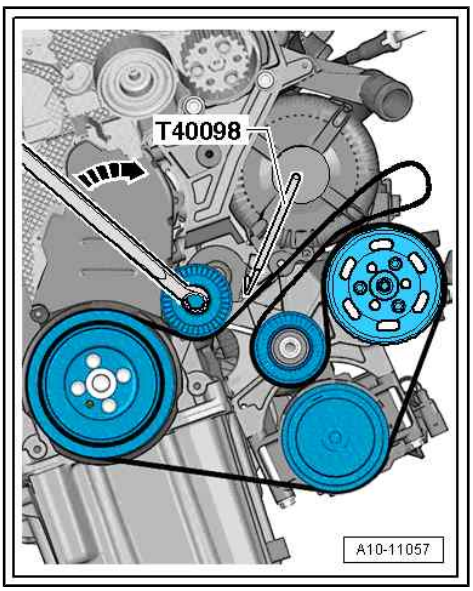


Protected by copyright. Copying for private or commercial purp
permitted unless authorised by AUDI AG. AUDI AG does not g
with respect to the correctness of information in this docum

Caution

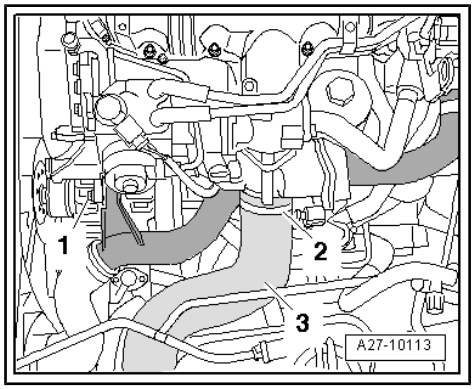
Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***

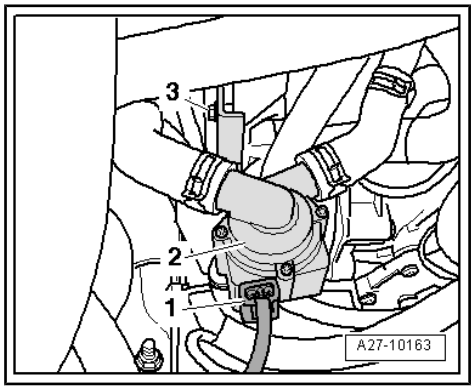


– To slacken poly V-belt turn tensioner in direction of -arrow-.
– Remove poly V-belt from alternator pulley.
– Secure tensioner with locking tool - T40098- .

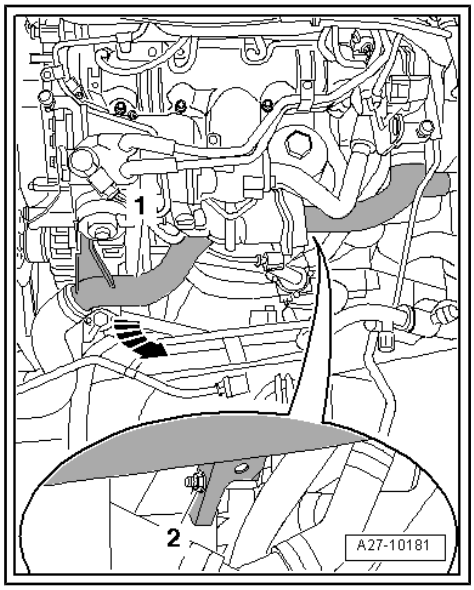
– Release hose clip -2- and detach air hose -3- from intake manifold flap motor - V157- .
– Remove bolt -1-.



– Unscrew nut -3- and unplug electrical connector -1-.
– Detach continued coolant circulation pump - V51- -item 2- with retainer and move clear to one side (with coolant hoses attached).

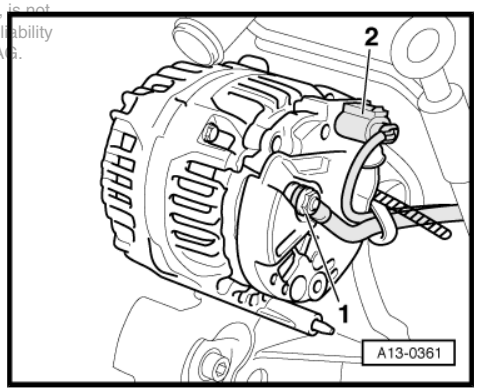


– Unscrew centre hex stud -2- and pull coolant pipe -1- (with hoses connected) in direction of -arrow-.

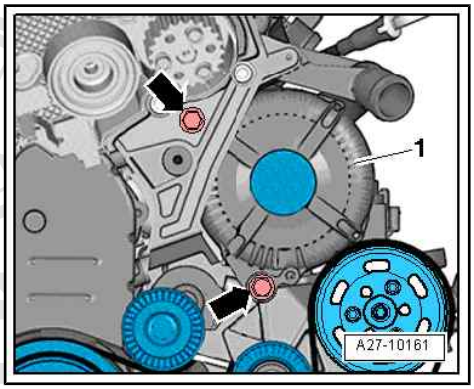


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without prior written consent of AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew terminal 30/B+ -item 1-.
– Unplug electrical connector -2-.



– Remove bolts -arrows-.



Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release bushes of alternator mount.*

– Pull coolant pipe to one side and detach alternator -1-.

Installing

Installation is carried out in the reverse order; note the following:

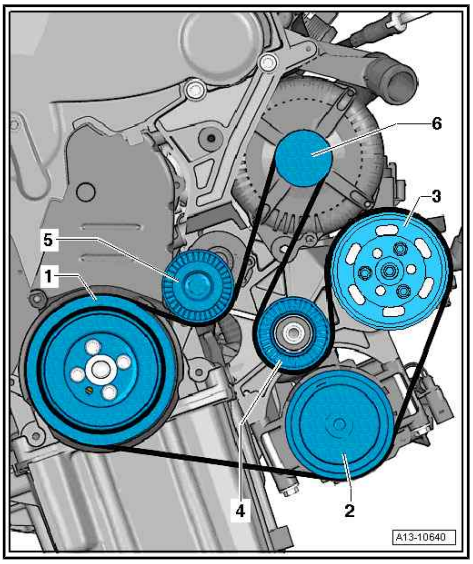
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

– Fit poly V-belt onto pulleys in the following sequence:



1 - Vibration damper
2 - Air conditioner compressor
3 - Power steering pump
4 - Idler roller
5 - Tensioner
6 - Alternator

Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Connect battery. Steps required ⇒ page 3 .
– Start engine and check that belt runs properly.

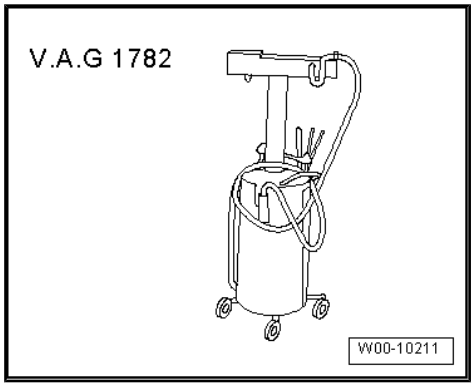
Tightening torques

Component	Nm
Alternator to bracket	22
30/B+ terminal to alternator	16

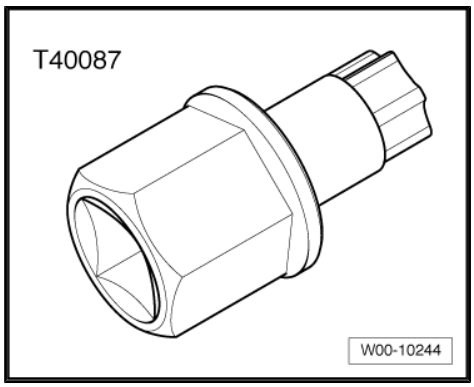
3.11 Vehicles with 6-cylinder TDI engine

Special tools and workshop equipment required

♦ Used oil collection and extraction unit - V.A.G 1782-



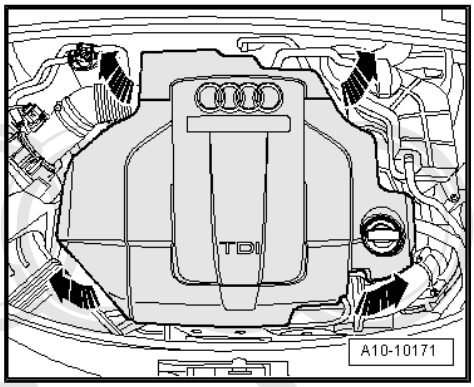
♦ Socket Torx T 60 - T40087-



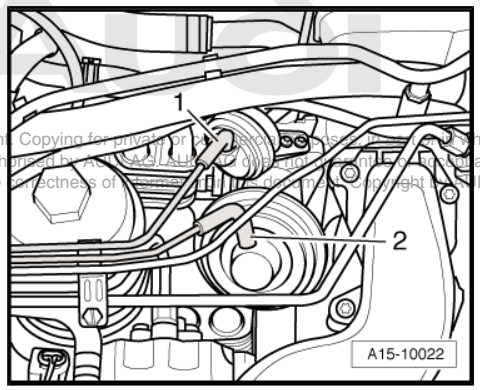
Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Carefully pull engine cover panel off four retaining pins one after the other -arrows-.



– Disconnect vacuum hoses -1- and -2-.

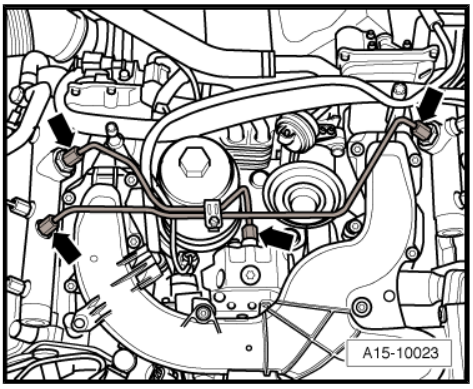


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

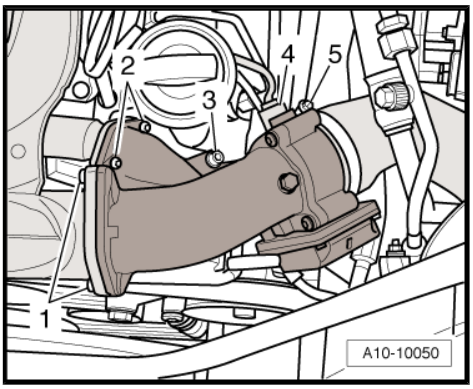
Note

Observe rules for cleanliness when working on the injection system ⇒ Rep. gr. 24 .

– Unscrew union nuts -arrows- and detach high-pressure pipes.



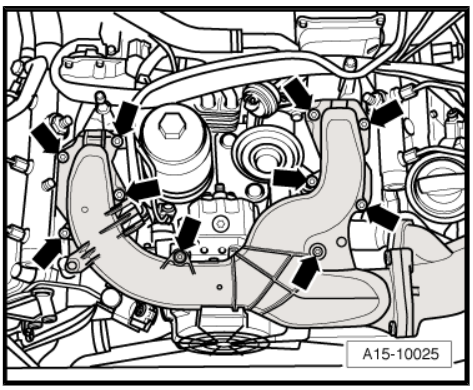
– Disconnect air hose -5-.
– Unplug electrical connector -4-.
– Remove bolts -2- and -3-.



Note

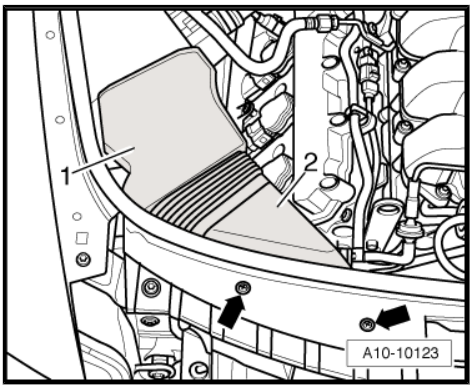
Disregard -item 1-.

– Unscrew bolts -arrows- and detach intake manifold (top section).

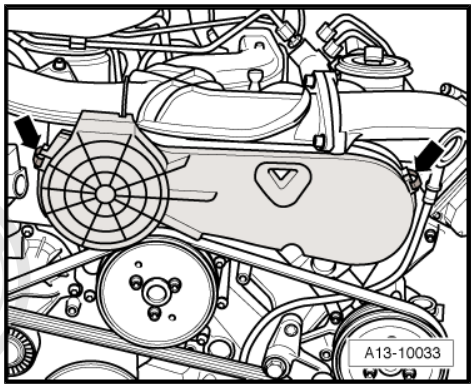


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



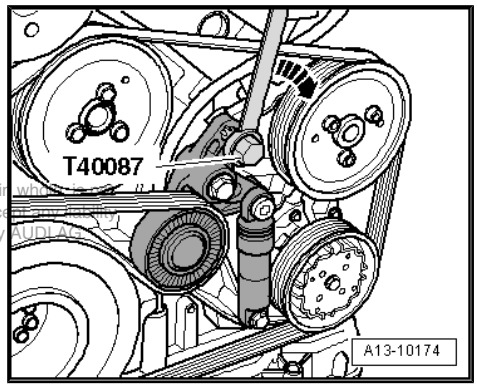
– Loosen clamps -arrows-.
– Pivot toothed belt cover forward and disengage retaining pegs on bottom side of toothed belt cover.



Caution

Risk of breakage if the poly V-belt runs in the opposite direction when refitted.

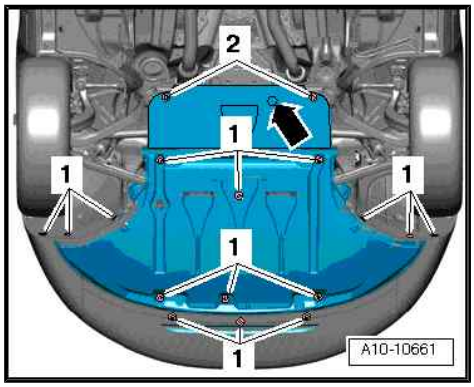
- ***Before removing, mark direction of operation of poly V-belt with chalk or felt-tipped pen in preparation for re-installation.***



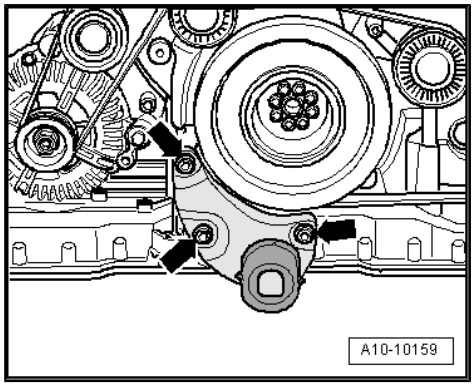
Provided by autodata. Copying or printing is permitted only for private use. No part or in whole may be passed on to third parties or processed by data processing systems for commercial purposes. No guarantee or acceptance of liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Slacken poly V-belt by swivelling tensioner in direction of -arrow-, using socket Torx T 60 - T40087- and a long, straight-handled ring spanner or open-end spanner.
– Remove poly V-belt from tensioning roller.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.
– Vehicles with air suspension: remove bracket with air supply unit ⇒ Rep. gr. 43 .



– Unscrew bolts -arrows- and remove torque reaction support from engine.

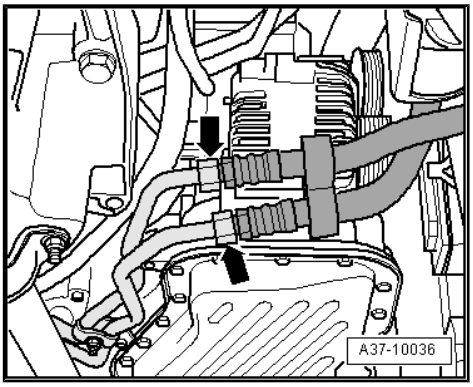


Note

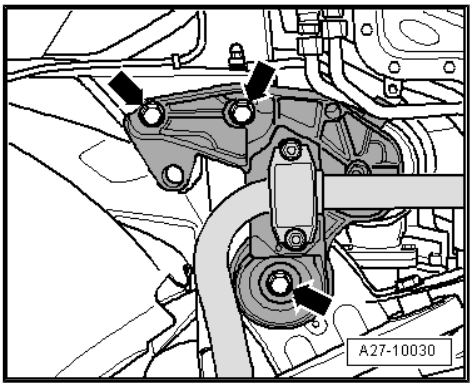
Observe rules for cleanliness when working on automatic gearbox ⇒ Rep. gr. 37 .

– Place used oil collection and extraction unit - V.A.G 1782- beneath engine.

– Disconnect the ATF lines -arrows- at the connection points on the right of the engine.



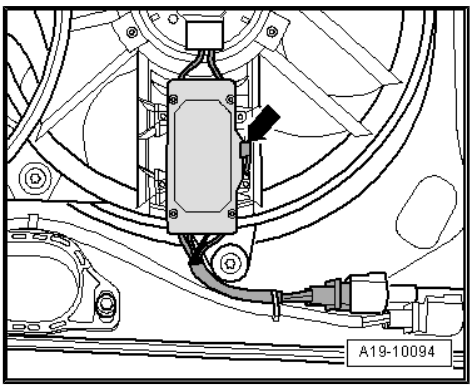
– Unscrew bolts -arrows- for engine mounting (right-side) approx. 5 turns.



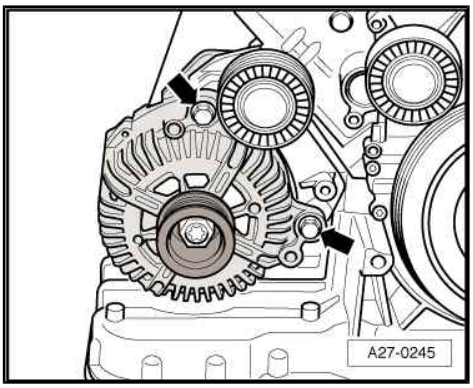
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unclip control unit for the fan motor -arrow-.

– Place the control unit for fan motor to side with wiring still attached.



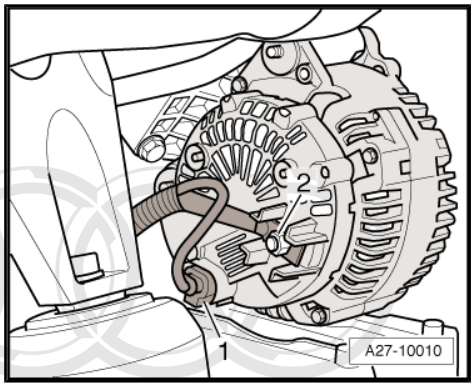
– Unscrew bolts -arrows- at alternator.



Note

- *If alternator sticks in retainer, screw bolt back in again down to the last 2 turns.*
- *Tap carefully on bolt heads with flat side of hammer to release bushes of alternator mount.*

– Detach wires -1- and -2- at alternator.
– Remove alternator.



Installing

Installation is carried out in the reverse order; note the following:

Note

Renew self-locking nuts.

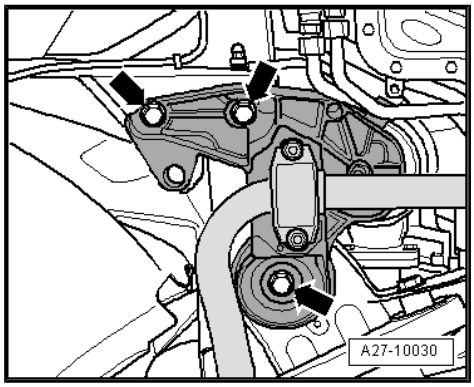
– To facilitate positioning of alternator, drive back bushes for securing bolts slightly.

Note

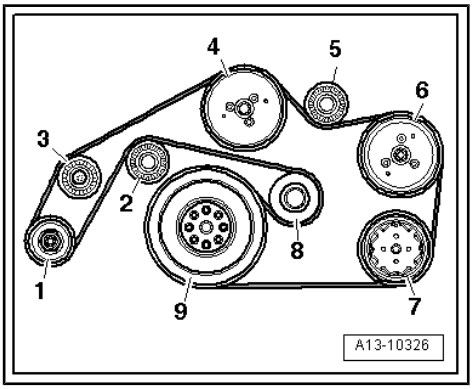
Stiff alternator mount bushes must be freed; otherwise the clamping force of the bush will not be adequate even when the bolts are tightened to the correct torque.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Renew bolts -arrows- for engine mounting one by one.
– Tighten bolts of engine mounting ⇒ Rep. gr. 40 .
– Secure ATF lines ⇒ Rep. gr. 37 .



– Fit poly V-belt onto pulleys in the following sequence:



1 - Alternator
2 - Idler roller
3 - Idler roller
4 - Coolant pump
5 - Idler roller (depending on version)
6 - Power steering pump
7 - Air conditioner compressor
8 - Tensioner for poly V-belt
9 - Vibration damper

Note

When installing poly V-belt, make sure it is properly seated on pulleys.

– Vehicles with air suspension: install bracket with air supply unit ⇒ Rep. gr. 43 .
– Connect battery. Steps required ⇒ page 3 .
– Start engine and check that belt runs properly.
– Check ATF level ⇒ Rep. gr. 37 .

Tightening torques

Component	Nm
Alternator to engine	22
30/B+ terminal to alternator	16

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4 Checking and servicing alternator

4.1 Checking alternator

⇒ Electrical system; General information; Rep. gr. 27 ; Alternator

4.2 Servicing alternator

⇒ Electrical system; General information; Rep. gr. 27 ; Alternator

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5 Removing and installing starter

Observe notes on contact corrosion ⇒ page 1 .

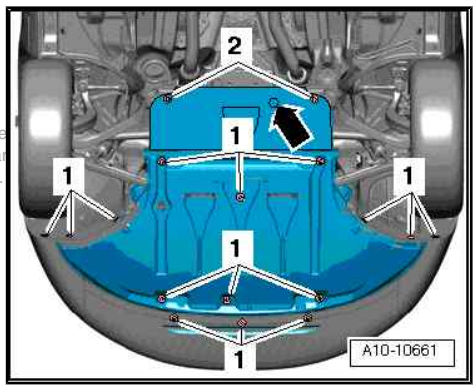
5.1 Vehicles with 2.0 ltr. TFSI engine (manual gearbox)

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Remove front wheel (right-side).

Protected by copyright. Copying for private or commercial purposes permitted unless authorised by AUDI AG. AUDI AG does not guar with respect to the correctness of information in this document.

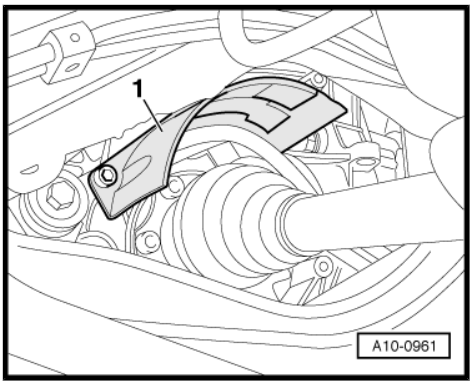


Note

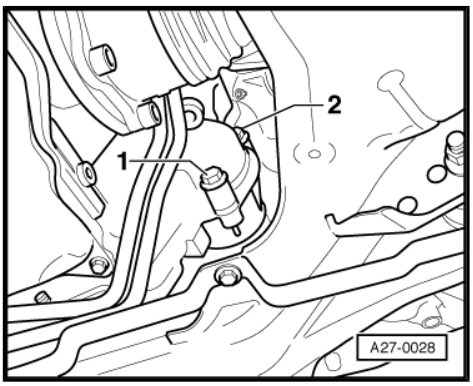
Secure brake disc with wheel bolt.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.

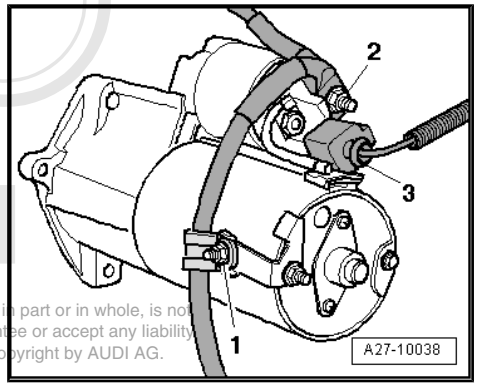
– Unbolt heat shield -1- for drive shaft (right-side).



– Remove bolts -1- and -2-.



– Detach starter and swivel aside.
– Unscrew nut -1- for clamp.
– Unplug connector -3- by sliding locking element to rear and pressing down release catch.
– Unscrew nut -2- and remove electrical wiring.
– Take out starter.



Installing

Installation is carried out in the reverse order; note the following:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Connect battery. Steps required ⇒ page 3 .

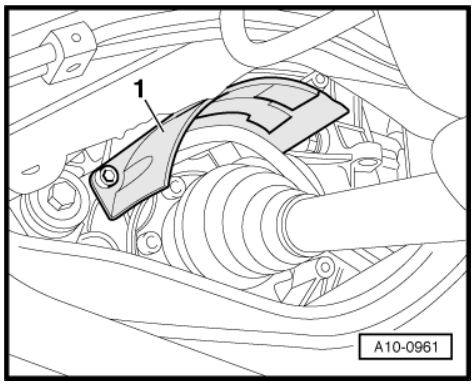
Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16

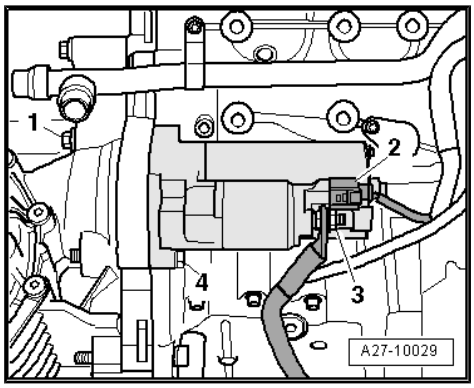
5.2 Vehicles with 2.0 ltr. TFSI engine (automatic gearbox)

Removing

– Unbolt heat shield -1- for drive shaft (right-side).



– Unscrew wire -3- at starter.
– Unplug connector -2- by sliding locking element to rear and pressing down release mechanism.
– Unscrew bolts -1- and -4- and remove starter.



Installing

Installation is carried out in the reverse order; note the following:

– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16

5.3 Vehicles with 2.4 ltr. MPI engine (manual gearbox)

Removing

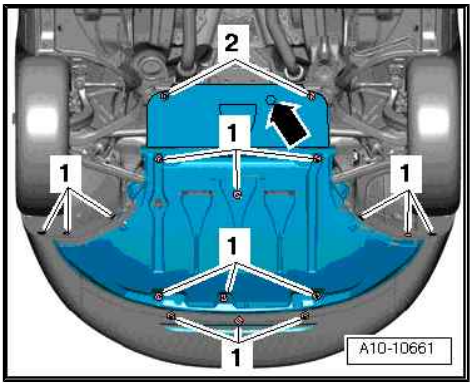
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Remove front wheel (right-side).

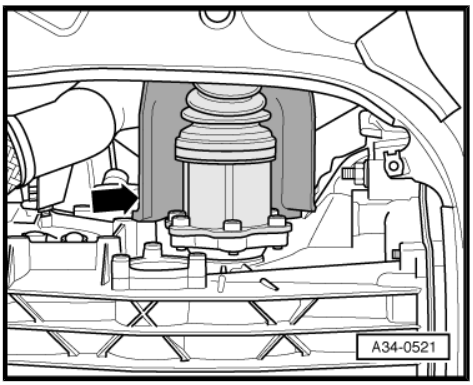
Note

Secure brake disc with wheel bolt.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.



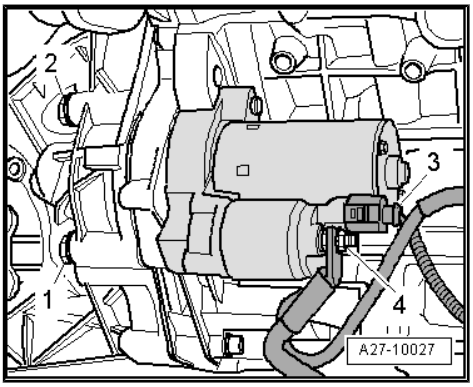
– Unbolt heat shield -arrow- for drive shaft (right-side).



– Remove bolts for connecting pipe for secondary air.

– Detach electrical wires -3- and -4- at starter.

– Unscrew bolts -1- and -2- and remove starter.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

Shown in illustration with engine support removed.

Installing

Installation is carried out in the reverse order; note the following:

– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16
Drive shaft heat shield to gearbox	23

5.4 Vehicles with 2.4 ltr. MPI engine (automatic gearbox)

Removing

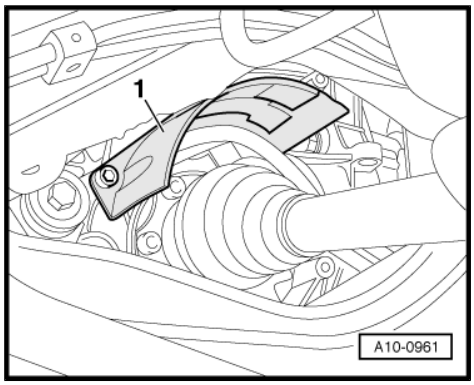
– Remove alternator ⇒ page 18 .

– Remove front wheel (right-side).

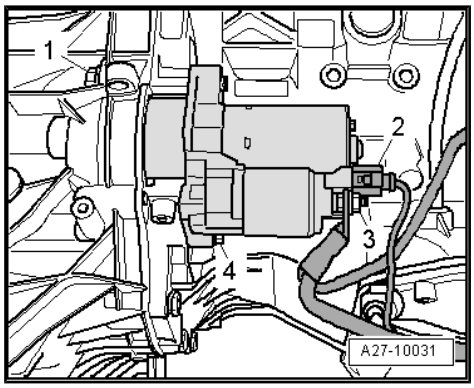
Note

Secure brake disc with wheel bolt.

– Unbolt heat shield -1- for drive shaft (right-side).
– Unbolt drive shaft (right-side) from flange shaft on gearbox.



– Detach electrical wires -2- and -3- at starter.
– Unscrew bolts -1- and -4- and remove starter.



Note

Shown in illustration with engine support removed.

Installing

Installation is carried out in the reverse order; note the following:

– Bolt drive shaft (right-side) to flange shaft on gearbox ⇒ Rep. gr. 40 .
– Install alternator ⇒ page 18 , observe notes on connecting battery.

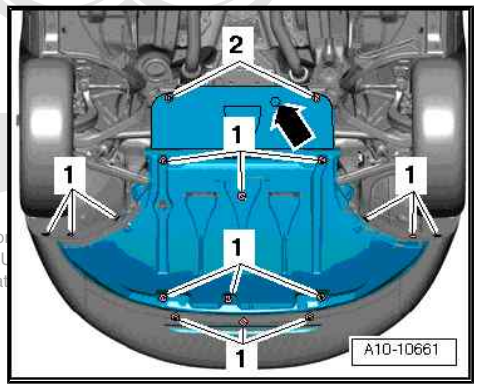
Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16
Drive shaft heat shield to gearbox	23

5.5 Vehicles with 2.8 ltr. FSI, 3.0 ltr. MPI, 3.0 ltr. TFSI and 3.2 ltr. FSI engine

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove front wheel (right-side).



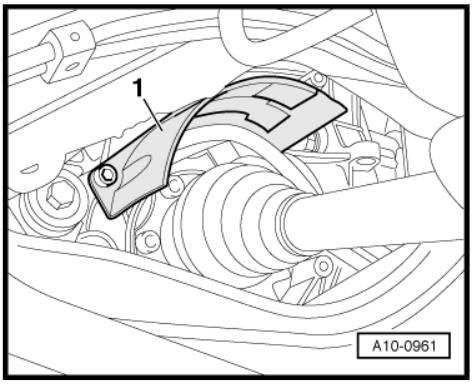
Note

Secure brake disc with wheel bolt.

Protected by copyright. Copying for private o
permitted unless authorised by AUDI AG. A
with respect to the correctness of informat

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.

– Unbolt heat shield -1- for drive shaft (right-side).

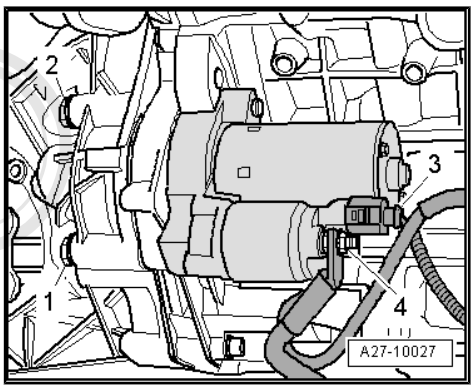


Vehicles with manual gearbox:

– Detach electrical wires -3- and -4- at starter.
– Unscrew bolts -1- and -2- and remove starter.

Note

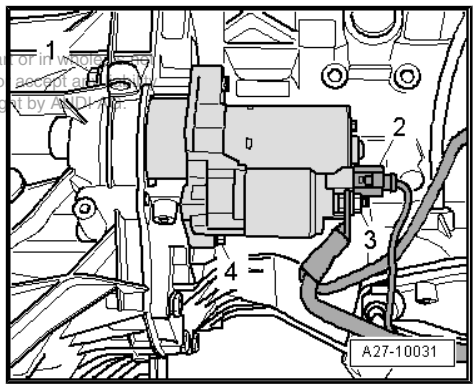
Shown in illustration with engine support removed.



Vehicles with automatic gearbox:

– Unbolt drive shaft (right-side) from flange shaft on gearbox.
– Detach electrical wires -2- and -3- at starter.
– Unscrew bolts -1- and -4- and remove starter.

Printed by Audi AG. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Note

Shown in illustration with engine support removed.

Installing

Installation is carried out in the reverse order; note the following:

– Secure drive shaft (right-side) to flange shaft ⇒ Rep. gr. 40 .
– Connect battery. Steps required ⇒ page 3 .

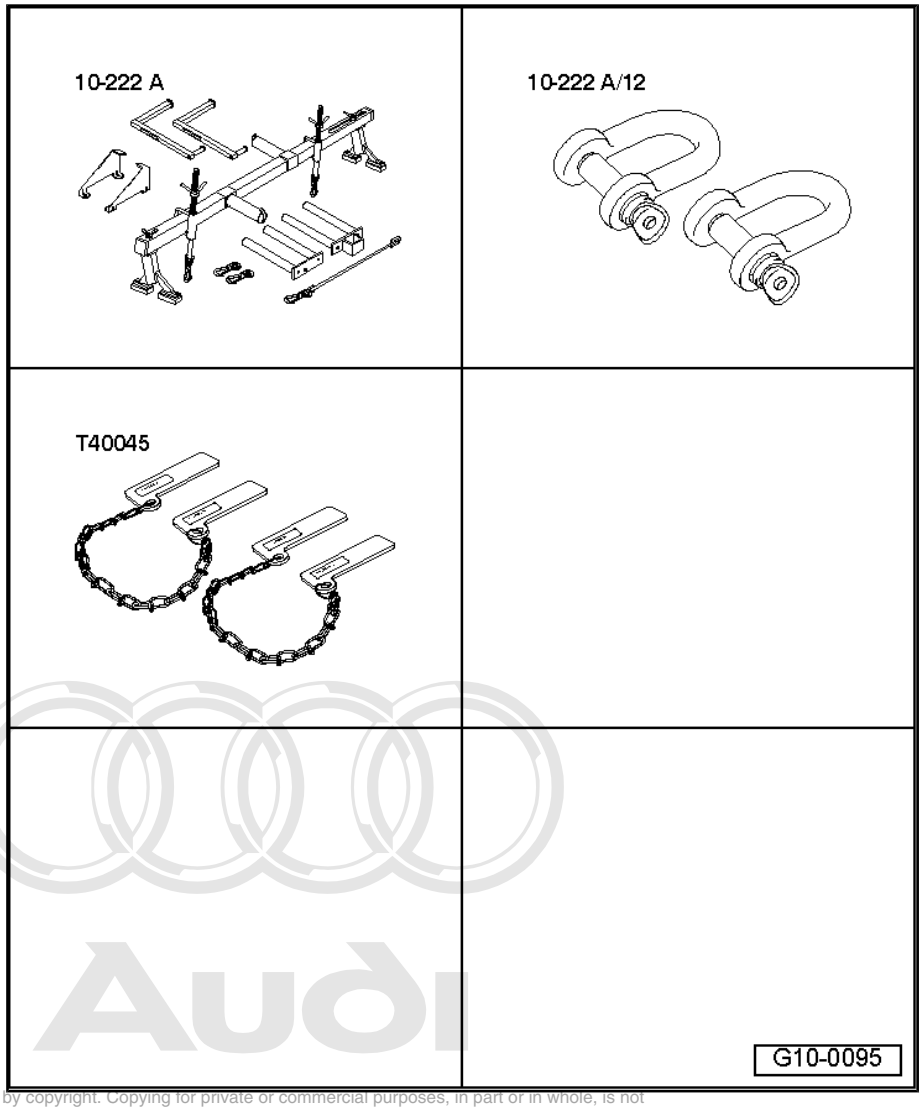
Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16
Drive shaft heat shield to gearbox	23

5.6 Vehicles with 4.2 ltr. MPI engine

Special tools and workshop equipment required

- Support bracket - 10 - 222 A-
- Shackle - 10 - 222 A /12-
- Wing compensation plate - T40045-

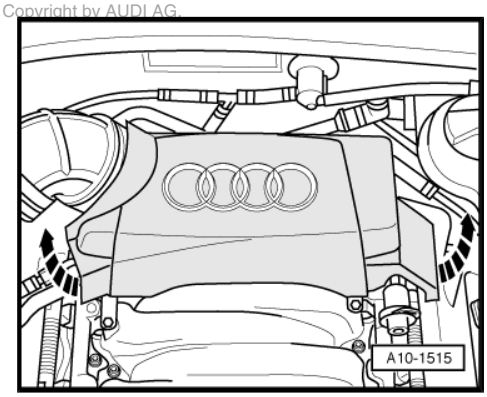


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

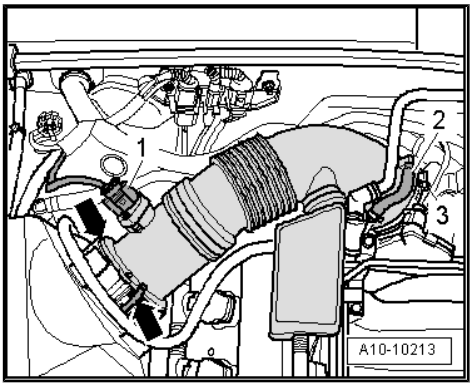
Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

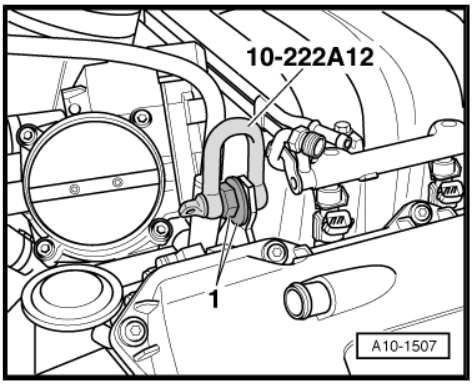
– Pull off engine cover (rear) -arrows-.



– Disconnect vacuum line -2-.
– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose. To do so, release hose clip -3- and clamps -arrows-.



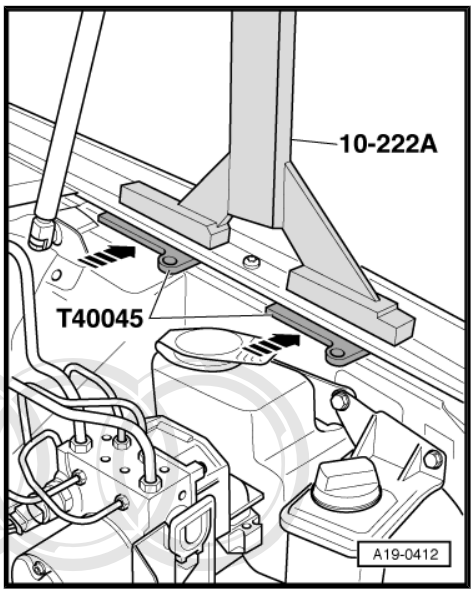
– Attach shackle - 10 - 222 A /12- to engine lifting eye (rear right).



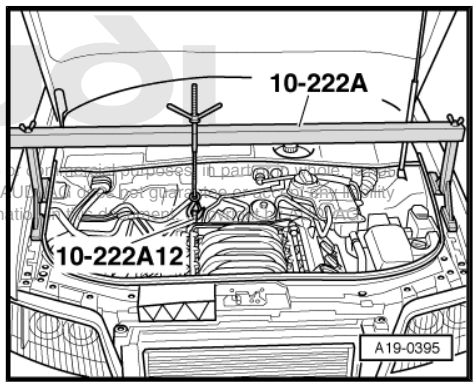
Note

Disregard -item 1-.

– Pull rubber seal off longitudinal members for wheel housing (top).
– To avoid damaging the edges of the wings with the support bracket, place the wing compensation plate - T40045- between the longitudinal member for wheel housing (top) and the panel underneath -arrows- (both sides).



– Position support bracket - 10 - 222 A- on upper longitudinal members for wheel housings. The spindle must be at the front side.
– Hang shackle - 10 - 222 A /12- on spindle of support bracket - 10 - 222 A- .
– Take up the slack with the spindle (do NOT apply tension to spindle)

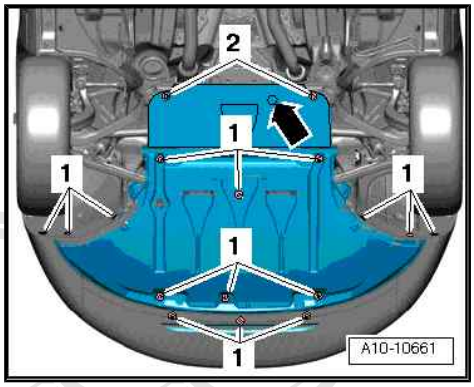


Caution

Do NOT apply tension to the spindle of support bracket - 10 - 222 A- , otherwise the wing panels could be damaged.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

– Remove front wheel (right-side).

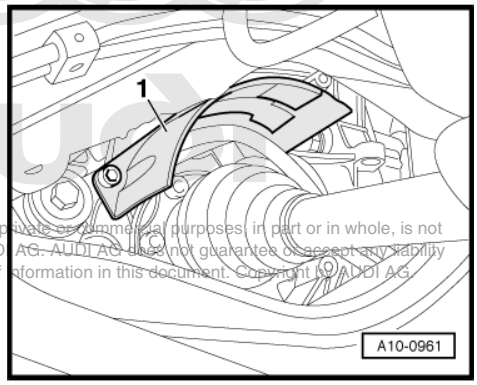


Note

Secure brake disc with wheel bolt.

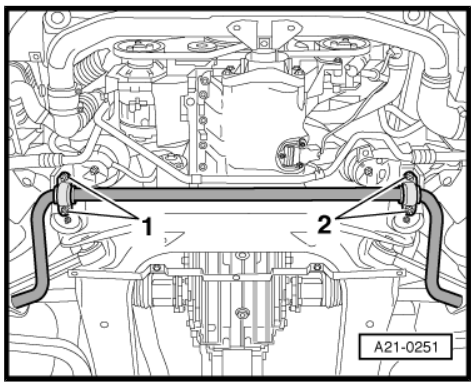
– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.

– Unbolt heat shield -1- for drive shaft (right-side).



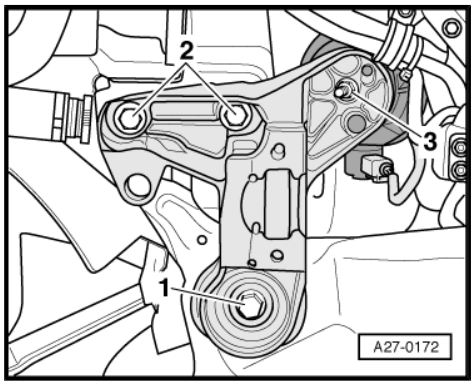
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © AUDI AG.

– Unscrew bolts -1- and -2- at the mountings for anti-roll bar.

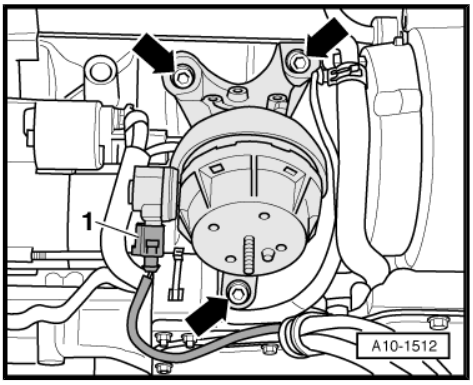


– Unscrew nut -3-.

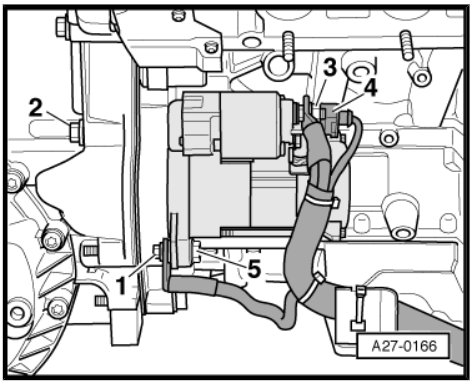
– Unscrew bolts -1- and -2- and remove console for engine mounting (right-side).



– Unplug electrical connector -1-.
– Unscrew bolts -arrows-.
– Remove engine support (right-side) with engine mounting.



– Unscrew earth cable -1-.
– Detach electrical wiring -3- and -4-.
– Unscrew bolts -2- and -5- and remove starter.



Installing

Installation is carried out in the reverse order; note the following:

– Install console for engine mounting and secure subframe ⇒ Rep. gr. 40 .
– Install anti-roll bar ⇒ Rep. gr. 40 .
– Connect battery. Steps required ⇒ page 3 .

Tightening torques

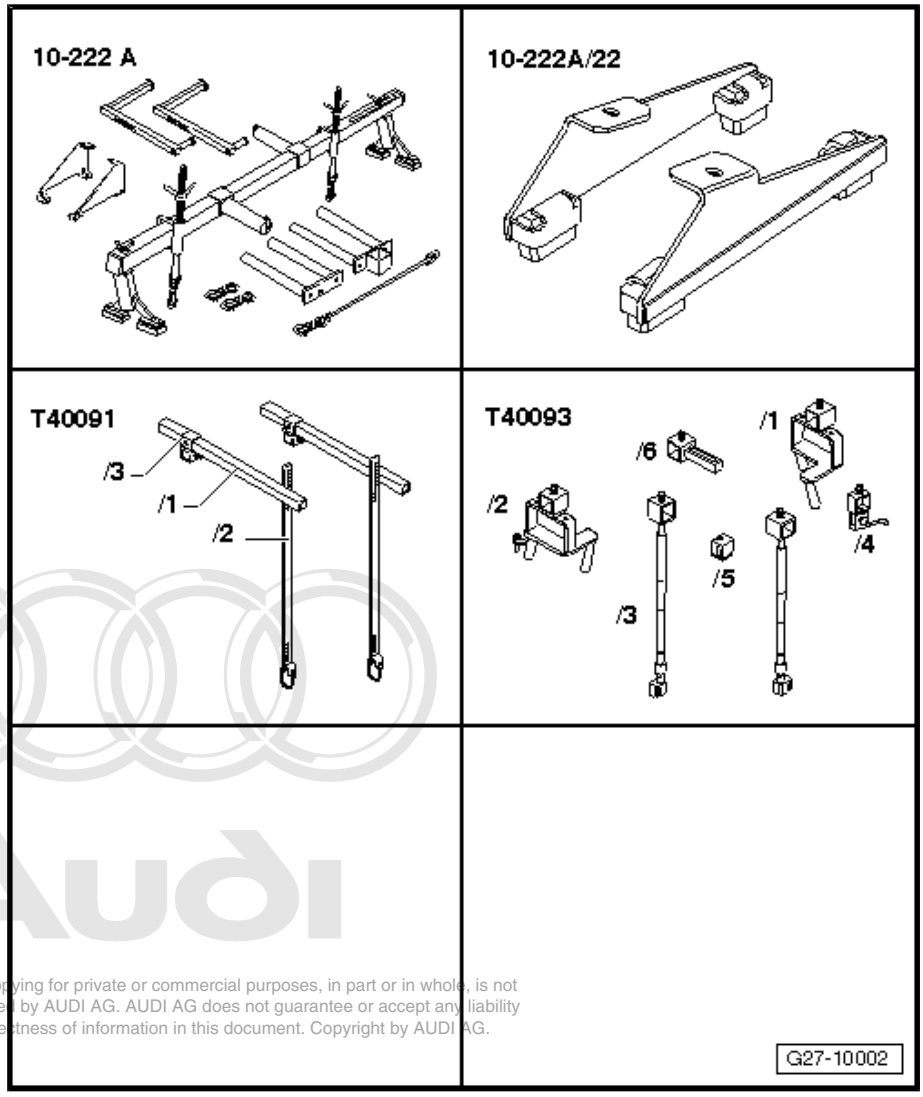
Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16
Earth cable to starter	22
Engine support to cylinder block	42 1)
Drive shaft heat shield to gearbox	23
• 1) Apply locking fluid when installing; for locking fluid refer to ⇒ Electronic parts catalogue .	

5.7 Vehicles with 4.2 ltr. FSI engine

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Special tools and workshop equipment required

- Support bracket - 10 - 222 A-
- Adapter - 10 - 222 A /22-
- Engine support basic set - T40091-
- Engine support bracket, adapters - T40093-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

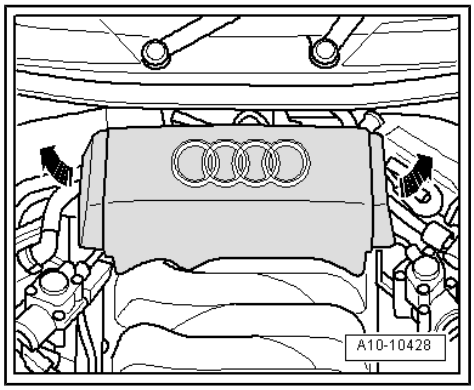
Removing

Note

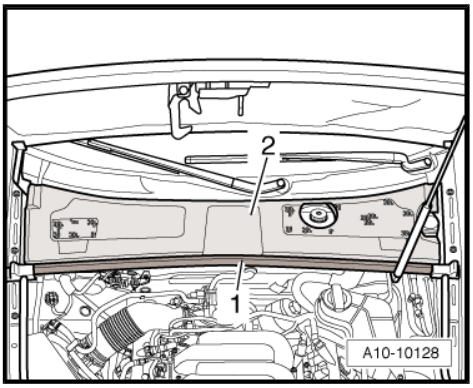
All cable ties which are released or cut open when removing must be fitted in the same position when installing.

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

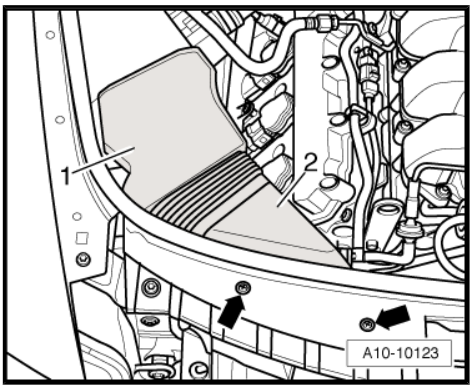
– Pull off engine cover (rear) -arrows-.



– Pull off rubber seal -1- and detach plenum chamber cover -2-.

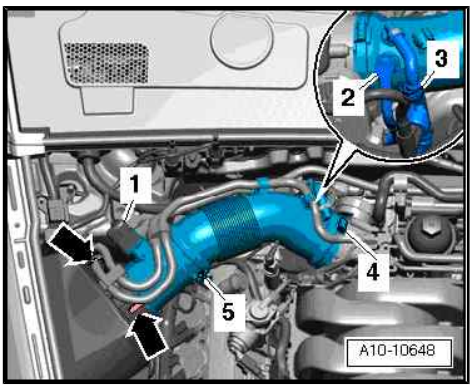


– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

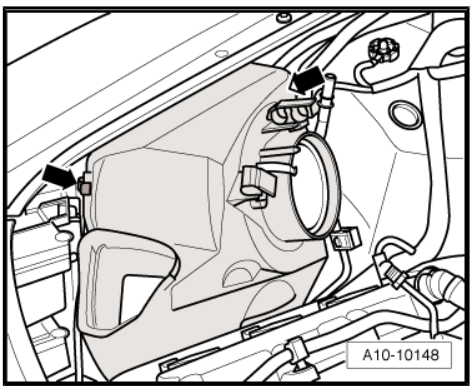
– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.
– Unplug electrical connector -1- at air mass meter - G70- .
– Detach air pipe from air cleaner housing. To do so, release hose clip -5- and clamps -arrows-.



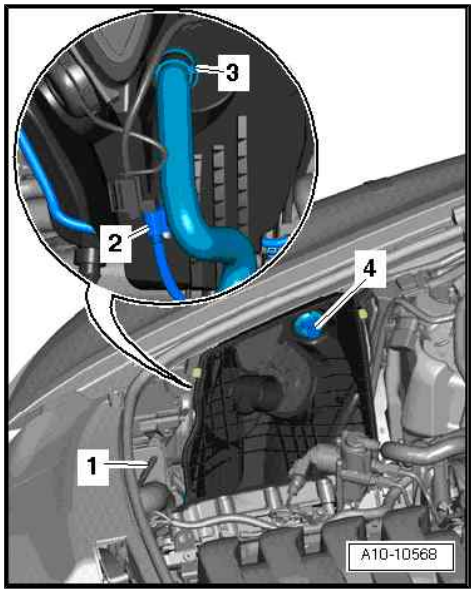
Note

Disregard -items 2, 3, 4-.

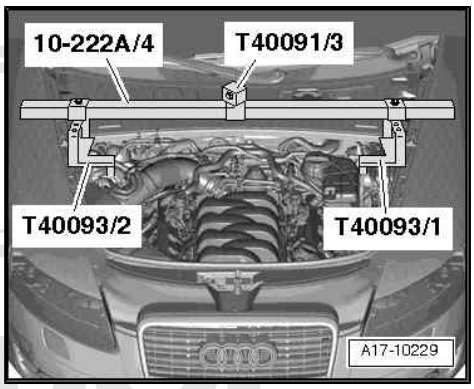
– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner housing (bottom section) and unplug electrical connector -2- on reverse side at exhaust gas recirculation cooler change-over valve - N345- .
– Remove air hose -3- for secondary air pump. To do so, press release tabs.

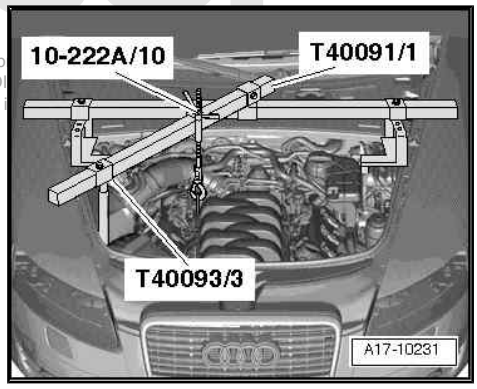


– Attach adapter - 10 - 222 A /4- with connecting piece - T40091/3- and supports -T40093/1- and -T40093/2- to suspension struts.
• Supports -T40093/1- are marked for left and right side of vehicle.

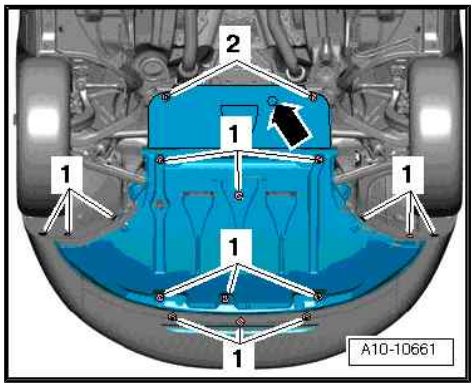


– Position further components of support bracket - 10 - 222 A- as shown in illustration. Position supports -T40093/3- onto flanges of longitudinal members.
– Attach hook - 10 - 222 A /10- to left engine lifting eye.
– Tighten spindles of support bracket - 10 - 222 A- slightly to take up weight of engine.

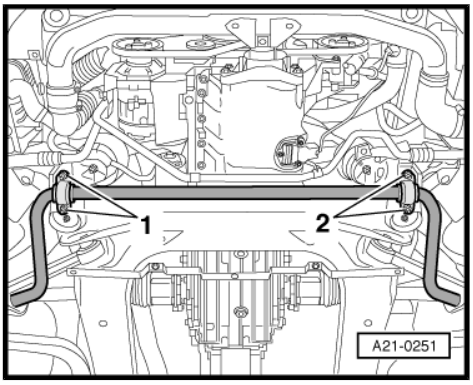
Protected by copyright. Copying for p
permitted unless authorised by AUDI
with respect to the correctness of



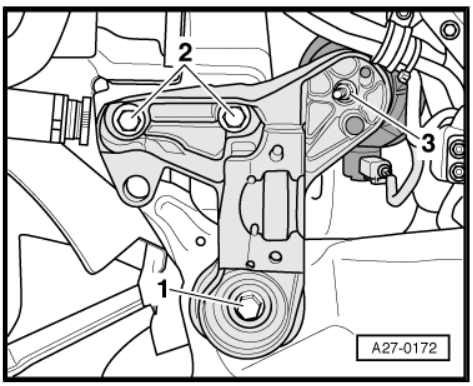
– Remove front wheel (right-side).
– Release fasteners -1, 2, arrow- and remove noise insulation.



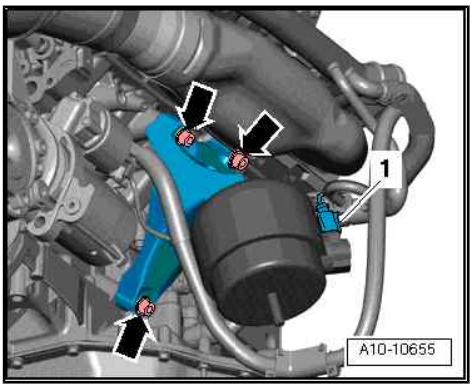
– Unscrew bolts -1- and -2- for anti-roll bar mountings (left and right).



– Move wiring at console for engine mounting clear.
– Unscrew nut -3-.
– Unscrew bolts -1- and -2- and remove console for engine mounting (right-side).

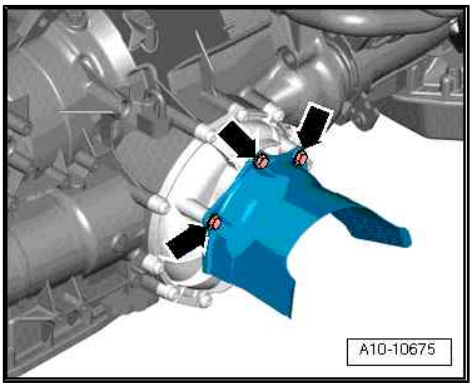


– Unplug electrical connector -1- at engine mounting (right-side).
– Unscrew bolts -arrows-.
– Remove engine support (right-side) with engine mounting.



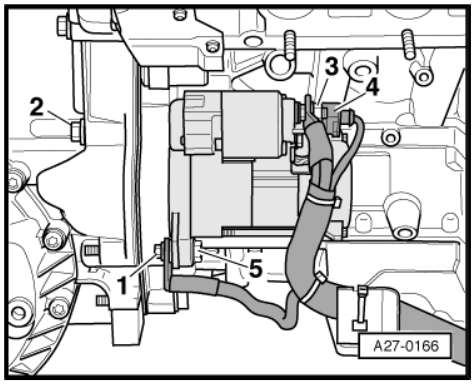
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows-.
– Detach heat shield panels -1- and -2-.



Note

B+ wire can only be disconnected after unplugging connector for terminal 50.



– Unscrew earth cable -1-.
– Detach electrical wiring -3- and -4-.
– Unscrew bolts -2- and -5- and remove starter.

Installing

Installation is carried out in the reverse order; note the following:

Note

Refit all cable ties at the same locations when reinstalling.

– Install console for engine mounting (right-side) ⇒ Rep. gr. 40 .
– Install anti-roll bar ⇒ Rep. gr. 40 .
– Connect battery. Steps required ⇒ page 3 .

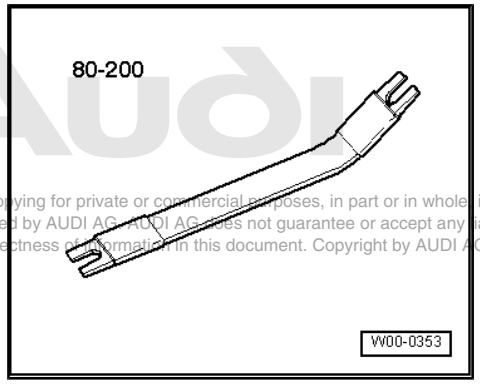
Tightening torques

Component		Nm
B+ wire to starter		16
Starter to gearbox	M10 1)	65
	M12	65
• 1) Bolt strength rating 10.9.		

5.8 Vehicles with 5.0 ltr. TFSI engine

Special tools and workshop equipment required

♦ Removal lever - 80 - 200-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

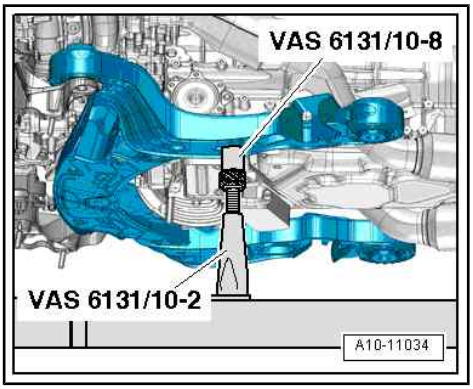
Removing

- Engine/gearbox assembly removed and secured to scissor-type assembly platform - VAS 6131 A- .

– Screw the spindles for support elements (left and right) at subframe all the way down.

– Unscrew both base plates of support elements for subframe on scissor-type assembly platform - VAS 6131 A- .

– Remove the subframe to the side.



Note

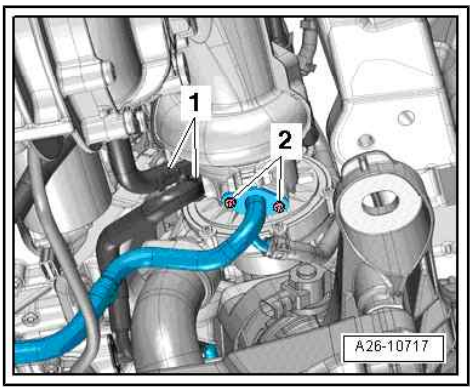
The mounting points located at the front of the engine and gearbox are not changed.

– Remove continued coolant circulation pump - V51- ⇒ Rep. gr. 19 .

– Detach coolant hoses -1-.

– Remove bolts -2-.

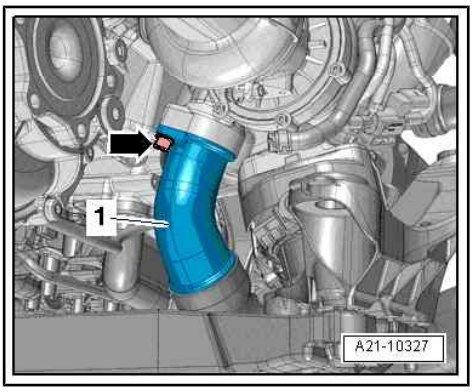
– Detach oil return pipe at turbocharger and place to one side.



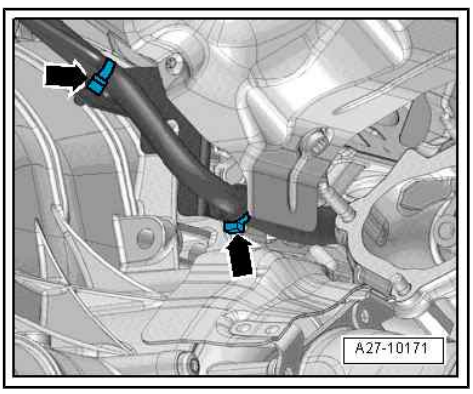
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove bolt -arrow-.

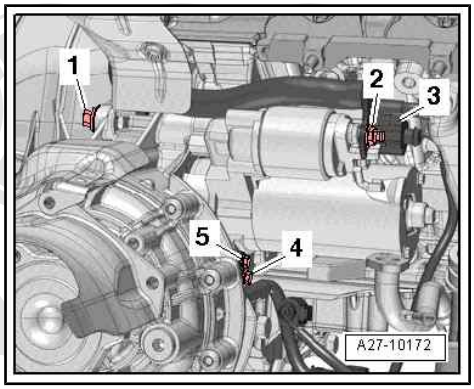
– Pull off air hose connection -1- from turbocharger (right-side).



– Move clear B+ wire at bracket using removal lever - 80 - 200- -arrows-.



– Unscrew earth wire -5- at starter.
– Detach electrical wires -2- and -3- at starter.
– Unscrew bolts -1- and -4- and remove starter.



Installing

Installation is carried out in the reverse order; note the following:

– Install air hose connection at turbocharger ⇒ Rep. gr. 21 .
– Install oil return pipe ⇒ Rep. gr. 21 .
– Install continued coolant circulation pump - V51- ⇒ Rep. gr. 19 .

Tightening torques

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

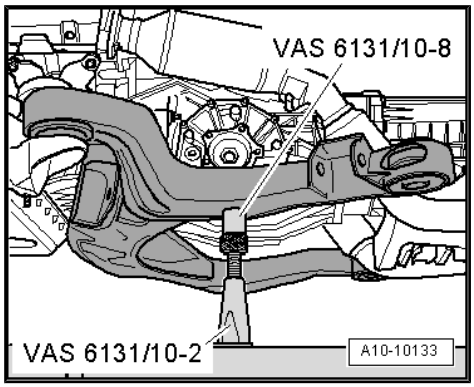
Component		Nm
Starter to gearbox	M10x40	45
	M10x135 1)	65
Terminal B+ to starter		16
Earth cable to starter		22

• 1) Bolt strength rating 10.9.

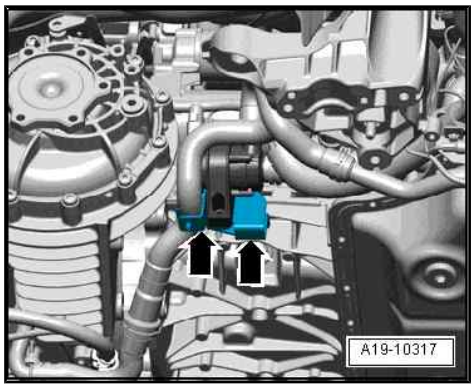
5.9 Vehicles with 5.2 ltr. FSI engine

Removing

– Remove engine ⇒ Rep. gr. 10 .
– Engine/gearbox assembly remains on scissor-type assembly platform - VAS 6131- .
– Screw the spindles for support elements (left and right) at subframe all the way down.
– Unscrew both base plates of support elements for subframe on scissor-type assembly platform - VAS 6131- .
– Detach support elements.
– Remove the subframe to the side.



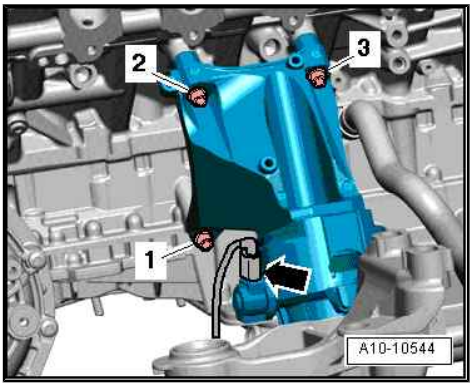
– Remove bolts -arrows- for continued coolant circulation pump - V51- .



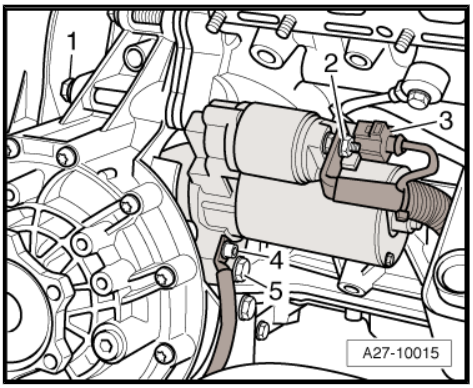
Note

Coolant hoses and electrical connector remain connected.

– Unplug electrical connector -arrow- at engine mounting (right-side).
– Unscrew bolts -1 ... 3-.
– Remove engine support with engine mounting.



– Unscrew earth wire -4- at starter.
– Detach electrical wires -2- and -3- at starter.
– Unscrew bolts -1- and -5- and remove starter.



Installing

Installation is carried out in the reverse order; note the following:

– Install engine ⇒ Rep. gr. 10 .

Tightening torques

Component		Nm
Starter to gearbox	M10x40	45
	M10x135 1)	65
Terminal B+ to starter		16
Earth cable to starter		22
Engine support to cylinder block		40
Continued coolant circulation pump - V51- to bracket		8

• 1) Bolt strength rating 10.9.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.10 Vehicles with 4-cylinder unit injector TDI engine

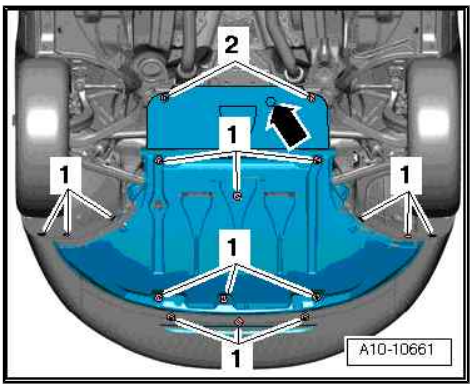
Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

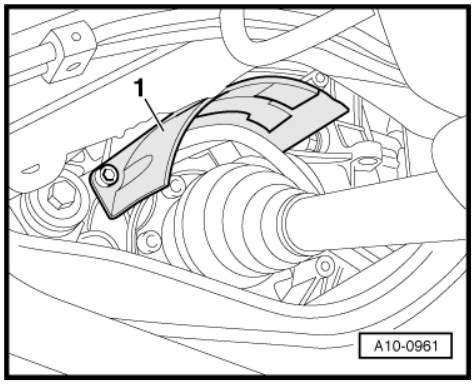
Note

Secure brake disc with wheel bolt.

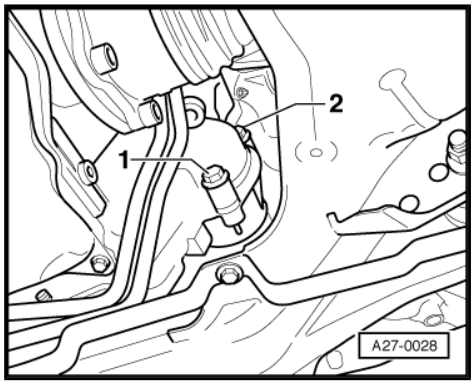
– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.



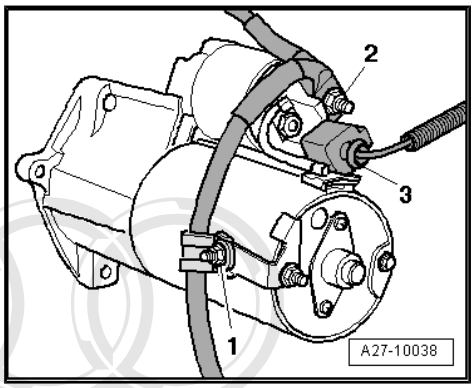
– Unbolt heat shield -1- for drive shaft (right-side).



– Remove bolts -1- and -2-.



– Detach starter and swivel aside.
– Unplug electrical connector -3-.
– Unscrew nut -1- for clamp.
– Unscrew nut -2- and remove electrical wiring.
– Take out starter.



Installing

Installation is carried out in the reverse order; note the following:

– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16
Drive shaft heat shield to gearbox	23

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.11 Vehicles with 4-cylinder common rail TDI engine

Removing

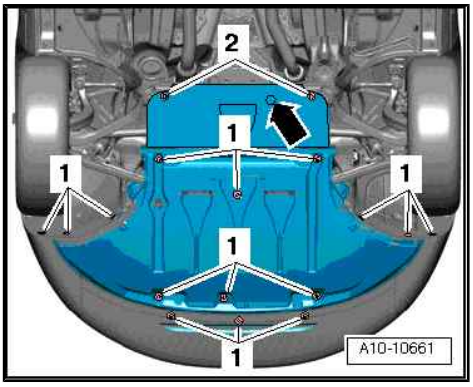
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Remove front wheel (right-side).

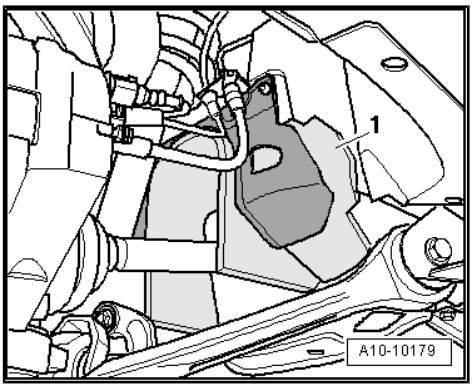
Note

Secure brake disc with wheel bolt.

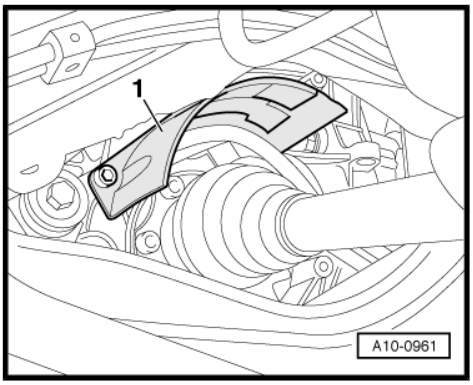
– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.



– Remove noise insulation -1- in wheel housing (right-side).



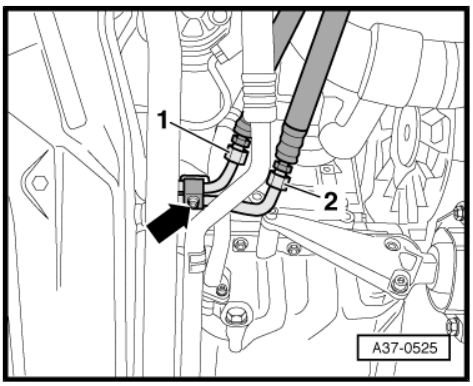
– Unbolt heat shield -1- for drive shaft (right-side).



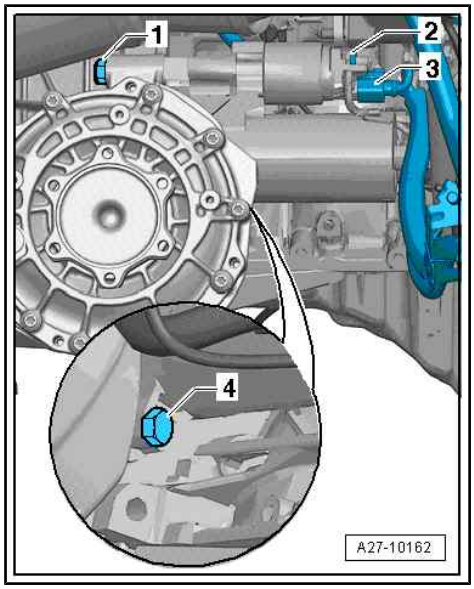
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with this document. Copyright by AUDI AG.

Vehicles with automatic gearbox:

– Unscrew nut -arrow- and press ATF lines -1- and -2- to the side.



– Unscrew wire -2- at starter.
– Unplug connector -3- by sliding locking element to rear and pressing down release catch.
– Unscrew bolts -1- and -4- and remove starter.



Installing

Installation is carried out in the reverse order; note the following:

– Install ATF lines ⇒ Rep. gr. 37 .
– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component	Nm
Starter to gearbox	65
Terminal B+ to starter	16
Drive shaft heat shield to gearbox	23

5.12 Vehicles with 6-cylinder TDI engine

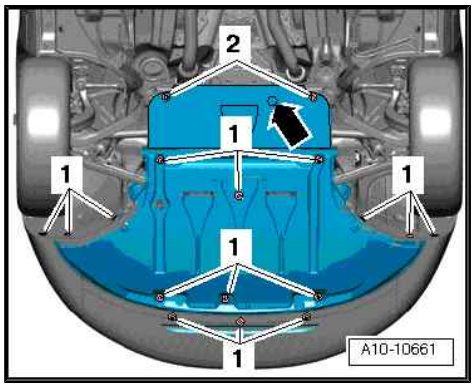
Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove front wheel (right-side).

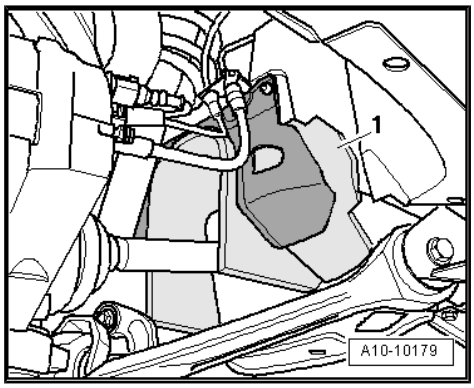
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

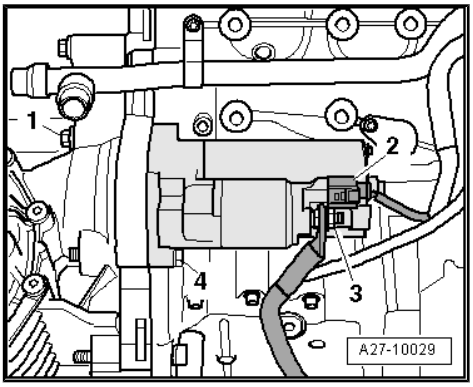
Secure brake disc with wheel bolt.



– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.
– Remove noise insulation -1- in wheel housing (right-side).
– Vehicles with manual gearbox: Unbolt drive shaft (right-side) from flange shaft on gearbox.



– Detach electrical wires -2- and -3- at starter.
– Unscrew bolts -1- and -4- and remove starter.
– Guide starter out towards rear over wheel housing (right-side).



Installing

Installation is carried out in the reverse order; note the following:

– Secure drive shaft (right-side) to flange shaft ⇒ Rep. gr. 40 .
– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component	Nm
Starter to engine	65 1)
Terminal B+ to starter	16
• 1) Bolt strength rating 10.9.	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

90 – Gauges, instruments

1 Instrument cluster

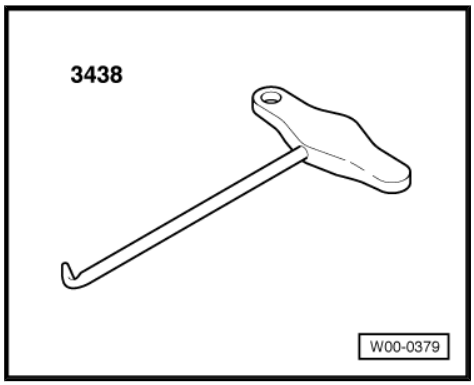
Note

All warning lamps in instrument cluster are fitted with light-emitting diodes. The instrument cluster must be renewed in the event of a warning lamp failure.

1.1 Removing and installing instrument cluster

Special tools and workshop equipment required

- Hook - 3438- (2x)



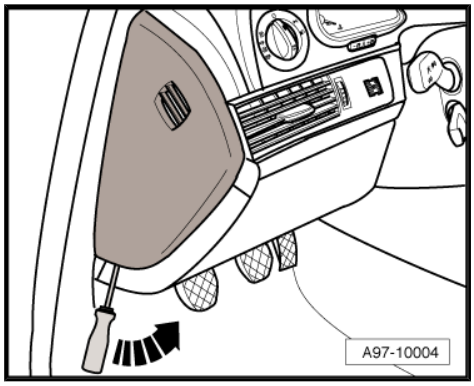
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

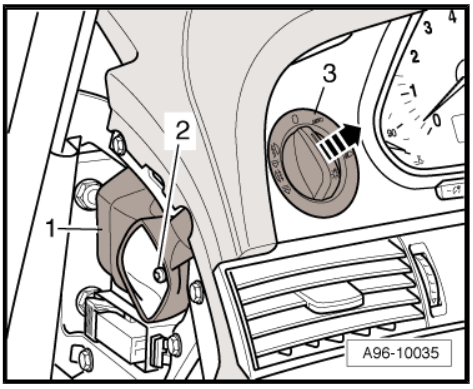
Note

The instrument cluster must not be dismantled.

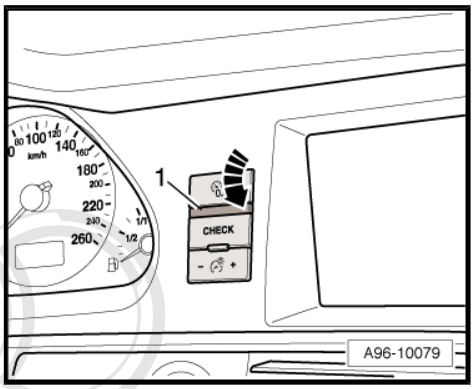
– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.
– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.
– Switch off ignition and take out ignition key.
– Remove dash panel vent on driver side and dash panel vent (centre) ⇒ Rep. gr. 70 .
– Use screwdriver to pry off trim (left-side) at dash panel -arrow-.



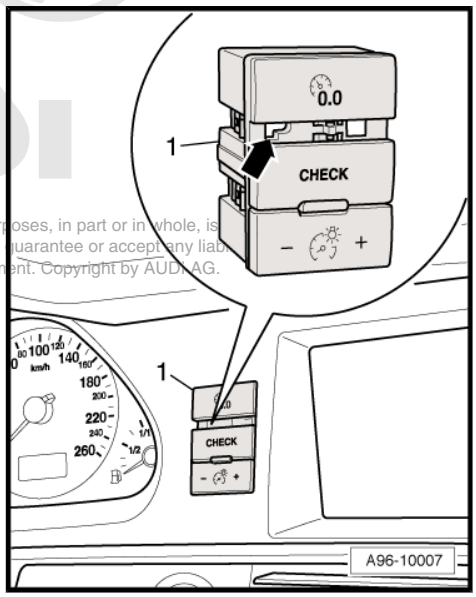
– Turn light switch -3- to position “0”.
– Remove the spreader pin -2- at air duct -1- and detach the air duct.
– Reach through the opening above the side air vent in dash panel and press the light switch out of the instrument cluster -arrow-.
– Unplug electrical connector.



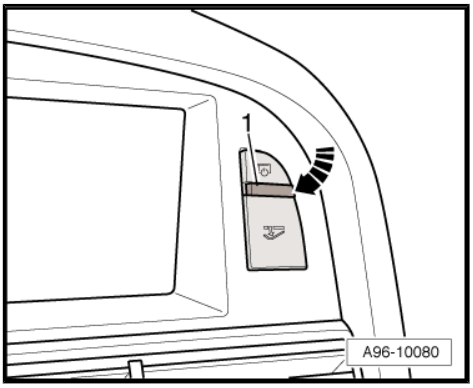
– Press the cover trim -1- on the switch panel for the instrument cluster in the direction of the -arrow-.
– Take hold of the cover trim and pull off from switch.



– Insert hook - 3438- in opening -arrow- on switch panel.
– Carefully pull switch panel -1- out of instrument cluster trim.
– Unplug electrical connector.

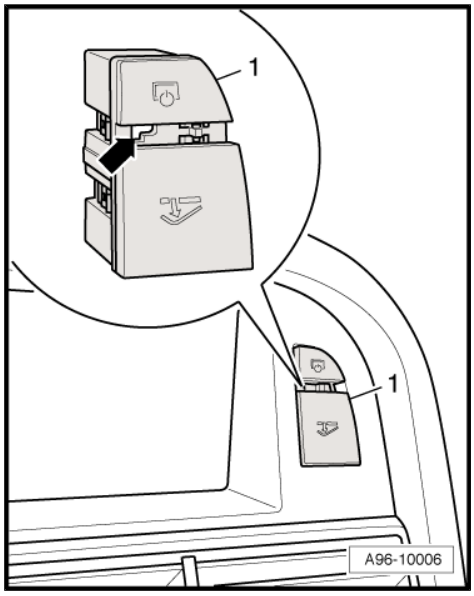


– Press the cover trim -1- on the switch panel for glove box release in the direction of the -arrow-.
– Take hold of the cover trim and pull off from switch.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Insert hook - 3438- in opening -arrow- on switch panel.
– Carefully pull switch panel -1- out of instrument cluster trim.
– Unplug electrical connector.

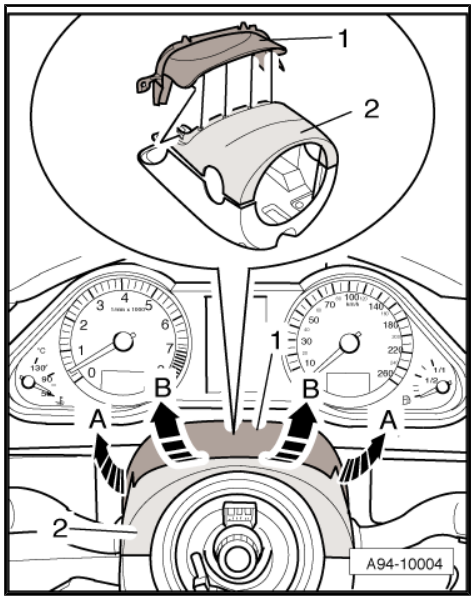


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

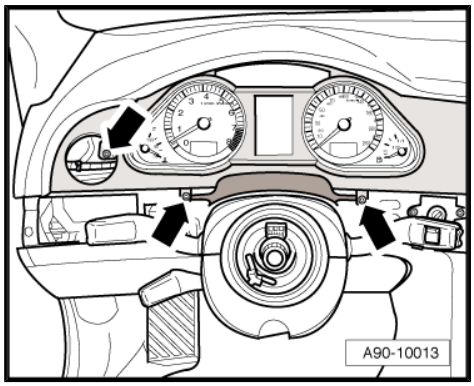
Note

The steering wheel is shown removed in the following illustrations to provide a better view.

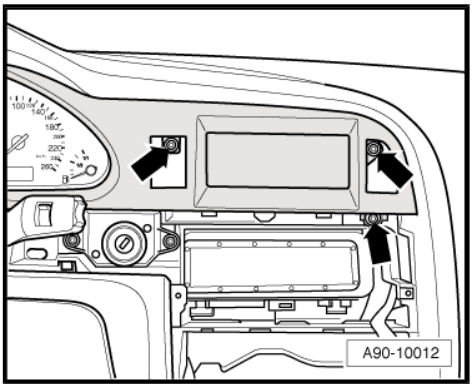
– Release the trim cover -1- on the steering wheel column trim (top) -2- using a small screwdriver -arrows A and B-.



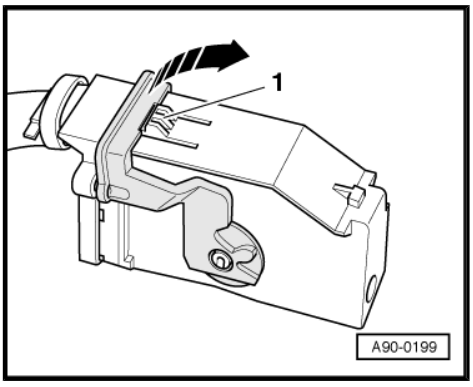
– Unscrew bolts -arrows-.



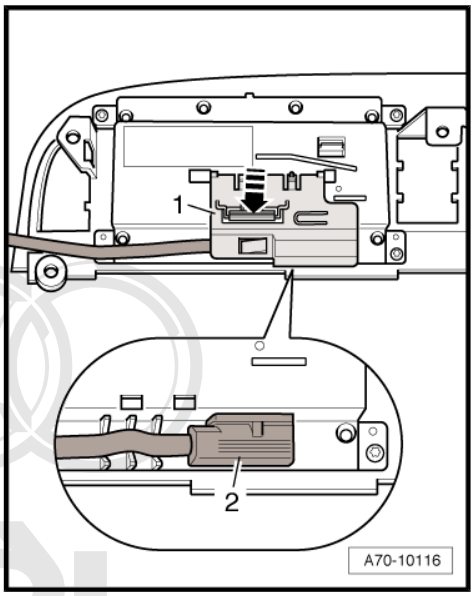
– Unscrew bolts -arrows-.
– Pull the instrument cluster trim slightly out of dash panel.



– Unplug electrical connector at instrument cluster by releasing catch -1- and moving the retaining clip in direction of the -arrow-.



– Release connector retainer -1- at MMI display -arrow- and pivot upwards.
– Unplug electrical connector -2- at MMI display.
– Remove instrument cluster trim together with instrument cluster and MMI display from between the steering wheel and dash panel.



Installing

Installation is carried out in the reverse order; note the following:

– Install dash panel vent on driver side and dash panel vent (centre) ⇒ Rep. gr. 70 .

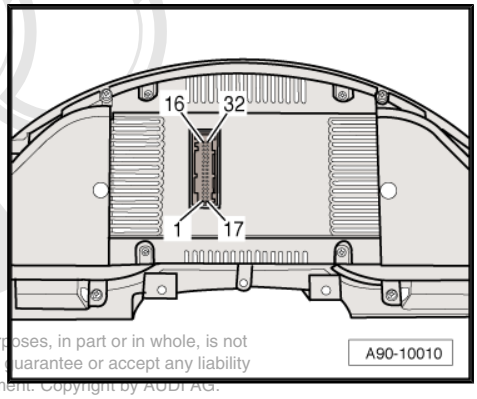
Tightening torque

Component	Nm
Instrument cluster trim to dash panel	3.5

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.2 Pin assignment at multi-pin connectors on instrument cluster

Multi-pin connector, 32-pin, grey



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

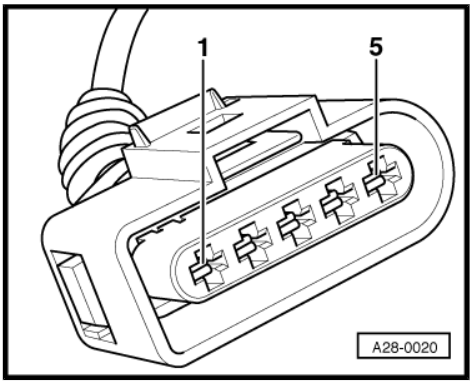
1 - Not used
2 - Not used
3 - CAN bus wire Low (to data bus diagnostic interface - J533-)
4 - CAN bus wire High (to data bus diagnostic interface - J533-)
5 - Terminal 31, sender earth
6 - Fuel gauge sender - G-
7 - Fuel gauge sender 2 - G169-
8 - Switch panel
9 - Ambient temperature
10 - Not used
11 - Not used
12 - Coolant level low
13 - Washer fluid low
14 - Terminal 31
15 - Terminal 30
16 - Terminal 58s
17 - Terminal 58d
18 - Oil pressure switch
19 - Brake fluid low
20 - Check
21 - Not used
22 - Electromechanical parking brake
23 - Radio-controlled clock 5V
24 - Radio-controlled clock signal
25 - Oil level
26 - Brake pad
27 - External buzzer
28 - Prompt wire (to data bus diagnostic interface - J533-)
29 - Terminal 31
30 - Terminal 31
31 - Terminal 30
32 - Terminal 30

1.3 Pin assignment on fuel gauge senders

Preparations

– Unplug 5-pin connector at sealing flange of fuel tank; Procedure ⇒ Rep. gr. 20 ; Checking fuel gauge sender -G- .

Pin assignment of 5-pin connector at fuel gauge sender - G- - vehicles with front-wheel drive



1 - Switched positive for electric fuel pump

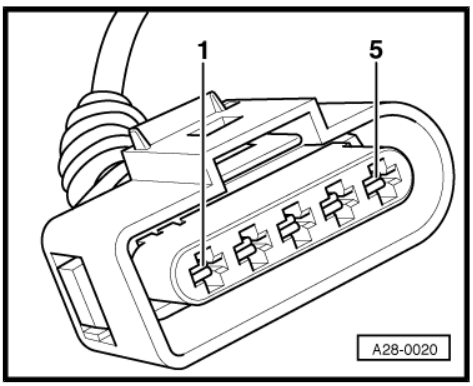
2 - Wiring between fuel gauge sender - G- and instrument cluster (fuel gauge)

3 - Earth for fuel gauge sender (sensor earth)

4 - Not used

5 - Earth for electric fuel pump

Pin assignment of 5-pin connector at fuel gauge sender - G- and fuel gauge sender 2 - G169- - vehicles with four-wheel drive.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1 - Switched positive for electric fuel pump

2 - Wiring between fuel gauge sender - G- and instrument cluster (fuel gauge)

3 - Earth for fuel gauge sender (sensor earth)

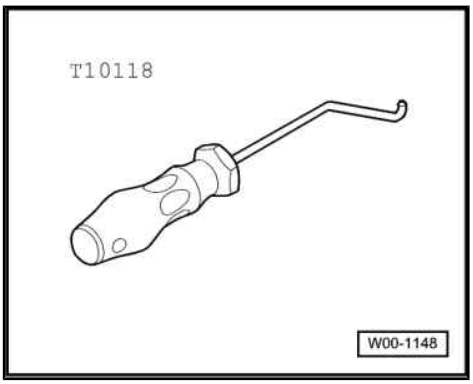
4 - Wiring between fuel gauge sender 2 - G169- and instrument cluster (fuel gauge)

5 - Earth for electric fuel pump

1.4 Pin assignment at coolant temperature sender - G62-

Special tools and workshop equipment required

- Assembly tool - T10118-



Preparations

– Unplug electrical connector at coolant temperature sender - G62- ; procedure:

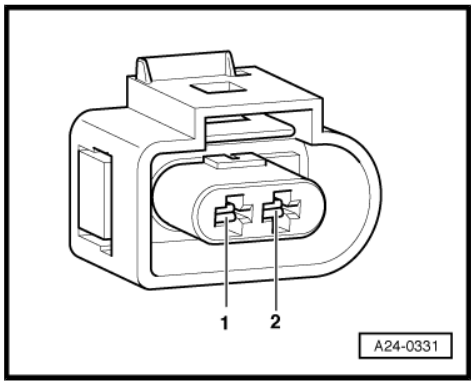
- Vehicles with 2.0 ltr. FSI engine ⇒ page 76 .
- Vehicles with 2.4 ltr. MPI, 2.8 ltr. FSI and 3.2 ltr. FSI engine ⇒ page 77 .
- Vehicles with 3.0 ltr. MPI engine ⇒ page 77 .
- Vehicles with 3.0 ltr. TFSI engine ⇒ page 79 .
- Vehicles with 4.2 ltr. MPI engine ⇒ page 79 .
- Vehicles with 4.2 ltr. FSI engine ⇒ page 80 .
- Vehicles with 5.0 ltr. TFSI engine ⇒ page 81
- Vehicles with 5.2 ltr. FSI engine ⇒ page 82 .

- Vehicles with 4-cylinder unit injector TDI engine ⇒ page 83 .
- Vehicles with 4-cylinder common rail TDI engine ⇒ page 84 .
- Vehicles with 6-cylinder TDI engine ⇒ page 84 .

Pin assignment for 2-pin connector at coolant temperature sender - G62-

1 - Sender earth

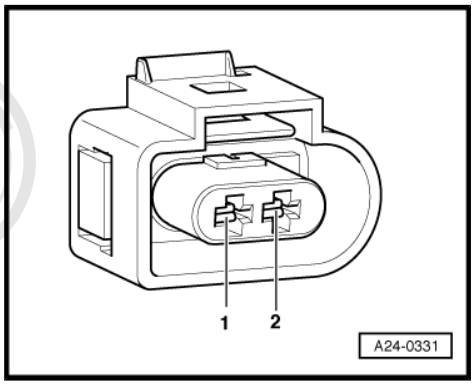
2 - Wiring connection from coolant temperature sender - G62- to engine control unit



Pin assignment for 2-pin connector on radiator outlet coolant temperature sender - G83-

1 - Sender earth

2 - Wiring connection from radiator outlet coolant temperature sender - G83- to engine control unit



1.4.1 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 2.0 ltr. FSI engine

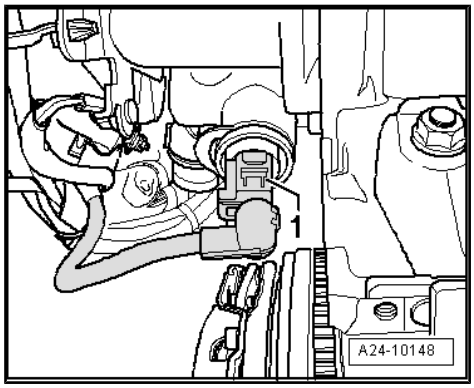
Copyright by AUDI AG. Distribution and commercial use of this part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

Fitting location: on rear right of engine

– Unplug electrical connector -1- on coolant temperature sender - G62- .

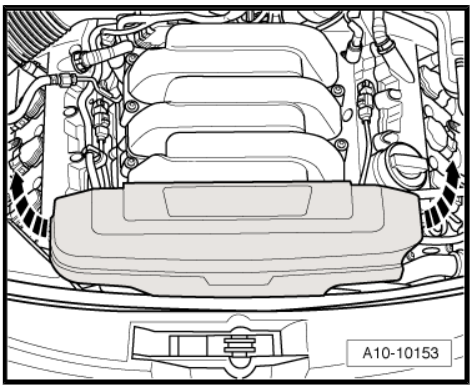
Install in reverse order.



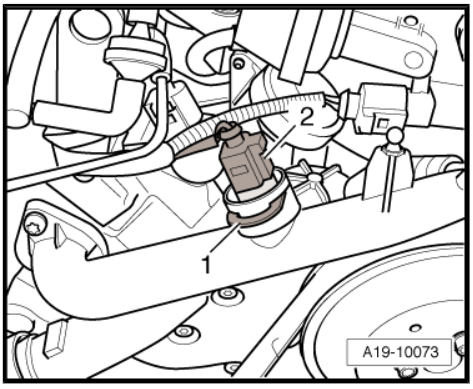
1.4.2 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 2.4 ltr. MPI, 2.8 ltr. FSI and 3.2 ltr. FSI engine

Procedure

– Pull off engine cover (front) -arrows-.



– Unplug electrical connector -2- at coolant temperature sender - G62- .



Note

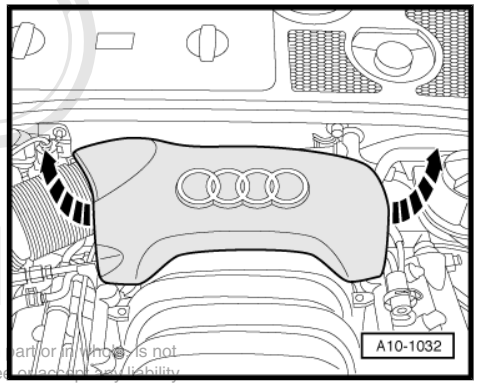
Disregard -item 1-.

Install in reverse order.

1.4.3 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 3.0 ltr. MPI engine

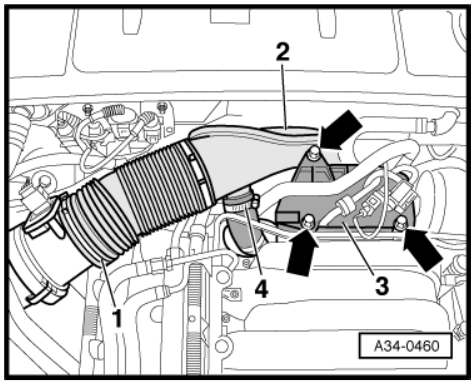
Procedure

– Pull off engine cover (rear) -arrows-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

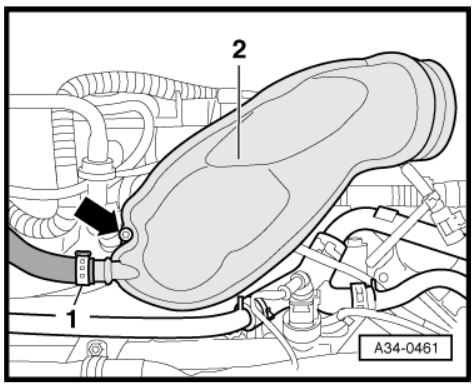
– Unscrew bolts for solenoid valve retaining plate -3- -arrows-.
– Pull off air intake hose -1- at air mass meter - G70- .
– Pull off hose -4- at air duct -2-.



– Unscrew bolt -arrow- and pull off air duct -2- at throttle valve module - J338- .
– If fitted, pull off hose -1- at air duct.

Note

Shown from rear with engine removed for illustration purposes.

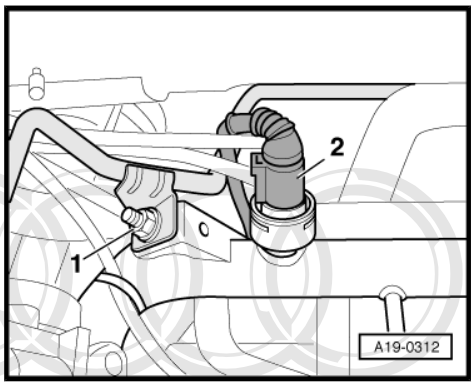


– Unplug electrical connector -2- on coolant temperature sender - G62- using assembly tool - T10118- .

-

Note

Disregard -item 1-.



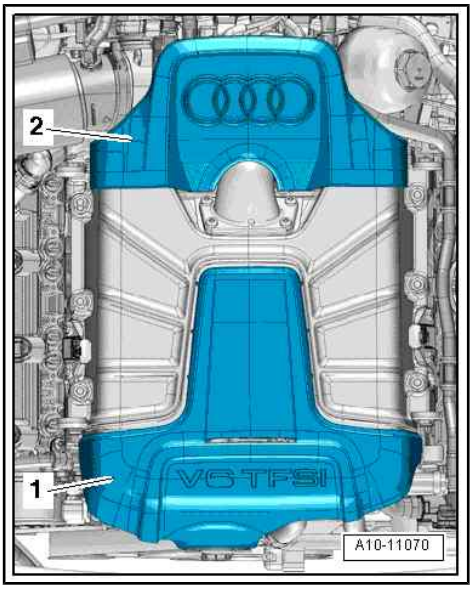
Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.4.4 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 3.0 ltr. TFSI engine

Procedure

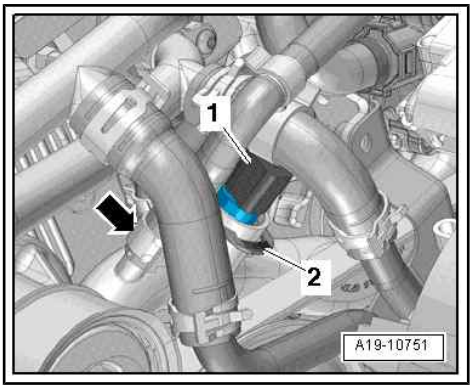
– Pull off engine cover panel -1- upwards.



Note

Disregard -item 2-.

– Unplug electrical connector -1- on coolant temperature sender - G62- .



Note

Disregard -item 2- and -arrow-.

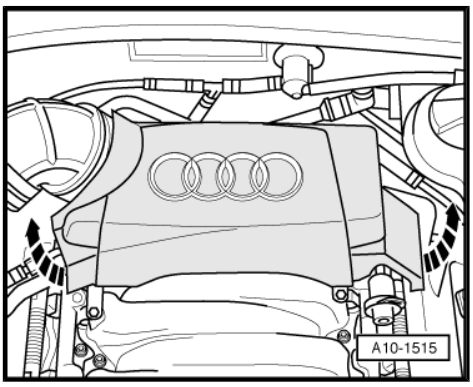
Install in reverse order.

1.4.5 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 4.2 ltr. MPI engine

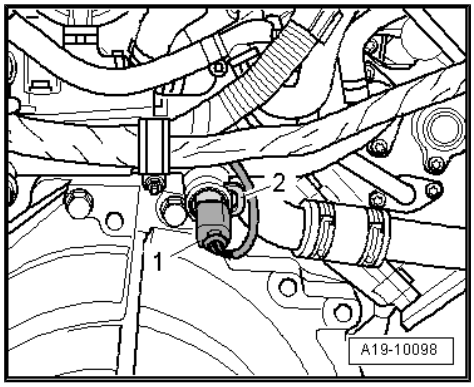
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

– Pull off engine cover (rear) -arrows-.



– Unplug electrical connector -1- on coolant temperature sender - G62- using assembly tool - T10118- .



Note

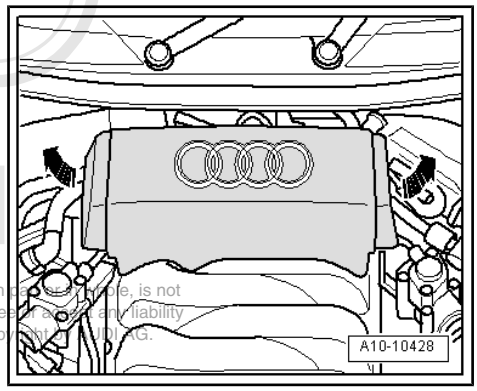
- *Illustration shows engine removed for greater clarity.*
- *Disregard -item 2-.*

Install in reverse order.

1.4.6 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 4.2 ltr. FSI engine

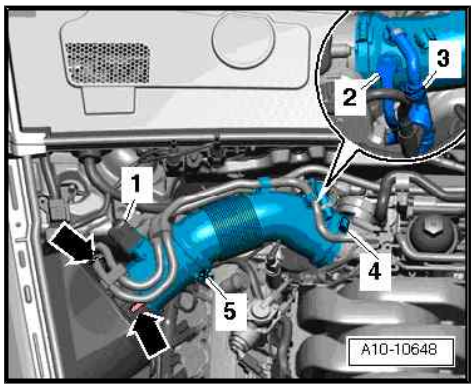
Procedure

– Pull off engine cover (rear) -arrows-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

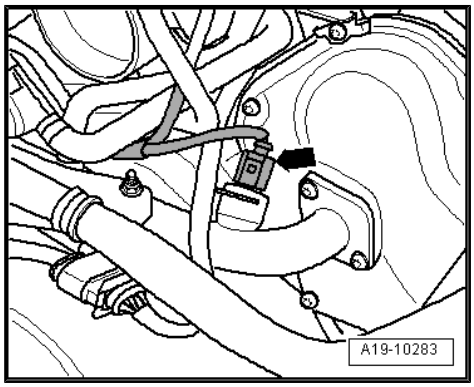
– Move fuel line and line to activated charcoal filter clear at air pipe.
– Detach air intake hose from air cleaner housing by releasing hose clips -4 and 5-.
– Move air intake hose with connected pipes -2 and 3- clear to one side.



Note

Disregard -item 1 and arrows-.

– Unplug electrical connector -arrow- at coolant temperature sender - G62- .



Note

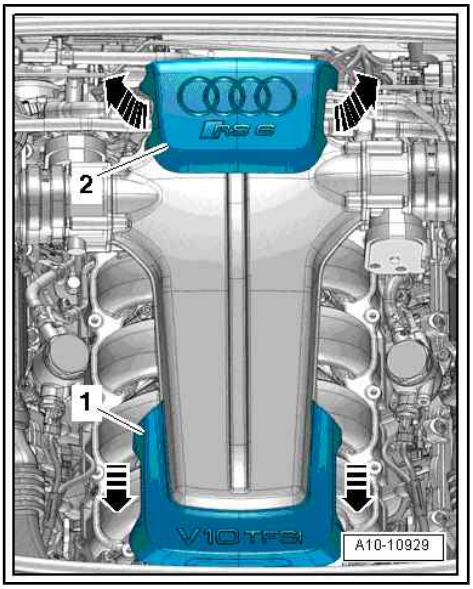
Illustration shows engine removed for greater clarity.

Install in reverse order.

1.4.7 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 5.0 ltr. TFSI engine

Procedure

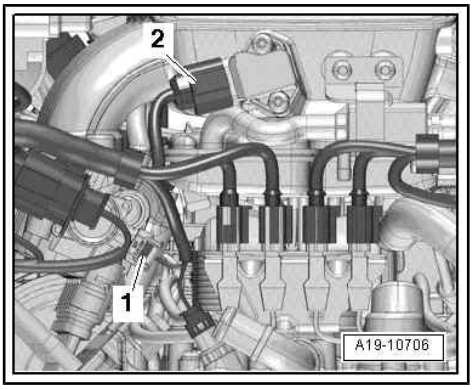
– Pull off front engine cover panel -1- towards the front -arrows-.



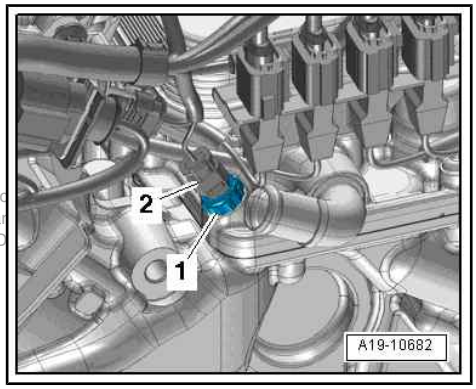
Note

Disregard -item 2-.

– Unplug electrical connectors -1- and -2-.



– Unplug electrical connector -2- on coolant temperature sender - G62- -item 1-.



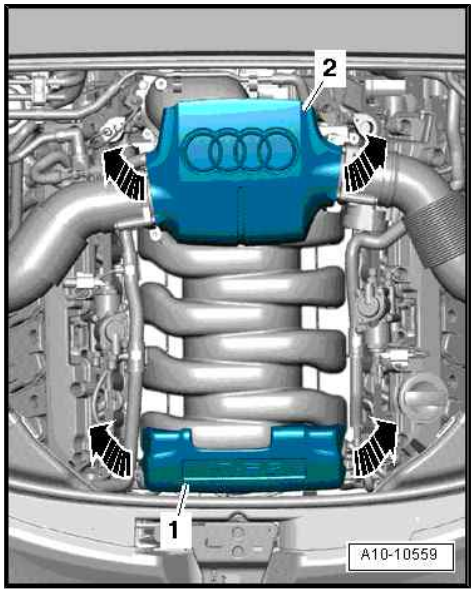
Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whc
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept ar
with respect to the correctness of information in this document. Copyright by AUD

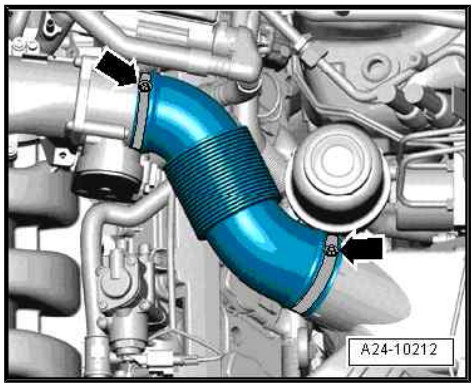
1.4.8 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 5.2 ltr. FSI engine

Procedure

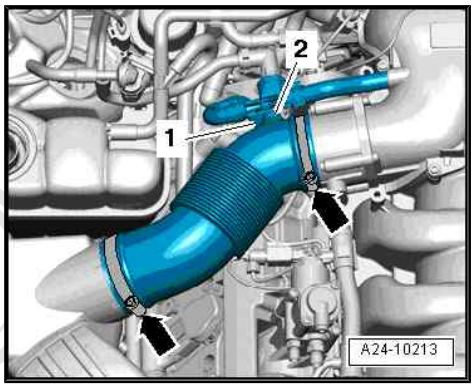
– Pull off front engine cover panel -1- and rear engine cover panel -2- -arrows-.



– Remove air intake hose (left-side) -arrows-.

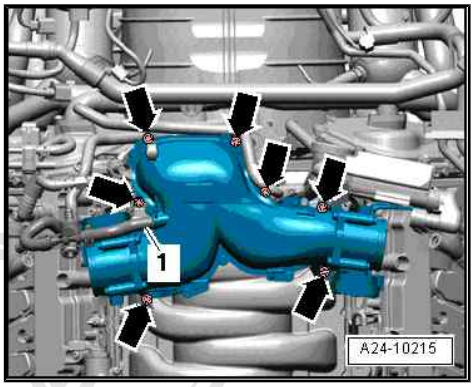


– Remove air intake hose (right-side) -arrows-.

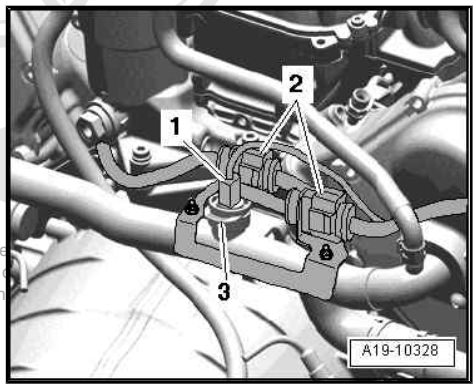


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Detach vacuum hose -1- from intake manifold.
– Unscrew bolts -arrows- and detach air duct system.



– Unplug electrical connector -1- at coolant temperature sender - G62- .



Note

Disregard -item 2- and -item 3-.

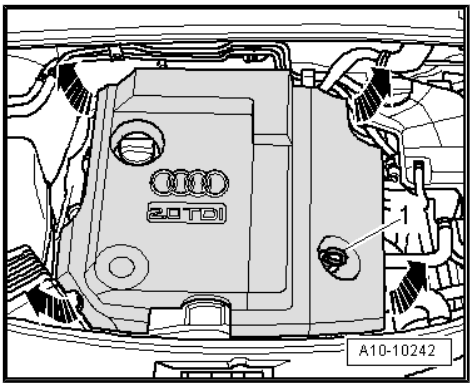
Install in reverse order.

Protected by copyright. Copying for private or comme
permitted unless authorised by AUDI AG. AUDI AG
with respect to the correctness of information in th

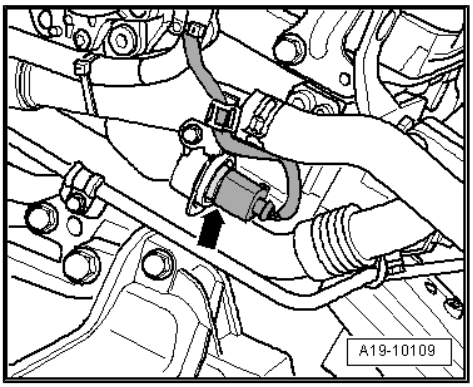
1.4.9 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 4-cylinder unit injector TDI engine

Procedure

– Pull oil dipstick -1- out of guide tube.
– Pull off engine cover panel -arrows-.
– Re-insert dipstick in guide tube.



– Unplug the electrical connector on coolant temperature sender - G62- -arrow- and move electrical wiring harness clear.



Note

Shown from reverse side for illustration purposes.

Install in reverse order.

1.4.10 Unplugging electrical connector on coolant temperature senders -G62- / -G83- - 4-cylinder common rail TDI engine

Procedure

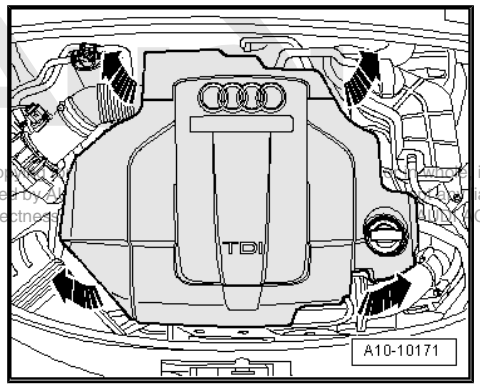
– Unplug 2-pin connector at coolant temperature sender - G62- ; Procedure ⇒ Rep. gr. 19 ; Removing and installing coolant temperature sender -G62- (do not remove sender).

– Unplug 2-pin connector at radiator outlet coolant temperature sender - G83- ; Procedure ⇒ Rep. gr. 19 ; Removing and installing radiator outlet coolant temperature sender -G83- (do not remove sender).

1.4.11 Unplugging electrical connector on coolant temperature sender - G62- - vehicles with 6-cylinder TDI engine

Procedure

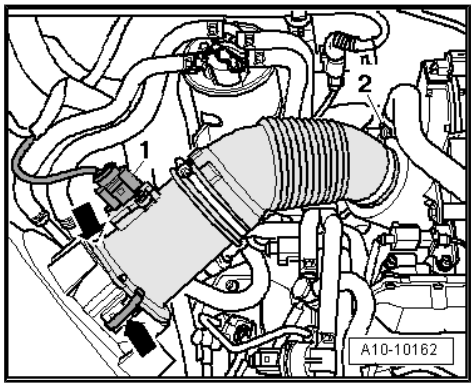
– Carefully pull engine cover panel off four retaining pins one after the other -arrows-.



Protected by copyright. Co... is not permitted unless authorised by ... liability with respect to the correctness ... G.

– Unplug electrical connector -1- at air mass meter - G70- .

– Remove air intake hose. To do so, release hose clip -2- and clamps -arrows-.

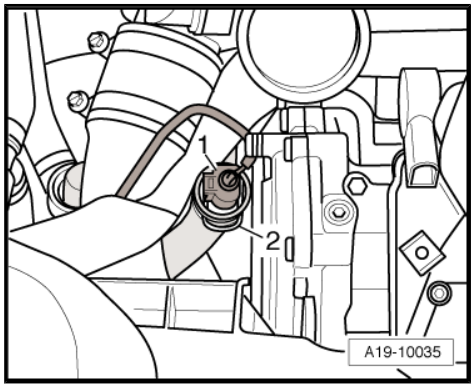


– Unplug electrical connector -1- on coolant temperature sender - G62- using assembly tool - T10118- .

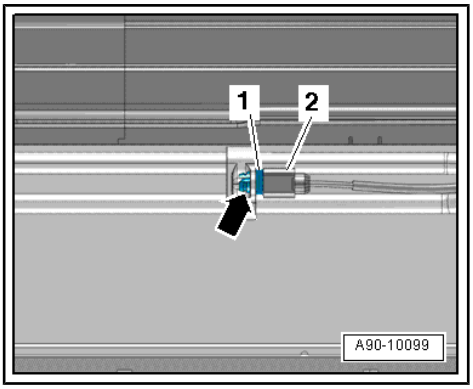
Note

Disregard -item 2-.

Install in reverse order.



1.5 Removing and installing ambient temperature sensor - G17- (Audi A6, Audi S6)



Removing

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unplug electrical connector -2-.

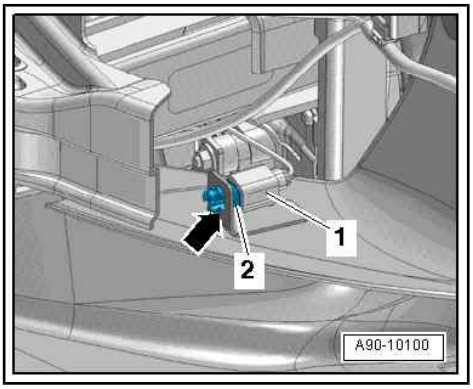
– Carefully compress retaining clips -arrow- and pull ambient temperature sensor - G17- -item 1- out of retainer.

Installing

Installation is carried out in the reverse order; note the following:

– Install front bumper cover ⇒ Rep. gr. 63 .

1.6 Removing and installing ambient temperature sensor - G17- - Audi RS 6



Removing

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unplug electrical connector -1-.

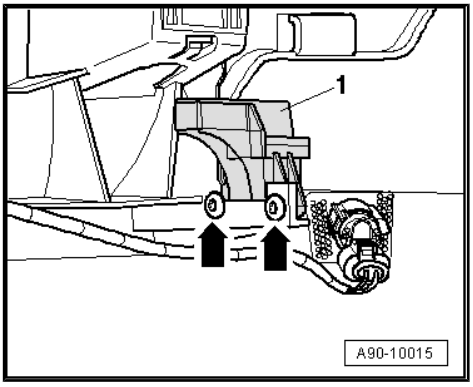
– Carefully compress retaining clips -arrow- and pull ambient temperature sensor - G17- -item 2- out of retainer.

Installing

Installation is carried out in the reverse order; note the following:

– Install front bumper cover ⇒ Rep. gr. 63 .

1.7 Removing and installing radio-controlled clock receiver - J489- (saloon)



Removing

– Remove rear bumper cover ⇒ Rep. gr. 63 .

– Unscrew bolts -arrows-.

– Detach radio-controlled clock receiver - J489- -item 1- at bumper cover (rear).

Installing

Installation is carried out in the reverse order; note the following:

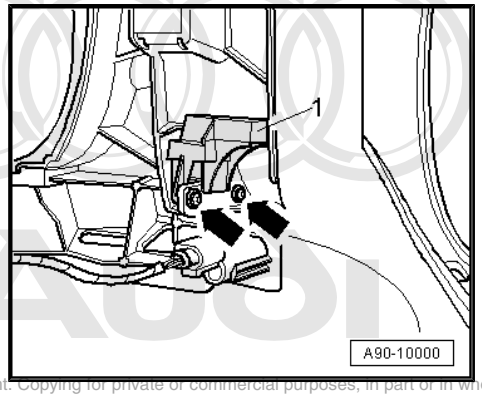
– Install rear bumper cover ⇒ Rep. gr. 63 .

Tightening torque

Component	Nm
Radio-controlled clock receiver - J489- to bumper cover	2.5

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.8 Removing and installing radio-controlled clock receiver - J489- (Avant)



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– Remove rear bumper cover ⇒ Rep. gr. 63 .
– Unscrew bolts -arrows-.
– Detach radio-controlled clock receiver - J489- -item 1- at bumper cover (rear).

Installing

Installation is carried out in the reverse order; note the following:

– Install rear bumper cover ⇒ Rep. gr. 63 .

Tightening torque

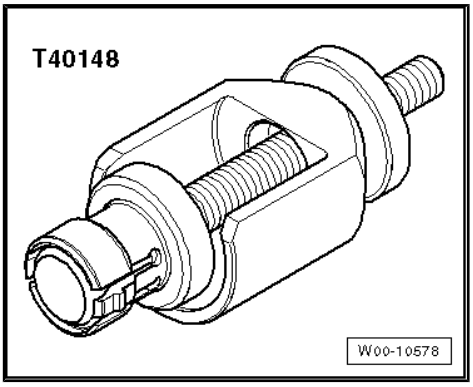
Component	Nm
Radio-controlled clock receiver - J489- to bumper cover	2.5

2 Cigarette lighter, socket

2.1 Removing and installing cigarette lighter - U1-

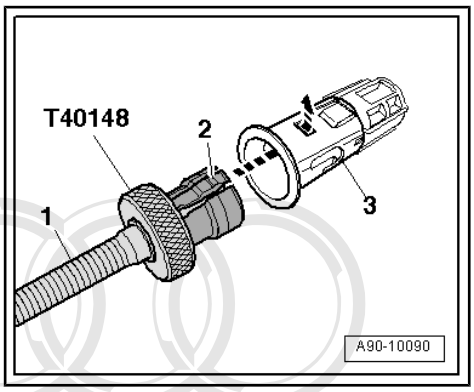
Special tools and workshop equipment required

- Puller - T40148-



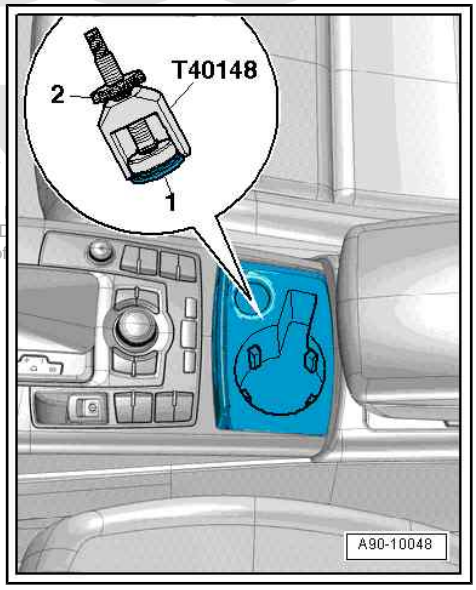
Removing

– Release tabs -2- on puller -T40148- must engage in recesses in cigarette lighter - U1- -item 3- -arrow-; for this purpose, push threaded rod -1- downwards as far as stop.



– Insert puller - T40148- into cigarette lighter - U1- -item 1- as far as stop.

– Turn knurled wheel -2- on puller - T40148- clockwise as far as stop.

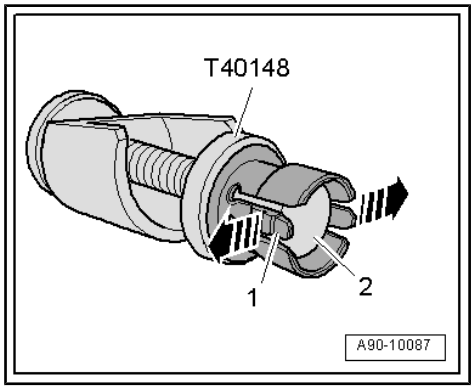


Protected by copyright. Copying for
permitted unless authorised by AUD
with respect to the correctness of

- The piston -2- moves upwards and the release tabs -1- on puller - T40148- spread apart -arrows-.

– Remove cigarette lighter - U1- from front centre console.

– Unplug electrical connector.



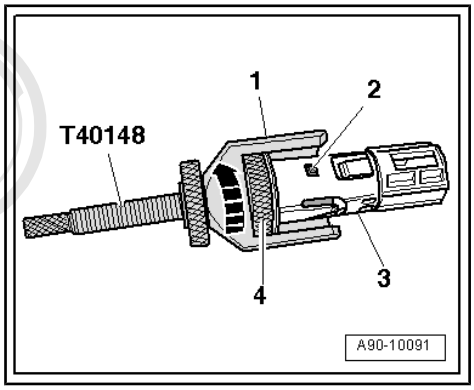
Installing

Installation is carried out in the reverse order; note the following:

Caution

Risk of injury.

- *After detaching puller - T40148- check that retaining tabs for lighter are not bent.*
- *If retaining tabs are bent they must be bent back to prevent lighter from ejecting.*



– Detach support -1- from puller - T40148-.

– Push piston downwards and hold in this position.

– Turn knurled wheel -4- on puller - T40148- anti-clockwise -arrow-; this will open release tabs -2- on cigarette lighter - U1- -item 3- and puller - T40148- can be removed.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.2 Removing and installing flashing blue light socket - Audi A6 Security

Removing

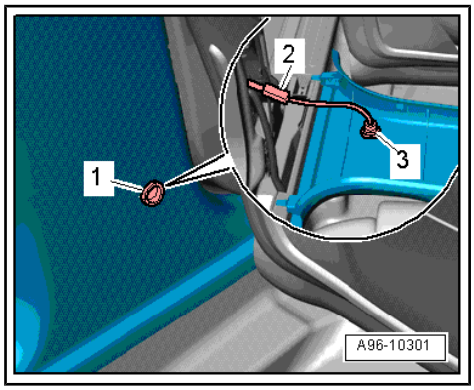
– Remove B-pillar trim (top) ⇒ Rep. gr. 70 .

– Pull B-pillar trim (bottom) out of body.

– Unplug electrical connector -2-.

– Unscrew nut -3-.

– Remove flashing blue light socket -1- from B-pillar trim (bottom).



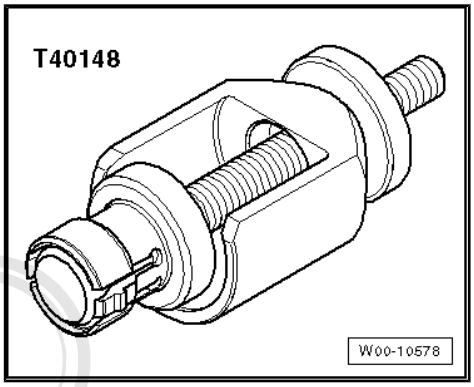
Installing

Install in reverse order.

2.3 Removing and installing rear cigarette lighter - U9-

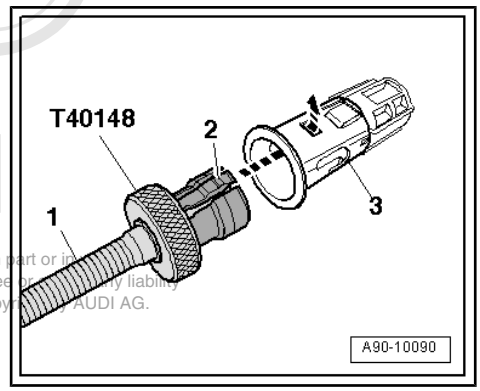
Special tools and workshop equipment required

♦ Puller - T40148-



Removing

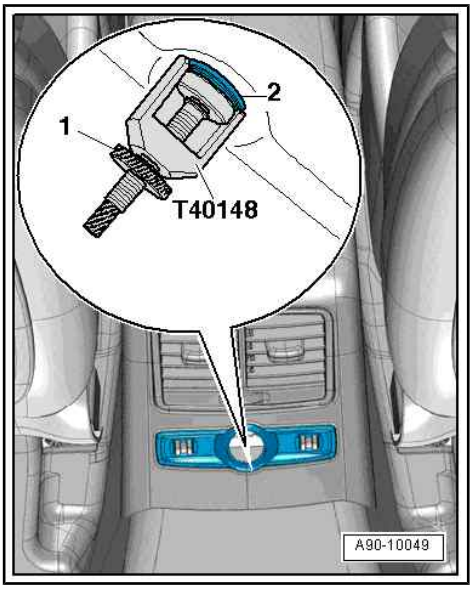
– Release tabs -2- on puller -T40148- must engage in recesses in rear cigarette lighter - U9- -item 3- -arrow-; for this purpose, push threaded rod -1- downwards as far as stop.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Insert puller - T40148- into rear cigarette lighter - U9- -item 2- as far as stop.

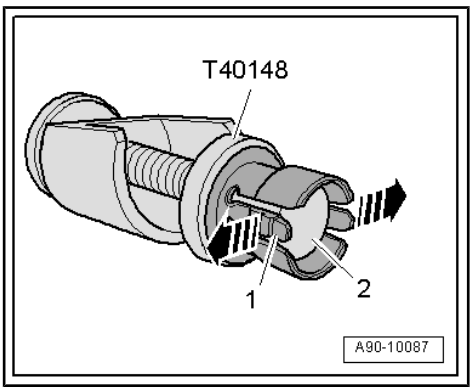
– Turn knurled wheel -1- on puller - T40148- clockwise as far as stop.



• The piston -2- moves upwards and the release tabs -1- on puller - T40148- spread apart -arrows-.

– Remove rear cigarette lighter - U9- from rear centre console.

– Unplug electrical connector.



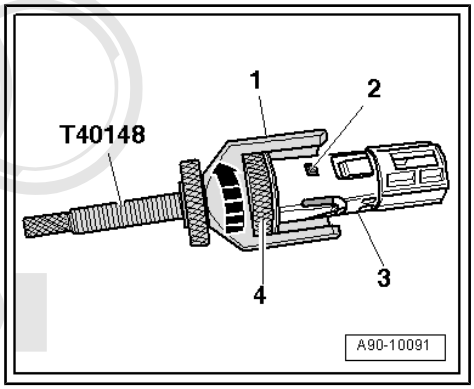
Installing

Installation is carried out in the reverse order; note the following:

Caution

Risk of injury.

- *After detaching puller - T40148- check that retaining tabs for lighter are not bent.*
- *If retaining tabs are bent they must be bent back to prevent lighter from ejecting.*

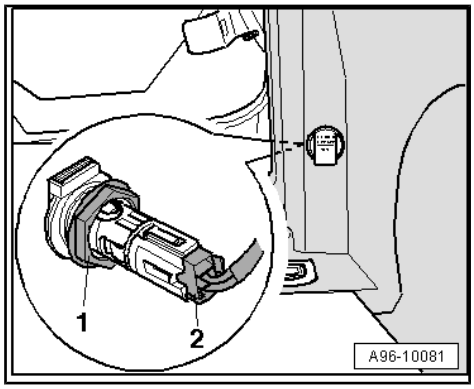


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Detach support -1- from puller - T40148- .
– Push piston downwards and hold in this position.
– Turn knurled wheel -4- on puller - T40148- anti-clockwise -arrow-; this will open release tabs -2- on rear cigarette lighter - U9- -item 3- and puller - T40148- can be removed.

2.4 Removing and installing 12 V socket 2 - U18-

Removing



– Remove luggage compartment side trim (right-side).
– Remove jack if fitted.
– Reach through opening and unplug the electrical connector -2-.
– Unscrew nut -1-.
– Remove 12 V socket 2 - U18- from side trim.

Installing

Install in reverse order.

Tightening torque

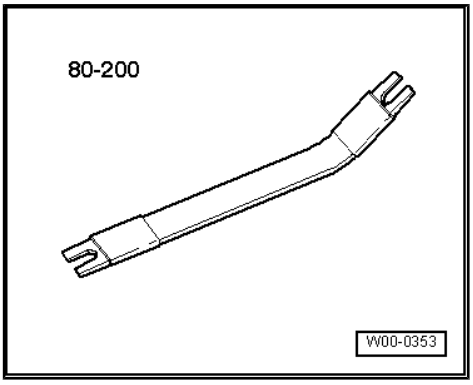
Component	Nm
12 V socket 2 - U18- to side trim	2

3 Horns

3.1 Removing and installing treble horn - H2- / bass horn - H7- - Audi A6, Audi S6

Special tools and workshop equipment required

- Removal lever - 80 - 200-



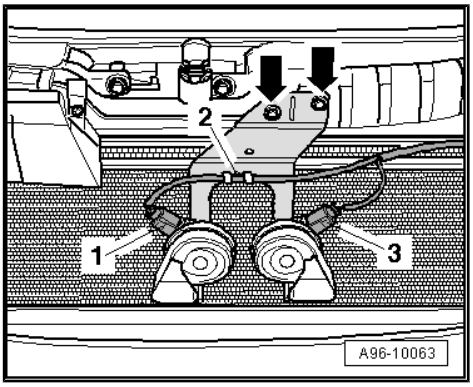
Removing

– Switch off ignition and take out ignition key.

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unplug electrical connectors -1- and -3-.

– Pry out wiring clip -2- using removal lever - 80 - 200- .



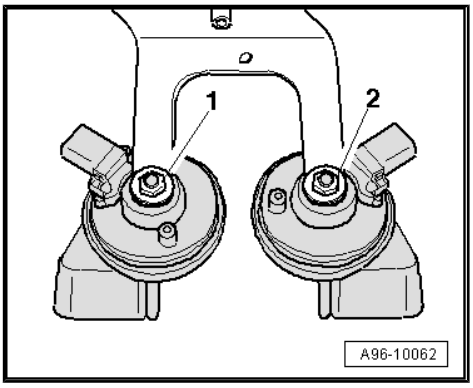
Note

Use silicone-free lubricating spray to facilitate removal, if necessary.

– Unscrew bolts -arrows- and remove bracket together with horns.

– Unscrew nuts -1- and/or -2-.

– Remove horn from bracket.



Installing

Installation is carried out in the reverse order; note the following:

– Install front bumper cover ⇒ Rep. gr. 63 .

Tightening torques

Component	Nm
Horn to bracket	11
Bracket for horn to lock carrier	8

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

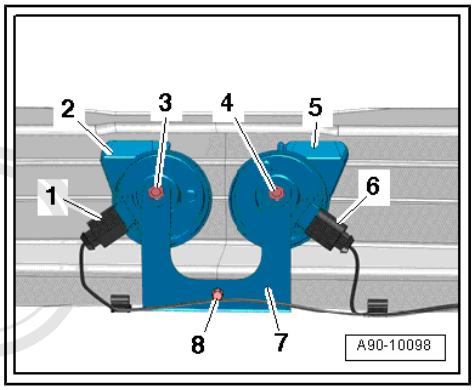
3.2 Removing and installing treble horn - H2- / bass horn - H7- - Audi RS 6

Removing

– Switch off ignition and take out ignition key.

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Remove front impact bar ⇒ Rep. gr. 63 .
– Unplug electrical connectors -1- and -6-.
– Unscrew bolt -8- and detach bracket with horns.
– Unscrew nuts -3- and/or -4-.
– Remove treble horn - H2- -item 2-/ bass horn - H7- -item 5- from bracket -7-.



Installing

Installation is carried out in the reverse order; note the following:

– Install front impact bar ⇒ Rep. gr. 63 .
– Install front bumper cover ⇒ Rep. gr. 63 .

Tightening torques

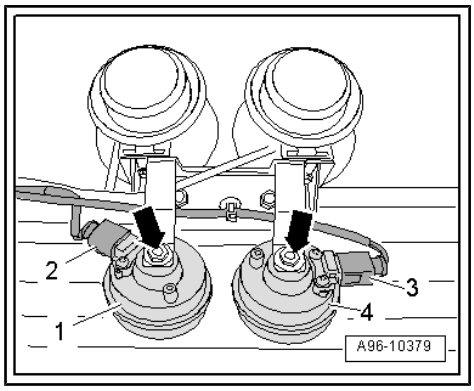
Component	Nm
Horn to bracket	11
Bracket for horn to lock carrier	8

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.3 Removing and installing horn and dual tone horn - H1- - Audi A6 Security

Removing

– Switch off ignition and take out ignition key.
– Remove front bumper cover ⇒ Rep. gr. 63 .
– Remove bumper ⇒ Rep. gr. 63 .
– Unscrew nuts -arrows-.
– Unplug electrical connectors -2- and -3-.
– Remove horn and dual tone horn - H1- -item 1- and -item 4- from bracket.



Installing

Install in reverse order.

Tightening torque

Component	Nm
Horn/dual tone horn - H1- to bracket	11

3.4 Removing and installing horn for special signals/loudspeaker - Audi A6 Security

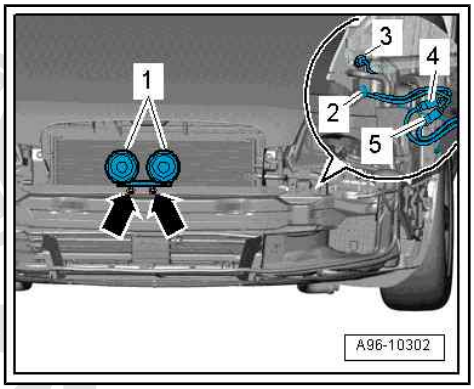
Removing

Note

All cable ties which are released or cut open when removing must be fitted in the same position when installing.

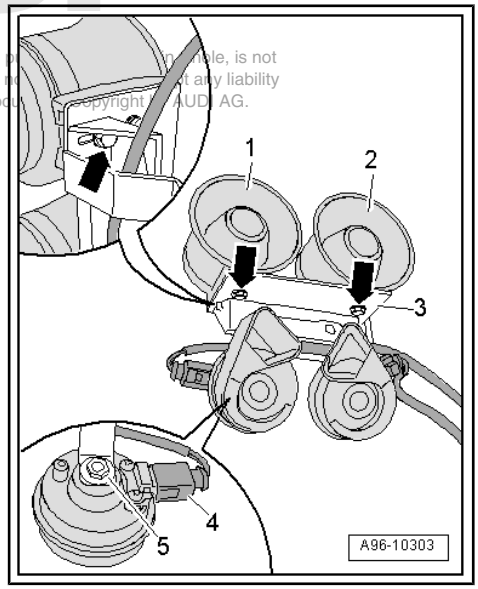
– Switch off ignition and take out ignition key.
– Remove front bumper cover ⇒ Rep. gr. 63 .

– Mark electrical wiring -4- and -5- for re-installation.
– Unplug electrical connectors -2 ... 5-.
– Remove bumper ⇒ Rep. gr. 63 .
– Unscrew bolts -arrows-.
– Detach bracket with horn and horn for special signals/loudspeaker -item 1- from bumper.



– Unscrew bolts -arrows-.
– Remove horns -1- and -2- for special signals/loudspeaker from bracket -3-.
– Unscrew nut -5-.
– Unplug electrical connector -4- and remove horn from bracket.
– Guide electrical wiring for horn for special signals/loudspeaker out of bracket.
– Cut through protective sleeve to renew horn for special signals/loudspeaker and remove electrical wiring.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Installing

Install in reverse order.

Tightening torque

Component	Nm
Horn/dual tone horn - H1- to bracket	11

4 Data bus diagnostic interface

4.1 Data bus diagnostic interface - J533-

General description

The data bus diagnostic interface - J533- interlinks the various CAN bus systems in the vehicle.

For example, it transfers data from the engine control unit (drive system CAN bus) to the instrument cluster (instrument cluster CAN bus).

Fault finding is performed via the “Guided Fault Finding” ⇒ Vehicle diagnostic tester.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Repairing CAN bus wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing wiring harnesses

4.2 Data bus diagnostic interface - J533- in conjunction with MMI basic / MMI basic plus - layout

1 - Control unit in dash panel insert - J285-

- In instrument cluster

2 - Steering column electronics control unit - J527-

- On steering column

3 - Multi-function steering wheel

4 - Display unit for front information display and operating unit control unit - J685-

- In dash panel (centre)

5 - Multimedia system operating unit - E380-

- In centre console (centre)

6 - GPS aerial - R50-

- With MMI Basic plus with navigation
- Behind roof end trim (centre)

7 - Sound systems

8 - Rear window aerials

9 - Aerial amplifier - R24-

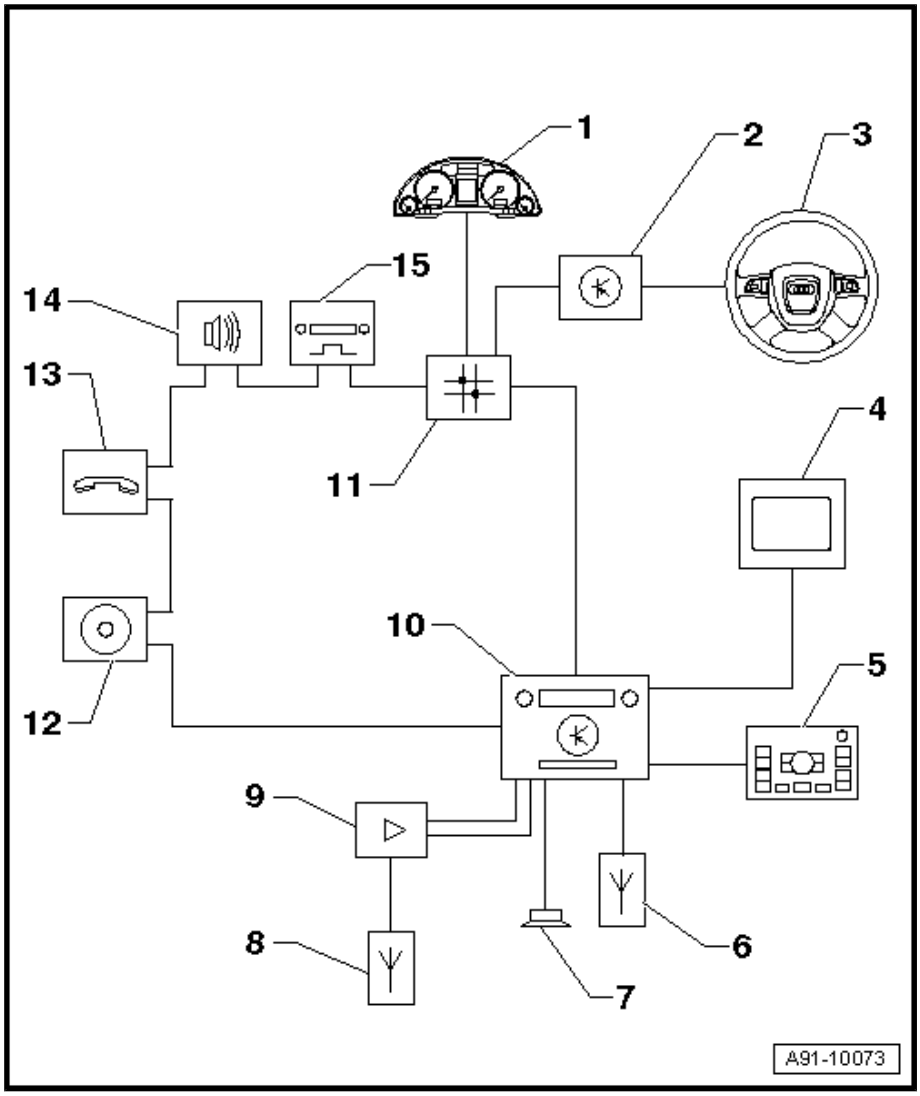
- Behind roof end trim (left-side)

10 - Control unit for front display and information control panel - J523-

- Behind glove box

11 - Data bus diagnostic interface - J533-

- Gateway



- ❑ Behind glove box

12 - Media player in position 2 - R119-

- ❑ In glove box

13 - Telephone transmitter and receiver unit - R36-

- ❑ Beneath floor covering in driver's footwell

14 - Digital sound package control unit - J525-

- ❑ With MMI Basic plus
- ❑ In luggage compartment (left-side), behind side trim

15 - Digital radio - R147-

- ❑ In luggage compartment (left-side), behind side trim

4.3 Data bus diagnostic interface - J533- in conjunction with MMI - layout

1 - Display unit for front information display and operating unit control unit - J685-

- ❑ In dash panel (centre)

2 - Control unit for front display and information control panel - J523-

- ❑ Behind glove box

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3 - Control unit in dash panel insert - J285-

- ❑ In instrument cluster

4 - Data bus diagnostic interface - J533-

- ❑ Gateway
- ❑ Behind glove box

5 - Radio - R-

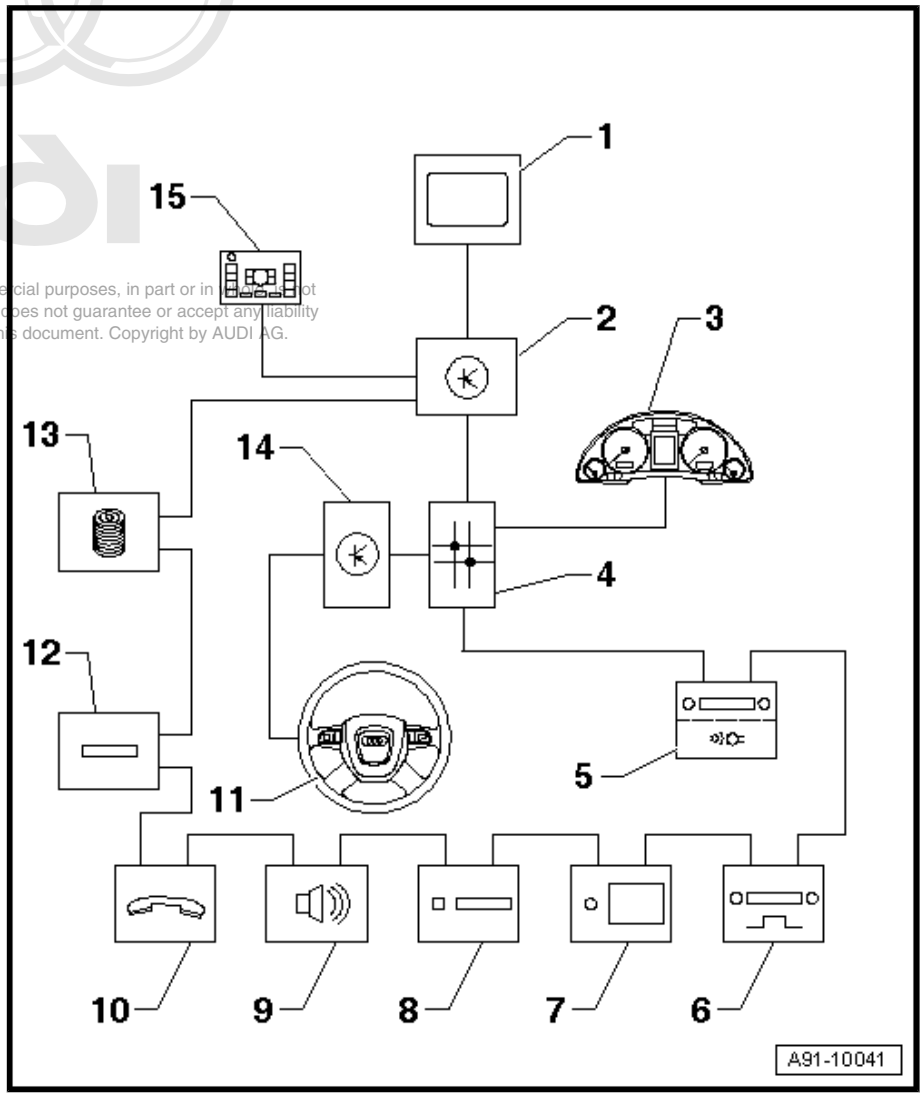
- ❑ With speech input control unit - J507- (depending on equipment)
- ❑ In luggage compartment (left-side), behind side trim

6 - Digital radio - R147-

- ❑ In luggage compartment (left-side), behind side trim

7 - TV tuner - R78-

- ❑ In luggage compartment (left-side), behind side trim



8 - Navigation system with CD drive control unit - J401-

- ❑ In luggage compartment (left-side), behind side trim

9 - Digital sound package control unit - J525-

- ❑ In luggage compartment (left-side), behind side trim

10 - Telephone transmitter and receiver unit - R36-

- ❑ Beneath floor covering in driver's footwell

11 - Multi-function steering wheel

12 - Media player in position 1 - R118-

- ❑ In glove box

13 - Media player in position 2 - R119-

- ❑ In glove box

14 - Steering column electronics control unit - J527-

- ❑ On steering column

15 - Multimedia system operating unit - E380-

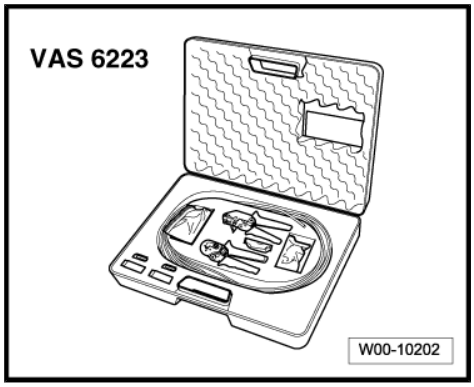
- ❑ In centre console (centre)

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.4 Removing and installing data bus diagnostic interface - J533-

Special tools and workshop equipment required

- ♦ Protective cap for cable connector - VAS 6223/9- from fibre-optic conductor repair set - VAS 6223-



Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

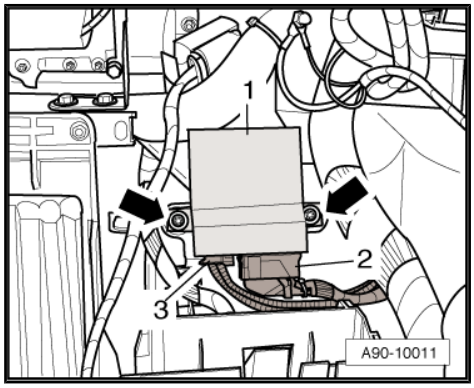
– Switch off ignition and take out ignition key.

– Remove glove box ⇒ Rep. gr. 68 .

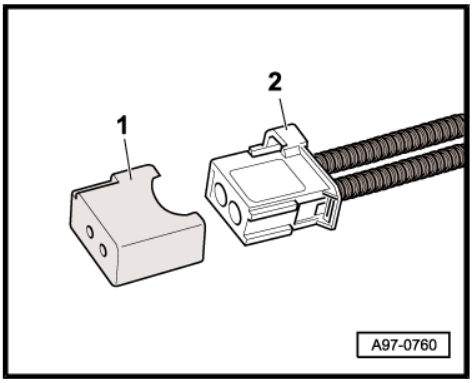
– Unscrew bolts -arrows- and remove data bus diagnostic interface - J533- -item 1-.

– Unplug electrical connector -2-.

– Unplug connector -3- for fibre optic cable.



– Seal off open connector plug -2- for fibre optic cable with protective cap for cable connector - VAS 6223/9- -item 1-.



Note

Protective cap prevents contamination of or mechanical damage to end face of fibre optic cable which would impair light transmission.

Installing

Installation is carried out in the reverse order; note the following:

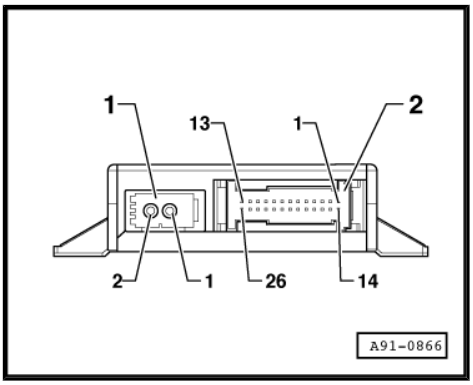
– Install glove box ⇒ Rep. gr. 68 .

Tightening torque

Component	Nm
Data bus diagnostic interface - J533- to body	3

4.5 Connector at data bus diagnostic interface - J533- - vehicles up to model year 2008

Connection for optical MOST bus (fibre optic cable) -item 1-

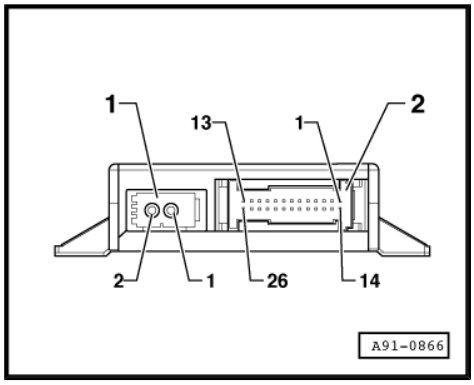


1 - Input

2 - Output

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

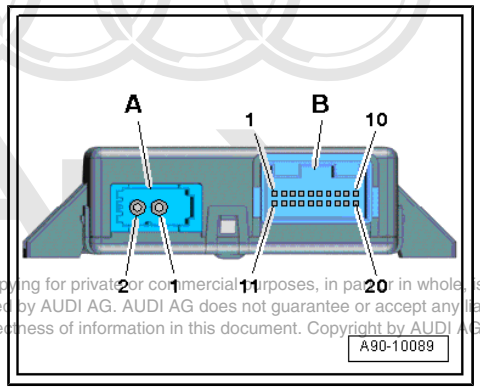
Multi-pin connector, 26-pin -item 2-



1 - Battery “+” (terminal 30)
2 - Battery “+” (terminal 30)
3 - Instrument cluster wake-up
4 - Open circuit diagnostic lead
5 - Not used
6 - CAN bus High (convenience)
7 - Not used
8 - CAN bus High (drive)
9 - CAN bus High (instrument cluster)
10 - Not used
11 - CAN bus High (diagnosis)
12 - Not used
13 - CAN bus wire High (to adaptive cruise control unit - J428-)
14 - Earth “–” (terminal 31)
15 - Earth “–” (terminal 31)
16 - Terminal 15
17 - Not used
18 - Not used
19 - CAN bus Low (convenience)
20 - Not used
21 - CAN bus Low (drive)
22 - CAN bus Low (instrument cluster)
23 - Not used
24 - CAN bus Low (diagnosis)
25 - Not used
26 - CAN bus wire Low (to adaptive cruise control unit - J428-)

4.6 Connector at data bus diagnostic interface - J533- - vehicles from model year 2009 onwards

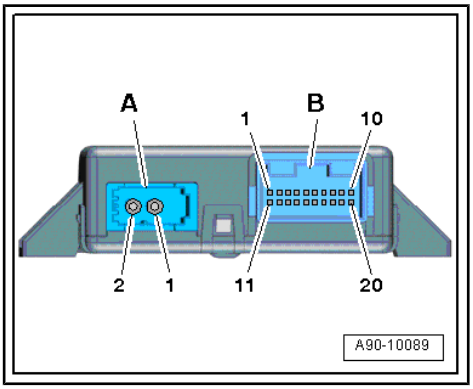
Connection for optical MOST bus (fibre optic cable) -item A-



1 - Input
2 - Output

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Multi-pin connector, 20-pin -item B-



1 - Battery + (terminal 30)
2 - LIN 1
3 - ACC-Rel.
4 - ELV (ESCL)
5 - CAN bus Low (convenience)
6 - CAN bus Low (drive)
7 - CAN bus Low (extended)
8 - CAN bus Low (instrument cluster)
9 - CAN bus Low (diagnosis)
10 - Screening (MOST diagnosis)
11 - Earth – (terminal 31)
12 - LIN 2
13 - Instrument cluster wake-up
14 - Terminal 15
15 - CAN bus High (convenience)
16 - CAN bus High (drive)
17 - CAN bus High (extended)
18 - CAN bus High (instrument cluster)
19 - CAN bus High (diagnosis)
20 - Screening

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

92 – Windscreen wash/wipe system

1 Contact corrosion

Contact corrosion can occur if unsuitable fasteners (bolts, nuts, washers, etc.) are used.

For this reason, only fasteners with a special surface coating are fitted.

Furthermore, rubber components or plastic components and adhesives are made of non-conductive material.

Always fit new components if you are not sure that the old components are suitable ⇒ Electronic parts catalogue .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note:

- We recommend the use of genuine replacement parts only; they have been tested and are compatible with aluminium.
- We recommend using Audi Genuine Accessories.
- Damage resulting from contact corrosion is not covered by warranty.

2 Windscreen wiper system

Observe notes on contact corrosion ⇒ page 100 .

2.1 Moving windscreen wipers to service position

Note

The bonnet must be completely closed if the wiper motor needs to be run during repair work (the voltage supply to the wiper motor is cut off when the bonnet is open).

– At sub-zero temperatures, first check that the wiper blades are not frozen onto the glass.

– Switch on ignition.

– Activate menu option: Windscreen wipers “on” via multimedia system operating unit ⇒ Operating Manual .

• The wipers will run to the “service position”.

– Switch off ignition.

Caution

The bonnet can be damaged if the wipers are allowed to run back to the park position.

- ***Do not move the vehicle when the wiper arms are lifted up off the windscreen.***
- ***The wipers automatically run back to the park position when the wiper switch is operated or when road speed exceeds 6 km/h.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.2 Renewing wiper blade

Removing

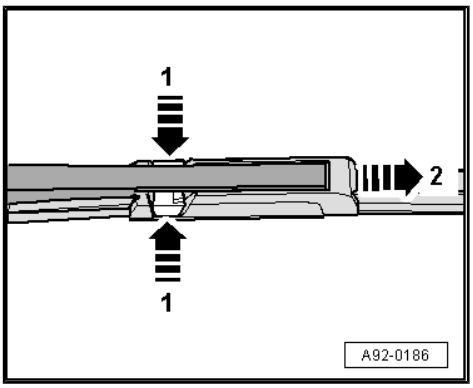
– Move windscreen wipers to service position ⇒ page 101 .

– Lift wiper arm off windscreen.

– Compress retaining clip -arrows 1-.

– Slide wiper blade off wiper arm -arrow 2-.

– Remove wiper blade.

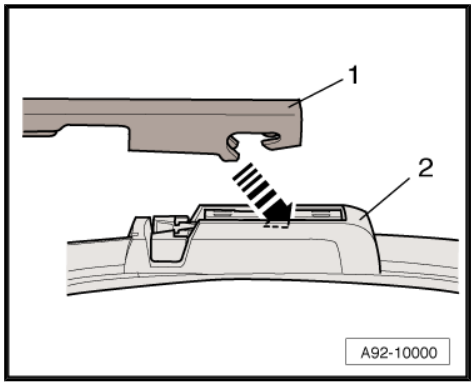


Installing

Installation is carried out in the reverse order; note the following:

– Guide wiper blade -2- into wiper arm -1- in parallel position -arrow-. Make sure that wiper arm is completely inserted and engaged in guide.

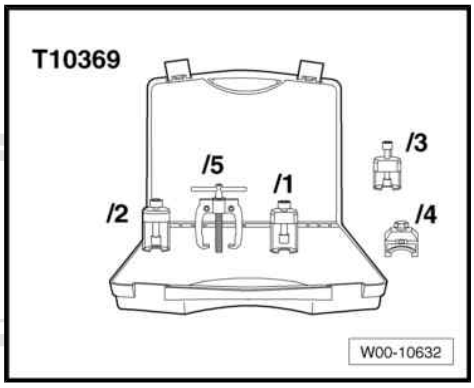
– The wipers will run back from the “service position” when you operate the wiper switch or when road speed exceeds 6 km/h.



2.3 Removing and installing wiper arms

Special tools and workshop equipment required

♦ Tool kit for wiper arms - T10369-



Removing

Note

If the wiper motor needs to be run during repair work, the bonnet must be closed (voltage supply to wiper motor is cut off when bonnet is open).

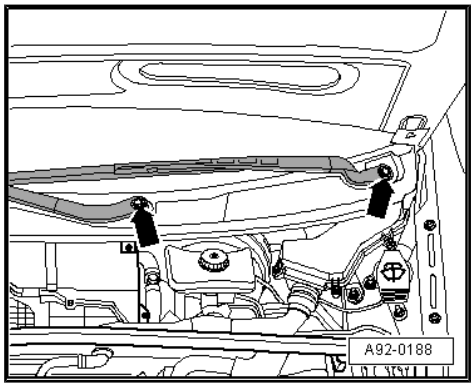
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Move windscreen wipers to service position ⇒ page 101 .

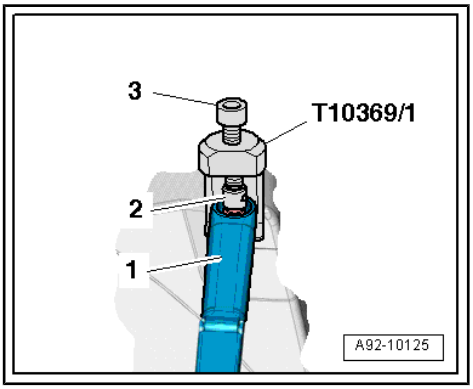
– Switch off ignition and take out ignition key.

– Pry cover caps off wiper arms with a screwdriver.

– Loosen nuts -arrows- several turns.



– Apply puller - T10369/1- at wiper arm -1- as shown in illustration.
– Apply thrust piece -2- at wiper shaft.
– Turn bolt -3- clockwise until wiper arm is clear of wiper shaft.
– Remove nuts completely and detach wiper arms.



Installing

Installation is carried out in the reverse order; note the following:

– Adjust wiper arms ⇒ page 103 .

2.4 Adjusting wiper arms

Procedure

Note

If the wiper motor needs to be run during repair work, the bonnet must be closed (voltage supply to wiper motor is cut off when bonnet is open).

– Remove wiper arms ⇒ page 102 .
– Switch on ignition.
– Operate “touch-wipe function” and allow wiper motor to move to end position.

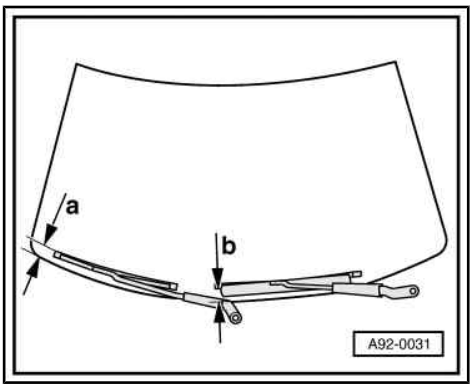
Note

- *Every second time the wiper motor is switched off it runs back slightly after reaching the end position, which turns the lip of the wiper blade in the opposite direction.*
- *The wiper motor moves the wiper arms down beyond their end position and then back up slightly. This slightly raised position must not be used when aligning the wiper crank.*
- *You must use the end setting at which the wiper motor moves directly to its park position (without returning). Operate the “touch-wipe function” again as necessary.*

– Switch off ignition.
– Attach wiper arm with fitted wiper blade to wiper shaft and position wiper blade on windscreen as follows:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

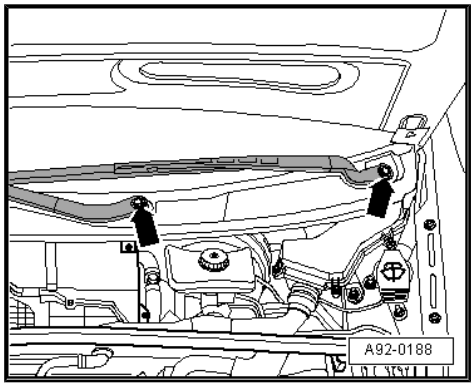
- Dimension -a- = 10 ... 15 mm
- Dimension -b- = 30 ... 40 mm



Note

Dimensions indicate distance between tips of wiper blades and black cowl panel trim at bottom edge of windscreen.

– Tighten nuts -arrows- for wiper arms.
– Switch on ignition.
– Operate “touch-wipe function” and allow wiper arms to move to end position.
– Switch off ignition.
– Check setting of wiper arms again. Correct as necessary.
– Press cover caps onto wiper arms.



Tightening torque

Component	Nm
Wiper arm to wiper shaft	15

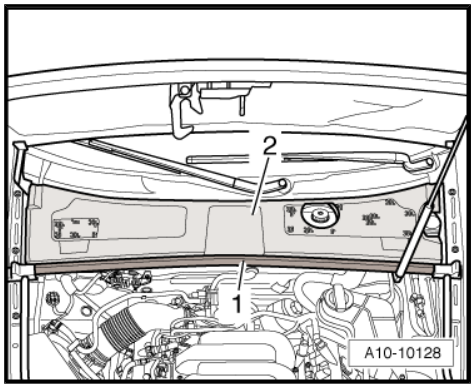
2.5 Removing and installing wiper motor - V- with wiper motor control unit - J400-

Note

Wiper motor control unit - J400- is integrated in wiper motor.

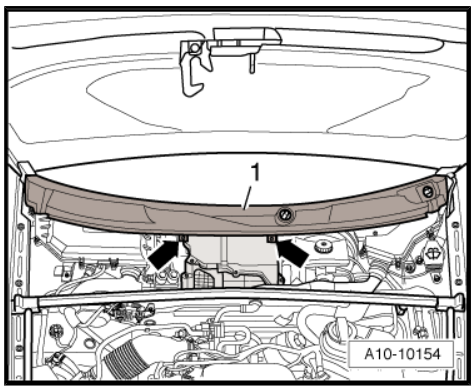
Removing

– Detach rubber seal -1-.
– Remove plenum chamber cover -2-.
– Remove wiper arms ⇒ page 102 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows- for cowl panel trim -1- (left and right).



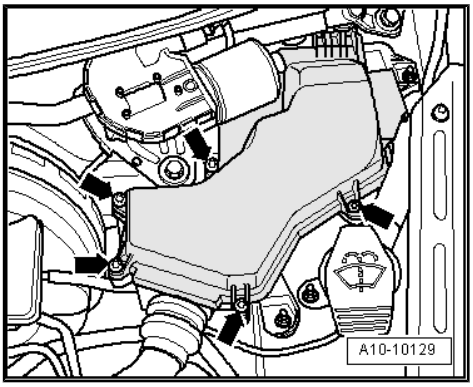
Caution

Risk of damage to cowl panel trim.

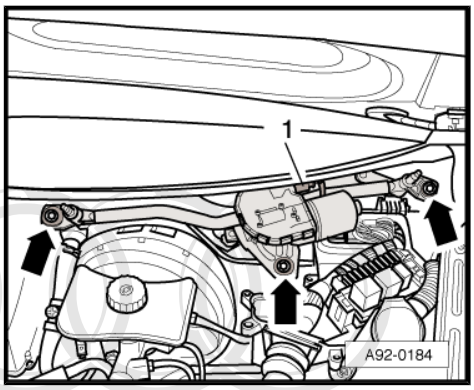
- ***Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.***

– Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

– Unscrew bolts -arrows-.
– Remove cover for electronics box (plenum chamber, left-side).



– Unscrew bolts -arrows- and detach entire wiper frame.
– Unplug electrical connector -1-.



Installing

Install in reverse order, paying attention to the following:

– Install wiper motor together with wiper frame in vehicle; adhere to the following tightening sequence.

1. Tighten centre bolt hand-tight.
2. Tighten the outer bolts and then the centre bolt on the wiper frame.

Further installation is carried out in the reverse order; note the following:

– Adjust wiper arms ⇒ page 103 .

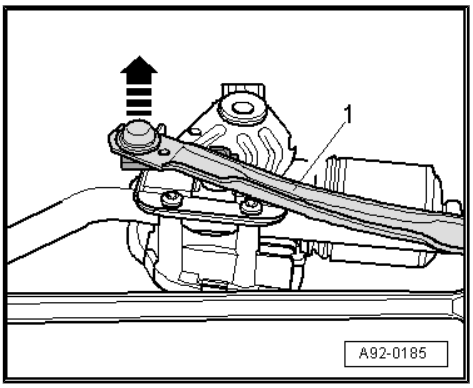
Tightening torques

Component	Nm
Wiper frame to plenum chamber	8
Cowl panel trim to blower box	2.7

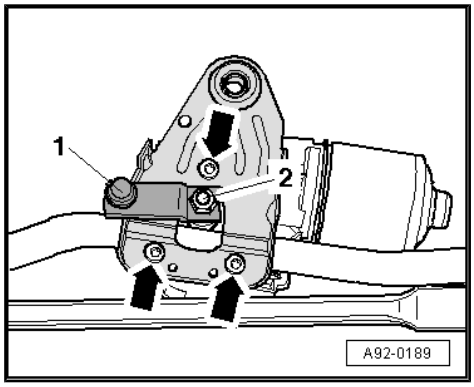
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.6 Renewing wiper motor - V- with wiper motor control unit - J400-

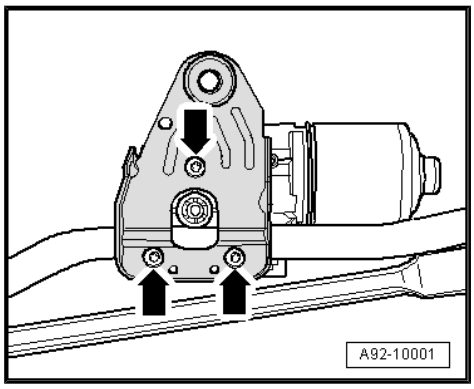
– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.
– Remove wiper motor ⇒ page 104 .
– Pry wiper linkage -1- off ball head -arrow-.



– Unscrew nut -2- and detach crank -1- from wiper motor.
– Unscrew wiper motor from wiper frame -arrows-.



– Secure wiper motor without crank to wiper frame -arrows-.
– Plug in electrical connector.
– Switch on ignition.
– Perform next step in “Guided Functions” routine ⇒ Vehicle diagnostic tester.

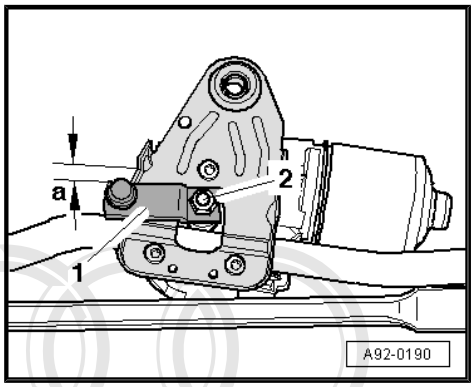


Note

The “Replace” function in “Guided Functions” disables the wiper motor alternating park position (in addition to other items). The wiper motor then always moves to the “lower” park position used to make the setting.

– Operate “touch-wipe function” and allow wiper motor to move to end position.
– Switch off ignition and take out ignition key.

– Align crank -1- with wiper frame.
• Dimension -a- = 10.6 ± 0.6 mm
– Hold crank in position and hand-tighten nut -2- so setting is not altered.
– Then brace crank with an open-end spanner and tighten nut fully.
– Switch on ignition.
– Operate “touch-wipe function” and allow wiper motor to move to end position.
– Check that dimension -a- is attained; re-align if necessary.
– Install wiper motor ⇒ page 104 .



Tightening torques

Component	Nm
Wiper motor to wiper frame	9
Wiper crank to wiper motor	17

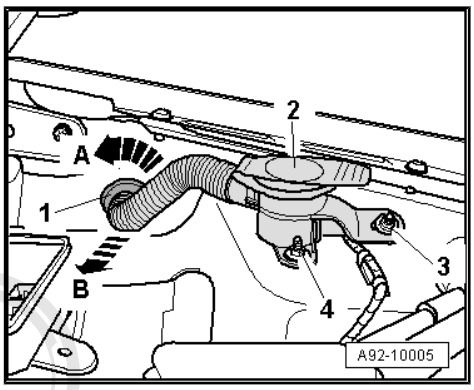
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3 Windscreen washer system

Observe notes on contact corrosion ⇒ page 100 .

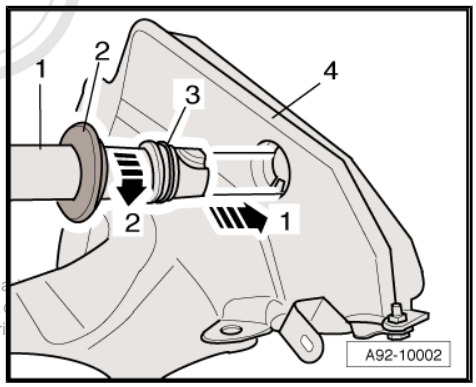
3.1 Removing and installing filler neck for washer fluid reservoir

Removing



– Remove the electronics box (plenum chamber, left-side) ⇒ page 421 .
– Unscrew nuts -3- and -4- at filler neck -2-.
– Pull the grommet -1- out of body opening.
– Turn the filler hose for filler neck anti-clockwise -arrow A-.
– Pull the filler hose for filler neck out of the washer fluid reservoir -arrow B-.

Installing



Installation is carried out in the reverse order; note the following:

– Insert the filler hose -1- for filler neck into washer fluid reservoir -4- -arrow 1-.
– Turn the filler hose for filler neck clockwise -arrow 2-.

Note

Make sure that the O-ring -3- does not become pinched when inserting.

Protected by copyright. Copying for private or commercial purposes, in pa
permitted unless authorised by AUDI AG. AUDI AG does not guarantee
ment. Copyri

– Press grommet -2- into opening in body.
– Install plenum chamber electronics box (left-side) ⇒ page 423 .

Tightening torque

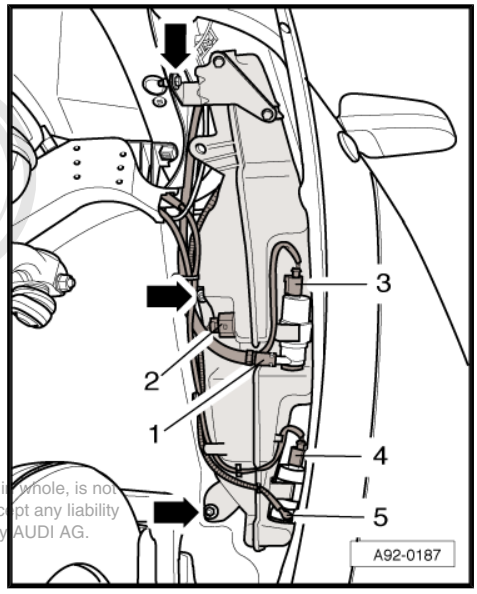
Component	Nm
Filler neck for washer fluid reservoir to body	7

3.2 Removing and installing washer fluid reservoir

Removing

– Remove filler neck for washer fluid reservoir ⇒ page 107 .

– Remove front wheel (left-side).



Note

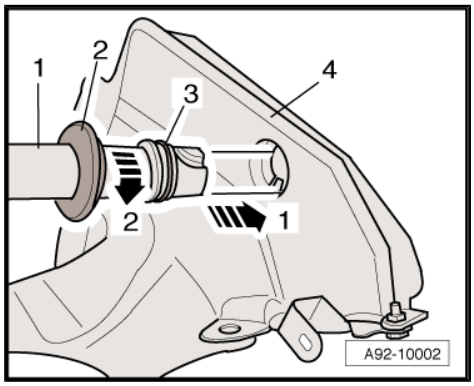
Secure brake disc with wheel bolt.

– Remove front wheel housing liner (left-side) ⇒ Rep. gr. 66 .
– Unplug electrical connectors -2-, -3- and -4-.
– If fitted, unplug electrical connector at tyre pressure monitor sender unit in front left wheel housing - G431- .
– Press release tab and pull off hose connector -1-.
– Detach washer fluid pipe -5- at washer fluid pump.
– Unscrew bolt and nuts -arrows-.
– Detach washer fluid reservoir from studs.
– Take out washer fluid reservoir downwards.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:



Note

Refit all cable ties at the same locations when reinstalling.

– Insert washer fluid reservoir and tighten nuts hand-tight.
– Insert the filler hose -1- for filler neck into washer fluid reservoir -4- -arrow 1-.
– Turn the filler hose for filler neck clockwise -arrow 2-.

Note

Make sure that the O-ring -3- does not become pinched when inserting.

– Press grommet -2- into opening in body.
– Tighten bolt and nuts at washer fluid reservoir.
– When installing, make sure that water hose audibly engages in connection on washer fluid pump.
– Install front wheel housing liner (left-side) ⇒ Rep. gr. 66 .
– Adjust wiper arms ⇒ page 103 .

Tightening torques

Component	Nm
Washer fluid reservoir to body	7
Filler neck for washer fluid reservoir to body	7
Cowl panel trim to blower box	2.7

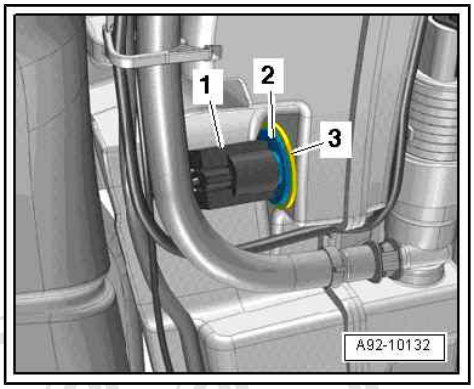
3.3 Removing and installing washer fluid level sender - G33-

Special tools and workshop equipment required

♦ Drip tray

Removing

– Switch off ignition and take out ignition key.
– Remove front wheel housing liner (left-side) ⇒ Rep. gr. 66 .
– Place drip tray under washer fluid reservoir.
– Unplug electrical connector -1-.
– Pull washer fluid level sender - G33- -item 2- out of washer fluid reservoir.



Installing

Installation is carried out in the reverse order; note the following:

– Check sealing grommet -3- for damage.
– Install front wheel housing liner (left-side) ⇒ Rep. gr. 66 .

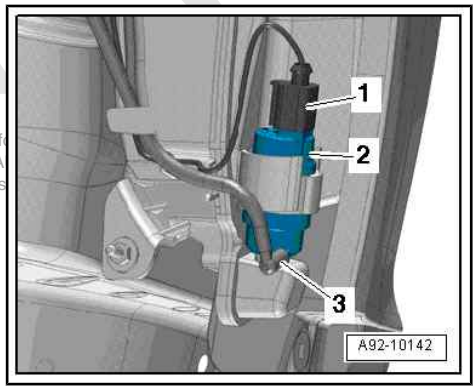
3.4 Removing and installing washer pump - V5-

Special tools and workshop equipment required

♦ Drip tray

Removing

– Switch off ignition and take out ignition key.
– Remove front wheel (left-side).
– Remove front wheel housing liner (left-side) ⇒ Rep. gr. 66 .
– Unplug electrical connector -4-.
– Place drip tray under washer fluid reservoir.
– Release retaining clip -2- in direction of -arrow- and disconnect washer fluid hose -1- from washer pump for windscreen washer system.
– Lift washer pump - V5- -item 3- out of washer fluid reservoir.



Installing

Installation is carried out in the reverse order; note the following:

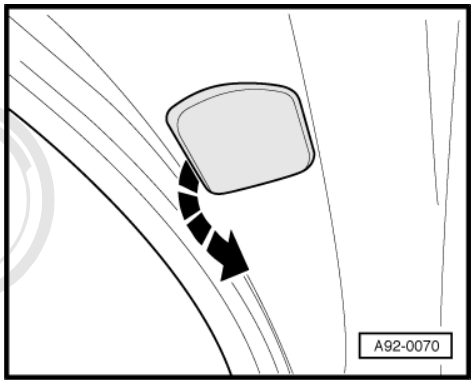
– Check sealing grommet for damage.
– Install front wheel housing liner (left-side) ⇒ Rep. gr. 66 .

Protected by copyright. Copying f
permitted unless authorised by A
with respect to the correctness

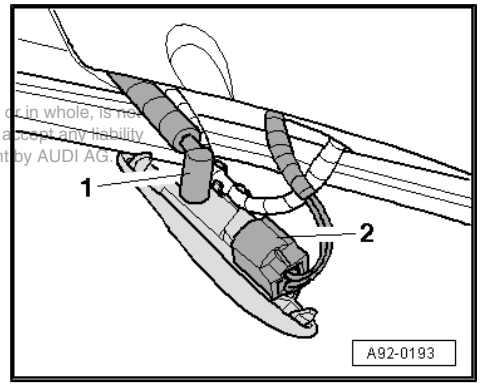
3.5 Removing and installing washer jets - vehicles up to 01.2007

Removing

– Unclip washer jets from underneath bonnet -arrow-.



– Detach washer fluid pipe -1- at unclipped washer jet.
– Unplug electrical connector -2-.

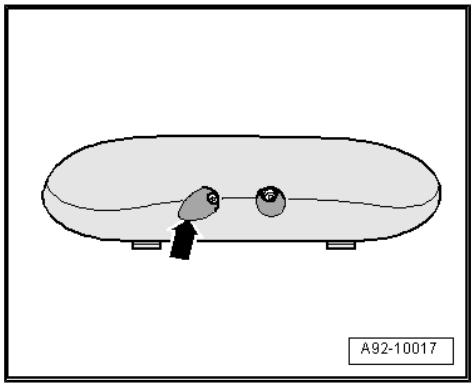


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

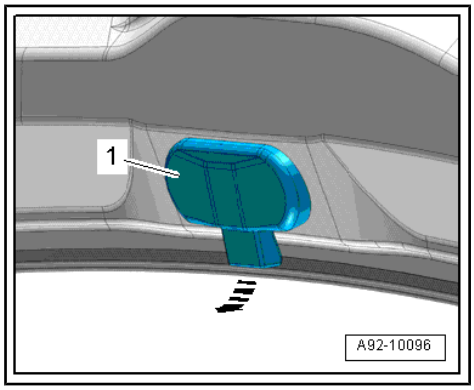
– When installing, make sure that the water hose audibly engages in the connection on the washer jet.
– Insert washer jet in bonnet.
• Oval opening -arrow- for individual washer jet must face outer side of vehicle.



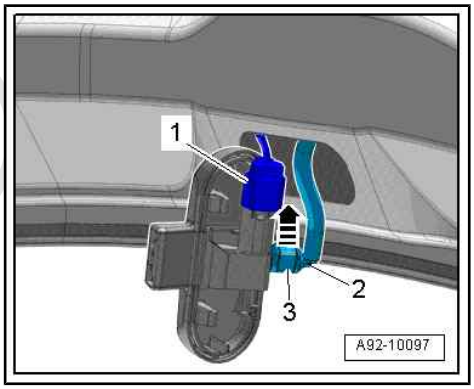
3.6 Removing and installing washer jets - vehicles from 02.2007 onwards

Removing

– Unclip washer jets -1- from underneath bonnet -arrow-.



– Release retaining clip -3- in direction of -arrow- and disconnect washer fluid hose -2- from windscreen washer jet.
– Unplug electrical connector -1- if fitted.



Installing

Installation is carried out in the reverse order; note the following:

– When fitting washer fluid hose, make sure that retaining clip engages audibly in connection on washer fluid hose.
– Insert washer jet in bonnet.

3.7 Adjusting washer jets

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Adjust washer jets for windscreen washer system ⇒ Maintenance ; Booklet 405 ; Maintenance; Windscreen washer system: checking spray pattern and adjusting if necessary .
– If spray pattern does not match specifications, clean the contaminated washer jet.

Cleaning washer jet:

Caution

Risk of damage.

- *Do NOT use any tools or implements to clean the washer jets.*

– Remove washer jet - vehicles up to 01.2007 ⇒ page 110 .
– Remove washer jet - vehicles from 01.2007 onwards ⇒ page 110 .
– Rinse washer jet with clear water in opposite direction of spray.
– Always blow through washer jet in opposite direction of spray when removing remaining particles of dirt by applying compressed air.
– If spray pattern still does not match specifications, renew the washer jet.

4 Rear window wiper and washer system (Avant)

4.1 Exploded view of rear window wiper

1 - Connecting pipe
- ❑ For washer jet

2 - Nut, 12 Nm

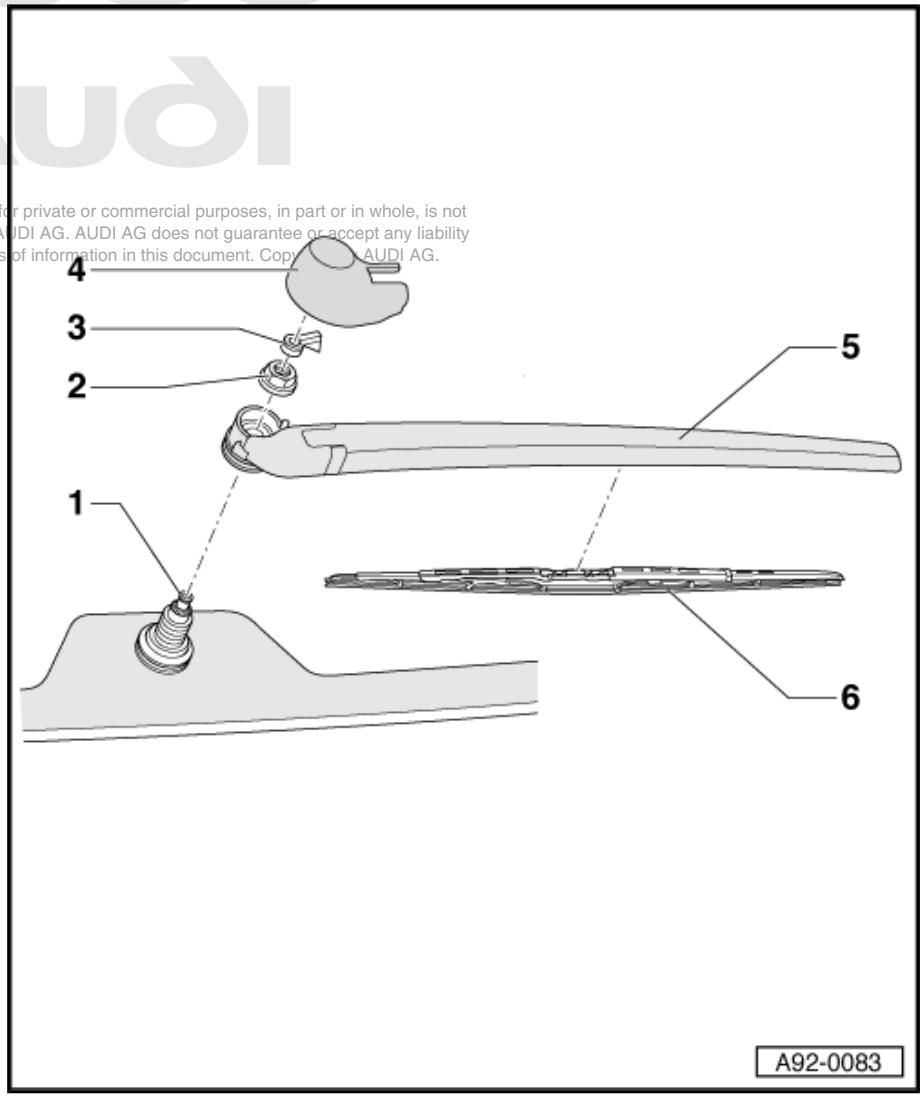
3 - Washer jet
- ❑ Removing and installing ⇒ page 114
- ❑ Adjusting ⇒ page 115

4 - Cover for rear window wiper

5 - Wiper arm
- ❑ Removing and installing ⇒ page 113

6 - Wiper blade
- ❑ Renewing ⇒ page 112

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

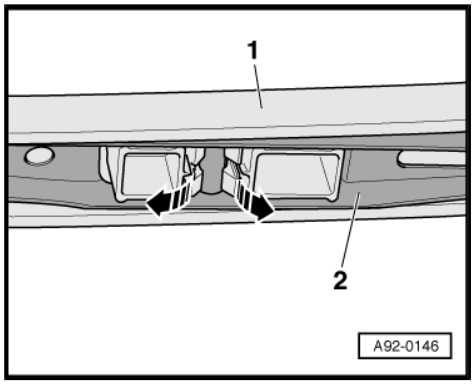


4.2 Renewing wiper blade

Removing

– Lift wiper arm off rear window.

– Release retaining clips -arrows- using a screwdriver and pull wiper blade -2- out of wiper arm -1-.



Installing

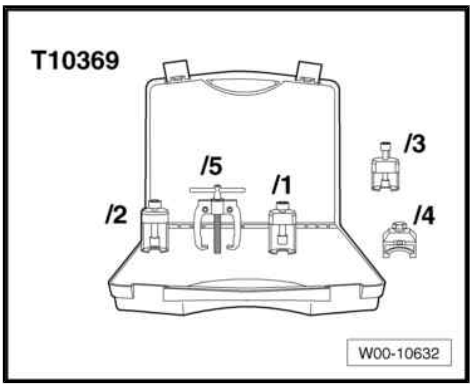
Installation is carried out in the reverse order; note the following:

- The wiper blade can only be fitted in one position.
- The wiper blade must engage audibly in the wiper arm.

4.3 Removing and installing wiper arm

Special tools and workshop equipment required

- Tool kit for wiper arms - T10369-



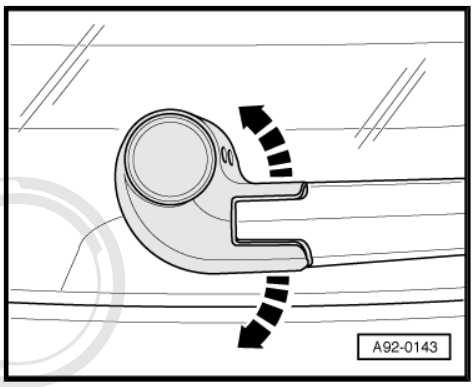
Removing

– Switch on ignition.

– Actuate “rear wiper” and allow wiper arm to move to end position.

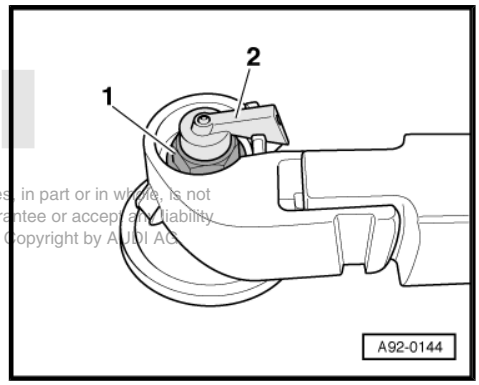
– Switch off ignition and take out ignition key.

– Carefully pry cap apart slightly -arrows- and lift off.



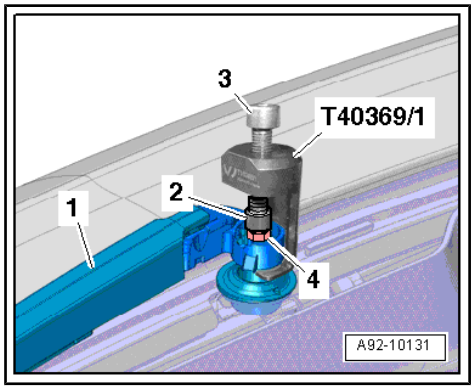
– Carefully detach washer jet -2-.

– Slacken nut -1- one turn.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Place an M6 nut -4- on top of nut.
– Apply puller - T10369/1- at wiper arm -1- as shown in illustration.
– Apply thrust piece -2- at wiper shaft.
– Turn bolt -3- clockwise until wiper arm is clear of wiper shaft.
– Remove nuts and detach wiper arm.



Installing

Installation is carried out in the reverse order; note the following:

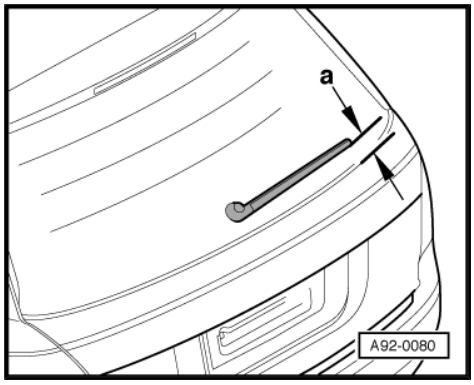
– Adjust wiper arm ⇒ page 114 .

4.4 Adjusting wiper arm

Procedure

– Apply wiper arm with wiper blade fitted at wiper shaft and align wiper blade on rear window as follows.

• Dimension -a- = 27 mm



Note

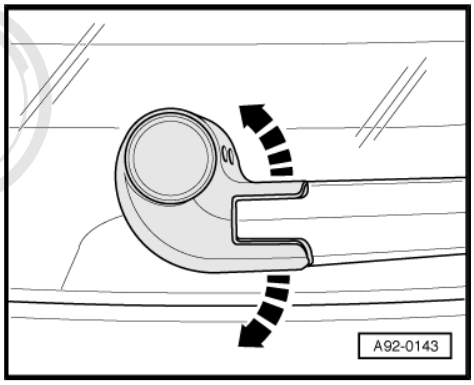
The dimension indicates distance between tip of wiper blade and bottom edge of window.

– Tighten nut for wiper arm.
• Tightening torque ⇒ page 112
– Switch on ignition.
– Actuate “rear wiper” and allow wiper arm to move to end position.
– Check setting of wiper arm again. Correct as necessary.

4.5 Removing and installing washer jet

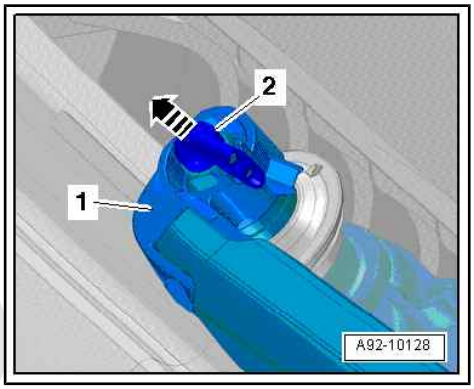
Removing

– Carefully pry cap apart slightly -arrows- and lift off.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Carefully pull washer jet -2- off connection pipe -arrow-.



Installing

Installation is carried out in the reverse order; note the following:

- Insert washer jet with spray opening pointing into recess on wiper arm -1-.

4.6 Adjusting washer jet

– Adjust washer jets for rear window washer system ⇒ Maintenance ; Booklet 405 ; Maintenance; Windscreen washer system: checking spray pattern and adjusting if necessary .

– If spray pattern does not match specifications, clean the contaminated washer jet.

Cleaning washer jet:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Caution

Risk of damage.

- *Do NOT use any tools or implements to clean the washer jets.*

– Remove washer jet ⇒ page 114 .

– Rinse washer jet with clear water in opposite direction of spray.

– Always blow through washer jet in opposite direction of spray when removing remaining particles of dirt by applying compressed air.

– If spray pattern still does not match specifications, renew the washer jet.

4.7 Exploded view of rear window wiper motor

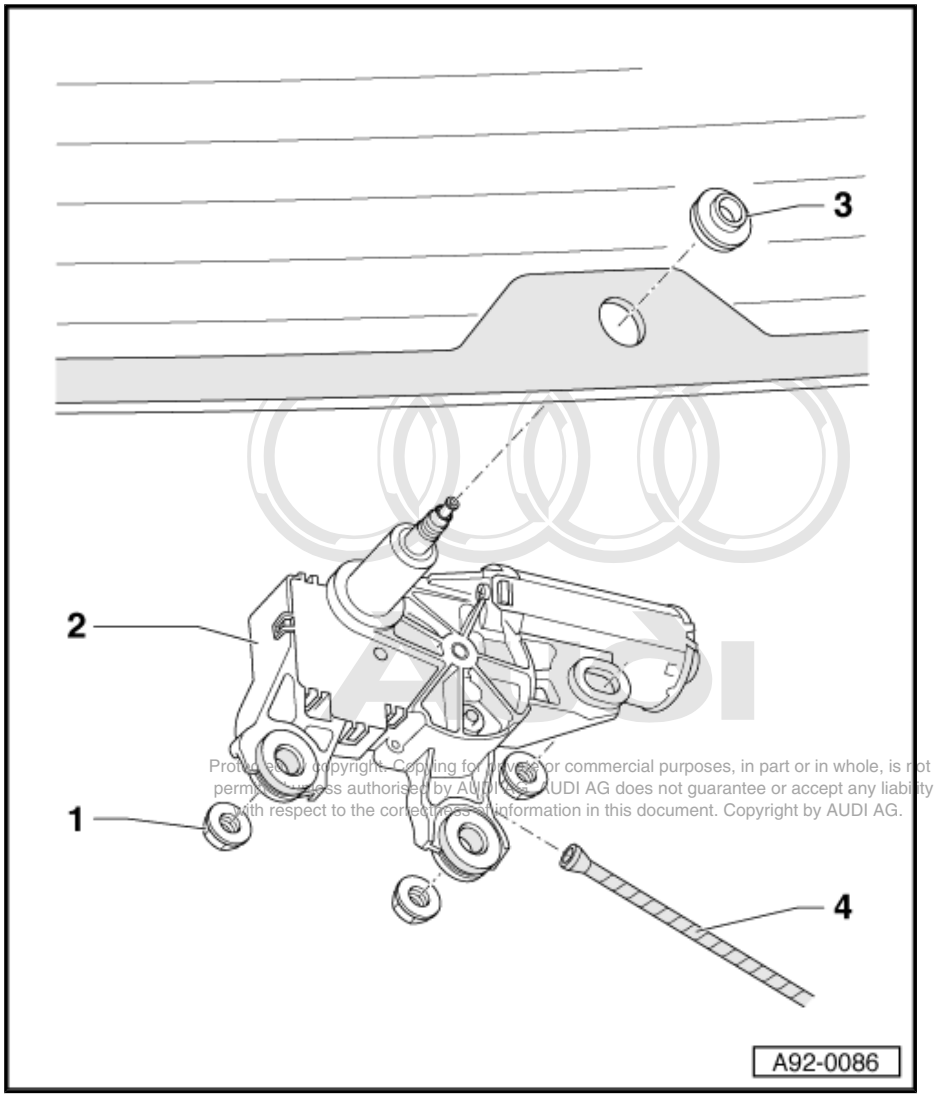
1 - Nut, 8 Nm

2 - Rear window wiper motor - V12-

- ❑ Removing and installing ⇒ page 116

3 - Rubber seal

4 - Washer hose



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

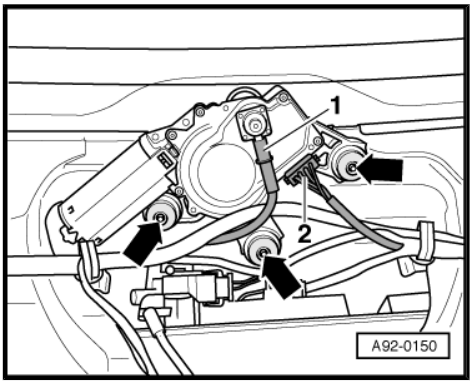
4.8 Removing and installing rear window wiper motor - V12-

Removing

– Remove wiper arm ⇒ page 113 .

– Remove trim at bottom of rear lid ⇒ Rep. gr. 70 .

– Unplug electrical connector -2-.
– Disconnect washer fluid hose -1- from connecting pipe for washer jet.
– Remove nuts -arrows- and detach wiper motor.



Installing

• Tightening torque ⇒ page 115

Installation is carried out in the reverse order; note the following:

– Carefully insert rubber seal into hole in rear window.
• Washer fluid hose must engage audibly in washer jet connection.
– Switch on ignition.
– Actuate “rear wiper” and allow wiper motor to move to end position.
– Switch off ignition.
– Install trim at bottom of rear lid ⇒ Rep. gr. 70 .
– Adjust wiper arm ⇒ page 114 .

4.9 Removing and installing washer fluid reservoir

Note

The washer fluid reservoir supplies both the windscreen and the rear window washer systems; it is located in the engine compartment (front left). Removing and installing ⇒ page 107 .

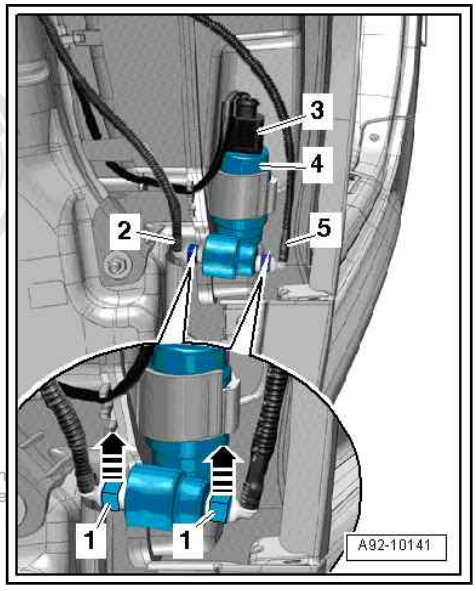
4.10 Removing and installing windscreen and rear window washer pump - V59-

Special tools and workshop equipment required

♦ Drip tray

Removing

– Switch off ignition and take out ignition key.
– Remove front wheel (left-side).
– Remove front wheel housing liner (left-side) ⇒ Rep. gr. 66 .
– Unplug electrical connector -3-.
– Place drip tray under washer fluid reservoir.
– Release retaining clips -1- in direction of -arrows- and disconnect washer fluid hoses -2- and -5- from washer pump.
– Lift windscreen and rear window washer pump - V59- -item 4- out of washer fluid reservoir.



Installing

Installation is carried out in the reverse order; note the following:

– Check sealing grommet for damage.
– Install front wheel housing liner (left-side) ⇒ Rep. gr. 66 .

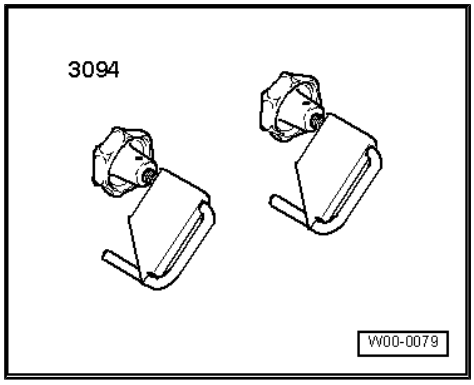
Protected by copyright. Copying for private or commercial purposes, in part or in
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or acce
with respect to the correctness of information in this document. Copyright by

5 Headlight washer system

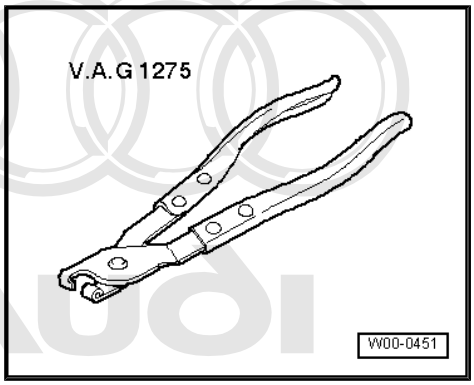
5.1 Removing and installing headlight washer jets

Special tools and workshop equipment required

- Hose clamps up to 25 mm - 3094-



- Hose clip pliers - V.A.G 1275-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

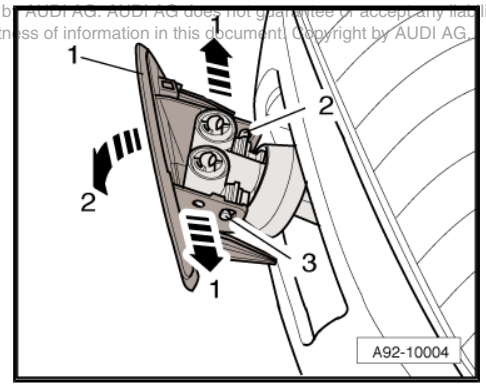
– Remove front bumper cover ⇒ Rep. gr. 63 .

Note

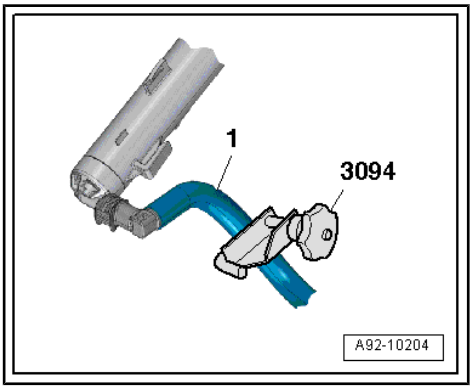
To protect the bumper cover, place a cloth under pliers before taking hold of the washer jet.

– Pull up cover -1- of washer jets on bumper cover and carefully disengage retaining tabs -arrows 1-.

– Pivot the cover downwards -arrow 2- and carefully disengage retainers -2- and -3-.



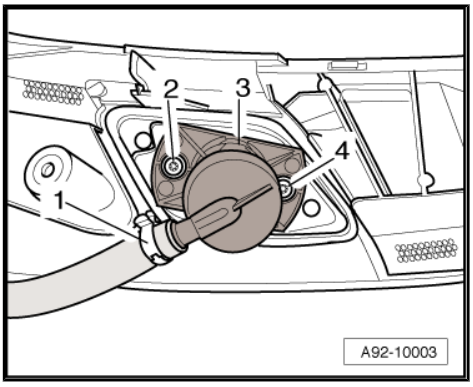
– Disconnect fluid hose -1- using hose clamp -3094- .



Note

Place a cloth underneath to catch escaping fluid.

– Detach fluid hose -1- at washer jet -3-.
– Remove bolts -2- and -4- and detach washer jet.



Installing

Installation is carried out in the reverse order; note the following:

Note

Secure all hose connections with the correct type of hose clips (same as original equipment) ⇒ Electronic parts catalogue .

– Use hose clip pliers - V.A.G 1275- to install hose clip.
– Install front bumper cover ⇒ Rep. gr. 63 .

Tightening torque

Component	Nm
Washer jet to bumper cover	2.5

5.2 Adjusting washer jets

ted by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

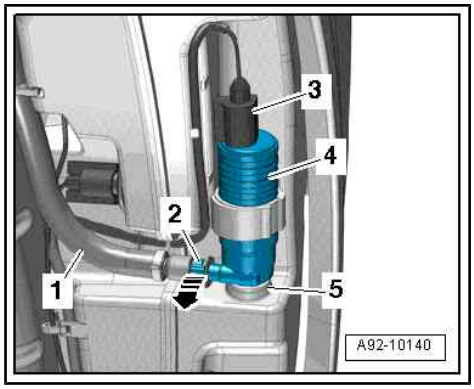
The washer jets are pre-set at the factory and do not have to be adjusted following installation.

5.3 Removing and installing washer fluid reservoir

Note

The washer fluid container supplies both the windscreen and the headlight washer systems, and is located between the A-pillar and wing panel (left-side). Removing and installing ⇒ page 107 .

5.4 Removing and installing headlight washer system pump - V11-



Removing

– Switch off ignition and take out ignition key.
– Remove front wheel (left-side).
– Remove front wheel housing liner (left-side) ⇒ Rep. gr. 66 .
– Place drip tray under washer fluid reservoir.
– Unplug electrical connector -3-.
– Release retaining clips -2- in direction of -arrow- and disconnect washer fluid hose -1- from headlight washer system pump - V11- .
– Lift headlight washer system pump - V11- -item 4- out of washer fluid reservoir.

Installing

Installation is carried out in the reverse order; note the following:

– Check sealing grommet -5- for damage.
– Install front wheel housing liner (left-side) ⇒ Rep. gr. 66 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6 Washer fluid hoses

⇒ Electrical system; General information; Rep. gr. 92 ; Washer fluid hoses

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

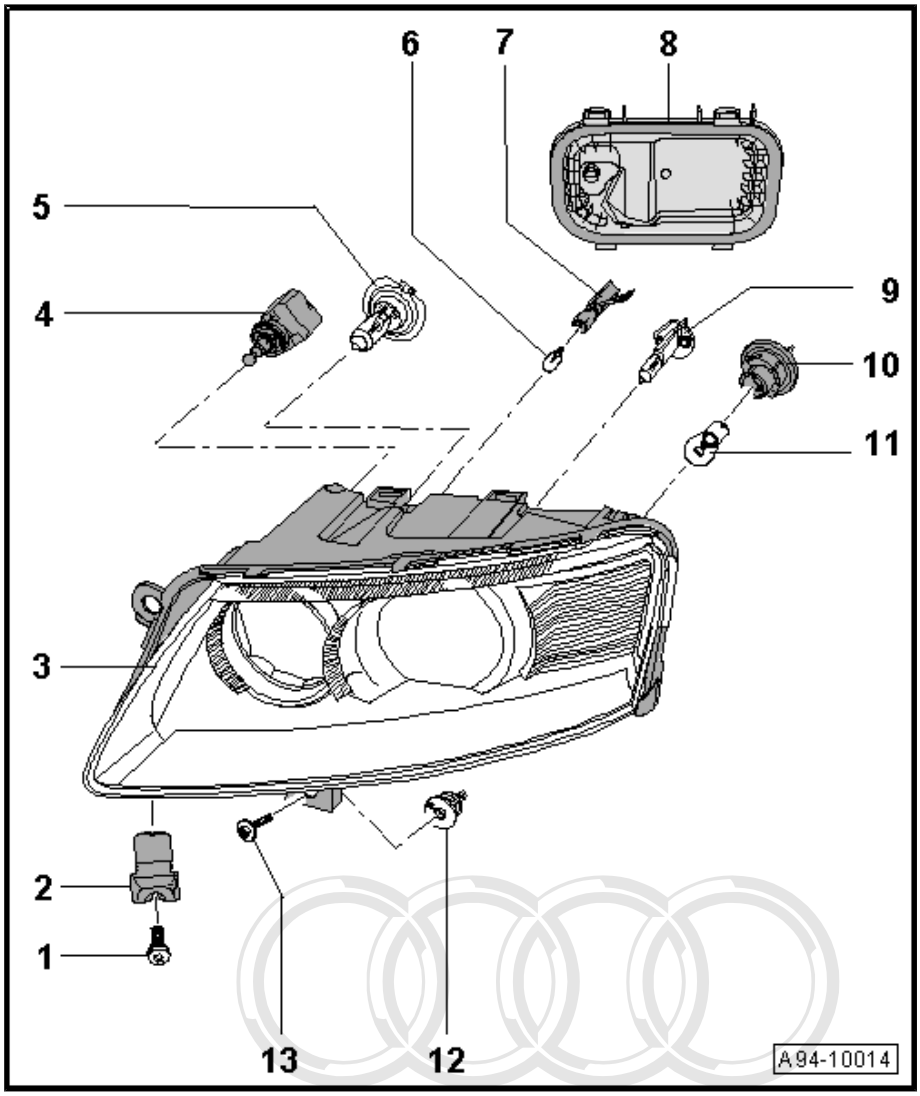
94 – Lights, bulbs, switches - exterior

1 Halogen headlights - up to 05.2008

Note

The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ page 127 .

1.1 Exploded view of halogen headlight



1 - 6 Nm

Can be disregarded.

2 - Spacer

Can be disregarded.

3 - Headlight housing

- ❑ Removing and installing headlight housing (to renew components on front end of vehicle) ⇒ page 123
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 125

4 - Headlight range control motor

- ❑ Left headlight range control motor - V48-
- ❑ Right headlight range control motor - V49-
- ❑ Removing and installing ⇒ page 141

5 - Headlight main beam bulb

- ❑ Left headlight main beam bulb - M30-
- ❑ Right headlight main beam bulb - M32-
- ❑ 12 V, 55 W (H1 - W5W - white)
- ❑ Renewing bulb ⇒ page 138

6 - Side light bulb

- ❑ Left side light bulb - M1-
- ❑ Right side light bulb - M3-
- ❑ Glass base bulb 12 V, 5 W
- ❑ Renewing bulb ⇒ page 139

7 - Bulb holder

- ❑ For side light bulb

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8 - Housing cover

9 - Headlight dipped beam bulb

- ❑ Left headlight dipped beam bulb - M29-
- ❑ Right headlight dipped beam bulb - M31-
- ❑ 12 V, 55 W (H7 - W5W - white)
- ❑ Renewing bulb ⇒ page 137

10 - Bulb holder

- ❑ For front turn signal bulb

11 - Front turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 21 W (PY21W - orange)
- ❑ Renewing bulb ⇒ page 140

12 - Adjuster

- ❑ To adjust headlight to bumper contour
- ❑ 3x

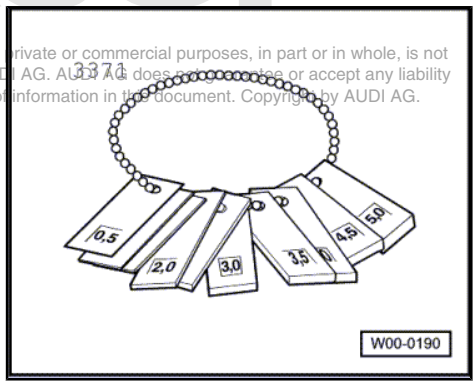
13 - 8 Nm

1.2 Removing and installing headlights (to renew components on front end of vehicle)

Special tools and workshop equipment required

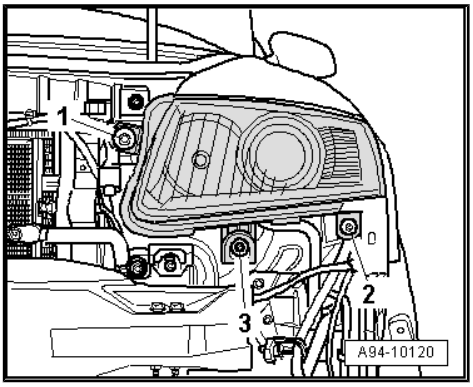
- ♦ Setting gauge - 3371-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.
– Remove front bumper cover ⇒ Rep. gr. 63 .
– Unscrew bolts -1 ... 3-.
– Detach headlight to front.
– Unplug electrical connector.

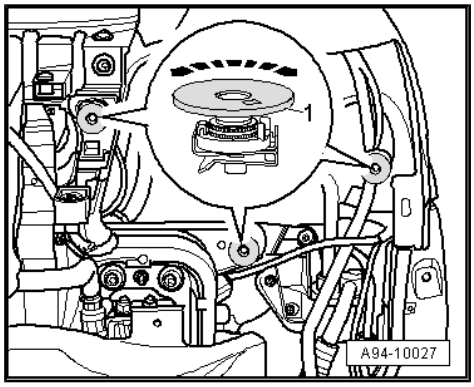


Installing

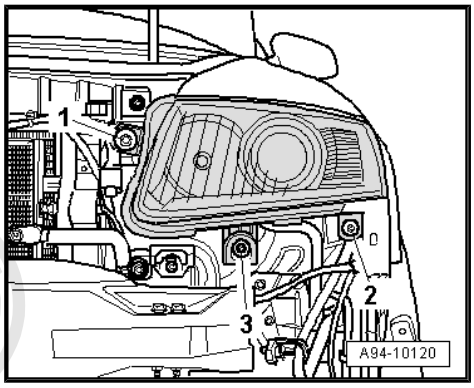
- Tightening torque ⇒ page 122

– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.

– Screw down adjuster nut as far as it will go, but do not tighten.



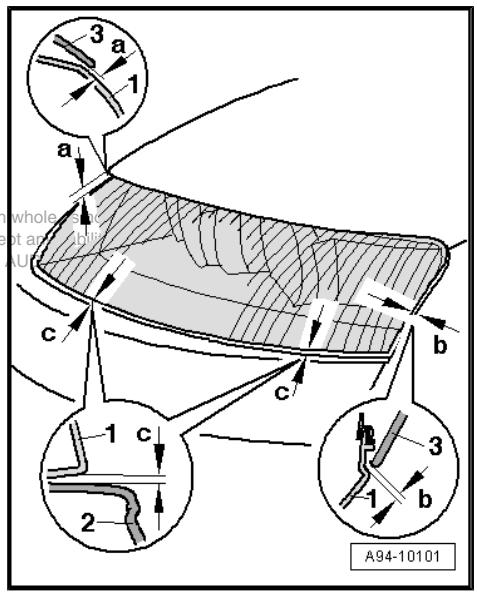
– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



– Fit front bumper cover in installation position, but do not tighten bolts.

– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

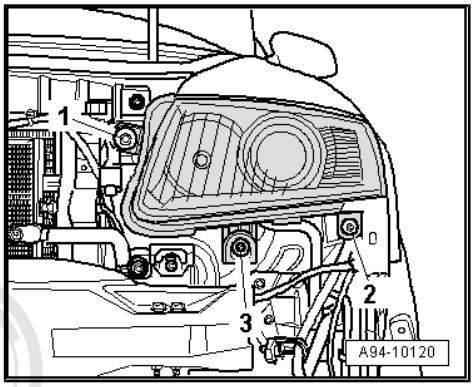
- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.



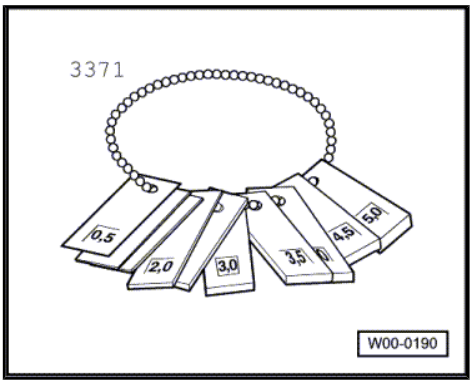
- Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
- Take off front bumper cover.
- Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
- Install front bumper cover ⇒ Rep. gr. 63 .
- Check gap widths again; if necessary repeat adjustment of gap widths as described above.
- Following installation, adjust headlights ⇒ page 127 .

1.3 Removing and installing headlights (old headlight is fitted again)

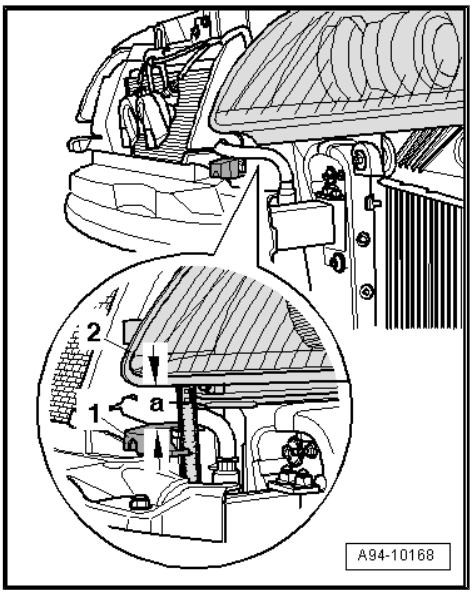
Copyright by AUDI AG.
The reproduction of this data for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Special tools and workshop equipment required

- Setting gauge - 3371-



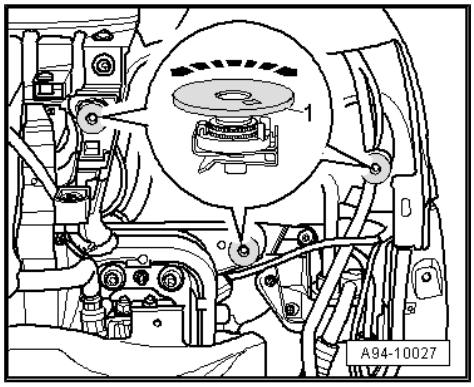
Removing



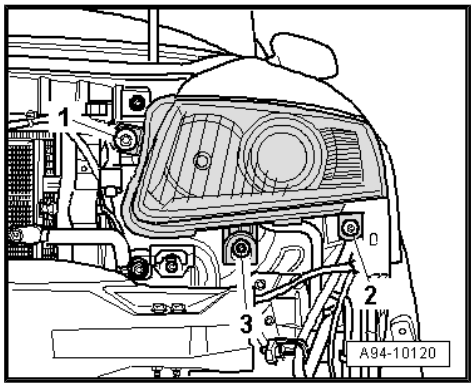
- Switch off ignition and take out ignition key.
- Turn light switch to position “0”.
- Remove front bumper cover ⇒ Rep. gr. 63 .
- Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.

Note

Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.



– Unscrew bolts -1 ... 3-.
– Detach headlight to front.
– Unplug electrical connector.

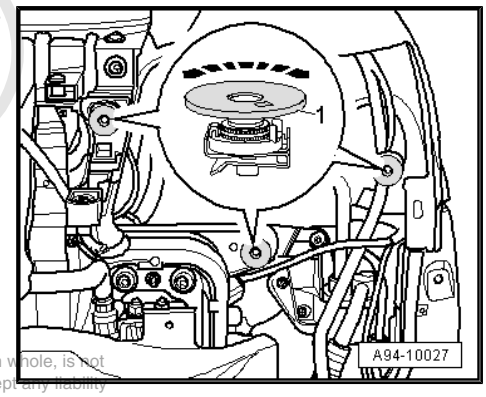


Installing

• Tightening torque ⇒ page 122

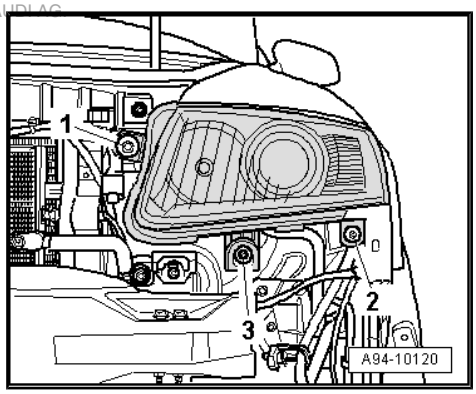
Note

Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.

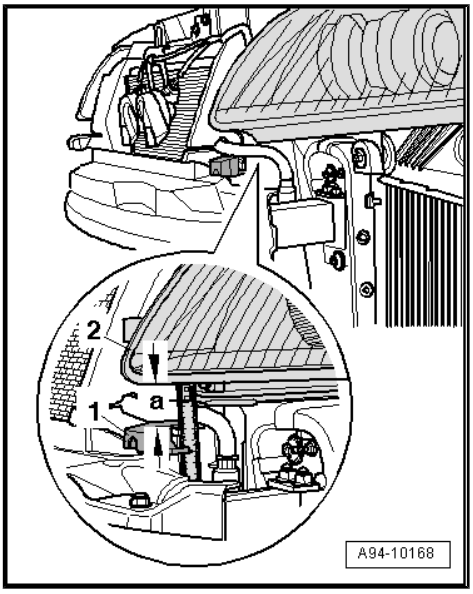


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



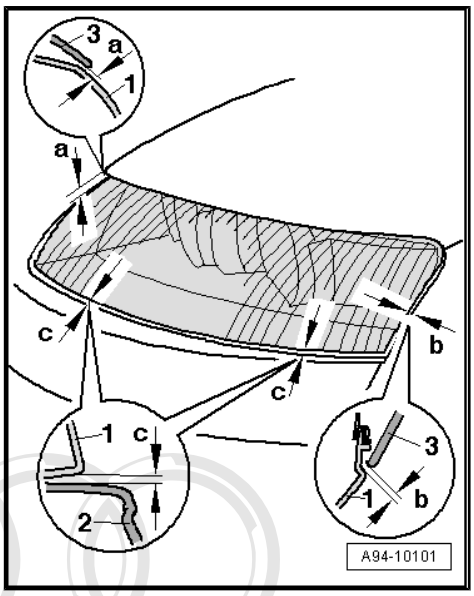
– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.



– Fit front bumper cover in installation position, but do not tighten bolts.

– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



– Secure bolt -1- – do not apply pressure to bolt when tightening.

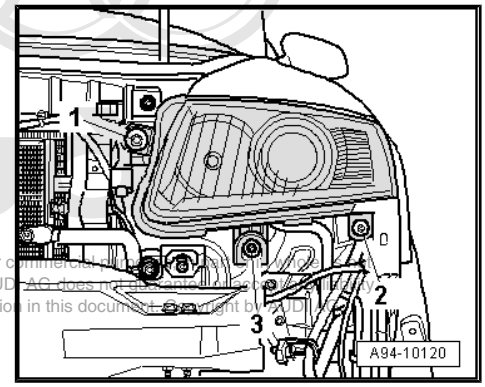
– Take off front bumper cover.

– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.

– Install front bumper cover ⇒ Rep. gr. 63 .

– Check gap widths again; if necessary repeat adjustment of gap widths as described above.

– Following installation, adjust headlights ⇒ page 127



Protected by copyright. Copying for private or c
permitted unless authorised by AUDI AG. AUDI AG does
for the correctness of information in this docum

1.4 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.

♦ However, national legislation and guidelines for individual countries must be adhered to.

1.4.1 Requirements for checking and adjusting

- Tyre pressure OK
- Headlight lenses must not be damaged or dirty.
- Reflectors and bulbs OK
- Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 128 .

- Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.
- Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
- Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

- Dip setting must be adjusted.

Dip settings (in “%”) are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.4.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Example:

If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

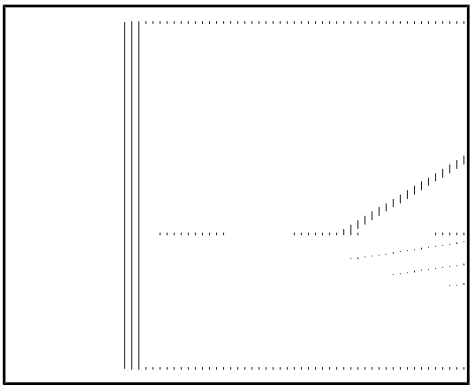
Note

It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

1.4.3 Checking headlight settings

– Set knurled wheel for headlight range control to position “0”.

– Switch on ignition and dipped headlights.



- The horizontal light-dark border should coincide with the setting line -1- of the test surface.
- The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.

Note

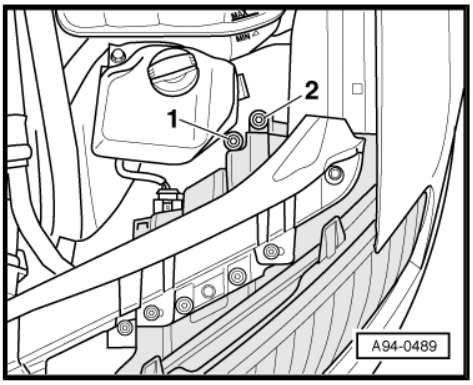
- *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*
- *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*
- *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

– If headlight setting is not OK, adjust headlights ⇒ page 129 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.4.4 Adjusting headlights

Headlight (left-side)



Adjuster screws on left headlight:

1 - Height adjuster screw

2 - Height/lateral adjuster screw

The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.

– For lateral adjustment, turn only adjustment screw-2-.

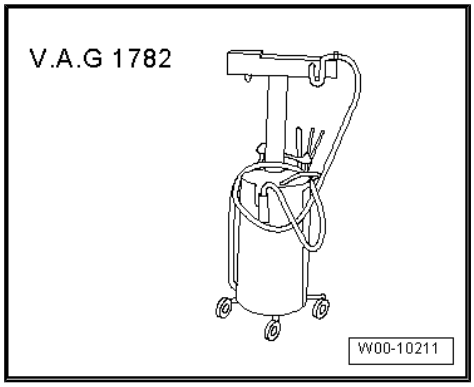
1.5 Preparations before working on headlights

Depending on the engine version, access to the headlight bulbs could be obstructed. In this case, additional steps must be performed.

1.5.1 Loosening power steering reservoir at bracket

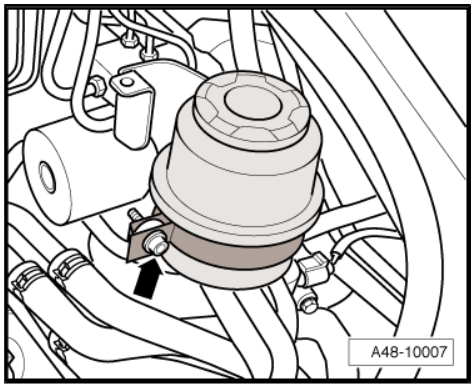
Special tools and workshop equipment required

♦ Used oil collection and extraction unit - V.A.G 1782-



Procedure

– Draw off hydraulic fluid for power steering from reservoir with used oil collection and extraction unit - V.A.G 1782- .



Note

Place cloth under power steering reservoir to catch escaping hydraulic fluid.

– Remove bolt -arrow- and move power steering reservoir to side with hydraulic hoses still attached.

Installation is carried out in the reverse order; note the following:

– Install power steering reservoir ⇒ Rep. gr. 48 .

– Fill up hydraulic fluid for power steering and check fluid level ⇒ Rep. gr. 48 .

Tightening torque

Component	Nm
Power steering reservoir to bracket	9

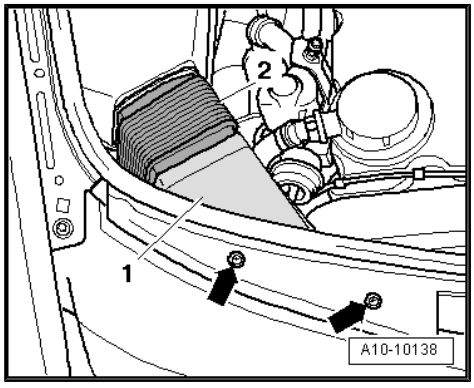
1.5.2 Removing air cleaner housing - vehicles with 4-cyl. petrol engine

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

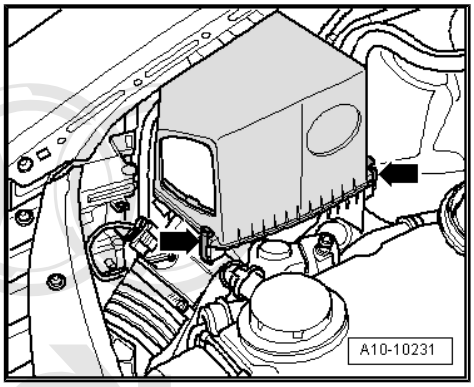
Procedure

– Unscrew bolts -arrows-.

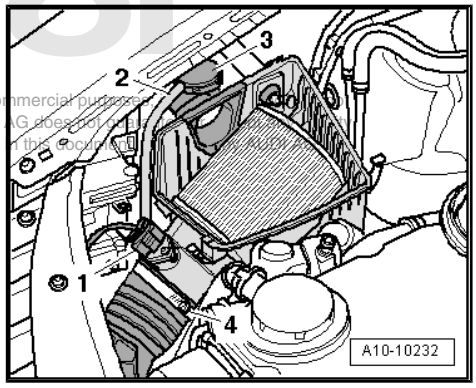
– Remove air ducts -1- and -2-.



– Release both retaining clips -arrows- and detach air cleaner (top section).



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose by releasing hose clip -4-.
– Detach vacuum hose -2-.
– Detach vacuum unit -3- with air control flap from air cleaner housing.
– Disengage air cleaner (bottom section) from retaining pin and remove.



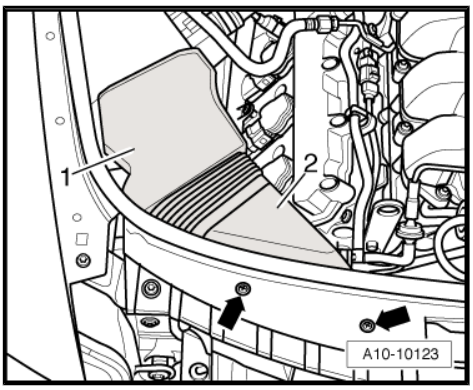
Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, permitted unless authorised by AUDI AG. AUDI AG does not guarantee with respect to the correctness of information in this document.

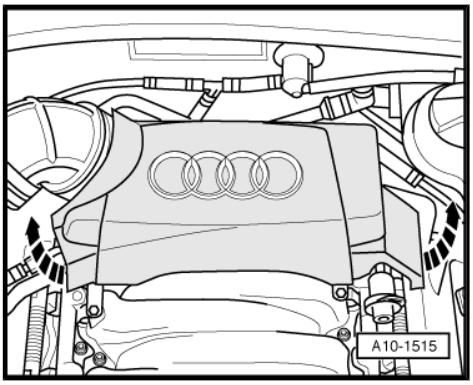
1.5.3 Removing air cleaner housing - vehicles with 6-cyl. petrol engine

Procedure

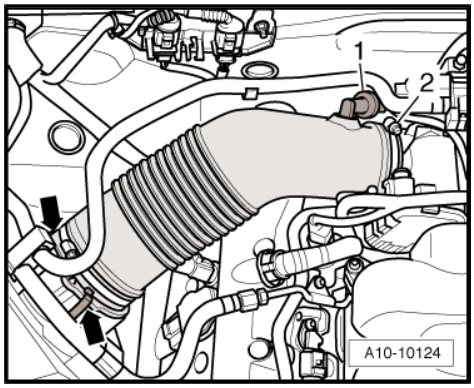
– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



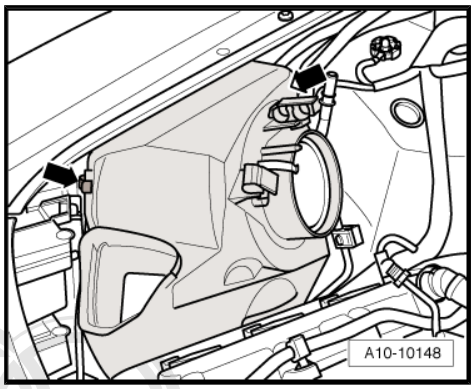
– Pull off engine cover (rear) -arrows-.



– Pull non-return valve -1- off air intake hose.
– Remove air intake hose; to do so, open retainers -arrows- and release hose clip -2-.

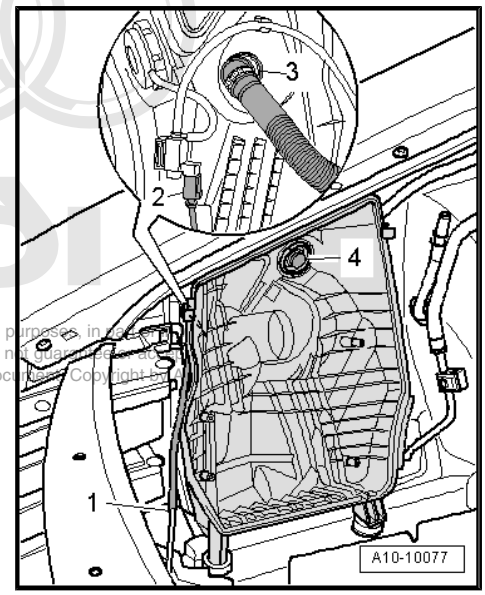


– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.
– If fitted, pull off hose -3- to secondary air pump.
– Detach air cleaner (bottom section).

Install in reverse order.



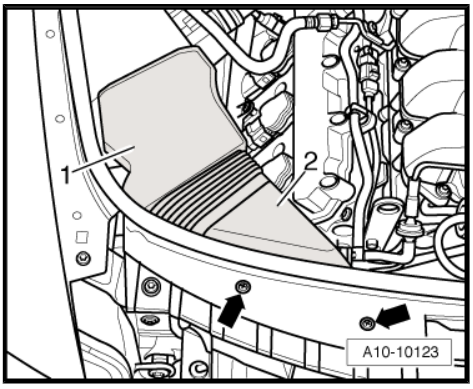
Protected by copyright. Copying for private or commercial purposes, in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.5.4 Removing air cleaner housing - vehicles with 4.2 ltr. MPI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

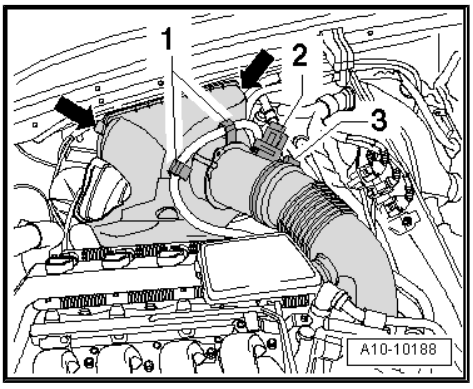


– Detach fuel line -1- at air cleaner (top section) and move clear.

– Unplug electrical connector -2- at air mass meter - G70- .

– Remove air intake hose at air mass meter by releasing hose clip -3-.

– Release retainers -arrows- and detach air cleaner (top section) together with air mass meter.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unplug vacuum line.

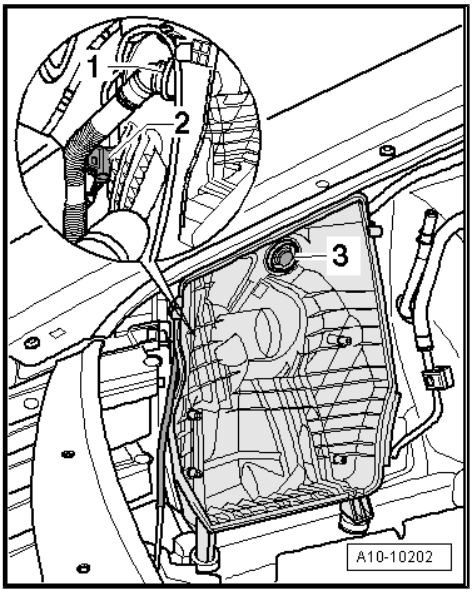
– Pull pin out of fastener -3-.

– Detach air cleaner (bottom section) and unplug electrical connector on reverse side -2-.

– Disconnect hose -1- going to secondary air pump.

– Detach air cleaner (bottom section).

Install in reverse order.

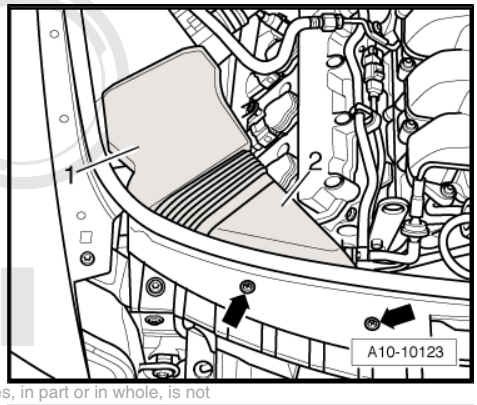


1.5.5 Removing air cleaner housing - vehicles with 4.2 ltr. FSI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1 and 2-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

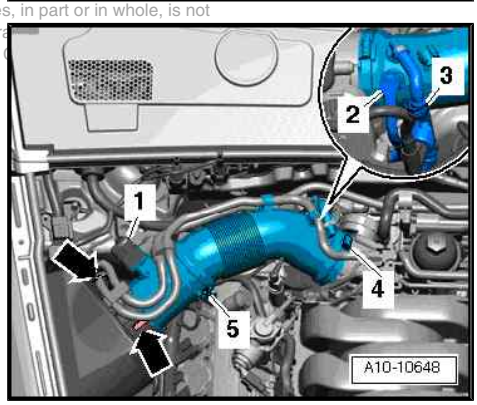
– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.

– Unplug electrical connector -1- at air mass meter - G70- .

– Detach vacuum line -3- going to air intake hose.

– Detach crankcase breather hose -2- from air intake hose (press release tabs).

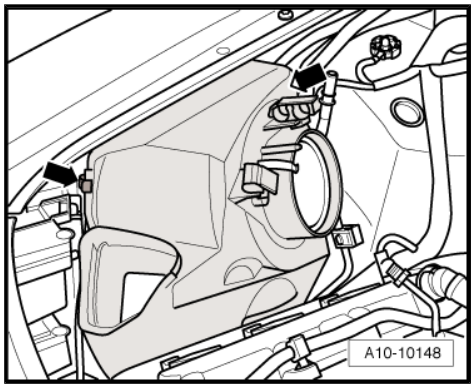
– Remove air intake hose with air mass meter - G70- . To do so, release hose clip -4- and clamps -arrows-.



Note

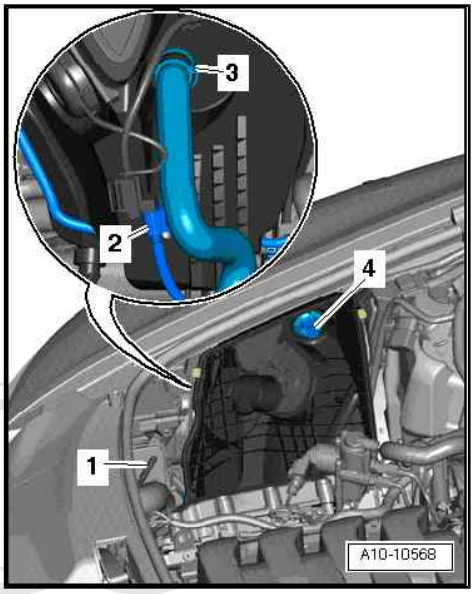
Disregard -item 5-.

– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .

Install in reverse order.

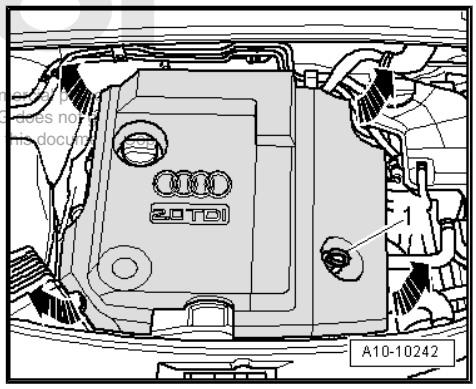


1.5.6 Removing air cleaner housing - vehicles with 4-cyl. TDI engine

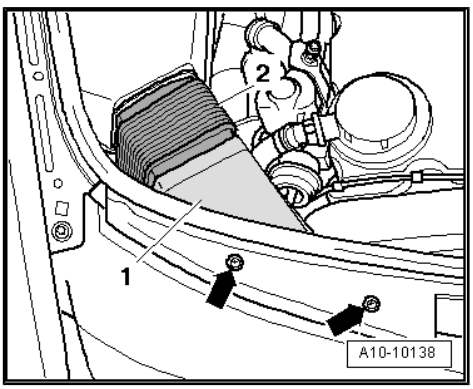
Procedure

– Pull oil dipstick -1- out of guide tube.
– Pull off engine cover panel -arrows-.
– Re-insert dipstick in guide tube.

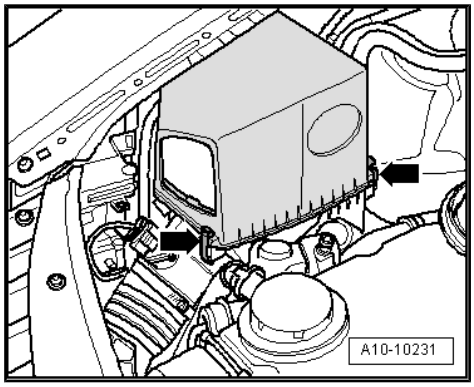
Protected by copyright. Copying for private or comm... permitted unless authorised by AUDI AG. AUDI AG does not... with respect to the correctness of information in this docum...



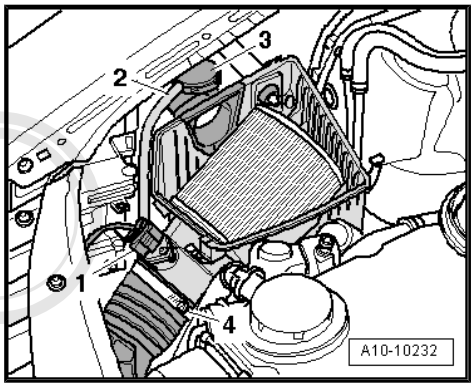
– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



– Release both retaining clips -arrows- and detach air cleaner (top section).



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose by releasing hose clip -4-.
– Detach vacuum hose -2-.
– Detach vacuum unit -3- with air control flap from air cleaner housing.
– Disengage air cleaner (bottom section) from retaining pin and remove.



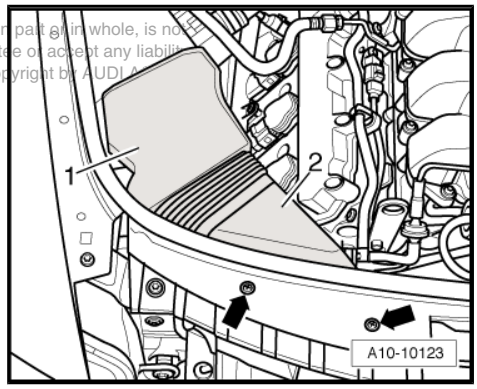
Install in reverse order.

1.5.7 Removing air cleaner housing - vehicles with 6-cyl. TDI engine

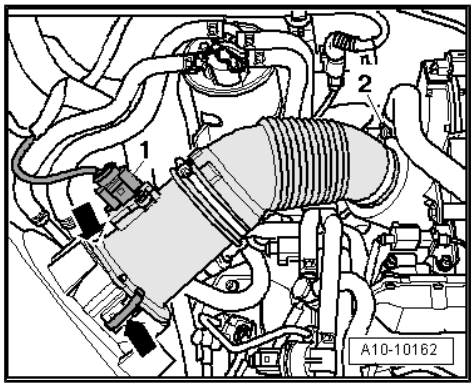
Procedure

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

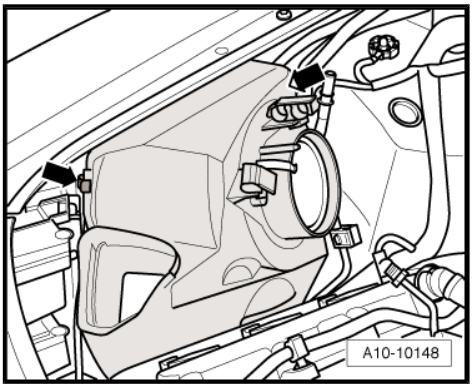
– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose. To do so, release hose clip -2- and clamps -arrows-.

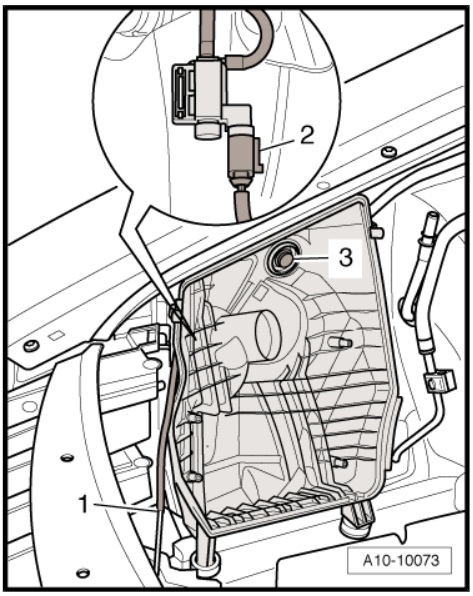


– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -3-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.

Install in reverse order.



1.6 Renewing headlight dipped beam bulb - M29- / -M31-

Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 129 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 130 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 131 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 133 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 134 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 135 .

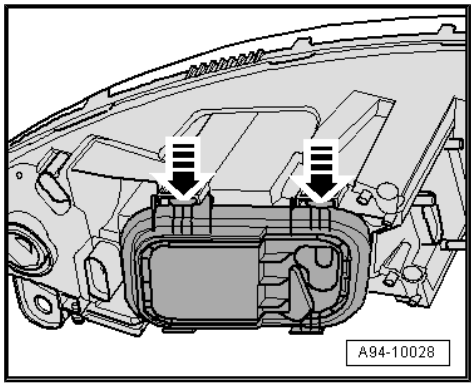
Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 136 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

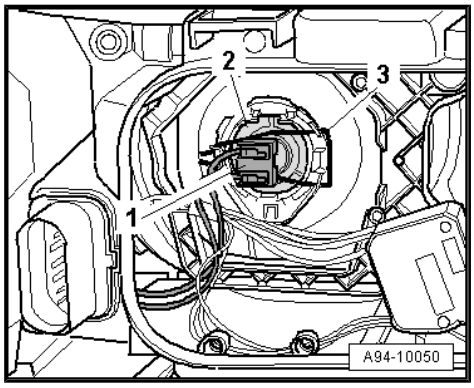
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Unplug electrical connector -1- at dipped beam bulb.

– Disengage retaining clip -3- and take bulb -2- out of housing.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Secure bulb with retaining clip.

– Plug in connector and close housing cover.

1.7 Renewing headlight main beam bulb - M30- / -M32-

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 129 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 130 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 131 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 133 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 134 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 135 .

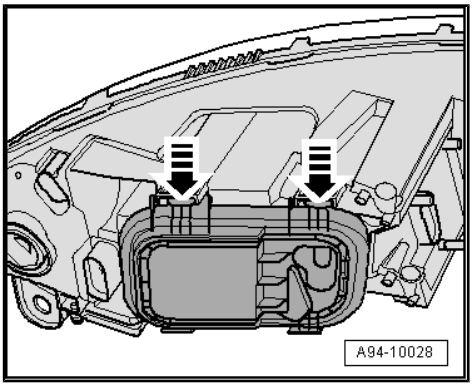
Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 136 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

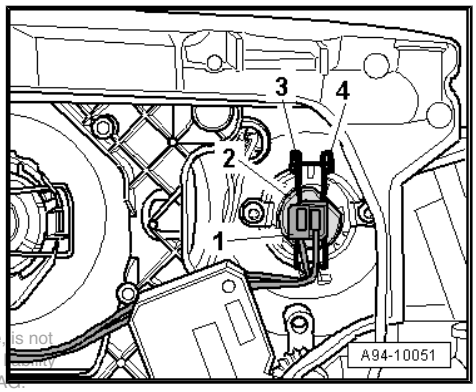
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Unplug electrical connector -1- at main beam bulb.

– Disengage retaining clips -3- and -4- and take bulb -2- out of housing.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Secure bulb with retaining clip.

– Plug in connector and close housing cover.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.8 Renewing side light bulb -M1- / -M3-

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 129 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 130 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 131 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 133 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 134 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

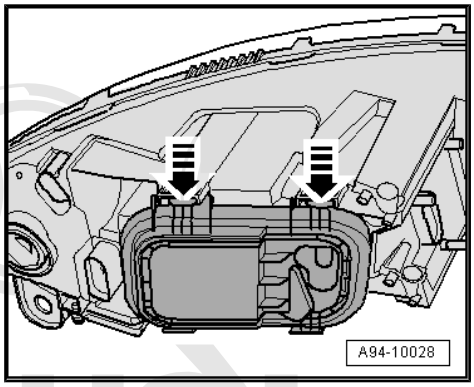
– Remove air cleaner housing ⇒ page 135 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 136 .

All vehicles:

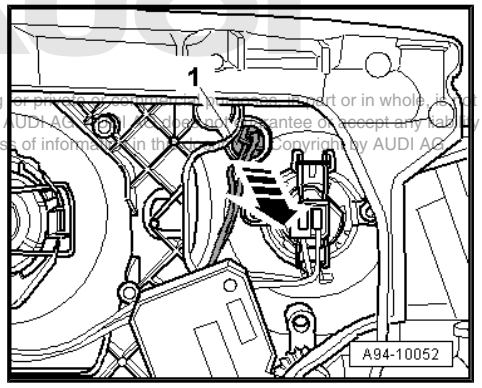
– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Pull bulb holder -1- together with bulb out of reflector in direction of -arrow-.

– Pull side light bulb out of holder.

Protected by copyright. Copying of part or in whole is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in bulb holder, taking care not to touch glass part of bulb with bare hands.

– Press bulb holder into reflector until you feel it engage.

– Close housing cover.

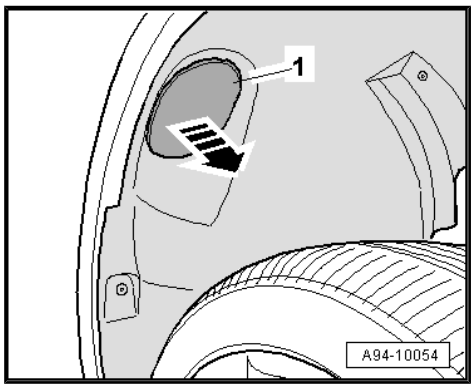
1.9 Renewing front turn signal bulb -M5- / -M7-

Removing

– Pry out cap -1- in wheel housing liner (front) in the direction of -arrow-.

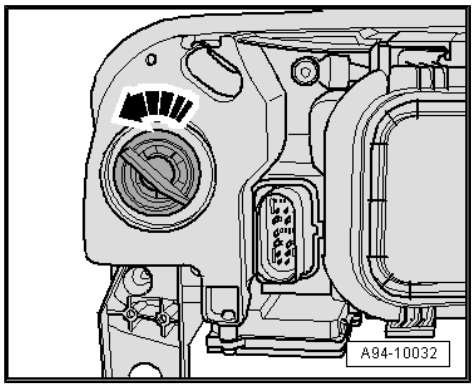
Note

Detach front section of wheel housing liner on vehicles without cap ⇒ Rep. gr. 66 .



– Turn bulb holder anti-clockwise -arrow- and pull out of housing.

– Screw bulb out of bulb holder.



Installing

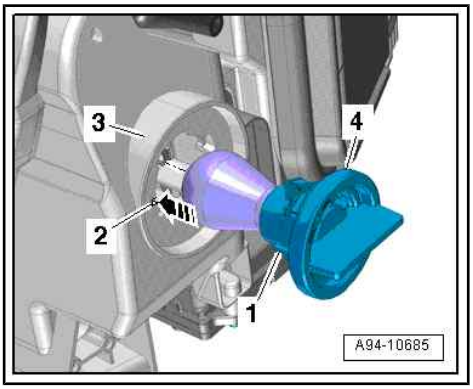
Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Press cap into wheel housing liner until you feel it engage.



1.10 Removing and installing headlight range control motor -V48- / -V49-

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 129 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 130 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 131 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 133 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 134 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 135 .

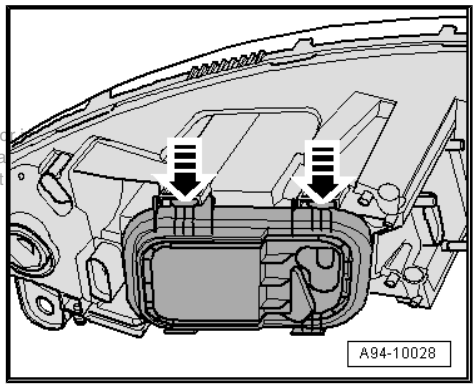
Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 136 .

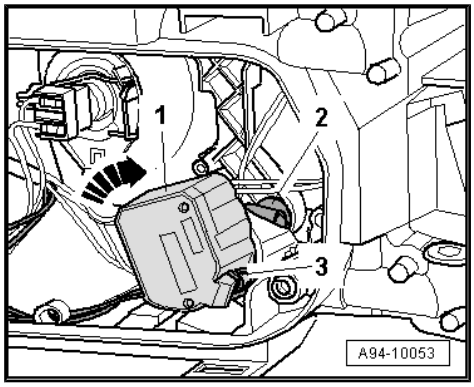
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

Protected by copyright. Copying for private or commercial purposes, in part or
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or a
with respect to the correctness of information in this document. Copyright



– Turn control motor -1- for left-side headlight in a clockwise direction -arrow-, for right-side headlight in anti-clockwise direction.
– Press ball head of actuator shaft out of its mounting -2- by pivoting control motor to the side.
– Remove headlight range control motor from headlight housing.
– Unplug electrical connector -3-.



Installing

Installation is carried out in the reverse order; note the following:

– Start by inserting ball head of actuator shaft into ball head mounting of reflector from the side; to do so, pull reflector to rear.

Note

The headlights must always be adjusted if the control motors are removed and installed or renewed *⇒ page 127* *.*

– Close housing cover.

1.11 Installing repair kit for headlight housing

Note

♦ *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*

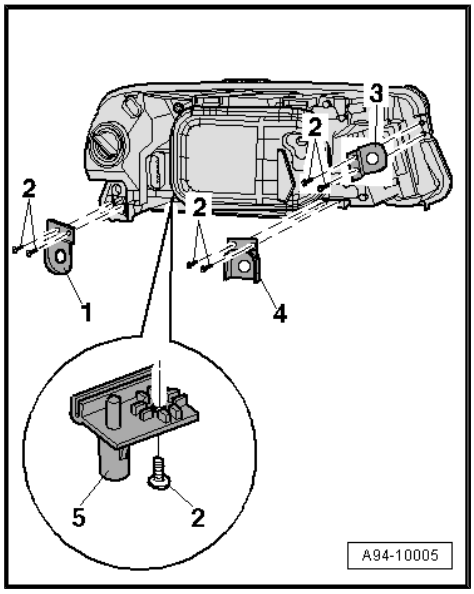
♦ *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

– Remove headlight with broken retaining tab ⇒ page 123 .
– Remove rest of broken retaining tab from headlight housing.
– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 122



1.12 Adapting headlights for driving on the left side of the road

♦ In countries where vehicles are driven on the opposite side of the road to the vehicle's normal environment, both headlights

must be partially masked by appropriately shaped opaque adhesive strips to prevent oncoming traffic from being dazzled.

- There are different masking elements available for adapting headlights for left and right-hand traffic (adhesive elements for headlight lens) ⇒ Electronic parts catalogue .

Procedure

– Thoroughly clean the headlight lenses on both sides of vehicle (must be clean and dry).

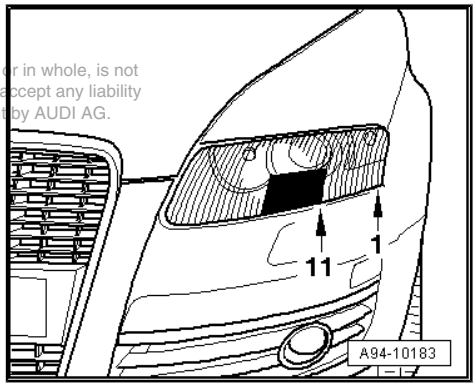
Headlight (driver's side):

– Count the vertical lines on the headlight lens up to the 11th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.

– Remove protective backing from masking foil for headlight.

– Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.

– Adhere the masking foil on the headlight lens.



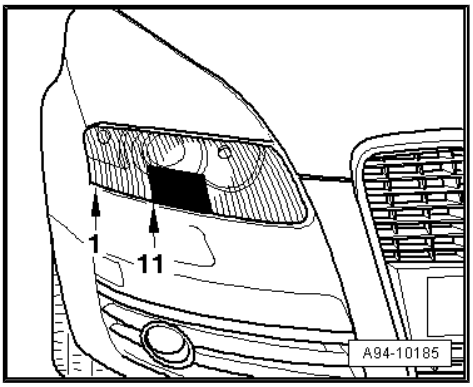
Headlight (passenger's side):

– Count the vertical lines on the headlight lens up to the 11th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.

– Remove protective backing from masking foil for headlight.

– Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.

– Adhere the masking foil on the headlight lens.



1.13 Adapting headlights for driving on the right side of the road

- In countries where vehicles are driven on the opposite side of the road to the vehicle's normal environment, both headlights must be partially masked by appropriately shaped opaque adhesive strips to prevent oncoming traffic from being dazzled.

- There are different masking elements available for adapting headlights for left and right-hand traffic (adhesive elements for headlight lens) ⇒ Electronic parts catalogue .

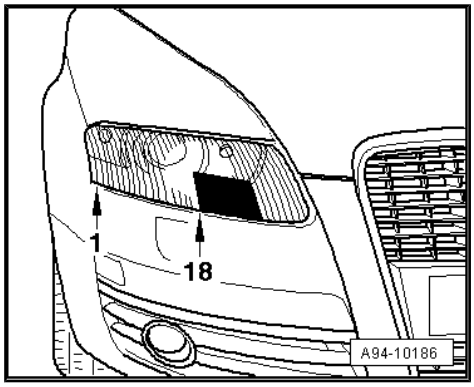
Procedure

– Thoroughly clean the headlight lenses on both sides of vehicle (must be clean and dry).

Copyright by AUDI AG.

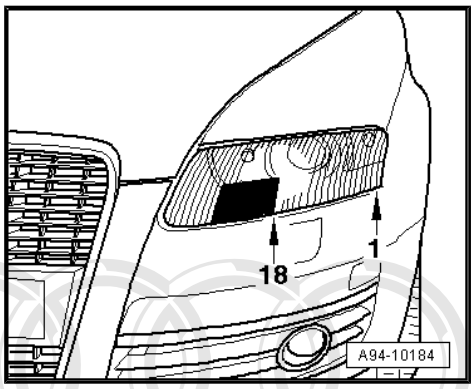
Headlight (driver's side):

- Count the vertical lines on the headlight lens up to the 18th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.
- Remove protective backing from masking foil for headlight.
- Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.
- Adhere the masking foil on the headlight lens.



Headlight (passenger's side):

- Count the vertical lines on the headlight lens up to the 18th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.
- Remove protective backing from masking foil for headlight.
- Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.
- Adhere the masking foil on the headlight lens.



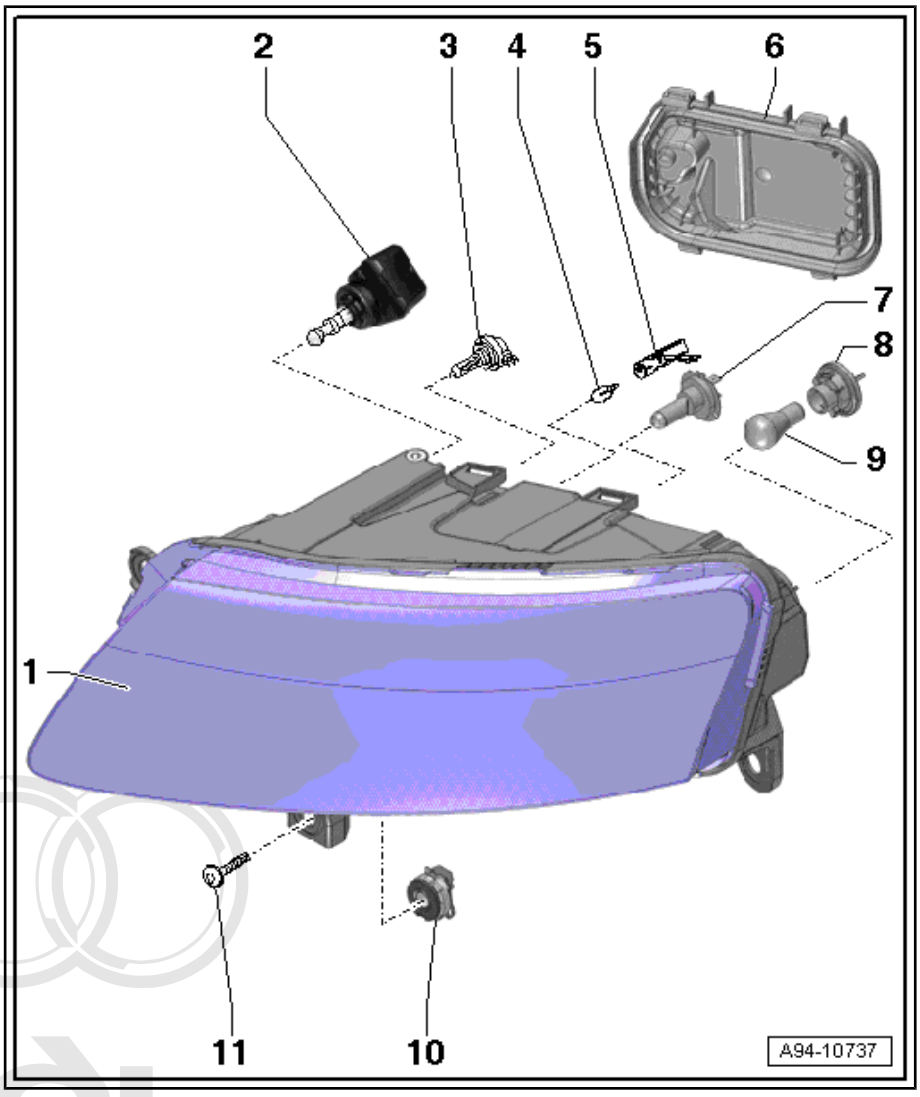
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2 Halogen headlights - from 06.2008 onwards

Note

The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ page 150 .

2.1 Exploded view of halogen headlight



1 - Headlight housing

- ❑ Removing and installing headlight housing (to renew components on front end of vehicle) ⇒ page 146
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 148

2 - Headlight range control motor

- ❑ Left headlight range control motor - V48-
- ❑ Right headlight range control motor - V49-
- ❑ Removing and installing ⇒ page 164

3 - Bulb for headlight main beam/daytime running light

- ❑ Left headlight main beam bulb - M30-
- ❑ Right headlight main beam bulb - M32-
- ❑ Left daytime running light bulb - L174-
- ❑ Right daytime running light bulb - L175-
- ❑ 12 V, 15/55 W (H15)
- ❑ Renewing bulb ⇒ page 161

4 - Side light bulb

- ❑ Left side light bulb - M1-
- ❑ Right side light bulb - M3-
- ❑ Glass base bulb 12 V, 5 W (W5W)
- ❑ Renewing bulb ⇒ page 162

5 - Bulb holder

- ❑ For side light bulb

6 - Housing cover

7 - Headlight dipped beam bulb

- ❑ Left headlight dipped beam bulb - M29-
- ❑ Right headlight dipped beam bulb - M31-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- ❑ 12 V, 55 W (H7 - W5W)
- ❑ Renewing bulb ⇒ page 160

8 - Bulb holder

- ❑ For front turn signal bulb

9 - Front turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 21 W (PY21W - orange)
- ❑ Renewing bulb ⇒ page 163

10 - Adjuster

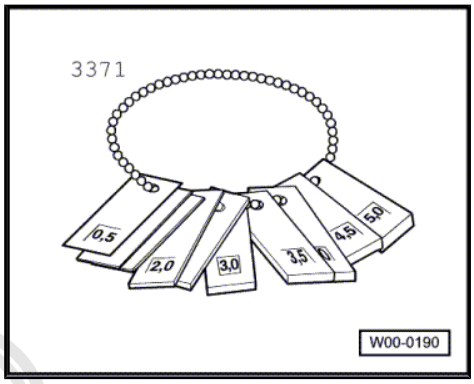
- ❑ To adjust headlight to bumper contour
- ❑ 3x

11 - 8 Nm

2.2 Removing and installing headlights (to renew components on front end of vehicle)

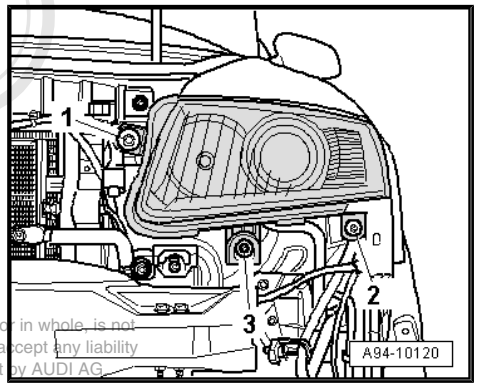
Special tools and workshop equipment required

- ♦ Setting gauge - 3371-



Removing

- – Switch off ignition and take out ignition key.
- – Turn light switch to position “0”.
- – Remove front bumper cover ⇒ Rep. gr. 63 .
- – Unscrew bolts -1 ... 3-.
- – Detach headlight to front.
- – Unplug electrical connector.



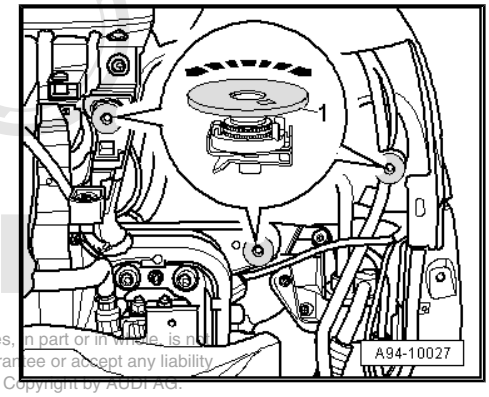
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

- Tightening torque ⇒ page 145

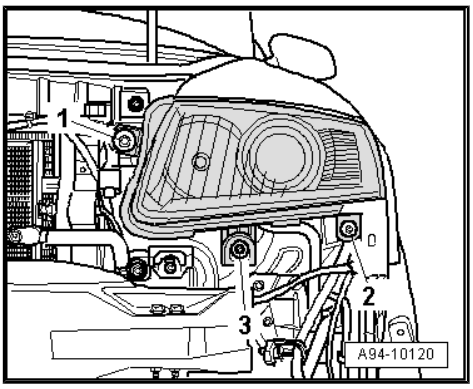
– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.

– Screw down adjuster nut as far as it will go, but do not tighten.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

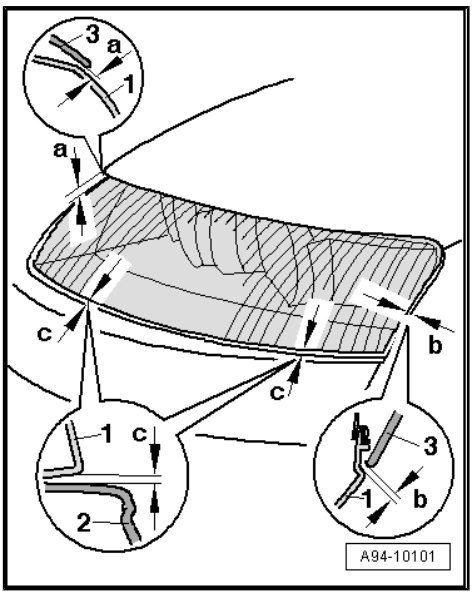
– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



– Fit front bumper cover in installation position, but do not tighten bolts.

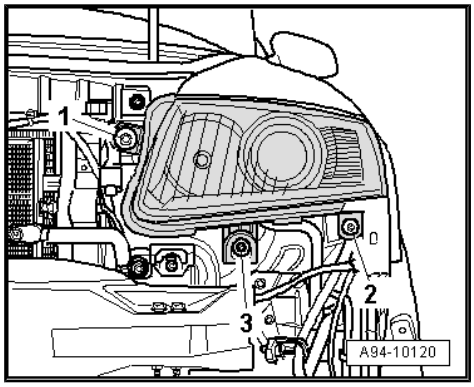
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.

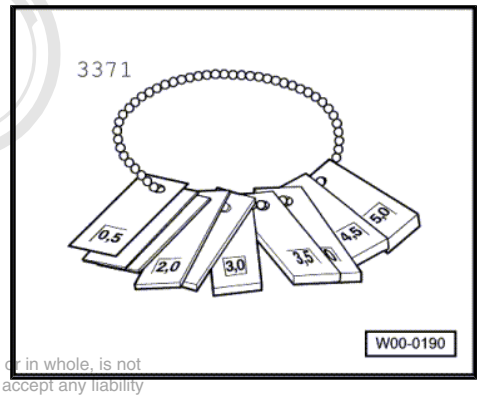


- Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
- Take off front bumper cover.
- Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
- Install front bumper cover ⇒ Rep. gr. 63 .
- Check gap widths again; if necessary repeat adjustment of gap widths as described above.
- Following installation, adjust headlights ⇒ page 150 .

2.3 Removing and installing headlights (old headlight is fitted again)

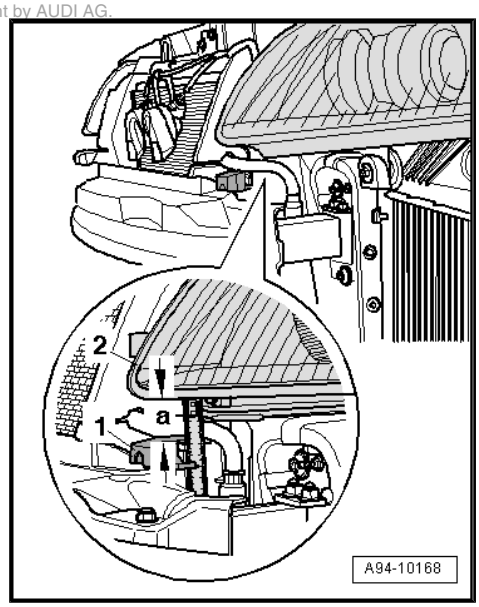
Special tools and workshop equipment required

- Setting gauge - 3371-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

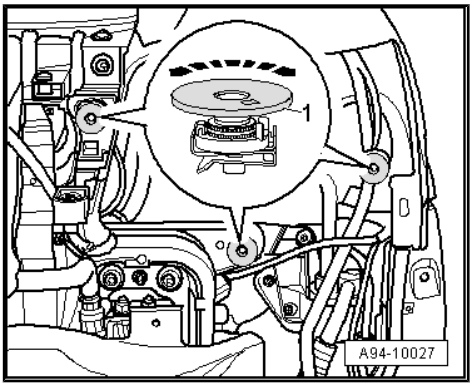
Removing



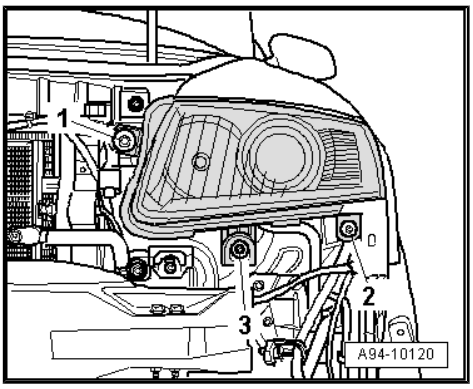
- Switch off ignition and take out ignition key.
- Turn light switch to position “0”.
- Remove front bumper cover ⇒ Rep. gr. 63 .
- Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.

Note

Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.



– Unscrew bolts -1 ... 3-.
– Detach headlight to front.
– Unplug electrical connector.



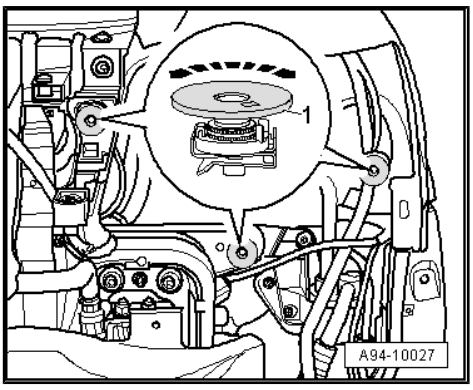
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

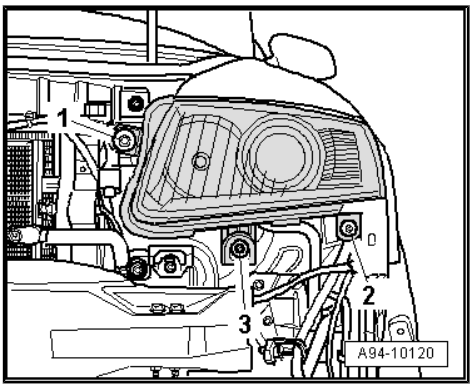
- Tightening torque ⇒ page 145

Note

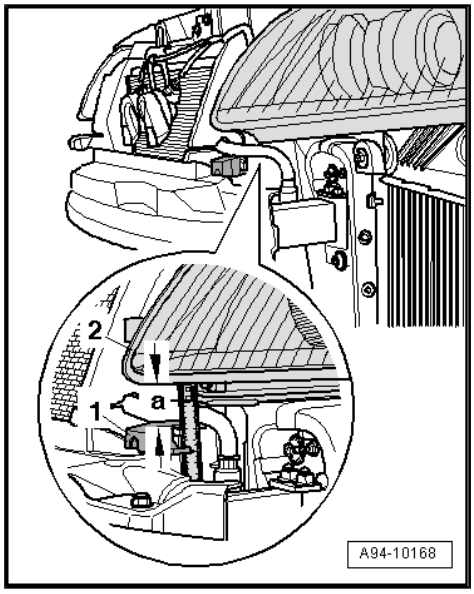
Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.



– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



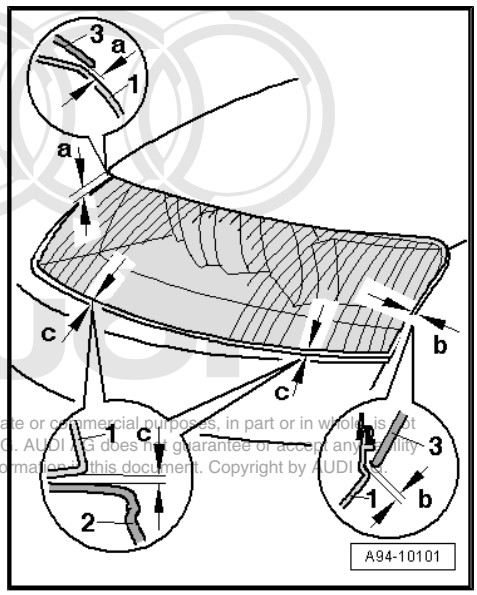
– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.



– Fit front bumper cover in installation position, but do not tighten bolts.

– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Secure bolt -1- – do not apply pressure to bolt when tightening.

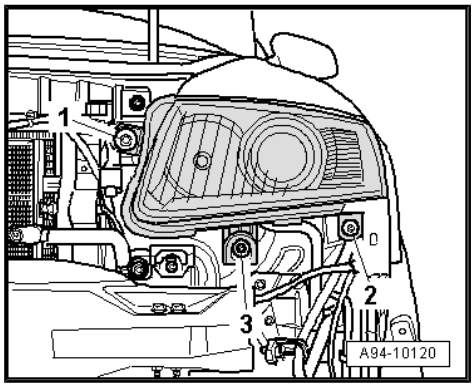
– Take off front bumper cover.

– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.

– Install front bumper cover ⇒ Rep. gr. 63 .

– Check gap widths again; if necessary repeat adjustment of gap widths as described above.

– Following installation, adjust headlights ⇒ page 150 .



2.4 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.

♦ However, national legislation and guidelines for individual countries must be adhered to.

2.4.1 Requirements for checking and adjusting

- Tyre pressure OK
- Headlight lenses must not be damaged or dirty.
- Reflectors and bulbs OK
- Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. © AUDI AG.

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 151 .

- Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.
- Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
- Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

- Dip setting must be adjusted.

Dip settings (in “%”) are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

2.4.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Example:

If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

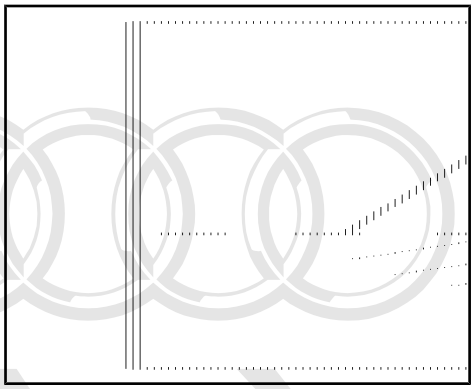
Note

It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

2.4.3 Checking headlight settings

– Set knurled wheel for headlight range control to position “0”.

– Switch on ignition and dipped headlights.



- The horizontal light-dark border should coincide with the setting line -1- of the test surface.
- The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.

Note

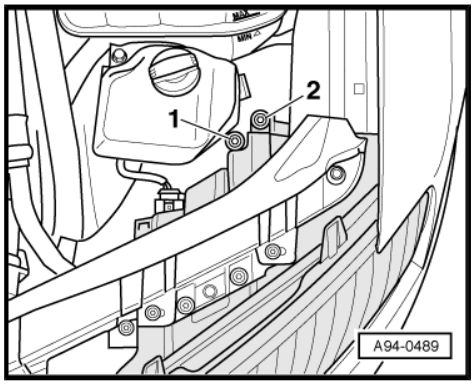
- *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*
- *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*
- *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– If headlight setting is not OK, adjust headlights ⇒ page 152 .

2.4.4 Adjusting headlights

Headlight (left-side)



Adjuster screws on left headlight:

1 - Height adjuster screw

2 - Height/lateral adjuster screw

The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.

– For lateral adjustment, turn only adjustment screw-2-.

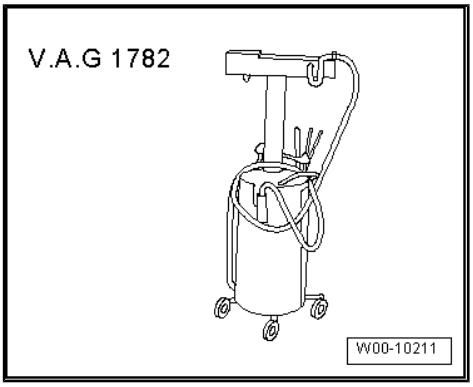
2.5 Preparations before working on headlights

Depending on the engine version, access to the headlight bulbs could be obstructed. In this case, additional steps must be performed.

2.5.1 Loosening power steering reservoir at bracket

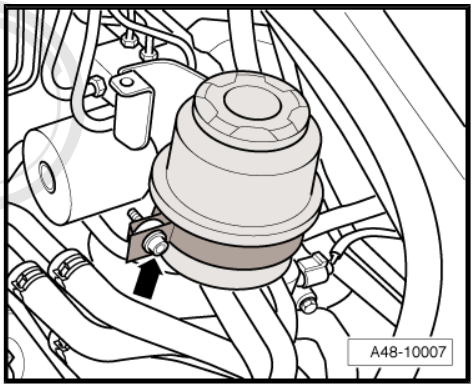
Special tools and workshop equipment required

♦ Used oil collection and extraction unit - V.A.G 1782-



Procedure

– Draw off hydraulic fluid for power steering from reservoir with used oil collection and extraction unit - V.A.G 1782- .



Note

Place cloth under power steering reservoir to catch escaping hydraulic fluid.

– Remove bolt -arrow- and move power steering reservoir to side with hydraulic hoses still attached.

Installation is carried out in the reverse order; note the following:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Install power steering reservoir ⇒ Rep. gr. 48 .
– Fill up hydraulic fluid for power steering and check fluid level ⇒ Rep. gr. 48 .

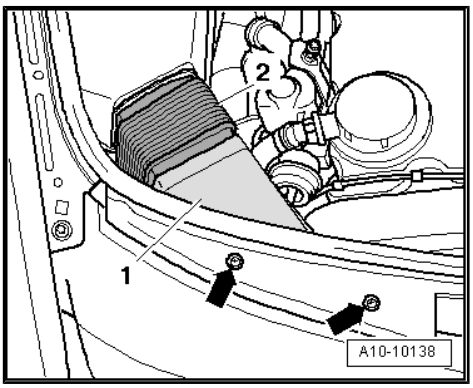
Tightening torque

Component	Nm
Power steering reservoir to bracket	9

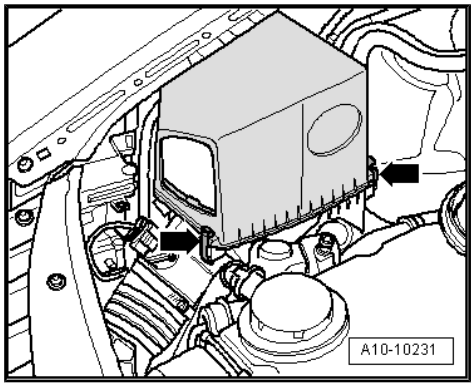
2.5.2 Removing air cleaner housing - vehicles with 4-cyl. petrol engine

Procedure

– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.

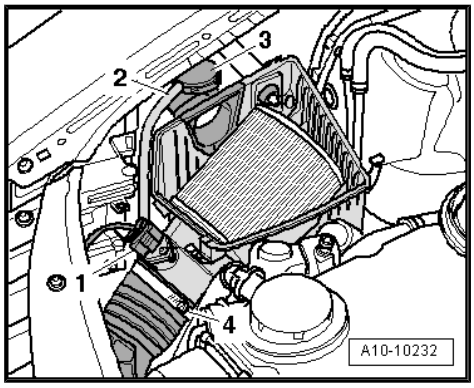


– Release both retaining clips -arrows- and detach air cleaner (top section).



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose by releasing hose clip -4-.
– Detach vacuum hose -2-.
– Detach vacuum unit -3- with air control flap from air cleaner housing.
– Disengage air cleaner (bottom section) from retaining pin and remove.

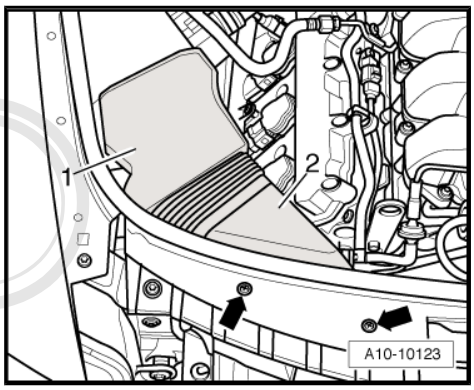
Install in reverse order.



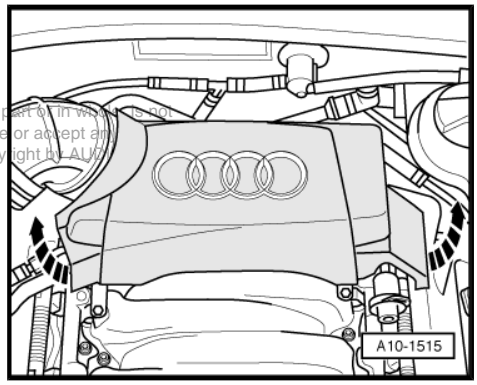
2.5.3 Removing air cleaner housing - vehicles with 6-cyl. petrol engine

Procedure

– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.

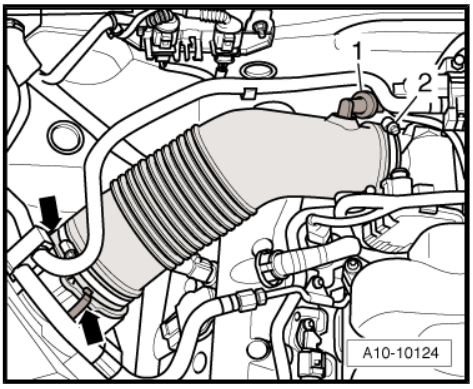


– Pull off engine cover (rear) -arrows-.

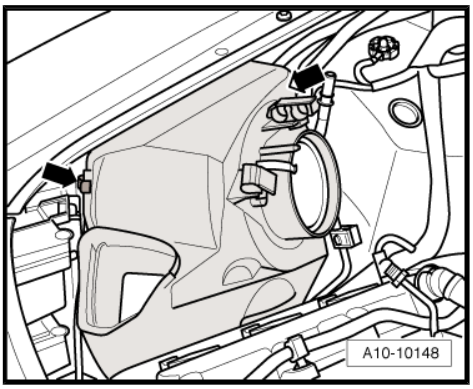


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI

– Pull non-return valve -1- off air intake hose.
– Remove air intake hose; to do so, open retainers -arrows- and release hose clip -2-.

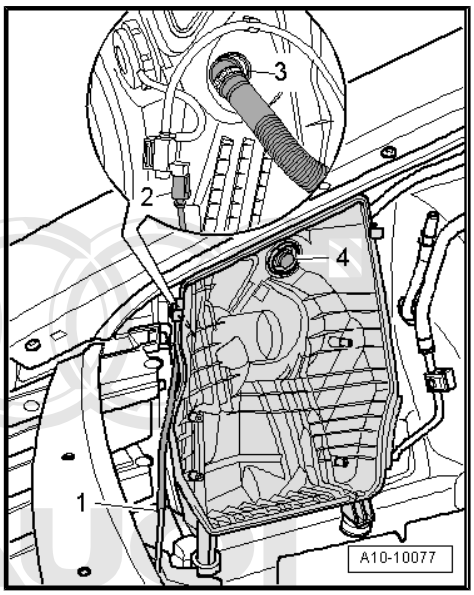


– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.
– If fitted, pull off hose -3- to secondary air pump.
– Detach air cleaner (bottom section).

Install in reverse order.



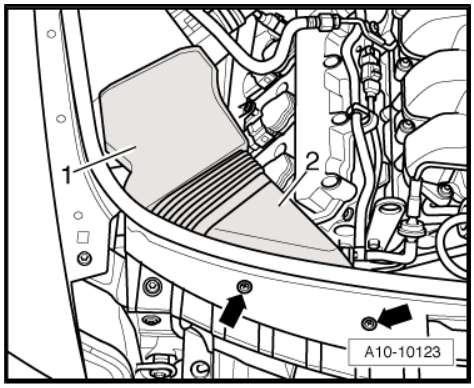
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.5.4 Removing air cleaner housing - vehicles with 4.2 ltr. MPI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

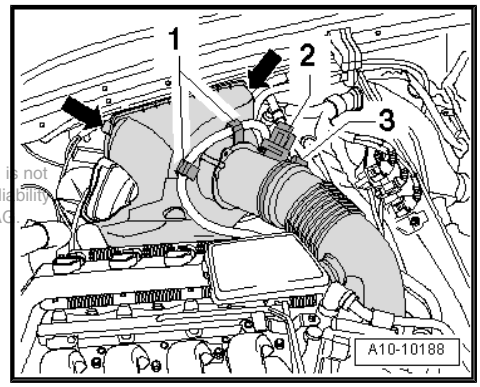


– Detach fuel line -1- at air cleaner (top section) and move clear.

– Unplug electrical connector -2- at air mass meter - G70- .

– Remove air intake hose at air mass meter by releasing hose clip -3-.

– Release retainers -arrows- and detach air cleaner (top section) together with air mass meter.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unplug vacuum line.

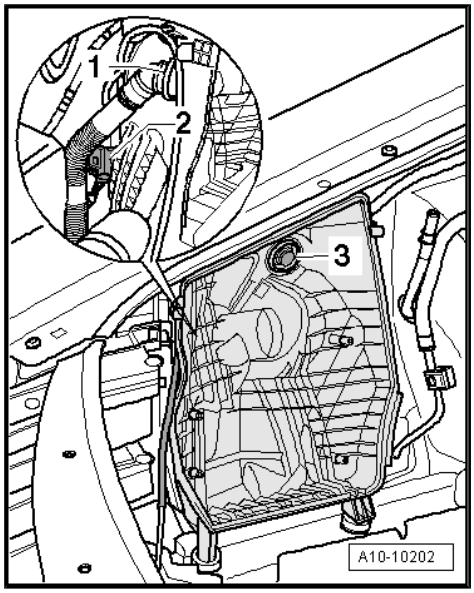
– Pull pin out of fastener -3-.

– Detach air cleaner (bottom section) and unplug electrical connector on reverse side -2-.

– Disconnect hose -1- going to secondary air pump.

– Detach air cleaner (bottom section).

Install in reverse order.

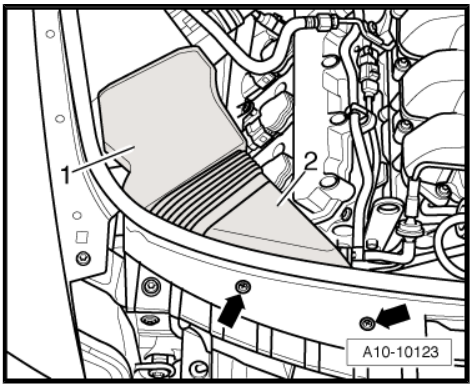


2.5.5 Removing air cleaner housing - vehicles with 4.2 ltr. FSI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1 and 2-.



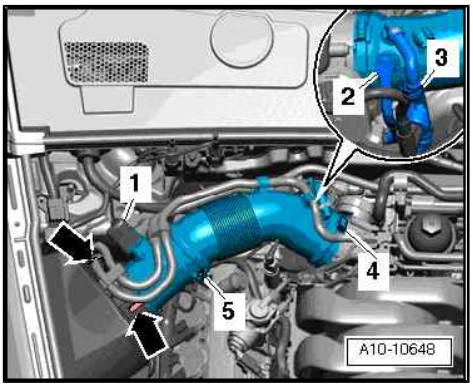
– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.

– Unplug electrical connector -1- at air mass meter - G70- .

– Detach vacuum line -3- going to air intake hose.

– Detach crankcase breather hose -2- from air intake hose (press release tabs).

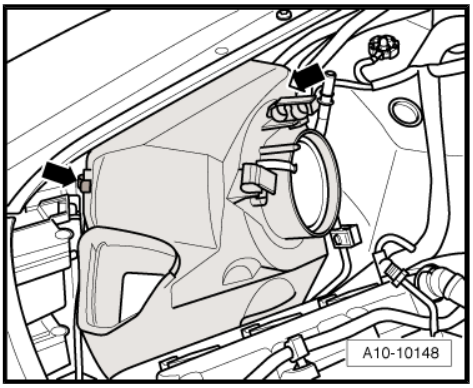
– Remove air intake hose with air mass meter - G70- . To do so, release hose clip -4- and clamps -arrows-.



Note

Disregard -item 5-.

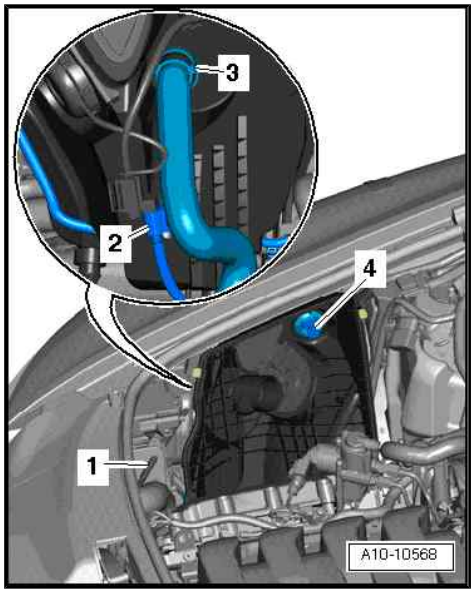
– Release retainers -arrows- and detach air cleaner (top section).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .

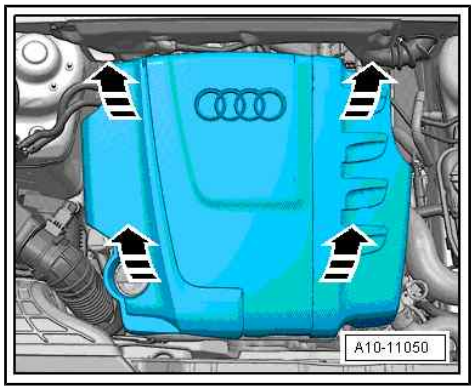
Install in reverse order.



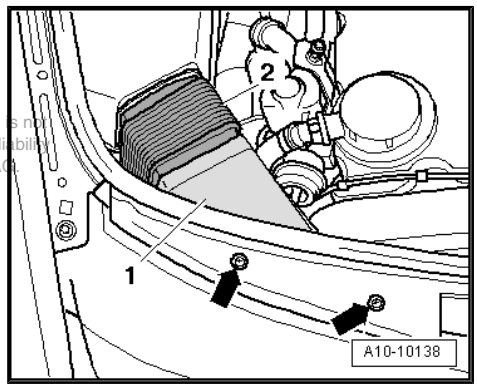
2.5.6 Removing air cleaner housing - vehicles with 4-cyl. TDI engine

Procedure

– Detach engine cover panel -arrows-.

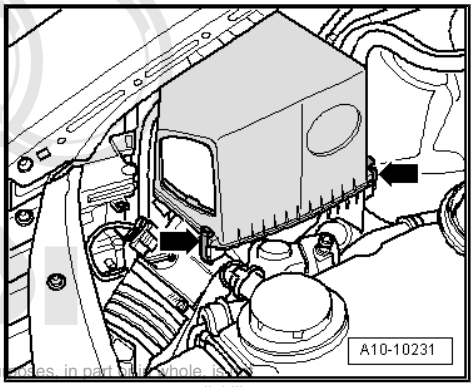


– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



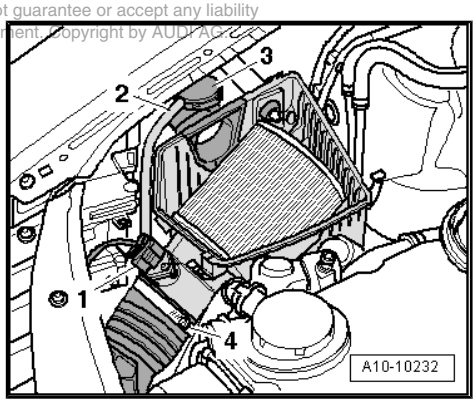
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Release both retaining clips -arrows- and detach air cleaner (top section).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose by releasing hose clip -4-.
– Detach vacuum hose -2-.
– Detach vacuum unit -3- with air control flap from air cleaner housing.
– Disengage air cleaner (bottom section) from retaining pin and remove.

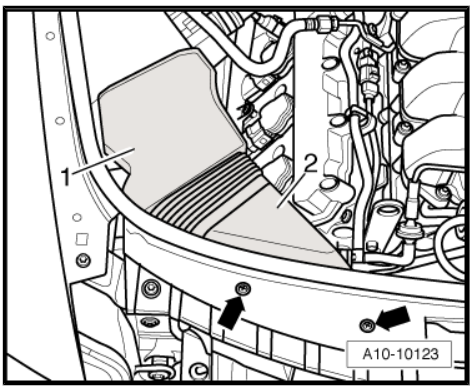


Install in reverse order.

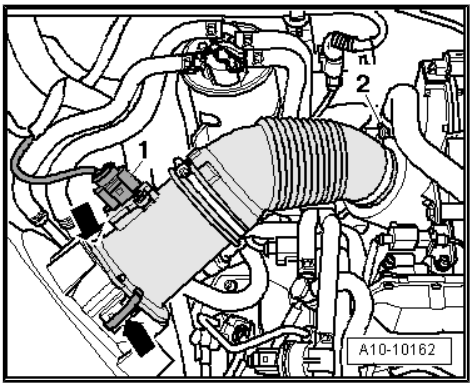
2.5.7 Removing air cleaner housing - vehicles with 6-cyl. TDI engine

Procedure

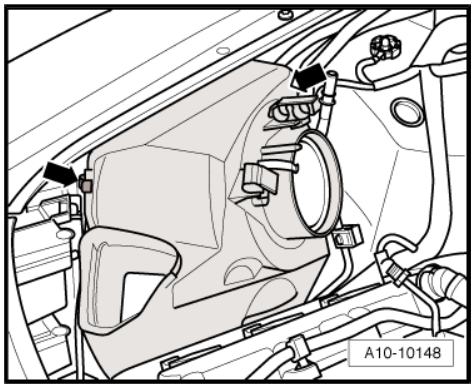
– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose. To do so, release hose clip -2- and clamps -arrows-.

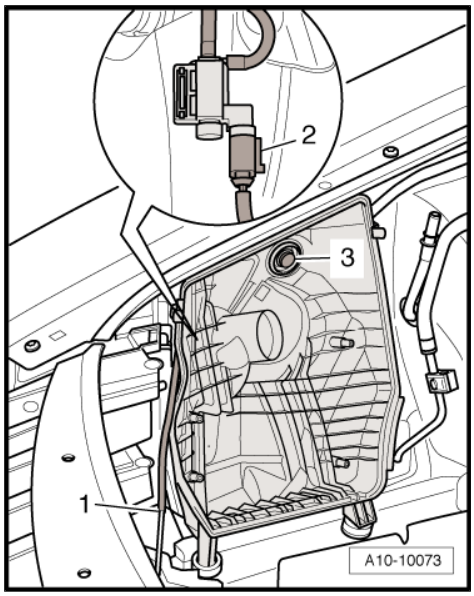


– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -3-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.

Install in reverse order.



2.6 Renewing headlight dipped beam bulb - M29- / -M31-

Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 152 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 153 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 154 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 156 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 157 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 158 .

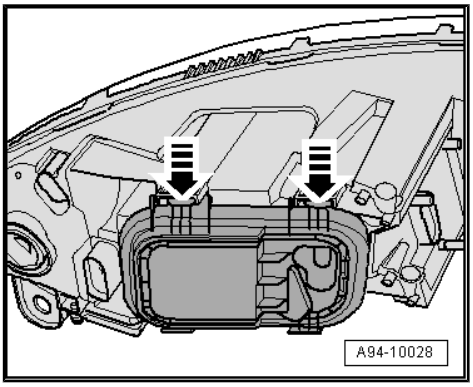
Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 159 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

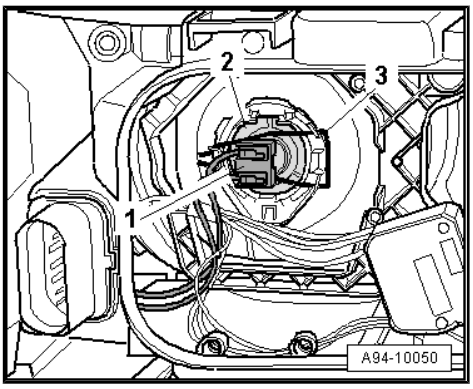
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Unplug electrical connector -1- at dipped beam bulb.

– Disengage retaining clip -3- and take bulb -2- out of housing.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Secure bulb with retaining clip.

– Plug in connector and close housing cover.

2.7 Renewing bulb for main beam headlights/daytime running lights -M30- / -M32- , -L174- / -L175-

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 152 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. Audi does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 153 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 154 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 156 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 157 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

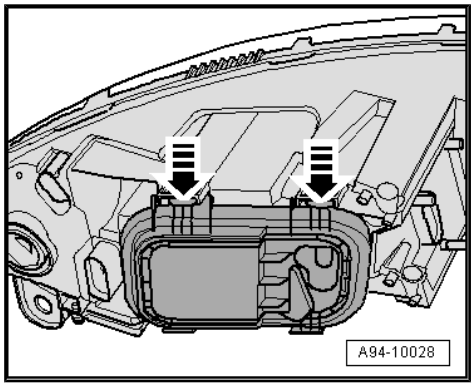
– Remove air cleaner housing ⇒ page 158 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 159 .

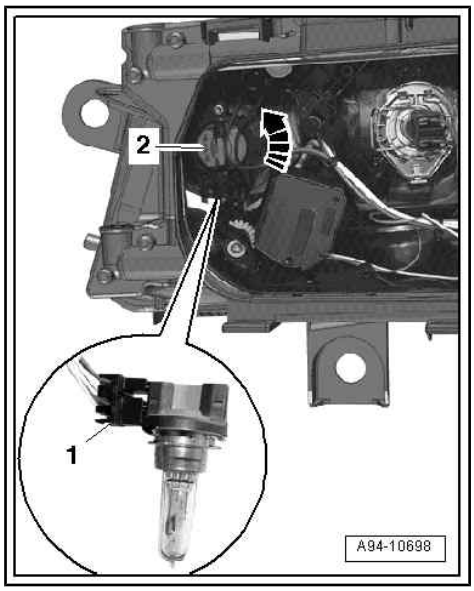
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Turn bulb holder -2- anti-clockwise -arrow- and pull it out of housing.

– Unplug electrical connector -1- at bulb for main beam headlight/daytime running light.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Close housing cover.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.8 Renewing side light bulb -M1- / -M3-

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 152 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 153 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 154 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 156 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 157 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

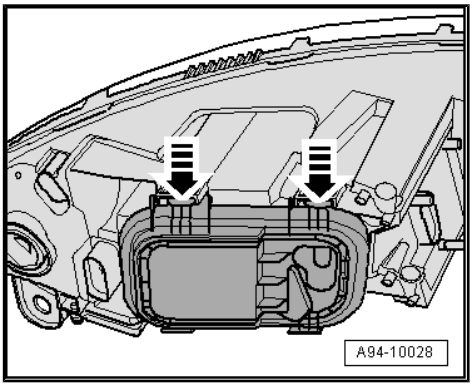
– Remove air cleaner housing ⇒ page 158 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 159 .

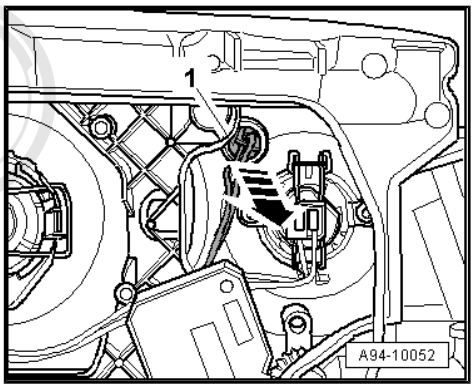
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Pull bulb holder -1- together with bulb out of reflector in direction of -arrow-.

– Pull side light bulb out of holder.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in bulb holder, taking care not to touch glass part of bulb with bare hands.

– Press bulb holder into reflector until you feel it engage.

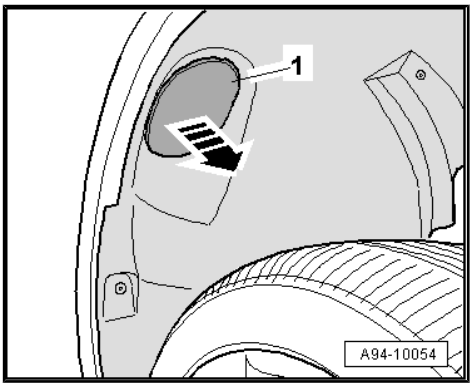
– Close housing cover.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.9 Renewing front turn signal bulb -M5- / -M7-

Removing

– Pry out cap -1- in wheel housing liner (front) in the direction of -arrow-.

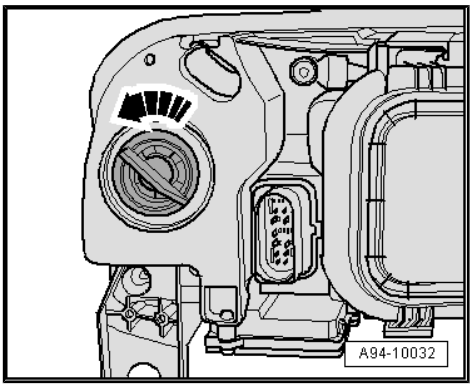


Note

Detach front section of wheel housing liner on vehicles without cap ⇒ Rep. gr. 66 .

– Turn bulb holder anti-clockwise -arrow- and pull out of housing.

– Screw bulb out of bulb holder.



Installing

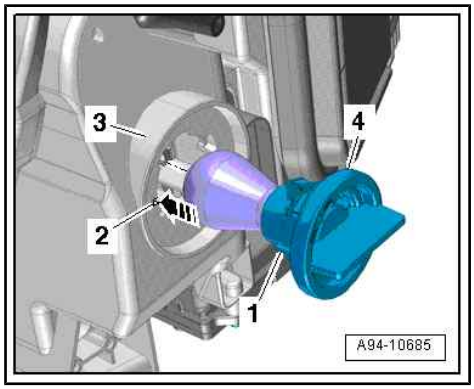
Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Press cap into wheel housing liner until you feel it engage.



2.10 Removing and installing headlight range control motor -V48- / -V49-

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 152 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 153 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 154 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 156 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 157 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 158 .

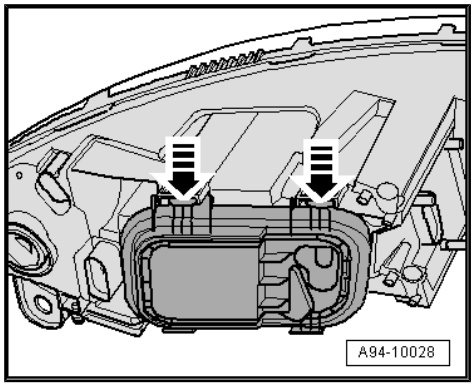
Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 159 .

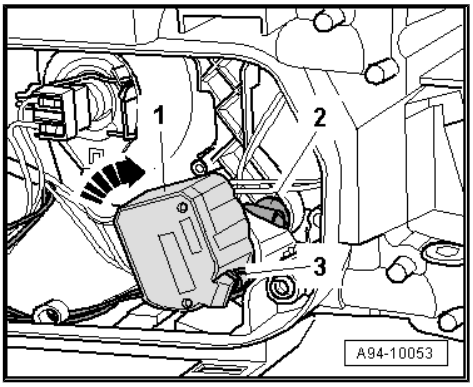
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Turn control motor -1- for left-side headlight in a clockwise direction -arrow-, for right-side headlight in anti-clockwise direction.
– Press ball head of actuator shaft out of its mounting -2- by pivoting control motor to the side.
– Remove headlight range control motor from headlight housing.
– Unplug electrical connector -3-.



Installing

Installation is carried out in the reverse order; note the following:

– Start by inserting ball head of actuator shaft into ball head mounting of reflector from the side; to do so, pull reflector to rear.

Note

The headlights must always be adjusted if the control motors are removed and installed or renewed ⇒ page 150 .

– Close housing cover.

2.11 Installing repair kit for headlight housing

Note

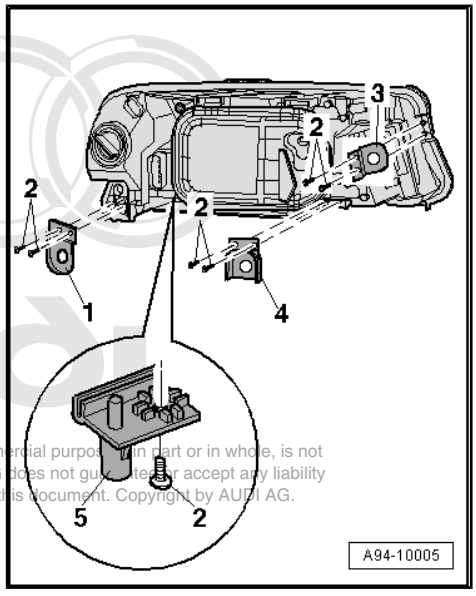
♦ *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*

♦ *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

Procedure

– Remove headlight with broken retaining tab ⇒ page 146 .
– Remove rest of broken retaining tab from headlight housing.
– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 145



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.12 Adapting headlights for driving on the left side of the road

♦ In countries where vehicles are driven on the opposite side of the road to the vehicle's normal environment, both headlights

must be partially masked by appropriately shaped opaque adhesive strips to prevent oncoming traffic from being dazzled.

- There are different masking elements available for adapting headlights for left and right-hand traffic (adhesive elements for headlight lens) ⇒ Electronic parts catalogue .

Procedure

– Thoroughly clean the headlight lenses on both sides of vehicle (must be clean and dry).

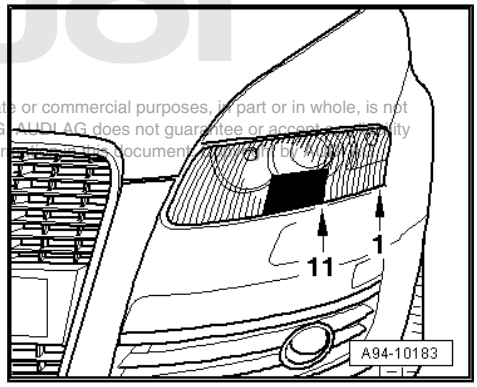
Headlight (driver's side):

– Count the vertical lines on the headlight lens up to the 11th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.

– Remove protective backing from masking foil for headlight.

– Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.

– Adhere the masking foil on the headlight lens.



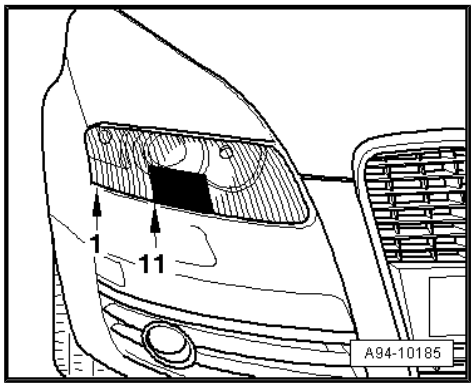
Headlight (passenger's side):

– Count the vertical lines on the headlight lens up to the 11th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.

– Remove protective backing from masking foil for headlight.

– Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.

– Adhere the masking foil on the headlight lens.



2.13 Adapting headlights for driving on the right side of the road

- In countries where vehicles are driven on the opposite side of the road to the vehicle's normal environment, both headlights must be partially masked by appropriately shaped opaque adhesive strips to prevent oncoming traffic from being dazzled.

- There are different masking elements available for adapting headlights for left and right-hand traffic (adhesive elements for headlight lens) ⇒ Electronic parts catalogue .

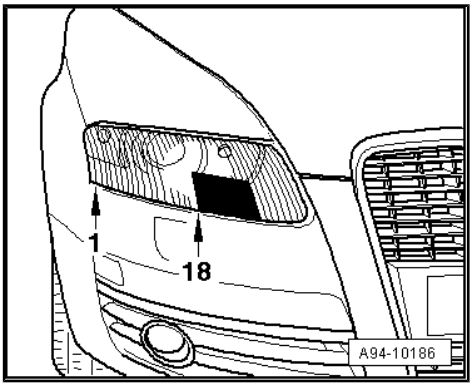
Procedure

– Thoroughly clean the headlight lenses on both sides of vehicle (must be clean and dry).

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

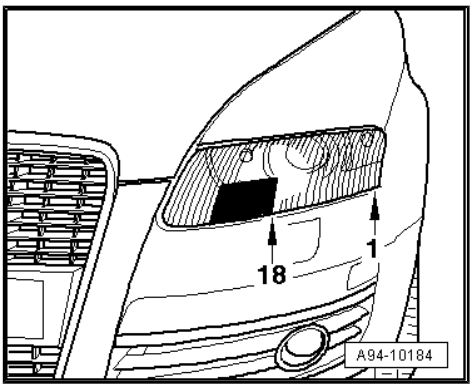
Headlight (driver's side):

- Count the vertical lines on the headlight lens up to the 18th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.
- Remove protective backing from masking foil for headlight.
- Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.
- Adhere the masking foil on the headlight lens.



Headlight (passenger's side):

- Count the vertical lines on the headlight lens up to the 18th line (starting from outside of headlight moving towards radiator grille). Mark this line on the headlight lens with a water-soluble felt-tip pen.
- Remove protective backing from masking foil for headlight.
- Apply the masking foil at the bottom edge of the headlight and at the marking, as shown in the illustration.
- Adhere the masking foil on the headlight lens.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

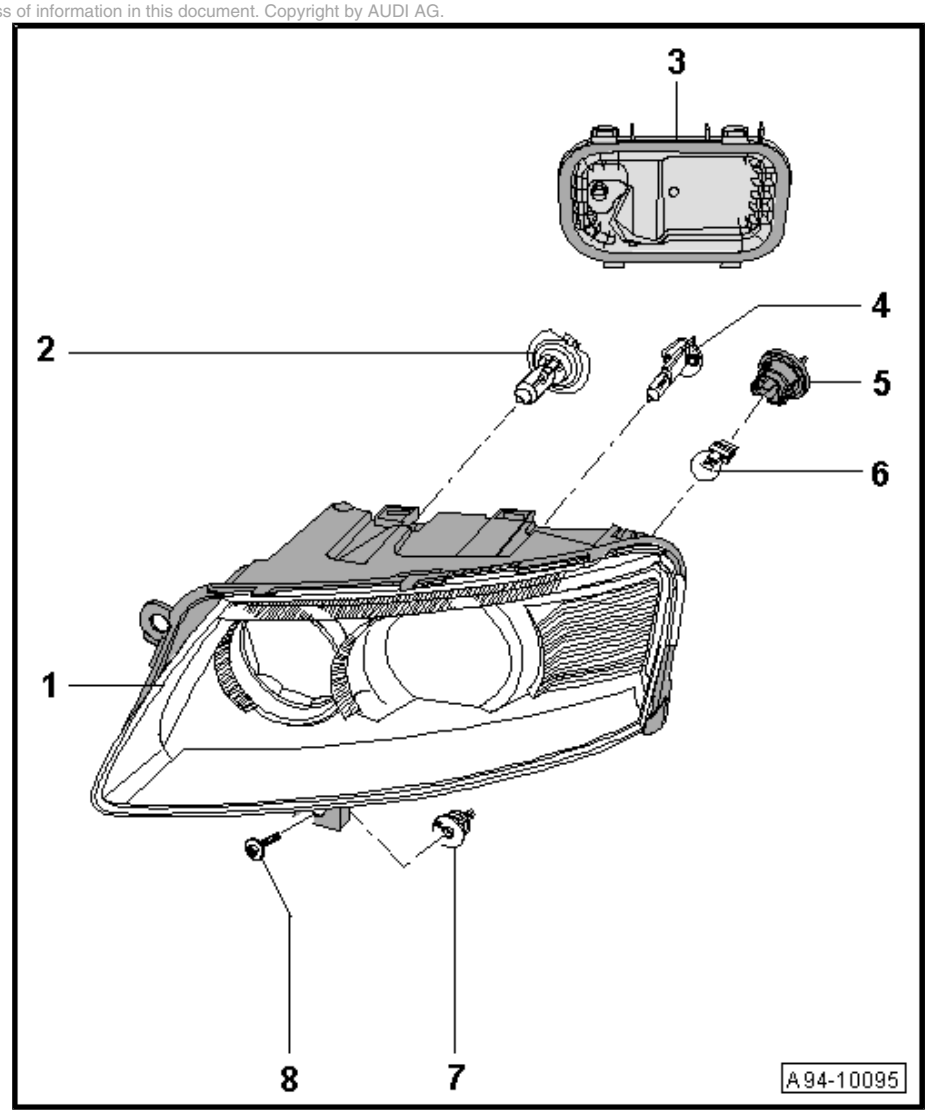
3 Halogen headlights (USA vehicles)

Note

The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ page 173 .

3.1 Exploded view of halogen headlight

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1 - Headlight housing

- ❑ Removing and installing headlight housing (after renewing components on front end of vehicle) ⇒ page 169
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 170

2 - Headlight main beam bulb

- ❑ Left headlight main beam bulb - M30-
- ❑ Right headlight main beam bulb - M32-
- ❑ 12 V, 55 W (H1 - W5W - white)
- ❑ Renewing bulb ⇒ page 181

3 - Housing cover

4 - Headlight dipped beam bulb

- ❑ Left headlight dipped beam bulb - M29-
- ❑ Right headlight dipped beam bulb - M31-
- ❑ 12 V, 55 W (H7 - W5W - white)
- ❑ Renewing bulb ⇒ page 180

5 - Bulb holder

- ❑ For turn signal bulb

6 - Front turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 28/7 W (orange)
- ❑ Renewing bulb ⇒ page 182

7 - Adjuster

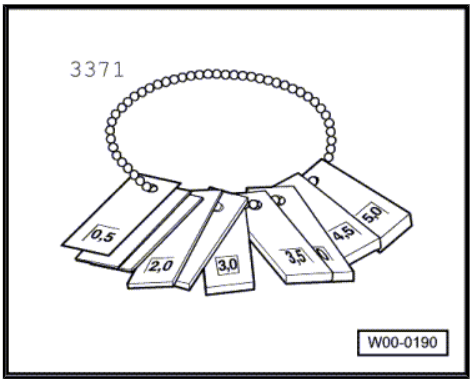
- ❑ To adjust headlight to bumper contour
- ❑ 3x

8 - 8 Nm

3.2 Removing and installing headlights (to renew components on front end of vehicle)

Special tools and workshop equipment required

- Setting gauge - 3371-



Removing

– Switch off ignition and take out ignition key.

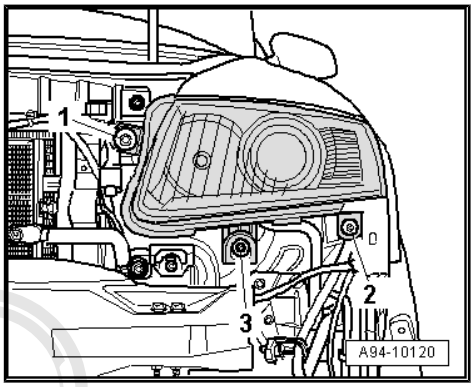
– Turn light switch to position “0”.

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unscrew bolts -1 ... 3-.

– Detach headlight to front.

– Unplug electrical connector.

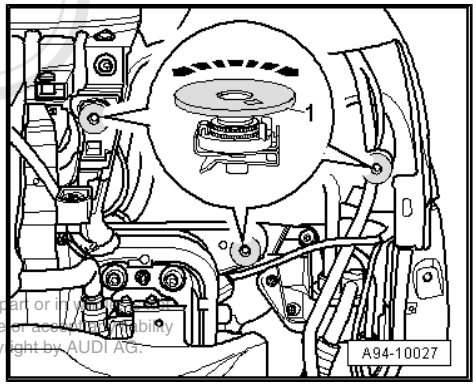


Installing

• Tightening torque ⇒ page 168

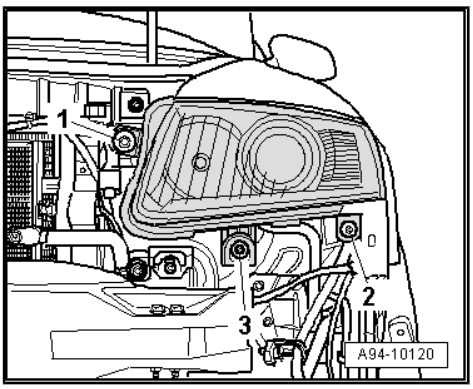
– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.

– Screw down adjuster nut as far as it will go, but do not tighten.



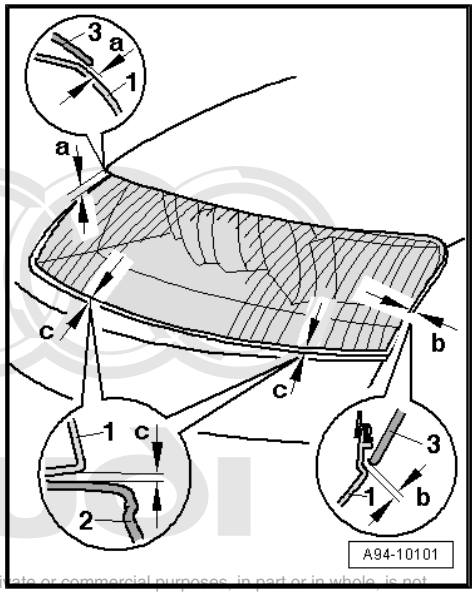
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



– Fit front bumper cover in installation position, but do not tighten bolts.
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

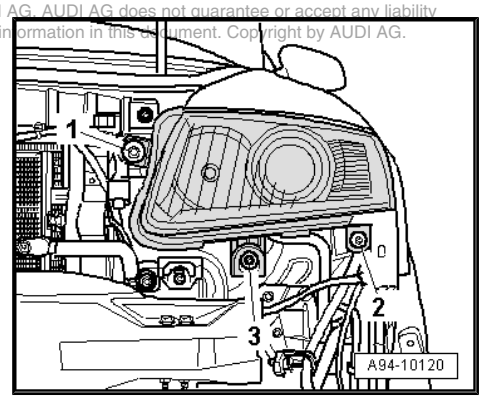
• Dimension -a- = 2.3 mm
• Dimension -b- = 2 mm
• Dimension -c- = 1.2 mm
• The headlight must be flush with outer edge of wing panel.
• The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.

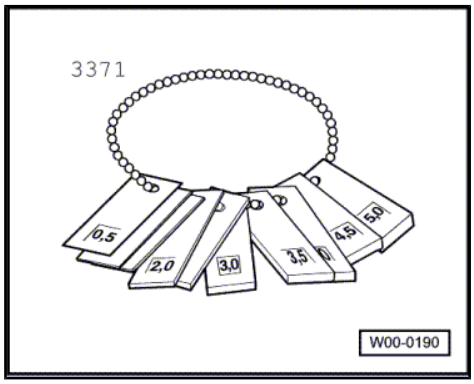


– Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
– Take off front bumper cover.
– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
– Install front bumper cover ⇒ Rep. gr. 63 .
– Check gap widths again; if necessary repeat adjustment of gap widths as described above.
– Following installation, adjust headlights ⇒ page 173 .

3.3 Removing and installing headlights (old headlight is fitted again)

Special tools and workshop equipment required

♦ Setting gauge - 3371-



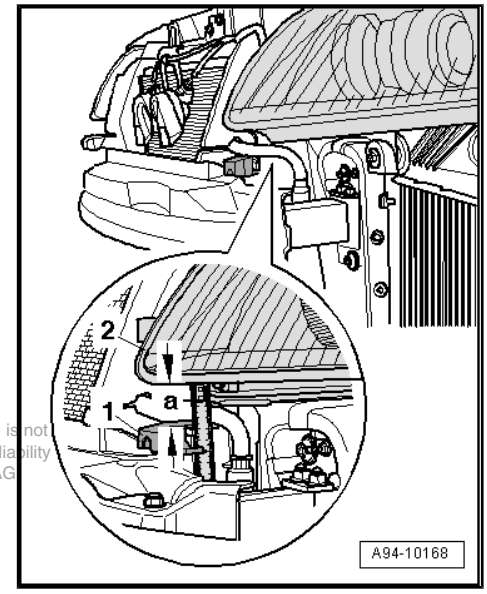
Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

– Remove front bumper cover ⇒ Rep. gr. 63 .

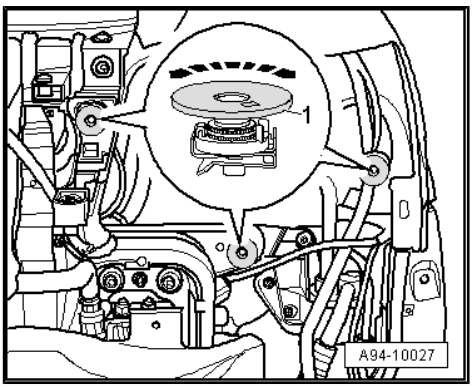
– Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

Note

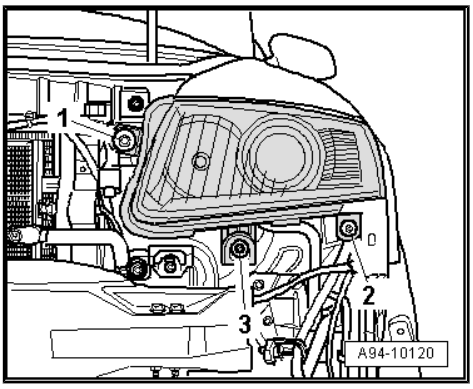
Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.



– Unscrew bolts -1 ... 3-.

– Detach headlight to front.

– Unplug electrical connector.

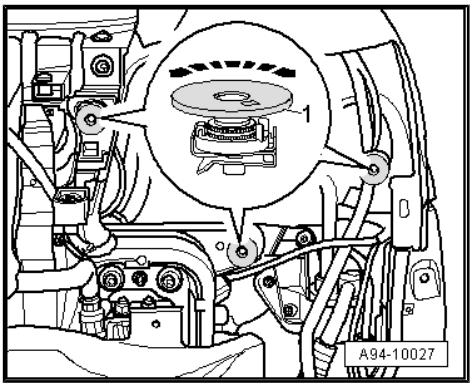


Installing

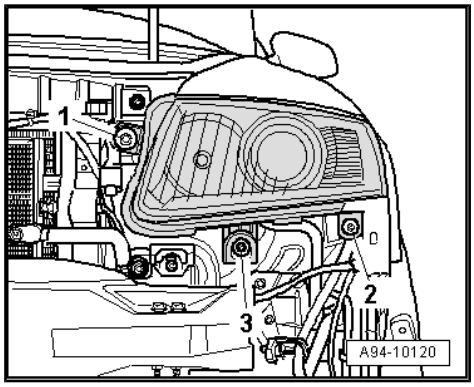
• Tightening torque ⇒ page 168

Note

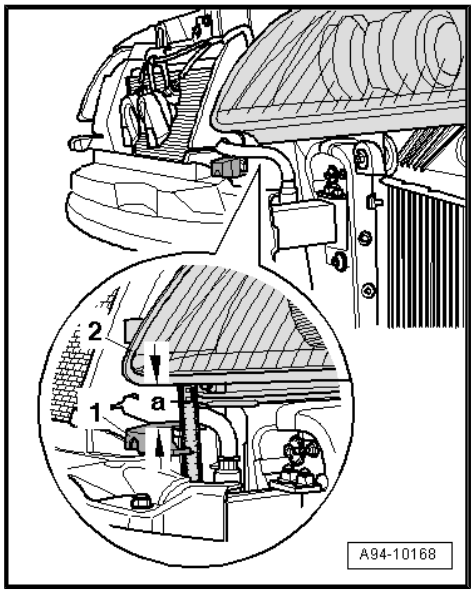
Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.



– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



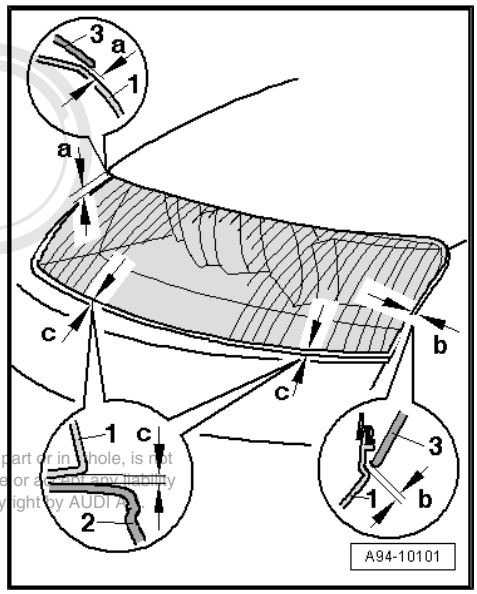
– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.



– Fit front bumper cover in installation position, but do not tighten bolts.

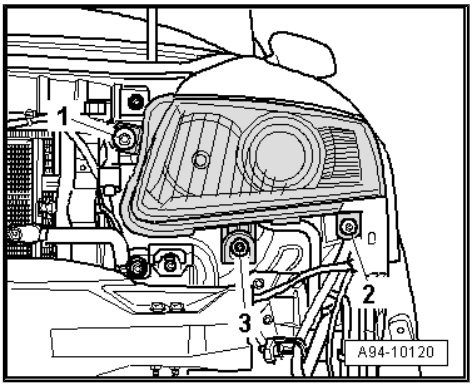
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Secure bolt -1- – do not apply pressure to bolt when tightening.
– Take off front bumper cover.
– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
– Install front bumper cover ⇒ Rep. gr. 63 .
– Check gap widths again; if necessary repeat adjustment of gap widths as described above.
– Following installation, adjust headlights ⇒ page 173 .



3.4 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.
♦ However, national legislation and guidelines for individual countries must be adhered to.

3.4.1 Requirements for checking and adjusting

♦ Tyre pressure OK
♦ Headlight lenses must not be damaged or dirty.
♦ Reflectors and bulbs OK
♦ Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 174 .

♦ Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.
♦ Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
♦ Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

♦ Dip setting must be adjusted.

Dip settings (in “%”) are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.4.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Example:

If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

Note

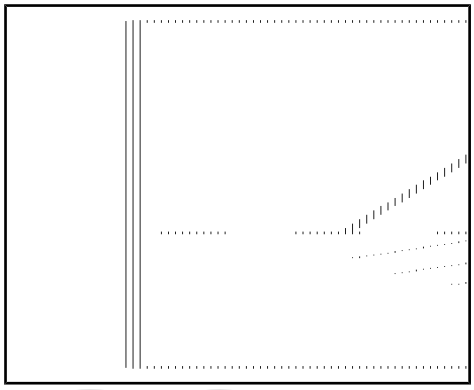
It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

3.4.3 Checking headlight settings

– Set knurled wheel for headlight range control to position “0”.

– Switch on ignition and dipped headlights.

- The horizontal light-dark border should coincide with the setting line -1- of the test surface.
- The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.



Note

- *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*
- *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*
- *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

– If headlight setting is not OK, adjust headlights ⇒ page 175 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.4.4 Adjusting headlights

Headlight (left-side)

Adjuster screws on left headlight:

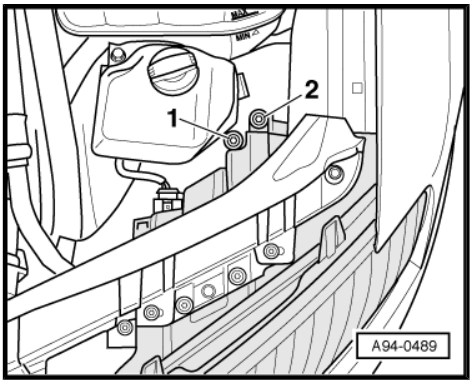
1 - Height adjuster screw

2 - Height/lateral adjuster screw

The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.

– For lateral adjustment, turn only adjustment screw-2-.



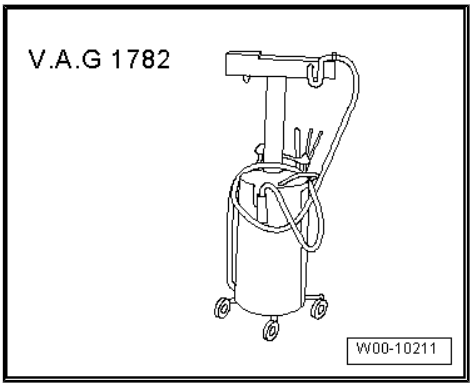
3.5 Preparations before working on headlights

Depending on the engine version, access to the headlight bulbs could be obstructed. In this case, additional steps must be performed.

3.5.1 Loosening power steering reservoir at bracket

Special tools and workshop equipment required

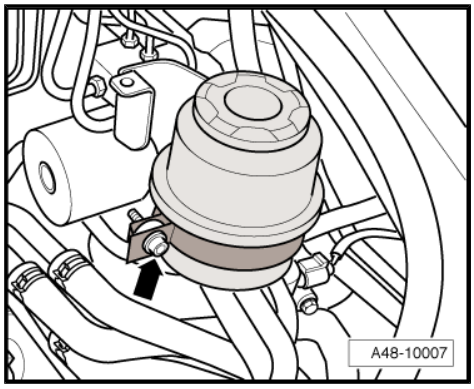
♦ Used oil collection and extraction unit - V.A.G 1782-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

– Draw off hydraulic fluid for power steering from reservoir with used oil collection and extraction unit - V.A.G 1782- .



Note

Place cloth under power steering reservoir to catch escaping hydraulic fluid.

– Remove bolt -arrow- and move power steering reservoir to side with hydraulic hoses still attached.

Installation is carried out in the reverse order; note the following:

– Install power steering reservoir ⇒ Rep. gr. 48 .

– Fill up hydraulic fluid for power steering and check fluid level ⇒ Rep. gr. 48 .

Tightening torque

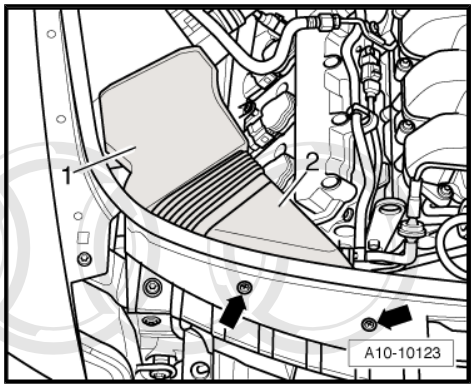
Component	Nm
Power steering reservoir to bracket	9

3.5.2 Removing air cleaner housing - vehicles with 6-cyl. petrol engine

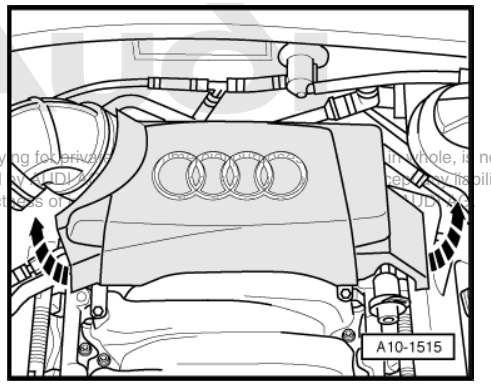
Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

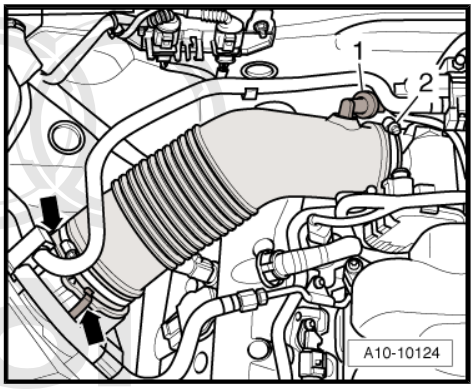


– Pull off engine cover (rear) -arrows-.



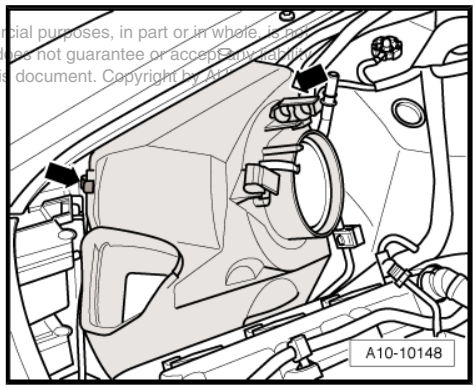
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Pull non-return valve -1- off air intake hose.
– Remove air intake hose; to do so, open retainers -arrows- and release hose clip -2-.



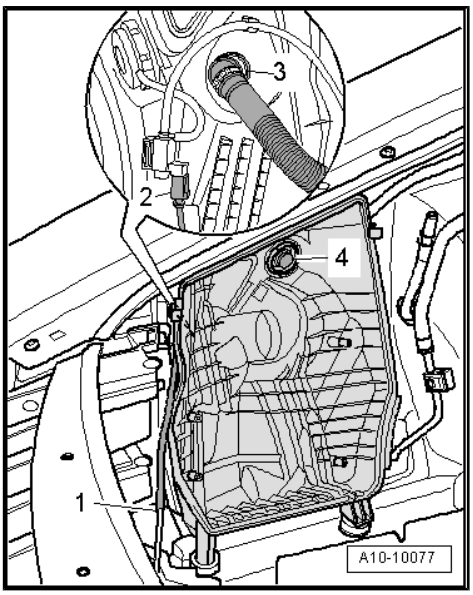
– Release retainers -arrows- and detach air cleaner (top section).

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.
– If fitted, pull off hose -3- to secondary air pump.
– Detach air cleaner (bottom section).

Install in reverse order.

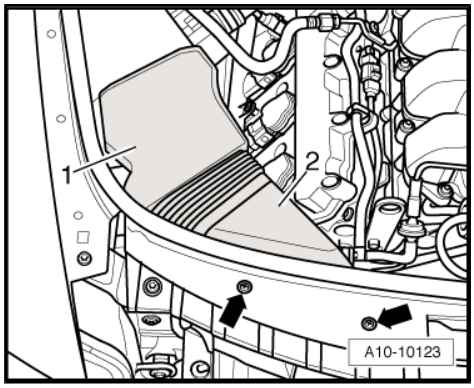


3.5.3 Removing air cleaner housing - vehicles with 4.2 ltr. MPI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

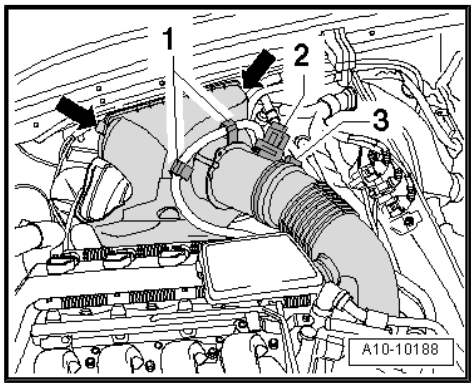


– Detach fuel line -1- at air cleaner (top section) and move clear.

– Unplug electrical connector -2- at air mass meter - G70- .

– Remove air intake hose at air mass meter by releasing hose clip -3-.

– Release retainers -arrows- and detach air cleaner (top section) together with air mass meter.



– Unplug vacuum line.

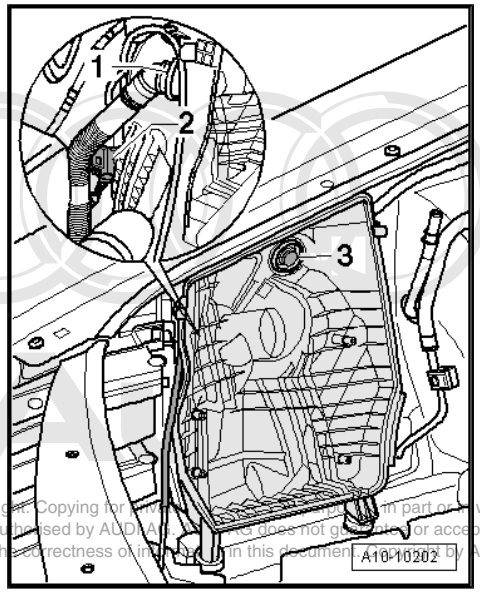
– Pull pin out of fastener -3-.

– Detach air cleaner (bottom section) and unplug electrical connector on reverse side -2-.

– Disconnect hose -1- going to secondary air pump.

– Detach air cleaner (bottom section).

Install in reverse order.



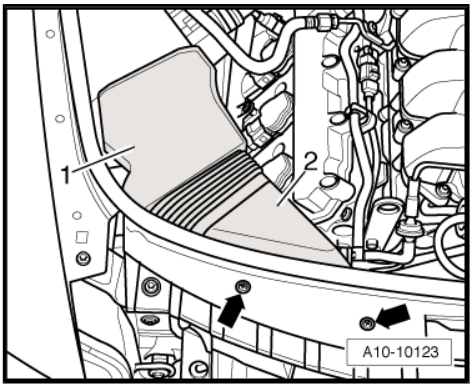
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.5.4 Removing air cleaner housing - vehicles with 4.2 ltr. FSI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1 and 2-.

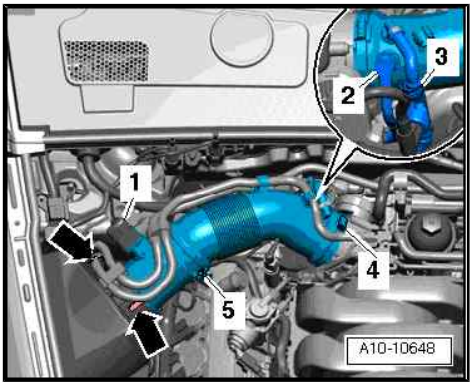


– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.

– Unplug electrical connector -1- at air mass meter - G70- .

– Detach vacuum line -3- going to air intake hose.

– Move air intake hose with connected crankcase breather hose -2- clear. To do so, release hose clip -4- and clamps -arrows-.



Caution

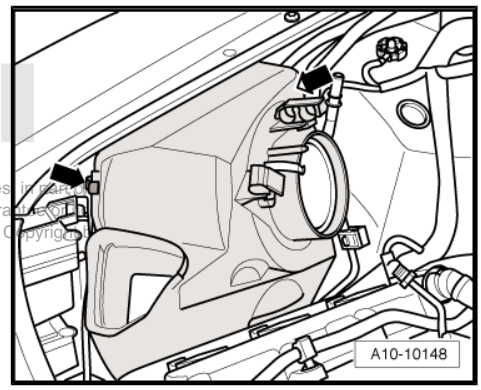
Avoid violation of laws concerning exhaust emissions on USA vehicles.

- ***Do not open hose connection -2-.***

Note

Disregard -item 5-.

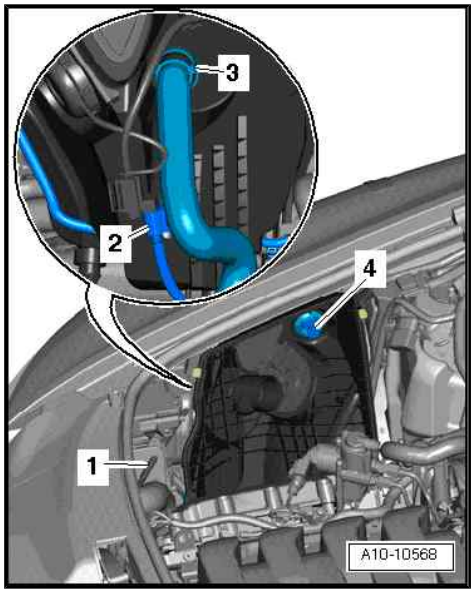
– Release retainers -arrows- and detach air cleaner (top section).



Protected by copyright. Copying for private or commercial purposes, in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .

Install in reverse order.



3.6 Renewing headlight dipped beam bulb - M29- / -M31-

Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.

Headlight (left-side) - vehicles with 6-cyl. engine:

– Remove power steering reservoir ⇒ page 175 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 176 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

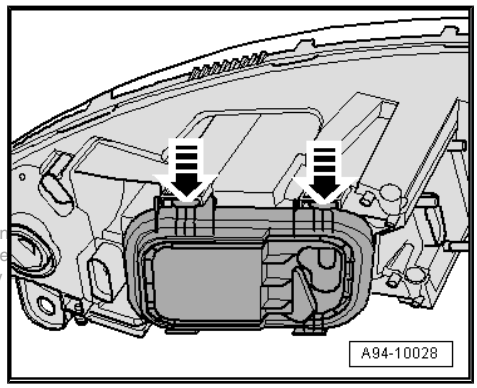
– Remove air cleaner housing ⇒ page 178 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 179 .

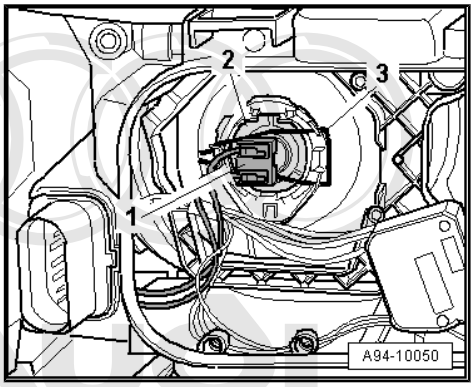
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



Protected by copyright. Copying for private or commercial purposes, in part or in
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or acce
with respect to the correctness of information in this document. Copyright by

– Detach electrical connector -1- at dipped beam bulb.
– Disengage retaining clip -3- and take bulb -2- out of housing.



Installing

Installation is carried out in the reverse order; note the following:

– Fit new bulb in housing; do not touch the glass part of the bulb with bare hands.
– Secure bulb with retaining clip.
– Plug in connector and close housing cover.

3.7 Renewing headlight main beam bulb - M30- / -M32-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.

Headlight (left-side) - vehicles with 6-cyl. engine:

– Remove power steering reservoir ⇒ page 175 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 176 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

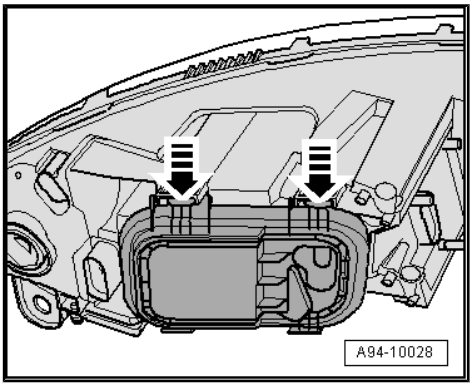
– Remove air cleaner housing ⇒ page 178 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

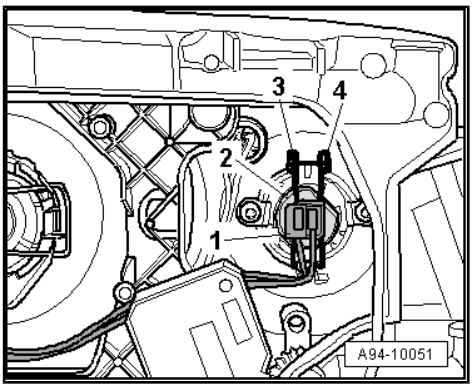
– Remove air cleaner housing ⇒ page 179 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Unplug electrical connector -1- at main beam bulb.
– Disengage retaining clips -3- and -4- and take bulb -2- out of housing.



Installing

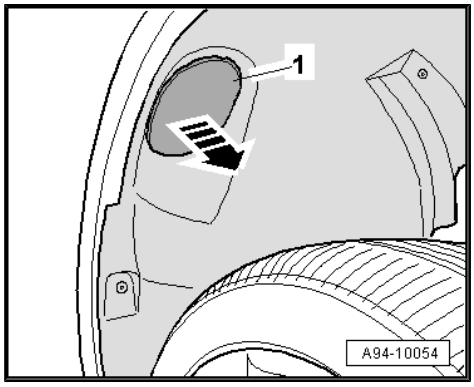
Installation is carried out in the reverse order; note the following:

– Fit new bulb in housing; do not touch the glass part of the bulb with bare hands.
– Secure bulb with retaining clip.
– Plug in connector and close housing cover.

3.8 Renewing front turn signal bulb -M5- / -M7-

Removing

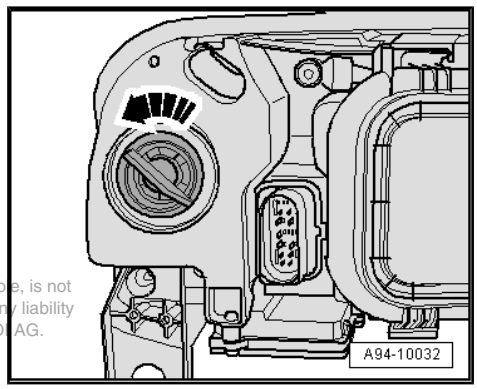
– Pry out cap -1- in wheel housing liner (front) in the direction of -arrow-.



Note

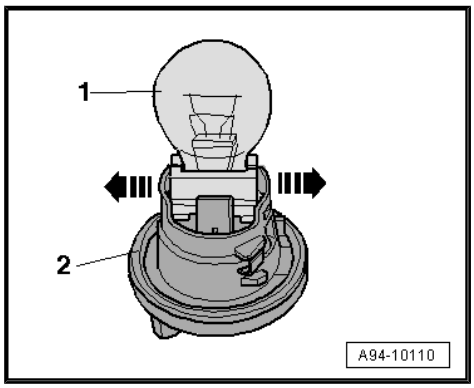
Detach front section of wheel housing liner on vehicles without cap ⇒ Rep. gr. 66 .

– Turn bulb holder anti-clockwise -arrow- and pull out of housing.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Release retaining clip in direction of -arrow- and take bulb -1- out of bulb holder -2-.



Installing

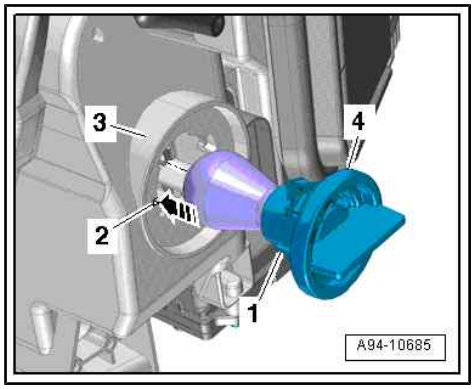
Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Press cap into wheel housing liner until you feel it engage.



3.9 Installing repair kit for headlight housing

Note

- *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*
- *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

Procedure

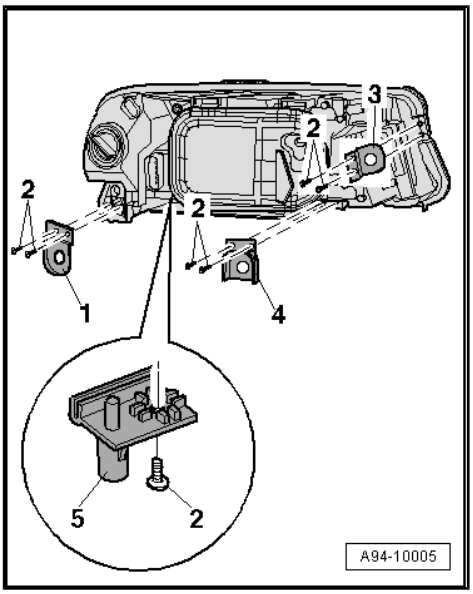
– Remove headlight with broken retaining tab ⇒ page 169 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove rest of broken retaining tab from headlight housing.

– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 168



4 Gas discharge headlights or gas discharge headlights with dynamic cornering lights (adaptive light) - Audi A6 up to 05.2008, Audi S6

Note

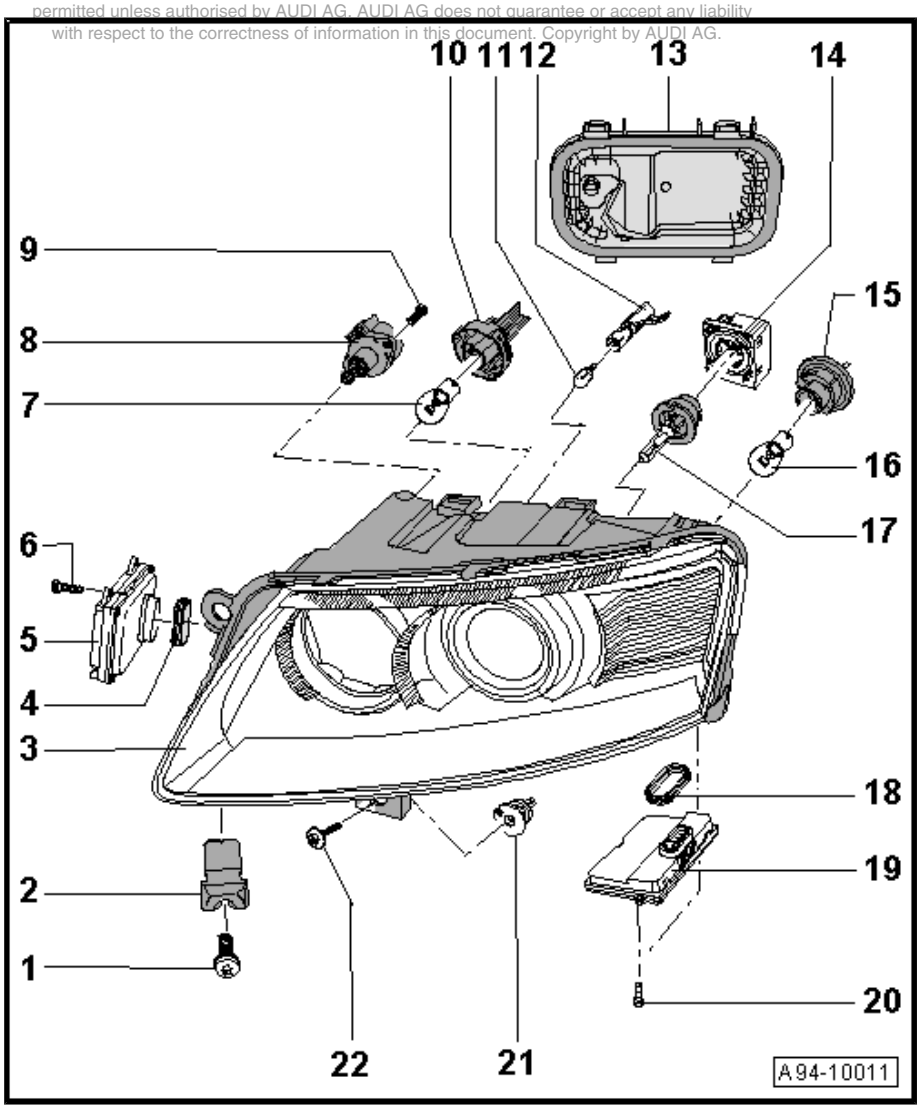
The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ *page 191* .

4.1 Safety precautions when handling gas discharge bulbs

⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs

4.2 Exploded view of gas discharge headlight

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1 - 6 Nm

Can be disregarded.

2 - Spacer

Can be disregarded.

3 - Headlight housing

- ❑ Removing and installing headlight housing (after renewing components on front end of vehicle) ⇒ page 186
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 188
- ❑ The following units cannot be renewed separately if defective: Headlight screen adjustment solenoid (left and right) -N395- / -N396- , swivel module position sensor (left and right) -G474- / -G475- , dynamic cornering light control motor (left and right) -V318- / -V319-

4 - Seal

- ❑ Renew if damaged

5 - Output module

- ❑ Only on vehicles with cornering light
- ❑ Output module for left headlight - J667-
- ❑ Output module for right headlight - J668-
- ❑ Removing and installing ⇒ page 212

6 - 1 Nm

7 - Bulb

Audi A6

- ❑ For daytime running lights
- ❑ Left daytime running light bulb - L174-
- ❑ Right daytime running light bulb - L175-
- ❑ 12 V, 21 W (P21W)
- ❑ Renewing bulb ⇒ page 206

Audi S6

- ❑ For fog lights
- ❑ Left fog light bulb - L22-
- ❑ Right fog light bulb - L23-
- ❑ H7 - 12 V, 55 W (W5W - white)
- ❑ Renewing bulb ⇒ page 296

8 - Headlight range control motor

- ❑ Left headlight range control motor - V48-
- ❑ Right headlight range control motor - V49-
- ❑ Removing and installing ⇒ page 210

9 - 1 Nm

10 - Bulb holder

- ❑ Only Audi A6
- ❑ For daytime running light bulb

11 - Bulb for side lights

- ❑ Only Audi A6
- ❑ Left side light bulb - M1-
- ❑ Right side light bulb - M3-
- ❑ Glass base bulb 12 V, 5 W (W5W - blue)
- ❑ Renewing bulb ⇒ page 207

12 - Bulb holder

- ❑ Only Audi A6
- ❑ For bulb for side lights

13 - Housing cover

14 - Starter unit for gas discharge bulb

- ❑ Removing and installing ⇒ page 213

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

15 - Bulb holder

- ❑ For turn signal bulb

16 - Turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 21 W (PY21W - silver-coloured glass)
- ❑ Renewing bulb ⇒ page 209

17 - Gas discharge bulb

- ❑ Left gas discharge (xenon) bulb - L13-
- ❑ Right gas discharge (xenon) bulb - L14-
- ❑ 35 W (D2S)
- ❑ Renewing bulb ⇒ page 204

18 - Seal

- ❑ Renew if damaged

19 - Gas discharge bulb control unit

- ❑ Left gas discharge bulb control unit - J343-
- ❑ Right gas discharge bulb control unit - J344-
- ❑ Removing and installing ⇒ page 211

20 - 1 Nm

21 - Adjuster

- ❑ To adjust headlight to bumper contour
- ❑ 3x

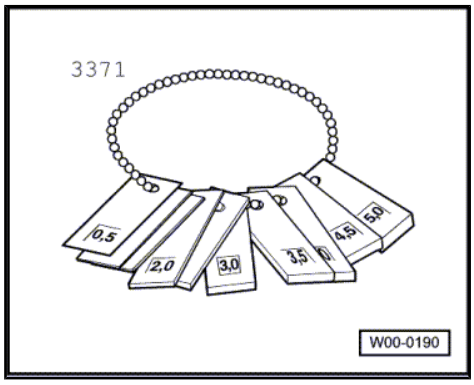
22 - 8 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.3 Removing and installing headlights (to renew components on front end of vehicle)

Special tools and workshop equipment required

- ♦ Setting gauge - 3371-



Removing

WARNING

High voltage! Danger to life!

- ♦ *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- ♦ *Switch off ignition and all electrical equipment and remove ignition key.*
- ♦ *Do not flash the headlights.*

– Turn light switch to position “0”.

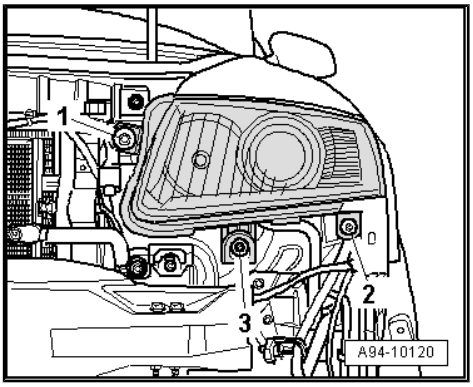
– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unscrew bolts -1 ... 3-.

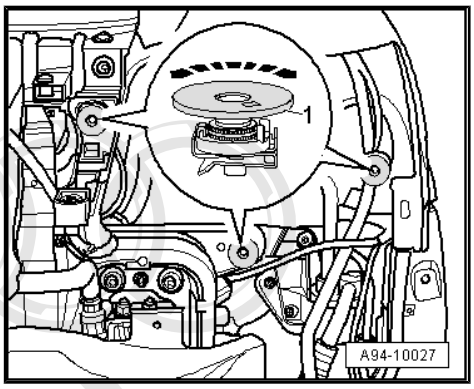
– Detach headlight to front.
– Unplug electrical connector.



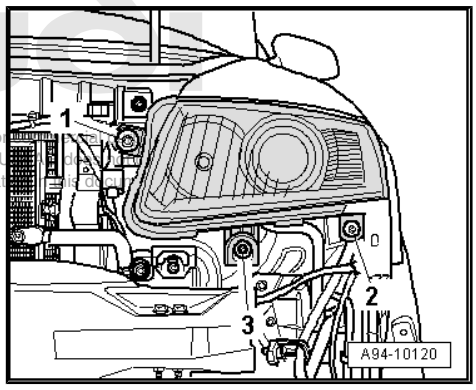
Installing

- Tightening torque ⇒ page 184

– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.
– Screw down adjuster nut as far as it will go, but do not tighten.



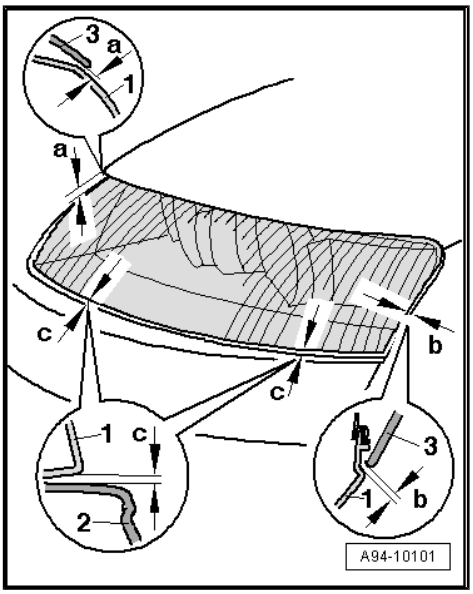
– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



Protected by copyright. Copying for private or
permitted unless authorised by AUDI AG. AU
with respect to the correctness of informat

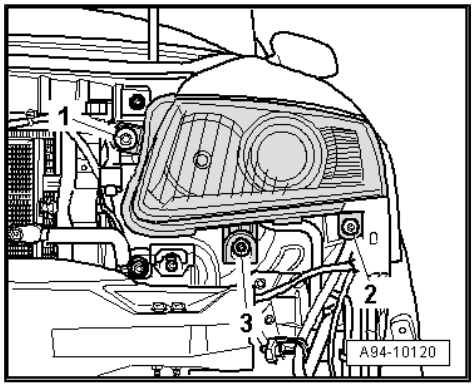
– Fit front bumper cover in installation position, but do not tighten bolts.
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.

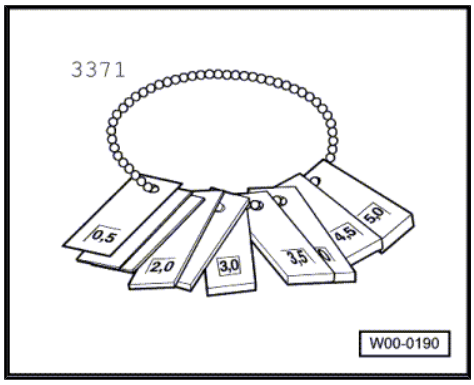


- Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
- Take off front bumper cover.
- Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
- Install front bumper cover ⇒ Rep. gr. 63 .
- Check gap widths again; if necessary repeat adjustment of gap widths as described above.
- Following installation, adjust headlights ⇒ page 191 .

4.4 Removing and installing headlights (old headlight is fitted again)

Special tools and workshop equipment required

- Setting gauge - 3371-



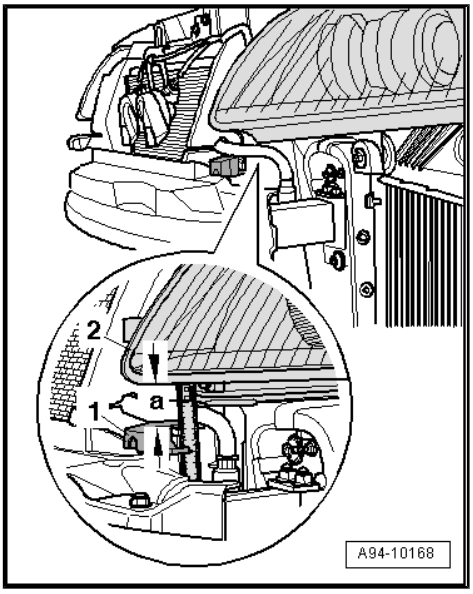
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

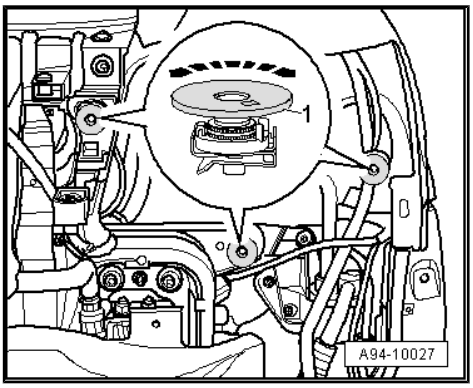


– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.
– Remove front bumper cover ⇒ Rep. gr. 63 .
– Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.

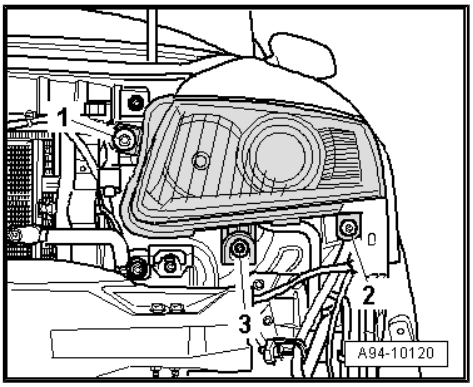
Note

Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.

The reproduction, distribution and utilization of this document to third parties is not authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



– Unscrew bolts -1 ... 3-.
– Detach headlight to front.
– Unplug electrical connector.

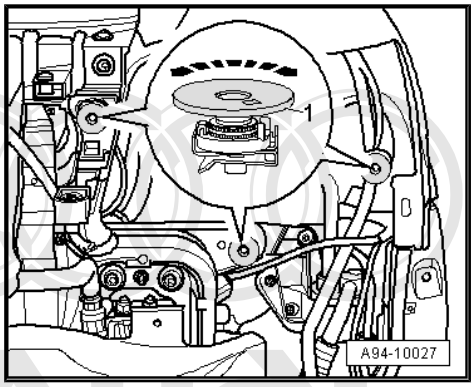


Installing

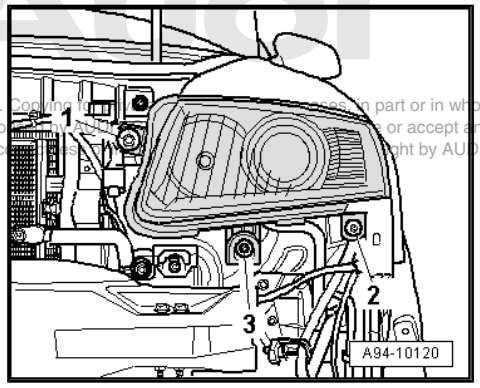
- Tightening torque ⇒ page 184

Note

Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.

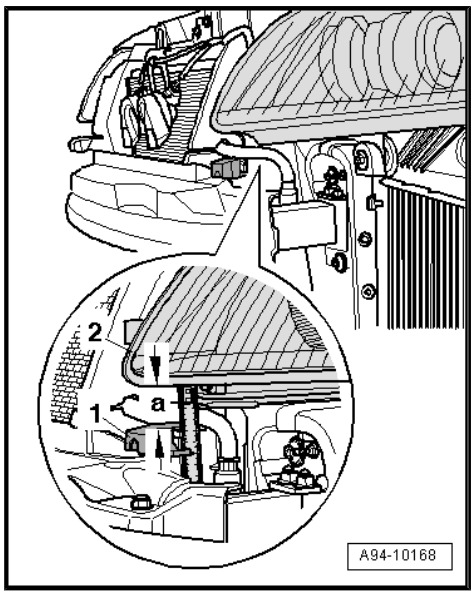


– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



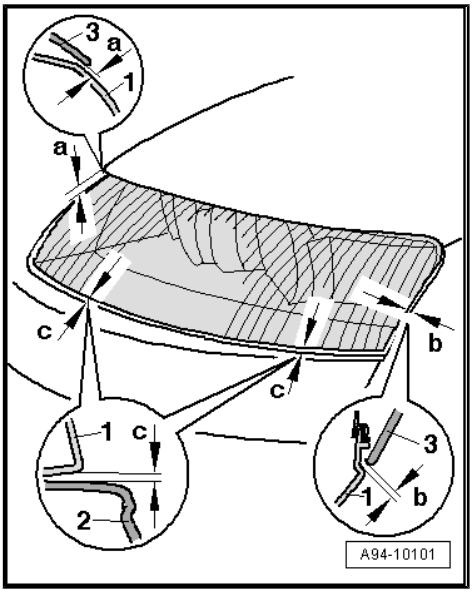
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.

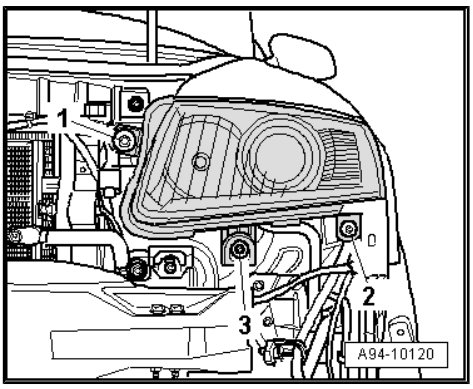


– Fit front bumper cover in installation position, but do not tighten bolts.
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

• Dimension -a- = 2.3 mm
• Dimension -b- = 2 mm
• Dimension -c- = 1.2 mm
• The headlight must be flush with outer edge of wing panel.
• The bottom edge of the headlight must be parallel with the top edge of the bumper.



– Secure bolt -1- – do not apply pressure to bolt when tightening.
– Take off front bumper cover.
– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
– Install front bumper cover ⇒ Rep. gr. 63 .
– Check gap widths again; if necessary repeat adjustment of gap widths as described above.
– Following installation, adjust headlights ⇒ page 191 .



4.5 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.
♦ However, national legislation and guidelines for individual countries must be adhered to.

4.5.1 Requirements for checking and adjusting

♦ Tyre pressure OK
♦ Headlight lenses must not be damaged or dirty.
♦ Reflectors and bulbs OK
♦ Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 192 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.
- Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
- Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

- Dip setting must be adjusted.

Dip settings (in “%”) are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.5.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Example:

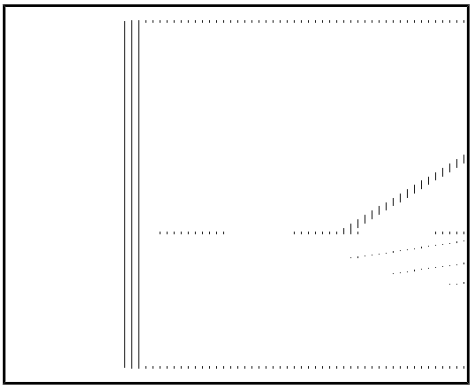
If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

Note

It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

4.5.3 Checking headlight settings

– Switch on ignition and dipped headlights.
– Start engine, wait for headlights to complete reference run and then switch engine off again.
– Switch on ignition and dipped headlights.



- The horizontal light-dark border should coincide with the setting line -1- of the test surface.
- The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.

Note

- *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*
- *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*
- *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

– If headlight setting is not OK, adjust headlights ⇒ page 193 .

4.5.4 Adjusting headlights

– Connect vehicle diagnostic tester ⇒ Vehicle diagnostic tester.
– Select `Diagnosis` mode and start diagnosis.
– Select `Test plan` tab.
– Select `Own test` then the following options one after the other:

- Body
- Electrical system
- 01 - Self-diagnosis compatible systems
- 55 - Dynamic headlight range control
- J431/J745 - Dynamic headlight range control, functions
- J431/J745 - Control unit for headlight range control, basic setting

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

With this programme the headlights return to the basic setting.

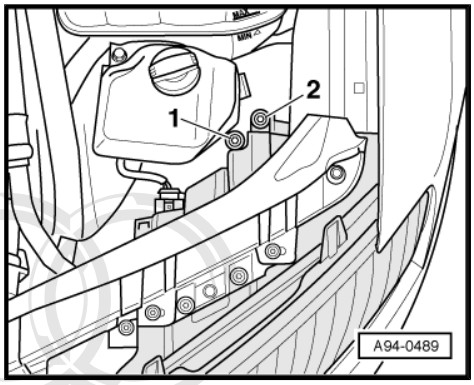
– Continue to follow the instructions on the display of the vehicle diagnostic tester.
– You will be requested to perform headlight adjustment while running through the programme.

Headlight (left-side)

Adjuster screws on left headlight:

1 - Height adjuster screw

2 - Height/lateral adjuster screw



The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.
– For lateral adjustment, turn only adjustment screw-2-.

4.6 Preparations before working on headlights

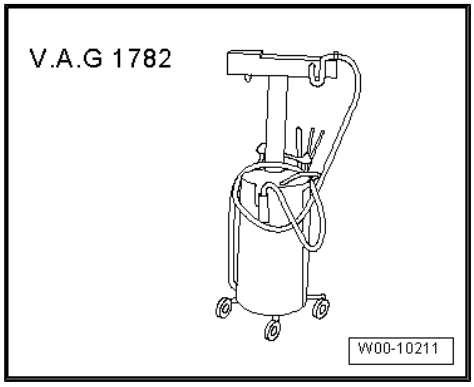
Depending on the engine version, access to the headlight bulbs could be obstructed. In this case, additional steps must be performed.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.6.1 Loosening power steering reservoir at bracket

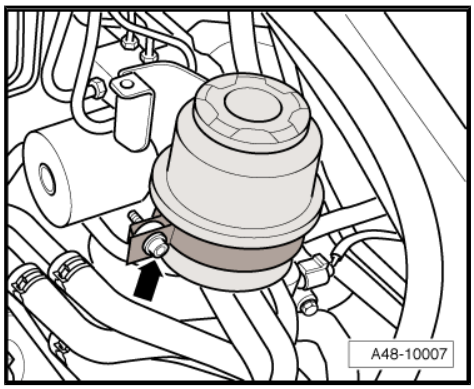
Special tools and workshop equipment required

- Used oil collection and extraction unit - V.A.G 1782-



Procedure

– Draw off hydraulic fluid for power steering from reservoir with used oil collection and extraction unit - V.A.G 1782- .



Note

Place cloth under power steering reservoir to catch escaping hydraulic fluid.

– Remove bolt -arrow- and move power steering reservoir to side with hydraulic hoses still attached.

Installation is carried out in the reverse order; note the following:

– Install power steering reservoir ⇒ Rep. gr. 48 .
– Fill up hydraulic fluid for power steering and check fluid level ⇒ Rep. gr. 48 .

Tightening torque

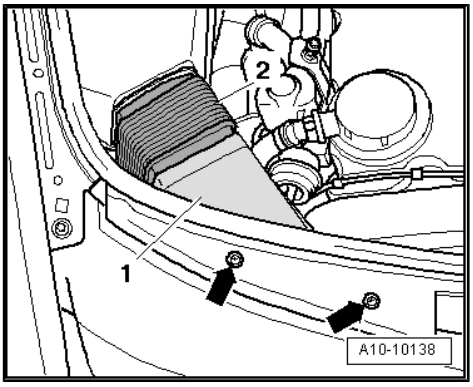
Component	Nm
Power steering reservoir to bracket	9

4.6.2 Removing air cleaner housing - vehicles with 4-cyl. petrol engine

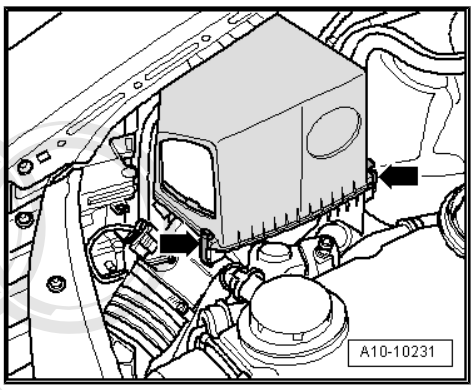
Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.



– Release both retaining clips -arrows- and detach air cleaner (top section).



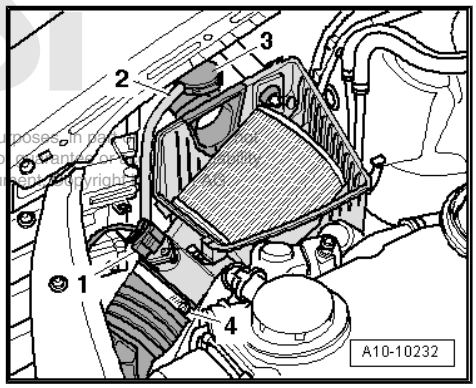
– Unplug electrical connector -1- at air mass meter - G70- .

– Remove air intake hose by releasing hose clip -4-.

– Detach vacuum hose -2-.

– Detach vacuum unit -3- with air control flap from air cleaner housing.

– Disengage air cleaner (bottom section) from retaining pin and remove.



Install in reverse order.

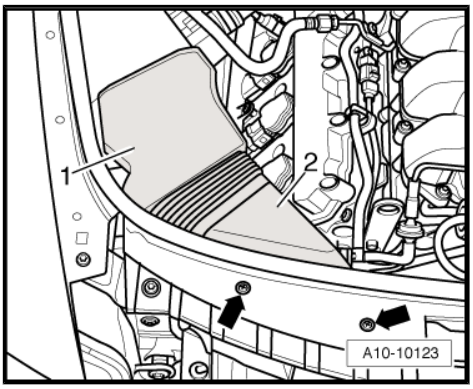
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.6.3 Removing air cleaner housing - vehicles with 6-cyl. petrol engine

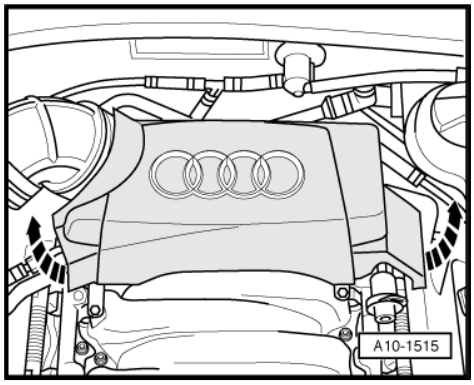
Procedure

– Unscrew bolts -arrows-.

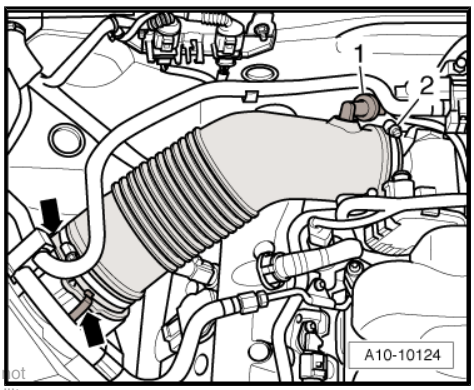
– Remove air ducts -1- and -2-.



– Pull off engine cover (rear) -arrows-.

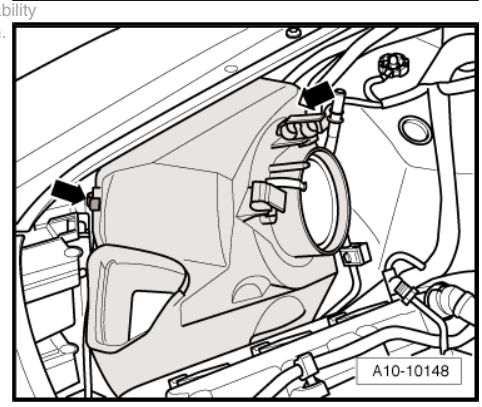


– Pull non-return valve -1- off air intake hose.
– Remove air intake hose; to do so, open retainers -arrows- and release hose clip -2-.



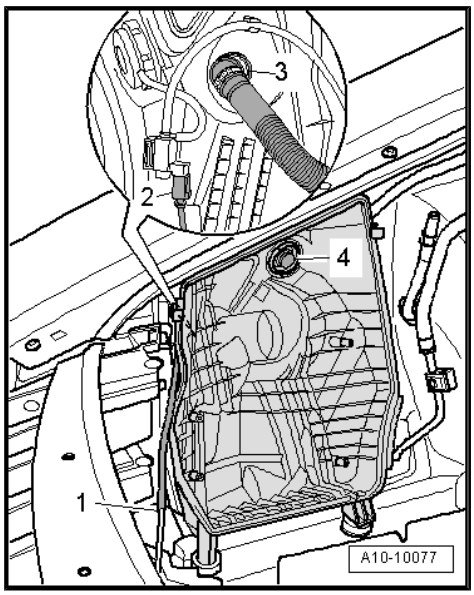
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the accuracy, completeness, timeliness or reliability of the information provided by AUDI AG.

– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.
– If fitted, pull off hose -3- to secondary air pump.
– Detach air cleaner (bottom section).

Install in reverse order.

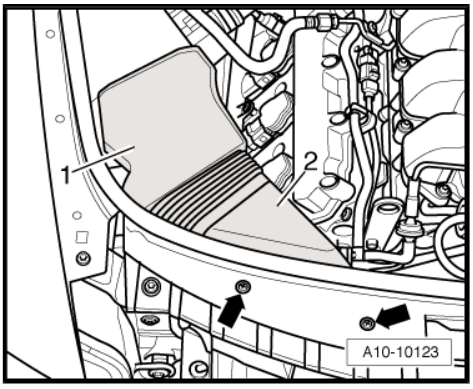


4.6.4 Removing air cleaner housing - vehicles with 4.2 ltr. MPI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

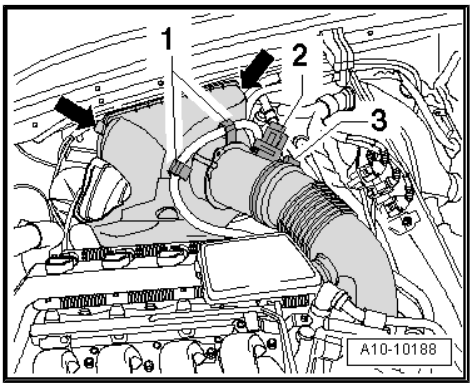


– Detach fuel line -1- at air cleaner (top section) and move clear.

– Unplug electrical connector -2- at air mass meter - G70- .

– Remove air intake hose at air mass meter by releasing hose clip -3-.

– Release retainers -arrows- and detach air cleaner (top section) together with air mass meter.



– Unplug vacuum line.

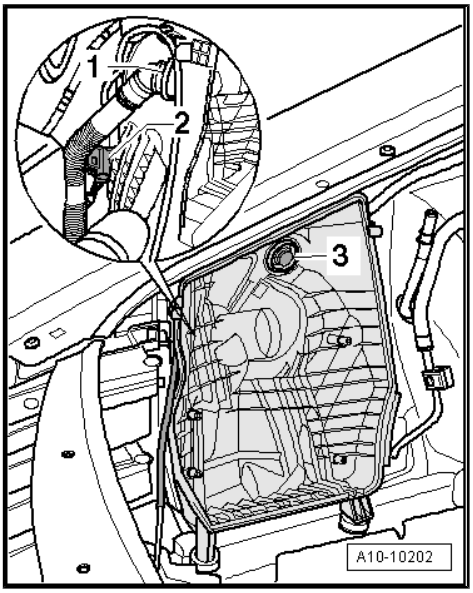
– Pull pin out of fastener -3-.

– Detach air cleaner (bottom section) and unplug electrical connector on reverse side -2-.

– Disconnect hose -1- going to secondary air pump.

– Detach air cleaner (bottom section).

Install in reverse order.



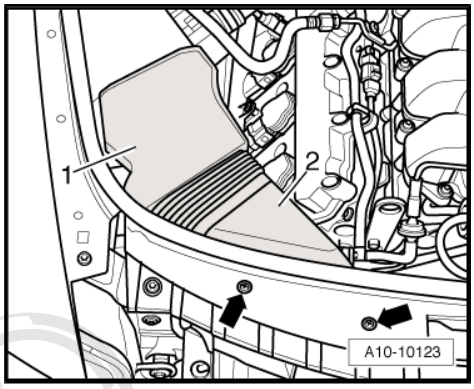
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.6.5 Removing air cleaner housing - vehicles with 4.2 ltr. FSI engine

Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1 and 2-.



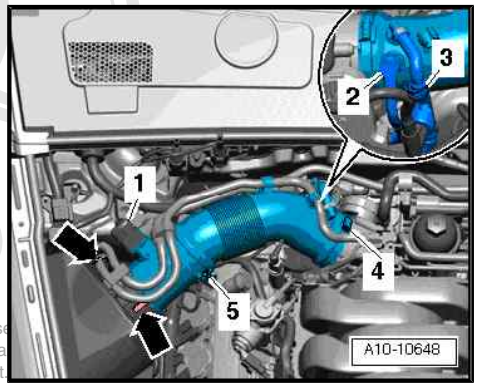
– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.

– Unplug electrical connector -1- at air mass meter - G70- .

– Detach vacuum line -3- going to air intake hose.

– Detach crankcase breather hose -2- from air intake hose (press release tabs).

– Remove air intake hose with air mass meter - G70- . To do so, release hose clip -4- and clamps -arrows-.

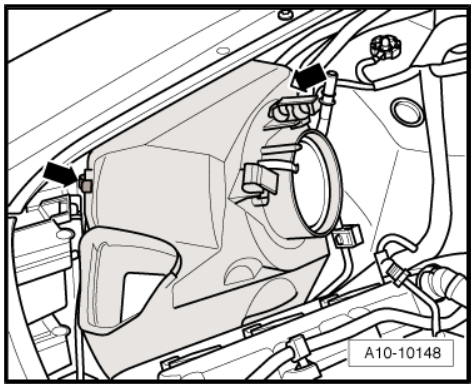


Protected by copyright. Copying for private or commercial purpose
permitted unless authorised by AUDI AG. AUDI AG does not gua
with respect to the correctness of information in this document

Note

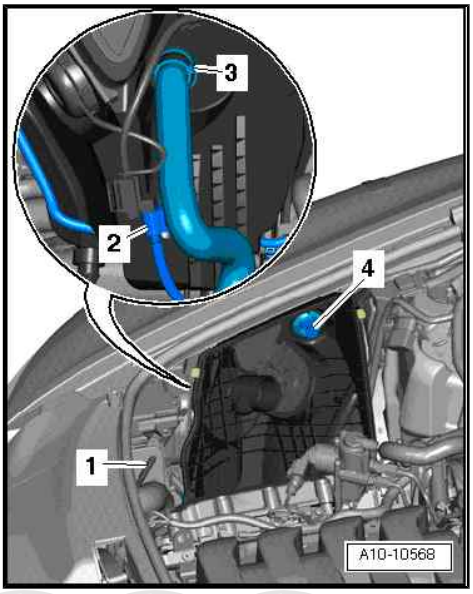
Disregard -item 5-.

– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .

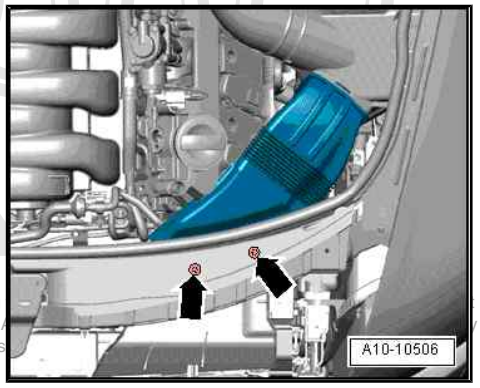
Install in reverse order.



4.6.6 Removing air cleaner housing (left-side) - vehicles with 10-cylinder petrol engine

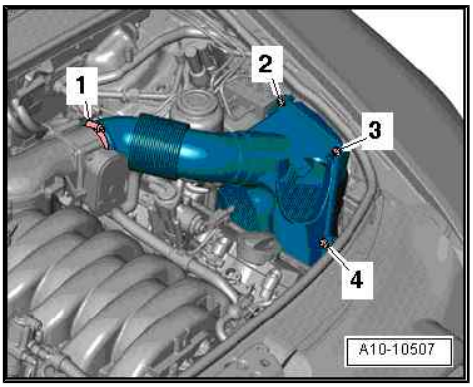
Procedure

– Unscrew bolts -arrows-, disengage bonnet cable and detach air duct (left-side).

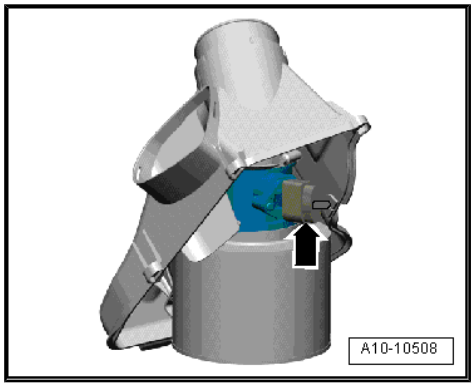


Protected by copyright. Copying permitted unless authorised by A with respect to the correctnes

– Loosen hose clip -1- and unscrew bolts -2, 3, 4-.
– Detach left air cleaner (top section).

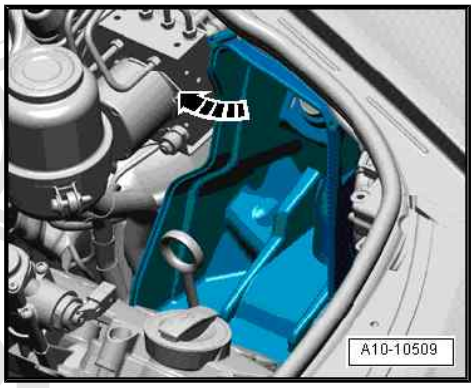


– Unplug electrical connector -arrow- at air mass meter 2 - G246- .



– Pull air cleaner (bottom section) off side connection.
– Swivel air cleaner (bottom section) upwards and take out -arrow-.

Install in reverse order.

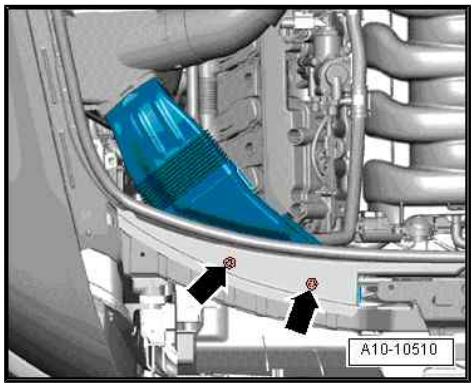


4.6.7 Removing air cleaner housing (right-side) - vehicles with 10-cylinder petrol engine

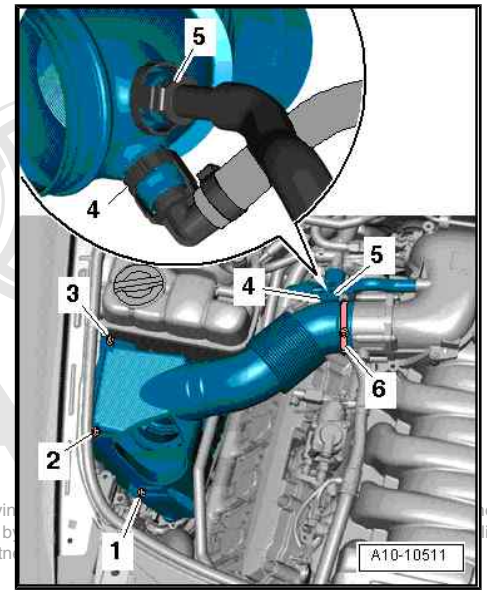
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

– Unscrew bolts -arrows- and remove air duct (right-side).

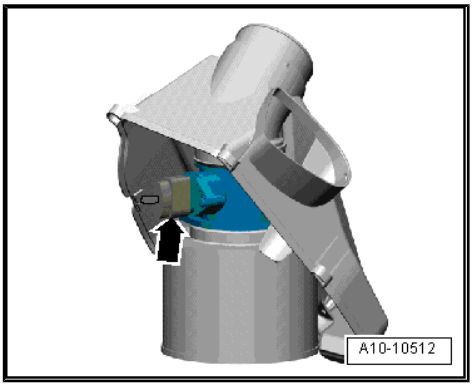


– Unplug vacuum hoses -4- and -5-.
– Loosen hose clip -6- and unscrew bolts -1 ... 3-.
– Detach right air cleaner (top section).



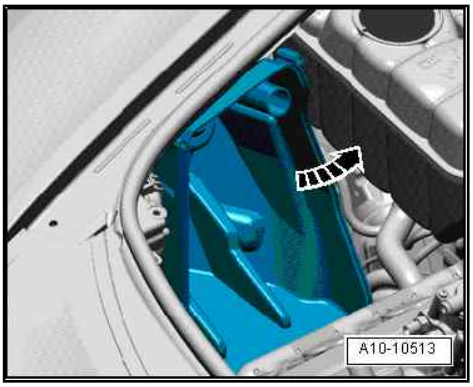
Protected by copyright. Copyin
permitted unless authorised b
with respect to the correctn
ot
ity

– Unplug electrical connector -arrow- at air mass meter - G70- .



– Pull air cleaner (bottom section) off side connection.
– Swivel air cleaner (bottom section) upwards and take out -arrow-.

Install in reverse order.



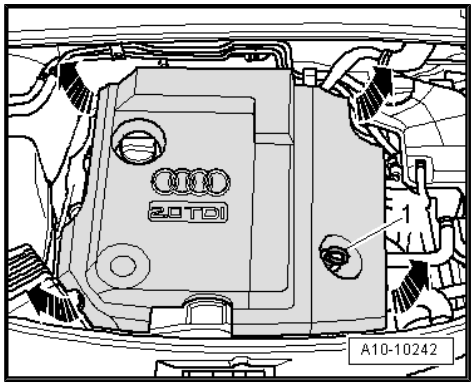
4.6.8 Removing air cleaner housing - vehicles with 4-cyl. TDI engine

Procedure

– Pull oil dipstick -1- out of guide tube.

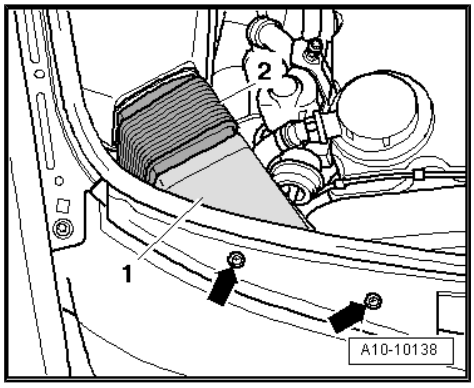
– Pull off engine cover panel -arrows-.

– Re-insert dipstick in guide tube.

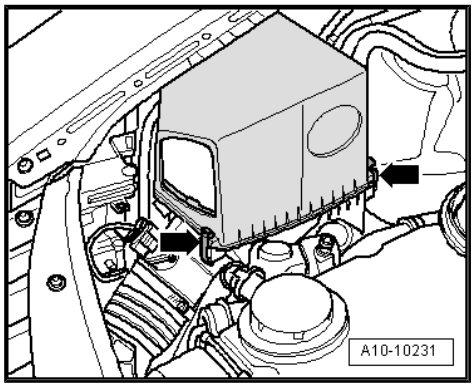


– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.



– Release both retaining clips -arrows- and detach air cleaner (top section).



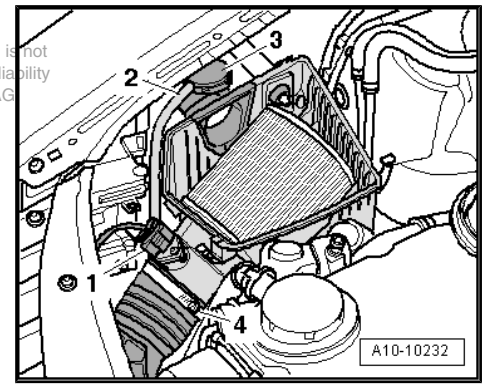
– Unplug electrical connector -1- at air mass meter - G70- .

– Remove air intake hose by releasing hose clip -4-.

– Detach vacuum hose -2-.

– Detach vacuum unit -3- with air control flap from air cleaner housing.

– Disengage air cleaner (bottom section) from retaining pin and remove.



Install in reverse order.

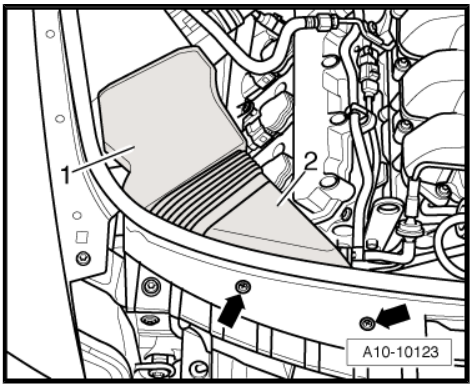
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

4.6.9 Removing air cleaner housing - vehicles with 6-cyl. TDI engine

Procedure

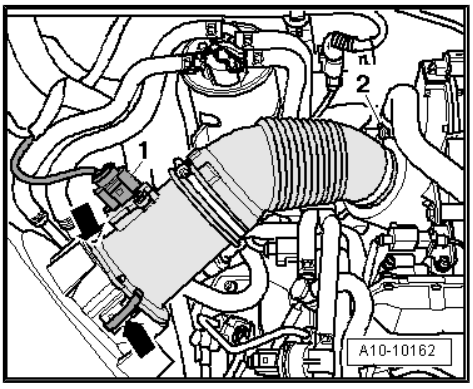
– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.



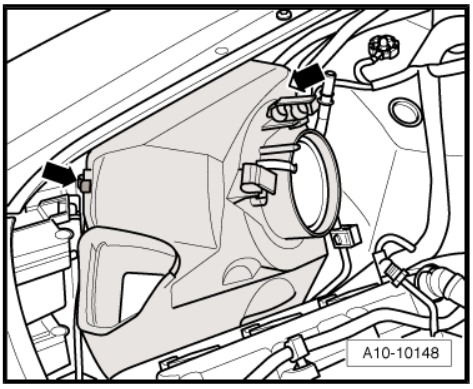
– Unplug electrical connector -1- at air mass meter - G70- .

– Remove air intake hose. To do so, release hose clip -2- and clamps -arrows-.



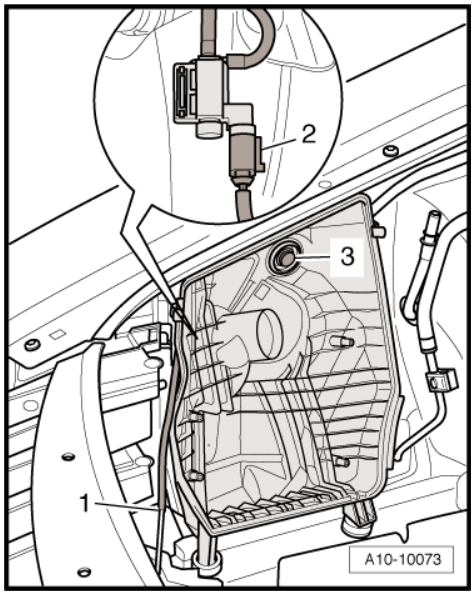
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -3-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.

Install in reverse order.



4.7 Renewing gas discharge bulb -L13- / -L14-

Removing

> **WARNING**
>
> *High voltage! Danger to life! Observe environmental requirements.*
>
> - *Safety precautions when handling gas discharge bulbs ⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs*

– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 194 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 197 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 198 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 199 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 200 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

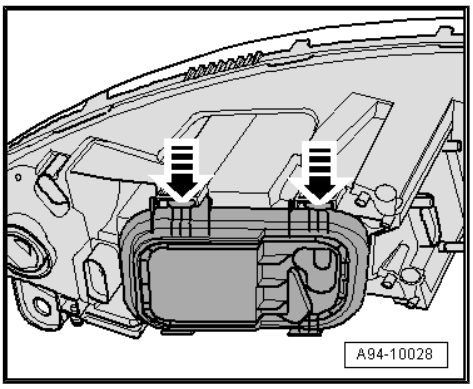
– Remove air cleaner housing ⇒ page 202 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 203 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

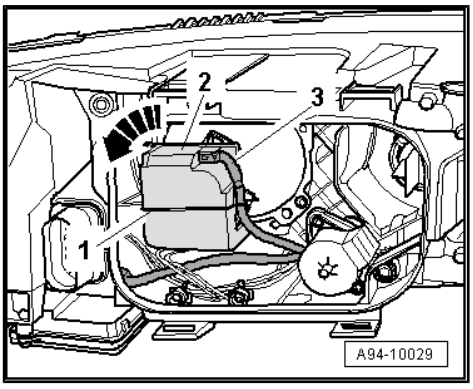


– If fitted, pivot the securing clip -1- for electrical connector to side.

– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.

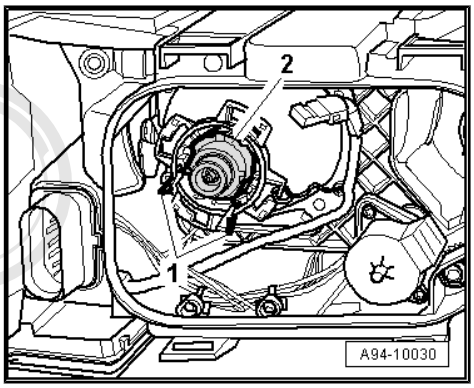
– Unplug electrical connector -3- at starter unit for gas discharge bulb.

– Remove starter unit for gas discharge bulb.



– Disengage retaining clips -1-.

– Pull gas discharge bulb -2- out of headlight housing.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new gas discharge bulb in housing; do not touch glass part of bulb with bare hands.

Note

Note correct installation position: lug at top of bulb holder must engage in recess of gas discharge bulb.

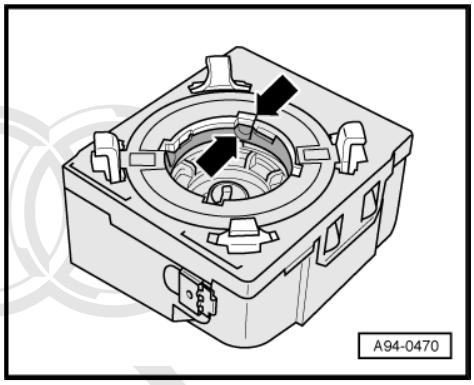
– Secure gas discharge bulb with retaining clip.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

The starter unit must be installed before attaching the connector.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.
– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.
• The starter unit should be easy to turn.
• Arrow on housing faces upwards.
– Re-attach connector.
– If fitted, secure electrical connector with securing clip.
– Close housing cover.



4.8 Renewing daytime running light bulb - L174- / -L175-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 194 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 197 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 198 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 199 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 200 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

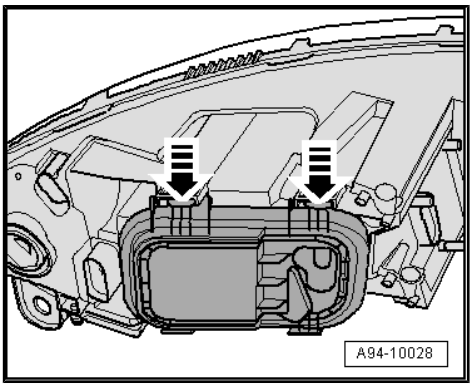
– Remove air cleaner housing ⇒ page 202 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 203 .

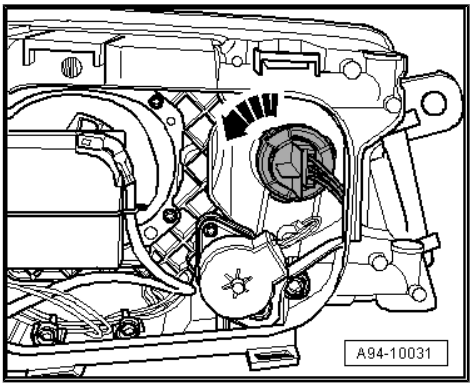
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Turn bulb holder anti-clockwise -arrow- and pull out of headlight housing.

– Screw bulb out of bulb holder.



Installing

Installation is carried out in the reverse order; note the following:

– Fit new bulb in housing; do not touch the glass part of the bulb with bare hands.

– Secure bulb holder by turning clockwise.

– Close housing cover.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.9 Renewing side light bulb -M1- / -M3-

Removing

> **WARNING**
>
> *High voltage! Danger to life!*
>
> - *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
> - *Switch off ignition and all electrical equipment and remove ignition key.*
> - *Do not flash the headlights.*

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 194 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 197 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 198 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 199 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 200 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

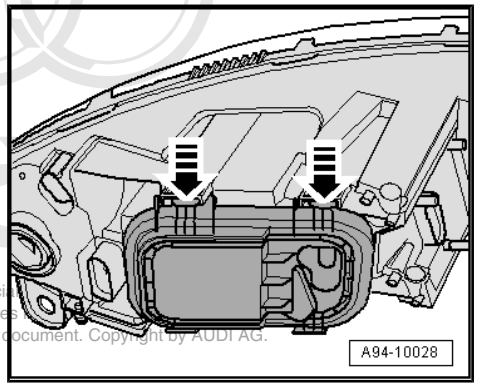
– Remove air cleaner housing ⇒ page 202 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 203 .

All vehicles:

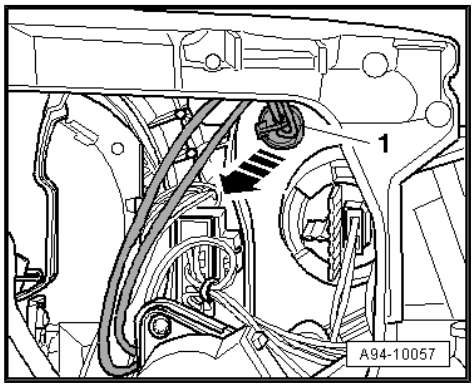
– Release retaining tabs -arrows- and detach housing cover from headlight housing.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Pull the bulb holder -1- together with bulb out of reflector in direction of -arrow-.

– Pull bulb for side lights out of bulb holder.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in bulb holder, taking care not to touch glass bulb with bare hands.

– Press bulb holder into reflector until you feel it engage.

– Close housing cover.

4.10 Removing and installing left/right headlight screen adjustment solenoid - N395- / -N396-

The headlight screen adjustment solenoid is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 188 .

4.11 Removing and installing swivel module position sensor -G474- / -G475-

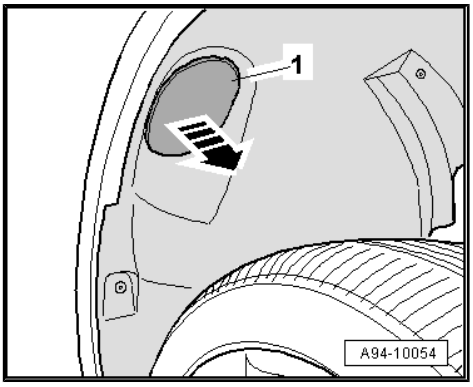
The swivel module position sensor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 188 .

4.12 Renewing front turn signal bulb -M5- / -M7-

Removing

– Pry out cap -1- in wheel housing liner (front) in the direction of -arrow-.

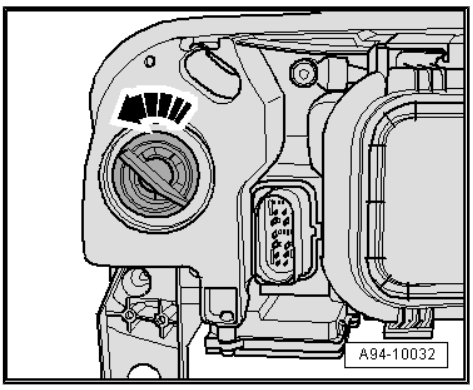


Note

Detach front section of wheel housing liner on vehicles without cap ⇒ Rep. gr. 66 .

– Turn bulb holder anti-clockwise -arrow- and pull out of housing.

– Screw bulb out of bulb holder.



Installing

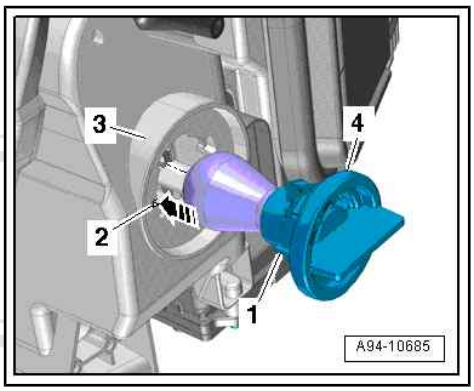
Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Press cap into wheel housing liner until you feel it engage.



4.13 Removing and installing dynamic cornering light control motor -V318- / -V319-

The dynamic cornering light control motor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 188 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.14 Removing and installing headlight range control motor -V48- / -V49-

Removing

> **WARNING**
>
> *High voltage! Danger to life!*
>
> - *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
> - *Switch off ignition and all electrical equipment and remove ignition key.*
> - *Do not flash the headlights.*

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 194 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 197 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 198 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 199 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 200 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

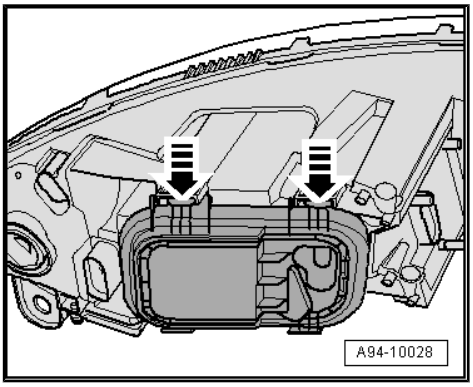
– Remove air cleaner housing ⇒ page 202 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 203 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

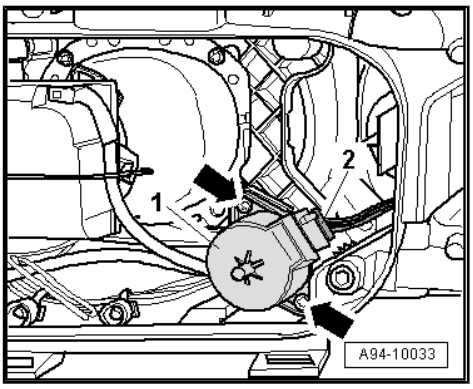


– Unscrew bolts -arrows-.

– Press ball head of actuator shaft out of its mounting by pivoting control motor -1- to the side.

– Remove headlight range control motor from headlight housing.

– Unplug electrical connector -2-.



Installing

• Tightening torque ⇒ page 184

Installation is carried out in the reverse order; note the following:

– Start by inserting ball head of actuator shaft into ball head mounting of reflector from the side; to do so, pull reflector to rear.

Note

The headlights must always be re-adjusted if the control motors are removed and installed or renewed ⇒ page 191 .

– Close housing cover.

4.15 Removing and installing gas discharge bulb control unit -J343- / -J344-

Removing

WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Turn light switch to position “0”.

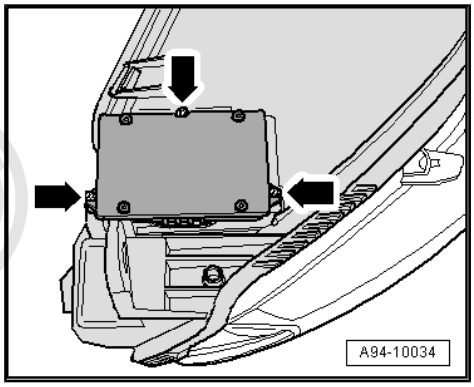
– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

– Remove headlight ⇒ page 188 .

– Unscrew bolts -arrows-.

– Detach control unit for gas discharge bulb from headlight housing.



Installing

• Tightening torque ⇒ page 184

Installation is carried out in the reverse order; note the following:

– Check seal between gas discharge bulb control unit and headlight housing.

– Install headlight ⇒ page 188 .

– Following installation, adjust headlights ⇒ page 191 .

4.16 Removing and installing output module for headlight -J667- / -J668-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

– Turn light switch to position “0”.

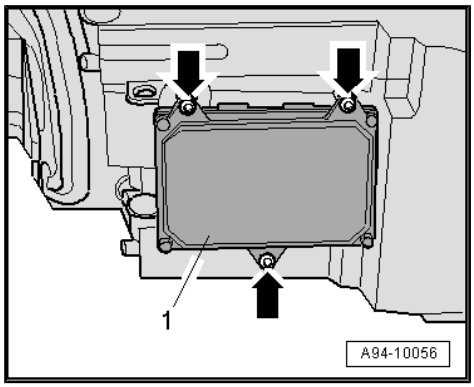
– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

– Remove headlight ⇒ page 188 .

– Unscrew bolts -arrows-.

– Pull output module off headlight housing.



Installing

• Tightening torque ⇒ page 184

Installation is carried out in the reverse order; note the following:

– Check seal between output module and headlight housing.

– Install headlight ⇒ page 188 .

– Following installation, adjust headlights ⇒ page 191 .

4.17 Removing and installing starter unit for gas discharge bulb

Removing

> **WARNING**
>
> *High voltage! Danger to life!*
>
> - *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
> - *Switch off ignition and all electrical equipment and remove ignition key.*
> - *Do not flash the headlights.*

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 194 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 197 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 198 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 199 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 200 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

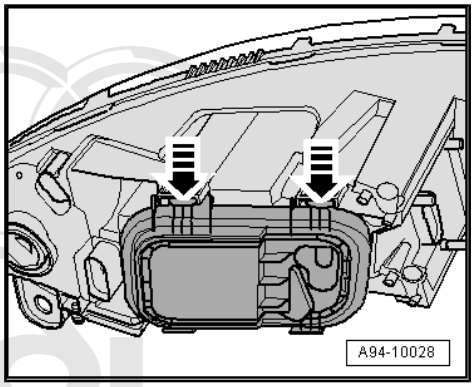
– Remove air cleaner housing ⇒ page 202 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 203 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

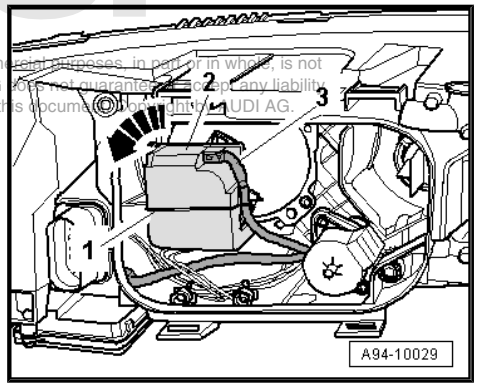


– If fitted, pivot the securing clip -1- for electrical connector to side.

– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.

– Unplug electrical connector -3- at starter unit for gas discharge bulb.

– Remove starter unit for gas discharge bulb.



Installing

Installation is carried out in the reverse order; note the following:

Note

The starter unit must be installed before attaching the connector.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.

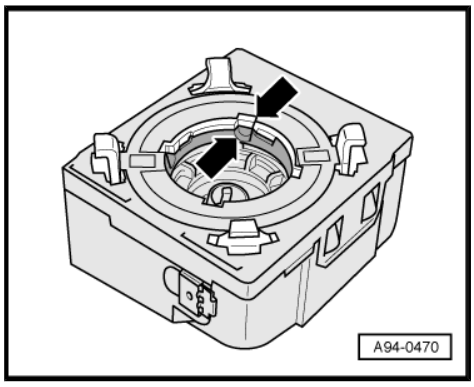
– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.

- The starter unit should be easy to turn.
- Arrow on housing faces upwards.

– Re-attach connector.

– If fitted, secure electrical connector with securing clip.

– Close housing cover.



4.18 Installing repair kit for headlight housing

Note

- *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*
- *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

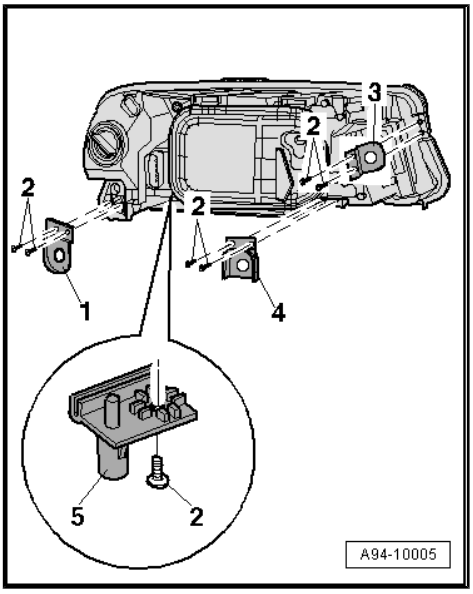
Procedure

– Remove headlight with broken retaining tab ⇒ page 186 .

– Remove rest of broken retaining tab from headlight housing.

– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 184



4.19 Adapting headlights for driving on the left or right side of the road - vehicles with adjustment lever

When travelling in countries where the vehicle is to be driven on the other side of the road, both headlights must be adjusted to prevent dazzling by the asymmetric dipped beam.

Procedure

WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by Audi AG. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 194 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 195 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 197 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 198 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

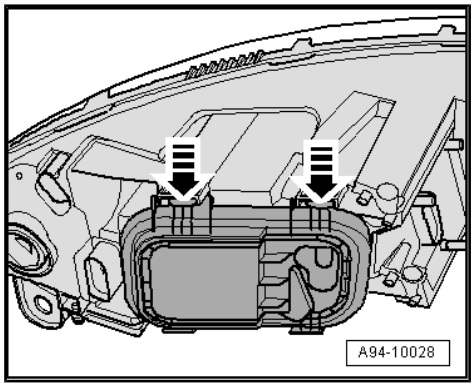
– Remove air cleaner housing ⇒ page 202 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 203 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



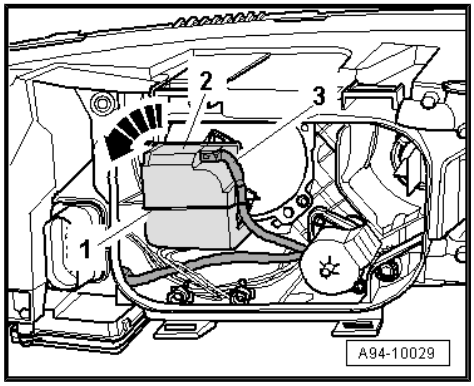
Headlight (left-side):

– If fitted, pivot the securing clip -1- for electrical connector to side.

– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.

– Unplug electrical connector -3- at starter unit for gas discharge bulb.

– Remove starter unit for gas discharge bulb.

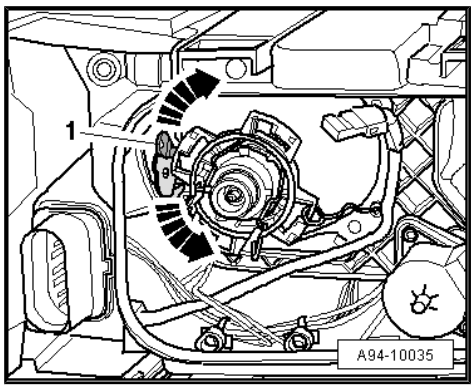


All vehicles:

– Check position of adjustment lever -1- at both headlights.

- Lever down = Driving on left
- Lever up = Driving on right

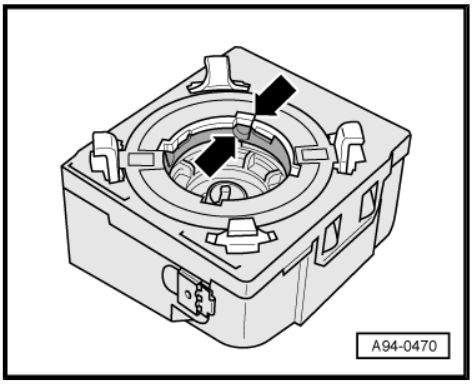
– If necessary, swivel lever until it engages in desired position -arrow-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Headlight (left-side):

Reassembly is carried out in the reverse order; note the following:



Note

The starter unit must be installed before attaching the connector.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.
– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.

• The starter unit should be easy to turn.
• Arrow on housing faces upwards.

– Re-attach connector.
– If fitted, secure electrical connector with securing clip.

Both sides (continued):

– Close housing cover.

4.20 Adapting headlights for driving on the left or right side of the road - vehicles without adjustment lever

When travelling in countries where the vehicle is to be driven on the other side of the road, both headlights must be adjusted to prevent oncoming traffic from being dazzled by the asymmetric dipped beams.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

⇒ Vehicle diagnostic tester is connected.

– Select `Diagnosis` mode and start diagnosis.
– Select `Test plan` tab.
– Select `Own test` then the following options one after the other:

♦ Body
♦ Electrical system
♦ 01 - Self-diagnosis compatible systems
♦ 55 - Dynamic headlight range control
♦ J431 - Dynamic headlight range control, functions
♦ J431 - Headlight range control unit, headlamp converter

Further instructions are given by ⇒ Vehicle diagnostic tester during procedure.

– After completing adjustment, switch off ignition and unplug diagnostic connector.

Note

- *With headlamp converter activated, the event memory stores the fault “LHD/RHD switch-over activated” and the indicator lamp in the instrument cluster lights up for a short period each time the engine is started.*
- *The event memory erases the fault when the headlamp converter is deactivated.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5 Gas discharge headlights or gas discharge headlights with dynamic cornering lights (adaptive light) - Audi A6 from 06.2008 onwards

Note

The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ page 226 .

5.1 Safety precautions when handling gas discharge bulbs

⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs

5.2 Exploded view of gas discharge headlight

1 - Headlight housing

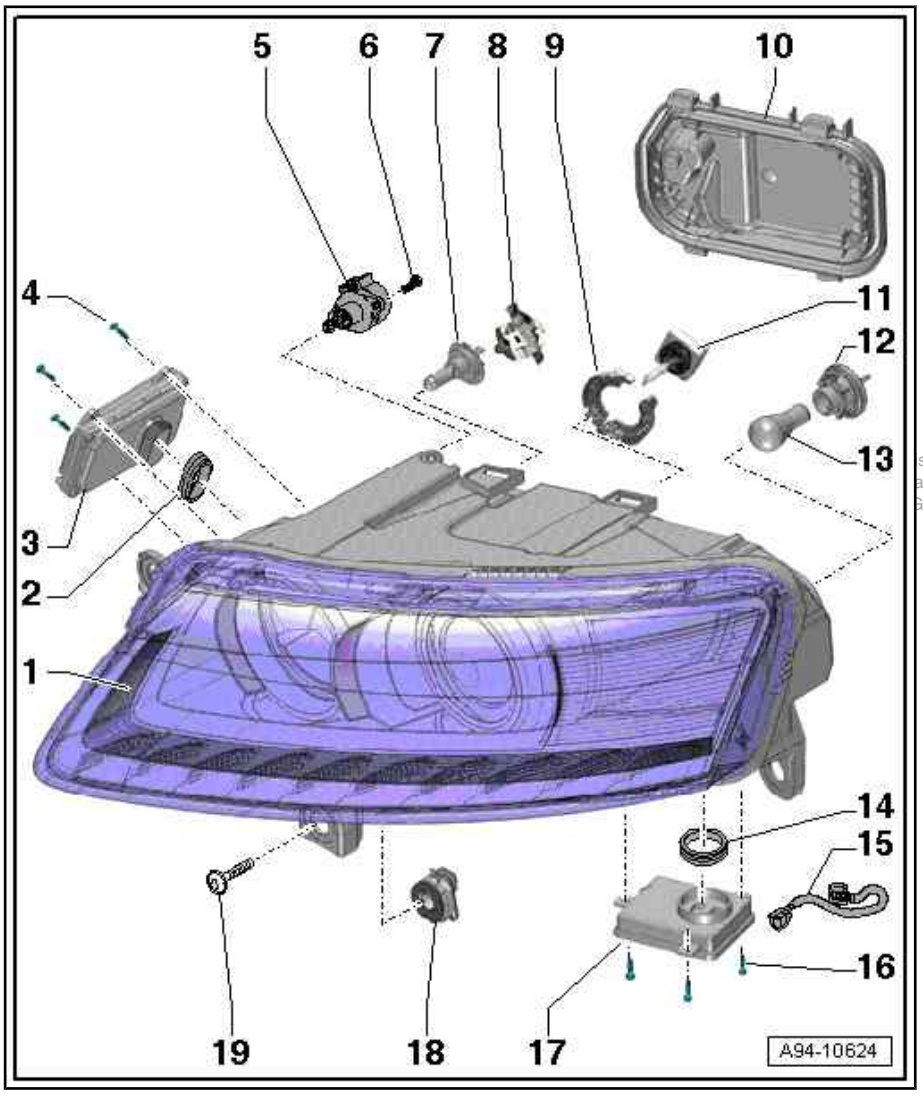
- ❑ Removing and installing headlight housing (after renewing components on front end of vehicle) ⇒ page 221
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 223
- ❑ The following units cannot be renewed separately if defective: LED module for daytime running light and side light (left and right) -L176- / -L177- , -M1- / -M3- , headlight screen adjustment solenoid (left and right) -N395- / -N396- , swivel module position sensor (left and right) -G474- / -G475- , dynamic cornering light control motor (left and right) -V318- / -V319-

2 - Seal

- ❑ Renew if damaged

3 - Output module for headlight

- ❑ Only on vehicles with cornering light
- ❑ Output module for left headlight - J667-
- ❑ Output module for right headlight - J668-
- ❑ Removing and installing ⇒ page 245



4 - 1 Nm

5 - Headlight range control motor

- ❑ Left headlight range control motor - V48-
- ❑ Right headlight range control motor - V49-
- ❑ Removing and installing ⇒ page 243

6 - 1 Nm

7 - Additional main beam bulb/cornering light

- ❑ H9 - 12 V, 55 W
- ❑ Renewing bulb ⇒ page 240

On vehicles without cornering light

- ❑ Left additional main beam bulb - M67-
- ❑ Right additional main beam bulb - M68-

Vehicles with cornering light

- ❑ Left cornering light bulb - L148-
- ❑ Right cornering light bulb - L149-

8 - Bulb holder

- ❑ For bulb for main beam headlights/static cornering light

9 - Adapter ring

- ❑ For gas discharge bulb

10 - Housing cover

11 - Gas discharge bulb

- ❑ With integrated starter unit
- ❑ Left gas discharge (xenon) bulb - L13-
- ❑ Right gas discharge (xenon) bulb - L14-
- ❑ 42 V, 35 W (D3S)
- ❑ Renewing bulbs ⇒ page 237

12 - Bulb holder

- ❑ For turn signal bulb

13 - Turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 21 W (PY21W - silver-coloured glass)
- ❑ Renewing bulb ⇒ page 242

14 - Seal

- ❑ Renew if damaged

15 - Adapter lead

- ❑ For gas discharge bulb
- ❑ Removing and installing ⇒ page 239

16 - 1 Nm

17 - Gas discharge bulb control unit

- ❑ Left gas discharge bulb control unit - J343-
- ❑ Right gas discharge bulb control unit - J344-
- ❑ Removing and installing ⇒ page 244

18 - Adjuster

- ❑ To adjust headlight to bumper contour
- ❑ 3x

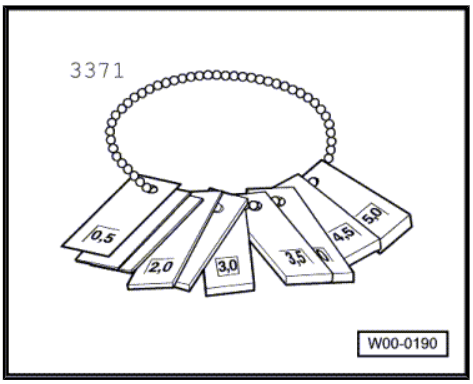
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

19 - 8 Nm

5.3 Removing and installing headlights (to renew components on front end of vehicle)

Special tools and workshop equipment required

- Setting gauge - 3371-



WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

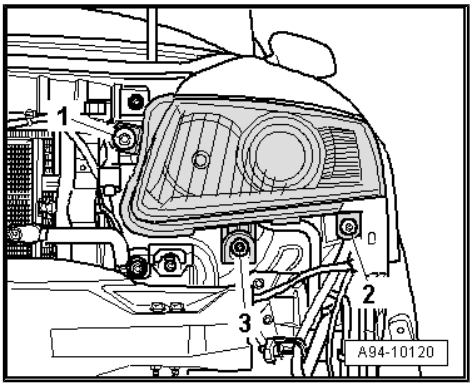
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unscrew bolts -1 ... 3-.

– Detach headlight to front.

– Unplug electrical connector.

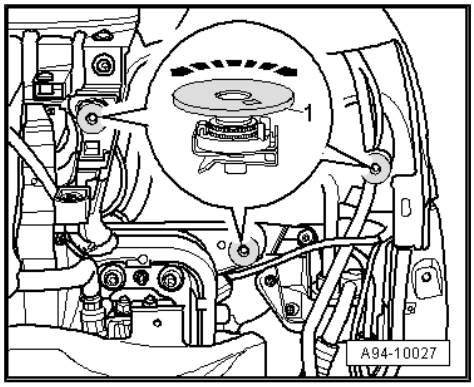


Installing

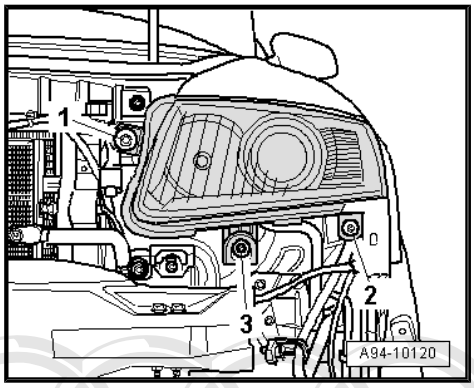
- Tightening torque ⇒ page 219

– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.

– Screw down adjuster nut as far as it will go, but do not tighten.



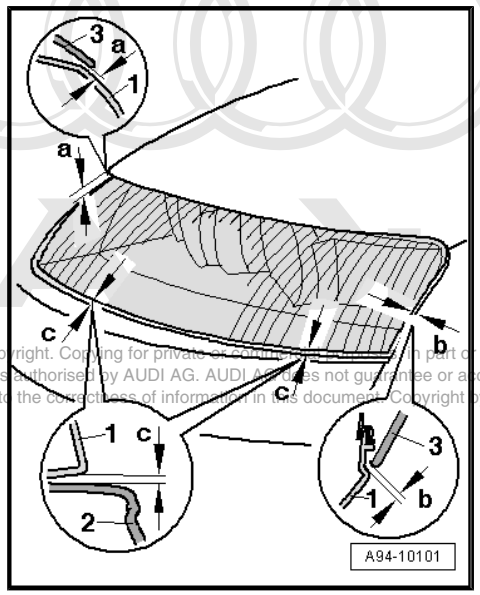
– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



– Fit front bumper cover in installation position, but do not tighten bolts.

– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

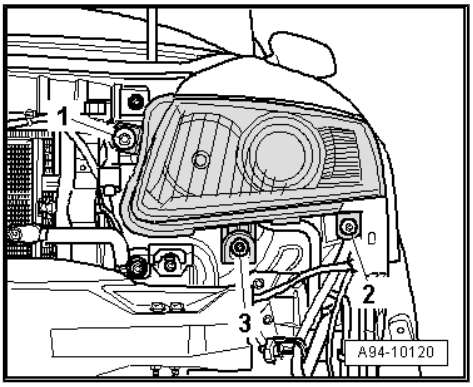
- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.

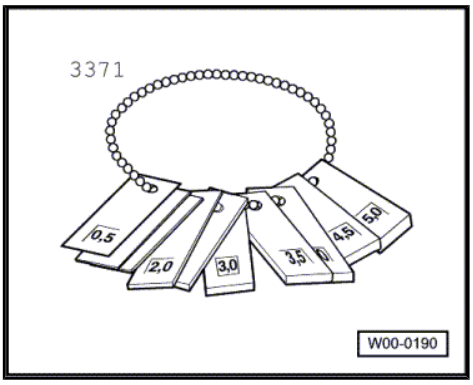


- Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
- Take off front bumper cover.
- Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
- Install front bumper cover ⇒ Rep. gr. 63 .
- Check gap widths again; if necessary repeat adjustment of gap widths as described above.
- Following installation, adjust headlights ⇒ page 226 .

5.4 Removing and installing headlights (old headlight is fitted again)

Special tools and workshop equipment required

- Setting gauge - 3371-



WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

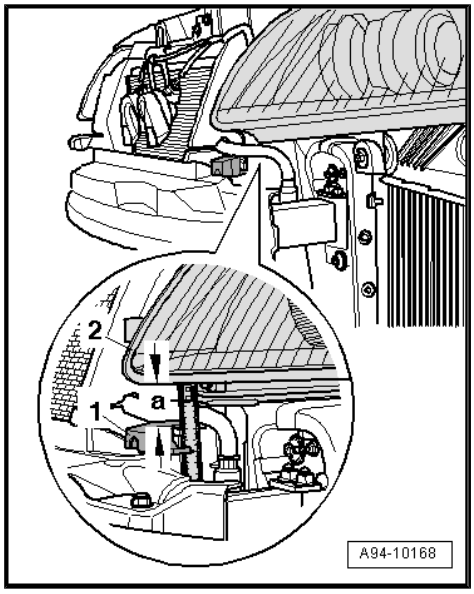
– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

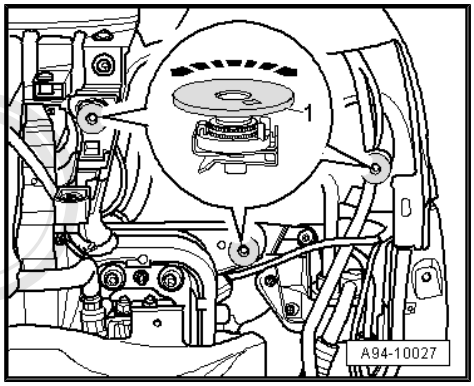
– Remove front bumper cover ⇒ Rep. gr. 63 .

– Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.



Note

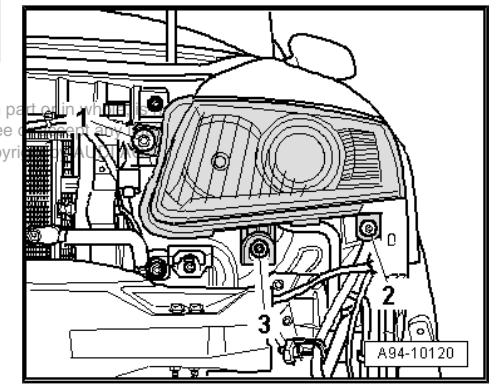
Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.



– Unscrew bolts -1 ... 3-.

– Detach headlight to front.

– Unplug electrical connector.



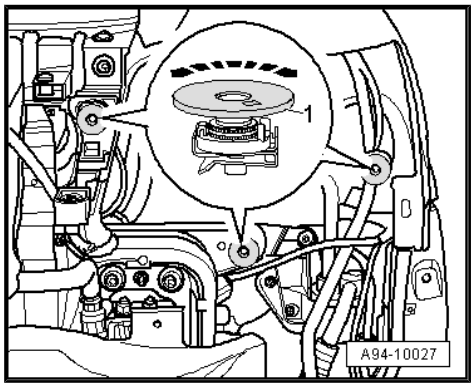
Copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

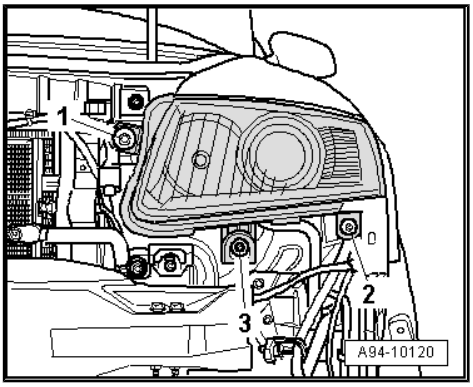
• Tightening torque ⇒ page 219

Note

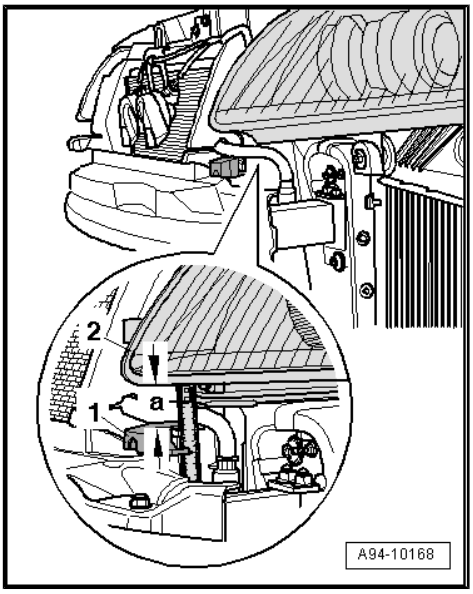
Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.



– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



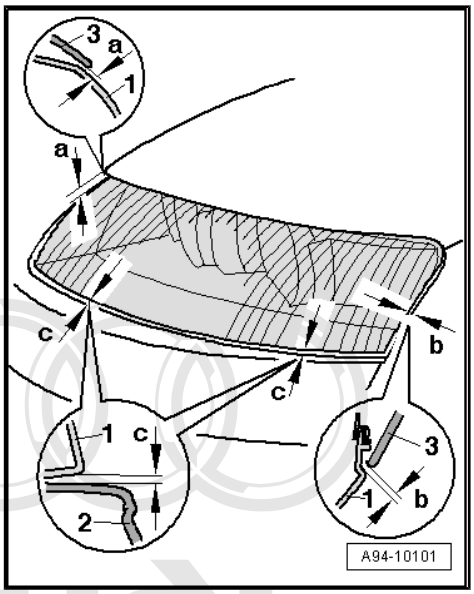
– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.



– Fit front bumper cover in installation position, but do not tighten bolts.

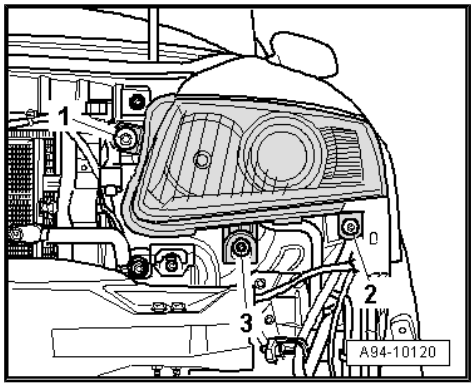
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Secure bolt -1- – do not apply pressure to bolt when tightening.
– Take off front bumper cover.
– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
– Install front bumper cover ⇒ Rep. gr. 63 .
– Check gap widths again; if necessary repeat adjustment of gap widths as described above.
– Following installation, adjust headlights ⇒ page 226 .



5.5 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.
♦ However, national legislation and guidelines for individual countries must be adhered to.

5.5.1 Requirements for checking and adjusting

♦ Tyre pressure OK
♦ Headlight lenses must not be damaged or dirty.
♦ Reflectors and bulbs OK
♦ Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 227 .

♦ Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.
♦ Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
♦ Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

♦ Dip setting must be adjusted.

Dip settings (in "%") are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness and completeness of this document. Copyright by AUDI AG.

5.5.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Example:

If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

Note

It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

5.5.3 Checking headlight settings

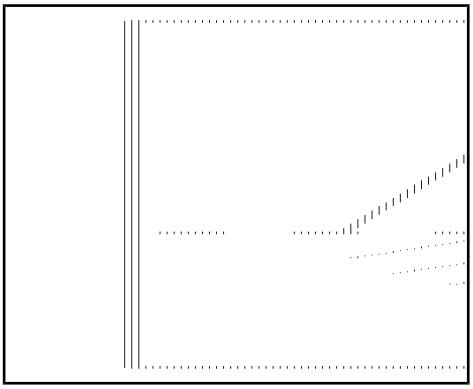
– Switch on ignition and dipped headlights.

– Start engine, wait for headlights to complete reference run and then switch engine off again.

– Switch on ignition and dipped headlights.

♦ The horizontal light-dark border should coincide with the setting line -1- of the test surface.

♦ The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.



Note

♦ *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*

♦ *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*

♦ *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– If headlight setting is not OK, adjust headlights ⇒ page 227 .

5.5.4 Adjusting headlights

– Connect vehicle diagnostic tester ⇒ Vehicle diagnostic tester.

– Select `Diagnosis` mode and start diagnosis.

– Select `Test plan` tab.

– Select `Own test` then the following options one after the other:

♦ Body

- Electrical system
- 01 - Self-diagnosis compatible systems
- 55 - Dynamic headlight range control
- J431/J745 - Dynamic headlight range control, functions
- J431/J745 - Control unit for headlight range control, basic setting

Note

With this programme the headlights return to the basic setting.

– Continue to follow the instructions on the display of the vehicle diagnostic tester.
– You will be requested to perform headlight adjustment while running through the programme.

Headlight (left-side)

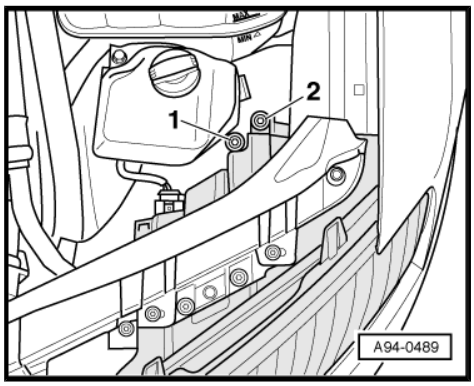
Adjuster screws on left headlight:

1 - Height adjuster screw

2 - Height/lateral adjuster screw

The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.
– For lateral adjustment, turn only adjustment screw-2-.



5.6 Preparations before working on headlights

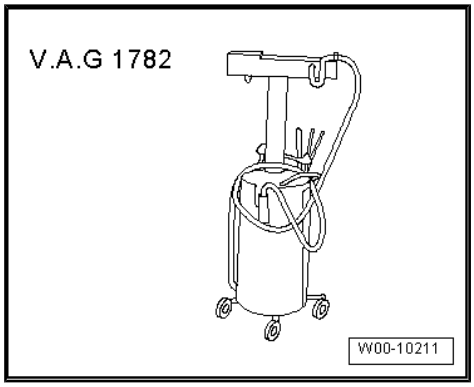
Depending on the engine version, access to the headlight bulbs could be obstructed. In this case, additional steps must be performed.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.6.1 Loosening power steering reservoir at bracket

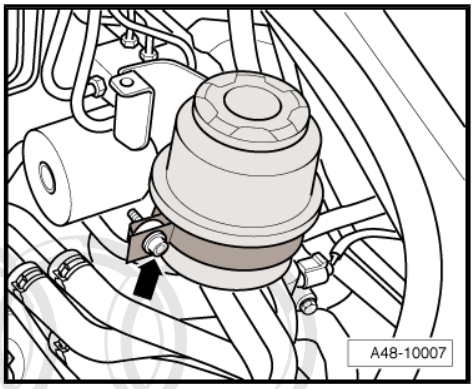
Special tools and workshop equipment required

- Used oil collection and extraction unit - V.A.G 1782-



Procedure

– Draw off hydraulic fluid for power steering from reservoir with used oil collection and extraction unit - V.A.G 1782- .



Note

Place cloth under power steering reservoir to catch escaping hydraulic fluid.

– Remove bolt -arrow- and move power steering reservoir to side with hydraulic hoses still attached.

Installation is carried out in the reverse order; note the following:

– Install power steering reservoir ⇒ Rep. gr. 48 .

– Fill up hydraulic fluid for power steering and check fluid level ⇒ Rep. gr. 48 .

Tightening torque

Component	Nm
Power steering reservoir to bracket	9

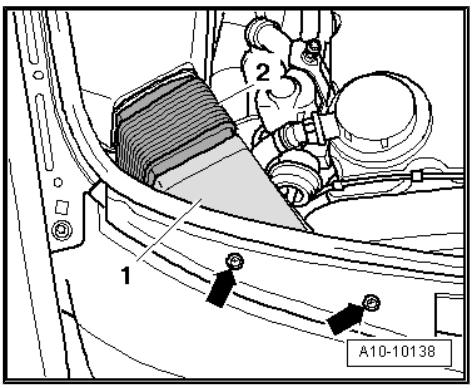
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.6.2 Removing air cleaner housing - vehicles with 4-cyl. petrol engine

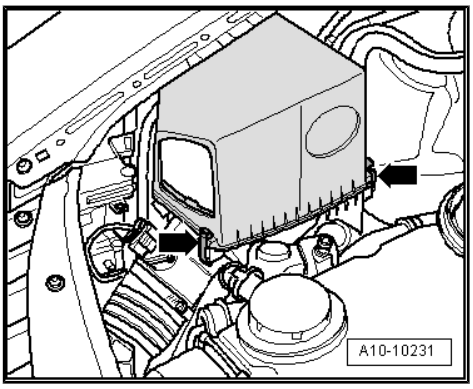
Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

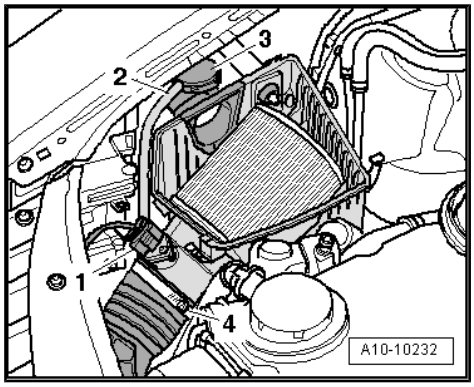


– Release both retaining clips -arrows- and detach air cleaner (top section).



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose by releasing hose clip -4-.
– Detach vacuum hose -2-.
– Detach vacuum unit -3- with air control flap from air cleaner housing.
– Disengage air cleaner (bottom section) from retaining pin and remove.

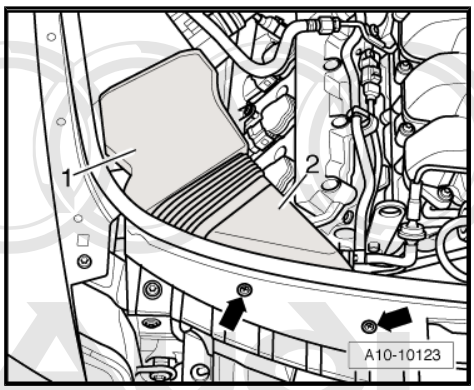
Install in reverse order.



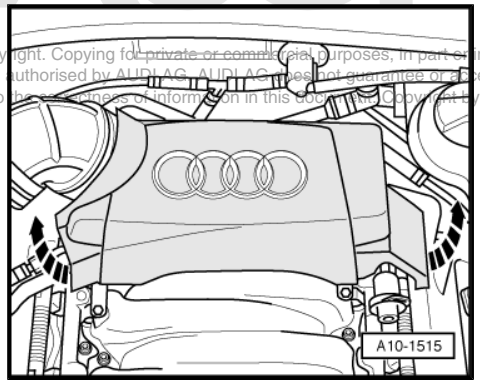
5.6.3 Removing air cleaner housing - vehicles with 6-cyl. petrol engine

Procedure

– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.

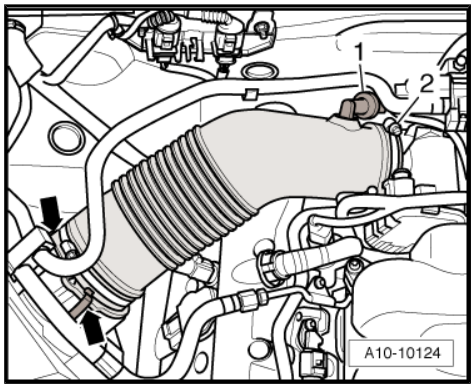


– Pull off engine cover (rear) -arrows-.

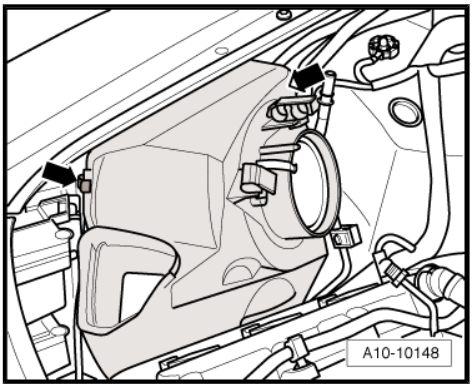


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Pull non-return valve -1- off air intake hose.
– Remove air intake hose; to do so, open retainers -arrows- and release hose clip -2-.

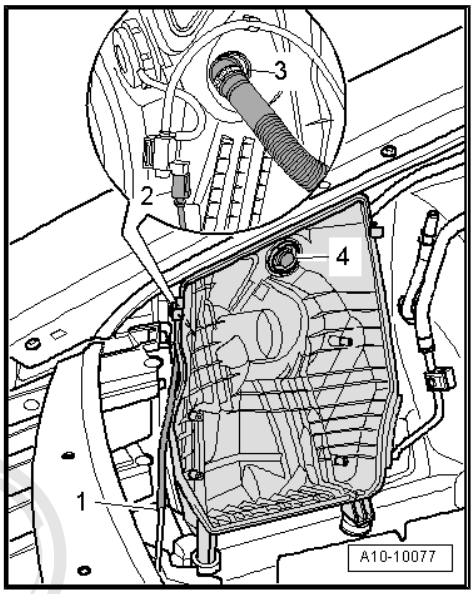


– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.
– If fitted, pull off hose -3- to secondary air pump.
– Detach air cleaner (bottom section).

Install in reverse order.

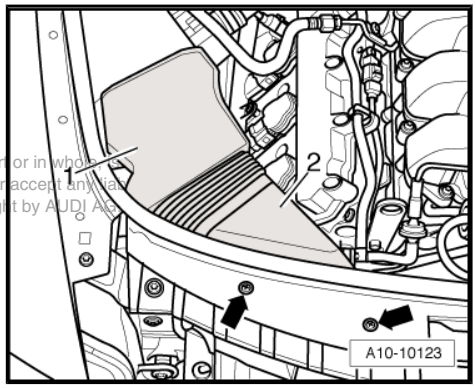


5.6.4 Removing air cleaner housing - vehicles with 4.2 ltr. FSI engine

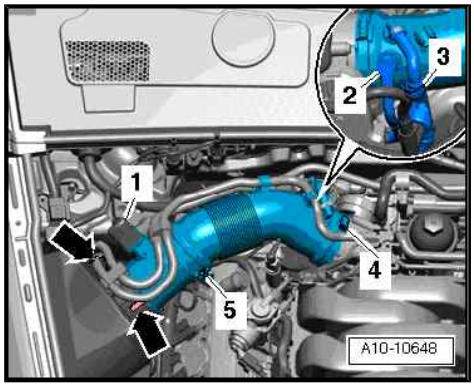
Procedure

– Unscrew bolts -arrows-.
– Remove air ducts -1 and 2-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



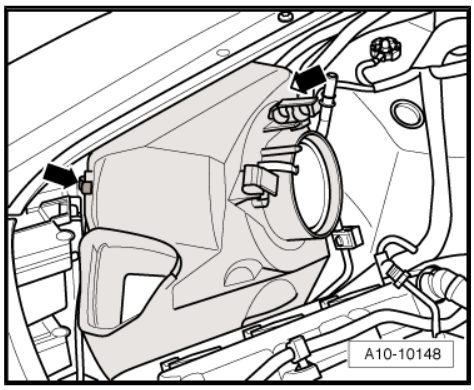
– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.
– Unplug electrical connector -1- at air mass meter - G70- .
– Detach vacuum line -3- going to air intake hose.
– Detach crankcase breather hose -2- from air intake hose (press release tabs).
– Remove air intake hose with air mass meter - G70- . To do so, release hose clip -4- and clamps -arrows-.



Note

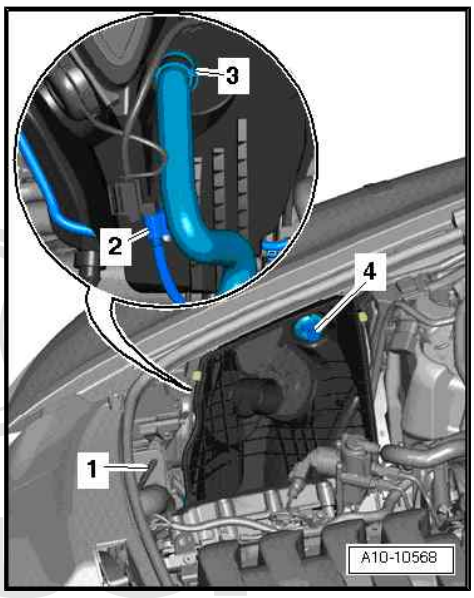
Disregard -item 5-.

– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .

Install in reverse order.

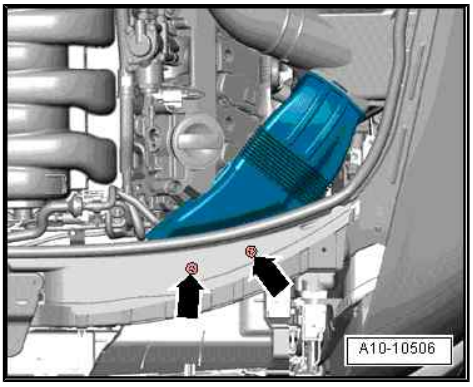


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.6.5 Removing air cleaner housing (left-side) - vehicles with 10-cylinder petrol engine

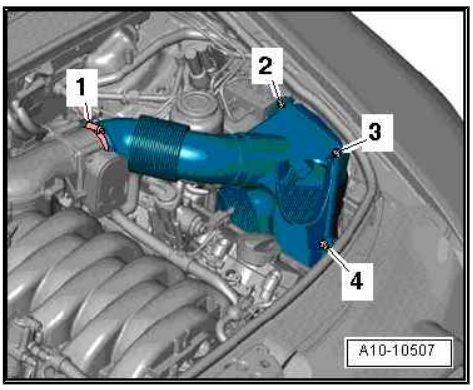
Procedure

– Unscrew bolts -arrows-, disengage bonnet cable and detach air duct (left-side).

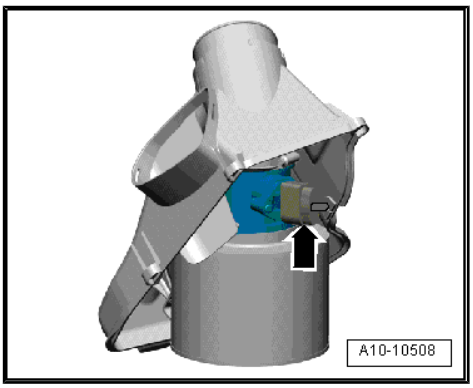


– Loosen hose clip -1- and unscrew bolts -2, 3, 4-.

– Detach left air cleaner (top section).



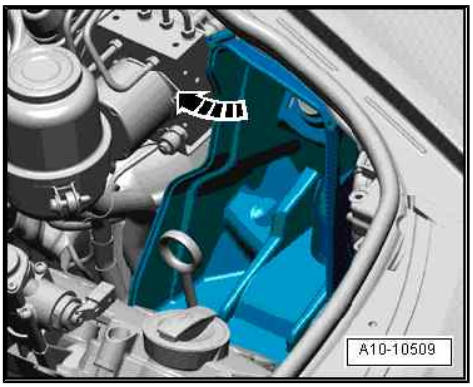
– Unplug electrical connector -arrow- at air mass meter 2 - G246- .



– Pull air cleaner (bottom section) off side connection.

– Swivel air cleaner (bottom section) upwards and take out -arrow-.

Install in reverse order.

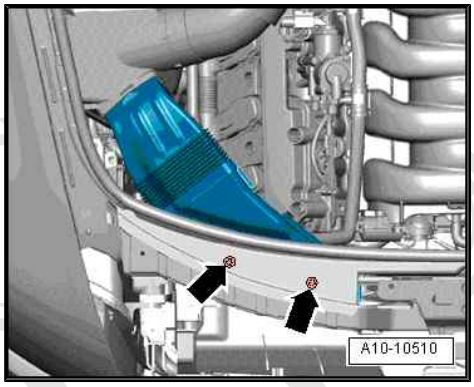


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.6.6 Removing air cleaner housing (right-side) - vehicles with 10-cylinder petrol engine

Procedure

– Unscrew bolts -arrows- and remove air duct (right-side).



– Detach vacuum line -5- at air intake hose.

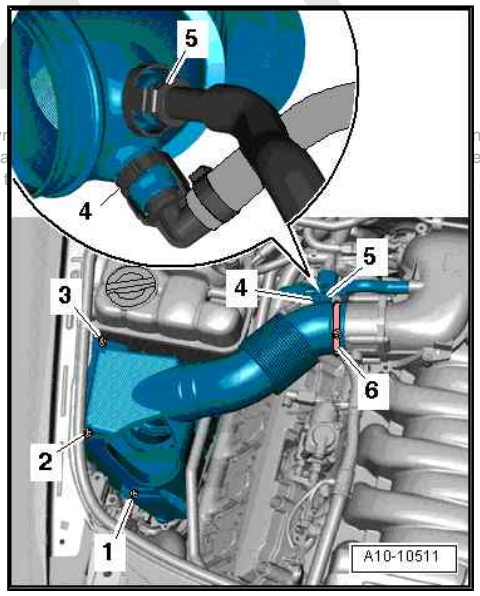
Caution

Do not open hose connection -4- on USA vehicles. Move top section of air cleaner (right-side) with connected crankcase breather hose to one side.

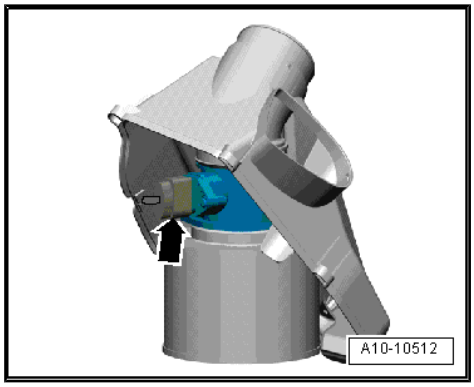
Protected by copyr... whole, is not ...d unless a... ...ept any liability ...espect to t... AUDI AG.

– Loosen hose clip -6- and unscrew bolts -1 ... 3-.

– Detach right air cleaner (top section).

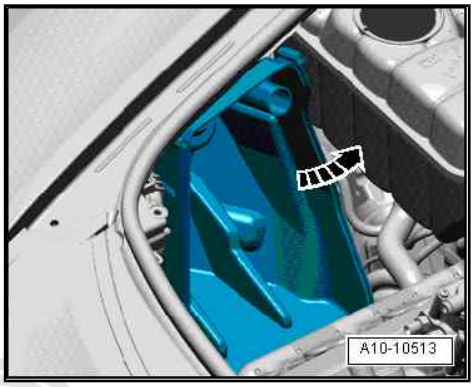


– Unplug electrical connector -arrow- at air mass meter - G70- .



– Pull air cleaner (bottom section) off side connection.
– Swivel air cleaner (bottom section) upwards and take out -arrow-.

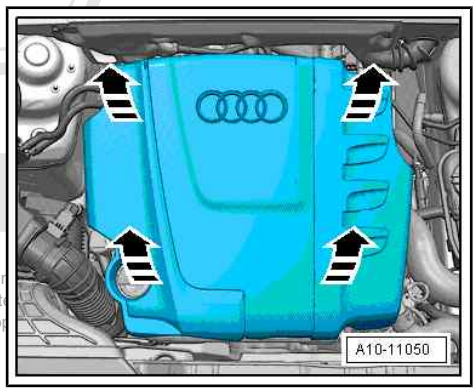
Install in reverse order.



5.6.7 Removing air cleaner housing - vehicles with 4-cyl. TDI engine

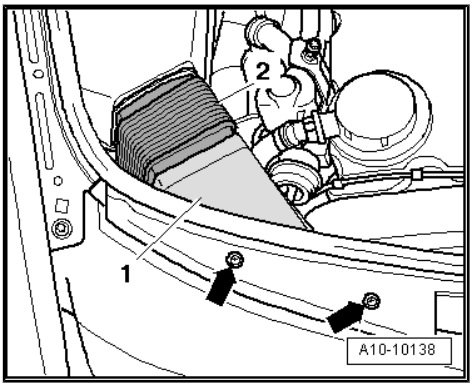
Procedure

– Detach engine cover panel -arrows-.

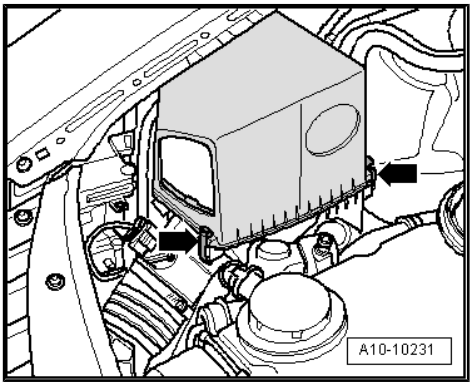


Protected by copyright. Copying for private or commercial purposes, in
permitted unless authorised by AUDI AG. AUDI AG does not guarant
with respect to the correctness of information in this document. Cop

– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.

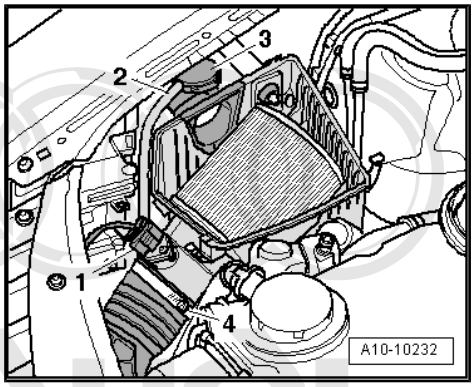


– Release both retaining clips -arrows- and detach air cleaner (top section).



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose by releasing hose clip -4-.
– Detach vacuum hose -2-.
– Detach vacuum unit -3- with air control flap from air cleaner housing.
– Disengage air cleaner (bottom section) from retaining pin and remove.

Install in reverse order.

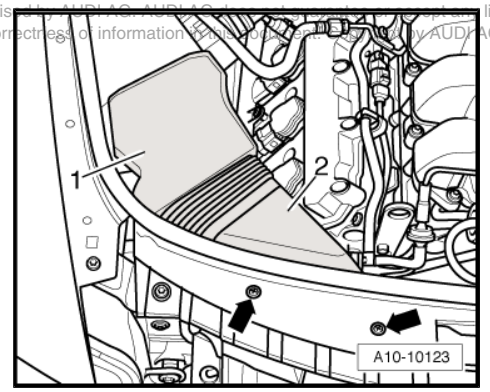


5.6.8 Removing air cleaner housing - vehicles with 6-cyl. TDI engine

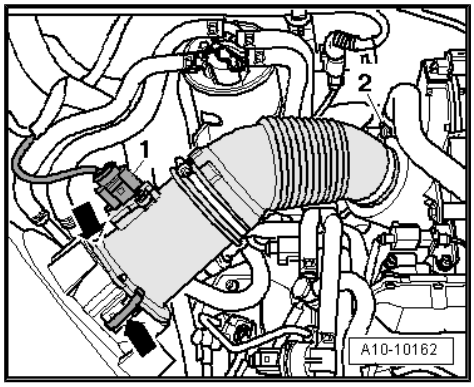
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Procedure

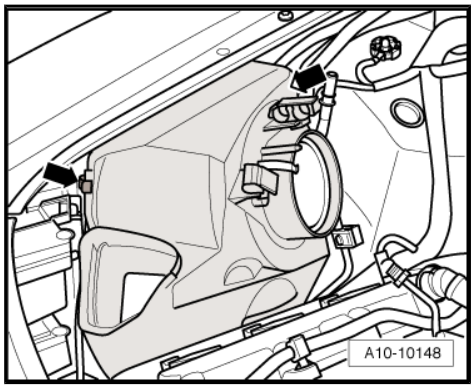
– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



– Unplug electrical connector -1- at air mass meter - G70- .
– Remove air intake hose. To do so, release hose clip -2- and clamps -arrows-.

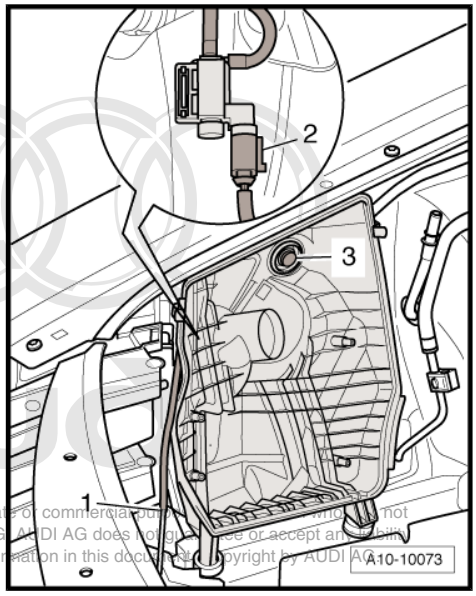


– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -3-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.

Install in reverse order.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.7 Renewing gas discharge bulb -L13- / -L14-

WARNING

High voltage! Danger to life! Observe environmental requirements.

- *Safety precautions when handling gas discharge bulbs ⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs*

Removing

– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 228 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 229 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 230 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 231 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 233 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 234 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

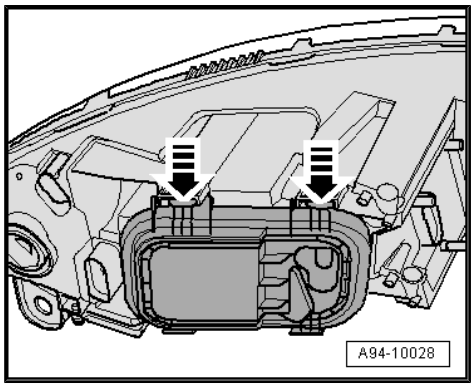
– Remove air cleaner housing ⇒ page 235 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 236 .

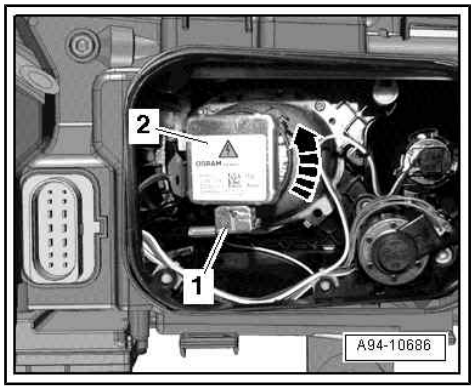
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



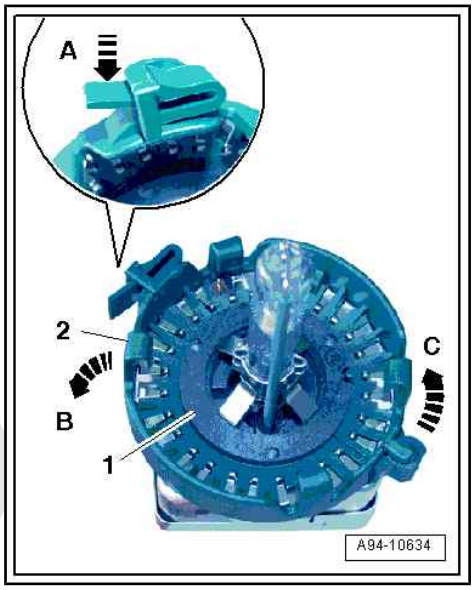
– Turn gas discharge bulb -2- in direction of -arrow- and take out of housing.

– Unplug electrical connector -1-.



– Release retaining clip -arrow A- and open adapter ring -2- -arrow B-.

– Disengage adapter ring at gas discharge bulb -1- -arrow C-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

– Position one half of adapter ring -3- with locating lugs at gas discharge bulb -2-.

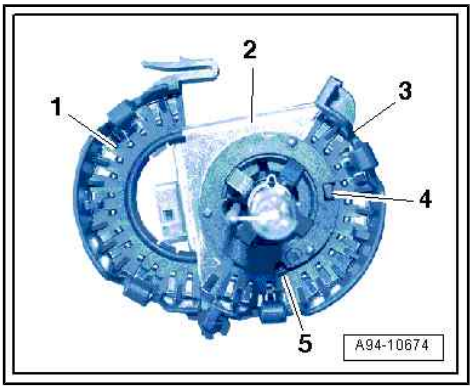
• Locating lugs -4- and -5- must be inserted in mountings.

– Close second half -1- of adapter ring until it engages audibly.

– Plug connector in again and insert new gas discharge bulb in housing; do not touch glass part of bulb with bare hands.

• Installation position: The electrical connection faces downwards.

– Close housing cover.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.8 Removing and installing adapter cable for gas discharge bulb

WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

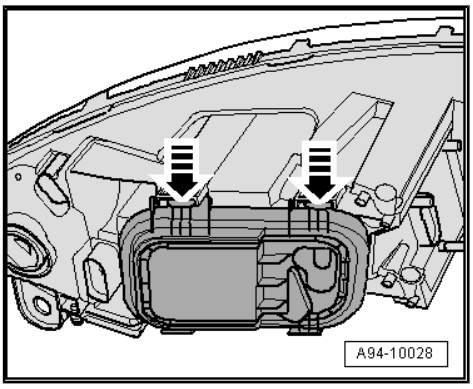
– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

– Remove gas discharge bulb control unit ⇒ page 244 .

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

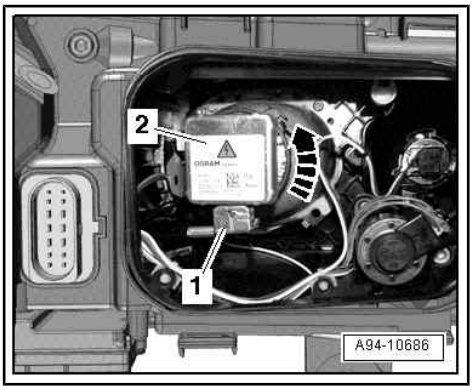


– Unplug electrical connector -1- at gas discharge bulb -2-.

Note

Disregard -arrow-.

– Remove adapter cable from headlight housing.



Installing

Installation is carried out in the reverse order; note the following:

– Close housing cover.

– Install gas discharge bulb control unit ⇒ page 244 .

5.9 Renewing bulb for additional main beam/cornering light -M67- / -M68- , -L148- / -L149-

Removing

Headlight (left-side):

– Remove power steering reservoir ⇒ page 228 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 229 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 230 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 231 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 233 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 234 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

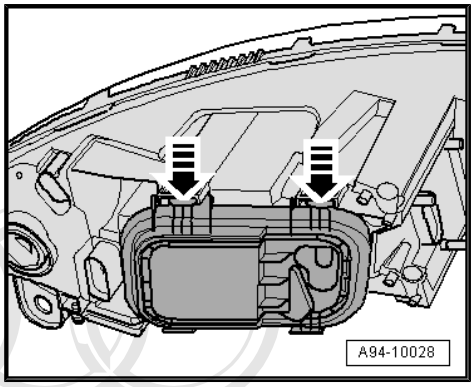
– Remove air cleaner housing ⇒ page 235 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

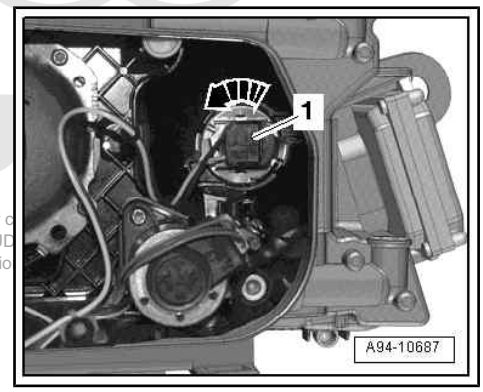
– Remove air cleaner housing ⇒ page 236 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

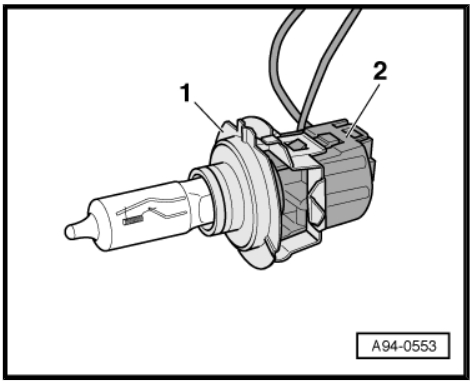


– Turn bulb holder -1- anti-clockwise -arrow- and pull it out of housing.



Protected by copyright. Copying for private or c
permitted unless authorised by AUDI AG. AUD
with respect to the correctness of informatio

– Pull main beam bulb -1- out of bulb holder -2-.



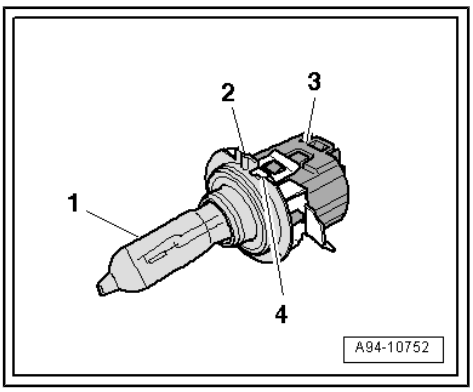
Installing

Installation is carried out in the reverse order; note the following:

– Fit new bulb -1- in bulb holder and attach to electrical connector -3-; lug -2- on bulb must make contact with stop -4- of bulb holder.

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Close housing cover.



5.10 Renewing LED module for daytime running light and side light -L176- / -L177- , -M1- / -M3-

The daytime running light bulbs (LED lights) are integrated in the headlight housing. The LED light cannot be renewed separately; the headlight must be renewed as a complete unit.

– Renewing headlight ⇒ page 223 .

5.11 Removing and installing left/right headlight screen adjustment solenoid -N395- / -N396-

The headlight screen adjustment solenoid is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 223 .

5.12 Removing and installing swivel module position sensor -G474- / -G475-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

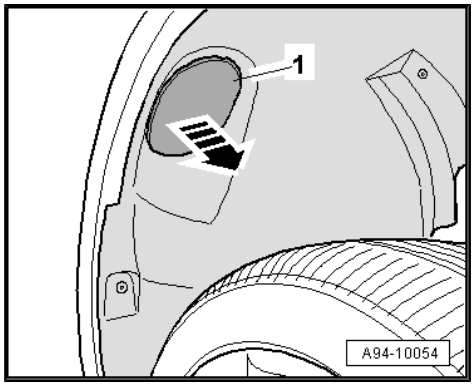
The swivel module position sensor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 223 .

5.13 Renewing front turn signal bulb -M5- / -M7-

Removing

– Pry out cap -1- in wheel housing liner (front) in the direction of -arrow-.

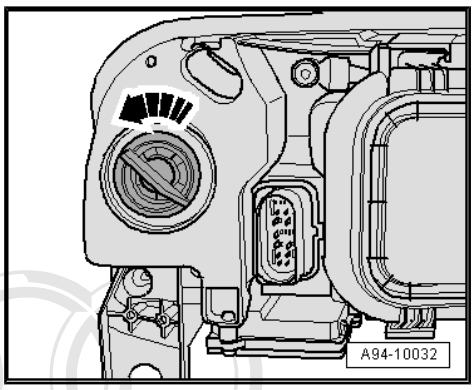


Note

Detach front section of wheel housing liner on vehicles without cap ⇒ Rep. gr. 66 .

– Turn bulb holder anti-clockwise -arrow- and pull out of headlight housing.

– Screw bulb out of bulb holder.



Installing

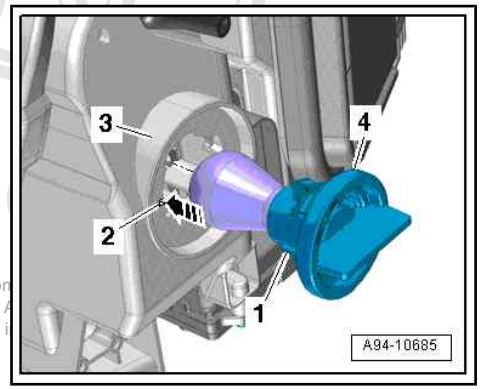
Installation is carried out in the reverse order; note the following:

– Fit new bulb in housing; do not touch the glass part of the bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Press cap into wheel housing liner until you feel it engage.



Protected by copyright. Copying for private or com
permitted unless authorised by AUDI AG. AUDI A
not guarantee the correctness of information i

5.14 Removing and installing dynamic cornering light control motor -V318- / -V319-

The dynamic cornering light control motor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 223 .

5.15 Removing and installing headlight range control motor -V48- / -V49-

WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side):

– Remove power steering reservoir ⇒ page 228 .

Headlight (right-side) - vehicles with 4-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 229 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 230 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 231 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 233 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 234 .

Headlight (right-side) - vehicles with 4-cyl. TDI engine:

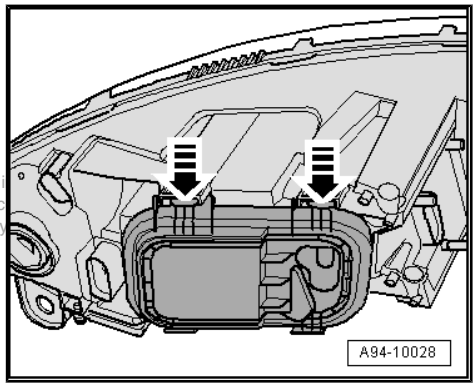
– Remove air cleaner housing ⇒ page 235 .

Headlight (right-side) - vehicles with 6-cyl. TDI engine:

– Remove air cleaner housing ⇒ page 236 .

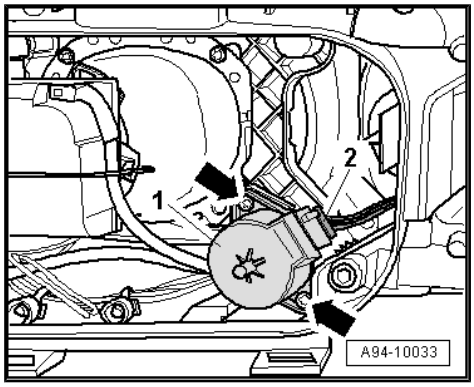
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



Protected by copyright. Copying for private or commercial purposes, in part or i
permitted unless authorised by AUDI AG. AUDI AG does not guarantee or acc
with respect to the correctness of information in this document. Copyright by

– Unscrew bolts -arrows-.
– Press ball head of actuator shaft out of its mounting by pivoting control motor -1- to the side.
– Remove headlight range control motor from headlight housing.
– Unplug electrical connector -2-.



Installing

• Tightening torque ⇒ page 219

Installation is carried out in the reverse order; note the following:

– Start by inserting ball head of actuator shaft into ball head mounting of reflector from the side; to do so, pull reflector to rear.

Note

The headlights must always be re-adjusted if the control motors are removed and installed or renewed ⇒ page 226 .

– Close housing cover.

5.16 Removing and installing gas discharge bulb control unit -J343- / -J344-

WARNING

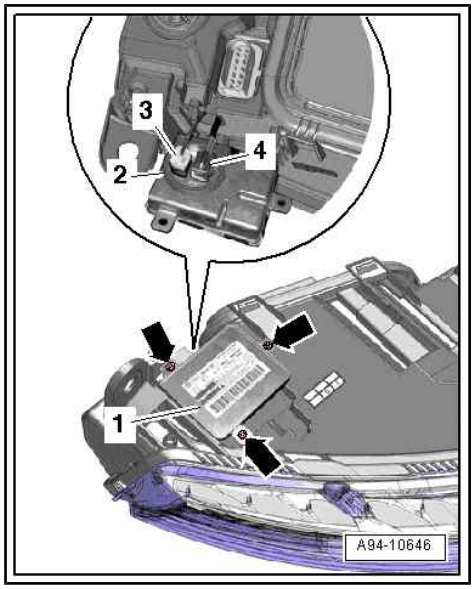
High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– Remove headlight ⇒ page 223 .
– Remove bolts -arrows-.
– Detach control unit from headlight housing.
– Disconnect adapter cable -4- and electrical connector -3- at gas discharge bulb control unit.
– Detach gas discharge bulb control unit.



Installing

• Tightening torque ⇒ page 219

Installation is carried out in the reverse order; note the following:

– Check seal -2- between gas discharge bulb control unit and headlight housing for damage.
– Install headlight ⇒ page 223 .

5.17 Removing and installing output module for headlight -J667- / -J668-

WARNING

High voltage! Danger to life!

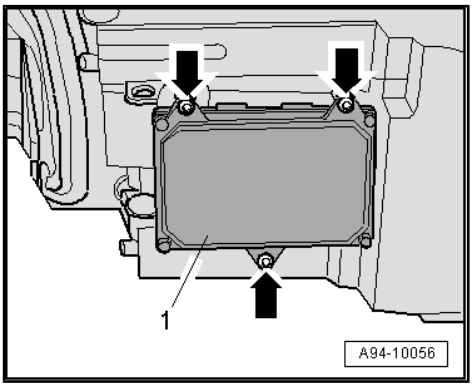
- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Remove headlight housing ⇒ page 223 .

– Unscrew bolts -arrows-.

– Pull output module off headlight housing.



Installing

• Tightening torque ⇒ page 219

Installation is carried out in the reverse order; note the following:

– Check seal between output module and headlight housing.

– Install headlight housing ⇒ page 223 .

5.18 Installing repair kit for headlight housing

Note

- *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*
- *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

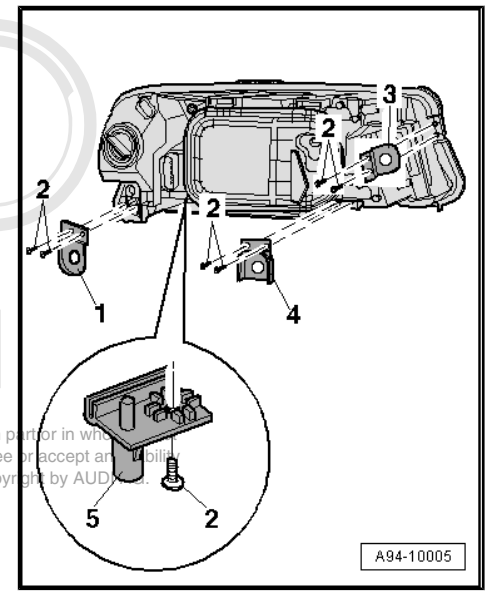
Procedure

– Remove headlight with broken retaining tab ⇒ page 223 .

– Remove rest of broken retaining tab from headlight housing.

– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 219



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.19 Adapting headlights for driving on the left or right side of the road

When travelling in countries where the vehicle is to be driven on the other side of the road, both headlights must be adjusted to prevent oncoming traffic from being dazzled by the asymmetric dipped beams.

Procedure

⇒ Vehicle diagnostic tester is connected.

– Select `Diagnosis` mode and start diagnosis.

– Select `Test plan` tab.

– Select `Own test` then the following options one after the other:

- Body
- Electrical system
- 01 - Self-diagnosis compatible systems
- 55 - Dynamic headlight range control
- J431 - Dynamic headlight range control, functions
- J431 - Headlight range control unit, headlamp converter

Further instructions are given by ⇒ Vehicle diagnostic tester during procedure.

– After completing adjustment, switch off ignition and unplug diagnostic connector.

Note

- *With headlamp converter activated, the event memory stores the fault “LHD/RHD switch-over activated” and the indicator lamp in the instrument cluster lights up for a short period each time the engine is started.*
- *The event memory erases the fault when the headlamp converter is deactivated.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6 Gas discharge headlights or gas discharge headlights with dynamic cornering lights (adaptive light) - USA vehicles; Audi A6, Audi S6

Note

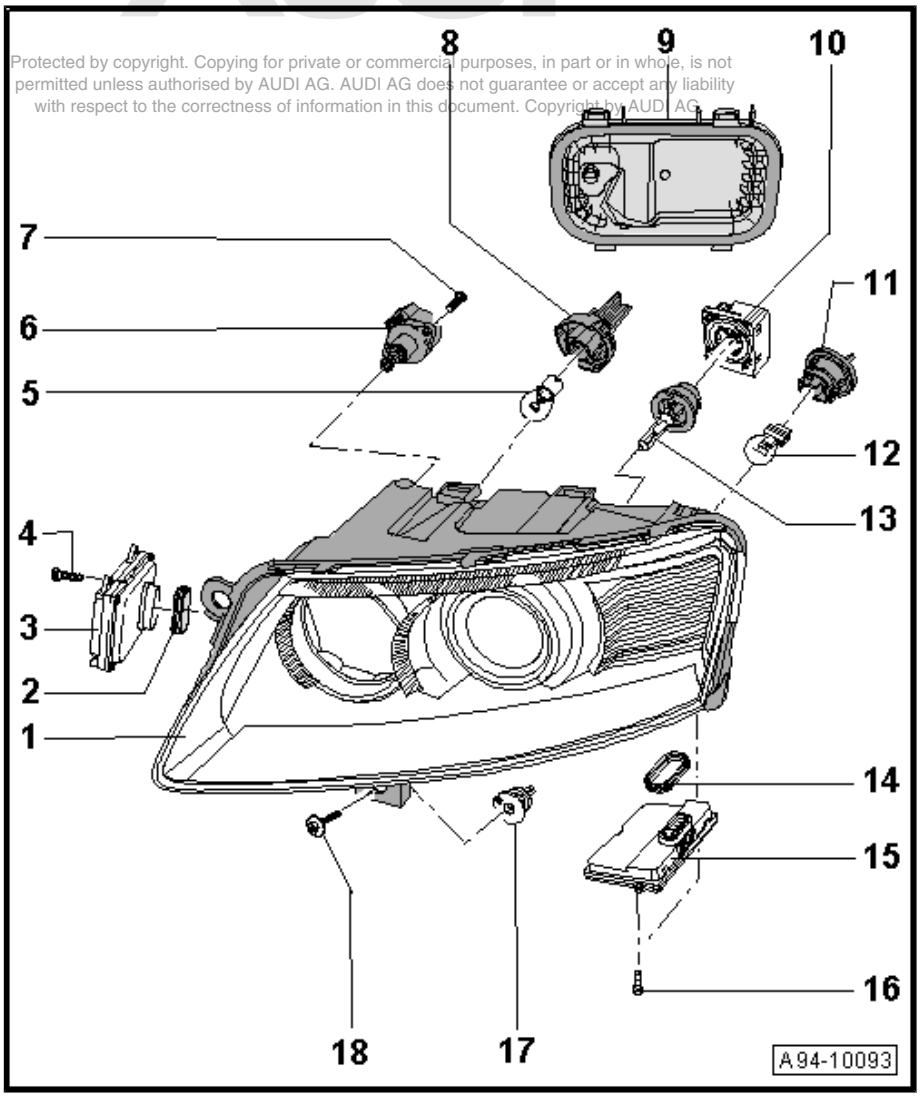
The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ page 254 .

6.1 Safety precautions when handling gas discharge bulbs

⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs

6.2 Exploded view of gas discharge headlight

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG



1 - Headlight housing

- ❑ Removing and installing headlight housing (after renewing components on front end of vehicle) ⇒ page 249
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 251
- ❑ The following units cannot be renewed separately if defective: Headlight screen adjustment solenoid (left and right) -N395- / -N396- , swivel module position sensor (left and right) -G474- / -G475- , dynamic cornering light control motor (left and right) -V318- / -V319-

2 - Seal

- ❑ Renew if damaged

3 - Output module

- ❑ Only on vehicles with cornering light
- ❑ Output module for left headlight - J667-
- ❑ Output module for right headlight - J668-
- ❑ Removing and installing ⇒ page 270

4 - 1 Nm

5 - Bulb

Audi A6

- ❑ For daytime running lights

- ❑ Left daytime running light bulb - L174-
- ❑ Right daytime running light bulb - L175-
- ❑ 12 V, 21 W (P21W)
- ❑ Renewing bulb ⇒ page 265

Audi S6

- ❑ For fog lights
- ❑ Left fog light bulb - L22-
- ❑ Right fog light bulb - L23-
- ❑ 12 V, 55 W (H7 - W5W - white)
- ❑ Renewing bulb ⇒ page 296

6 - Headlight range control motor

- ❑ Left headlight range control motor - V48-
- ❑ Right headlight range control motor - V49-
- ❑ Removing and installing ⇒ page 268

7 - 1 Nm

8 - Bulb holder

- ❑ For daytime running light bulb

9 - Housing cover

10 - Starter unit for gas discharge bulb

- ❑ Removing and installing ⇒ page 271

11 - Bulb holder

- ❑ For turn signal bulb

12 - Front turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 28/7 W (orange)
- ❑ Renewing bulb ⇒ page 267

13 - Gas discharge bulb

- ❑ Left gas discharge (xenon) bulb - L13-
- ❑ Right gas discharge (xenon) bulb - L14-
- ❑ 35 W (D2S)
- ❑ Renewing bulb ⇒ page 263

14 - Seal

- ❑ Renew if damaged

15 - Gas discharge bulb control unit

- ❑ Left gas discharge bulb control unit - J343-
- ❑ Right gas discharge bulb control unit - J344-
- ❑ Removing and installing ⇒ page 269

16 - 1 Nm

17 - Adjuster

- ❑ To adjust headlight to bumper contour
- ❑ 3x

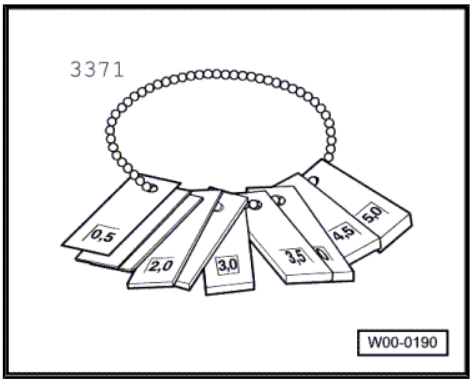
18 - 8 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6.3 Removing and installing headlights (to renew components on front end of vehicle)

Special tools and workshop equipment required

- Setting gauge - 3371-



Removing

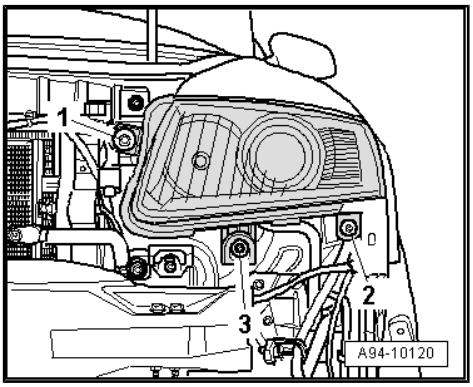
WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness and completeness of the information in this document. Copyright by AUDI AG.

– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.
– Remove front bumper cover ⇒ Rep. gr. 63 .
– Unscrew bolts -1 ... 3-.
– Detach headlight to front.
– Unplug electrical connector.

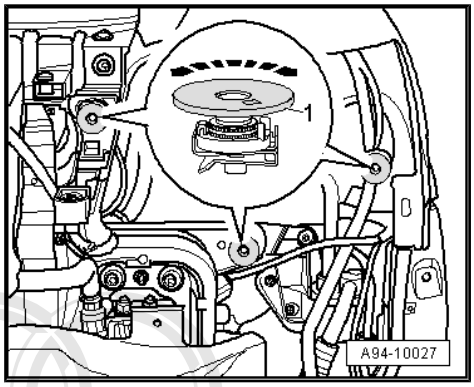


Installing

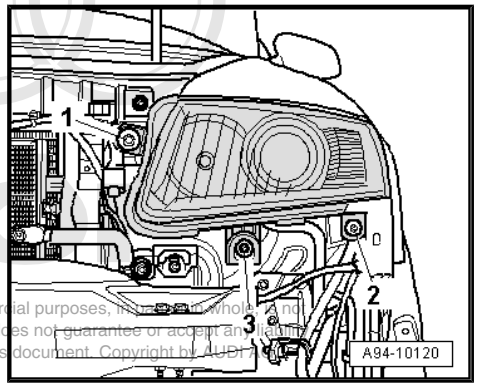
- Tightening torque ⇒ page 247

– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.

– Screw down adjuster nut as far as it will go, but do not tighten.



– Fit headlight and screw in bolts -1 ... 3- two complete turns each.

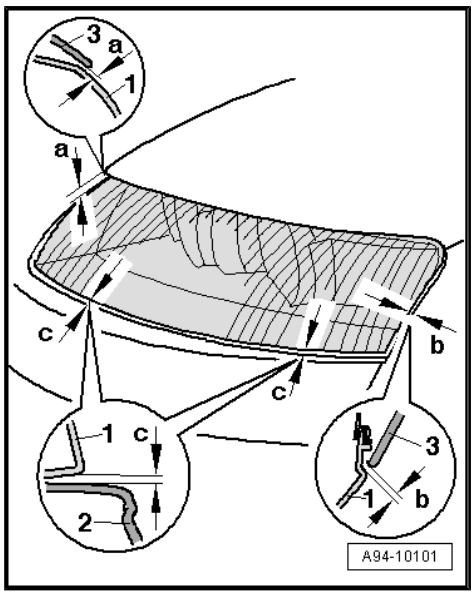


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Fit front bumper cover in installation position, but do not tighten bolts.

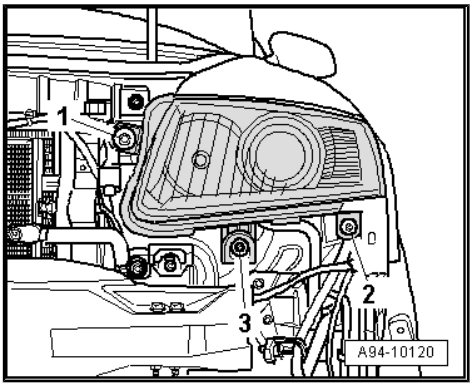
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.

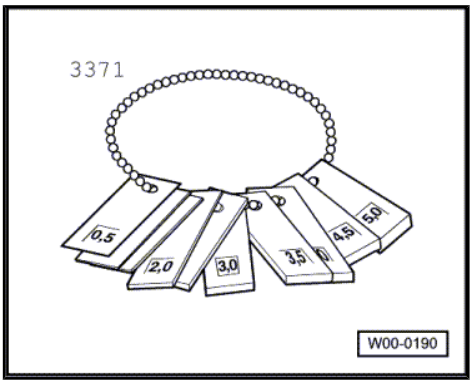


- Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
- Take off front bumper cover.
- Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
- Install front bumper cover ⇒ Rep. gr. 63 .
- Check gap widths again; if necessary repeat adjustment of gap widths as described above.
- Following installation, adjust headlights ⇒ page 254 .

6.4 Removing and installing headlights (old headlight is fitted again)

Special tools and workshop equipment required

- Setting gauge - 3371-



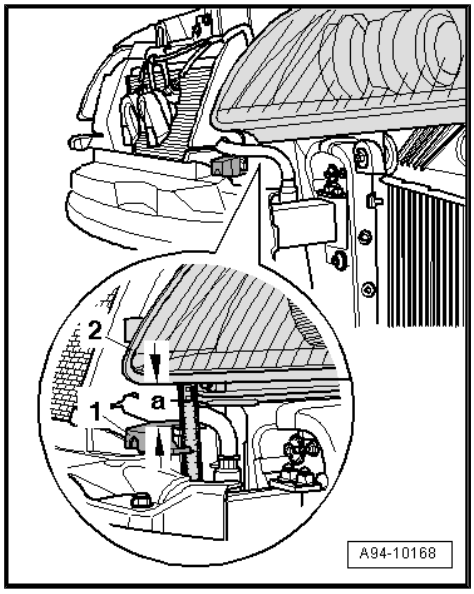
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

WARNING

High voltage! Danger to life!

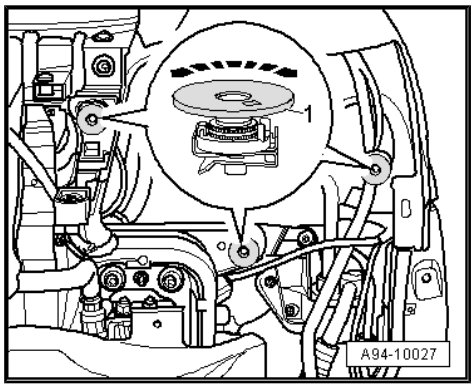
- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*



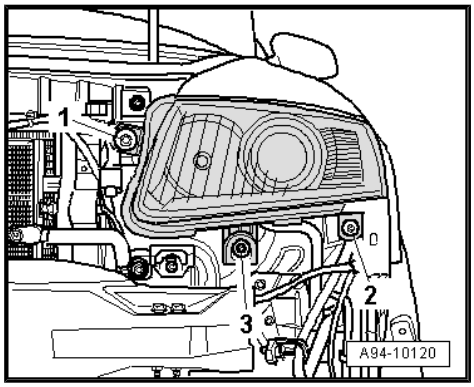
– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.
– Remove front bumper cover ⇒ Rep. gr. 63 .
– Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.

Note

Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.



– Unscrew bolts -1 ... 3-.
– Detach headlight to front.
– Unplug electrical connector.



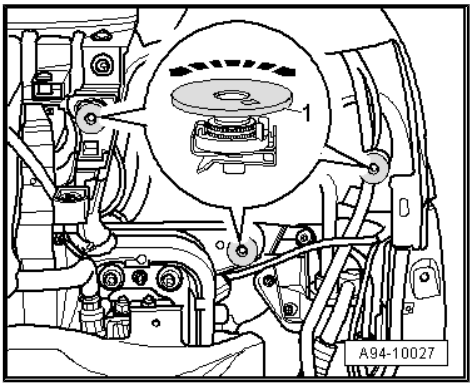
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

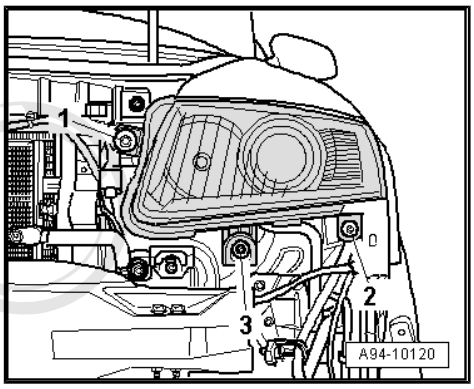
- Tightening torque ⇒ page 247

Note

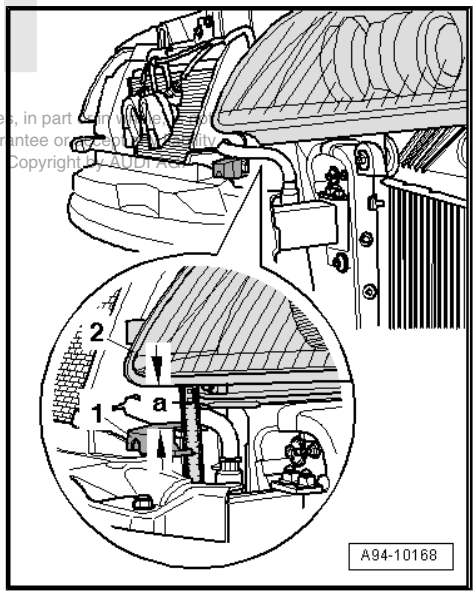
Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.



– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



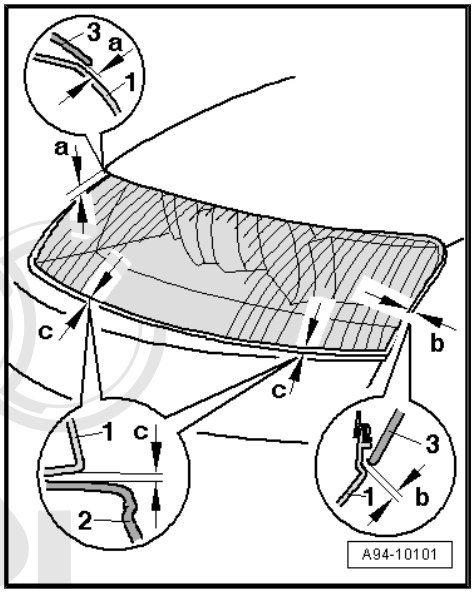
– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.



Protected by copyright. Copying for private or commercial purposes, in part ... permitted unless authorised by AUDI AG. AUDI AG does not guarantee or ... with respect to the correctness of information in this document. Copyright by AUDI AG.

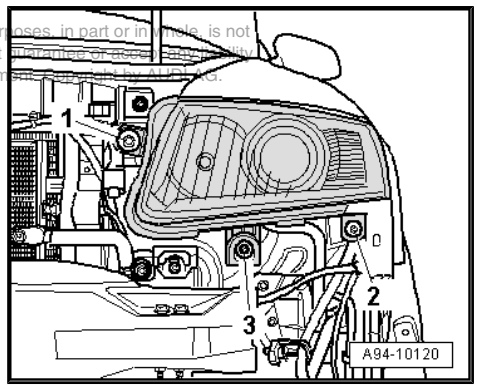
– Fit front bumper cover in installation position, but do not tighten bolts.
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

• Dimension -a- = 2.3 mm
• Dimension -b- = 2 mm
• Dimension -c- = 1.2 mm
• The headlight must be flush with outer edge of wing panel.
• The bottom edge of the headlight must be parallel with the top edge of the bumper.



– Secure bolt -1- – do not apply pressure to bolt when tightening.
– Take off front bumper cover.
– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
– Install front bumper cover ⇒ Rep. gr. 63 .
– Check gap widths again; if necessary repeat adjustment of gap widths as described above.
– Following installation, adjust headlights ⇒ page 254 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



6.5 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.
♦ However, national legislation and guidelines for individual countries must be adhered to.

6.5.1 Requirements for checking and adjusting

♦ Tyre pressure OK
♦ Headlight lenses must not be damaged or dirty.
♦ Reflectors and bulbs OK
♦ Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 255 .

- Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.
- Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
- Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

- Dip setting must be adjusted.

Dip settings (in “%”) are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

6.5.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Example:

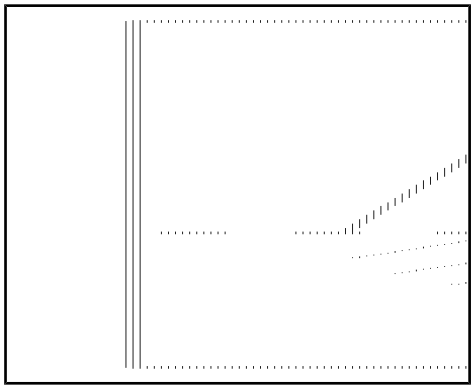
If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

Note

It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

6.5.3 Checking headlight settings

– Switch on ignition and dipped headlights.
– Start engine, wait for headlights to complete reference run and then switch engine off again.
– Switch on ignition and dipped headlights.



- The horizontal light-dark border should coincide with the setting line -1- of the test surface.
- The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.

Note

- *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*
- *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*
- *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

– If headlight setting is not OK, adjust headlights ⇒ page 256 .

6.5.4 Adjusting headlights

– Connect vehicle diagnostic tester ⇒ Vehicle diagnostic tester.
– Select `Diagnosis` mode and start diagnosis.
– Select `Test plan` tab.
– Select `Own test` then the following options one after the other:

- Body
- Electrical system
- 01 - Self-diagnosis compatible systems
- 55 - Dynamic headlight range control
- J431/J745 - Dynamic headlight range control, functions
- J431/J745 - Control unit for headlight range control, basic setting

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

With this programme the headlights return to the basic setting.

– Continue to follow the instructions on the display of the vehicle diagnostic tester.
– You will be requested to perform headlight adjustment while running through the programme.

Headlight (left-side)

Adjuster screws on left headlight:

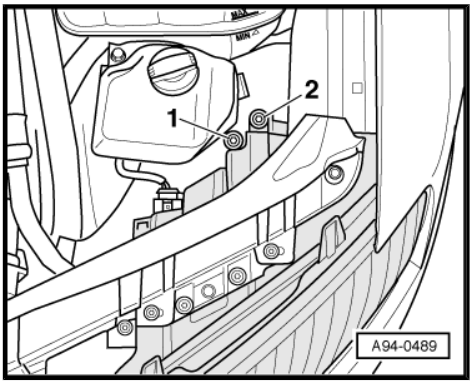
1 - Height adjuster screw

2 - Height/lateral adjuster screw

The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.

– For lateral adjustment, turn only adjustment screw-2-.



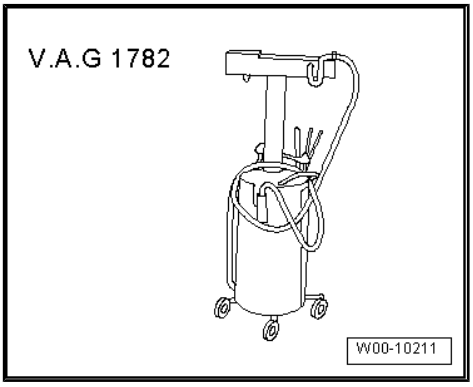
6.6 Preparations before working on headlights

Depending on the engine version, access to the headlight bulbs could be obstructed. In this case, additional steps must be performed.

6.6.1 Loosening power steering reservoir at bracket

Special tools and workshop equipment required

♦ Used oil collection and extraction unit - V.A.G 1782-



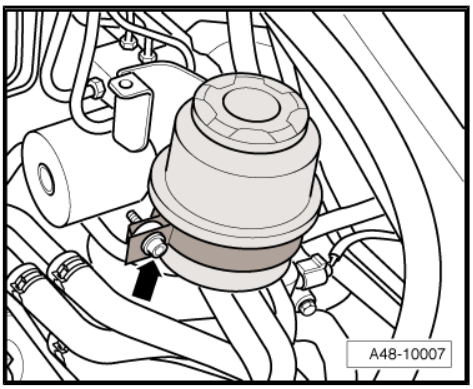
Procedure

– Draw off hydraulic fluid for power steering from reservoir with used oil collection and extraction unit - V.A.G 1782- .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

Place cloth under power steering reservoir to catch escaping hydraulic fluid.



– Remove bolt -arrow- and move power steering reservoir to side with hydraulic hoses still attached.

Installation is carried out in the reverse order; note the following:

– Install power steering reservoir ⇒ Rep. gr. 48 .

– Fill up hydraulic fluid for power steering and check fluid level ⇒ Rep. gr. 48 .

Tightening torque

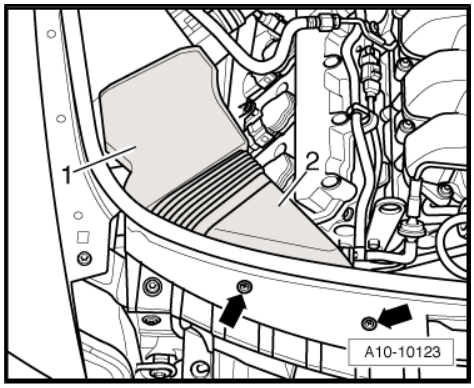
Component	Nm
Power steering reservoir to bracket	9

6.6.2 Removing air cleaner housing - vehicles with 6-cyl. petrol engine

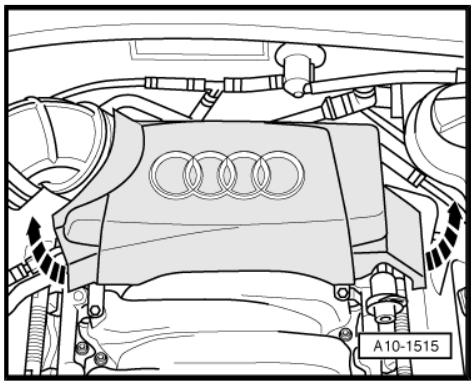
Procedure

– Unscrew bolts -arrows-.

– Remove air ducts -1- and -2-.

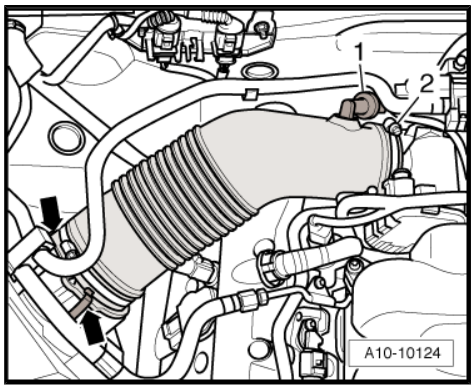


– Pull off engine cover (rear) -arrows-.

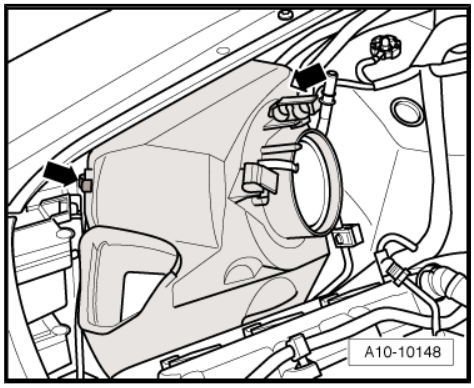


– Pull non-return valve -1- off air intake hose.

– Remove air intake hose; to do so, open retainers -arrows- and release hose clip -2-.



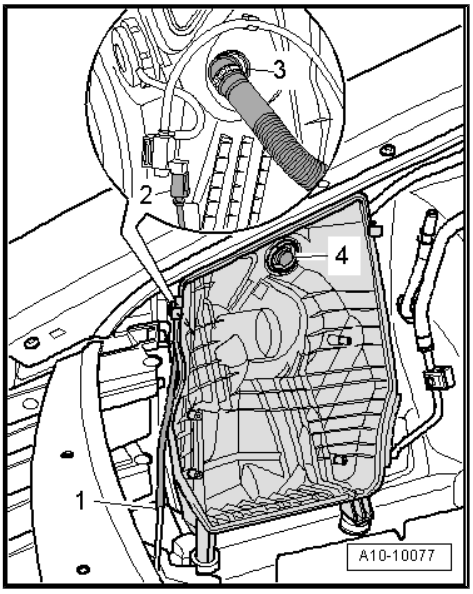
– Release retainers -arrows- and detach air cleaner (top section).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side.
– If fitted, pull off hose -3- to secondary air pump.
– Detach air cleaner (bottom section).

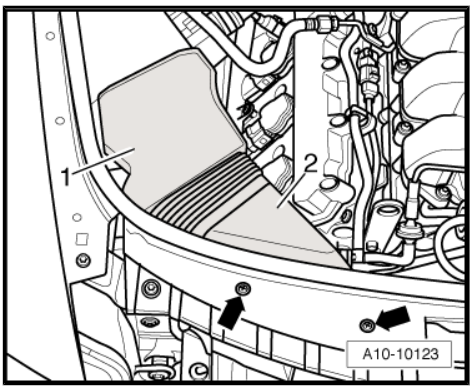
Install in reverse order.



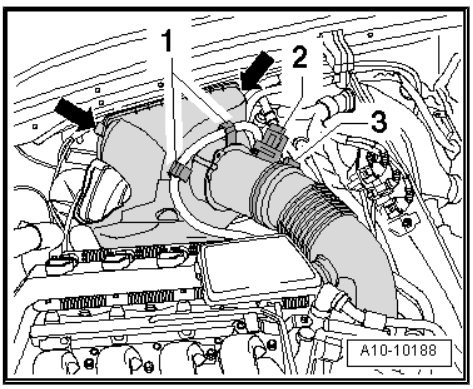
6.6.3 Removing air cleaner housing - vehicles with 4.2 ltr. MPI engine

Procedure

– Unscrew bolts -arrows-.
– Remove air ducts -1- and -2-.



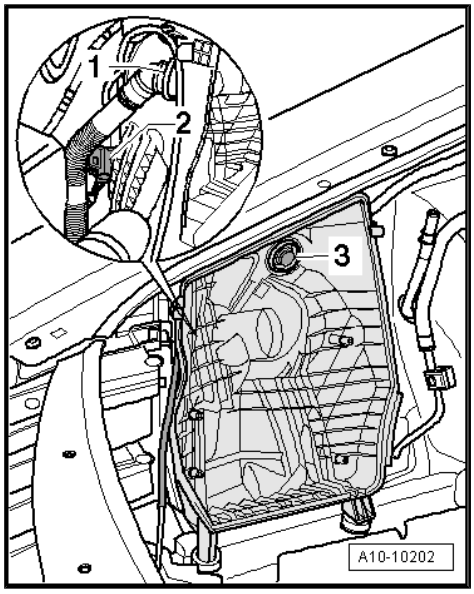
– Detach fuel line -1- at air cleaner (top section) and move clear.
– Unplug electrical connector -2- at air mass meter - G70- .
– Remove air intake hose at air mass meter by releasing hose clip -3-.
– Release retainers -arrows- and detach air cleaner (top section) together with air mass meter.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unplug vacuum line.
– Pull pin out of fastener -3-.
– Detach air cleaner (bottom section) and unplug electrical connector on reverse side -2-.
– Disconnect hose -1- going to secondary air pump.
– Detach air cleaner (bottom section).

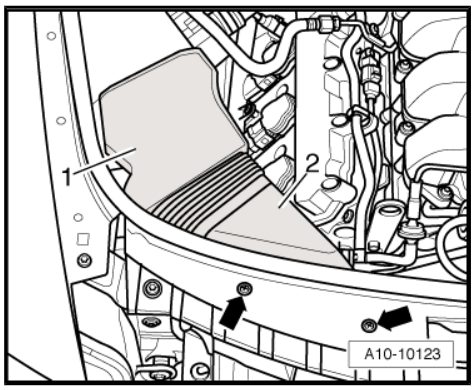
Install in reverse order.



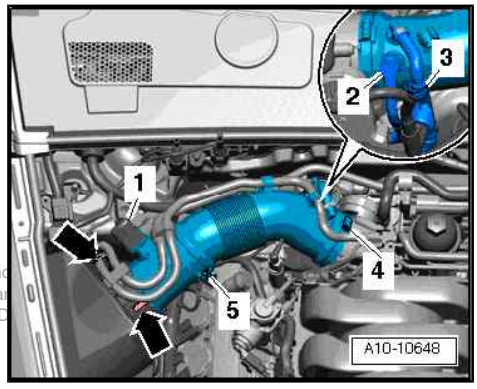
6.6.4 Removing air cleaner housing - vehicles with 4.2 ltr. FSI engine

Procedure

– Unscrew bolts -arrows-.
– Remove air ducts -1 and 2-.



– Move fuel line and line going to activated charcoal filter clear at air cleaner housing and at air pipe.
– Unplug electrical connector -1- at air mass meter - G70- .
– Detach vacuum line -3- going to air intake hose.
– Move air intake hose with connected crankcase breather hose -2- clear. To do so, release hose clip -4- and clamps -arrows-.



Caution

Avoid violation of laws concerning exhaust emissions on USA vehicles.

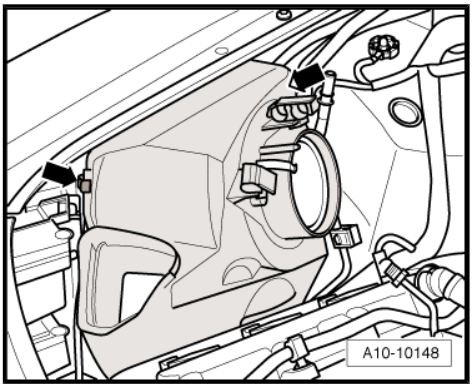
- ***Do not open hose connection -2-.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

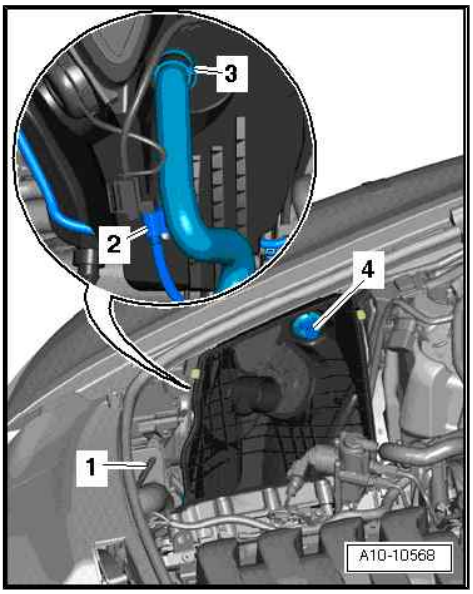
Disregard -item 5-.

– Release retainers -arrows- and detach air cleaner (top section).



– Disconnect vacuum line -1-.
– Pull pin out of fastener -4-.
– Detach air cleaner (bottom section) and unplug electrical connector -2- on reverse side at variable intake manifold changeover valve - N335- .

Install in reverse order.

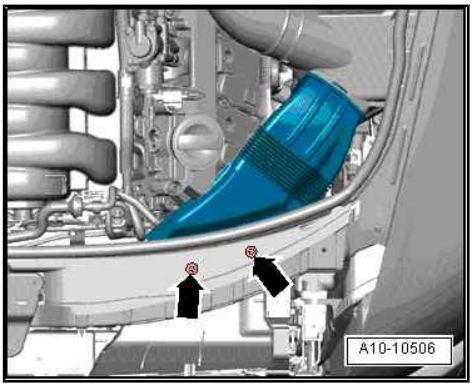


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

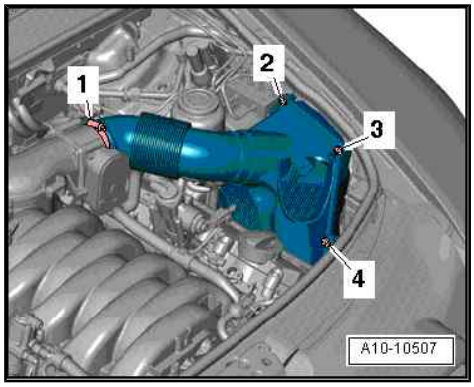
6.6.5 Removing air cleaner housing (left-side) - vehicles with 10-cylinder petrol engine

Procedure

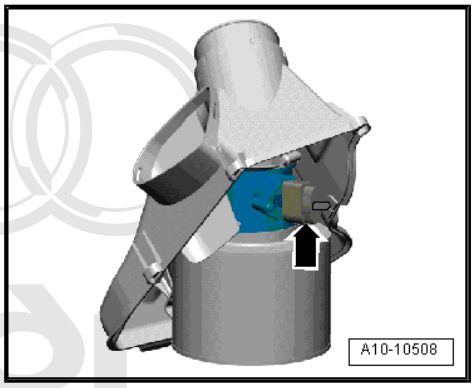
– Unscrew bolts -arrows-, disengage bonnet cable and detach air duct (left-side).



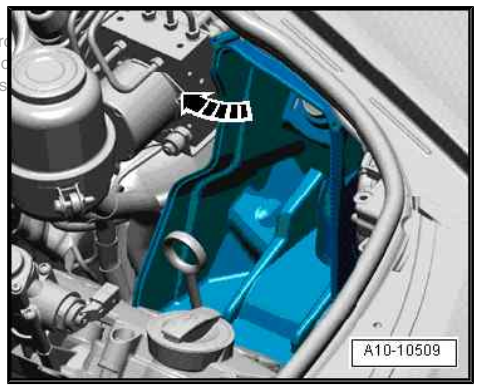
– Loosen hose clip -1- and unscrew bolts -2, 3, 4-.
– Detach left air cleaner (top section).



– Unplug electrical connector -arrow- at air mass meter 2 - G246- .



– Pull air cleaner (bottom section) off side connection.
– Swivel air cleaner (bottom section) upwards and take out -arrow-.



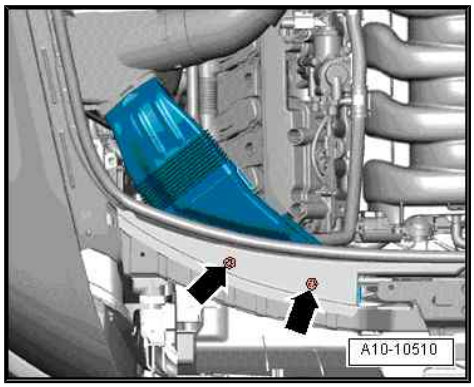
Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

6.6.6 Removing air cleaner housing (right-side) - vehicles with 10-cylinder petrol engine

Procedure

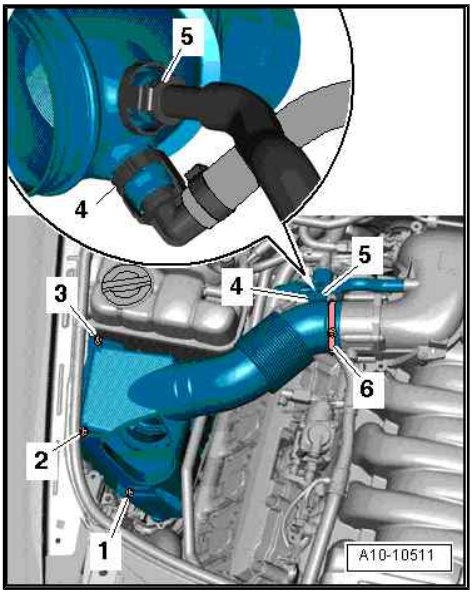
– Unscrew bolts -arrows- and remove air duct (right-side).



– Detach vacuum line -5- at air intake hose.

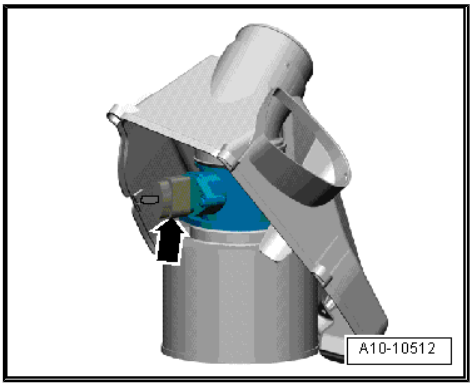
Caution

Do not open hose connection -4- on USA vehicles. Move top section of air cleaner (right-side) with connected crankcase breather hose to one side.



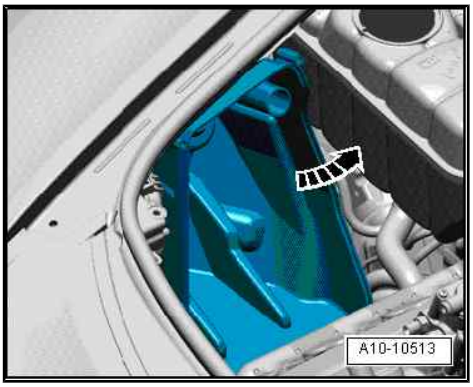
– Loosen hose clip -6- and unscrew bolts -1 ... 3-.
– Detach right air cleaner (top section).

– Unplug electrical connector -arrow- at air mass meter - G70- .



– Pull air cleaner (bottom section) off side connection.
– Swivel air cleaner (bottom section) upwards and take out -arrow-.

Install in reverse order.



6.7 Renewing gas discharge bulb -L13- / -L14-

Removing

WARNING

High voltage! Danger to life! Observe environmental requirements.

- ***Safety precautions when handling gas discharge bulbs ⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs***

Audi
Copyright by AUDI AG. Distribution to third parties is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.

Headlight (left-side) - vehicles with 6-cyl. petrol engine:

– Remove power steering reservoir ⇒ page 257 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 258 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 259 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 260 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

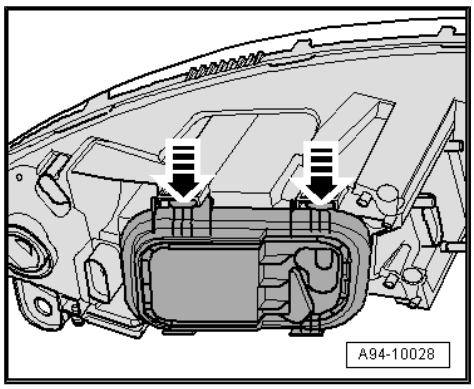
– Remove air cleaner housing ⇒ page 261 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

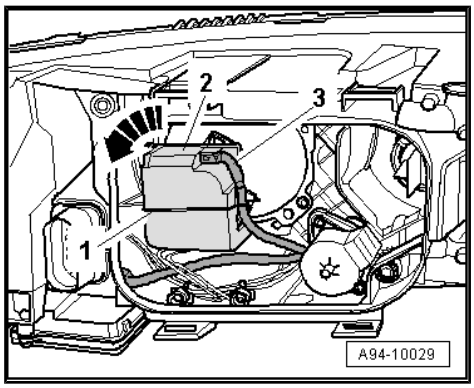
– Remove air cleaner housing ⇒ page 262 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

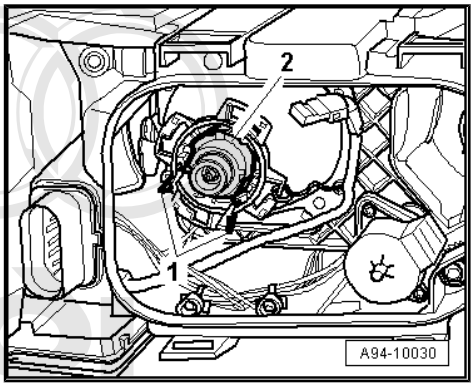


– If fitted, pivot the securing clip -1- for electrical connector to side.
– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.
– Unplug electrical connector -3- at starter unit for gas discharge bulb.
– Remove starter unit for gas discharge bulb.



– Disengage retaining clips -1-.

– Pull gas discharge bulb -2- out of headlight housing.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new gas discharge bulb in housing; do not touch glass part of bulb with bare hands.

Note

Note correct installation position: lug at top of bulb holder must engage in recess of gas discharge bulb.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

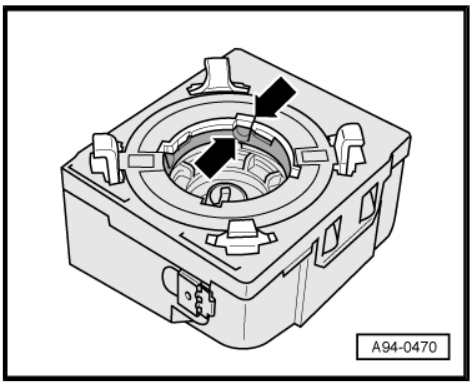
– If fitted, secure gas discharge bulb with retaining clip.

Note

The starter unit must be installed before attaching the connector.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.

– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.



• The starter unit should be easy to turn.

• Arrow on housing faces upwards.

– Re-attach connector.

– Secure the electrical connector with securing clip.

– Close housing cover.

6.8 Renewing daytime running light bulb - L174- / -L175-

Removing

WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side) - vehicles with 6-cyl. petrol engine:

– Remove power steering reservoir ⇒ page 257 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 258 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 259 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 260 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

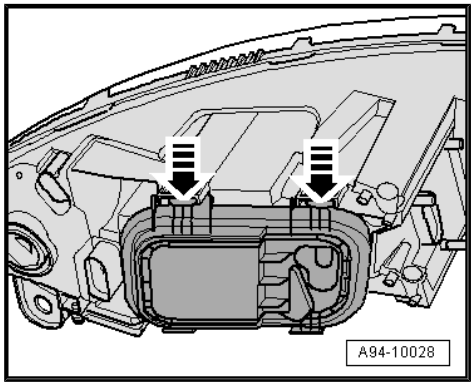
– Remove air cleaner housing ⇒ page 261 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 262 .

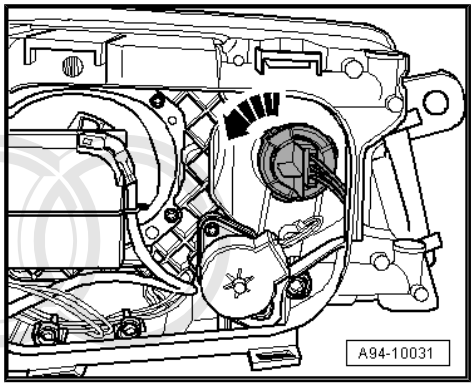
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Turn bulb holder anti-clockwise -arrow- and pull out of headlight housing.

– Screw bulb out of bulb holder.



Installing

Installation is carried out in the reverse order; note the following:

– Fit new bulb in housing; do not touch the glass part of the bulb with bare hands.

– Secure bulb holder by turning clockwise.

– Close housing cover.

6.9 Removing and installing left/right headlight screen adjustment solenoid - N395- / -N396-

The headlight screen adjustment solenoid is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Renewing headlight ⇒ page 251 .

6.10 Removing and installing swivel module position sensor -G474- / -G475-

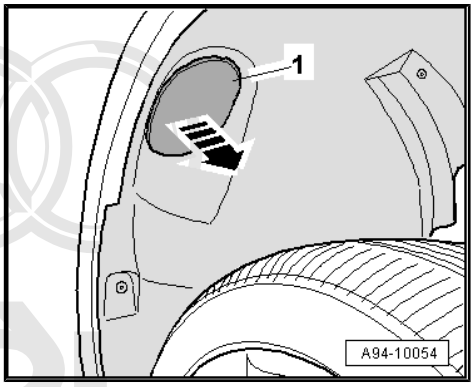
The swivel module position sensor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 251 .

6.11 Renewing front turn signal bulb -M5- / -M7-

Removing

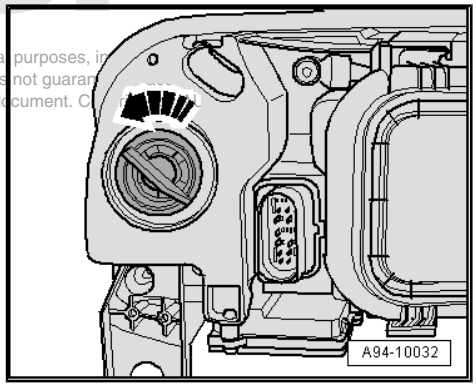
– Pry out cap -1- in wheel housing liner (front) in the direction of -arrow-.



Note

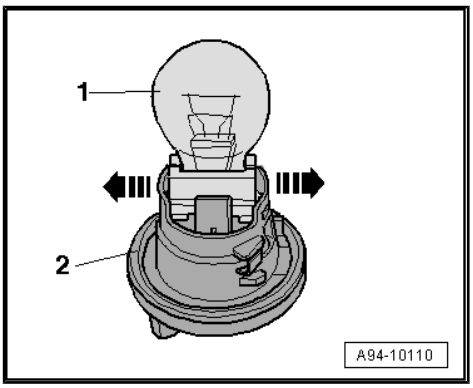
Detach front section of wheel housing liner on vehicles without cap ⇒ Rep. gr. 66 .

– Turn bulb holder anti-clockwise -arrow- and pull out of housing.



Protected by copyright. Copying for private or commercial purposes, in
permitted unless authorised by AUDI AG. AUDI AG does not guaran
with respect to the correctness of information in this document. C

– Release retaining clip in direction of -arrow- and take bulb -1- out of bulb holder -2-.



Installing

Installation is carried out in the reverse order; note the following:

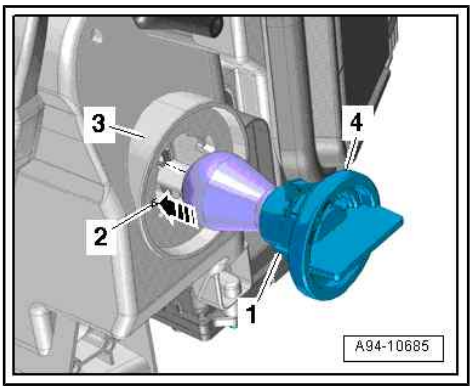
Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Press cap into wheel housing liner until you feel it engage.



6.12 Removing and installing dynamic cornering light control motor -V318- / -V319-

The dynamic cornering light control motor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 251 .

6.13 Removing and installing headlight range control motor -V48- / -V49-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side) - vehicles with 6-cyl. petrol engine:

– Remove power steering reservoir ⇒ page 257 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 258 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 259 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 260 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

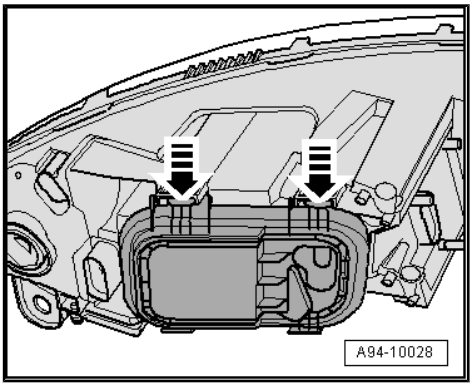
– Remove air cleaner housing ⇒ page 261 .

Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 262 .

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

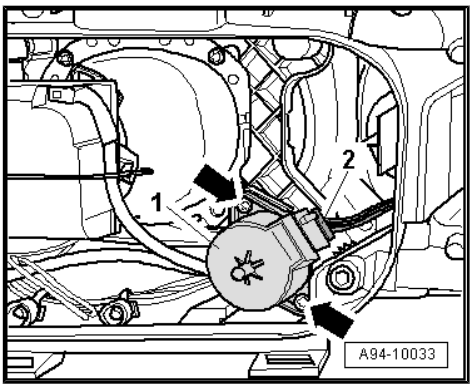


– Unscrew bolts -arrows-.

– Press ball head of actuator shaft out of its mounting by pivoting control motor -1- to the side.

– Remove headlight range control motor from headlight housing.

– Unplug electrical connector -2-.



Installing

• Tightening torque ⇒ page 247

Installation is carried out in the reverse order; note the following:

– Start by inserting ball head of actuator shaft into ball head mounting of reflector from the side; to do so, pull reflector to rear.

Note

The headlights must always be re-adjusted if the control motors are removed and installed or renewed ⇒ page 254 .

– Close housing cover.

6.14 Removing and installing gas discharge bulb control unit -J343- / -J344-

Removing

WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

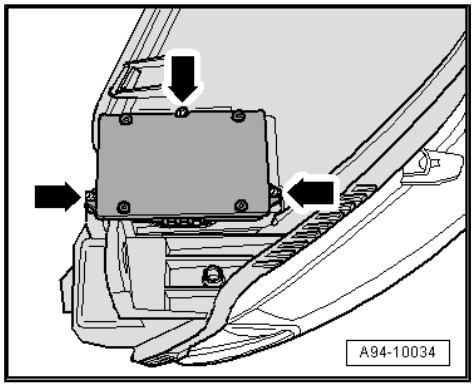
– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

– Remove headlight ⇒ page 251 .

– Unscrew bolts -arrows-.
– Detach control unit for gas discharge bulb from headlight housing.



Installing

• Tightening torque ⇒ page 247

Installation is carried out in the reverse order; note the following:

– Check seal between gas discharge bulb control unit and headlight housing.
– Install headlight ⇒ page 251 .
– Following installation, adjust headlights ⇒ page 254 .

6.15 Removing and installing output module for headlight -J667- / -J668-

Removing

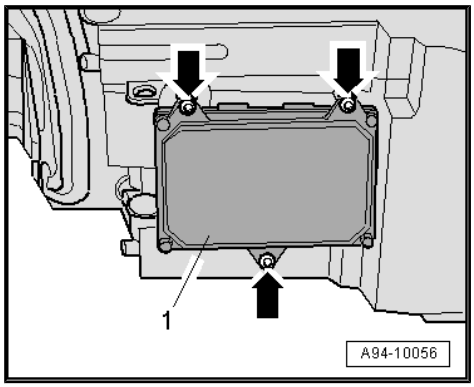
WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Turn light switch to position “0”.
– Switch off ignition and all electrical equipment and remove ignition key.
– Do not flash the headlights.
– Remove headlight ⇒ page 251 .
– Unscrew bolts -arrows-.
– Pull output module -1- off headlight housing.



Installing

• Tightening torque ⇒ page 247

Installation is carried out in the reverse order; note the following:

– Check seal between output module and headlight housing.
– Install headlight ⇒ page 251 .
– Following installation, adjust headlights ⇒ page 254 .

6.16 Removing and installing starter unit for gas discharge bulb

Removing

> **WARNING**
>
> *High voltage! Danger to life!*
>
> - *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
> - *Switch off ignition and all electrical equipment and remove ignition key.*
> - *Do not flash the headlights.*

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side) - vehicles with 6-cyl. petrol engine:

– Remove power steering reservoir ⇒ page 257 .

Headlight (right-side) - vehicles with 6-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 258 .

Headlight (right-side) - vehicles with 4.2 ltr. MPI engine:

– Remove air cleaner housing ⇒ page 259 .

Headlight (right-side) - vehicles with 4.2 ltr. FSI engine:

– Remove air cleaner housing ⇒ page 260 .

Headlight (left-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 261 .

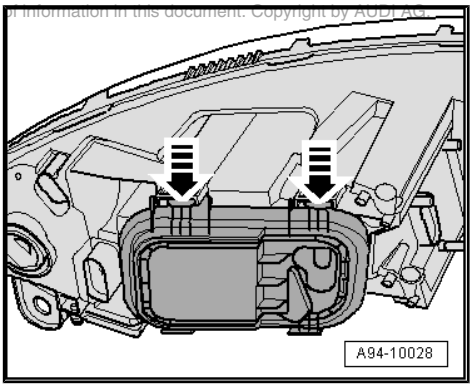
Headlight (right-side) - vehicles with 10-cyl. petrol engine:

– Remove air cleaner housing ⇒ page 262 .

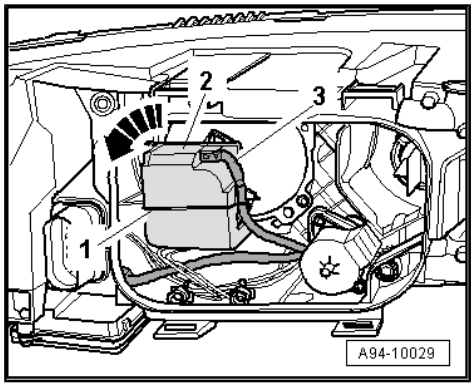
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– If fitted, pivot the securing clip -1- for electrical connector to side.
– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.
– Unplug electrical connector -3- at starter unit for gas discharge bulb.
– Remove starter unit for gas discharge bulb.



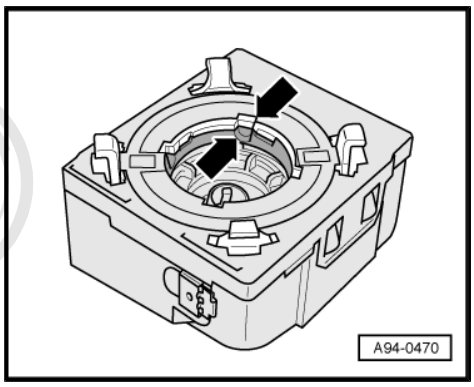
Installing

Installation is carried out in the reverse order; note the following:

Note

The starter unit must be installed before attaching the connector.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.
– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.
• The starter unit should be easy to turn.
• Arrow on housing faces upwards.
– Re-attach connector.
– If fitted, secure electrical connector with securing clip.
– Close housing cover.



6.17 Installing repair kit for headlight housing

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

♦ *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*
♦ *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

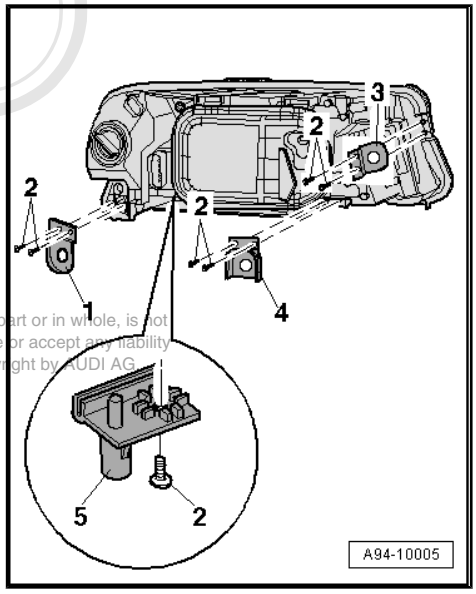
Procedure

– Remove headlight with broken retaining tab ⇒ page 249 .

– Remove rest of broken retaining tab from headlight housing.

– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 247



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

7 Gas discharge headlights with dynamic cornering lights (adaptive light) - Audi RS 6

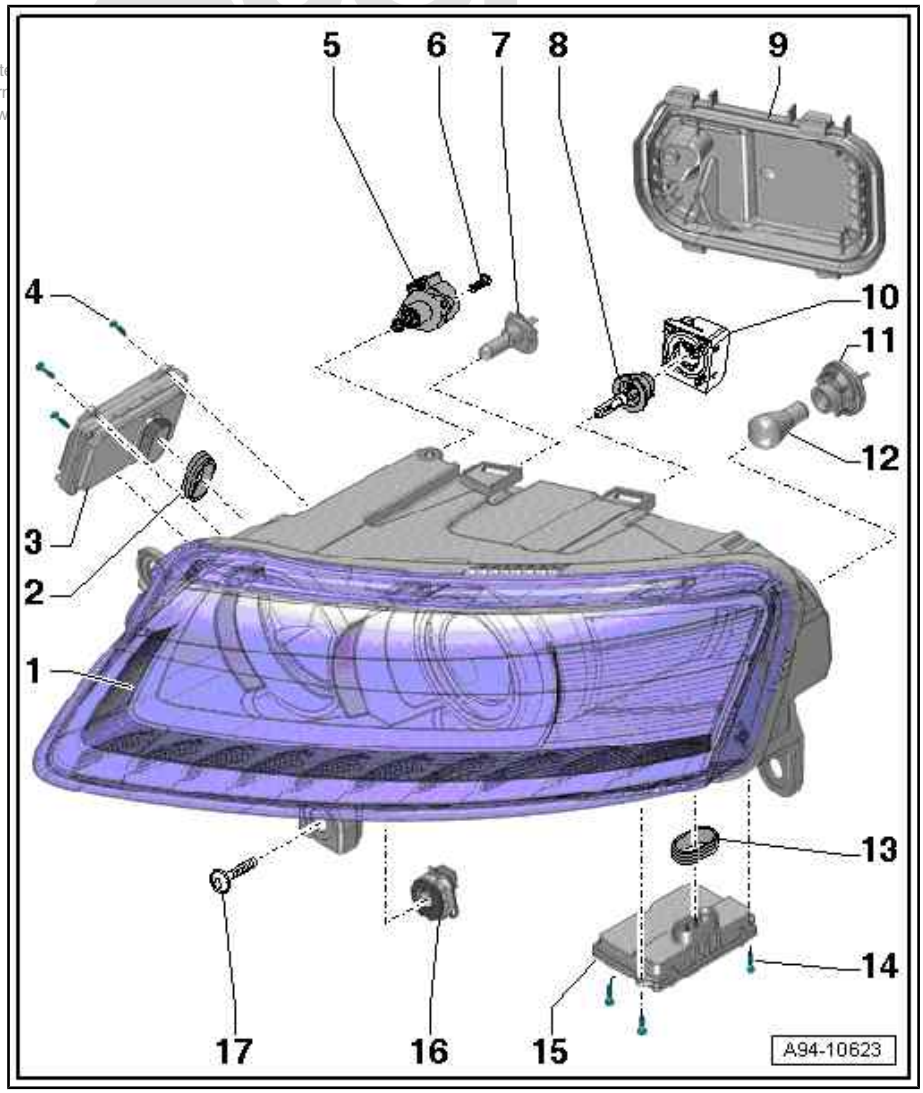
Note

The headlights must be adjusted after any repair work which could affect the headlight settings ⇒ page 281 .

7.1 Safety precautions when handling gas discharge bulbs

⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs

7.2 Exploded view of gas discharge headlight



1 - Headlight housing

- ❑ Removing and installing headlight housing (after renewing components on front end of vehicle) ⇒ page 275
- ❑ Removing and installing headlight housing (old headlight is fitted again) ⇒ page 278
- ❑ The following units cannot be renewed separately if defective: Headlight screen adjustment solenoid (left and right) -N395- / -N396- , swivel module position sensor (left and right) -G474- / -G475- , dynamic cornering light control motor (left and right) -V318- / -V319-

2 - Seal

- ❑ Renew if damaged

3 - Output module

- ❑ Output module for left headlight - J667-
- ❑ Output module for right headlight - J668-
- ❑ Removing and installing ⇒ page 287

4 - 1 Nm

5 - Headlight range control motor

- ❑ Left headlight range control motor - V48-
- ❑ Right headlight range control motor - V49-
- ❑ Removing and installing ⇒ page 286

6 - 1 Nm

7 - Fog light bulb

- ❑ Left fog light bulb - L22-
- ❑ Right fog light bulb - L23-
- ❑ H7 - 12 V, 55 W (W5W - white)
- ❑ Renewing bulb ⇒ page 296

8 - Gas discharge bulb

- ❑ Left gas discharge (xenon) bulb - L13-
- ❑ Right gas discharge (xenon) bulb - L14-
- ❑ 35 W (D2S)
- ❑ Renewing bulb ⇒ page 283

9 - Housing cover

10 - Starter unit for gas discharge bulb

- ❑ Removing and installing ⇒ page 288

11 - Bulb holder

- ❑ For turn signal bulb

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

12 - Front turn signal bulb

- ❑ Front left turn signal bulb - M5-
- ❑ Front right turn signal bulb - M7-
- ❑ 12 V, 21 W (PY21W - silver-coloured glass)
- ❑ Renewing bulb ⇒ page 285

13 - Seal

- ❑ Renew if damaged

14 - 1 Nm

15 - Gas discharge bulb control unit

- ❑ Left gas discharge bulb control unit - J343-
- ❑ Right gas discharge bulb control unit - J344-
- ❑ Removing and installing ⇒ page 287

16 - Adjuster

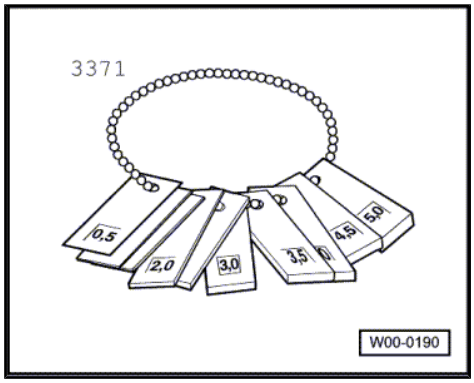
- ❑ To adjust headlight to bumper contour
- ❑ 3x

17 - 8 Nm

7.3 Removing and installing headlights (to renew components on front end of vehicle)

Special tools and workshop equipment required

♦ Setting gauge - 3371-



WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

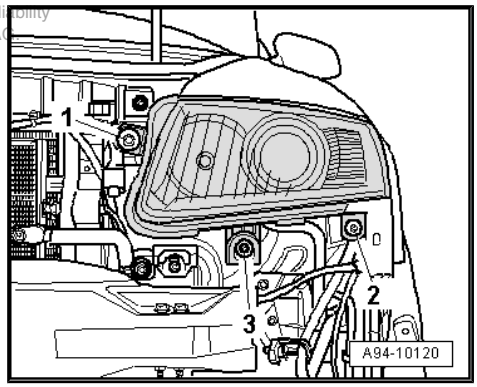
– Remove front bumper cover ⇒ Rep. gr. 63 .

– Unscrew bolts -1 ... 3-.

– Detach headlight to front.

– Unplug electrical connector.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

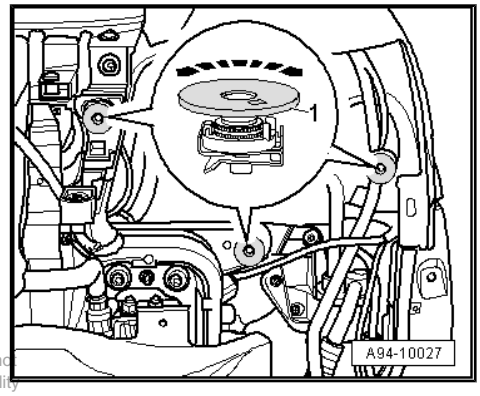


Installing

- Tightening torque ⇒ page 274

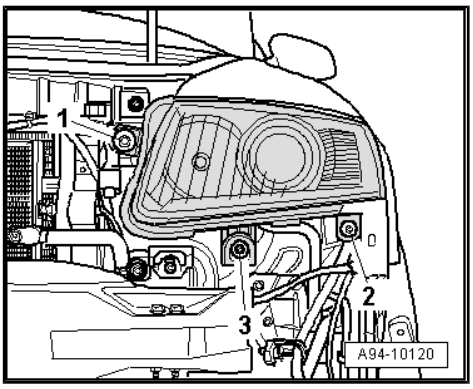
– Check adjuster nut -1- of adjuster for freedom of movement -arrows-.

– Screw down adjuster nut as far as it will go, but do not tighten.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

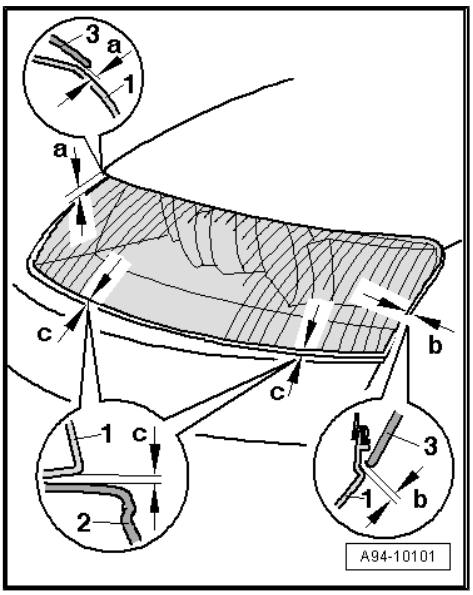
– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



– Fit front bumper cover in installation position, but do not tighten bolts.

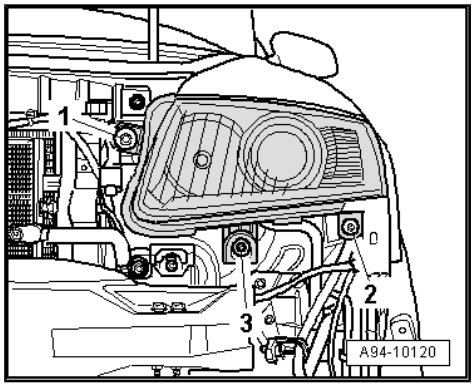
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Note

When the bolts are tightened, the adjuster nut of the adjuster element automatically rotates against the mounting point of the headlight housing and fixes it in place.



- Secure bolt -1- – avoid applying pressure to the bolt when securing; the adjuster nut of the adjuster element must remain free to turn.
- Take off front bumper cover.
- Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.

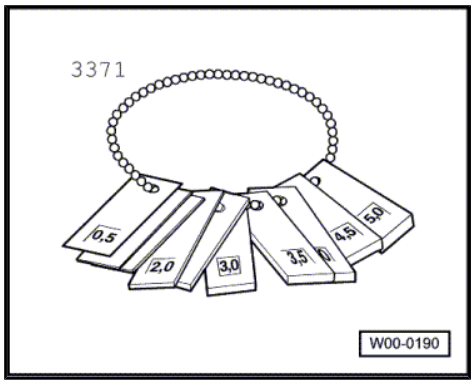
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Install front bumper cover ⇒ Rep. gr. 63 .
- Check gap widths again; if necessary repeat adjustment of gap widths as described above.
- Following installation, adjust headlights ⇒ page 281 .

7.4 Removing and installing headlights (old headlight is fitted again)

Special tools and workshop equipment required

- Setting gauge - 3371-



WARNING

High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

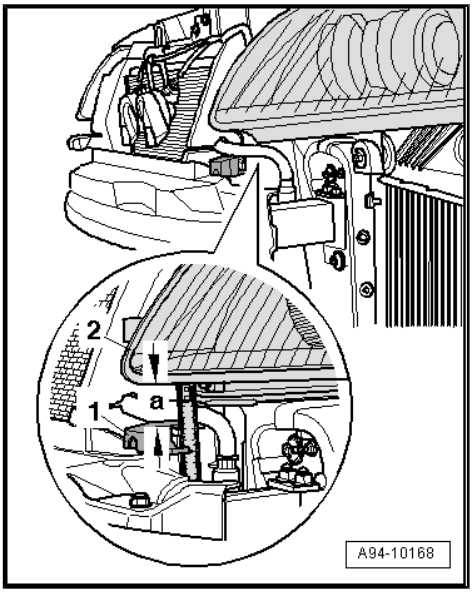
– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

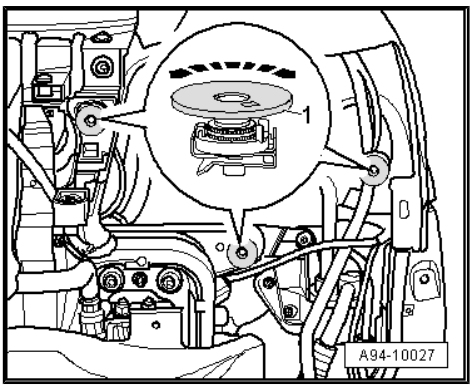
– Remove front bumper cover ⇒ Rep. gr. 63 .

– Measure distance -a- between headlight -2- and spacer -1- before removal and make a note of distance measured.



Note

Make sure to counterhold adjuster nuts -1- of adjusters when unscrewing securing bolts to prevent them from being turned out of position -arrows-.

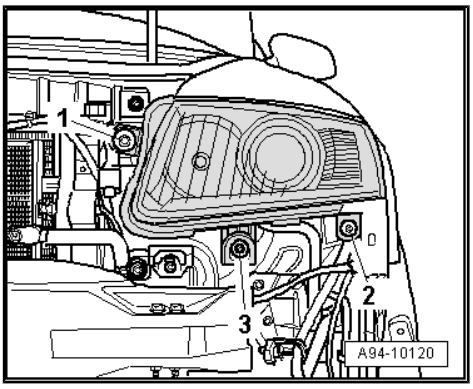


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -1... 3-.

– Detach headlight to front.

– Unplug electrical connector.

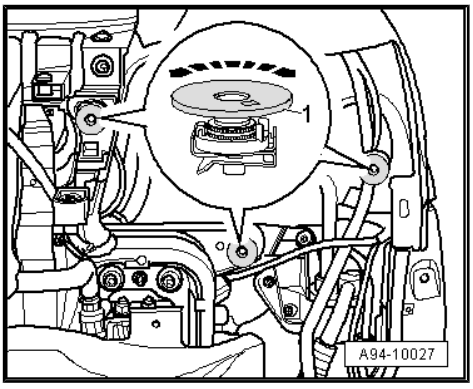


Installing

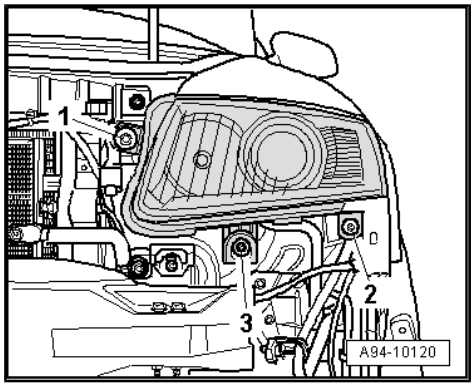
• Tightening torque ⇒ page 274

Note

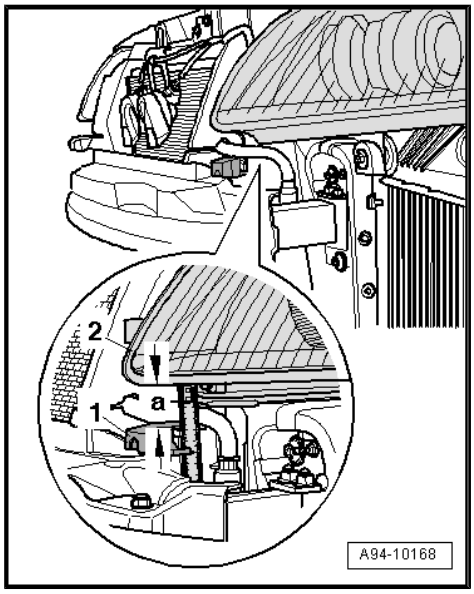
Make sure to counterhold adjuster nuts -1- of adjusters when fastening securing bolts to prevent them from being turned out of position -arrows-.



– Fit headlight and screw in bolts -1 ... 3- two complete turns each.



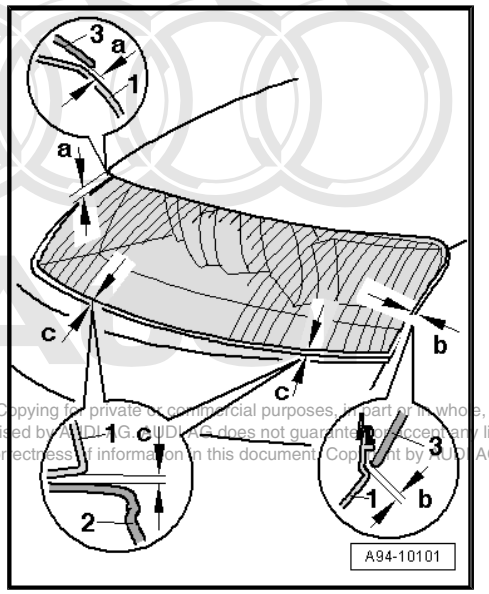
– Adjust headlight -2- so that the distance -a- to the spacer -1- is the same distance as measured upon removal.



– Fit front bumper cover in installation position, but do not tighten bolts.

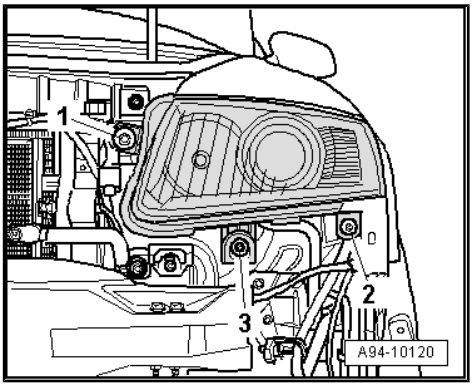
– Align gap widths -a ... c- of headlight -1- in relation to bumper cover -2- and wing panel -3- using setting gauge - 3371- as follows:

- Dimension -a- = 2.3 mm
- Dimension -b- = 2 mm
- Dimension -c- = 1.2 mm
- The headlight must be flush with outer edge of wing panel.
- The bottom edge of the headlight must be parallel with the top edge of the bumper.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Secure bolt -1- – do not apply pressure to bolt when tightening.
– Take off front bumper cover.
– Secure bolts -2- and -3- and at the same time align headlight flush with outer edge of wing panel.
– Install front bumper cover ⇒ Rep. gr. 63 .
– Check gap widths again; if necessary repeat adjustment of gap widths as described above.
– Following installation, adjust headlights ⇒ page 281 .



7.5 Adjusting headlights

♦ The following checking and adjustment procedures apply to all countries.
♦ However, national legislation and guidelines for individual countries must be adhered to.

7.5.1 Requirements for checking and adjusting

♦ Tyre pressure OK
♦ Headlight lenses must not be damaged or dirty.
♦ Reflectors and bulbs OK
♦ Vehicle correctly loaded.

Vehicle loading: with one person or 75 kg on driver's seat, otherwise vehicle unloaded (unladen weight).

The unladen weight is the weight of the vehicle ready for operation with full fuel tank (at least 90 %) including the weight of all equipment normally carried (e.g. spare wheel, tools, jack, fire extinguisher).

If the fuel tank is not at least 90 % full, put in additional weight as follows:

– Read off fuel tank level at fuel gauge in dash panel insert, refer to table of capacities to find out additional weight and place required weight in luggage compartment ⇒ page 282 .

♦ Roll vehicle several metres or depress front and rear springs fully several times so that springs settle correctly.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

♦ Vehicle and headlight adjustment unit must be on a level surface ⇒ Operating instructions for headlight adjustment unit .
♦ Vehicle and headlight adjustment unit must be aligned correctly with each other.

Ensure that headlight adjustment unit is in front of headlight at a distance of 30 cm.

♦ Dip setting must be adjusted.

Dip settings (in “%”) are marked on the top of the headlight. The headlights must be adjusted in accordance with these values. The percentage value is for a range of 10 m. Example: Converting a dip setting of 1.0 % = 10 cm.

7.5.2 Table of quantities

Fuel tank level displayed on fuel gauge	Front-wheel drive Additional weight in kg	Four-wheel drive Additional weight in kg
1/4	55	60
1/2	35	40
3/4	20	20
Full	0	0

Example:

If fuel tank is half full, place an additional weight of 35 kg into luggage compartment.

Note

It is advisable to use fuel canisters filled with water as additional weight (a 5 ltr. fuel canister filled with water weighs approx. 5 kg).

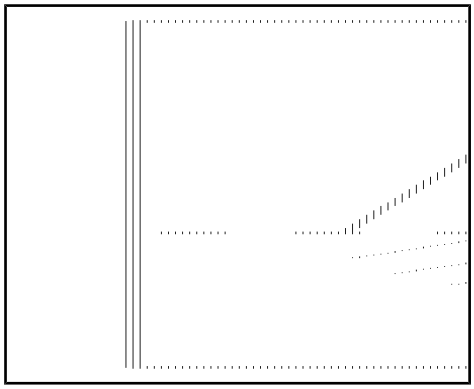
7.5.3 Checking headlight settings

– Switch on ignition and dipped headlights.

– Start engine, wait for headlights to complete reference run and then switch engine off again.

– Switch on ignition and dipped headlights.

- The horizontal light-dark border should coincide with the setting line -1- of the test surface.
- The break-away point -2- between the horizontal section of the light-dark border on the left and the rising section on the right should coincide with the vertical line running through the central point -3-. The bright spot in the centre of the beam should be to the right of the vertical line.



Note

- *To make it easier to find the break-away point -2-, cover and uncover the left half of the headlight (as seen in direction of travel) a few times. Then check the dipped beam again.*
- *If dipped beams have been adjusted correctly the centre point of the main beam should lie on central point -3-.*
- *If using an old test screen with a 15 ° setting line, the adjustment procedure is the same as for the new screen. Disregard the 15° setting line to avoid incorrect settings.*

– If headlight setting is not OK, adjust headlights ⇒ page 282 .

7.5.4 Adjusting headlights

– Connect vehicle diagnostic tester ⇒ Vehicle diagnostic tester.

– Select `Diagnosis` mode and start diagnosis.

– Select `Test plan` tab.

– Select `Own test` then the following options one after the other:

- Body

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Electrical system
- 01 - Self-diagnosis compatible systems
- 55 - Dynamic headlight range control
- J431/J745 - Dynamic headlight range control, functions
- J431/J745 - Control unit for headlight range control, basic setting

Note

With this programme the headlights return to the basic setting.

– Continue to follow the instructions on the display of the vehicle diagnostic tester.

– You will be requested to perform headlight adjustment while running through the programme.

Headlight (left-side)

Adjuster screws on left headlight:

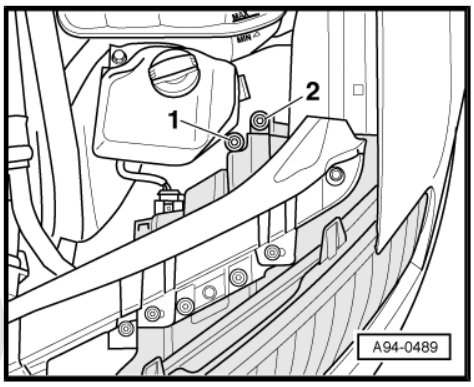
1 - Height adjuster screw

2 - Height/lateral adjuster screw

The arrangement on the right headlight is symmetrically opposite.

– To adjust height, turn adjuster screws -1- and-2- the same number of turns.

– For lateral adjustment, turn only adjustment screw-2-.



7.6 Renewing gas discharge bulb -L13- / -L14-

WARNING

High voltage! Danger to life! Observe environmental requirements.

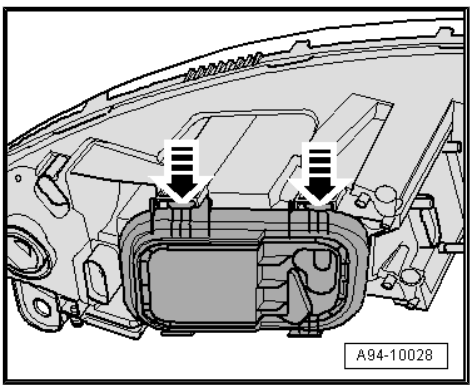
- ***Safety precautions when handling gas discharge bulbs ⇒ Electrical system; General information; Rep. gr. 94 ; Safety precautions when handling gas discharge bulbs***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

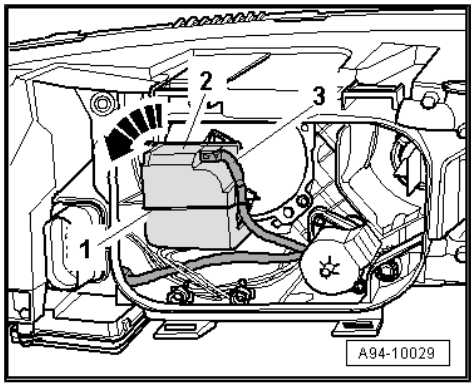
Removing

– Remove headlight housing ⇒ page 278 .

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– If fitted, pivot the securing clip -1- for electrical connector to side.
– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.
– Unplug electrical connector -3- at starter unit for gas discharge bulb.
– Remove starter unit for gas discharge bulb.

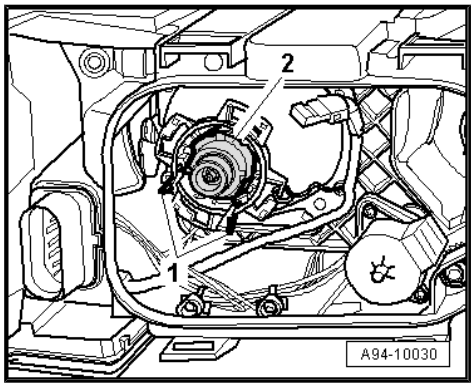


– Disengage retaining clips -1-.
– Pull gas discharge bulb -2- out of headlight housing.

Installing

Installation is carried out in the reverse order; note the following:

– Insert new gas discharge bulb in housing; do not touch glass part of bulb with bare hands.



Note

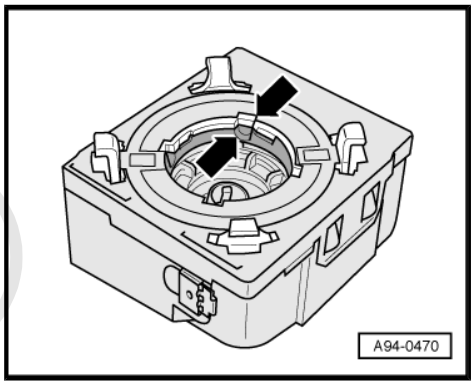
Note correct installation position: lug at top of bulb holder must engage in recess of gas discharge bulb.

– Secure gas discharge bulb with retaining clip.

Note

The starter unit must be installed before attaching the connector.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.
– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.
- The starter unit should be easy to turn.
- Arrow on housing faces upwards.



– Re-attach connector.
– If fitted, secure electrical connector with securing clip.
– Close housing cover.
– Install headlight housing ⇒ page 278 .

7.7 Renewing daytime running light bulb

The daytime running light bulbs (LED lights) are integrated in the headlight housing. The LED light cannot be renewed separately; the headlight must be renewed as a complete unit.

Copyright AUDI AG. All rights reserved. Reproduction, duplication, transmission to third parties, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Renewing headlight ⇒ page 278 .

7.8 Removing and installing left/right headlight screen adjustment solenoid - N395- / -N396-

The headlight screen adjustment solenoid is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 278 .

7.9 Removing and installing swivel module position sensor -G474- / -G475-

The swivel module position sensor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 278 .

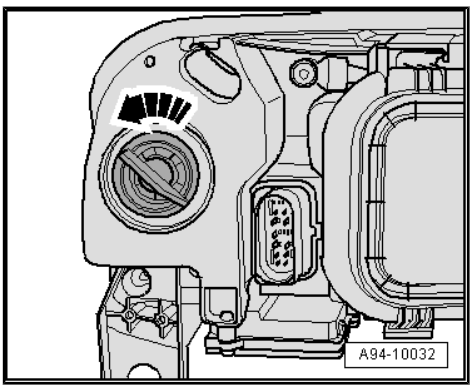
7.10 Renewing front turn signal bulb -M5- / -M7-

Removing

– Detach front section of wheel housing liner ⇒ Rep. gr. 66 .

– Turn bulb holder anti-clockwise -arrow- and pull out of headlight housing.

– Screw bulb out of bulb holder.



Installing

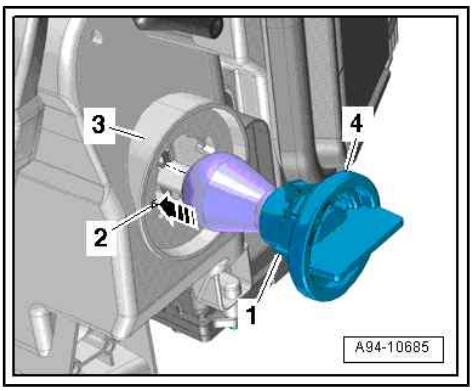
Installation is carried out in the reverse order; note the following:

– Fit new bulb in housing; do not touch the glass part of the bulb with bare hands.

– Bulb holder -4- can only be fitted in one position into headlight housing -3-.

• Projection -1- on bulb holder must engage in guide -2- on headlight housing -arrow-.

– Install wheel housing liner ⇒ Rep. gr. 66 .



7.11 Removing and installing dynamic cornering light control motor -V318- / -V319-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

The dynamic cornering light control motor is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.

– Renewing headlight ⇒ page 278 .

7.12 Removing and installing headlight range control motor -V48- / -V49-

WARNING

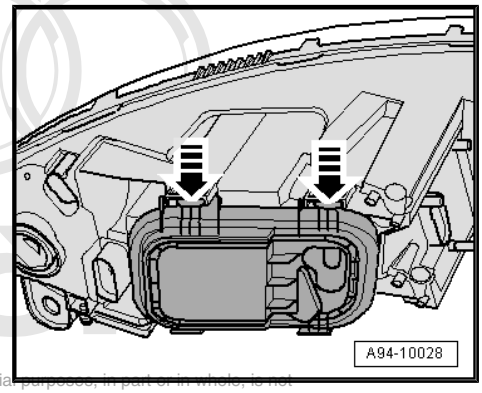
High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Remove headlight ⇒ page 278 .

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



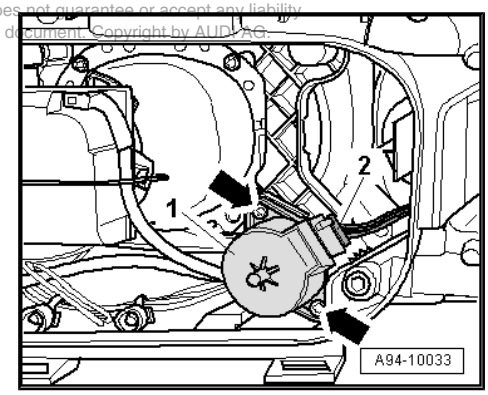
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows-.

– Press ball head of actuator shaft out of its mounting by pivoting control motor -1- to the side.

– Remove headlight range control motor from headlight housing.

– Unplug electrical connector -2-.



Installing

• Tightening torque ⇒ page 274

Installation is carried out in the reverse order; note the following:

– Start by inserting ball head of actuator shaft into ball head mounting of reflector from the side; to do so, pull reflector to rear.

Note

The headlights must always be re-adjusted if the control motors are removed and installed or renewed ⇒ page 281 .

– Close housing cover.

– Install headlight ⇒ page 278 .

7.13 Removing and installing gas discharge bulb control unit -J343- / -J344-

WARNING

High voltage! Danger to life!

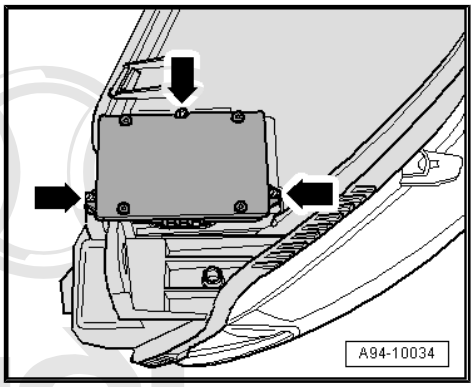
- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Remove headlight ⇒ page 278 .

– Unscrew bolts -arrows-.

– Detach control unit for gas discharge bulb from headlight housing.



Installing

• Tightening torque ⇒ page 274

Installation is carried out in the reverse order; note the following:

– Check seal between gas discharge bulb control unit and headlight housing.

– Install headlight ⇒ page 278 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

7.14 Removing and installing output module for headlight -J667- / -J668-

WARNING

High voltage! Danger to life!

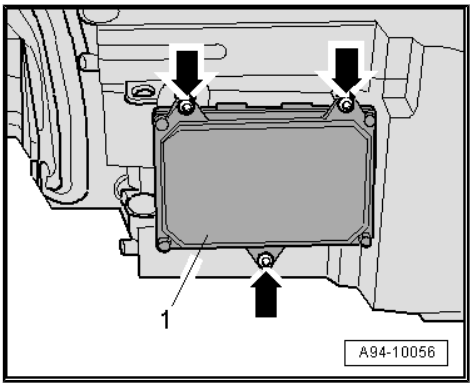
- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Remove headlight housing ⇒ page 278 .

– Unscrew bolts -arrows-.

– Pull output module off headlight housing.



Installing

• Tightening torque ⇒ page 274

Installation is carried out in the reverse order; note the following:

– Check seal between output module and headlight housing.

– Install headlight housing ⇒ page 278 .

7.15 Removing and installing starter unit for gas discharge bulb

WARNING

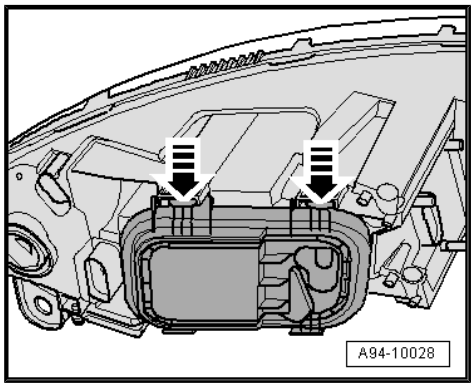
High voltage! Danger to life!

- *Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.*
- *Switch off ignition and all electrical equipment and remove ignition key.*
- *Do not flash the headlights.*

Removing

– Remove headlight housing ⇒ page 278 .

– Release retaining tabs -arrows- and detach housing cover from headlight housing.

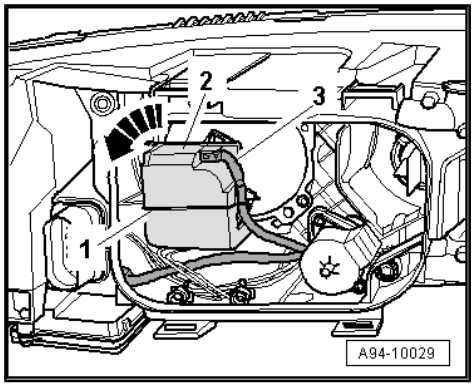


– If fitted, pivot the securing clip -1- for electrical connector to side.

– Turn starter unit -2- for gas discharge bulb anti-clockwise -arrow-.

– Unplug electrical connector -3- at starter unit for gas discharge bulb.

– Remove starter unit for gas discharge bulb.



Installing

Installation is carried out in the reverse order; note the following:

Note

The starter unit must be installed before attaching the connector.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

– Check whether recess in housing of starter unit for gas discharge bulb and recess in contact ring coincide exactly -arrows-.

– Fit starter unit for gas discharge bulb at headlight and turn clockwise as far as it will go.

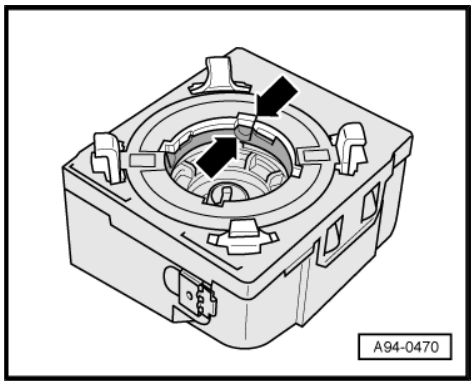
- The starter unit should be easy to turn.
- Arrow on housing faces upwards.

– Re-attach connector.

– If fitted, secure electrical connector with securing clip.

– Close housing cover.

– Install headlight housing ⇒ page 278 .



7.16 Installing repair kit for headlight housing

Note

- *Broken-off headlight retaining tabs can be renewed by installing repair kit. Renewing the entire headlight is then not necessary.*
- *Different repair kits are available for both left and right side headlights ⇒ Electronic parts catalogue .*

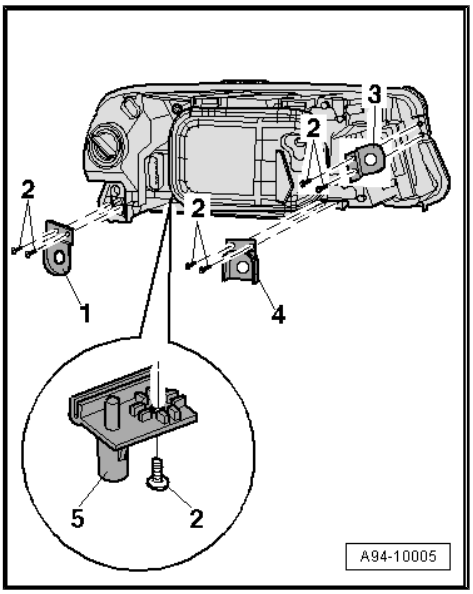
Procedure

– Remove headlight with broken retaining tab ⇒ page 275 .

– Remove rest of broken retaining tab from headlight housing.

– Fit retaining tab -1-, -3-, -4- or -5- as appropriate from repair kit on headlight housing and secure tab with bolts -2-.

• Tightening torque ⇒ page 274



7.17 Adapting headlights for driving on the left or right side of the road

When travelling in countries where the vehicle is to be driven on the other side of the road, both headlights must be adjusted to prevent oncoming traffic from being dazzled by the asymmetric dipped beams.

Procedure

⇒ Vehicle diagnostic tester is connected.

– Select `Diagnosis` mode and start diagnosis.

– Select `Test plan` tab.

– Select `Own test` then the following options one after the other:

- Body
- Electrical system
- 01 - Self-diagnosis compatible systems
- 55 - Dynamic headlight range control
- J431 - Dynamic headlight range control, functions
- J431 - Headlight range control unit, headlamp converter

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Further instructions are given by ⇒ Vehicle diagnostic tester during procedure.

– After completing adjustment, switch off ignition and unplug diagnostic connector.

Note

- *With headlamp converter activated, the event memory stores the fault “LHD/RHD switch-over activated” and the indicator lamp in the instrument cluster lights up for a short period each time the engine is started.*
- *The event memory erases the fault when the headlamp converter is deactivated.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8 Side marker light (USA vehicles)

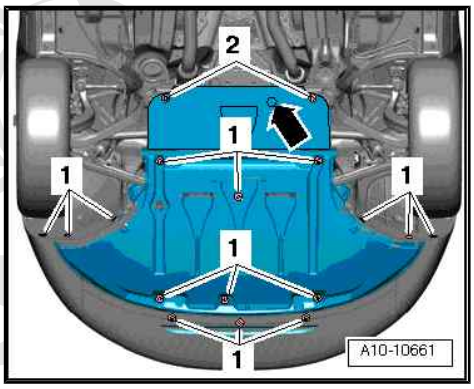
8.1 Removing and installing front side marker light

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.

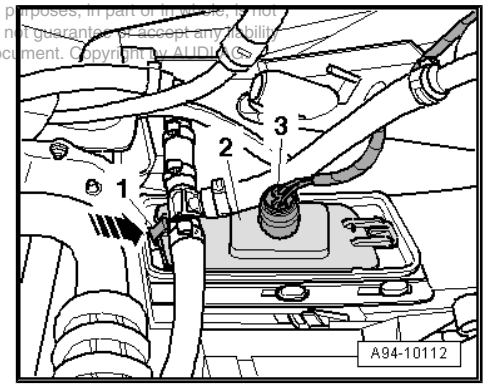


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Press retaining clip -1- in direction of -arrow- using a screwdriver.

– Remove side marker light -2- from bumper cover towards front.

– Pull housing for side marker light off bulb holder -3-.



Installing

Installation is carried out in the reverse order; note the following:

– Press retaining clip towards outside of vehicle using a screwdriver after fitting side marker light in bumper cover.

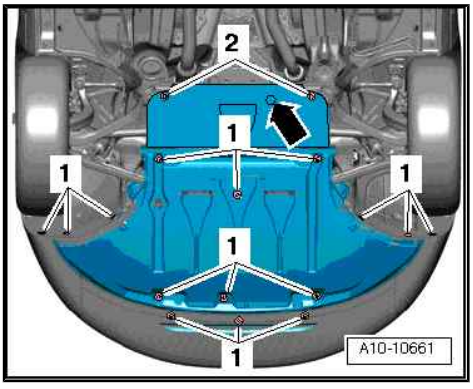
8.2 Renewing front side marker light bulb - M33- / -M34-

Removing

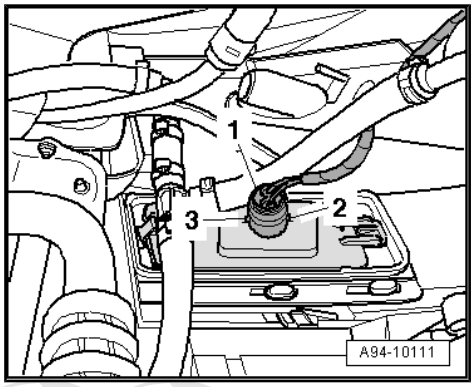
– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

– Release fasteners -1, 2- and -arrow- (if fitted) to remove noise insulation.



– Pull bulb holder -1- out of housing for side marker light.
– Pull bulb out of bulb holder.



Installing

Installation is carried out in the reverse order; note the following:

– Fit new bulb (12 V, 5 W - orange) in housing; do not touch the glass part of the bulb with bare hands.
– Make sure that the marks -2- and -3- are horizontal when fitting.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

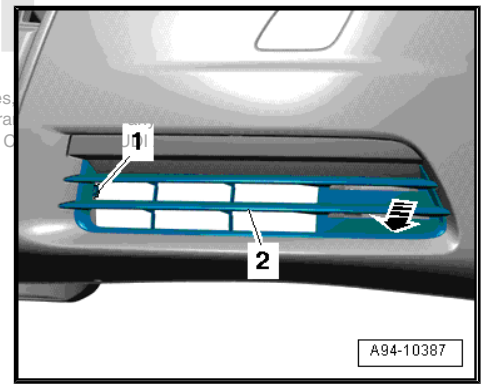
9 Daytime running lights - Audi S6

9.1 Removing and installing daytime running light

Removing

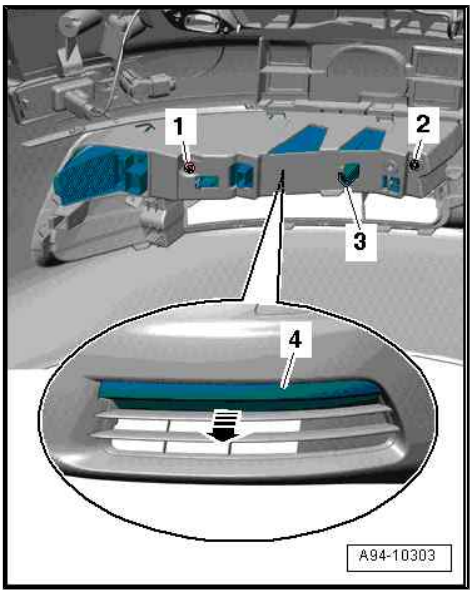
– Release retaining clip using a screwdriver -arrow A- and remove air intake grille -1- in bottom section of bumper cover -arrows B-.

– Remove front bumper cover ⇒ Rep. gr. 63 .



– Remove bolts -1- and -2-.

– Release clip -3- and remove daytime running light bulb -4- from bumper cover towards front -arrow-.



Installing

Installation is carried out in the reverse order; note the following:

Note

Entire daytime running light must be renewed if LED is defective.

– Install front bumper cover ⇒ Rep. gr. 63 .

Tightening torque

Component	Nm
Daytime running light bulb to bumper	2

Protected by copyright. Copying for private or commercial purposes, permitted unless authorised by AUDI AG. AUDI AG does not guarantee with respect to the correctness of information in this document.

10 Fog lights

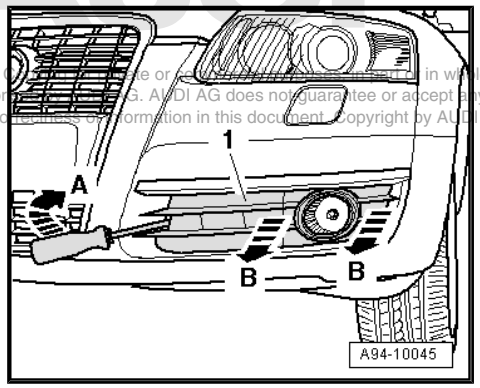
10.1 Removing and installing fog lights - Audi A6 up to 05.2008

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.

– Release retaining clip using a screwdriver -arrow A- and remove air intake grille -1- in bottom section of bumper cover -arrows B-.

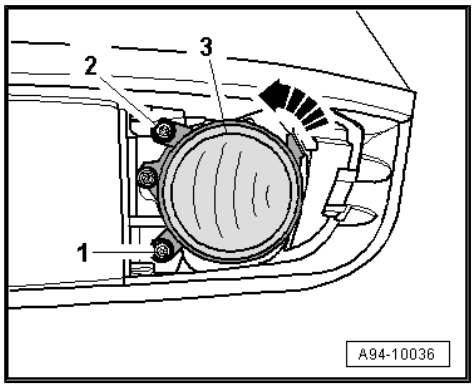


– Remove bolts -1- and -2-.

– Turn fog light housing -3- anti-clockwise on left-side of vehicle -arrow- and clockwise on right-side.

– Take fog light housing out of bumper cover.

– Unplug electrical connector.



Installing

Installation is carried out in the reverse order; note the following:

– Adjust fog lights ⇒ page 297 .

Tightening torque

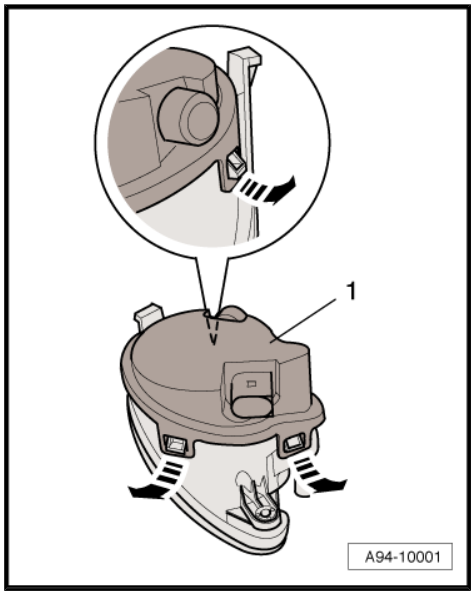
Component	Nm
Fog light housing to bumper cover	1.5

10.2 Renewing fog light bulb -L22- / -L23- - Audi A6 up to 05.2008

Removing

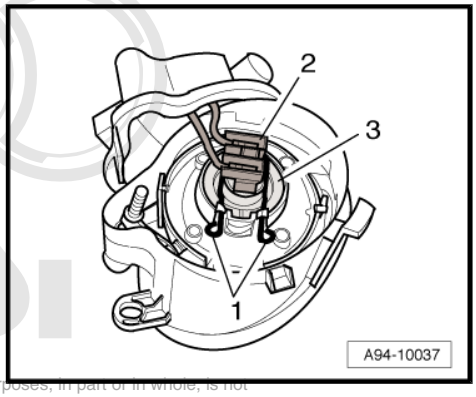
– Remove fog light ⇒ page 294 .

– Release retaining tabs -arrows- on cover cap -1-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unplug electrical connector -2- at bulb.
– Disengage retaining clip -1- and take bulb -3- out of housing.



Installing

Installation is carried out in the reverse order; note the following:

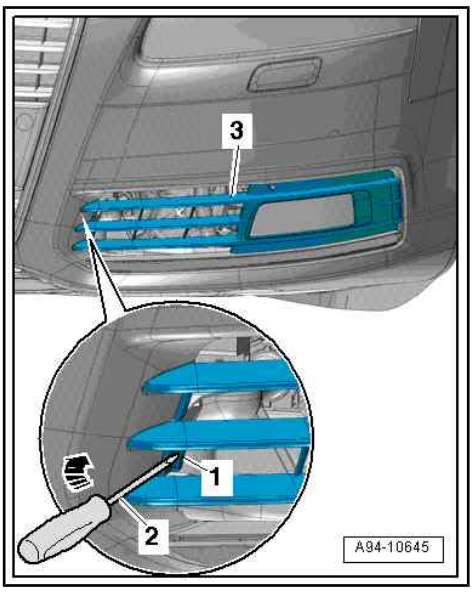
– Fit new bulb (H7 - 12 V, 55 W - W5W) in housing; do not touch the glass part of the bulb with bare hands.
– Secure bulb with retaining clip.
– Plug in connectors and close housing cover.
– Adjust fog lights ⇒ page 297 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

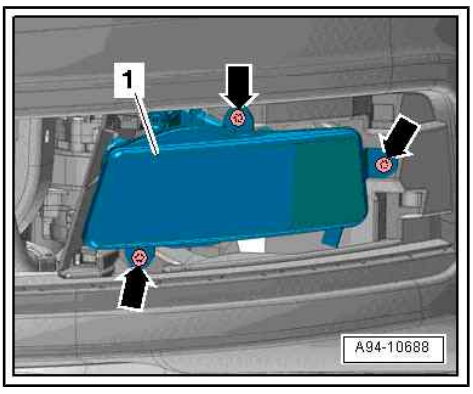
10.3 Removing and installing fog lights - Audi A6 from 06.2008 onwards

Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.
– Use screwdriver -2- to release retaining clip -1- -arrow- and pull out air intake grille -3- in lower section of bumper cover.



– Remove bolts -arrows-.
– Remove fog light housing -1- from bumper cover.
– Unplug electrical connector.



Installing

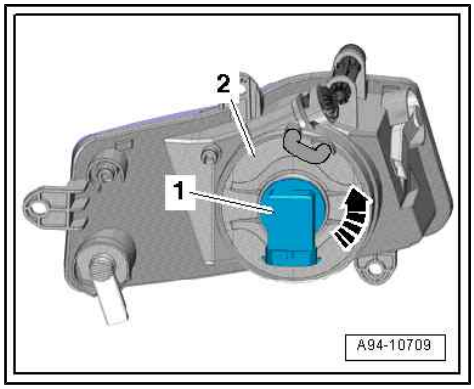
Installation is carried out in the reverse order; note the following:

– Adjust fog lights ⇒ page 297 .

Tightening torque

Component	Nm
Fog light housing to bumper cover	1.5

10.4 Renewing fog light bulb -L22- / -L23- - Audi A6 from 06.2008 onwards



Removing

– Remove fog light ⇒ page 295 .

– Turn bulb -1- anti-clockwise -arrow- and pull it out of fog light housing -2-.

Installing

Installation is carried out in the reverse order; note the following:

– Fit new bulb (H11 - 12 V, 55 W) in housing; do not touch the glass part of the bulb with bare hands.

– Secure bulb by turning in clockwise direction.

– Adjust fog lights ⇒ page 297 .

10.5 Removing and installing fog lights - Audi S6/Audi RS 6

The fog light is integrated in the headlight housing and cannot be renewed separately if defective.

– Renewing headlight: Audi S6 ⇒ page 188 , Audi RS 6 ⇒ page 278 .

10.6 Renewing fog light bulb -L22- / -L23- - Audi S6/Audi RS 6

Removing

WARNING

High voltage! Danger to life!

- ***Ensure that any part of the gas discharge headlights marked with yellow high-voltage warning symbols are de-energised when you are working on them.***
- ***Switch off ignition and all electrical equipment and remove ignition key.***
- ***Do not flash the headlights.***

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the accuracy of the data in any document. Copyright by AUDI AG.

– Turn light switch to position “0”.

– Switch off ignition and all electrical equipment and remove ignition key.

– Do not flash the headlights.

Headlight (left-side) - Audi S6:

– Remove air cleaner housing ⇒ page 199 .

Headlight (right-side) - Audi S6:

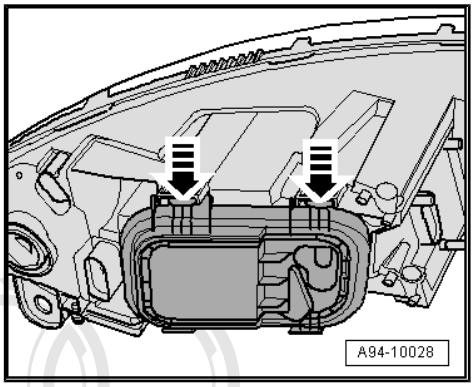
– Remove air cleaner housing ⇒ page 200 .

Audi RS 6:

– Remove headlight ⇒ page 278 .

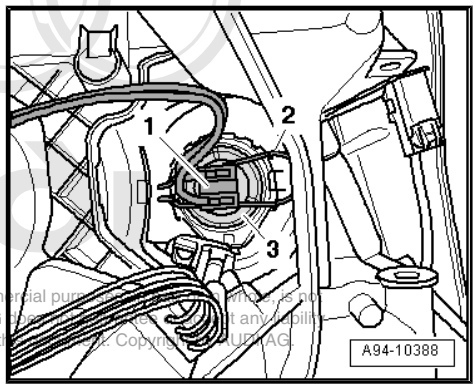
All vehicles:

– Release retaining tabs -arrows- and detach housing cover from headlight housing.



– Unplug electrical connector -1- at bulb.

– Disengage retaining clip -2- and take bulb -3- out of housing.



Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in housing; do not touch glass part of bulb with bare hands.

– Secure bulb with retaining clip.

– Plug in connectors and close housing cover.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Audi RS 6:

– Install headlight ⇒ page 278 .

All vehicles:

– Adjust fog lights ⇒ page 297 .

10.7 Adjusting fog lights

10.7.1 Fog lights in headlights

Note

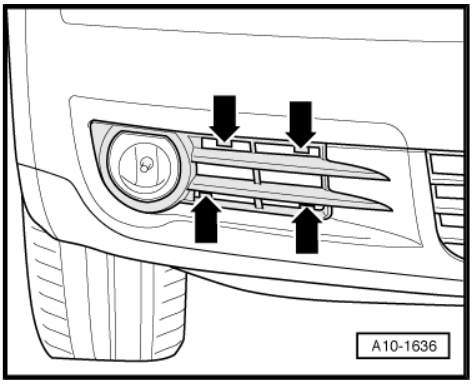
Fog lights are adjusted automatically when headlights are adjusted.

10.7.2 Fog lights in bumper

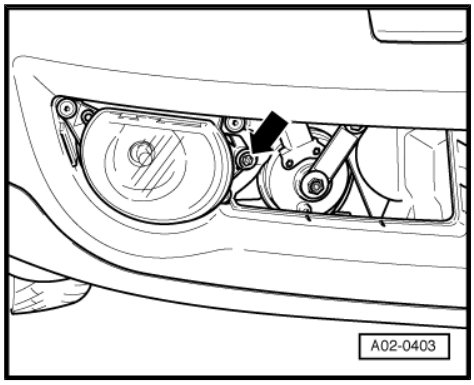
Dip setting:

♦ Fog lights: 2.0 %. The percentage value is for a range of 10 m. Example: Converting a dip setting of 2.0% = 20 cm.

– Check whether upper light-dark border touches setting line and ensure that it runs horizontally across the entire width of the measuring screen.



– Unclip retaining tabs -arrows- and detach cover in bottom section of bumper.
– Turn adjuster screw -arrow- to adjust beam; lateral adjustment is not possible.



Note

The illustration shows the right fog light. The location of the adjuster screw is symmetrically opposite on the left fog light.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

11 Turn signal repeater in wing

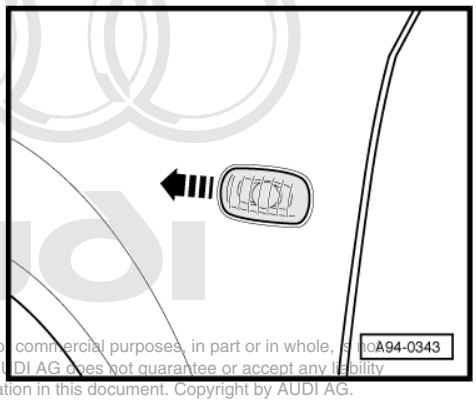
11.1 Removing and installing turn signal repeater bulb -M18- / -M19-

Removing

– Switch off ignition and take out ignition key.

– Press turn signal in direction of travel against retaining tab -arrow- and remove carefully from wing opening.

– Pull housing for turn signal repeater off bulb holder.



Installing

Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

12 Turn signal repeater in exterior mirror

12.1 Exploded view - lane change assist warning lamp

1 - Mirror glass

2 - Mounting for mirror adjustment unit

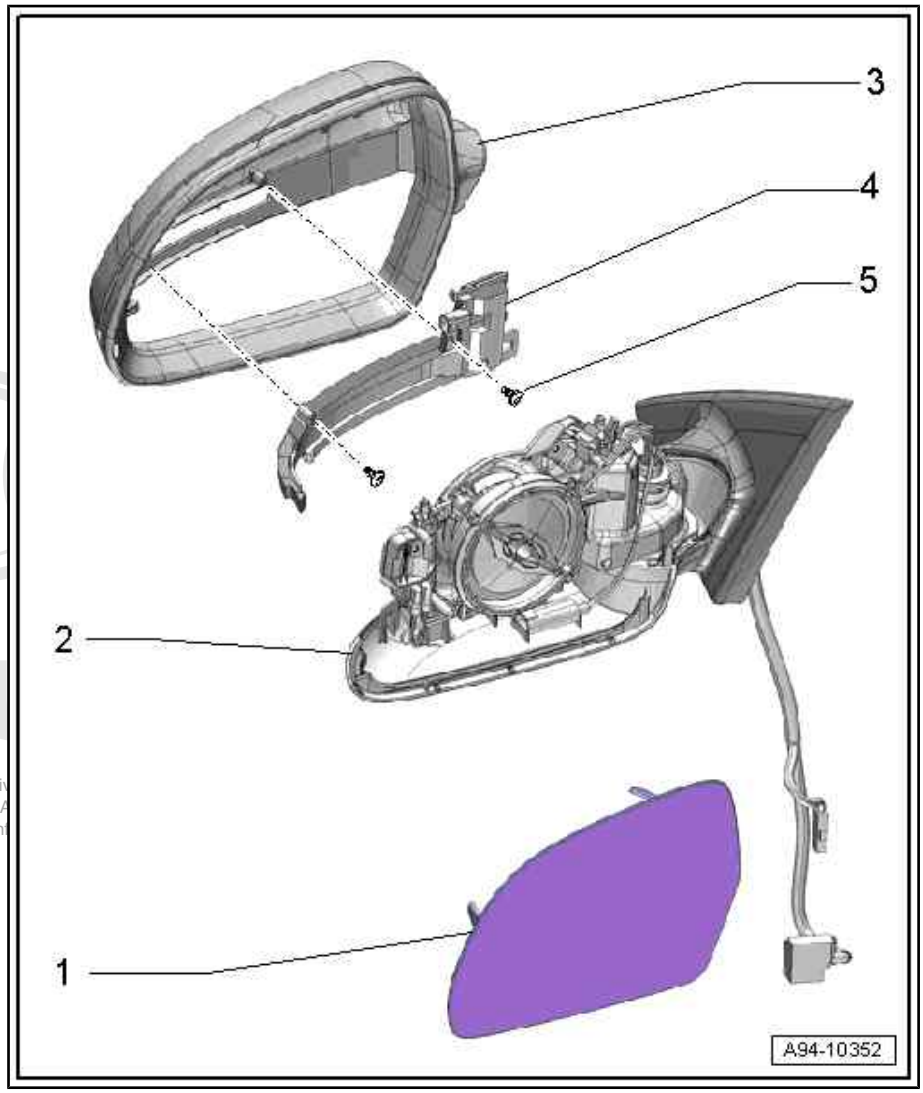
3 - Exterior mirror housing

4 - Exterior mirror turn signal bulb

- ❑ Driver side exterior mirror turn signal bulb - L131-
- ❑ Front passenger side exterior mirror turn signal bulb - L132-
- ❑ Removing and installing ⇒ page 300

5 - Bolt

- ❑ 0.9 Nm

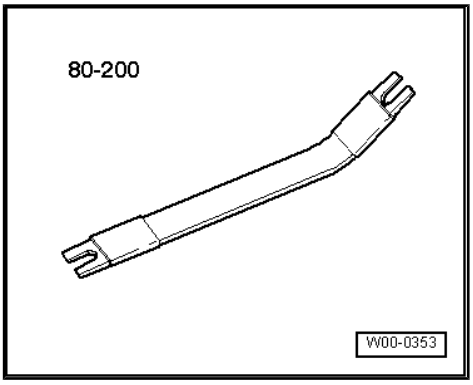


Protected by copyright. Copying for priv
permitted unless authorised by AUDI A
with respect to the correctness of int

12.2 Removing and installing exterior mirror turn signal bulb -L131- / -L132-

Special tools and workshop equipment required

♦ Removal lever - 80 - 200-



♦ Protective gloves

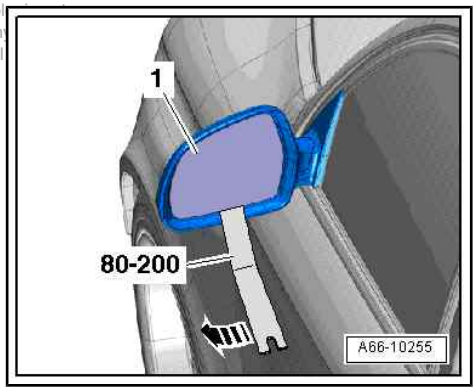
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

WARNING

Risk of injury.

♦ *Wear protective gloves.*



Note

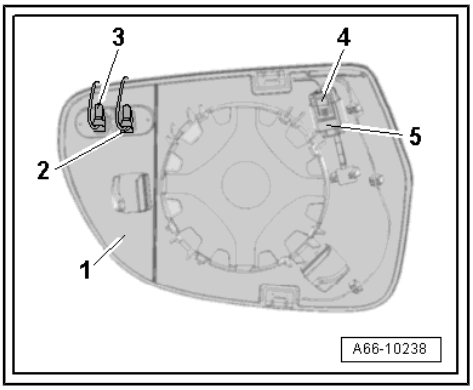
Mask the area around the mirror housing with a soft cloth to protect the paintwork.

– Pry mirror glass -1- off mirror adjustment unit using removal lever - 80 - 200- -arrow-.

– Unplug electrical connectors -2- and -3- for mirror glass heating on rear side of mirror glass -1-.

– Unclip electrical connector -5- from retainer, if fitted.

– Unplug electrical connector -4-.

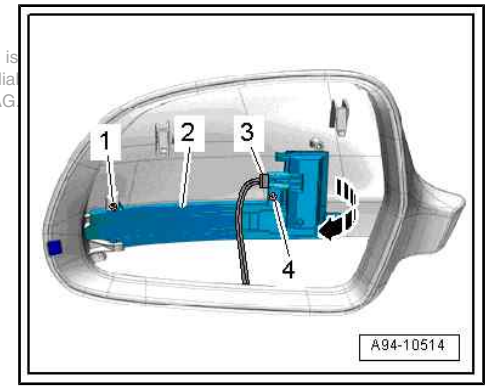


– Remove bolts -4- and -5-.
– Release retaining tabs -3- in direction of -arrow A-.
– Release retaining clip -1- and detach exterior mirror housing from cover -2- -arrows B-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

– Press mirror adjustment unit downwards and lift off exterior mirror housing.
– Unplug electrical connector -3- for exterior mirror turn signal bulb.
– Remove bolts -1- and -4-.
– Swivel housing -2- for turn signal bulb out of exterior mirror housing -arrow-.



Installing

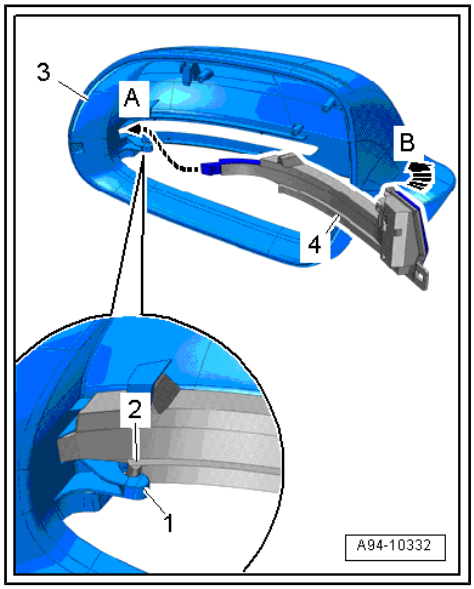
• Tightening torques ⇒ page 300 and ⇒ Rep. gr. 66

Installation is carried out in the reverse order; note the following:

Note

Entire turn signal in exterior mirror must be renewed as a complete unit if an LED is defective.

– Insert tip of turn signal repeater in slot in housing -3- for exterior mirror -arrow A-.
– Swivel housing -4- for turn signal bulb into exterior mirror housing -arrow B-; locking lug -2- must engage in mounting -1-.
– Fit mirror glass onto mirror adjustment unit and press mirror glass into place.



Note

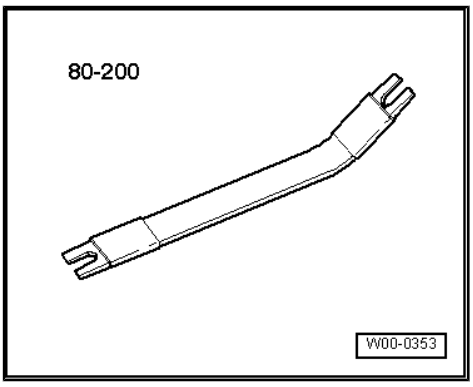
When pressing on the mirror glass, apply pressure in the centre of the mirror only.

13 Entry light in exterior mirror - version 1

13.1 Removing and installing entry light in exterior mirror -W52- / -W53-

Special tools and workshop equipment required

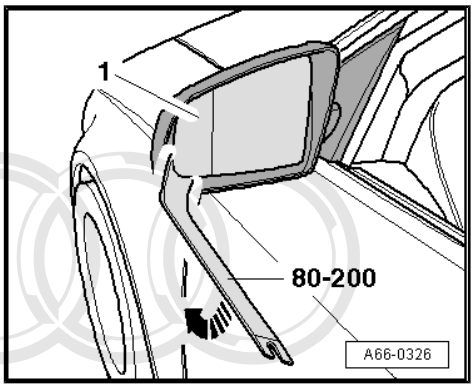
- Removal lever - 80 - 200-



- Protective gloves

Removing

> **WARNING**
>
> *Wear protective gloves.*



Note

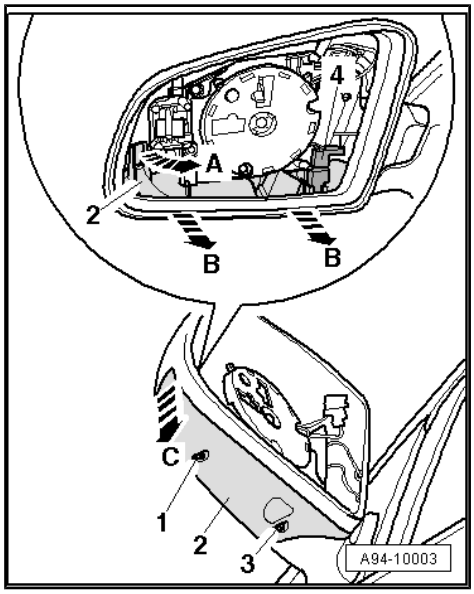
Mask the area around the mirror housing with a soft cloth to protect the paintwork.

– Pry mirror glass -1- out of the mirror adjustment unit using removal lever - 80 - 200- -arrow-.

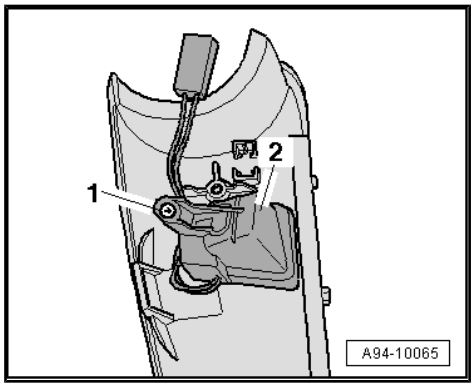
– Unplug electrical connectors.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove bolts -1- and -3-.
– Release retaining clip -arrow A-.
– Pull housing out of cover -2- slightly -arrows B- and push the outer side of the cover downwards -arrow C-.
– Detach cover from mirror mounting.
– Unplug electrical connector -4-.



– Unscrew bolt -1- and detach entry light in exterior mirror -2- from cover.



Installing

Installation is carried out in the reverse order; note the following:

Note

Entire entry light in exterior mirror must be renewed as a complete unit if LED is defective.

– Fit mirror glass onto mirror adjustment unit and press mirror glass into place.

Note

Take care to only press at the centre of the mirror when pressing on.

Tightening torques

Component	Nm
LED for entry light in exterior mirror to cover	1
Cover to mirror mounting	1

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

14 Entry light in exterior mirror - version 2

14.1 Exploded view of entry light in exterior mirror

1 - Cover (bottom)

2 - Entry light in exterior mirror

- ❑ Driver side entry light in exterior mirror - W52-
- ❑ Front passenger side entry light in exterior mirror - W53-
- ❑ Removing and installing ⇒ page 305

Protected by copyright. Copying for pri
permitted unless authorised by AUDI A
with respect to the correctness of in

3 - Bolt

- ❑ 1 Nm

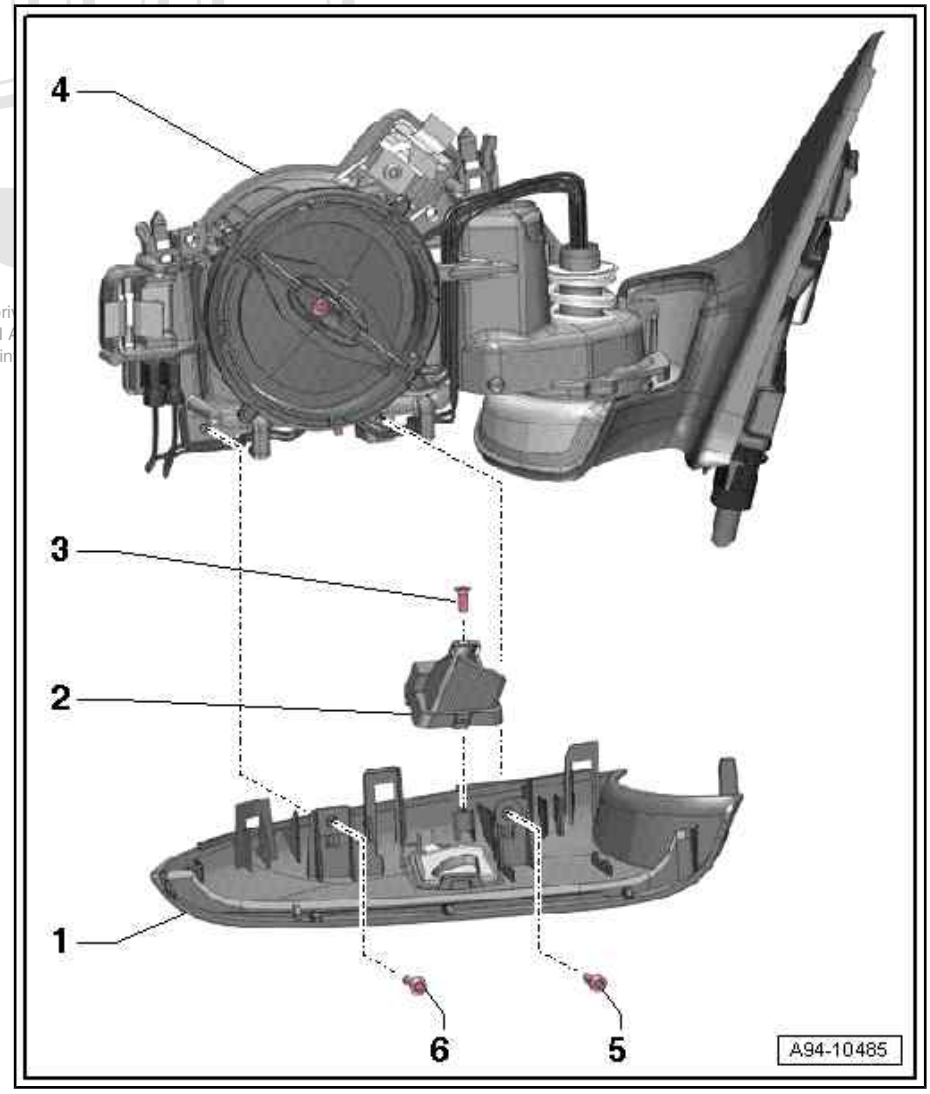
4 - Mounting for mirror adjustment unit

5 - Bolt

- ❑ 1 Nm

6 - Bolt

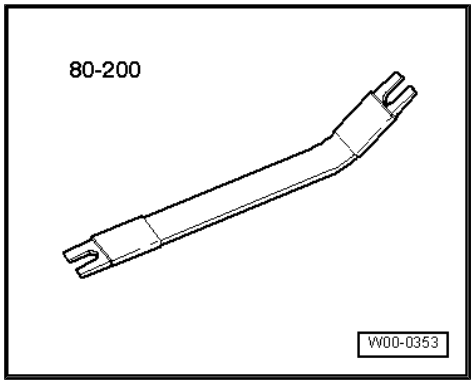
- ❑ 1 Nm



14.2 Removing and installing entry light in exterior mirror -W52- / -W53-

Special tools and workshop equipment required

♦ Removal lever - 80 - 200-



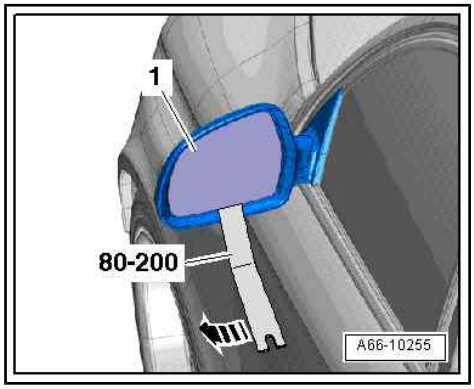
♦ Protective gloves

Removing

WARNING

Risk of injury.

♦ *Wear protective gloves.*



Note

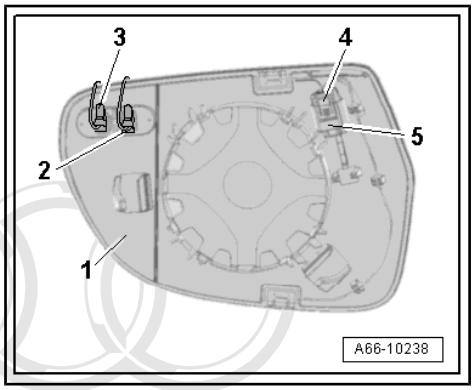
Mask the area around the mirror housing with a soft cloth to protect the paintwork.

– Pry mirror glass -1- off mirror adjustment unit using removal lever - 80 - 200- -arrow-.

– Unplug electrical connectors -2- and -3- for mirror glass heating on rear side of mirror glass -1-.

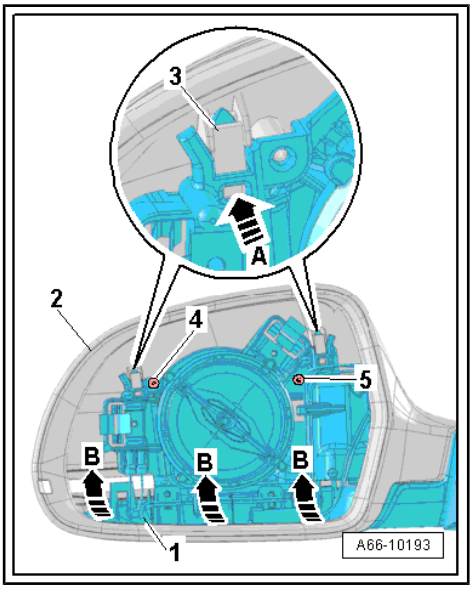
– Unclip electrical connector -5- from retainer, if fitted.

– Unplug electrical connector -4-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

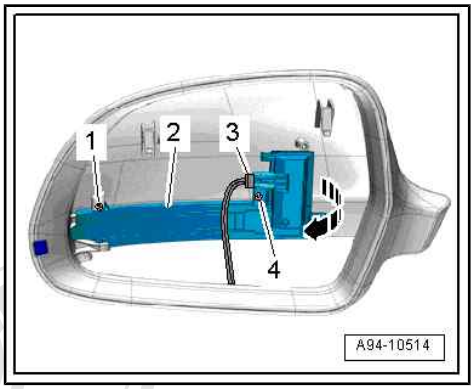
– Remove bolts -4- and -5-.
– Release retaining tabs -3- in direction of -arrow A-.
– Release retaining clip -1- and detach exterior mirror housing -2- from cover -arrows B-.



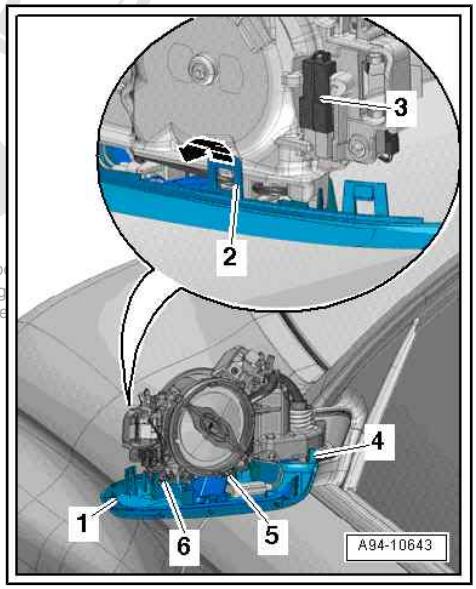
– Lift exterior mirror housing and unplug electrical connector -3- for LED -2- in exterior mirror.

Note

Disregard -items 1, 4- and -arrow-.

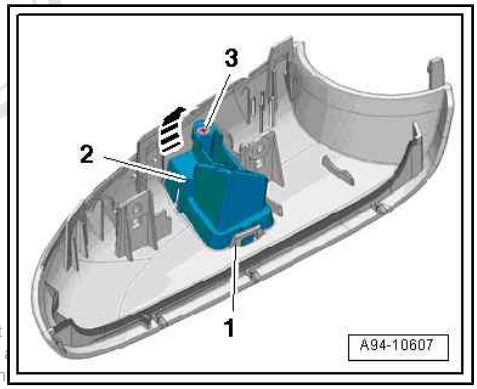


– Remove bolts -5- and -6-.
– Release retaining tabs -2- and -4- -arrows- and detach cover/ mirror mounting -1-.
– To unplug electrical connector -3- remove electrical connector from mounting for mirror adjustment unit.



Protected by copyright. Copying for private or commercial purp
permitted unless authorised by AUDI AG. AUDI AG does not g
with respect to the correctness of information in this docume

– Remove bolt -3-.
– Disengage entry light -2- at retaining tab -1- -arrow- and remove.



Installing

- Tightening torque ⇒ page 305

Installation is carried out in the reverse order; note the following:

Note

Protected by copyright. Copying for private or commercial purposes, in part permitted unless authorised by AUDI AG. AUDI AG does not guarantee or

Entire entry light in exterior mirror must be renewed as a complete unit if LED is defective.

– Fit mirror glass onto mirror adjustment unit and press mirror glass into place.

Note

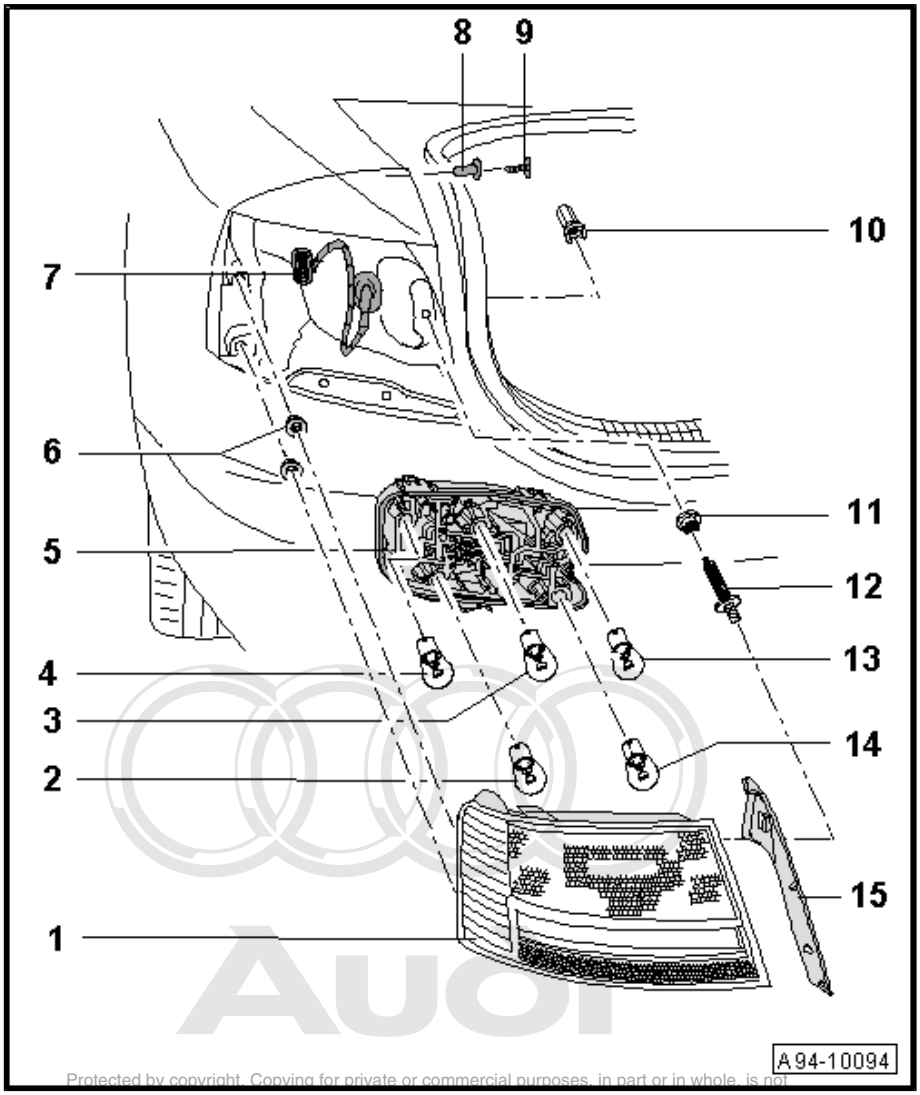
When pressing on the mirror glass, apply pressure in the centre of the mirror only.

15 Rear lights - Saloon - up to 05.2008

15.1 Exploded view of tail light cluster

Note

- *The illustration shows the basic version of the tail light cluster.*
- *The High version has an LED brake light and a 21 W halogen bulb for the rear fog light.*



1 - Housing

- ❑ High version has LED rear brake light
- ❑ Removing and installing ⇒ page 310
- ❑ Aligning with body contour ⇒ page 312

2 - Rear turn signal bulb

- ❑ Rear left turn signal bulb - M6-
- ❑ Rear right turn signal bulb - M8-
- ❑ 12 V, 21 W (orange)
- ❑ Renewing ⇒ “15.2 Removing and installing tail light and bulb carrier”, page 310

3 - Tail light/brake light bulb

- ❑ Left tail light bulb - M4-
- ❑ Right tail light bulb - M2-
- ❑ Left brake light bulb - M9-
- ❑ Right brake light bulb - M10-
- ❑ 12 V, 21 W
- ❑ Renewing ⇒ “15.2 Removing and installing tail light and bulb carrier”, page 310

4 - Tail light and rear fog light bulb

- ❑ Left tail light bulb - M4-
- ❑ Right tail light bulb - M2-
- ❑ Rear left fog light bulb - L46-
- ❑ Rear right fog light bulb - L47-
- ❑ 12 V, 21 W
- ❑ Renewing ⇒ “15.2 Removing and installing tail light and bulb carrier”, page 310

5 - Bulb carrier

- ❑ Removing and installing ⇒ page 310

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6 - Clip nut

7 - Electrical connector

8 - Grommet

9 - Spreader pin

10 - 3.5 Nm

11 - Adjuster nut

- ❑ With sealing washer
- ❑ For aligning tail light cluster with body contour

12 - Stud

- ❑ Screwed into side panel

13 - Tail light/brake light bulb

- ❑ Left tail light bulb - M4-
- ❑ Right tail light bulb - M2-
- ❑ Left brake light bulb - M9-
- ❑ Right brake light bulb - M10-
- ❑ 12 V, 21 W
- ❑ Renewing ⇒ “15.2 Removing and installing tail light and bulb carrier”, page 310

14 - Bulb

- ❑ Driver and passenger's side reversing light (basic version and all USA vehicles): 12 V, 21 W
- ❑ Driver's side rear fog light (High version): 12 V, 21 W halogen bulb
- ❑ Passenger's side reversing light (High version): 12 V, 21 W
- ❑ Renewing ⇒ “15.2 Removing and installing tail light and bulb carrier”, page 310

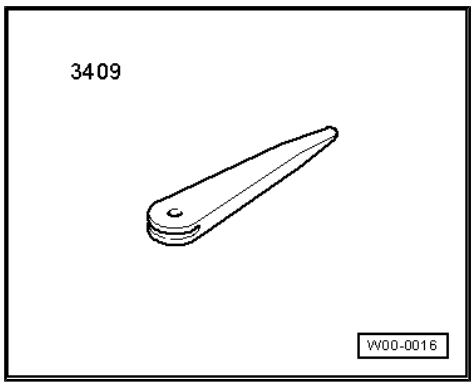
15 - Cover

Audi
Reproduction of this electronic information, in whole or in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

15.2 Removing and installing tail light and bulb carrier

Special tools and workshop equipment required

- ♦ Removal wedge - 3409-



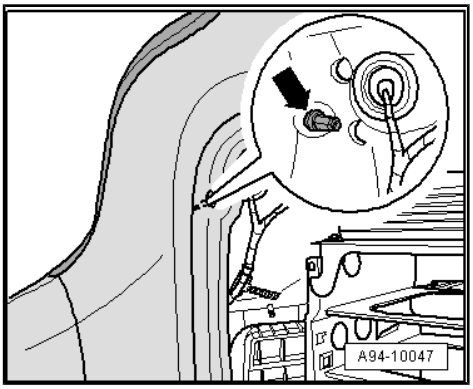
Removing

– Switch off ignition and take out ignition key.

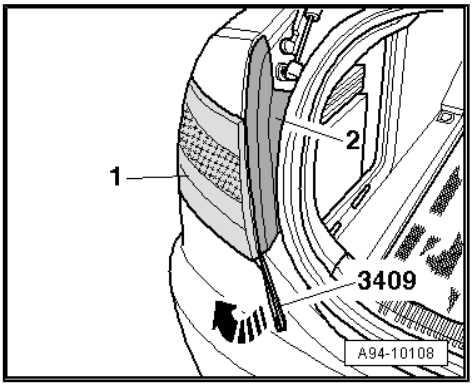
– Turn light switch to position “0”.

– Remove cover on luggage compartment side trim.

– Remove nut -arrow-.



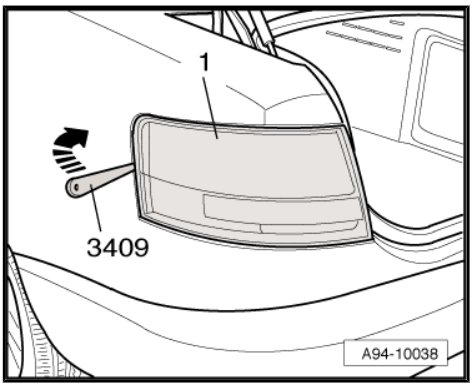
– Carefully release cover -2- from tail light cluster -1- using removal wedge - 3409- .



– Pry tail light cluster -1- at outer edge out of clip nuts using removal wedge - 3409- .

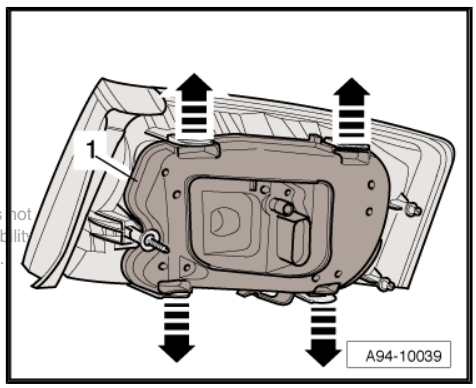
– Remove tail light cluster from body opening.

– Unplug electrical connector at bulb carrier.



– Press apart retaining tabs -arrows- and take bulb carrier -1- out of tail light cluster.

– Unscrew bulbs from bulb holders.



Installing

• Tightening torque ⇒ page 309

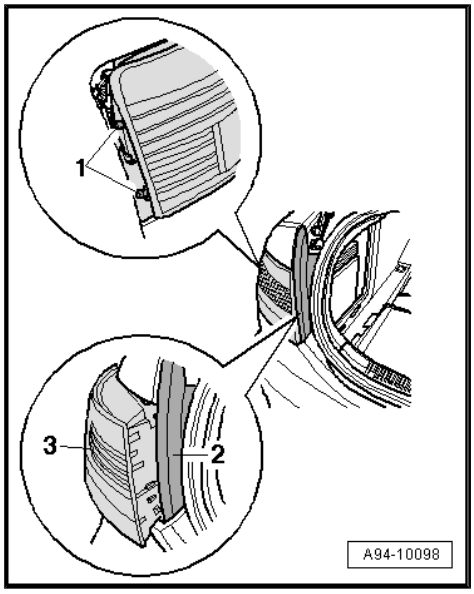
Installation is carried out in the reverse order; note the following:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

Renew adjuster nut if sealing washer is damaged.

– Fit tail light cluster -3- at body opening and on cover -2-.



Note

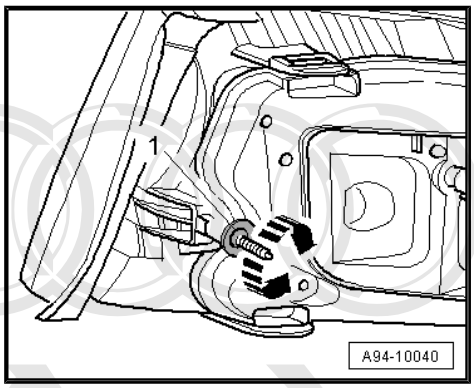
The tail light cluster must engage in the guides on the cover.

– Press retaining pins -1- located at outer edge into clip nuts.
– Press cover onto tail light cluster until you hear it engage.
– Tighten nut.

15.3 Aligning tail light cluster with body contour

Adjustment in direction of travel:

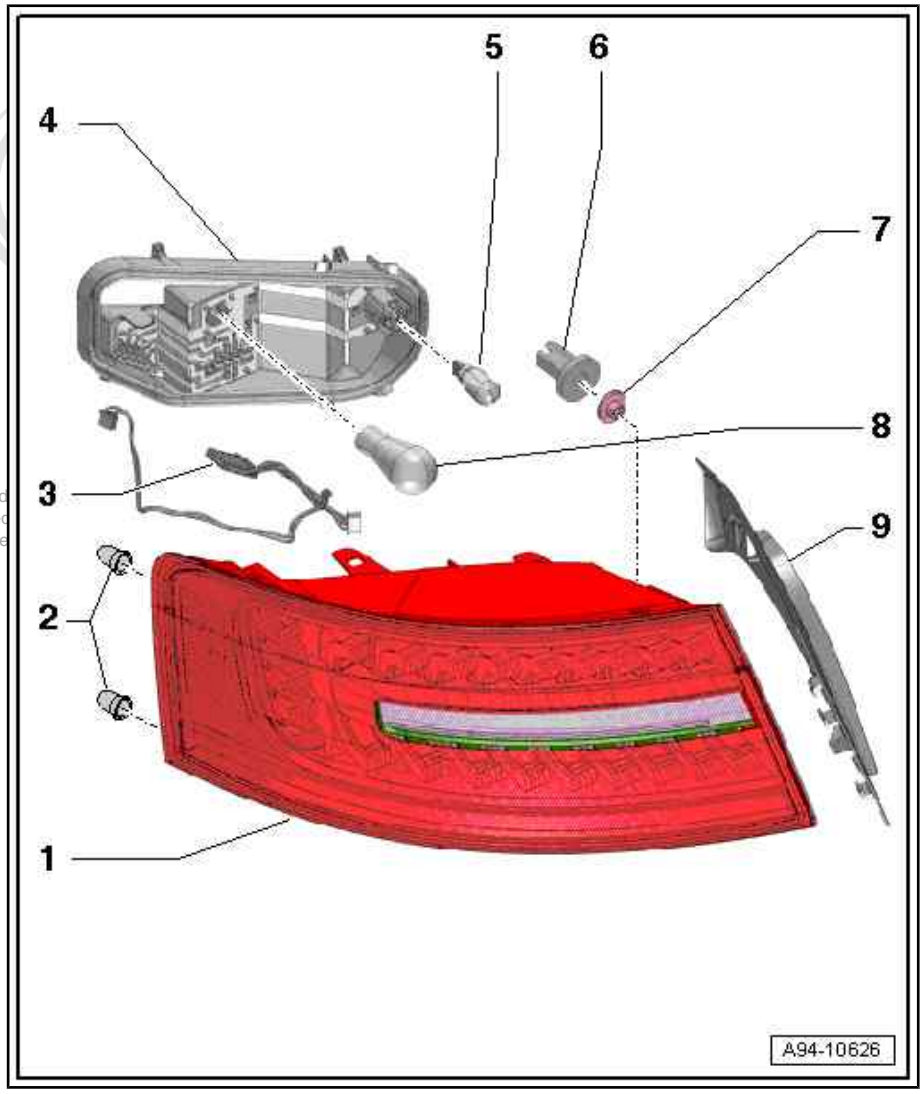
– Gradually screw adjuster nut -1- in/out -arrow- with tail light cluster removed (⇒ page 310).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

16 Tail light cluster - Saloon - from 06.2008 onwards

16.1 Exploded view of outer tail light cluster



1 - Outer tail light cluster

- ❑ Removing and installing ⇒ page 313
- ❑ Aligning with body contour ⇒ page 315

2 - Clip nut

3 - Main connector

- ❑ For bulb carrier

4 - Bulb carrier

- ❑ Removing and installing ⇒ page 313

5 - Reversing light bulb

- ❑ Left reversing light bulb - M16-
- ❑ Right reversing light bulb - M17-
- ❑ 12 V, 16 W
- ❑ Renewing ⇒ “16.2 Removing and installing tail light and bulb carrier”, page 313

6 - Nut

- ❑ 3.5 Nm

7 - Adjuster nut

- ❑ With sealing washer
- ❑ For aligning tail light cluster with body contour

8 - Rear turn signal bulb

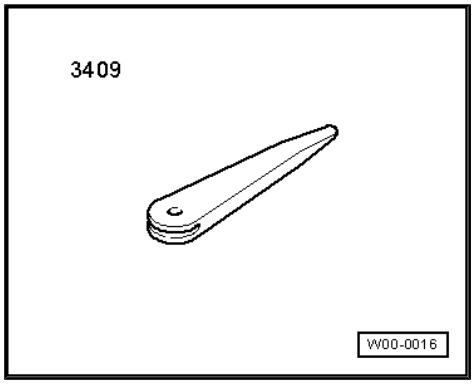
- ❑ Rear left turn signal bulb - M6-
- ❑ Rear right turn signal bulb - M8-
- ❑ 12 V, 21 W (orange)
- ❑ Renewing ⇒ “16.2 Removing and installing tail light and bulb carrier”, page 313

9 - Cover

16.2 Removing and installing tail light and bulb carrier

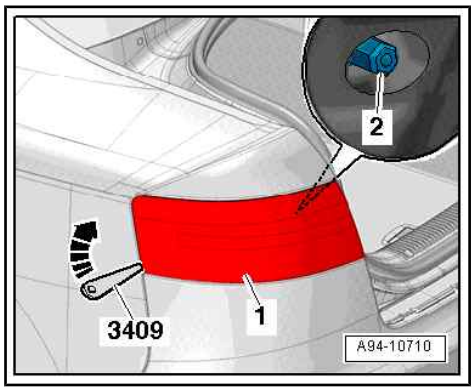
Special tools and workshop equipment required

♦ Removal wedge - 3409-

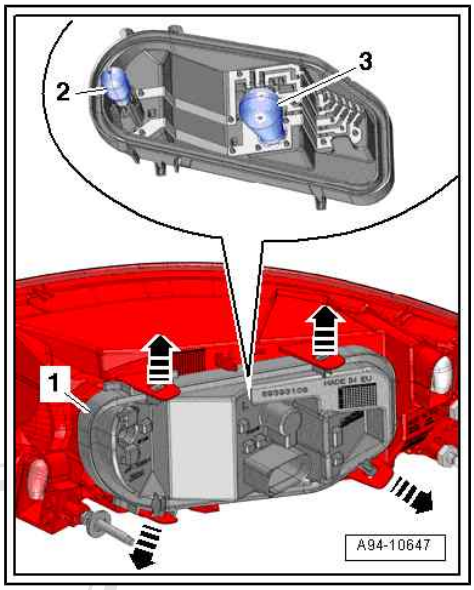


Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.
– Remove cover on luggage compartment side trim.
– Unscrew cap nut -2-.
– Pry tail light cluster -1- at outer edge out of clip nuts using removal wedge - 3409- .
– Remove tail light cluster from body opening.
– Unplug electrical connector at bulb carrier.



– Press apart retaining tabs -arrows- and take bulb carrier -1- out of tail light cluster.
– Pull reversing light bulb -2- out of bulb holder.
– Screw turn signal bulb -3- out of bulb holder.



Installing

• Tightening torque ⇒ page 313

Installation is carried out in the reverse order; note the following:

Note

Renew adjuster nut if sealing washer is damaged.

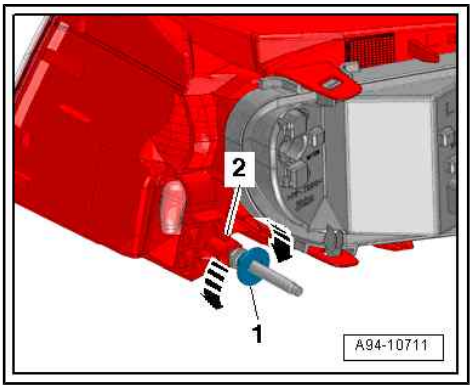
– Tighten nut.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

16.3 Aligning tail light cluster with body contour

Adjustment in direction of travel:

– Gradually screw adjuster nut -1- in/out -arrow- with tail light cluster removed -2- (⇒ page 313).



16.4 Exploded view of inner tail light cluster

1 - Inner tail light cluster

❑ Removing and installing ⇒ page 316

2 - Retainer bracket

❑ Secures tail light cluster to rear lid

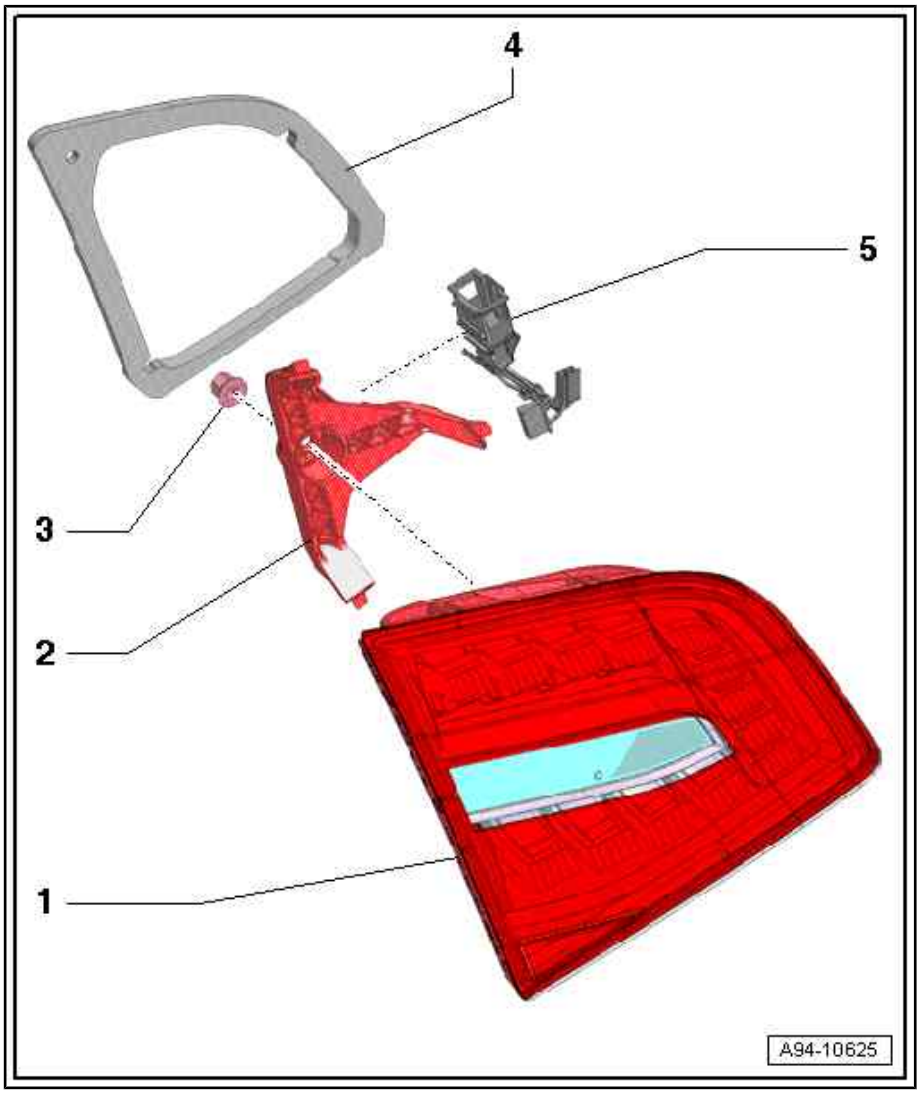
3 - Nut

❑ 3.5 Nm

4 - Seal

❑ Renew if damaged

5 - Main connector



16.5 Removing and installing inner tail light cluster

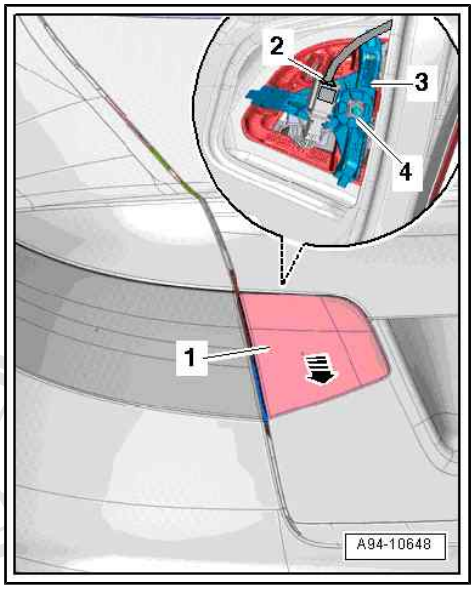
Removing

– Remove rear lid trim ⇒ Rep. gr. 70 .

– Unplug electrical connector -2-.

– Remove nut -4- and detach retainer bracket -3-.

– Detach inner tail light cluster -1- from rear lid -arrow-.



Installing

• Tightening torque ⇒ page 315

Installation is carried out in the reverse order; note the following:

Note

Ensure that seal between body and rear light housing seals correctly.

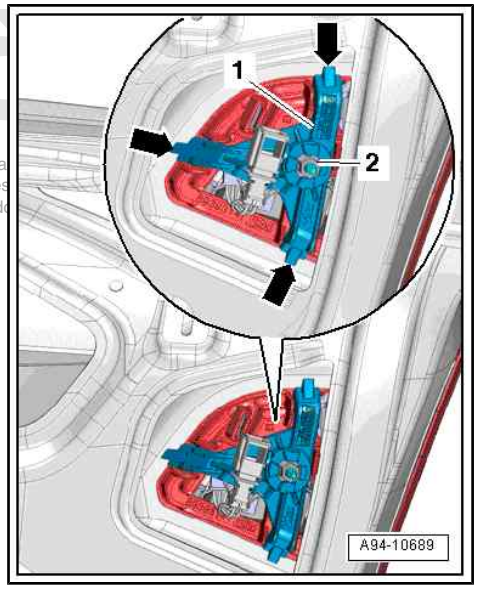
– Position inner tail light cluster at outer edge of rear lid.

– Slide retainer bracket -1- onto stud of inner tail light.

• Retainer bracket must engage in guides.

– Tighten nut -2-.

Protected by copyright. Copying for private or commercia
permitted unless authorised by AUDI AG. AUDI AG does
with respect to the correctness of information in this d

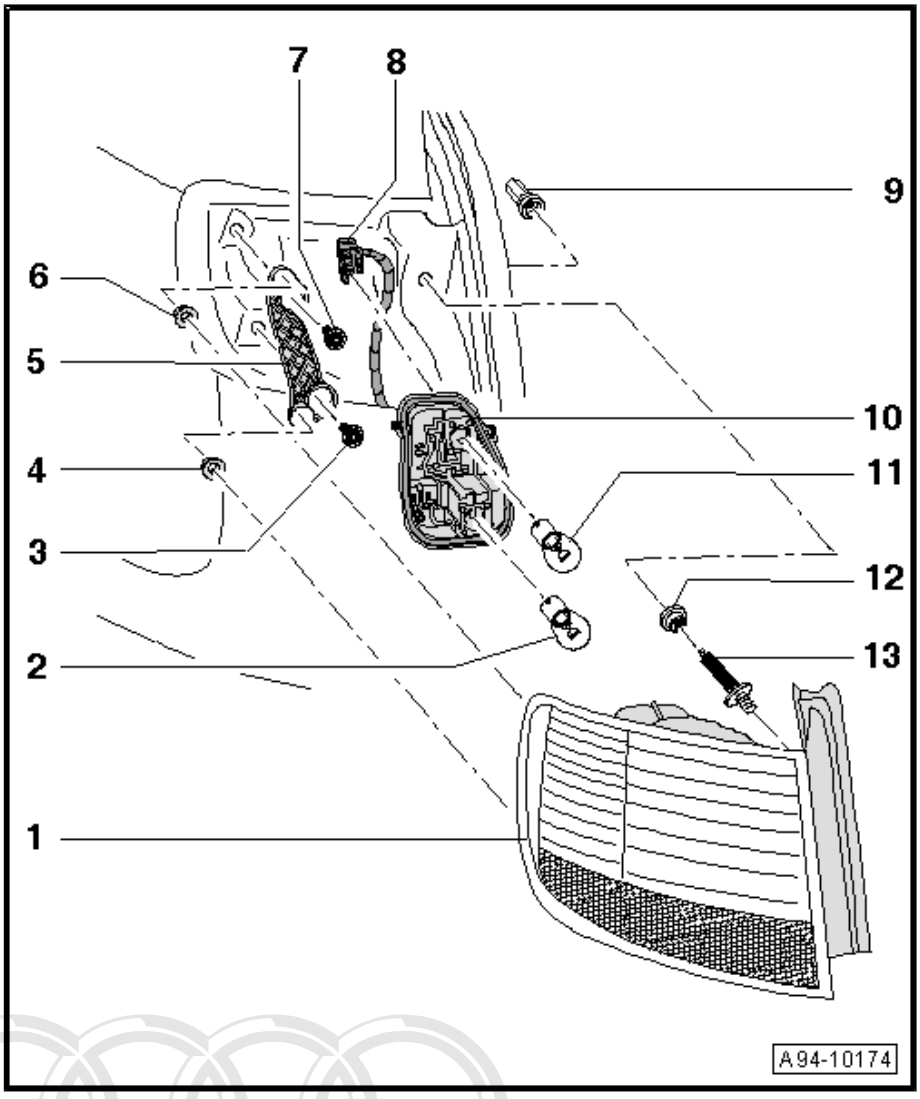


Note

As the nut is tightened the retainer bracket becomes wedged in the rear lid -arrows-.

17 Tail light cluster - Avant - up to 05.2008

17.1 Exploded view of outer tail light cluster



1 - Housing

- ❑ Removing and installing ⇒ page 318
- ❑ Aligning with body contour ⇒ page 319

2 - Rear turn signal bulb

- ❑ Rear left turn signal bulb - M6-
- ❑ Rear right turn signal bulb - M8-
- ❑ 12 V, 21 W
- ❑ Removing and installing ⇒ “17.2 Removing and installing tail light cluster and outer bulb carrier”, page 318

3 - 2.5 Nm

- ❑ Apply locking fluid when installing; for locking fluid refer to ⇒ Electronic parts catalogue

4 - Clip nut

5 - Retainer

- ❑ For aligning light housing with body contour ⇒ “17.3 Aligning tail light cluster with body contour”, page 319

6 - Clip nut

7 - 2.5 Nm

- ❑ Apply locking fluid when installing; for locking fluid refer to ⇒ Electronic parts catalogue

8 - Electrical connector

9 - Cap nut, 3.5 Nm

10 - Bulb carrier

- ❑ Removing and installing ⇒ page 318

11 - Tail light/brake light bulb

- ❑ Left tail light bulb - M4-
- ❑ Right tail light bulb - M2-
- ❑ Left brake light bulb - M9-
- ❑ Right brake light bulb - M10-
- ❑ 12 V, 21 W
- ❑ Not fitted on vehicles with LED light

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

❑ Removing and installing
⇒ “17.2 Removing and installing tail light cluster and outer bulb carrier”, page 318

12 - Adjuster nut

❑ With sealing washer
❑ For aligning tail light cluster with body contour

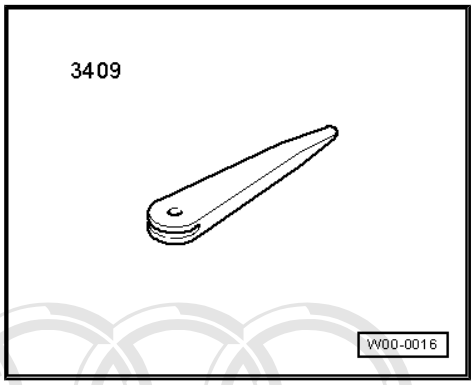
13 - Stud

❑ Screwed into side panel

17.2 Removing and installing tail light cluster and outer bulb carrier

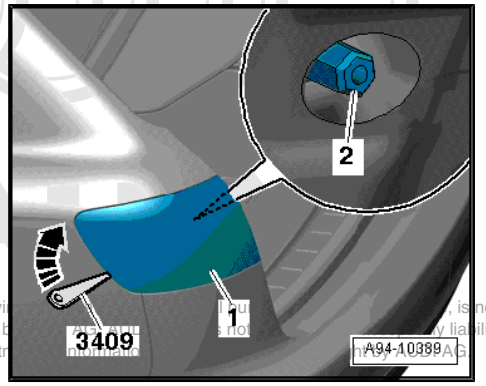
Special tools and workshop equipment required

♦ Removal wedge - 3409-



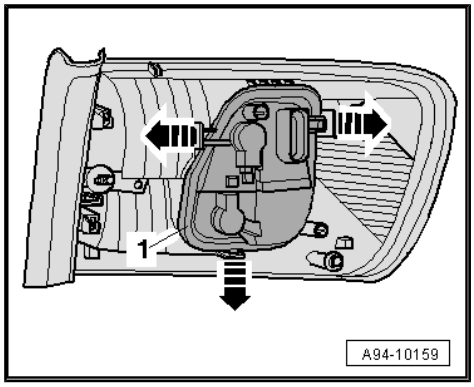
Removing

– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.
– Remove cover on luggage compartment side trim.
– Unscrew cap nut -2-.
– Pry tail light cluster -1- at outer edge out of clip nuts using removal wedge - 3409- .
– Remove tail light cluster from body opening.
– Unplug electrical connector at bulb carrier.



Protected by copyright. Copyi... permitted unless authorised b... with respect to the correctn... ...is not ...y liability ...hAG.

– Press apart retaining tabs -arrows- and take bulb carrier -1- out of tail light cluster.
– Turn bulbs to remove them from their holders.



Installing

• Tightening torque ⇒ page 317

Installation is carried out in the reverse order; note the following:

Note

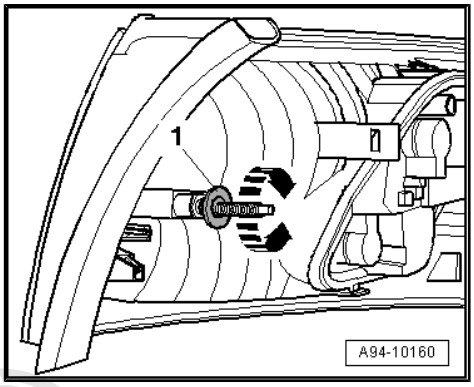
Renew adjuster nut if sealing washer is damaged.

– Fit tail light cluster in position on body and press retaining pins into clip nuts.
– Tighten cap nut.

17.3 Aligning tail light cluster with body contour

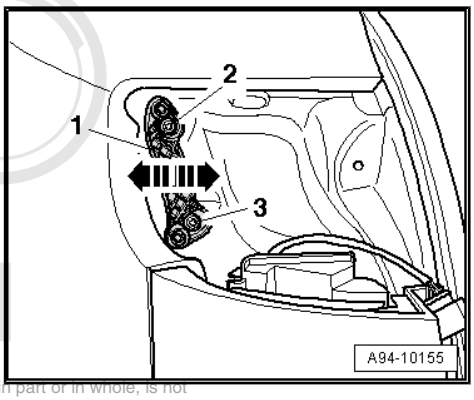
Adjustment in direction of travel:

– Gradually screw adjuster nut -1- in/out -arrow- with tail light cluster removed (⇒ page 318).



Adjustment at right angles to direction of travel:

– With tail light cluster removed (⇒ page 318), unscrew bolts -2- and -3- and gradually push retainer -1- in or out as required -arrow-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

17.4 Exploded view of standard inner rear light

1 - Housing

- ❑ Removing and installing ⇒ page 321

2 - Tail light bulb

- ❑ Left tail light bulb - M4-
- ❑ Right tail light bulb - M2-
- ❑ 12 V, 21 W
- ❑ Removing and installing ⇒ page 323

3 - Retainer

- ❑ For securing housing to rear lid

4 - Nut, 3.5 Nm

5 - Electrical connector

6 - Bulb holder

- ❑ Removing and installing ⇒ page 323

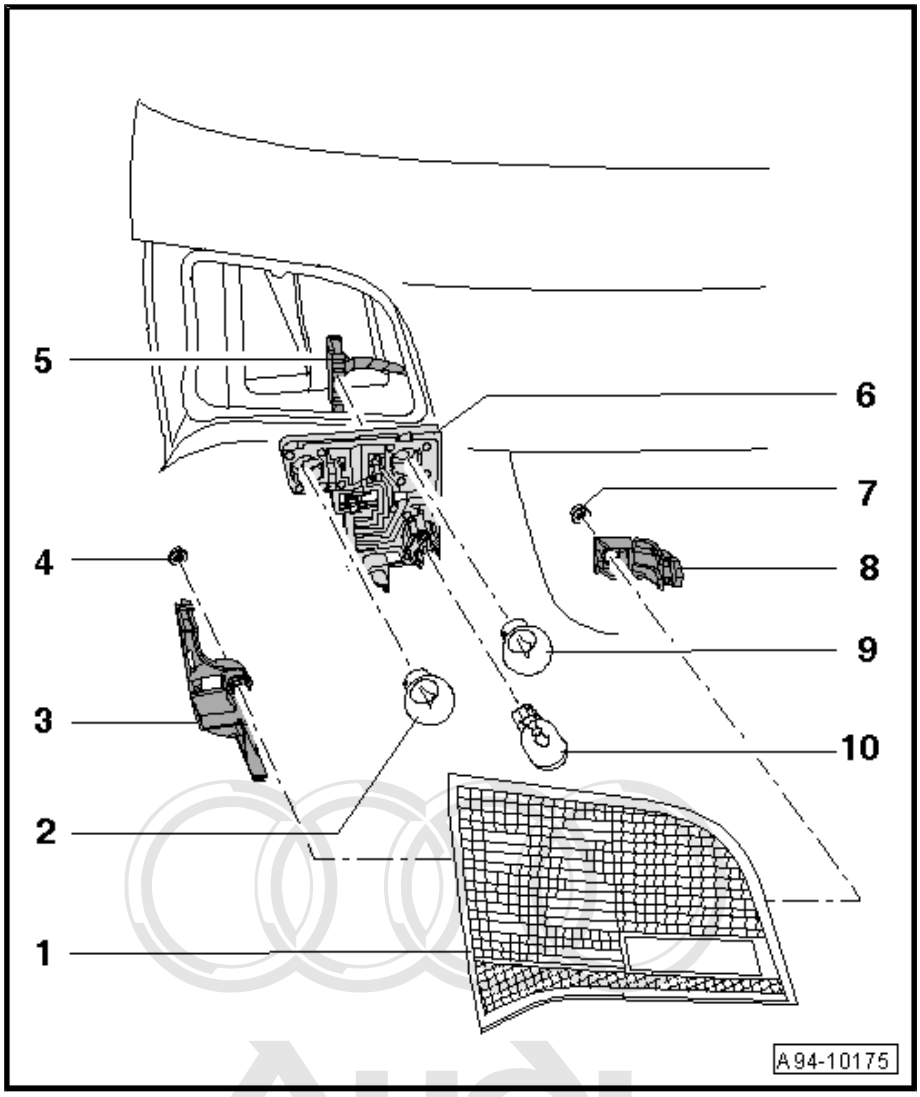
7 - Nut, 3.5 Nm

8 - Retainer bracket

- ❑ For securing bulb holder and housing to rear lid

9 - Tail light and rear fog light bulb

- ❑ Left tail light bulb - M4-
- ❑ Right tail light bulb - M2-
- ❑ Rear left fog light bulb - L46-
- ❑ Rear right fog light bulb - L47-
- ❑ 12 V, 21 W
- ❑ Removing and installing ⇒ page 323



10 - Reversing light bulb

- ❑ Left reversing light bulb - M16-
- ❑ Right reversing light bulb - M17-
- ❑ 12 V, 16 W
- ❑ Removing and installing ⇒ page 323

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

17.5 Exploded view of LED inner rear light

1 - Housing
- ❑ With LED lights
- ❑ Removing and installing ⇒ page 321

2 - Rear fog light bulb
- ❑ Rear left fog light bulb - L46-
- ❑ Rear right fog light bulb - L47-
- ❑ Halogen 12 V, 21 W
- ❑ Removing and installing ⇒ page 323

3 - Retainer
- ❑ For securing housing to rear lid

4 - Nut, 3.5 Nm

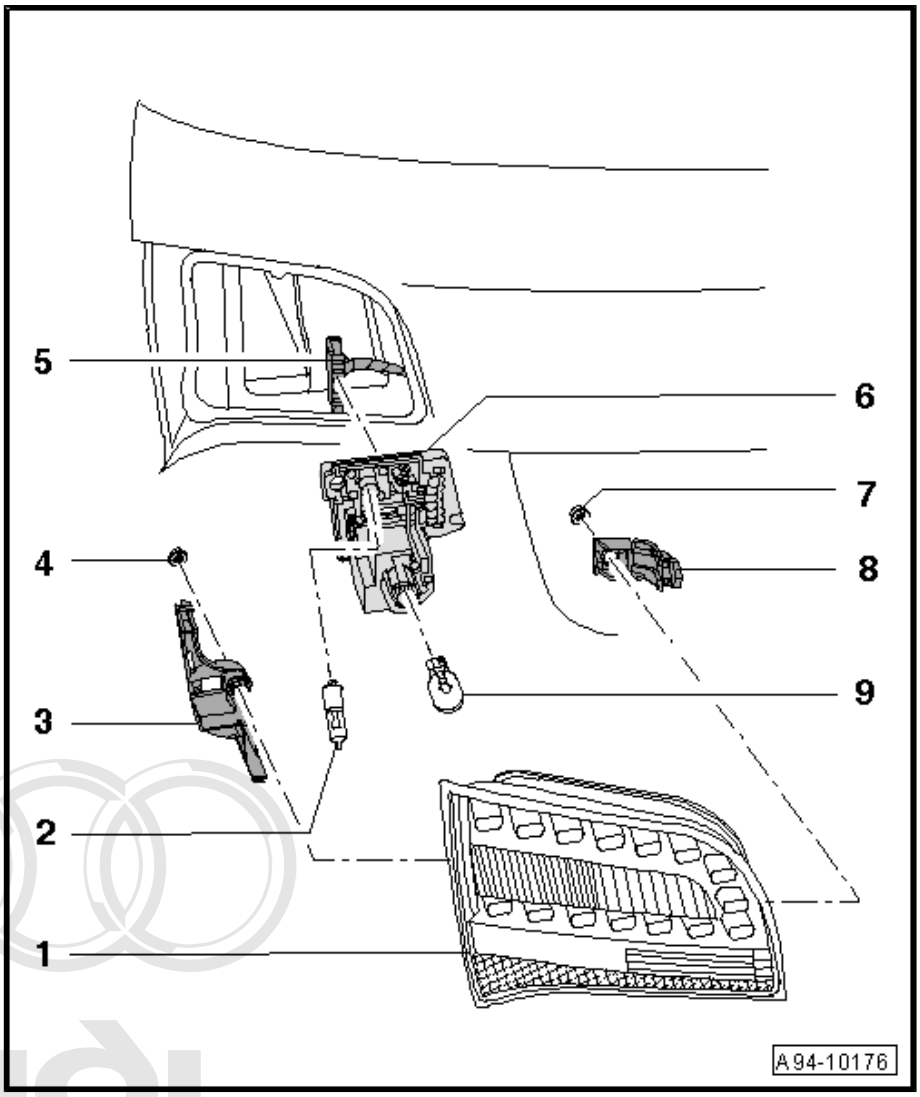
5 - Electrical connector

6 - Bulb holder
- ❑ Removing and installing ⇒ page 323

7 - Nut, 3.5 Nm

8 - Retainer bracket
- ❑ For securing bulb holder and housing to rear lid

9 - Reversing light bulb
- ❑ Left reversing light bulb - M16-
- ❑ Right reversing light bulb - M17-
- ❑ 12 V, 16 W
- ❑ Removing and installing ⇒ page 323



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

17.6 Removing and installing inner tail light cluster

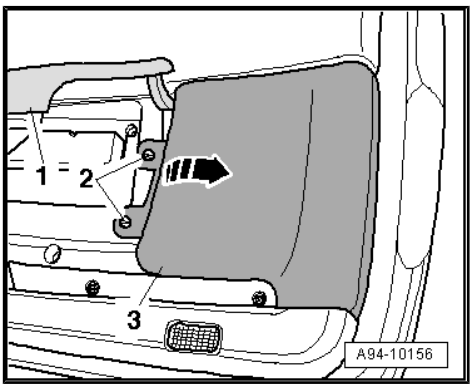
Removing

– Switch off ignition and take out ignition key.

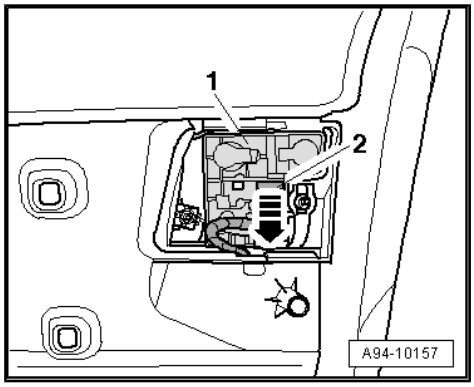
– Turn light switch to position “0”.

– Open flap -1- for warning triangle.

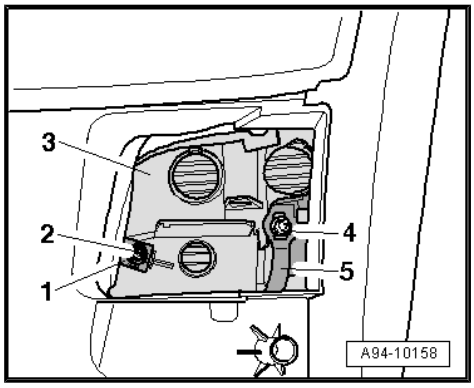
– Turn quick release fastener -2- 90° in anti-clockwise direction and remove cover -3- from luggage compartment lining in direction of -arrow-.



– Unplug electrical connector.
– Remove bulb holder -1- from housing (press retaining tab -2- down -arrow-).



– Remove nut -2- and detach retainer bracket -1-.
– Unscrew nut -4- and take inner tail light cluster -3- out towards the outside.
– Pull the retainer -5- out of body opening.



Installing

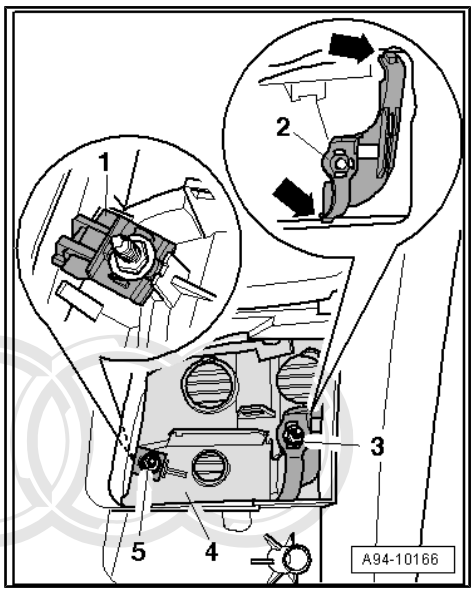
- Tightening torque ⇒ page 319

Install in reverse order, paying attention to the following:

Note

Ensure that seal between body and tail light housing seals completely.

– Fit retainer -2- to inner tail light cluster and loosely fit nut -3-.
– Fit inner tail light cluster -4- to body opening and make sure that the lugs -arrows- of the retainer make contact with the body opening.
– Push on retainer -1- at stud for inner tail light cluster and tighten nuts -3- and -5-.



Note

As the nut is tightened the retainer becomes wedged at the inner tail light cluster and the rear lid.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

17.7 Removing and installing reversing light bulb -M16- / -M17- , rear fog light bulb -L46- / -L47- , tail light bulb -M2- / -M4-

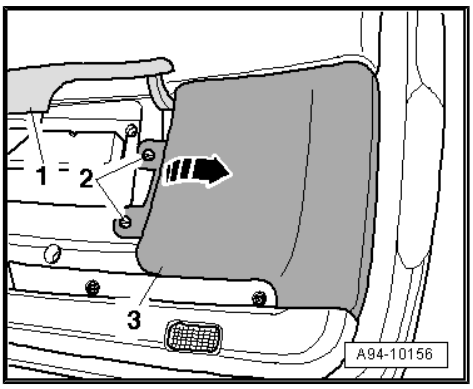
Removing

– Switch off ignition and take out ignition key.

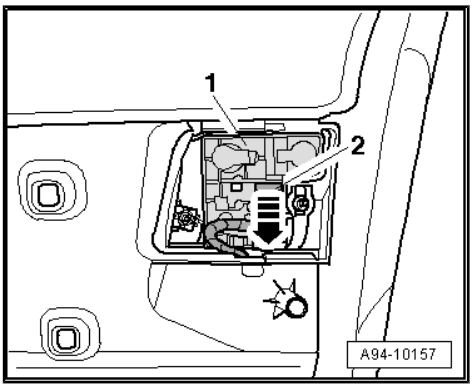
– Turn light switch to position “0”.

– Open flap -1- for warning triangle.

– Turn quick release fastener -2- 90° in anti-clockwise direction and remove cover -3- from luggage compartment lining in direction of -arrow-.



– Remove bulb holder -1- from housing (press retaining tab -2- down -arrow-).



Standard light:

– Unscrew tail light bulb or rear fog light bulb from holder.

LED light:

– Screw bulb for rear fog light out of bulb holder.

All vehicles:

– Pull bulb for reversing light out of bulb holder.

Installing

• Tightening torque ⇒ page 319

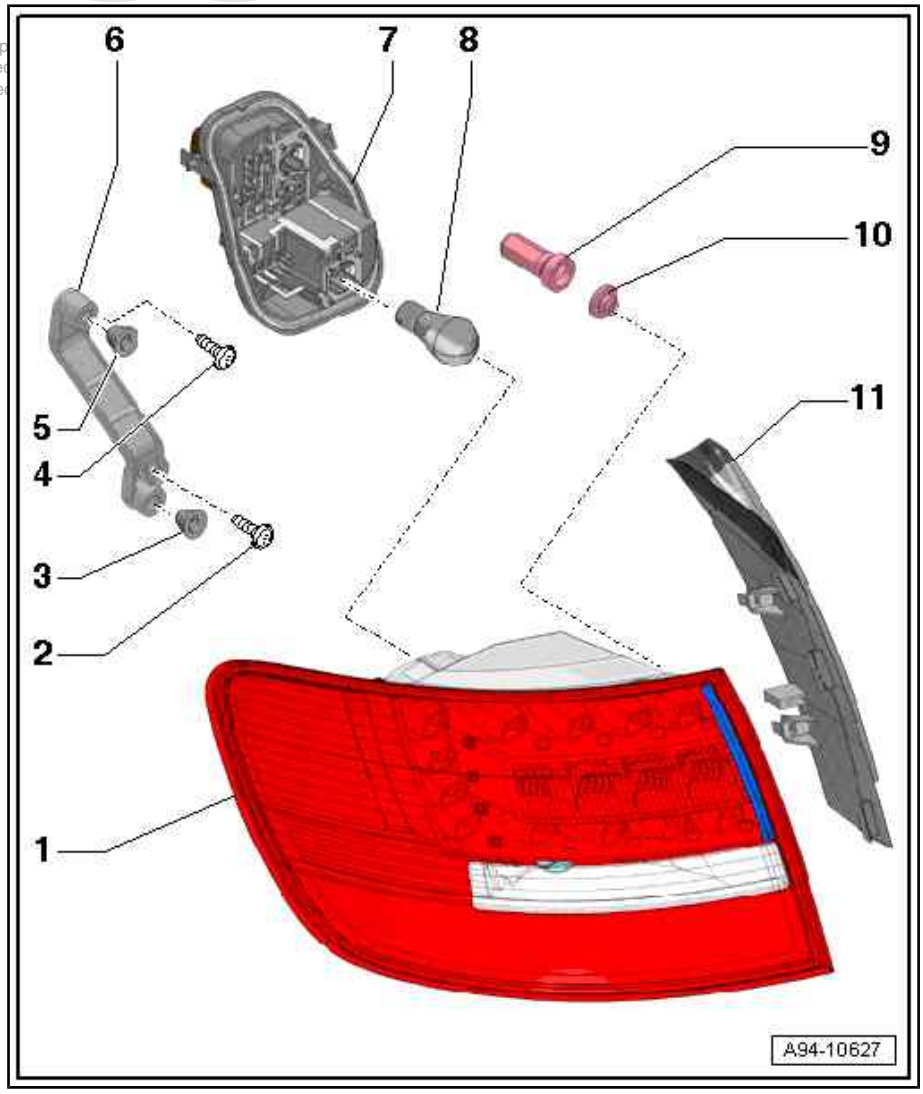
Installation is carried out in the reverse order; note the following:

– Insert new bulb in bulb holder, taking care not to touch glass bulb with bare hands.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

18 Tail light cluster - Avant - from 06.2008 onwards

18.1 Exploded view - outer LED tail light cluster



1 - Outer tail light cluster

- ❑ Removing and installing ⇒ page 324
- ❑ Aligning with body contour ⇒ page 325

2 - 2.5 Nm

- ❑ Apply locking fluid when installing; for locking fluid refer to ⇒ Electronic parts catalogue

3 - Clip nut

4 - 2.5 Nm

- ❑ Apply locking fluid when installing; for locking fluid refer to ⇒ Electronic parts catalogue

5 - Clip nut

6 - Retainer

- ❑ For aligning light housing with body contour ⇒ “18.3 Aligning tail light cluster with body contour”, page 325

7 - Bulb carrier

- ❑ Removing and installing ⇒ page 324

8 - Rear turn signal bulb

- ❑ Rear left turn signal bulb - M6-
- ❑ Rear right turn signal bulb - M8-
- ❑ 12 V, 21 W
- ❑ Removing and installing ⇒ page 324

9 - Cap nut

- ❑ 3.5 Nm

10 - Adjuster nut

- ❑ With sealing washer
- ❑ For aligning tail light cluster with body contour

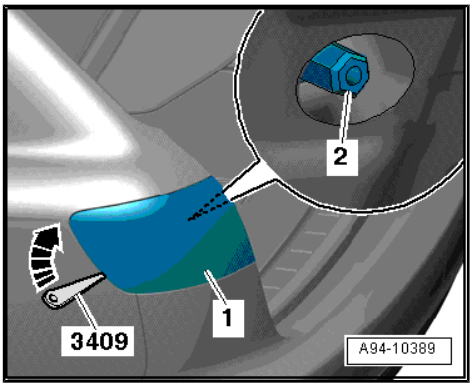
11 - Cover

18.2 Removing and installing tail light cluster and outer bulb carrier

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position “0”.
– Remove cover on luggage compartment side trim.
– Unscrew cap nut -2-.
– Pry tail light cluster -1- at outer edge out of clip nuts using removal wedge - 3409- .
– Remove tail light cluster from body opening.
– Unplug electrical connector at bulb carrier.

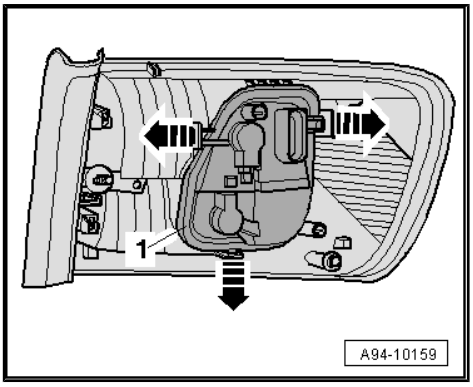


– Press apart retaining tabs -arrows- and take bulb carrier -1- out of tail light cluster.
– Screw bulb out of bulb holder.

Installing

• Tightening torque ⇒ page 324

Installation is carried out in the reverse order; note the following:



Note

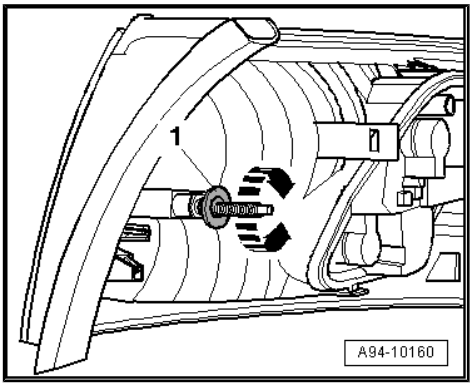
Renew adjuster nut if sealing washer is damaged.

– Fit tail light cluster in position on body and press retaining pins into clip nuts.
– Tighten cap nut.

18.3 Aligning tail light cluster with body contour

Adjustment in direction of travel:

– Gradually screw adjuster nut -1- in/out -arrow- with tail light cluster removed (⇒ page 324).

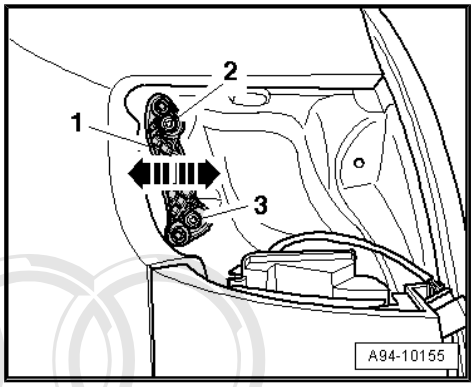


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Adjustment at right angles to direction of travel:

– With tail light cluster removed (⇒ page 324), unscrew bolts -2- and -3- and gradually push retainer -1- in or out as required -arrow-.

• Tightening torque ⇒ page 324



18.4 Exploded view of LED inner rear light

1 - Reversing light bulb

- ❑ Left reversing light bulb - M16-
- ❑ Right reversing light bulb - M17-
- ❑ 12 V, 16 W
- ❑ Removing and installing ⇒ “18.6 Removing and installing bulb holder for reversing light bulb M16 / M17 , rear fog light bulb L46 / L47 ”, page 328

2 - Rear fog light bulb

- ❑ Rear left fog light bulb - L46-
- ❑ Rear right fog light bulb - L47-
- ❑ Halogen 12 V, 21 W
- ❑ Removing and installing ⇒ “18.6 Removing and installing bulb holder for reversing light bulb M16 / M17 , rear fog light bulb L46 / L47 ”, page 328

3 - Retainer

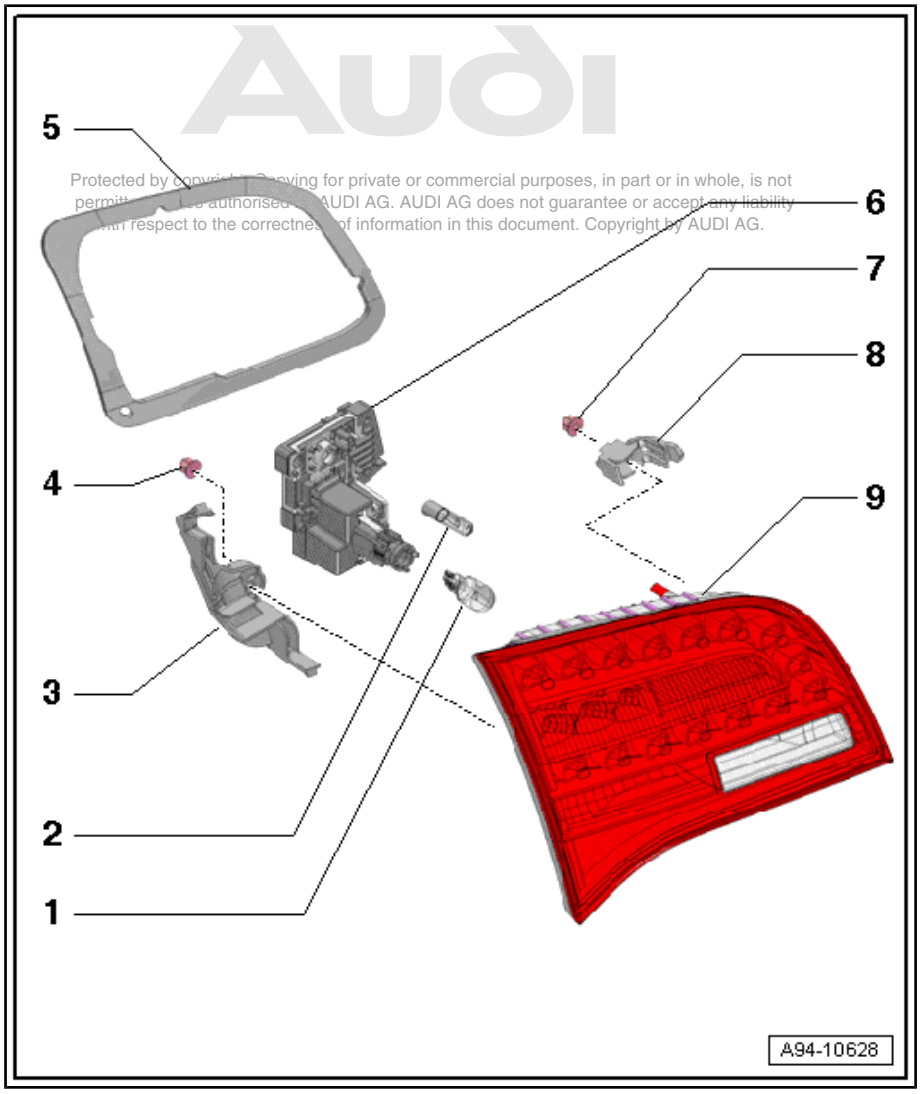
- ❑ Secures inner tail light cluster to rear lid

4 - Nut

- ❑ 3.5 Nm

5 - Seal

- ❑ Renew if damaged



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6 - Bulb holder

- ❑ For reversing light/rear fog light bulb
- ❑ Removing and installing ⇒ page 328

7 - Nut

- ❑ 3.5 Nm

8 - Retainer bracket

- ❑ For securing bulb holder and housing to rear lid

9 - Inner tail light cluster

❑ Removing and installing ⇒ page 327

18.5 Removing and installing inner tail light cluster

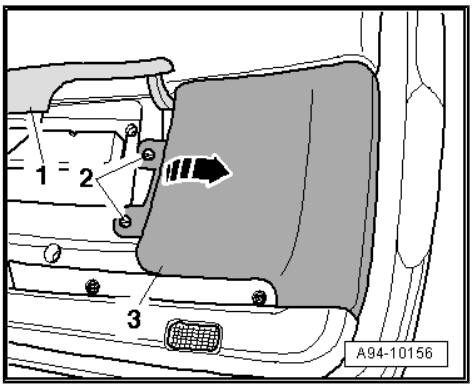
Removing

– Switch off ignition and take out ignition key.

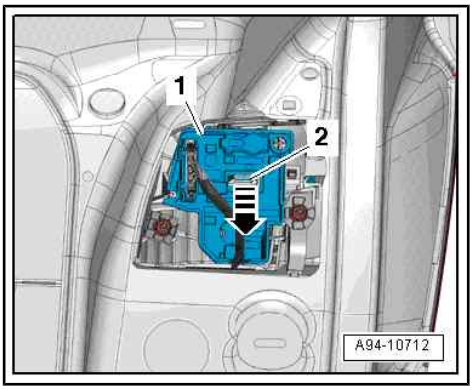
– Turn light switch to position “0”.

– Open flap -1- for warning triangle.

– Turn quick release fastener -2- 90° in anti-clockwise direction and remove cover -3- from luggage compartment lining in direction of -arrow-.



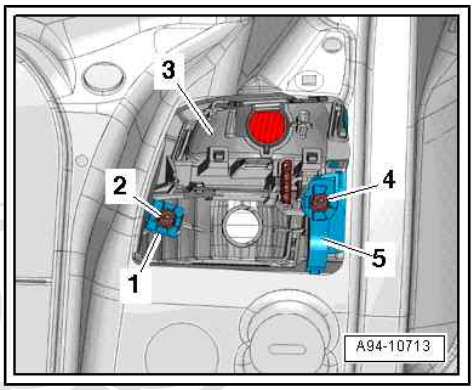
– Remove bulb holder -1- from housing (press retaining tab -2- down -arrow-).



– Remove nut -2- and remove retainer bracket -1-.

– Unscrew nut -4- and take inner tail light cluster -3- out towards the outside.

– Pull the retainer -5- out of body opening.

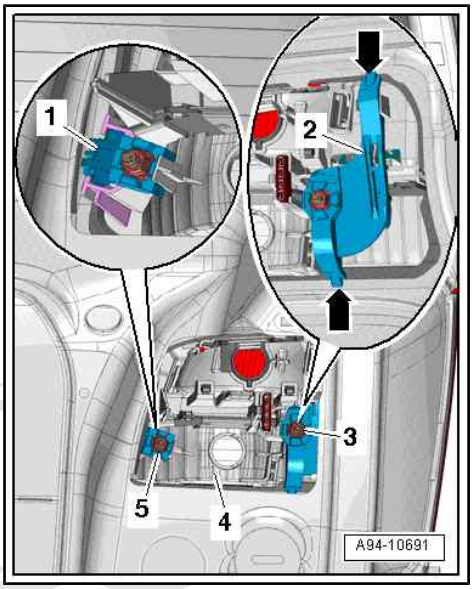


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

- Tightening torque ⇒ page 326

Install in reverse order, paying attention to the following:



Note

Ensure that seal between body and tail light housing seals completely.

– Fit retainer -2- to inner tail light cluster and loosely fit nut -3-.
– Fit inner tail light cluster -4- to body opening and make sure that the lugs -arrows- of the retainer make contact with the body opening.
– Push on retainer -1- at stud for inner tail light cluster and tighten nuts -3- and -5-.

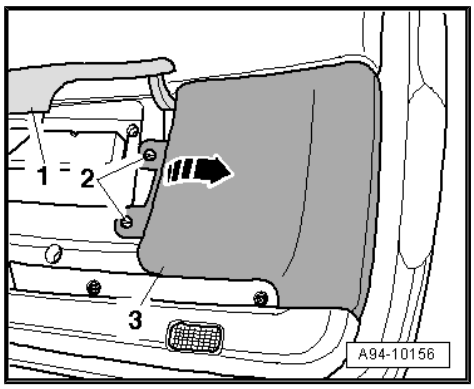
Note

As the nut is tightened the retainer becomes wedged at the inner rear light and the rear lid.

18.6 Removing and installing bulb holder for reversing light bulb -M16- / -M17-, rear fog light bulb -L46- / -L47-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing



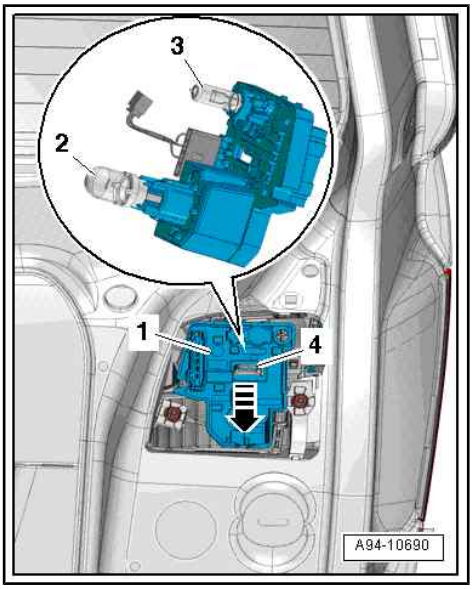
– Switch off ignition and take out ignition key.
– Turn light switch to position “0”.
– Open flap -1- for warning triangle.
– Turn quick release fastener -2- 90° in anti-clockwise direction and remove cover -3- from luggage compartment lining in direction of -arrow-.

– Remove bulb holder -1- from housing (press retaining tab -4- down -arrow-).
– Screw bulb -3- for rear fog light out of bulb holder.
– Pull bulb -2- for reversing light out of bulb holder.

Installing

Installation is carried out in the reverse order; note the following:

– Insert new bulb in bulb holder, taking care not to touch glass bulb with bare hands.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

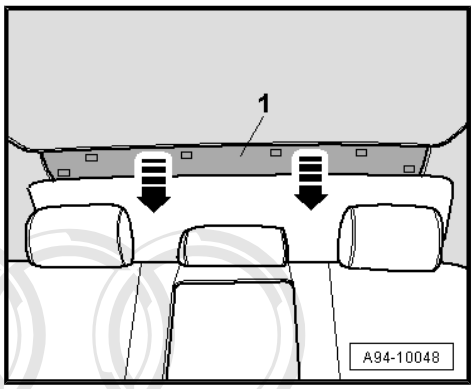
19 High-level brake light - Saloon

19.1 Removing and installing high-level brake light - Audi A6

Removing

– Do not press brake pedal.

– Carefully pull roof end trim -1- off roof frame -arrows-.

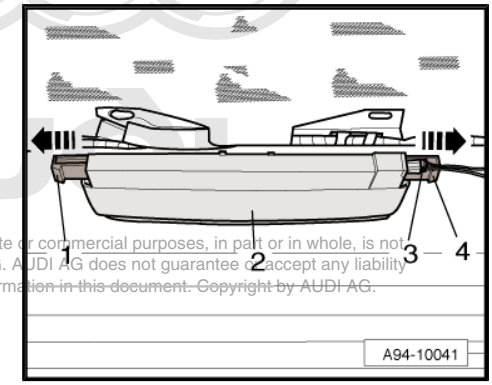


Note

If necessary, pry off roof end trim using removal lever - 80 - 200- .

– Pull out release levers -1- and -4- on high-level brake light -2- -arrows-.

– Unplug electrical connector -3- at high-level brake light.



Note

Entire high-level brake light must be renewed if the LED is defective.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

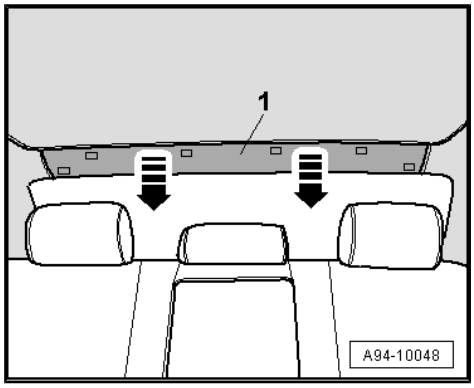
Install in reverse order.

19.2 Removing and installing high-level brake light - Audi A6 Security

Removing

– Do not press brake pedal.

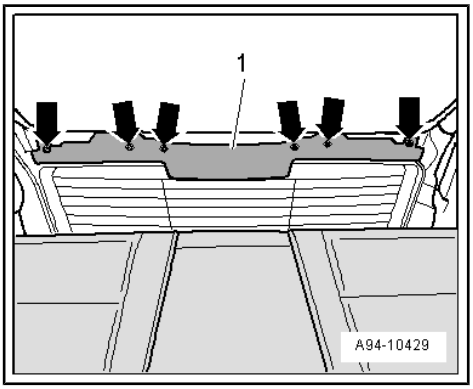
– Carefully pull roof end trim -1- off roof frame -arrows-.



Note

If necessary, pry off roof end trim using removal lever - 80 - 200- .

– Detach D-pillar trim in roof section ⇒ Rep. gr. 70 .
– Unscrew bolts -arrows-.
– Remove reinforcement -1- for roof end.



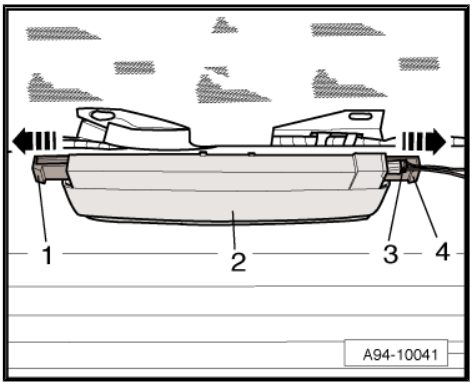
– Pull out release levers -1- and -4- on high-level brake light -2- -arrows-.
– Unplug electrical connector -3- at high-level brake light.

Note

Entire high-level brake light must be renewed if the LED is defective.

Installing

Install in reverse order.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

20 High-level brake light - Avant

20.1 Removing and installing high-level brake light

Removing

– Do not press brake pedal.

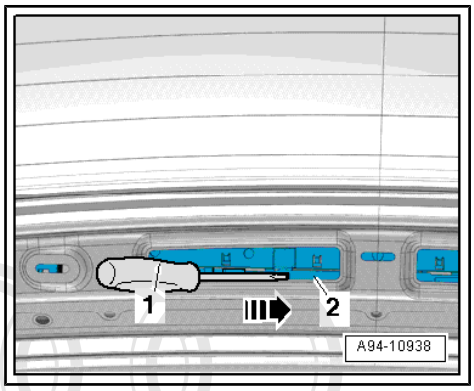
Caution

- *To facilitate removal of high-level brake light it is sufficient to unclip and bend back top edge of trim at top of rear lid only.*
- *To prevent trim at top of rear lid breaking (it must not have a temperature below 20°C) use hot air blower to slightly heat up trim at top of rear lid, if necessary. This applies to older vehicles in particular.*

– Unclip trim at top of rear lid from top retaining clips and bend back ⇒ Rep. gr. 70 .

– Insert screwdriver -1- into recess on retainer -2-.

– Release retainer of spring tabs in direction of -arrow- by pressing screwdriver handle firmly.



Note

The retaining rail and spring clips fall into the rear lid frame when released and must be removed using a magnet if necessary.

– Pull high-level brake light out of rear lid opening.

– Unplug electrical connector.

Installing

Installation is carried out in the reverse order; note the following:

Note

- *If the LEDs are defective, the complete high-level brake light must be renewed.*
- *New high-level brake lights are supplied ready for fitting and in their installation position.*
- *If the existing high-level brake light is to be reused, such as after painting of the rear lid, it must be prepared for installation* *⇒ page 333* .

– Connect electrical connector and push high-level brake light into rear lid opening until it engages audibly.

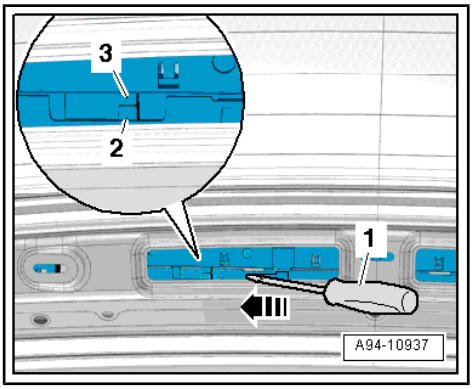
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Lock retainer by pressing screwdriver handle -1- firmly to the left -arrow-.

• The projection -2- on the retainer must face marking -3- on the bulb housing.

• The spring clips are locked in place by the retainer.

– Install trim at top of rear lid ⇒ Rep. gr. 70 .



20.2 Preparing high-level brake light for installation

Note

As the high-level brake light falls apart into its individual components when removed, it must be prepared for refitting as follows.

Procedure

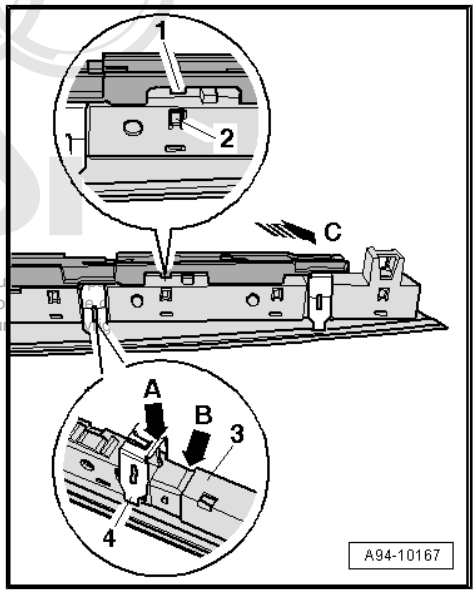
– Fit spring clips -4- onto housing -3- of high-level brake light so that the flattened section -arrow A- faces the flattened section -arrow B- on the housing.

– Make sure that the spring clip catches engage in the guides on the housing.

– Fit retainer to housing and lock in place (stage 1).

• The projection -1- on the retainer must face recess -2- on the bulb housing.

Audi
permitted unless authorised by AUDI AG. AUDI AG does no
with respect to the correctness of information in this docu



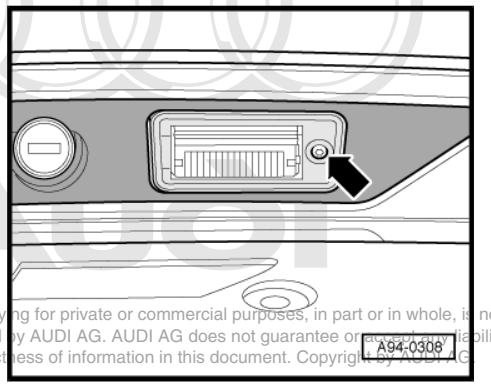
21 Number plate light

21.1 Removing and installing number plate light - X-

Removing

– Turn light switch to position “0”.

– Unscrew bolt -arrow- in handle trim.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

Note

The illustration shows only the number plate light (right-side).

– Lever bulb carrier out of handle trim.

– Take bulb (12 V, 5 W) out of bulb holder.

Installing

Install in reverse order.

22 Steering column switch module

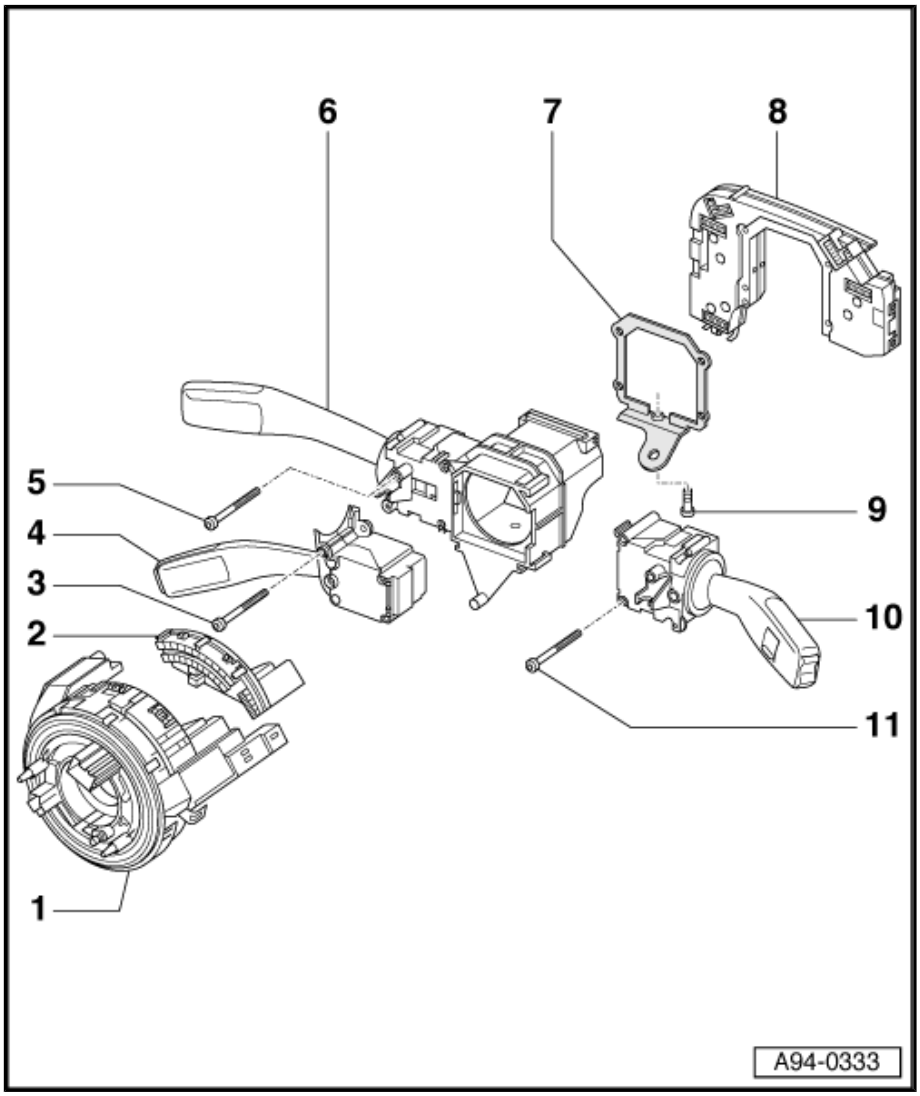
22.1 Steering column switch module

General description

- The steering column switch module consists of the return ring with slip ring, steering angle sender - G85- , steering column switches (turn signal switch, wiper switch, cruise control switch) and the steering column electronics control unit - J527- .
- Fault finding is performed via the “Guided Fault Finding” ⇒ Vehicle diagnostic tester.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

22.2 Exploded view - steering column switch module



1 - Return ring with slip ring

- ❑ Removing and installing ⇒ page 337

> **Caution**
> *Return ring with slip ring must not be turned following removal.*

2 - Steering angle sender - G85-

- ❑ Removing and installing ⇒ page 339

3 - Socket head bolt, 0.65 Nm

4 - Cruise control system switch - E45-

- ❑ Removing and installing ⇒ page 344

5 - Socket head bolt, 0.65 Nm

6 - Turn signal switch - E2-

- ❑ Removing and installing ⇒ page 343

7 - Retainer

8 - Steering column electronics control unit - J527-

- ❑ Removing and installing ⇒ page 339
- ❑ Pin assignment for steering column electronics control unit - J527- ⇒ page 340

9 - Clamping bolt, 3 Nm

10 - Intermittent wiper switch - E22-

- ❑ Removing and installing ⇒ page 344

11 - Socket head bolt, 0.65 Nm

Tightening torque for steering column trim

1 - Steering column switch trim (bottom)

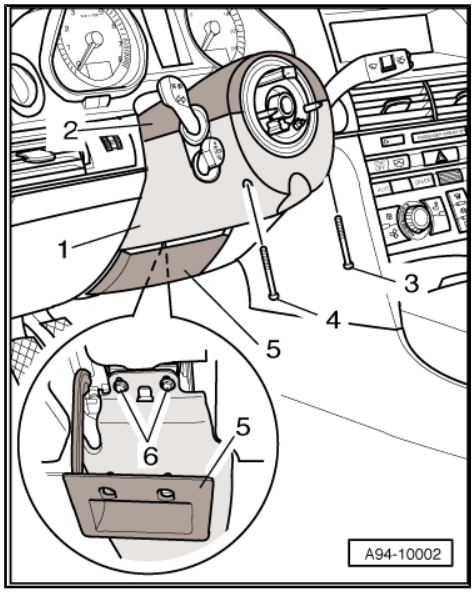
2 - Steering column switch trim (top)

3 - Bolt, 0.6 Nm

4 - Bolt, 0.6 Nm

5 - Handle for mechanical steering column adjustment

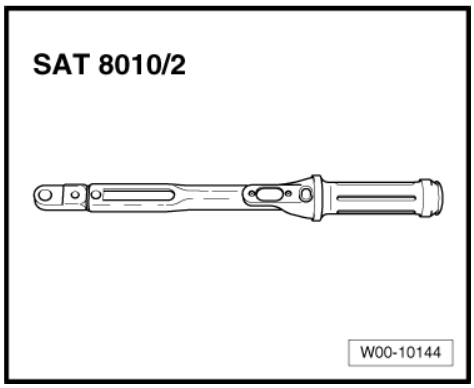
6 - Bolt, 3.5 Nm



22.3 Removing and installing steering column switch module

Special tools and workshop equipment required

- Special screwdriver T8 - T40056 A-



Removing

– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.

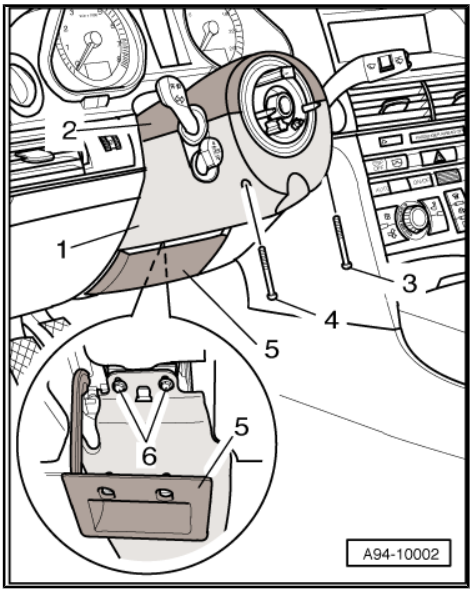
– Remove airbag unit ⇒ Rep. gr. 69 .

– Remove steering wheel ⇒ Rep. gr. 48 .

– On vehicles with electrical adjustment of the steering column, first remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

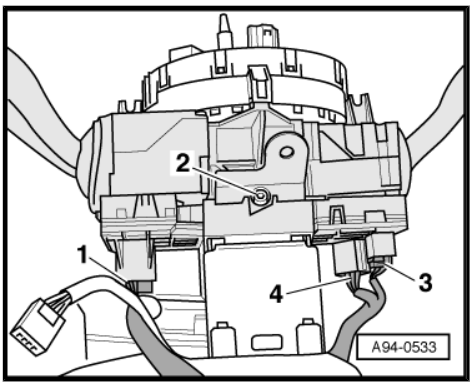
– Unscrew bolts -3- and -4- using special screwdriver T8 - T40056 A- .
– If fitted, open the handle -5- for mechanical steering column adjustment.
– Unscrew Torx bolts -6-.
– Separate top trim -2- for steering column switch from bottom trim -1- and detach both sections.
– If fitted, unplug electrical connector at bottom trim.



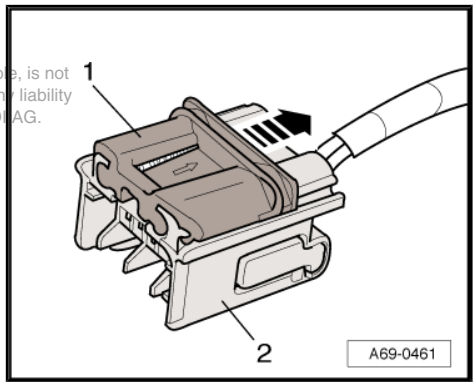
– Remove bolt -2-.
– Unplug electrical connectors -1- and -3-.

WARNING

Before disconnecting electrical connector -4-, mechanic must discharge static by briefly touching striker plate for door or similar.



– Unplug electrical connector -4-.
– Press catch -1- in direction of -arrow- until connector -2- disengages.
– Carefully detach steering column switch together with steering column electronics control unit - J527- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. Audi does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

- Tightening torques ⇒ page 335 and ⇒ page 336

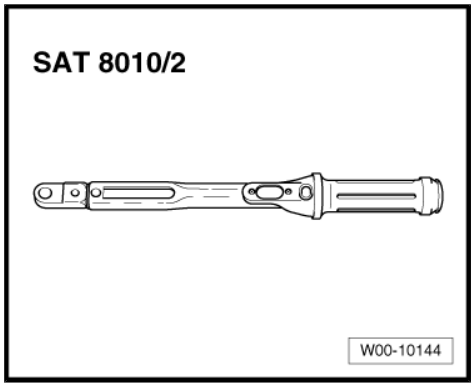
Installation is carried out in the reverse order; note the following:

– Make sure all electrical connectors are properly engaged.
– Insert top trim for steering column switch in hooks for bottom trim, press both sections together and tighten bolts.
– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Install steering wheel ⇒ Rep. gr. 48 .
– Install airbag unit ⇒ Rep. gr. 69 .

22.4 Removing and installing return ring with slip ring

Special tools and workshop equipment required

♦ Special screwdriver T8 - T40056 A-

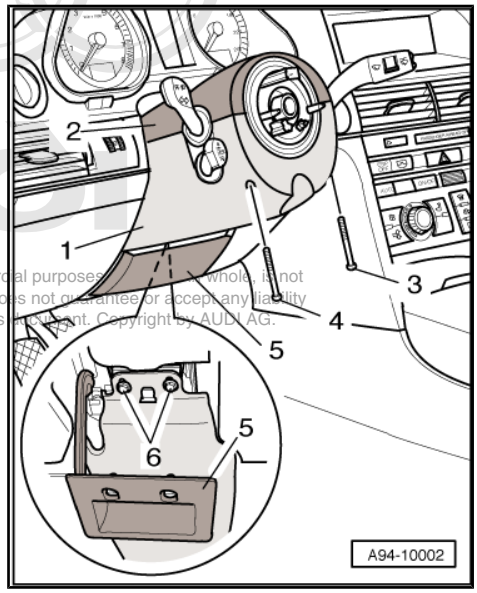


Removing

Note

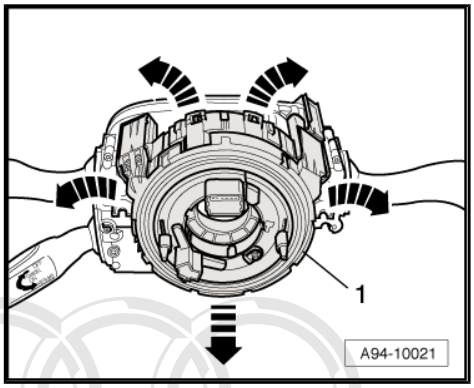
Return ring with slip ring must be removed/installed in centre position (wheels in straight ahead position).

– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.
– Remove airbag unit ⇒ Rep. gr. 69 .
– Remove steering wheel ⇒ Rep. gr. 48 .
– On vehicles with electrical adjustment of the steering column, first remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Unscrew bolts -3- and -4- using special screwdriver T8 - T40056 A- .
– If fitted, open the handle -5- for mechanical steering column adjustment.
– Unscrew Torx bolts -6-.
– Separate top trim -2- for steering column switch from bottom trim -1- and detach both sections.
– If fitted, unplug electrical connector at bottom trim.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unplug electrical connector (top) at return ring with slip ring.
– Carefully release retaining hooks -arrows- and pull return ring with slip ring -1- off steering column switch module.



Note

Shown in illustration with steering column switch module removed

Installing

• Tightening torques ⇒ page 335 and ⇒ page 336

Installation is carried out in the reverse order; note the following:

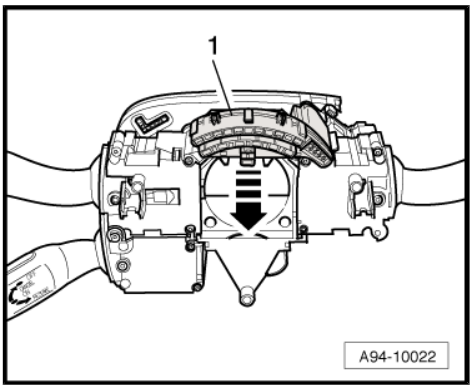
– Make sure all fasteners and the electrical connectors are properly engaged.
– Insert top trim for steering column switch in hooks for bottom trim, press both sections together and tighten bolts.
– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Install steering wheel ⇒ Rep. gr. 48 .
– Install airbag unit ⇒ Rep. gr. 69 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

22.5 Removing and installing steering angle sender - G85-

Removing

– Remove return ring with slip ring ⇒ page 337 .
– Pull off steering angle sender - G85- -item 1- -arrow-.



Installing

Installation is carried out in the reverse order; note the following:

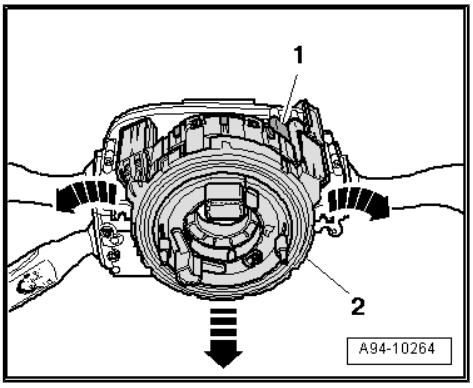
– Perform calibration of steering angle sender -G85- in “Guided Fault Finding” mode after renewing steering angle sender ⇒ Vehicle diagnostic tester.

22.6 Removing and installing steering column electronics control unit - J527-

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

Removing

– Remove steering column switch module ⇒ page 336 .



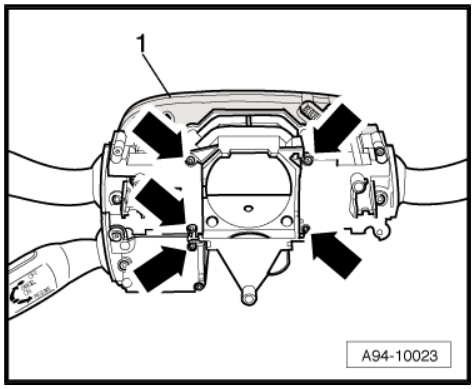
Note

Return ring with slip ring must be removed/installed in centre position (wheels in straight ahead position).

– Carefully release retaining hooks -arrows-.
– Detach return ring with slip ring -2- and steering angle sender - G85- -item 1- from steering column switch module.

– Unscrew bolts -arrows-.

– Detach steering column electronics control unit - J527- -item 1- from steering column switch module.



Installing

• Tightening torque ⇒ page 335

Installation is carried out in the reverse order; note the following:

– Make sure all fasteners and the electrical connectors are properly engaged.

– Install steering column switch module ⇒ page 336.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Steering column electronics control unit - J527- must be re-encoded after renewing ⇒ Vehicle diagnostic tester.

– Select function or path:

Vehicle brand
Vehicle type
Engine code
16 Steering wheel electronics
J527 Encoding (Repair Group 94)

– Continue to follow the instructions on the display of the vehicle diagnostic tester.

22.7 Pin assignment at steering column electronics control unit - J527- (front)

The steering column electronics control unit - J527- is part of the “steering column switch module”. It receives signals e.g. from the steering column switch.

Checking steering column electronics control unit -J527- ⇒ Vehicle diagnostic tester.

A - Connector for cruise control system

1 - Earth

2 - Fix

3 - Distance

4 - 12 V voltage supply

5 - Activation/touch function “Off”

6 - Acceleration/deceleration

7 - Locked “Off”

B - Connector for turn signal switch

1 - Earth

2 - Radio telephone (special-purpose vehicles)

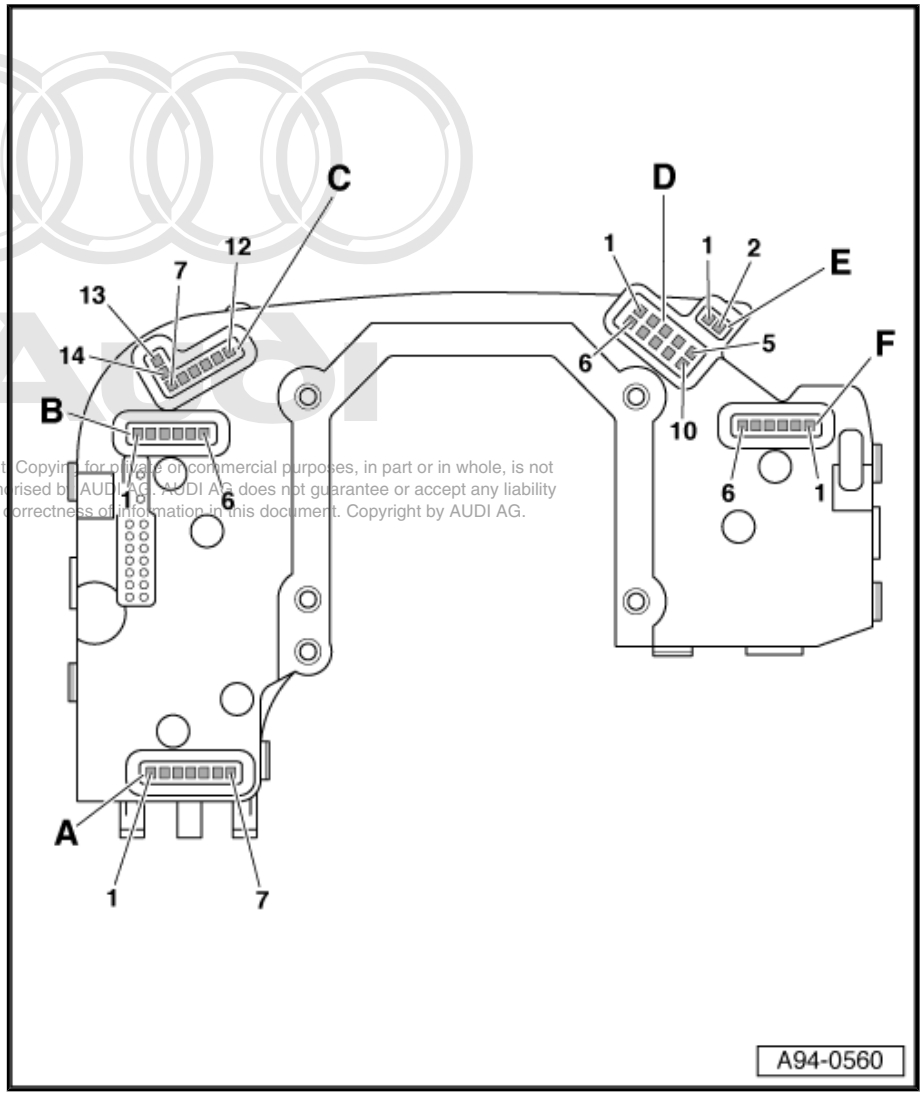
3 - Alarm (special-purpose vehicles)

4 - Not used

5 - Headlight flasher/light control

6 - Turn signal indicators

C - Connector for multi-function steering wheel / tiptronic / heated steering wheel



7 tiptronic “–”

8 - Multi-function steering wheel “+” voltage supply

9 - Multi-function steering wheel data

10 - tiptronic “+”

11 - Multi-function steering wheel dimmer

12 - tiptronic earth

13 - Heated steering wheel “+”

14 - Heated steering wheel “–”

D - Steering angle sensor

1 - Light barrier 5

2 - Light barrier 3

3 - Light barrier 1

4 - 12 V voltage supply

5 - 5 V voltage supply

6 - Light barrier 6

7 - Light barrier 4

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8 - Light barrier 2

9 - Steering angle sensor earth

10 - Light barrier 7

E - Horn

1 - Horn earth

2 - Horn

F - Wiper system

1 - Earth

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2 - Intermittent wipe potentiometer

3 - On-board computer

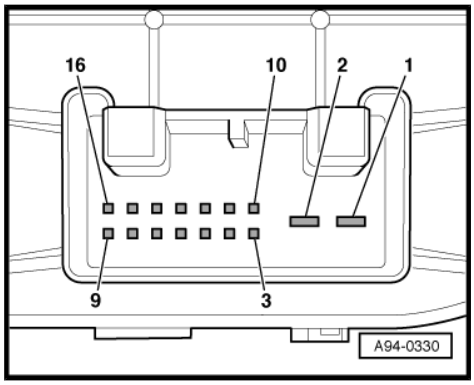
4 - Not used

5 - Wash

6 - Wipe

22.8 Pin assignment at steering column electronics control unit - J527- (reverse side)

Multi-pin connector, 16-pin



1 - Terminal 31

2 - Terminal 30

3 - Powertrain CAN bus screening

4 - Not used

5 - Cruise control locked Off

6 - Alarm (special-purpose vehicles)

7 - Radio telephone (special-purpose vehicles)

8 - CAN bus Low (convenience)

9 - CAN bus High (convenience)

10 - Drive CAN bus High

11 - Drive CAN bus Low

12 - Not used

13 - Terminal 15

14 - Not used

15 - Not used

16 - Not used

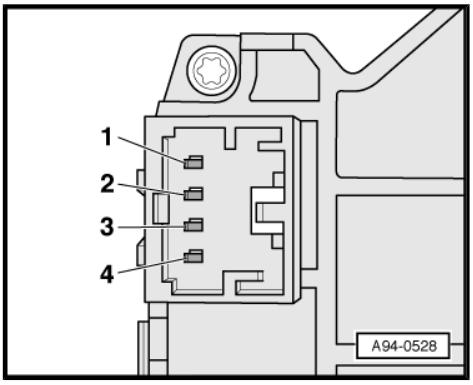
Multi-pin connector, 4-pin

1 - Easy entry

2 - Steering column adjustment switch

3 - Terminal 31

4 - Not used



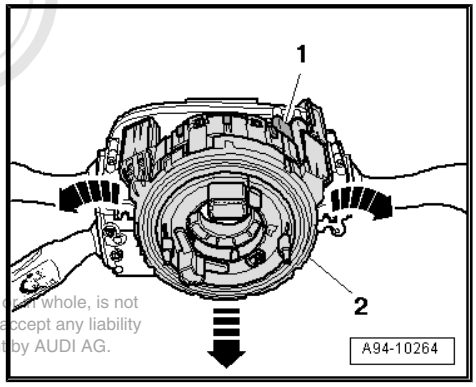
22.9 Removing and installing turn signal switch - E2-

Removing

– Remove steering column switch module ⇒ page 336 .

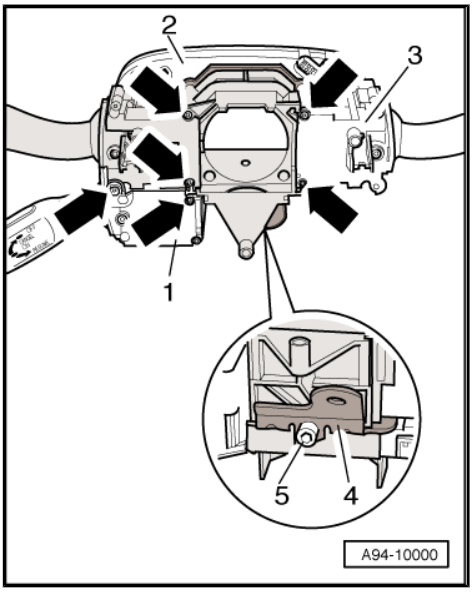
Note

Return ring with slip ring must be removed/installed in centre position (wheels in straight ahead position).



– Carefully release retaining hooks -arrows-.

– Detach return ring with slip ring -2- and steering angle sender - G85- -item 1- from steering column switch module.



– Unscrew bolts -arrows-.

– Remove steering column electronics control unit - J527- -item 2- and intermittent wiper switch - E22- -item 3- from steering column switch module.

– Detach cruise control system switch - E45- -item 1- at steering column switch module.

– Unscrew bolt -5- and remove retaining clip -4-.

Installing

• Tightening torque ⇒ page 335

Installation is carried out in the reverse order; note the following:

– Make sure all fasteners and the electrical connectors are properly engaged.

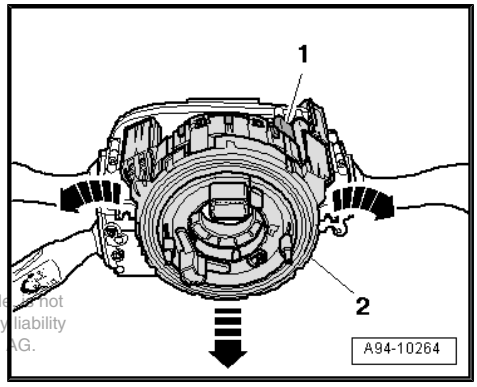
– Install steering column switch module ⇒ page 336 .

Audi
Reproduction for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

22.10 Removing and installing cruise control system switch - E45-

Removing

– Remove steering column switch module ⇒ page 336 .

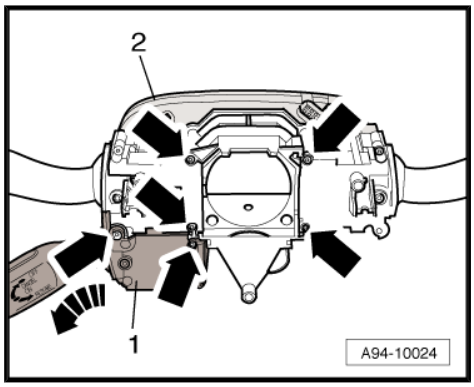


Note

Return ring with slip ring must be removed/installed in centre position (wheels in straight ahead position).

Copyright AUDI AG. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Carefully release retaining hooks -arrows-.
– Detach return ring with slip ring -2- and steering angle sender - G85- -item 1- from steering column switch module.



– Unscrew bolts -arrows-.
– Detach steering column electronics control unit - J527- -item 2- from steering column switch module.
– Detach cruise control system switch - E45- -item 1- at steering column switch module.

Installing

• Tightening torque ⇒ page 335

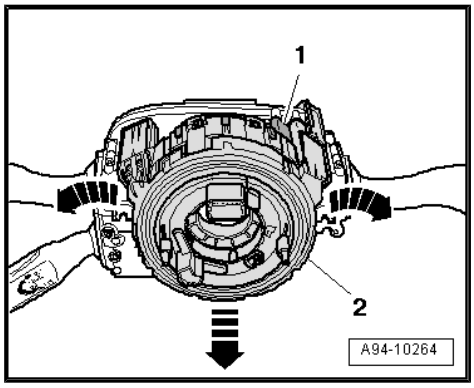
Installation is carried out in the reverse order; note the following:

– Make sure all fasteners and the electrical connectors are properly engaged.
– Install steering column switch module ⇒ page 336 .

22.11 Removing and installing intermittent wiper switch - E22-

Removing

– Remove steering column switch module ⇒ page 336 .

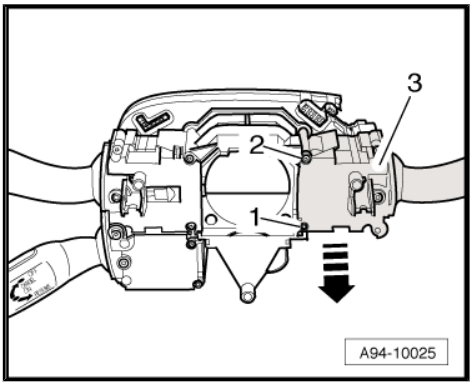


Note

Return ring with slip ring must be removed/installed in centre position (wheels in straight ahead position).

– Carefully release retaining hooks -arrows-.
– Detach return ring with slip ring -2- and steering angle sender - G85- -item 1- from steering column switch module.

– Remove bolts -1- and -2-.
– Detach intermittent wiper switch - E22- -item 3- from steering column switch module -arrow-.



Installing

- Tightening torque ⇒ page 335

Installation is carried out in the reverse order; note the following:

– Make sure all fasteners and the electrical connectors are properly engaged.
– Install steering column switch module ⇒ page 336 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

23 Entry and start authorisation switch - E415-

Note

- *Reader coil for immobiliser is attached to entry and start authorisation switch - E415- and cannot be renewed separately.*
- *The entry and start authorisation switch - E415- must be renewed if reading coil is defective.*

23.1 Removing and installing entry and start authorisation switch - E415-

Note

- *Adaption to immobiliser is not necessary if the entry and start authorisation switch is renewed.*
- *The lock in the entry and start authorisation switch is not mechanically coded.*
- *Therefore the keys must not be renewed after renewing entry and start authorisation switch (continue to use old keys).*

Removing

– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.

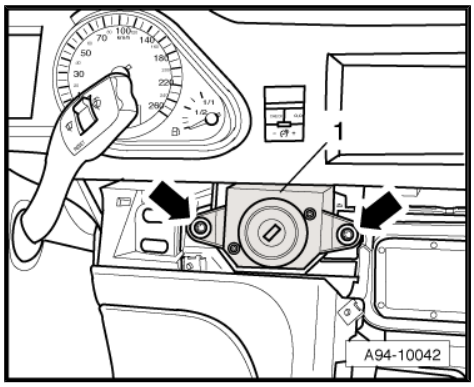
– Switch off ignition and take out ignition key.

– Remove dash panel vent (centre) ⇒ Rep. gr. 70 .

– Unscrew bolts -arrows-.

– Remove entry and start authorisation switch - E415- -item 1- from the dash panel.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

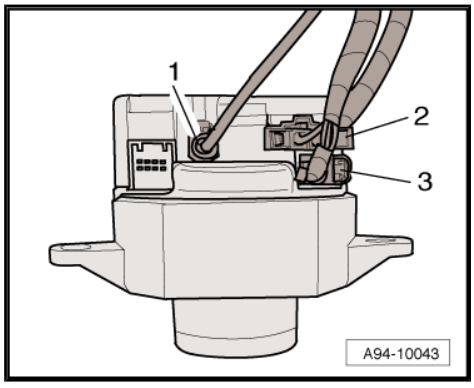


– Unplug electrical connectors -1 ... 3-.

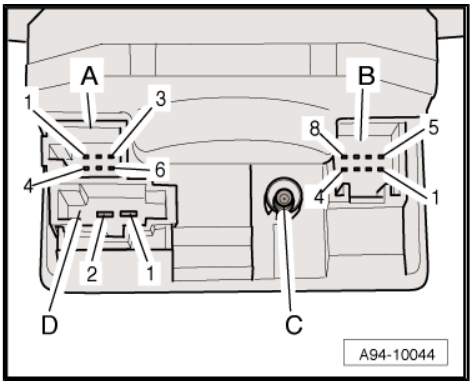
Installing

Installation is carried out in the reverse order; note the following:

– Install dash panel vent (centre) ⇒ Rep. gr. 70 .



23.2 Pin assignment at entry and start authorisation switch - E415-



A - Plug connection

1 - Terminal 30
2 - Terminal 31
3 - Sensor bus
4 - Electronic steering column lock, terminal 15
5 - Electronic steering column lock, terminal 50
6 - Switch for “P”

B - Plug connection

1 - Illumination (ignition button)
2 - Ignition button, position “ON”
3 - Ignition button, position “Start”
4 - Illumination for Stop button
5 - Stop button
6 - Stop button
7 - Brake pedal switch
8 - Not used

C - Plug connection

To aerial for remote control

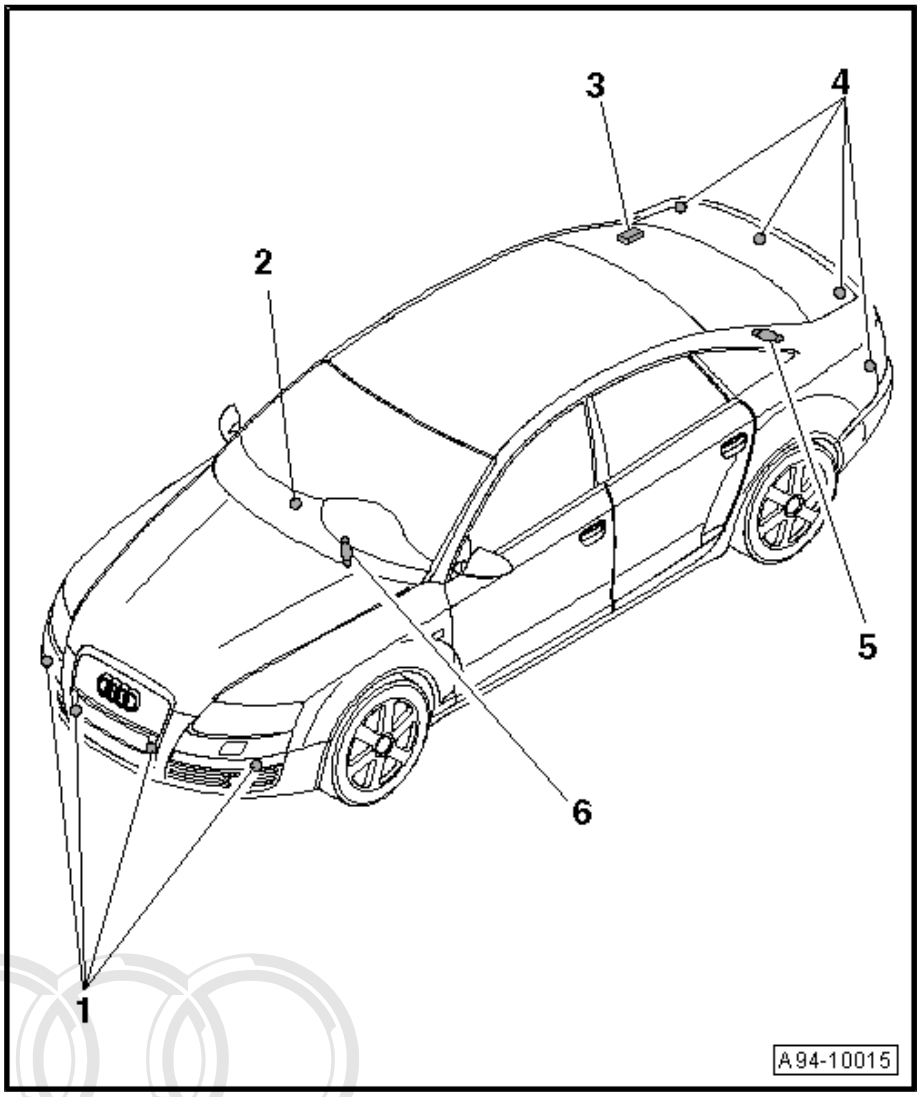
D - Plug connection

1 - Terminal 30
2 - Electronic steering column lock

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

24 Parking aid

24.1 Overview of parking aid



1 - Parking aid senders

- ❑ In front bumper
- ❑ Only for 8-channel parking aid
- ❑ Removing and installing ⇒ page 353

2 - Parking aid button - E266-

- ❑ Only for 8-channel parking aid
- ❑ With parking aid switch illumination bulb - L117-
- ❑ With integrated parking aid warning lamp - K136-
- ❑ Fitting location ⇒ page 349

3 - Parking aid control unit - J446-

Saloon:

- ❑ In luggage compartment (rear right) at wheel housing
- ❑ Removing and installing ⇒ page 349

Avant:

- ❑ At rear right of luggage compartment in dirt tray
- ❑ Removing and installing ⇒ page 349

4 - Parking aid senders

- ❑ In rear bumper
- ❑ Removing and installing ⇒ page 353

5 - Rear parking aid warning buzzer - H15-

- ❑ On belt guide

Saloon:

- ❑ Removing and installing: vehicles up to model year 2006 ⇒ page 351 ; vehicles from model year 2007 onwards ⇒ page 352

Avant:

- ❑ Removing and installing: vehicles up to model year 2005 ⇒ page 352 ; vehicles from model year 2006 onwards ⇒ page 352

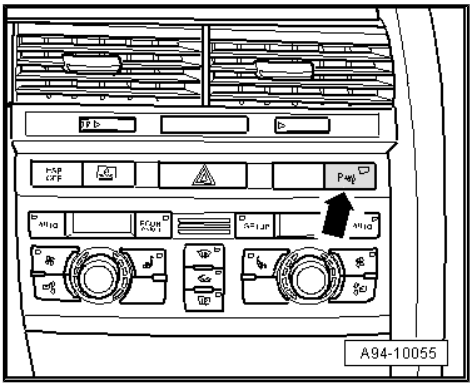
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

6 - Front parking aid warning buzzer - H22-

- ❑ Only for 8-channel parking aid
- ❑ Behind driver's side storage compartment
- ❑ Removing and installing ⇒ page 351

Fitting location for parking aid button - E266-

- In centre console switch unit -arrow-.
- Removing and installing ⇒ page 362 .



24.2 Removing and installing parking aid control unit - J446- (saloon)

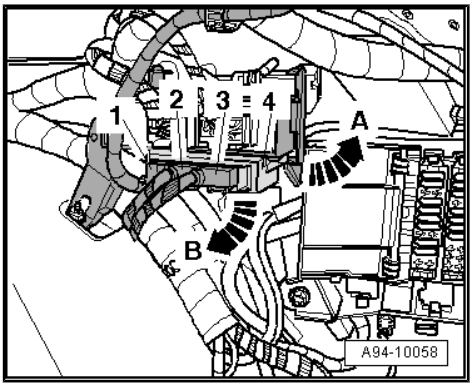
Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

– Remove luggage compartment side trim (right-side).

– Release retaining clip -arrow- and pivot the parking aid control unit - J446- -item 4- from frame -arrow B-.

– Unplug electrical connectors -1 ... 3-.



Note

Illustration shows side trim removed.

Installing

Install in reverse order.

24.3 Removing and installing parking aid control unit - J446- (Avant)

Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

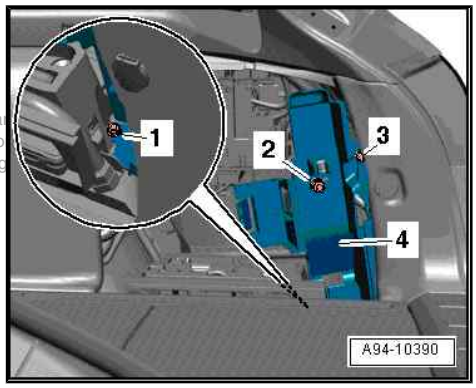
– Remove luggage compartment side trim (right-side).

Vehicles with mounting for jack:

– Take jack out of mounting.

– Unscrew nuts -1- and -2- and bolt -3-.

– Remove mounting for jack.



Protected by copyright. Copying for private or commercial purposes, in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

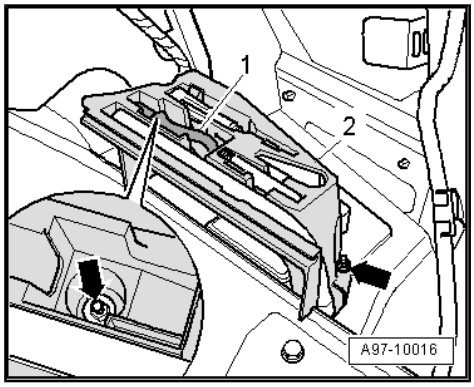
– Remove towing eye -1- from moulding for vehicle tools -2-.

Vehicles without mounting for control units:

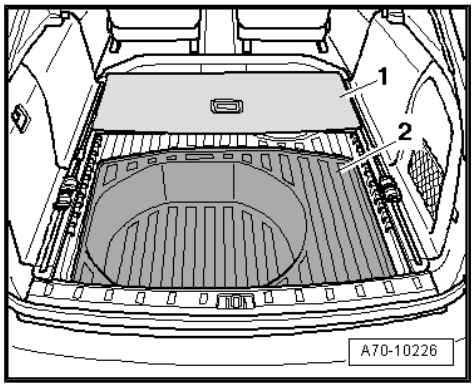
– Remove nut -right arrow-.

All vehicles:

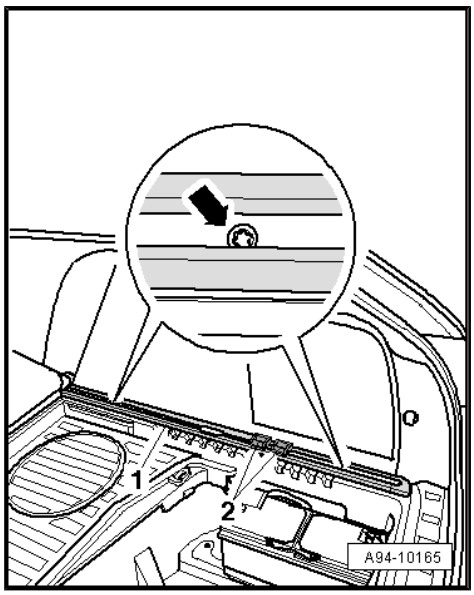
– Unscrew nut -left arrow- and remove moulding for vehicle tools.



– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



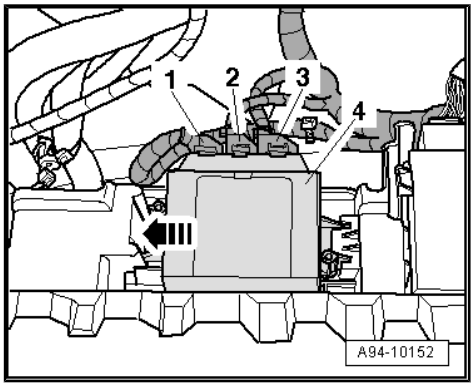
– Slide fastening rings -2- together on retainer -1- so that they are not positioned above the bolts.
– Unscrew bolts -arrow- and remove retainer.
– Detach luggage compartment side trim (bottom section) ⇒ Rep. gr. 70 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Release retaining clip -arrow- and pivot parking aid control unit - J446- -item 4- out of mounting frame.

– Unplug electrical connectors -1 ... 3-.



Installing

Install in reverse order.

Tightening torques

Component		Nm
Retainer for fastening rings to body		4
Mounting for vehicle tool kit to body		7
Mounting for jack to body	Bolt	5
	Nut	3

24.4 Removing and installing front parking aid warning buzzer - H22- - 8-channel parking aid

Fitting location: at central tube for dash panel behind storage compartment (driver's side)

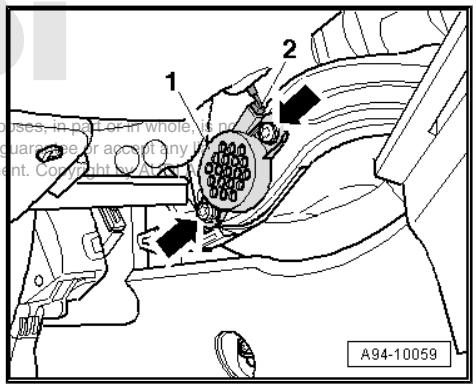
Removing

– Switch off ignition and take out ignition key.

– Remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

– Unplug electrical connector -2-.

– Unscrew bolts -arrows- and remove front parking aid warning buzzer - H22- -item 1-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright

Installing

Installation is carried out in the reverse order; note the following:

– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

24.5 Removing and installing rear parking aid warning buzzer - H15- on belt guide (left-side) - Saloon up to model year 2006

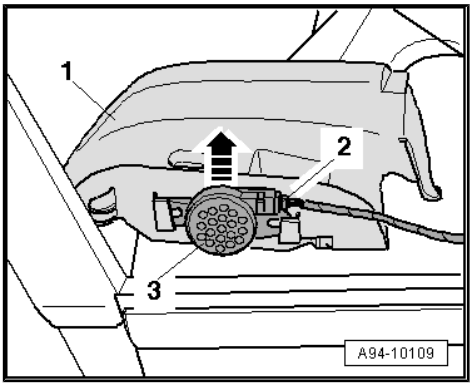
Removing

– Switch off ignition and take out ignition key.

– Remove C-pillar trim ⇒ Rep. gr. 70 .

– Pull rear parking aid warning buzzer - H15- -item 3- out of belt guide (left-side) -1- in direction of -arrow-.

– Unplug electrical connector -2-.

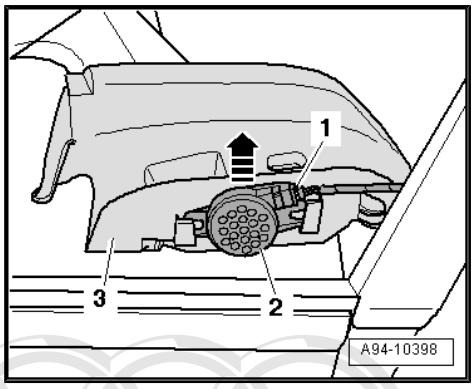


Installing

Installation is carried out in the reverse order; note the following:

– Install C-pillar trim ⇒ Rep. gr. 70 .

24.6 Removing and installing rear parking aid warning buzzer - H15- on belt guide (right-side) - Saloon from model year 2007 onwards



Removing

– Switch off ignition and take out ignition key.

– Remove C-pillar trim ⇒ Rep. gr. 70 .

– Pull out rear parking aid warning buzzer - H15- -item 2- at belt guide (right-side) -3- in direction of -arrow-.

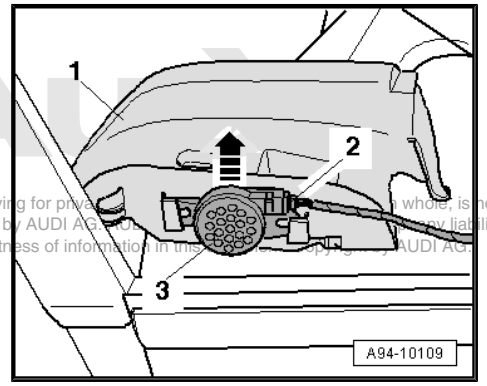
– Unplug electrical connector -1-.

Installing

Installation is carried out in the reverse order; note the following:

– Install C-pillar trim ⇒ Rep. gr. 70 .

24.7 Removing and installing rear parking aid warning buzzer - H15- on belt guide (left-side) - Avant up to model year 2005



Removing

– Switch off ignition and take out ignition key.

– Remove luggage compartment side trim ⇒ Rep. gr. 70 .

– Take out insulation in area of rear parking aid warning buzzer - H15- (if fitted).

– Pull rear parking aid warning buzzer - H15- -item 3- out of belt guide (left-side) -1- in direction of -arrow-.

– Unplug electrical connector -2-.

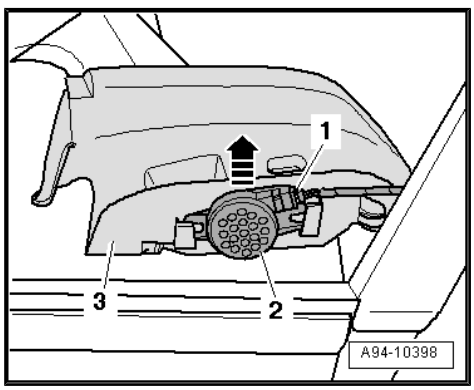
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

– Install luggage compartment side trim ⇒ Rep. gr. 70 .

24.8 Removing and installing rear parking aid warning buzzer - H15- on belt guide (right-side) - Avant from model year 2006 onwards



Removing

– Switch off ignition and take out ignition key.

– Remove luggage compartment side trim ⇒ Rep. gr. 70 .

– Take out insulation in area of rear parking aid warning buzzer - H15- (if fitted).

– Pull out rear parking aid warning buzzer - H15- -item 2- at belt guide (right-side) -3- in direction of -arrow-.

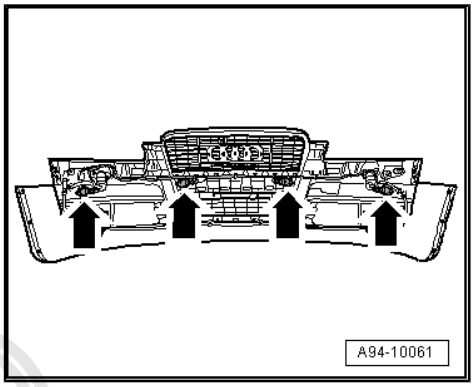
– Unplug electrical connector -1-.

Installing

Installation is carried out in the reverse order; note the following:

– Install luggage compartment side trim ⇒ Rep. gr. 70 .

24.9 Removing and installing senders for parking aid (front)



Fitting location: in bumper -arrows-

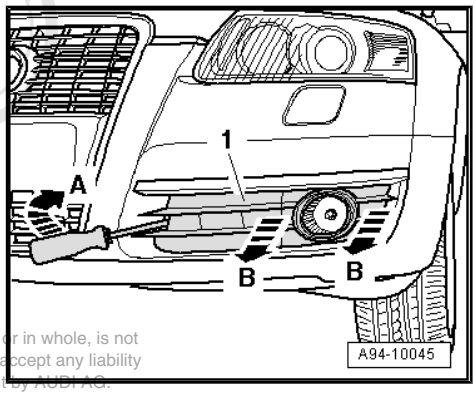
Removing

Inner senders:

– Remove front bumper cover ⇒ Rep. gr. 63 .

Senders (outside) - vehicles with petrol engine:

– Release retaining clip using a screwdriver -arrow A- and remove air intake grille -1- in bottom section of bumper cover -arrows B-.



Senders (outside) - vehicles with 10-cyl. engine or TDI engine:

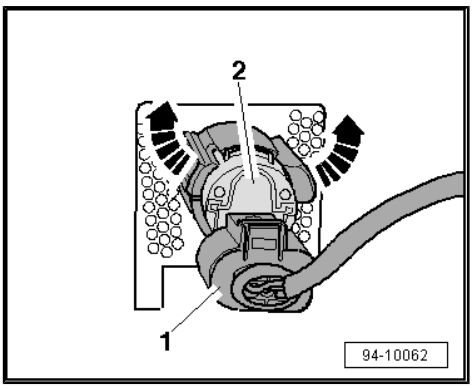
– Remove front bumper cover ⇒ Rep. gr. 63 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

– Unplug electrical connector -1- at sender.

– Push both retainer tabs aside -arrows- and push out sender -2- inwards.

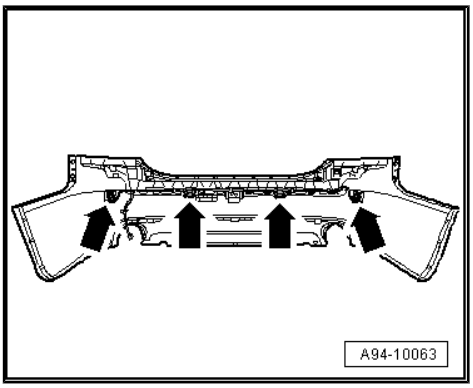


Installing

Installation is carried out in the reverse order; note the following:

– Install front bumper cover ⇒ Rep. gr. 63 .

24.10 Removing and installing rear parking aid senders



Fitting location: in bumper -arrows-

Removing

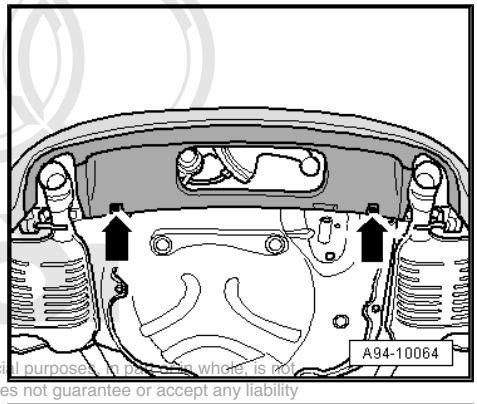
Senders (inside) on vehicles with towing bracket:

– Remove rear bumper cover ⇒ Rep. gr. 63 .

Senders (inside) on vehicles without towing bracket:

– Unscrew bolts -arrows-.

– Reach behind the bumper cover.

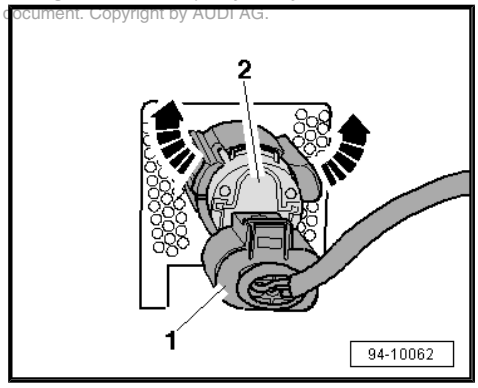


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

All vehicles:

– Unplug electrical connector -1- at sender.

– Push both retainer tabs aside -arrows- and push out sender -2- inwards.



Installing

Installation is carried out in the reverse order; note the following:

– Install rear bumper cover ⇒ Rep. gr. 63 .

Tightening torque

Component	Nm
Bumper cover to bracket	1.5

25 Automatic headlight range control

25.1 Overview of automatic headlight range control

1 - Control unit

- ❑ Fitting location: behind glove box on central tube for dash panel
- ❑ Removing and installing ⇒ page 355

On vehicles without cornering light

- ❑ Control unit for headlight range control - J431-

Vehicles with cornering light

- ❑ Cornering light and headlight range control unit - J745-

2 - Rear left vehicle level sender - G76-

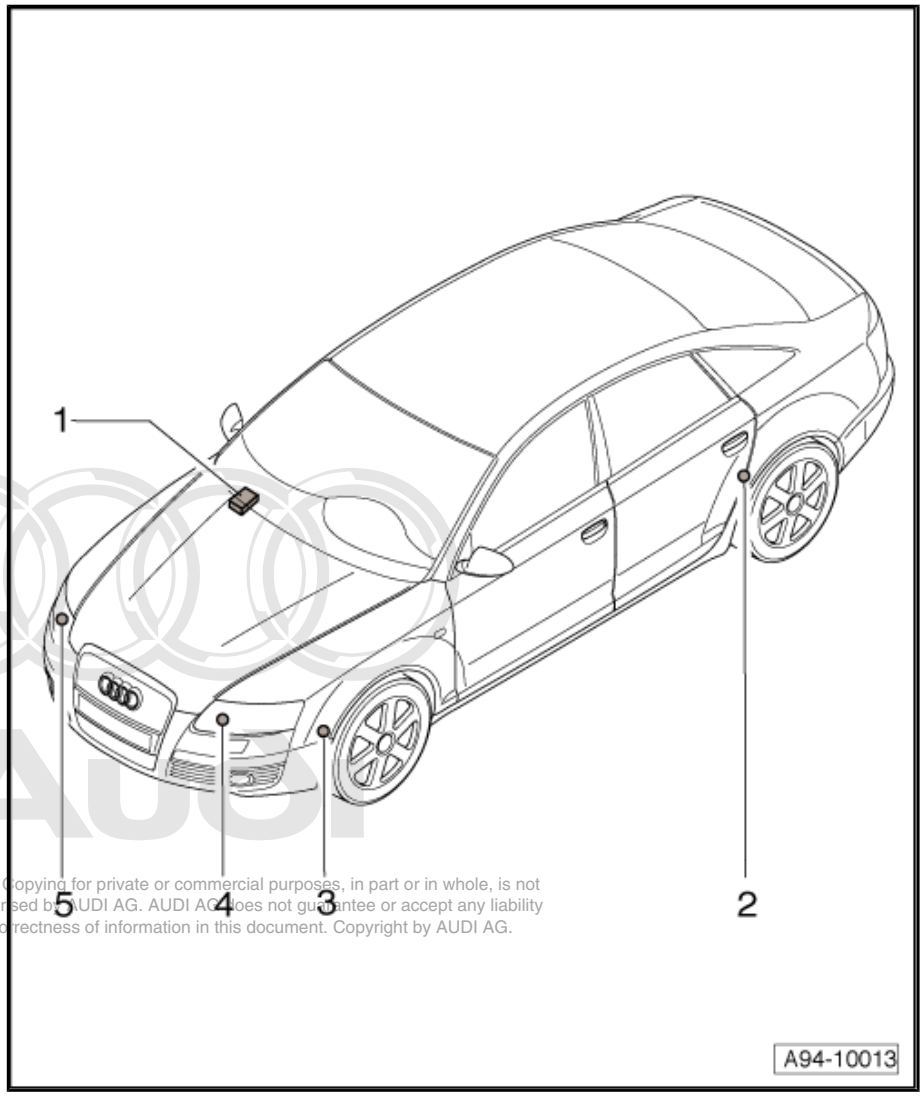
- ❑ At suspension link (rear left)
- ❑ Removing and installing ⇒ Rep. gr. 42

3 - Front left vehicle level sender - G78-

- ❑ At track control link (front axle, left-side)
- ❑ Removing and installing ⇒ Rep. gr. 40

4 - Left headlight range control motor - V48-

5 - Right headlight range control motor - V49-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

25.2 Removing and installing control unit - J431- / -J745-

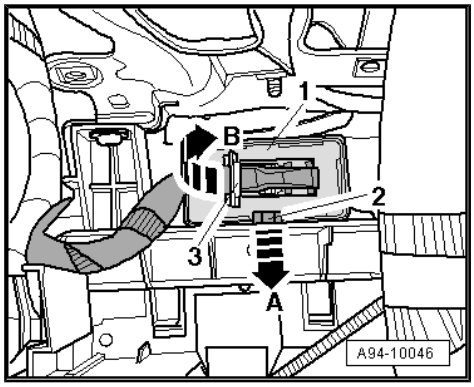
Fitting location: behind glove box on central tube for dash panel

Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

– Remove glove box ⇒ Rep. gr. 68 .

– Press retaining clip -2- aside -arrow A- and pull control unit -1- out of frame.
– Unplug the electrical connector by releasing catch -3- and pivoting the retaining clip in direction of -arrow B-.



Installing

Installation is carried out in the reverse order; note the following:

– Install glove box ⇒ Rep. gr. 68 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

96 – Lights, bulbs, switches - interior

1 Lights and switches in dash panel

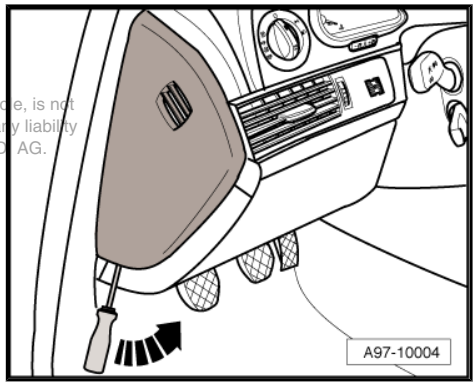
1.1 Removing and installing light switch

Removing

– Switch off ignition and take out ignition key.

– Turn light switch to position "0".

– Use screwdriver to pry off trim (left-side) at dash panel -arrow-.

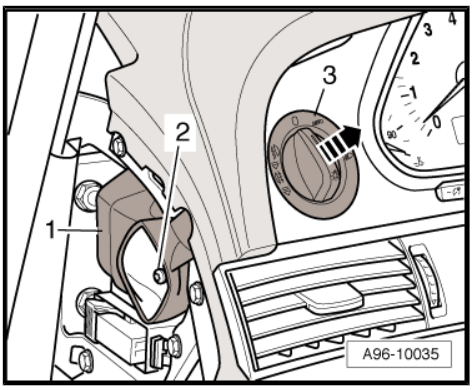


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove the spreader pin -2- at air duct -1- and detach the air duct.

– Reach through the opening over the side air vent in dash panel and press the light switch -3- out of the instrument cluster -arrow-.

– Unplug electrical connector.



Installing

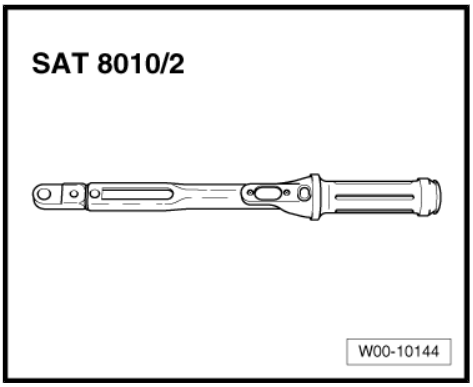
Installation is carried out in the reverse order; note the following:

– Press switch into switch housing until catch engages.

1.2 Removing and installing steering column adjustment switch - E167-

Special tools and workshop equipment required

♦ Special screwdriver T8 - T40056 A-

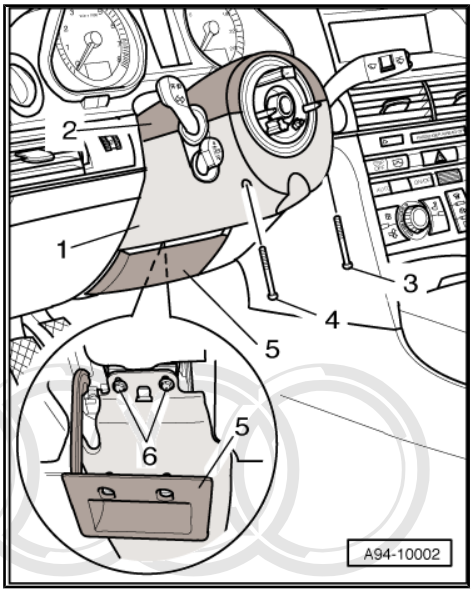


Removing

– Remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.

– Unscrew bolts -3- and -4- using special screwdriver T8 - T40056 A- .



Note

Disregard -item 5-.

– Unscrew Torx bolts -6-.

– Separate top trim -2- for steering column switch from bottom trim -1- and detach both sections.

– Unplug electrical connector at bottom trim.

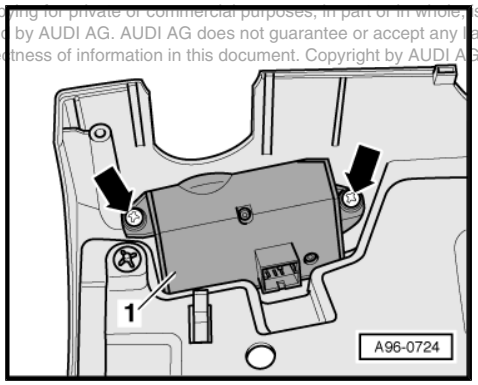
Note

Shown in illustration with steering wheel removed.

– Unscrew bolts -arrows-.

– Lift out steering column adjustment switch - E167- -item 1- from bottom trim.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Installing

Installation is carried out in the reverse order; note the following:

– Insert top trim for steering column switch in hooks for bottom trim, press both sections together and tighten bolts.

– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

Tightening torques

Component	Nm
Steering column adjustment switch - E167- to bottom trim	2.5
Trim for steering column switch	0.6
Trim (bottom) to steering column	3.5

1.3 Removing and installing alarm switch in driver's footwell - Audi A6 Security

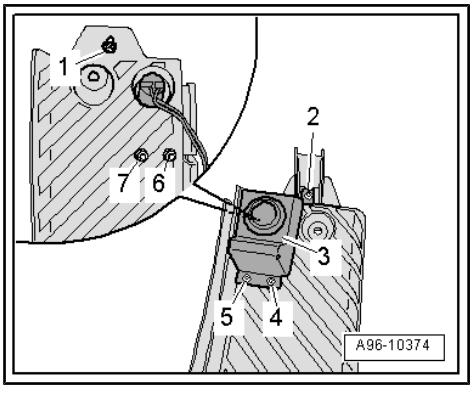
Removing

– Remove foot rest ⇒ Rep. gr. 70 .

– Unplug electrical connector.

– Unscrew bolts -2, 4, 5- and counterhold nuts -1, 6, 7- at the same time.

– Detach alarm switch -3- in driver's footwell from foot rest.



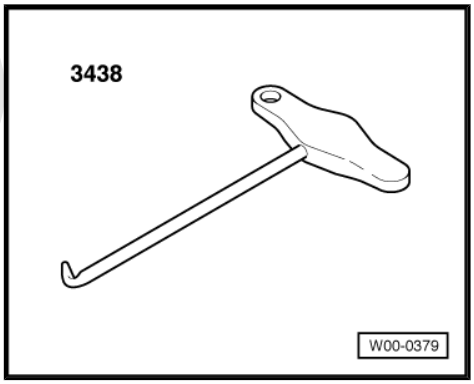
Installing

Install in reverse order.

1.4 Removing and installing switch panel for instrument cluster

Special tools and workshop equipment required

- Hook - 3438-

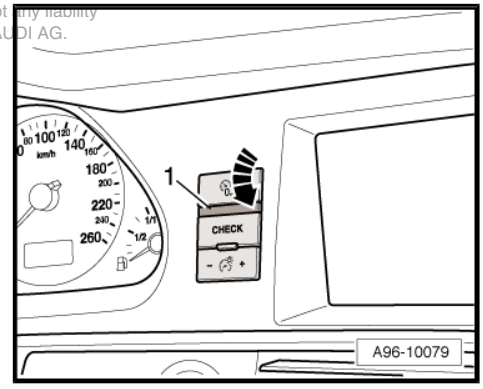


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– Press the cover trim -1- on the switch panel for the instrument cluster in the direction of the -arrow-.

– Take hold of the cover trim and pull off from switch.



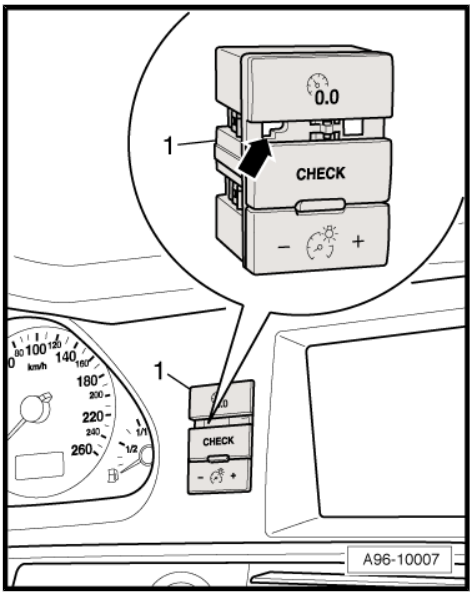
– Insert hook - 3438- in opening -arrow- on switch panel.

– Carefully pull switch panel -1- out of instrument cluster trim.

– Unplug electrical connector.

Installing

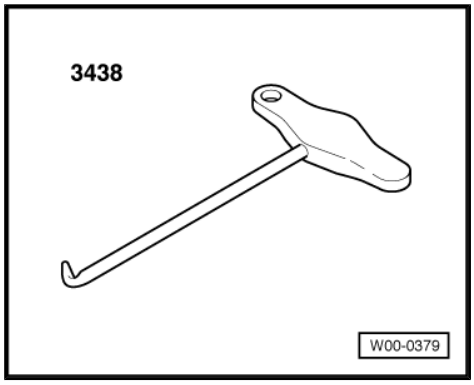
Install in reverse order.



1.5 Removing and installing glove compartment button - E316- and display unit button - E506-

Special tools and workshop equipment required

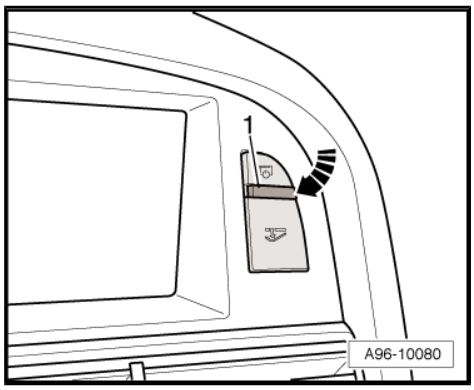
♦ Hook - 3438-



Removing

– Press cover trim -1- on switch panel for glove compartment button - E316- and display unit button - E506- in direction of -arrow-.

– Take hold of the cover trim and pull off from switch.



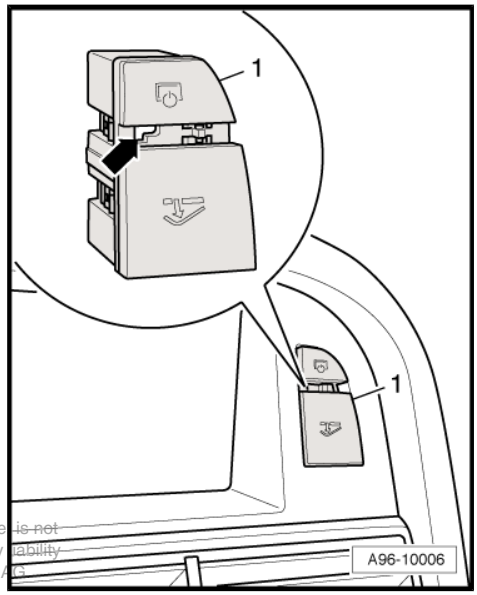
– Insert hook - 3438- in opening -arrow- on switch panel.

– Carefully pull switch panel -1- out of instrument cluster trim.

– Unplug electrical connector.

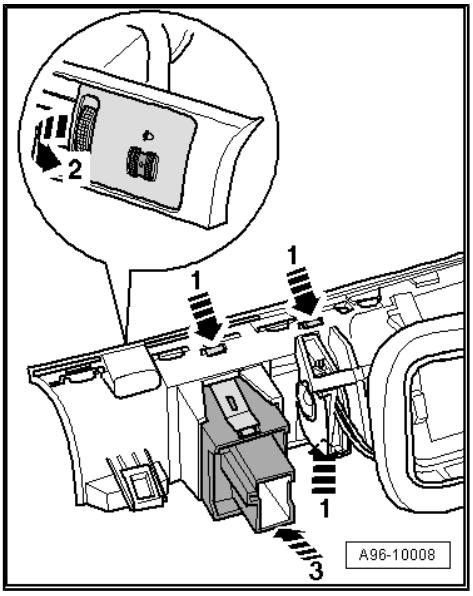
Installing

Install in reverse order.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.6 Removing and installing headlight range control regulator - E102-



Removing

– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.

– Switch off ignition and take out ignition key.

– Remove dash panel vent on driver side ⇒ Rep. gr. 70 .

– Release the retaining clips -arrows 1- and remove trim forwards -arrow 2-.

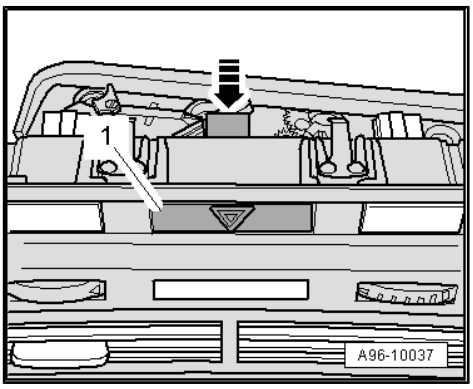
– Release the retaining clips and press out the headlight range control adjuster - E102- -arrow 3-.

Installing

Installation is carried out in the reverse order; note the following:

– Install dash panel vent on driver side ⇒ Rep. gr. 70 .

1.7 Removing and installing hazard warning light switch - E3-



Removing

– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.

– Switch off ignition and take out ignition key.

– Remove dash panel vent (centre) ⇒ Rep. gr. 70 .

– Press hazard warning light switch - E3- -item 1- out of trim panel with vent -arrow-.

Installing

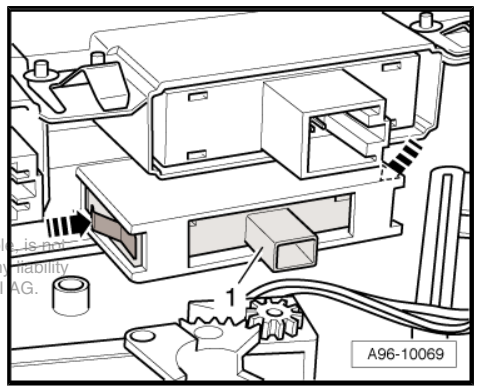
Installation is carried out in the reverse order; note the following:

– Press switch into switch housing until catch engages.

– Install dash panel vent (centre) ⇒ Rep. gr. 70 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.8 Removing and installing warning lamp for airbag deactivated on front passenger side - K145-



Removing

- Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.
- Switch off ignition and take out ignition key.
- Remove dash panel vent (centre) ⇒ Rep. gr. 70 .
- Release retaining clips -arrows- (right and left) and detach warning lamp for airbag deactivated on front passenger side - K145- -item 1- from trim panel with vent.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

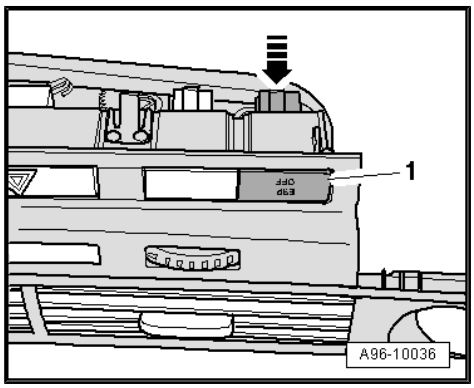
The complete light housing for warning lamp for airbag deactivated on front passenger side - K145- must be renewed if the LED is defective.

Installing

Installation is carried out in the reverse order; note the following:

- Press switch into trim panel with vent until catch engages.
- Install dash panel vent (centre) ⇒ Rep. gr. 70 .

1.9 Removing and installing switches in dash panel



Removing

- Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.
- Switch off ignition and take out ignition key.
- Remove dash panel vent (centre) ⇒ Rep. gr. 70 .
- Push appropriate switch -1- out of trim panel with vent -arrow-.

Installing

Installation is carried out in the reverse order; note the following:

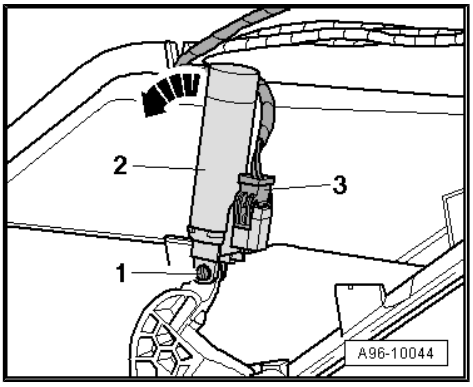
- Press switch into switch housing until catch engages.
- Install dash panel vent (centre) ⇒ Rep. gr. 70 .

1.10 Removing and installing front heated seat regulator -E94- / -E95-

The front seat heating switches are integrated into the Climatronic control unit - J255- (may also be referred to as “front operating and display unit”). They cannot be renewed separately.

- Renew Climatronic control unit - J255- ⇒ Rep. gr. 87 .

1.11 Removing and installing glove compartment light switch - E26-



Removing

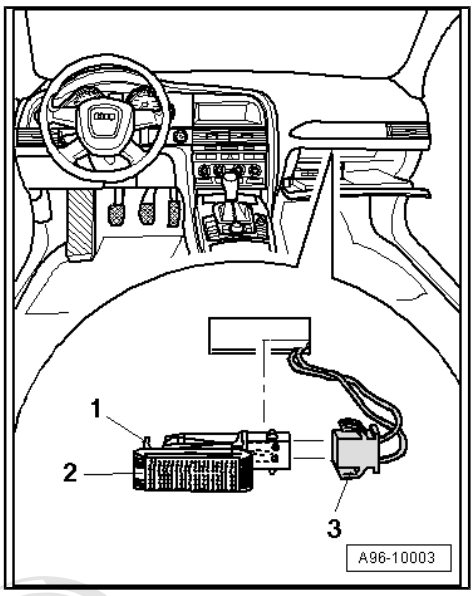
– Switch off ignition and take out ignition key.
– Remove glove box ⇒ Rep. gr. 68 .
– Unplug electrical connector -3-.
– Pull out hinge pin -1-.
– Release switch -2- in anti-clockwise direction -arrow- and detach.

Installing

Installation is carried out in the reverse order; note the following:

– Install glove box ⇒ Rep. gr. 68 .

1.12 Removing and installing glove compartment light



Removing

– Turn light switch to position “0”.
– Use a flat screwdriver to press in retaining tab -1- and pry out glove compartment light -2-.
– Unplug electrical connector -3-.
– Take bulb (12 V, 5 W) on reverse side of glove compartment light out of bulb holder.

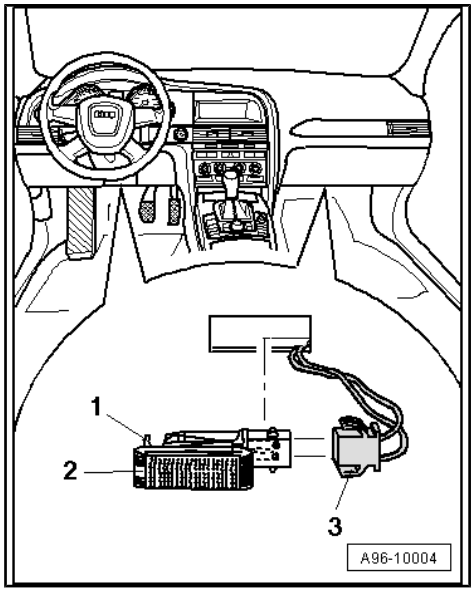
Installing

Installation is carried out in the reverse order; note the following:

– Insert glove compartment light in opening and engage on opposite side.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.13 Removing and installing footwell light (front)



Note

On vehicles with LED footwell light, the entire footwell light must be renewed if the LED is defective.

Removing

– Use a flat screwdriver to press in retaining tab -1- and pry out footwell light -2-.

– Unplug electrical connector -3-.

– Take bulb (12 V, 5 W) on reverse side of footwell light out of bulb holder.

Installing

Installation is carried out in the reverse order; note the following:

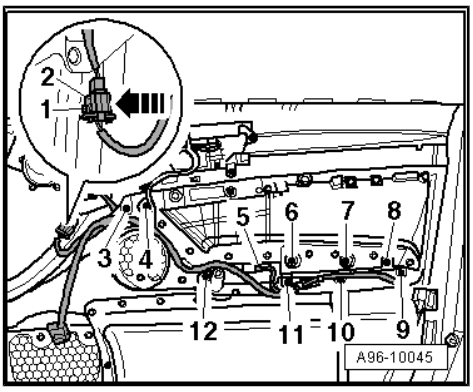
– Insert footwell light in opening and engage on opposite side.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

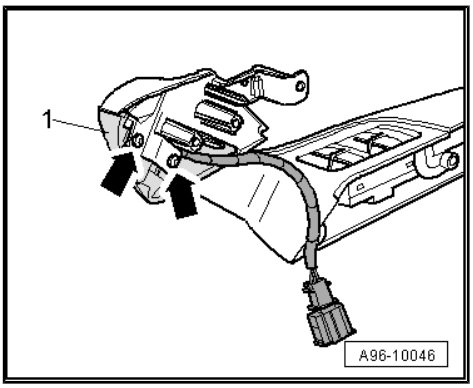
2 Lights and switches in front doors

2.1 Removing and installing mirror adjustment switch

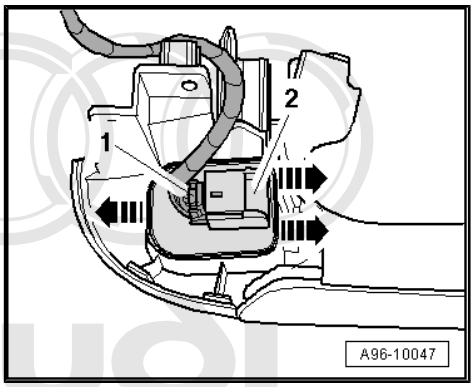
Removing



- Switch off ignition and take out ignition key.
- Remove door trim (front) ⇒ Rep. gr. 70 .
- Release retaining spring -1- and press electrical connector -2- out of retainer -arrow-.
- Unplug electrical connector for mirror adjustment switch.
- Unscrew bolts -3-, -4- and -6 ... 12-.
- Detach armrest and unplug electrical connector -5- for window switch.



- Unscrew bolts -arrows-.
- Detach cover for switch mounting -1- from armrest.



- Unplug electrical connector -1- at mirror adjustment switch -2-.
- Use small screwdriver to carefully release retaining hooks -arrows-.
- Pull mirror adjustment switch downwards out of switch mounting.

Installing

Installation is carried out in the reverse order; note the following:

Note

When installing, make sure symbol trim is inserted before the mirror adjustment switch.

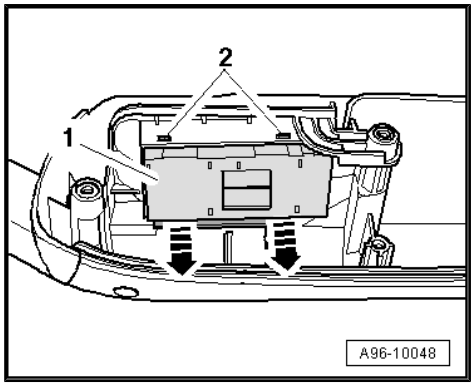
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Press switch into switch mounting until retaining hooks engage.
- Install door trim (front) ⇒ Rep. gr. 70 .

Tightening torques

Component	Nm
Cover for mirror adjustment switch to armrest	2.5
Armrest to door trim	2.5

2.2 Removing and installing operating unit for window regulator in driver door - E512-



Removing

- Switch off ignition and take out ignition key.
- Remove door trim (front) ⇒ Rep. gr. 70 .
- Unplug electrical connector at operating unit for window regulator in driver door - E512- .
- Release fasteners -2- on side of armrest by pressing retaining element -arrows-.
- Pull operating unit for window regulator in driver door - E512- -item 1- downwards out of door trim.

Note

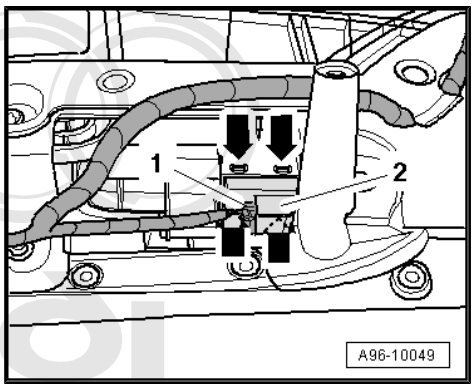
If the operating unit for window regulator in driver door - E512- cannot be removed as described, the armrest must be removed ⇒ Rep. gr. 70.

Installing

Installation is carried out in the reverse order; note the following:

- Press operating unit for window regulator in driver door - E512- into switch mounting until retaining hooks engage.
- Install door trim (front) ⇒ Rep. gr. 70 .

2.3 Removing and installing window regulator switch in front passenger door - E107-



Removing

- Switch off ignition and take out ignition key.
- Remove door trim (front) ⇒ Rep. gr. 70 .
- Use small screwdriver to carefully release retaining hooks -arrows-.
- Pull window regulator switch in front passenger door - E107- -item 2- downwards out of switch mounting.
- Unplug electrical connector -1-.

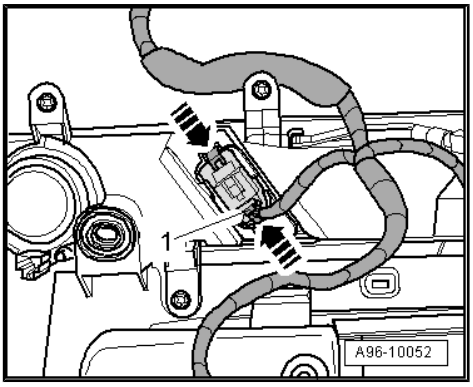
Installing

Installation is carried out in the reverse order; note the following:

- Press window regulator switch in front passenger door - E107- into switch mounting until retaining hooks engage.
- Install door trim (front) ⇒ Rep. gr. 70 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2.4 Removing and installing interior locking switch -E150- / -E198- (central locking button)



Removing

– Switch off ignition and take out ignition key.

– Remove front door trim on relevant side ⇒ Rep. gr. 70 .

– Unplug electrical connector -1-.

– Release retainers -arrows- and press interior locking switch out of door trim towards passenger compartment.

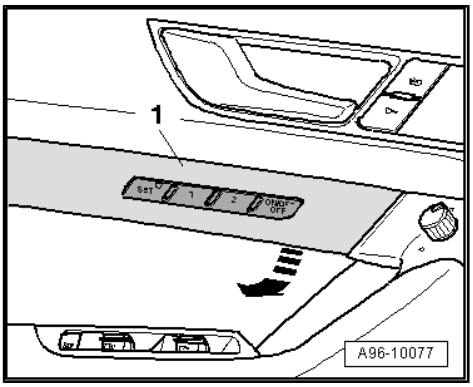
Installing

Installation is carried out in the reverse order; note the following:

– Press interior locking switch into switch mounting until retaining springs engage.

– Install door trim (front) ⇒ Rep. gr. 70 .

2.5 Removing and installing driver seat/front passenger seat memory operating unit -E97- / -E277-

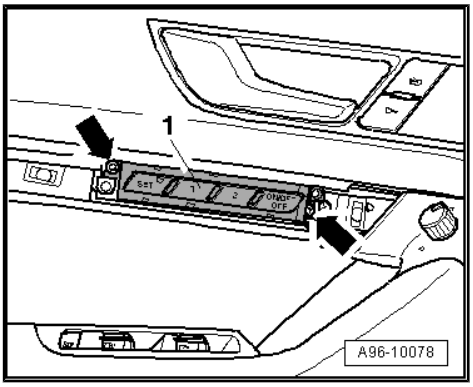


Removing

– Carefully detach trim panel -1- from door trim -arrow-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows-.



– Pull driver seat/front passenger seat memory operating unit -1- out of door trim.

– Unplug electrical connector.

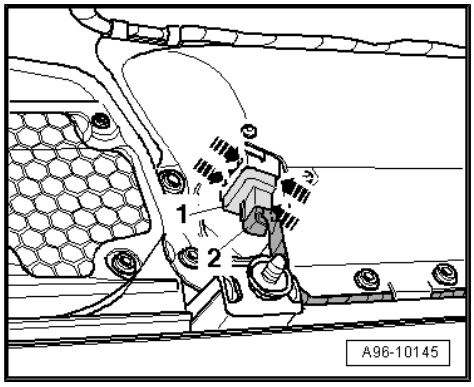
Installing

Install in reverse order.

Tightening torque

Component	Nm
Driver seat/front passenger seat memory operating unit to door trim	1.5

2.6 Removing and installing rear lid remote release button - E233- and fuel tank flap release button - E319-



Removing

– Switch off ignition and take out ignition key.

– Remove door trim (front) ⇒ Rep. gr. 70 .

– Unplug electrical connector -2- on switch for rear lid remote release button - E233- and fuel tank flap release button - E319- -item 1-.

– Use small screwdriver to carefully release retaining hooks -arrows-.

– Pull rear lid remote release button switch - E233- and fuel tank flap release button - E319- downwards out of switch mounting.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

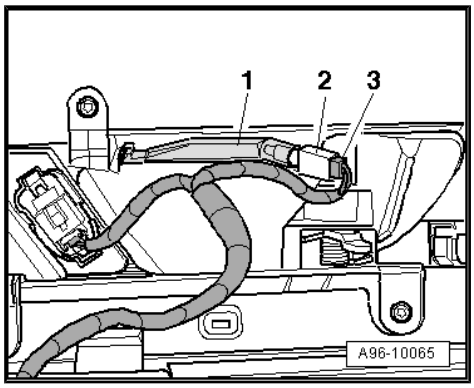
Installing

Installation is carried out in the reverse order; note the following:

– Press switch into switch mounting until retaining hooks engage.

– Install door trim (front) ⇒ Rep. gr. 70 .

2.7 Removing and installing bulb for door opener light



Removing

– Remove relevant door trim ⇒ Rep. gr. 70 .

– Unplug electrical connector -3-.

– Turn bulb holder -2- anti-clockwise and pull out at door opener -1-.

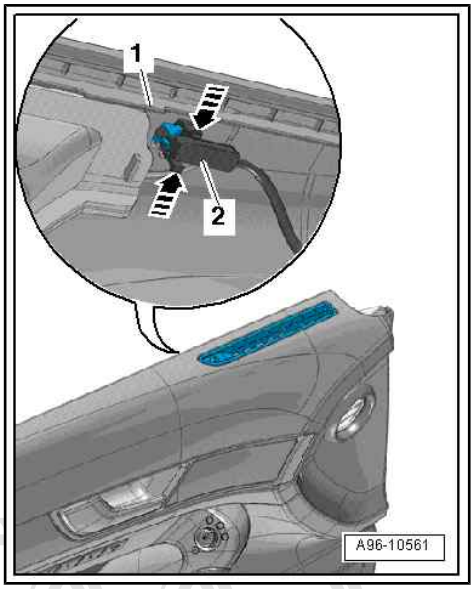
Installing

Installation is carried out in the reverse order; note the following:

– Insert bulb for door opener light in opening and engage.

– Install relevant door trim ⇒ Rep. gr. 70 .

2.8 Removing and installing central locking deadlock function warning lamp -SAFE- - K133-



Removing

– Switch off ignition and take out ignition key.

– Remove door trim (front) ⇒ Rep. gr. 70 .

– Release retaining clips -arrows-.

– Remove LED -1- for central locking downwards out of door trim -2-.

Installing

Installation is carried out in the reverse order; note the following:

Note

The new central locking deadlock function warning lamp -SAFE- - K133- must be connected with the door trim wiring harness.

– Cut through electrical wiring and re-connect with new wiring for central locking deadlock function warning lamp -SAFE- - K133- ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing wiring harnesses .

– Press LED for central locking in so that it engages audibly.

– Install door trim (front) ⇒ Rep. gr. 70 .

2.9 Removing and installing interior door lighting strip

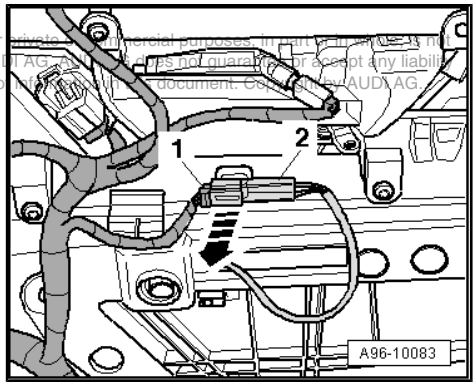
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– Remove relevant door trim ⇒ Rep. gr. 70 .

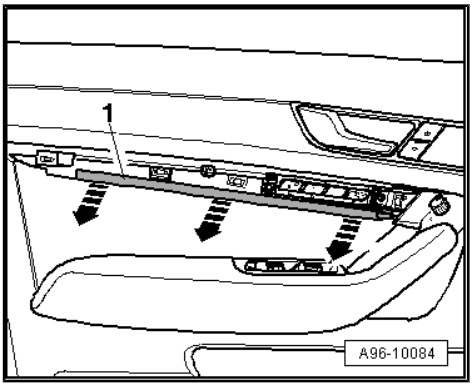
– Unplug electrical connector -1-.

– Unclip plug -2- at door trim in direction of -arrow-.



– Carefully detach lighting strip for door -1- from door trim -arrows-.

– Guide electrical wiring out of door trim.



Installing

Installation is carried out in the reverse order; note the following:

– Insert lighting strip for door into door trim and engage.

– Install relevant door trim ⇒ Rep. gr. 70 .

2.10 Removing and installing door contact switch

The door contact switch is located in the door lock and cannot be renewed separately if defective.

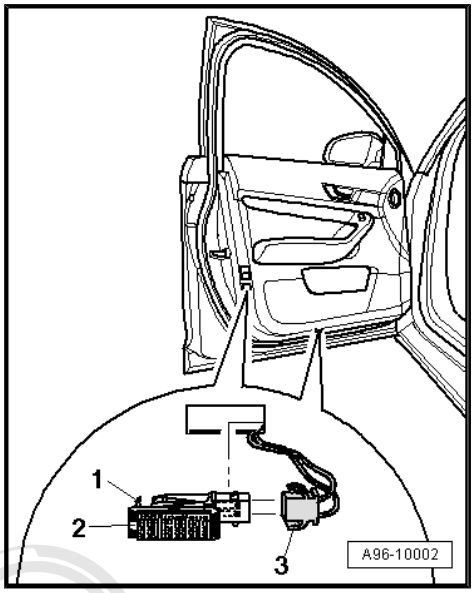
– Renewing front door lock ⇒ Rep. gr. 57 .

2.11 Removing and installing door warning lamp and entry light

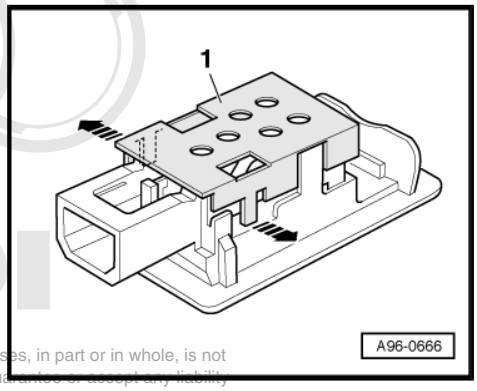
Removing

– Use flat screwdriver to press in retaining tab -1- and pry out door warning lamp/entry light -2-.

– Unplug electrical connector -3-.

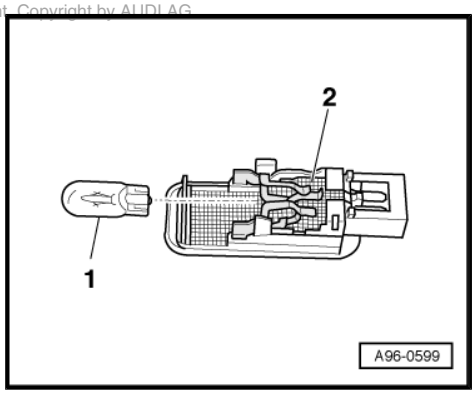


– If fitted, release retaining clips -arrows- and detach cover -1- over bulb.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Take bulb -1- (12 V, 3 W) on back of door warning lamp/entry light out of bulb holder -2-.



Installing

Installation is carried out in the reverse order; note the following:

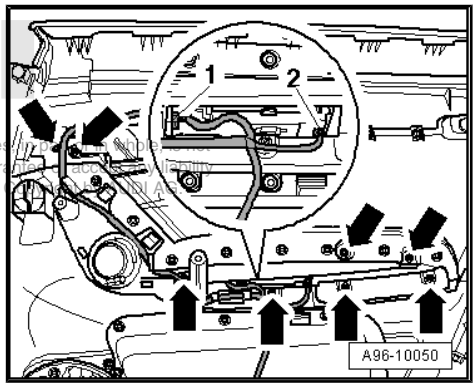
– If fitted previously, attach cover at door warning lamp.

– Insert door warning light/entry light in opening and engage on opposite side.

3 Lights and switches in rear doors

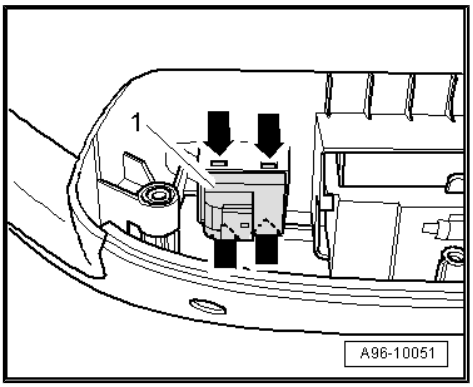
3.1 Removing and installing rear left/rear right window regulator switch, in door -E52- / -E54-

Removing



- Switch off ignition and take out ignition key.
- Remove rear door trim ⇒ Rep. gr. 70 .
- Unscrew bolts -arrows-.
- Unplug electrical connector -1- for window switch and for ash-tray illumination -2-.
- Detach armrest at door trim.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. © Copyright by AUDI AG.



- Use small screwdriver to carefully release retaining hooks -arrows-.
- Pull window regulator switch in rear door -1- downwards out of switch mounting.

Installing

Installation is carried out in the reverse order; note the following:

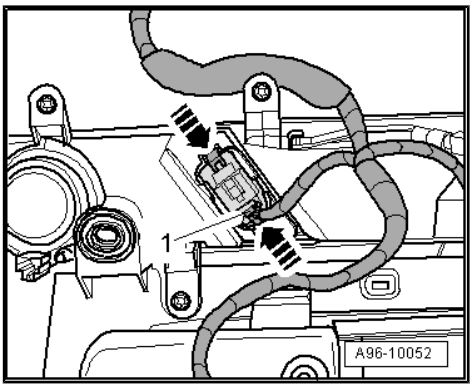
- Press switch into switch mounting until retaining hooks engage.
- Install rear door trim ⇒ Rep. gr. 70 .

Tightening torque

Component	Nm
Armrest to door trim	2.5

3.2 Removing and installing rear interior locking switch -E273- / -E274- (central locking button)

Removing



- Switch off ignition and take out ignition key.
- Remove rear door trim on relevant side ⇒ Rep. gr. 70 .
- Unplug electrical connector -1-.
- Release retainers -arrows- and press rear interior locking switch out of door trim towards passenger compartment.

Installing

Installation is carried out in the reverse order; note the following:

- Press rear interior locking switch into switch mounting until retaining springs engage.
- Install rear door trim ⇒ Rep. gr. 70 .

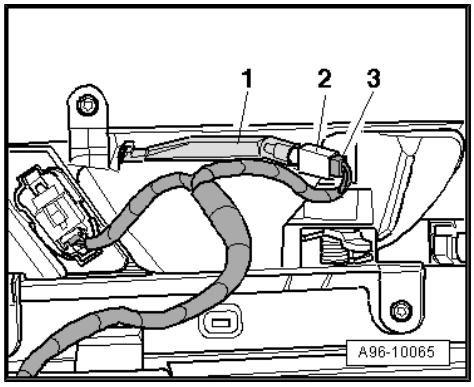
3.3 Removing and installing bulb for door opener light

Removing

– Remove relevant door trim ⇒ Rep. gr. 70 .

– Unplug electrical connector -3-.

– Turn bulb holder -2- anti-clockwise and pull out at door opener -1-.



Installing

Installation is carried out in the reverse order; note the following:

– Insert bulb for door opener light in opening and engage.

– Install relevant door trim ⇒ Rep. gr. 70 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the accuracy of information in this document. Copyright by AUDI AG.

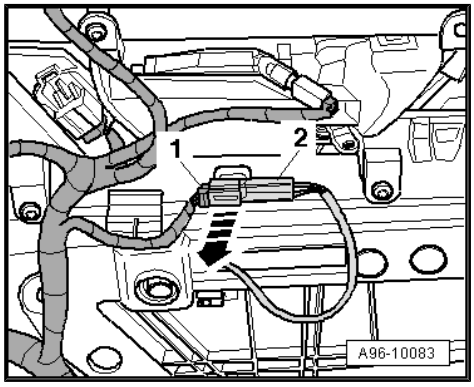
3.4 Removing and installing interior door lighting strip

Removing

– Remove relevant door trim ⇒ Rep. gr. 70 .

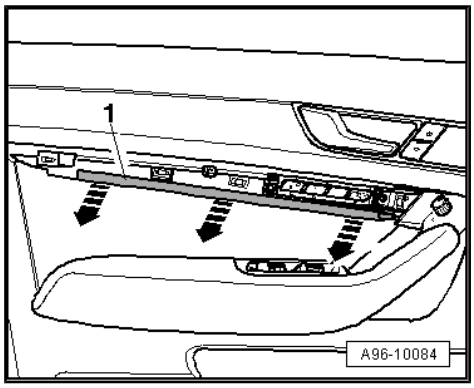
– Unplug electrical connector -1-.

– Unclip plug -2- at door trim in direction of -arrow-.



– Carefully detach lighting strip for door -1- from door trim -arrows-.

– Guide electrical wiring out of door trim.



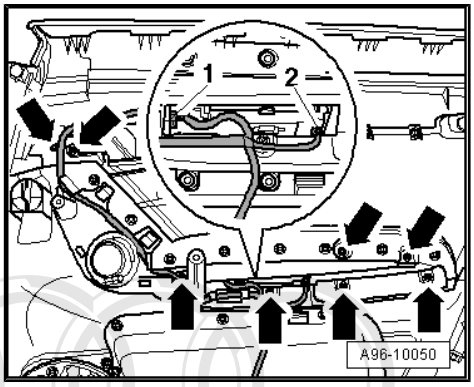
Installing

Installation is carried out in the reverse order; note the following:

– Insert lighting strip for door into door trim and engage.

– Install relevant door trim ⇒ Rep. gr. 70 .

3.5 Removing and installing ashtray light in door (rear)



Removing

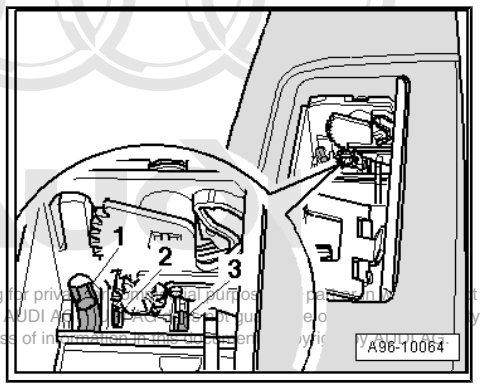
– Switch off ignition and take out ignition key.

– Remove rear door trim ⇒ Rep. gr. 70 .

– Unscrew bolts -arrows-.

– Unplug electrical connector -1- for window switch and for ash-tray illumination -2-.

– Detach armrest at door trim.



– Remove rear ashtray insert.

– Release the retaining clips -2- and -3- and remove ashtray light -1- to rear.

Installing

Installation is carried out in the reverse order; note the following:

– Press ashtray light into mounting until retaining hooks engage.

– Install rear door trim ⇒ Rep. gr. 70 .

Protected by copyright. Copying for private or commercial purposes, in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Tightening torque

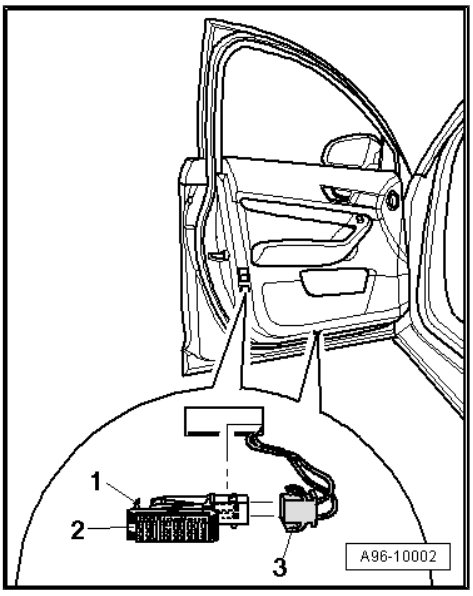
Component	Nm
Armrest to door trim	2.5

3.6 Removing and installing door contact switch

The door contact switch is located in the door lock and cannot be renewed separately if defective.

– Renewing rear door lock ⇒ Rep. gr. 58 .

3.7 Removing and installing door warning lamp and entry light

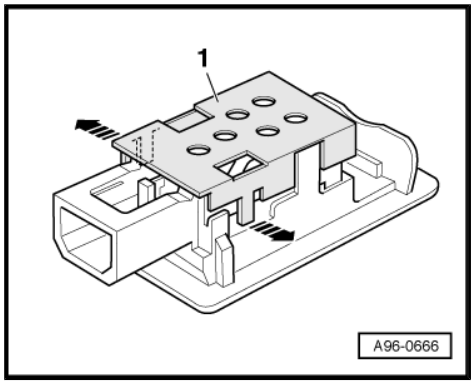


Removing

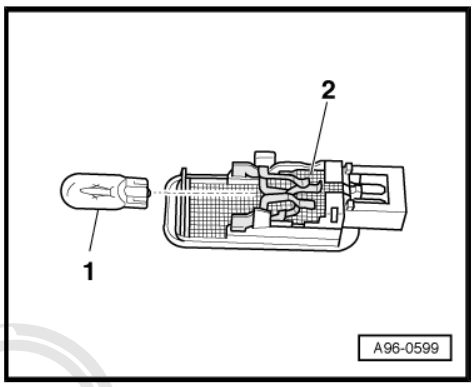
– Use flat screwdriver to press in retaining tab -1- and pry out door warning lamp/entry light -2-.

– Unplug electrical connector -3-.

– If fitted, release retaining clips -arrows- and detach cover -1- over bulb.



– Take bulb -1- (12 V, 3 W) on back of door warning lamp/entry light out of bulb holder -2-.



Installing

Installation is carried out in the reverse order; note the following:

– If fitted previously, attach cover at door warning lamp.

– Insert door warning light/entry light in opening and engage on opposite side.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4 Lights and switches in centre console

4.1 Removing and installing ashtray light (front)

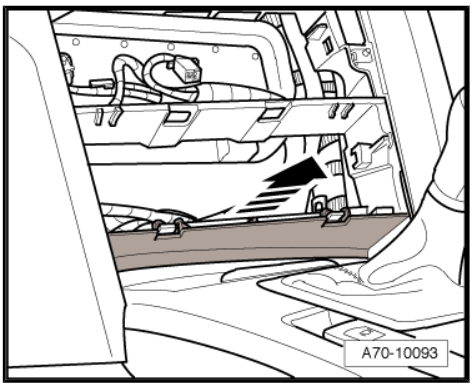
Removing

– On vehicles with automatic gearbox, move selector lever to position “S”.

– Switch off ignition and take out ignition key.

– Remove Climatronic control unit - J255- (operating and display unit) ⇒ Rep. gr. 87 .

– Pull off trim cover above ashtray -arrow-.



– Open front ashtray.

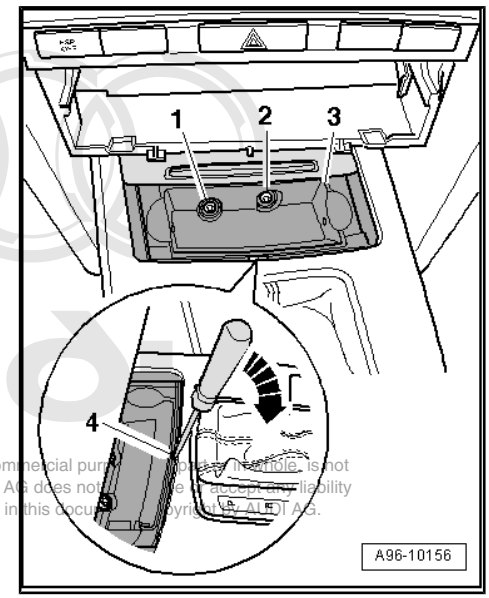
– Remove front ashtray insert.

– Remove bolts -1- and -2-.

– Release ashtray -3- using a screwdriver -arrow- (by applying screwdriver to opening -4-).

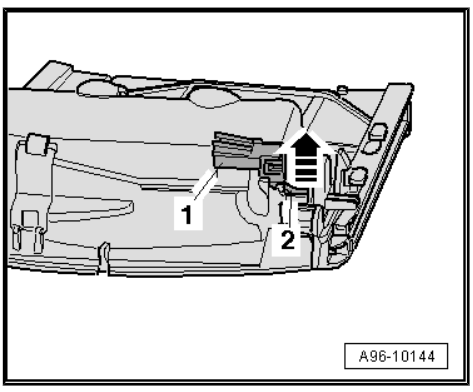
– Remove front ashtray housing.

– Unplug electrical connector.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Release retaining wedge -2- in direction of -arrow- and remove ashtray lighting -1- to rear.



Installing

Installation is carried out in the reverse order; note the following:

– Press ashtray lighting into mounting until retaining wedge engages.

– Install Climatronic control unit - J255- (operating and display unit) ⇒ Rep. gr. 87 .

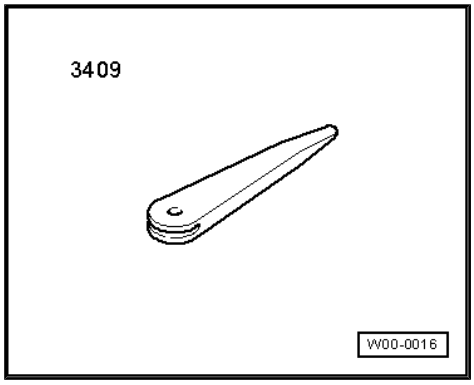
Tightening torque

Component	Nm
Ashtray housing to frame for centre console (front)	3

4.2 Removing and installing parking brake switch - F234-

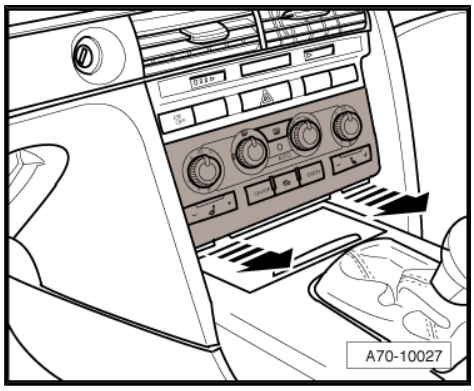
Special tools and workshop equipment required

♦ Removal wedge - 3409-

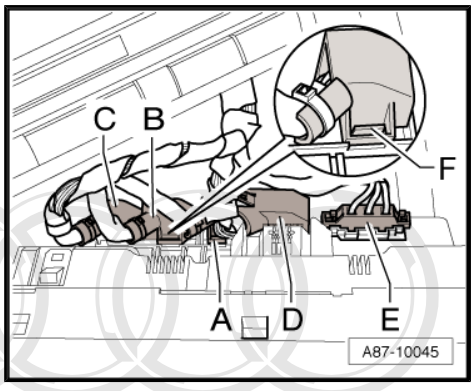


Removing

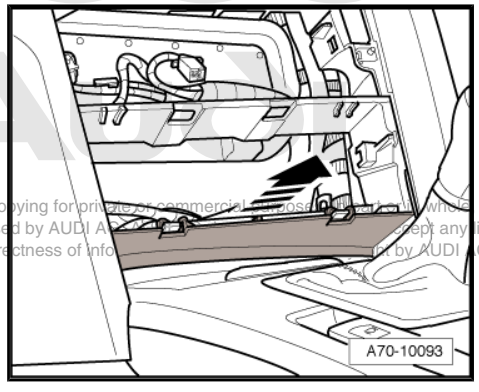
– Remove rear centre console ⇒ Rep. gr. 68 .
– Move seats back as far as possible.
– On vehicles with automatic gearbox, move selector lever to position “S”.
– Switch off ignition and take out ignition key.
– Take hold of Climatronic control unit - J255- (control and display unit) at bottom recesses.
– Pull Climatronic control unit - J255- (control and display unit) out of mounting frame -arrows-.
– Place the Climatronic control unit - J255- (control and display unit) down onto centre console (place a cloth beneath to prevent damage to surface).



– Release retaining clip -F- and unplug electrical connectors in the sequence -A ... D-.
– Unplug electrical connector -E-.

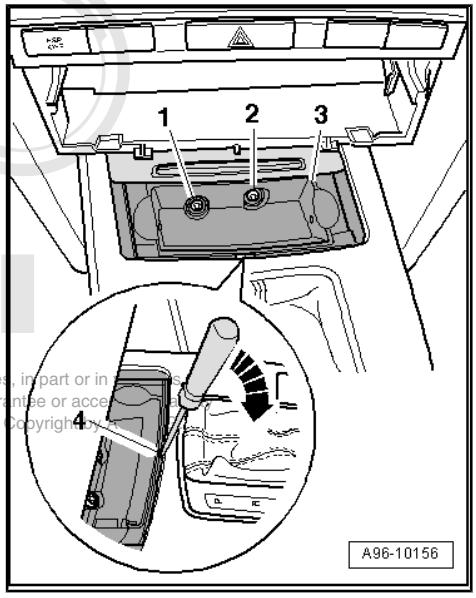


– Pull off trim cover above ashtray -arrow-.



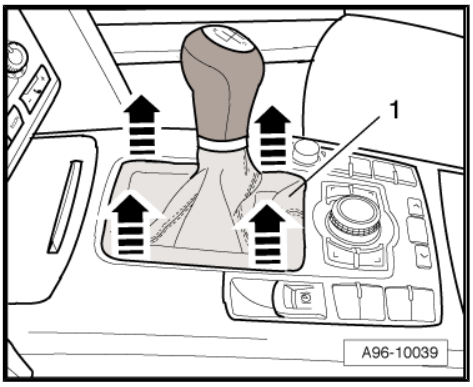
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Open front ashtray.
– Remove front ashtray insert.
– Remove bolts -1- and -2-.
– Release ashtray -3- using a screwdriver -arrow- (by applying screwdriver to opening -4-).
– Remove front ashtray housing.
– Unplug electrical connector if fitted.



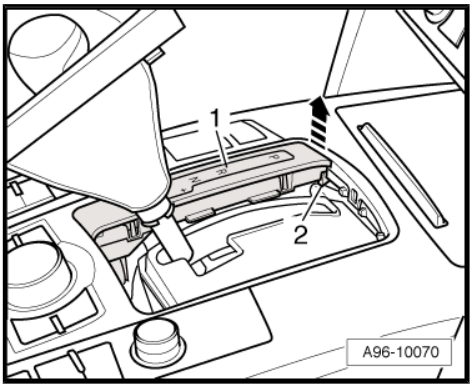
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unclip boot -1- for gear lever (or selector lever on automatic gearbox) on both sides and pull off upwards -arrows-.



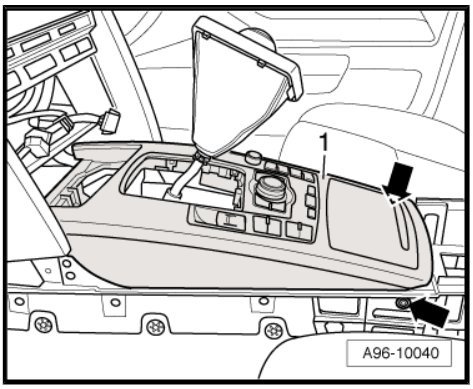
Vehicles with automatic gearbox:

– Release retaining spring -2- and remove selector lever display unit - Y26- -item 1- upwards.
– Unplug electrical connector.

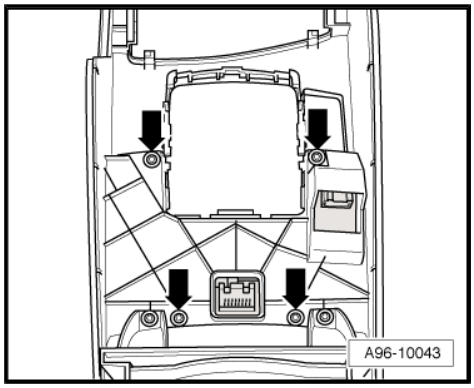


All vehicles:

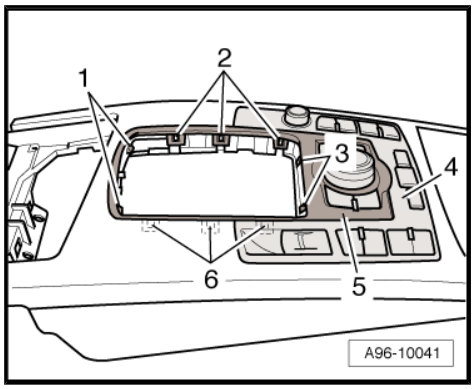
– Unscrew bolts -arrows-.
– Raise centre console (front) -1- at rear slightly and pull it off dash panel towards rear.
– Unplug electrical connectors.



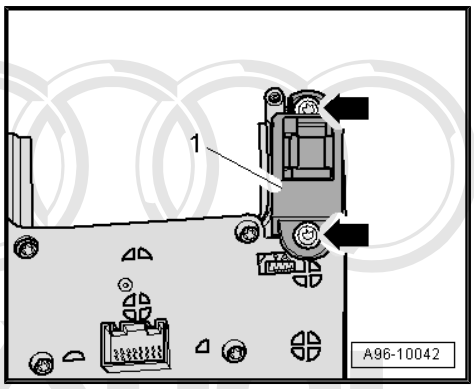
– Unscrew bolts -arrows-.



– Release the retaining clips -1 ... 3- and -6- on the trim frame -5- carefully with a thin screwdriver.
– Remove trim frame together with multimedia system operating unit - E380- -4- upwards out of front centre console.



– Unscrew bolts -arrows-.
– Detach parking brake switch - F234- -item 1- at switch trim.



Installing

Installation is carried out in the reverse order; note the following:

– Install rear centre console ⇒ Rep. gr. 68 .

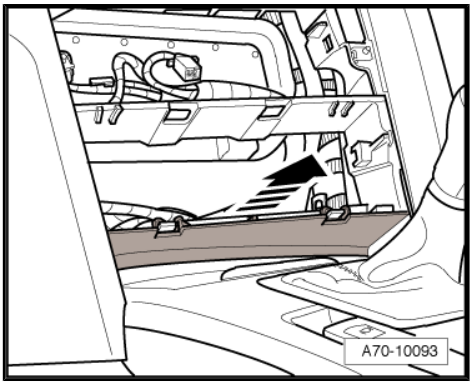
Tightening torques

Component	Nm
Parking brake switch - F234- to switch trim	0.8
Multimedia system operating unit - E380- to centre console (front)	3
Centre console (front) to frame for centre console	3
Ashtray housing to frame for centre console (front)	3

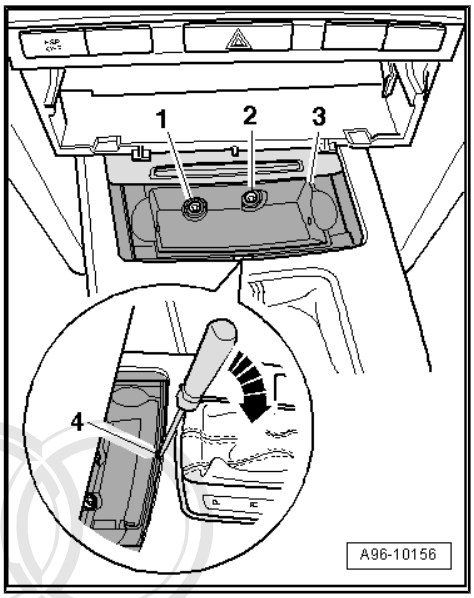
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.3 Removing and installing entry and start authorisation button - E408-

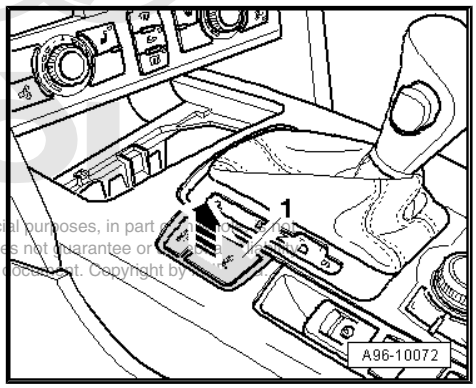
Removing



– On vehicles with automatic gearbox, move the selector lever to position “S”.
– Switch off ignition and take out ignition key.
– Remove Climatronic control unit - J255- (operating and display unit) ⇒ Rep. gr. 87 .
– Pull off trim cover above ashtray -arrow-.



– Open front ashtray.
– Remove front ashtray insert.
– Remove bolts -1- and -2-.
– Release ashtray -3- using a screwdriver -arrow- (by applying screwdriver to opening -4-).
– Remove front ashtray housing.
– Unplug electrical connector if fitted.



– Reach through opening for ashtray and press out entry and start authorisation button - E408- -item 1- -arrow-.
– Unplug electrical connector.

Installing

Installation is carried out in the reverse order; note the following:

– Install Climatronic control unit - J255- (operating and display unit) ⇒ Rep. gr. 87 .

Tightening torque

Component	Nm
Ashtray housing to frame for centre console (front)	3

Audi
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.4 Removing and installing selector lever position display - Y26-

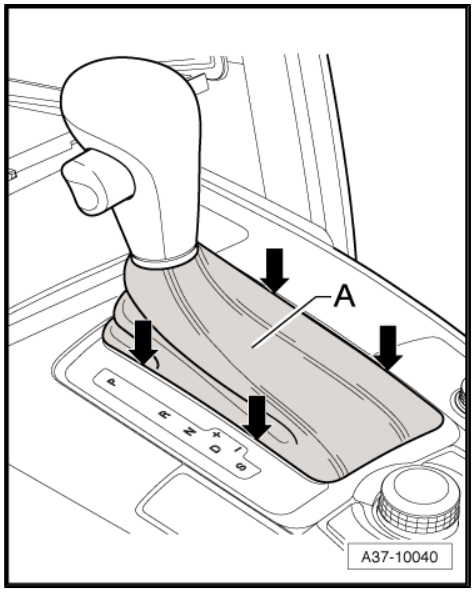
Removing

– Shift selector lever to “N” position.

– Switch off ignition and take out ignition key.

– Unclip retaining frame for selector lever boot -1- from centre console and detach upwards -arrows-.

– Pull up boot for selector lever and turn inside out.

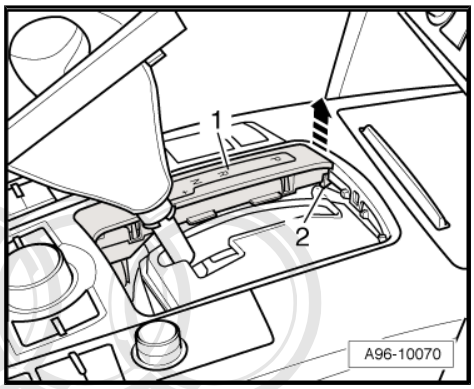


– Release retaining spring -2- and detach selector lever display unit - Y26- -item 1- -arrow-.

– Unplug electrical connector.

Installing

Install in reverse order.



4.5 Removing and installing special signal switch - Audi A6 Security

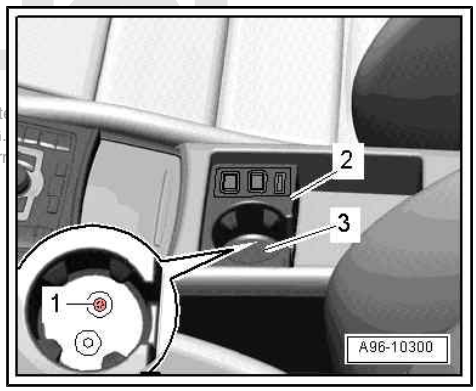
Removing

– Remove lining mat -3-.

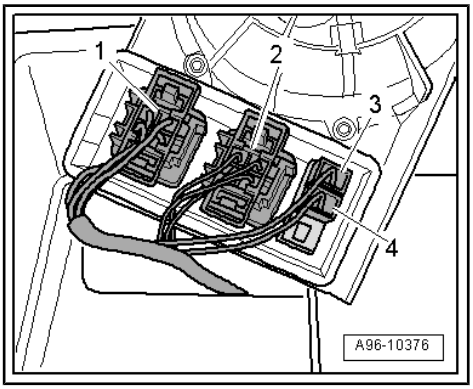
– Remove bolt -1-.

– Take cup holder -2- out of rear centre console.

Protected by copyright. Copying for privat
permitted unless authorised by AUDI AG.
pect to the correctness of infor



– Unplug electrical connectors -1 ... 4-.
– Release retaining clips and remove special signal switch from cup holder.



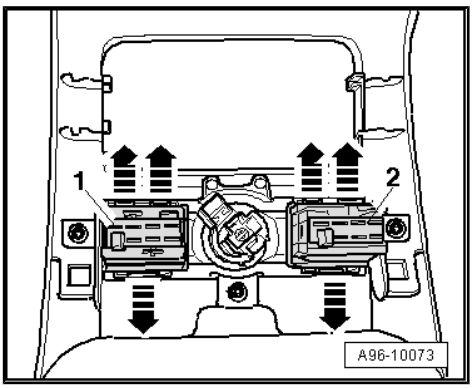
Installing

Install in reverse order.

4.6 Removing and installing heated rear seat switch with regulator -E128- / -E129-

Removing

– Switch off ignition and take out ignition key.
– Remove vent in rear centre console ⇒ Rep. gr. 68 .
– Reach through opening and release retaining clips -arrows-.
– Take switch -E128- -item 2- and switch -E129- -item 1- out of mounting.



Note

Illustration shows centre console (rear) removed.

– Unplug electrical connector.

Installing

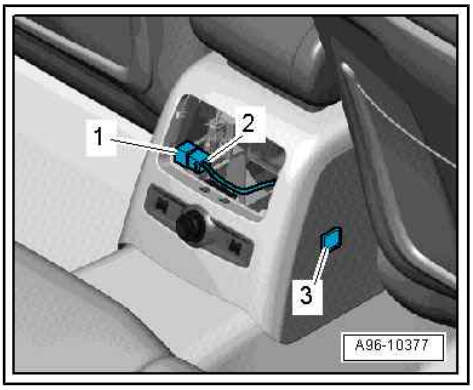
Installation is carried out in the reverse order; note the following:

– Install vent in rear centre console ⇒ Rep. gr. 68 .

4.7 Removing and installing alarm switch in rear centre console - Audi A6 Security

Removing

– Switch off ignition and take out ignition key.
– Remove vent in rear centre console ⇒ Rep. gr. 68 .
– Unplug electrical connector -2- at alarm switch in rear centre console.
– Reach through opening and release retaining clips.
– Remove alarm switch -1- and -3- in rear centre console from mounting.



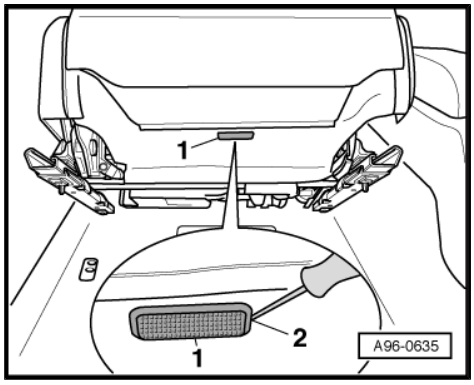
Installing

Installation is carried out in the reverse order; note the following:

– Install vent in rear centre console ⇒ Rep. gr. 68 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.8 Removing and installing footwell light (rear)



Note

On vehicles with LED footwell light, the entire footwell light must be renewed if the LED is defective.

Removing

– Use a flat screwdriver to press in retaining tab -2- and pry out footwell light -1-.

– Unplug electrical connector.

– Take bulb (12 V, 5 W) on reverse side of footwell light out of bulb holder.

Installing

Installation is carried out in the reverse order; note the following:

– Insert footwell light in opening and engage on opposite side.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

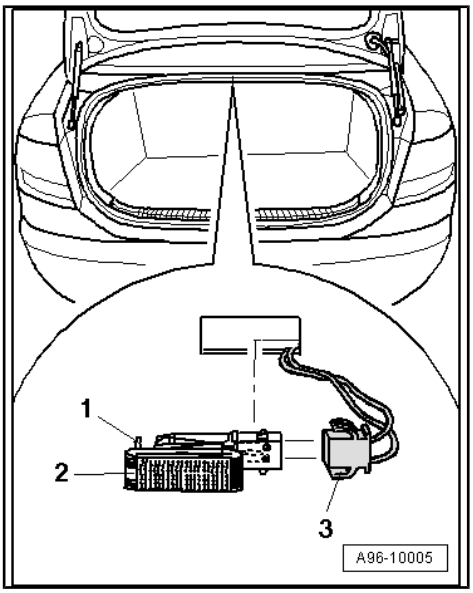
5 Lights and switches in luggage compartment

5.1 Removing and installing luggage compartment light - Saloon

Removing

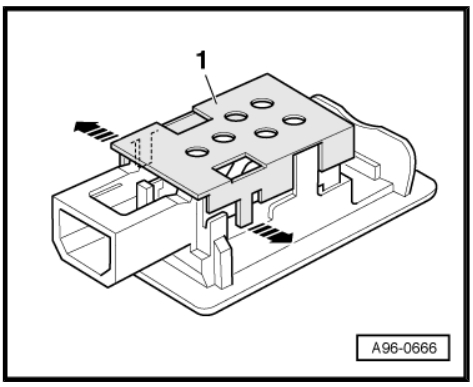
– Use flat screwdriver to press in retainer tab -1- and pry out luggage compartment light -2-.

– Unplug electrical connector -3-.

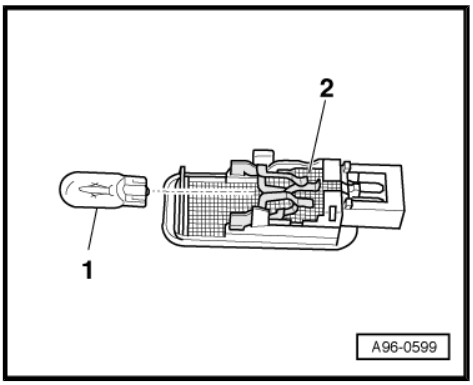


– Release retaining clips -arrows- and detach cover -1- over bulb.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



– Take bulb -1- (12 V, 5 W) on back of luggage compartment light out of bulb holder -2-.



Installing

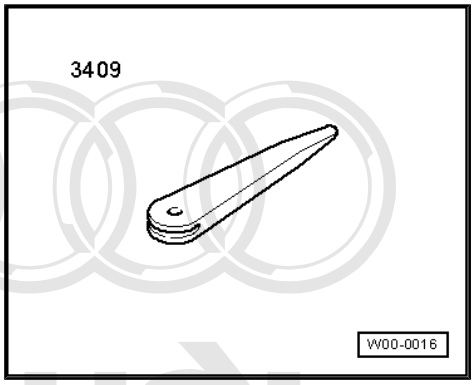
Installation is carried out in the reverse order; note the following:

– Insert luggage compartment light in opening and engage on opposite side.

5.2 Removing and installing luggage compartment light - Avant

Special tools and workshop equipment required

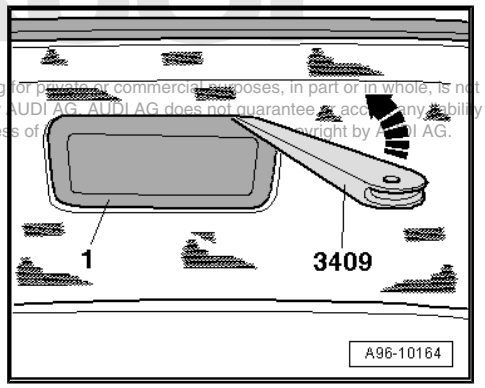
♦ Removal wedge - 3409-



Removing

– Carefully pry luggage compartment light -1- out of opening in headliner using removal wedge - 3409- -arrow-.

– Unplug electrical connector.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

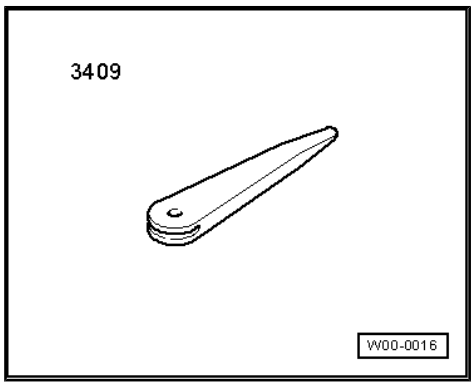
Installation is carried out in the reverse order; note the following:

– Insert luggage compartment light in opening in headliner and engage.

5.3 Removing and installing bulb for luggage compartment light - Avant

Special tools and workshop equipment required

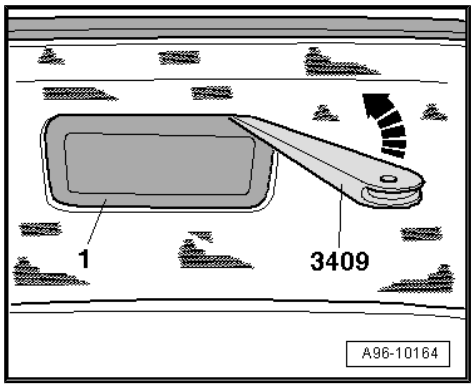
♦ Removal wedge - 3409-



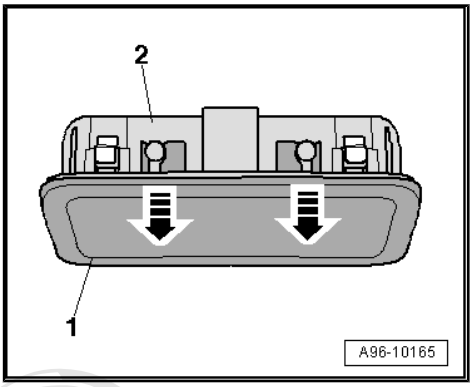
Removing

– Carefully pry luggage compartment light -1- out of opening in headliner using removal wedge - 3409- -arrow-.

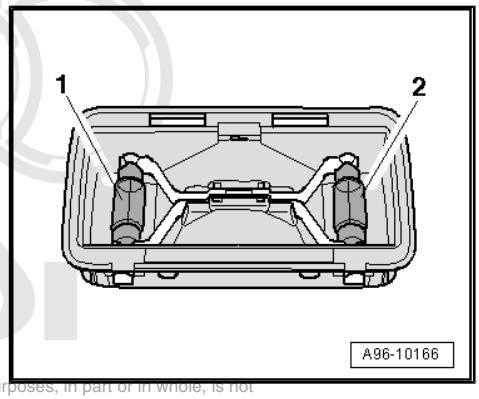
– Unplug electrical connector.



– Carefully pull interior light lens -1- off retainer -2- -arrows-.



– Take bulb -1- or -2- (12 V, 6 W) out of clamp-type bulb holder.



Installing

Installation is carried out in the reverse order; note the following:

– Press on lens for luggage compartment light until it engages.

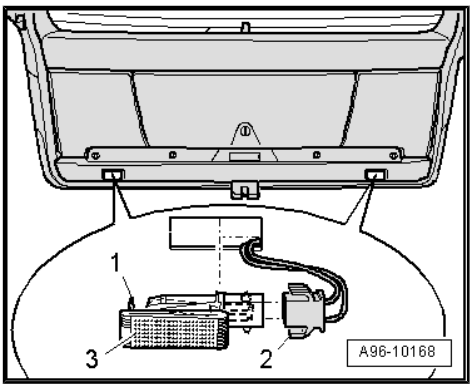
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.4 Removing and installing rear lid light - Avant

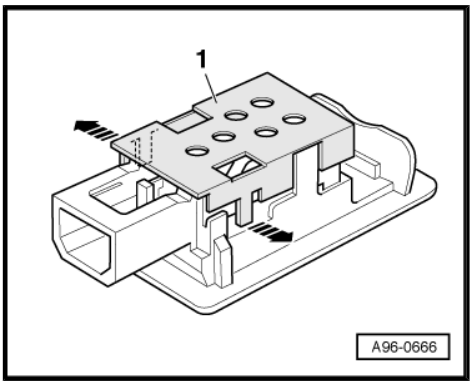
Removing

– Use flat screwdriver to press in retainer tab -1- and pry out rear lid light -3-.

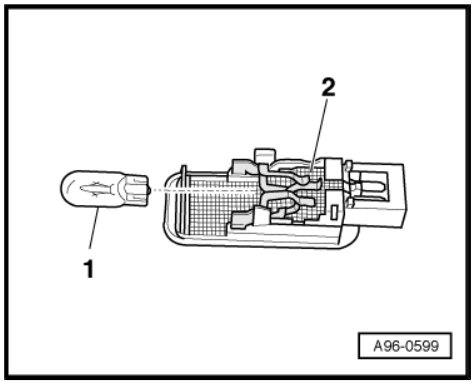
– Unplug electrical connector -2-.



– Release retaining clips -arrows- and detach cover -1- over bulb.



– Take bulb -1- (12 V, 5 W) on back of rear lid light out of bulb holder -2-.



Installing

Installation is carried out in the reverse order; note the following:

– Insert rear lid light in opening and engage on opposite side.

5.5 Removing and installing alarm switch in luggage compartment - Audi A6 Security

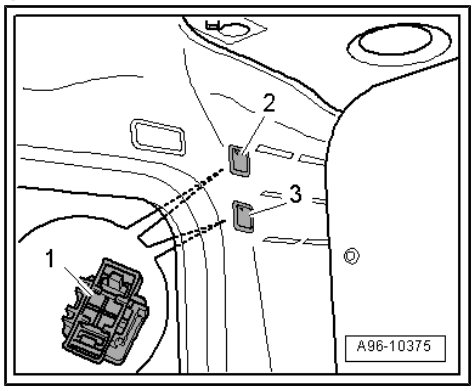
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Removing

– Remove cover on luggage compartment side trim (left-side).

– Reach through opening and unplug the electrical connector -1-.

– Release retaining clips and remove alarm switch -2- and -3- from luggage compartment side trim in luggage compartment.



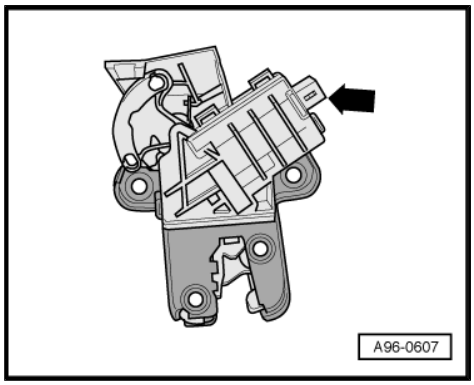
Installing

Install in reverse order.

5.6 Removing and installing contact switch in lock cylinder for rear lid, anti-theft system and central locking system - F124-

The contact switch in lock cylinder for rear lid, anti-theft system and central locking system - F124- is located in rear lid lock -arrow- and cannot be renewed separately if defective.

– Renewing rear lid lock ⇒ Rep. gr. 55 .



5.7 Removing and installing button to close rear lid in luggage compartment - E406-

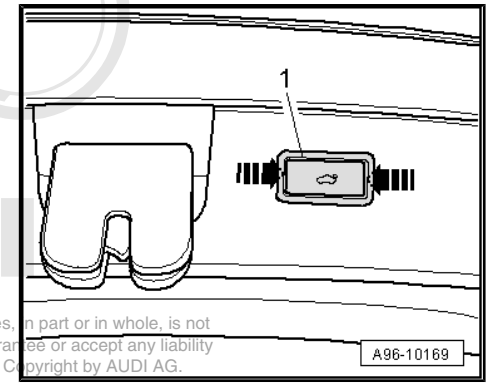
Removing

– Switch off ignition and take out ignition key.

– Release retaining springs -arrows- at button to close rear lid in luggage compartment - E406- .

– Carefully guide button to close rear lid in luggage compartment - E406- out of rear lid trim.

– Unplug electrical connector.



Installing

Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

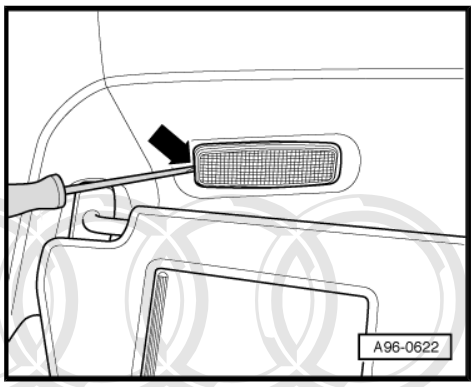
6 Lights and switches in roof trim

6.1 Removing and installing vanity mirror light -W14- / -W20-

Removing

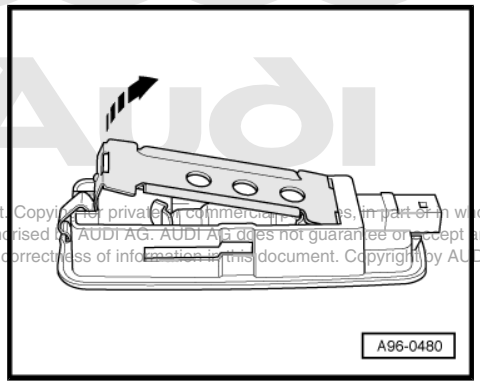
– Use flat screwdriver to carefully pry out vanity mirror light at recess -arrow-.

– Unplug electrical connector.



– Detach cover over bulb -arrow-.

– Take bulb (12 V, 5 W) out of bulb holder.



Installing

Install in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6.2 Removing and installing contact switch for vanity mirror -F147- / -F148-

The contact switch for the vanity mirror is located in the sun visor bracket and cannot be renewed separately if defective.

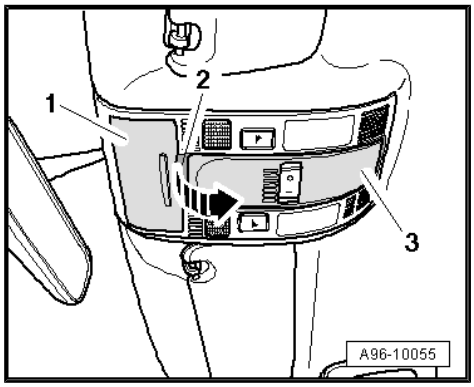
– Renewing sun visor ⇒ Rep. gr. 70

6.3 Removing and installing interior light/ reading light (front)

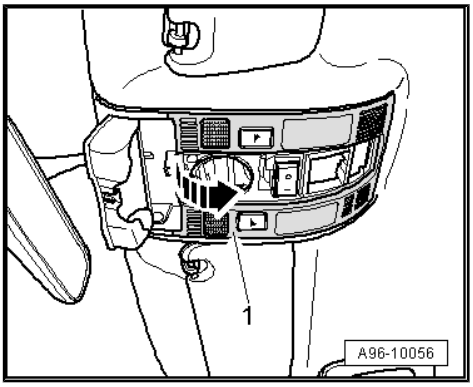
Removing

– Switch off ignition and take out ignition key.

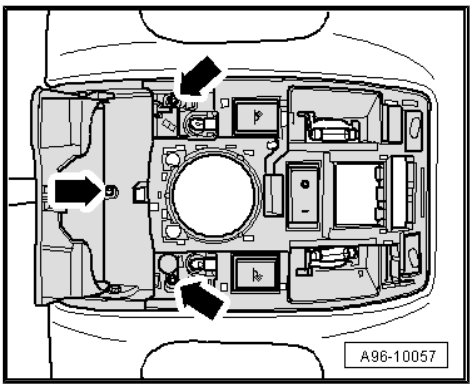
– Open the sunglasses compartment -1- and release the centre cover -2- and -3- for the interior light/reading light -arrow-.



– Release the lens -1- for interior light/reading light -arrow-.



– Unscrew bolts -arrows-.
– Pivot front interior light downwards and remove from roof trim.



Note

-Left arrow- is only applicable on some versions.

– Unplug electrical connectors.

Installing

Installation is carried out in the reverse order; note the following:

– Fit interior light and secure.
– Press on cover for interior light until it engages.

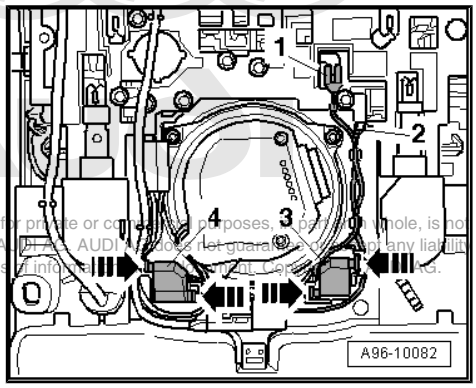
Tightening torque

Component	Nm
Interior light to roof trim	2

6.4 Removing and installing LED for background lighting

Removing

– Remove interior light/reading light (front) ⇒ page 388 .
– Unplug electrical connectors -1- and -2-.
– Release retaining clips -arrows- and remove LED for background lighting -3- and -4- from interior light/reading light.



Installing

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information. Copyright by AUDI AG.

Installation is carried out in the reverse order; note the following:

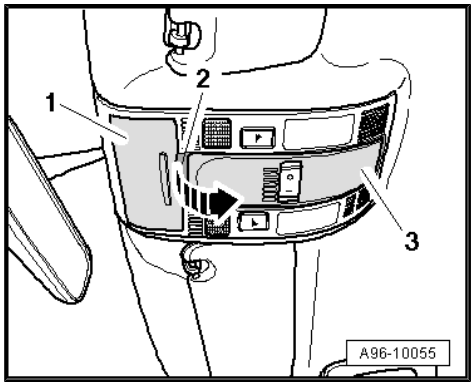
– Plug in electrical connector.
– Install interior light/reading light (front) ⇒ page 388 .

6.5 Renewing bulbs for interior light (front)

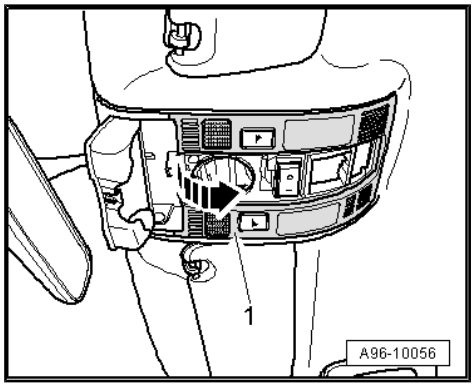
Removing

– Switch off ignition and take out ignition key.

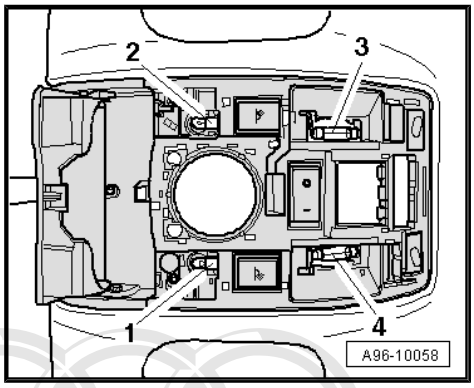
– Open the sunglasses compartment -1- and release the centre cover -2- and -3- for the interior light/reading light -arrow-.



– Release the lens -1- for interior light/reading light -arrow-.



– Take bulb -3- or -4- (12 V, 10 W) out of clamp-type bulb holder.



Note

Disregard -item 1- and -item 2-.

Installing

Installation is carried out in the reverse order; note the following:

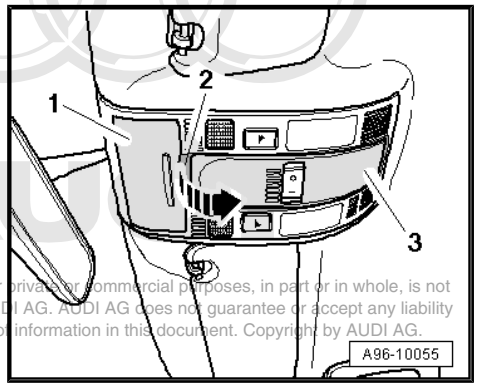
– Press on cover for interior light until it engages.

6.6 Renewing bulbs for reading light (front)

Removing

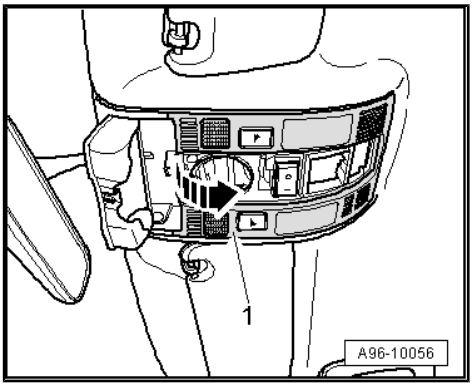
– Switch off ignition and take out ignition key.

– Open the sunglasses compartment -1- and release the centre cover -2- and -3- for the interior light/reading light -arrow-.

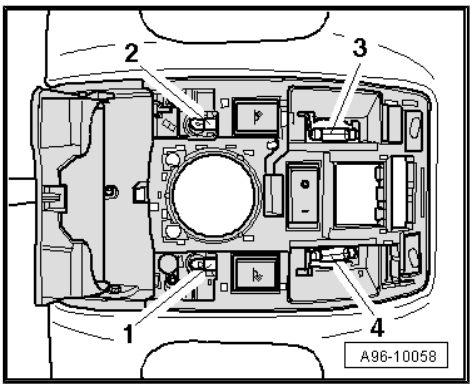


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Release the lens -1- for interior light/reading light -arrow-.



– Screw bulb -1- or -2- (12 V, 5 W) out of bulb holder.



Note

Disregard -item 3- and -item 4-.

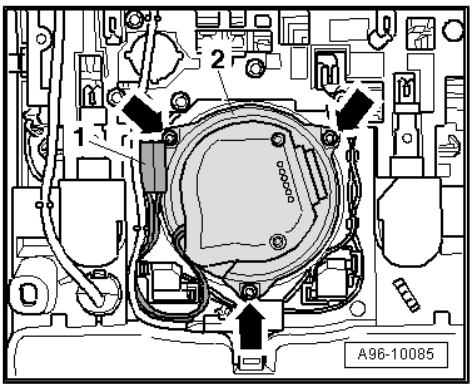
Installing

Installation is carried out in the reverse order; note the following:

– Press on cover for interior light until it engages.

6.7 Removing and installing sliding sunroof adjustment regulator - E139-

Removing



– Remove interior light/reading light (front) ⇒ page 388 .
– Unplug electrical connector -1-.
– Unscrew bolts -arrows-.
– Take sliding sunroof adjustment regulator - E139- -item 2- out of interior light/reading light.

Installing

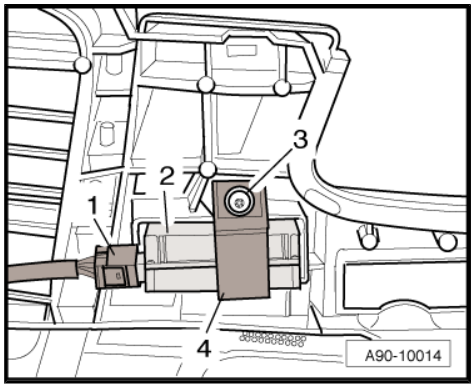
Installation is carried out in the reverse order; note the following:

– Plug in electrical connector.
– Install interior light/reading light (front) ⇒ page 388 .

Component	Nm
Sunroof switch to interior light/reading light	1.5

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6.8 Removing and installing garage door operation control unit - J530-



Removing

– Remove front bumper cover ⇒ Rep. gr. 63 .
– Unscrew bolt -3- and remove retaining clip -4-.
– Take garage door operation control unit -2- out of bumper cover.
– Unplug electrical connector -1-.

Installing

Installation is carried out in the reverse order; note the following:

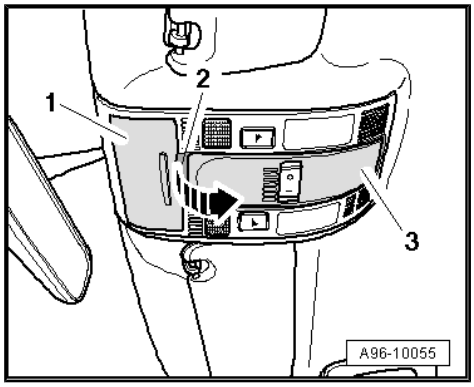
– Install front bumper cover ⇒ Rep. gr. 63 .

Tightening torque

Component	Nm
Garage door operation control unit - J530- to bumper cover	2.5

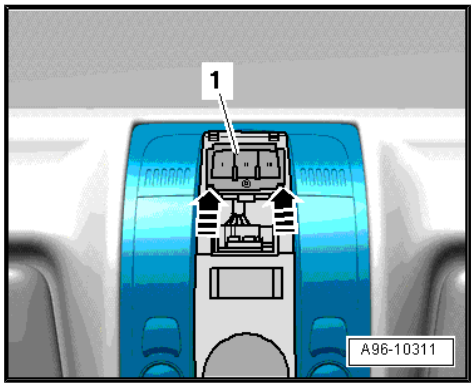
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. Otherwise this copy is not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6.9 Removing and installing garage door operating unit - E284-



Removing

– Switch off ignition and take out ignition key.



– Use a small screwdriver to release retaining clips -arrows- and swivel garage door operating unit - E284- out of interior light/ reading light.
– Unplug electrical connector.

Installing

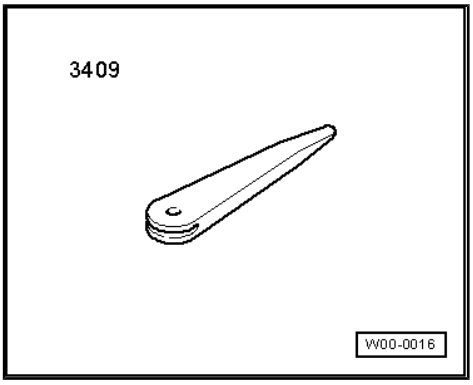
Installation is carried out in the reverse order; note the following:

– Plug in electrical connector.
– Press on centre cover for interior light/reading light until it engages.

6.10 Removing and installing interior light/ reading light (rear) with rectangular lens

Special tools and workshop equipment required

♦ Removal wedge - 3409-



Removing

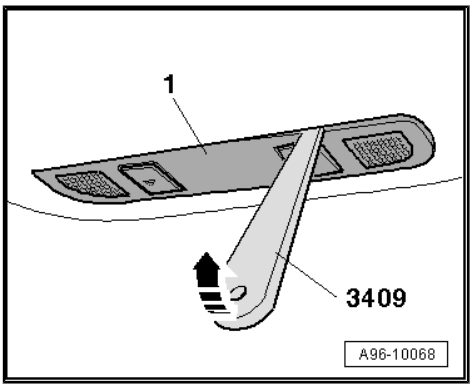
– Carefully pry interior light/reading light -1- out of opening in headliner using removal wedge - 3409- -arrow-.

– Unplug electrical connector.

Installing

Installation is carried out in the reverse order; note the following:

– Insert interior light/reading light in opening in headliner and clip into place.

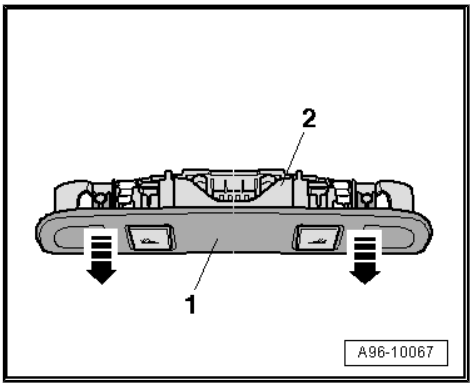


6.11 Renewing bulb for interior light/reading light (rear) with rectangular lens

Removing

– Remove interior light/reading light (rear) ⇒ page 392 .

– Carefully pull interior light lens -1- off retainer -2- -arrows-.

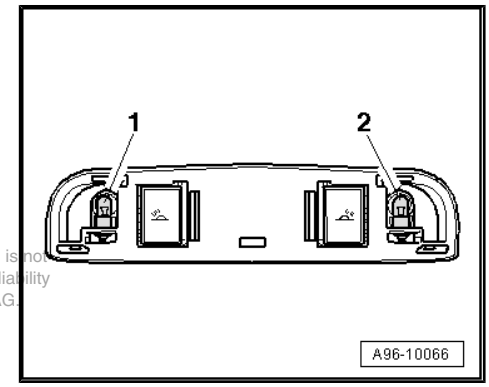


– Unscrew bulb -1- or -2- (12 V, 5 W) from bulb holder.

Installing

Installation is carried out in the reverse order; note the following:

– Press on cover for interior light until it engages.

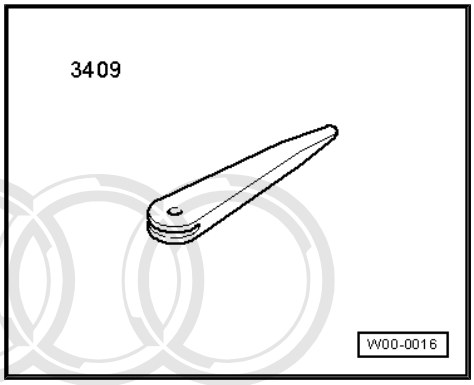


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6.12 Removing and installing interior light/ reading light (rear) with round lens

Special tools and workshop equipment required

♦ Removal wedge - 3409-



Removing

– Carefully pry interior light/reading light -1- out of opening in headliner using removal wedge - 3409- -arrow-.

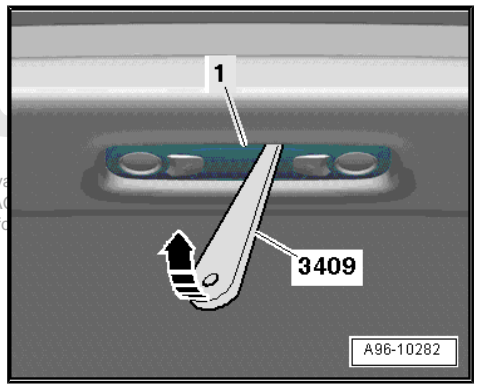
– Unplug electrical connector.

Installing

Protected by copyright. Copying for priva
permitted unless authorised by AUDI A
will constitute a breach of info

Installation is carried out in the reverse order; note the following:

– Insert interior light/reading light in opening in headliner and clip into place.



6.13 Renewing bulb for interior light/reading light (rear) with round lens

Removing

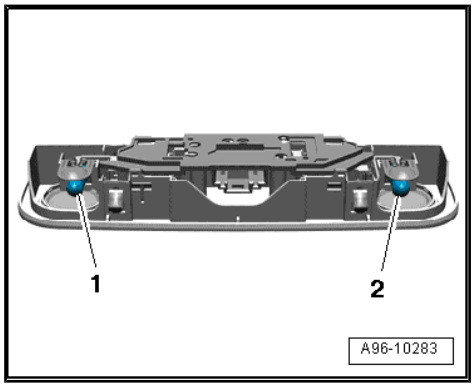
– Remove interior light/reading light (rear) ⇒ page 393 .

– Screw bulb -1- or -2- (12 V, 5 W) out of bulb holder.

Installing

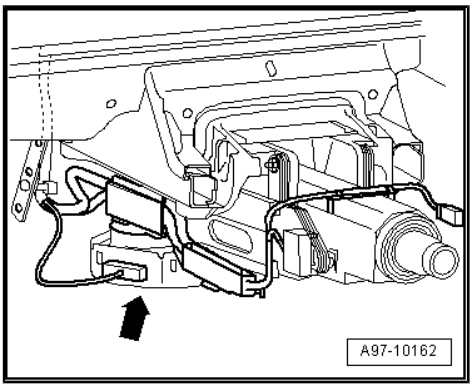
Installation is carried out in the reverse order; note the following:

– Press on cover for interior light/reading light until it engages.



7 Immobiliser

- Immobiliser control system is integrated in entry and start authorisation control unit - J518- ⇒ Electrical system; General information; Rep. gr. 96 ; Immobiliser
- The entry and start authorisation control unit - J518- -arrow- with integrated steering column lock control element - N360- is located at the steering column and cannot be renewed separately if defective. Renewing steering column ⇒ Rep. gr. 48
- The headlight screen adjustment solenoid is located in the headlight housing beneath the gas discharge bulb and cannot be renewed separately in the event of a fault.
- If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8 Entry and start authorisation system

8.1 Overview of entry and start authorisation system

1 - Aerial reader unit for keyless entry system - J723-

- ❑ Fitting location: behind glove box
- ❑ Removing and installing ⇒ page 402

2 - Entry and start authorisation switch - E415-

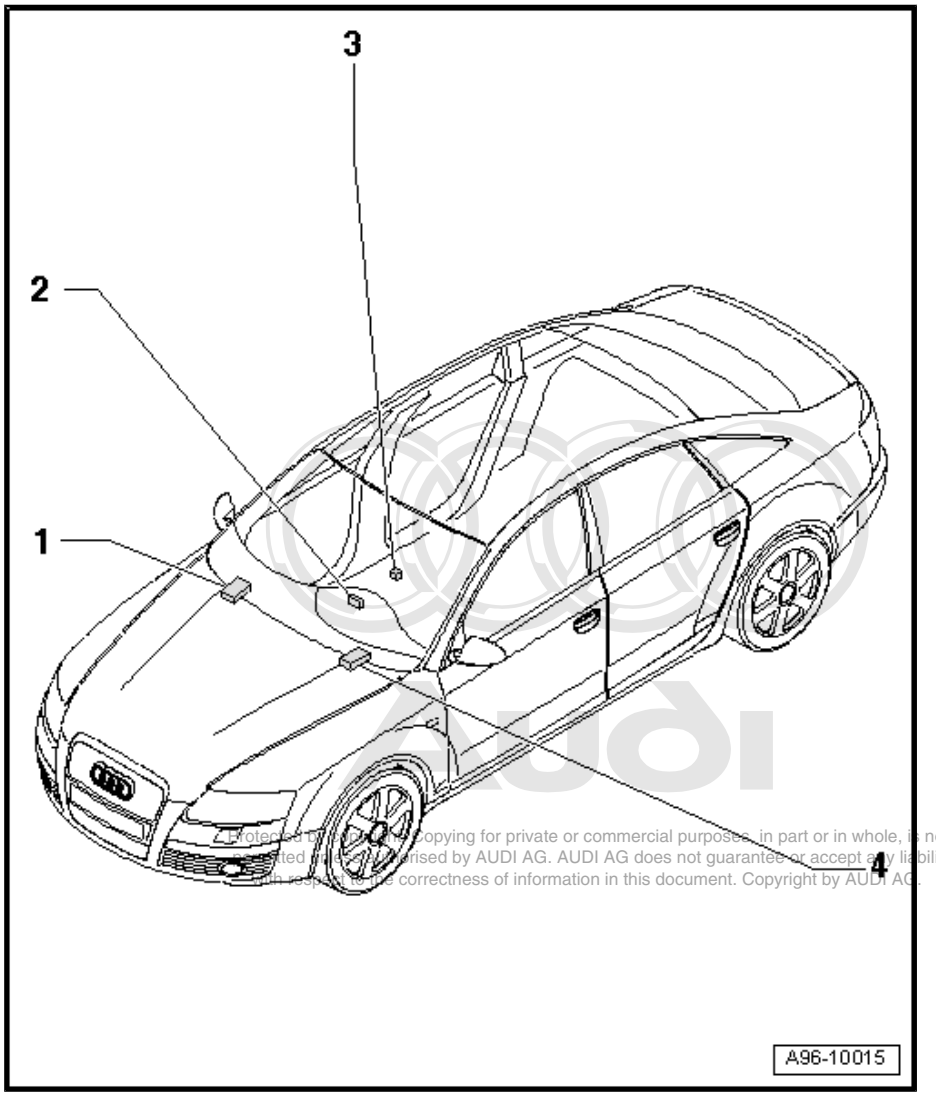
- ❑ Fitting location: in dash panel on driver's side
- ❑ Removing and installing ⇒ page 346

3 - Entry and start authorisation button - E408-

- ❑ Fitting location: in mounting frame for multimedia system operating unit - E380-
- ❑ Removing and installing ⇒ page 379

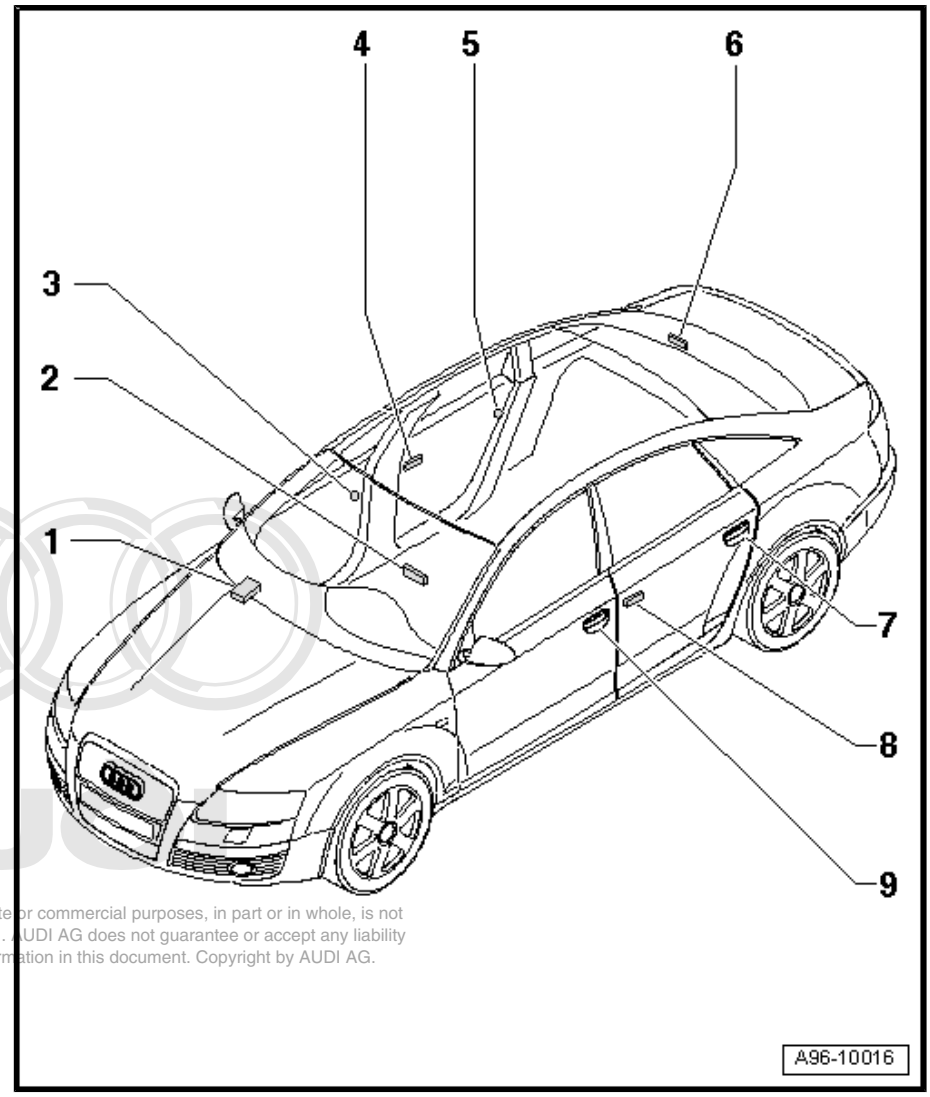
4 - Entry and start authorisation control unit - J518-

- ❑ With integrated steering column lock control element - N360-
- ❑ Removing and installing ⇒ Rep. gr. 48



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8.2 Overview of keyless entry system



1 - Aerial reader unit for keyless entry system - J723-

- ❑ Fitting location: behind luggage compartment side trim (right-side)
- ❑ Removing and installing ⇒ page 402

2 - Interior aerial 1 for entry and start authorisation - R138-

- ❑ Fitting location: beneath front centre console
- ❑ Removing and installing ⇒ page 400

3 - Front passenger's exterior door handle

- ❑ Exploded view ⇒ page 398

4 - Front passenger side aerial for entry and start authorisation - R135-

- ❑ Fitting location: on door trim (rear)
- ❑ Removing and installing ⇒ page 401

5 - Rear right exterior door handle

- ❑ Exploded view ⇒ page 398

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

6 - Luggage compartment aerial for entry and start authorisation - R137-

- ❑ Fitting location: on luggage compartment rear cross panel (right-side)
- ❑ Removing and installing ⇒ page 402

7 - Rear left exterior door handle

- ❑ Exploded view ⇒ page 398

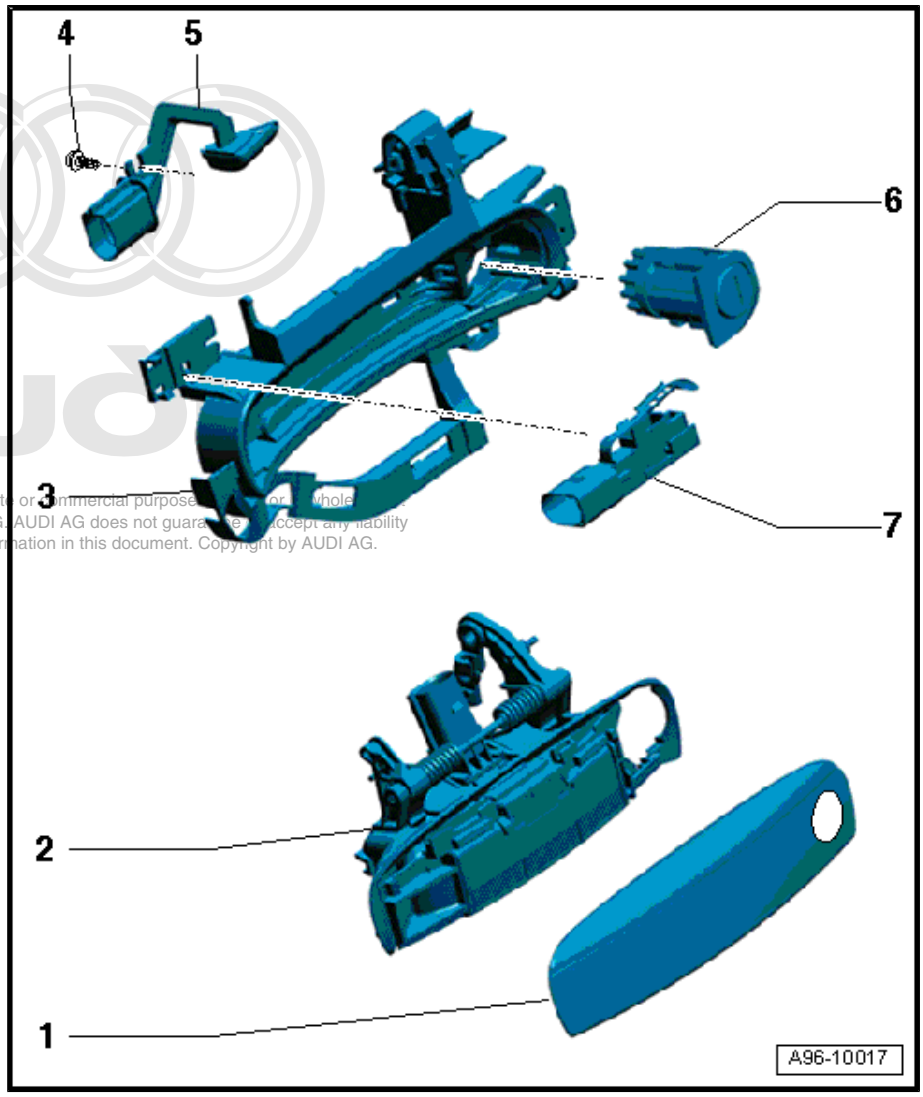
8 - Driver side aerial for entry and start authorisation - R134-

- ❑ Fitting location: on door trim (rear)
- ❑ Removing and installing ⇒ page 401

9 - Driver's exterior door handle

- ❑ Exploded view ⇒ page 398

8.3 Exploded view of exterior door handle for keyless entry system



1 - Cover

- Driver's side: for lock cylinder
- Passenger's side and rear doors: no opening

2 - Exterior door handle touch sensor located in exterior door handle

- Driver door exterior handle touch sensor - G415- , front passenger door exterior handle touch sensor - G416-
- Cannot be renewed separately
- Renewing exterior door handle ⇒ Rep. gr. 57
- Rear right door exterior handle touch sensor - G418- , rear left door exterior handle touch sensor - G417-
- Cannot be renewed separately
- Renewing exterior door handle ⇒ Rep. gr. 58

3 - Mounting bracket

4 - Bolt, 2 Nm

5 - Central locking button in exterior door handle

- Driver door exterior handle central locking button - E369- , front passenger door exterior handle central locking button - E370-
- Removing and installing ⇒ page 399
- Rear left door exterior handle central locking button - E371- , rear right door exterior handle central locking button - E372-
- Removing and installing ⇒ page 400

6 - Lock cylinder

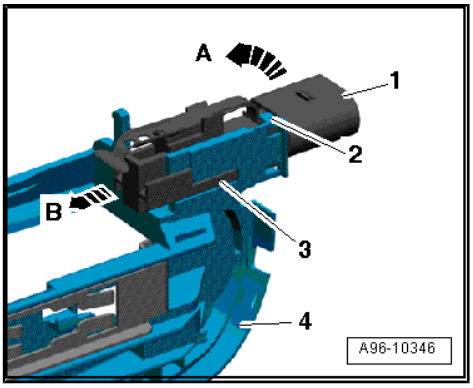
- Only on driver's side

7 - Exterior door handle switch

- Driver door exterior handle switch - F272- , front passenger door exterior handle switch - F273-
- Removing and installing ⇒ page 399
- Rear left door exterior handle switch - F274- / rear right door exterior handle switch - F275-
- Removing and installing ⇒ page 399

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8.4 Removing and installing front exterior door handle switches -F272- / -F273-



Removing

– Remove exterior door handle ⇒ Rep. gr. 57 .

– Remove mounting bracket ⇒ Rep. gr. 57 .

– Carefully release retaining clips -2- and -3- and swivel front exterior door handle switch -1- in direction of -arrow A- and out of retaining clips.

– Slide front exterior door handle switch off mounting bracket -4- in direction of -arrow B-.

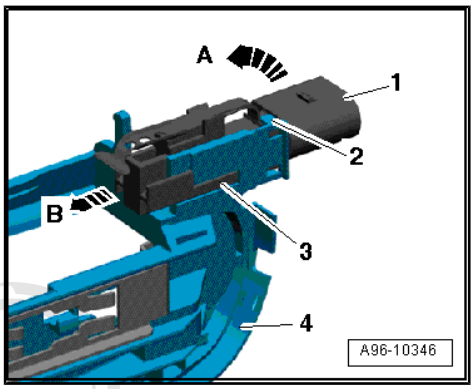
Installing

Installation is carried out in the reverse order; note the following:

– Install mounting bracket ⇒ Rep. gr. 57 .

– Install exterior door handle ⇒ Rep. gr. 57 .

8.5 Removing and installing rear exterior door handle switches -F274- / -F275-



Removing

– Remove exterior door handle ⇒ Rep. gr. 58 .

– Remove mounting bracket ⇒ Rep. gr. 58 .

– Carefully release retaining clips -2- and -3- and swivel rear door exterior handle switch -1- in direction of -arrow A- and out of retaining clips.

– Slide rear door exterior handle switch off mounting bracket -4- in direction of -arrow B-.

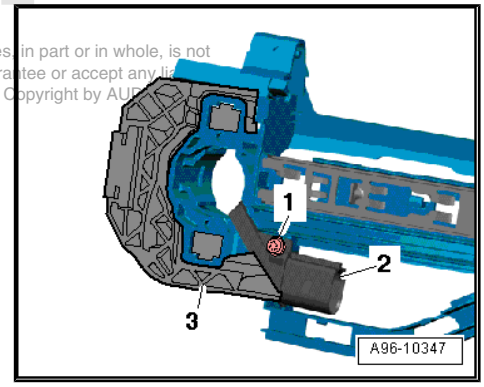
Installing

Installation is carried out in the reverse order; note the following:

– Install mounting bracket ⇒ Rep. gr. 58 .

– Install exterior door handle ⇒ Rep. gr. 58 .

8.6 Removing and installing central locking button in front exterior door handle - E369- / -E370-



Removing

– Remove exterior door handle ⇒ Rep. gr. 57 .

– Remove mounting bracket ⇒ Rep. gr. 57 .

– Remove bolt -1-.

– Remove central locking button in front exterior door handle -2- from mounting bracket -3-.

Installing

• Tightening torque ⇒ page 398

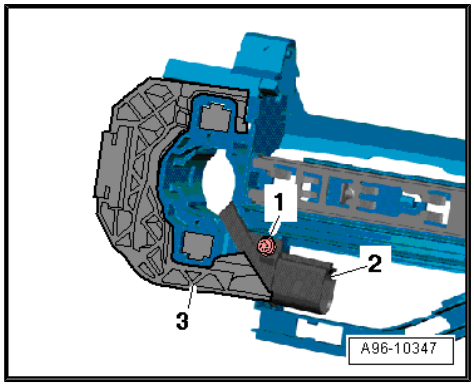
Installation is carried out in the reverse order; note the following:

– Install mounting bracket ⇒ Rep. gr. 57 .

– Install exterior door handle ⇒ Rep. gr. 57 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8.7 Removing and installing central locking button in rear exterior door handle - E371- / -E372-



Removing

– Remove exterior door handle ⇒ Rep. gr. 58 .

– Remove mounting bracket ⇒ Rep. gr. 58 .

– Remove bolt -1-.

– Remove central locking button in rear exterior door handle -2- from mounting bracket -3-.

Installing

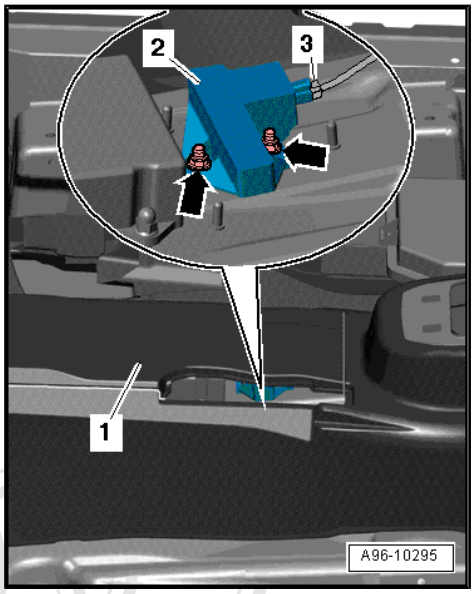
• Tightening torque ⇒ page 398

Installation is carried out in the reverse order; note the following:

– Install mounting bracket ⇒ Rep. gr. 58 .

– Install exterior door handle ⇒ Rep. gr. 58 .

8.8 Removing and installing interior aerial 1 for entry and start authorisation - R138-



Removing

– Remove front and rear centre console ⇒ Rep. gr. 68 .

– Remove frame for centre console ⇒ Rep. gr. 68 .

– Lift off insulation -1-.

– Unscrew bolts -arrows-.

– Unplug electrical connector -3-.

– Detach interior aerial 1 for entry and start authorisation - R138- -item 2-.

Installing

Installation is carried out in the reverse order; note the following:

– Install frame for centre console ⇒ Rep. gr. 68 .

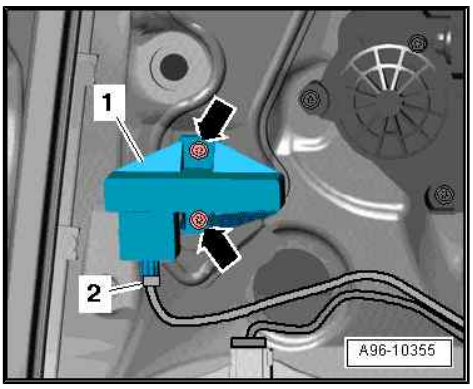
– Install front and rear centre console ⇒ Rep. gr. 68 .

Tightening torque

Component	Nm
Interior aerial 1 for entry and start authorisation - R138- to centre console	3.5

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8.9 Removing and installing front passenger side aerial for entry and start authorisation - R135-



Removing

– Remove rear right door trim ⇒ Rep. gr. 70 .

– Unscrew bolts -arrows- and detach front passenger side aerial for entry and start authorisation - R135- -item 1-.

– Unplug electrical connector -2-.

Installing

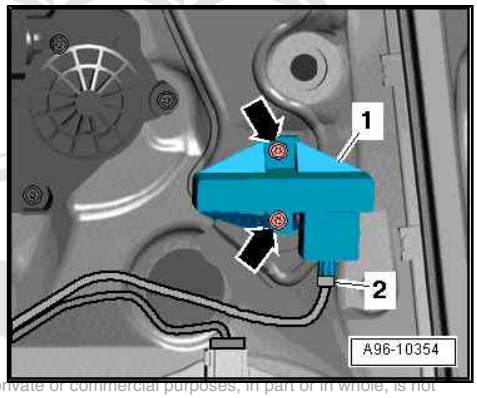
Installation is carried out in the reverse order; note the following:

– Install rear right door trim ⇒ Rep. gr. 70 .

Tightening torque

Component	Nm
Front passenger side aerial for entry and start authorisation - R135- to door trim	2

8.10 Removing and installing driver side aerial for entry and start authorisation - R134-



Removing

– Remove rear left door trim ⇒ Rep. gr. 70 .

– Unscrew bolts -arrows- and detach driver side aerial for entry and start authorisation - R134- -item 1-.

– Unplug electrical connector -2-.

Installing

Installation is carried out in the reverse order; note the following:

– Install rear left door trim ⇒ Rep. gr. 70 .

Tightening torque

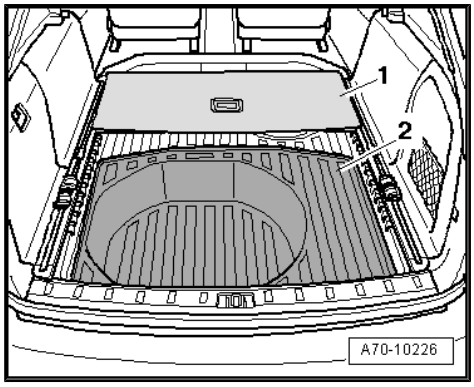
Component	Nm
Driver side aerial for entry and start authorisation - R134- to door trim	2

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8.11 Removing and installing luggage compartment aerial for entry and start authorisation - R137-

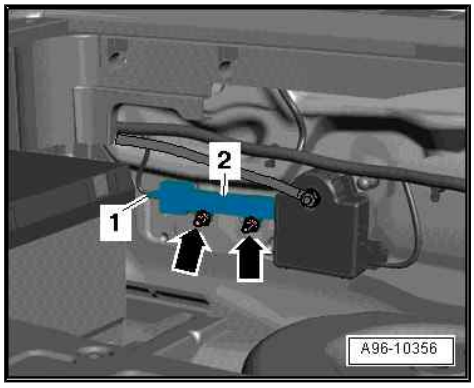
Removing

– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



– Unplug electrical connector -1-.

– Unscrew bolts -arrows- and detach luggage compartment aerial for entry and start authorisation - R137- -item 2-.



Installing

Install in reverse order.

Tightening torque

Component	Nm
Luggage compartment aerial for entry and start authorisation - R137- to body	2

8.12 Removing and installing aerial reader unit for keyless entry system - J723-

Removing

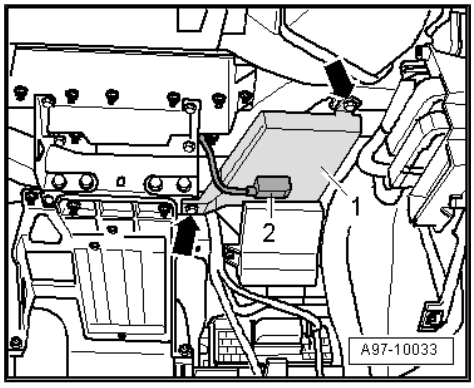
– Switch off ignition and take out ignition key.

– Remove glove box ⇒ Rep. gr. 68 .

– Unscrew bolts -arrows-.

– Unplug electrical connector -2-.

– Remove aerial reader unit for keyless entry system - J723- -item 1-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without prior written consent of AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

– Install glove box ⇒ Rep. gr. 68 .

Tightening torque

Component	Nm
Aerial reader unit for keyless entry system - J723- to central tube	3

9 Ultrasonic interior monitoring

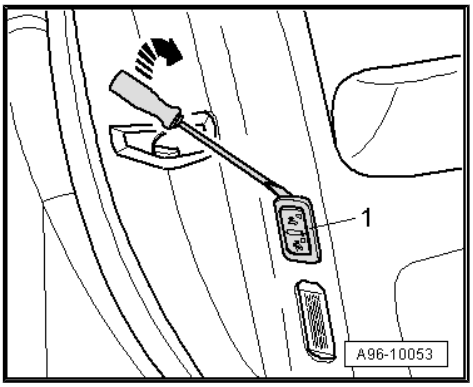
9.1 Removing and installing interior monitoring deactivation switch - E183- and alarm system off switch - E217-

Removing

– Switch off ignition and take out ignition key.

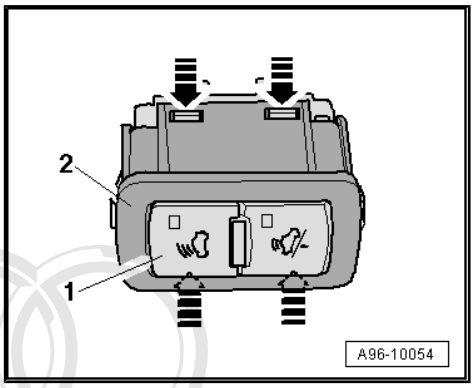
– Carefully pry trim -1- out of door trim -arrow- using a small screwdriver.

– Unplug electrical connector.



– Use small screwdriver to carefully release retaining hooks -arrows-.

– Remove interior monitoring switch - E183- and alarm system off switch - E217- -item 1- from trim -2- towards rear.



Installing

Install in reverse order.

9.2 Removing and installing interior monitoring sensor - G273-

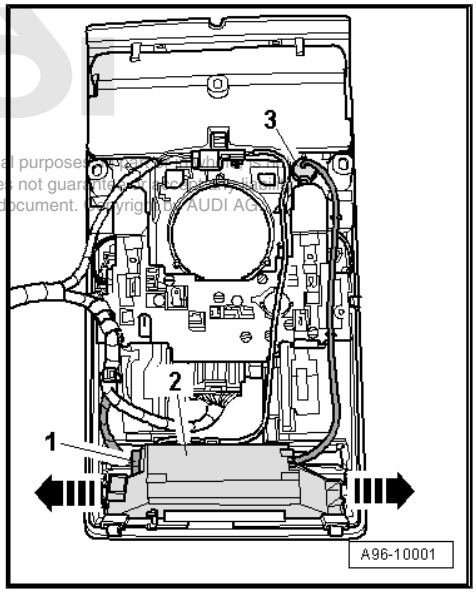
Removing

– Remove interior light/reading light (front) ⇒ page 388 .

– Unplug electrical connector -1- at interior monitoring sensor - G273- .

– Release retaining clips -arrows- and remove interior monitoring sensors - G273- -2- and -3- from interior light/reading light.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Installing

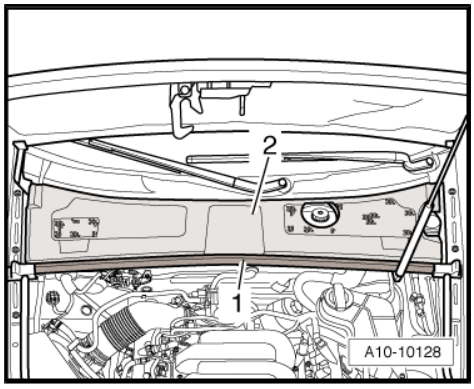
Installation is carried out in the reverse order; note the following:

– Install interior light/reading light (front) ⇒ page 388 .

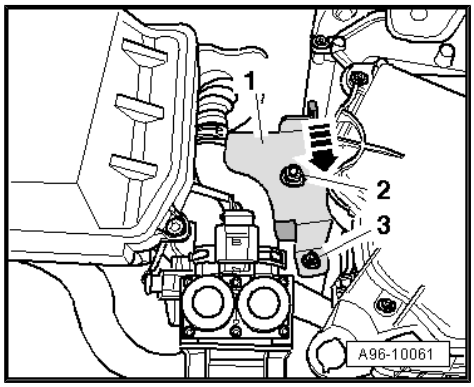
9.3 Removing and installing alarm horn - H12-

Fitting location: in plenum chamber (front) between electronics box (right-side) and blower box.

Removing



- Switch off ignition and take out ignition key.
- Pull off rubber seal -1- for plenum chamber cover.
- Remove plenum chamber cover -2-.



- Unscrew nut -2- for alarm horn - H12- .
- Unscrew nut -3- for retainer -1-.
- Remove bracket from blower box -arrow- and take out retainer from plenum chamber.
- Unplug electrical connector and remove alarm horn - H12- from plenum chamber.

Installing

Installation is carried out in the reverse order; note the following:

- Note bonded rubber bush for blower box when installing bracket.

Tightening torques

Component	Nm
Alarm horn - H12- to bracket	5
Bracket to body	7

9.4 Removing and installing vehicle inclination sender - G384-

The vehicle inclination sender - G384- is integrated in the onboard supply control unit 2 - J520- and cannot be renewed separately in the event of a fault.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Renewing onboard supply control unit 2 - J520- ⇒ page 446 .

10 Lane change assist

10.1 Overview of lane change assist

1 - Lane change assist warning lamp in driver side exterior mirror - K233-

- ❑ Removing and installing ⇒ page 406

2 - Button for lane change assist - E530-

- ❑ Removing and installing ⇒ page 406

3 - Lane change assist warning lamp in front passenger side exterior mirror - K234-

- ❑ Removing and installing ⇒ page 406

4 - Bolt

- ❑ 3.5 Nm

5 - Electrical connector

6 - Bolt

- ❑ 3.5 Nm

7 - Lane change assist control unit - J769-

- ❑ Removing and installing ⇒ page 408

8 - Lane change assist control unit 2 - J770-

- ❑ Removing and installing ⇒ page 408

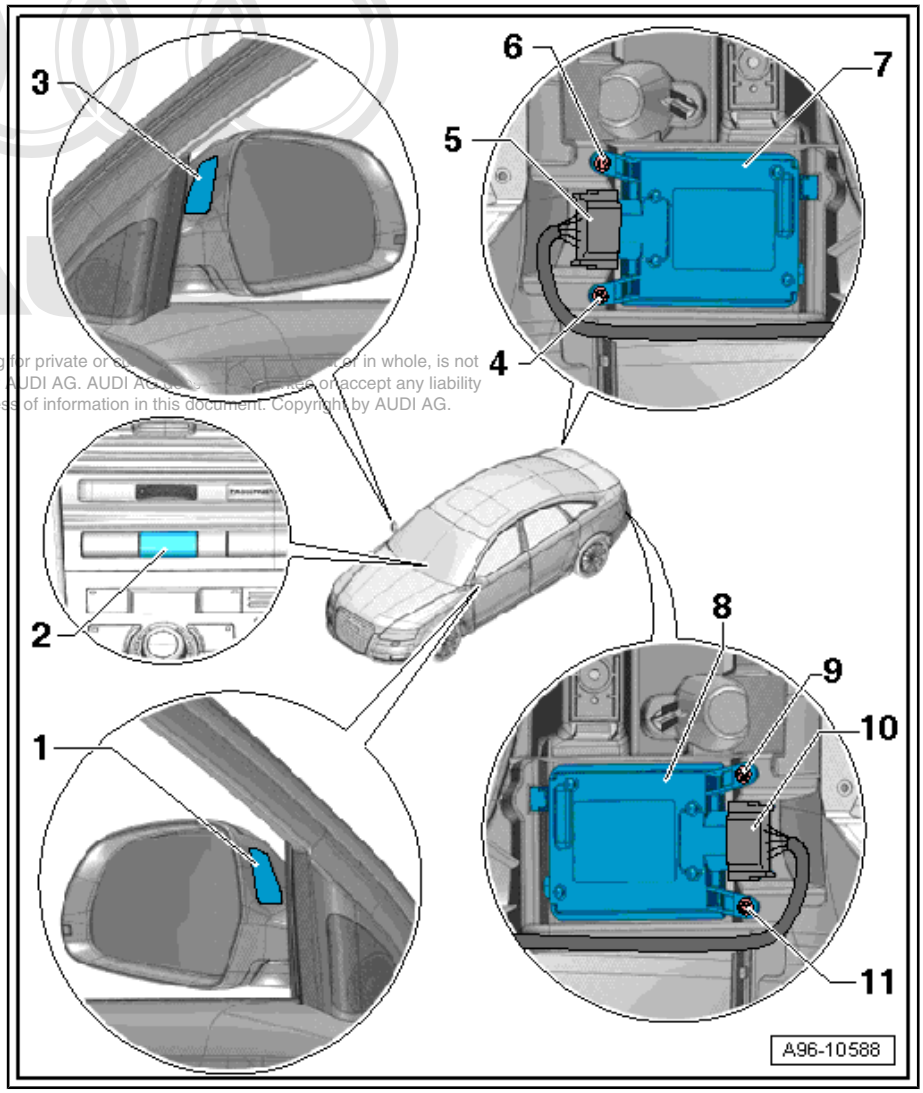
9 - Bolt

- ❑ 3.5 Nm

10 - Electrical connector

11 - Bolt

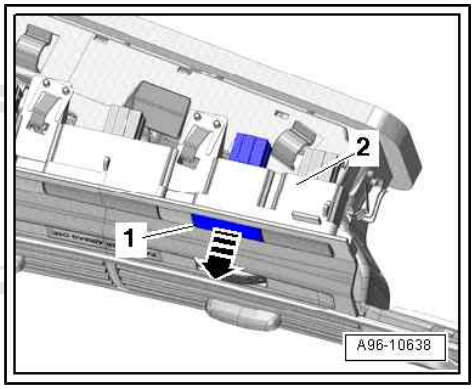
- ❑ 3.5 Nm



Protected by copyright. Copying for private or ... in whole, is not permitted unless authorised by AUDI AG. AUDI AG ... liability for the correctness and completeness of information in this document. Copyright by AUDI AG.

10.2 Removing and installing button for lane change assist - E530-

Removing



– Move steering wheel down and to rear as far as possible, making use of full range of steering column adjuster.
– Switch off ignition and take out ignition key.
– Remove dash panel vent (centre) ⇒ Rep. gr. 70 .
– Press button for lane change assist - E530- -item 1- out of trim panel with vent -2- -arrow-.

Installing

Installation is carried out in the reverse order; note the following:

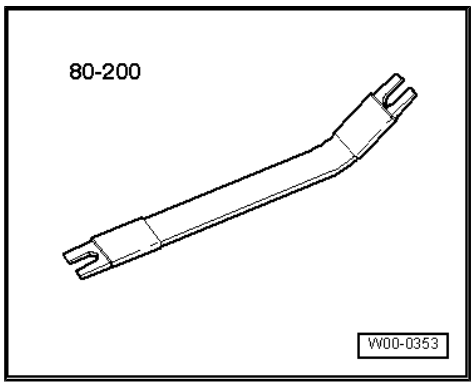
– Press button for lane change assist - E530- into switch housing until catch engages.
– Install dash panel vent (centre) ⇒ Rep. gr. 70 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

10.3 Removing and installing lane change assist warning lamp in exterior mirror - K233- / -K234-

Special tools and workshop equipment required

♦ Removal lever - 80 - 200-



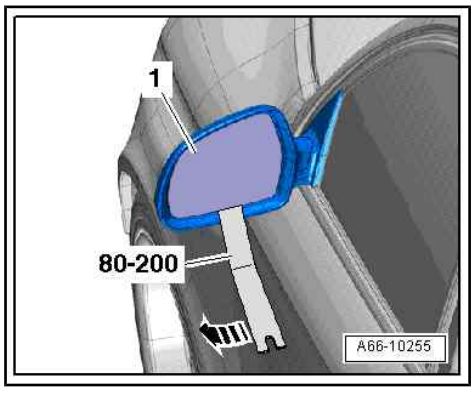
♦ Protective gloves

Removing

WARNING

Risk of injury.

♦ *Wear protective gloves.*

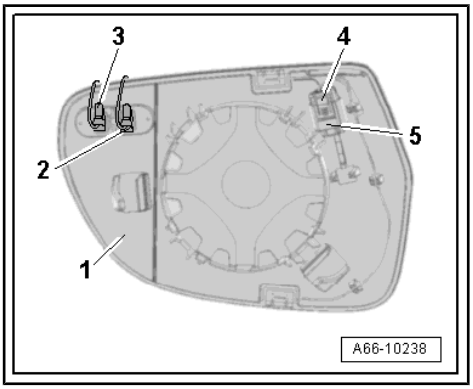


Note

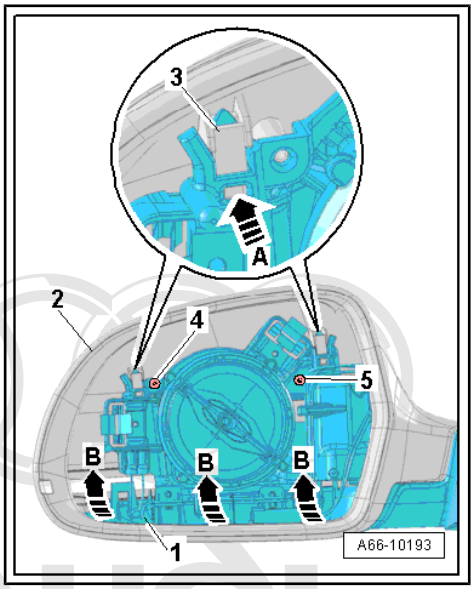
Mask the area around the mirror housing with a soft cloth to protect the paintwork.

– Pry mirror glass -1- off mirror adjustment unit using removal lever - 80 - 200- -arrow-.

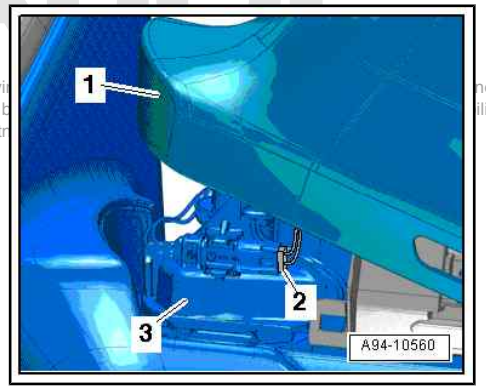
– Unplug electrical connectors -2- and -3- for mirror glass heating on rear side of mirror glass -1-.
– Unclip electrical connector -5- from retainer, if fitted.
– Unplug electrical connector -4-.



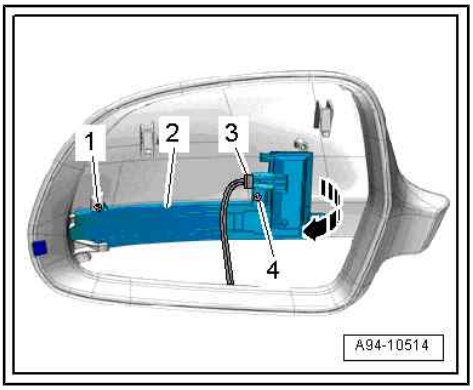
– Remove bolts -4- and -5-.
– Release retaining tabs -3- in direction of -arrow A-.
– Release retaining clip -1- and detach exterior mirror housing -2- from cover -arrows B-.



– Press mirror adjustment unit downwards and lift exterior mirror housing -1- off slightly.
– Unplug electrical connector -2- for lane change assist warning lamp at front side of mounting -3- for mirror adjustment unit.



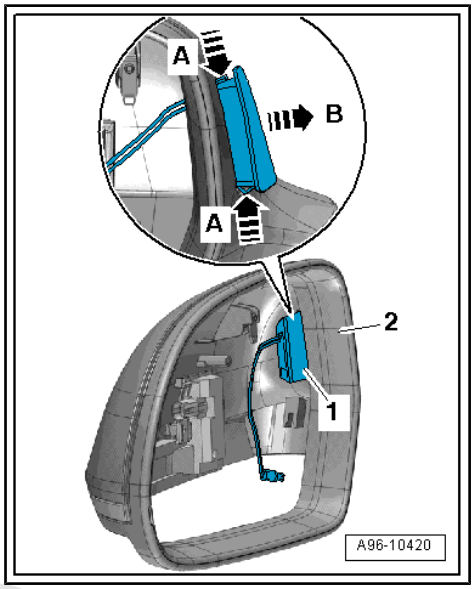
– Lift exterior mirror housing and unplug electrical connector -3-.



Note

-Items 1, 2, 4- and -arrow- can be disregarded.

– Release retainers -arrows A- and press lane change assist warning lamp -1- out of exterior mirror housing -2- -arrow B-.



Installing

Installation is carried out in the reverse order; note the following:

Note

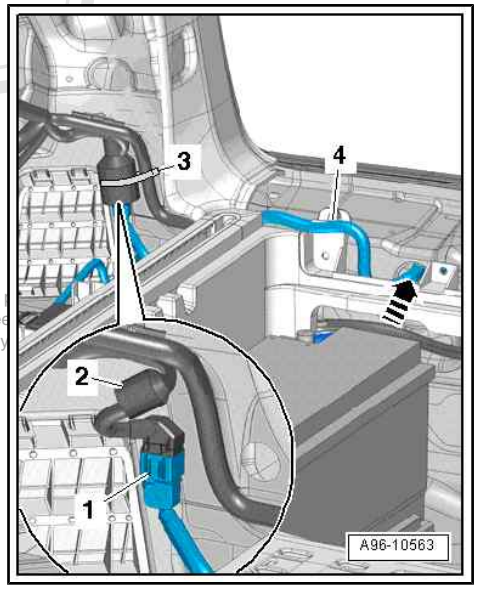
Warning lamp for lane change assist in exterior mirror must be replaced completely with a new unit if an LED is defective.

– Install exterior mirror housing ⇒ Rep. gr. 66 .

10.4 Removing and installing lane change assist control unit -J769- / -J770-

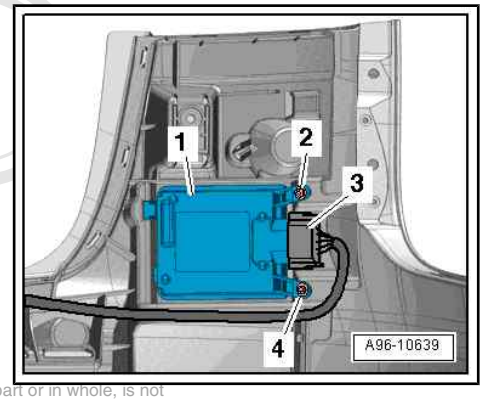
Removing

– Remove cover in luggage compartment side trim (right-side).
– Cut through cable tie -3- and move foam sheath -2- to one side.
– Unplug electrical connector -1-.
– Remove rear cross panel trim ⇒ Rep. gr. 70 .
– Remove rear bumper cover ⇒ Rep. gr. 63 .
– Guide out wiring harness -4- through body opening -arrow-.



Protected by copyright. Copying for private or commercial purposes, in
with respect to the correctness of information in this document. Copy

– Unplug electrical connector -3-.
– Remove bolts -2- and -4-.
– Pull lane change assist control unit -1- out of mounting on bumper -arrow-.



Installing

Installation is carried out in the reverse order; note the following:

Note

Refit all cable ties at the same locations when reinstalling.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Install rear bumper cover ⇒ Rep. gr. 63 .

Lane change assist control unit -J769- / -J770- must be recalibrated whenever bumper cover has been removed
⇒ “10.5 Calibrating lane change assist - test equipment layout”, page 409 .

– Install rear cross panel trim ⇒ Rep. gr. 70 .

10.5 Calibrating lane change assist - test equipment layout

1 - Spacing laser -VAS 6350/2-
- ❑ For distance measurement
- ❑ For use refer to ⇒ operating instructions

2 - Calibration unit - VAS 6350-

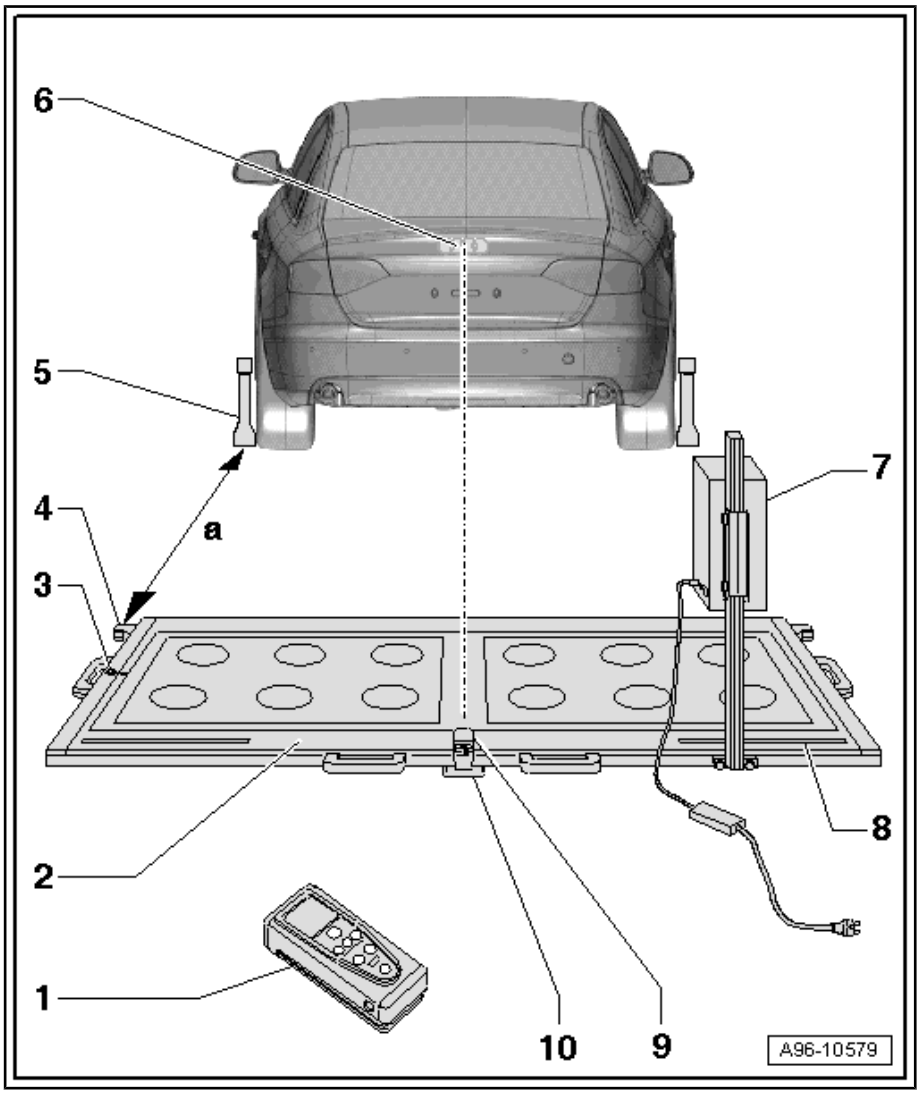
3 - Spirit level
- ❑ On calibration unit - VAS 6350-
- ❑ For checking horizontal position of calibration unit - VAS 6350-

4 - Locating bracket
- ❑ For mounting spacing laser -VAS 6350/2- for distance measurement
- ❑ Distance to wheel centre mountings -VAS 6350/1- on rear wheels: dimension -a- = 1,700 ± 2 mm

5 - Wheel centre mounting - VAS 6350/1-
- ❑ With wheel bolt adapter (19 mm) and measuring paddle

6 - Logo
- ❑ Laser pointer is aligned with centre of logo

7 - Calibration unit for lane change assist -VAS 6350/4-
- ❑ Is moved from right to left side of measuring field during calibration



- ❑ Voltage supply must be connected to bottom left of calibration unit for lane change assist (in direction of travel)

8 - Measuring scale

- ❑ For positioning the calibration unit for lane change assist -VAS 6350/4-

9 - Linear laser - VAS 6350/3-

- ❑ With “laser protection goggles”
- ❑ On calibration unit - VAS 6350-
- ❑ Switching on and off ⇒ Operating instructions

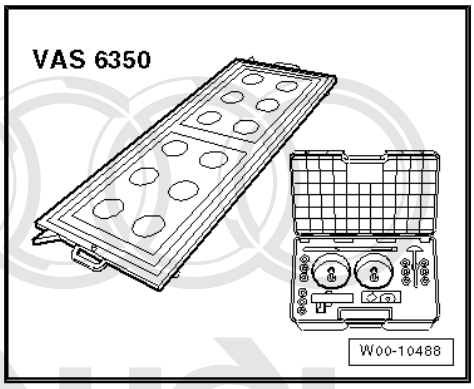
10 - Plastic foot

- ❑ 3x
- ❑ Adjustable, for aligning horizontal position of calibration unit - VAS 6350-

10.6 Calibrating lane change assist control unit -J769- / -J770-

Special tools and workshop equipment required

- ♦ Calibration unit - VAS 6350-



Requirements

– The lane change assist control unit -J769- / -J770- must be calibrated in the following situations (⇒ Vehicle diagnostic tester):

- If lane change assist control unit - J769- or lane change assist control unit 2 - J770- has been renewed.
- If the rear bumper cover has been damaged, for instance when parking the car.
- If the rear bumper cover has been removed and installed.
- If the event memory contains the entry “no or incorrect basic setting/adaption”.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Preparations

– The vehicle must be standing on a firm and even surface.

– Apply parking brake – the vehicle must not be moved while the calibration procedure is being performed.

– Make sure steering wheel is at centre position with wheels pointing straight ahead.

– Connect vehicle diagnostic tester ⇒ Vehicle diagnostic tester.

Note

If a fault message appears on the display, refer to ⇒ Operating instructions for vehicle diagnostic tester .

– Switch on ignition.

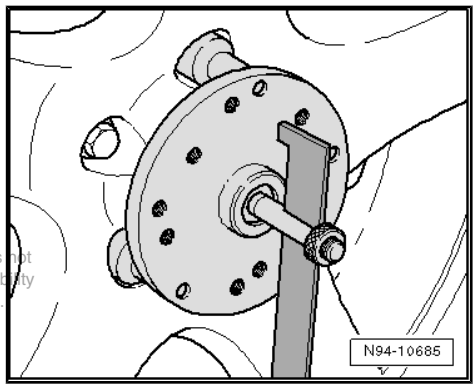
– Remove any stickers with metal film from the bumper cover.

– Fit three wheel bolt adapters (19 mm) onto each wheel centre mounting - VAS 6350/1- .

– Fit measuring paddle onto each of the wheel centre mountings -VAS 6350/1- and secure each paddle with lock nut.

– Fit wheel centre mountings - VAS 6350/1- onto wheel bolts on both rear wheels.

• Centre of rotation of wheel centre mounting must align with centre of rotation of wheel.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

When fitting the wheel centre mountings - VAS 6350/1- onto the wheels, make sure that the anti-theft wheel bolt does not come into contact with the wheel centre mounting.

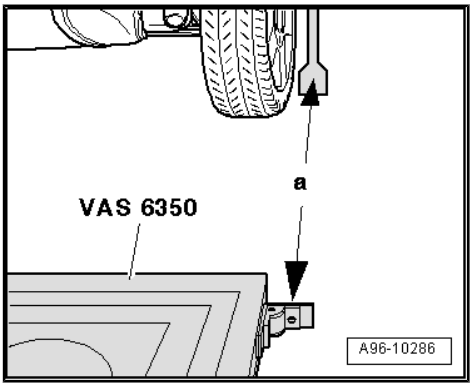
– Use lock nuts to adjust measuring paddles so that they are free to move just slightly above the ground.

• Measuring paddles must move freely.

• Measuring paddle must be in an upright position.

– Position the calibration unit - VAS 6350- at a distance of -a- from rear wheels.

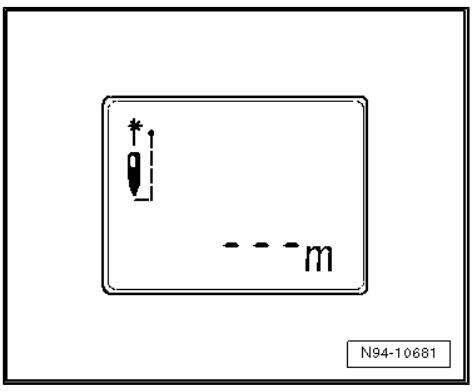
• Dimension -a- = 1,700 mm



– Switch on spacing laser -VAS 6350/2- by pressing ON button.

Display on -VAS 6350/2- :

• “- - - m”



Note

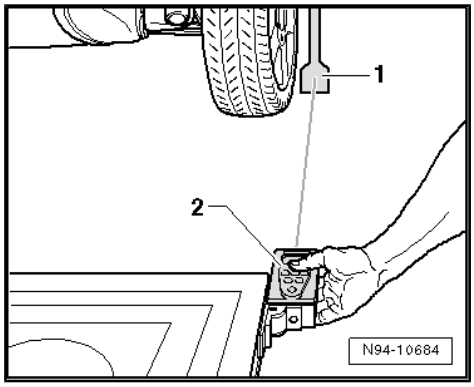
The laser is switched on simultaneously.

– To measure distance, hold spacing laser -VAS 6350/2- -item 2- flush with locating bracket as shown in illustration.

• Spacing laser -VAS 6350/2- must be steady and flush with locating bracket.

– Make sure that laser beam for distance measurement hits lower (larger) part of measuring paddle -1-.

If this is not the case, adjust height of measuring paddles using lock nuts on wheel centre mountings - VAS 6350/1- .



– Press ON button briefly to measure distance.

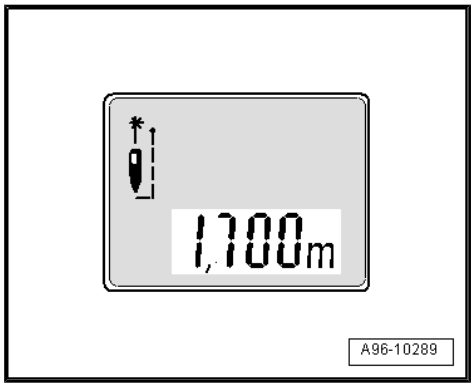
Display on -VAS 6350/2- :

• “1.700 m” (specification: 1,700 ± 2 mm).

– Repeat measurement from locating bracket (left-side) to rear left wheel.

• Measured distance value must be identical on both sides.

If the two measured values are not identical, re-align calibration unit - VAS 6350- .



Performing calibration

⇒ Vehicle diagnostic tester is connected.

– Select Diagnosis mode and start diagnosis.

– Select Test plan tab.

– Select Own test then the following options one after the other:

♦ Body

♦ Electrical system

♦ 01 - Self-diagnosis compatible systems

♦ 3C - Lane change assist control unit - J769

♦ 3C - Lane change assist control unit, functions

♦ 3C - Calibration

Further instructions are given by ⇒ Vehicle diagnostic tester during calibration procedure.

Note

♦ *The system will now inform you which lane change assist version is fitted in the vehicle (SWA1.5).*

♦ *This information for setting the calibration unit is important for the work sequence to be followed and to avoid malfunctions.*

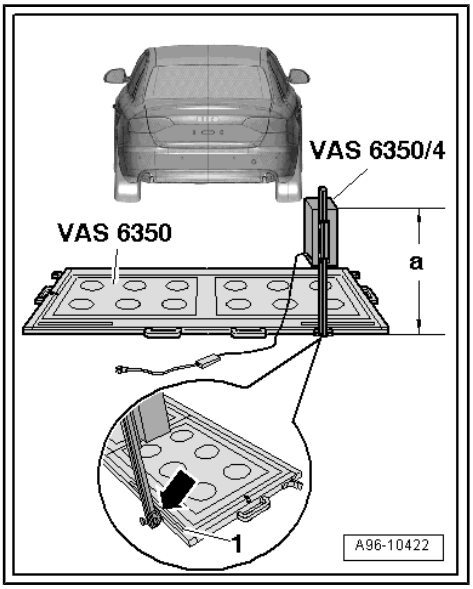
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Secure calibration unit for lane change assist -VAS 6350/4- to mounting bracket (rear right) on calibration unit - VAS 6350- .

• Voltage supply must be connected to bottom left of calibration unit for lane change assist (in direction of travel)

• Dimension -a- = 770 mm (measured between top edge of calibration unit and ground)

– Pointer at base of calibration unit for lane change assist -VAS 6350/4- must align with setting dimension on graduated scale -1- at measuring field -arrow-.



Saloon:

• Setting dimension (right-side) = 790 mm (read off from measuring scale -1-).

RS 6 Saloon:

• Setting dimension (right-side) = 705 mm (read off from measuring scale -1-).

Avant:

• Setting dimension (right-side) = 760 mm (read off from measuring scale -1-).

RS 6 Avant:

• Setting dimension (right-side) = 760 mm (read off from measuring scale -1-).

allroad:

• Setting dimension (right-side) = 810 mm (read off from measuring scale -1-).

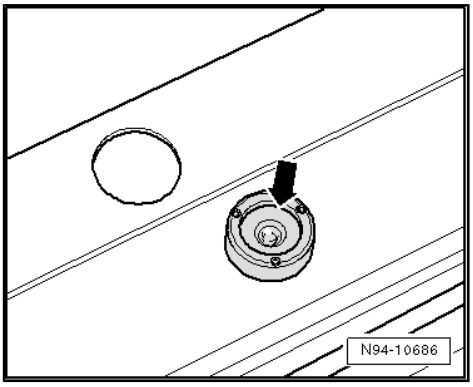
All vehicles (continued):

– Connect calibration unit for lane change assist -VAS 6350/4- up to voltage supply.

– Align calibration unit - VAS 6350- horizontally by turning plastic feet.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

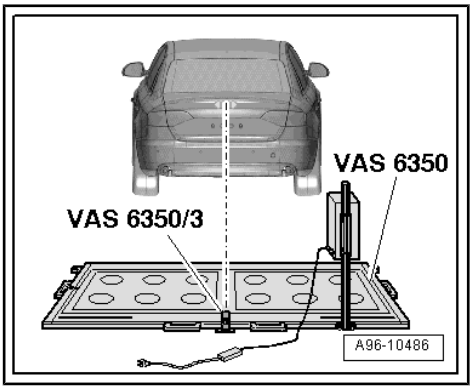
• Check spirit level on calibration unit - VAS 6350- -arrow-.



– Switch on linear laser - VAS 6350/3- on calibration unit - VAS 6350- .

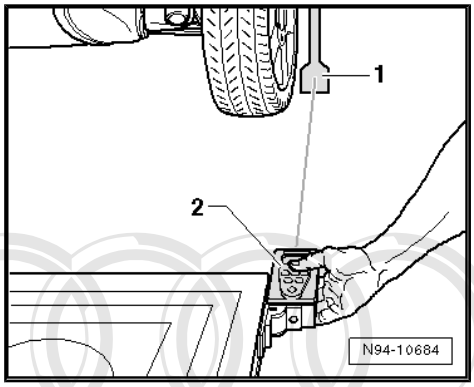
– Put on “laser protection goggles”.

– Align calibration unit - VAS 6350- so that beam from linear laser - VAS 6350/3- hits centre of logo on rear lid.



– Check distance (left and right) between locating brackets of calibration unit - VAS 6350- and measuring paddles -1- on wheel mountings.

• Specification: 1,700 ± 2 mm



Calibration procedure

Please adhere to the following rules during the calibration procedure:

• Vehicle doors must not be opened or closed.

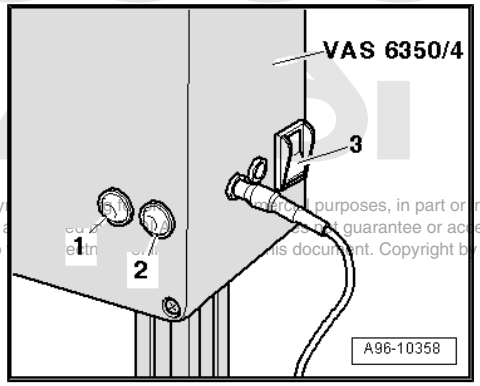
• No-one must sit in vehicle.

• Do not allow any person to walk between vehicle and calibration unit for lane change assist -VAS 6350/4- .

Procedure

– Switch on calibration unit for lane change assist -VAS 6350/4- with power switch -3-.

• The green LED -1- must light up.



Note

If the red LED -2- lights up: check calibration unit for lane change assist -VAS 6350/4- .

Protected by copy... purposes, in part or in whole, is not permitted unless a... guarantee or accept any liability with respect to ... this document. Copyright by AUDI AG.

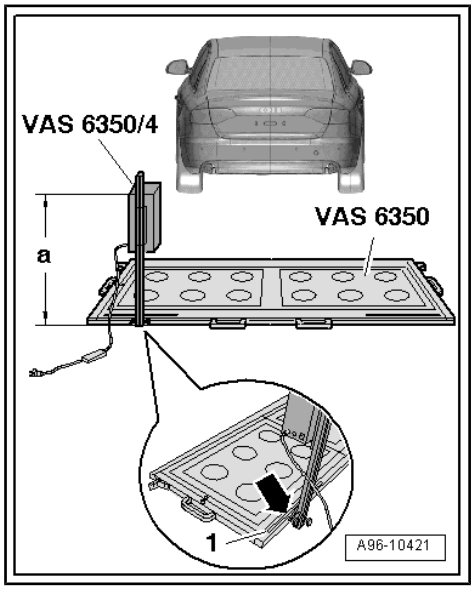
During the program, you are prompted to move the calibration unit for lane change assist -VAS 6350/4- from the right to the left side of the calibration unit - VAS 6350- .

– Switch off calibration unit for lane change assist -VAS 6350/4- and move calibration unit to the other side.

• Voltage supply must be connected to bottom left of calibration unit for lane change assist (in direction of travel)

• Dimension -a- = 770 mm (measured between top edge of calibration unit and ground)

– Pointer at base of calibration unit for lane change assist -VAS 6350/4- must align with setting dimension on graduated scale -1- at measuring field -arrow-.



Saloon:

• Setting dimension (left-side) = 790 mm (read off from measuring scale -1-).

RS 6 Saloon:

• Setting dimension (left-side) = 705 mm (read off from measuring scale -1-).

Avant:

• Setting dimension (left-side) = 760 mm (read off from measuring scale -1-).

RS 6 Avant:

• Setting dimension (left-side) = 760 mm (read off from measuring scale -1-).

allroad:

• Setting dimension (left-side) = 810 mm (read off from measuring scale -1-).

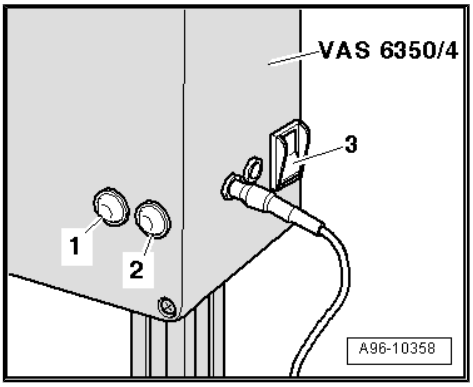
All vehicles (continued):

– Switch on calibration unit for lane change assist -VAS 6350/4- with power switch -3-.

• The green LED -1- must light up.

– Continue to follow the instructions on the display of the vehicle diagnostic tester.

– After completing calibration of lane change assist, exit “Calibration”, switch off ignition and unplug diagnostic connector.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

11 Towing bracket

11.1 Socket for towing bracket

⇒ Electrical system; General information; Rep. gr. 96 ; Towing bracket

11.2 Removing and installing trailer detector control unit - J345- (saloon)

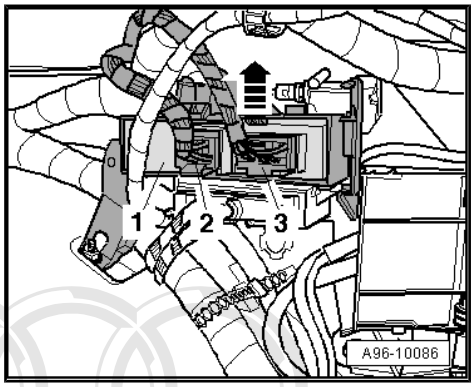
Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

– Remove side trim (right-side) ⇒ Rep. gr. 70 .

– Unplug electrical connectors -2- and -3-.

– Release retaining clip -arrow- and remove trailer detector control unit - J345- -item 1- from frame.



Installing

Installation is carried out in the reverse order; note the following:

– Install side trim (right-side) ⇒ Rep. gr. 70 .

11.3 Removing and installing trailer detector control unit - J345- (Avant)

Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

– Remove luggage compartment side trim (right-side).

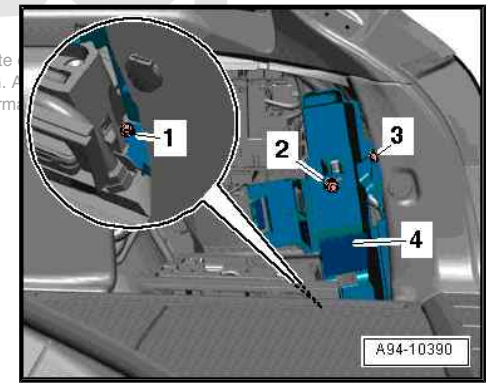
Vehicles with mounting for jack:

Protected by copyright. Copying for private
permitted unless authorised by AUDI AG.
with respect to the correctness of inform

– Take jack out of mounting.

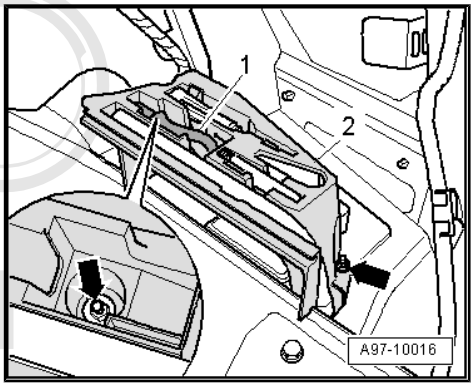
– Unscrew nuts -1- and -2- and bolt -3-.

– Remove mounting for jack.



All vehicles:

– Remove towing eye -1- from moulding for vehicle tools -2-.



Vehicles without mounting for control units:

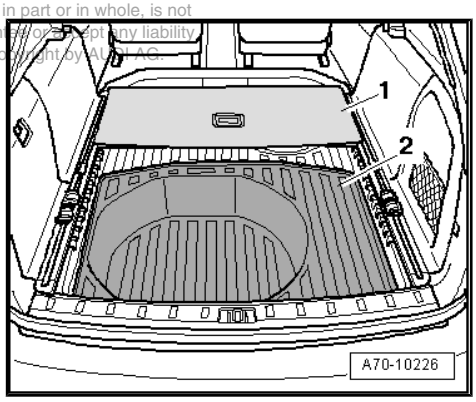
– Remove nut -right arrow-.

All vehicles:

– Unscrew nut -left arrow- and remove moulding for vehicle tools.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

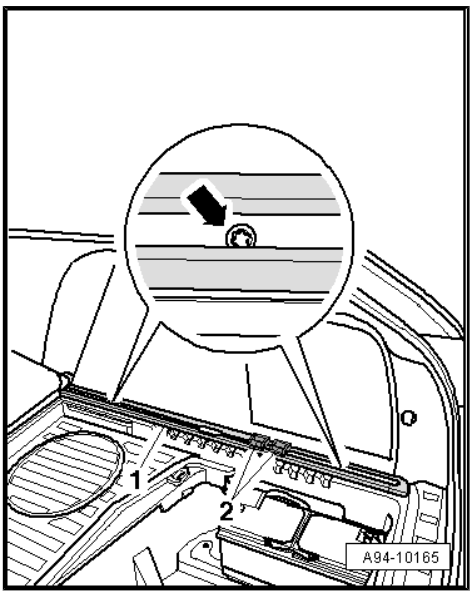
– Remove floor panel in luggage compartment -1- and cover for moulded insert (deep version) -2-.



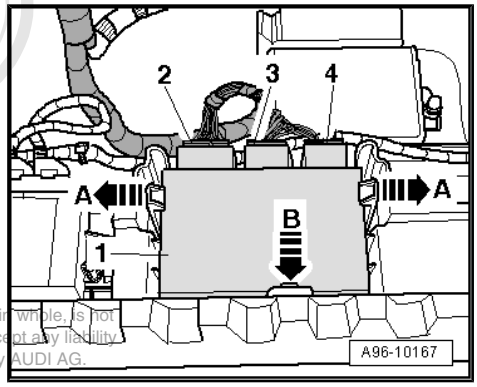
– Slide fastening rings -2- together on retainer -1- so that they are not positioned above the bolts.

– Unscrew bolts -arrow- and remove retainer.

– Detach luggage compartment side trim (bottom section) ⇒ Rep. gr. 70 .



– Release retaining clips -arrows A- and pivot trailer detector control unit - J345- -item 1- slightly out.
– Release retaining clip -arrow B- and pivot trailer detector control unit - J345- out of mounting frame.
– Unplug electrical connectors -2 ... 4-.



Installing

Install in reverse order.

Tightening torques

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Component		Nm
Retainer for fastening rings to body		4
Mounting for vehicle tool kit to body		7
Mounting for jack to body	Bolt	5
	Nut	3

97 – Wiring

1 Contact corrosion

Contact corrosion can occur if unsuitable fasteners (bolts, nuts, washers, etc.) are used.

For this reason, only fasteners with a special surface coating are fitted.

Furthermore, rubber components or plastic components and adhesives are made of non-conductive material.

Always fit new components if you are not sure that the old components are suitable ⇒ Electronic parts catalogue .

Note:

- We recommend the use of genuine replacement parts only; they have been tested and are compatible with aluminium.
- We recommend using Audi Genuine Accessories.
- Damage resulting from contact corrosion is not covered by warranty.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2 Component protection

Most of the control units in the Audi A6 are equipped with component protection.

In the event of replacement, the new control unit must be adapted to the vehicle via an on-line link. Failure to do so will result in activation of the component protection for the newly installed control unit.

If component protection is active, the new control unit in the vehicle will only operate to a limited extent (e.g. no rev. counter function). Component protection is activated:

- when you install a new control unit or
- when a control unit from a different vehicle is installed.

If the component protection function in the drive authorisation system is activated, it will be active for all other control units with component protection as well.

The immobiliser function is not a component protection function.

Use ⇒ Vehicle diagnostic tester to deactivate component protection.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3 Relay carriers, fuse carriers

3.1 Removing and installing plenum chamber electronics box (left-side)

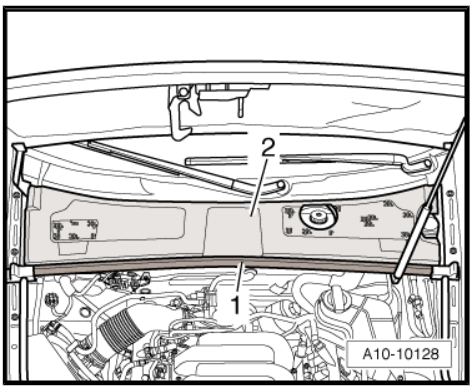
Removing

– Remove wiper arms ⇒ page 102 .

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Pull off rubber seal -1- for plenum chamber cover.

– Remove plenum chamber cover -2-.

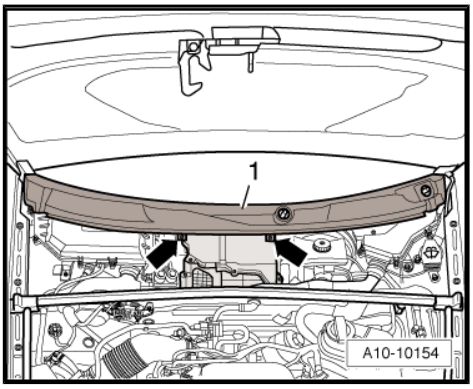


– Unscrew bolts -arrows- for cowl panel trim -1- (left and right).

Caution

Risk of damage to cowl panel trim.

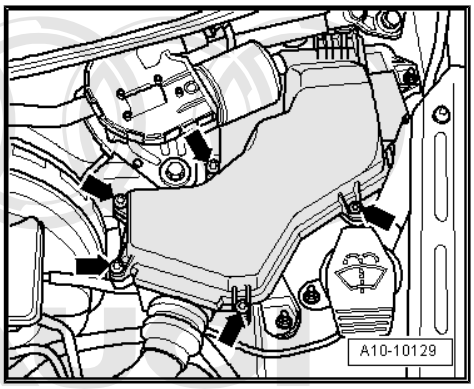
- *Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.*



– Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

– Unscrew bolts -arrows-.

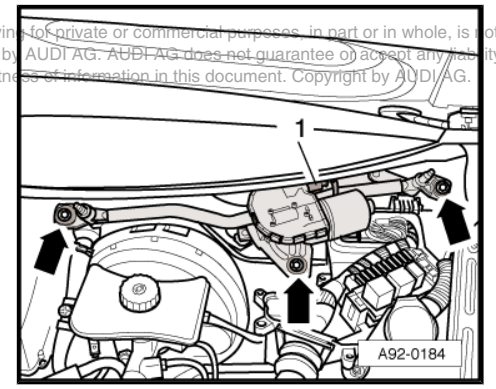
– Remove cover for electronics box (plenum chamber, left-side).



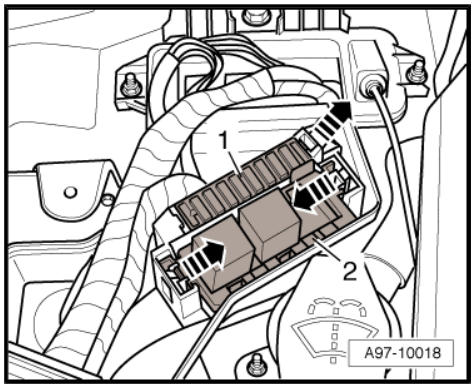
– Unscrew bolts -arrows- and detach entire wiper frame.

– Unplug electrical connector -1-.

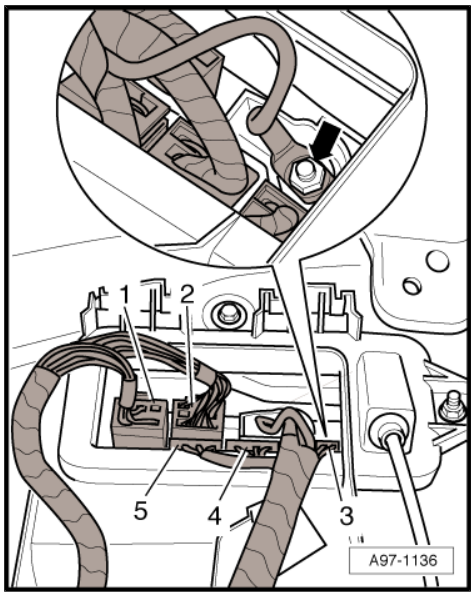
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



– Release fasteners -arrows- and detach fuse holder -1- and auxiliary relay carrier -2- in electronics box (plenum chamber, left-side) upwards.

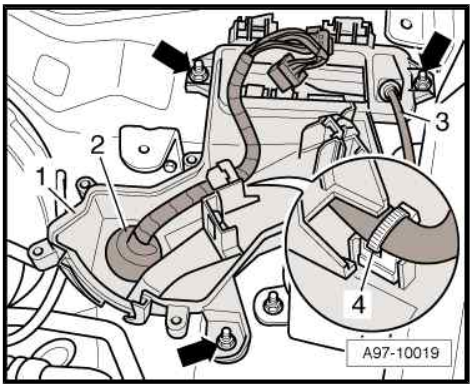


– Unplug multi-pin connectors -1 ... 5-.
– Remove nut -arrow- from positive cable.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Detach bonnet cable at operating lever ⇒ Rep. gr. 55 .
– Detach engine wiring harness -4- at electronics box (plenum chamber, left-side) -1-.
– Press sealing collar -2- out of electronics box (plenum chamber, left-side) and guide out engine wiring harness through the opening.
– Unscrew nuts -arrows- and detach electronics box (plenum chamber, left-side) upwards.
– Guide bonnet cable -3- out of electronics box in plenum chamber (left-side).



Installing

Installation is carried out in the reverse order; note the following:

– When fitting cover for electronics box (plenum chamber, left-side), make sure that cover is correctly engaged in retainers and that none of the electrical wiring is trapped.
– Connect battery. Steps required ⇒ page 3 .
– Adjust wiper arms ⇒ page 103 .
– Install bonnet cable at operating lever ⇒ Rep. gr. 55 .

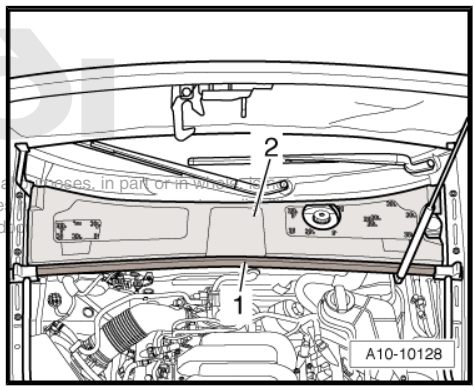
Tightening torques

Component	Nm
Electronics box (plenum chamber, left-side) to body	4
Positive cable to connector point	9
Cover to electronics box (plenum chamber, left-side)	4
Wiper frame to plenum chamber	8
Cowl panel trim to blower box	2.7

3.2 Removing and installing relay and fuse holder in electronics box (plenum chamber, left-side)

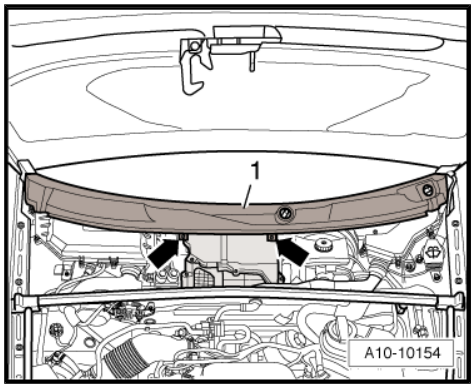
Removing

– Remove wiper arms ⇒ page 102 .
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Pull off rubber seal -1- for plenum chamber cover.
– Remove plenum chamber cover -2-.



Copyright AUDI AG. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document.

– Unscrew bolts -arrows- for cowl panel trim -1- (left and right).



Caution

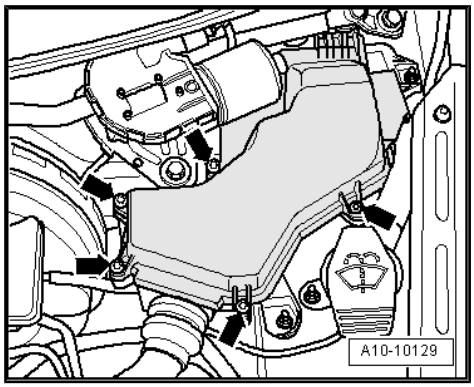
Risk of damage to cowl panel trim.

- *Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.*

– Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

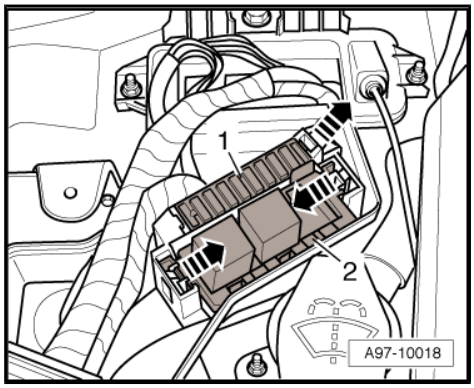
– Unscrew bolts -arrows-.

– Remove cover for electronics box (plenum chamber, left-side).



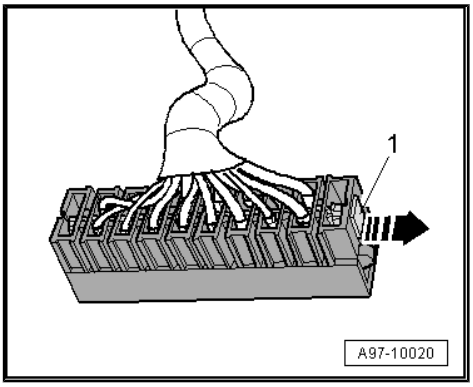
– Release fasteners -arrows- and detach fuse holder -1- and auxiliary relay carrier -2- in electronics box (plenum chamber, left-side) upwards.

– Remove relays or control units and then unclip relevant socket for electrical multi-pin connectors.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– If fitted, release captive fastener and pull it off fuse carrier.
– Detach fuses at fuse holder.
– Detach retaining strip -1- for connectors -arrow- and take connectors out of socket.



Note

Exact contact assignment of relay and fuse holder in electronics box (plenum chamber, left-side) can be found in appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

– Connect battery. Steps required ⇒ page 3 .
– Adjust wiper arms ⇒ page 103 .

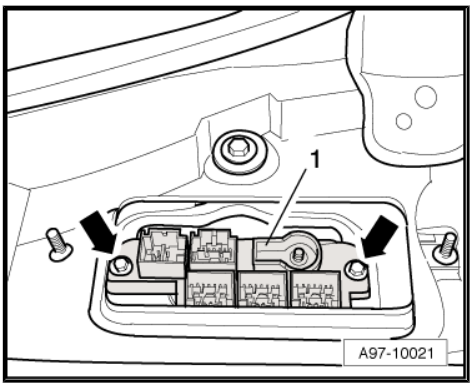
Tightening torques

Component	Nm
Electronics box (plenum chamber, left-side) to body	4
Cover to electronics box (plenum chamber, left-side)	4
Cowl panel trim to blower box	2.7

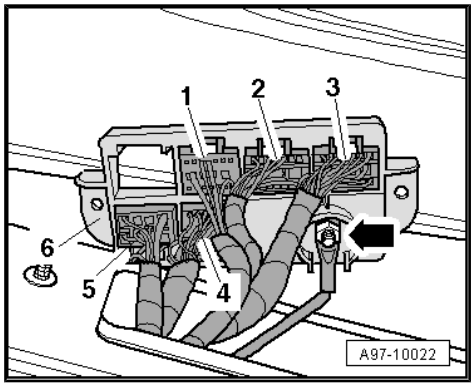
3.3 Removing and installing connector point in electronics box (plenum chamber, left-side)

Removing

– Remove the electronics box (plenum chamber, left-side) ⇒ page 421 .
– Unscrew bolts -arrows-.
– Remove connector point -1- upwards out of plenum chamber.



– Unscrew nut -arrow- for positive cable on reverse side of connector point.
– Release retaining clips and remove plug-in sockets -1 ... 5- from connector point -6-.



Note

Exact assignment of connector point in electronics box (plenum chamber, left-side) can be found in appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

– Install plenum chamber electronics box (left-side) ⇒ page 423 .

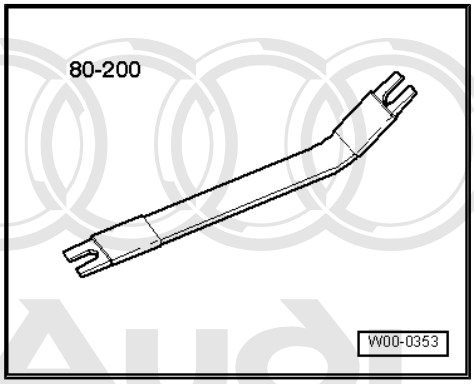
Tightening torques

Component	Nm
Positive cable to connector point	9
Connector point to central tube	3

3.4 Removing and installing electronics box (plenum chamber, right-side)

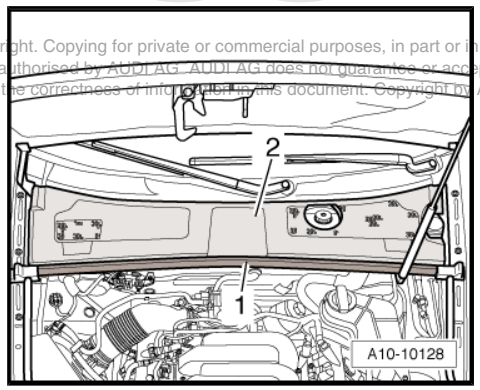
Special tools and workshop equipment required

♦ Removal lever - 80 - 200-



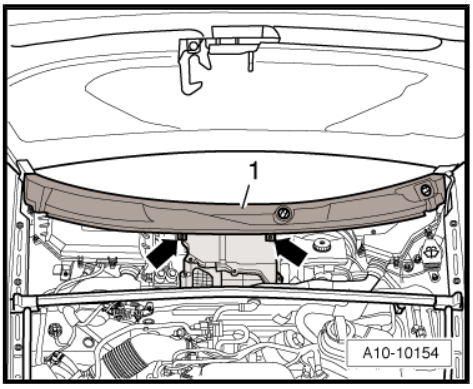
Removing

– Remove wiper arms ⇒ page 102 .
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Pull off rubber seal -1- for plenum chamber cover.
– Remove plenum chamber cover -2-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows- for cowl panel trim -1- (left and right).



Caution

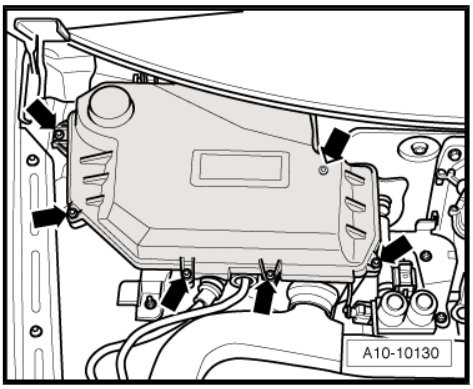
Risk of damage to cowl panel trim.

- *Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.*

– Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

Electronics box (plenum chamber, right-side) - previous version:

– Unscrew bolts -arrows-.

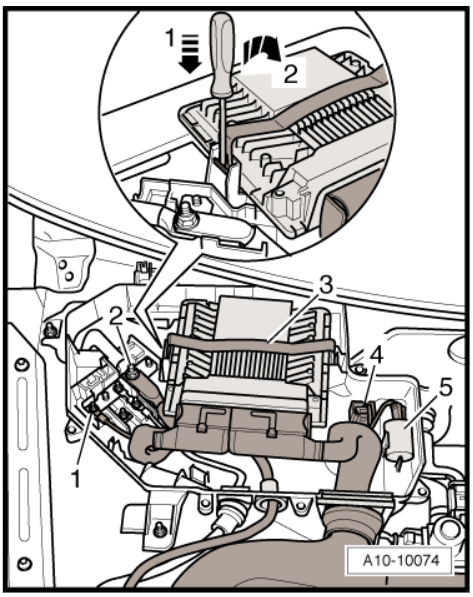


WARNING

The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

– Remove cover for electronics box (plenum chamber, right-side).

– Carefully pry off retaining strap -3- using a screwdriver -arrows 1 and 2- and remove engine control unit from electronics box (plenum chamber, right-side).



Note

The engine control unit remains connected to the wiring harness.

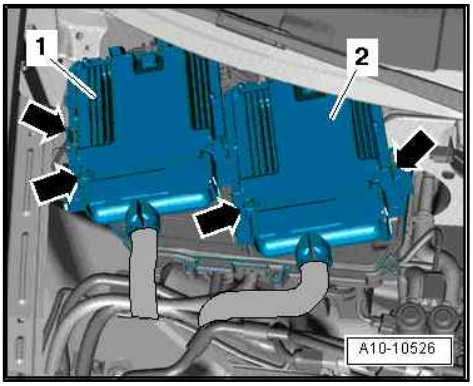
– Unplug connector -4- at rear on the connector console and move wiring harness clear.

– Unclip suppressor capacitor -5- from retainer in electronics box (plenum chamber, right-side).

– Unscrew all electrical wiring connections -2- at main fuse holder -1-.

Electronics box (plenum chamber, right-side) - new version:

– Release retaining clips -arrows- and remove engine control unit/units -1- and -2-.

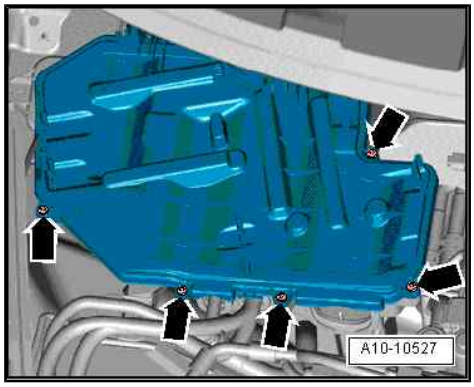


Note

The engine control units remains connected to the wiring harness.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows-.



WARNING

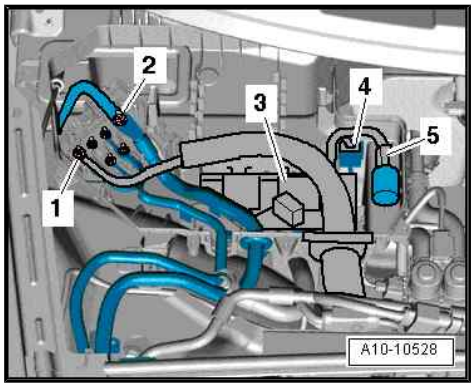
The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

– Remove cover for electronics box (plenum chamber, right-side).

– Unclip suppressor capacitor -5- from retainer in electronics box.

– Unplug electrical connector -4- at rear of connector console.

– Unscrew electrical wiring connections -2- at main fuse holder -1-.

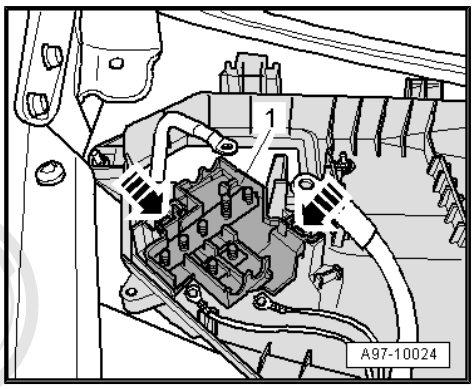


Note

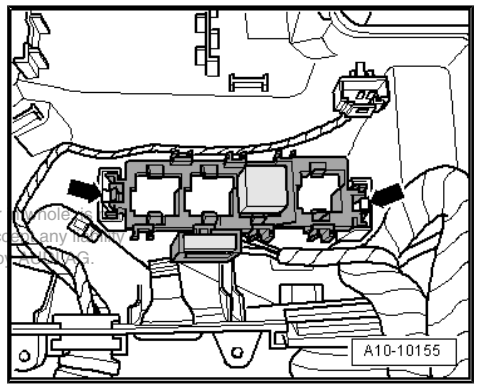
Disregard -item 3-.

Both versions:

– Release retaining clips -arrows- and remove main fuse holder -1- from electronics box (plenum chamber, right-side).

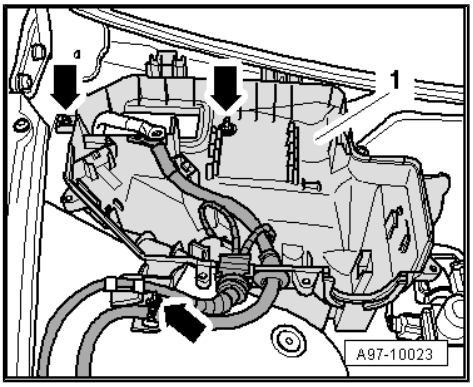


– Release fasteners -arrows- and lift off auxiliary relay carrier in electronics box (plenum chamber, right-side).

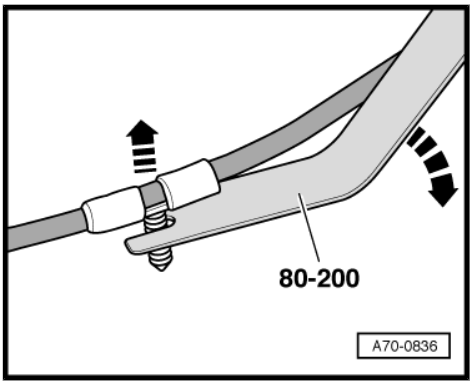


Protected by copyright. Copying for private or commercial purposes, in part or whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew nuts -arrows- at electronics box (plenum chamber, right-side) -1-.



– Pry off wiring at electronics box (plenum chamber, right-side) using removal lever - 80 - 200- and move clear.



Note

Use silicone-free lubricating spray to facilitate removal, if necessary.

– Remove electronics box (plenum chamber, right-side).

Installing

Installation is carried out in the reverse order; note the following:

– When fitting cover for electronics box (plenum chamber, right-side), make sure that cover is correctly engaged in retainers and that none of the electrical wiring is trapped.

– Connect battery. Steps required ⇒ page 3 .

– Adjust wiper arms ⇒ page 103 .

Tightening torques

Component	Nm
Electronics box (plenum chamber, right-side) to body	4
Electrical wiring to main fuse holder	9
Positive cable to main fuse holder	20
Cover to electronics box (plenum chamber, right-side)	4
Cowl panel trim to blower box	2.7

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.5 Removing and installing main fuse holder in electronics box (plenum chamber, right-side)

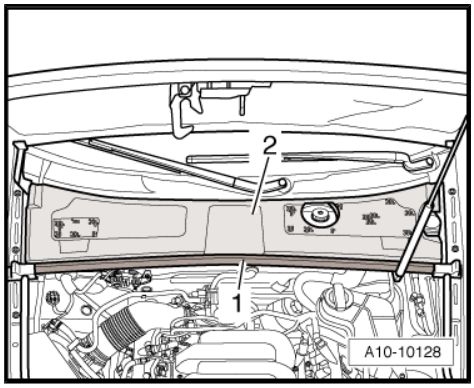
Removing

– Remove wiper arms ⇒ page 102 .

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Pull off rubber seal -1- for plenum chamber cover.

– Remove plenum chamber cover -2-.

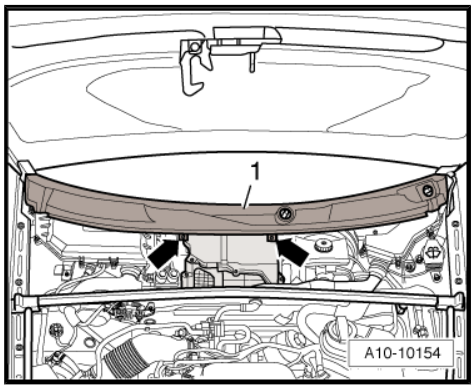


– Unscrew bolts -arrows- for cowl panel trim -1- (left and right).

Caution

Risk of damage to cowl panel trim.

- *Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.*



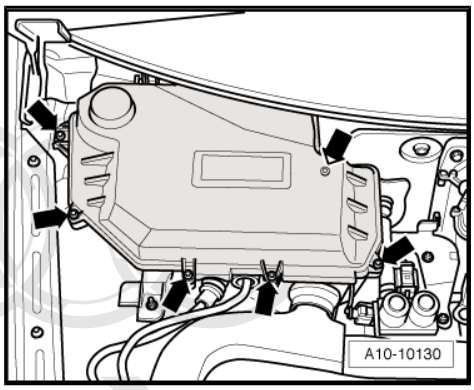
– Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

Electronics box (plenum chamber, right-side) - previous version:

– Unscrew bolts -arrows-.

WARNING

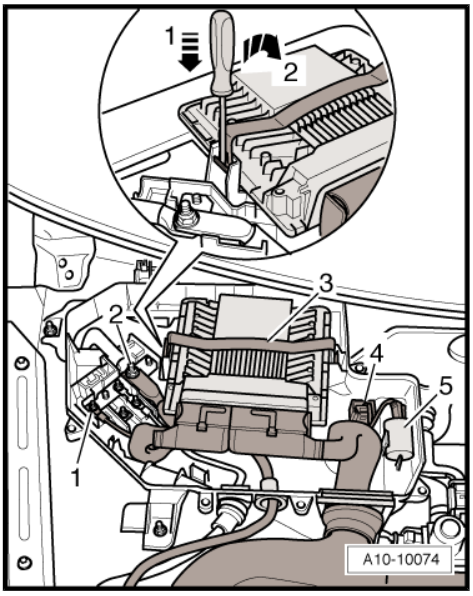
The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!



– Remove cover for electronics box (plenum chamber, right-side).

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Carefully pry off retaining strap -3- using a screwdriver -arrows 1 and 2- and remove engine control unit from electronics box (plenum chamber, right-side).



Note

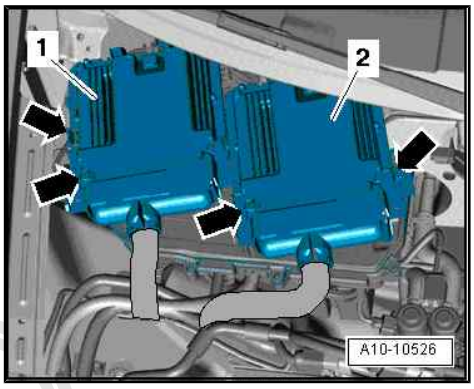
The engine control unit remains connected to the wiring harness.

– Unscrew all electrical wiring connections -2- at main fuse holder -1-.

Note

Disregard -item 4- and -item 5-.

Electronics box (plenum chamber, right-side) - new version:

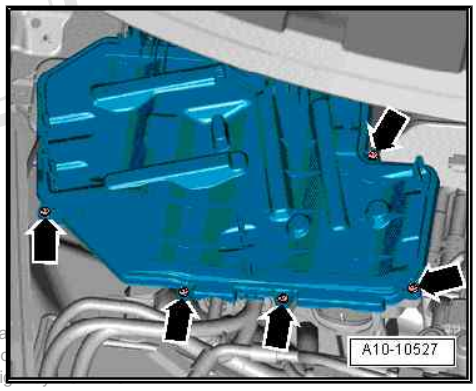


– Release retaining clips -arrows- and remove engine control unit/units -1- and -2-.

Note

The engine control units remains connected to the wiring harness.

– Unscrew bolts -arrows-.



WARNING

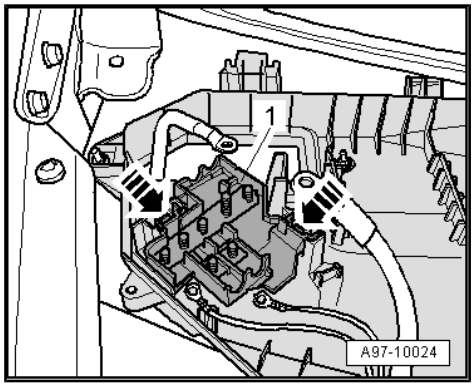
The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

– Remove cover for electronics box (plenum chamber, right-side).

Protected by copyright. Copying for private or commercial purposes, in pa
permitted unless authorised by AUDI AG. AUDI AG does not guarantee c
with respect to the correctness of information in this document. Copyri

Both versions:

– Release retaining clips -arrows- and remove main fuse holder -1- from electronics box (plenum chamber, right-side).



Note

Exact contact assignment of main fuse holder in the electronics box (plenum chamber, right-side) can be found in applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

– Connect battery. Steps required ⇒ page 3 .

– Adjust wiper arms ⇒ page 103 .

Tightening torques

Component	Nm
Electrical wiring to main fuse holder	9
Positive cable to main fuse holder	20
Cover to electronics box (plenum chamber, right-side)	4
Cowl panel trim to blower box	2.7

3.6 Removing and installing auxiliary relay carrier in electronics box (plenum chamber, right-side)

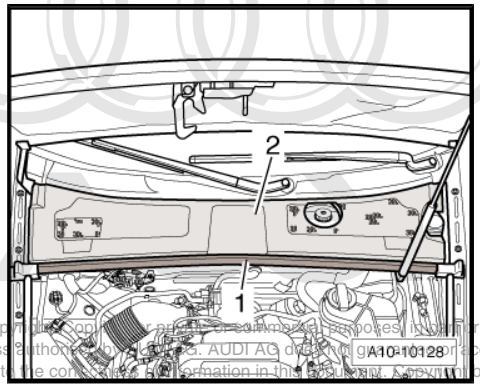
Removing

– Remove wiper arms ⇒ page 102 .

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Pull off rubber seal -1- for plenum chamber cover.

– Remove plenum chamber cover -2-.



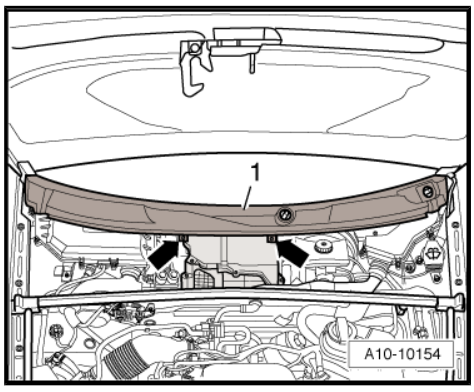
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolts -arrows- for cowl panel trim -1- (left and right).

Caution

Risk of damage to cowl panel trim.

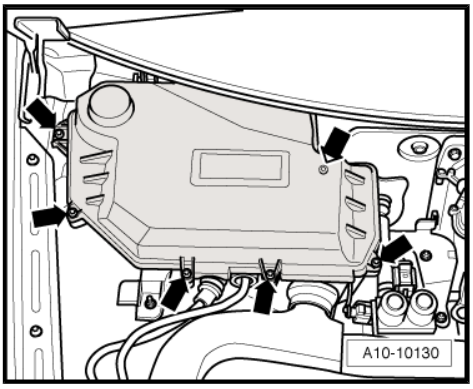
- ***Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.***



– Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

Electronics box (plenum chamber, right-side) - previous version:

– Unscrew bolts -arrows-.

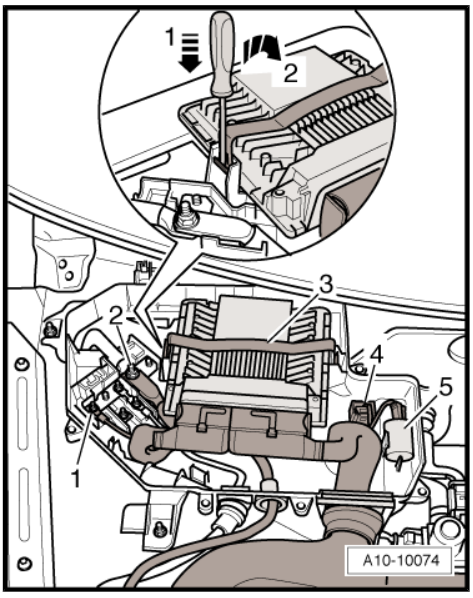


WARNING

The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

– Remove cover for electronics box (plenum chamber, right-side).

– Carefully pry off retaining strap -3- using a screwdriver -arrows 1 and 2- and remove engine control unit from electronics box (plenum chamber, right-side).



Note

The engine control unit remains connected to the wiring harness.

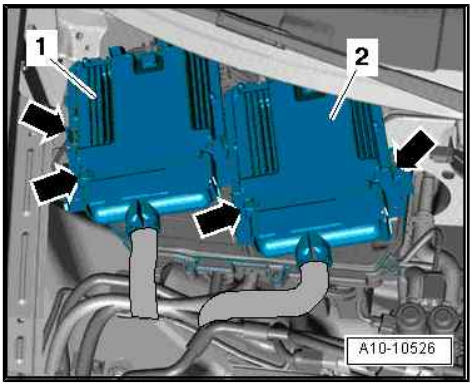
– Unscrew electrical wiring connection -1- at main fuse holder -2-.

Note

Disregard -item 4- and -item 5-.

Electronics box (plenum chamber, right-side) - new version:

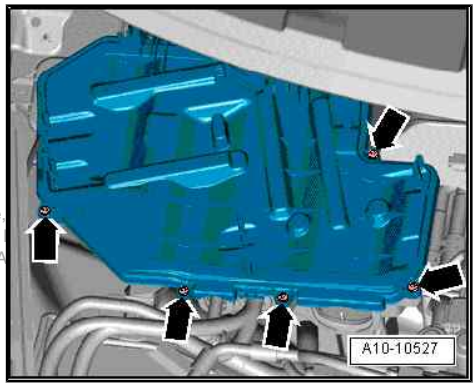
– Release retaining clips -arrows- and remove engine control unit/units -1- and -2-.



Note

The engine control units remains connected to the wiring harness.

– Unscrew bolts -arrows-.



WARNING

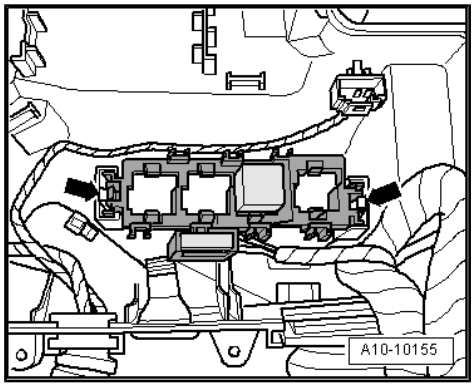
The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Remove cover for electronics box (plenum chamber, right-side).

Both versions:

- Release retaining clips -arrows- and lift relay carrier out of electronics box (plenum chamber, right-side).
- Unclip bracket for auxiliary fuses at relay and fuse holder.
- Withdraw relays or control units and then unclip appropriate relay carrier.



Note

Exact contact assignment of auxiliary relay carrier in electronics box (plenum chamber, right-side) can be found in appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

- Connect battery. Steps required ⇒ page 3 .
- Adjust wiper arms ⇒ page 103 .

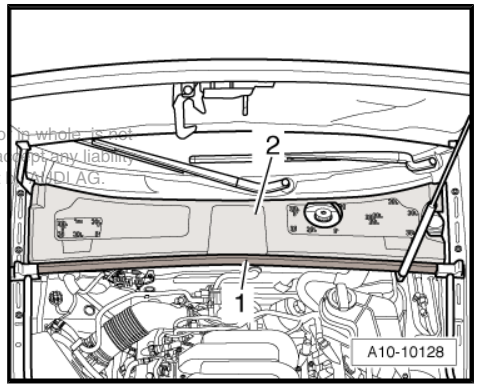
Tightening torques

Component	Nm
Electrical wiring to main fuse holder	9
Cover to electronics box (plenum chamber, right-side)	4
Cowl panel trim to blower box	2.7

3.7 Removing and installing suppression filter - C24-

Removing

- Remove wiper arms ⇒ page 102 .
- With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
- Pull off rubber seal -1- for plenum chamber cover.
- Remove plenum chamber cover -2-.



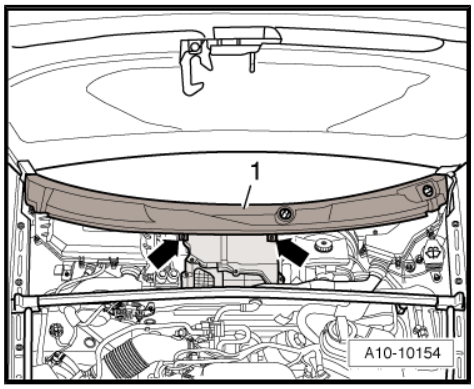
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness and completeness of this document. Copyright by AUDI AG.

- Unscrew bolts -arrows- for cowl panel trim -1- (left and right).

Caution

Risk of damage to cowl panel trim.

- ***Apply a small quantity of soap solution to transition between windscreen and cowl panel trim.***



- Starting at edge of windscreen, carefully pull cowl panel trim -1- vertically up and out of retainer at windscreen.

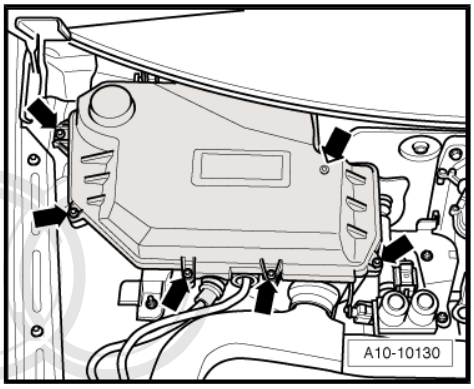
Electronics box (plenum chamber, right-side) - previous version:

– Unscrew bolts -arrows-.

WARNING

The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

– Remove cover for electronics box (plenum chamber, right-side).



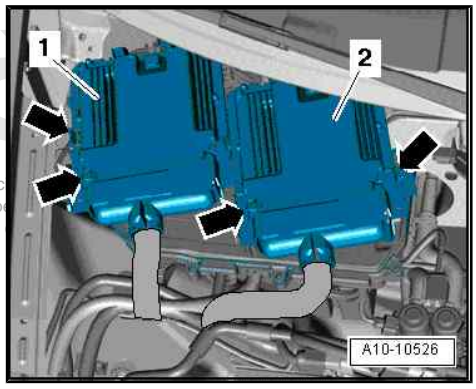
Electronics box (plenum chamber, right-side) - new version:

– Release retaining clips -arrows- and remove engine control unit/units -1- and -2-.

Note

The engine control units remains connected to the wiring harness.

Protected by copyright. Copying for private or commerc
permitted unless authorised by AUDI AG. AUDI AG do
with respect to the correctness of information in this

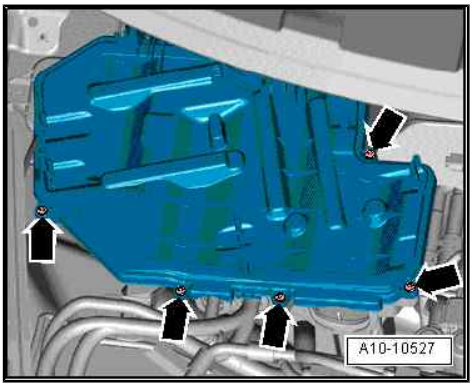


– Unscrew bolts -arrows-.

WARNING

The pump/valve unit for heater (left-side in front of electronics box) becomes very hot during use - risk of burns!

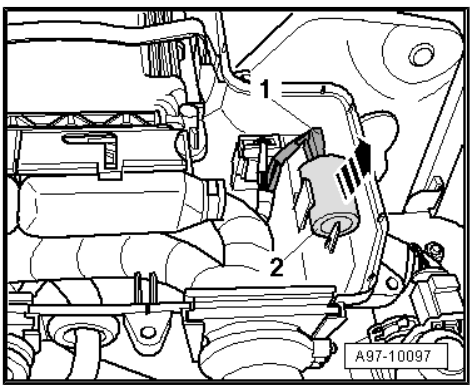
– Remove cover for electronics box (plenum chamber, right-side).



Both versions:

– Lift suppression filter - C24- -item 2- out of electronics box (plenum chamber, right-side) -arrow-.

– Unplug electrical connector -1-.



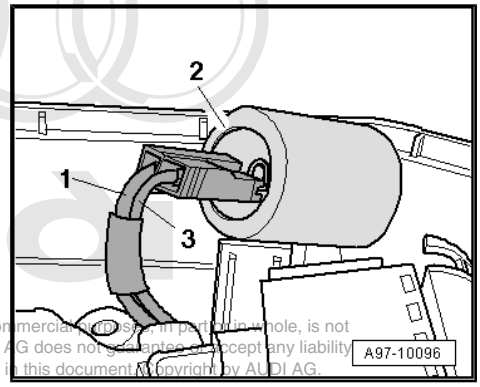
Installing

Installation is carried out in the reverse order; note the following:

– When attaching connector, note pin assignment -1- and -3- for suppression filter - C24- -item 2-. Pin assignment ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

– Connect battery. Steps required ⇒ page 3 .

– Adjust wiper arms ⇒ page 103 .



Tightening torques

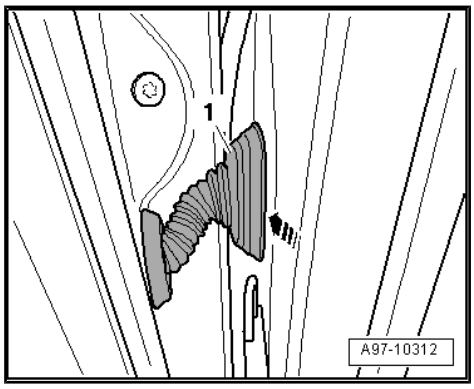
Component	Nm
Cover to electronics box (plenum chamber, right-side)	4
Cowl panel trim to blower box	2.7

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. ©Copyright by AUDI AG.

3.8 Unplugging door separating connector (left-side)

Procedure

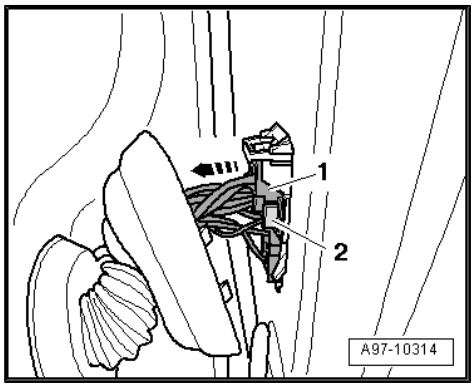
– Press dust cover -1- at location marked with -arrow- and detach.



– Release door separating connector -1- and remove outwards -arrow- (press retainer tab -2-).

– Make sure connector is pressed onto connection piece so it engages audibly.

– Press on dust cover so it engages audibly.



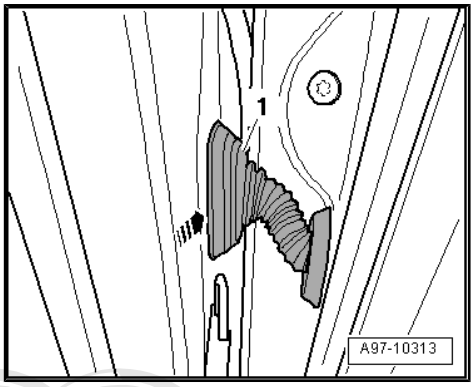
Note

Make sure sealing lip of dust cover makes contact with A pillar evenly all round.

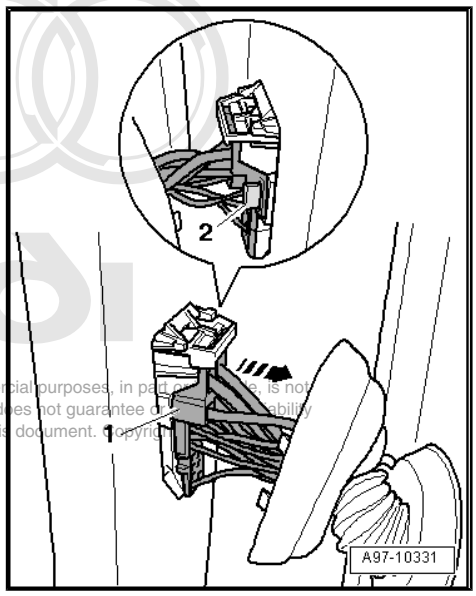
3.9 Unplugging door separating connector (right-side)

Procedure

– Press dust cover -1- at location marked with -arrow- and detach.



– Release door separating connector -1- and remove outwards -arrow- (press retainer tab -2-).
– Make sure connector is pressed onto connection piece so it engages audibly.
– Press on dust cover so it engages audibly.



Note

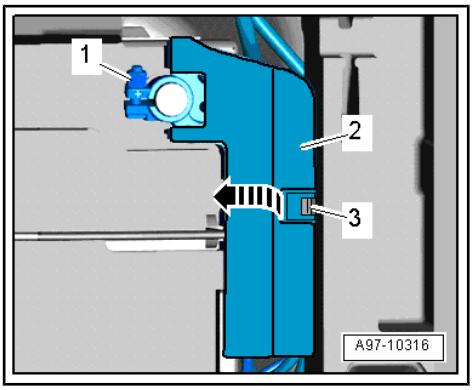
Make sure sealing lip of dust cover makes contact with A pillar evenly all round.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright

3.10 Removing and installing fuse holder A -SA- in luggage compartment

Removing

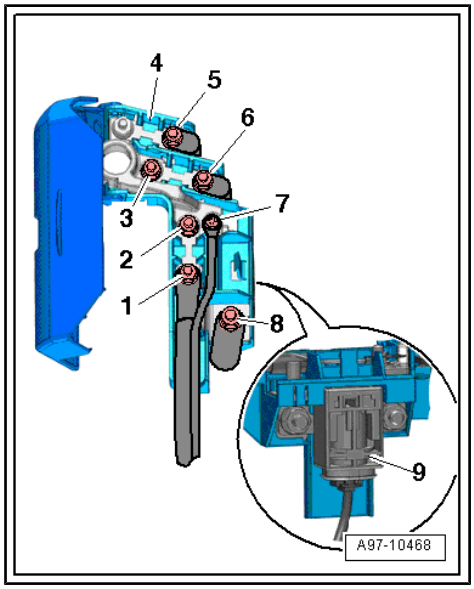
– Remove battery ⇒ page 5 .
– Release retaining clip -3- and open cover -2- of fuse holder A -arrow-.



Note

Disregard -item 1-.

– Unscrew electrical wires -1, 5, 6, 7, 8-.
– Remove battery isolation igniter - N253- -item 9- ⇒ Rep. gr. 69 .
– Take out fuse holder A -item 4-.



Note

- *Disregard -item 2- and -item 3-.*
- *Exact assignment of contacts in fuse holder A can be found in applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.*

Installing

Installation is carried out in the reverse order; note the following:

– Install battery isolation igniter - N253- ⇒ Rep. gr. 69 .
– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component	Nm
Electrical wire to fuse holder	7.5
Nut for fuse	9
Nut to positive wire to engine	18
Bolt to electrical wire	3.5

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4 Relay carriers, fuse carriers (vehicle interior)

Observe notes on contact corrosion ⇒ page 419 .

4.1 Removing and installing fuse holder in dash panel (left-side)

Removing

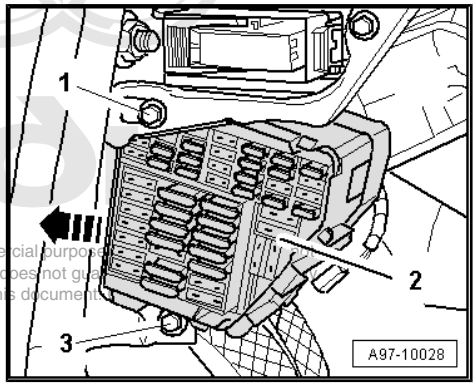
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

– Remove bolt -1-.

– Slacken off bolt -3- by two turns.

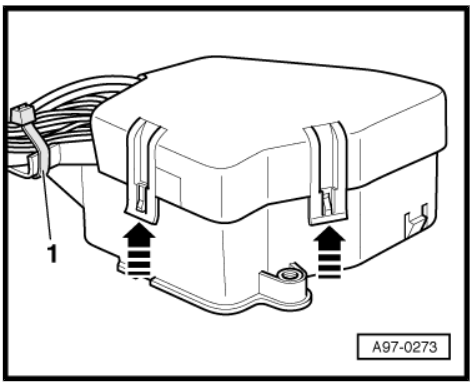
– Press fuse holder -2- off central tube for dash panel in direction of -arrow-.



– Cut open cable tie -1-.

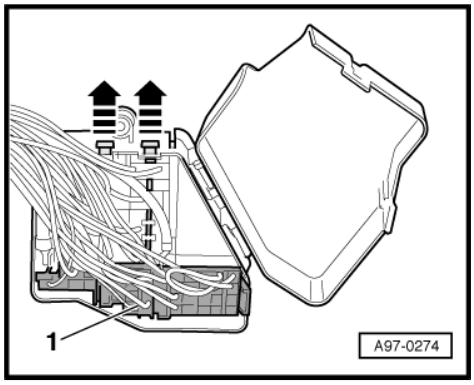
– Release cover for fuse holder -arrows-.

– Detach fuses at fuse holder.



Protected by copyright. Copying for private or commercial purposes, permitted unless authorised by AUDI AG. AUDI AG does not guarantee the correctness and completeness of information in this document.

– Pull off retaining strip for connectors -arrows- and take connectors out of fuse holder.
– Unclip socket -1-.



Note

The exact contact assignment of the fuse holder (dash panel) can be found in the applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

Note

Refit all cable ties at the same locations when reinstalling.

– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Connect battery. Steps required ⇒ page 3 .

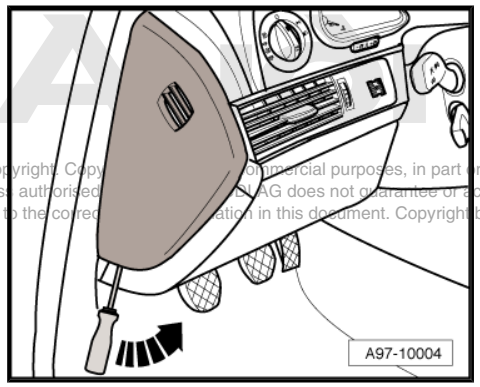
Tightening torque

Component	Nm
Fuse holder to central tube for dash panel	3

4.2 Removing and installing CAN separating connector (left-side) -T46a-

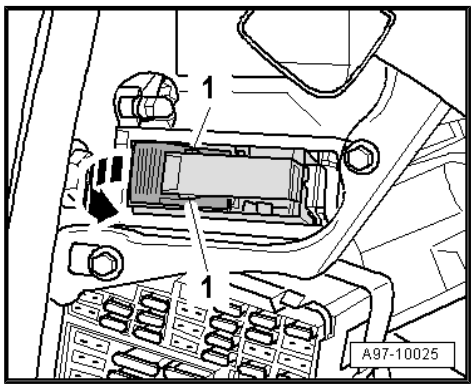
Removing

– Switch off ignition and take out ignition key.
– Use screwdriver to pry off trim (left-side) at dash panel -arrow-.



Protected by copyright. Copy... Commercial purposes, in part or in whole, is not permitted unless authorised... AUDI AG does not guarantee or accept any liability with respect to the correc... information in this document. Copyright by AUDI AG.

– Press retaining tabs -1- at multi-pin connector.
– Release retaining clip -arrow- and unplug connector.



Note

The exact contact assignment of the CAN separating connector (left-side) can be found in the appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Install in reverse order.

4.3 Removing and installing onboard supply control unit - J519-

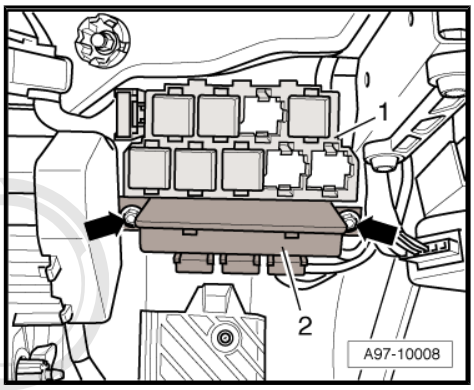
Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

– Switch off ignition and take out ignition key.

– Remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

– Unscrew nuts -arrows- and detach onboard supply control unit - J519- -item 2-.



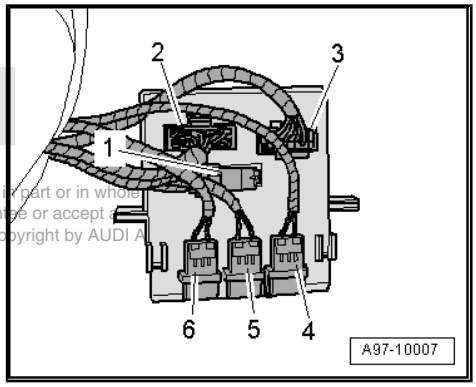
Note

Disregard -item 1-.

– Unclip fuse holders -4 ... 6-.

– Release retaining clip at connector -item 1- and unplug connector.

– Unplug electrical connectors -2- and -3-.



Installing

Installation is carried out in the reverse order; note the following:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

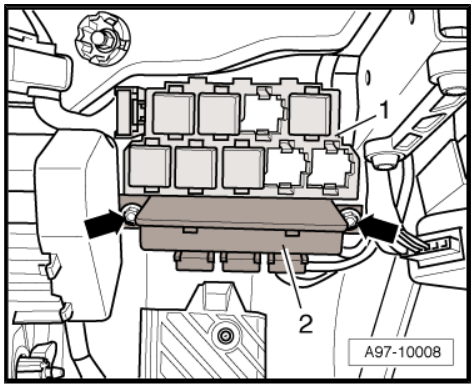
– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .

Tightening torque

Component	Nm
Onboard supply control unit - J519- to central tube for dash panel	3

4.4 Removing and installing relay and fuse carrier behind dash panel (driver's side)

Removing



– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Unscrew nuts -arrows- and detach onboard supply control unit - J519- -item 2- with wiring attached.
– Detach relay and fuse carrier -1-.

Perform additional operations as required.

– Unclip fuse carriers at relay and fuse carrier.
– Disconnect relays and unclip corresponding relay carrier.

Note

The exact contact assignment of the relay and fuse carrier behind dash panel (driver's side) can be found in the appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Connect battery. Steps required ⇒ page 3 .

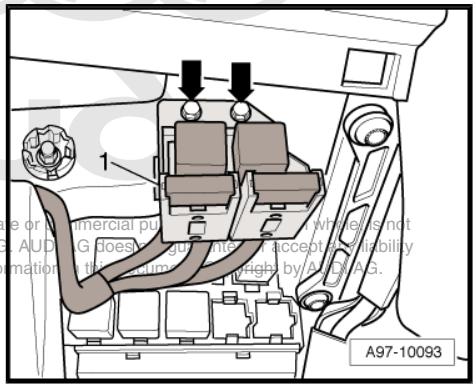
Tightening torque

Component	Nm
Relay and fuse carrier with onboard supply control unit - J519- to central tube for dash panel	3

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.5 Removing and installing 2-position relay and fuse carrier behind dash panel (driver's side)

Removing



– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Unscrew bolts -arrows-.
– Detach relay and fuse carrier -1-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Perform additional operations as required.

– Unclip fuse carriers at relay and fuse carrier.
– Disconnect relays and unclip corresponding relay carrier.

Note

The exact contact assignment of the 2-position relay and fuse carrier behind dash panel (driver's side) can be found in the appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

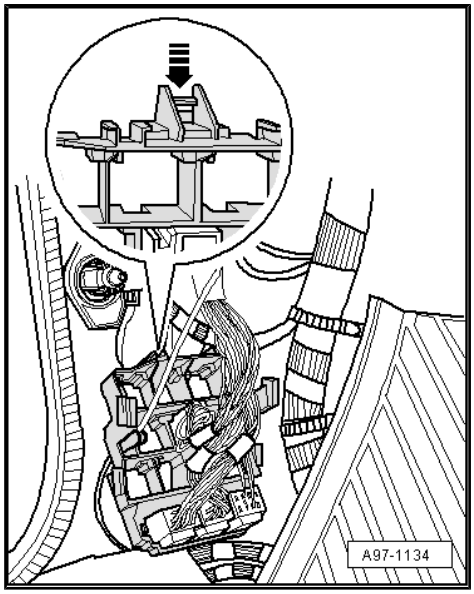
Installation is carried out in the reverse order; note the following:

– Install dash panel trim (bottom, driver's side) ⇒ Rep. gr. 68 .
– Connect battery. Steps required ⇒ page 3 .

Tightening torque

Component	Nm
Relay and fuse carrier to central tube for dash panel	3

4.6 Removing and installing connector point at A-pillar (left-side)



Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove A-pillar trim (bottom) ⇒ Rep. gr. 70 .
– Press retaining clip in direction of -arrow- and detach connector point from A-pillar.
– Unclip fuse holder at connector point.
– Withdraw relays or control units and then unclip appropriate relay carrier.

Note

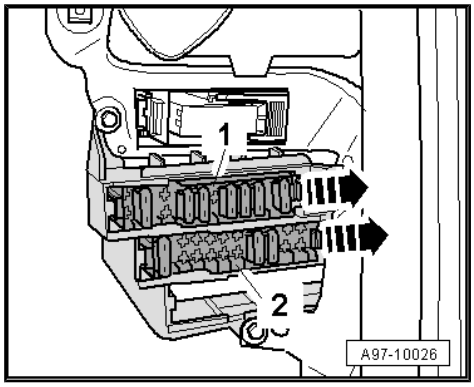
The exact contact assignment for the A-pillar connector point (left-side) can be found in the applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

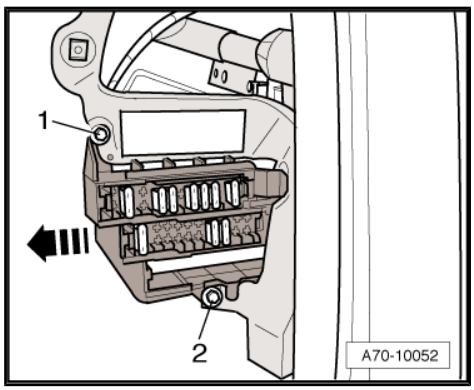
– Install A-pillar trim (bottom) ⇒ Rep. gr. 70 .
– Connect battery. Steps required ⇒ page 3 .

4.7 Removing and installing bracket with fuse holder at dash panel (right-side)



Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove glove box ⇒ Rep. gr. 68 .
– Release retaining springs -arrows- and press the fuse holders -1- and -2- to rear out of bracket.



– Remove bolts -1- and -2-.
– Remove the bracket from central tube for dash panel in direction of -arrow-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Installing

Installation is carried out in the reverse order; note the following:

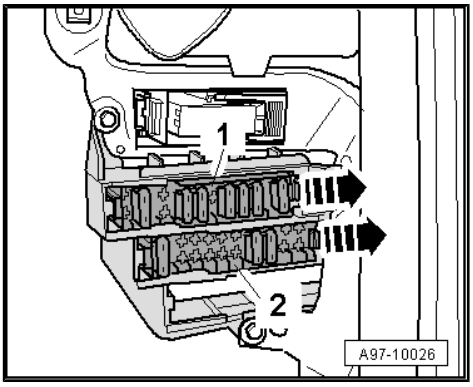
– Install glove box ⇒ Rep. gr. 68 .
– Connect battery. Steps required ⇒ page 3 .

Tightening torque

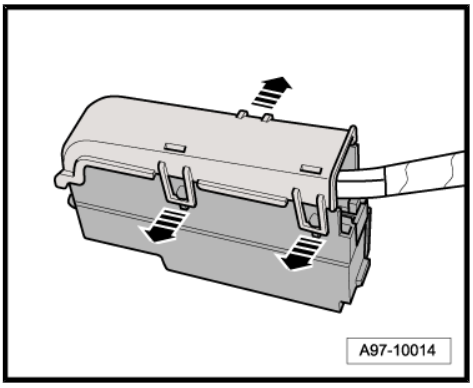
Component	Nm
Bracket with fuse holder to central tube for dash panel	3

4.8 Removing and installing fuse holder at dash panel (right-side)

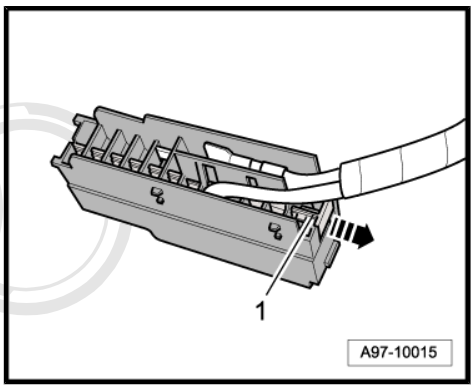
Removing



– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .
– Remove glove box ⇒ Rep. gr. 68 .
– Release retaining springs -arrows- and press the fuse holders -1- and -2- to rear out of bracket.



– If fitted, release captive fastener and pull it off fuse carrier.
– Detach fuses at fuse holder.
– Release retaining clips -arrows- and remove cover at fuse holder.



– Detach retaining strip -1- for connectors -arrow- and take connectors out of socket.

Note

Exact contact assignment of fuse holder in dash panel (right-side) can be found in applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

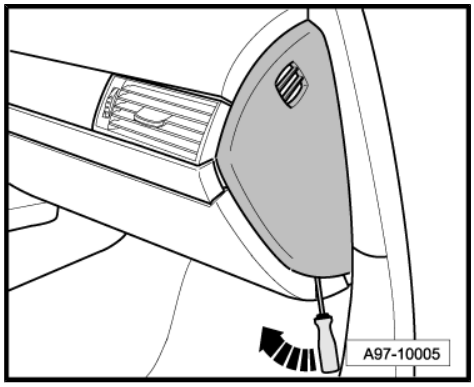
– Install glove box ⇒ Rep. gr. 68 .
– Connect battery. Steps required ⇒ page 3 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.9 Removing and installing CAN separating connector (right-side) -T46b-

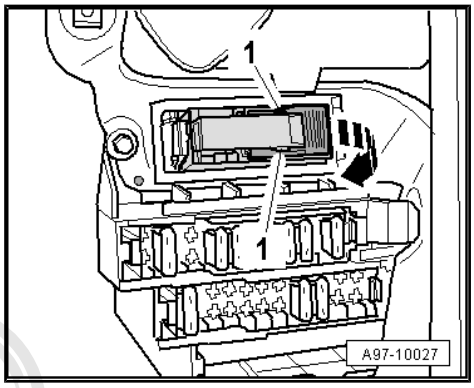
Removing

– Use screwdriver to pry off dash panel end trim (right-side) -arrow-.



– Press retaining tabs -1- at multi-pin connector.

– Release retaining clip -arrow- and unplug connector.



Note

Exact contact assignment of CAN separating connector (right-side) can be found in appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Install in reverse order.

4.10 Removing and installing onboard supply control unit 2 - J520-

Fitting location: beneath central tube for dash panel at plenum chamber partition panel.

Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

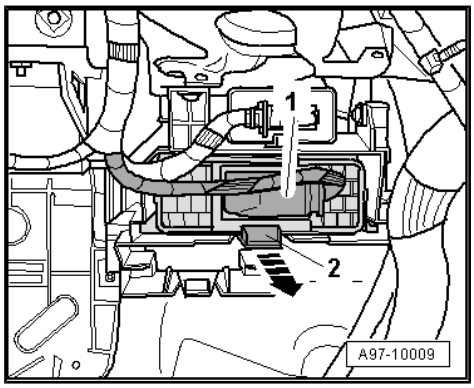
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Switch off ignition and take out ignition key.

– Remove glove box ⇒ Rep. gr. 68 .

– Press the retaining clip -2- aside -arrow- and pull the onboard supply control unit 2 - J520- out of the frame.

– Unplug electrical connector -1-.



Installing

Installation is carried out in the reverse order; note the following:

– Install glove box ⇒ Rep. gr. 68 .

4.11 Removing and installing special vehicle control unit - J608-

Removing

– If control unit is to be renewed, select the “Replace control unit” function for appropriate control unit in ⇒ Vehicle diagnostic tester.

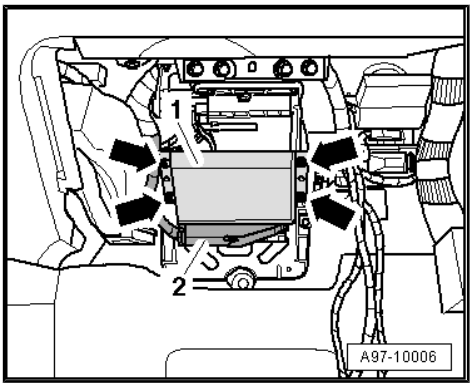
– Switch off ignition and take out ignition key.

– Remove glove box ⇒ Rep. gr. 68 .

– Unscrew bolts -arrows-.

– Detach the special vehicle control unit - J608- -item 1- from bracket.

– Unplug electrical connector -2-.



Installing

Installation is carried out in the reverse order; note the following:

– Install glove box ⇒ Rep. gr. 68 .

Tightening torque

Component	Nm
Special vehicle control unit - J608- to bracket	3

4.12 Removing and installing connector point at A-pillar (right-side)

Removing

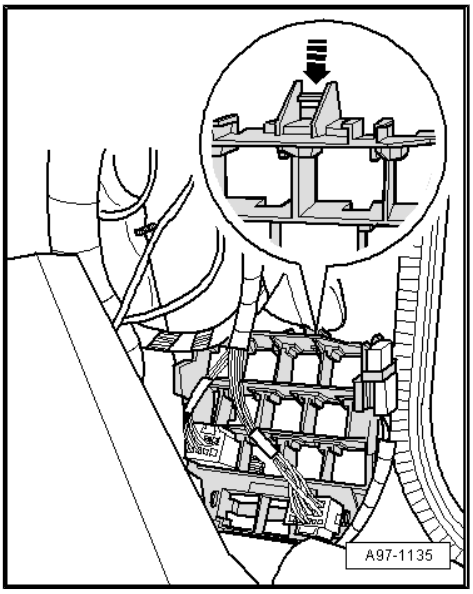
– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Remove A-pillar trim (bottom) ⇒ Rep. gr. 70 .

– Press retaining clip in direction of -arrow- and detach connector point from A-pillar.

– Unclip fuse holder at connector point.

– Withdraw relays or control units and then unclip appropriate relay carrier.



Note

Exact assignment for A-pillar connector point (right-side) can be found in applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations

Installing

Installation is carried out in the reverse order; note the following:

– Install A-pillar trim (bottom) ⇒ Rep. gr. 70 .

– Connect battery. Steps required ⇒ page 3

The reproduction, distribution and utilization of this document for commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5 Relay carriers, fuse carriers (luggage compartment)

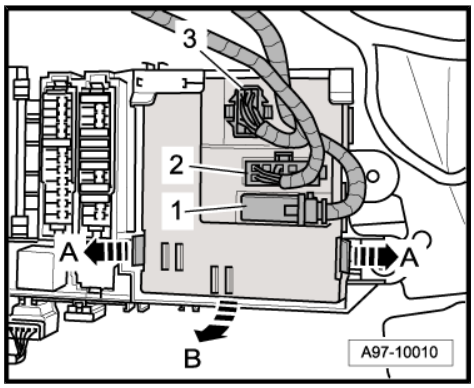
5.1 Removing and installing relay and fuse holder in luggage compartment (right-side)

Removing

– With ignition switched off, disconnect earth cable at battery ⇒ page 2 .

– Remove luggage compartment side trim (right-side).

– Release retaining clips -arrows A- and remove convenience system central control unit - J393- downwards out of relay and fuse carrier -arrow B-.



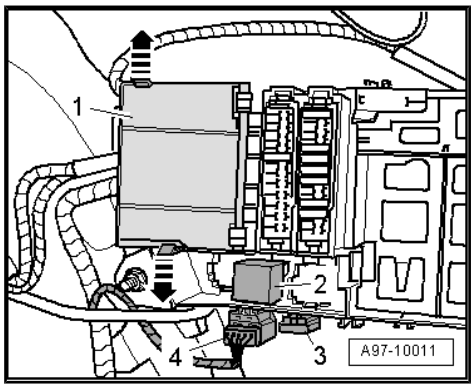
Note

Disregard -items 1 … 3-.

– Unclip electrical connectors -4- and bracket -3- for auxiliary fuses at relay and fuse holder.

– Detach relay -2- or control units and then unclip appropriate relay carrier.

– Release retaining clips -arrows- and open cover -1-.

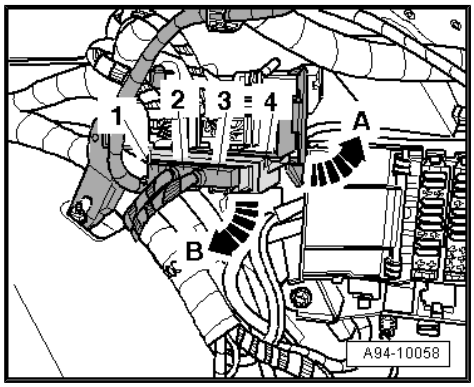


Saloon:

– On vehicles with parking aid, remove side trim (right-side) ⇒ Rep. gr. 70 .

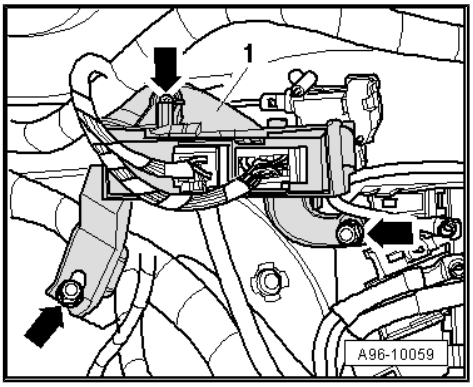
– Release retaining clip -arrow- and pivot the parking aid control unit - J446- -item 4- from frame -arrow B-.

– The electrical connectors -1 ... 3- remain attached.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Unscrew bolt and nuts -arrows-.
– Detach retaining frame -1- for control units.

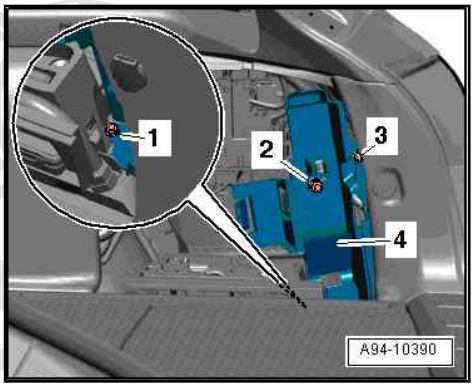


Note

The trailer detector control unit - J345- does NOT need to be removed.

Vehicles with mounting for jack:

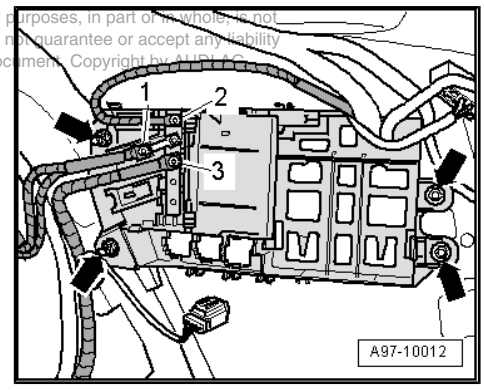
– Take jack out of mounting.
– Unscrew nuts -1- and -2- and bolt -3-.
– Remove mounting for jack.



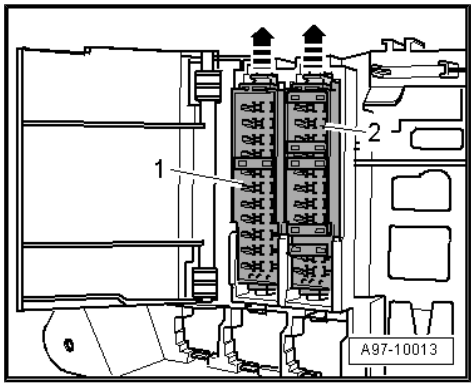
All vehicles:

– Unscrew electrical wiring -1 … 3-.
– Unscrew nuts -arrows- and detach relay and fuse holder.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



– Release retaining clips -arrows- and press the fuse carriers -1- and -2- to rear out of relay and fuse carrier.



Note

Exact contact assignment of relay and fuse holder in luggage compartment (right-side) can be found in appropriate current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Installation is carried out in the reverse order; note the following:

– Connect battery. Steps required ⇒ page 3 .

Tightening torques

Component		Nm
Relay and fuse holder to body		3
Retaining frame for control units	Bolt	2
	Nut	3
Electrical wiring to relay and fuse holder		9
Mounting for jack to body	Bolt	5
	Nut	3

5.2 Removing and installing luggage compartment fuse holder (right-side)

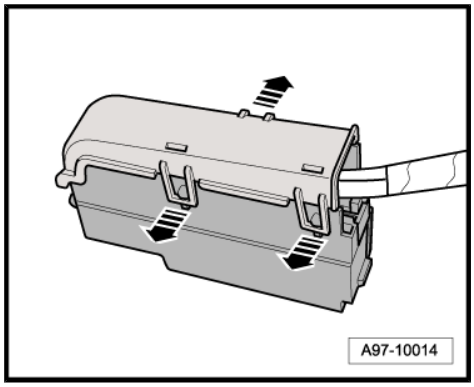
Removing

– Remove relay and fuse holder ⇒ page 448 .

– If fitted, release captive fastener and pull it off fuse carrier.

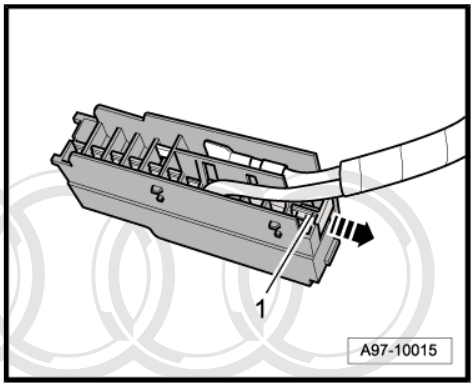
– Detach fuses at fuse holder.

– Release retaining clips -arrows- and remove cover at fuse holder.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

– Detach retaining strip -1- for connectors -arrow- and take connectors out of socket.



Note

Exact contact assignment of fuse holder in luggage compartment (right-side) can be found in applicable current flow diagram ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

Installing

Install in reverse order.

Tightening torques

Component	Nm
Relay and fuse holder to body	3
Electrical wiring to relay and fuse holder	9

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

5.3 Removing and installing personal danger alarm control unit - J476- - Audi A6 Security

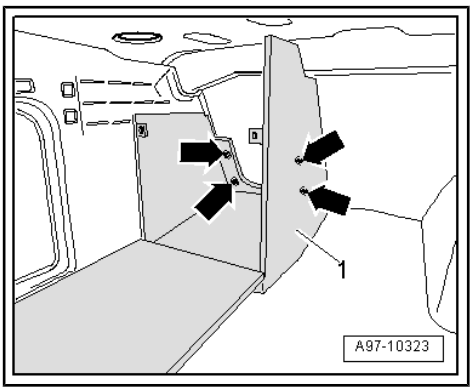
Removing

– Open flap and remove bolts -arrows-.

– Take communication box -1- out of luggage compartment.

– Remove luggage compartment side trim (left-side) ⇒ Rep. gr. 70 .

– Remove mounting bracket for control units ⇒ Rep. gr. 91 .

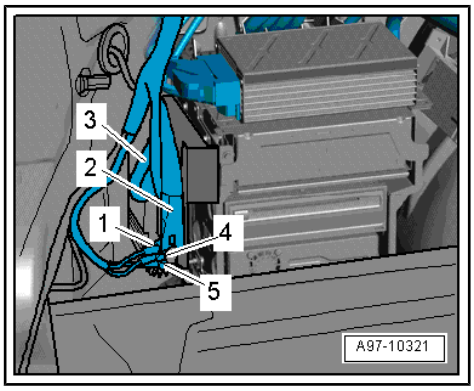


Note

Electrical connectors remain connected.

Caution

If the electrical connectors on the personal danger alarm control unit - J476- are unplugged while the battery is still connected, the control unit will be damaged.

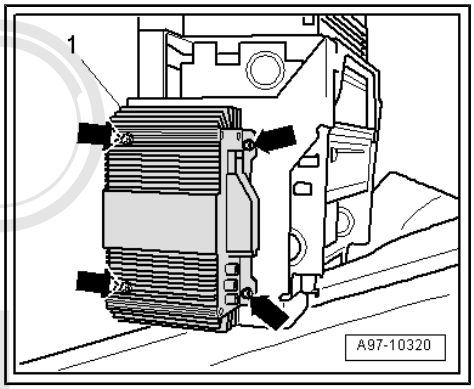


– With ignition switched off, disconnect earth cable at battery ⇒ Rep. gr. 27 .

– Mark electrical wiring -1, 4, 5- for re-installation.

– Unplug electrical wiring -1 … 5-.

– Unscrew nuts -arrows-.
– Detach personal danger alarm control unit - J476- -item 1-.



Installing

Install in reverse order.

Tightening torque

Component	Nm
Communication box to back panel	9

5.4 Removing and installing encoding connector for siren special signal system - Audi A6 Security

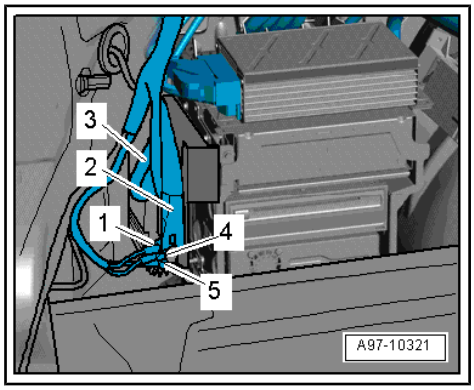
Reproduction or disclosure to third parties of this document or any part thereof for any purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Note

- *The brown encoding connector is secured to the appropriate wiring harness with a cable tie.*
- *After plugging in the brown encoding connector to the appropriate connector the volume of the siren special signal system is reduced to 50 dB in Service mode.*

Procedure

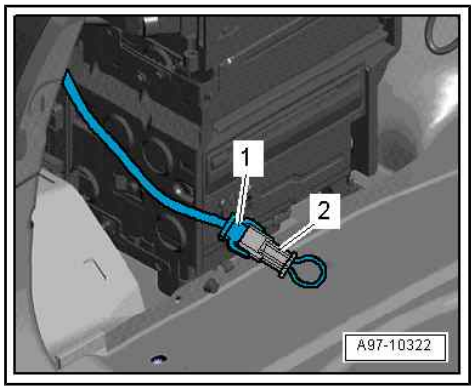
– Remove cover on luggage compartment side trim (left-side).
– Unplug electrical connector -3- for siren special signal system.



Note

Disregard -items 1, 2, 4, 5- and -arrows-.

– Plug in brown encoding connector -2- for siren special signal system to vacant connector -1-.



6 Repairing wiring harnesses and electrical connectors

⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

7 Repairing connector housings and electrical connectors

⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing connector housings and electrical connectors

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

8 Releasing and dismantling connector housing

⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Releasing and dismantling connector housings

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

9 Cleaning contact surfaces with contact surface cleaning set - VAS 6410-

⇒ Electrical system; General information; Rep. gr. 97 ; Contact surface cleaning set VAS 6410

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

10 Repairing aerial wires

85053

⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

11 Fibre optic cables

⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing fibre optic cables

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

12 Vehicle diagnostic, testing and information systems

⇒ Electrical system; General information; Rep. gr. 97 ; Vehicle diagnostic, testing and information systems

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.