

VOLVO
for life



VOLVO **WIRING DIAGRAM** XC90 PREMIER

TP 3980202

2005

Vehicles with SRS (Airbag)/SIPS bag/ IC (Inflatable curtain)

Warning!

Extra caution must be exercised when working on vehicles equipped with SRS/SIPS bag/IC in order to avoid:

1. Personal injuries when performing repair work.
2. Damage or malfunction of the SRS/SIPS bag/IC system.

Work involving the SRS/SIPS bag/IC systems or other components in the vehicle that may affect the SRS/SIPS bag/IC systems must always be performed by an authorized Volvo workshop.

In case of doubt, consult the SRS and SIPS bag/IC service manual.

Is the vehicle equipped with SRS/SIPS bag/IC ?

Vehicles with SRS are most easily recognized by the letters SRS in the center of the steering wheel. If the vehicle also has a passenger side airbag, the letters SRS are stamped on the dashboard above the glove compartment. SRS vehicles from 1993 and onward also have explosive seat belt tensioners. SIPS bags are only installed on SRS vehicles from 1995 and onward. SIPS bag decals are located on the windshield and seat compartment. Vehicles with IC can be recognized by the letters IC on the C/D panel (4 door) or the B panel (5 door).

General recommendations

- Be especially careful when working on or around SRS, SIPS, and IC components.
- Make sure that no wires are pinched, frayed, or pierced.
- Never fit accessories by the sensors.
- Where applicable, work on the steering wheel, steering shaft, or steering gear must be done in accordance with the methods in the SRS section of VADIS.
- Certain components of the aforementioned systems must be grounded while working. Read the appropriate sections in VADIS.
- Do not install any accessories in the areas between the A and B-pillars, the B and C-pillars, and the C and D-pillars.

Test terminal

Fuse in cargo compartment auxiliary fuse box

Changes introduced up to and including June 2004

Any changes made to the vehicle after this date are not included in the manual. If necessary, refer to service bulletins.

Volvo models are sold in versions adapted for different markets. These adaptations depend on factors such as legal requirements, taxation, and market demands.

This manual may therefore include illustrations and text that do not apply to the vehicles in your country.

Table of Contents

Vehicles with SRS (Airbag)/SIPS bag/IC (Inflatable curtain)	2
Abbreviations	4
How to use the wiring diagrams 1:2	5
Electrical distribution 1:2	7

Fuses

Cargo compartment 11E & 11F	9
-----------------------------------	---

Ground connections

31/10 - 31/118	10
----------------------	----

Group 39 Other

Rear Seat Entertainment (RSE) 1:2	11
Cooler	13

Connectors

54/33 - 54/303	14
54/274 - 54/275	15
54/276 - 54/277	16

Junction points

53/403 - 53/521	17
53/522 - 53/731	18

Cable harness routing in vehicle

Harnesses, XC90 Premier	19
-------------------------------	----

Component illustrations

1/1 - 3/1	20
4/9 - 11E	21
11F - 16/82	22
16/105 - 54/98	23
54/274 - 54/303	24

Index

List of components

Explanations

Abbreviations

Groups

Group 39 = Other

Ignition switch symbols

X = Accessories (audio position)
S = Powered upon insertion of key
15 = The switch remains connected during start
15I = Contact is broken while starting
30 = Constant power from the battery
50 = Start

Countries/Markets

A = Austria
AUS = Australia
B = Belgium
CDN = Canada
CH = Switzerland
D = Germany
DK = Denmark
E = Spain
EU/OS = Markets outside USA and Canada
FIN = Finland
GB = Great Britain
ISR = Israel
J = Japan
KOR = Korea
N = Norway
NL = Netherlands
S = Sweden
USA = United States of America
WEU = Western Europe

Other

AUD = Audio Module (AUD)
AUX = Socket for external equipment
CEM = Central Electronic Module (CEM)
DVD = DVD player
MMM = Multimedia Module (MMM)
RAS = Rear Audio Separation module (RAS)
REM = Rear Electronic Module (REM)
RSE = Rear Seat Entertainment module (RSE)
TFT = TV display in head restraint

Colors

BL = Blue
BN = Brown
GN = Green
GR = Gray
LBL = Light Blue
LGN = Light Green
OR = Orange
P = Pink
R = Red
SB = Black
VO = Violet
W = White
Y = Yellow

How to use the wiring diagrams 1:2

The descriptions below apply in general to all wiring diagram manuals, although not all sections are necessarily contained in this manual.

A. Component designation

Every component has a component designation that consists of two parts.

The first part is a type number that describes the type of component in question, for example 3/xx.

The second part of the designation is a serial number, for example x/2.

Combined these give a component designation, for example 3/2.

At the end of the manual is a list of components, where, with the help of the component designation, you can read off the name of the component, for example, 3/2 = light switch.

List of type numbers

The list shows which type of component that respective type numbers refer to, for example, 3/x = switch, 6/x = electric motor, etc.

1	Battery
2	Relay
3	Switch
4	Control module
5	Driver Information Module
6	Electric motor
7	Sensor
8	Actuator
9	Heating element
10	Light
11	Fuse
15	Electrical distribution rail/box
16	Audio
17	Service/diagnostics
18	Contact reel
19	Meter
20	Ignition component/shunt
26	Converter
27	Optics
31	Ground connection
53	Junction point
54	Connector

B. Junction points

The wiring diagrams contain numbered junction points, for example 53/352.

This manual contains a section with a list of junction points. This list shows all the components which are connected to each junction point.

The location of the junction points is shown in the "Cable harness routing in vehicle" section.

C. Connectors

Connectors provide a bridge between two cable harnesses and are described in the "Connectors" section.

D. Electrical distribution

Operation of the fuses and relays is shown in the "Electrical distribution" section.

E. Data communication

Today's cars are equipped with CAN & MOST networks that transmit information. Connections to these networks are shown in their entirety on the respective wiring diagram. Complete information on CAN & MOST communication can be found in the section entitled "Control modules".

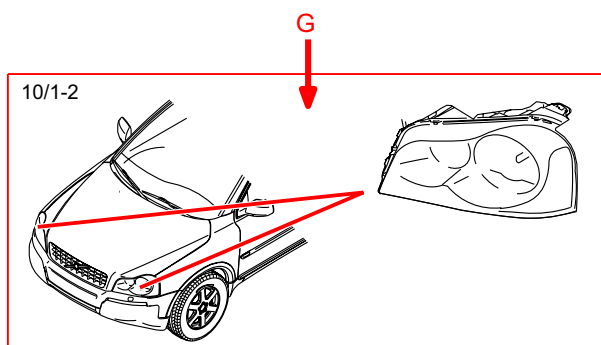
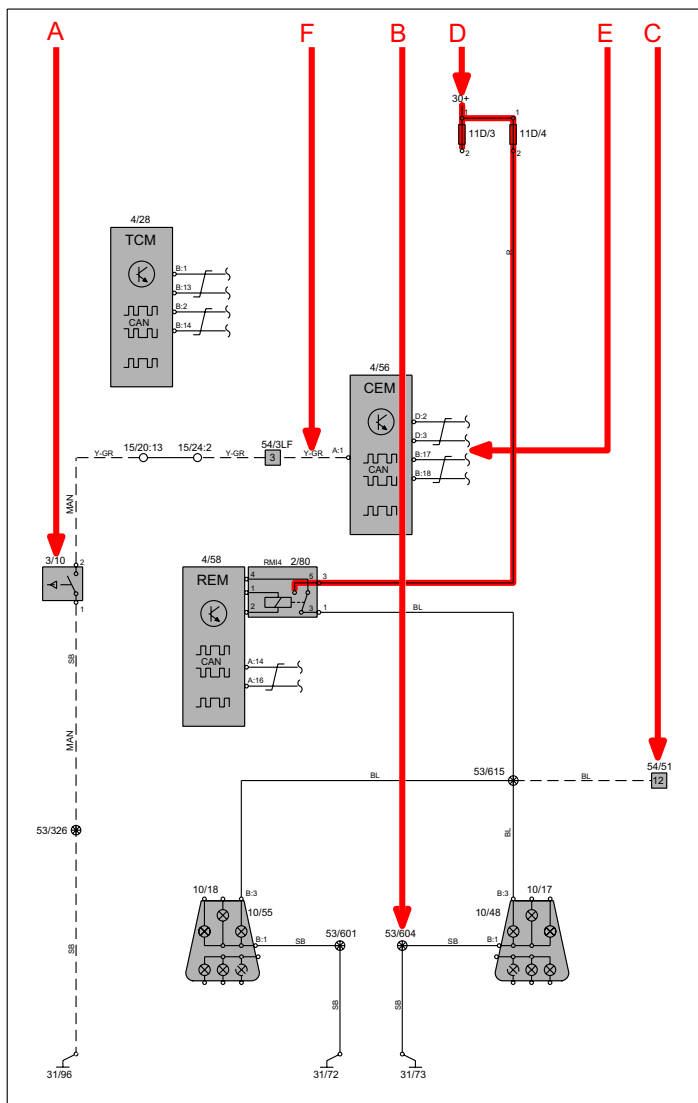
F. Abbreviations

A number of different abbreviations are used in the manual. These are explained in the section "Abbreviations".

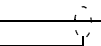
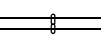
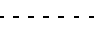
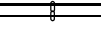
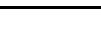
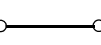
G. Component location

There is a section at the end of the manual in which the appearance and location of components is described in numerical order.

How to use the wiring diagrams 2:2

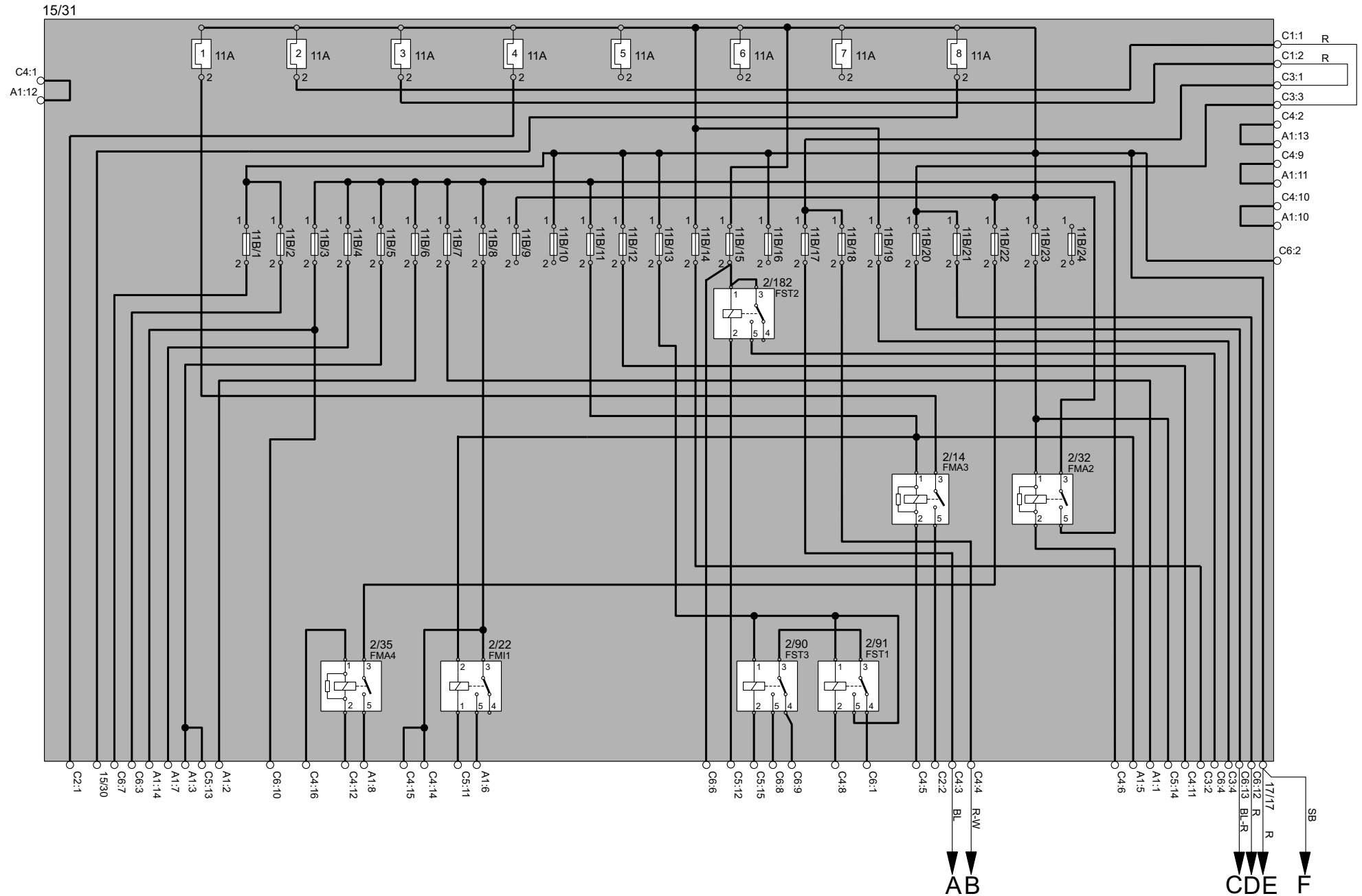


List of symbols

- = System voltage
-  = Ground connection via wiring
-  = Ground connection on component/chassis
-  = Screened wire
-  = Junction point
-  = Twisted cable
-  = Electrical connection
-  = Variant
-  = CAN communication
-  = CAN high data signal (CAN H)
-  = CAN low data signal (CAN L)
-  = MOST communication
-  = LIN communication
-  = DIN cable, coaxial cable, etc.
-  = Data communication
-  = CAN communication
-  = Connection with distribution box
-  = Further connection to...
-  = Connector between cable harnesses
-  = Connector connected to component

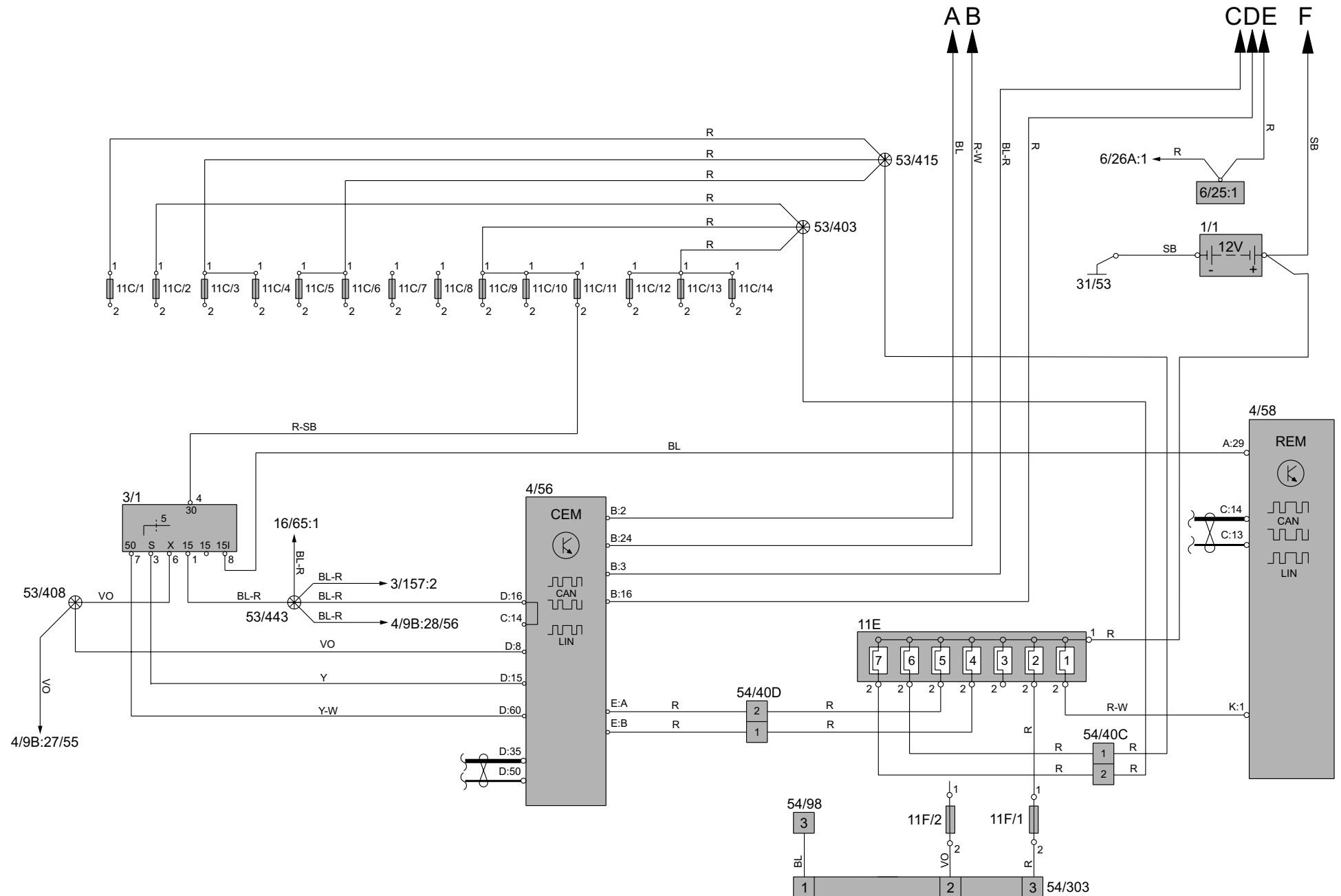
Electrical distribution 1:2

Overview



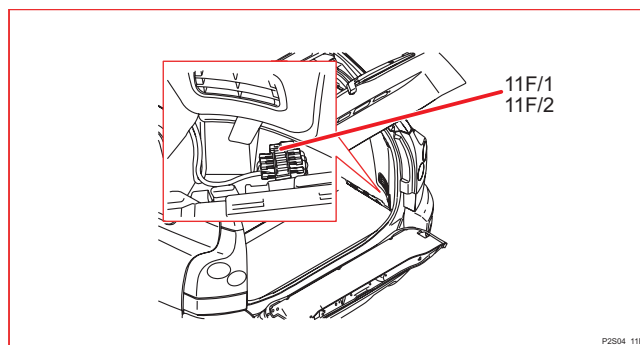
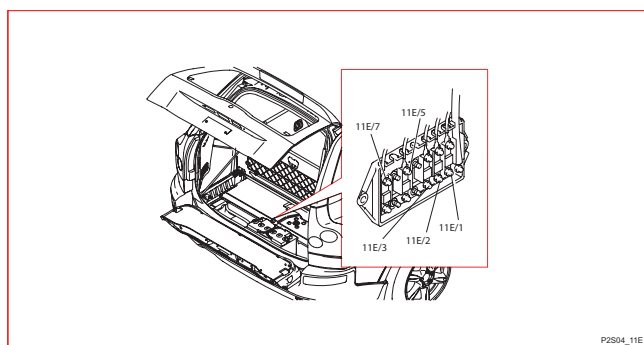
Electrical distribution 2:2

Overview



Fuses

Cargo compartment 11E & 11F



11E Fuses by the battery

No.	Fuse function	via	A
2	16/124 Rear Seat Entertainment module (RSE)	-	40

11F Fuses in cargo compartment auxiliary fuse box

No.	Fuse function	via	A
1	16/124 Rear Seat Entertainment module (RSE), 30 feed	-	10
2	16/124 Rear Seat Entertainment module (RSE), X feed	-	5

Ground connections

31/10 - 31/118

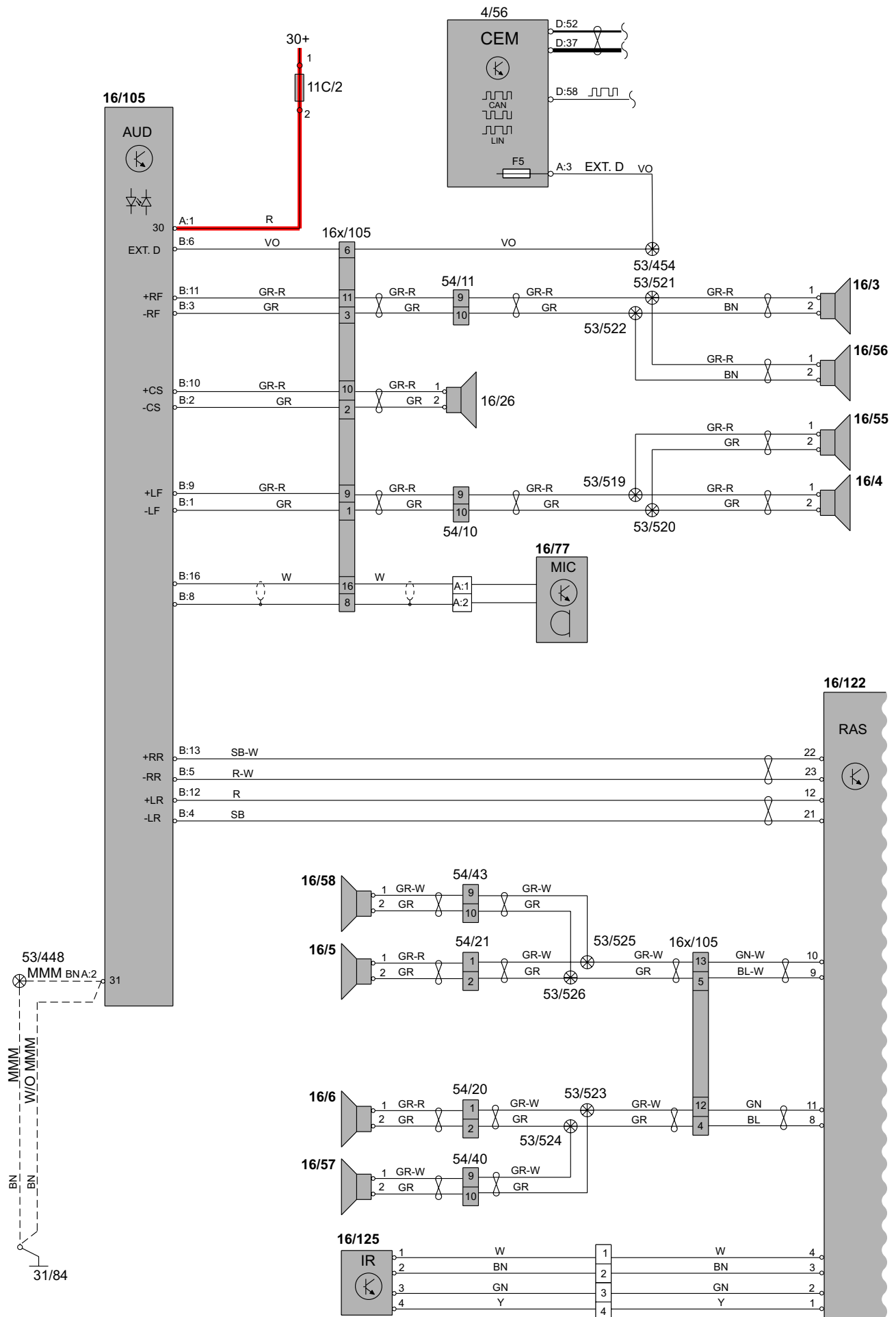
31/10	A-post, right-hand side
9/24	Coolbox rear seat
9/25	Rear 12V socket
9X/25	Connector, original car interface

31/84	A-post, right-hand side
16/105	Audio Module (AUD)

31/118	Between the front seats below the armrest
2/237	Disconnect relay, rear speaker
16/122	Rear Audio Separation module (RAS)
16/124B	Rear Seat Entertainment module (RSE)

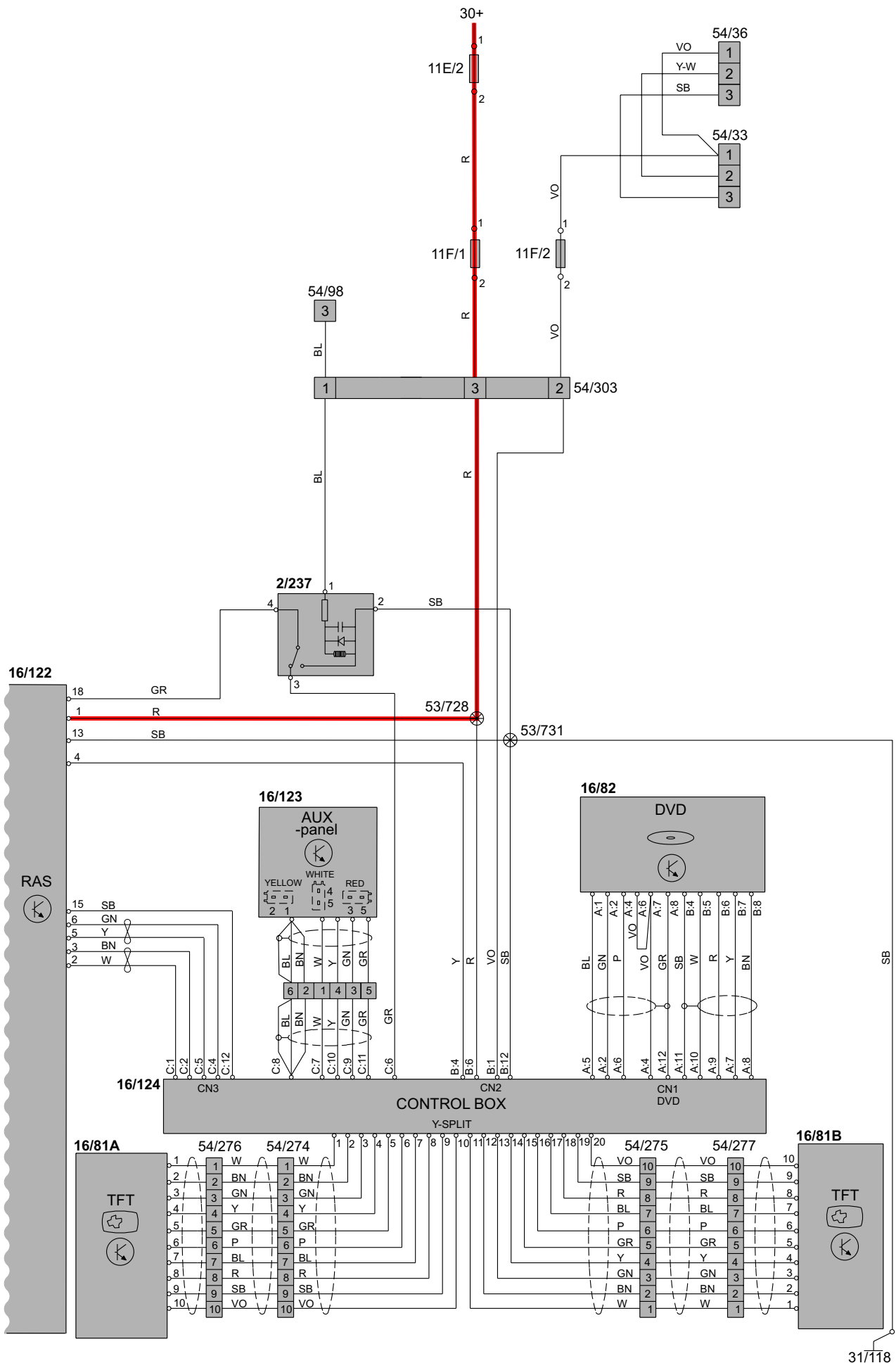
Group 39 Other

Rear Seat Entertainment (RSE) 1:2

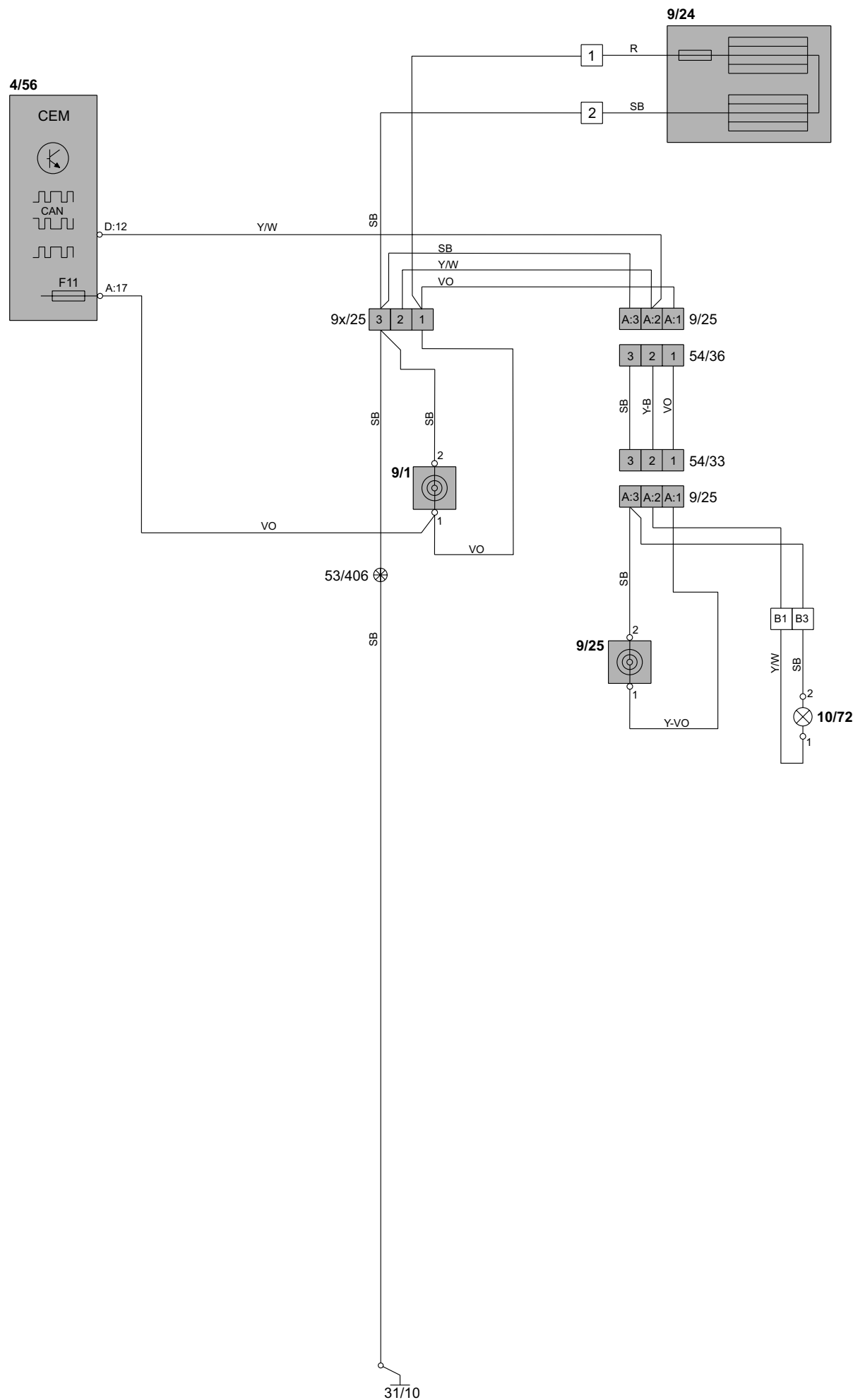


Group 39 Other

Rear Seat Entertainment (RSE) 2:2



Group 39 Other
Cooler



Connectors

54/33 - 54/303

54/33 3-pin gray

No.	Rear Seat Entertainment harness			12V outlet	
1	11F/2:1	Fuses in cargo compartment auxiliary fuse box	VO VO	-	-
	54/36:1	Connector			
2	54/36:2	Connector	Y/W	-	-
3	54/36:3	Connector	SB	-	-

54/36 3-pin gray

No.	Rear Seat Entertainment harness			12V outlet	
1	54/33:1	Connector	VO	9X/25:1	Connector, original car interface VO
2	54/33:2	Connector	Y/B	4/56D:12	Central Electronic Module (CEM)
				9X/25:2	Connector, original car interface
3	54/33:3	Connector	SB	9X/25:3	Connector, original car interface SB

54/98 5-pin gray

No.	Rear Seat Entertainment harness			-	
3	54/303:1	Connector	BL	-	-

54/303 3-pin gray

No.	Rear Seat Entertainment harness			Fuses in cargo compartment auxiliary fuse box	
1	2/237:1	Disconnect relay, rear speaker	BL	54/98:3	Connector BL
2	16/124(CN2)B:1	Rear Seat Entertainment module (RSE)	VO	11F/2:2	Fuses in cargo compartment auxiliary fuse box VO
3	53/728	Junction point	R	11F/1:2	Fuses in cargo compartment auxiliary fuse box R

Connectors

54/274 - 54/275

54/274

10-pin gray

No.	TV display harness			Rear Seat Entertainment (RSE) harness		
1	54/276	Connector	W	16/124:1	Rear Seat Entertainment module (RSE)	W
2	54/276	Connector	BN	16/124:2	Rear Seat Entertainment module (RSE)	BN
3	54/276	Connector	GN	16/124:3	Rear Seat Entertainment module (RSE)	GN
4	54/276	Connector	Y	16/124:4	Rear Seat Entertainment module (RSE)	Y
5	54/276	Connector	GR	16/124:5	Rear Seat Entertainment module (RSE)	GR
6	54/276	Connector	P	16/124:6	Rear Seat Entertainment module (RSE)	P
7	54/276	Connector	BL	16/124:7	Rear Seat Entertainment module (RSE)	BL
8	54/276	Connector	R	16/124:8	Rear Seat Entertainment module (RSE)	R
9	54/276	Connector	SB	16/124:9	Rear Seat Entertainment module (RSE)	SB
10	54/276	Connector	VO	16/124:10	Rear Seat Entertainment module (RSE)	VO

54/275

10-pin gray

No.	TV display harness			Rear Seat Entertainment (RSE) harness		
1	54/277:1	Connector	W	16/124:11	Rear Seat Entertainment module (RSE)	W
2	54/277:2	Connector	BN	16/124:12	Rear Seat Entertainment module (RSE)	BN
3	54/277:3	Connector	GN	16/124:13	Rear Seat Entertainment module (RSE)	GN
4	54/277:4	Connector	Y	16/124:14	Rear Seat Entertainment module (RSE)	Y
5	54/277:5	Connector	GR	16/124:15	Rear Seat Entertainment module (RSE)	GR
6	54/277:6	Connector	P	16/124:16	Rear Seat Entertainment module (RSE)	P
7	54/277:7	Connector	BL	16/124:17	Rear Seat Entertainment module (RSE)	BL
8	54/277:8	Connector	R	16/124:18	Rear Seat Entertainment module (RSE)	R
9	54/277:9	Connector	SB	16/124:19	Rear Seat Entertainment module (RSE)	SB
10	54/277:10	Connector	VO	16/124:20	Rear Seat Entertainment module (RSE)	VO

Connectors

54/276 - 54/277

54/276

10-pin gray

No.	TV display			TV display harness		
1	16/81A:1	TV display, LH head restraint	W	54/274:1	Connector	W
2	16/81A:2	TV display, LH head restraint	BN	54/274:2	Connector	BN
3	16/81A:3	TV display, LH head restraint	GN	54/274:3	Connector	GN
4	16/81A:4	TV display, LH head restraint	Y	54/274:4	Connector	Y
5	16/81A:5	TV display, LH head restraint	GR	54/274:5	Connector	GR
6	16/81A:6	TV display, LH head restraint	P	54/274:6	Connector	P
7	16/81A:7	TV display, LH head restraint	BL	54/274:7	Connector	BL
8	16/81A:8	TV display, LH head restraint	R	54/274:8	Connector	R
9	16/81A:9	TV display, LH head restraint	SB	54/274:9	Connector	SB
10	16/81A:10	TV display, LH head restraint	VO	54/274:10	Connector	VO

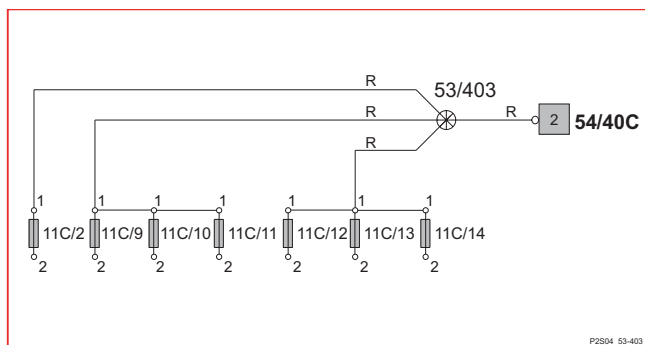
54/277

10-pin gray

No.	TV display			TV display harness		
1	16/81B:1	TV display, RH head restraint	W	54/275:1	Connector	W
2	16/81B:2	TV display, RH head restraint	BN	54/275:2	Connector	BN
3	16/81B:3	TV display, RH head restraint	GN	54/275:3	Connector	GN
4	16/81B:4	TV display, RH head restraint	Y	54/275:4	Connector	Y
5	16/81B:5	TV display, RH head restraint	GR	54/275:5	Connector	GR
6	16/81B:6	TV display, RH head restraint	P	54/275:6	Connector	P
7	16/81B:7	TV display, RH head restraint	BL	54/275:7	Connector	BL
8	16/81B:8	TV display, RH head restraint	R	54/275:8	Connector	R
9	16/81B:9	TV display, RH head restraint	SB	54/275:9	Connector	SB
10	16/81B:10	TV display, RH head restraint	VO	54/275:10	Connector	VO

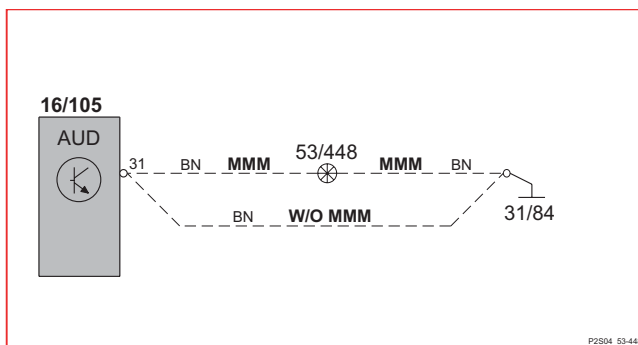
Junction points 53/403 - 53/521

53/403



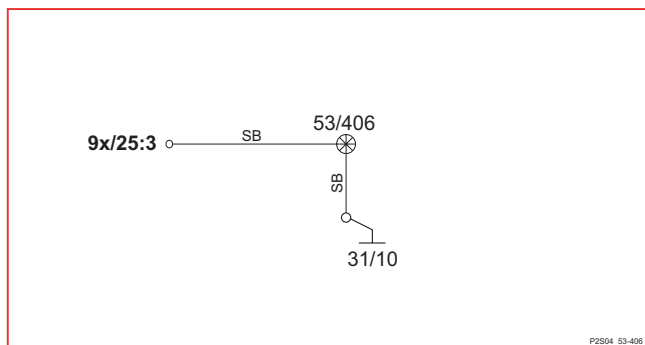
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53/448



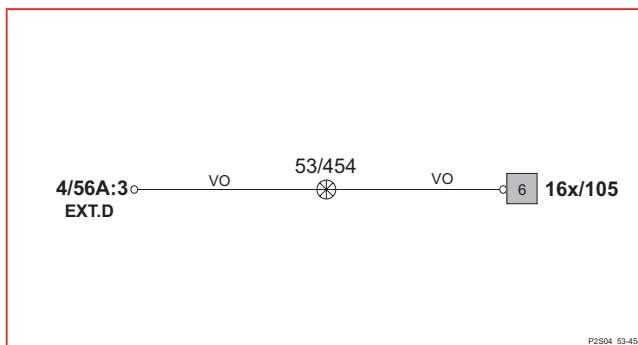
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53/406



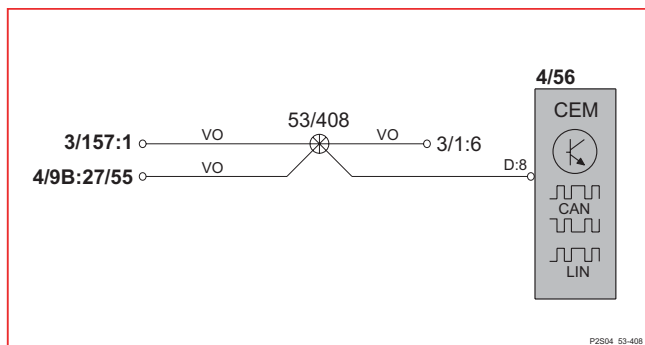
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53/454



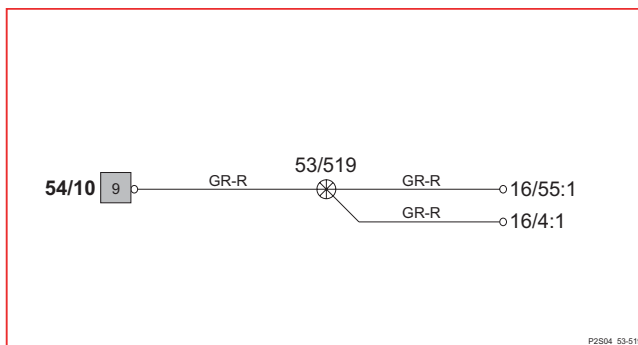
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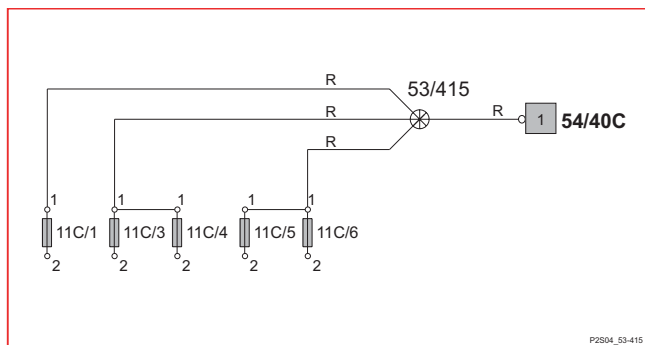
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53/519



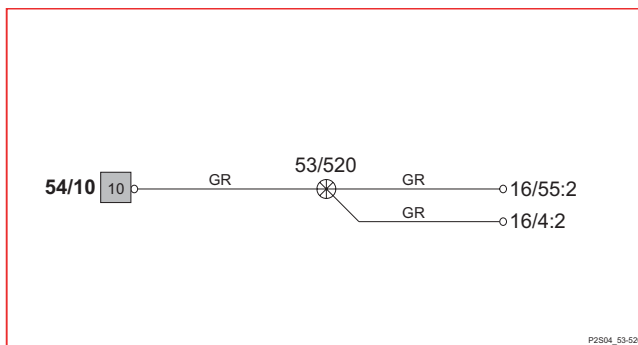
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53/415



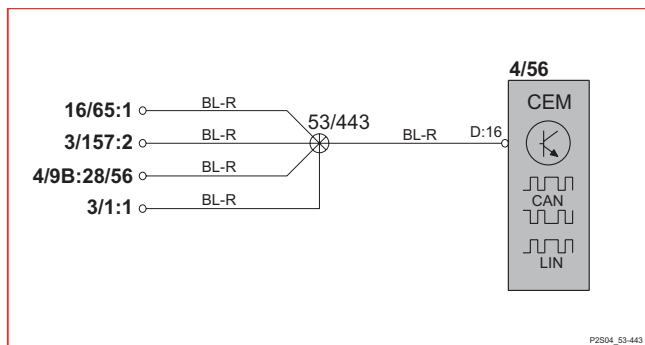
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53/520



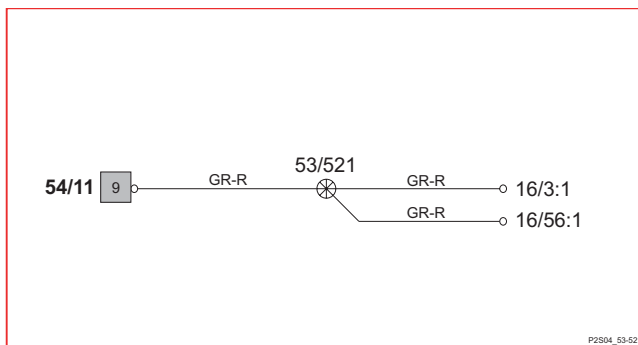
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53/443



P2504_53-443

53/521

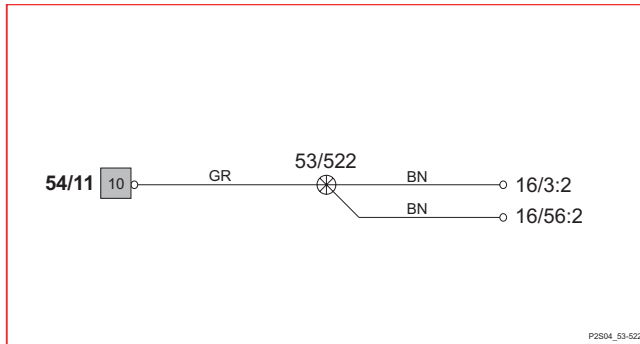


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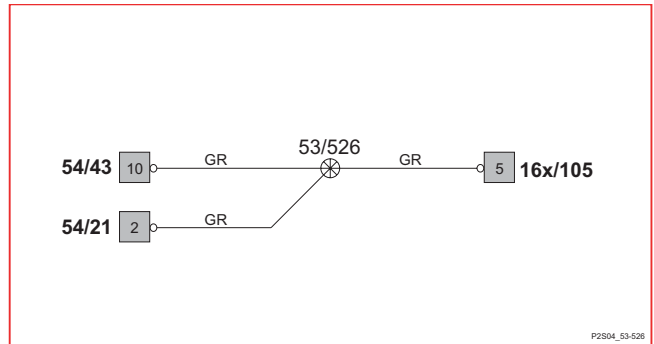
Junction points

53/522 - 53/731

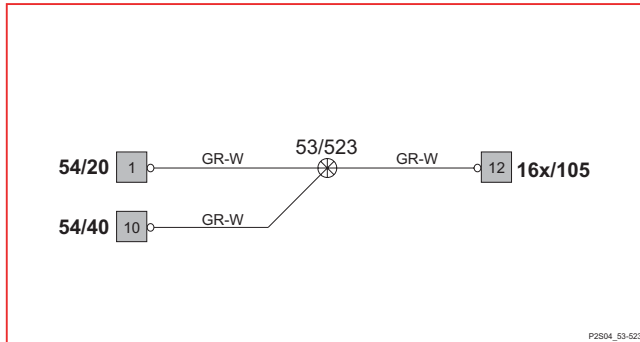
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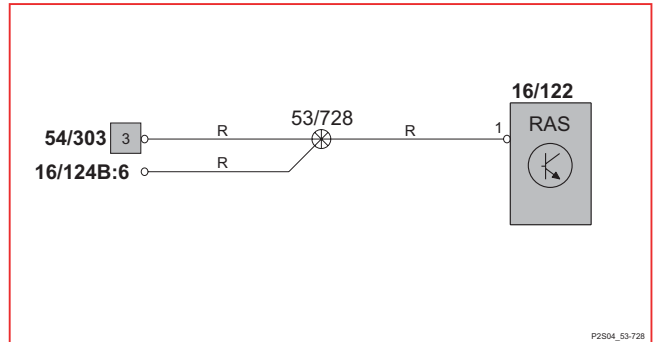
53/526



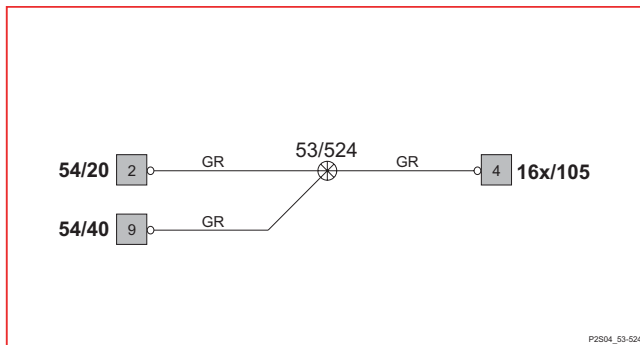
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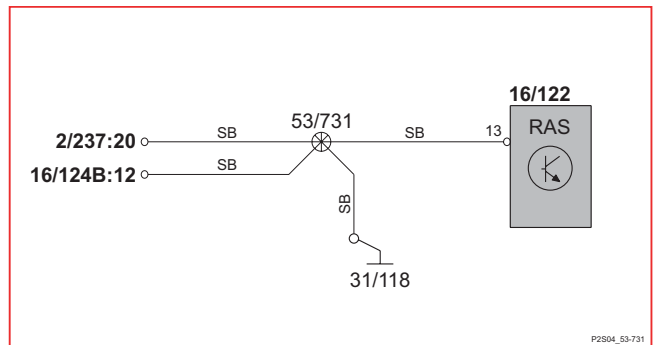
53/728



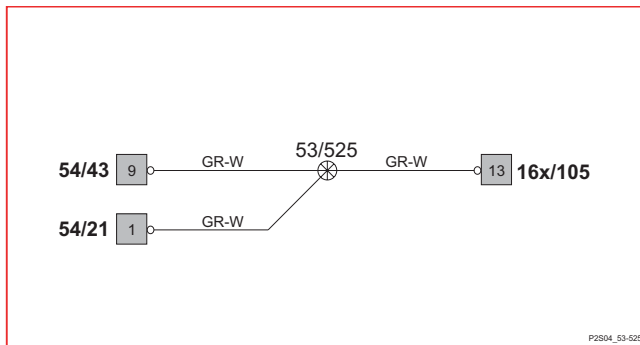
53/524



53/731



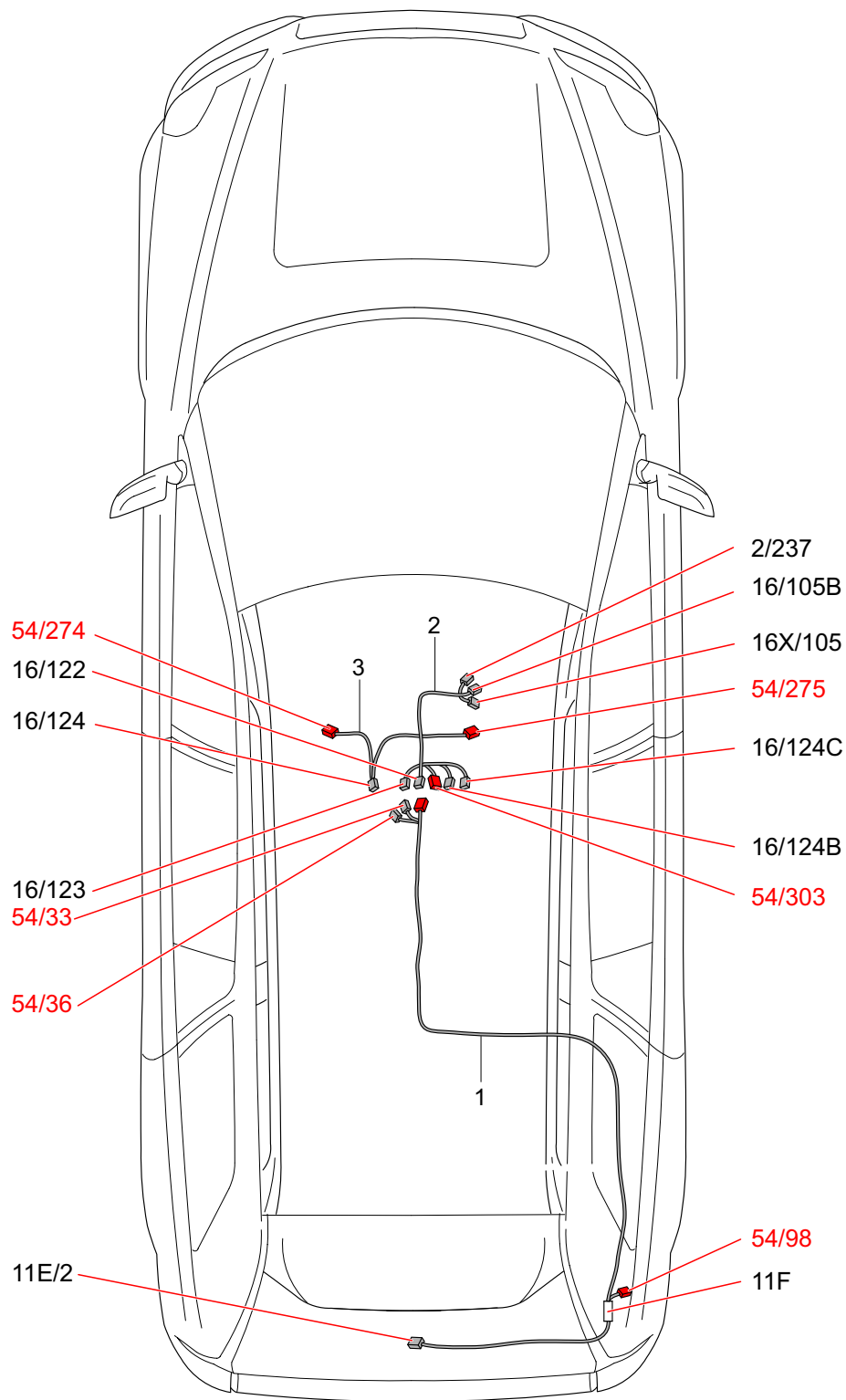
53/525



Cable harness routing in vehicle

Harnesses, XC90 Premier

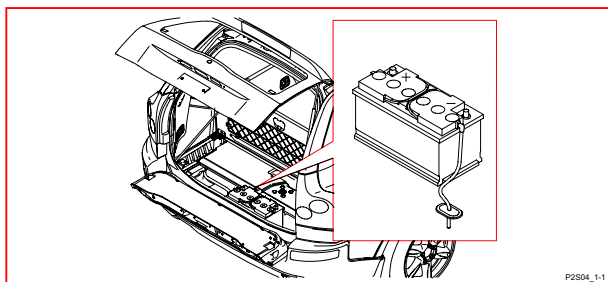
1. Rear harness
2. Rear Seat Entertainment (RSE) harness
3. TV display harness



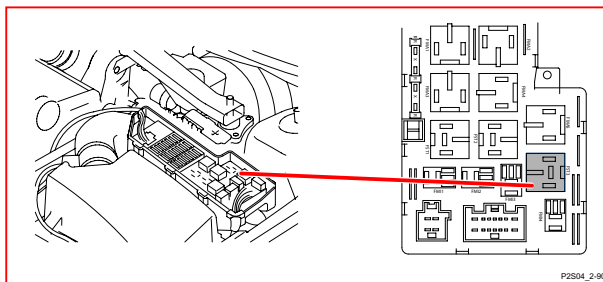
Component illustrations

1/1 - 3/1

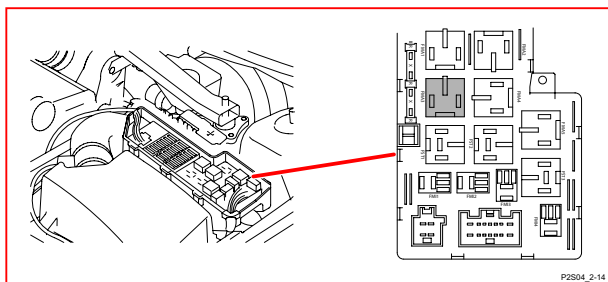
1/1 Battery



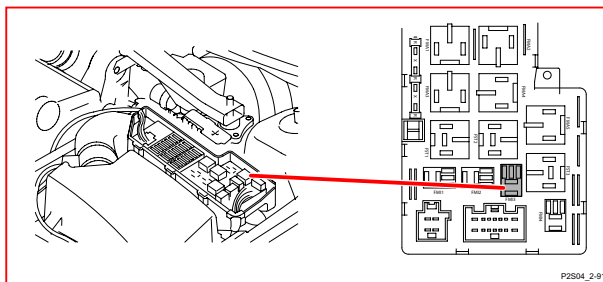
2/90 Relay, windshield wiper, low/high speed



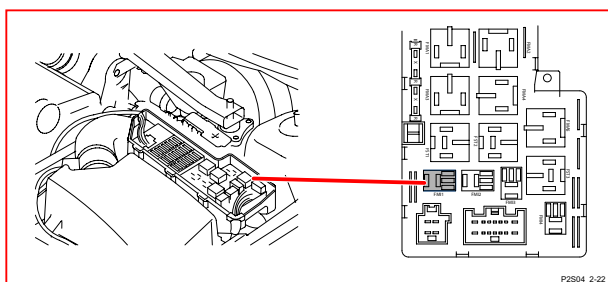
2/14 Relay, glow plug unit



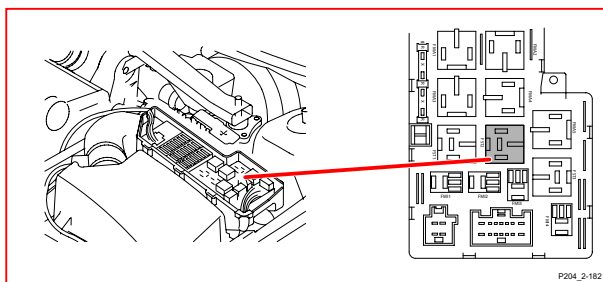
2/91 Relay, intermittent wiping



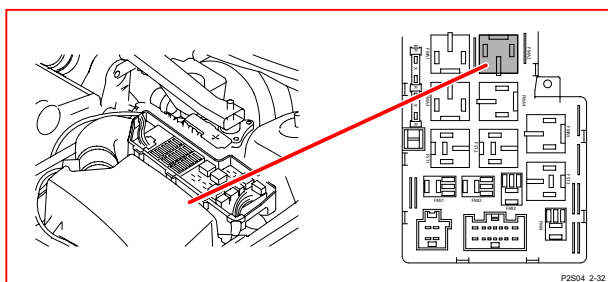
2/22 Relay, climate control system



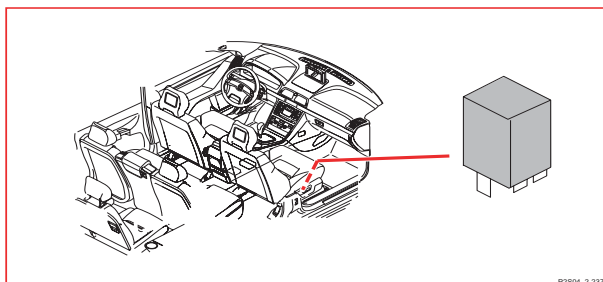
2/182 Relay, headlight washer motor



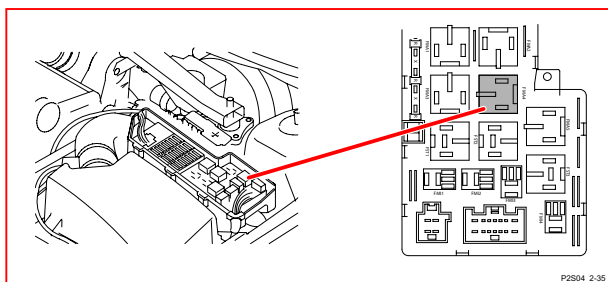
2/32 Main relay, engine management system



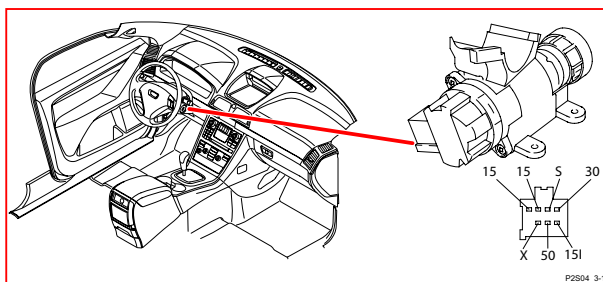
2/237 Disconnect relay, rear speaker



2/35 Starter motor relay



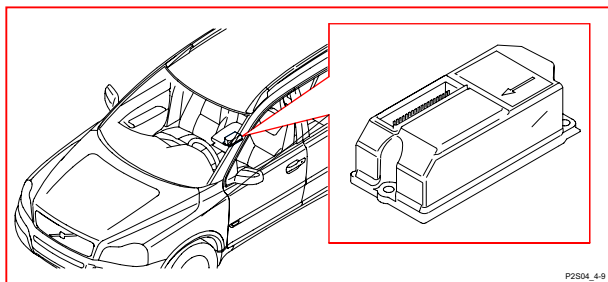
3/1 Ignition switch



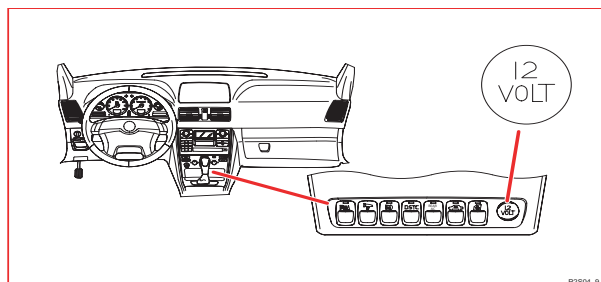
Component illustrations

4/9 - 11E

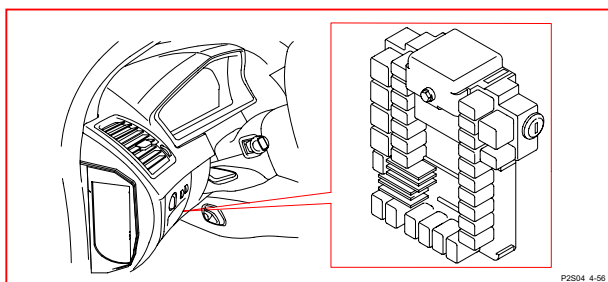
4/9 Control module, Supplementary Restraint System (SRS)



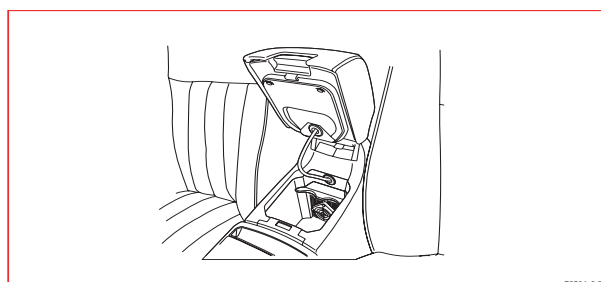
9/1 Front 12V socket



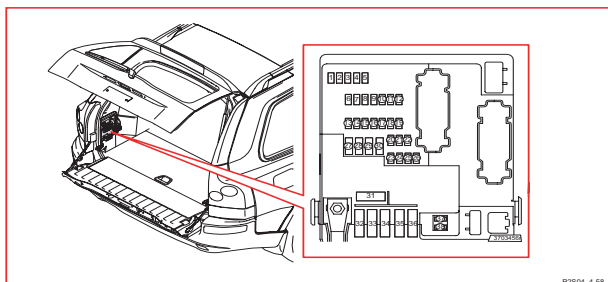
4/56 Central Electronic Module (CEM)



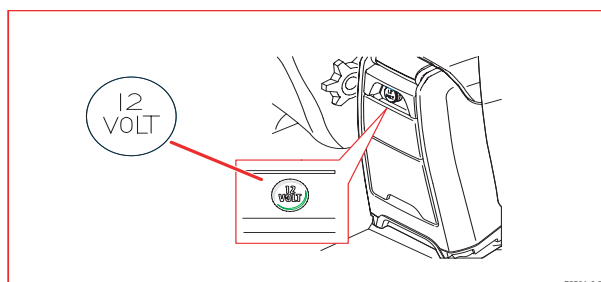
9/24 Coolbox rear seat



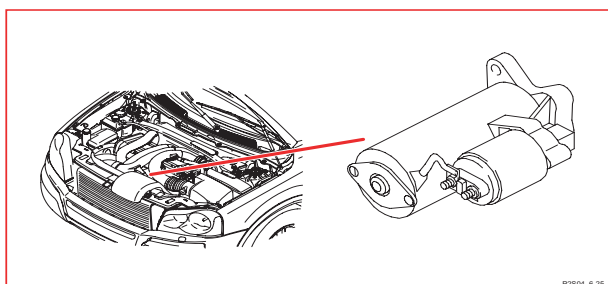
4/58 Rear Electronic Module (REM)



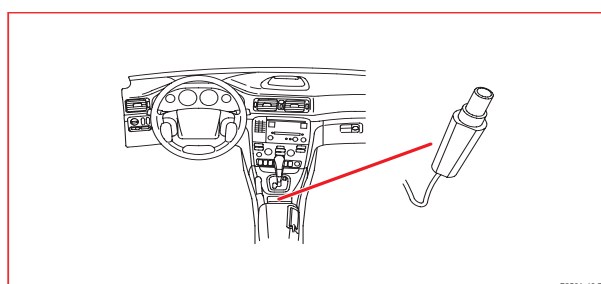
9/25 Rear 12V socket



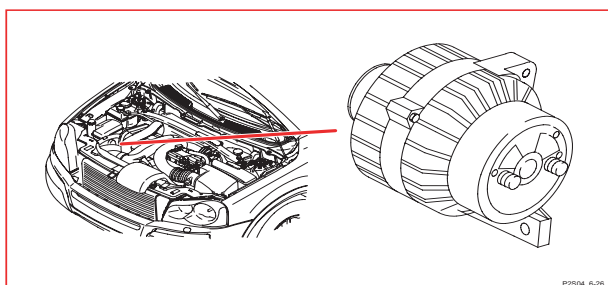
6/25 Starter motor



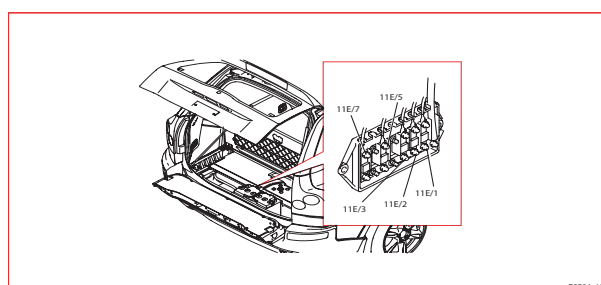
10/72 Front ashtray lighting



6/26 Alternator



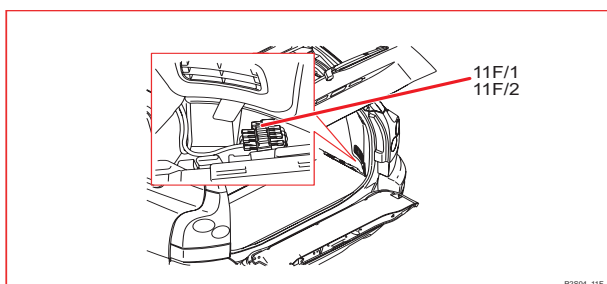
11E Main fuses at battery



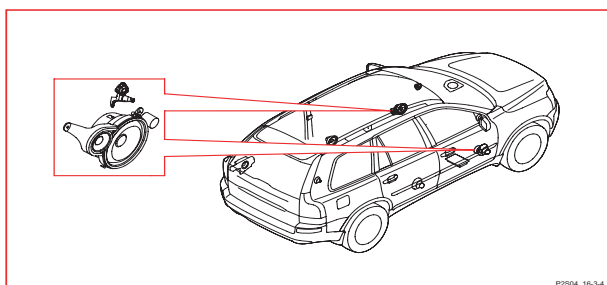
Component illustrations

11F - 16/82

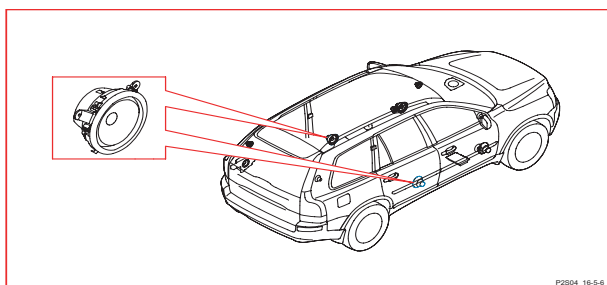
11F Fuses in cargo compartment auxiliary fuse box



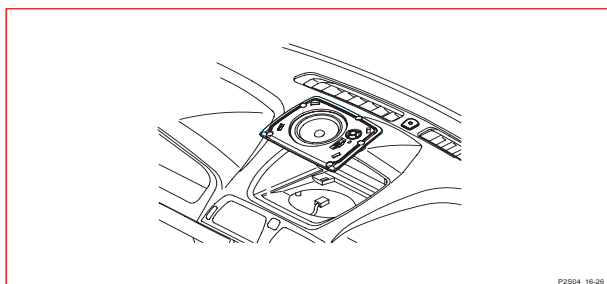
16/3-4 Speaker, front right door & front left door



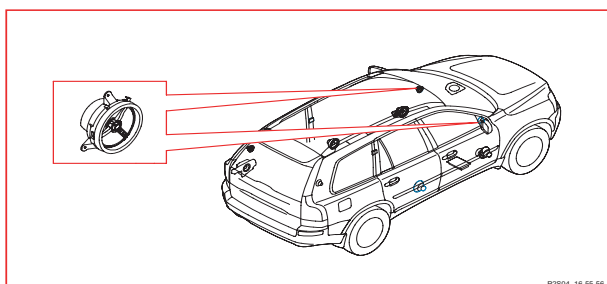
16/5-6 Door speaker, rear right door & rear left door



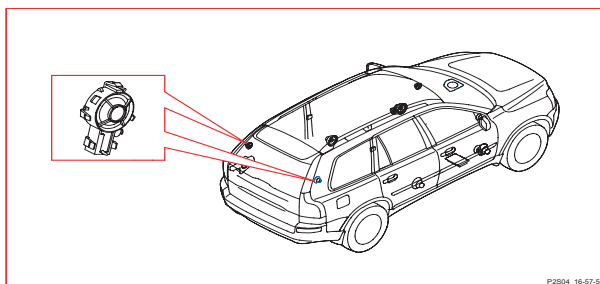
16/26 Speaker instrument board center



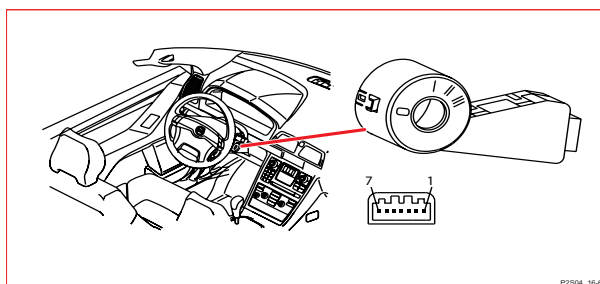
16/55-56 Tweeter, front left door & front right door



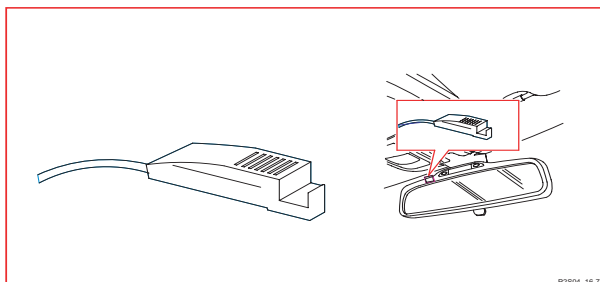
16/57-58 Speaker, LH & RH D-pillar



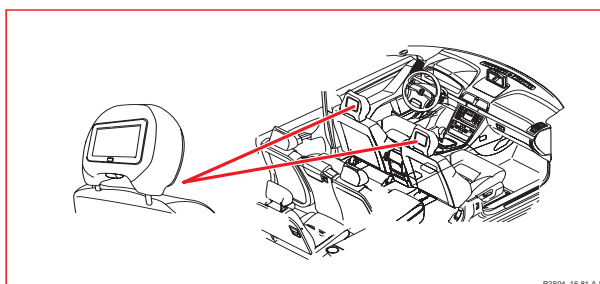
16/65 Antenna ring/ignition switch illumination



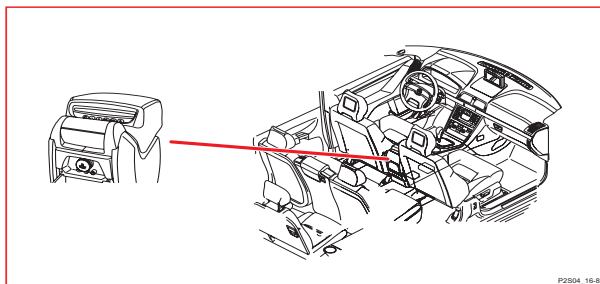
16/77 Microphone, mobile telephone



16/81A TV display, LH head restraint 16/81B TV display, RH head restraint



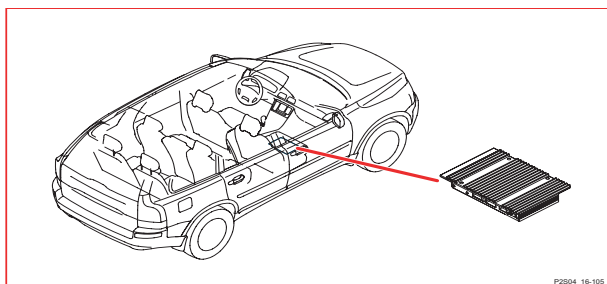
16/82 DVD player, rear



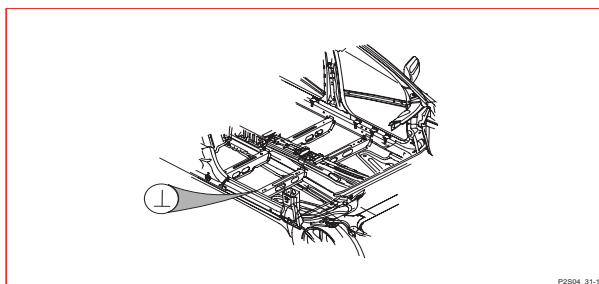
Component illustrations

16/105 - 54/98

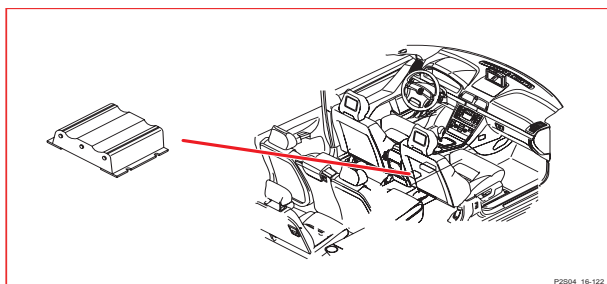
16/105 Audio Module (AUD)



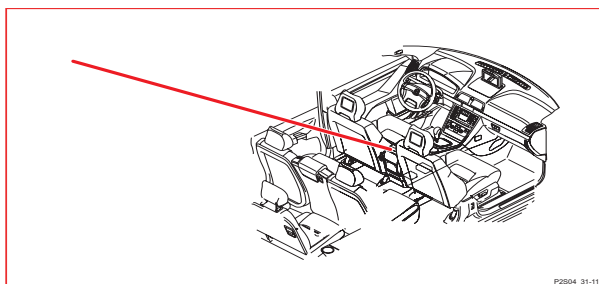
31/10 Ground connection



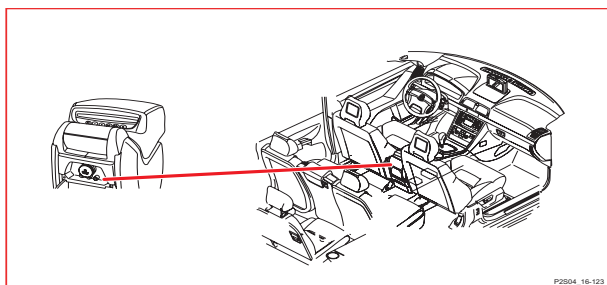
16/122 Rear Audio Separation module (RAS)



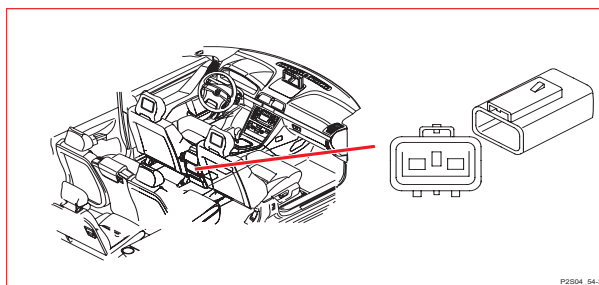
31/118 Ground connection



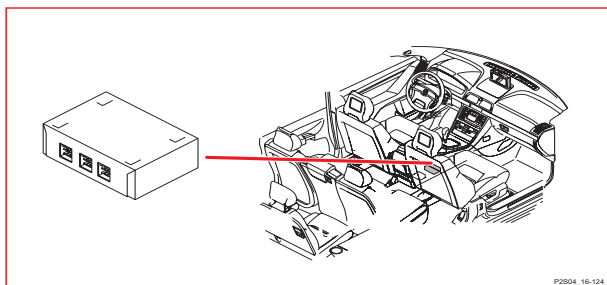
16/123 External equipment socket AUX



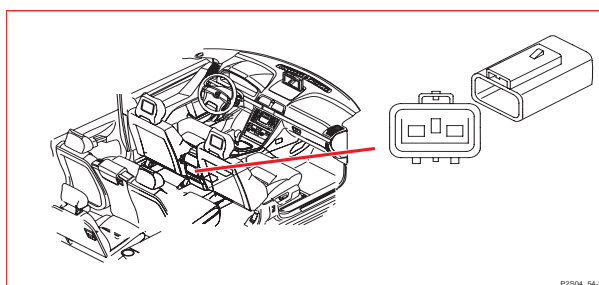
54/33 Connector



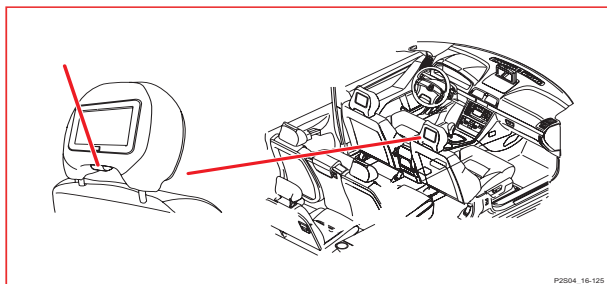
16/124 Rear Seat Entertainment module (RSE)



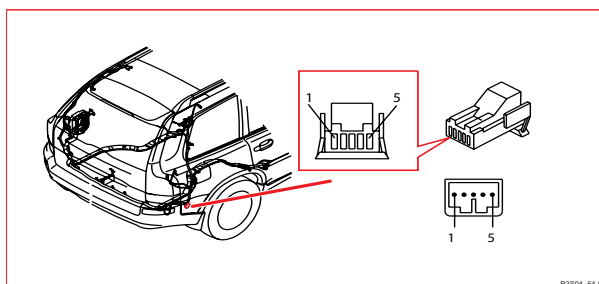
54/36 Connector



16/125 IR transmitter



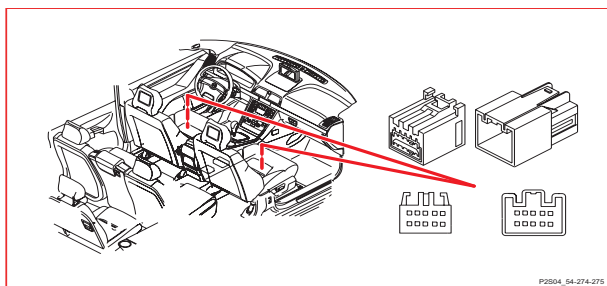
54/98 Connector



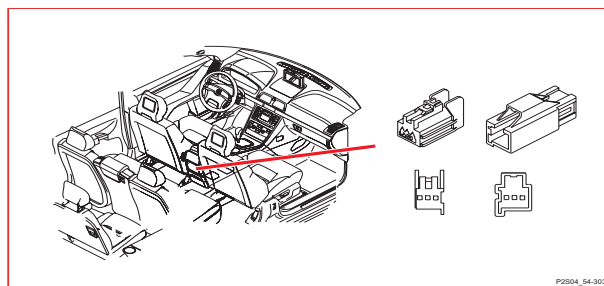
Component illustrations

54/274 - 54/303

54/274 Connector 54/275 Connector



54/303 Connector



Index

A

Abbreviations4

C

Color abbreviations4

Component illustrations20

Connectors14

Cooler13

Countries/Markets, abbreviations4

E

Electrical distribution overview7

F

Fuses in cargo compartment, 11E & 11F9

G

Ground connections10

Groups4

H

How to use the wiring diagrams5

I

Ignition switch symbols4

J

Junction points17

L

List of symbols6

O

Other, Group 3911

R

Rear harness19

Rear Seat Entertainment (RSE)11

Rear Seat Entertainment (RSE) harness19

T

Table of Contents3

TV display harness19

List of components

1/1	Battery	11F	Fuses in cargo compartment auxiliary fuse box
2/14	Relay, glow plug unit	16/3-4	Speaker, front right door & front left door
2/22	Relay, climate control system	16/5-6	Door speaker, rear right door & rear left door
2/32	Main relay, engine management system	16/26	Speaker instrument board center
2/35	Starter motor relay	16/55-56	Tweeter, front left door & front right door
2/90	Relay, windshield wiper, low/high speed	16/57-58	Speaker, LH & RH D-pillar
2/91	Relay, intermittent wiping	16/65	Antenna ring/ignition switch illumination
2/182	Relay, headlight washer motor	16/77	Microphone, mobile telephone
2/237	Disconnect relay, rear speaker	16/81A	TV display, LH head restraint
3/1	Ignition switch	16/81B	TV display, RH head restraint
4/9	Control module, Supplementary Restraint System (SRS)	16/82	DVD player, rear
4/56	Central Electronic Module (CEM)	16/105	Audio Module (AUD)
4/58	Rear Electronic Module (REM)	16/122	Rear Audio Separation module (RAS)
6/25	Starter motor	16/123	External equipment socket AUX
6/26	Alternator	16/124	Rear Seat Entertainment module (RSE)
9/1	Front 12V socket	16/125	IR transmitter
9/24	Coolbox rear seat	31/10	Ground connection
9/25	Rear 12V socket	31/118	Ground connection
10/72	Front ashtray lighting	54/33	Connector
11E	Main fuses at battery	54/36	Connector
		54/98	Connector
		54/274	Connector
		54/275	Connector
		54/303	Connector

TP 3980202 (US English). Printed in Sweden, Gothenburg 06-2004