Workshop Manual

Audi A5 Coupé 2008 ➢

System description - Exterior mirrors

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List of Workshop Manual Repair Groups

Repair Group

01 - Self-diagnosis, electrical checks

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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.

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01 – Self-diagnosis, electrical checks

1 General notes

The electrical exterior mirrors have several functions (provided that the corresponding equipment is fitted):

Mirror adjustment

Mirror heating

Mirror retraction

Tilting function of exterior mirror on passenger's side

Automatic anti-dazzle function

Mirror memory

Turn signal repeater (with LED technology)

Term	Explanation
LED technology	LED lights (Light Emitting Diodes) have a number of advantages when compared with conventional light bulbs, the most important of which are their quickness in lighting up and their long-life cycle. LEDs will last as long as the vehicle, consume up to 50 % less energy and require only little installation space. In selected Audi models, LEDs are used for the main functions of the rear lights system (tail lights, brake lights, turn signals), for the turn signal repeaters and for the daytime running lights.

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2 Components used

Component	Comments
Driver door control unit -J386-	The control unit and the window regulator motor are two separate components. Two door control units are distinguished (driver door control unit and the front passenger door control unit).
Mirror adjustment switch -E43-	In the driver door.
Mirror adjustment change-over switch -E48-	In the driver door.
Adjustment switch for mirror with fold-in feature -E168-	
Driver side mirror adjustment motor -V17-	Motor for vertical adjustment.
Driver side mirror adjustment motor -V149-	Motor for horizontal adjustment.
Potentiometer for horizontal adjustment of driver side mirror -G514-	
Potentiometer for vertical adjustment of driver side mirror -G515-	
Driver side fold-in mirror motor -V121-	It is recommended to fold in the mirror when parking or when driving through narrow spaces to avoid scratching or breaking the mirror.
Driver side automatic anti-dazzle exterior mirror -Y20-	If the anti-dazzle function of the interior mirror is switched off, the anti-dazzle function of the exterior mirror is also deactivated.
Heated exterior mirror on driver side -Z4-	Depending on the outside temperature, the mirror's surface will be heated until the ignition is switched off.
Driver side exterior mirror turn signal bulb -L131-	If one of the LEDs in the turn signal repeater is defective, the turn signal in the exterior mirror must be replaced completely.
Front passenger door control unit -J387-	The control unit and the window regulator motor are two separate components. Two door control units are distinguished (driver door control unit and the front passenger door control unit).
Front passenger side mirror adjustment motor -V25-	Motor for vertical adjustment.
Front passenger side mirror adjustment motor -V150-	Motor for horizontal adjustment.
Potentiometer for horizontal adjustment of front passenger side mirror -G516-	
Potentiometer for vertical adjustment of front passenger side mirror -G517-	
Front passenger side fold-in mirror motor -V122-	It is recommended to fold in the mirror when parking or when driving through narrow spaces to avoid scratching or breaking the mirror.
Front passenger side automatic anti-dazzle exterior mirror -Y21-	If the anti-dazzle function of the interior mirror is switched off, the anti-dazzle function of the exterior mirror is also deactivated.
Heated exterior mirror on front passenger side -Z5-	Depending on the outside temperature, the mirror's surface will be heated until the ignition is switched off.
Front passenger side exterior mirror turn signal bulb -L132-	If one of the LEDs in the turn signal repeater is defective, the turn signal in the exterior mirror must be replaced completely.

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3 Description

Mirror adjustment

The door control units read the position of the corresponding mirror adjustment switches. The switch is voltage-coded; an A/D channel is used for each corresponding direction of adjustment (up or down, left or right) and for each mirror selection function (driver/passenger side mirror, fold-in, zero position). The voltage on the switches is always determined correctly (between 6 V and 16 V).

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Mirror heating

The mirror heating is activated via a semi-conductor. The output is short-circuit-proof. To switch on the mirror heating, turn the adjustment switch to the centre position. Depending on the outside temperature, the mirrors' surfaces are heated until the ignition is switched off (even if the rotary switch is no longer in the centre position).

Mirror retraction

Via the CAR menu of the MMI or the sound system, the driver can set whether the exterior mirrors are folded in automatically or not when the vehicle is locked. Accordingly, the exterior mirrors automatically move back into the original position when the ignition is switched on.

The fold-in/out function is operated by turning the joystick switch (adjustment switch for mirror with fold-in feature -E168-). When the switch is turned to the "fold-in" position, the mirrors will immediately move to the parking position.

Tilting function of exterior mirror on passenger's side

The tilting function is only available in vehicles fitted with the memory for exterior mirrors. When the reverse gear is engaged, the mirror will tilt downwards slightly if the system is set to the exterior mirror on the passenger side. This enables the driver to see the kerb when parking.

The mirror moves back into its original position as soon as the reverse gear is disengaged and the vehicle's speed reaches approx. 15 km/h. In addition, the mirror also moves back into position if the system is switched back to the exterior mirror on the driver side or the ignition is switched off.

If the position of the mirror's surface is changed while the mirror is tilted downwards, this new position is automatically stored and assigned to the remote control key when the reverse gear is disengaged.

Automatic anti-dazzle function

The automatic anti-dazzle function is optional and is listed as such in the coding. The light sensor, which is fitted in the interior mirror, passes on the signal to activate the anti-dazzle function to the automatic anti-dazzle exterior mirrors (the signal is only looped through the front door control units).

The exterior mirrors are dimmed automatically together with the anti-dazzle interior mirror. When the ignition is switched on, the mirrors are dimmed automatically depending on the incidence of light (e.g. from the headlights of a vehicle travelling behind).

When the interior lights are switched on and reverse gear is engaged, the system returns the mirrors to the original setting (not dimmed).

If the automatic anti-dazzle function of the interior mirror is switched off, the automatic anti-dazzle function of the exterior mirrors is also deactivated.

Mirror memory

The mirror memory is only fitted in connection with the seat memory function. Both systems are programmed and called up via a switch control panel in the driver door. In vehicles with the memory function for the driver seat, the settings for the exterior mirrors are automatically stored when the seat position is stored.

Turn signal repeater

The turn signal repeaters have been designed with Light Emitting Diodes and are fitted in the housing of the the exterior mirrors. If one of the LEDs in the turn signal repeater is defective, the turn signal in the exterior mirror must be replaced completely. The turn signal repeaters are activated via the corresponding front door control unit.

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4 Notes for service

The coding in the door control units can only be performed using the Software Version Management (SVM).

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