

## Workshop Manual Audi A5 Coupé 2008 ➤

### System description - Windows and doors

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## List of Workshop Manual Repair Groups

### Repair Group

01 - Self-diagnosis, electrical checks



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 Central locking, remote control

#### 1.1 General notes

The central locking system locks and unlocks the doors, luggage compartment and fuel tank flap. If airbags are triggered in an accident, all the doors are unlocked automatically.

If requested, safety settings such as automatic locking, automatic luggage compartment locking or security central locking provide enhanced comfort. The automatic locking function locks all the doors and the luggage compartment automatically if the vehicle is driven faster than approx. 15 km/h. The luggage compartment is locked when the speed exceeds 5 km/h. The security central locking system (unlocking single door function) unlocks only the driver's door and the fuel tank flap when the unlock button is pressed for the first time. The other doors and the rear lid are only unlocked when the unlock button is pressed a second time.

Pressing the unlock button on the remote control key once unlocks the vehicle's doors. Which doors are unlocked by the central locking system can be set via the Multi Media Interface (MMI)/radio unit. Pressing the button twice unlocks all the vehicle doors and the rear lid regardless of the settings.

When the vehicle is unlocked, this is indicated by the turn signals flashing twice. If no door or the rear lid is opened within 60 seconds of the vehicle being unlocked, the vehicle locks again automatically. This function prevents the vehicle from being unlocked for a long time unintentionally.

| Term                        | Explanation                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MMI - Multi Media Interface | The MMI (Multi Media Interface) is an integrated operating concept for the user-friendly, logical and intuitive operation of vehicle systems and infotainment components. The MMI consists of two basic components: the multimedia system operating unit in the centre console and the MMI display (optionally monochrome or colour) in the dash panel. |

#### 1.2 Components used

| Component                                                | Comments                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Convenience system central control unit -J393-           | The convenience system central control unit -J393- incorporates the functionality of -J518-. The diagnostic address is 46, as before.                                                                                                                                                            |
| Entry and start authorisation control unit -J518-        | The functionality is integrated in the convenience system central control unit -J393-. The diagnostic functions for the entry and start authorisation control unit -J518- are still accessible at diagnostic address 05, even though the control unit is no longer available as a separate unit. |
| Onboard supply control unit -J519-                       | Diagnostic address word 09                                                                                                                                                                                                                                                                       |
| Data bus diagnostic interface -J533-                     | Diagnostic address word 16                                                                                                                                                                                                                                                                       |
| Control unit in dash panel insert -J285-                 | Diagnostic address word 17                                                                                                                                                                                                                                                                       |
| Central locking and anti-theft alarm system aerial -R47- |                                                                                                                                                                                                                                                                                                  |

| 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). If the convenience system central control unit -J393- fails to function, the driver door control unit -J386- takes over the master function for the central locking functionality.                                                    |
| Driver side central locking lock unit -F220-          | The lock unit integrates the following components: Front left central locking actuator -F131- , driver door contact switch -F2- , driver side contact switch in lock cylinder -F241- , driver door central locking motor -V56- , driver door central locking deadlock function (safelock) motor -V161- (not on USA vehicles), driver door central locking actuator for deadlock function (safelock) -F243- (not on USA vehicles). |
| Driver side interior locking switch -E150-            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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 central locking lock unit -F221- | The lock unit integrates the following components: Front right central locking actuator -F133- , front passenger door contact switch -F3- , front passenger door central locking motor -V57- , front passenger door central locking deadlock function (safelock) motor -V162- (not on USA vehicles), front passenger door central locking actuator for deadlock function (safelock) -F244- (not on USA vehicles).                 |
| Front passenger side interior locking switch -E198-   | Only on vehicles for USA                                                                                                                                                                                                                                                                                                                                                                                                          |
| Remote control key                                    | With the new key concept the vehicle is now started by pushing the key into the ignition lock rather than by turning it. As a result, the push-button pop-out key bit is no longer featured.                                                                                                                                                                                                                                      |

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## 1.3 Central locking function, remote control

### 1.3.1 General notes

Bidirectional data exchange between the remote control key and the convenience system central control unit -J393- is routed via the central locking and anti-theft alarm aerial -R47- . This way the status of the central locking can be transmitted to the key.

If a button on the key is pressed outside of the key's radio range, the LED in the key indicates the locking status of the vehicle. The key always indicates the locking status of the vehicle at the time the central locking button was last operated on this key. If the LED does not light up, the status of the battery in the remote control key is not OK.

If the vehicle has been opened or locked with a second key in the meantime, the locking status indicated on the first key will not change. The radio frequency of the remote control is 315 MHz, 433 MHz or 868 MHz, depending on the version. The respective radio frequency is the ideal frequency for the data transfer between the ignition key and the control unit. As this frequency is permitted only for very short transmission pulses, interference from continuous radio transmitters such as baby monitoring equipment, wireless headphones etc. is no longer a problem.

### 1.3.2 Functionality inside the vehicle

## I - Ignition key

### II - Interior lighting ON

1 - The driver presses the unlock button on the ignition key.

2 - The central locking and anti-theft alarm system aerial - R47- scans the information transmitted wirelessly by the ignition key and transmits it to the convenience system central control unit -J393- .

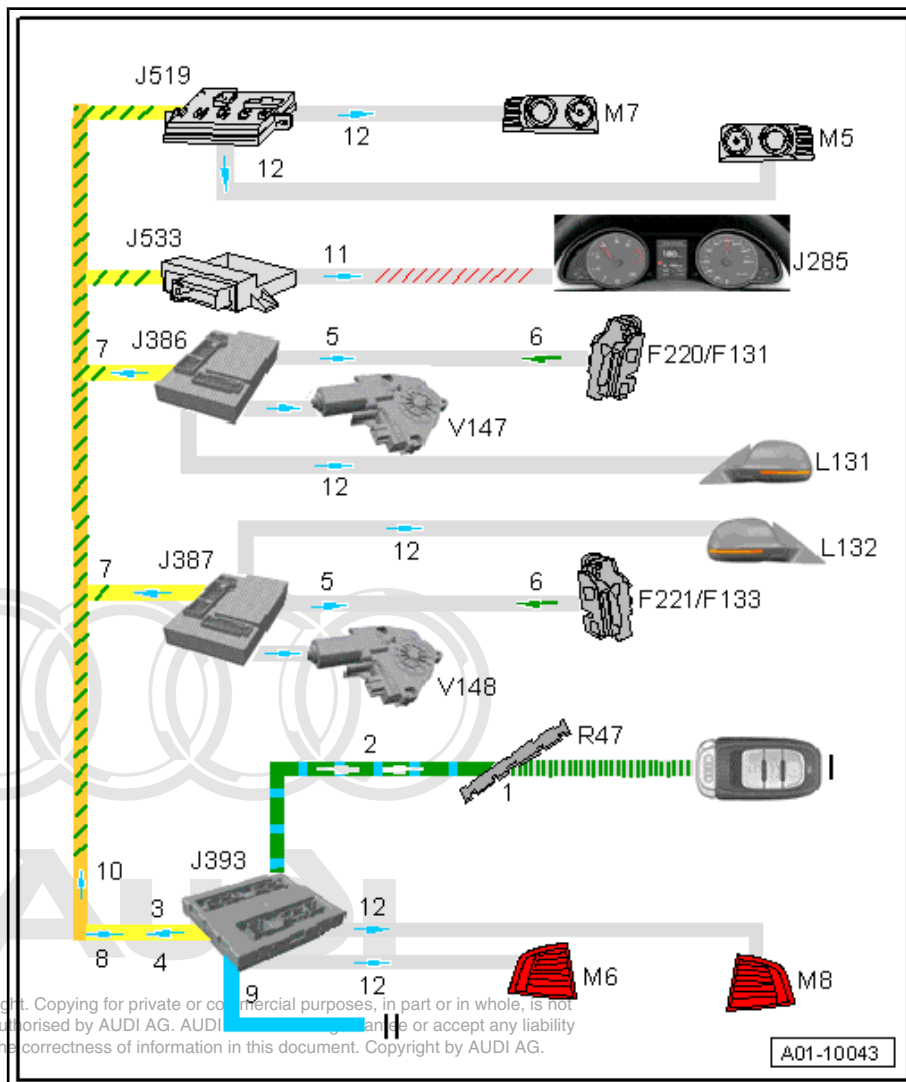
3 - The information "unlock vehicle" is evaluated by the convenience system central control unit -J393- .

4 - The convenience system central control unit -J393- places the information "unlock vehicle" on the CAN convenience data bus.

5 - The driver door control unit -J386- evaluates the information "unlock vehicle" and activates the driver side central locking lock unit -F220- . The doors are unlocked.

6 - The front left central locking actuator -F131- transmits the "doors unlocked" information to the door control units.

7 - The door control units transmit the information "doors unlocked" to the convenience system central control unit -J393- .



8 - The convenience system central control unit -J393- places the information "vehicle not locked" on the convenience CAN bus.

9 - The convenience system central control unit -J393- starts the function "interior lighting ON".

10 - The convenience system central control unit -J393- places the information "flash after unlocking via central locking system" on the convenience CAN bus.

11 - The data bus diagnostic interface -J533- activates the turn signals in the control unit in dash panel insert -J285- via the instrument cluster CAN.

12 - The convenience system central control unit -J393- activates the rear left turn signal bulb -M6- and the rear right turn signal bulb -M8- for two flash cycles each. The onboard supply control unit -J519- activates the front left turn signal bulb -M5- and the front right turn signal bulb -M7- for two flash cycles each. The driver door control unit -J386- activates the driver side exterior mirror turn signal bulb -L131- , and the front passenger door control unit -J387- activates the front passenger side exterior mirror turn signal bulb -L132- for two flash cycles each.

## 1.3.3 Functionality outside of the vehicle

The following criteria must be met so that the vehicle can be unlocked using the remote control key:

- ◆ The distance between the driver and the vehicle must not exceed 30 metres (depending on the driver's position relative to the vehicle). If the maximum distance falls below 10 metres, it must be assumed that a system malfunction has occurred.



- ◆ Voltage of battery in remote control key must be OK.
- ◆ Readiness of central locking and anti-theft alarm system aerial -R47- to receive information must be OK.

## 1.4 Notes for service

### 1.4.1 Coding

The coding in the convenience system central control unit -J393 - can only be performed using Software Version Management (SVM).

### 1.4.2 Service data in remote control key

While the vehicle is being driven, service and maintenance-related data are continuously stored to your remote control key.

These data can be read by Audi service advisors using a special key reader, enabling them to identify what maintenance work is required. The data readouts can be displayed on-screen using special software.



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## 2 Convenience opening/closing

### 2.1 General notes

Settings on the Multi Media Interface (MMI) or the radio unit define whether the windows and the panoramic tilting sunroof can be opened with the convenience opening function.

Convenience opening/closing is also referred to as central opening and closing.

Convenience operation enables complete opening or closing of the electric windows and of the panoramic tilting sunroof (if fitted).



#### Note

*On USA and Canada vehicles, the convenience opening/closing function is only possible via the driver's door lock for reasons of product liability.*

### 2.2 Components used

| Component                                                | Comments                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Convenience system central control unit -J393-           | The convenience system central control unit -J393- incorporates the functionality for the entry and start authorisation control unit -J518-. The diagnostic address 46 is still valid.                                                                                                                                                                                                                                        |
| Entry and start authorisation control unit -J518-        | The functionality is integrated in the convenience system central control unit -J393-. The diagnostic functions for the entry and start authorisation control unit -J518- are still accessible at diagnostic address 05, even though the control unit is no longer available as a separate unit.                                                                                                                              |
| Central locking and anti-theft alarm system aerial -R47- |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Sliding sunroof adjustment control unit -J245-           | The tilting roof motor and control unit comprise a single unit and can only be renewed together.                                                                                                                                                                                                                                                                                                                              |
| 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). If the convenience system central control unit -J393- fails to function, the driver door control unit -J386- takes over the master function for the central locking functionality.                                                |
| Driver side central locking lock unit -F220-             | The lock unit integrates the following components: Front left central locking actuator -F131-, driver door contact switch -F2-, driver side contact switch in lock cylinder -F241-, driver door central locking motor -V56-, driver door central locking deadlock function (safelock) motor -V161- (not on USA vehicles), driver door central locking actuator for deadlock function (safelock) -F243- (not on USA vehicles). |
| Driver side interior locking switch -E150-               |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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).                                                                                                                                                                                                                                   |

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| Component                                             | Comments                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Front passenger side central locking lock unit -F221- | The lock unit integrates the following components: Front right central locking actuator -F133- , front passenger door contact switch -F3- , front passenger door central locking motor -V57- , front passenger door central locking deadlock function (safelock) motor -V162- (not on USA vehicles), front passenger door central locking actuator for deadlock function (safelock) -F244- (not on USA vehicles). |
| Front passenger side interior locking switch -E198-   | Only on vehicles for USA                                                                                                                                                                                                                                                                                                                                                                                          |
| Remote control key                                    | With the new key concept the vehicle is now started by pushing the key into the ignition lock rather than by turning it. As a result, the push-button pop-out key bit is no longer featured.                                                                                                                                                                                                                      |

## 2.3 Convenience opening/closing function

### 2.3.1 General notes

When unlocking/locking the vehicle, the door windows can be opened/closed at the same time. All electric windows (including the panoramic tilting sunroof) open/close when the open or close button on the remote control is pressed and held.

When the button is released the opening/closing operation stops immediately. All the windows also respond in the way described above when the key is turned in the door lock to the unlock position and is held there. Likewise, all the windows are closed when the key is turned in the door lock to the lock position and is held there. Again, when the key is released the operation is interrupted.

The remote control offers a high level of convenience for unlocking and locking a vehicle. It can be used to unlock and lock the vehicle centrally (doors, fuel tank flap and rear lid) from a distance. This function, integrated in the ignition key, is practical particularly at night (the interior lighting is automatically activated when the vehicle is unlocked).

### 2.3.2 Conditions

- ◆ Terminal 15 off and S-contact off
- ◆ Enable signal from convenience system central control unit - J393- received by door control units
- ◆ Enable signal from convenience system central control unit - J393- received by sliding sunroof adjustment control unit - J245 -
- ◆ A lock point (driver's door lock, remote control ...) operated for longer than 2 seconds
- ◆ No window in thermal protection mode
- ◆ All windows adapted
- ◆ No excess or low voltage

### 2.3.3 Description

#### Function diagram

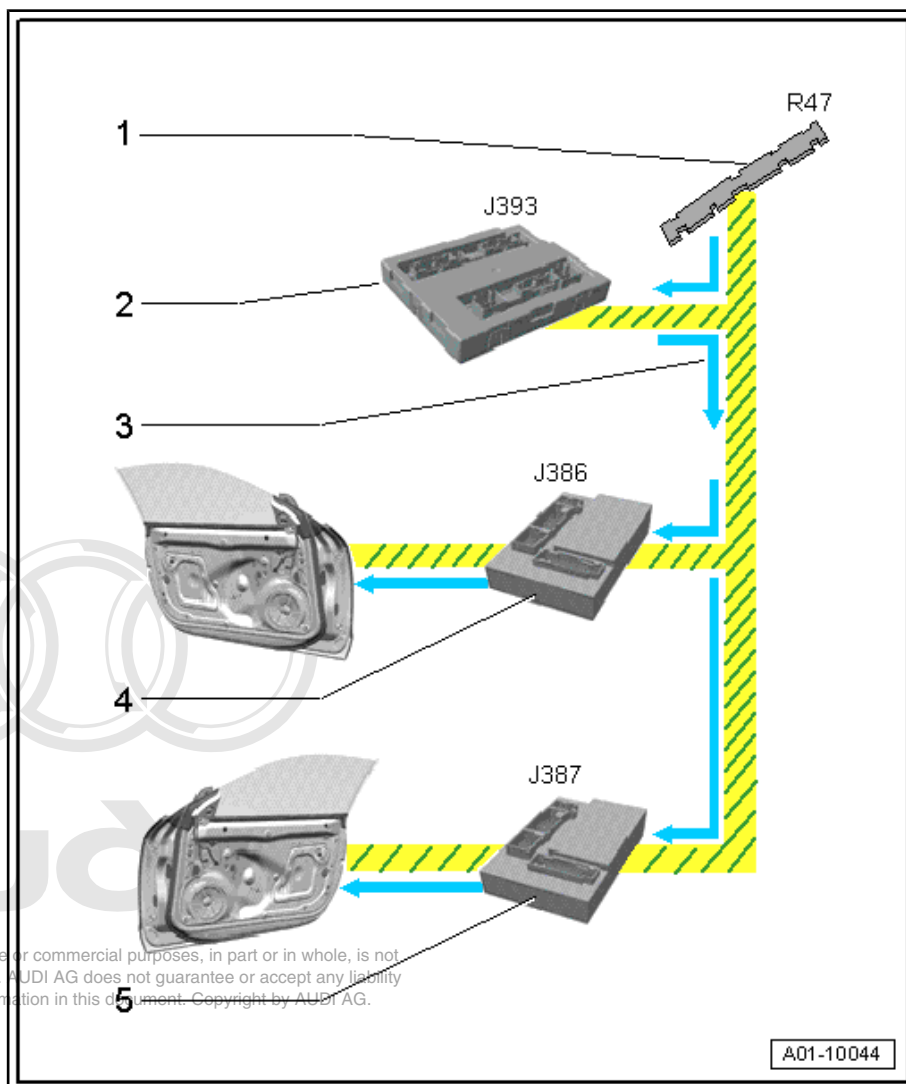
1 - Central locking and anti-theft alarm system aerial -R47-

2 - Convenience system central control unit -J393-

3 - Authorisation to open/close doors

4 - Driver door control unit - J386-

5 - Front passenger door control unit -J387-



As the central locking master, the convenience system central control unit -J393- controls the central locking system. The data transmitted by the ignition key wirelessly to the central locking and anti-theft alarm system aerial -R47- are forwarded to the convenience system central control unit -J393-, which evaluates the data and then sends the command to open/close the doors to the door control units via the convenience CAN bus. The windows and the panoramic tilting sunroof open/close when the open/close command is sustained for longer than 2 seconds.

## 2.3.4 Functional principle

### Central opening

This operation is carried out via one of the following lock points on the vehicle:

- ◆ Driver's door lock
- ◆ Remote control

In response to an open command applied for longer than 2 seconds, the windows open with differing response delay periods for as long as the respective lock point is operated. However, they are stopped by block shut-off or soft stop after a maximum of 20 seconds.



If the window is already fully down, no further activation is permitted.

In response to an open command sustained for longer than 2 seconds, a panoramic tilting sunroof, if fitted, tilts open for as long as the respective lock point is operated. The panoramic tilting sunroof stops when it has fully tilted and is no longer activated by a renewed convenience opening command.

### Central closing

This operation is carried out via one of the following lock points on the vehicle:

- ◆ Driver's door lock
- ◆ Remote control

In response to a close command applied for longer than 2 seconds the windows close with differing response delay periods for as long as the respective lock point is operated. However, they are stopped by block shut-off after a maximum of 20 seconds.

If the window is already fully up, it is no longer activated in response to a close command.

When the roll-back function is activated a window stops its movement and opens a minimum of 50 mm. The closing operation is only restarted when the function is selected again.

In response to a convenience closing command sustained for longer than 2 seconds, a panoramic tilting sunroof, if fitted, closes for as long as the respective lock point is operated. The panoramic tilting sunroof stops when it has fully closed and is no longer activated by a renewed convenience closing command. When the roll-back function is activated, the panoramic tilting sunroof stops moving and reopens (when not fully tilted open). The closing operation is only restarted when the function is selected again.

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## 2.4 Notes for service

### 2.4.1 Coding

The coding in the convenience system central control unit -J393- can only be performed using Software Version Management (SVM).

### 2.4.2 General notes

For convenience opening/closing, two settings are significant for the coding of the convenience system central control unit -J393- :

- ◆ Convenience function via remote control active/not active
- ◆ Panoramic tilting sunroof fitted/not fitted

If the convenience function via remote control was not activated in the coding of the convenience system central control unit -J393-, the windows/panoramic tilting sunroof cannot be closed or opened with the remote control.

Adaptions for the convenience opening/closing with the remote control for the convenience system central control unit -J393- are then also irrelevant. No settings for the convenience opening/closing function can be made in the Multi Media Interface (MMI) or the radio unit.

To open and close a fitted panoramic tilting sunroof electrically, it must be coded as fitted in the convenience system central control unit -J393-. If a fitted panoramic tilting sunroof is not coded, adaptations for it cannot be performed in the convenience system central control unit -J393-. Likewise, no panoramic tilting sunroof

settings can be made on the Multimedia Interface (MMI) or radio unit.

The country-specific version of the instrument cluster determines the coding options of the convenience system central control unit -J393- .

The parameters for the convenience functions are correctly set by default and do not normally need to be changed. The settings for convenience functions via remote control only become active when the convenience function has been activated via the coding.

The functions for setting the vehicle convenience systems can be selected in the "Car" main menu.

Under the menu item "Windows" the following can be set:

- ◆ Convenience opening for front electric windows
- ◆ Convenience opening for rear electric windows
- ◆ Opening panoramic tilting sunroof



#### Note

*The settings made are stored only for the particular key currently in use.*

If the convenience opening/closing via the remote control key does not work at all or only at a short distance, this could have the following cause:

- ◆ Battery in remote control key flat

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## 3 Opening and closing windows

### 3.1 General notes

The window regulator switches are executed with voltage-coded double push and pull buttons. The double push and pull function enables manual and automatic window operation. The driver can operate all the windows centrally via the operating unit for window regulator in driver door -E512- .

The local window regulator switches fitted in the doors can only be used to operate the corresponding window. The driver door control unit -J386- scans the switches of the operating unit for window regulator in driver door -E512- and transmits the information via CAN to the front passenger door control unit -J387- .

### 3.2 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). If the convenience system central control unit -J393- fails to function, the driver door control unit -J386- takes over the master function for the central locking functionality. |
| Driver side window regulator motor -V147-                 | The window regulator motor is separate from the driver door control unit -J386- .                                                                                                                                                                                                                                                                                              |
| 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 window regulator motor -V148-        | The window regulator motor is separate from the front passenger door control unit -J387- .                                                                                                                                                                                                                                                                                     |
| Convenience system central control unit -J393-            | The convenience system central control unit -J393- incorporates the functionality for the entry and start authorisation control unit -J518- . The diagnostic address is 46, as before.                                                                                                                                                                                         |
| Onboard supply control unit -J519-                        | Diagnostic address 09                                                                                                                                                                                                                                                                                                                                                          |
| Operating unit for window regulator in driver door -E512- | The operating unit comprises the: front left window regulator switch -E40- and front right window regulator switch in driver door -E81-                                                                                                                                                                                                                                        |
| Window regulator switch in front passenger door -E107-    | Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI 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 Window regulator function

#### 3.3.1 General notes

The window regulators are enabled when:

The onboard supply control unit -J519- sends the signal "terminal 15 on" via the convenience CAN.

The convenience system central control unit -J393- sends the enable signal for the window regulators to the door control units via the convenience system CAN bus.

After the transition from "terminal 15 on" to "terminal 15 off" the enable signal is maintained for 10 minutes. This run-on time is

interrupted if one of the two front doors is opened or the vehicle is locked with the remote control.

There are 3 different states:

- ◆ Ignition off, window regulators not enabled
- ◆ Ignition off, window regulators enabled
- ◆ Ignition on, window regulators enabled

### 3.3.2 Description

#### Ignition off, not enabled

- ◆ It is only possible to raise or lower the windows via the lock point commands key-switch and remote control with the convenience opening/closing function.
- ◆ Opening/closing via the interior buttons is disabled (exception: opening using the door button during convenience closing operation).



#### Note

*To enable convenience opening/closing, this function must be included in the coding of the convenience system central control unit -J393-.*

#### Ignition off, enabled

- ◆ Convenience opening via lock point commands is possible
- ◆ Convenience closing via lock point commands is possible
- ◆ Manual window operation via the interior buttons is possible
- ◆ Automatic window operation via the interior buttons is not possible
- ◆ When the function is disabled, all window operations performed via button commands are stopped

#### Ignition on, enabled

- ◆ Convenience closing via lock point commands is not possible
- ◆ Manual window operation via the interior buttons is possible
- ◆ Automatic window operation via the interior buttons is possible
- ◆ When the function is disabled, all window operations performed via button commands are stopped
- ◆ Activated automatic operations are stopped when the ignition signal is cancelled or when the window concerned is operated again in any direction from any operating point

#### Closing windows

All windows can be closed centrally by the operating unit for window regulator in driver door -E512-. The window in the front passenger door can be closed using the window regulator switch in front passenger door -E107-.

When two buttons are pressed in this direction, the window stops when the button pressed first is released. If the second switch is operated in the opposite direction towards the open position, the window regulator switch which is pressed in the direction for closing always has priority.

Closing is stopped by block shut-off or soft stop, a convenience opening command or after a maximum of 20 seconds. A closing window reverses when the roll-back function activates.

## Opening windows

All windows can be opened centrally via the operating unit for window regulator in driver door -E512-. The window in the front passenger door can be opened using the window regulator switch in front passenger door -E107-.

When two buttons are pressed in the direction for opening, the window is stopped when the last valid button signal is cancelled. When the second operation point is operated in the opposite direction towards the close position, the window regulator switch which is pressed in the direction for opening always has priority.

Opening is stopped by block shut-off or soft run-in, a convenience closing command or after a maximum of 20 seconds.

## Automatic operation



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*This function must be activated or deactivated in the coding of the door control units.*

Automatic operation is only possible with adapted window regulators. Automatic operation can be started and executed both via the local window regulator switches in the doors and via the operating unit for window regulator in driver door -E512-. For this, the second level of the window regulator switch must be held down for longer than 1 second. Automatic operation is cancelled when the window regulator switch is operated from any operation point in any direction.

## Emergency operation

If a door control unit has no CAN communication, the electric window cannot be operated via the operating unit for window regulator in driver door -E512- or the respective local window regulator switch, as the convenience system central control unit -J393- is unable to send the enable signal for the window regulators.



### Note

*If the CAN communication of a door control unit fails, diagnosis is no longer possible. The status of the CAN communication of the door control unit can be checked in the data bus diagnostic interface -J533-.*

## Adaption

In order to implement the automatic operation, soft run-in, soft stop and roll-back functions, an adaption run determines the number of motor revolutions from the bottom to top end stops.

From outside via "central closing":

After "central closing", the adaption is completed following the block shut-off of the window at its upper stop limit.

From inside at "terminal 15 on":

- ◆ After installing the motor/door control unit and the connected wiring, first turn the ignition on and then off again.
- ◆ If the window regulator switch is pressed in the direction for closing, the door window moves up completely. Then release the window regulator switch briefly and press it again immediately afterwards and hold it down for approx. two seconds.

- ◆ The window regulator is now in the basic setting and the opening/closing function (automatic operation of window regulators) is activated.

### Roll-back function



#### Note

*This function is coded by default in the door control units and should not be changed for safety reasons.*

The roll-back function is activated when the regular closing operation is obstructed. The counterforce of the window acting on an object must not exceed 70 N (at 10 N/mm) or 100 N (at 65 N/mm) under all operating conditions.

The roll-back function is active in the range of up to 4 mm below the upper stop limit. When it is activated, the window reverses up to 200 mm.

### Thermal protection

When the internal temperature threshold of the window regulator motor is exceeded, any further raising of the windows is suppressed for 30 seconds.

### Soft run-in (top)

The "top soft run-in" function means the window runs gently into the top seal, with the closing forces limited to the amount actually needed (closing-force reduction function). The function is active after adaption of the window.

### Soft stop (bottom)

The "bottom soft stop" function involves stopping the window regulator n-revolutions before the bottom stop limit. The function is active after adaption of the window.

### Reversal

Reversal of a window regulator means that the window changes the direction of its movement from closing to opening; the window is opened approx. 200 mm.

## 3.4 Notes for service

### 3.4.1 Coding

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