Work specific to Cabriolet, A5/B9 Cabriolet
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1) Malfunction of convertible roof compartment lid (CRCL)
1.1) Visible imprint on CRCL trim

Concern: Imprint on CRCL trim.
Work specific to Cabriolet
A5/B9 Cabriolet

1) Malfunction of convertible roof compartment lid (CRCL)
1.1) Visible imprint on CRCL trim

Cause:
› Eyelet of cable guide can move freely and may, in the worst case, become positioned against fixed stop pin.
› As a result, there is insufficient distance between edge of eyelet and surface of CRCL trim.
› In this position, edge of eyelet makes an indentation (imprint) in CRCL trim.
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1) Malfunction of convertible roof compartment lid (CRCL)

1.1) Visible imprint on CRCL trim

Production modification:
› Eyelet of cable guide secured in place.
› This prevents eyelet from moving (stop pin no longer fitted) and ensures adequate distance to CRCL trim.
› Gradual introduction starting week 20/2017
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1) Malfunction of convertible roof compartment lid (CRCL)
1.1) Visible imprint on CRCL trim

After sales service modification:
- Sanding/filing off top edge of eyelet, approximately 2mm.
- Check both sides (L/R) and adjust as necessary.
- Damaged CRCL trim can be replaced: Part No.: 8W7 867 877 B
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1) Malfunction of convertible roof compartment lid (CRCL)
1.2) Convertible roof does not open \(\rightarrow\) malfunction of CRCL lock:

**Concern:** convertible roof malfunction
  › Roof does not open/close.

**Data logger identifies one or more of the following switches as the cause:**
  › F293
  And/or
  › F417
Work specific to Cabriolet
A5/B9 Cabriolet

1) Malfunction of convertible roof compartment lid (CRCL)

1.2) Convertible roof does not open → malfunction of CRCL lock:

**Cause:**
CRCL lock is constructed as a complete assembly. Switches fitted in module show delayed or different switching times when closing CRCL. The operation of convertible roof may be interrupted as a result.
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1) Malfunction of convertible roof compartment lid (CRCL)

1.2) Convertible roof does not open → malfunction of CRCL lock:

**Production modification:**
- Optimized construction of switch contacts in CRCL lock assembly implemented (CW 19/2017) data showing > 04s.
- Carried out for vehicles already produced.
Work specific to Cabriolet
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1) Malfunction of convertible roof compartment lid (CRCL)

1.2) Convertible roof does not open → malfunction of CRCL lock:

After sales service modification:
› Check convertible roof system (GFF/MVB) for plausibility.
› In relevant cases, replace CRCL lock assembly with Part No.: 8W7 825 823 A.
Work specific to Cabriolet
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1) Malfunction of convertible roof compartment lid (CRCL)

1.3) Hydraulic cylinder (CRCL closed) fallen off CRCL:
› Still possible to open/close convertible roof.

Other possible scenarios:
› Fallen off: lying detached on blocked roof hinge flap with no further damage.
Work specific to Cabriolet
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1) Malfunction of convertible roof compartment lid (CRCL)

1.3) Hydraulic cylinder (CRCL closed) fallen off CRCL:
› Opening/closing interrupted.

Other possible scenarios:
› Fallen off: push rod of hydraulic cylinder bent.
› Subsequent damage: roof frame trim and/or convertible roof cover/headliner is damaged.
Work specific to Cabriolet  
A5/B9 Cabriolet

1) Malfunction of convertible roof compartment lid (CRCL)

1.3) Hydraulic cylinder (CRCL closed) fallen off CRCL:

**Cause:**

- Ball socket of corresponding hydraulic cylinder on CRCL becomes detached when roof is closed.
- If the roof is operated, piston rod can collide with and damage various surrounding components.

**Background information:**

Due to concerns of creaking noises when CRCL is open, tolerances at ball stud and ball socket were reduced:

- Paint applied to ball stud
- Plastic ring for ball socket

As a result, the retaining clip of ball socket does not reach end position on ball stud and can become unfastened due to relative movement.
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1) Malfunction of convertible roof compartment lid (CRCL)

1.3) Hydraulic cylinder (CRCL closed) fallen off CRCL:

Production modification:
› Unpainted ball studs with optimized inserts in ball sockets to ensure largest possible coverage of retaining clip.
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1) Malfunction of convertible roof compartment lid (CRCL)

1.3) Hydraulic cylinder (CRCL closed) fallen off CRCL:

After sales service modification:
› Exchange the hydraulic cylinder.

Important:
› As specified in ETKA, ball studs must be replaced as well, Part No.: WHT-007-864 (6x)
› Ball studs are replaced on both sides on vehicles manufactured prior to implementation VIN.
› Prevention

Important:
› Retaining clip must be pressed in flush on ball socket.

Note:
Affected and damaged components must be serviced as appropriate.
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2) Convertible roof compartment tray loose:
2.1) Roof compartment tray disconnected at drive:
   › No cases have occurred where this affects roof opening/closing.

Concern:
   › Upon opening luggage compartment lid, the customer sees that front trim of variable roof compartment tray is detached on left side.
   › Tray can no longer be operated using button or convertible roof control system.
Work specific to Cabriolet  
A5/B9 Cabriolet

2) Convertible roof compartment tray loose:
2.1) Roof compartment tray disconnected at drive:
› No cases have occurred where this affects roof opening/closing.

Cause:
› Retaining ring of drive shaft is not properly engaged during assembly.
› When roof compartment tray is operated or pressure is applied to front trim (e.g. loading luggage compartment), the retaining ring may come loose and fall off.
**Work specific to Cabriolet**
*A5/B9 Cabriolet*

**2) Convertible roof compartment tray loose:**

**2.1) Roof compartment tray disconnected at drive:**

› No cases have occurred where this affects roof opening/closing.

**Production modification:**

› Optimized assembly process.

**After sales service modification:**

› Press in the retaining clip correctly so that it is flush.

› Check according to assembly process (A) and subsequently check function Part No.: 8W7 898 863 (clip in repair kit).

To verify the repair, the roof compartment tray can be operated via switch E896.
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A5/B9 Cabriolet

3) Malfunction in convertible roof compartment lock:

3.1) Convertible roof receiver in rear window frame – wiring damaged:

› Convertible roof cannot be opened/closed.

**Concern:** convertible roof malfunction

› Roof does not open/close.

Data logger identifies the following switch as the cause:

› F294

Additional data code stored in data logger:

› *Short to earth (poss. sporadic)*
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A5/B9 Cabriolet

3) Malfunction in convertible roof compartment lock:

3.1) Convertible roof receiver in rear window frame – wiring damaged:
   › Convertible roof cannot be opened/closed.

Cause:
   › Insulation on internal wiring for convertible roof receiver damaged at supplier when two halves of assembly housing are joined. Over time, this leads to a short to earth/short circuit caused by relative movement.
Work specific to Cabriolet
A5/B9 Cabriolet

3) Malfunction in convertible roof compartment lock:

3.1) Convertible roof receiver in rear window frame – wiring damaged:
› Convertible roof cannot be opened/closed.

Production modification:
› Affixed the wiring to main body with Cyberbond 2241 during attachment of assembly parts.
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A5/B9 Cabriolet

3) Malfunction in convertible roof compartment lock:
3.1) Convertible roof receiver in rear window frame – wiring damaged:
› Convertible roof cannot be opened/closed.

After sales service modification:
› Installation of new part, carried out for vehicles already produced.
Work specific to Cabriolet
A5/B9 Cabriolet

4) Manual operation of convertible roof

For operation of convertible roof by customer:
› There is no option to the open roof through manual operation.
› Manual operation to close the roof is described for customers in the Owner’s Manual.

For service/workshops:

It is only necessary to open the convertible roof manually if this is part of analysis or repairs in the workshop. The tensioner can be raised to open the CRCL for further analysis as noted below.

Raising tensioner when convertible roof is closed and implausible switch position indicated:
› When the convertible roof is closed and an implausible switch position is preventing normal roof operation, the tensioner can be raised by holding the convertible roof button in “open” direction for >10 sec.

Conditions:
Terminal 15 on
Speed: 0 km/h
Actuation time: 2 sec.
› Luggage compartment can be opened via hard key.
Q7/A4 – power-operated rear lid
Audi of America

Contents

01. Customer concern

02. Known problems (with measures)
   2.1 Rear lid lock sticks in first catch
   2.2 Rear lid only opens approximately 25 cm
   2.3 Rear lid is not pulled completely closed
   2.4 Rear lid does not open all the way

03. Analysis of causes
   Eliminating functional problems using measured values in rear lid control module, J605 (address word 006D)

04. Summary
Customer concern

**Initial analysis:**
› A wide variety of static and sporadic problems related to how the power-operated rear lid opens and closes.

**Objective:**
› Identifying the cause and avoiding incorrect replacement or repeat repairs.
Customer concern

Model:
Area of fault: Power-operated rear lid
VIN: XXXXXXXXXXX

Description of fault:

Opening the rear lid:
› Approximately 50% of the time, the rear lid only opens about 30 cm.
› Does not matter what method of operation was used (key, button in rear lid or control in driver door).

Quick solution

1) Repeat opening command twice:
› Rear lid opens as far as programmed end position.

2) Alternatively: Press rear lid manually into lock, repeat opening command:
› Lid opens easily as far as programmed end position.

Reprogramming the end position did not solve problem:
› After slowly pushing the rear lid up manually into the end position and pressing the close button for 5 seconds, the lid can only be closed manually (close button does not work).
Customer concern (continued)

Closing the rear lid

One-time event:
› After pressing the close button, the lid only closes halfway.

Solution:
› Close lid manually.

Rear lid opens unintentionally

One-time event:
› Upon returning to the locked vehicle, the rear lid was found open.
Rear lid lock sticks in first catch

Embedded video:
Rear lid lock sticks in first catch

Problem reported by customer/results found by workshop:
When opened, the power-operated rear lid remains stuck in the first catch of the rear lid lock. It can only be opened by pressing the button in the handle, on the remote control key or in the door trim. The problem usually occurs when opening the rear lid for the first time.

Technical background:
Due to insufficient coverage at the lowest tolerance for the snow load lever, the locking pawl in the lock is released too early.
› When operated slowly, the lock sticks in the first catch (customer must unlock twice).

Production measure:
› Modified component geometry of snow load lever.

Service procedure:
› Replace rear lid lock.
› There are no DTC(s) stored in the diagnostic memory.
Rear lid only opens approximately 25 cm
Rear lid only opens approximately 25 cm
Rear lid only opens approximately 25 cm

Embedded video:
Rear lid only opens approximately 25 cm

Problem reported by customer/results found by workshop:
During opening, the power-operated rear lid stops moving after opening approximately 25 cm (sporadic fault). It is then generally only possible to completely open and close the rear lid by hand. This problem often depends on the temperature.

Technical background:
Bent switch lugs on the first catch microswitch can prevent it from switching, causing the first catch to remain closed although the rear lid lock is completely released.

› The rear lid opens approximately 25 cm and then stops, as only from this opening height onwards does the rear lid control module require a signal from the first catch to continue powering the rear lid drives.

Production measure:
› Modified packaging at sub-supplier and camera surveillance of switch lugs on production line starting in October 2017 and onwards.
Rear lid only opens approximately 25 cm

Service procedure:
If the problem is constant, the rear lid lock status can be read out from the measured values in the rear lid control module, J605 (address word 006D).

› Status of rear lid lock.
› Rear lid lock in first catch.
› Main catch open.
› First catch closed.

As the problem often depends on the temperature, you can try to reproduce the problem by warming or cooling the rear lid lock:
› There are no DTC(s) stored in the diagnostic memory.
› Replace rear lid lock.
Rear lid is not pulled completely closed
Rear lid is not pulled completely closed

Power latching system drive

Bowden cable

Rear lid lock with power latching system
Rear lid is not pulled completely closed

Problem reported by customer/results found by workshop:
The power-operated rear lid does not close completely/closes only as far as the first catch in the rear lid lock. The rear lid must be pressed fully closed by hand. The problem occurs most often at cold ambient temperatures.

Technical background of first possible cause:
Too great a tolerance in the screw shaft drive can cause the power latching system drive to stick. The power latching system drive does not reach the end position after it is operated. End switch for power latching system drive is not operated.
› The rear lid control module creates the DTC B113E29 “Power latch - implausible signal - static” in the diagnostic memory.
› The rear lid control module cuts off current to the power latching system drive until this DTC is at least passive/sporadic again.

Production measure:
› Additional component check at -4° F screw shaft sorting starting in December 2016 onwards.
Rear lid is not pulled completely closed

Service procedure:

DTC is generally present in diagnostic memory:

› If problem is constant, the DTC B113E29 (Power latch – implausible signal – static) can be read out of the diagnostic memory of the rear lid control module, J605 (address word 006D).

› As the problem often depends on the temperature and only occurs after closing the rear lid a second time (after a longer period when the rear lid was not operated), the DTC B113E29 (Power latch - implausible signal - passive/sporadic) may be stored in the diagnostic memory, or may have already been erased by the reset counter/driving cycle.

› Replace power latching system drive.
Rear lid is not pulled completely closed
Rear lid is not pulled completely closed

Technical background of second possible cause:
A bent switch lug on the main catch microswitch can cause the microswitch to switch prematurely even though the rear lid lock is only closed as far as the first catch.
› The rear lid control module registers that both microswitches already indicate a closed position.
› The rear lid control module does not send current to the power latching system motor, as the control module registers from the microswitch signals that the rear lid lock is already closed (even though the rear lid lock is physically only in the first catch).

Production measure:
› Modified packaging at sub-supplier and camera surveillance of switch lugs on production line starting in October 2017 onwards.

Service procedure:
› Replace rear lid lock.
› There are no DTC(s) stored in the diagnostic memory.
Rear lid is not pulled completely closed

Service procedure:
If the problem occurs, the rear lid lock status can be read out from the measured values in the rear lid control module, J605 (address word 006D).

› Status of rear lid lock.
› Rear lid lock closed.
› Main catch closed.
› First catch closed.

As the problem often depends on the temperature, you can try to reproduce the problem by warming or cooling the rear lid lock:
› There are no DTC(s) stored in the diagnostic memory.
› Replace rear lid lock.
Rear lid does not open all the way

Without pressing

With pressing
Rear lid does not open all the way

Problem reported by customer/results found by workshop:

› The power-operated rear lid does not open all the way. After opening, there is still enough play towards top that it can be pressed by hand for the last 6 to 10 cm of the possible opening height.

› The problem generally occurs at cold ambient temperatures.

Technical background:

› When vehicles leave the factory, the rear lid has a small amount of play when it is completely open. The play increases if the opening height has been reprogrammed via the button in the rear lid trim.

› This is caused by play in the drive system and the value for the upper lock-in range that was entered at the factory. The result is that the maximum power-operated opening range can no longer be set.

Production measure:

› No action planned at this time.
Rear lid does not open all the way

**Service procedure:**

› The instructions below describe the procedure for permanently setting the rear lid to open to the maximum power-operated position after reprogramming.
  First, perform a basic setting for the rear lid control module, J605 (address word 006D).

› Please carry out all steps as described in the test program in the rear lid control module, J605 (address word 006D) under “Basic setting - adapt opening angle of tailgate”.

› Then change the value for the upper lock-in range to 150, as described on the following slides.

› Changing this value ensures that, after reprogramming, the rear lid opens to the maximum power-operated position when it is programmed to open all the way.

⚠️ **Note:**

After this measure is carried out, the maximum power-operated position is only set after the rear lid is opened 2 or 3 times.
Rear lid does not open all the way
Adjusting upper lock-in range

1) In self-diagnosis, select control module 006D rear lid electronics
From the self-diagnosis functions, select the “Adaptation” tab.
Rear lid does not open all the way
Adjusting upper lock-in range

2) Under “Adaptation/Parameters” select “Upper lock-in range”.

![Image of software interface showing parameters and values]
Rear lid does not open all the way
Adjusting upper lock-in range

3) You can then see that “Current value, 100” is the factory’s set value.
Rear lid does not open all the way
Adjusting upper lock-in range

4) Enter 150 for the value under “Entry” then press the “Apply” button.
Rear lid does not open all the way
Adjusting upper lock-in range

5) Confirm that you really want to apply the change by selecting “Yes”.
Rear lid does not open all the way
Adjusting upper lock-in range

6) The change has now been made successfully if 150 is entered as the “Current value”.

![Image of diagnostic software interface showing the adjustment settings for the rear lid]
Eliminating functional problems using measured values in rear lid control module, J605 (address word 006D)

› Functional problems are often not shown by a DTC in the diagnostic memory.
› Due to a lack of redundancy, the control modules may not check the plausibility of the microswitch settings for the rear lid lock.
› Checking and evaluating the signals via the measured values provides a targeted method of identifying the components causing the issue.
› See embedded pdf below:

Messwerte 6D.pdf
Q7/A4 – power-operated rear lid

**Summary**

- Functional problems with the power-operated rear lid are often not detected by DTC(s) in the diagnostic memory.
- An exact description of the problem is essential, especially for sporadic issues.
- Faults in the functions can be identified using the measured values.
Noises from front seats
01. TT (3rd generation): Noises from front seats

02. MLB: Noises from seat depth adjuster

03. MLB: Noises from seat rake adjuster
TT (3rd generation): Noises from front seats

› If there are noises coming from the seat structure and/or backrest structure of the front seats on the TT (3rd generation), please check the points described in the following instructions before replacing the relevant structure.

› If the instructions described on the following charts do not eliminate the problem, the affected seat frame/lumbar support can be exchanged for a new component.

› Please document the issue clearly using suitable photographs/videos.
TT (3rd generation): Noises from front seats – e.g. lumbar support

If the noises are coming from the area of the outer backrest frame, this may be caused by the connection between the lumbar support and the outer backrest frame.

**Cause:**
› Play between rivet for lumbar support and lower outer backrest frame.

**Solution:**
› Drill out old rivet and fit a larger rivet.
TT (3rd generation): Noises from front seats – e.g. seat frame

If the noises are coming from the area of the seat frame, this may also be caused by the connection to the hinged lever (top).

**Cause:**
› Play between connection for hinged lever (top) and seat pan.

**Solution:**
› Please try to eliminate the noise by varying the height of the seat.
› If this is not successful, the seat frame can be replaced.
MLB: Noises from seat depth adjuster

› If there are noises coming from the seat structure of the front seats (sports seats) on the B9 (A4/A5), Q7 (successor), Q5 (successor), or TT (3rd generation), please check the following points in addition to the familiar topics.

› If the instructions described on the following charts do not eliminate the problem, the affected seat frame/seat depth adjustment unit can be exchanged for a new component.

› Please document the issue clearly using suitable photographs/videos.
MLB: Noises from seat depth adjuster

If the noises are coming from the area of the seat depth adjuster, this may also be caused by the connection between the seat depth adjustment unit and the seat frame.

**Cause:**
› Play between bolted connection for seat depth adjustment unit and seat frame.

**Solution:**
› Fit self-locking nuts instead of nuts and increase tightening torque to 7 Nm.
If the noises are coming from the area of the seat frame, this may also be caused by the seat rake adjuster at the transverse tube of the seat frame.

**Cause:**

› Play in the seat rake adjuster shaft.

**Solution:**

› Please try to eliminate the noise by varying the seat rake adjustment.
› If this is not successful then the seat frame can be replaced.
Noises from front seats

Summary

› In addition to the noise-related topics with which you are already familiar (various TSBs in circulation), please also check the following areas depending on the source of the noise:
  › Lumbar support mounting.
  › Seat height adjustment unit.
  › Seat depth adjuster.
  › Seat rake adjuster.

› General rule: Repair is preferable to replacement!
Thank you!