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Information on automatic trunk lid controls (electrohydraulic)



Caution!

When working on the open hydraulic system, ensure extreme cleanliness, as otherwise even the smallest dirt particles in the hydraulic system can lead to malfunctions.

Function description (open/close):

Operation of the trunk lid is only possible via;

- Control button in passenger compartment (opening only)
- Control button outside on trunk lid (opening and closing when car is not locked)
- Remote control switch on key (opening only)
- Control button in handle on tailgate trim (closing and opening)

Note:

If a control button is operating again during an opening or closing procedure, this procedure is stopped. If a control button is operated again, this changes the direction in which the trunk lid moves (except for passenger compartment and remote control buttons, opening only here).

Description of operation (antirepeat device):

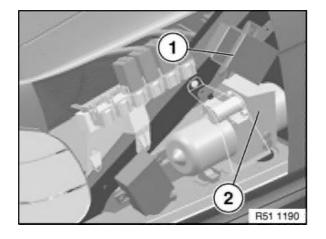
An antirepeat device is fitted to prevent the hydraulic control unit from overheating.

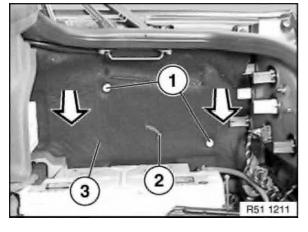
The total motor running time of the hydraulic control unit is recorded by a counter. If the motor is not activated, this counter is reduced by a third of the pause time. If the counter exceeds a total running time of 2 minutes, no further actuations are accepted. Thus, for a motor running time exceeding 2 minutes, an enforced pause which is three times as long is engaged.

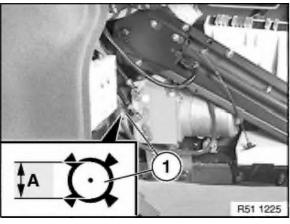
After a cooling-down period of 6 minutes, it is again possible for the motor to run for 2 minutes.

Note:

However, an actuation which is in operation is not terminated even if the maximum running time is exceeded.







Installation of individual components:

Trunk lid module and hydraulic control unit:

The trunk lid module (1) and the hydraulic control unit (2) are located on the right in the luggage compartment between the "C-pillar extension" and the outer shell.

The hydraulic control unit (2) is activated by the trunk lid module (1).

Hydraulic cylinder:

The hydraulic cylinder is located on the left trunk lid hinge in place of the gas pressure spring.

Inclination switch:

A double inclination switch is located below the handle in the tailgate trim.

Emergency trunk lid operation:

If the automatic controls malfunction, the trunk lid can be opened and closed by hand without additional supplementary measures such as conventional manual operation of the trunk lid

The force need for emergency operation is greater.

Emergency operation is determined by:

- the switching pressure of the emergency valve (mechanical/hydraulic pressure limiting valve),
- the geometric adaptation of the trunk lid hinge and
- the omitted gas pressure spring support on the left.

Safe stopping in an open position is assured in an opening angle range of 30° to 90°. This is achieved by a minimum system pressure of 40 bar (determined by the emergency valve).

Checking fluid level in hydraulic control unit:

Test conditions:

Open trunk lid (by motor) once and then close again so as to bleed the system.

Open trunk lid again (by motor) and pull cover (3) at front to one side.

Note:

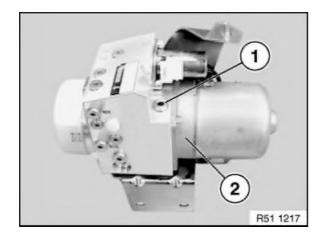
The expansion rivets (1) are not released here. Make sure that the emergency release mechanism (2) is correctly fitted.

Test requirements:

Open trunk lid (by motor) once and then close again so as to bleed the system.

Open trunk lid again (by motor).

When the cylinder is fully extended (trunk lid open), the fluid level must be in area (A) of the marking (1) on the hydraulic control unit (2).



Topping up fluid in hydraulic control unit:

If necessary, remove and install hydraulic control unit for boot lid controls (electrohydraulic/fully automatic),

refer to 51 24 150.

Release oil filler plug (1) on hydraulic control unit (2). Add as much hydraulic fluid (sourcing reference: BMW Parts Service) until it reaches area of marking.

Fit a new oil filler plug (1) and seal.

Check fluid level again (refer to previous work step).