MODEL 230.4

as of model year 09 /YoM 08 model refinement package with CODE (881) Remote trunk closing (RTC [HDFS])

Function requirements, general

- No overvoltage or undervoltage
- Vario roof in locked end position (open or closed)
- Vehicle stationary

Remote trunk lid opening/closing, general

The remote trunk lid opening/closing allows the trunk lid to be opened and closed hydraulically.

The control is integrated into the RVC control unit (N52). The trunk lid is driven via two hydraulic cylinders integrated into the trunk lid mechanism.

The remote trunk lid unlocking/locking comprises the following partial functions:

- Normalization function sequence
- Function sequence for lock-up recognition

Further partial functions are described in separate documents:

- Open trunk lid, function
- Closing trunk lid, function

Normalization function sequence

Normalization comprises the following partial functions:

- Function sequence for normalizing completely opened trunk lid (upper normalization)
- Function sequence for normalizing completely closed trunk lid (lower normalization)

The hydraulic volume flow required for operation is generated by the RVC hydraulic unit (A7/5). The trunk lid position sensor (B24/16) is integrated into the left hydraulic cylinder.

The trunk lid is completely closed by the power closing and is actuated by the pneumatic controller unit with combined functions (A37).

The trunk lid can be normalized using STAR DIAGNOSIS in the RVC control unit; this is necessary during initial start-up or if one of the system components has been replaced.

It is necessary to learn in the closed and completely open position of the trunk lid. Before normalization of the upper end position, it is not possible to close the trunk lid hydraulically.

i Since the end points of the trunk lid are not yet known during normalization, the trunk lid approaches the end points with increased pressure.

A normalized system must be denormalized via STAR DIAGNOSIS before renormalizing (required when replacing system components).

Additional function sequence for normalizing completely opened trunk lid (upper normalization)

- Trunk lid lock open and
- Not normalized

Function sequence for normalizing completely opened trunk lid (upper normalization)

After the on-board electrical system battery (G1) is connected, the trunk lid is automatically opened when the trunk lid external operation switch (S88/8) is actuated. If the system recognizes that the end position is reached within the normalization range adjusted via STAR DIAGNOSIS, the RVC hydraulic unit is actuated another t=2 s and this position is stored as 0 position (trunk lid open). Then the motor switches off, regardless of whether actuation remains active.

Additional function sequence for normalizing completely closed trunk lid (lower normalization)

- Trunk lid lock open
- Upper normalization present and
- Lower normalization not present

Function sequence for normalizing completely closed trunk lid (lower normalization)

An automatic operation is started in the closing direction to normalize the lower end position. The trunk lid is actuated in the closing direction until the trunk lid is completely closed.

Then the trunk lid lock is actuated in the closing direction by the pneumatic controller unit with combined functions.

If the trunk lid is within the normalization limits for the closed position at that time and the trunk lid position sensor indicates a plausible value, normalization is completed.

value, normalization is completed.

Additional function requirements for blockage detection

Trunk lid normalized

Function sequence for lock-up recognition

The RVC control unit recognizes the position and the speed of the trunk lid with the aid of the trunk lid position sensor.

If trunk lid lock-up is recognized while closing, the drive is reversed and the trunk lid is moved to the default position, preceding lock-up.

If trunk lid lock-up is recognized while opening, the drive is switched off and the trunk lid remains in the momentary position.

Remote trunk closing (RTC), location of components	GF80.20-P-0007-02RI
Remote trunk closing (RTC) block diagram	GF80.20-P-0007-04RI
Open HDF trunk lid, function	GF80.20-P-2005RI
Closing trunk lid, function	GF80.20-P-2006RI