

Installation and Operating Instructions

SL R230 Comfort Module CMR230

Before installation:

Please read these instructions carefully and take your time with the installation. Performing the installation improperly can cause damage to the module or to electronic components in your vehicle. Claims cannot be asserted for consequences which arise out of disregard for these installation instructions. If you are not confident in doing the installation yourself, please obtain the services of a vehicle specialist.



Attention: Installation of this module may be grounds to invalidate your vehicle's homologation (general type certification) and/or its manufacturer's warranty. Do not operate the convertible top without the presence of another person – there is no entanglement protection. The installation and operation of the module is at your own risk.

Functional description:

The module only uses functions which were originally built into the vehicle. All data relevant to convertible top control (e.g. limit switches, window position, speed) will be continuously monitored. All OEM safety functions (under / over voltage cut-off, thermal protection, etc.) remain intact.

Operating the convertible top with the radio-control key is independent of the infrared (IR) remote control for the convertible top. Control of the convertible top is achieved via the same signal that is used for central locking – this does away with the need to "point" accurately at the door handle and it works in the full range of about 50m.

The module's functional scope and operation:

- **Tap function for the top's switch:**

Now you need only to tap (>1s) with your finger on the convertible top switch, then the top will automatically open or close. This automatic operation can be interrupted at any time by simply tapping on the switch again in any direction. You can start the top's operation, pull out the ignition key, get out of the car and lock it – the top will continue to automatically close or open without the ignition.

- **Operating the top while driving (up to a speed of 60 km/h maximum):**

Up to a pre-programmed speed (though not greater than 60 km/h), you can operate the top while driving.

- **Threshold speed adjustment:**

If, while driving, you press the telephone hang-up button on the steering wheel for longer than 3 s, this will automatically set the vehicle's current speed as the new threshold limit. An acoustic signal will be sounded as confirmation that the new speed has been set. The maximum permissible threshold speed is 60 km/h. Anytime the battery is disconnected, including during the initial installation of the module, a threshold speed of 30 km/h will be set by default.

- **Operating the top per OEM remote control:**

Press the Open switch on the remote control three times and the top will open automatically. Closing the top works in the same way except that the Close button on the remote control is used. As a safety precaution, opening the top can be terminated with the Close button or closing the top can be terminated with the Open button.

- **Service mode for technical vehicle inspections and diagnostic purposes:**

When the vehicle's ignition key is in the Acc. position (ignition key position 2), the telephone hang-up button on the steering wheel can be held depressed for longer than 3 s to switch between service mode and normal mode. The module is completely passive in service mode, i.e. all functions operate as if no module was installed. The module cannot even be detected with vehicle diagnostic equipment. Service mode is confirmed by a three-pulse signal tone, normal operation with a single signal tone. Service mode is set by default after the battery has been disconnected or after the module is initially installed.



Attention: After the module has been installed it must first be set to normal mode in order to obtain its additional features because service mode is set by default.

Module installation:

You will need the following tools:

- Set of screwdriver
- open-end spanner 10mm, universal pliers

Installation:

1. move the driver's seat all the way backward
2. remove the cover by pulling it up (it is latched in place, Figure 1)
3. remove the screw cover and loosen the screw. Now the cover can be taken away (Figure 2)
4. open the cable channel, its top cover is latched in place (Figure 6)
5. take out the CAN-distributor and remove the lock mechanism by pressing the two sidewise clips outwards (Figure 3)
6. remove the CAN-connector with the wires brown and brown/black and connect it to the module. Plug the connector of the module to the free place of the CAN-distributor (Figure 4)
7. connect the black wire of the module (ground) behind the cable channel (Figure 5)
8. connect the red wire (+12V) to the red/violet (red wire with violet stripe) wire of the wiring harness (Figure 6)
9. test the module, be sure that it was set in normal operation mode before (see page 2)
10. reassemble everything in the reverse order

Figures 1 ... 6, module installation:



Figure 1: cover removed



Figure 2: remove screw

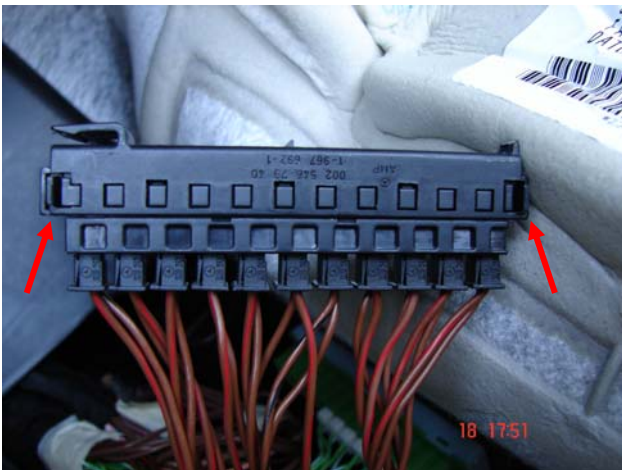


Figure 3: remove lock mechanism

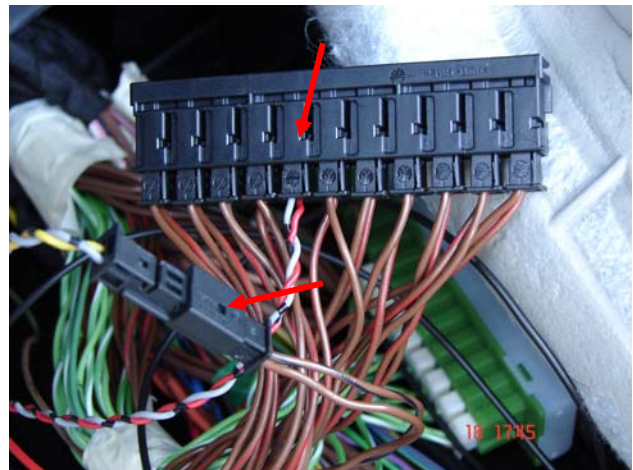


Figure 4: CAN-connection of the module

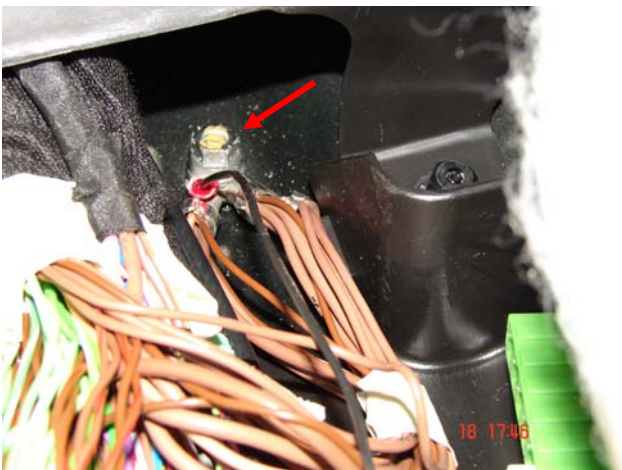


Figure 5: ground-connection

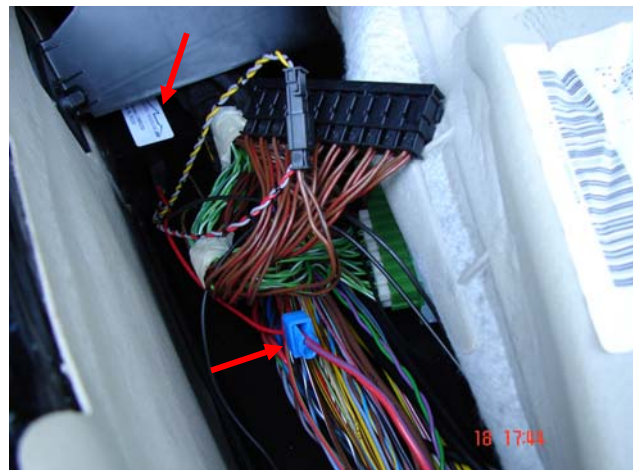


Figure 6: connection +12V, module position