

# Installation and Operation Instructions BMW 3 E93 Convertible Comfort Module

## 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.

## The module's functional scope and operation:

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

Now you need only to tap (>2s) 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 the opposite direction. When the top switch is tapped again in the same direction while the roof moves, the windows will stay open at the end of the roof movement. 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 50 km/h maximum):**

Up to a pre-programmed speed (though not greater than 50 km/h), you can operate the top while driving.

- **Threshold speed adjustment:**

Press the central switch for the window lifts in the drivers door in direction "close" for >4s (windows must be closed) and the current speed will be set as new threshold limit. An acoustic signal will be sounded as confirmation that the new speed has been set. The maximum threshold speed is 50Km/h. The default programmed speed is 50Km/h for a new module.

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

Press the Open switch on the remote control >3s 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. When the switch is pressed again in the same direction while the roof moves, the windows will stay open at the end of the roof movement. 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.

You can start the top's operation, start the engine and drive away while the top is still moving – it will continue the movement until it's opened/closed completely.

- **Battery Safe Function:**

The module will go to power down mode automatically when it is not needed. It will then consume less than 0,2mA – that means that the battery will not be discharged by the module.

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

You can change the mode from normal mode to service mode (and back...) in the same way as speed limit is set, except that here the car is standing still. An acoustic signal will confirm the change of the mode.



**Attention: When visiting workshop it is recommended to remove the module, because the manufacturer's warranty could be affected.**

### Installation of the module:

Open the top, turn off ignition and pull out the key



Picture 1: take out the middle part of the rear seat



Picture 2: remove plastic rings using a flat screwdriver, loosen 2 torx TX20 screws



Picture 3: push the lever (red arrow) backwards and remove the separation



Picture 4: remove covers and then the screws behind it



Picture 5: remove the plastic frame



Picture 6: remove the sealing ledge and the plastic cover



Picture 7: remove side part of the rear seat, it is clipped



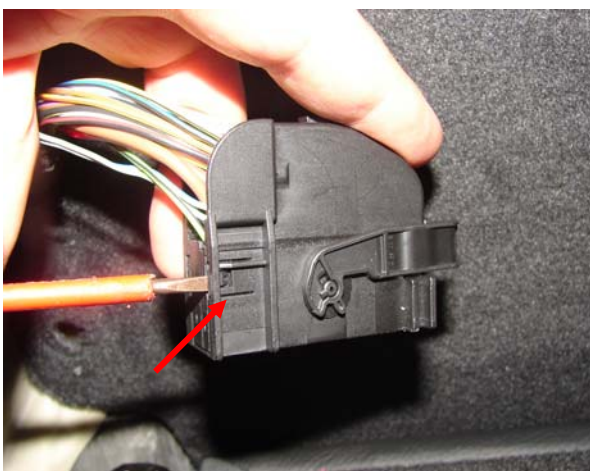
Picture 8: pull out plastic pin to remove plastic rivet



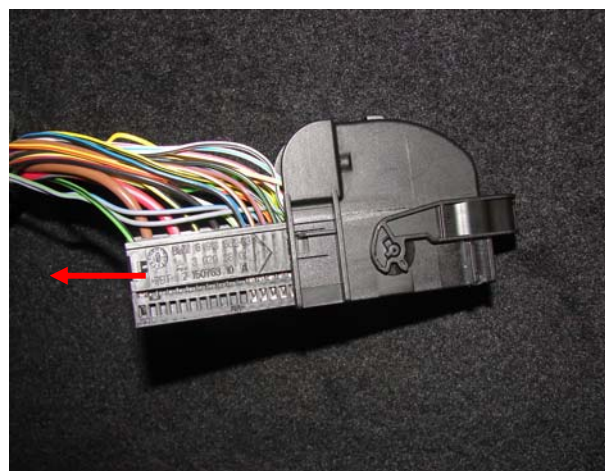
Picture 9: cover is multiple clipped, pull it in the shown direction



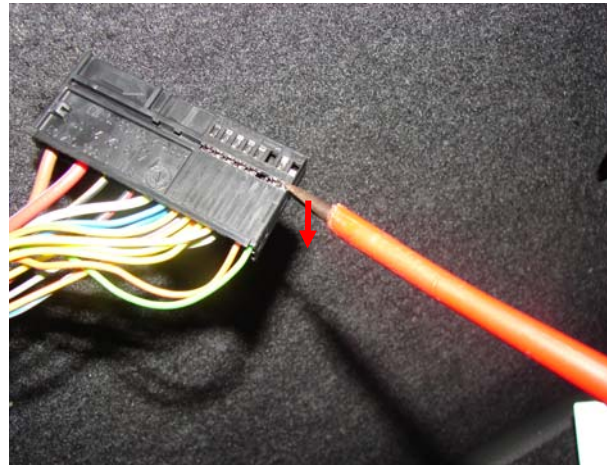
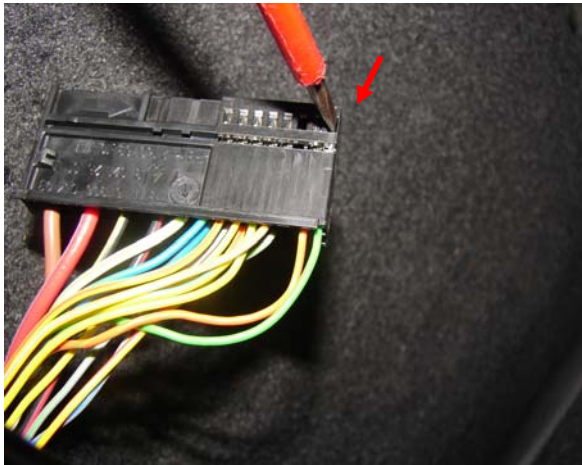
Picture 10: remove connector: pull down latch (arrow 1), then turn strap to the top (arrow 2)



Picture 11: remove cover of connector, use screwdriver to unlock cover

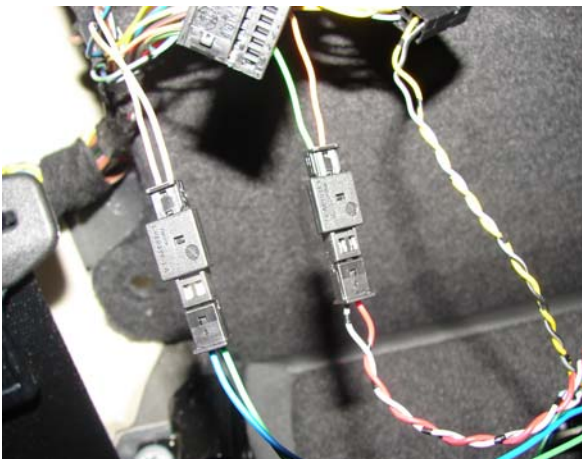


Picture 12: pull out connector and demount the two parts of it



Picture 13/14: pull out the green (Pin 41) and orange/green (orange with green stripe, Pin 40) wire. Push down the latch using a small flat screwdriver, pull out the wire a bit (left picture), then push down the latch again and pull out the wire completely (right picture).

Remove the wires brown/white (brown with white stripe, Pin 13) and brown/purple (brown with purple stripe, Pin 14). You will find these wires in the other part of the connector.

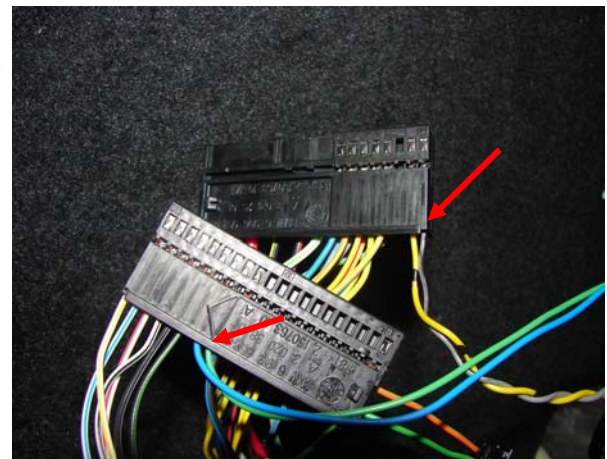


Picture 15: plug the removed wires into the 2-pole connector housings:

2-pole connector 1: orange/green -> Pin 1  
green -> Pin 2

2-pole connector 2: brown/white -> Pin 1  
brown/purple -> Pin 2

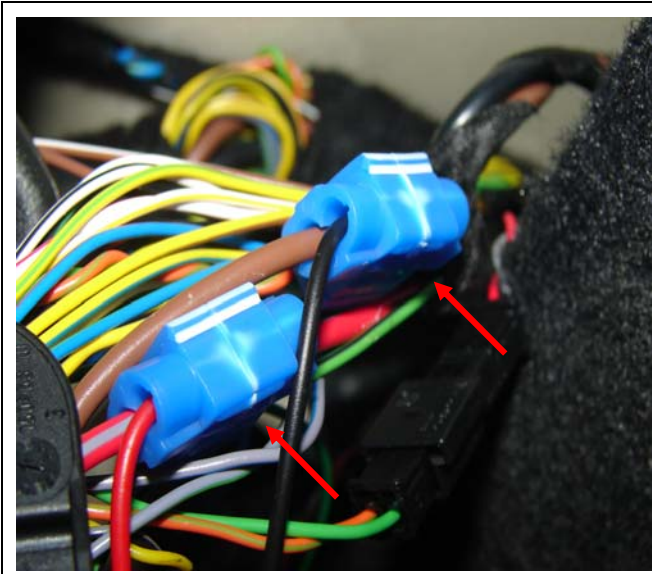
The both 2-pole connectors must be plugged to the module: connect the wire pairs green and orange/green to red/black and grey/black. The wire pairs brown/white and brown/purple will be connected to green and blue. Take care that blue wire will lead to the brown/purple wire and the red/black wire leads to the orange/green wire.



Picture 16: plug the 4 wires with crimp contacts on it into the connector on the places where the other wires were removed:

Pin 13: green  
Pin 14: blue  
Pin 40: yellow/black  
Pin 41: grey/black

Be sure that the crimp contacts are inserted correctly, they must snap hearable.



Picture 17: power connection of the module:  
Connect the both wires red and black of the module using the blue crimp connectors:

<b>Module</b>	<b>Car</b>
black (GND)	brown (Pin 21)
red (+12V)	red/grey or red/green (Pin 22)

To achieve optimized crimp connection: strip the black and red wire about 2cm, bend it so that the wire diameter is doubled before crimping it. Use a combination pliers to push the metal bar down.

**Test the module:**

turn the ignition on, close the top – release the switch when the top starts to move, it should continue the movement until the top is closed completely. After testing assemble everything in the reverse order.

**troubleshooting:**

if an error message appears, please check if the module is connected to power (picture 17) and if the connection of the other wires is good (picture 13...16).