

VDFFB 3.1 Comfort

**Radio control remote for electrically controllable cabrio- and
roadster roof made of material or metal**

Operation instruction

**For the Mercedes Benz SLK (type R170)
year of construction starting from 1997**



We congratulate your purchase of the radio remote VDFFB 3.1 Comfort controller. With it you can control the electrical roof of your cabrios or roadsters from the remote key fob. This controller can only be installed in vehicles, with radio remote keys for the central locking. In vehicles with infrared remote keys this controller will NOT work!

1. Generally:

Reference:

Some terms, which are mentioned in this documentation, are registered trade marks or have a comparable status. They are used without guarantee of the free usefulness.

Generally:

With this controller you can control the roof of your Mercedes SLK (R170), open or close with the car key. A modern microprocessor in the controller evaluates the signals and steers the roof appropriately.

Further you can the open or close the roof automatically with the roof switch in the vehicle inside, without holding it until fully open or closed.

The roof movement can be interrupted at any time. Just press any button on the car key during the roof movement and the roof will stops in its current position..



Never open or close the roof, without having constant view of the vehicle!

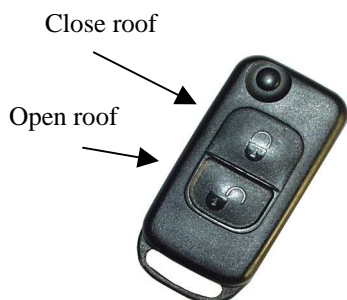


We do not take responsibility for damage or possible damage, which result from incorrect installation, abuse, inappropriate storage, use, operation or careless treatment. Likewise any guarantee expires with any interference or repairs made from anyone other than an authorized person. The battery change during remote maintenance is excluded from this.

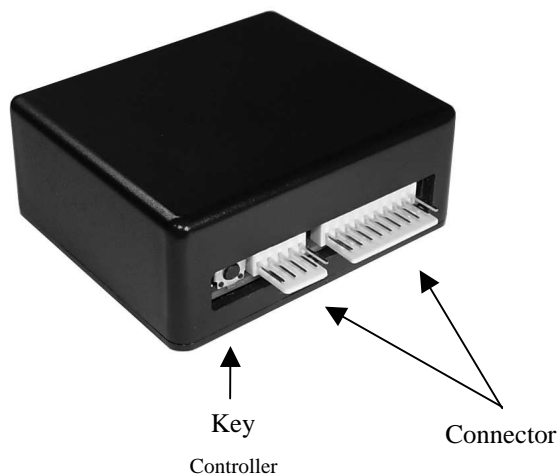
The use of the module ‘VDFFB 3.1 Comfort’ is at your own risk.

2. Operation

General information:



SLK-Car key



- The roof can be opened or closed with the vehicles own remote.
- The roof can be automatically opened or closed with the roof switch in the vehicle.
- The windows can be opened or closed with the vehicles own remote.
- Operation by remote control can be activated or deactivated in the configuration mode with the roof switch. This is useful, if you give your vehicle to the garage or another person.
- Comfort mechanism with the roof switch can be activated and/or deactivated in the configuration mode with the roof switch. This again is useful, if you give your vehicle to the garage or another person.
- If the roof is operated with the remote, the turn signals can show an optical signal. The signal can be activated or deactivated in the configuration mode.
- Opening and closing can be adapted by the time training function particularly to the vehicle.
- Configuration mode to activate and deactivate functions and training the opening and closing time
- The turn signal feedback of the central locking device is changed, now depressing the key activates the turn signal for 4 seconds to give feedback of the central locking device to the owner.
- The controller behaves with the vehicle diagnosis completely neutrally and affects the vehicles own electronic construction units in any way.
- After switching on the controller, a self check is accomplished. If this is terminated, this is signalled by short lighting up of the turn signals.
- Switching on of the ignition is not needed for the roof control to operate.
- When the roof is opened or closed with the car key and you switch the ignition on, the car electronics take over the control of the roof and the will stop.
- When the controller does not react, it can be reset, by pressing the key at the controller for 15 seconds. The 'Reset' is confirmed with the short blinking of the turn signals.
- The controller is equipped with a function, so in an emergency situation the roof remains in the current position.



Attention: Danger of injury



When stopping the roof movement the ignition remains on until the movement is continued or the equipment is switched off – with a prolonged stop the car battery can be discharged.

3. Functions:

Always make sure that before opening or closing nothing is in the area of travel of the roof or boot lid. Pay particularly attention to whether something comes into contact with the roof, while you open or close it, so that you can react immediately if necessary.

During neglect danger of damage to property or person may occur.

Generally:

With each press of a button on the key this starts a program that within 4 seconds counts the following key presses. Upon completion the number of key presses implements the appropriate function. During activation with the roof remote control the evaluation time is signalled by shining of the turn signals for 4 seconds.

Open roof with car key:

When you press the unlock button of the car key, the car is opened. In order to open the roof, you press the button two more times within 4 seconds (altogether 3 time within 4 seconds). The turn signals send the optical signal, when activated. As soon as the trained opening time finishes, the controller switches off automatically. The roof is now opened and the vehicle unlocked. This function can be activated or deactivated in the configuration mode.

Close roof with car key:

When you press the lock button of the car key, the car is closed. In order to close the roof, you press the button two more times within 4 seconds (altogether 3 time within 4 seconds). The turn signals send the optical signal, when activated. As soon as the trained closing time finishes, the controller switches off automatically. The roof is now closed and the vehicle locked. This function can be activated or deactivated in the configuration mode.

Open windows with car key:

When you press the unlock button of the car key, the car is opened. In order to open the windows, you press the key three more times within 4 seconds (altogether 4 times within 4 seconds). As soon as the windows are open, the control switches off automatically. For technical reasons the windows open only after 3-4 seconds. This function is only present during activated roof remote control.

Close windows with car key:

When you press the lock button of the car key, the car is closed. In order to close the windows, you press the key three more times within 4 seconds (altogether 4 times within 4 seconds). As soon as the windows are closed, the control switches off automatically. For technical reasons the windows close only after 3-4 seconds. This function is only present during activated roof remote control.

Open roof with roof switch:

To open the roof automatically, pull the roof switch into the open position. However you can now release the roof switch after 3 seconds and the roof continues to open. As soon as the trained opening time finishes, the controller switches off automatically. The car ignition must be switched on for the function to work. The window opening function (roof switches twice operate briefly one behind the other) is thereby not affected.

During the opening operation if the engine or the ignition is switched off, the roof movement will end. As soon as the trained time finishes, the controller switches off automatically.

Close roof with roof switch:

To close the roof automatically, push the roof switch in the close position then release the roof switch after 3 seconds. The roof will continue to close. As soon as the trained closing time finishes, the controller switches off automatically. The car ignition must be switched on for the function to work. The window opening function (roof switches twice operate briefly one behind the other) is thereby not affected.

During the closing operation if the engine or the ignition is switched off, the roof movement will stop. As soon as the trained time finishes, the controller switches off automatically. During the closing operation you can leave the vehicle, but you cannot lock the vehicle. If the button is pressed for locking the vehicle the controller recognizes this as an emergency stop and the roof will stop in the current position.

Stop function:

If you should have to stop the roof movement immediately, press any button of the car key or the roof switch! During this function the ignition of the vehicle remains switched on, whereby the roof stays in the current position.

The stop function is terminated by the function "open roof" or "close roof" if you press the appropriate button on the car key or operate the roof switch for 2 seconds the roof movement will start again, then the roof can be typed during the stop function with the roof switch, for safety reasons can the stop function however only again with the car key be terminated.

During the entire stop function the following signal is sent over the turn signals:

3x flashing per second

With vehicles starting from 1997, after approx 7 minutes an acoustic signal starts, if the roof stands half open. After that the hydraulic pressure is diminished and the roof sinks slowly into the end position. Ensure that the motion of travel for the roof is free when sounding the acoustic signal, so that no damage to property and/or person develops with the reducing of the hydraulic pressure. The ignition remains switched on.

4. Configuration mode:

In the configuration mode different functions can be activated or deactivated. In addition the time for opening and closing the roof can be trained in configuration mode.

Activate:

In order to start configuration mode, pull the roof switch to the open position 3 times in rapid succession. The configuration mode is signalled by continual shining of the turn signals.

Deactivate:

The configuration mode is turned off automatically within 15 seconds if no function is used.

Remote maintenance for roof function:**Activate:**

In order to activate the remote for the roof function, you pull the roof switch to the open position 3 times in rapid succession. Successful activating of the remote is signalled with a single flash of the turn signals.

Deactivate:

In order to deactivate the remote for the roof function, you push the roof switch to the close position 3 times in rapid succession. Successful deactivating of the remote is signalled with two flashes of the turn signals.

Note:

After the installation of the module or after each interruption of the power supply the roof mechanism is deactivated for safety's sake.



Deactivate the remote control, if you let other people drive or give your vehicle for inspection. Strange people might accidentally activate during normal control and could react wrongly.



Comfort mechanism for roof switches:

Activate:

In order to activate the remote for the roof function, you pull the roof switch to the open position 2 times in rapid succession. Successful activating of the remote is signalled with a single flash of the turn signals.

Deactivate:

In order to deactivate the remote for the roof function, you push the roof switch to the close position 2 times in rapid succession. Successful deactivating of the remote is signalled with two flashes of the turn signals.

Note:

After the installation of the module or after each interruption of the power supply the roof mechanism is deactivated for safety's sake.



Deactivate the remote control, if you let other people drive or give your vehicle for inspection. Strange people might accidentally activate during normal control and could react wrongly.



Signal during roof movement:

During the roof movement a signal is sent over the turn signals. This signal can be activated or deactivated. On delivery the signal is activated.

Activate:

In order to activate the remote for the roof function, you pull the roof switch to the open position once. Successful activating of the remote is signalled with a single flash of the turn signals.

Deactivate:

In order to deactivate the remote for the roof function, you push the roof switch to the close position once. Successful deactivating of the remote is signalled with two flashes of the turn signals.

Note:

The movement signal is sent only if it is activated and the roof is started with the vehicle remote. If the roof is started with the roof switch or with the comfort mechanism, no signal is sent.

The setting is stored and remains until interruption of the voltage supply.

Timer for opening the roof:

In order to activate the time training mode for opening the roof, you pull the roof switch to the open position 4 times briefly one behind the other. Successful activation is signalled by flashing the turn signal once every second. Now operate the roof switch so that the roof is completely opened.

As soon as the roof switch is operated, the time is measured, until you release the roof switch again. This measured time is stored and serves for opening the roof on a time basis. The time is stored and remains until interruption of the voltage supply.

The training mode is left automatically, if the time was stored or within 15 seconds if the roof switch was not operated. The flashing the turn signal stops after leaving the training mode.

By default the timer is set to 40 seconds.

Depending upon outside temperature and operating temperature of the vehicle the opening time of the roof can vary. Give the training a little reserve time (hold the roof switch a little longer) in addition so that the roof is opened correctly all the time.

Time for close the roof train:

In order to activate the time training mode for closing the roof, you push the roof switch to the close position 4 times briefly one behind the other. Successful activation is signalled by flashing the turn signal once every second. Now operate the roof switch so that the roof is completely closed.

As soon as the roof switch is operated, the time is measured, until you release the roof switch again. This measured time is stored and serves for opening the roof on a time basis. The time is stored and remains until interruption of the voltage supply.

The training mode is left automatically, if the time was stored or within 15 seconds if the roof switch was not operated. The flashing the turn signal stops after leaves the training mode.

By default the timer is set to 40 seconds.

Depending upon outside temperature and operating temperature of the vehicle the opening time of the roof can vary. Give the training a little reserve time (hold the roof switch a little longer) in addition so that the roof is opened correctly all the time.

Reset:

If the controller should stop responding, you can achieve a RESET by pressing the key at the controller for longer than 15 seconds. With a RESET the control program is put back and the adjustable values and functions on factory settings are reset.

Factory settings:

Time to open the roof: 40 Seconds

Time to close the roof: 40 Seconds

5. Feedback over turn signals:

Generally:

Functions, feedbacks and disturbances are acknowledged over the turn signals of the vehicle.

Changed feedback of the central locking:

In order to prevent a confused and uncontrolled flashing of the turn signals during operation of the radio remote, the feedback of the central locking were changed. With the vehicle unlocked and then locked with the radio remote, the turn signal will light up for 4 seconds with a long steady light. With the vehicle locked and then unlocked with the radio remote, the turn signal will again light up for 4 seconds with a long steady light. When the roof is operated with the radio remote the steady light is switched off immediately and, if activated, the movement signal sent.

During the movement of the roof if an emergency stop with the radio remote is introduced, the turn signals will send the appropriate signal to the central locking.

Possible turn signal feedbacks::

The following turn signals can be sent by the controller:

Turn signal signal	Action	Remark
1x short lighting up	Self check terminates	Briefly after switching on
1x flashing per second	Roof open/Roof close	Can activated or deactivated
1x flashing per second	Time training mode	
3x flashing per second	Emergency stop	Emergency stop by remote maintenance or roof switch
1x short lighting up	Functions in the configuration mode activates	Confirmation of execution
2x short lighting up	Functions in the configuration mode deactivates	Confirmation of execution
3x short lighting up	Manual RESET accomplished	Confirmation of execution
4 seconds steady light 3x short lighting up	Vehicle was closed over central locking	Changed feedback of the central locking device
4 seconds steady light 1x short lighting up	Vehicle was opened over central locking	Changed feedback of the central locking device

All rights including translation reserve. Reproduction of each kind, e.g. photocopy, microfilming or collection in EDV systems, require written permission the publisher.

Reproduction, also preferably, is forbidden.

This operating instructions correspond to the technical conditions during printing. Changes in technology, equipment and execution reserve.