

VDFFB 3.0 Comfort IR
**Radio remote control for electrically controllable cabrio- and
roadsterroof made of material or metal**

Operation instruction
for the Mercedes Benz SLK (type R170)
year of construction 1996/1997



We congratulate to you to the acquisition of a controller with radio remote VDFFB 3.0 Comfort IR. With it you can the electrical roof of your roadsters now remote controlled comfortably open or close. This controller can be installed only in vehicles, which possess a infrared remote for the central locking. In vehicles with radio remote this controller does not function!

1. Generally:

Reference:

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

Generally:

With this controller and the additional transmitters you can the roof of your Mercedes SLK (R170) open or close. A modern microprocessor in the controller evaluates the signals and steers suitably the roof adjustment.

The controller and the transmitters use a rollcode as coding. That means that the code constantly changes itself. A scanning of the code through third and a possible employment of this scanned code against you remains ineffective-additional thereby.

Further you can the open or close the roof automatically with the roof switch in the vehicle inside, without operating this durably.

The roof movement can be interrupted at any time. In addition a key of the car key must be only pressed during the movement of the roof. The roof stops then in the current position..



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

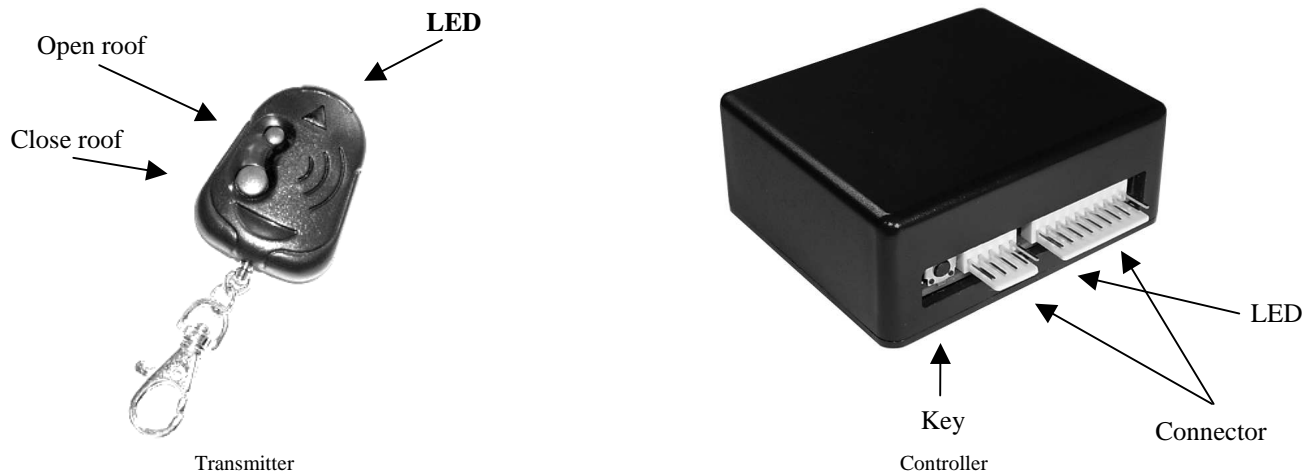


We do not take over adhesion for damage or lack as well as possible damages, which result from incorrect installation, abuse, inappropriate storage, use, operation or careless treatment. Likewise any guarantee expires with interferences or repairs through from us not authorized persons. The battery change at the remote maintenance is of it excluded.

The use of the module ‘VDFFB 3.0 Comfort IR’ takes place in principle on own danger.

2. Operation

Generally:



- The car can be locked and unlocked with the transmitters.
- Locking and unlocking gives a feedback over the turn signals.
- The roof can be opened or closed with the transmitters.
- The roof can be automatically opened or closed with the roof switch in the vehicle inside.
- The windows can be opened or closed with the transmitters.
- Operating by remote control function can be activated or deactivated in the configuration mode over the roof switch. This is useful, if you give your vehicle into the inspection or another person.
- Comfort mechanism for the roof switch in the vehicle inside can be activated and/or deactivated in the configuration mode over the roof switch. This is useful, if you give your vehicle into the inspection or another person.
- If the roof is started with the transmitter, 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 from functions and training the opening and closing time.
- The controller behaves with the vehicle diagnosis completely neutrally and affects by the galvanic separation in no way electronic construction units.
- After switching on the controller, a self check is accomplished. If this is terminated, this is signaled by short lighting up of the turn signals.
- Switching on of the ignition on is not needed for the roof control.
- When the roof are opened or closed with the transmitter and you switch the ignition on, the car electronic takes over the control of the roof. The stop function is implemented.
- When the controller not react, can it put back, by pressing the key at the controller 15 seconds long. The 'Reset' is confirmed with the short blinking of the turn signals.
- The controller is equipped with a function, with which the movement stop at all time or in an emergency situation. The roof remains in the current position.



Attention: Danger of injury



With a stop of the roof movement the ignition remains so for a long time on, until the movement is continued or the equipment is switched off – with longer stop the automotive battery can be discharged thereby.

3. Functions:

Always make sure that before opening or reasoning nothing is in the motion travel of the roof. Observe particularly attentively whether something comes into the motion travel of the roof, while you open or close the roof, so that you can react if necessary immediately.

During neglect danger of damages to property or person.

Generally:

With each pressing a key of the transmitter starts a program that within 4 seconds counts the following key pressings. Upon completion the number of key pressings appropriate function is implemented.

For the roof control the key position 1 is needed. This key position is if necessary switched from the control. That means that during the roof movement the radio is e.g. switched on

Unlock the car:

When you press the upper button of the transmitter, you unlock the car. Within the next 4 seconds the central locking does not react to further key actuations. The turns signals acknowledge an unlocking by unique lighting up.

Lock the car:

When you press the lower button of the transmitter, you lock the car. Within the next 4 seconds the central locking does not react to further key actuations. The turns signals acknowledge a locking by threefold lighting up.

Open roof with transmitter:

When you press the upper button of the transmitter, the car is open. In order to open the roof, you press the button still two times within 4 seconds (altogether 3x within 4 seconds). The turn signals spend the optical signal, when activated by you. As soon as the trained opening time ran off, the control switches off automatically. The vehicle is now opened and unlocked. This function can be activated or deactivated in the configuration mode.

Close roof with transmitter:

When you press the lower button of the transmitter, the car is closed. In order to close the roof, you press the button still two times within 4 seconds (altogether 3x within 4 seconds). The turn signals spend the optical signal, when activated by you. As soon as the trained closing time ran off, the control switches off automatically. The vehicle is now closed and locked. This function can be activated or deactivated in the configuration mode.

Open windows with transmitter:

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

Close windows with transmitter:

When you press the lower button of the transmitter, the car is closed. In order to close the windows, you press the key still three times within 4 seconds (altogether 4x 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 present only during activated roof remote control.

Open roof with roof switch:

To open the roof automatically, press the roof switch in the open position. However you can release the roof switch after 3 seconds. The roof continues to open. As soon as the trained opening time ran off, the control switches off automatically. A condition

for this function is that the ignition with the car key is switched on. The window opening function (roof switches twice operate briefly one behind the other) is thereby not affected and functioned further.

During opening the roof the engine or the ignition is switched off, the roof leads its movement to end. As soon as the trained time ran off, the control switches off automatically.

Close roof with roof switch:

To close the roof automatically, press the roof switch in the close position. However you can release the roof switch after 3 seconds. The roof continues to close. As soon as the trained closing time ran off, the control switches off automatically. A condition for this function is that the ignition with the car key is switched on. The window closing function (roof switches twice operate briefly one behind the other) is thereby not affected and functioned further.

During opening the roof the engine or the ignition is switched off, the roof leads its movement to end. As soon as the trained time ran off, the control switches off automatically. During the roof movement you can leave the vehicle, but you can not locked the vehicle. If the key is pressed „close “for locking the vehicle at the remote and the roof moves still, then this is recognized as an emergency stop and the roof stops in the current position.

Stop function:

If you should have to stop the roof movement immediately, press simply a button of the transmitter or the roof switch! During the stop function the ignition of the vehicle remains switched on, whereby the roof adheres to the current position.

The stop function is terminated by the function "open roof" or "close roof". In addition you must press only twice the appropriate button at the transmitter or operate the roof switch accordingly for 2 seconds. If the roof movement was started with the transmitter, 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 transmitter be terminated.

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

3x flashing per second

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

4. Configuration mode:

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

Activate:

In order to arrive into the configuration mode, you operate the roof switch „roof open“ 3x in rapid succession. The configuration mode is signaled by continuing shining of the turn signals.

Deactivate:

The configuration mode is left automatically, if within 15 seconds no function is accomplished.

Remote for roof function:

Activate:

In order to activate the remote for the roof function, you operate the roof switch „roof open“ 3x in rapid succession. Successful activating of the remote is signaled over unique switching of the turn signals off.

Deactivate:

In order to deactivate the remote for the roof function, you operate the roof switch „roof close“ 3x in rapid succession. Successful deactivating of the remote is signaled over twice switching of the turn signals off.

Note:

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



Deactivate the remote control, if you let drive other persons thereby or give your vehicle for inspection. Stranger persons count during the covering control not on this function and could wrongly react.



Comfort mechanism for roof switches:

Activate:

In order to activate the comfort mechanism for the roof switch in the vehicle inside, you operate the roof switch „roof open“ 2x briefly one behind the other. Successful activating of the comfort mechanism is signaled over unique switching of the turn signals off.

Deactivate:

In order to deactivate the comfort mechanism for the roof switch, you operate the roof switch „roof close“ 2x briefly one behind the other. Successful deactivating is signaled over twice switching of the turn signals off.

Note:

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



Deactivate comfort mechanism for the roof, if you let drive other persons thereby or give your vehicle for inspection. Stranger persons count during the covering control not on this function and could wrongly react



Singal during roof movement:

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

Activate:

In order to activate the comfort mechanism for the roof switch in the vehicle inside, you operate the roof switch „roof open“ 1x briefly. Successful activating of the comfort mechanism is signaled over unique switching of the turn signals off.

Deactivate:

In order to deactivate the comfort mechanism for the roof switch, you operate the roof switch „roof close“ 1x briefly. Successful deactivating is signaled over twice switching of the turn signals off.

Note:

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

The attitude is stored and remains also after interruption of voltage supply.

Time for open the roof train:

In order to activate the time training mode for open the roof, you operate the roof switch „roof open“ 4x briefly one behind the other. Successful activating is signaled by flashing the turn signals in the 1 second pulse. Operate now the roof switch in the completely closed condition until 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 opens the roof as time base. The time is stored and remains also after interruption of voltage supply.

The training mode is left automatically, if the recent time were stored or within 15 seconds of the roof switches were not operated. Flashing the turn signals expires after leaves the training mode.

On delivery a time is given by 40 seconds.

Depending upon outside temperature and operating temperature of the vehicle the opening time of the roof can vary. Give when training still a little reserve time (roof switches some more hold) in addition so that the roof is opened also always correctly.

Time for close the roof train:

In order to activate the time training mode for close the roof, you operate the roof switch „roof close“ 4x briefly one behind the other. Successful activating is signaled by flashing the turn signals in the 1 second pulse. Operate now the roof switch in the completely opened condition until 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 opens the roof as time base. The time is stored and remains also after interruption of voltage supply.

The training mode is left automatically, if the recent time were stored or within 15 seconds of the roof switches were not operated. Flashing the turn signals expires after leaves the training mode.

On delivery a time is given by 40 seconds.

Depending upon outside temperature and operating temperature of the vehicle the opening time of the roof can vary. Give when training still a little reserve time (roof switches some more hold) in addition so that the roof is opened also always correctly.

Reset:

If the controller should not react any longer, you can accomplish a RESET, by pressing the key at the controller longer than 15 seconds long. With a RESET the control program is put back and the adjustable values and functions on factory settings is reset.

Factory settings:

Time for open the roof: 40 Seconds
Time for close the roof: 40 Seconds

5. Transmitter

Learn transmitter:

Press the key on the controller. The LED signed the learning mode. Now the transmitter code can be learned if you press the upper button . Up to 15 transmitter can be learned. If the same transmitter is learned twice, it will be treated as only one transmitter without wasting any of the memory slot.

Erase transmitter:

If you want to erase all the transmitters learned, then press the key on the controller more than 10 seconds. All transmitter will be erased.

6. Feedback over turn signals:

Generally:

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

Possible turn signal feedbacks::

The following turn signal 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	Configuration 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
3x short lighting up	Vehicle was closed over central locking	Feedback of the central locking device
1x short lighting up	Vehicle was opened over central locking	Feedback of the central locking device

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