Operating Instructions

Radio motor valve drive
1187 00

GIRA

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About these instructions

The following symbols and marks are used in these instructions:

1. Action instructions are numbered consecutively.

✓ Results of actions are identified by this check mark.

• Enumerations are identified by this point.

Note!

Information on the economical use of the radio room temperature sensor is identified by this sign.

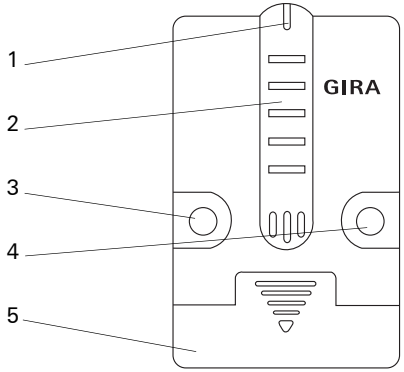
Attention

Information on facts which can lead to damage to persons or the device are identified by this sign

Device presentation

The radio motor valve drive is a radio-controlled valve drive for actuating heating valves for single-room control in conjunction with a floor, radiator or convection heating system. The battery-operated radio motor valve drive is operated via the radio room temperature sensor or the radio controller.

The setpoint temperature can be adjusted at any time via the two buttons.

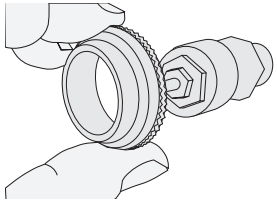


1 Temperature sensor for detecting the actual temperature
2 LED display, e.g. setpoint temperature, valve position
3 Blue button, e.g. lower temperature
4 Red button, e.g. raise temperature
5 Lockable cover

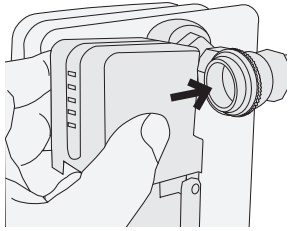
Mounting

To mount the radio motor valve drive, proceed as follows:

1. Remove the existing mechanical heating thermostat.
2. Screw the included adapter ring onto the heating valve and tighten in hand-tight.



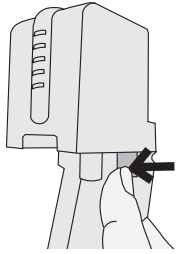
3. Position the radio motor valve drive in the vertical position.
4. Push the radio motor valve drive onto the adapter ring until it audibly engages.
5. Then insert the batteries and teach in the corresponding radio transmitter in the radio motor drive.



Removal

You can remove the radio motor valve drive as follows:

1. Unlock the lower cover of the radio motor valve drive with the included special key and fold open the cover.
2. Press the red lever to the left.
3. Simultaneously pull the radio motor valve drive off the adapter ring.



Power supply

The power supply of the radio motor valve drive is provided by two alkaline batteries (type: Mignon, AA, LR6, 1.5 V, 2,600 mAh).

Insert battery

Ensure proper battery poling!

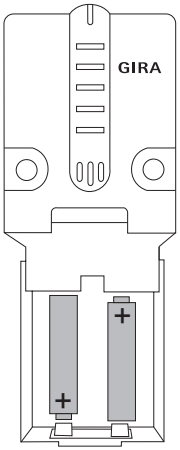
When inserting the batteries, observe the poling marking in the cover. False polarity of the power supply due to incorrectly inserted batteries can lead to a device defect.
Use only alkaline batteries (type: Mignon, AA, LR6, 1.5 V). Never use rechargeable batteries, as they have a steeper discharging curve than conventional batteries.

1. Unlock the lower cover with the included special key and fold open the cover.
2. Insert the two batteries in the cover. Ensure proper poling when doing so.
3. Quickly close the lower cover of the radio motor valve drive and lock it with the special tool.

✓ All LEDs light up briefly.
Then the calibration traverse begins automatically.

✓ If the radio motor valve drive has not been taught in, it moves into the emergency position following the calibration traverse (valve opening 30 %).

✓ If the radio motor valve drive has been taught in, the heating is adjusted to the specified setpoint temperature.



Malfunction after changing batteries

If the battery compartment is closed too slowly, the supply voltage may be switched on and off briefly. This can trigger a malfunction of the radio motor valve drive. In this case, open the battery compartment for approx. 1 minute and then close it quickly in one motion.

Behaviour with decreasing battery voltage

If the battery voltage drops below a defined value, the middle LED flashes every 10 minutes or after one of the two buttons is pressed (flashing signal 5 times in 15 seconds). In this state you should replace both batteries.
Following the manual display of the "Battery drained signal" after pressing one of the buttons, the automatic display of the "Battery drained signal" is suppressed for 24 hours.

Radio connection is retained

The taught-in radio connection is retained, even when the batteries are changed.

If operation (e.g. for setpoint offset) is carried out in the "Battery drained" state, first the flashing signal must be waited for, before further operation via the buttons is possible.
If the battery voltage drops so far that no temperature control is possible, the radio motor valve drive moves into the emergency position (valve opening 30 %). This state is indicated by continuous flashing of the middle LED at an interval of 3 seconds.

Batteries
Dangers and disposal information

Keep batteries out of reach of children.
Immediate remove used batteries and dispose of them in an environmentally friendly manner.

Limited radio range

In the programming mode, the radio range of the radio motor valve drive is limited to approx. 5 m.

1. Start the programming mode on the radio motor valve drive by pressing the red button for longer than 4 seconds.

✓ The top red LED flashes: The radio motor valve drive is now in the programming mode for approx. 1 minute.

2. Trigger the teach-in telegram on the corresponding radio transmitter (radio room temperature sensor or radio controller).
   See operating instructions of radio transmitter.

✓ The radio motor valve drive acknowledges the teach signal and the storage of the radio connection by the top LED lighting up continuously.

3. The programming mode ends automatically after approx. 1 minute or by briefly pressing the red button.

Teaching in several radio motor valve drives

If several radio motor valve drives are to be assigned, first all valve drives must be switched into the teach-in mode before that teach-in process is started on the radio transmitter.

If a radio motor valve drive is to be assigned to a group at a later time, first all radio connections must be deleted in order to then assign all radio motor valve drives simultaneously.

Assigning new radio transmitter

When teaching in a new radio transmitter, the existing assignment is overwritten. In this case, the radio motor valve drive reacts to the radio transmitter assigned last.

Radio motor valve drive is outside teach-in range

If the radio motor valve drive is mounted outside the teach-in range (approx. 5 m), proceed as follows with for teaching in:

1. Insert the batteries before the radio motor valve drive is mounted on the heating valve.

✓ All LEDs light up briefly. Then the radio motor valve drive carries out the traverse motions (calibration traverse).

2. Position the radio motor valve drive near the corresponding radio transmitter and teach it in.
3. Remove the batteries from the radio motor valve drive (the taught-in radio connection is retained).
4. Mount the radio motor valve drive on the heating valve.
5. After approx. 1 minute, insert the batteries in the radio motor valve drive again.

✓ All LEDs light up briefly. Then the calibration traverse begins automatically.

Calibration traverse must be carried out

If the calibration traverse is not carried out again, please remove the batteries again and reinsert them after approx. 1 minute.
If the radio motor valve drive is not calibrated to the heating valve, no correct temperature control can take place.

✓ With this procedure, the temperature control may be carried out delayed, as the radio motor valve drive requires some time following a battery change to synchronise with the radio transmitter.

Deleting a radio assignment

1. Press the red button for approx. 20 seconds.

✓ After approx. 4 seconds the top red LED begins to flash, and after 20 seconds this flashing changes over to periodic flashing for approx. 6 seconds.

2. Release the red button briefly during these 6 seconds and then press it again for approx. 1 second.

✓ During deleting the top red LED lights up continuously again. The successful deletion of the assignment is indicated by the top red LED flashing rapidly.

✓ The flashing ends after approx. 1 minute or after briefly pressing a button.

Deleting by repeated teach- in

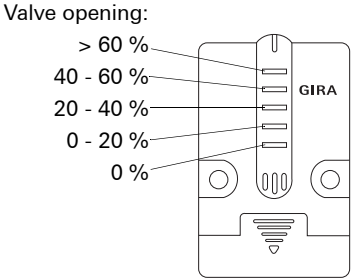
Analogous to the other components of the Gira radio bus system, the assignment can also be deleted by teach-in the same transmitter again.

Polling valve position (stroke display)

The stroke display shows the current position of the radio motor valve drive. This function is, for example, helpful when it is too cold or too hot in the room and the actual valve is to be calibrated via the potentiometer.

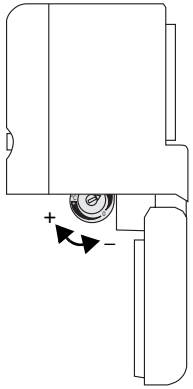
1. You start the stroke display by briefly pressing two buttons simultaneously.

✓ The LEDs light up for approx. 3 seconds and show the current valve opening in percent.



Actual value calibration

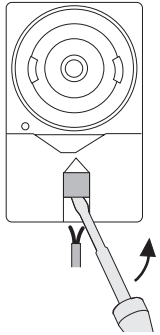
The measured actual temperature can be shifted on the potentiometer of the radio motor valve drive (approx. +6 to -2 Kelvin). For example, this is necessary to compensate measuring deviations when the radio motor valve drive is covered by a cover or a curtain.



1. Unlock the cover with the special key and fold it open.
2. Adjust the actual valve in the desired direction on the potentiometer:
   - if it becomes too hot in the room, in the direction –
   - if the selected temperature is not reached, in the direction +
3. Quickly close the cover of the radio motor valve drive and lock it with the special tool.

Connection of remote sensor

If the valve drive is mounted covered (e.g. behind a radiator trim panel or a drapery), the temperature measurements may be falsified. In this case it is advisable to connect the remote sensor and position this in the room away from the heater.



1. Break out the terminal cover on the back of the radio motor valve drive with a small screwdriver.
2. Connect the cable of the remote sensor to the exposed terminal.

Changing closing force control

Under certain circumstances the factory set closing force control may not be sufficient to completely close the valve. In this case you can change the method of determining the closing force.

There are two types of closing force control:

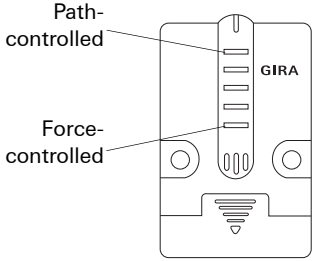
- **Path-controlled:** The closing points are determined with a calibration traverse and pressed 0.4 mm (factory setting).
- **Force-controlled:** The radio motor valve drive closes the heating valve until the current limitation switches off.

The closing force is changed over as follows:

1. Press the two buttons to start the stroke display.
2. Press the blue button for longer than 3 seconds during the stroke display.
3. Release the button and press
   - the red button for path-controlled or
   - the blue button for force-controlled.

✓ The respectively set closing force method will be displayed by the top or bottom LED.

✓ After you have changed the closing force control, the radio motor valve drive carries out a calibration traverse.



Temperature adjustment

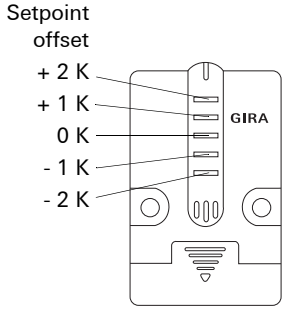
To adjust the local temperature in the room, the heater setpoint can be changed on the radio motor valve drive by ±2 K.

Displaying temperature adjustment

To display the current temperature adjustment on the valve drive, proceed as follows:

1. Briefly press the red button to start the status display.

✓ The current temperature adjustment is displayed for 3 seconds via the LED.



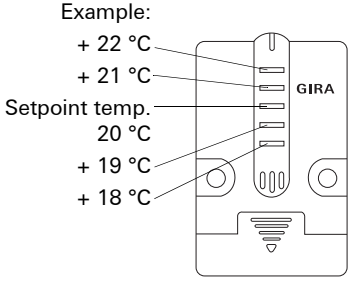
Setting temperature adjustment

To set the temperature adjustment, proceed as follows.

1. First display the current temperature adjustment by briefly pressing the red button.

✓ The current temperature adjustment is displayed for 3 seconds via the LED.

2. Within these 3 seconds, press the
   - red button to increase the setpoint temperature
   - blue button to decrease the setpoint temperature.



Temperature adjustment remains unchanged

The temperature adjustment (±2 K) remains unchanged even after a change in the setpoint temperature (e.g. from comfort to lowering temperature).

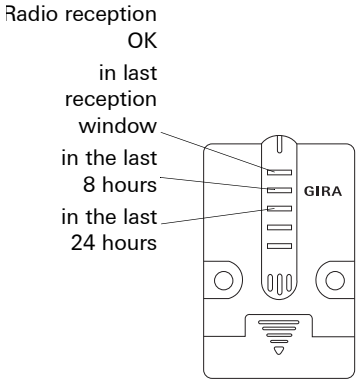
Diagnostic function

The diagnostic function can be used to check how often the radio motor valve drive has received the radio signals from the assigned transmitter in defined periods.

The diagnostic function is started as follows:

1. Press the two buttons to start the stroke display.
2. Briefly press the red button during the stroke display.

✓ The radio reception is displayed via the red LED:
Normally (all radio signals were received correctly), all three red LEDs light up.
If, for example, the radio signals in the last 24 hours were correct, however no signals were received in the last reception window, the two lower red LEDs light up.



Behaviour after repeated teach-in or following reset

Repeated teaching in of the radio motor valve drive deletes the display of the received radio telegrams.

Following a reset, all red LEDs light up, although 8 or 24 hours have not yet passed.

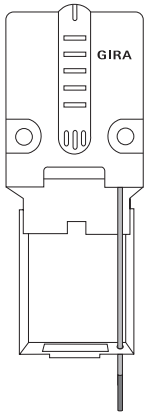
Operation with poor radio reception

In case of poor radio reception (e.g. due to power failure at the transmitter), the temperature control remains set to the last received setpoint.

Designing antenna

If the radio range is insufficient, you can route the radio motor valve drive to the outside.

1. Unlock the lower cover with the special key and open the cover.
2. You now see the wound-up antenna (white cable with black tip).
3. Unwind the antenna and route the antenna through the small opening in the cover to the outside.
4. Close the cover of the radio motor valve drive and lock it with the special tool.



Radio repeater is not permissible

The use of a radio repeater is not possible due to the synchronised telegram exchange between the radio motor valve drive and the radio room temperature sensor.

Information on radio operation

Radio transmission occurs on a non-exclusive transmission path, and interference cannot be excluded for this reason.

The radio transmission is thus not suitable for security purposes, e.g. Emergency Stop, emergency call.

The transmission range of a radio transmitter (max. 100 m in free field) is dependent on the structural conditions of the building:

Dry material	Penetration
Wood, plaster, sheetrock	approx. 90 %
Brick, pressboard	approx. 70 %
Reinforced concrete	approx. 30 %
Metal, metal screens, aluminium cladding	approx. 10 %

Radio transmission

- The connection of this radio system to other communication networks is only permissible within the scope of national laws.
- This radio system may not be used for communication across property borders.
- When used properly, this device complies with the requirements of the R&TTE Directive (1999/5/EC). A complete declaration of conformity is available on the Internet at: www.gira.de/konformitaet.

The radio motor valve drive may be operated in all EU and EFTA countries.

Technical data

Power supply:	3 V
Batteries:	2 x 1.5 V Mignon LR06 (AA), 2,600 mAh
Valve stroke:	7.5 mm
Positioning force:	80 N
Length of remote sensor cable:	max. 3 m
Blockade protection:	1 movement/week
Medium temperature:	max. 100 °C
Dimensions:	(W x H x D) 51 x 80 x 60 mm

Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault.

Gira
Giersiepen GmbH & Co. KG
Service Center
Dahlienstraße 12
42477 Radevormwald, Germany

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Gira
Giersiepen GmbH & Co. KG
Postfach 1220
42461 Radevormwald, Germany
Tel.: 02195 / 602 - 0
Fax: 02195 / 602 - 339
Internet: www.gira.de

Gira
Giersiepen GmbH & Co. KG
Postfach 1220
42461 Radevormwald,
Germany
Tel +49 (0) 21 95 - 602 - 0
Fax +49 (0) 21 95 - 602 - 339
info@gira.de

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