

Installation instructions for the qualified person

# Remote controller **RT 800**



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# 1 Explanation of symbols and safety instructions

### 1.1 Explanation of symbols

#### Warnings

In warnings, signal words at the beginning of a warning are used to indicate the type and seriousness of the ensuing risk if measures for minimizing danger are not taken.

The following signal words are defined and can be used in this document:



# DANGER

**DANGER** indicates that severe or life-threatening personal injury will occur.



# WARNING

**WARNING** indicates that severe to life-threatening personal injury may occur.



# CAUTION

**CAUTION** indicates that minor to medium personal injury may occur.

### NOTICE

NOTICE indicates that material damage may occur.

#### Important information



The info symbol indicates important information where there is no risk to people or property.

# 1.2 General safety instructions

#### ${\rm I}$ Notices for the target group

These installation instructions are intended for competent persons who are skilled in dealing with water installations, ventilation, heating and electrical systems. All instructions must be observed. Failure to comply with instructions may result in material damage and personal injury, including danger to life.

- Read these instructions before starting any installation.
- Observe the safety instructions and warnings.
- Follow national and regional regulations, technical regulations and guidelines.
- Document all work carried out.

#### ▲ Intended use

 Use the product only to control the heating and ventilation units.

Any other use is considered inappropriate. We take no responsibility for damage caused through incorrect use.

# 2 Product information

#### 2.1 Product description

The RT 800 is a remote control for control panel UI 800 in systems with maximum 4 heating circuits.

Maximum 2 heating circuits can be controlled using a RT 800. However, the room temperature can only be measured and controlled in one room (thus also one heating circuit).

### 2.2 Scope of delivery



Fig. 1 Scope of delivery

- [1] Remote control RT 800
- [2] Wall plinth
- [3] Technical documentation

### 2.3 Technical data



Fig. 2 Dimensions in mm

	RT 800
Maximum power input P <sub>max</sub>	0.6 W
IP rating	IP20
Pollution degree (EN 60664)	2
Ball pressure test temperature T <sub>Press</sub> <u>+</u> (DIN EN 60695-10-2)	90 °C
permissible ambient temperature T <sub>amb</sub>	0 – 50 °C
BUS	EMS 2
Weight m 📸	195 g

Table 1

# 2.4 Overview, control elements and displays



#### Fig. 3 RT 800

#### Key to Fig. 3:

- [1] Menu name
- [2] Next menu
- [3] Increase value / navigate in settings
- [4] Reduce value / navigate in settings
- [5] Confirm value / select settings
- [6] Exit menu-specific settings / back
- [7] Display menu-specific settings
- [8] Menu item display
- [9] Previous menu
- [10] Main display

The functions of the RT 800 are summarised by topic in the menu. For example, the settings for DHW heating can be called up with the  $\blacksquare$  key in the **Hot Water** menu.

# i

Depending on the system configuration, all menus are not displayed.

There is no conventional service menu. All parameters are defined in the menu-specific settings. Depending on the configuration of the UI 800 single-family house or multi-family house, the entire system or only the respective heating circuit can be controlled.

- With the < and > keys, change between the menus: <
  Overview >< Heating >< 2nd heating circuit >< Hot
  Water >< ... >< Holiday >< Away >
- With the key, call up the menu-specific settings of the current menu selected.
- Using the V and A Keys, change and select settings.
- With **OK** values, confirm selection and settings.
- Exit settings with the ↔ key.

Flashing values can be changed using the  $\vee$  and  $\wedge$  keys.

#### **Idle state**

After 5 minutes without being operated, the RT 800 switches the display to idle state. The brightness is reduced and a screensaver is activated. This screensaver shows the symbol of the last menu active and its main display.

▶ To deactivate idle state: press any key.

# 3 Installation

# WARNING

#### **Risk of scalding!**

If DHW temperatures above 60  $^{\circ}\mathrm{C}$  are set or if thermal disinfection is activated, a temperature mixing device must be installed.

# 3.1 Installation location

i

Do not install the remote control in wet rooms (e.g. bathroom).

i

To ensure that the remote control can be hooked in and out easily, and for the optimum measurement of the room temperature:

- Observe the minimum clearances.
- Observe the free space above and below the RT 800.
- Install it far from heat sources.
- Ensure that there is air circulation.



Fig. 4 Installation location in the reference room

# 3.2 Assembly of the plinth



The plinth [2] can be mounted on the wall or on a recessed junction box.

The screw holes are arranged in the same manner as with older Bosch control units. This allows boreholes from previous installations to be used.





# 3.3 Electric connection

Power is supplied to the user interface via the BUS cable. The leads may be connected to either pole.

# i

If the maximum total length of the BUS connections between all BUS-participants is exceeded or the BUS system has a ring structure, commissioning of the system is not possible.

Maximum total length of BUS connections:

- 100 m with 0.50 mm<sup>2</sup> conductor cross-section
- 300 m with 1.50 mm<sup>2</sup> conductor cross-section.
- ► If several BUS participants are installed:
  - Maintain a minimum clearance of 100 mm between each of the BUS participants
  - Connect BUS participants selectively serially or as star pattern.
- To avoid inductive interference: Make sure all low-voltage cables are routed separately from supply voltage carrying cables (min. clearance 100 mm).
- In the case of external inductive interferences (e.g. from photovoltaic systems), use shielded cables (e.g. LiYCY) and earth the shield on one side. |Connect the shield to the building's earthing system, e.g. to a free earth conductor terminal or water pipes, and not to the connecting terminal for earth leads in the module.

Establish a BUS connection to the heat source.



Fig. 6 Connection of the control unit to a heat source

[2] Wall plinth

# 3.4 Hooking in or removing the user interface

#### Hooking in the control unit

- 1. Hook in the control unit at the top
- 2. Click the control unit in at the bottom.



Fig. 7 Hooking in the control unit



#### Removing the user interface

- 1. Press the knob on the underside of the plinth.
- 2. Pull the bottom of the user interface forward.
- 3. Remove the user interface by lifting upward.



Fig. 8 Removing the user interface

### 4 Commissioning

- ► First make all electrical connections professionally and then perform commissioning.
- Observe the installation instructions for all components and assemblies in the system.
- Only switch on the power supply after all modules are coded.
- Set the heat source to the maximum supply temperature required and activate automatic mode for DHW heating.
- Switch on the system.

If a fault occurs during commissioning:



#### Fig. 9

- Contact and consult the manufacturer.
- Send the RT 800 to the manufacturer or dispose of.

# 4.1 Commissioning

Commissioning is mainly carried out automatically. Only a little data has to be entered.

- Language
- 1. Heating circuit (heating circuit 1 4) with room temperature measurement
- 2. Heating circuit (heating circuit 1 4 or no heating circuit)
- Date and time if necessary



During initial commissioning, you can change between the displays using the < and> keys. After commissioning, the heating circuit allocation can be checked in the menu-specific setting **Heating circuit** of the **Heating** or **2nd heating circuit** menus. If an incorrect heating circuit allocation is carried out, the RT 800 must be reset to factory settings and the initial commissioning must be carried out again (→ Chapter 4.2).

After establishing the power supply, the language selection appears on the display.



► Using the ∨ and ∧ keys, select the desired language and confirm with OK.

The display changes to the heating circuit setting.

# | i

Maximum 4 heating circuits may be present in the heating system. Up to 2 heating circuits can be allocated to the RT 800.

- ► Using the ∨ and ∧ keys, select the heating circuit desired (1... 4) and confirm with **OK**.
- ► Using the ∨ and ∧ keys, select the further heating circuit desired or No assignment and confirm with OK. If a time and date is already present in the BUS system, commissioning is finished and the standard menu appears on the display. Otherwise the display changes to the setting for date and time.
- ► Using the V and A keys, select date (Year/Month/Day) and time (Hours/Minutes) and confirm each with OK: The display shows the standard menu.



#### 4.2 Reset to factory settings

► Using the < or > keys, navigate to the **Overview** menu.



- Press the key.
- ► Use the ∨ key to navigate to Factory reset and select with OK.
- ► To confirm the safety query: press the **OK** key and <u>key</u> simultaneously for 3 seconds.

The remote control is reset to factory settings and must then be connected and configured again with the heating system.

# 5 System handover

- Explain to the customer how the user interface works and how to operate it.
- Inform the customer about the selected settings.

# i

We recommend passing these installation manual on to the customer.

# 6 Shutdown / switching off

The user interface is powered via the BUS interface and is always switched on. The system should only be switched off for maintenance work, for example.

 Disconnect power from the entire system and all BUS nodes.

# i

After a prolonged power failure or extended period of idleness, the date and time may need to be reset. All other settings are retained permanently.

# 7 Environmental protection and disposal

Environmental protection is a fundamental corporate strategy of the Bosch Group.

The quality of our products, their economy and environmental safety are all of equal importance to us and all environmental protection legislation and regulations are strictly observed. We use the best possible technology and materials for protecting the environment taking account of economic considerations.

#### Packaging

Where packaging is concerned, we participate in countryspecific recycling processes that ensure optimum recycling. All of our packaging materials are environmentally compatible and can be recycled.

#### Used appliances

Used appliances contain valuable materials that can be recycled.

The various assemblies can be easily dismantled. Synthetic materials are marked accordingly. Assemblies can therefore be sorted by composition and passed on for recycling or disposal.

#### Old electrical and electronic appliances



This symbol means that the product must not be disposed of with other waste, and instead must be taken to the waste collection points for treatment, collection, recycling and disposal.

The symbol is valid in countries where waste electrical and electronic equipment regulations apply, e.g. "(UK) Waste Electrical and Electronic Equipment Regulations 2013 (as amended)". These regulations define the framework for the return and recycling of old electronic appliances that apply in each country.

As electronic devices may contain hazardous substances, it needs to be recycled responsibly in order to minimize any potential harm to the environment and human health. Furthermore, recycling of electronic scrap helps preserve natural resources.

For additional information on the environmentally compatible disposal of old electrical and electronic appliances, please contact the relevant local authorities, your household waste disposal service or the retailer where you purchased the product.

You can find more information here: www.weee.bosch-thermotechnology.com/

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