



Installation and operating instructions

Remotely operated controller

EasyControl CT 200



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1 Key to symbols and safety instructions

1.1 Explanation of symbols

Warnings



Warnings in this document are framed and identified by a warning triangle printed against a grey background.



If there is a danger due to electricity, the exclamation mark in the warning triangle is replaced by a lightning symbol.

Keywords at the start of a warning indicate the type and severity of the ensuing risk, if measures to prevent the risk are not taken.

- **NOTICE** indicates that material damage may occur.
- **CAUTION** indicates that minor to medium personal injury may occur.
- **WARNING** indicates that severe personal injury may occur.
- **DANGER** indicates that life-threatening personal injury may occur.

Important information



Important information, where there is no risk to people or property, is indicated with the adjacent symbol. It is bordered by lines above and below the text.

Additional symbols

| Symbol | Meaning |
|--------|---|
| ▶ | Action step |
| → | Cross-reference to other parts of this document or to other documents |
| • | List/list entry |
| - | List/list entry (2nd level) |

Table 1

1.2 Safety instructions

This temperature controller is used to control a heat source in your dwelling.

- Do not disassemble the temperature controller under any circumstances.
- Avoid high temperatures, moisture and dusty environments.
- In order to prevent a short circuit or damage to the controller: Do not use any liquids or cleaning agents when cleaning.
- Switch off the mains voltage of the heat source before installing.

2 Environment / disposal

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

The quality of our products, their efficiency 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 into account of economic considerations.

Packaging

We participate in the recycling programmes of the countries in which our products are sold to ensure optimum recycling. All of our packaging materials are environmentally friendly and can be recycled.

Old electrical and electronic appliances



Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive).

To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

3 Product information

3.1 Scope of delivery

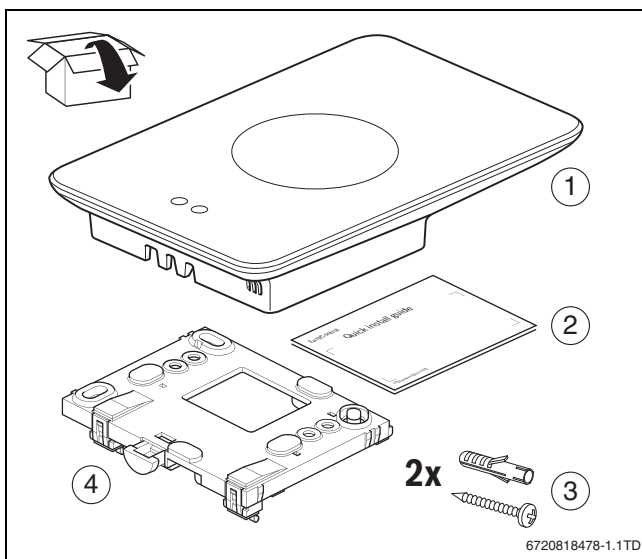


Fig. 1 Scope of delivery

- [1] EasyControl CT 200
- [2] Brief installation instructions
- [3] Screw with rawl plug 2 x
- [4] Plinth

3.2 Accessories

The following accessories are available:

- Electronic thermostatically controlled radiator valve
- EasyControl adaptor
- EasyControl app (free of charge)

3.3 Warranty conditions

A manufacturer's warranty of 2 years is provided for the EasyControl.

3.4 Saving data

All data is stored in the EasyControl, and no consumption data is stored on an external server or on the Internet. This protects your privacy. If the EasyControl is removed, the data for that day is not stored.

Some services may oblige the system user to divulge data from the EasyControl. The system user must give his consent to this. These services can be activated in the EasyControl app. The system user must give his consent to this. This consent can be withdrawn at any time in the EasyControl app.

Supplementary information about data protection can be found on the EasyControl site under Data protection.¹⁾

3.5 Data connection

- The EasyControl supports open Wi-Fi connections and Wi-Fi connections encrypted with WEP 128, WPA and WPA2 protocols. WPA2 is the safest protocol and is therefore preferred.
- "Hidden" networks are not supported.
- The EasyControl takes over the time setting of the Bosch server. If there is no connection to the server, the EasyControl can only be put into operation in manual operation.
- All costs for creating an Internet connection and a smart device are to be borne by the user.
- The type of connected heat source determines, which functions can be used. Consult the EasyControl site to gain an overview of which functions are available for which heat source.¹⁾

3.6 Proximity sensor and touch screen

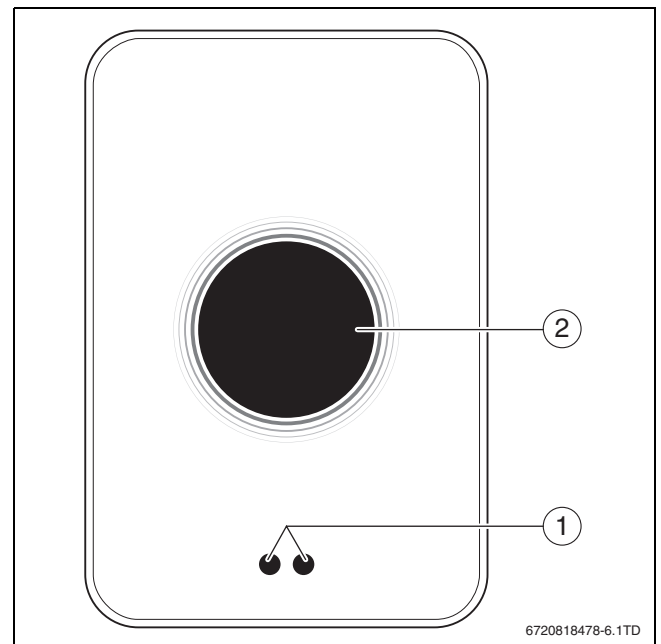


Fig. 2 Proximity sensor and touch screen

- [1] Proximity sensor
- [2] Touch screen

A proximity sensor [1] detects the presence of persons. This causes the touch screen [2] to light up. If the detection lasts for longer than 5 minutes, or if nothing more is detected for a certain period of time, the touch screen automatically switches off. After this, the touch screen can only be activated again by touching it.

- ▶ If required, clean the touch screen with a clean, dry cloth.

4 Installation

4.1 Prior to installation

- ▶ Prior to installation, check that EasyControl can be combined with the heat source.

On the EasyControl site there is a list of possible combinations with or without the operation of the EasyControl.¹⁾

Minimum requirements for installation:

- 2-wire cable to a heat source, which is suitable for use with EasyControl.
- Broadband internet access via Wi-Fi (802.11 b/g/n (2.4 GHz) for use with the app and internet functions.

1) See the back of this document for the web address.

4.2 Determining the installation location

i A reference room is a room (for example the living room), where the temperature, which is representative of the whole dwelling, is measured, and where most time is spent.

i If weather-compensated control is used, it is not necessary to locate the controller in the reference room.

- ▶ Install the controller on an internal wall in the reference room. Ensure that there is sufficient clearance around the controller.

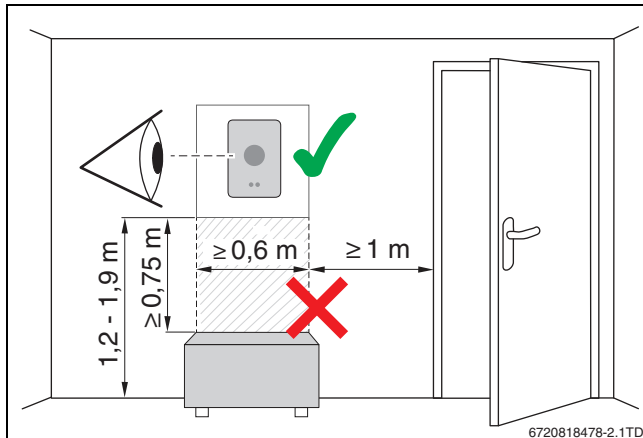


Fig. 3 Installation location for controller, clearance

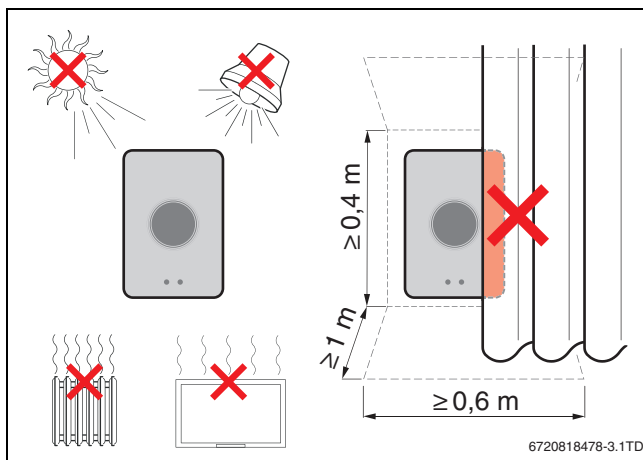


Fig. 4 Installation location for controller, temperature

4.3 Fitting the plinth

i When replacing a controller of the 100 to 400 series with EasyControl, the existing plinth can continue to be used (→ section 4.5).

This plinth can be fastened directly to the wall, for example at the location of the previous controller.

- ▶ Pull the mains plug of the heat source from the socket.

i When fitting to a recessed wall box, ensure that the room temperature measurement can not be impaired by any draughts. If required, stuff the recessed wall box with thermal insulation material.

- ▶ Connect the connecting lead (BUS connection of the heat source) to the terminals on the plinth. The wires can be connected in any sequence.

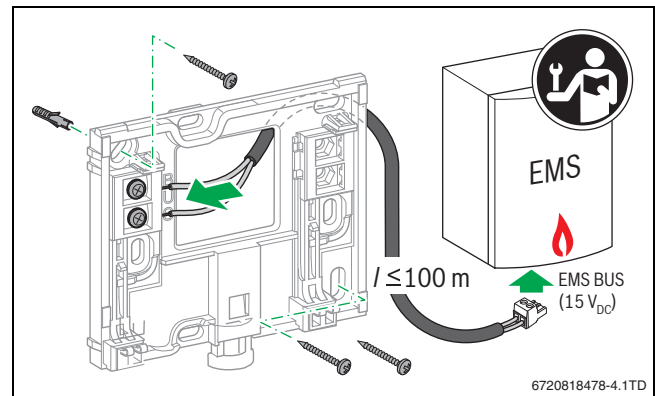


Fig. 5 Connecting the plinth

4.4 Connecting to the heat source

i The installation instructions for the heat source contain further information about the connection of EasyControl.

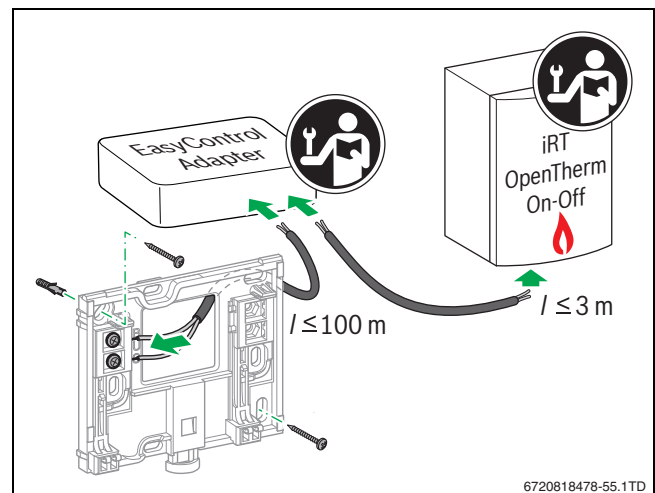


Fig. 6 Connecting the EasyControl adaptor

There are various possibilities for connection to a heat source:

- Replacing an existing controller of the 100 to 400 series on the same plinth. EasyControl is ready for operation.
- Bosch¹⁾ Heat source with a visible orange controller connection on the underside: Connect the EasyControl at the orange terminal of the orange connection for the controller.
- Bosch¹⁾ heat source without a visible connection for the controller. The heat source must be opened by a recognized installer.
- Heat sources, which use iRT, OpenTherm or On-Off, can only be connected with an EasyControl adaptor (accessories), (see the back of this document for the web address and select "Is EasyControl suitable for me"), or consult a recognized installer.

1) Or a Bosch Group brand (Nefit, Junkers, Worcester, ELM LeBlanc).

4.5 Installing (deinstalling) the controller

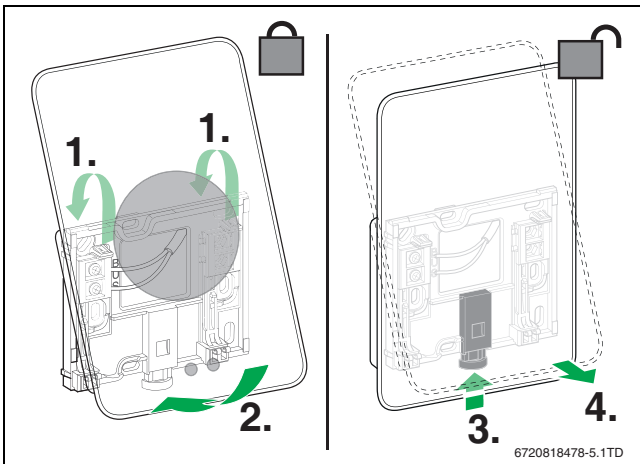


Fig. 7 Installing (deinstalling) the controller

Installing

- ▶ Hook the EasyControl behind the plinth [1].
- ▶ Press the EasyControl with the underside against the plinth, until an audible “click” is heard [2]. The EasyControl is now locked.

Deinstalling

- ▶ Unlock the EasyControl by pressing the unlocking key [3].
- ▶ Slightly lift the underside of the EasyControl and remove it [4].

5 Commissioning

5.1 Powering up EasyControl

- ▶ Remove the protective film from the EasyControl.
- ▶ Plug the mains plug of the heat source into the socket.
- ▶ Switch on the gas floor-standing boiler.

This also causes the EasyControl to be supplied with mains voltage, and it searches for a connection to:

- The heat source [1],
- A Wi-Fi network [2],
- The Bosch server [3].

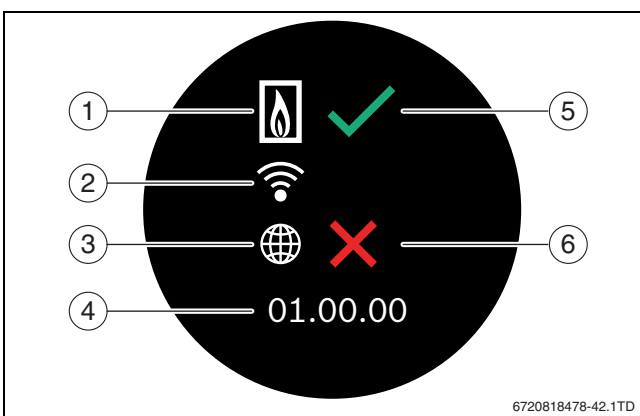


Fig. 8 Start screen

- [1] Connection with the heat source
- [2] Connection with Wi-Fi network
- [3] Connection with Bosch server
- [4] Software version (example)
- [5] Connection made (example)
- [6] Connection not made (example)

A green check mark [5] shows, that the connection is made. A red cross [6] shows, that the connection is not made. See → section 8.4, page 8 for an overview of possible causes and solutions.

5.2 Software update

The software version of this document is 01.xx.xx. The installed software version is shown in the start screen [4]. Software updates are performed automatically. It is possible that, when delivered, the EasyControl does not yet have the current software version and does not therefore support all the functions in the app. The update may take a few days.

After an update has been performed, the arrangement of the touch screen may differ from this document. See the latest version of this document on the EasyControl site for Bosch.¹⁾

5.3 Operation of the touch screen

It is possible to change the settings by means of a horizontal or vertical wiping movement (swipe) or by pressing (tap). Only operate the touch screen with your hand.

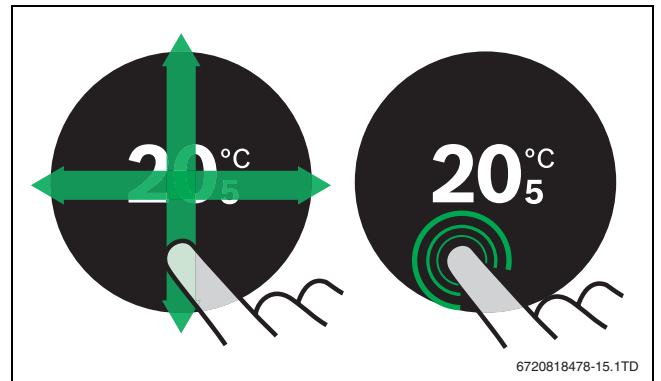


Fig. 9 Swipe or tap

5.4 Connecting with Wi-Fi network



EasyControl can only make a connection to “visible” networks. If EasyControl is to establish a connection with a “hidden network”, this must first be made “visible”. After a connection has been established, the network can be “hidden” again.

After the EasyControl has been connected to the heat source, it automatically searches for Wi-Fi networks [2] and displays these on the touch screen. While the search is being performed, a flashing Wi-Fi symbol appears on the touch screen.

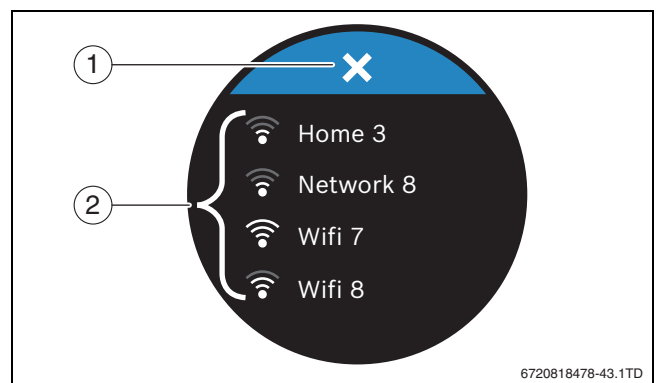


Fig. 10 Available Wi-Fi networks

- [1] Cancel key
- [2] Available Wi-Fi networks

- ▶ Swipe vertically to find the Wi-Fi network.
 - ▶ Select the desired Wi-Fi network by tapping.
- If the Wi-Fi network is secured with a password:
- ▶ Enter the Wi-Fi network password (→ section 5.5).

1) See the back of this document for the web address.

If the desired Wi-Fi network is not found:

- ▶ Press the Cancel key [1] to set the controller to the Offline mode. The temperature can now only be set in manual operation on the touch screen. Connection to the app or Bosch site is not possible. Possible connection difficulties, see section 8.4, page 8.

When all the connections have been established, the data is synchronised. The start screen appears on the touch screen.

5.5 Entering the Wi-Fi network password



EasyControl uses the standard Wi-Fi protocol.

- ▶ Do not therefore use any \$ characters in the Wi-Fi network password.



Fig. 11 Entering the Wi-Fi network password

Using the Return key [1], one can return to the previous display. An input error can be corrected with the “Back” key [2]. An input is confirmed with the Enter key [3]. The password can be entered into the input line [7] using the keys [4]. Use the shift key [5] to enter capital letters. Using key [6], special characters can be entered. The lock key [8] shows, that the Wi-Fi network is secured.

- ▶ Enter the Wi-Fi network password.
- ▶ Confirm the password with the Enter key [3]. Now the start screen appears (→ section 6.1).

5.6 EasyControl app

The EasyControl app contains functions, which are not included in the EasyControl.

- ▶ Download the EasyControl app.



- ▶ Install the EasyControl app from Bosch.
- ▶ Register the app with EasyControl.
- ▶ Enter the one-off access code or scan the QR code (→ sticker on the quick installation instructions).
- ▶ Establish a connection with EasyControl.
- ▶ Enter the personalised password.

On the Bosch site you can find an overview of the compatible smart devices.

5.7 Electronic thermostatically controlled radiator valve

EasyControl can establish a wireless connection with up to 20 Bosch electronic thermostatically controlled radiator valves (accessories). In this way different temperatures can be set in different rooms.

- ▶ Connect the electronic controller valves via the EasyControl app (pair).

6 Operation

6.1 Start screen

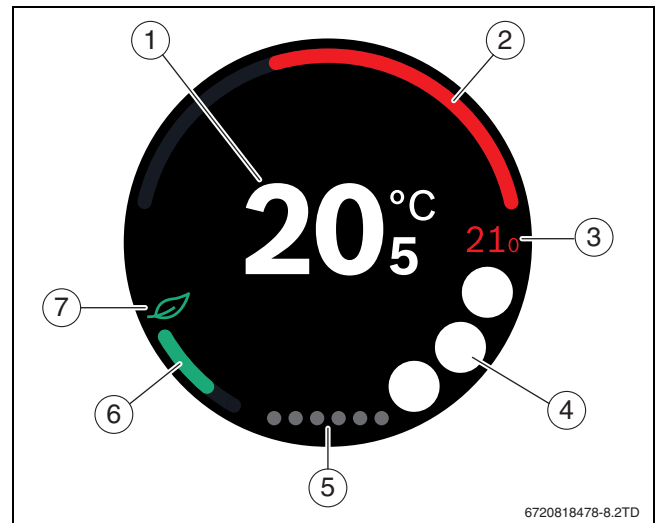


Fig. 12 Start screen

- [1] Current temperature
- [2] Display for heat source modulation level
- [3] Set temperature
- [4] Space for symbols
- [5] Tab pages
- [6] Display for economical heating
- [7] Eco symbol

If the touch screen is not used for some time, the device returns automatically to the start screen and the touch screen switches itself off.

The current temperature is in the middle [1], and the set temperature is beside it [3]. The modulation level of the heat source is depicted with a display [2]. The Eco symbol [7] with the display for economical heating [6] shows, how energy-efficient the heating of the room is.

The following symbols can be in the space for symbols [4]:

- Service
- Fault
- No Wi-Fi connection
- No connection with the Bosch server
- DHW is maintained at temperature
- DHW is not maintained at temperature.

6.2 Tab pages

The EasyControl contains several tab pages [5]. The number of available tab pages depends on the system. The start screen is on the 1st tab page.

- ▶ Swipe right or left to change between the tab pages.

6.3 Symbols

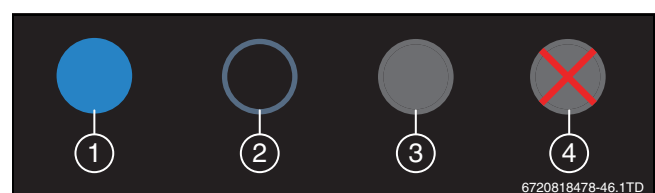


Fig. 13 Symbol background

Symbols can have differently coloured backgrounds. A light blue background shows, that this function is active. [1]. A dimmed blue background shows, that this is not active [2]. A grey background shows, that this function is not available [3]. If a function is tapped, which is not available, a red cross appears over this background [4].

The following table depicts the various symbols with their meaning:

| Symbol | Meaning |
|--------|--|
| | Manual operation. |
| | Time program. |
| | DHW mode On/Off. |
| | DHW mode active, also visible while the boiler is heating up or being topped up. Can be coupled to a time program (clock visible). |
| | Away from home function. |
| | Heat source in operation. |
| | Eco display. |
| | DHW is not maintained at temperature. |

Table 2 Symbols

6.4 Temperature setting

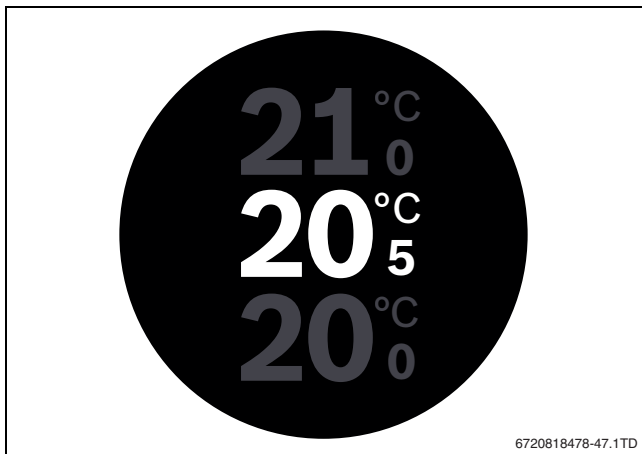


Fig. 14 Temperature setting

- ▶ Tap on the start screen to get to the temperature setting screen.
- ▶ Swipe vertically to increase or reduce the set temperature.

6.5 Manual operation or time program

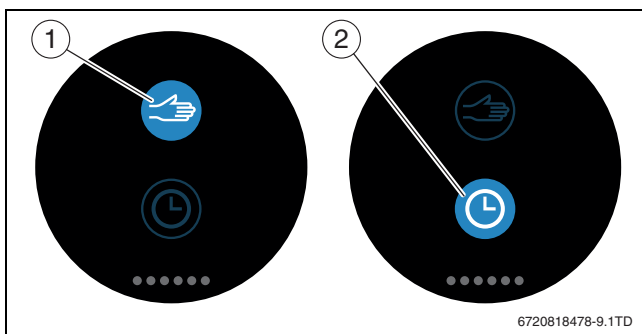


Fig. 15 Selecting manual operation or time program

The time program can be set with the EasyControl app. The time program can be switched on or off with EasyControl.

- ▶ Swipe horizontally to the correct tab page.
- ▶ Tap on the Manual operation [1] key or Time program [2] key to change between these functions.

6.6 Away from home

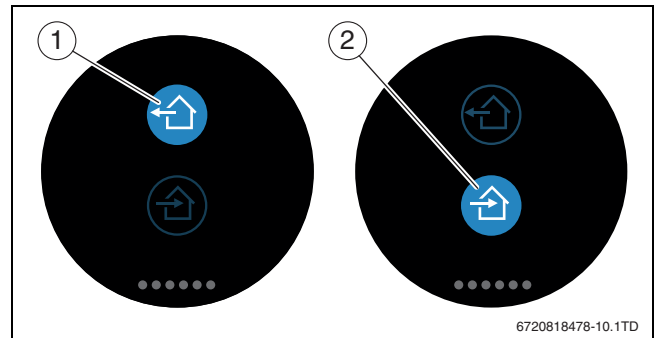


Fig. 16 Selecting "Not at home" or "At home"

The "Away from home function" is used to show, whether one is at home or not. The set temperature is lowered in "Away from home status" by 15 °C (60 °F). This standard value can be changed in the EasyControl app. This function is only available in time program mode.

- ▶ Swipe horizontally to the correct tab page.
- ▶ Tap on the key for "Away from home" [1] or "Coming home" [2] to change between these functions.

6.7 DHW heating

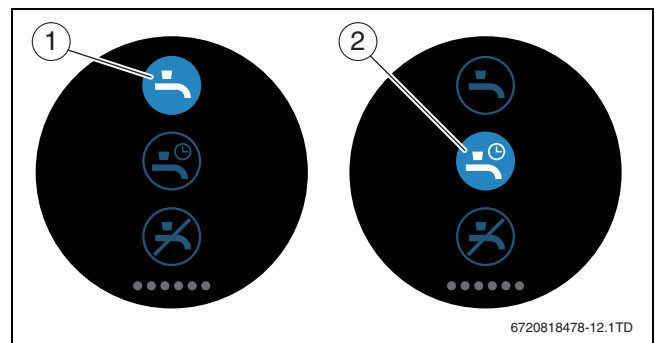


Fig. 17 Switching DHW heating on or off and DHW time program

If "DHW according to program" is switched on in the EasyControl app, the setting for DHW heating can be adjusted on the EasyControl.

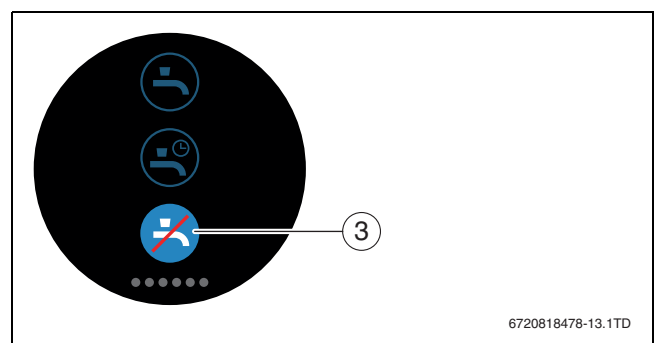


Fig. 18 DHW not available

7 Specifications

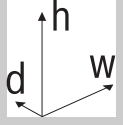
| Description | Unit | Value |
|---|-----------------|--|
| U | V _{DC} | 14.3 – 16.0 |
| P_{max} | W | 0.9 |
| m | g (lb) | 250 (0.551) |
| f (RF) | MHz | f = 868.3 ... 869.5 [EU] |
| T_{amb} | °C (°F) | 0 ... 45 (32 ... 113) |
| IP class | | IP30 |
| ϕ | % RH | 10 ... 90 |
| Wi-Fi | f = 2.4 GHz | IEEE 802.11b/g/n |
| Zigbee | f = 2.4 GHz | IEEE 802.15.4 |
|  | mm (inches) | h = 145 (5.7) w = 100 (3.9) d = 27 (1.1) |

Table 3

8 Maintenance and faults

8.1 New Wi-Fi network or new network password

To log EasyControl onto a new Wi-Fi network, or if the existing network has a new password:

- ▶ Reset EasyControl (→ section 8.3).
- ▶ Perform the following steps to create a Wi-Fi network (→ section 5.4).

8.2 Power failure

All the settings are retained after a power failure. After renewed connection with the Wi-Fi network, all the settings are synchronised with the Bosch server.

- ▶ Check the date and time.

8.3 Reset

If EasyControl no longer functions correctly:

- ▶ Lift the EasyControl briefly from the plinth (→ fig. 7, page 5).

If the problem persists:

- ▶ Press the Reset button (→ fig. 19) and hold for several seconds. Please note! This means that all personalised settings are deleted, and the Wi-Fi connection must be established again.

If the problem persists:

- ▶ Consult the installer or manufacturer.

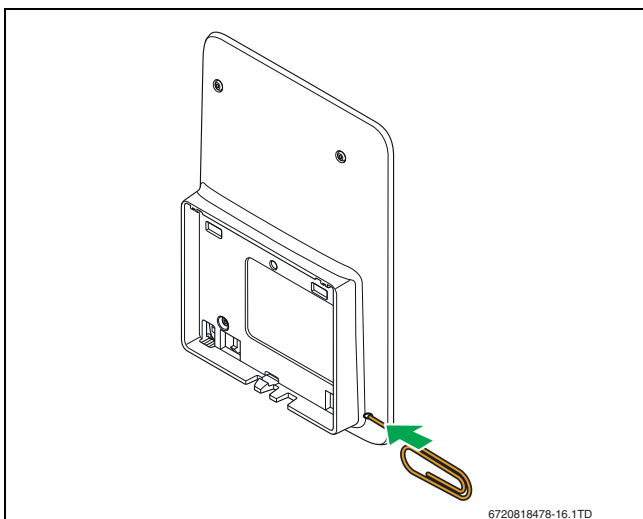


Fig. 19 Reset

8.4 Faults

The fault displays for the heat source are visible on the touch screen and are sent automatically from the controller to the EasyControl app. Contact with the installer can be selected in the app.

There is an extensive list on the EasyControl site with solutions for any problems with EasyControl that may arise¹⁾ Controller.





| Fault | Remedy |
|---|---|
|  | No Wi-Fi connection. The Wi-Fi signal for the Wi-Fi router may be too weak. Install a Wi-Fi amplifier. |
| Wi-Fi network not found | The "Hide" function for the Wi-Fi router is possibly switched on, or the "Broadcast" function (sending SSID) may be switched off. Temporarily switch off the "Hide" function or switch on the "Broadcast" function. |
|  | No connection to the Internet server. Wait until the connection to the Internet server has been automatically restored. Even without a server connection, the heat source can be controlled in manual operation or via the time program after it has been put into operation. |
| Forgotten serial number and access code | The serial number and access code are on the sticker, which is on the front of the brief installation instructions, and on the sticker at the back of the EasyControl. If the app is used to log on, the serial number and access code can be displayed in the app, by navigating via the "Info menu" to the "Product information" submenu. If the serial number and access code can not be found, please contact "Consumer Info" ¹⁾ . |
| The app has no contact with the EasyControl | Does the EasyControl have a connection to the Internet (→ section 5.4)? Serial number and access code entered? Please note, these are capital letter sensitive. There is possibly a slow Internet connection. Wait for a few minutes. |
| The displayed temperature is too high or too low | The displayed temperature can be set in the app or on the EasyControl site ¹⁾ . |
| The touch screen does not function | If the touch screen does not detect anything for more than 5 minutes, it automatically switches itself off. After this, the touch screen can only be activated again by touching it. |
| Password with \$ character | EasyControl uses the standard Wi-Fi protocol. Do not therefore use any \$ characters in the Wi-Fi network password. Remove the \$ character from the network password. |
| App is not fully functioning | It is possible that, when delivered, the EasyControl does not yet have the current software version. This means that possibly not all app functions can be used. The software update occurs automatically and make take a few days. |
|  | Display of one of the following messages: repeated ignition attempts, dripping/leaking DHW tap, too little flow through the heating system, leak in the heating system, boiler pressure too low, or heat source shows the Service display. These are informative signals. The floor-standing boiler is functioning normally. |
|  | No software updates have been received from EasyControl |
| | Software updates are performed automatically. This requires a continuous Internet connection. If the router is provided with a timer, updates can be missed. |

Table 4 Fault overview (the symbols are displayed on the touch screen)

1) See the back of this document for the web address.

9 ErP class

The data in the table below is needed to fill out the Energy related Product (ErP) form and the ErP DataLabel sticker, which are required for systems.

Supplier is “Bosch, Bosch Group”, the model is “EasyControl”.

| Operating functions and ErP description | ErP class | Additional room heating energy efficiency |
|---|-----------|---|
| Room temperature-dependent, modulating | V | 3% |
| Weather-compensated with influence of room temperature, modulating | VI | 4% |
| Room temperature control system with several temperature sensors (zone control), modulating | VIII | 5% |

Table 5

10 List of used Open Source Components

The following open source software (OSS) components are included in this product:

| Name of OSS Component | Version of OSS Component | Name and Version of License (License text can be found in chapter 11) | Copyright |
|-----------------------|--------------------------|---|---|
| base64 | 2.1.0 | MIT License | See Appendix § 11.3. Written by Peteris Kruminis |
| http-parser | 2.6.0 | MIT License | See Appendix § 11.3. → Copyright © Joyent, Inc. and other Node contributors |
| MD5 | 2.2.1 | Apache License 2.0 | See Appendix § 11.1. → Copyright © 2006-2015, ARM Limited |
| microJSON | 1.3 | BSD (three Clause License) | See Appendix § 11.2. → Copyright © 2014 Eric S. Raymond |
| Texas Instruments | 2.1.0 | Texas Instruments-Software License Agreement | See Appendix § 11.4. → Copyright © 2016 Texas Instruments Incorporated |
| Yxml | 10/27/2015 | MIT License | See Appendix § 11.3. → Copyright © 2013-2014 Yoran Heling |

Table 6

11 Appendix

11.1 Apache License 2.0

Apache License Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

“License” shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this Chapter.

“Licensor” shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

“Legal Entity” shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, “control” means (i) the power, direct or indirect, to cause the direction or management of

such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

“You” (or “Your”) shall mean an individual or Legal Entity exercising permissions granted by this License.

“Source” form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

“Object” form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

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12 Technical terms

App

A mobile application, or app for short, is a software application, which has been developed for operation on a smartphone, tablet or other hand-held electronic device. Apps are used to add functions simply to a mobile device, so that it becomes a multifunctional communication device.

Bosch server

A central server, with which EasyControl is in contact.

iRT

A communication protocol, which is used in a heating system between a heat source and a controller (intelligent Room Thermostat).

OpenTherm

A communication protocol, which is used in a heating system between a heat source and a controller.

Smart Device

An electronic device, which can generally be connected via various types of wireless networks to other electronic devices, such as smartphones, tablets, room thermostats etc.

Thermostatically controlled radiator valve

A heat-sensitive element is located within the controller. In cold weather this opens, and warm boiler water flows to the radiator. As the heat increases, the element closes and less hot water flows to the radiator.

Wi-Fi network

Technology for wireless communication.

Wi-Fi amplifier

Electronic device, which resends the existing signal of a Wi-Fi network.

www.bosch-easycontrol.com

