



Installation and operating instructions

Remotely operated controller

EasyControl

CT200 | CT200B



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1 Safety instructions

1.1 Explanation of symbols**Information symbol**

Important information is placed between 2 lines and marked with an i-symbol in a square.

Additional symbols

Symbol	Meaning
▶	a step in an action sequence
→	a reference to a related part in the document
•	a list entry
–	a list entry (second level)

Table 1



Please read this instruction carefully before use.

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 Environmental protection/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 country-specific recycling processes that ensure optimum recycling.

All of our packaging materials are environmentally compatible and can be recycled.

Used 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.

Batteries must not be disposed together with your household waste. Used batteries must be disposed of in local collection systems.

3 Product information

3.1 Scope of delivery

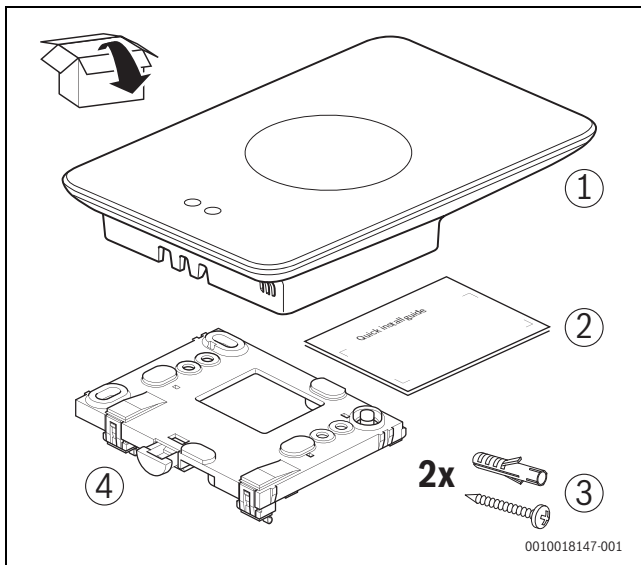


Fig. 1 Scope of delivery

- [1] EasyControl
- [2] Quick Install Guide
- [3] Screw with rawl plug 2 ×
- [4] Wall plate

3.2 Accessories

The following accessories are available:

- Smart Radiator Thermostats
- EasyControl adaptor
- EasyControl app (free of charge).

Visit www.bosch-easycontrol.com for an up-to-date overview.

3.3 Warranty conditions

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

3.4 Declaration of Conformity (Europe)

CE Hereby, Bosch Thermotechnik GmbH, declares that the radio equipment with type CT200 & CT200B are in compliance with Directive 2014/53/EU.

The complete text of the EU Declaration of Conformity is available on the Internet: www.bosch-easycontrol.com/manual.

3.5 FCC Statement (USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

- To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

3.6 IC Statement (Canada)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Caution: Exposure to Radio Frequency Radiation.

To comply with RSS 102 RF exposure compliance requirements, for mobile configurations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Attention : Exposition aux rayonnements radioélectriques.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, pour des configurations mobiles, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes. Cet appareil ne doit pas être colocalisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

3.7 Data privacy

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

3.8 Data connection

- ▶ EasyControl supports open WLAN connections and WLAN connections encrypted with WEP 128, WPA and WPA2 protocols. WPA2 is the safest protocol and is therefore preferred.
- ▶ "Hidden" networks are not supported.
- ▶ EasyControl takes over the time setting of the Bosch server. If there is no connection to the server, 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⁾

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

3.9 Proximity sensor and touch screen

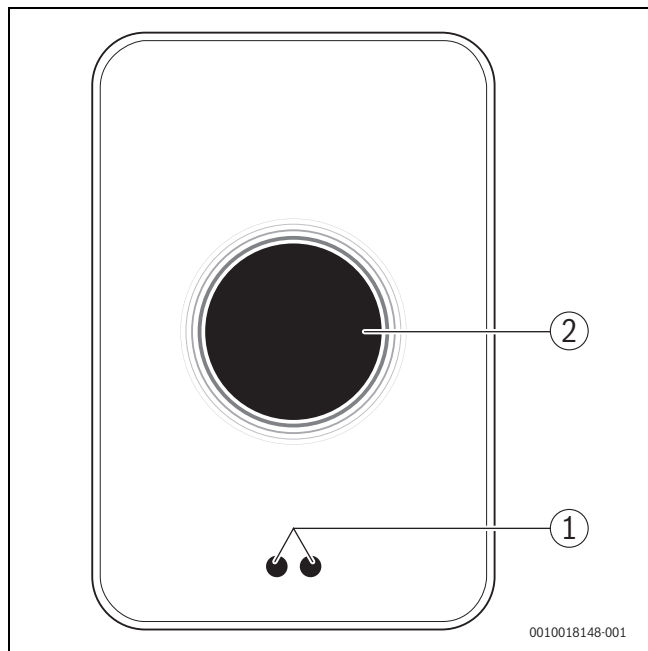


Fig. 2 Proximity sensor and touch screen

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

A proximity sensor [1] detects a presence in front of the touch screen [2] and lights up. If nothing more is detected for a short period of time, the touch screen automatically switches off. If the detection lasts for longer than 5 minutes, the touch screen automatically switches off.

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

3.10 Ambient Light

EasyControl not only communicates with you via the app, but also via Ambient Light. As soon as you send a heating command via the app to EasyControl, it lights orange for a second when you increase the temperature, and blue when you lower the temperature. When you leave your home, a green light for a second indicates that the heating system has automatically switched to away mode. Red light: Error occurred in your heating system. If everything is running normally, Ambient Light will be off.

4 Assembly

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 EasyControl.¹⁾

Minimum requirements for installation:

- ▶ 2-wire cable to a heat source, which is suitable for use with EasyControl.
- ▶ Broadband internet access via WLAN 802.11 b/g (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.

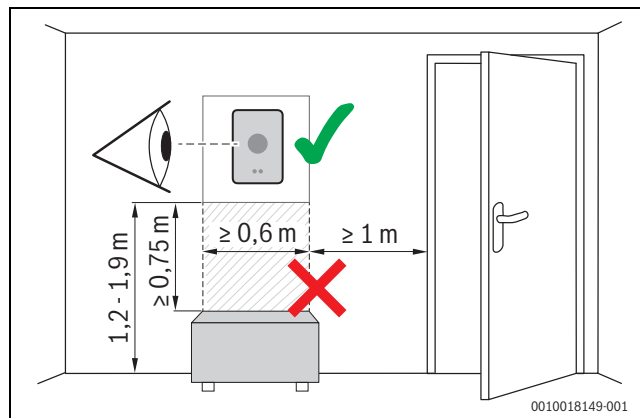


Fig. 3 Installation location for controller, clearance

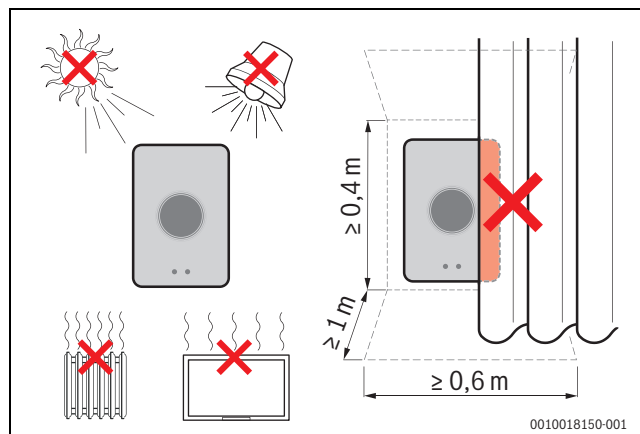


Fig. 4 Installation location for controller, condition

4.3 Fitting the wall plate

i When replacing a controller with EasyControl, the existing wall plate can continue to be used (→ section 4.5).

This wall plate 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 lead (EMS-BUS connection of the heat source) to the terminals on the wall plate. The wires can be connected in any order.

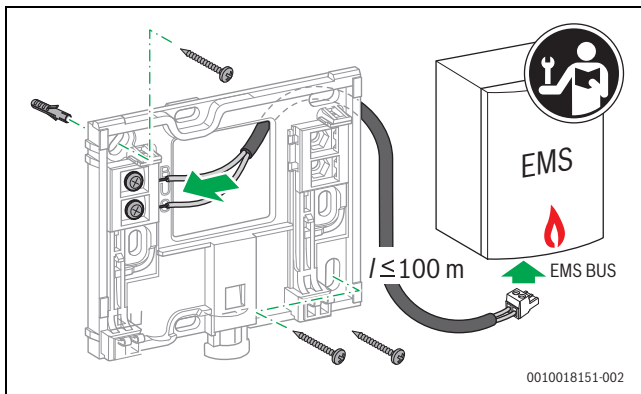


Fig. 5 Connecting the wall plate

4.4 Connecting to the heat source



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

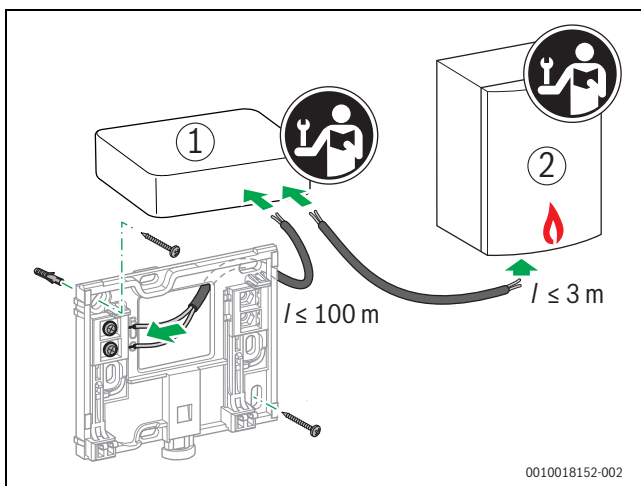


Fig. 6 Connecting the EasyControl adaptor

- [1] EasyControl adaptor
- [2] Heat sources which use iRT, OpenTherm or On-Off

There are various possibilities for connection to a heat source:

- Replacing an existing controller on the same wall plate. EasyControl is ready for operation.
- Bosch¹⁾ heat source appliance with a visible orange controller connection on the underside. Connect EasyControl with the orange connector at the orange terminal.
- Bosch¹⁾ heat source appliance 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 (accessory). For more up-to-date information see the back of this document for the web address or consult a recognized installer.

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

4.5 Installing (deinstalling) the controller

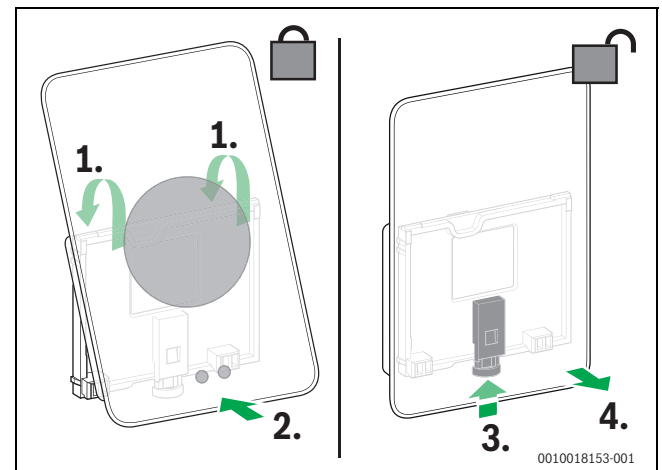


Fig. 7 Installing (deinstalling) the controller

Installing

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

Deinstalling

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

5 Commissioning

5.1 Powering up EasyControl

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

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

- the heat source [1],
- a WLAN network [2],
- the Bosch server [3].

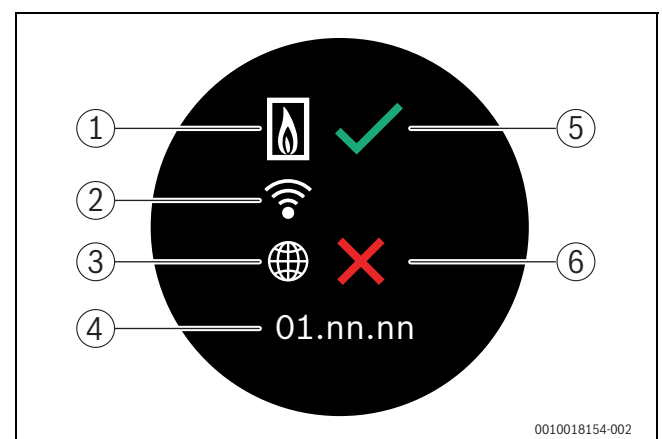


Fig. 8 Start screen

- [1] Connection with the heat source
- [2] Connection with WLAN 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 7, page 9 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, EasyControl does not yet have the current software version and does not therefore support all the functions in the app. The automatic update may take some time to start. Via the app an update can start immediately.

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.

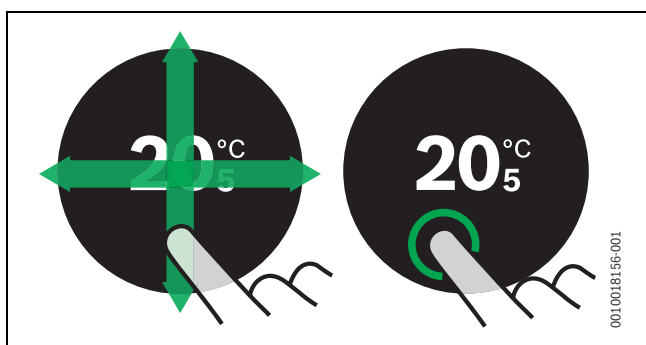


Fig. 9 Swipe or tap

5.4 Connecting with WLAN 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 EasyControl has been connected to the heat source, it automatically searches for WLAN networks [3] and displays these on the touch screen. While the search is being performed, a flashing WLAN symbol appears on the touch screen.

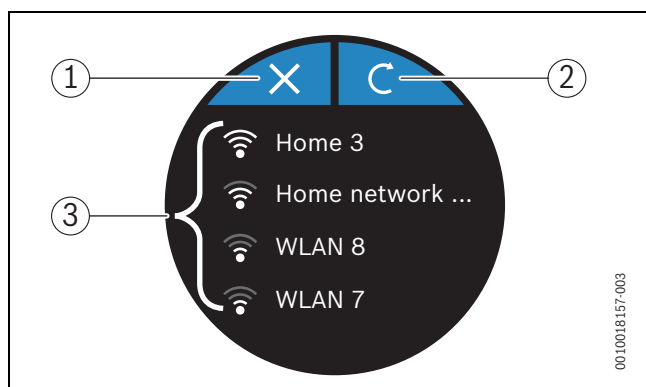


Fig. 10 Available WLAN networks

- [1] Cancel key
- [2] Return key
- [3] Available WLAN networks

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

- ▶ Swipe vertically to find the WLAN network.
- ▶ Select the desired WLAN network by tapping.

If the WLAN network is secured with a password:

- ▶ Enter the WLAN network password (→ section 5.5).

If the desired WLAN 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, → section 6.8, page 8 and chapter 7, page 9.

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

5.5 Entering the WLAN network password



EasyControl uses the standard WLAN protocol.

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

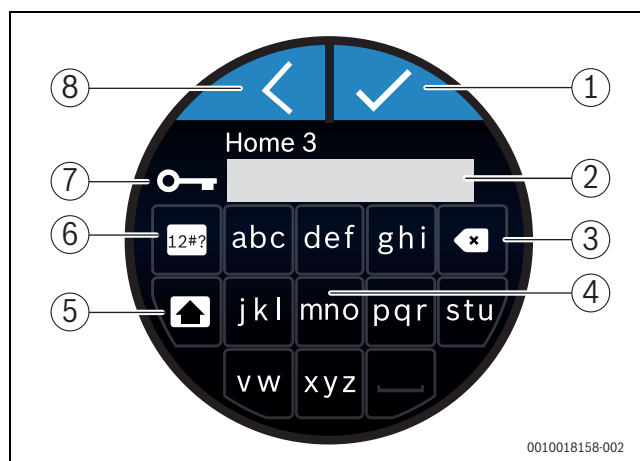


Fig. 11 Entering the WLAN network password

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

- ▶ Enter the WLAN network password.
- ▶ Confirm the password with the Enter key [1]. Now the start screen appears (→ section 6.1).

5.6 EasyControl app

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

- ▶ Download the EasyControl app from Bosch.



- ▶ 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 Install Guide).
- ▶ Establish a connection with EasyControl.
- ▶ Enter the personalised password.

On www.bosch-easycontrol.com 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 19 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). See the manual of the electronic thermostatically controlled radiator valves or use the steps in the EasyControl app.

6 Operating the appliance

6.1 Start screen

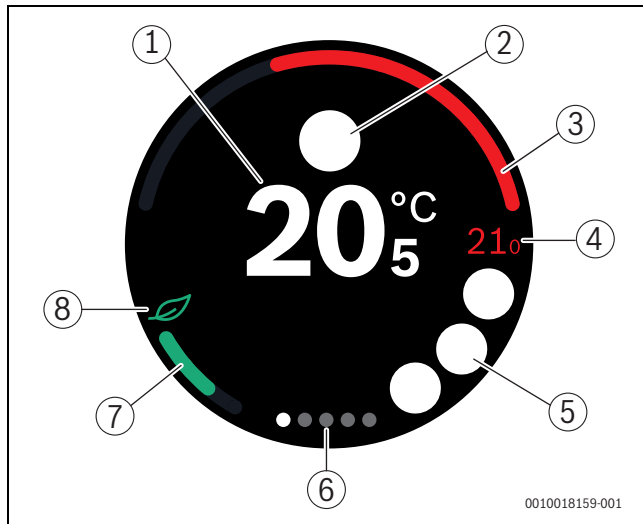


Fig. 12 Start screen

- [1] Current room temperature
- [2] Space for notification symbols
- [3] Display for heat source modulation level
- [4] Set temperature
- [5] Space for operational and warning symbols
- [6] Tab pages
- [7] Display for economical heating
- [8] 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 room temperature is in the middle [1], and the set temperature is beside it [4]. The modulation level of the heat source is depicted with a display [3]. The Eco symbol [8] with the display for economical heating [7] shows, how energy-efficient the heating of the room is.

Notification symbols

The space for notification symbols [2] may contain the following symbols:

- Away
- No EMS

Operational symbols

The space for operational symbols [5] may contain the following symbols:

- No WLAN connection
- No connection with the Bosch server
- DHW is maintained at temperature
- DHW is not maintained at temperature
- Heat source in operation for CH
- Heat source in operation for CH optimum start
- Fire place
- Event

Warning symbols

The space for warning symbols [5] may contain the following symbols:

- Maintenance request from the heat source
- Fault signal from the heat source

Symbols on tabs

The following symbols may appear on the tabs:

- Manual operation
- Time program
- Home/Away setting
- DHW mode permanently On/Off
- DHW mode On/Off automatically
- WLAN settings

6.2 Symbol background

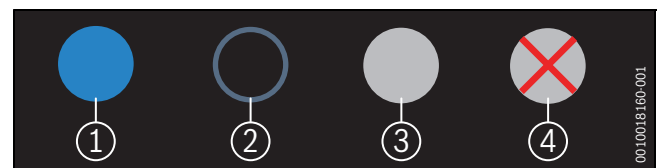


Fig. 13 Symbol background

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].

6.3 Tab pages

EasyControl contains several tab pages (→ fig. 12, [6]). 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.

6.4 Temperature setting

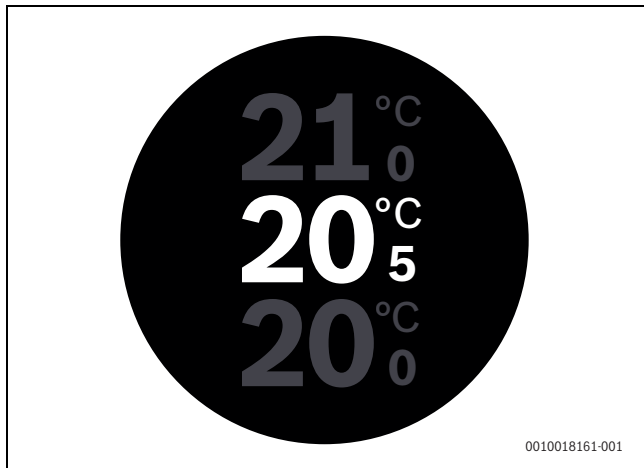


Fig. 14 Temperature setting

- ▶ 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

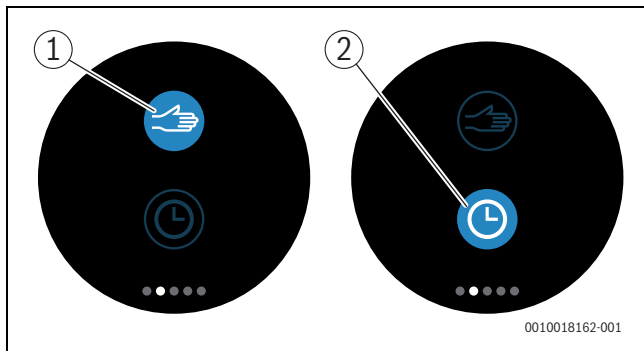


Fig. 15 Selecting manual operation or time program

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 setting

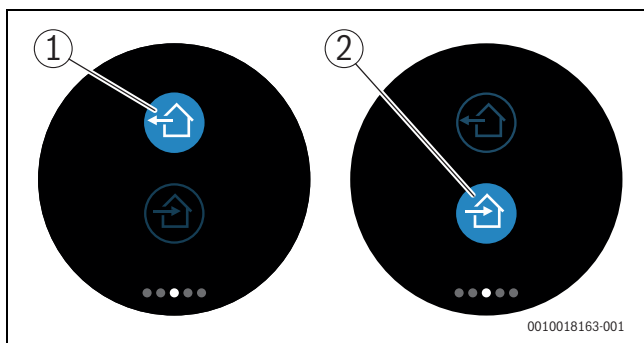


Fig. 16 Selecting "Not at home" or "At home"

The "Away" setting 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" [1] or "Home" [2] to change between these functions.

6.7 DHW heating

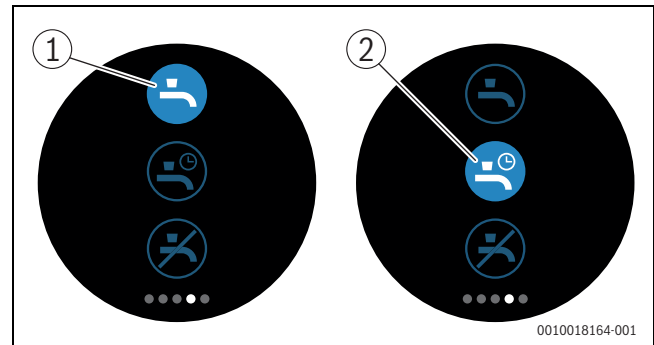


Fig. 17 Switching DHW heating on or off and DHW time program

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

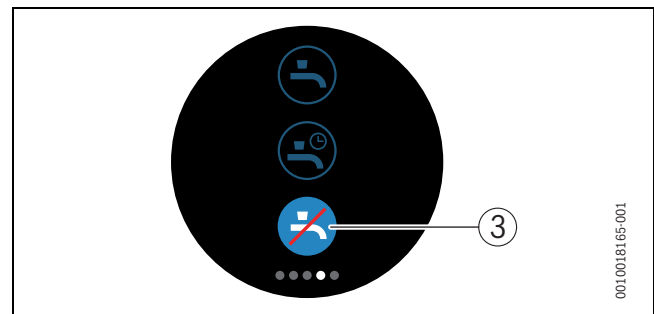


Fig. 18 DHW not available

6.8 Settings

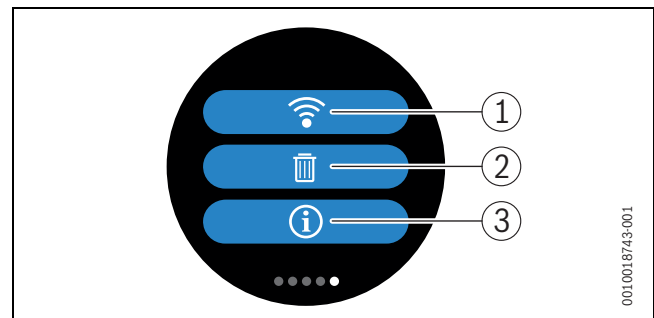


Fig. 19 WLAN setting

- [1] WLAN settings
- [2] Reset (factory settings)
- [3] Information about the current software version

6.8.1 WLAN setting

- ▶ Press the WLAN symbol [1] to adjust the WLAN network or password.

6.8.2 Reset



If EasyControl is reset to factory settings, all personal settings will be lost.

To prevent data loss, in the event of a malfunction, first consult the solutions (→ chapter 7) or perform a soft reset.

Soft reset



If EasyControl no longer functions correctly, perform a soft reset while maintaining all settings.

- ▶ Disconnect EasyControl from the wall plate for a moment (→ fig. 7, page 5).

Hard reset (factory settings)

A hard reset resets EasyControl to the factory settings. After confirmation, the WLAN data is deleted and must be reset (→ section 5.4).

1. Hard reset via touch screen

- ▶ Press the trash bin symbol [2] to reset the factory settings, there are 2 options:
 -  fully back to the factory settings (**Caution!** Consumption data will be lost).
 -  return to the factory settings while maintaining the consumption data.

2. Hard reset with a paperclip

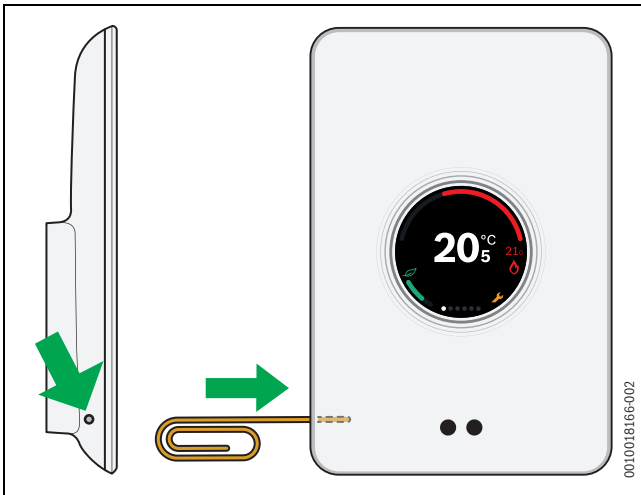


Fig. 20 Hard reset

- ▶ Press the reset button (→ fig. 20) for a few seconds. **Caution!** All personal settings (including consumption data) will be deleted and the WLAN connection will have to be reset (→ section 5.4).

The problem has not yet been solved:

- ▶ Consult the installer.


6.8.3 Firmware versions

- ▶ Press the info symbol [3] to request the information of the current software.

7 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 arise.¹⁾

Fault	Remedy
	No WLAN connection. The WLAN signal for the WLAN router may be too weak. Install a WLAN amplifier.
WLAN network not found	The "Hide" function for the WLAN 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.




Fault	Remedy
	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 both on the sticker, which is on the front of the brief installation instructions, and on the sticker at the back of EasyControl and is incorporated in the QR code with which it can be entered. 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 EasyControl	Does 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 WLAN protocol. Do not therefore use any \$ characters in the WLAN network password. Remove the \$ character from the network password.
App is not fully functioning	It is possible that, when delivered, 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 some time or can be done manually via the EasyControl app: <i>Info – About – Check & Update.</i>
	Indication 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 Maintenance symbol. These are informative signals. The heat source is functioning normally.
	The heat source is malfunctioning. Check the EasyControl app for more information.
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 2 Fault overview (the symbols are displayed on the touch screen)

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

8 Technical data

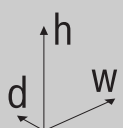
CT200 & CT200B		
Description	Unit	Value
U	V _{DC}	14.3 – 16.0
P_{max}	W	0.9
m	g (lb)	250 (0.551)
f1 (RF)	f = 868.3 ... 869.5 MHz [EU]	(P = max. 13.4 dBm)
T_{amb}	°C (°F)	0 ... 45 (32 ... 113)
IP-class		IP30
ϕ	% RH	10 ... 90
WLAN	f = 2400 MHz ... 2483.5 MHz	IEEE 802.11b (P = max. 17 dBm) IEEE 802.11g (P = max. 14.1 dBm)
f2 (RF)	f = 2400 MHz ... 2483.5 MHz	IEEE 802.15.4 (P = max. 14.6 dBm)
	mm (inch)	h = 153 (6) w = 103 (4) d = 24 (1)

Table 3

9 ErP Class

The data in the table below is needed to fill out the Energy related Product (ErP) form and the ErP Data Label 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 4

10 List of used Open Source Components

The following text is in English for legal reasons.

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 § 11.3. → Copyright © 2006-2015 ARM Limited

Name of OSS Component	Version of OSS Component	Name and Version of License (License text can be found in chapter 11)	Copyright
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 5

11 Appendix

11.1 Apache License 2.0

Apache License Version 2.0, January 2004

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

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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.

CH

Central heating.

DHW

Domestic hot water.

EMS

Bosch protocol language.

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.

WLAN network

Technology for wireless communication.

WLAN amplifier

Electronic device, which resends the existing signal of a WLAN network.

www.bosch-easycontrol.com

