Installation and operating instructions

Remotely operated controller

EasyControl

CT200 | CT200B
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 country-specific recycling processes that ensure optimum recycling. All of our packaging materials are environmentally compatible and can be recycled.

Environmental protection and disposal

Packaging

1 Safety instructions

1.1 Explanation of symbols

Information symbol

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 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 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
[3] Screw with rawl plug 2 x
[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)

Hereby, Bosch Thermotechnik GmbH, declares that the radio equipment with type Thermostat AA 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.

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 co-localisé 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.

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

### 3.9 Proximity sensor and touch screen

![Proximity sensor and touch screen](image)

- [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.2)

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.

#### 4.2 Determining the installation location

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.

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

4.2 Determining the installation location

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

#### 4.3 Fitting the wall plate

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.

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

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

4.4 Connecting to the heat source

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

4.5 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].

---

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.
• Bosch heat source appliance with a visible orange controller connection on the underside. Connect EasyControl with the orange connector at the orange terminal.
• Bosch 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).
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] Refresh key

▶ 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 \(\rightarrow\) 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, \(\rightarrow\) section 6.9, 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 \(\rightarrow\) 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 \(\rightarrow\) 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.

1) See the back of this document for the web address.
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  Operation
6.1  Start screen

![Start screen diagram]

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

![Symbol background diagram]

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. 6.1, [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 Parental lock
The screen can be disabled and enabled using the Easy-Control app, the function is deactivated as standard.

6.5 Temperature setting
Fig. 15 Temperature setting
- Tap on the start screen to get to the temperature setting screen.
- Swipe vertically to increase or reduce the set temperature.

6.6 Manual operation or time program
Fig. 16 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.

6.7 Away setting
Fig. 17 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.

6.8 DHW heating
Fig. 18 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.

6.9 Adjust
Fig. 20 WLAN settings
Faults

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

6.9.1 WLAN setting
▶ Press the WLAN symbol [1] to change the WLAN network or password.

6.9.2 Reset

All personal settings will be lost if the factory settings of the EasyControl are restored.

To avoid data losses when faults occur, you should initially try the suggested solutions (➞ Chapter) or perform a soft reset.

Soft reset
Perform a soft reset while retaining all settings if EasyControl is no longer functioning correctly.
▶ Undock EasyControl briefly from the plinth (➞ Fig. 4.5, page 5).

Hard reset (factory settings)
A hard reset restores the factory settings of the EasyControl.
Following confirmation, the WLAN data is deleted and must be re-entered (➞ Chapter 5.4).

1. Hard reset via the touch screen
▶ Press the wastepaper basket symbol [2] to restore the factory settings. There are 2 options:
  - Reset everything to the factory settings (Attention! Consumption data is lost).
  - Restore factory settings subject to the consumption data.

2. Hard reset with a paper clip
▶ Press and hold the reset button (➞ Fig. 21) for a few seconds.
Attention! All personalised settings are deleted and the WLAN connection must be established again (➞ Chapter 5.4).

If the problem persists:
▶ Consult the installer.

6.9.3 Firmware versions
▶ Press the info symbol [3] to obtain information about the current firmware version.

6.9.4 Start screen
A welcome screen can be activated via the EasyControl app. The basic screen is displayed if you swipe to the right. The function is deactivated as standard.

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

There is an extensive list on the EasyControl site of solutions to problems that can arise in relation to the EasyControl thermostat.1)

<table>
<thead>
<tr>
<th>Error</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No WLAN connection. The WLAN signal of the WLAN router may be too weak. Use a WLAN amplifier. There is possibly a defect in the WLAN router.</td>
<td></td>
</tr>
<tr>
<td>WLAN network not found</td>
<td>The &quot;Hide&quot; function of the WLAN router is possibly switched on, or the &quot;Broadcast&quot; function (sending of the SSID) may be switched off. Temporarily switch off the &quot;Hide&quot; function or switch on the &quot;Broadcast&quot; function.</td>
</tr>
<tr>
<td>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 following commissioning.</td>
<td></td>
</tr>
</tbody>
</table>

1) See the rear of this document for the web address.
### 8  Technical data

#### Table 2  Fault overview (the symbols are displayed on the touch screen)

<table>
<thead>
<tr>
<th>Error</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Forgotten serial number and access code | The serial number and access code are on the sticker, which is on the front of the easyControl and are worked into the QR code, which can be used to enter them. If the app is used to log on, the serial number and access code can be displayed by navigating via the "Info menu" to the "Product information" submenu. If the serial number and access code cannot be found, please contact “Consumer Info”.

| App has no contact with EasyControl | Is the EasyControl connected to the Internet (Chapter 2)? Have the serial number and access code been entered? Caution, these are case 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.

| The touch screen is not working | If the touch screen does not detect anything for more than 5 minutes, it automatically switches itself off. The touch screen can then only be reactivated by touching it. |

| Password with $ character         | EasyControl uses the standard WLAN protocol. The password for the WLAN network must therefore not contain the $ character. Remove the $ character from the network password. |

| App is not fully functioning      | When the EasyControl is removed from the packaging following delivery, the latest version of the software may not yet be installed on it. This means that possibly not all app functions can be used. The software is automatically updated and may take several hours, or can be updated manually via the EasyControl app: Info – About – Checking & Update. |

| No software updates have been received from EasyControl | Display of one of the following messages: repeated ignition attempts, dripping/leaking DHW tap, flow rate through the heating system too low, leak in the heating system, filling pressure of heating system too low, or a service display is indicated at the heat source. These are informative signals. The heat source is working normally. |

| The heat source has developed a fault. More information is provided in the EasyControl app. | No software updates have been received from EasyControl |

#### Table 3  CT200 & CT200B

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>VDC</td>
<td>14.3 – 16.0</td>
</tr>
<tr>
<td>P&lt;sub&gt;max&lt;/sub&gt;</td>
<td>W</td>
<td>0.9</td>
</tr>
<tr>
<td>m</td>
<td>g (lb)</td>
<td>250 (0.551)</td>
</tr>
<tr>
<td>f&lt;sub&gt;1&lt;/sub&gt; (RF)</td>
<td>f = 868.3 MHz ... 869.5 MHz (EU)</td>
<td></td>
</tr>
<tr>
<td>f&lt;sub&gt;2&lt;/sub&gt; (RF)</td>
<td>f = 2400 MHz ... 2483.5 MHz</td>
<td></td>
</tr>
<tr>
<td>Tamb</td>
<td>°C (°F)</td>
<td>0 ... 45 (32 ... 113)</td>
</tr>
<tr>
<td>IP-class</td>
<td></td>
<td>IP30</td>
</tr>
</tbody>
</table>

#### 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”.

#### Table 4  Operating functions and ErP description

<table>
<thead>
<tr>
<th>Operating functions and ErP description</th>
<th>ErP class</th>
<th>Additional room heating energy efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room temperature-dependent, modulating</td>
<td>V</td>
<td>3%</td>
</tr>
<tr>
<td>Weather-compensated with influence of room temperature, modulating</td>
<td>VI</td>
<td>4%</td>
</tr>
<tr>
<td>Room temperature control system with several temperature sensors (zone control), modulating</td>
<td>VIII</td>
<td>5%</td>
</tr>
</tbody>
</table>

#### 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:

<table>
<thead>
<tr>
<th>Name of OSS Component</th>
<th>Version of OSS Component</th>
<th>Name and Version of License (License text can be found in 11)</th>
<th>URL of origin and additional information (copyright, copyleft and modification notices; type of link: static/dynamic,...)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>QR-Code-generator</td>
<td>1.4</td>
<td>MIT License</td>
<td>Appendix 11.3</td>
</tr>
<tr>
<td>http-parser</td>
<td>2.6.0</td>
<td>MIT License</td>
<td>Appendix 11.3</td>
</tr>
<tr>
<td>MD5</td>
<td>2.2.1</td>
<td>Apache License 2.0</td>
<td>Appendix 11.1</td>
</tr>
<tr>
<td>microJSON</td>
<td>1.3</td>
<td>BSD (Three Clause License)</td>
<td>Appendix 11.2</td>
</tr>
</tbody>
</table>
11 Appendix

11.1 Apache License 2.0
Apache License Version 2.0, January 2004
http://www.apache.org/licenses/

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<th>Version of OSS Component</th>
<th>Name and Version of License (License text can be found in Appendix 11)</th>
<th>URL of origin and additional information (copyright, copyleft and modification notices; type of link: static/dynamic,...)*</th>
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<td>Appendix 11.3 Copyright © 2013-2014 Yoran Heing</td>
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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.