



Climate Room Control CRC R-1

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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

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

1.2 General safety instructions

Λ Notices for the target group

All system-relevant instructions must be observed. Failure to comply with instructions may result in material damage and personal injury, including danger to life.

- Installation, inspections, repairs, modification and relocation must be done by a qualified installer or service company.
- Before carrying out the installation, read the installation instructions of all system elements.
- Observe the safety instructions and warnings.
- Follow national and regional regulations, technical regulations and guidelines.
- ▶ Record all work carried out.

\land Intended use

 Use the product only to control air conditioning split units.

All other use is considered unsuitable. Any damage resulting from prohibited operations is excluded from liability.

▲ Safety of electrical devices for domestic use and similar purposes

The following requirements apply in accordance with EN 60335-1 in order to prevent hazards from occurring when using electrical appliances:

"This appliance can be used by children of 8 years and older, as well as by people with reduced physical, sensory or mental capabilities or lacking in experience and knowledge, if they are supervised and have been given instruction in the safe use of the appliance and understand the resulting



dangers. Children shall not play with the appliance. Cleaning and user maintenance must not be performed by children without supervision."

"If the power cable is damaged, it must be replaced by the manufacturer, its customer service department or a similarly qualified person, so that risks are avoided."

2 Product Information

2.1 Declaration of conformity

The design and operating characteristics of this product comply with the European and national requirements.

CE The CE marking declares that the product complies with all the applicable EU legislation, which is stipulated by attaching this marking.

The complete text of the Declaration of Conformity is available on the Internet: worcester-bosch.co.uk.

2.2 Scope of delivery

The appliances are shown as an example and deviations are possible.

The scope of delivery is shown in Fig. 1.

- [1] wired controller
- [2] Communication cable
- [3] Fixing materials
- [4] Button battery
- [5] Set of printed documents for product documentation
- [6] Magnet ring
- [7] Extension cable (6 m)



The button battery enables the time to be saved following a power failure. If the time is not displayed correctly following a power failure, the button battery is empty.

2.3 Technical data

	CRC R-1
Input power voltage	12 V DC

	CRC R-1
Permissible ambient temperature T_{amb}	-543 ℃
Permissible relative humidity	4090%
Table 26	

3 Installation

3.1 Prior to installation

- Carefully read the technical documentation of the indoor unit, outdoor unit and other system components and determine a suitable installation location.
- ► The ambient temperature at the installation location should be in the following range: -5...43 °C.
- ► The relative humidity at the installation location should be in the following range: 40.90 %.
- Do not install in locations where it is likely to come into contact with heavy fuel oil, steam or sulphur gas.
- ► Observe the dimensions of the wired room controller (→ Fig. 2).
- Install it far from heat sources.
- Ensure that there is air circulation.

3.2 Mount the wired room controller

NOTICE

Damage to the wired room controller

Opening the wired room controller in the wrong way or tightening the screws too tightly can damage it.

- Do no exert too much pressure on the wired room controller.
- ► Remove the wall plinth of the wired room controller (→ Fig. 5).
 - Insert the tip of a screwdriver at the bending point [1] on the rear of the wired room controller.
 - Lift up the screwdriver to lever open the wall plinth [2].
- ► If necessary, prepare the wall and communication wire (→ Fig. 6).
 - [1] Realise putty or insulating material.
 - [2] Make an elbow in the cable.
- Attach the wall plinth to the wall (\rightarrow Fig. 7, [1]).
- Fix the wired room controller to the wall plinth (\rightarrow Fig. 9).

3.3 Electrical connection

WARNING

Risk to life from electric shock!

Touching live electrical parts can cause an electric shock.

 Before working on electrical parts, disconnect all phases of the power supply (fuse/circuit breaker) and lock the isolator switch to prevent unintentional reconnection.

3.3.1 Connect the the wired room controller

NOTICE

Damage to the wired room controller or wiring

- Do not jam wires during installation.
- ► To avoid water entering the wired room controller when attaching the cabling (→ Fig. 6), use trap [2] and putty [1] to seal the plug-in connector.
- Cables must be securely attached and must not be under tension.

NOTICE

Damage due to overvoltage

The wired room controller is designed for low voltage.

 Never bring the communication cable into contact with high voltages.

Use the cable provided.

- If necessary, route an extension cable between the indoor unit and installation location of the wired room controller.
- Connect the communication cable to the indoor unit or connection module.
- Where applicable, connect the communication cable with the wired room controller via an extension cable.
- ► Fit the magnet ring.
- ▶ If possible, connect the earthing terminal lug.
- Insert the button battery into the holder [1].

4 Configuration to the wired room controller

Call up the configuration menu and make the settings:

- Switch off the air conditioning system.
- Keep the COPY key pressed until a parameter appears in the display.

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If several indoor units are detected, the address (e.g. **00**) appears initially.

- With the ∨ or ∧ key, select an indoor unit (00... 16) and confirm with the ⊠ key.
- ► Select a parameter with the ∨ or ∧ key and confirm with the ⊠ key.
- Press the ∨ or ∧ key to set the parameter and confirm it with the ☑ key, or press the ∽ key to cancel the setting.

To exit the configuration menu:

► Press the key or wait for 15 seconds.

Make the settings in the configuration menu:

- Call up the configuration menu.
- Select a parameter with the ∨ or ∧ key and confirm with the ☑ key.

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The factory settings are highlighted in **bold** in the following table.

Parameters	Description
Tn (n=1,2,)	Check the temperature at the indoor unit.
CF	Check the status of the fan.
SP	Set the statistic pressure for the channel wall unit.
	SP1: low
	SP2: middle 1
	SP3: middle 2
	SP4: high
AF	Function test for three to six minutes.
tF	Offset temperature for the Follow me function.
	• -5 0 5°C
tyPE	Restrict the control to specific operating modes:
	• CH : do not restrict available operating modes.
	CC: no heating and automatic mode
	HH: only heating and Fan Mode
	NA: no automatic mode
tHI	Maximum value of adjustable temperature • 25 30 °C

Parameters	Description
tLo	Minimum value of adjustable temperature • 17 24 °C
rEC	Switch the control on/off via the remote control. • ON : on • OF: off
Addr	 Set the addresses of the wired room controller. If there are two wired room controllers in the system, each wired room controller must have a different address. : only one wired room controller in the system A: primary wired room controller with the address 0. B: secondary wired room controller with the address 1.
Init	ON: restore factory settings.

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Operation 5

5.1 **Overview wired room controllers**

Keys of the wired room controller Key to figure 3:

- [1] Receiver for infrared remote control
- [2] Display of the wired room controller
- [3] Keys of the wired room controller

Кеу	Function	
Ċ	Switch on/off.	
М	Set operating mode.	
DAYOF F	Day off/deletion.	
$\wedge \vee$	Adjust up/down setting.	
Ø	Confirm choice.	
TIMER	Set timer.	
S	Fan step	
¢	Navigate back.	
N	Set swing function.	
FUNC.	Set function.	
COPY	Copy/adopt data.	

Table 28 Keys wired room controllers

Display of the wired room controller Key to figure 4:

- [1] Display of main operating modes
- [2] Display of temperature and status
- [3] Display time
- [4] Timer display

Pos	Symbo I	Explanation
1	Display	of main operating modes
	A	Operating mode: automatic mode
	*	Operating mode: cooling mode
		Operating mode: dehumidification mode
	-ờ-	Operating mode: heating mode
	-☆- - \$ •	Operating mode: Fan Mode
	Ċ	Operating mode: On/Off
2	Display	of temperature and status
	송	Value display: shows the current fan speed. There are several output stages (bars) and the AUTO setting for automatic control
	8.8.8*	Value display: indicates the set temperature as standard.
	ß	Infographic: keylock
	AB	Infographic: appliance 1/2
	60	Infographic: Turbo cool/Turbo heat is active.
	Ð	Infographic: room temperature
	Ĵ	Infographic: automatic rotation is active.
	8	Infographic: Follow me active.
	$\bigcirc \bigcirc$	Infographic: automatic swing function is active (up/down or left/right).
3	Time dis	splay
	8.8.8*	Value display: indicates time.
4	Timer d	isplay
	ON Off	Infographic: timer On/Off
	-	Infographic: weekdays active
	DAY	Infographic: day
	want B	Infographic: week

Table 29Symbols in the display

Setting the day and time 5.2

- Press the **TIMER** key until the timer display starts flashing.
- ► Select the current day with the ∧ and ∨ keys. The selected day flashes.

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- ► Press the **TIMER** or ⊠ key to confirm the entry. The selection jumps to the time.
- ▶ Press or hold the ∧ or ∨ key to set the time.
- $\blacktriangleright \quad \text{Press the TIMER or } \boxdot \text{ key to confirm the entry.}$

To toggle between 12- and 24-hour display:

 Press/keep the TIMER and DAY OFF keys pressed simultaneously for several seconds.

5.3 Setting main operating mode

Depending on the indoor unit and configuration of the wired room controller, not all operating modes may be available.

Turn unit on/off

Press the O key to switch the device on or off: The unit starts in the set operating mode or switches off. To protect the unit it can only be switched back on after some time has passed.

Settings can also be made when the appliance is switched off. The device saves the settings, and also retains them in the event of a power failure.

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After it has been switched off, the unit remains in standby mode. An automatic energy saving mode is enabled in standby mode due to intelligent On/Off technology (1 W standby).

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Following a power failure the unit restarts automatically. This can lead to conflicting readings on the displays which are resolved automatically during operation.

Automatic mode

In automatic mode, the unit switches automatically between heating, cooling, fan and dehumidification mode, depending on the set temperature.

- Press the M key repeatedly until (A) appears on the display.
- ► Press the ∧ or ∨ key to set the required temperature.
- i

The fan speed cannot be adjusted in automatic mode.

Cooling mode

- ▶ Press the **M** key repeatedly until 💥 appears on the display.
- Press the Service key until the required air speed is reached.
- Press the \wedge or \vee key to set the required temperature.

Dehumidification mode

- Press the **M** key repeatedly until \bigcirc appears on the display.
- ▶ Press the ∧ or ∨ key to set the required temperature.



The fan speed cannot be adjusted in dehumidification mode.

Heating mode

- ▶ Press the **M** key until -☆- appears on the display.
- Press the \wedge or \vee key to set the required temperature.
- Press the Se key until the required air speed is reached.



If the outside temperature is very low, the heating capacity of the air conditioning system may not be sufficient. We recommend connecting additional heat sources.

Fan (Only) Mode

- ▶ Press the **M** key repeatedly until 🛞 appears on the display.
- ► Press the ⊰₂ key until the required fan speed is reached. AUTO can be selected to enable automatic control.

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The temperature cannot be adjusted or displayed in fan mode.

5.4 Setting the room temperature

► Press the ∧ or ∨ key to set the desired room temperature. The setting is applied shortly afterwards.



The temperature cannot be adjusted in Fan Mode.

5.5 Setting timer

5.5.1 One-time ON/OFF timer

- Press the TIMER key repeatedly until the corresponding symbol appears.
 - ON timer: ON DAY
 - OFF timer: OFF DAY
 - ON and OFF timer: ON+OFF DAY
- ► Confirm with ☑ key.
 - The clock display starts flashing.
- ► Press the ∧ or ∨ key to set the desired ON/OFF time.
- ▶ Press the ⊠ key again to save the setting.



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The ON/OFF timer cannot be set at a secondary wired room controller.

5.5.2 Weekly ON/OFF timer

Setting timer

- Press the TIMER key until WEEK 1 appears in the display.
- ► Confirm with ⊠ key.
- Press the \wedge or \vee key to select the weekday.
- ► Confirm with ⊠ key.
- ▶ Press the ∧ or ∨ key to set the desired ON time.
- ► Confirm with ⊠ key.
- ► Press the ∧ or ∨ key to set the desired OFF time.
- ► Confirm with ⊠ key.



Up to four times can be set.

Repeat procedure every subsequent day of the week.

To delete the timer for the selected day:

▶ Press the DAY OFF key.

Activating the timer

 Keep pressing the TIMER key until WEEK 1 appears in the display.

The timer is now switched on. The unit is switched on or off at the selected times and days.

Deactivating the timer

 Keep pressing the TIMER key until WEEK 1 disappears in the display.

To switch off the unit when the week timer is active:

- Briefly press ⁽¹⁾ key. The unit switches off until the next ON timer is reached.
- Hold the O key pressed for two seconds to switch off the unit and deactivate the week timer.

Programming the switch-on delay

If week timer 1 is active and the ON time is to be delayed.

- Select week timer 1 with **TIMER** key.
- Press the DAY OFF key 2x until 1h appears on the display.
- Wait for a few seconds while the setting is saved. The unit now starts the next activity cycle following a delay of 1 hour.
- Press the DAY OFF key 3x until 2h appears on the display. The unit now starts the next activity cycle following a delay of 2 hours.

5.5.3 Weekly event timer

Setting timer



Up to 8 events can be set for each day to change the operating mode, temperature and fan speed.

- Keep pressing the TIMER key until WEEK 2 appears in the display.
- ► Confirm with ⊠ key.
- ► Press the ∧ or ∨ key to select the weekday.
- ► Confirm with ⊠ key.
- Press the A or V key to select the setting time, main operating mode, temperature or fan speed for the event.
- ► Confirm with ⊠ key.
- ► Make the setting and press the ⊠ key to confirm or the **DAY OFF** key to delete the setting.
- Repeat the procedure to define additional setting periods for this day.
- Follow the same procedure to program additional weekdays.

To delete the timer for the selected day:

Press the DAY OFF key.

Defining the setting time

- ► Press the ∧ or ∨ key to adjust the time.
- ► Confirm with ☑ key.

Selecting the main operating mode

- Press the ∧ or ∨ key to select the main operating mode (→ Table 29, [1], page 62)).
- ► Confirm with ⊠ key.

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The fan speed cannot be adjusted in automatic and dehumidification mode.

Setting the room temperature

- Press th \wedge or \vee key to set the desired room temperature.
- ► Confirm with ☑ key.

Fan step

- ▶ Press the ∧ or ∨ key to adjust the fan step.
- ► Confirm with ⊠ key.

i

The temperature cannot be adjusted in Fan Mode.



Activating the timer

Press the TIMER key until WEEK 2 appears in the display. The timer is now switched on. The unit will adjust itself automatically on these selected times and days.

Deactivating the timer

▶ Press the 'or **TIMER** key for several seconds.

5.5.4 Additional settings for weekly timer

Provisionally disabling the timer

To disable the timer on selected days only:

- Press the TIMER key until WEEK 1 or WEEK 2 appears in the display.
- ▶ Press the ⊠ key.
- ► Press the ∧ or ∨ key to select the weekday.
- Press the DAY OFF key. The selected day is no longer displayed.

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The timer is deactivated for the days that are not displayed until the day has passed.

- Press the **DAY OFF** key again to display the day once again.
- Repeat the above if necessary for the other days.

Adopting (copying) settings from one day to another day

- Press the TIMER key until WEEK 1 or WEEK 2 appears in the display.
- ▶ Press the ⊠ key.
- Press the A or V key to select the day whose settings should be adopted.
- Press the COPY key to copy the settings. CY appears on the display.
- Press the A or V key to select the day to which the settings should be copied.
- Press the COPY key to insert the copied settings. The selected weekday flashes briefly as confirmation.
- Repeat the above steps if necessary to copy the information to other days.
- ▶ Press the ⊠ key to adopt the changes.

5.6 Setting the swing function

NOTICE

If the louvre remains at the lowest position during cooling mode for an extended period, condensate may be discharged. Adjusting the louvre by hand may cause faults.

 Only use the wired room control or remote control to adjust the louvre.

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The function and availability of the swing function depends on the indoor unit.

5.6.1 Indoor unit with vertical and horizontal swing function

Automatic vertical swing mode (up/down):

- Press the key.
 - The symbol (> appears.
- To cancel the automatic vertical Swing mode: press the key again.

Automatic horizontal swing mode (left/right):

- ► Hold the key pressed until the symbol appears.
- ► To cancel the automatic horizontal Swing mode: press and hold the ∀ key again until the ∧ symbol disappears.

5.6.2 Indoor unit with vertical swing function

Automatic vertical swing mode (up/down):

- ▶ Hold the key pressed until the (> symbol appears.
- To cancel the automatic vertical Swing mode: press and hold the key again until the > symbol disappears.

Manual vertical swing mode (up/down):

Press the ∀ key until the required position is reached. The symbol (> appears.

5.6.3 Indoor unit with four vertical louvres

- Press the key.
 The symbol (> appears.
- ▶ Press the ∨ or ∧ key to select specific louvres:
 - 0: select all louvres.
 - 1...4: select louvre 1...4.
- ▶ Press the ∀key to set the desired position.

5.7 Other functions

5.7.1 Switching the key sound on/off

To switch the the key sound of the wired room controller on or off:

Press and hold the and FUNC. keys for three seconds.

5.7.2 Turbo cool/Turbo heat

When Turbo cool/Turbo heat is active, the indoor unit operates at maximum power to heat or cool the room quickly.

Turbo Cool:

- Switch on cooling mode.
- Press the FUNC. key.
- ► Confirm with ☑ key.

Turbo Heat:

Switch on heating mode.

Maintenance

- ▶ Press the FUNC. key.
- ► Confirm with ⊠ key.

Exiting the function:

- ▶ Press the **FUNC.** key again.
- ► Confirm with ☑ key.

5.7.3 Keylock

The keys of the wired room controller can be locked with the keylock.

To switch the keylock on or off:

active.

5.7.4 Follow me function (Follow Me)

This function activates the temperature sensor of the wired room controller. The room temperature is measured at the position of the wired room controller instead of at the indoor unit.

- Switch off heating or cooling mode if required.
- Press the FUNC. key to switch the function on or off. When the function is active the wired room unit displays the symbol.
- ► Confirm with ⊠ key.

5.7.5 Setting the Rotation and Back-up function



The Rotation function can only be activated if two indoor units are connected to one wired room controller (Twin installation). The Rotation function switches indoor units on or off alternately.

- Press the FUNC. key repeatedly until the Symbol appears.
- ▶ Press the 🗹 key to switch on the Rotation function.
- Press the A or V key to set the period that must elapse (0 99 hours) before the indoor units rotate.
 Default setting: the indoor units rotate every 10 hours.
- ► Confirm with ⊠ key.
- ► Press the ∧ or ∨ key to set the maximum temperature:
 - 26... 32 °C: once the set temperature has been reached, both appliances are switched on in cooling mode. The Rotation function is interrupted until 24 °C has been reached.
 - ---: no maximum temperature to interrupt the Rotation function.
- ► Confirm with ⊠ key.

- ▶ Press the ∧ or ∨ key to adjust the lowest temperature.
 - 5... 15 °C: once the set temperature has been reached, both appliances are switched on in heating mode. The Rotation function is interrupted until 24 °C has been reached.
 - --: no lowest temperature to interrupt the Rotation function.
- ► Confirm with ⊠ key.
- Define which indoor unit switches on first (A or B).
- Confirm with ☑ key. While the Rotation function is active, the indoor units operate alternately, starting with indoor unit A or B.

To change the indoor unit early:

Press the O key.



If an indoor unit drops out, the respective **A/B** symbol flashes in the display. The other indoor unit automatically takes over the operation.

6 Maintenance



Danger due to electric shock or moving parts

- Disconnect the power supply before carrying out any maintenance work.
- Have any maintenance steps that are not listed here carried out by an approved contractor.

6.1 Cleaning

NOTICE

Damage to device due to incorrect cleaning!

- Do not directly splash or pour water onto them.
- Do not use hot water, thinner, abrasive powders or strong solvents.
- Wipe them with a soft cloth.



7 Troubleshooting

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7.1 Faults with indication (Self diagnosis function)

If a fault occurs during operation, a fault code (e.g. EH b3) appears on the display. Refer to the technical documentation of the system components for fault codes not listed here.

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The wired room controller may display a different fault code to the indoor unit, although it is referring to the same fault.

Fault code	Possible cause
EH b3	Communication fault between wired room controller and indoor unit. Check communication cable.

Table 30

8 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.

"European Directive 2012/19/EC on old electronic and electrical appliances". 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/

Batteries

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















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