

INSTALLATION AND OPERATING MANUAL

CRXSL-20

Wireless Controller



WARNINGS

Nortek Global HVAC (UK) Limited equipment must be installed and maintained in accordance with the requirements of the Codes of Practice or rules in force. All external wiring MUST comply with the codes of practice or rules in force in the country of installation.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.

Read instructions before installing or servicing this equipment.

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Warnings

- Do not handle the controller with wet hands
- Do not cover the controller
- Do not use the controller if damaged
- Operating temperature range -10°C to +40°C

Safety and Care

The controller is NOT intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience or knowledge unless they have been given instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the controller.

Introduction



The CRXSL-20 Wireless Controller must be paired to each heater otherwise the heaters will not operate (see below)

The CRXSL controller can control multiple heaters at the same time

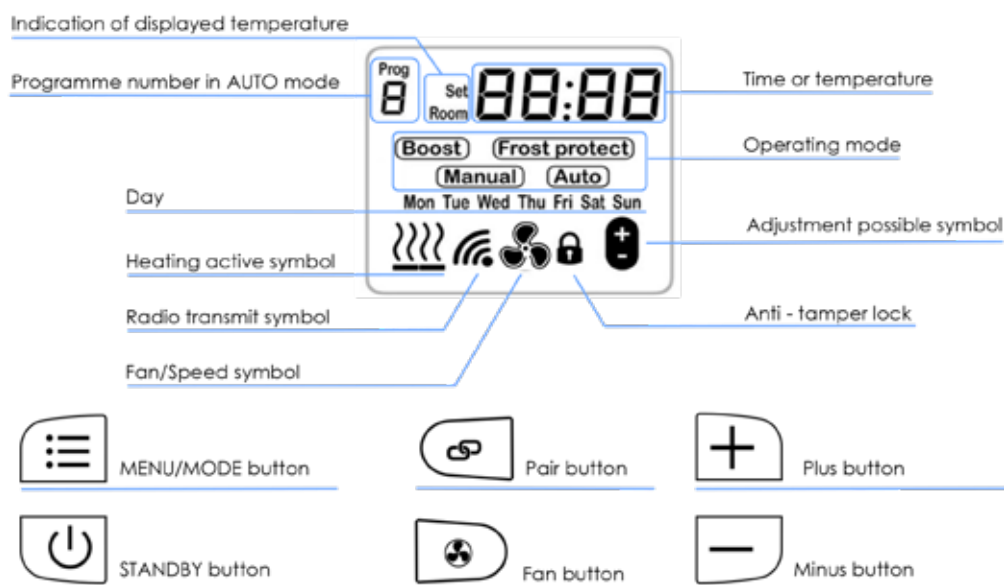


Pairing With Heaters

Pairing must be carried out otherwise the heaters will not work

- Ensure power to the heater is OFF.
- Turn power to the heater ON.
- Ensure the green light at the heater is lit, then within 20 seconds, press and hold the 'PAIR' button on the controller until the display shows 'PAIR'.
- The heating will switch on. If the heating is set to OFF, after 4 seconds, the heating will turn OFF.
- The heating is now ready to be used.

Getting To Know The CRXSL-20 Wireless Controller



Buttons



MENU/MODE Button

Short Press: Cycle through operating modes BOOST, MANUAL, AUTO, FROST

Long Press: Used for advanced programme, setting the time and accessing programming menu



STANDBY Button

Use this button to activate or deactivate the heating



+/- Buttons

These buttons are used to change the set temperature when in normal use or to change value when setting up the controller



FAN Button

Use this button to turn on FAN ONLY mode or change speed



PAIR Button

Use this button to pair the heater to the controller

Electrical Connections

Electrical installation should be carried out by a competent installer in accordance with the latest edition of the IEE Wiring Regulations (BS7671) and any relevant regulations and local authority byelaws.

The CRXSL-20 must be permanently connected to the electricity supply via a double pole switch having a 3mm gap on each pole. There are no exceptions to this.

A switched fused connection unit to BS1363 part 4 is a recommended mains supply connection accessory to ensure compliance with safety requirements applicable to fixed wiring installations.

Installation



The controller must be wall mounted

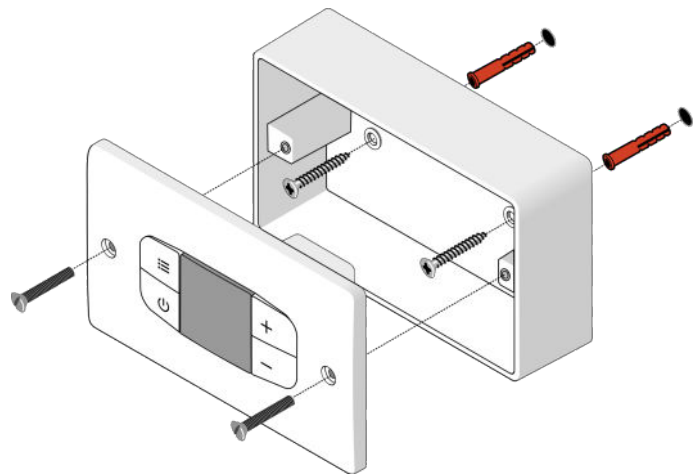


Choosing a position in a room

When installing the CRXSL-20, a suitable position in the room should be chosen. Ideal installation height is 1.2m to 1.6m. Avoid areas with draughts or direct sun. Do not position CRXSL-20 above or close to the heaters or other heat sources. Damp areas or areas where CRXSL-20 can be mechanically damaged should also be avoided. As the CRXSL-20 is measuring room temperature, it must be installed in the same room as the heaters.

Mounting the controller

The CRXSL-20 has been designed to fit any standard two gang back box with a minimum depth of 32mm. Use the supplied screws to secure the controller to the back box. **Avoid over tightening.**



Heating Not Working

- Check that the power is available to the CRXSL-20 and heater.
- Check the LCD display isn't blank and there is a green light on the heater.
- Is the CRXSL-20 paired with the heater?
- Check that the overheating protection on the heater has not operated. Follow the heater's instructions section headed 'Overheating protection'.
- Check that the fuse in the fused connection unit has not blown. This fuse can be replaced.
- Should none of the above remedies work, then please contact Reznor. Do not attempt to repair the heater.

Basic Operation

The CRXSL-20 has 5 standard operating modes:-

- BOOST
- MANUAL
- FROST PROTECT
- AUTO
- FAN ONLY



Each mode can be selected by short presses of the MENU button to cycle through the options. The cycle sequence will always start with BOOST mode followed by MANUAL, FROST PROTECTION and AUTO.



FAN ONLY mode is available when there is no heating demand.



FAN ONLY mode only works with compatible heaters



The CRXSL-20 also has a STANDBY mode. To enter/exit this mode, press the STANDBY button. In STANDBY mode, the heater will not be activated and the display will show time and day.



To adjust temperature in any heating mode, use the PLUS or MINUS buttons.

The CRXSL-20 has a battery backup which will keep the correct time and allows for the change of hour associated with British Summer Time.

The CRXSL-20 will also remember all time schedules and settings even if the power is interrupted.

Boost Mode

The boost feature increases the room temperature for 15 minutes. To amend the set temperature when in BOOST mode, use the + and - buttons to change the temperature. Once the temperature is set, you can leave the display to return to the main screen and the settings will be saved. After 15 minutes, the CRXSL-20 will return to the previous operating mode.



Manual Temperature Mode

In MANUAL mode, the heater maintains a chosen set temperature between 15°C and 35°C. To amend the set temperature when in MANUAL mode, use the + and - buttons. Once the temperature is set, you can leave the display to return to the main screen and the settings will be saved. When the room temperature reaches the set temperature, the heating will be deactivated.



Frost Protection Mode

In FROST PROTECT mode, the heater maintains a chosen set temperature between 4°C and 15°C. To amend the set temperature when in FROST PROTECT mode, use the + and - buttons. Once the temperature is set, you can leave the display to return to the main screen and the settings will be saved.



Auto Control Mode

In this mode, the heater will follow the week's time / temperature program. The temperature can be temporarily overridden in AUTO mode by using the + and - buttons to set the new temperature. The new set temperature will be then maintained until the next program step.



Fan Only Mode

The FAN ONLY mode is only available if there is no demand for heating. You can adjust fan speed by pressing the FAN button.



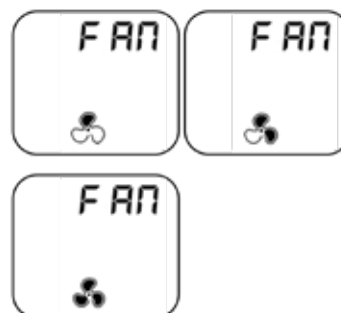
Heat Symbols

Every time there is a demand for heat, the display will show the heat icon. The symbols shown below are used to represent full heat and half heat. The CRXSL-20 will set heating to half heat automatically when the room is almost at the required temperature. This will stop temperature overshooting.

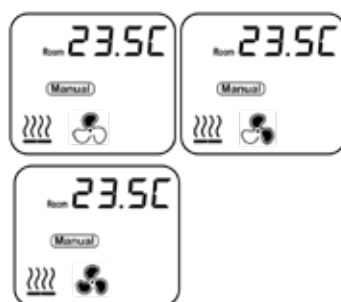


Fan / Speed Symbols

The display will show the fan / speed icon. You can adjust fan speed by pressing the FAN button. The symbols below are used to represent the three fan speeds.

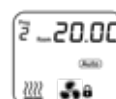


In any heating mode, the display will show the Fan / Speed icon. You can adjust the speed by pressing the FAN button. The symbols below are used to represent the three fan speeds.



Key Locking

Press and hold the + and - buttons together for 5 seconds. The display will show the lock symbol. Repeat the step to unlock.



Setting The Time And Day

The CRXSL-20 is factory set with the correct time and day. It has an internal battery back up that can remember the settings.

It will automatically change the clock to adjust the British summer time. Should you need to alter the time, see "set-up menu" below.

Setup Menu

1. Press and hold 'MENU' and '-' together for 10 seconds
2. The display will enter the setup menu
3. Use '+' and '-' to change a value
4. Use MENU to scroll between the settings
5. Use standby button to exit the setup menu

1 - Temperature Calibration

The temperature reading is factory calibrated but if for any reason it needs adjusting (better accuracy required, to suit particular position in the room etc.), the reading can be recalibrated in 0.5 degree steps.



2 - Celsius / Fahrenheit

Used to switch between Celsius and Fahrenheit



3 - Not Used



4 - Set Minimum Temperature



5 - Set Maximum Temperature



6 - Enable / Disable Open Window Detection



7 - Open Window Detection Time (Minutes)



8 - Temperature Drop In Open Window Detection Time



9 - Closed Window Detection Time (Minutes)



A - Temperature Rise In Closed Window Detection Time



B - Program Mode Select

Choose between a 7-day, 5-day 2-day or a 24 hour timer



C - Select Operating Mode

1 = temperature control



2 = manual control

3 = local temperature control

D - Time and Date Setting

The year is shown first, use + and - to change, then press menu to change date and time.

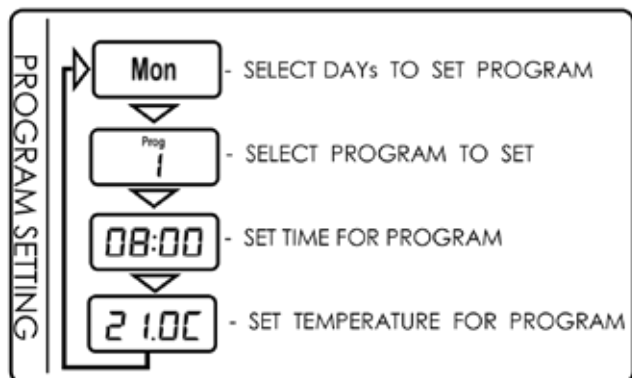
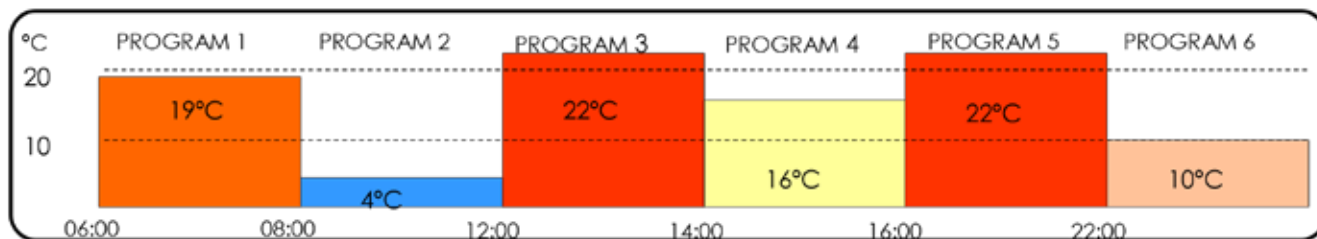


E - Backlight Setting

If this is OFF the backlight will turn off after 15seconds. The display must be activated before using the controls. If this is ON the back light will be permanently on when the heater is active.



Setting The Automatic Program Schedule



The timer is set to 5 days and 2 days by default. This section provides an example of how to set the program for Monday to Friday. The example will program the timer to maintain 21°C from 08:00 until 16:00. It will maintain 4°C from 16:00 onwards. It does this by setting the programs as follows;

Prog 1 - Set to 08:00 and 21°C

Prog 2 - Set to 16:00 and 4°C

Prog 3, 4, 5, 6 - Set to inactive

The steps to program this are shown below.

Step 1 - Heater must be ON. Press and hold the MENU button. Monday to Friday should flash.



Step 2 - Press the MENU button. Prog 1 in the top left of the display will flash. This represents the program number. Each day has 6 programs.



Step 3 - Press the MENU button. The time will flash. Use the + and - buttons to set the time you want the heating to switch on.



Step 4 - Press the MENU button. The temperature should flash. Use the + and - buttons to set the temperature you want to maintain.



Step 5 - Press the MENU button. Monday will flash again.



Step 6 - Press the MENU button. Prog 1 in the top left of the display will flash. Use the + button to increment this to Prog 2. (Note: you can cycle between the different programs using the + and - buttons).



Step 7 - Press the MENU button. The time will flash. Use the + and - buttons to select the time you want the heating to switch off.



Step 8 - Press the MENU button. The temperature will flash. Use the + and - buttons to select a frost protection temperature.



Step 9 - Repeat these steps for programs 3-6 if additional time periods are required. Any programs not being utilised must be deactivated. To do this, simply select the program in question as per step 6 and press the STANDBY button. The time will change to dashes as shown adjacent. To reactivate the program, simply press the STANDBY button again.



Overview Of Auto Mode

The CRXSL-20 has a 7-day, 5-day + 2-day and a 24 hour timer available. These can be chosen in the setup menu. Up to 6 programming steps are available for each day. In the programming you can set a start time and a temperature for each program. To do this, follow the steps opposite.

1. Press and hold MENU for 5 seconds to enter the programme settings.
2. The day will be flashing. Use + and - to navigate day, press MENU to select day.
3. PROG 1 will be flashing. Use + and - to navigate program, use MENU to select program.
4. The time will be flashing. To set time, use + and - , press MENU to set the time.
5. The temperature will be flashing. To set temperature, use + and - to change temperature, press MENU to set temperature.

Setting Program Inactive

If you do not require the use of all 6 programs they can be deactivated. When in programming mode select the program you want to make inactive and press the STANDBY button. To activate the program again, press the STANDBY button.



Copy Day Function

If you require the same set of programs throughout the week, a 24 hour timer is available. This will use the same program every day. A 5-day + 2 -day timer is also available. This will use the same programs Monday-Friday, and separate programs Saturday and Sunday. These modes are enabled in the setup menu, as explained in the "setup menu" section.

When the timer is set in setup menu as 7 day, it is possible to copy a program from one day to another. To do this, follow the steps below:-

Step 1 - Press and hold MENU for 5 seconds to enter the program setting.



Step 2 - Press and hold STANDBY for 5 seconds to enter the copy day setting.



Step 3 - Use the MENU button to select the day to copy the programs from. 1= Monday, 2 = Tuesday and so on.



Step 4 - Use the + and - buttons to select the day to copy the programs to.



Step 5 - Press the STANDBY button to copy the programs. The 'TO' will flash to confirm the programs have been copied.



Local Temperature Control Mode

Local temperature control mode is only compatible with certain heaters. Unlike normal temperature control mode, the temperature measured on the controller does not affect the heater output. Instead, the CRXSL-20 simply sends the target temperature to the heater.

The heater uses this as the set temperature. It uses a local temperature sensor to measure the room temperature at the heater location itself. When the local temperature reaches the set temperature, the heater will switch off.

Refer to section 'set-up menu' for information on how to access local temperature control mode.

Manual Control Mode

Manual control mode allows the heat and fan settings to be selected manually regardless of the room temperature.

To operate manual control mode, activate the display and press the MENU/MODE button. The fan speed can now be set using the + and - buttons. Press the MENU/MODE button again. The heat setting can now be set using the + and - buttons.

Manual control mode has 3 fan speeds and 3 heat settings available. Not all products have multiple fan and heat settings. Please refer to the heater's user manual to check how many heat/fan settings it has available.

Refer to section 'set-up menu' for information on how to access manual control mode.

Open Window Detection

Ensuring you don't waste energy by heating the outside world, the heater is equipped with optional open / closed window detection. The heater recognises sudden drops in temperature when a window or a door is opened and turns the heating off.



When the window is closed, the heater will automatically detect a temperature rise, and switch itself back on. Once enabled in the setup menu, the open window detection is fully automatic and does not require any human intervention to be activated. When open window detection has been triggered, the heat symbol will flash on/off as shown above. The system has been factory set to default time and temperature values. If necessary, all values can be adjusted. When the heating is on, open window detection sensor will automatically switch the heater off when it detects a fall in temperature of 2°C in less than 10 minutes (the temperature can be changed in menu 8 and time in menu 7).

If a temperature rise of 2° C in less than 30 seconds is detected, the heater will switch itself back on (the temperature can be changed in menu A and the time in menu 9).

Temperature Sensor

The CRXSL-20 controller has a built in temperature sensor so the controller will react to the local temperature. If multiple heaters are connected to the controller, they will all be controlled to suit the temperature local to the controller. In the event of a temperature sensor reading fault, the controller will display either ERR2 or ERR 3.

Notes

Revision History				
Revision	Date	Author	Summary	Approved
0	07.09.2026	K D Harper	Creation of document	R Walsh
1				



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