

CRXSL-05 Single Zone Wireless Controller Installation and User Guide

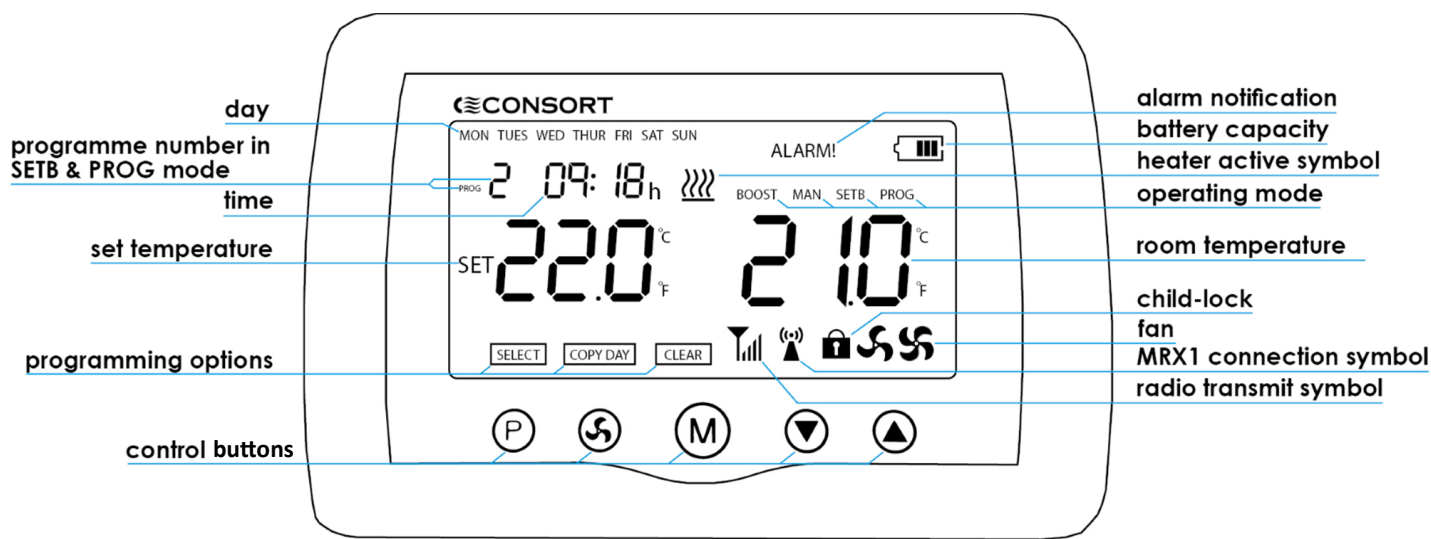
1. Introduction

The CRXSL Wireless Controller can control any 'RX' or 'SL' heater, including multiple products at the same time.

The CRXSL must be paired to each heater, otherwise the heaters **will not work** (see section 3).

For options for powering the CRXSL see section 18.

2. Getting to know your CRXSL wireless controller



The control buttons perform the following basic functions:

- Decrease / Increase value: by default this adjusts the set temperature. When the set temperature is adjusted above the measured room temperature, the heater active symbol is shown and any paired heaters are switched on.
- Mode: cycle through operating modes Boost, Manual, Setback and Program (see sections 6-9). By default Setback mode is disabled (see section 8).
- Fan: cycle through fan speed settings (for fan heaters only). No fan symbol shown means low speed, one fan symbol is medium speed, two fan symbols is high speed. Pressing fan when heating is inactive will activate fan only mode (for compatible fan heaters). In fan only mode, FAN is shown on the display. Exit fan only mode by cycling through the fan speed settings until FAN is not shown.
- Programme: used for advancing programme, setting the time and accessing programming menu.

Important display icons:

- Heat icon: this is displayed when the heating is active. RX heaters will operate at reduced heat output when close to the set temperature, and half the icon is shown:
- Lock symbol: this is displayed when the CRXSL controls are locked. Hold and together for 5 seconds to unlock or lock the controls.

ALARM! Flashes to indicate an error in the programme setup, e.g. the time for programme 2 is set earlier than the time for programme 1.

3. Pairing CRXSL with heaters

This must be done, otherwise the heaters will not work.

Power up the CRXSL (see section 'Power options' for details). There are 2 different sequences used for pairing. The sequence used will depend on the heater.

To find out which sequence to use, check the heater rating label and identify the model number.

If the heater is 'RX' and the last two digits are lower than 10 use sequence 1.

If the heater is 'RX' and the last two digits are 10 or higher use sequence 2.

If the heater is 'SL' use sequence 2.

If the rating label is not visible, follow the steps below:

Ensure the heater is switched OFF.

Switch the heater ON and observe the LED status light.

If the LED flashes red then goes green use sequence 1.

If the LED is solid green use sequence 2.

Sequence 1

Set heater into pairing mode as follows:

1. Locate the heater LED status light.
2. Turn power to the heater ON. Count 4 seconds, or count 5 red flashes of the status light on the heater. Turn power OFF.
3. Turn power back ON. The heater status light should be flashing green.
(If the light is not flashing green, the 4 second timing was incorrect. Repeat step 1.)
4. The heater is now ready for pairing with CRXSL.

The next 3 steps must be done within 30 seconds. After 30 seconds the heater will return to normal operating mode.

Set the CRXSL into pairing mode as follows:

1. press and hold (P) and (M) buttons together for 5 seconds.
2. The display will show CRXSL identification code.
3. press the (P) button while the light on the heater is flashing green.

If the pairing was successful, the light will stop flashing and the heater is paired with CRXSL.

Sequence 2

Set heater into pairing mode as follows:

1. Locate the heater status light.
2. Turn power to the heater ON. The light should be solid green.

The next step must be done within 20 seconds. After 20 seconds, the heater will return to normal operating mode.

Set the CRXSL into pairing mode as follows:

1. press and hold (P) and (M) buttons together for 5 seconds.
2. The display will show CRXSL identification code.
3. press the (P) button and the CRXSL will show "pair".

3. Pairing CRXSL with heaters (cont'd)

If the pairing was successful, the light will show red and the heat output will switch on and stay on if the CRXSL is signalling the heat output to be on.

If the CRXSL is signalling the heat output to be off, the heat output will only switch on for a short period of time to show pairing was successful.

4. Time and day setting

1. To set the time and day the CRXSL has to be in MANUAL, BOOST or SETBACK mode.
2. Press and hold (P) for 5 seconds.
3. The display changes to show the currently set day and the time, with the minutes flashing.
4. Use (▼) or (▲) to set the minutes.
5. Press (P) to switch to setting the hours.
6. Use (▼) or (▲) to set hours.
7. Press (P) to switch to setting the day.
8. Use (▼) or (▲) to select day.
9. Press (P) to save and exit time and day setting.

5. Disable

To quickly switch off the heaters and disable the operation of the CRXSL until it is re-enabled, press and hold (M) for 2 seconds.

When disabled, the day and time will be displayed.

Press (M) to re-enable the CRXSL.

6. MAN - Manual mode

In manual mode, the set temperature and fan speed can be set and will remain unchanged.

7. BOOST - Boost mode

Boost mode is used to temporarily boost the set temperature and/or the fan speed.

After entering Boost mode, use (▼) and (▲) as normal to set the temperature and (S) to set the fan speed.

The timer defaults to 15 minutes. Press (P) to adjust the boost time in 15 minute increments up to a maximum of 4 hours.

When the timer finishes, the CRXSL goes back to the previous mode.

8. SETB - Setback mode

Setback mode can be used for frost protection, situations where a minimum room temperature must be maintained, or to disable the heating completely.

To disable heating lower the temperature to below 4°C and the screen will show '- - -' The heating is now disabled.

Setback mode is disabled by default. To enable, a setting in the setup menu needs to be changed (see section 23). Setting 06 should be changed to 1.

9. PROG - Automatic time mode

In this mode, the CRXSL will follow the week's time / temperature programme.

You can override the temperature in **PROG** mode by simply activating the CRXSL and using the \blacktriangledown or \blacktriangle buttons to set the new temperature. The new set temperature will be then maintained until the next programme step.

Press P to **ADVANCE** to next programme number, press again to go back.

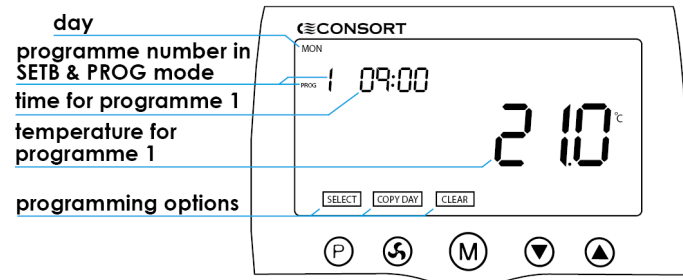
Programme time format defaults to weekday/weekend setting.

This lets you set a programme of up to 6 programming steps which will operate on Monday, Tuesday, Wednesday, Thursday and Friday, and another programme of up to 6 programming steps which will operate on Saturday and Sunday.

Programme time format can also be set to 7 day format for full control of programmes on every day, or 24 hour format to use the same programme every day.

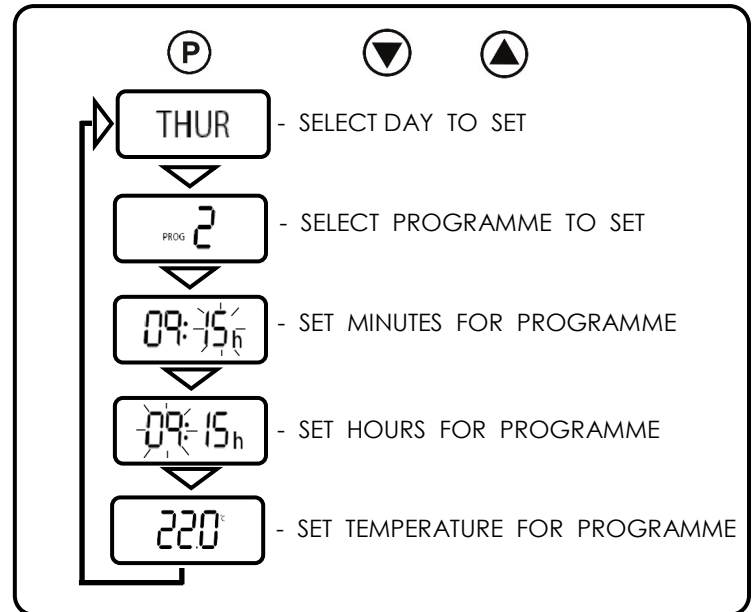
This can be adjusted in the setup menu (see section 23). Setting 13 can be toggled between 5d2, 7d or 24h.

10. Set programme



- To set up the heating programme the CRXSL has to be in PROG mode.
- Press and hold P for 5 seconds.
Programme mode is now displayed, with the displayed day/days flashing.
- Press \blacktriangledown or \blacktriangle to select the day (in 7 day mode) or group of days (in other modes) you want to set.
- Press P to confirm day.
The programme number is now shown flashing.
- Press \blacktriangledown or \blacktriangle to select programme step number.
- Press M to enable/disable selected program.
- Press P to confirm programme number.
The minute display is now shown flashing.
- Press \blacktriangledown or \blacktriangle to set minutes in 15 minute increments.
- Press P to confirm minutes.
The hour display is now shown flashing.
- Press \blacktriangledown or \blacktriangle to set hour.
- Press P to confirm hours.
The programme temperature is now shown flashing.
- Press \blacktriangledown or \blacktriangle to set temperature.
- Press P to confirm temperature.
This programme is now set
The day/days is shown flashing ready for the next programme.
- Wait 20 seconds to automatically exit programming

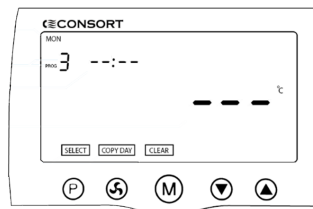
Logic diagram for setting programme on CRXSL



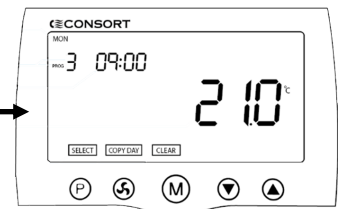
11. Set programme active / inactive

In programming mode, select the programme you want to make active or inactive. Press M to toggle between settings.

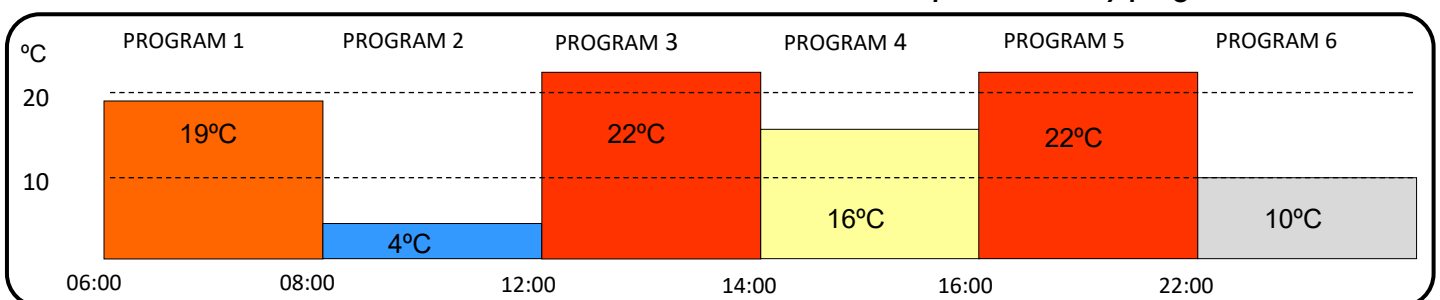
E.g. Programme 3 inactive



Programme 3 active



An example of one day programme on CRXSL



12. Copy day function

The CRXSL allows you to copy a day's heating programme to save time re-entering the same time and temperature settings for each day.

This function is only available when in 7 day mode.

1. To use the copy day function, enter the programming mode.
2. Press **(S)** to activate the COPY DAY function.
3. Press **(P)** to select the day you want to copy the temperature settings from.
4. Press **(V)** or **(A)** to select the day you want to copy the temperature settings to.
5. Press **(S)** to confirm the selection.
The 'to' word will flash to indicate that the day programme has been copied to the day selected.
6. Press **(M)** to go back to the Programme mode.








13. Fan speed settings (Selected fan heaters only)

Each operating mode MANUAL, BOOST, SETBACK and PROGRAM remembers its own fan speed setting. This speed setting is used whenever the heating is active in that mode.

The default fan speed is medium speed for MANUAL, SETBACK and PROGRAM modes, and high speed for BOOST.

To adjust the fan speed setting, press **(S)** when heating is active to cycle through fan speeds. For the purposes of setting the fan speed, the heating can be made active by temporarily increasing the set temperature.

14. Status light on the heater

Light colour	Heater status
 OR 	Heater is in stand-by mode/ not receiving signal from CRXSL.
	Reduced heat output (RX only)
	Full power heat output
 OR 	Heater is ready for pairing with CRXSL see section 3 "Pairing" for details.
	FAULT - Overheating (RX only)

15. RXREC compatibility mode

If the CRXSL is used with an RXREC, compatibility mode should be used. To enable, a setting in the setup menu needs to be changed (see section 23).

Setting 14 should be changed to 1 to enable.

16. MRX1 Multizone controller

The CRXSL controller is compatible with the MRX1 Multizone controller. Please refer to the instructions of the MRX1 when connecting the CRXSL controller to the MRX1.

17. Choosing a position in a room

The CRXSL should be fixed to the wall or used with the table top stand. Avoid areas with draught or direct sun. Do not position CRXSL above or close to the heaters or other heat sources. Damp areas or areas where CRXSL can be mechanically damaged should also be avoided.

18. Power options

Please note that the controller screen will take up to one minute to display after powering up for the FIRST time.

The CRXSL controller can be powered either by a 5V power adapter with a micro USB connector, supplied power adapter via USB port or 4 AAA batteries. There are 2 available USB ports for power. One port is located on the bottom and one at the back of the controller.

The display will show the battery status only when the CRXSL is powered by batteries alone.



19. Batteries

Remove the CRXSL's battery cover and insert 4 new high quality alkaline AAA batteries.

Warning: Consort is not responsible for damage due to corrosion. Battery leakage will cause permanent damage.

To help avoid battery leak:

- Replace the batteries annually, even if there is not a low battery warning. Remove failing or flat batteries immediately.
- Always fit new high quality alkaline batteries from the same pack. Never mix new and old batteries, or batteries of different brands or types.
- Never attempt to revive alkaline batteries by heating, crushing or recharging.

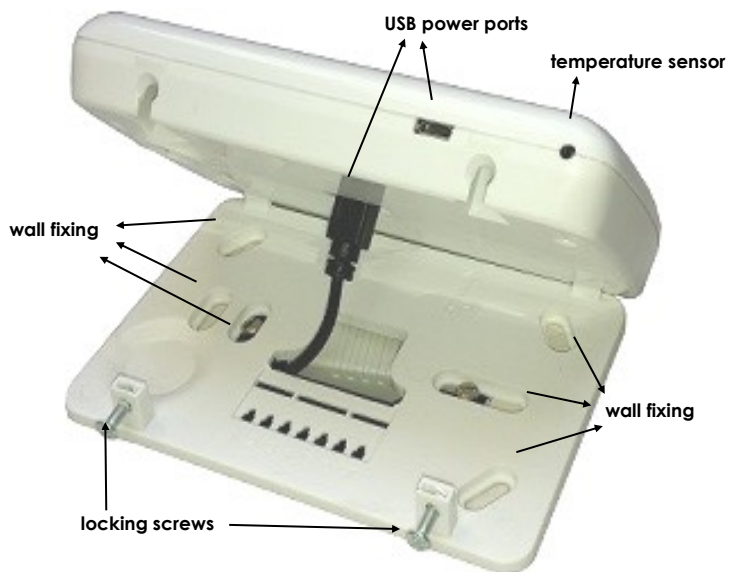
Note: The clock has to be set after replacing the batteries, or if the USB power cable has been disconnected from the CRXSL or power to the power adapter switched off. This does not apply if it is being used with the MRX1 Multizone controller. If the CRXSL is powered by the power adapter, 2 AAA batteries can be used to supply power in the event of a power cut in order to keep the clock running. The batteries should be replaced annually.

20. Power adapter for fixed installation

The CRXSL controller is supplied with a power adapter that will fit a 35mm or a 25mm metal or dry lining back box. The power adapter should only be connected to a wiring protected by a 6A fuse or 6A circuit breaker. Connect line and neutral conductors to the terminal block. Please note that the adaptor supplied with the controller must be installed exactly as the figures show, otherwise the USB connector will not fit correctly. The centre of the back box must be kept clear to allow room for the USB connector.



When fitting the wall bracket, ensure that the adaptor is installed properly and feed the cable through the centre of the bracket. Screw the bracket to a back box taking care not to damage the power adaptor or leads with long screws. Connect the USB cable into the power port at back of the controller as shown on the photo. Check that the CRXSL is working. Attach top of the CRXSL to the wall bracket and slowly tilt it to place observing that the USB connector is moving in to the opening freely. Once the controller is in place secure the two screws on the bottom of the controller.



When the unit is powered by the power adapter, the temperature reading should be calibrated 1.5°C / 3°F lower.

To do this a setting in the setup menu needs to be changed (see section 21).

Setting 01 should be changed to -1.5°C.

21. Open Window Detection

To ensure you don't waste energy on heating the outside world, the heater is equipped with an 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 to save energy. 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.

Setting-up Open Window Detection

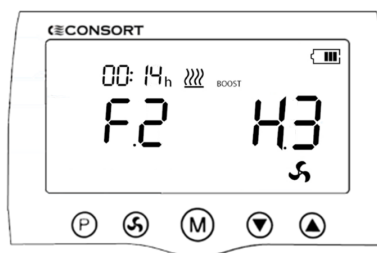
The system has been factory set to default time and temperature values. When the heating is on, open window detection sensor will automatically switch the heater off when it detects a fall in temperature of 2°C in less than 10 minutes. If a temperature rise of 2°C in less than 30 seconds is detected, the heater will switch itself back on. These values can be adjusted in the setup menu, detailed in section 23.

Settings 07-11 control open window detection.

22. Manual Control Mode (Selected heaters only)

The CRXSL can also operate in Manual Control Mode.

In this mode, heat and fan settings can be manually set, and the room temperature is not used to switch the heaters.



The fan speed F0, F1, F2 or F3 is displayed on the left side of the display. Press (S) to cycle through the fan settings.

The heat setting H0, H1, H2 or H3 is displayed on the right side of the display. Press (▼) or (▲) to adjust the heat setting.







In Manual Control Mode, many of the functions of the CRXSL are very similar to automatic mode, except that the fan and heat settings are adjusted instead of the set temperature:

- Boost mode can be used to temporarily override the heat and fan settings.
- Programmes can be set up with up with the same flexibility as in automatic mode.
- Manual mode can be used to run the heaters continuously in one heat and fan setting.

Manual Control Mode is accessed by changing a setting in the setup menu (see section 23).

Setting 06 should be changed to 2.

23. Setup menu

1. To access the setup menu, press and hold  and  together for 5 seconds.
In the menu, settings are numbered 1 to 14. This setting number is displayed on the left and the value of the setting is displayed on the right.
2. Use  to go to the next setting.
3. Use  and  to change the value.
4. Press  to save and exit setup.

01 - temperature calibration

The temperature reading has been factory calibrated but if for any reason it needs adjusting (power adapter compensation, better accuracy required, to suit different position in the room etc.) the reading can be recalibrated in 0.5 degrees steps.

02 - change between degrees Celsius or Fahrenheit.

03 - set minimum temperature

(- - = heating OFF, 4°C = frost protection)

04 - set maximum temperature

05 - information about the software version

06 - 0 = Simplified automatic mode (factory default)

1 = Automatic mode

2 = Manual control mode

07 - open window detection 0 = off, 1 = on

08 - 600 - open window detection time 600 seconds

09 - 2°C - temperature drop of 2°C in the detection time

10 - 30 - closed window detection time of 30 seconds

11 - 2°C - temperature rise of 2°C in the detection time

12 - Reset: Press and wait 10 seconds for full reset to factory settings

13 - Programme time setting

5d2 = weekday and weekend settings

24h = every day uses same programme

7d = 7 unique day settings

14 - RXREC compatibility mode 0 = off, 1 = on

24. Simplified Automatic Mode

As shown on the setup menu in the previous section, the CRXSL has two different automatic modes. These are simplified automatic mode and automatic mode.

In automatic mode, all information can be seen at all times. This information includes the room temperature, target temperature, the time, day, operating mode etc.

Having all this information available is useful, however it can be overwhelming. This is what simplified mode is for. In simplified mode, the CRXSL will only display information essential to the usage of the controller.

By default, the CRXSL will be in simplified automatic mode.

Customer Helpline

The CRXSL is guaranteed for one year against faulty material or workmanship. This applies only if the appliance has been used for purposes in accordance with the instructions provided and has not been misused, neglected, damaged, modified or repaired by any person not authorised by us. This guarantee is offered to you as an extra benefit and does not affect your legal rights.

Reasonable care has been taken to ensure that this guide is accurate at the time of printing. In the interest of progress, the Company reserve the right to vary specifications from time to time without notice.

Should you need any advice on the use of you new Consort product please contact our Helpline:

Consort Equipment Products Limited

Thornton Industrial Estate, Milford Haven, Pembrokeshire, SA73 2RT

Tel: 01646 692172 | Fax: 01646 695195

Email: technical@consortepl.com | Web: www.consortepl.com

Operation hours: Mon to Thu 8.30am to 4.30pm | Fri 8.30am to 3.30pm

BS EN ISO 9001 Registered Company No FM12671