

NOTE: Installation of Sunflow heaters will normally be carried out by our own teams. It is a regulatory requirement that certain electrical works are carried out and certified only by registered competent persons. This procedure, and these instructions, are only intended for competent persons.

Please see the Guarantee booklet for safety notices. Most importantly: **do not cover the heaters.**

General notes – applying to all Sunflow heaters

Please read the section in full before beginning the installation.

CLEARANCE: There should be at least 100mm from the top of any heater to the bottom of curtains. There should be at least 200mm from the top of the heater to shelves which overhang the heater.

VISIBILITY: There must be at least 100mm clearance to each side of the heater in order that the 'Do not cover' label on the lid, the identification label at the base near the cable outlet, the LED and any heater-mounted controls are visible to the user once the heater is installed. This is a regulatory requirement.

Wall mounting

Please read the section in full before beginning the installation.

IMPORTANT: It is your responsibility to be sure, before you drill any holes and mount the heaters, that the wall can take the weight and that you have the appropriate fixings for that wall. Sunflow Classic heaters weigh between 19 and 78 kilograms. Due to the weight, installation of our heaters normally requires 2 people.

ELECTRICAL:

- It is important to consider and avoid existing wiring when screwing into walls.
- Heaters must not be installed immediately above or below existing sockets or light switches.
- If a heater is to be hardwired rather than plugged into a 3-pin socket, a double-pole disconnection device must be incorporated in the fixed wiring, in accordance with the wiring regulations.
- Cables on hardwired heaters should be a minimum of 300mm in length.
- Heaters with a power rating over 2000 watts must be hardwired.
- Non-IPX4 heaters are to be installed such that controls cannot be touched by a person in the bath/shower.
- Sunflow policy is to specify IPX4 units for bathrooms regardless of zone; note that the wireless CZC1 controller is not IPX4-compliant.

Typical tools for install: Drill with masonry and wood bits. Mole grips or spanner (to reach DIN 7504 K bolts to rear of heater). Two brackets, two bottom hooks, two top hooks (in box with heater). M6 coach bolts, with spanner or hex-head drill-driver to match, plus wallplugs (for solid walls); suitable alternative fixing for hollow walls. Short scaffolder's (magnetic) spirit level. Selection of larger spirit levels. A second pair of hands for steps four & five.

Step One: Having determined the location of the heater, use the wall brackets as templates to determine where to drill your four holes.

Standard procedure is that the uppermost drill hole on the bracket should be 660mm above the floor, for standard IVC heaters. (1260mm up for 1200mm-high IVT heaters; 440mm up for 380mm-high IVB heaters). This can be varied for aesthetic reasons but should always leave room under the heater for cleaning / air circulation.

Brackets should a) be vertical; b) be centred 85mm in from the edge of the heater:

- For heaters 370mm wide, bracket centres / drill holes should be **200mm** apart
 - For heaters 670mm wide, bracket centres / drill holes should be **500mm** apart
 - For heaters 970mm wide, bracket centres / drill holes should be **800mm** apart
 - For heaters 1270mm wide, bracket centres / drill holes should be **1100mm** apart
- You can reduce this separation if required, for example to fix brackets into studs within a hollow wall, but always use a **multiple of 20mm**.
 - There are four holes in each bracket. You should use at least one of each pair (top and bottom).
 - Be sure the lowest drill hole is above any damp-proof course.

Step Two: Secure the brackets vertically using the correct fittings. Use a scaffolder's level to ensure each bracket is vertical. Use a long level to ensure the tops of the brackets are the same height.

- If mounting on a hollow wall, in addition to using hollow-wall fixings you may use the spare holes in the brackets for additional fixings, making a stronger anchor.
- Ideally at least one bracket on a hollow wall should be secured to a joist, even if this means reducing the separation between the brackets (if reducing, always use a **multiple of 20mm**).

Step Three: Put the bottom hooks (larger) in the lower slots of the brackets. Keep the top hooks (wider) to hand.

Step Four: Remove the lid from the heater by unfastening the hex-headed fixings on the rear of the lid.

Step Five: *You may need two people for this step.* Lift the heater onto the bottom hooks. The hook should fit between two of the flutes; the flat section of the hook takes the weight of the central heater core; the small uptick of the hook should sit inside a flute at the front (may require some swivelling; not essential, but looks better).

Step Six: *You may need two people for this step.* Keeping the heater supported, fit the top hooks upside-down into the upper slots. Push the heater vertical. Drop the hooks down. The top hooks should be perpendicular to the wall and not tucked into a flute (the lid fits better this way). Replace the lid, with fixing holes to the rear, and secure lid in place with spanner, mole grips or similar.

Step Six: Secure the cable using cable clips or appropriate trunking.

- The cable for hardwired heaters should be at least 300mm in length, to facilitate easy removal for redecoration without having to disconnect the heater.
- The plastic used for the cables is temperature-resistant. It can be rested on the hooks behind the heater.

Next, turn the power on, then see the relevant "setup on installation" section below for the controls on this heater. See the Instructions for full details on controls.

Fitting feet or castors

Please read the section in full before beginning the fitting.

Mobile units **must not** be used in the immediate surroundings of a bath, shower or swimming pool.

Mobile units **must not** be hardwired. Feet are permissible where the condition of the wall precludes wall-mounting, but units with castors must always use the supplied plug.

Feet / castors are equipped with upright pegs, which slide inside the flutes at the bottom of the heater. Which set of flutes to use depends on the size of the heater. Only flute combinations which maintain the safe usage (stability) of the heater are permitted:


- For heaters 370mm wide, use the **second** set of flutes in from the edge of the side panel
- For heaters 670mm wide, use the **third** set of flutes in from the edge of the side panel
- For heaters 970mm wide, use the **sixth** set of flutes in from the edge of the side panel
- For heaters 1270mm wide, use the **eighth** set of flutes in from the edge of the side panel

Next, turn the power on, then see the relevant “setup on installation” section below for the controls on this heater. See the Instructions for full details on controls.

Manual controls – setup on installation

These controls are built into one side panel of the heater. The only “installation” task required is to set the mechanical clock to the current time. This is achieved by turning the outer ring of the timer clockwise, until the arrowhead on the upper-right of the central section is pointing to the current time in the outer ring.

The pin ring will rotate, keeping to the correct time, so long as there is power to the heater.

To test functionality, turn the override switch in the central section to **1** and turn the thermostat dial up and down. The light on the heater should change colour from green to red as the target temperature passes the actual temperature. The thermistor (temperature sensor) is located at the bottom of the heater, next to the cable outlet. The dot above the thermostat dial indicates the setting. Turn the override switch back to  after the test.

More guidance on setting the timer can be found in the document “Instructions: Manual controls”.

Digital controls – setup on installation

The controls are held in the six-button CZC1 controller which talks to the heater by radio. The thermistor (temperature sensor) is in the controller itself.

Location: Controllers can either be rested on stands or wall-mounted using two screws and the plate at the rear. Put the controller in a part of the room that is used regularly.

Pairing the heater and controller: The controller is preset to a certain radio channel at the factory. To link it to a heater or heaters, both heater and controller must be put into **learning mode**.

- 1) Switch the radiator off at the mains (plug/hardwire point).
- 2) Switch it on again and count three seconds.
- 3) Switch it off again.
- 4) Switch it back on; the radiator will now be in learning mode.
The LED on the side of the heater will blink green to confirm this.

You now have thirty seconds to put the controller in learning mode:

- 5) Remove the wall-mounting plate from the back of the controller by sliding it downwards and pulling it out.
- 6) This will reveal a seventh button. Press this button to put the controller in learning mode.

The controller should now pair to the heater. The LED on the heater will stop flashing to confirm this.

TIP: If you have a large space with two or more heaters, needing to be paired to a single controller, you can pair them one at a time. Re-entering learning mode will not wipe the link to earlier heaters.

Setting the time and day: The controller shows the current day and time on the left of the screen, just under the programme number. You'll see that the first and second buttons below the screen have "Clock" written above.

- 1) Press buttons **1** & **2** together to enter Clock mode.
The menu above the four buttons changes to 'Select' over button 1 and 'OK' over button 3. The screen will show settings which can be changed. The currently-selected setting will flash.
- 2) Press **Select** (button 1) until the day is flashing.
- 3) Press **UP** and **DOWN** to change this setting so it shows the current day.
- 4) Press **Select** once, then press **UP** and **DOWN** to choose between 12-hour and 24-hour clock.
- 5) Press **Select** once, then press **UP** and **DOWN** until the 'hours' portion of the clock is correct.
- 6) Press **Select** once, then press **UP** and **DOWN** until the 'minutes' portion of the clock is correct.
*If you need to change any of these settings you can press **Select** to cycle through them again.*
- 7) Press **OK** (button 3) once. This confirm your changes, saves them and returns you to the main screen.

Guidance on programming the controller can be found in the document "Instructions: Digital controls".

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