



INSTRUCTIONS

FOR INSTALLING AND USING

the UFH-SL11 small area floor heating control

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UFH-SL11 installation instructions

General

The UFH-SL11 under floor heating control is ideal for warm water heating of small areas and extensions up to 30 sq.metres.

A solid floor (screed) is recommended but the valve temperature can be adjusted to suit other floor coverings. The valve can be used in conservatories, but with high heat loss during cold weather and limited solar gain, additional heating may be required to achieve the same comfort levels as within an internal room with brick walls.

The control is a compact pre-assembled and pre-wired module designed for ease of installation.

It comprises:

- Integral flow and return ball valves
- Integral thermostat to sense primary circuit is on - allowing auto start/stop of the pump
- 3 speed 6 metre head pump
- Thermostatic blending valve with 30 - 60°C adjustable temperature control. Factory set at 43°C.
- Anti-vibration rubber mounts for silent operation
- Ready to connect to fused mains spur or electric control circuit

Before installation please note the following:

- When adding to existing heating system it is important to check that the boiler can provide up to 3kW extra heat load and is also compatible with the additional pump.
- Ideally, the primary flow and return connections should be made close to the boiler or a convenient location that will not starve flow to existing radiators.
- All new pipe work should be thoroughly flushed of debris and flux before final connection to the control.

Installation:

1. The UFH-SL11 control can be located in the room to be heated or in adjacent area and must be on a vertical wall or surface ensuring that the pump axis is horizontal.
2. The control can be rotated to pump horizontal or down depending on site constraints but as a guide 250-300mm should be allowed from finished floor level to allow for pipe connections.
3. With the above in mind, position the control to the mounting surface and mark the drill fixing points through the back plate fixing holes.
4. Drill and plug (if solid) the mounting surface and fit the control with appropriate fasteners.



UFH-SL11
single loop pump mixer Set

5. Assemble with best practice, G 1/2" male heating pipe connectors (not supplied) suited to the heating pipe installed in the floor, to the pump outlet and return female threaded connectors on the control.

Note 1: If the control is fitted at pre screed stage the heating pipes can be filled, vented and pressurised (recommended) by the temporary connection of a mains water hose pipe to the red lever ball valve and a short discharge pipe to the blue lever ball valve.

Method Tip: Open red lever ball valve full then open blue lever ball valve slowly and discharge into bucket or to drain. When water flows freely without air splutter, close blue lever ball valve and allow pressure to stabilise at mains pressure then close red lever ball valve. Check for leaks at heating pipe connections, mixing valve connections and pump unions. The system can be left pressurised for the screed process, but after disconnecting the hose pipes the 15mm compression sockets should be plugged off with appropriate blank plugs. Prior to connecting the control to the primary circuit the heating circuit must be depressurised.

6. If Note 1 does not apply continue with connection of the primary circuit
7. It is preferred to connect the control to the main distribution pipes of the primary (boiler) circuit or at the most convenient point that will not starve existing radiators of flow.
8. Flush any new pipe work connecting to an existing or older radiator system clear of detritus before final connection to the controls flow and return ball valves.
9. Install drain points and vent on primary flow if necessary then connect the primary flow and return via 15mm compression connections on the ball valves. The Red lever is the flow connection.
10. Electrical connection. Connect wiring for room thermostat and mains supply in accordance with the wiring options shown in the diagrams under Guidance notes for Electrical Connection

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11. Filling /venting. Because the primary system has been drained it will be necessary to refill the primary circuit and the underfloor heating circuit. This should be done slowly via the boiler filling loop using best practice and taking note that the new underfloor heating circuit must be free of air to function correctly.

12. Open the ball valves to the control and fill the whole system as described earlier, venting at the lowest point first. This may be the pump vent screw on the control or adjacent vent if installed per 9 above.

Commissioning:

13. Please note that screed floors should be allowed to dry naturally and that the floor heating circuit should not be used to speed up the process.

14. Ensure that the primary and floor heating circuit are at system design pressure and fully vented and that all electric connections are complete.

15. Turn on the power ensure that any time controls and room thermostats are in demand status.

Sequence of Operation:

- Heating water from the existing pumped system will migrate through the UFH-SL11 control as the thermostatic valve being preset to blend at 43-45°C will be open for hot water.
- The internal thermostat senses that the primary circuit is on and when the circulating water is around 40-43°C and sends a live voltage via the room thermostat to switch on the UFH-SL11 pump.
- The pump set at speed 1 draws heating water through the thermostatic blending valve, which then maintains the floor heating water temperature at the preset temperature.
Note that the temperature setting can be adjusted to suit different floor structures and coverings and room heat loss. REFER to Section on Thermostatic Valve Setting.
- As the room reaches the desired temperature, the room thermostat will break live feed and stop the UFH-SL11 pump.
- When the boiler circuit shuts down under time control and the primary flow cools, the internal thermostat will switch off the UFH-SL11 pump.

16. After confirming that that all functions correctly, reset all time and temperature controls to normal operating mode.

Thermostatic Valve Setting:

17. The valve is factory preset at 43°C. Typical for screed floors is 43- 50°C depending on heat loss of structure eg high end for conservatories.

18. For suspended and timber flooring the valve will require setting around 58°C

Adjusting the temperature setting

IMPORTANT: If altering the factory setting of this valve, care must be taken to prevent excessive temperature being discharged into the under floor heating circuit

1. Install on the outlet of the valve a suitable temperature measurement device to read the mixed water temperature from the valve
2. Remove the protective tap
3. Using a suitable sized spanner, rotate the temperature adjustment in a clockwise direction to increase and anticlockwise to decrease the mixed water temperature.
4. Once the required temperature is reached, replace the cap onto the head of the mixing valve.

Guidance Notes for Electrical connection:

19 All wiring should be undertaken by a qualified electrician and conform to current IEE Regulations. To comply with regulations the pump on the UFH-SL11 is earthed via the connection box on the control unit.

20 See Fig 1 for wiring guidance with time zone under primary circuit control and room temperature via volt free room thermostat.

