

TEVO

WIRELESS

WIRING CENTRE



INSTALLATION & USER MANUAL

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DESCRIPTION



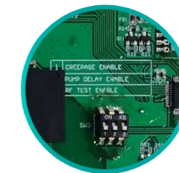
Pump exercise function to prevent pump blocking issues.



LED indicators for quick system status checks.



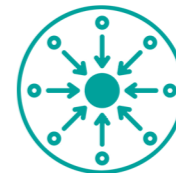
Optional pump delay function to delay the pump activation during loop opening.



Commissioning switches for engineer testing.



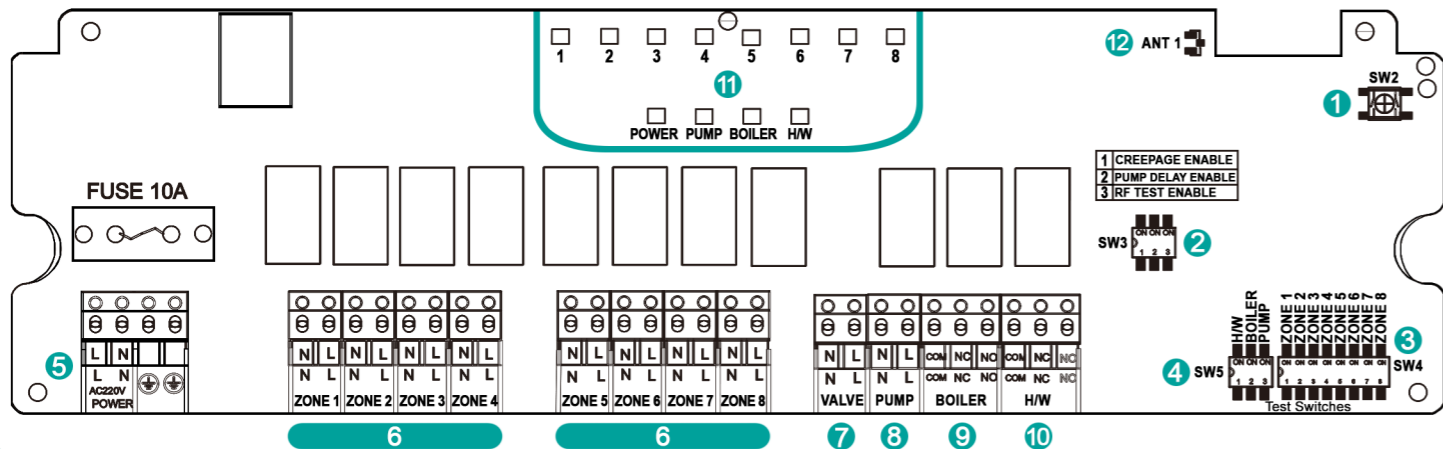
Independent control outputs for hot water and radiator zone valve.



Central control point for multi-purpose systems.

SYSTEM COMPONENTS AND TECHNICAL DATA

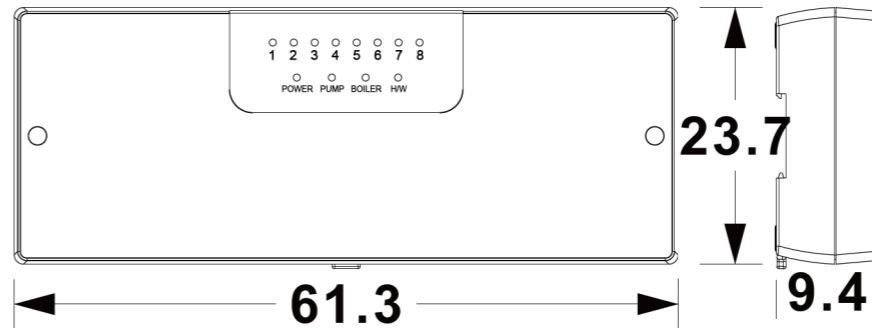
- ❶ Switch 2 - Primary Control Switch
- ❷ Switch 3 - Engineer DIP Switches
- ❸ Switch 4 - Actuator Test Switches
- ❹ Switch 5 - H/W, Boiler & Pump Test Switches
- ❺ Power Terminal
- ❻ Actuator Terminals
- ❼ Valve Terminal
- ❽ Pump Terminal
- ❾ Boiler Terminal
- ❿ Hot Water Terminal
- ⓫ LED Indicators
- ⓬ Antenna - Increase RF Range



SYSTEM COMPONENTS AND TECHNICAL DATA



This product can only be installed by a competent engineer.



| | |
|---------------------------|--------------------|
| Power | 95-240V AC 50/60Hz |
| Operating temperature | -20 – 60°C |
| Max load on H/W output | 3A |
| Max load for zone outputs | 3A |
| Max Total load | 5A |
| Dimensions | 280 x 110 x 43.5mm |
| No. of Zones | 8 |
| Pump Delay | 3 minutes |
| Radio Frequency | 868Mhz |
| Fuse rating | 10A |
| IP rating | 20 |

OPERATION

The TEVO wireless system can be used as a standalone UFH or combined with hot water and radiators. By selecting the thermostat system application during set up and pairing with the wiring centre, the system user case can be determined easily. With the TEVO wireless thermostat set to UFH control it will communicate with the selected zone/channel in the wiring centre and activate the UFH loop, manifold circulating pump and heat source.

If the TEVO wireless thermostat has 'hot water mode' selected, the thermostat channel will act as a time switch and control the hot water output terminals.

OPERATION

If the TEVO wireless thermostat has 'radiator control mode' selected, it will act as a conventional programmable room thermostat and control the output to a separate heating zone valve via the channel terminals.

Note: In radiator mode, the heat source will be activated but the manifold pump will remain inactive until a demand is given from an underfloor heating circuit.

Pump Exercise Function

During periods of inactivity (summer months or between installation and general use) a manifold circulating pump can seize and cause problems when the system is reactivated. To help prevent this issue, the TEVO wireless wiring centre has an optional 'pump exercise' dip switch (SW3) which, when selected to ON, will operate the pump for 5 minutes once every month.

Pump Delay Function

Commonly, the electrical thermal actuators which open the individual loops will take up to 5 minutes to fully open. The pump delay function will then delay activation of the manifold circulating pump by 3 minutes, from activation, in order to allow the vales to fully open.

Commissioning Switches

For engineer use only during commissioning. These offer the ability to activate loops and test the electrical outputs.

Engineers Test Switches

These are a block of 12 dip switches used to test each zone, boiler, pump and H/W outputs. To enable any output, put the switch in the ON position. When installation is complete, all switches MUST be in OFF position.

DIP Switches

There is a 3 way dip switch responsible for 3 functions:

- 1: Pump Exercise Function
- 2: Pump Delay Function
- 3: RF Test Enable

In normal use, these DIP switches can be ignored and should be down in the OFF position.

DIP Switch 1

To enable the pump delay, put switch 1 to the ON position.

DIP Switch 2

To enable pump exercise function, put SW2 to the ON position.

DIP Switch 3

The boiler RF test switch is used to test communications with the RF-Switch receiver.

IMPORTANT NOTES:

- 1) Please isolate the power supply to the TEVO wireless wiring centre before removing the cover.
- 2) Make sure you are familiar with the installation process before starting. Please refer to wiring diagrams.
- 3) This product can only be installed by a competent engineer.
- 4) All wire connections should meet local and national safety standard.

INSTALLATION INSTRUCTIONS

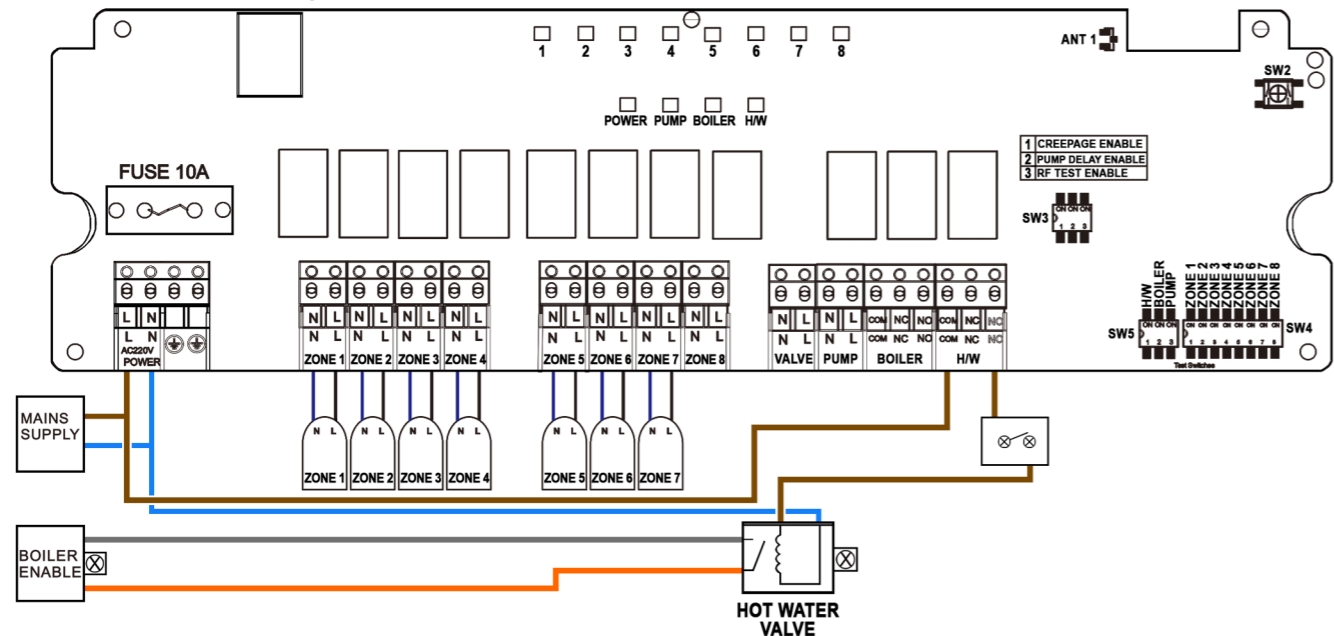
- 1.1 To remove the front cover, please loosen the two retaining screws on the front and hinge off the front cover upwards.
- 1.2 To mount the product, please use screw holes or by the DIN rail connector molded into the back housing. ***DIN rail not provided***.
- 1.3 For cable entry please use the knock outs provided.
Take care not to damage the PCB when removing the knock outs.
- 1.4 Zones 1-8 Connections: L-N output to thermal actuators (230V)
- 1.5 Pump connections – 230V Live and neutral output for manifold circulating pump.

INSTALLATION INSTRUCTIONS

- 1.6 Boiler connections – The boiler connections are volt free.
Therefore, please connect boiler common to terminal marked COM, and the boiler signal to the terminal marked NO.
- 1.7 Activated when hot water mode is selected from a TEVO wireless thermostat.
Generally, a 230V output when switched through their common and NO terminals, can then feed the live supply to the Hot Water zone valve.
- 1.8 Valve – Used for an underfloor heating manifold valve. Connection with N and L terminal on board.
- 1.9 Reset button – If, for any reason, the wiring centre is not responding, please long hold the “SW2” over 8 seconds to reset the centre whilst powering ON from an OFF status.

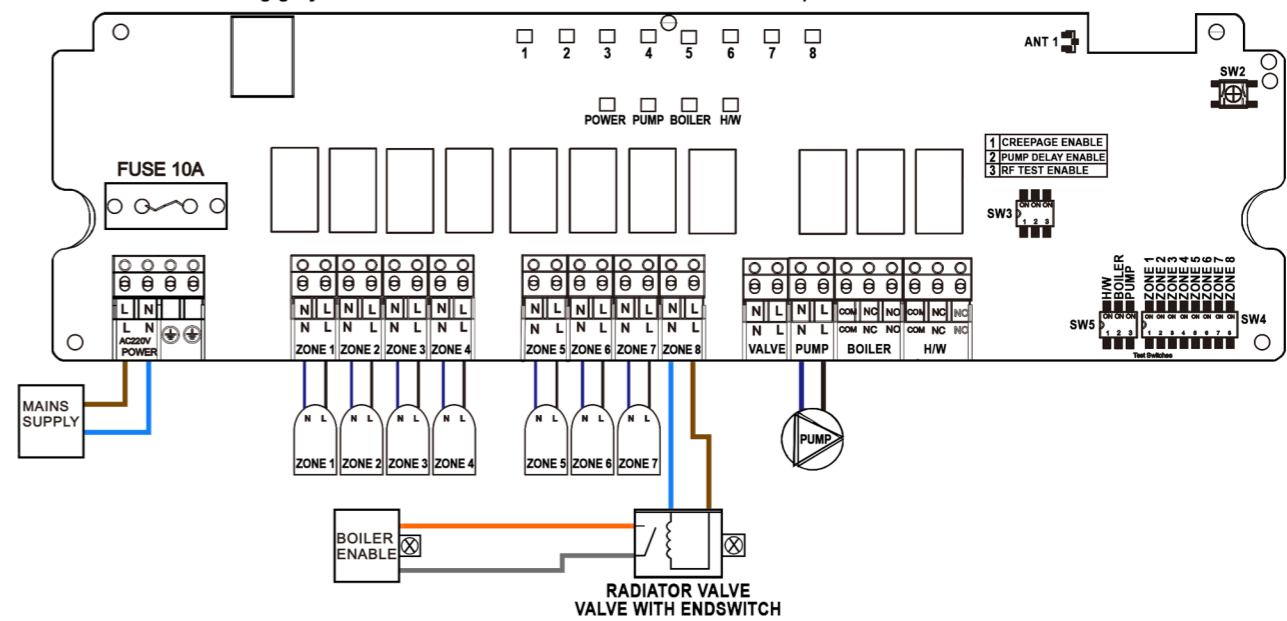
WIRING DIAGRAMS

Hot water zone wiring



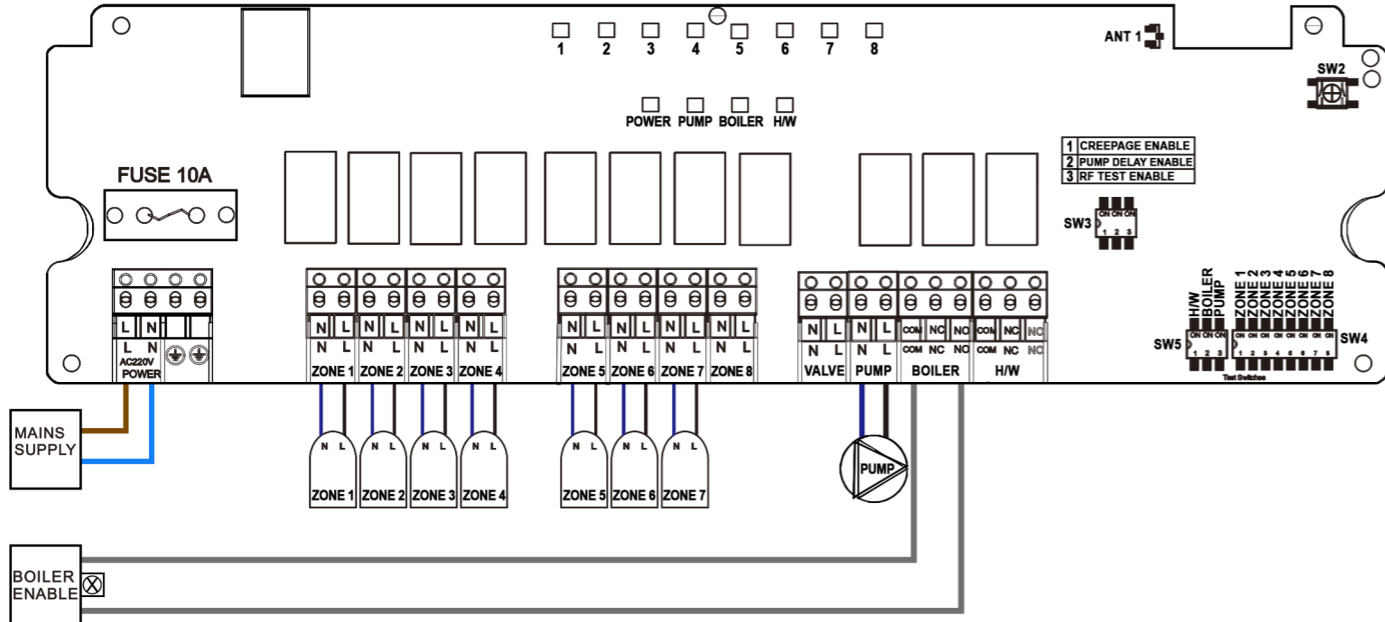
WIRING DIAGRAMS

Radiator zone control using external zone valve (switched through heat source volt free terminals - for 230V switching grey must be connected to a suitable 230V connection)



WIRING DIAGRAMS

UFH wiring using internal relay and volt free switching (check heat source requirement)



SYSTEM SETUP

Wireless Pairing of Devices

To pair the TEVO wireless thermostat to the wireless wiring centre, the thermostat should be fitted with batteries and in a position to start the pairing process.

Step 1: At the TEVO wireless wiring centre press the pairing button (SW2) for 8 seconds to enter standby pairing mode. Channel 1 LED will turn red. Short press SW2 to cycle through the channels to select corresponding loops for thermostat zone.

Step 2: At the TEVO wireless thermostat, power off the device and then press both the power and clock buttons for 7 seconds. The thermostat LCD display will display the zone it is paired with if registered successfully.

Step 3: The LED on the TEVO wireless wiring centre will flash for 3 seconds to confirm that the device is paired and then cycle to the next channel. The wiring centre will revert to normal operation after 2 minutes of inactivity.

Step 4: Repeat the process for all thermostats.

TEVO WIRELESS

www.tioclimatesolutions.co.uk

