

### F1 (Fig. 4).

A set of brass terminals is located at the lower left hand side of the base - see Fig. 4.

These are for ensuring earth continuity between the earth conductor in the mains supply cable and any earth conductor for devices connected to the wiring centre e.g. a circulating pump.

Terminals **L2** and **N2** are the 230V~ powered outputs for connecting the circulating pump.

Terminals **NO** and **C** is the output that controls the boiler. These are voltage free contacts (i.e. unpowered) so that they can be used for boilers with different voltages.

Through terminals **L1 N1 SWL NSB** a 230V~ external timeswitch (optional) can be connected to the wiring centre. Terminals **L1** and **N1** are the powered outputs for the timeswitch power supply, while **SWL** and **NSB** are the lines provided for powering the actuators and thermostats section.

For complete control of each of the available channels the user must connect a 230V~ actuator to terminals **L1** and **N1** and a 230V~ thermostat to terminals **NSB SwL< SwL> TN TL**. All outputs of the actuators and thermostats section are 'powered' outputs, i.e. they do provide the voltage for the device connected to them.

Each of the twelve wiring channels has terminals for one thermostat and one actuator only. Up to five actuators can be connected to a channel by using a loose cap terminal, code U9360030, available from Emmeti UK Ltd.

### TECHNICAL FEATURES

Power supply: 230V~ ±10% 50Hz  
Absorption: Depends on the loads connected.

Fuse (**F1**): 8A Time delayed  
Pump output: Powered contact  
Boiler output: Voltage free contact  
Therm./actuators outputs: 230V~  
Time prog. output (optional): 230V~

Contacts rating:  
- Pump: 5A@250V~ SPDT  
- Boiler: 1A@250V~ SPDT  
- Actuators and thermostats: 12x1A@250V~

Maximum applicable load:  
- Actuators and thermostats: 3A Total  
1A each channel

Indicators:  
- Voltage presence: Green led  
- Boiler and pump activation: Red led  
Protection index: IP 20  
Operating temp.: 0 .. 40 °C.  
Storage temp.: -10 .. 50 °C  
Humidity limits': 20% .. 80% RH (non condensing)

Case: Material: ABS UL-V0 self-extinguishing  
Colour: Signal white (RAL 9003)  
Dimensions: 320 x 125 x 67 mm (W x H x D)  
Weight: ~ 790 gr.

### WARRANTY

In view of the constant development of their products, the manufacturer reserves the right for changing technical data and features without prior notice. The consumer is guaranteed against any lack of conformity according to the European Directive 1999/44/EC as well as to the manufacturer's document about the warranty policy. The full text of warranty is available on request from the seller.

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# U9370002



UK

## EWC-2 12 WAY WIRING CENTRE 230V

- 230V~ power supply and outputs
- Connections for up to 12 separate heating zones
- Pump output and interlock boiler output
- Each channel has terminals for one thermostat and actuator
- External timeswitch input (optional)
- Compliant with directives EEC 2004/108 (EMC), 2006/95 (LVD) and 2011/65 (RoHS2)

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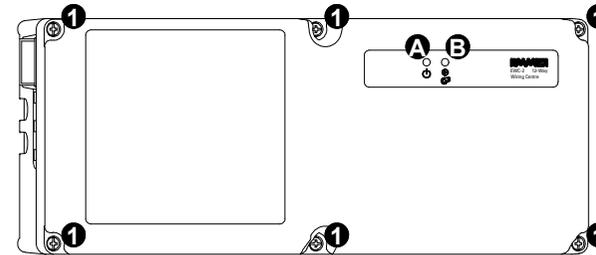


Fig. 1: External aspect.

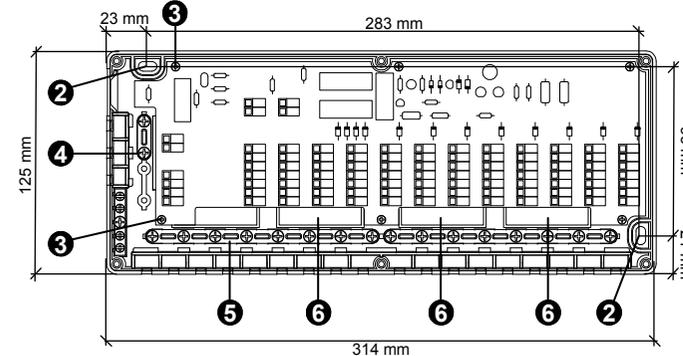


Fig. 2: Internal view and parts.

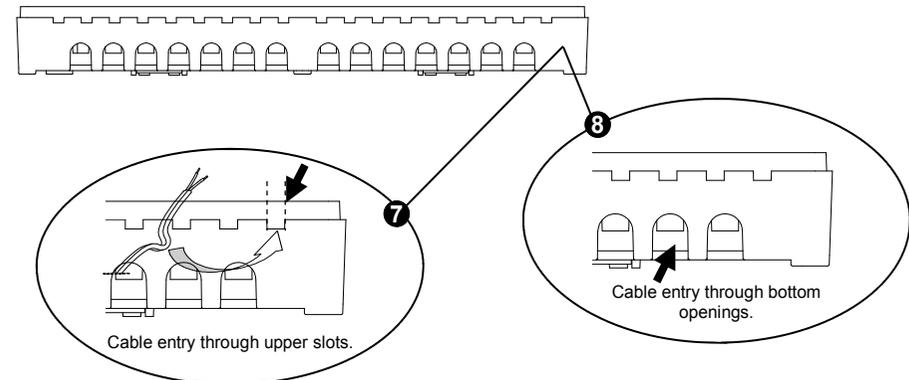
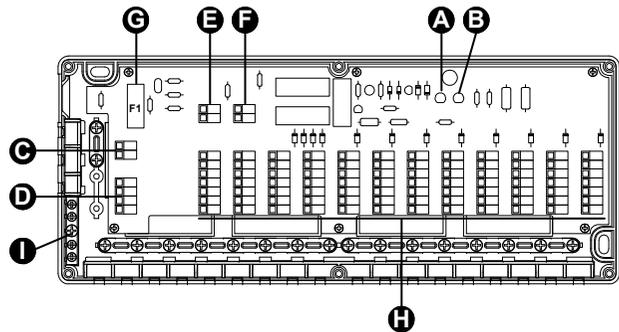


Fig. 3: Cable entry instructions

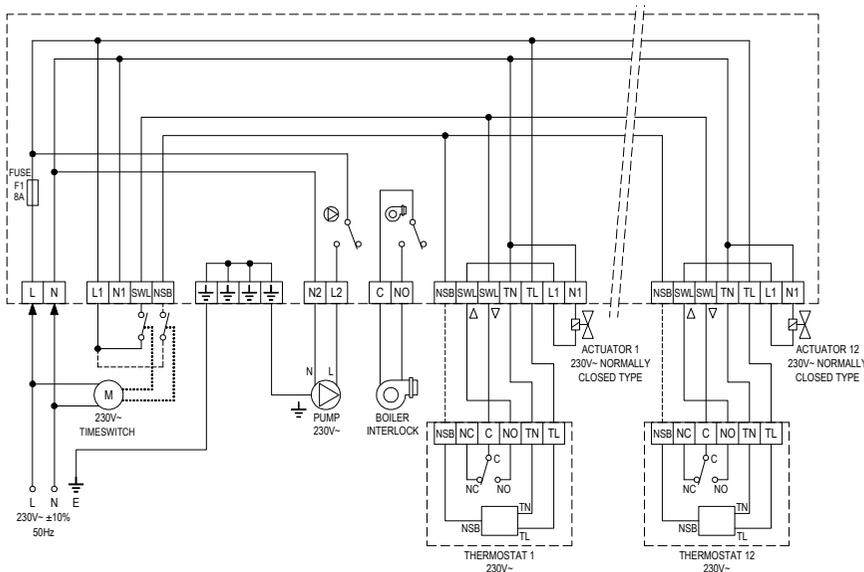
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**LEGEND:**

- A** On Led
- B** Boiler/pump led
- C** Power supply terminals
- D** Terminals for connection of the external timeswitch (optional)
- E** Pump output
- F** Boiler interlock output
- G** Fuse F1
- H** 12 thermostats + actuators outputs
- I** Protective earth terminals

**Fig. 4:** Internal view of components.



**Notes:**

1. Where a timeswitch is not used, connect a link between thermostat terminals **TL** and **C**.
2. The two output connections to the **SwL** and **NSB** terminals of the 4-way terminal block for the timeswitch are shown as alternatives depending on whether on-off or setback operation is required.
3. Where a 230V live supply is required to energise the boiler, connect terminal **L2** to terminal **C** and use terminal **NO** to connect to the boiler switched live terminal.

**Fig. 5:** Internal wiring diagram.

**OVERVIEW**

This device is a connection box for up to 12 zone floor heating systems with 230V~ power supply. This device controls up to 12 channels for actuators and thermostats; each channel has terminals for one thermostat and its actuator.

Two interlock outputs are available: one for a manifold pump pre-connected to give 230V~ and one for boiler interlock with voltage free terminals. There is also a 4-way terminal block provided to connect an external timeswitch to control the thermostats and actuators according to a time program.

The wiring centre is equipped with an 8A time-delayed fuse (**F1**) which protects against short circuits the wiring centre itself as well as the loads connected to it.

There are two LEDs on the device front panel, shown in Fig. 1:

- Green 'power' LED, marked with the symbol 'o'. It is lit when the device is connected to a 230VAC supply.
- Red LED for 'pump output and boiler active', marked with 'Ⓢ'; when at least one actuator is energised by its thermostat both pump and boiler contacts close (red led on the front cover turned on), meanwhile when no actuator is active the contacts are open.

**OPERATION**

When at least one thermostat connected to the wiring centre is calling for heat, the device immediately activates the boiler output, the relevant channel output and the pump output.

These outputs are all immediately turned off when no thermostat is calling for heat.

Note: actual actuator's opening and closing time depends on the specific type of actuator installed.

**TIMESWITCH INPUT**

The 4-way terminal block, item **D** Fig. 4, allows the installer to connect an external timeswitch (optional). This timeswitch will turn on and off the live supply (SWL) reaching the thermostats, thus turning them on and off according to the time program set by the user.

The NSB terminal allows, once connected to the relevant terminal of a suitable thermostat, the setting of the Night Set Back mode on the thermostat, thus setting it to the 'economy' set-point, which can be fixed or variable, according to the manufacturer's choice.

Where a timeswitch is not used or for night setback thermostats, connect a link between thermostat terminals **TL** and **C** - see Fig. 5.

**INSTALLATION**

In order to install the device proceed as follows:

- Remove the 6 screws labelled as **1** in Fig. 1 then remove the front plastic cover.
- Fix the device base to the wall by using the two screw holes labelled **2** in Fig. 2.

**When working with electric tools in close proximity to the electronic parts, double check that the device is completely disconnected from 230V~ mains and take care to avoid damaging the circuits or components.**

- Make the electrical connections as shown in 'Electrical Wiring' below.
- Cable entry can be made in three different ways:

Cable entry from the rear **6**:  
With the help of a screwdriver, remove the plastic knock-outs from the base, see item **6**, Fig. 2. Cables can then be taken through the backplate to the terminal connections.

Cable entry through the top slots in the bottom face **7**:

Using pliers, carefully remove the plastic 'teeth' shown arrowed **7**, Fig. 3, then after connecting the cable to the appropriate terminal, bend it as shown in Fig. 3 and clamp using the clamps provided.

Cable entry through the lower slots in the bottom face **8**:

Pass the cables through the slots located in the bottom side of the base, as pointed by the arrow in **8**, Fig. 3. Make the electrical connections to the appropriate terminals and clamp using the clamps provided.

- Close the device cover, by locating it on the base then screw the 6 closing screws.

**ELECTRICAL CONNECTIONS**

**⚠ WARNING**

**Please ensure that the electrical wiring of the installation and connections to and from the wiring centre are in accordance with BS 7671, the latest edition of the IET Wiring Regulations.**

**The thermostat must be wired to the mains electric supply through a switch capable of disconnecting all poles compliant to the current safety standards and with a contact separation of at least 3 mm in all poles.**

**Before commencing work on the installation, the electricity supply must be disconnected.**

**Please read the following carefully and also consult the wiring diagram, Fig. 5, which shows the connection of the power supply and external components to the wiring centre.**

Terminals **L** and **N** are the inputs for the power supply: connect to 230V~, making sure that terminal **N** is wired to the Neutral. The electronic circuitry and loads are protected by the 8A time-delay fuse