

# U9380001

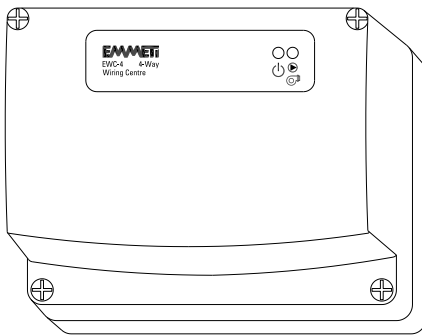


# EMMETI<sup>®</sup>

— UK

## EWC-4 4 WAY WIRING CENTRE (230V)

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### OVERVIEW

This device is a connection box for 4-zone heating systems supplied from a 230V~ power supply. This device controls up to 4 outputs for actuators and thermostats; each output can drive one thermostat and its actuator. Two interlock outputs are available: one for a pump (230V~ powered terminals) and one for boiler interlock (volt free contacts). Moreover the unit allows the connection of an external timeswitch for global control of the four zones.

The wiring centre is equipped with a 4A time-delayed fuse (F1) which protects 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 ON" LED, marked with the symbol '⏻'.
- Red LED to indicate " BOILER/PUMP ON", marked with symbol '⏻'; when at least one actuator is energised by its thermostat both pump and boiler contacts close (red LED on the front cover turned on).

### 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: Actuator opening time will depend on manufacturer specification.

### TECHNICAL FEATURES

Power supply:	230V~ ±10% 50Hz
Absorption:	Depends on the loads connected.
Fuse (F1):	4A Time delayed
Pump output:	230V~
Boiler output:	Volt free contact
Therm./actuators outputs:	230V~
Time prog. output (optional):	230V~
<b>Contacts rating:</b>	
- Pump:	5A 250V~ SPDT
- Boiler:	1A 250V~ SPDT
- Actuators and thermostats:	4x1A 250V~
<b>Maximum applicable load:</b>	
- Actuators and thermostats:	3A Total 1A each channel

### Indicators:

- Voltage presence: Green LED
- Boiler and pump activation: Red LED

Protection index:	IP 30
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:	130 x 100 x 60 mm (L x A x P)

### NORMATIVE REFERENCES

The product conforms to the following standards (EMC 2014/30/UE and LVD 2014/35/UE):  
EN 61000-6-1 (2007)  
EN 61000-6-3 (2007)  
EN 60335-1 (2012)

### TIMESWITCH INPUT

The two terminals (see item ①, Fig. 3) allow the installer to connect an external timeswitch which will enable global time control of all 4 zones.

This timeswitch, when connected to terminal **SWL**, will energise the supply to terminal <SwL on each channel on when the timeswitch is in an ' on ' period set by the user, alternatively when connected to terminal **NSB**, the timeswitch will then energise terminal **NSB** on each channel when the timeswitch is in an ' off ' period set by the user.

When connected to a suitable setback thermostat from this terminal, the thermostat operates at the normal temperature set by the user when the timeswitch is in an ' on ' period and a lower temperature usually set by the installer when the timeswitch is in an ' off ' period.

### INSTALLATION

- In order to install the device proceed as follows:
- Remove the 4 screws labelled as ① in Fig. 1 to 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 internal electronic components.**

- Make the electrical connections as shown in 'Electrical Connections' below.
- The cables should be folded as shown in Fig. 4 and made to pass through the cable glands ④.

If you use a cable entry and its respective cable gland, remove the plastic tab ③ in Fig. 4 with suitable pliers to open the passage for the cable.

- The front panel to the enclosure and fasten in place with the four screws ① in Fig. 1.

**NB: The power supply and timeswitch cables should always be routed through the LH side cable entry in order to utilise the cable clamps.**

### ELECTRICAL CONNECTIONS

#### 230V~ POWER SUPPLY

#### ⚠ WARNING

**Please ensure that the electrical wiring of the installation and connections to and from the wiring centre are in accordance with BS7671, the latest edition of the IET Wiring Regulations.**

**The wiring centre must be wired to the electricity supply through a switch capable of disconnecting all poles compliant to the**

**current safety standards and with a contact separation of at least 3mm 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 show 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 4A time-delay fuse **F1** (Ⓢ Fig. 3).

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

Terminals **NO** and **C** are the outputs that control the boiler. These are volt free contacts so that they can be used for boilers with low voltage control circuits.

To provide global time control of all 4 zones please refer to the TIMESWITCH section on this page for further details and Fig.5 for the electrical connections.

All outputs of the actuators and thermostats section are 'powered' outputs, i.e. they provide the voltage for the device connected to them.

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

### WARRANTY

In the view of a constant development of their products, the manufacturer reserves the right to change 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.

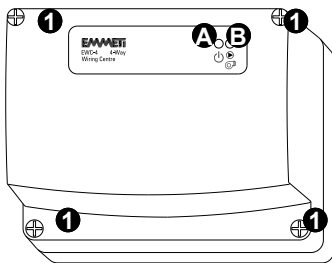


Fig. 1: External aspect.

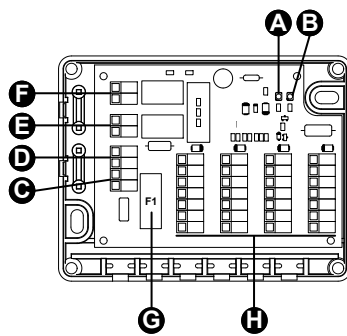


Fig. 3: Internal view of components.

**LEGEND**

- A On LED
- B Boiler/pump LED
- C Power supply terminals
- D Terminals for connection of the external time switch (Optional)
- E Pump Terminals (230V output)
- F Terminals for burner wiring (Volt free)
- G Fuse F1
- H 4 thermostats + actuators outputs (output 230V~)

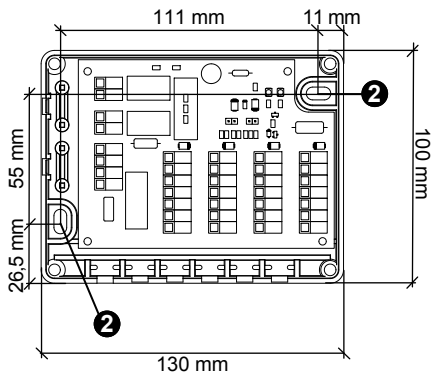


Fig. 2: Internal view and components.

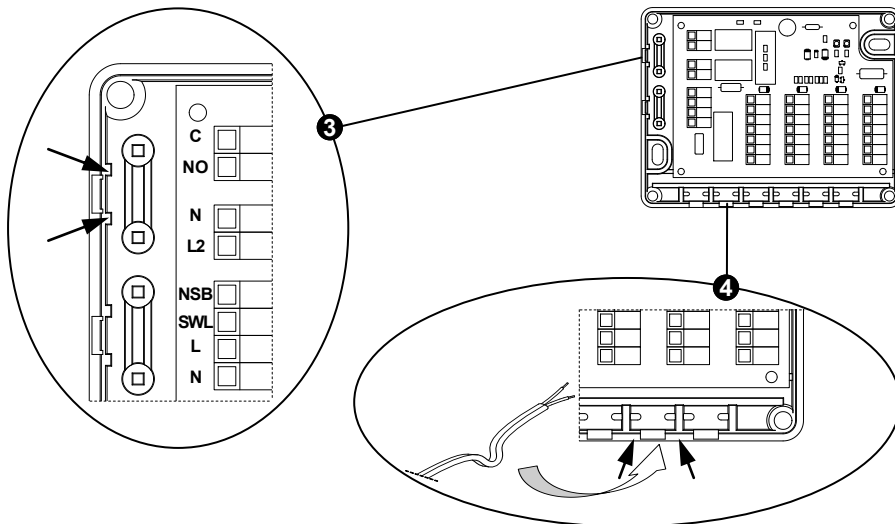


Fig. 4: Cable entry instructions.

**POWER SUPPLY 230V~**

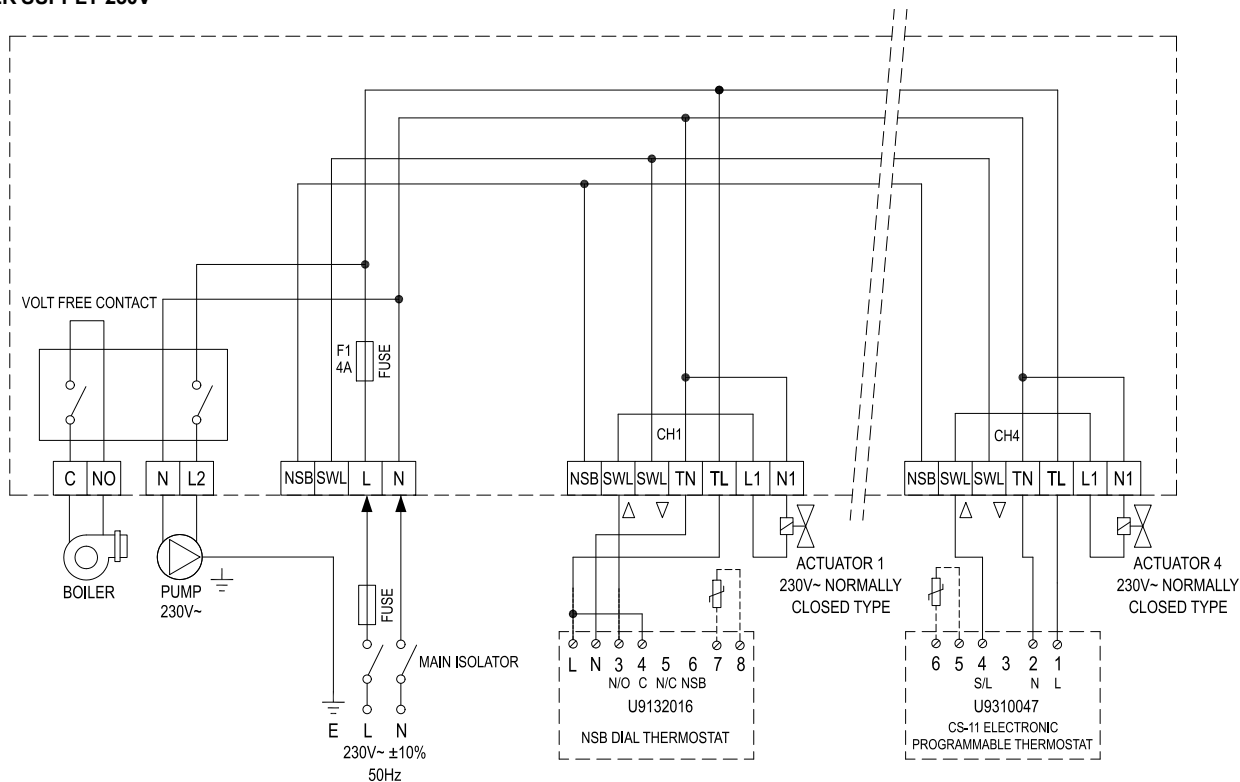


Fig. 5: Internal wiring diagram for 230V~ power supply.

**Note:**

Where a 230V live supply is required to energise a boiler, connect terminal L2 to terminal C and use terminal NO to connect to the boiler switched live terminal.