

Universal Pilot Wire Interface Unit
Model No: RXPWIF



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THESE INSTRUCTIONS SHOULD BE READ AND RETAINED FOR FUTURE USE

General Safety Advice

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons, including the following:

WARNING - This product must be installed by a competent person or electrician in conjunction with the current IEE Wiring Regulations and relevant Building Regulations.

- **DO NOT** cover or obstruct the unit
- **DO NOT** install the unit in the immediate vicinity of a swimming pool.
- **DO NOT** use outdoors.
- **NOTE** that due care and consideration must be taken when using appliances in series with a thermal control, a program controller, a timer or any other device that switches on the heat automatically, since a fire risk exists when the appliance is accidentally covered or displaced.

General Principle

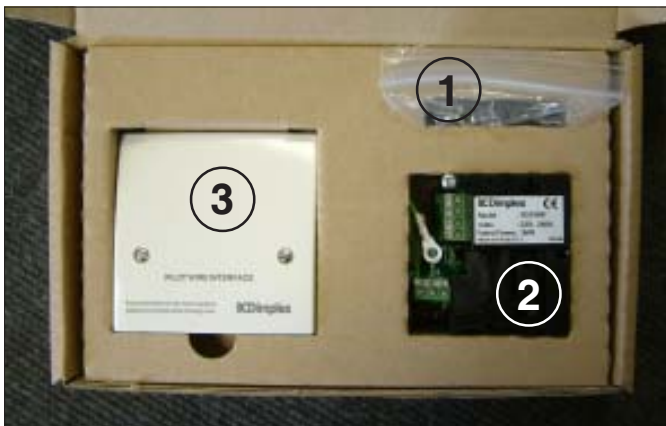
The RXPWIF unit is designed to allow any electrical product (electrical load of 3kW or less) to be controlled on a time/zone basis by a Dimplex pilot wire programmer (for example models RX010006 / RXPW4).

The unit converts a standard pilot wire controller output signal into a switched On/Off output via a 16A rated relay.

This will give the capability to control products without built in pilot wire compatibility (e.g. towel rails, water tank immersion heater, etc.) on a timed basis in conjunction with the rest of the centrally controlled heating system.

The unit will fit into a standard UK single gang metal back box at least 46mm deep.

Contents



1. Fixing Kit
2. Pilot Wire Interface Unit
3. Fascia Plate (with cable bracket attached).

Wiring Accessories (not supplied)

The pilot wire interface unit is designed to be housed in a standard single gang (UK wiring accessory) flush mounted back box at least 46mm deep. See opposite a typical example from the MK range.



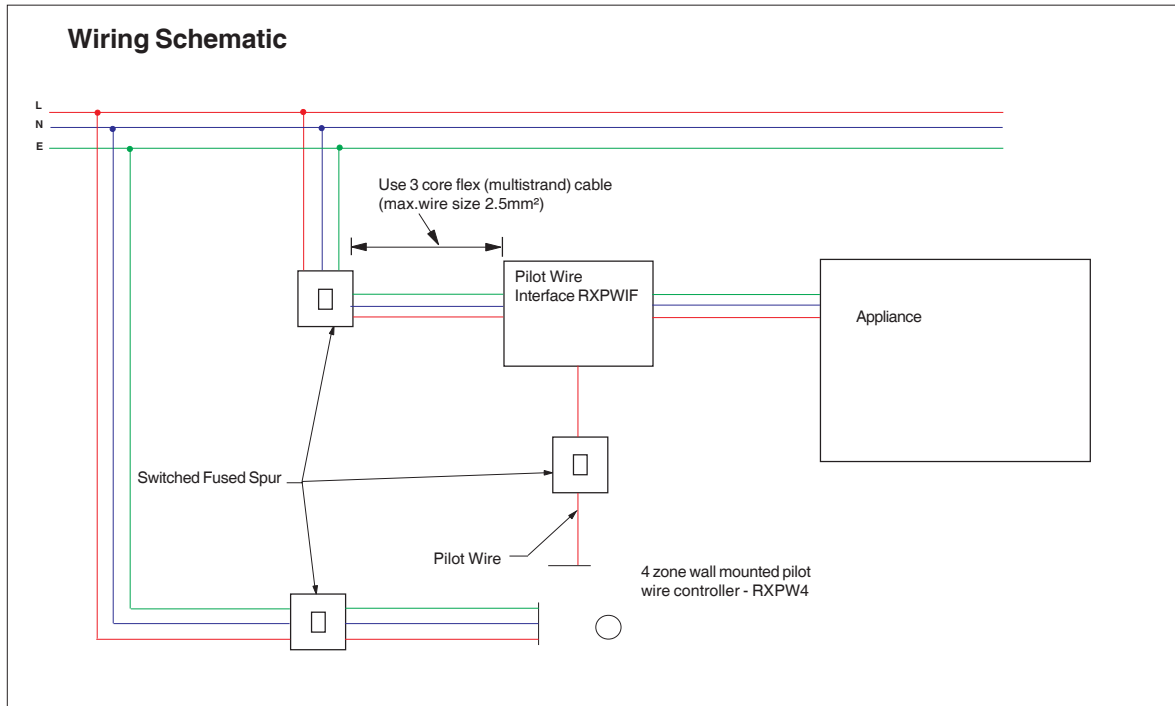
Product Ref: 877 ZIC
1 gang
46mm deep
(FLUSH)

Dimensions: 1 gang: 75 x 75mm

Fixing Centres: 1 gang: 60.3mm

Knockouts: 877: 1 x 25mm & 9 x 20mm

BS.4662: 1970



Technical Specification

- Power Supply - 230V AC, $\pm 10\%$, 50Hz
- Functioning Temperature : -25°C - 70°C
- Storage Temperature : 5°C - 50°C
- Consumption - 0.3VA
- Max. wire size 2.5mm²
- Min. wire size 0.2mm²
- Max. switching load : 3kW

Operating Modes

Controller (RXPW4) Mode	Appliance Function (when linked via RXPWIF)
☀ Comfort (ON)	On (Operates an appliance thermostat if applicable)
🌙 Background (Setback)	OFF
⏻ OFF	OFF
❄ Frost Protection	OFF

Pilot Wire Connection

Dimplex Wall Mounted Programmers use a pilot wire to carry a signal from the programmer to a compatible appliance or pilot wire interface unit.

IMPORTANT - Care should be taken with the installation of the pilot wire(s) as when switching to background (set back) they become energised at 240V although only at a current of less than 100mA. In every case a suitable means of isolation must be provided for the pilot wire and marked to indicate that two sources of supply may be present at the appliance. (See wiring schematic above).

Where pilot wires are installed separately from the appliance final sub-circuit they should be protected, double insulated and carry their own integral earth continuity conductor. The earth conductor should be connected to the Pilot Wire Interface at either 'E' ports on the green connector block (see photo 3).

Installation and Electrical Connection

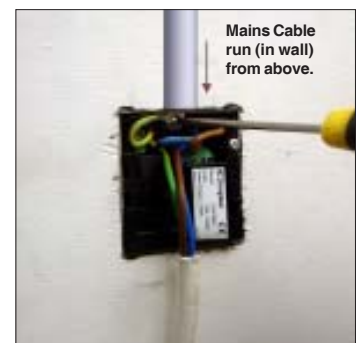
WARNING - THIS PRODUCT MUST BE INSTALLED BY A COMPETENT PERSON OR ELECTRICIAN. ENSURE THAT THE MAINS AND PILOT WIRE SUPPLIES TO THE UNIT ARE ISOLATED PRIOR TO INSTALLATION.

The product is designed to be installed in a standard UK single gang recessed wiring accessory back box - 46mm deep.

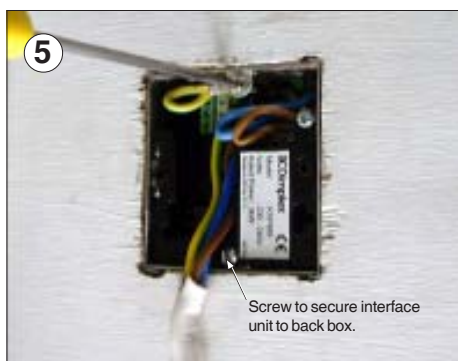
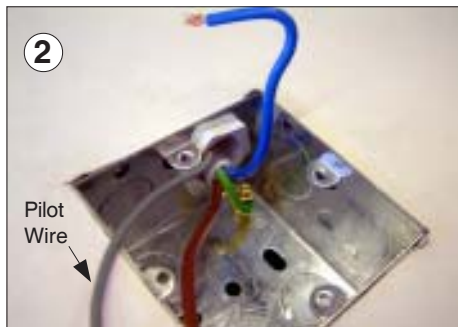
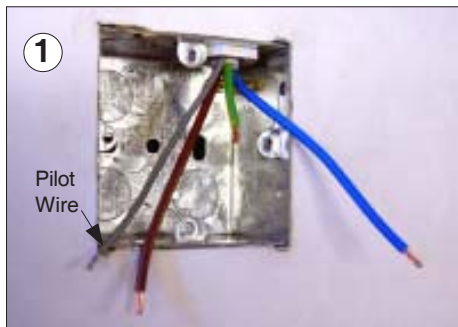
The interface unit should be wired as per the diagram above. A **SUITABLE MEANS OF ISOLATION FOR BOTH THE APPLIANCE AND THE PILOT WIRE MUST BE PROVIDED**. The unit can be installed to accommodate mains cable runs to the back box from either above or below (see below). The orientation of the back box must be such that the earthing terminal is always towards the end that the mains cable enters. This is required to allow easy fitment of the pilot wire interface unit.

The appliance cable can either exit from the front via a knockout (to be created by the installer) in the fascia plate or from the rear of the back box.

The mains cable between the Pilot Wire Interface Unit and the switched fused spur should be sheathed flexible cable (Max. cable size 2.5mm²).



Assembly Instruction (Appliance Cable exiting from the front via a knockout in the fascia plate). The photos show the mains cable run from the top. Rotate 180° to show cable run from bottom.

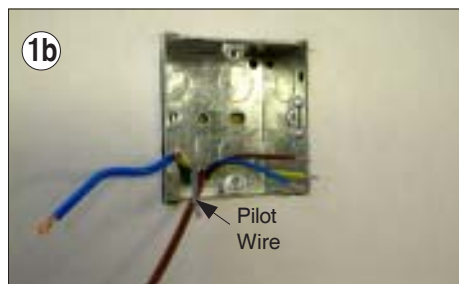


8. Testing - Turn on mains supply to controller and interface unit. Set the central controller (RPXW4) in comfort mode '⚙️'.

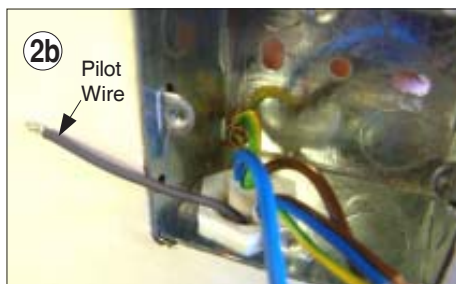
The supply to the appliance should be on. Set the Central Controller (RPXW4) to setback mode '🌙'. The supply to the appliance should switch off. Care should be taken to ensure that all necessary safety precautions are taken.

Assembly Instruction (Appliance Cable exiting from the back box).

(Photos show the mains cable and appliance cable run from the bottom.)



1b. All cables enter back box from the back. Connect the mains earth to the back box earthing terminal as per photo 2.



2b. Screw the mains supply earth cable into the back box earth terminal. The earth cable should be kept as short as possible so not to restrict the fitting of the pilot wire interface unit. The exposed earth cable must be covered with green and yellow PVC sleeving (not supplied).



3b. The cables should be connected to the terminal blocks on the unit as follows:

Mains phase to L
Mains neutral to N
Appliance phase to La
Appliance neutral to Na
Pilot wire to P
Appliance Circuit Protective Conductor (earth) to E

Care should be taken not to overtighten screws on green connector



4b. Connect the cables to the interface unit and feed unit into back box. Guide the mains cable into place so that they don't exert excessive force onto the green connector blocks on the Interface Unit.



5b. Wire mains supply, appliance and pilot wire cables to pilot wire interface unit connectors.



6b. Fit interface unit to back box and secure with 30mm screw (from fixing kit).



7b. Attach flying earth lead to lug on back box with 12mm screw (included in fixing kit).



8b. Attach cable clamp bracket. Bracket is not required if the installer is fitting a fascia plate with holes centred.



9b. Fit fascia plate using 2 x 30mm (M3.5) screws.

Fault Finder

Failure Mode	Potential Causes of Failure	Resolution Action
Mains supply to appliance is always on.	Pilot wire from RXPW4 controller not connected to interface.	Connect pilot wire to interface.
	RXPW4 controller not turned on.	Turn on power to RXPW4 controller.
	RXPW4 controller set in comfort mode.	Turn mode on RXPW4 controller to any other mode expect for comfort and power to appliance should be turned off.
Mains supply to appliance will not switch on.	Interface unit is not properly earthed to mains CPC.	Check earth connection between interface unit and mains CPC.
	Mains phase connection onto interface unit swapped with appliance phase connection.	Check phase and neutral connections onto interface unit.

CE The product complies with the European Safety Standards EN60335-2-30 and the European Standard Electromagnetic Compatibility (EMC) EN55014, EN60555-32 and EN60555-3 which cover the essential requirements of EEC Directives 73/23 and 89/336

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