

WIRING & OPERATING INSTRUCTIONS

DIMMER SWITCHES

TECHNICAL HELPLINE: 0845 194 7584

SAFETY WARNING

Before use please read carefully and use in accordance with these safety wiring instructions. Before commencing any electrical work ensure the supply is switched off at the mains. Either by switching off the consumer unit or by removing the appropriate fuse.

Wiring should be in accordance with the latest edition of the IEE regulations (BS 7671)

Wire Identification – Twin & Earth Cable

Note - As from 1st April 2004 new colour codes for hard wire installations was introduced.

EARTH = Green/Yellow Slewing

NEUTRAL = Black (pre Apr 04) / Blue (after Apr 04)

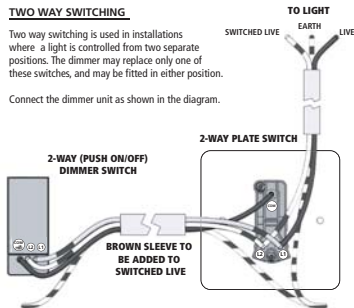
LIVE = Red (pre Apr 04) / Brown (after Apr 04)

If in doubt consult a competent electrician.

TWO WAY SWITCHING

Two way switching is used in installations where a light is controlled from two separate positions. The dimmer may replace only one of these switches, and may be fitted in either position.

Connect the dimmer unit as shown in the diagram.



EARTH WIRE MUST BE SLEEVED AND TERMINATED TO THE BACK BOX

For multiple gang Dimmers (2, 3 & 4) repeat wiring method for each Dimmer. **4.**

GENERAL INSTALLATION INSTRUCTIONS

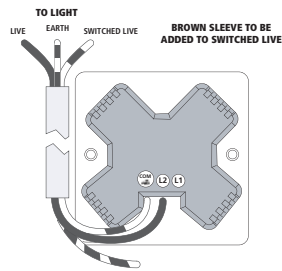
- 1) If using the new product to replace an old one, note the cable connections and wire up new product in the same way as the old one, with Earthing as stated in these instructions.
- 2) Ensure the mounting box (metal or patress) for either flush or surface mounting is the appropriate size for the product.
- 3) Route the cable through the most suitable entry point of the mounting box. If a metal box is used, a protective cable grommet should be used.
- 4) Cables should be prepared so a sufficient conductor length reaches the terminals. Strip the ends of the individual conductors so that an adequate length enters the terminals.
- 5) Carefully arrange the wiring to sit along the edges of the product or box, keeping the central area clear.
- 6) To assist with the correct installation please consult the appropriate wiring diagram on this leaflet.
- 7) When connecting the new accessory ensure that only the bare end of the wire enters the terminal, and no bare wires are visible.

Always tighten the terminal screws securely, but do not overtighten.

An earth connection should always be made between the mounting box earth terminal, and the accessory earth terminal, where fitted. If this earth wire is bare, it is essential that it is sheathed with a length of green/yellow sleeving.

- 8) Carefully position the accessory into the wall box, ensuring that no wires are trapped between the plate and the wall. Do not overtighten the screws. (Fit screw covers + clip-on front-plate as appropriate) **1.**

1000W DIMMER (EXPORT ONLY)



EARTH WIRE MUST BE SLEEVED AND TERMINATED TO THE BACK BOX

5.

- 9) Once work has been completed correctly, replace the fuse for the circuit, switch the power back on, and test.

The product is now ready for use.

* Note - If your installation uses a four lug metal mounting box, remove the top and bottom lugs or bend fully back.

DECORATIVE FRONT PLATE FIXING

Fixing method varies depending on which product range is supplied. Always ensure wall surface is reasonably flat and smooth, with no bumps or projections.

Metall front plates WITH screw fixing holes. These products comprise main unit with integral front plate and rear gasket. Fix unit to back box using two fixing screws supplied.

Front plates WITHOUT screw fixing holes. These products comprise main unit with integral gasket, and front plate as separate item. Fix unit to back box using two fixing screws supplied. Clip front plate onto main assembly, ensuring screwdriver notch is located bottom right hand corner. To remove plate, place medium size flat bladed screwdriver in notch and lever off against gasket.

For all Decorative Plates - It is essential the gasket is fitted between product and wall, to reduce possibility of discolouration of front plate edges due to natural moisture in some wall finishes.

To keep the finish of this product, wipe over with soft cloth periodically.

All Decorative products MUST have an earth connection between the front-plate and back box **2.**

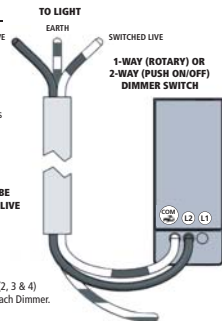
ONE WAY SWITCHING

One way switching is used in installations where the lights are switched from just one position.

Connect the dimmer unit as shown in the diagram.

BROWN SLEEVE TO BE ADDED TO SWITCHED LIVE

For multiple gang Dimmer (2, 3 & 4) repeat wiring method for each Dimmer.



EARTH WIRE MUST BE SLEEVED AND TERMINATED TO THE BACK BOX **3.**

PLEASE NOTE:

The dimmer is a LEADING EDGE type.

The dimmer unit will emit a faint buzz and may become warm while in operation, this is quite normal and no cause for concern.

TUNGSTEN LIGHTING

Tungsten dimmers are not suitable for dimming any transformer, low voltage, fluorescent or motor loads.

Mains voltage tungsten halogen lamps may be dimmed, but the maximum rating of the dimmer must be de-rated by 50% (i.e., a 40-250W dimmer must be treated as 40-125W, a 60-400W dimmer as 60-200W, etc.)

LOW VOLTAGE LIGHTING

2-Way (Push ON/OFF) low voltage dimmers are only suitable for dimming wire wound laminated and some dimmable electronic transformers.

They are not suitable for dimming toroidal transformers, Fluorescent or Tungsten Lamps.

Many electronic transformers are not dimmable and many which claim to be dimmable may not be compatible. Most UK dimmers, use a 'leading edge' principle, therefore, transformers which require a 'trailing edge', 'falling edge', 'phase lagging' or 'transistor' dimmer, must not be used. To dim any compatible transformer, a low-voltage (inductive) dimmer must always be used.

These are not 'inductive' only dimmers.

The dimmer VA rating refers to the total circuit load, not lamp load. Allow for transformer losses. Typically 20% (or 15% for electronic transformers). Therefore, maximum load for 400VA dimmer becomes 330W (350W electronic), and 250VA becomes 210W (215W for electronic).

Low voltage dimmers should be connected on the 'mains side' of the transformer.

Load resistors are not required.

Transformers should be installed in accordance with the manufacturer's instructions.

If setup with laminated transformer either buzzes excessively or lights flicker, it may be **7.**

Plate Size	No. of Dimmers	Max. each Dimmer	Min. each Dimmer	Max. total per plate
Square plates 86mm X 86mm	1	250W	40W	250W
	1	400W	60W	400W
	1	630W	60W	630W
	2	250W	40W	250W
Rectangular plates 86mm X 146mm	2	400W	60W	630W*
	1	1000W	150W	1000W
	2	630W	60W	1000W*
	3	250W	40W	750W
Maximum load of 630W for the plate should not be exceeded.	3	400W	60W	1000W
	4	250W	40W	1000W*
	4	400W	60W	1000W*
	4	400W	60W	1000W*
*Maximum load of 1000W for the plate should not be exceeded.				