

Installation and Operating Instructions

Electronic Dimmers

1. General Installation Safety Instructions

Read these instructions fully before starting work and keep for future reference. These products must be installed in accordance with the current edition of the IEE Wiring Regulations (BS 7671) and all current Statutory Instruments.

In the Republic of Ireland the installation must comply the ETCI National Rules for Electrical Installations (ET 101).

Electrical installations and in particular 2 way and multi-way lighting circuits may be wired in different ways.

IF YOU ARE UNSURE OF THE CONNECTIONS, OR HOW TO PROCEED, CONSULT A COMPETENT ELECTRICIAN.

Switch OFF the mains supply before starting work. Ensure that the supply cannot be inadvertently reconnected by anyone else. Use a lock if necessary.

If replacing an existing switch, remove it and ensure wall box is free from dust and debris. Ensure the heads of any fixing screws do not protrude into the box.

Installations must be wired using sheathed fixed house wiring grade cable. Ensure the outer sheath extends fully into every wall box, junction box and ceiling rose.

All metal plate wiring accessories and metal wall boxes must be earthed and the earthing wires fully sheathed with green & vellow sleeving.

2. UK and Eire Installation Colour Codes

As from 1st April 2004, new installations in the UK could be wired using the EU harmonized colour code for supply conductors:

 Harmonised Colour Code:
 Old Colour Code:

 BROWN = Live
 RED = Live

 BLUE = Neutral
 BLACK = Neutral

GREEN & YELLOW = Earth **GREEN & YELLOW** = Earth

The old colour code will cease to be used from April 2006. In the Republic of Ireland, the Harmonised colour code is currently in force.

3. Specific Instructions for Grid Frame mounting Dimmers

Grid frame modules require a wall mounting box of at least 35mm depth.

Carefully remove the cover plate by undoing the two screws with the hexagonal key provided.

For screwless cover plate, remove by inserting a flat bladed screwdriver into one of the slots in the side of the moulded frame surround.

Ensure the total connected load is within the limits detailed in Technical Specification (see table). Install according to wiring instructions shown in figs 4 and 5

Screw to wall box using screws provided and replace cover plate.

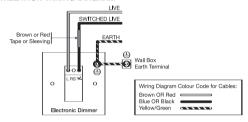
ENSURE THE CLEAR PLASTIC MOUNTING FRAME IS FITTED IN PLACE.

For 2 Way or Multi-Way installations, separate momentary action 'retractive' press switches are required. Any existing 2 way or intermediate switches MUST be replaced.

Refer to Schneider Electric Catalogue for product details.

DO NOT CONNECT MORE THAN ONE DIMMER IN EACH LIGHTING CIRCUIT.

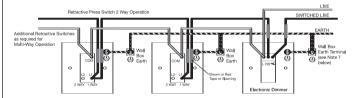
4. 1 WAY INSTALLATION WIRING DIAGRAM



IMPORTANT - for 1 Way Installation

Do not connect any conductor to dimmer terminal marked RS. This is only for use with 2 way switching.

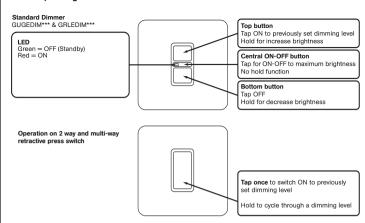
5. 2 WAY AND MULTI-WAY INSTALLATION WIRING DIAGRAM



IMPORTANT - for 2 Way and Multi-Way Installation

- Any existing 2 Way or Intermediate Switches MUST be replaced with Retractive Press Switches.
- Any number of Retractive Press Switches may be installed provided total cable length does not exceed 50m.
- 3. Either 1 Way normally open or 2 Way Retractive Push Switches may be used.
- If 2 Way Switches are used, connect to Common (COM) and normally open L1 (1 WAY) terminals as shown. Do NOT use the L2 (2 WAY) terminal.
- If replacing an existing 2 Way Switch, cut back and insulate the unused 2 way wire previously connected to the L2 (2 way) terminal.
- 6. Do NOT connect more than 1 Dimmer in the same circuit.
- Remove label covering centre terminal marked RS on rear of dimmer.
 This terminal is to be connected to Retractive Switch as shown in wiring diagram.
 Do NOT connect any other conductor to this terminal.

6. User Operating Instructions



7. General User Guidance

All electronic dimmers generate heat. During normal operation, and particularly with high connected lamp loads, the buttons may become warm to touch. This is perfectly normal and does not indicate a fault.

Switch off mains before attempting clean the dimmer.

The front buttons of the dimmer may be cleaned using a lint free cotton cloth, very lightly moistened with a diluted detergent such as washing up liquid. This detergent MUST be diluted with water before use.

DO NOT allow any water to enter the dimmer module.

DO NOT use concentrated detergents, spray cleaners, solvents or abrasive cleaners.

Dry thoroughly before reconnecting the mains. If water is allowed to enter the dimmer module, DO NOT reconnect the mains supply. Consult a competent electrician.

8. Circuit, Lamp and other Equipment Compatibility

To ensure optimum performance and reliability is obtained from this dimmer switch during its lifetime the following recommendations and precautions should be followed as appropriate to the type of dimmer:

Circuits

It is recommended that the lighting circuit incorporating this dimmer be protected by a 6A or up to a 10A maximum Type B miniature circuit breaker.

For two-way or more switching ONLY use retractive switches. Do NOT use two-way switches.

Lamps

Do NOT use with Compact Fluorescent Lamps (CFL) even if marked 'dimmable', Fluorescent lamps and Light Emitting Diode (LED) lamps of any description or motor loads.

When using mains voltage Tungsten Halogen lamps, it is essential that these types of lamps incorporate internal fuses and are from quality lamp manufacturers. The use of inferior low quality lamps without internal fuses is not recommended and will invalidate any guarantee or warranty supplied with the dimmer switch.

Dimmable Low Voltage Transformer

Always check transformer compatibility BEFORE installation and if in doubt always check with the dimmer Helpline or the transformer manufacturer

These Electronic dimmer switches use leading edge (phase delay) dimming technology and must therefore be used with compatible good quality dimmable electronic or wire-wound (magnetic) transformers. Trailing edge (phase cut) dimmable transformers must not be used.

Do NOT mix electronic and magnetic transformers on the same dimmer switch.

It is recommended that electronic dimmable transformers be loaded to at least 70% of their rated maximum wattage.

It is recommended that a maximum number of 5 Low Voltage transformers should only be connected to an individual dimmer switch

When running multiple lamps on dimmable electronic transformers ensure that all lamps are working correctly. Replace failed lamps as soon as possible as a single failed lamp may cause flickering of other lamps.

9. Technical Specifications

Rated Voltage: 230V ac 50Hz. (NOT Compatible with 110-125V or 60Hz supplies).

Maximum Load: 300W/VA Mains Voltage Lamps and LV Transformers.

Product Standards: BS EN 60669-2-1.

Minimum Load: 60W incandescent lamp or 50VA Low Voltage Transformer.

Derating

Refer to table below when more than one module is being installed on a single plate.

Front plate gang size	2	3	4	6	8	9	12	15	18	20	24	
Max Rating Per Row (w)	400	480	480	480	480	480	480	480	480	480	480	
Max Rating Total Plate (w)	400	480	480	740	740	940	940	1440	1440	1800	1800	

10. Guarantee

This product is guaranteed or a period of 2 years from the date of purchase against faulty materials or workmanship, provided the product:

- a. Is returned with proof of purchase, via the company which originally supplied the product.
- **b.** Has been used for its intended purpose and within the ratings stated above.
- c. Has been installed and used in accordance with these instructions.
- d. Has not been opened or tampered with.

This guarantee does not extend to wear and tear to decorative finishes and does not affect your statutory rights other than those expressly set out above and does not cover claims for consequential loss or damage.

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