



# Technical Data

## Dimmer Switches - Push Type

### Brief product description:

The subtle design will blend with any décor - suitable for domestic or commercial installations.

### Features:

- Stylish modern profile
- Covers to conceal fixing screws
- Supplied with spacer adaptor plate

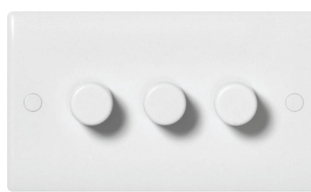
### Product Images



881P/885P



882P



883P



884P

### Technical Specifications

Standard(s)	BS EN 60669-2-1	 
ASTA Approval	License Number 1019	
Rating	60 - 400W	
Terminal Capacity - L & N	3 x 1mm <sup>2</sup> 2 x 1.5mm <sup>2</sup> 1 x 2.5mm <sup>2</sup>	
RoHS Directive	No	
WEEE Directive	No	
Mounting Box Depth(Min)	25mm	
Fixing Centres	60.3mm (881P, 882P, 885P products) 120.6mm (883P, 884P products)	
Size	86mm x 86mm x 41.2mm (881P, 882P, 885P products) 146.5mm x 86mm x 41.2mm (883P, 884P products)	



# Dimmer Switches - Push Type

## Installation Information

### 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 plastic) 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 lie 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)

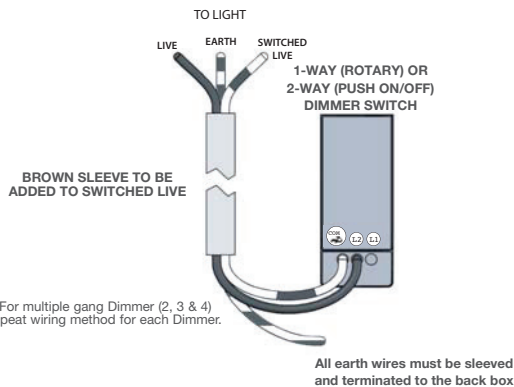
9) Once work has been completed correctly, replace the fuse for the circuit, switch the power back on, and test.

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.

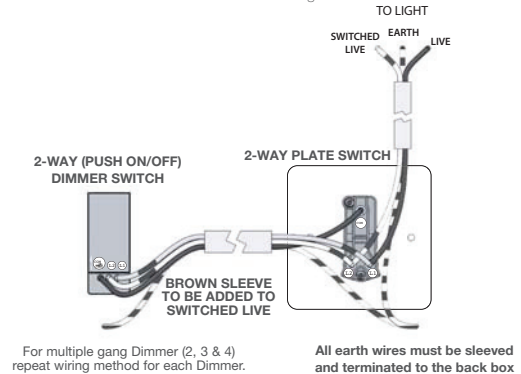
### One Way Switching

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.



### 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.



### 1000W Dimmer (Export Only)

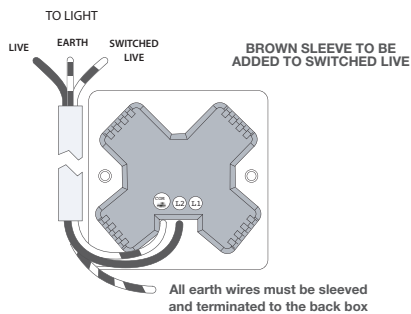


Plate Size	No. of Dimmers	Max. each Dimmers	Min. each Dimmers	Max. total per plate
Square plates 86mm x 86mm	1	250W	40W	250W
	1	400W	60W	400W
	1	630W	60W	630W
	2	250W	40W	250W
	2	400W	60W	630W*
*Maximum load of 630W for the plate should not be exceeded.				
Plate Size	No. of Dimmers	Max. each Dimmers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

### 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 necessary to install a snubber circuit across the transformer primary. (one per dimmer circuit).



# Technical Data

## Dimmer Switches - Push Type

### Brief product description:

A standard range of white moulded wall accessories offering superb quality and exceptional value.

### Features:

- A standard design - suitable for domestic or commercial installations.

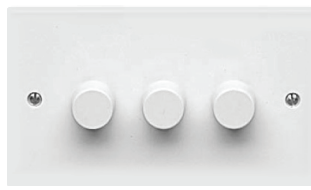
### Product Images



981P/985P



982P





983P



984P

### Technical Specifications

Standard(s)	BS EN 60669-2-1	 
ASTA Approval	License Number 1019	
Rating	60 - 400W	
Terminal Capacity - L & N	3 x 1mm <sup>2</sup> 2 x 1.5mm <sup>2</sup> 1 x 2.5mm <sup>2</sup>	
RoHS Directive	No	
WEEE Directive	No	
Mounting Box Depth(Min)	25mm	
Fixing Centres	60.3mm (981P, 982P, 985P products) 120.6mm (983P, 984P products)	
Size	86mm x 86mm x 41.2mm (981P, 982P, 985P products) 146.5mm x 86mm x 41.2mm (983P, 984P products)	

### Packaging Information

Cat No.	Description	Packaging Type			Pack Quantity			Barcode		
		Product	Inner Box	Outer Box	Each	Inner Box	Outer Box	Individual	Inner Box	Outer Box
981P	1 Gang, 2 Way 400W	Plain Bag	Plain Inner	Plain Outer	1	10	100	/	5021166961092	5021166961085
982P	2 Gang, 2 Way 400W	Plain Bag	Plain Inner	Plain Outer	1	10	100	/	5021166962099	5021166962082
983P	3 Gang, 2 Way 400W	Plain Bag	Plain Inner	Plain Outer	1	5	50	/	5021166963096	5021166963089
984P	4 Gang, 2 Way 400W	Plain Bag	Plain Inner	Plain Outer	1	5	50	/	5021166964093	5021166964086
985P	1 Gang, 2 Way 1000W	Plain Bag	Plain Inner	Plain Outer	1	5	50	/	5021166965090	5021166965083

# Dimmer Switches - Push Type

## Weights & Dimensions

Cat No.	Description	Dimension (W x L x H) cm			Weight (g)			CBM (m <sup>3</sup> )
		Product	Inner Box	Outer Box	Each	Inner Box	Outer Box	Outer Box
981P	1 Gang, 2 Way 400W	8.6 x 8.6 x 4.1	12 x 15.8 x 9.2	25.1 x 48 x 16.5	8	800	9000	0.02
982P	2 Gang, 2 Way 400W	8.6 x 8.6 x 4.1	12 x 15.8 x 9.2	25.1 x 48 x 16.5	4	400	6000	0.02
983P	3 Gang, 2 Way 400W	14.6 x 8.6 x 4.1	12 x 15.8 x 9.2	25.1 x 48 x 16.5	6	600	8600	0.04
984P	4 Gang, 2 Way 400W	14.6 x 8.6 x 4.1	13 x 16 x 9.2	27 x 47 x 16.8	65	650	8000	0.04
985P	1 Gang, 2 Way 1000W	8.6 x 8.6 x 4.1	13 x 16 x 9.2	27 x 47 x 16.8	7	700	8350	0.05

## Installation Information

### 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

**EARTH** = Green/Yellow Sleaving

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

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



**Technical Helpline: 03300 249 279**

**If in doubt consult a competent electrician.**

The ends of the individual conductors should have the insulation removed by approx. 12mm. Any bare earth conductors should be sleeved to within 12mm of the ends. (These details are for general information only and conductor lengths may need to be trimmed in certain installations).

### 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 lie 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)

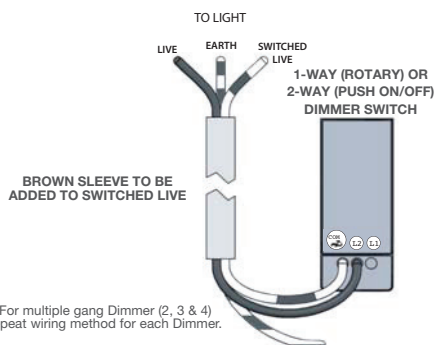
9) Once work has been completed correctly, replace the fuse for the circuit, switch the power back on, and test.

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.

### 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.

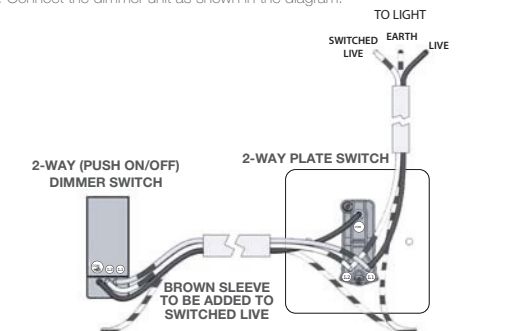


For multiple gang Dimmer (2, 3 & 4) repeat wiring method for each Dimmer.

All earth wires must be sleeved and terminated to the back box

### 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.



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

All earth wires must be sleeved and terminated to the back box

# Dimmer Switches - Push Type

## Installation Information

### 1000W Dimmer (Export Only)

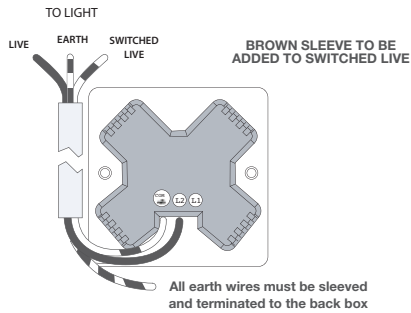


Plate Size	No. of Dimmers	Max. each Dimmers	Min. each Dimmers	Max. total per plate
Square plates 86mm x 86mm	1	250W	40W	250W
	1	400W	60W	400W
	1	630W	60W	630W
	2	250W	40W	250W
	2	400W	60W	630W*
<b>*Maximum load of 630W for the plate should not be exceeded.</b>				
Plate Size	No. of Dimmers	Max. each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

#### 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 necessary to install a snubber circuit across the transformer primary. (one per dimmer circuit).