



# Instructions For Fitting VARILIGHT V-Dim Safety Dimmerswitches

Thank you for choosing a VARILIGHT V-Dim safety dimmerswitch. Use only on an electricity supply of 200-250 volts AC.

**IMPORTANT:** Read "Loading Advice" section overleaf before installing this dimmerswitch.

V-Dim safety dimmers are protected against overload. Please refer to "Overload Protection" box. This product complies with European Safety Regulations (IEC 669-2-1 or BSEN 60669-2-1) when used in lighting circuits containing MCBs (miniature circuit breakers). These can be rated at 6A, 10A or 16A (preferably 6A for lighting circuits). Your guarantee is not affected if you have an older lighting circuit protected by fuse wire links.

### FITTING YOUR DIMMERSWITCH:

Read these instructions carefully. Incorrect installation may damage the dimmer beyond repair. **In case of any doubt or difficulty consult a qualified electrician.**

1. Switch off at the mains, then remove the existing switch and disconnect the wiring from the switch terminals at the rear, taking note of the present wiring of the switch and the marking on the terminals. Where there are two or more wires together in the old switch, they must be kept together in the dimmerswitch.
2. Ensure that any wall box is free of plaster lumps or projecting screw heads. Dimmerswitches on single-sized plates can be fitted to wall boxes having 60.3mm screw fixing centres and those with double-sized plates to wall boxes with 120.6mm fixing centres. Most models can be fitted into a box with a minimum depth of 25mm. A box having 4 fixing lugs cannot be used without modifying it. The top and bottom lugs must be broken off or bent flat.
3. To connect the wiring for 1-way or 2-way circuits refer to the diagrams overleaf under the heading "Typical Lighting Circuits". Take care that no bare wires project out of the terminals. Keep wires together in a terminal if they were together in your old switch.
4. Dimmerswitches having a metal front plate must be earthed by means of the earthing point on the dimmer.
5. After connecting the wires screw the dimmerswitch gently into the wall box so that the front plate is not distorted or cracked. Do not trap the wiring between the rear of the dimmer and the back of the wall box.
6. Once installation is complete. Switch on the mains supply and switch on the dimmer, turning the control knob to give the desired light level.

### LOADING ADVICE

**IMPORTANT:** Refer to table below for maximum wattages for each type of load.

#### THIS SWITCH IS SUITABLE FOR

- ✓ Mains voltage incandescent GLS or candle-shaped bulbs;
- ✓ Good quality dimmable electronic low voltage transformers (VARILIGHT transformers recommended) [see "Transformers" box];
- ✓ GU10 or similar good quality mains halogen bulbs;
- ✓ Digiflux Dimmable CFLs

#### Always observe the recommended maximum load

[see "Overload Protection" box]

#### THIS SWITCH IS NOT SUITABLE FOR

- ✗ Non-dimmable fluorescent bulbs and tubes;
- ✗ Wire-wound or toroidal transformers [Choose Varilight V-Plus dimmers instead];
- ✗ Electric motors;
- ✗ LED bulbs [Choose Varilight V-Pro dimmers for dimmable LEDs.  
[See www.varilight.co.uk/leds]

### MAXIMUM LOAD\* INFORMATION (Rating on product label refers to incandescent lighting)

Dimmer Series Lighting Type	V-Dim 1 Gang		V-Dim 2 Gang		V-Dim 3 Gang	V-Dim 4 Gang
	500W	400W	400W	250W	250W	250W
Incandescent	500W	400W	400W	250W	250W	250W
Mains Halogen	500W	400W	400W	250W	250W	250W
Eco Halogen	500W	400W	400W	250W	250W	250W
Low Voltage Halogen	See "Transformers" Box		See "Transformers" Box		See "Transformers" Box	See "Transformers" Box
LED	Use Varilight V-Pro Dimmers		Use Varilight V-Pro Dimmers		Use Varilight V-Pro Dimmers	Use Varilight V-Pro Dimmers
Varilight Digiflux CFLs (Refer to CFL manufacturer's advice for other brands)	2 to 10 Digiflux CFLs	1 to 10 Digiflux CFLs	2 to 10 Digiflux CFLs per gang	1 to 3 Digiflux CFLs per gang	1 to 5 Digiflux Dimmable CFLs per gang	1 to 5 Digiflux Dimmable CFLs per gang

\* **WARNING:** At maximum loading some light bulbs may overload the dimmer because they present a higher load than their rating. If in doubt reduce maximum load.

PLEASE KEEP THIS LEAFLET FOR FUTURE REFERENCE	<b>T</b>
Please record the batch number printed on the side of the plastic moulding on the rear of the product. This will assist us in providing any technical support you may require.	
BATCH NO:	Reg. 659

### OVERLOAD PROTECTION:

Your dimmerswitch is protected against overload. If an overload occurs it will automatically switch off the lights and slowly turn them on and off until the overload is removed and the dimmerswitch has returned to its usual operating temperature.

To prevent this occurring, make sure that you load the dimmer correctly. Refer to the "Loading Advice" section below before installing this dimmerswitch.

Dimmerswitches must not be overloaded or underloaded. If the dimmerswitch makes the lights flicker it is likely that it is underloaded.

Calculating the load for each dimmerswitch module is easy. Just add up the wattages of all of the bulbs that the dimmerswitch module controls.

### TRANSFORMERS:

This dimmer can also be used to control VARILIGHT dimmable electronic transformers (the load is calculated by adding the wattages of the transformers, eg. 7 x 50W transformers = 350W and can be dimmed using a 400W dimmer).

Always choose quality dimmable electronic transformers such as VARILIGHT transformers. For electronic transformers from other manufacturers we recommend a maximum of 5 electronic transformers per dimmer circuit. Noise levels may vary depending upon the type and quantity of transformers used.

### GUARANTEE:

In case of any defect, return the dimmer to our service department. Varilight undertakes to repair or replace, at its discretion, goods which have become defective within 12 months of purchase, solely as a result of faulty materials and workmanship, provided that:-

a) The unit has been correctly fitted according to the instructions and has not been used with an incompatible load, fluorescent tubes, or overloaded beyond its rating, and has only been used on a 200-250V a.c. power supply.

b) The dimmer module has not been tampered with or taken apart. However, for your convenience, it is perfectly in order to remove a faulty dimmer module from multi-gang dimmers by pulling off the knob and unscrewing the nut under the knob. You will then still have the remaining modules working whilst we service your faulty module.

c) The unit is securely packed and safely returned to:-

**Service Department, Carylls Lea, Faygate, Horsham, West Sussex, RH12 4SJ** (Tel. (01293) 851584) together with a letter stating the guarantee registration number below, the date and place of purchase, the type and wattage of the lighting or other load being controlled and the details of the fault.

This guarantee states Varilight's entire liability, which does not extend to cover consequential loss or damage or installation costs arising from a defective product. The guarantee does not apply to problems arising from any incompatibility between your lamps and the dimmer switch. This guarantee does not in any way affect the statutory rights of the purchaser and is offered so that you may have the benefit of our technical facilities.

**GUARANTEE REGISTRATION NUMBER: 659**

## Typical Lighting Circuits

There are two basic types of lighting circuit, so make sure you have the correct dimmerswitch for your lighting circuit.

### 1. 1-Way Circuits

In 1-way lighting circuits the light or lights are controlled by one switch. Your dimmerswitch replaces this switch and can be a 1-way rotary model (Figure 1), or a 1 or 2 way push-on/push-off model (Figure 2).

(The advantage of a push-on/push-off dimmerswitch is that the dimmer can be switched on and off with a push action, while keeping the lighting at the level you have chosen.)

Remove your old switch and copy the wiring configuration for the dimmerswitch. The wires from your old switch can be connected either way round to the "C" and "L1" terminals of the dimmerswitch. If you are using a push-on/push-off dimmerswitch there is a spare terminal (L2) that you will not need to use for a 1-way circuit.

### 2. 2-Way Circuits

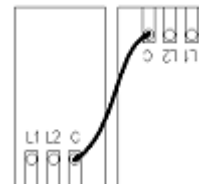
2-way lighting circuits have two switches turning the same light or lights on and off from two different locations (e.g.. at the top and bottom of the stairs). You must only replace **one** of these switches with a dimmerswitch or the lights will flicker. See Figures 3 and 4 which show typical 2-way circuits. Remove your old switch and copy the wiring configuration for the dimmer.

Remove your old switch and copy the wiring configuration for your dimmerswitch. The wire(s) fitted in the "common" terminal of the old switch should be fitted into the "C" terminal of the dimmerswitch. The wires fitted into the other two terminals of the old switch should be fitted either way round into terminals "L1" and "L2" of the dimmerswitch.

**Note:** Dimmer switches have "C" next to "L1" & "L2" whereas most switches have "C" at the opposite end to "L1" & "L2".

### Multi-Gang Dimmerswitches (with 2, 3 or 4 control knobs)

To fit multi-gang dimmerswitches treat each group of terminals at the back of the unit as a separate dimmerswitch wiring them into the lighting circuits as described above. If required, one terminal from each dimmer module may be joined together with a short length of wire to copy the wiring configuration of the old switch.

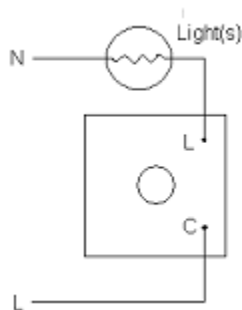


### Wiring Diagrams

#### Typical 1-way Circuits

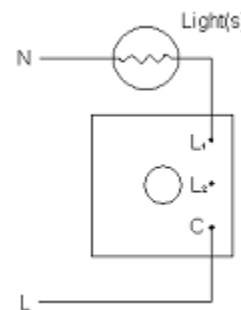
(For single dimmerswitches or each module of a multi-gang dimmerswitch)

**Figure 1**  
Using a 1-way Dimmerswitch



Reconnect the wires either way round to the "C" terminal and the "L1" terminal.

**Figure 2**  
Using a 1 or 2-way Dimmerswitch

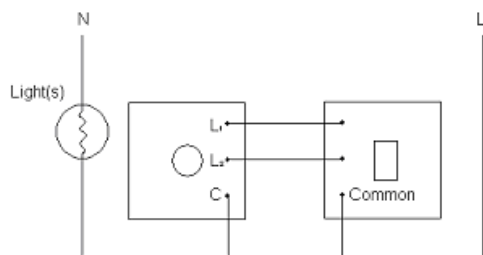


Reconnect the wires either way round to the "C" terminal and the "L1" terminal.

#### Typical 2-way Circuits

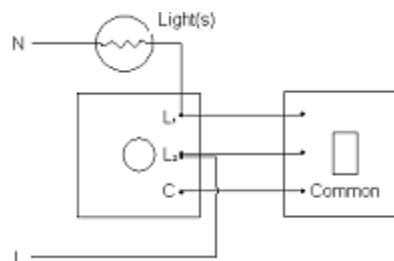
(For single dimmerswitches or each module of a multi-gang dimmerswitch)

**Figure 3**  
Using a 2-way Dimmerswitch



Dimmer must replace only one of the 2-way switches

**Figure 4**  
Using a 2-way Dimmerswitch



Dimmer must replace only one of the 2-way switches