

# INSTRUCTIONS FOR VARILIGHT V-DIM SAFETY DIMMERSWITCHES



## OVERVIEW

Thank you for choosing a VARILIGHT dimmerswitch. Use only on an electricity supply of 230 volts AC.

**IMPORTANT:** Read ALL sections below before installing this dimmerswitch.

V-Dim safety dimmers are protected against overload. Please refer to "Overload Protection".

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.

## LOADING

**Always observe the recommended maximum load.**

Maximum loads\* for V-Dim Safety Dimmerswitches;

Lighting Type \ Dimmer Series	V-Dim 250W Per Gang	V-Dim 400W Per Gang	V-Dim 500W Per Gang	V-Dim 1000W Per Gang
Incandescent	250W	400W	500W	1000W
Mains Halogen**	250W	400W	500W	1000W
Eco Halogen**	250W	400W	500W	1000W
Low Voltage Halogen	250W	400W	500W	600W
	For more information, please see "Transformers"			
VARILIGHT DigiFlux Dimmable EnergySaver+ CFLs	Please check latest information of loading for Digiflux at <a href="http://www.varilight.co.uk/digiflux">www.varilight.co.uk/digiflux</a>			<b>NOT SUITABLE</b>

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

**\*\*HALOGEN LIGHTS:** We recommend using 1-Way Rotary V-Dim series dimmer (1-way circuits) OR Intelligent Soft Start V-Plus series dimmers (1- or 2-way circuits) for this type of lamp.

### THIS SWITCH IS SUITABLE FOR

- ✓ Mains incandescent (GLS bulbs and spotlights)
- ✓ GU10 or similar mains halogen bulbs
- ✓ Good quality dimmable electronic low voltage transformers [see "Transformers"]
- ✓ Digiflux Dimmable CFLs

### THIS SWITCH IS NOT SUITABLE FOR

- ✗ LED lighting [Choose V-Pro or V-Com. For more information please visit [www.varilight.co.uk/leds](http://www.varilight.co.uk/leds)]
- ✗ Wirewound or Toroidal Transformers [Choose V-Plus series dimmers]
- ✗ Non-dimmable fluorescent bulbs and tubes
- ✗ Electric motors

### TRANSFORMERS

This dimmer can 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.

<a href="http://www.varilight.co.uk">www.varilight.co.uk</a>	<b>T</b>
Please <b>record the batch number</b> 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.	
Reg. T002	
BATCH NO:	
<b>INSTALLERS</b> – Please leave these instructions with your customer for future reference.	

## LOADING (Continued)

### OVERLOADING AND UNDERLOADING

Dimmers must not be overloaded or 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. Check the label on the back of your dimmerswitch for the maximum ratings of each module and adjust this if necessary according to the load type (see above). The minimum loads for each are also shown on the label.

If the dimmerswitch makes the lights flicker it is likely that it is underloaded. For optimum energy-saving it is recommended that the minimum load for V-Dim dimmerswitches is 100W. This way you will save more energy and still be able to dim the lights to the level that you want. Don't forget that the added advantage of a dimmerswitch is that it will also extend bulb life.

### 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" section before installing this dimmerswitch.

## FREQUENTLY ASKED QUESTIONS

For FAQs, please visit: [www.varilight.co.uk/faqs](http://www.varilight.co.uk/faqs)

## 10 YEAR GUARANTEE

Varilight undertakes to repair or replace, at its discretion, goods which have become defective within 10 years 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) 223333) 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: T002**

**WARNING:** Do not apply products with metal faceplates directly to freshly plastered or damp surfaces as product may tarnish. If in doubt, use polythene as a temporary gasket to protect the product. Do not use masking tape on metal faceplates.

## FITTING YOUR DIMMER

Read the instructions below 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.

A slight buzzing may be heard from the dimmerswitch in operation. This is quite normal.

**Important:** Disconnect the dimmer before carrying out insulation resistance testing. Failing to do so could damage a dimmer and make the guarantee invalid.

## 1-WAY & 2-WAY CIRCUITS AND MULTI-GANG

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

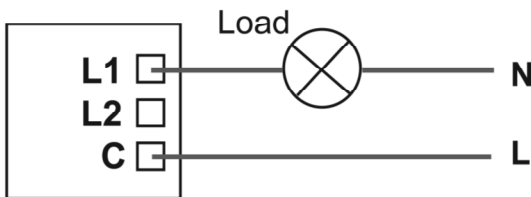
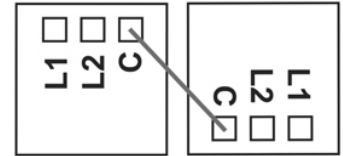
2-way lighting circuits have two switches turning the same light or lights on and off from two different locations (e.g.. at the top and bottom of the stairs). You must only replace one of these switches with a dimmerswitch or the lights will flicker. See Figures 3 and 4 which show typical 2-way circuits.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

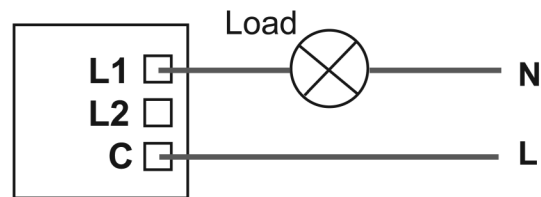
### 3. Multi-Gang Dimmerswitches (with 2, 3 or 4 control knobs)

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.



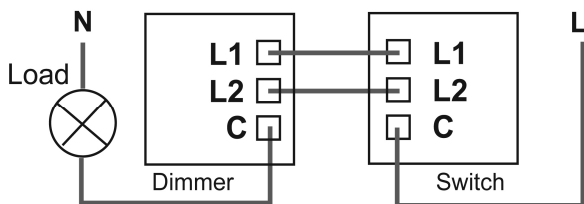
**Figure 1.** Using a 1-Way Dimmerswitch  
(For single switches or each module of a multi-gang)

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



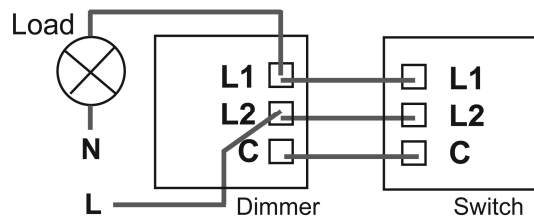
**Figure 2.** Using a 1 or 2-Way Dimmerswitch  
(For single switches or each module of a multi-gang)

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



**Figure 3.** Using a 2-Way Dimmerswitch  
(For single switches or each module of a multi-gang)

Dimmer must replace only one of the 2-way switches



**Figure 4.** Using a 2-Way Dimmerswitch  
(For single switches or each module of a multi-gang)

Dimmer must replace only one of the 2-way switches