

DO NOT DISCARD THESE INSTRUCTIONS – PLEASE KEEP FOR FUTURE REFERENCE



www.varilight.co.uk

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.

JQI

Reg. 830

BATCH NO:

Instructions For Fitting VARILIGHT Intelligent Touch / Remote Control Dimmerswitches

Thank you for choosing a VARILIGHT V-Pro programmable touch/remote control dimmerswitch. Use only on an electricity supply of 200-250V a.c.

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

V-Pro dimmers are set to run in trailing-edge mode by default. This versatile mode is suitable for most types of lighting, including many dimmable LEDs. It is also gentler on the load. Some lighting loads, including some types of LED, perform best with leading-edge control. This dimmer can easily be set to run in leading edge mode by following the instructions "Changing the Driving Mode" on the right.

The master dimmer is suitable for 1-way circuits. For 2-way (or multi-way) circuits, use a master dimmer with one or more dimming slave units. Touch/remote dimmers cannot be used in conjunction with conventional switches in a 2-way circuit.

Use only on an electricity supply of 216-253V~. Dimming slaves are touch control only. Remote control is only possible for the master unit.

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.

THIS SWITCH IS NOT SUITABLE FOR

- X Non-dimmable fluorescent bulbs and tubes;
- X Wire-wound or toroidal transformers;
- X Electric motors.

THIS SWITCH IS SUITABLE FOR

- ✓ Mains voltage incandescent GLS or candle-shaped bulbs;
- ✓ Good quality dimmable electronic low voltage transformers (including those requiring trailing-edge control) [see "Transformers" box on the right];
- ✓ GU10 or similar good quality mains halogen bulbs
- ✓ Dimmable CFLs
- ✓ Most dimmable LEDs [see "Dimmable LEDs" box on the right]

Always Observe The Recommended Maximum Loads (as follows):-

[Please also refer to "Overload Protection" box on the right]

Lighting Type \ Dimmer Series	V-Pro 1 Gang Max. Load	V-Pro 2 Gang Maximum Load Per Gang	V-Pro 3 Gang Maximum Load Per Gang	V-Pro 4 Gang Maximum Load Per Gang
Incandescent	400W	250W	250W	250W
Mains Halogen	300W	200W	200W	200W
Low Voltage Halogen	300W	200W	200W	200W
Eco Halogen	300W	200W	200W	200W
Dimmable LED	1 to 10 LEDs [see additional information in "Dimmable LEDs" box]			
Dimmable CFL	Use 1 to 2 Digiflux CFLs			

FITTING YOUR DIMMERSWITCH:

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.

1-Way, 2-Way and Multi-Way Circuits

In 1-way lighting circuits the light(s) are controlled by one switch. This dimmer should replace that switch. The live wire must be connected to the terminal marked "LIVE" and the "load" wire to the terminal marked "LOAD". To fit **2, 3 or 4-gang** dimmers treat each group of terminals at the back of the unit as a separate dimmer. You may also need a short length of wire to connect together the "LIVE" terminals if only one live wire is present.

For **2-way** or **Multi-way** circuits (where the light(s) are controlled by more than one switch) use this dimmer and any number of VARILIGHT dimming slaves (total cable length from the master to the last slave should be no more than 50m) following the wiring diagrams below. It is not possible to use a conventional switch in combination with this type of dimmer. Follow the same wiring as for 1-way circuits with three (or two) wires linking each slave using the "LOAD" terminal, "SLAVE" terminal and (optional) "LIVE" terminal. (Please see below).

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.

CHANGING THE DRIVING MODE

When you first install the dimmer switch it will automatically default to trailing-edge mode. This mode is the best one for most types of lighting but for certain lighting loads you may be able to improve the dimming performance by changing the driving mode to leading-edge mode. You can always reset to trailing-edge mode by following the same instructions again. In fact, to be sure that the dimmer is operating in trailing-edge mode before you begin we recommend restoring factory settings as follows:-

RESTORE FACTORY SETTINGS (TRAILING-EDGE MODE)

To restore factory settings tap the touch button 6 times, roughly once per second. (each tap causes the light(s) to turn on or off). After 6 taps on the button the lights will step up and down and go off. Press and hold the touch button for at least 5 seconds. The lights will then come on and fade to off to signal that the dimmer has been reset to factory settings. This procedure will reset the dimmer to trailing-edge mode.

CHANGING TO LEADING-EDGE MODE

1. Switch on then press and hold the touch button for 12 seconds. After 12 seconds the lights will turn off.
2. A short press on the touch button will turn the lights back. The dimmer will now be in leading-edge mode.

OVERLOAD PROTECTION:

This dimmerswitch is protected against overload. If an overload occurs it will **automatically turn off** until the overload is removed and the dimmerswitch is switched off and then switched back on again. If the dimmerswitch receives a total short-circuit it may cease to function. (In this case return the unit to our service department at the address below and not to your supplier. The service department will repair your dimmerswitch free of charge. See guarantee overleaf.)

TRANSFORMERS:

Use only with quality dimmable **electronic** transformers. For optimum performance choose VARILIGHT transformers*.

To calculate load, add the VA ratings of the **transformers** (not the wattage of the bulbs). Choose transformers with a maximum rating close to their lamp load (eg. Use a 50VA, 60VA or 70VA transformer to control a 50W low voltage bulb).

N.B. Certain transformers **may not behave according to their power rating when used with a dimmer**. An overload will result in the safety features of this dimmer turning down the brightness. If so, change your transformer(s) (VARILIGHT transformer(s) recommended); or remove one (or some) transformer(s) from the circuit; or choose a higher rated dimmer instead.

* If a transformer appears as a highly inductive load, e.g. Wire-wound or toroidal transformers, the dimmer will not work. To protect itself it will turn off within 1 second.

ADVICE ON CHANGING LIGHT BULBS:

Always turn off the mains power when light bulbs controlled by this dimmer are replaced then restore factory settings as described above.

DIMMABLE LEDs

Always choose LEDs that are described as "dimmable" and for the best performance choose dimmable LEDs from established brands. We cannot guarantee that all LEDs labelled as "dimmable" can actually be dimmed satisfactorily. The **maximum load** of dimmer should be **de-rated** for LEDs. See below or check www.varilight.co.uk/led for latest advice on loading.

Maximum and minimum loads will vary according to make and type of LED. Refer to LED manufacturer for specific loading information. Generally 1 to 10 LED lamps per gang will perform well per dimmer circuit. A maximum load of 100W for LED is recommended. The dimming performance of dimmable LEDs may be improved by following the steps outlined above under the heading "Changing the Driving Mode".

For more information please refer to the wiring diagrams overleaf.

Fig 1. Wiring For 1-Way Circuits

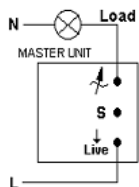


Fig 2. Wiring For Multi-Way Circuits

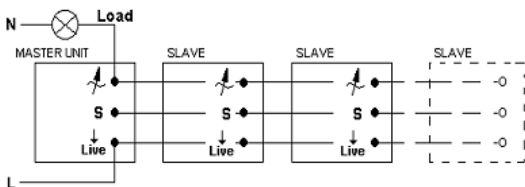
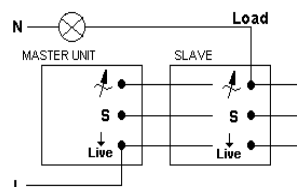


Fig 3. Alternative Wiring For Multi-Way Circuits



OPERATION OF THE SWITCH

To **initialise** the dimmer, press the circular button on the front of the plate once for 2 seconds. The dimmer will respond by making the light(s) brighter. A single press will now turn the light(s) on or off. To dim the lights, keep contact with the button until the desired light level is reached. While contact with the button is maintained, the brightness will cycle up and down. To change the direction of the dimming cycle release and then press the button again. When the brightness reaches the level you require, remove contact with the button.

Dimmers are pre-programmed to respond to button 1 **and** button 8 on the VARILIGHT remote control handset (purchased separately). Alternatively, dimmers can be re-programmed to respond to any other button (2 to 7) on the VARILIGHT remote control handset or a spare button on many other remote control handsets. [* See box below: USING YOUR OWN REMOTE CONTROL HANDSET]. If there is a button that you do not currently use then you may be able to use it to control the dimmer by following these steps carefully (do not omit step 3):-

1. To set the dimmer into learning mode tap the button 6 times, roughly once per second (each tap causes the light(s) to turn on or off). After 6 taps on the button the lights will step up and down and go off.



2. Within 15 seconds and from a distance of less than 1 metre (3 feet) away, pointing directly at the button on the dimmer, briefly press the chosen button on the handset. The light(s) will turn on and turn off.

3. To confirm your choice, **briefly press the same button again**. If the programming has been successful, the light(s) will turn on and turn off. The lights then step up and down once to confirm. Try controlling the dimmer with the remote control. If it does not respond return to step 1 above and try again. If the problem persists, try a different button, a different remote control unit or purchase the dedicated VARILIGHT controller.



4. You can now use this button on the remote control to operate the dimmer. As with the touch button, a single touch on the remote control button will turn the light(s) on and off. Holding the button down will make the brightness cycle up and down. To change the direction of the dimming cycle remove contact and then press the button again. Release contact from the button when the desired light level is reached. The dimmer can still be operated using the touch button.

5. For 2- gang models, repeat steps 1 to 4 for each button, teaching each one a different button so you can control each one separately. You can change your choice of control button by following steps 1 to 4 again at any time.

* **USING YOUR OWN REMOTE CONTROL HANDSET:** If you have a spare button on an existing remote control handset then you may be able to use it to control this dimmer. Not all handsets are compatible with VARILIGHT dimmers but many are. If you try and program the dimmer using your own handset and find that it does not respond then you will need to buy a VARILIGHT handset instead. In some cases the dimmer may appear to learn the signal from your own handset but then respond to other handsets as well. In this case please use the reset function to restore factory settings and buy a VARILIGHT handset instead. For best results, always choose a VARILIGHT handset.

SCENE SETTING: Even if you program the dimmer to recognise another button, it will still respond to button 8 on the VARILIGHT handset. Therefore you can control several dimmers at once using button 8 provided the dimmers are within range of the VARILIGHT handset. For example you could set a different light level for each of the remote control dimmers in a room using their individually assigned buttons and then turn them all on and off with a short touch of button 8.

FREQUENTLY ASKED QUESTIONS

1. **Is it normal for the dimmer to be warm to the touch even when the lights are off?** A small current passes through the dimmer even when it is off to maintain its memory. This can cause the dimmer to feel warm to the touch.
2. **Should I be concerned if the dimmer is very warm during use?** The dimmer will become warm during use. The more lights the dimmer is controlling, the hotter it will become. On its maximum load the dimmer can become very warm. As long as you have not overloaded the dimmer, this is no cause for alarm. If the dimmer is overloaded it will turn the lights down or off.
3. **What happens if I have a power cut?** If for any reason the power is lost to the dimmer, it will still remember the button you have programmed it to respond to.
4. **Why won't my dimmer respond to the remote control?** Check batteries are not flat and are connected properly to the contacts in the casing. Make sure you point the remote control in the direction of the switch and that there is nothing in the way to block the signal. Move closer to the switch. For best results use the VARILIGHT handset. In some cases there may be interference between LED lamps and remote control handsets. If you experience problems, follow the "RESTORE FACTORY SETTINGS" guidelines above.
5. **The touch button does not work properly.** This can be caused by the live and load wires being in the wrong terminals (see wiring diagram overleaf) or by the earth wire not being properly sleeved.
6. **The lights seem to be less bright when on full brightness.** If the lights are drawing too much current the dimmer will attempt to handle this overload by reducing the brightness of the lamps. This can occur when certain types of bulb age.
7. **The dimmer keeps turning itself off.**
 - (a) The dimmer may be doing this because it is grossly overloaded. Use lower wattage bulbs or dimmable electronic transformers to reduce the load. Otherwise use the dimmer elsewhere on a suitable load.
 - (b) The dimmer will also turn off if you are trying to control an unsuitable inductive load (such as a wire-wound or toroidal transformer). In this case change the load to a dimmable electronic transformer. If the dimmer is still "blocked" disconnect from and then reconnect to the mains electricity supply.
8. **The dimmer responds to other buttons on my remote control handset(s).** Repeat the programming procedure above, paying particular attention to holding the handset less than a metre (3 feet) from the front of the dimmer and pointing directly at the lens when you press your chosen button. Be sure to complete the programming procedure by confirming your choice as described at stage 3 of the programming instructions. For best results use the VARILIGHT handset.
9. **How many slaves can be used with a master unit in a multi-way circuit?** Any number of slaves can be used as long as the total cable length from the master to the last slave is less than 50m.

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.
- 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 830.