INSTALLERS – PLEASE LEAVE THESE INSTRUCTIONS WITH YOUR CUSTOMERS TO KEEP FOR FUTURE REFERENCE

V-PRO·IR

www.varilight.co.uk	IJ_I
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.	**Reg. 917** (Batches beginning with 7)
BATCH NO:	

Instructions For Fitting VARILIGHT Intelligent Trailing Edge Touch / Remote Control Dimmerswitches

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

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

V-Pro IR dimmers are set to run in trailing-edge Mode 1 by default. This versatile mode is suitable for most dimmable LEDs. It is also gentler on the load. Some types of dimmable LED perform best with leading-edge control. This dimmer can easily be set to run in leading edge Mode 2 by following the instructions "*Choose the Correct Driving Mode"* on the right. Mode 3 is suitable for some external LED drivers.

The V-Pro IR master dimmer is suitable for 1-way circuits. For 2-way (or multi-way) circuits, use an V-Pro IR master dimmer with one or more dimming slave units. V-Pro IR 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 BSEN60669-2-1) 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**

✘ Non-dimmable fluorescent bulbs and tubes;
✘ Wire-wound or toroidal transformers;
✘ Electric motors;
✘ Dimmable CFLs

THIS SWITCH IS SUITABLE FOR

✓ Most dimmable LEDs [*see "Dimmable LEDs" box on the right*]
✓ Mains voltage incandescent GLS or candle-shaped bulbs;
✓ GU10 or similar mains halogen bulbs
✓ Dimmable electronic low voltage transformers

Always Observe The Recommended Maximum Loads
[*Please also refer to "Overload Protection" box on the right*]

OPTIMISING THE PERFORMANCE OF YOUR DIMMERSWITCH

1. CHOOSE THE CORRECT DRIVING MODE

> **MODE 1:** 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.
For certain lighting loads you may be able to improve the dimming performance by changing to:-
> **MODE 2:** Leading-edge mode for some LED lamps
> **MODE 3:** DigiFlux® mode for DigiFlux® Dimmable CFLs and some external LED drivers

CHANGING THE DRIVING MODE

1. Switch on, then press and hold the touch button on the dimmer for 15 seconds. During this time the lights will cycle up and down. After 15 seconds the lights will turn off.
2. To select MODE 2, press the touch button 4 times (each press causes the light(s) to turn off/on)
OR To select MODE 3, press the touch button 6 times (each press causes the light(s) to turn off/on)
OR To select MODE 1, press the touch button 2 times (each press causes the light(s) to turn off/on)
3. The lights will flash once, twice or three times to confirm the mode that has been selected.

2. ADJUSTING THE MINIMUM BRIGHTNESS (to utilise the full dimming range of your lights)

Tap the touch button 6 times, roughly once per second (each tap causes the light(s) to turn on or off). After 6 taps, wait until the lights step up and down and then go off. Then tap the touch button 6 more times. The lights will come on at a medium brightness and step down to show the 8 brightness settings you can choose as your minimum. Each further tap steps through the 8 settings available in sequence. At your chosen brightness, usually the lowest brightness setting where the lights do not flicker, stop tapping the button. After 5 seconds the dimmer will step the lights up and down to confirm it has saved this setting.

RESTORE FACTORY SETTINGS

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.

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 dimmer turning itself off. If this happens, 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.

Dimmer Series / Lighting Type	V-Pro IR 1 Gang Max. Load	V-Pro IR 2 Gang Max. Load Per Gang	V-Pro IR 3 Gang Max. Load Per Gang	V-Pro IR 4 Gang Max. Load Per Gang
Dimmable Mains LEDs (Also read advice in "Dimmable LEDs" box on the right)	1 to 10 Dimmable LEDs (max. 100W)	1 to 10 Dimmable LEDs (max. 100W)	1 to 10 Dimmable LEDs (max. 100W)	1 to 10 Dimmable LEDs (max. 100W)
Low Voltage LED **[USE DEFAULT MODE 1 ONLY]**	100W	100W	100W	100W
Mains Incandescent	350W	200W	250W	200W
Mains Halogen	300W	150W	200W	150W
Low Voltage Halogen	300W	150W	200W	150W

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. However, if the dimmerswitch receives a total short-circuit it may be damaged beyond repair.

ADVICE ON CHANGING LIGHT BULBS:

Always turn off the mains power when light bulbs controlled by your V-Pro IR dimmer are replaced. If you change the type of light bulb 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

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".*
N.B. Use default MODE 1 only for LEDs powered via electronic transformers.

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 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.

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). For more information please refer to the wiring diagrams overleaf.

Fig 1. Wiring For 1-Way Circuits

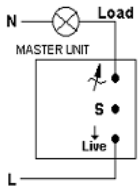


Fig 2. Wiring For Multi-Way Circuits

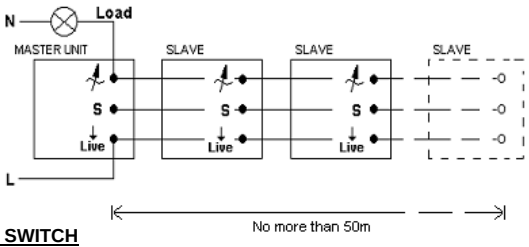
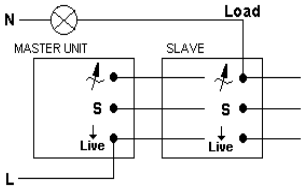


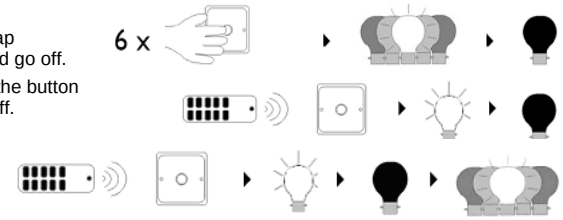
Fig 3. Alternative Wiring For Multi-Way Circuits



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 YRC8 handset (standard control) or YRE8 handset (for advanced control with LightScene™) 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.

VARILIGHT HANDSETS:-

YRC8 – Our standard handset allows control of up to 7 dimmers. Button 8 can be used to turn all the lights on or off. The dimmers will remember the level they were at when switched off and so the previous light levels can be recalled using button 8.

YRE8 HANDSET FEATURING LIGHTSCENE™

CHOOSE THE YRE8 HANDSET FOR ENHANCED LIGHTING CONTROL
Access a host of additional features from your V-Pro IR™ dimmers

www.varilight.co.uk/lightscene

- Control up to 4 lighting circuits from a numbered button
- Turn all the lights on or off using a master button
- Lightscene™ - Combine different light levels in each circuit to create a lighting scene in any room (e.g. for cooking, dining, reading, movies, etc.)
- Save your 4 favourite lighting scenes and recall any one at any time

FREQUENTLY ASKED QUESTIONS

1. **The LED lamps stay on even when I turn the dimmer off.** Some LED lamps are overly sensitive to the very small standby current required by the dimmer and may continue to glow when the dimmer is off. The VARILIGHT Glowfix has been designed to solve this problem and may be required to correct the over-sensitivity of some LED lamps. The Glowfix (part number YAGF) can be purchased from most VARILIGHT stockists and is wired in parallel with the LED load to enable the dimmer to turn the lamps off.
2. **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.
3. **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.
4. **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.
5. **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.
6. **The dimmer keeps turning itself off.**
(a) The dimmer may be doing this because it is grossly overloaded. Use fewer bulbs or lower wattage bulbs 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.
7. **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.
8. **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 917.