



Please keep these instructions for future reference **Ref 720M**

Thank you for choosing **VARILIGHT**. This dimmer is suitable for 1-way circuits. For 2-way (or Multi-Way switching) use this Master Unit with any number of VARILIGHT Dimming Slaves. **N.B. This unit cannot be used in conjunction with conventional switches in a 2-way circuit.** Use only on an electricity supply of 200 to 250 volts AC. This dimmer features versatile trailing-edge control making it suitable for a wider range of applications:-

THIS SWITCH IS SUITABLE FOR

- ✓ Mains voltage GLS or candle bulbs;
- ✓ Good quality dimmable electronic low voltage transformers (including those requiring trailing-edge control) [see "Transformers" box on the right];
- ✓ GU10 or similar HiSpot mains halogen bulbs
- ✓ 1 to 3 VARILIGHT Dimmer Dimmable EnergySaver+ CFLs [N.B. Select mode 2 – see box below right]

Always observe the recommended maximum load [see "Overload Protection" box overleaf]

THIS SWITCH IS NOT SUITABLE FOR

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

FITTING THE SWITCH

Read the instructions below carefully before beginning. **In case of any doubt or difficulty consult a qualified electrician.**

1. Switch off at the mains.
2. 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 dimmer.
3. Check that you have a **genuine live feed** as well as load wire(s) at the wall box (see wiring diagrams below).
4. Ensure that any wall box is free of plaster lumps or projecting screw heads. Use a box with a minimum depth of 35mm for touch or touch/remote dimmers in our Ultraflat and Screwless ranges. For other ranges a box depth of 25mm is sufficient. Please note, a box having 4 fixing lugs cannot be used without modifying it. The top and bottom lugs must be broken off or bent flat.
5. To connect the wiring, refer to the diagrams below. Dimmers with a metal front plate **must be earthed** by means of the earthing point on the dimmer. You must ensure that all wires are sleeved fully and only enough bare wire is showing to connect to the terminals. Push wires deep into terminals and tighten terminal screws so that wires are held securely. No bare wires should protrude from the terminals.
6. After connecting the wires, screw the dimmer gently into the wall box. Do not trap the wiring between the rear of the dimmer and the back of the wall box.
7. Turn on the mains electricity.

TRANSFORMERS: Use only on 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, eg. Wire-wound or toroidal transformers, the dimmer will not work. To protect itself it will turn off within 1 second.) The dimmer will allow this to happen 3 times before locking further use until it is disconnected and reconnected to the mains electricity.

VARILIGHT DIMMER DIMMABLE ENERGYSAVER+

Select mode 2 to control 1 to 3 Varilight Dimmable EnergySaver+ CFLs (For other brands of 'dimmable' energy-savers, consult instructions with the light bulb)

Press and hold the touch button for 15 seconds. During this time the dimmer will cycle the lights. When the lights switch off remove your finger from the button. The lights will flash twice to indicate the dimmer is set to operate in mode 2.

To return to mode 1, press and hold the touch button again for 15 seconds. During this time the dimmer will cycle the lights. When the lights switch off remove your finger from the button. The lights will flash twice to indicate the dimmer is set to operate in mode 1.

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 "↗".

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.

To fit 2, 3 or 4-gang dimmers treat each group of terminals at the back of the unit as a separate dimmer, wiring them into the lighting circuits as above. You may need a short length of wire to connect together the "Live↓" terminals.

Fig 1. Wiring For 1-Way Circuits

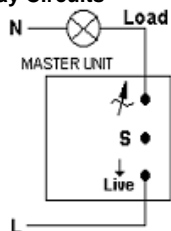


Fig 2. Wiring For Multi-Way Circuits

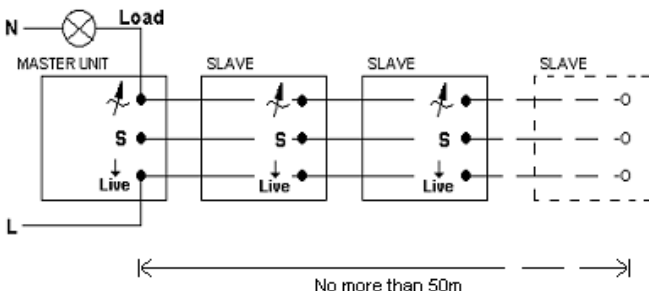
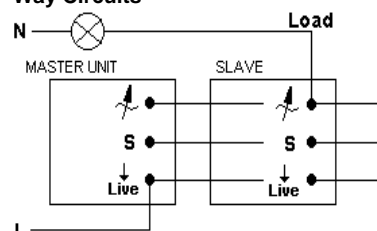


Fig 3. Alternative Wiring For Multi-Way Circuits



GUARANTEE

Important: In case of any defect return the dimmer to our service department. This guarantee is in addition to and not in derogation of the statutory rights of the purchaser and is offered so that you may have the benefit of our technical facilities. Should any defect occur in this unit within 12 months of its purchase we will replace or repair the defective unit free of charge provided that:-

- a) The unit has been correctly fitted according to the instructions and has not been used with non-dimmable fluorescent bulbs, non-dimmable compact fluorescent bulbs, wire-wound transformer or electric motors, or overloaded beyond its rating, and has only been used on 200-250V a.c.
- b) The dimmer module has not been tampered with or taken apart. 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.

GUARANTEE REGISTRATION NUMBER 720M.

OPERATION OF THE SWITCH

If your dimmer does not have a remote control function, you need only read (a) below. For remote control dimmers read (a) and (b) below.

(a) Touch Control

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

(b) Remote Control

Dimmers with an "eye" in the middle of the sensor are pre-programmed to respond to button 1 **and** button 8 on the VARILIGHT remote control handset (purchased separately). Alternatively, dimmers with an "eye" in the middle of the sensor 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, after it is initialized, tap the sensor 6 times, roughly once per second (each tap causes the light(s) to turn on or off). After 6 taps on the sensor the lights will step up and down once and go off.
2. Within 15 seconds and from a distance of less than 1 metre (3 feet) away, pointing directly at the "eye", press and release your chosen button on the remote control handset. The light(s) will turn on and turn off.



3. To confirm your choice, **press and release the same button on the remote control handset 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 sensor, 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 sensor.
5. For 2- gang models, repeat steps 1 to 4 for each sensor, 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.

RESTORE FACTORY SETTINGS: Follow step 1 above. Press and hold the touch button on the dimmer for at least 4 seconds. The light will then come on and fade to off to signal that the dimmer has been reset to its factory settings.

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 have chosen the correct dimmer (it should have an "eye" in the middle of the sensor). 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.
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.

OVERLOAD PROTECTION: As a safety feature, this dimmer is protected against overload and overheating. (N.B. Some types of bulb can draw more current as they age and overload the dimmer). If the dimmer becomes too hot it will attempt to handle the overload by reducing the brightness of the lamps. If it is unable to do so the dimmer will **automatically turn the lights off** until the overload is removed and the dimmer is switched off and then switched back on again.