





VARILIGHT K015 Com Dimmer Switches Instruction Manual

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VARILIGHT K015 Com Dimmer Switches



OVERVIEW

Thank you for choosing a VARILIGHT V-Com intelligent programmable dimmer switch. Use only on an electricity supply of 230V 50Hz AC. IMPORTANT: Read ALL sections below before installing this dimmer switch. V-Com dimmers are leading-edge and designed to control TRIAC dimmable LED lighting. Toptimizese the dimming performance with LED lighting see "Programming" overleaf. For information on compatibility with other types of lighting please see "Loading" overleaf. 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. Doyle & Tratt Products Ltd, Carylls Lea, Faygate, Horsham, W. Sussex, RH12 4SJ, UK. +44(01293) 223333 Varilight Europe Kft, 2600 Vác, Althann Mihály Frigyes utca 2, Hungary.

LOADING

Always observe the recommended minimum and maximum loads stated on the dimmer. For mixed loads, follow the LED rating. Please see www.varilight.co.uk/dimmers/v-com.html for the latest loading guidance.

	V-Com Grid Dimmer Push On/Off	V-Com Standard Dimmer Push On/Off			
Lighting Type	Multi Gang Per Gang	1-Gang	2-Gang Per Ga	3-Gang Per Ga	4-Gang Per Ga
	SSee thethe product label for loading information.				
Dimmable LEDs	For the latest advice on dimmable LEDs, please visit www.varilight.co.uk/leds				

THIS SWITCH IS RECOMMENDED FOR

LED Lighting Requiring TRIAC dimming

THIS SWITCH IS ALSO COMPATIBLE WITH

• Good quality dimmable low voltage transformers [see "Transformers"]

THIS SWITCH IS NOT SUITABLE FOR

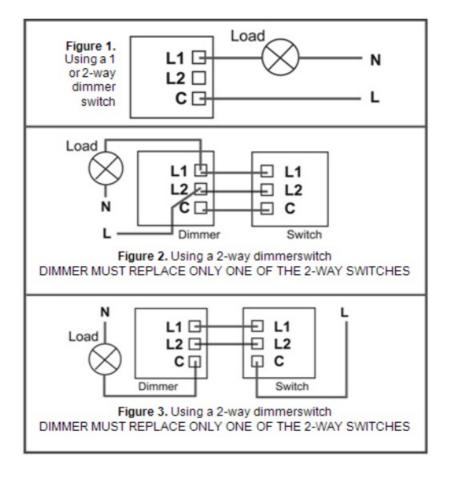
- · Fluorescent bulbs and tubes
- Electric motors

OVERLOAD PROTECTION

This dimmer switch is protected against overheating and overload. If an overload occurs the dimmer will turn off. In this case, switch off the dimmer, remove the overload, and switch back on again. However, if the dimmerswitch receives a total short-circuit it may be damaged beyond repair.

TRANSFORMERS

Use only with quality dimmable 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 (e.g. Use a 50VA, 60V, A, or 70VA transformer to control a 50-low-voltagege 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 switching the dimmer off. If so, change your transformer(s) (VARILIGHT transformer(s) recommended); remove one (or some) transformer(s) from the circuit; or choose a higher-rated dimmer.



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Please record the batch number printed on the side of the plastic molding on the rear of the product. This will assist us in providing any technical support you may require.

BATCH NO:

- INSTALLERS Please leave these instructions with your customer for future reference.
- WARNING: Do not apply products with metal faceplates directly to freshly plastered or damp surfaces as the
 product may tarnish. If in doubt, use polythene as a temporary gasket to protect the product. Do not use
 masking tape on metal faceplates.

GUARANTEE

- 1. In case of any defect, return the dimmer to our service department. Varilight undertakes to repair or replace, at its discretion, goods that have become defective, solely as a result of faulty materials and workmanship, provided that:-
 - The unit has been correctly fitted according to the instructions has not been used with an incompatible load, fluorescent tubes, or overloaded beyond its rating, and has only been used on a 230V 50Hz AC power supply.
 - The dimmer module has not been tampered with or taken apart.
 - The unit is securely packed and safely returned to either address listed in the overview section above, together with a letter stating the guarantee registration number below, the date and place of purchase, your contact details and return address, 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 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. In many cases products don't need replacing, so for further information and help with troubleshooting, see our FAQ page at www.varilight.co.uk/faqs, or contact our Customer Services by calling +44(01293) 223333 or create a support ticket at www.varilight.co.uk/help.

GUARANTEE REGISTRATION NUMBER

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 dimmer switch.
- 2. Ensure that any wall box is free of plaster lumps or projecting screw heads.
- 3. Dimmerswitches on single-sized plates can be fitted to wall boxes having 60.3mm screw fixincenterses and those with double-sized plates to wall boxes with 120.6mm fixing centers. Dimmers can be fitted into a box with a minimum depth of 25mm for Classic plated products, or 35mm for Ultraflat and Screwless. A box having 4 fixing lugs cannot be used without modifying it. The top and bottom lugs must be broken off or bent flat.
- 4. To connect the wiring for 1-way or 2-way circuits refer to the diagrams overleaf under the heading "1-Way, 2-Way, and Multi-Way 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.

- 5. Dimmerswitches having a metal front plate must be earthed using the earthing point on the faceplate.
- 6. After connecting the wires screw the dimmer switch 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.
- 7. Once installation is complete. Switch on the mains supply and switch on the dimmer, turning the control knob to give the desired light level. 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 & MULTI-WAY CIRCUITS

Your VARILIGHT V-Com intelligent dimmer switch is suitable for 1-way or 2-way lighting circuits. It has a push-on push action to switch and a rotary action to dim. There are 3 screw terminals per module.

1-WAY CIRCUITS

In 1-way lighting circuits, each light is controlled by one switch. Your dimmer switch should replace this switch. See Figure 1. Remove your old switch and copy the wiring configuration for your dimmer switch. Connect wires either around the 'C' terminal or one of the 'L' terminals. The other 'L' terminal is not used in a 1-way circuit. (P.T.O)

2-WAY CIRCUITS

2-way lighting circuits have two switches turning the same lights on and off from 2 different locations (eg. at the top and bottom of the stairs). You must only replace one of these switches with a dimmer switch or the lights will flicker. See Figures 2 and 3 which show typical 2-way circuits. Remove your old switch and copy the wiring configuration for the dimmer. The wire(s) fitted in the "common" terminal of the old switch should be fitted into the "C" terminal of the dimmer switchitch. The fitted into the other two terminals of the old switch should be fitted either way around into terminals "L1" and "L2" of the dimmer switch.

MULTI-GANG DIMMERSWITCHES

To fit 2gangsg (or 3 or ganging)dimmer switches treat each group of terminals at the back of the unit as aseparatee dimmerswitchen 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.

PROGRAMMING

OPTIMISING THE PERFORMANCE OF YOUR DIMMER SWITCH

When you first install the dimmer switch it will automatically default to MODE 1. This mode is the best one for almost all types of LED lighting but if the lights are flashing in MODE 1 you may be able to improve the dimming performance by changing the driving mode. [See "Changing the driving mode" below.] You can always reset to MODE 1. Additionally, the minimum and maximum brightness settings of the dimmer can be adjusted to achieve the optimum dimming range for a particular load as follows.

ADJUSTING THE MINIMUM BRIGHTNESS

If your lights are flickering when they are dimmed to a low level you can increase the minimum brightness setting of the dimmer, which may prevent this from happening. If the lights are brighter than you would like when the dimmer is set to a inimum, you can try reducing the minimum brightness setting of the dimmer.

- 1. Switch on and set the dimmer knob to the MINIMUM position (turn fully\ anti-clockwise).
- 2. Turn the lights off and back on again. OFF ON, roughly once per second.
- 3. Repeat step 2 at least twice more. OFF ON OFF ON, roughly once per second.
- 4. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE, then

- either stay at a low light level or go off.
- 5. Turn the knob fully clockwise. The lights will come on and allow you to adjust the minimum brightness.
- 6. Slowly adjust to the brightness that you are happy with as the minimum. Leave the dimmer in this position.
- 7. After 3 seconds the dimmer will notice that you have stopped adjusting the minimum. The lights will step up and down in brightness to show that the dimmer has returned to normal operation.
- 8. Continue to use the dimmer as normal, with your new minimum brightness.

ADJUSTING THE MAXIMUM BRIGHTNESS

If your lights are flickering when they are set to a high brightness level you can decrease the maximum brightness setting of the dimmer, which may prevent this from happening. If the lights are not as bright as you would like when the dimmer is set to maximum, you can try increasing the maximum brightness setting of the dimmer.

- 1. Switch off and set the dimmer to MAXIMUM (turn fully clockwise).
- 2. Turn the lights on and back off again. ON OFF, once per second.
- 3. Set the dimmer knob to MINIMUM (turn fully anticlockwise).
- 4. Turn the lights on and back off again. ON OFF, once per second.
- 5. Set the dimmer knob to MAXIMUM (turn fully clockwise).
- 6. Turn the lights on.
- 7. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE, then stay at a low light level or go off.
- 8. Turn the knob fully anticlockwise. The lights will come on and allow you to adjust the maximum brightness.
- 9. Adjust the brightness that you are happy with as the maximum. Leave the dimmer in this position.
- 10. After 3 seconds the dimmer will notice that you have stopped adjusting the maximum. The lights will step up and down in brightness to show that the dimmer has returned to normal operation.
- 11. Continue to use the dimmer as normal, with your new maximum brightness.

PROGRAMMING (CONTINUED)

CHANGING THE DRIVING MODE

Unless the lights are flashing the best dimming performance that the lamps can deliver is likely achieved in MODE 1. If the lights are flashing then you may be able to improve the performance of your lamps by manually changing the driving mode to MODE 2, or in a small number of cases, MODE 3.

- 1. Switch on and set the dimmer knob to the MAXIMUM position (turn fully clockwise).
- 2. Turn the lights off and back on again. OFF ON, roughly once per second.
- 3. Repeat step 2 at least twice more. OFF ON OFF ON, roughly once per second.
- 4. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE, then either stay at a low light level or go off.
- 5. To select MODE 3, first turn the knob fully anti-clockwise and then fully clockwise. For MODE 2, just turn the knob fully anti-clockwise and leave it for a couple of seconds.
- 6. The lights will FLASH 3 TIMES or TWICE to show which mode the dimmer is in. The dimmer can be operated normally in the new mode. To return the dimmer to MODE 1 follow the same procedure. In this case, both options in step 4 will cause the lights to FLASH ONCE to indicate that you have successfully returned the dimmer to MODE 1. [To check which MODE the dimmer is operating in omit step 4.]

Some LED lights require a large amount of power to come on and so do not illuminate at low brightness levels. This dimmer is equipped with a DRIVE function to cater to LED lights that require more power at start-up. To enable the DRIVE function

- 1. Switch off and set the dimmer knob to the MINIMUM position (turn fully anticlockwise).
- 2. Turn the lights on and back off again. [ON-OFF] roughly once per second.
- 3. Set the dimmer knob to the MAXIMUM position (turn fully clockwise)
- 4. Turn the lights on and back off again. [ON-OFF] roughly once per second.
- 5. Set the dimmer knob to the MINIMUM position (turn fully anticlockwise)
- 6. Turn the lights on.
- 7. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE, then either stay at a low light level or go off.
- 8. Turn the knob fully clockwise to switch on the DRIVE function. The lights will flash once.
- 9. Continue to use the dimmer as normal with your new DRIVE level.
- 10. To disable the DRIVE function, repeat the above but omit step 8.

RESETTING THE DIMMER

If you change your lights we recommend you reset the dimmer to the factory default settings.

- 1. Switch on and set the dimmer knob to the MAXIMUM position.
- 2. Press to turn the lights off and back on again at least 3 times [OFF–ON x 3], leaving approximately one second between presses.
- 3. Wait for the dimmer to step the lights up and down. Then press to turn the lights off and back on again at least 3 more times [OFF–ON x 3], leaving approximately one second between presses.
- 4. The dimmer will reset all its settings to factory defaults. The lights will come on, then fade away to off.
- 5. Continue to use the dimmer as normal

CHILD LOCK

• You can prevent your dimmer from accidentally going into programming mode by following these instructions.

To enable the Child Lock feature

- 1. Switch off the dimmer and set the dimmer knob to the MAXIMUM position (turn fully clockwise).
- 2. Turn the lights on and back off again twice. ON OFF ON OFF, roughly once per second.
- 3. Set the dimmer knob to the MINIMUM position (turn fully anticlockwise).
- 4. Turn the lights on and back off again twice. ON OFF ON OFF, roughly once per second.
- 5. Set the dimmer knob to the MAXIMUM position (turn fully clockwise).
- 6. Turn the lights ON OFF ON, roughly once per second.
- 7. The lights will step up and down in brightness to show that the dimmer has returned to normal operation.
- 8. Continue to use the dimmer as normal, with your new Child Lock setting.
- 9. To disable Child Lock, repeat the whole procedure.

NB. It has been noted that some LEDs do not show the programming as well as others. If you are having difficulty

seeing the programming steps, you can replace one LED lamp with a halogen one for the duration of the programming to see the steps more clearly.

FREQUENTLY ASKED QUESTIONS

• For FAQs, please visit: www.varilight.co.uk/faqs

Documents / Resources



<u>VARILIGHT K015 Com Dimmer Switches</u> [pdf] Instruction Manual K015 Com Dimmer Switches, K015, Com Dimmer Switches, Dimmer Switches, Switches

References

• User Manual

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