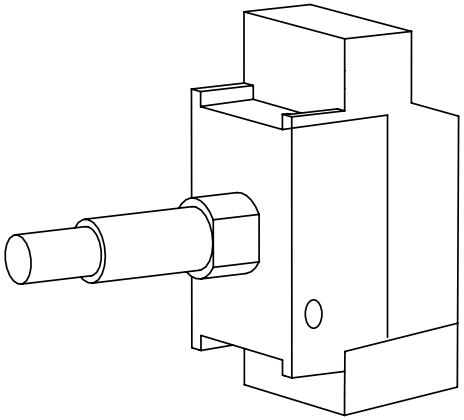
BUSTER + PUNCH
LONDON

ELECTRICITY

DIMMER MODULE / 120W LED / 2-WAY / PREMIUM

CDM-012406



For assembly, refer to **MODULAR ASSEMBLY MANUAL** for your region.

TECHNICAL SPECIFICATION

120W 2-Way Dimmer Switch
230V ~ 50Hz
BS EN 55015
BS EN 60669-2-1

IMPORTANT!

This product must be installed by a qualified professional. Turn off the power at the breaker prior to installing this product.

WARRANTY INFORMATION

The Warranty Period of Two (2) years from the date of the original purchase.

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L0285

CE UKCA

OVERVIEW

This dimmer switch is designed for use with standard 2-way and 3-way wiring accessories. Maximum one dimmer module per circuit. Not compatible with retractive switches and Buster + Punch multipoint dimmers. Use only on an electricity supply of 230VAC 50Hz.

IMPORTANT: READ ALL SECTIONS BELOW BEFORE INSTALLING THIS SWITCH.

This dimmer is set to run in trailing-edge mode (MODE 1) by default. This versatile mode is suitable for most types of lighting recommended below. The alternative trailing-edge mode (MODE 3) may improve the performance of some dimmable LEDs. Some other lighting loads, including some types of LED, perform best in Mode 2. This is a simulated leading edge mode (not TRIAC) which is suitable for use with certain types of LED light. To change the mode, follow the instructions under "Programming" below.
This product complies with UKropean 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.
At the time of installation it is your responsibility to make sure that the lamps in your installation are visibly on, even at the lowest brightness setting [see "Adjusting the Minimum Brightness" under "Programming"]. This will allow your installation to comply with the UK EcoDesign Regulation 1194/2012. To optimise the dimming range for LED lighting in particular the minimum brightness setting of the dimmer can be adjusted [see "Adjusting the Minimum Brightness" under "Programming"].

WARRANTY

For FAQs and return information, please visit: **https://www.busterandpunch.com/pages/support**

For warranty information, please visit: **https://www.busterandpunch.com/pages/warranty**

HEAD OFFICE / UK Bittern Way, Peterborough, PE2 8TY, UK
REG ADDRESS / EU Grzybowska 2/29, 00-131 Warszawa, PL

Please record the batch number printed on theside of the plastic moulding on the rear of the product. This will assist us in providing any technical support you may require. INSTALLERS: Please leave these instructions with your customer for future reference.	**REG. JP012**
BATCH NO:	

RECYCLING ELECTRICAL PRODUCTS:

Buster and Punch encourages all of its customers to make note of this symbol and avoid putting any waste electrical goods in your domestic waste bin or container. Please ensure you take your waste electrical goods to a suitable facility for disposal.

LOADING

THIS SWITCH IS SUITABLE FOR
- Dimmable LED Lighting
-Good quality dimmable electronic low voltage transformers (including those requiring trailing-edge control) [see "Transformers"]

THIS SWITCH IS NOT SUITABLE FOR
- Non-dimmable LED lighting
- Non-dimmable fluorescent bulbs and tubes
- Wire-wound or toroidal transformers
- Electric motors (e.g. Fans)
- TRIAC dimmable drivers

OVERLOAD PROTECTION

This dimmer switch is protected against overload. If an overload occurs it will automatically turn off until the overload is removed and the dimmer switch is switched off and then switched back on again. However, if the dimmer switch receives a total short-circuit it may be damaged beyond repair.

TRANFORMERS

Use only with quality dimmable **electronic** transformers. For optimum performance choose VARILIGHT transformers. Do not use with wirewound or toroidal transformers, or TRIAC dimmable drivers (choose V-Com for TRIAC dimmable. 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, 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 switching the dimmer off. 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.

FITTING THE DIMMER SWITCH

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, and then remove the existing switch from the wall. Take note of the present wiring of the switch and the marking on the terminals. Disconnect the existing switch and connect the dimmer switch. 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. Dimmer switches 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. 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.
3. To connect the wiring for 1-way or 2-way circuits refer to the diagrams to the right 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.
4. Dimmerswitches fitted to a metal faceplate must be earthed by means of the marked earthing point on the faceplate.
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.

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

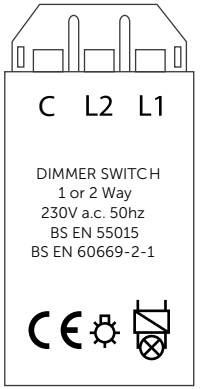
WARNING!

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.

WARNING!

THE SWITCH IN THIS PRODUCT IS RATED AT 6A. CHECK THE IN-RUSH CURRENT FOR LED BULBS OR DRIVERS DOES NOT EXCEED 6A BEFORE CONNECTING. FIT INRUSH CURRENT LIMITERS WHERE NECESSARY.

Connect the wires as shown in appropriate wiring diagrams. Ensure the correct colour of cable insulation is used to comply with local building regulations. Use sleeving on earth conductors that are not insulated. Ensure terminals are properly tightened and no bare wire is visible. Push back unit into back box making sure conductors are not trapped.



1

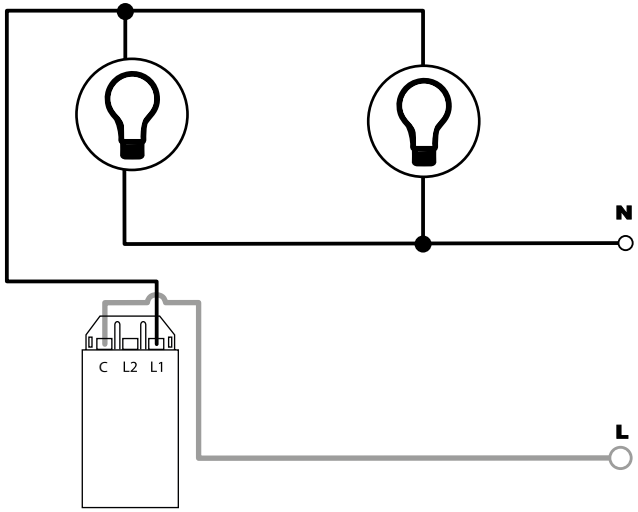
BEFORE COMMENCING WORK, ISOLATE THE MAINS POWER SUPPLY AND REMOVE THE FUSE BOX OR SWITCH OFF THE CIRCUIT BREAKER IN CONSUMER UNIT.



2a

ONE WAY OPERATION

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



NOTE:

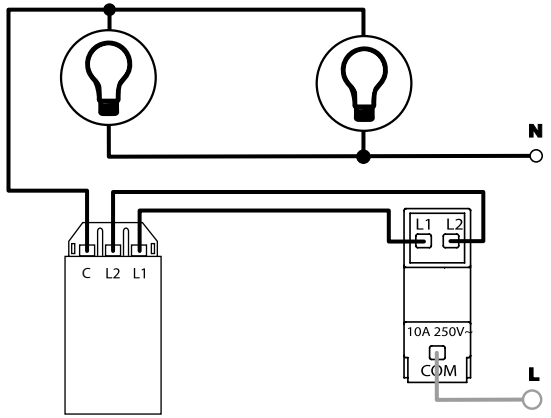
The Dimmer must always be connected to the incoming / supply side of the load. Two or more dimmers MUST NOT be connected in parallel or series to control the same load.

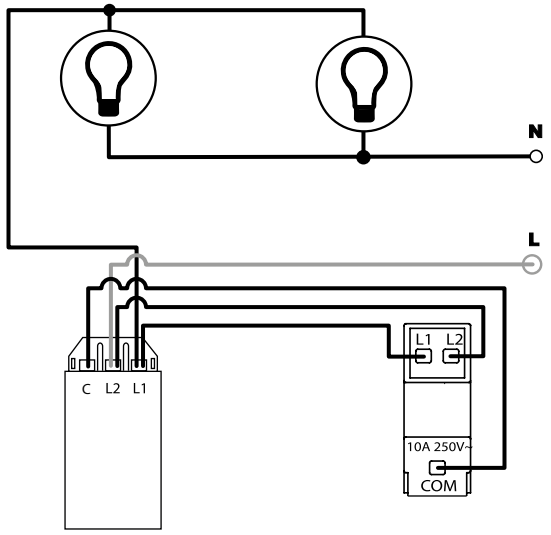
2b

TWO WAY OPERATION

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.

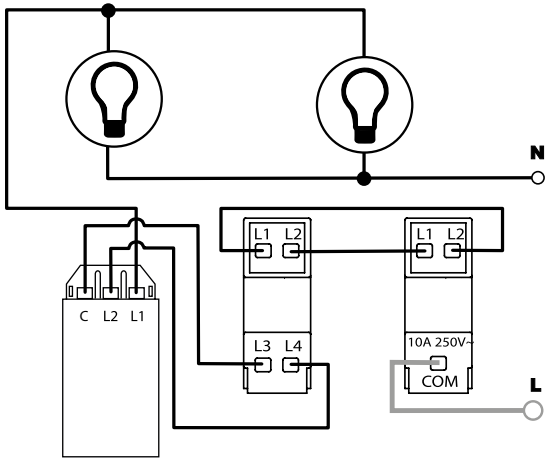
The wire(s) fitted in the "common" terminal of the old switch should be fitted into the "C" terminal of the dimmer switch. The wires fitted into the other two terminals of the old switch should be fitted either way round into terminals "L1" and "L2" of the dimmer switch.





2c THREE WAY OPERATION

How to Switch lights from 3 / more locations using buster and punch intermdiate switch.



PROGRAMMING

OPTIMISING THE PERFORMANCE OF YOUR DIMMER SWITCH

When you first install the dimmer switch it will automatically default to trailing-edge MODE 1. This mode is the best one for most types of lighting but for some lighting loads 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 trailingedge MODE 1. Additionally, the minimum brightness setting of the dimmer can be adjusted to achieve the optimum dimming range for a particular load as follows. (You may also need to refer to these instructions if you change your lights to a different type at a later date so please keep them for reference).

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 minimum, 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 anticlockwise).
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.

PROGRAMMING (CONT.)

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 knob to the MAXIMUM position (turn fully clockwise).
2. Turn the lights on and back off again. 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. ON – OFF, roughly once per second.
5. Set the dimmer knob to the MAXIMUM position (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 either 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.

CHANGING THE DRIVING MODE

You may be able to improve the performance of your lamps by changing the driving mode to MODE 3, or with some types of lamp MODE 2.
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 in order to see the steps more clearly.

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 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.

N.B. The dimmer is designed to protect itself against excess current. Some types of LED light will draw too much current in MODE 2. In this case the dimmer will switch back automatically to MODE 1. The dimmer will turn off altogether if it is overloaded in MODE 1 or MODE 3.

To manually return the dimmer to MODE 1 follow the same procedure and at step 5 turn the knob fully anti-clockwise. The lights will 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 5.]

RESETTING THE DIMMER

If you change your lights you can reset the dimmer to the factory default minimum brightness setting and re-launch trailing-edge mode 1 as follows.

1. Switch on and set the dimmer knob to the MAXIMUM position.
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. Within 5 seconds, repeat steps 2 and 3. OFF – ON – OFF – ON – OFF – ON , roughly once per second.
6. The dimmer will reset all its settings to factory defaults. The lights will come on, then fade away to off.
7. The dimmer will now operate in trailing-edge mode 1 and the minimum brightness setting will be reset to the factory default.
8. Continue to use the dimmer as normal.

PROGRAMMING (CONT.)

DRIVE FUNCTION

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 for 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. Slowly increase the power until your lamps illuminate. Leave the dimmer in this position.
9. After 3 seconds the dimmer will notice that you have stopped adjusting the DRIVE. The lights will step up and down in brightness to show that the dimmer has returned to normal operation.
10. Continue to use the dimmer as normal with your new DRIVE level.

To disable the DRIVE function, repeat the above but omit step 8

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 again.

[end. **ORDINARY.**]