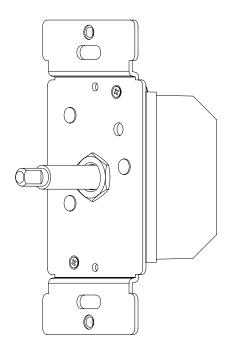


DIMMER MODULE / LED
INSTALLATION MANUAL US
(NDM-024061 / BP-VR250US)

COMPATIBLE WITH 3 WAY & INTERMEDIATE SWITCHES



BUSTERANDPUNCH.COM/US

L0235.2

#### EN

## **IMPORTANT NOTES**

#### PLEASE READ BEFORE INSTALLING.

- 1. THIS PRODUCT MUST BE INSTALLED BY A QUALIFIED PROFESSIONAL. INSTALL IN ACCORDANCE WITH ALL NATIONAL AND LOCAL ELECTRICAL CODES. TURN OFF THE POWER AT THE BREAKER PRIOR TO INSTALLING THIS PRODUCT. THIS DIMMER MAY NOT BE COMPATIBLE WITH ALL WIRING, CIRCUITS OR LIGHT FIXTURES AND DRIVERS.
- 2. THIS DIMMER MAY BE USED AS A SINGLE CIRCUIT OR WITH A 3 WAY CONFIGURATION WHEN USED WITH A 3-WAY TOGGLE SWITCH. FOR OTHER CONFIGURATIONS, PLEASE CHECK WITH A QUALIFIED ELECTRICIAN OR CONTRACTOR.
- 3. USE WIRES RATED FOR AT LEAST 75°C & USE COPPER WIRE ONLY.

## CAUTION



ΕN

TO REDUCE THE RISK OF OVERHEATING AND POSSIBLE DAMAGE TO OTHER EQUIPMENT, DO NOT INSTALL TO CONTROL A RECEPTACLE, A MOTOR-OPERATED APPLIANCE, OR A TRANSFORMER-SUPPLIED APPLIANCE.

FR

GRADATEURS COMMANDANT UN BALLAST—AFIN DE REDUIRE LE RISQUE DE SURCHAUFFE ET LA POSSIBILITED'ENDOMMAGEMENT A D'AUTRES MATERIELS, NE PAS INSTALLER POUR COMMANDER UNE PRISE, UN APPAREIL AMOTEUR OU UN APPAREIL ALIMENTE PAR UN TRANSFORMATEUR.



# WARNING: ELECTRIC SHOCK HAZARD

Hazardous voltage may be present at the dimmer's output despite setting the dimmer to zero brightness level.

## **ELECTRICAL SPECIFICATIONS**

PARAMETER	VALUE	
Supply voltage & Frequency	100 - 120V AC 60Hz	
Rating	5-250W: When used with dimmable LED lamps. 10-300W: When used with incandescent lamps, halogen lamps and Low Voltage Incandescent Ballasts	
Dimming Technology	Automatic Detection of Forward Phase and Reverse Phase Dimming mode. User Select also available.	
	Dimmable LED lighting with compatible Electronic Transformers	
Compatible loads for <b>RP MODE - REVERSE PHASE</b>	LV Halogen Lighting with electronic transformers	
	Incandescent lighting, MV Halogen lamps	
Compatible loads for <b>FP MODE - FORWARD PHASE</b>	LV Halogen Lighting with Iron-core transformers	
Operating Temperature	32° - 95° F	
Operating Humidity	10-90% R.H.	

## THERMAL OVERLOAD PROTECTION:

This dimmer has a built-in thermal protected circuit. It will automatically switch off if the temperature rises above 131 °F / 55°C and reset when the dimmer cools down to 95 °F / 35°C. If the issue persists, please reduce the load on the dimmer.

#### SHORT CIRCUIT PROTECTION

Once activated, the dimmer will stop and reset after 5 seconds. If there is still a fault on the circuit, the dimmer will suspend operation until power is disconnected and switch on again. In this case, please contact a qualified professional.

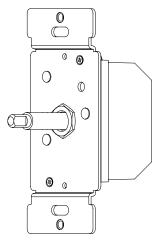
## NOTE:

Only Forward Phase Mode is compatible when connecting with IRON-CORE transformers, DO NOT use in Reverse Phase mode. Multiple compatible loads can be used if the total lamp wattage does not exceed the maximum load rating of the dimmer (Halogen/Incandescent 300W, LED 250W). Some lamps may exhibit unexpected performance characteristics when cold. Dimming performance should improve after the lamp warms up. If the lamp appears unstable, try changing to Forward Phase or Reverse Phase mode.

## **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 domestic waste bins or containers. Please ensure you take your waste electrical goods to a suitable facility for disposal.





## MINIMUM BRIGHTNESS LEVEL SETTING:

How to set the minimum brightness level :

FOLLOW OPERATING STEPS		ACTIONS		
1	A	Remove front plate cover, turn ON the lamp, set to maximum brightness, then push button (A) once. Lamp will appear half brightness now ready to set minimum brightness		
2		Turn central knob to set desired min brightness level, then push button (A) once. Lamp will appear at min brightness then return to normal brightness level to confirm save setting.		
You must perform each step within 15 seconds; if not, it will automatically exit the program without saving.				

## **MODE SETTING**

How to manually change the MODE SETTING (Factory default Reverse Phase/auto mode) :

FOLLOW OPERATING STEPS		LOW OPERATING STEPS	ACTIONS
Reverse Phase mode	RP	A	Remove front plate cover, Turn ON the lamp at min. brightness then push and hold button (A) for 5 seconds until lamp will appear half-brightness and release button (A), lamp will flash 1 time to confirm and save setting.
Forward Phase mode	FP		Remove front plate cover, Turn ON the lamp to max. brightness, then push and hold button (A) for 5 seconds until lamp will appear min-brightness and release button (A), Lamp will flash 3 times to confirm and save setting.
You must perform each step within 15 seconds; if not, it will automatically exit the program without saving.			

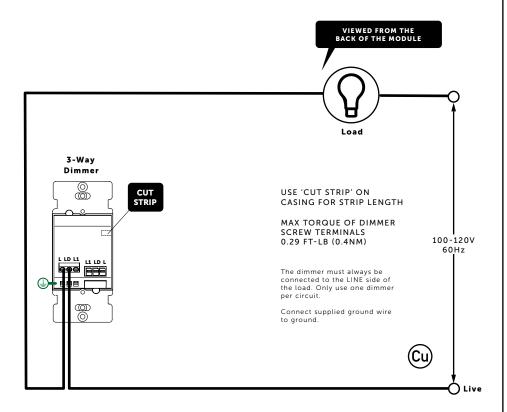
BEFORE COMMENCING WORK,
TURN OFF THE MAIN POWER
SUPPLY OR SPECIFIC BREAKER
FOR THE DIMMER OR SWITCH
AT THE BREAKER BOX. IF YOU
ARE NOT SURE WHICH BREAKER
CONTROLS THE SWITCH YOU WANT
TO REPLACE, THEN TURN OFF
THE MAIN POWER SWITCH IN THE
BREAKER BOX TO CUT OFF ALL THE
POWER TO THE PROPERTY.



# 2 A SINGLE CIRCUIT WIRING / SINGLE LOCATION CONTROL:

#### HOW TO DIM THE DIMMER SWITCH:

Push to turn lights on / off. Turn knob clockwise to increase brightness. Turn knob anti-clockwise to decrease brightness.



# TERMINAL LEGEND

L - Single Circuit & 3-Way Switch output

LD OR C - Live in from Distribution power source

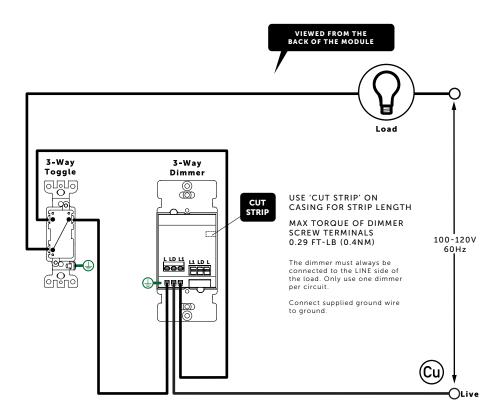
L1 - 3-Way switch output

If 3-Way Switch Output installation does not turn on, swap  ${\bf L}$  and  ${\bf L1}$ 

### **INSTALLATION NOTATIONS:**

- Some dimmer modules may show the Live in terminals as either a "LD" or "C". Please note this when replacing modules.
- When trouble shooting a 3-Way circuit, be sure to check the "L" and "L1" traveler wires for proper connection and functionality between the 3-Way dimmer module and the 3-Way toggle switch. These connections can vary based on how circuitry is wired.

# **2 B** 3-WAY CIRCUIT WIRING (TWO LOCATION CONTROL - WHEN USED WITH A 3-WAY TOGGLE): How to dim in one location, $\vartheta$ on $\vartheta$ off in another:



### TERMINAL LEGEND

L - Single Circuit & 3-Way Switch output

LD OR C - Live in from Distribution power source

L1 - 3-Way switch output

If 3-Way Switch Output installation does not turn on, swap  ${\bf L}$  and  ${\bf L1}$ 

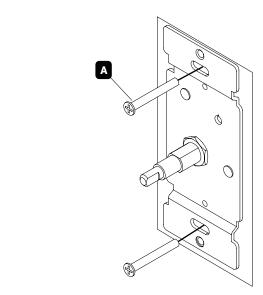
## **INSTALLATION NOTATIONS:**

- Some dimmer modules may show the Live in terminals as either a "LD" or "C". Please note
  this when replacing modules.
- When trouble shooting a 3-Way circuit, be sure to check the "L" and "L1" traveler wires for
  proper connection and functionality between the 3-Way dimmer module and the 3-Way
  toggle switch. These connections can vary based on how circuitry is wired.

### NOTE:

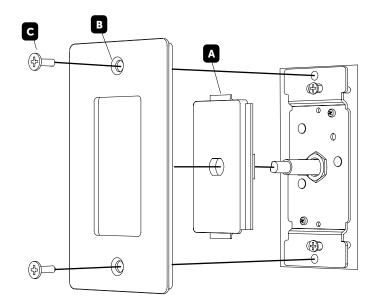
For toggle wiring see relevant installation manual.

## MOUNT MODULE INTO WALL BOX / PLATE USING SCREWS(A) PROVIDED.

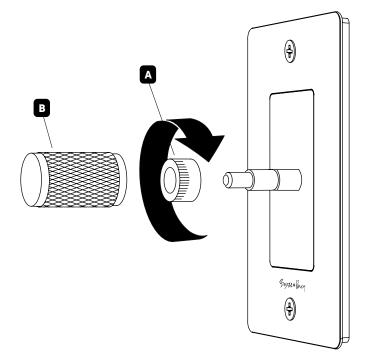


# PLACE INFILL PLATE (A) OVER THE DIMMER SHAFT PLACE COVER PLATE (B) OVER THE INFILL PLATE & TIGHTEN SCREWS (C) FINGER TIGHT.

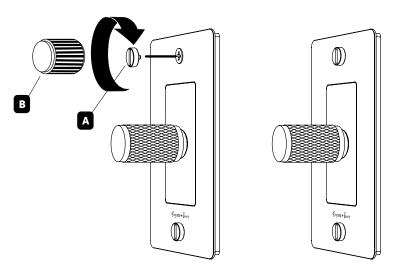
FYI: This product has a 1/8 inch shadow gap when installed.



5 SCREW CENTRE RETAINING NUTS (A) (2 PARTS, PLASTIC FITMENT NUT AND METAL FINISHED LOCK NUT) INTO PLACE, BY HAND FINGER TIGHT ONLY. ALIGN INTERNAL FLAT OF DIMMER KNOB (B) WITH DIMMER SHAFT AND PRESS FIT BY HAND TAKING CARE TO ALIGN PARTS CAREFULLY.



FIT COIN CAPS (A) USING TOOL (B) PROVIDED, FINGER TIGHT, BE SURE NOT TO OVER-TIGHTEN



#### \*NOTE:

When tightening threaded parts be careful not to cross thread. We recommend pushing and rotating the part anticlockwise until you feel a click, then tighten clockwise finger tight.

7 TURN POWER BACK ON.





#### \*NOTE

When tightening threaded parts be careful not to cross thread. We recommend pushing and rotating the part anticlockwise until you feel a click, then tighten clockwise finger tight.



