

## INTRODUCTION

BLU BRiDGe™ controllers offer an innovative and affordable option to convert any LED fixture to wireless control with automation. This includes but is not limited to troffers, wraps, strips, vapor tights, architectural. Installation can be done at the assembly line or on the project site through a fast and simple process. A wide range of plug-in motion and daylight sensors are available for automation as are manual control options such as 120/347V wall switches and battery-operated remote controls. After installing a BLU BRiDGe™ controller and applying power, simply download the SMART BLU™ CLOUD App and program your lights. A perfect choice for architects, engineers, contractors and end users.

## THREE COMMON LED DIMMING METHODS

There are currently three common methods of dimming LED lights:

# 1

## LOW VOLTAGE DIM-TO-OFF

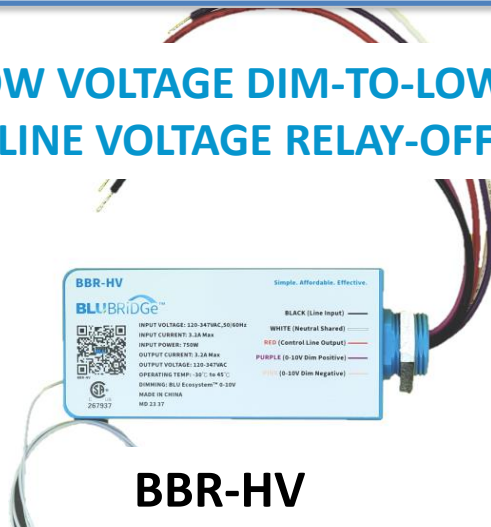


### BBR-LV

LED drivers with 0-10V dim-to-off circuit  
Patent Pending

# 2

## LOW VOLTAGE DIM-TO-LOW / LINE VOLTAGE RELAY-OFF



### BBR-HV

LED drivers with 0-10V dim-to-low circuit

Visit [www.blu-ecosystem.com](http://www.blu-ecosystem.com) for more information.

**SIMPLE. AFFORDABLE. EFFECTIVE.**

# 3

## LINE VOLTAGE REVERSE PHASE DIM

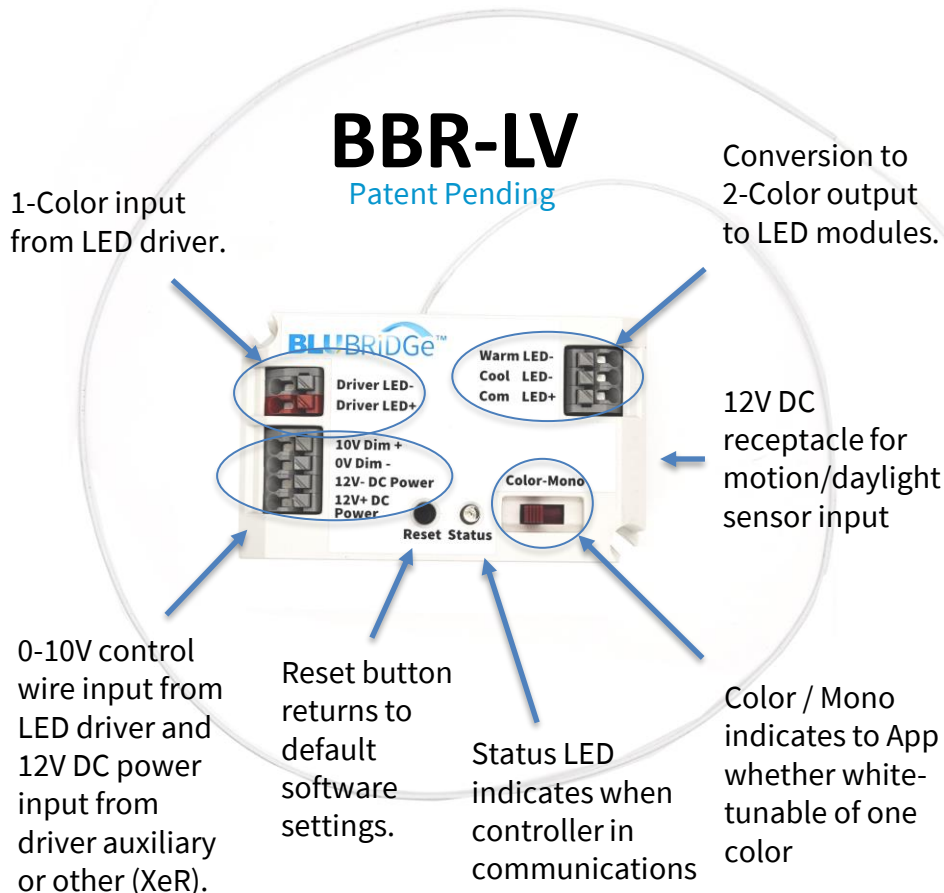


### BBR-RP

LED drivers that can be dimmed through line voltage adjustment. Typical of downlights, track and architectural lights.

## BBR-LV Low Voltage Controller

LED drivers with 0-10V dim-to-off circuit  
Lights supplied after 2020



### DESCRIPTION

The BLU BRIDGE™ BBR-LV low voltage controller is a wireless control device that can be used with newer dim-to-off style LED drivers. It features a sturdy polycarbonate housing with magnetic backing for easy placement within wiring channels. Convenient poke-thru receptacles can accommodate 16-20AWG wires. The left side of the controller features inputs received from LED driver. For drivers without 12V auxiliary output an XeR™ transformer will be required. The BBR-LV can convert standard single-color LED input to two-color LED output for white-tunable control. If conversion is not required, then the Driver LED inputs are not used. A 2 FT wireless antenna is provided. At least 0.5 inch should remain outside of metal enclosures. A 12V DC receptacle is offered for motion/daylight sensor plug-in.

A Reset button is offered to return the BBR-LV to default software settings. The LED Status indicator light will turn on when the BBR-LV is receiving and sending wireless information. The Color-Mono switch is provided to inform the SMART BLU™ CLOUD App that the light controlled is either white-tunable or mono-colored.

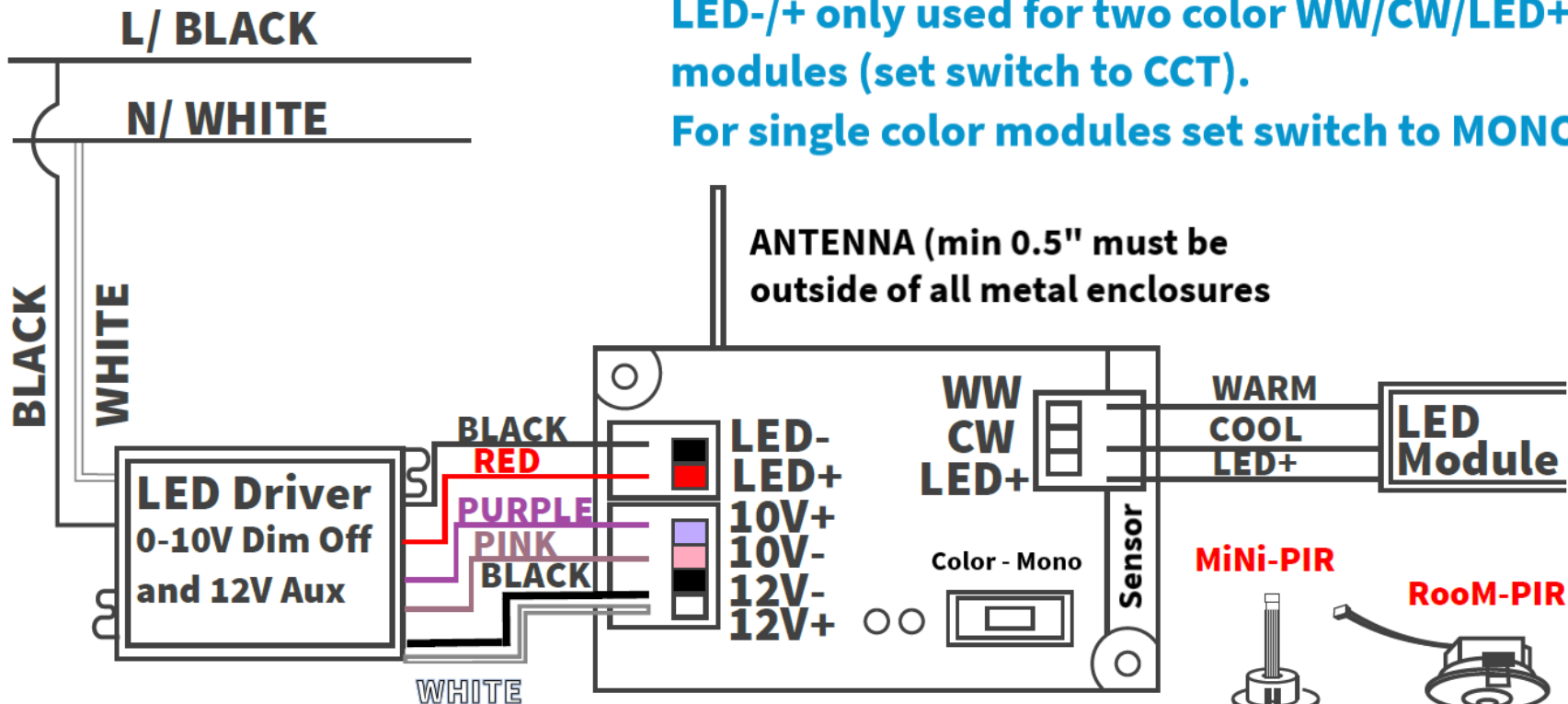
### SPECIFICATIONS

Injection Moulded Housing	Polycarbonate
Fire Rating	UL94 V0
Safety Rating	UL/CUL VDE
Input Power	12V DC
Max Output Power in Mono Mode	Unlimited
Max Output Power in Color Mode	50V DC 2.2A
Max Wire Length to Furthest Driver	> 100 FT
0-10V Circuit Maximum Current	50 mA
Wireless Antenna Length	2 FT
Poke-thru Connector Wire Gauge	16-20 AWG
Dimensions	3" L x 1.8" W x 0.875" D
Warranty	5 Years

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## BBR-LV Low Voltage Controller

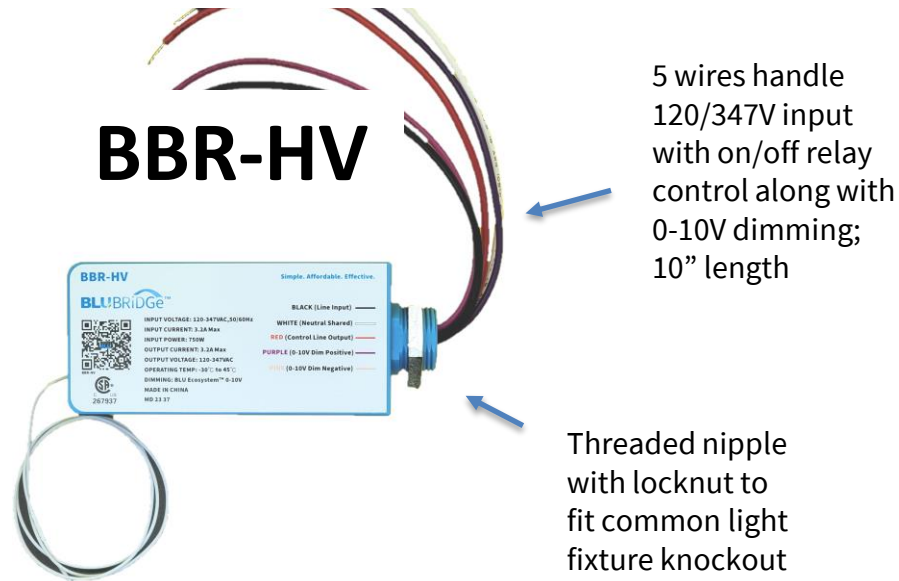


**LED-/+ only used for two color WW/CW/LED+ modules (set switch to CCT).  
For single color modules set switch to MONO.**

**NOTE 1: 10V- and 12V- are often shared. In this diagram the 12V- would be optional.**  
**NOTE 2: Wire colors may vary by source.**

## BBR-HV High Voltage Controller

LED drivers with 0-10V dim-to-low circuit  
Lights supplied pre-2021



24" wireless antenna. Minimum 0.5" must be outside of all metal enclosures

Reset button returns to default software settings.

Status LED indicates when controller in communications

Sensor 5-pin plug-in port



### DESCRIPTION

The BLU BRIDGE™ BBR-HV 120/347V universal high voltage controller is a wireless control device that can be used with older dim-to-low style LED drivers. It features a sturdy polycarbonate housing with magnetic backing for easy placement within wiring channels. Convenient threaded nipple with locknut fits standard fixture 7/8" knockouts to allow for external mounting to the fixture electrical junction box or wiring channel. The BBR-HV has 2 x 18 AWG input wires for building line voltage and a single 18 AWG relay-controlled output wire to switch the LED on and off. The remaining 2x 18 AWG wires are used to control the LED driver 0-10V DC dimming circuit. A 2 FT wireless antenna is provided. At least 0.5 inch should remain outside of metal enclosures. A 12V DC receptacle is offered for motion/daylight sensor plug-in.

A Reset button is offered to return the BBR-HV to default software settings. The LED Status indicator light will turn on when the BBR-HV is receiving and sending wireless information. BBR-HV controlled lights may be programmed using the SMART BLU™ CLOUD App.

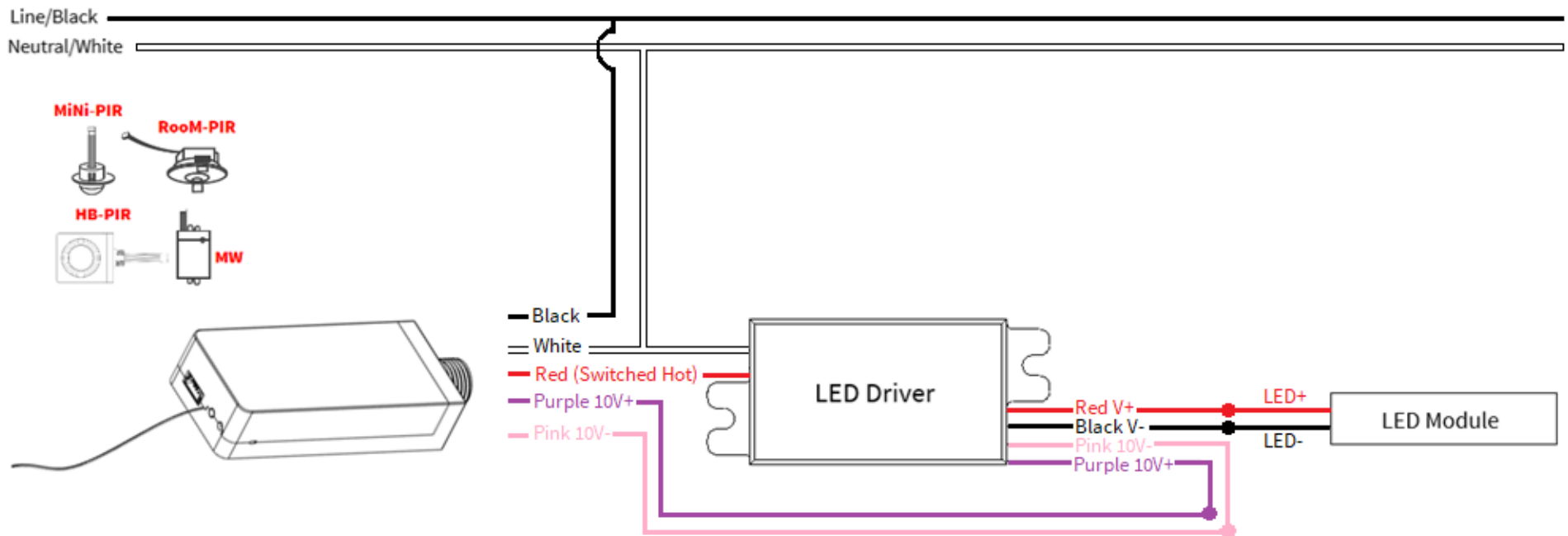
### SPECIFICATIONS

Injection Moulded Housing	Polycarbonate
Fire Rating	UL94 5VA
Safety Rating	cCSA <sub>UL</sub>
Input Voltage & Power	120-347V AC, 50/60Hz, 750W
Input Current / Output Current	3.2A Max / 3.2A Max
Output Voltage	120-347V AC
Operating Temperature	-40°C to 45°C
2 Input Wires & 3 Output Wires	UL1015 600V 18AWG
Max Wire Length to Furthest Driver	> 100 ft
0-10V Circuit Maximum Current	50 mA
Wireless Antenna Length	2 FT
Dimensions	3" L x 1.8" W x 0.875" D
Warranty	5 Years

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## BBR-HV High Voltage Controller



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## BBR-RP Reverse Phase Controller

Line Voltage LED drivers without LV dimming circuits  
Downlights, Track, Wall Sconces, Architectural

### BBR-RP

2 wires handle  
120/277V input  
with 1 wire  
controlled  
output

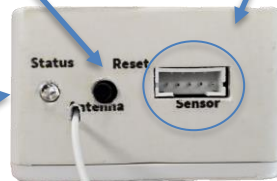
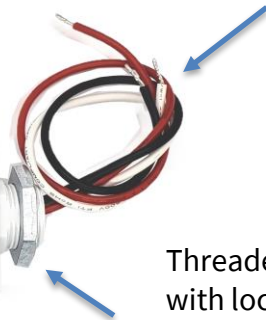
Threaded nipple  
with locknut to  
fit common light  
fixture knockout

24" wireless  
antenna.  
Minimum 0.5"  
must be outside  
of all metal  
enclosures

Reset button  
returns to  
default software  
settings.

Sensor plug-in port

Status LED  
indicates when  
controller in  
communications



### DESCRIPTION

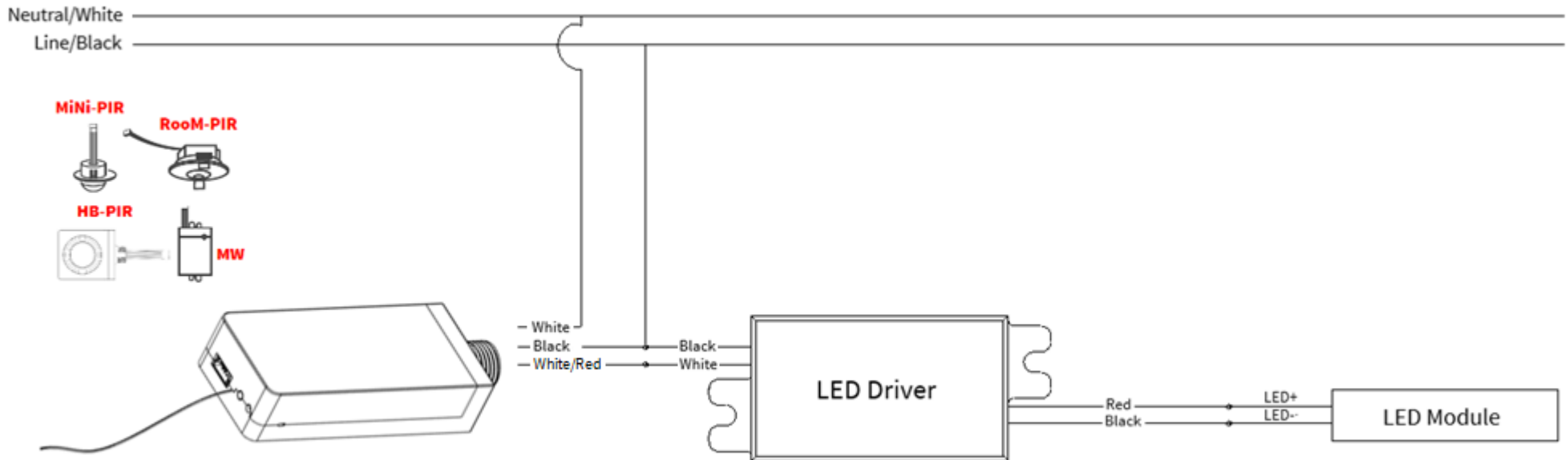
The BLU BRIDGE™ BBR-RP 120/277V line voltage controller is a wireless control device that can be used with line voltage dimmable LED drivers. It features a sturdy polycarbonate housing with magnetic backing for easy placement within wiring channels. Convenient threaded nipple with locknut fits standard fixture 7/8" knockouts to allow for external mounting to the fixture electrical junction box or wiring channel. The BBR-RP has 2 x 18 AWG input wires for building line voltage and a single 18 AWG relay-controlled output wire to dim LED driver. A 2 FT wireless antenna is provided. At least 0.5 inch should remain outside of metal enclosures. A 12V DC receptacle is offered for motion/daylight sensor plug-in.

A Reset button is offered to return the BBR-RP to default software settings. The LED Status indicator light will turn on when the BBR-RP is receiving and sending wireless information. BBR-HV controlled lights may be programmed using the SMART BLU™ CLOUD App.

### SPECIFICATIONS

Injection Moulded Housing	Polycarbonate
Fire Rating	UL94 5VA
Safety Rating	cCSA <sub>UL</sub>
Input Power	120/277V 2A
2 Input Wires & 1 Output Wires	UL1015 600V 18AWG
Max Wire Length	2FT
Max Drivers Controlled	Limited by Amperage
Wireless Antenna Length	2 FT
Sensor Plug-in Port Rating	12V DC 50mA
Dimensions	3" L x 1.8" W x 0.875" D
Warranty	5 Years

## BBR-RP Reverse Phase Controller



Note that the Line/Black is shared between BBR-RP and the LED Driver.  
Dimming control occurs via White/Red connecting to LED Driver White.

SMART  
**BLU**  
CLOUD



J2 Light® Version 230110

Contact your local supplier or representative or call J2 Light Inc. direct at:  
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