

## 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

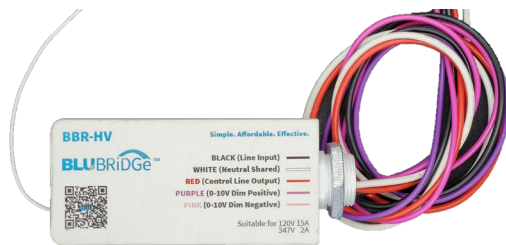


**BBR-LV**

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

# 2

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



**BBR-HV**

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

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

**SIMPLE. AFFORDABLE. EFFECTIVE.**

# 3

## LINE VOLTAGE REVERSE PHASE DIM

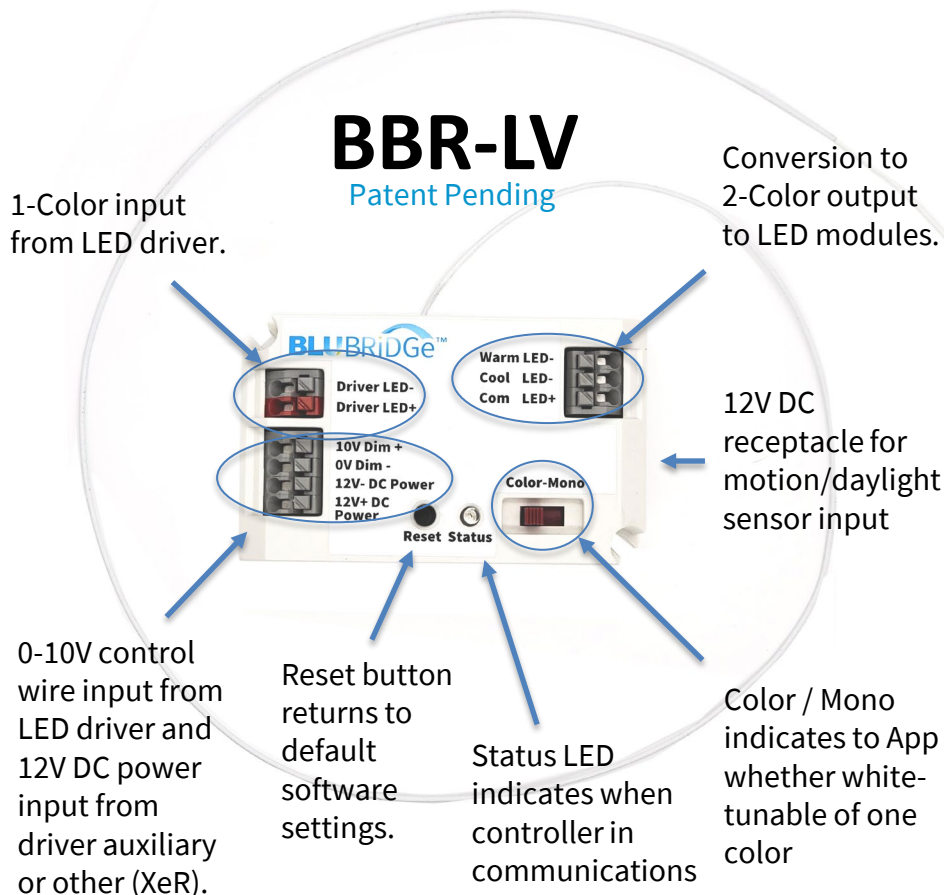


**BBR-RP**

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.

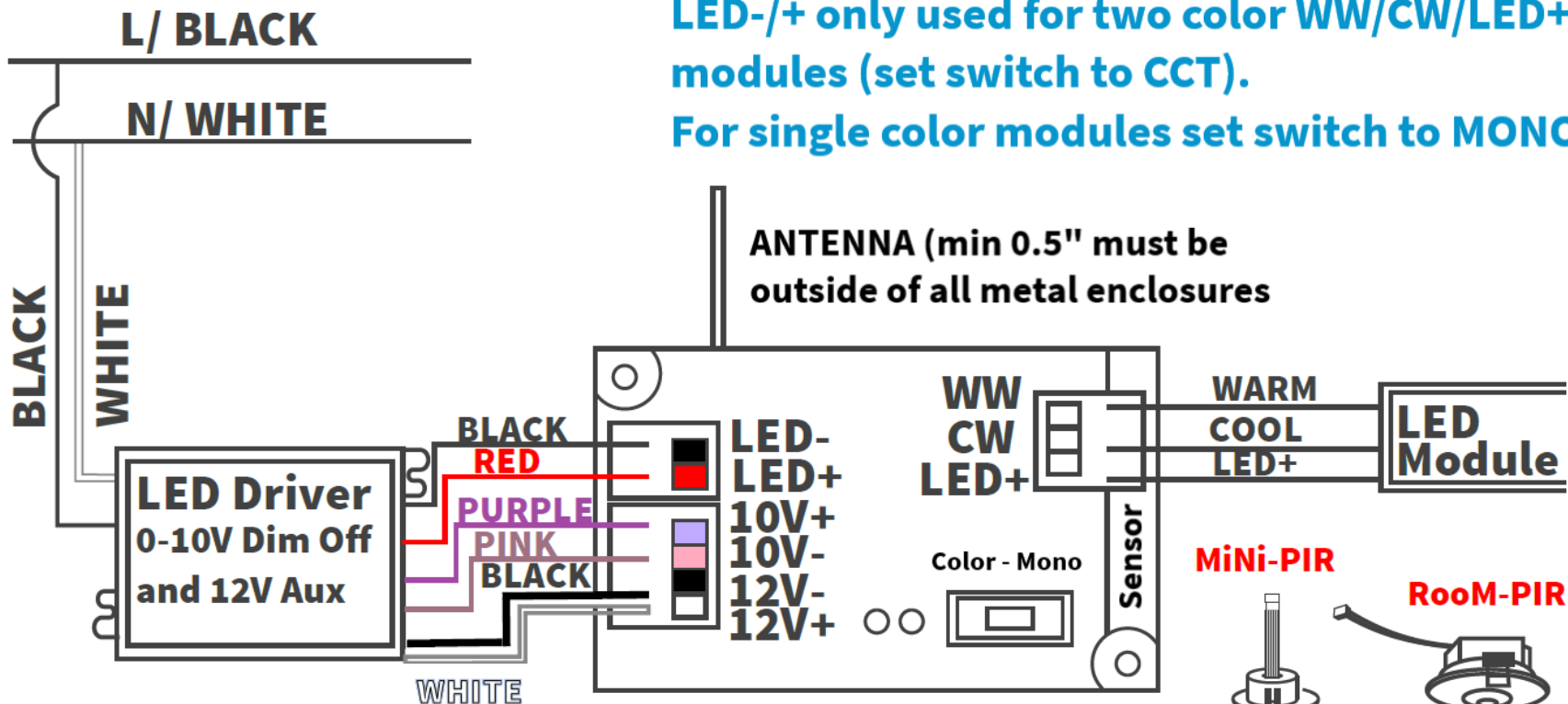
### SPECIFICATIONS

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	8 FT
Max Drivers Controlled	≤ 4
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.**

## DESCRIPTION

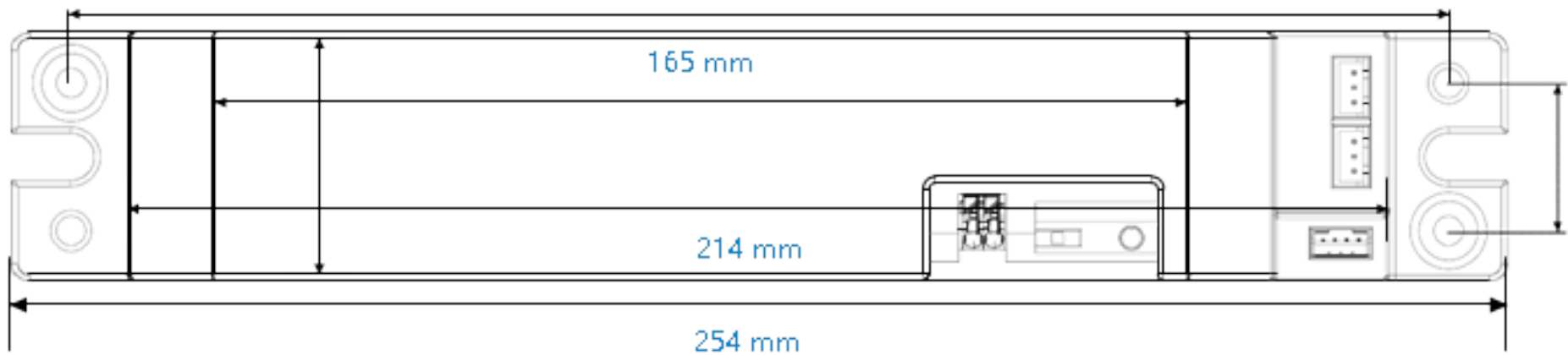
- Input voltage range: 120 to 347VAC, 50/60Hz
- Power factor:  $\geq 0.90$
- THD:  $\leq 20\%$
- Input inrush current:  $\leq 10A$  at 347V/25%
- Maximum input current: 0.38A at 108V
- Turn-ON delay time:  $\leq 1$  sec at 120Vac
- Efficiency:  $\geq 80\%$  at 347V
- Flicker:  $\leq 5\%$
- Over voltage protection: Hiccup mode
- Output short circuit protection: Auto recovery

SPECIFICATIONS AT 347V				
	SYMBOL	MEASUREMENT	UNIT	REMARK
Input Voltage	Vin	347	V	
Input Current	Iin	90 ~ 115	mA	
Input Frequency	F	60	Hz	
Input Power	Pin	28 ~ 37	W	LED loader from 30V-42V
Power Factor	PF	0.90	--	
Output Current	Iout	750	mA	
Efficiency	·	81 ~ 85	%	

ENVIRONMENTAL	
Operating Temperature Range	-30°C to +40°C (Max)
Operating Humidity Range	5% RH to 95% RH
Storage Temperature Range	-30°C to +40°C (Max)
Storage Humidity Range	5% RH to 95% RH
Estimated Life	At Full Load & Tc Point $\leq 80^{\circ}C$
Mean Time Before Failure @ Ambient Temp 25°C	50,000 Hours
Warranty	5 years

NOMENCLATURE	
FAMILY SERIES	WATTS
BD=BLU DRiVe™	35=35W
EXAMPLE: BD35	

## DIMENSIONS

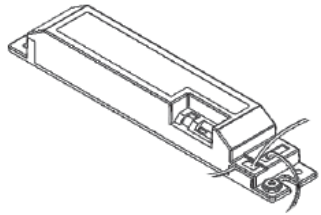


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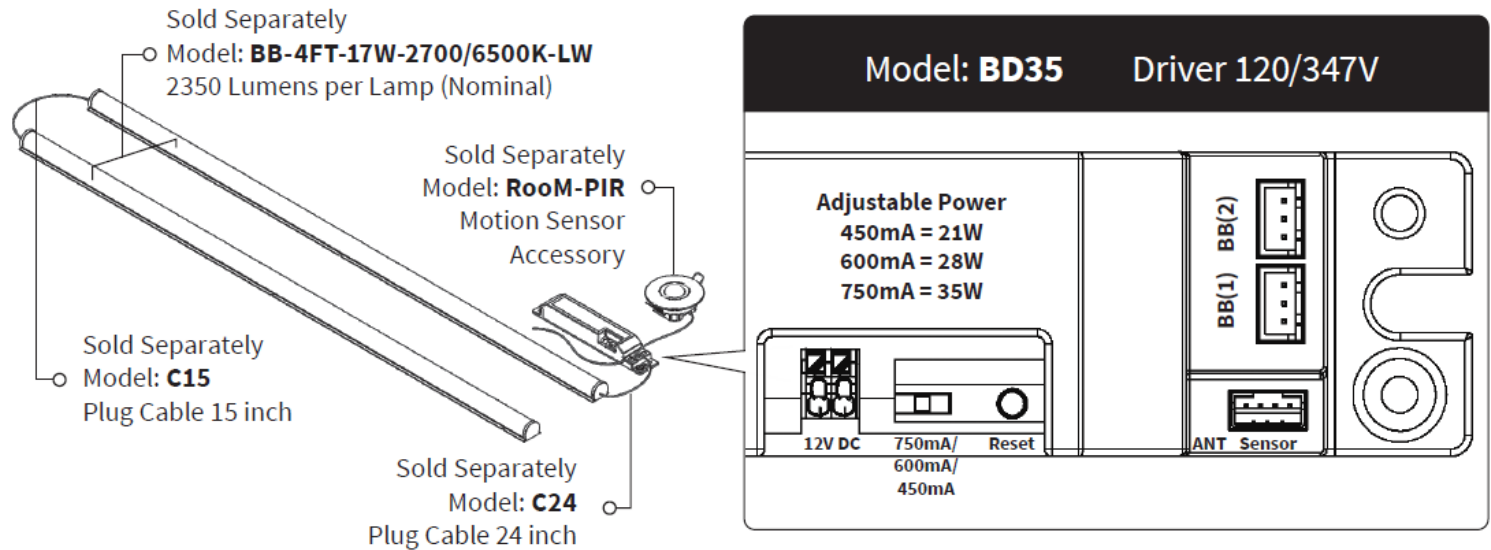
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# BLUBaRS™ Retrofit System

Kit includes: **12x** BD35



Simple Smart Affordable™



## Installation Instructions

- 1 Driver magnets allow you to position for fastening to old housing.
- 2 After splicing driver input wires to building power, simply plug **C24** cable into port **BB1** and leave opposite end out to connect to one of the BLU BaRS™.
- 3 Make sure to have at least 3 inches of antenna exposed out of metal containment. This can be behind plastic.
- 4 BLU BaRS™ magnets allow you to position for fastening to old housing.
- 5 Connect **C24** cable into one of the BLU BaRS™.
- 6 Connect **C15** to both BLU BaRS™.
- 7 Plug **Room-PIR** Sensor cable to Sensor input on driver. Cut 2 inch diameter hole in ceiling and pull Sensor cable through to plug into **Room-PIR** Sensor before pushing up to lock in place.
- 8 Download **SMART BLU™ CLOUD** from Google Play or the Apple Store to connect and program your BLU BaRS™.
- 9 ENJOY!

\*To be installed by a certified electrician in accordance with national and/or local electrical codes.

SMART  
**BLU**  
CLOUD



**BLUBaRS™**  
Retrofit System

J2 Light® Version 230110

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

1.888.LOW.WATT (569.9288) [www.blu-ecosystem.com](http://www.blu-ecosystem.com)

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**BLU**Ecosystem™  
Wireless lighting control system.