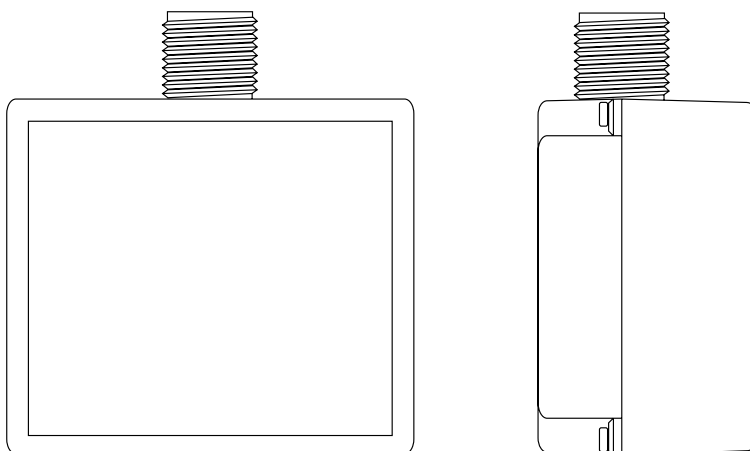


# Douglas Lighting Controls Bluetooth® Controller

## BT-PP20-B



## Installation Manual

\*Patent Pending

**WARNING!**  
**SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES**

**For indoor installations.**

Risk of Electric Shock. All servicing should be performed by qualified service personnel.  
To reduce the risks of electric shock disconnect power supplies before servicing.

Be aware that Line Voltage Connections may be 120VAC or 277VAC or 347VAC

**IMPORTANT SAFEGUARDS**

- READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use
  - Wireless devices are only for lighting control
  - Wireless controls cannot be used with portable heating appliances
- Insulate unused leads individually

**SAVE THESE INSTRUCTIONS**

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# 1. INTRODUCTION

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## 1.1. General Description

The **Bluetooth**® Controller (part number BT-PP20-A) is a Bluetooth enabled lighting fixture controlling device. The device provides individual or multi-fixture control based on the wiring configuration (one-to-one or one-to-many). The device provides ON/OFF and 0-10v dimming control of the fixture(s).

Each device is capable of communicating with other Douglas Lighting Controls Bluetooth enabled devices (occupancy sensors, gateways, and wall station switches) via the Bluetooth mesh network.

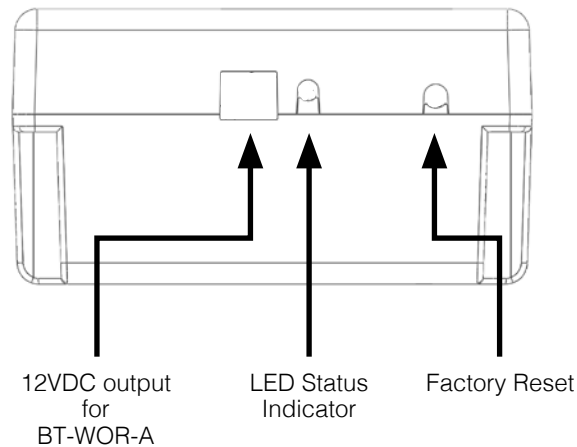
Commissioning is conveniently done at deck level with our free smartphone App using Bluetooth communication (smartphone must have Bluetooth capability).

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## 2. DESIGN FEATURES

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- Tinned and snipped, colour coded wires
- Threaded ½” knockout chase nipple with lock ring washer
- Bluetooth enabled for deck level configuration and wireless mesh networking
- LED status indicator
- 12VDC output to power DLC Bluetooth Sensor ( BT-WOR-A )
- Demand Response Ready



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## 3. SPECIFICATIONS

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### Power

- Line Voltage: 120/277/347VAC
- Frequency: 60Hz

### Load Ratings

- 800W @ 120VAC standard ballast
- 1200W @ 277VAC standard ballast
- 3300W @ 277VAC electronic ballast
- 1500W @ 347VAC standard ballast
- Relay: 20A General Use

### Dimming Control

- 0-10V analog dimming, 100mA sinking capable

### Outputs

- 12VDC, 30mA
- for Douglas Lighting Controls Bluetooth Occupancy/Daylight sensor BT-WOR-A (max. 2)

### Wireless Range

- 150' clear line of site, 50' through standard walls (distances may vary based on location and environment. Additional devices may be required at time of commissioning to ensure Bluetooth network integrity)

### Operating Environment

- Indoor, stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity

### Operating Temperature

- 32°F to 104°F (0°C to 40°C)

### Approvals

- ETL Listed
  - Conforms to UL STDS. 508, 1310, and 924
  - Certified to CSA STD. C22.2 #14 and #223
- ETL Classified
  - Conforms to UL STD. 2043
  - Certified to ULC/ORD STD C2043
- ASHRAE 90.1 Compliant
- CEC Title 24 Compliant
- WSEC Compliant
- Contains IC: 8254A-B1010SP0
- Contains FCC ID: W7Z-B1010SP0

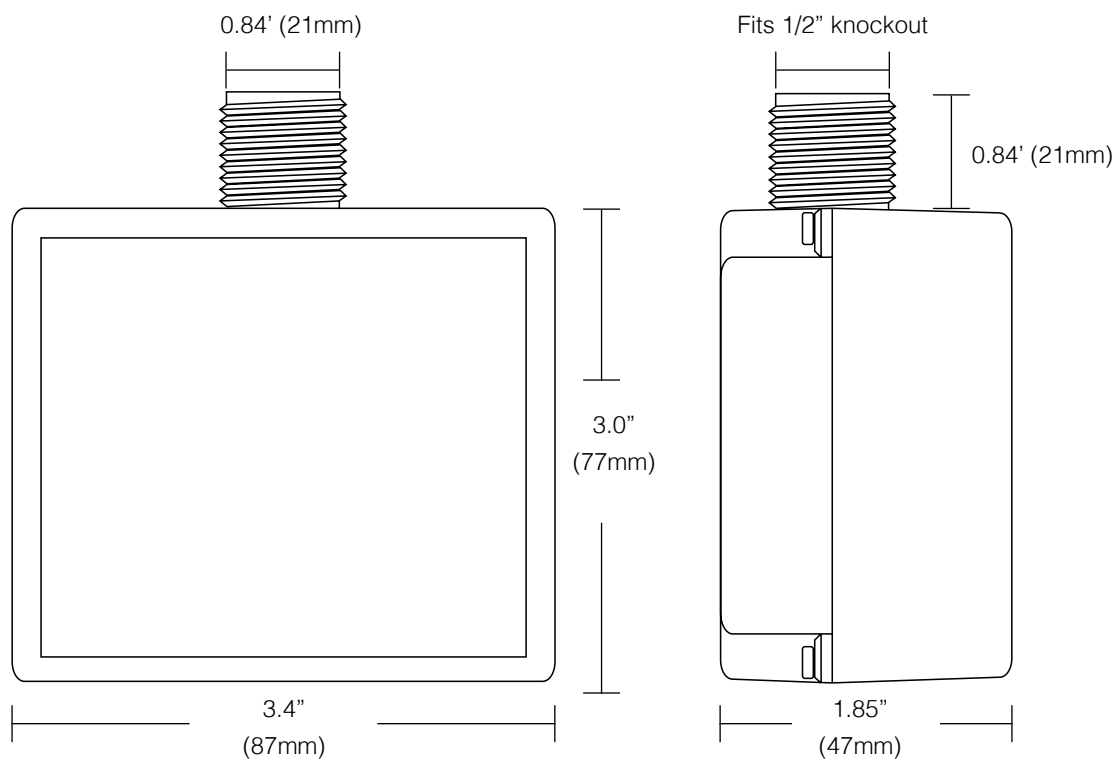
### Warranty

- Standard 1-year warranty – see Douglas Lighting Controls' warranty policy for complete details

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## 4. DIMENSIONS

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## 5. INSTALLATION FEATURES

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The device is designed to be mounted into a 1/2" knockout in a listed light fixture or electrical junction box or panel with an opening that can fit the threaded chase nipple

- Tinned and snipped, colour coded flying leads
- Threaded 1/2" knockout chase nipple with lock ring washer
- Bluetooth enabled for deck level configuration and wireless mesh networking

## 6. INSTALLATION / WIRING / COMMISSIONING



**Risk of Electric Shock. All servicing should be performed by qualified service personnel. To reduce the risks of electric shock disconnect power connections before servicing.**

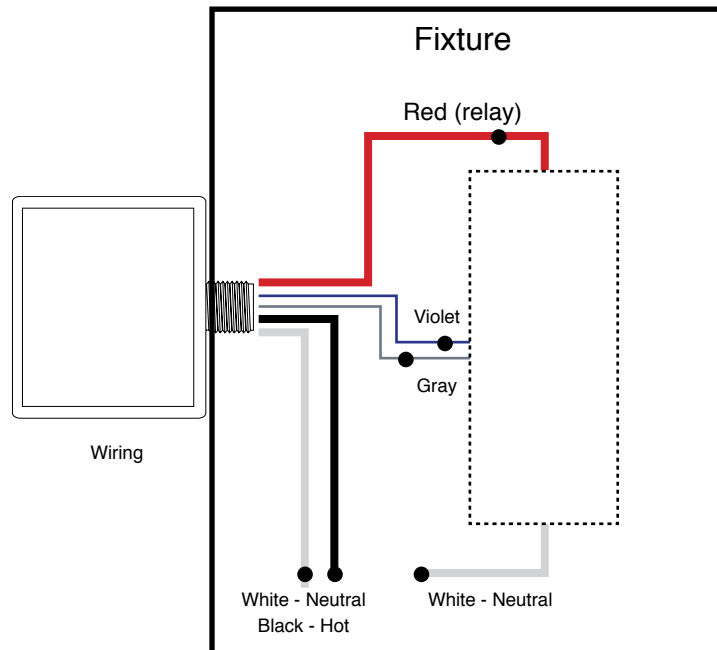
- BT-PP20-B shall be mounted to a listed light fixture or electrical junction box or panel with an opening that can fit a ½” threaded nipple
- Product must be installed in accordance with local electrical codes
- Install device into place and fix into position using lock ring washer
- For installation with field installed conductors of 60°C minimum rating.
- The following wire connections are provided:
  - 0-10V connection (violet / grey): #20AWG
  - Line Voltage/Relay connection (black / white / red): #14AWG
- Connect wires as shown on diagram.
  - NOTE: for Emergency lighting, an Emergency Power Source (i.e. Generator / Battery Backup) that is capable of maintaining 120VAC / 277VAC / 347VAC (depending on the application) for a MINIMUM of 30 minutes is required.
- Use appropriate sized wire-nuts to connect field installed conductors.
- Download free Douglas Lighting Controls Smartphone App: BT-APP.
- Commission as required

### Emergency Test

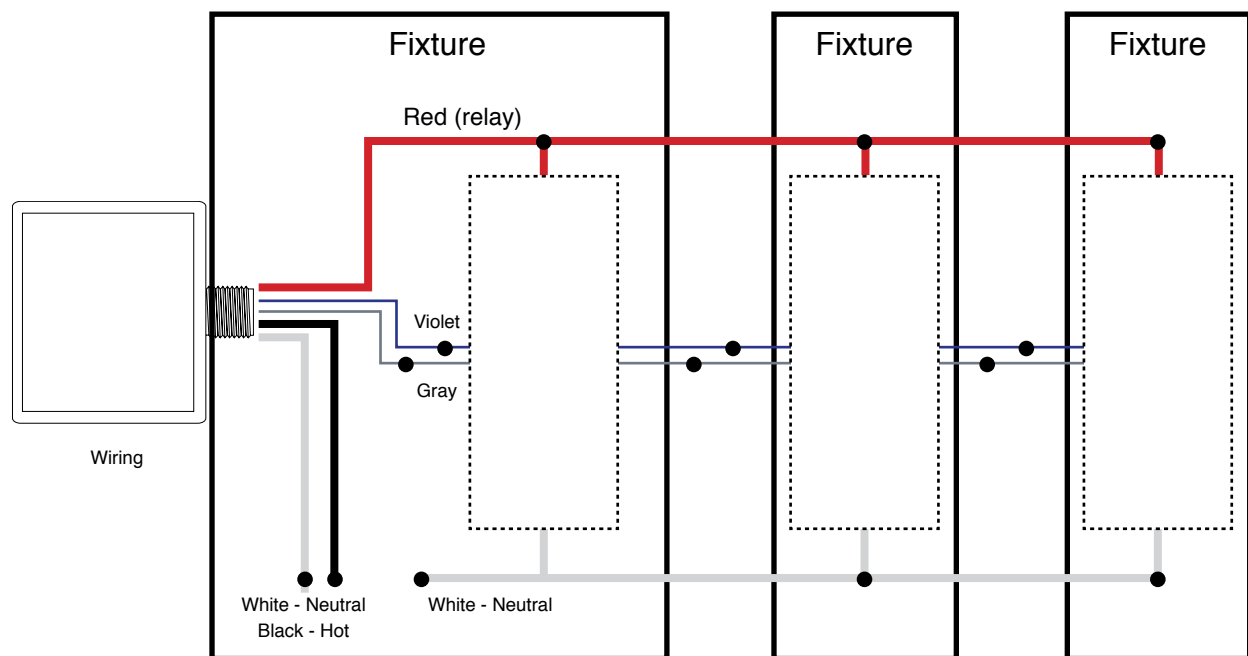
- The BT-PP20 Emergency operation can be tested using a Smartphone loaded with the free Douglas Lighting Controls Smartphone App: BTCC.
- To test Emergency operation, perform the following steps:
  1. Ensure the emergency circuit is connected to the BT-PP20 and is energized.
  2. Use the BTCC “Room Setup” function on the commissioning mobile device (eg. iPod) or use a Douglas Lighting Controls Bluetooth switch to turn OFF the BT-PP20 under test.
  3. Use the BTCC “System Setup” function on the commissioning mobile device to navigate to the commissioned devices list and select the settings cogwheel for the BT-PP20 under test.
  4. In the settings page for the BT-PP20, select the “Test Emergency Mode” button. The BT-PP20 will turn on to 100% brightness for approximately 30 seconds and then will return to its previous OFF state.
  5. Use the “Cancel” button to exit the BT-PP20 Settings page WITHOUT saving the configuration parameters.

It is recommended to test devices configured for Emergency operation on a monthly basis.

## Single Fixture



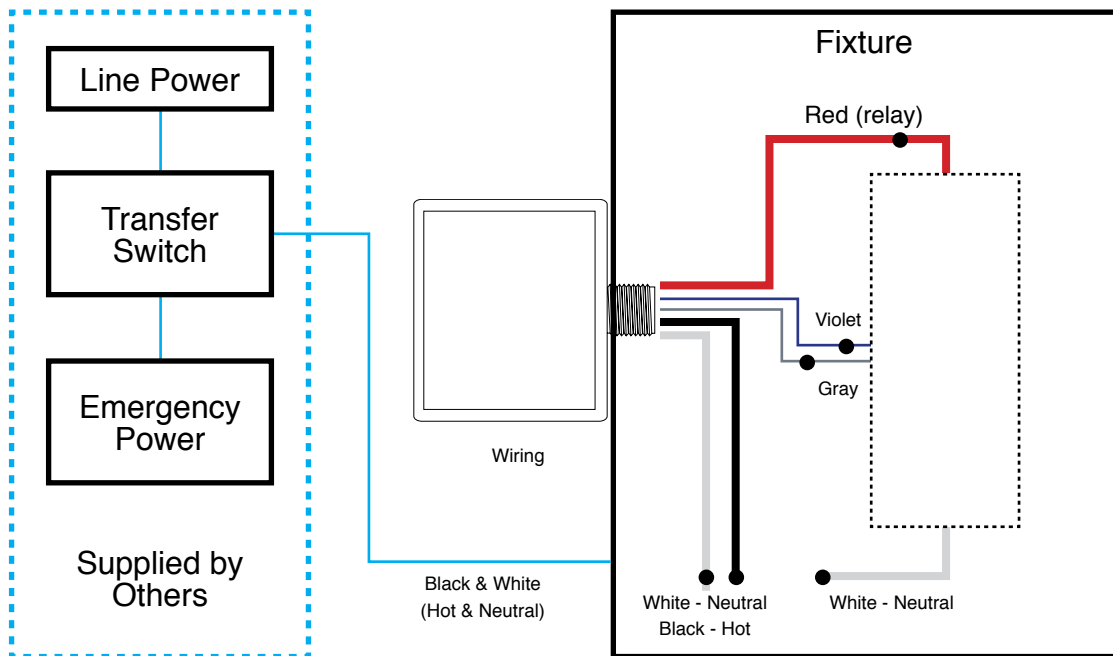
## Multiple Fixture



Maximum number of Fixtures can not exceed Sinking Current (100mA) based on dimming control.



## Wiring Example for Emergency Lighting





*It's **EASY**  
to **REACH US...***

**DOUGLAS LIGHTING CONTROLS**

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**CUSTOMER SERVICE:**

**877-873-2797 ext. 0** (English)

**514-342-6581** (French)

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**TECHNICAL SUPPORT:**

**877-873-2797 ext. 1** (English)

**514-342-6581** (French)

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