

# INSTRUCTIONS

## RPLED™ FIELD-ADJUSTABLE RETROFIT PANEL INSTALLATION



RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: [marketing@rablighting.com](mailto:marketing@rablighting.com)

**\*\* DON'T TOSS IT—RECYCLE IT! MAKE THE SUSTAINABLE CHOICE BY RECYCLING THIS FIXTURE AT END OF LIFE WITH A LICENSED RECYCLING PROVIDER. \*\***



1x4



2x2



2x4

### IMPORTANT

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

WARNING: Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.

WARNING - Risk of fire or electric shock. Install this kit only in luminaires that have the construction features and dimensions shown in the photographs and/or drawings .

WARNING - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.

WARNING – Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.

Only those open holes indicated in the drawings may be made or altered as a result of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.

Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

This retrofit kit is accepted as a component of a luminaire where the suitability of the combination shall be determined by authorities having jurisdiction.

Suitable for damp locations. Class 1 Wiring. Suitable for operation in ambient not exceeding 40°C.

### RECESSED CEILING MOUNTING

The fixture is suitable only for INDOOR RECESSED CEILING application in an existing luminaire with insulated or non-insulated ceiling. Follow the steps below.

1. Remove existing lamps, door/lens frame (if applicable), reflector and cover. Depending on clearance space, ballast may need to be removed.
2. Gently lift original luminaire housing and insert the two **Side Brackets** between the housing and **T-Grid** as shown in Fig. 1 (or **AIR RETURN side Brackets, RPAH2, RPAH4** - ordered separately). **Side Brackets** should be sitting on the top edge of the **T-Grid**. Using **Self-tapping Screws** (provided) as shown in Fig. 3, use a power screwdriver to secure **Side Brackets** into place through bracket mounting holes from inside of the fixture.

**Caution: Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Ensure that enclosed wiring and components have not been damaged.**

3. Insert the two **Side Rails** (filler strips) into the spaces between the **Side Brackets** and the **T-Grid** (Fig. 2).
4. Insert the panel **Pivot Pins** into the **Bracket Slots** (Fig. 4). Slide the panel to the end of the **Bracket Slots** to secure panel in place (Fig. 3 and 4)).
6. Make electrical connections as shown in wiring diagram (Fig. 7). Use approved wiring connectors and appropriate wiring method and wire to local NEC codes. Be careful not to pinch the wires.
7. Attach the Tether Cables with Screws provided (Fig. 4).

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Fig: 1

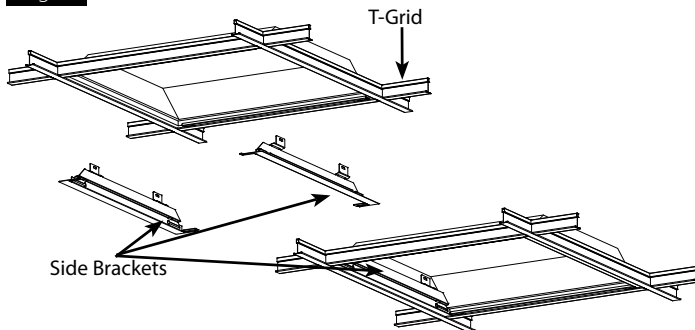


Fig: 4

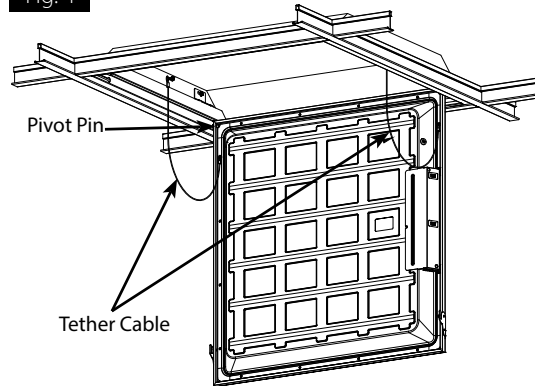


Fig: 2

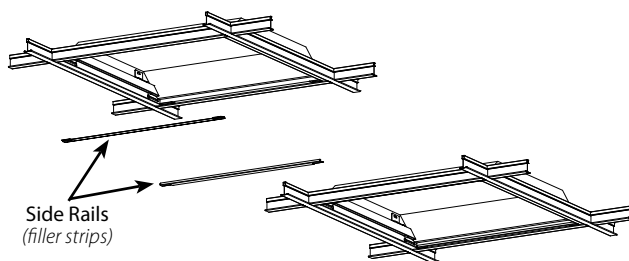


Fig: 3

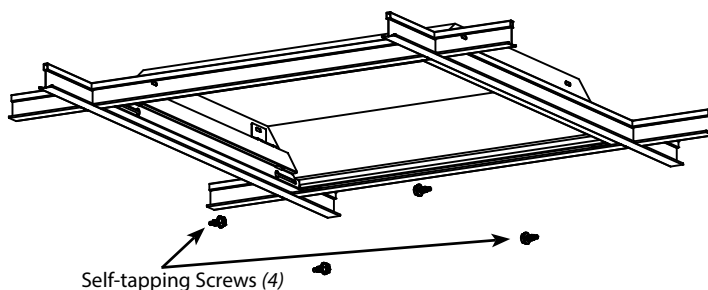
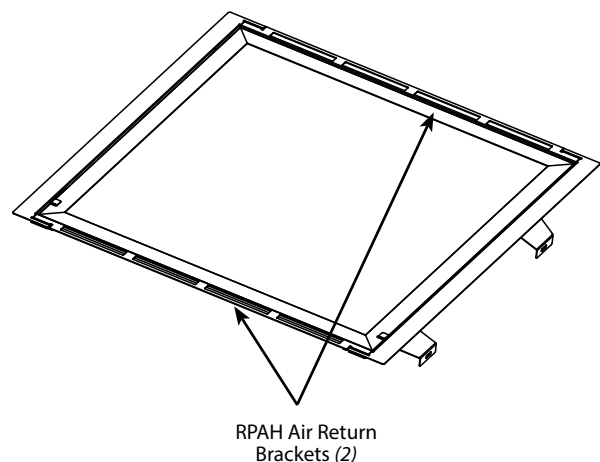
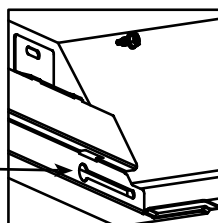


Fig: 5



Bracket Slot



### RPAH2, RPAH4 ACCESSORY

**RPAH2** (RPLED2X2) and **RPAH4** (RPLED1X4, 2X4) for Air Return /Air Handling bracket option sold separately follow **Recessed Ceiling Mount** instructions on page 1, see Fig. 5.

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### FIELD ADJUSTMENT

Follow instructions below to change the **Fixture Power (W)** and/or **Color Temperature (CCT)** from factory settings:

#### Factory Settings:

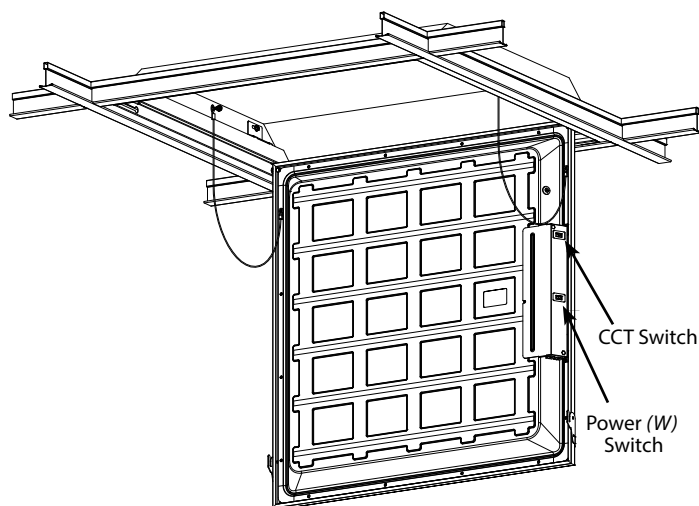
RPLED1X4 30W / 4000K

RPLED2X2 30W / 4000K

RPLED2X4 35W / 4000K

1. Locate the **Field Adjustable Switches** located on the back of the of **Fixture Housing** as shown in Fig. 6.
2. Select **Power (W)** and/or **Color Temperature (CCT)** by sliding respective switch to the desired setting.

Fig: 6

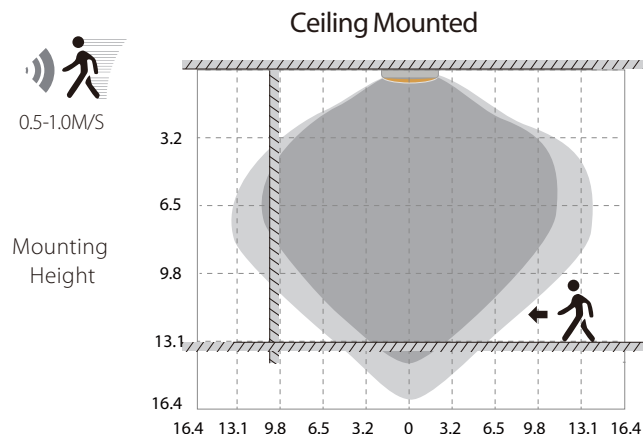


### MVS MODELS *(Internal)*

*(optional remote sold separately for custom settings, CAT# MSR1).*

#### Factory Settings:

- Brightness: 100%
- Hold Time: 20 Minute
- Daylight: Disabled
- Motion Sensitivity: High
- Stand-by dimming level: 20%
- Stand-by time: 1 Minute



Highest mounting height is 13.1ft

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.

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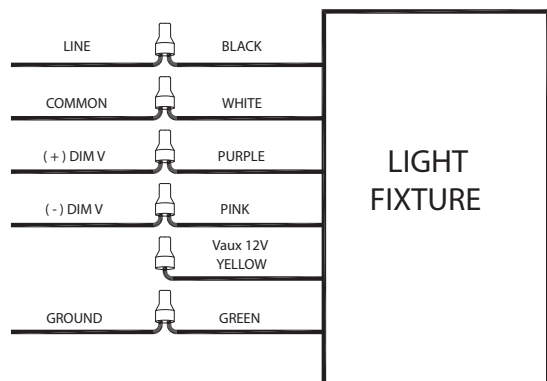
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### 0-10V DIMMABLE WIRING

Universal voltage driver permits operation at 120V through 277V, 50 or 60 Hz. 0-10V control wires must be rated for 300V minimum. For 0-10V dimming, follow the wiring directions shown below (Fig. 7).

1. Connect the black fixture lead to the **LINE** supply lead.
2. Connect the white fixture lead to the **COMMON** supply lead.
3. Connect the **GROUND** wire from fixture to supply ground.  
Do NOT connect the **GROUND** of the dimming fixture to the output.
4. Connect the purple fixture lead to the (V+) DIM lead.
5. Connect the pink fixture lead to the (V-) DIM lead.

Fig: 7



### TROUBLESHOOTING

1. Check that the line voltage at fixture is correct. Refer to wiring directions.
2. Be sure the fixture is grounded properly.
3. If the Lightcloud Blue-enabled fixture does not connect follow steps to enable device pairing mode and try to pair again.

### CLEANING & MAINTENANCE

**CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.**

1. Clean lens & fixture with non-abrasive cleaning solution.
2. Do not open fixture to clean the LEDs. Do not touch the LEDs.

*Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.*

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### LIGHTCLOUD® BLUE

Lightcloud Blue is a Bluetooth mesh wireless lighting control system that allows you to control various compatible devices. With RAB's patented Rapid Provisioning technology, devices can be quickly and easily commissioned for residential and large commercial applications using the Lightcloud Blue mobile app.

Each device in a system can communicate with any other device, eliminating the need for a Gateway or Hub and maximizing the control system's reach.

Lightcloud Blue devices should be placed within the specified range to communicate within the Bluetooth Mesh network. Up to 60 feet between standard building materials.

**Reset to Factory Settings:** To enable pairing or reset the device, locate the device identification button at the top of the Controller under the Lightcloud logo. Press and hold this button for 10 seconds or until the indicator light begins flashing red and the fixture will flash on/off 3 times.

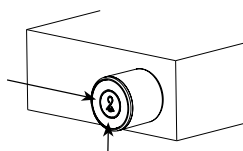
#### LED Indicators:

**Blinking Red** = Looking for a network

**Solid Green** = Connected to network

#### DEVICE IDENTIFICATION BUTTON

- Press once to rapid identify this device in the Lightcloud Blue Application when provisioned
- Press twice to toggle circuit on and off
- Press twice and hold to set dim level
- Press and hold for 10s to reset the device to factory settings and into pairing mode



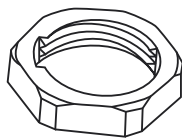
#### STATUS INDICATOR

**Solid GREEN** when connected to your Lightcloud Blue network.  
**Blinking RED** when unprovisioned.

### ASSEMBLY

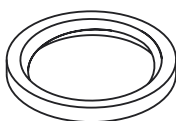
Below accessories are installed on this fixture and should not be removed.

NPT Nut



(Outside)

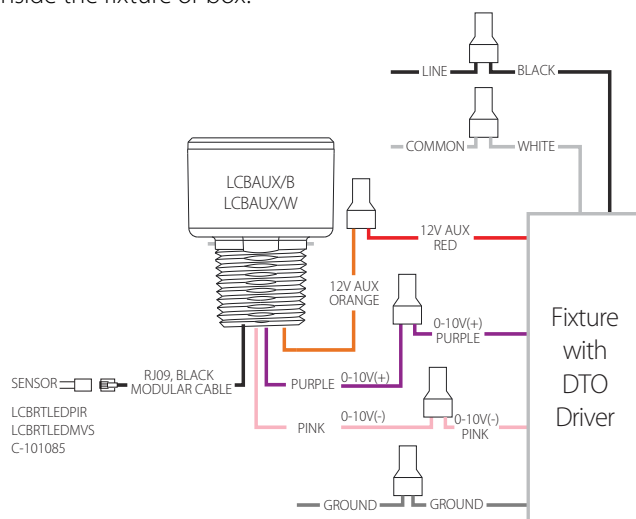
Rubber O-Ring



(Inside)

### WIRING

Lightcloud Blue Low Voltage Controller is compatible with the Dim to Off 0-10V driver with 12V Aux supply, it can be mounted to any 1/2" NPT knockout hole on the fixture or junction box, with the radio module always outside any metal enclosure. If no sensor is used, then the RJ09 cable can be tied off and placed inside the fixture or box.



### LIGHTCLOUD® BLUE SENSORS

Sensors are integrated at the factory and operate in Occupancy mode in their Uncommissioned State. Once paired to the Lightcloud Blue mobile app, the sensor will be disabled. Sensor Settings can be adjusted after being moved into an Area in the Lightcloud Blue mobile app. Once the sensor is enabled in the mobile app, the sensor will respond based on Commissioned State factory settings.

#### Factory Settings: Uncommissioned State

- Sensor Status: Enabled
- Motion Sensitivity: High
- Brightness when triggered: 100%
- Hold time: 20 Minute
- Daylight harvesting: Disabled

#### Factory Settings: Commissioned State

- Sensor Status: Disabled.
- Motion Sensitivity: High
- Brightness when triggered: Last on status
- Hold time: 20 Minute
- When vacant: Off
- Daylight harvesting: Disabled

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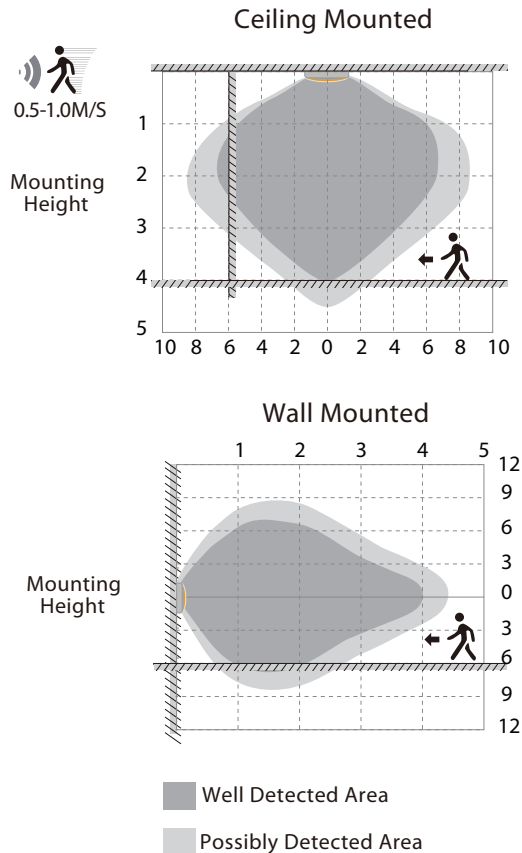
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### SENSOR COVERAGE

Highest mounting height is 4m.

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.



### CONTROLLING LIGHTCLOUD® BLUE DEVICE

1. Confirm your device is powered on.
2. Download the Lightcloud Blue app from the Apple® App store or Google Play™ store.
3. Launch the App and create an account or login.
4. Tap the "add device" icon in the app to start connecting devices.
5. Create Areas, Scenes and Schedules to organize and control your devices.
6. You're all set!

For additional information about the Lightcloud Blue mobile app visit [www.lightcloud.com/item/lcb-getting-started/](http://www.lightcloud.com/item/lcb-getting-started/)

### CONFIGURATION

To configure the Lightcloud Blue please login to the Lightcloud Blue app for details. For additional startup information, visit [www.lightcloud.com/item/lcb-getting-started/](http://www.lightcloud.com/item/lcb-getting-started/)

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## BATTERY BACKUP MODELS

### WIRING

**CAUTION: FOR BATTERY BACKUP FIXTURE.** Voltage can be present

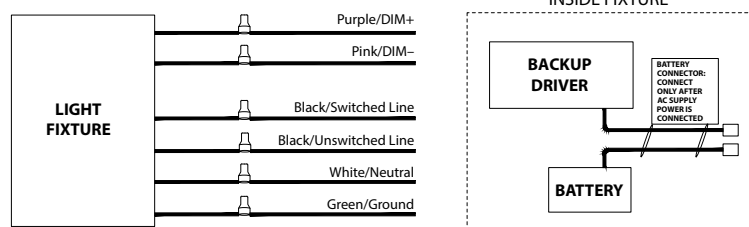
in **BATTERY**. To prevent high voltage from being present on output leads, Inverter connector must be open. Do not join **BATTERY** connector until installation is complete and AC power is supplied to the emergency driver (Fig. 8).

**NOTE:** Make sure that the necessary branch circuit wiring is available. An **UNSWITCHED** AC source of power is required. The emergency driver must be fed from the same branch circuit as the LED driver.

**CAUTION:** Do not use any supply voltage other than 120-277V 50/60 HZ.

1. Connect **UNSWITCHED HOT** fixture lead to **HOT AC** supply line.
2. If using an **UNSWITCHED** circuit, connect **UNSWITCHED** and **SWITCHED** lines together.
3. If using a **SWITCHED** circuit, connect **SWITCHED HOT** AC fixture lead to the external.
4. Connect the pink fixture lead to the (V-) DIM lead.
5. For 0-10V Dimming, connect **DIM (+)** and **DIM (-)** to the supply ground. Do not connect **GROUND** to the output leads.
6. All unused leads must be capped and insulated.
7. After installation is complete, supply AC power to the fixture and connect the **BATTERY**.
8. When power is on, the fixture should be on and the Charging Indicator Light should illuminate to indicate the battery is charging.
9. Once the **BATTERY** has charged for at least one hour, a short duration test may be performed by pressing the **Test Button** (Fig. 9) After the battery has charged for 24 hours, a long duration test can be performed by shutting power to the fixture.

Fig: 8



### OPERATION

1. When AC power is applied, the charging indicator light is illuminated, indicating that the **BATTERY** is being charged.
2. When power fails, the standby power automatically switches to emergency power (*internal battery*), operating at reduced illumination. The emergency driver supplies standby power for a minimum of 90 minutes.
3. When AC power is restored, the emergency driver automatically returns to charging mode.

### MAINTENANCE

Although no routine maintenance is required to keep the emergency driver functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds.
3. Conduct a 90-minute discharge test once a year. Fixture would operate at reduced illumination for a minimum of 90 minutes.

### TROUBLESHOOTING

1. Is the fixture grounded properly?
2. If the charging indicator light does not illuminate after pressing the **Test Button** (Fig. 9), check if battery is connected properly.

Fig: 9

