# T34® FIELD-ADJUSTABLE 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



### **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.

### SAFETY INSTRUCTIONS

**WARNING:** Risk of fire or electric shock. Suitable for damp locations. **WARNING:** Suitable for 9/16" or 15/16" Flat Tee-Grid in both insulated ceilings and non-insulated ceilings. Access above ceiling required.

**WARNING:** Do not handle energized fixture when hands are wet, when standing on wet or damp surfaces, or in water.

WARNING: Vapor barrier must be suitable for 90° C.

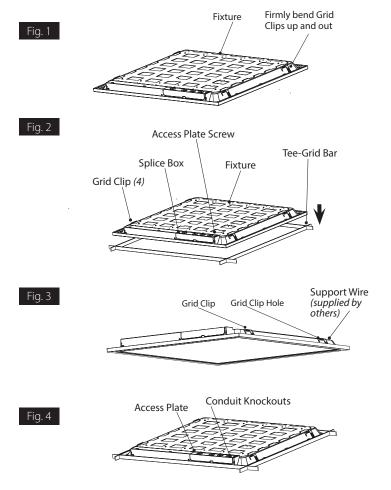
**WARNING:** Fixture to be independently supported to building structure.

### RECESSED CEILING MOUNTING

The fixture is suitable only for INDOOR RECESSED CEILING application. Above ceiling access required.

To mount in an insulated or non-insulated ceiling - 9/16" or 15/16" exposed Flat Tee Grid Ceiling follow the steps below.

- 1. Firmly bend the pre-installed **Grid Clips** up and out as shown in Fig. 1.
- 2. Rotate and slide the **Fixture** as required to fit through the **Tee-Grid Bar** and place it as indicated by the directional arrow as shown in Fig. 2. Secure the **Fixture** to the **Tee-Grid Bar**.
- 3. **Support Wires** are required by installation codes. Support the **Fixture** to the building structure with **Support Wires** (*supplied by others*) through the **Grid Clip Hole** as shown in Fig. 3.
- 4. Make sure that the orientation of the **Splice Box** and **Access Plate** faces an accessible tile to make electrical splices.
- 5. Loosen Access Plate Screw and remove the Access Plate. Knock out appropriate Conduit Knockouts on the Access Plate to route input conduit. Use appropriate conduit connectors as required by code (Fig. 4).
- 6. Connect wires as shown in wiring diagram (Fig 6). Push all wires back into the Splice Box. Use appropriate UL-approved wire connectors as required by code to complete wiring. Be careful not to pinch wires. WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 7. Replace Access Plate and tighten Access Plate Screw.



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## FIELD ADJUSTMENT

Follow instructions below to change **Fixture Power** (*W*) or **Color Temperature** (*CCT*) from the factory settings. Lightcloud Blue-enabled versions do not include dipswitches for selecting CCT. It can only be adjusted from the mobile app.

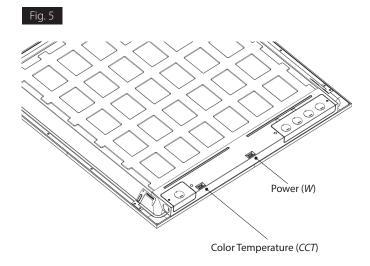
#### **Factory Settings:**

1X4 - 4000K / 30W

2X2 - 4000K / 30W

2X4 - 4000K / 40W

- 1. Locate the **Selector Switches** on the **Fixture** as shown in Fig 5.
- 2. Select **Color Temperature** (*CCT*) and **Power** (*W*) by sliding the respective switch to the desired value.



## MVS SENSOR FACTORY DEFAULTS

Optional remote sold separately for custom setting, CAT# MSR1.

Brightness: 100%Hold Time: 20 Minutes

Daylight: DisabledSensitivity: 100%

• Stand-by Dimming Level: 20%

• Stand-by Time: 1 Minute

**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.

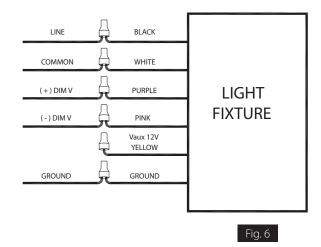
## WIRING INSTRUCTIONS

Universal voltage driver permits operation at 120V through 277V.

- 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.
- 4. Connect the purple fixture lead to the (V+) DIM lead.
- 5. Connect the pink fixture lead to the (V-) DIM lead.

NOTE: Do not connect DIM V+ (purple)/ DIM V- (pink) to line voltage or supply ground.

/LCB models do not include DIM V+ (purple) DIM V- (pink) wires.



# TROUBLESHOOTING

- 1. Check that the line voltage at fixture is correct. Refer to wiring directions.
- 2. Is the fixture grounded properly?

## **CLEANING & MAINTENANCE**

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

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

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# BATTERY BACKUP MODELS

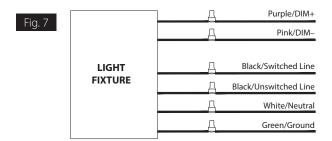
#### WIRING

**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.

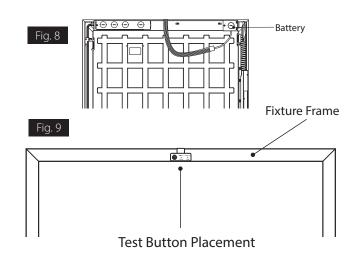
**CAUTION:** Do not use any supply voltage other than 120-277V 50/60 HZ.

Battery **Test Button** is provided with adhesive backing. Align the **Test Button** to edge of **Fixture Frame** closest to the lens for easy accessibility as shown in Fig. 8 & 9.

- 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. For 0-10V dimming, connect **DIM** (+) purple and **DIM** (-) pink leads to 0-10V dimming connection.
- 5. All unused leads must be capped and insulated.
- 6. When power is on, the fixture should be on and the Charging Indicator Light should illuminate to indicate the battery is charging.
- 7. Once the BATTERY has charged for at least one hour, a short duration test may be performed by pressing the **Test Button**.
- 8. After the battery has charged for 24 hours, a long duration test can be performed by shutting power to the fixture.



**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.



#### **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 will operate in 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**, check if battery is connected properly.

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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 Bluetooh Mesh network. Up to 60 feet between standard building materials.

## 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: EnabledMotion Sensitivity: High

• Brightness when triggered: 100%

• Hold time: 20 Minutes

Daylight harvesting: Disabled

Factory Settings: Commissioned State

Sensor Status: Disabled.Motion Sensitivity: High

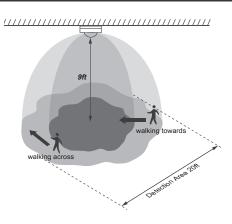
• Brightness when triggered: Last on status

Hold time: 20 MinutesWhen vacant: Off

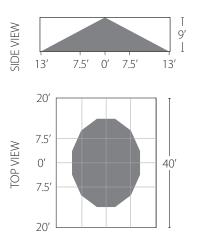
Daylight harvesting: Disabled

#### SENSOR COVERAGE

PIR:



MVS:



# 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 DEVICES icon in the app to start the Rapid Provisioning process.
- **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/

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#### **ENABLING SMARTSHIFT**

Before enableling SmartShift the NANO/LCB (sold separately) must be paired to the mobile app and connected to a 2.4GHz Wi-Fi Network.

- 1. Open the Lightcloud Blue mobile app
- 2. Tap the DEVICES icon at the bottom of the screen
- 3. Select the Nano to access device settings
- 4. Add Areas to the Nano
- 5. You're all set!

Once devices are paired and setup in an Area in the Lightclould Blue app the SmartShift settings can be configured. When SmartShift is enabled the fixture will automatically adjust the CCT and dim level (optional) based on the selected Preset Schedule.

- 1. Open the Lightcloud Blue mobile app
- 2. Tap the SMARTSHIFT icon at the bottom of the screen
- 3. Scroll down to the 'AREAS' section and select the 'AREA' that will be managed by SmartShift
- **4.** Tap the USE SMARTSHIFT toggle button. This will enabled SmartShift to adjust the color temperature
- **5.** Optional: Tap the AUTOMATIC DIMMING toggle button to enable SmartShift to adjust the dim level

Once SmartShift is enabled, the lights will stay ON 24/7 unless a SmartShift Schedule is setup in the SmartShift tab. The SmartShift Schedule will specify the hours that the lights should remain ON. A Preset Schedule specifies the dim level and color temperature adjustment intervals.

Note: Any manual adjustment to the color temperature or dim level from the mobile app or other Lightcloud Blue switching device will disable SmartShift and/or Automatic Dimming.

## RESET TO FACTORY SETTINGS

If your Lightcloud Blue fixture is already paired, you can reset it to factory settings by using the below methods.

#### Method 1: Delete from App

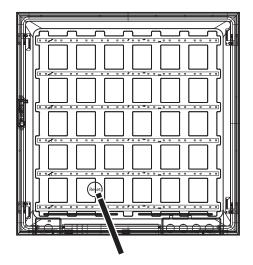
Open the app and access the device settings for the paired device. Be sure that the downlight is online (green status bars are visible) and select "DELETE FROM SITE".

#### Method 2: Manual

Power the fixture off and on 5 times consecutively. Do not allow less than 5 seconds and more than 10 seconds to elapse from switch off to on, do not allow more than 2 seconds to elapse from switch on to off. The fixture will flash 3 times, then reset to 100% brightness at default CCT.

#### Method 3: Rapid Reset Tool

The rapid reset process must be done by professional electricians qualified by RAB. Reach out to your RAB sales manager to request a Rapid Reset Tool. The tool simply needs to be placed directly on the small "Reset" label on fixture for 2 seconds. The fixture will flash 3 times, then reset to 100% brightness at default CCT.



### 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/



Visit our website for product info