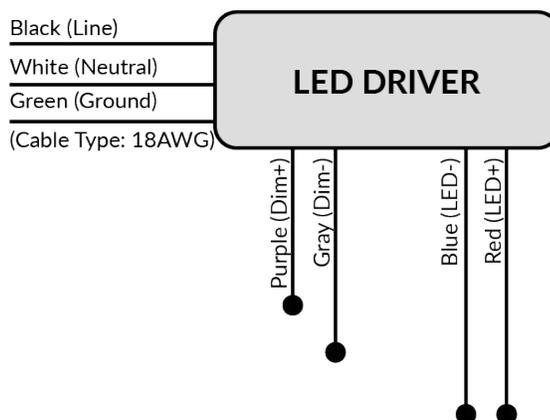




### **⚠ WARNING**

- To avoid the risk of fire, explosion, or electric shock, 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.
- Be certain electrical power is OFF before and during installation and maintenance. It is recommended that prior to installation the main breaker controlling the desired location for the fixture be turned off.
- The luminaire must be connected to a wiring system with an equipment-grounding conductor.
- Ensure the supply voltage is the same as the rated luminaire voltage.
- Inspect each fixture for any signs of damage before beginning installation; do NOT install any fixture that is damaged.
- All wiring should be performed by a qualified technician and according to the appropriate local electrical code. Wear gloves when disassembling fixture.
- Locate a position to install the light fixture. The selected location must not hinder ventilation to the fixture unless product specifications indicate otherwise.

### General Wiring Diagram





### Wiring

The fixture comes pre-assembled from the factory. Depending on customer needs, the lighting fixture will either come with or without an installed power cord.

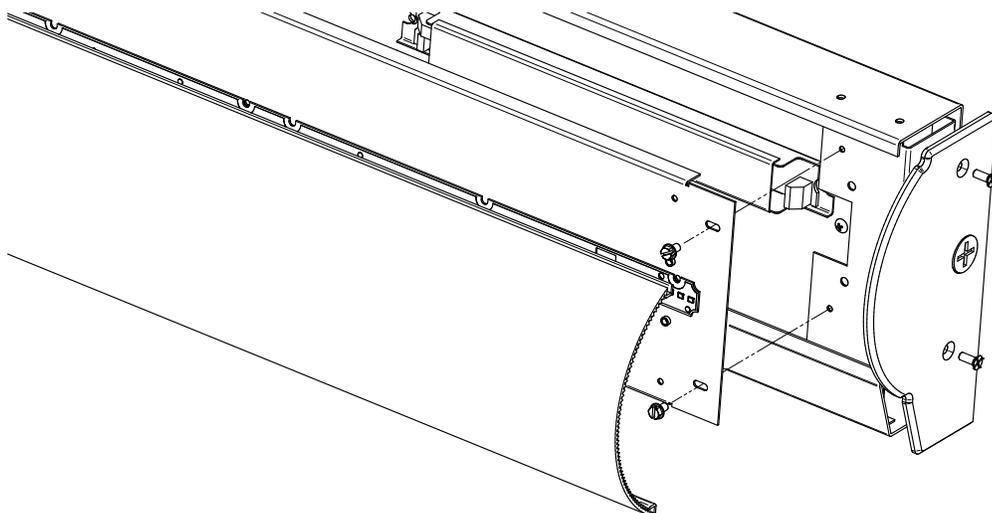
#### Pre-installed power cord

- Make the appropriate wire connections between the cord and the power source. All wire connections should be completed using approved/appropriate wire connections according to all applicable electrical codes.
- Wires must not be exposed or frayed. Inspect wires for any signs of damage.

#### NO pre-installed power cord

If there is no pre-installed power cord with the fixture, access to the internal components will be needed to make the appropriate wire connections.

1. a. The Cavern product has two series: Cavern (CV) and Cavern Lite (CVL). The Cavern (CV) encompasses two cast end panels with two phillips head end panel screws on each end, which will need to be loosened prior to proceeding to step two. This action is not required for the Cavern Lite (CVL).  
b. Remove the lens from fixture by gently squeezing on the top and bottom of the lens to pop it out of the fixture.
2. The LED tray is held in place using 4 screws, one in each corner, as shown in the following image. Apply pressure to LED tray to avoid dropping it and unscrew the four retaining screws from the fixture using a 8/32" nut driver. Avoid touching LED board and placing LED tray face down.
3. If running power into the fixture from the back, remove center knock out. Run the external power line wires through the end of the housing
4. Appropriately mount the fixture utilizing the mounting options in the following page.
5. Make the appropriate wire connections. All wire connections should be completed using appropriate wire connections and according to local electrical code.
6. Reattach the LED tray and lens.



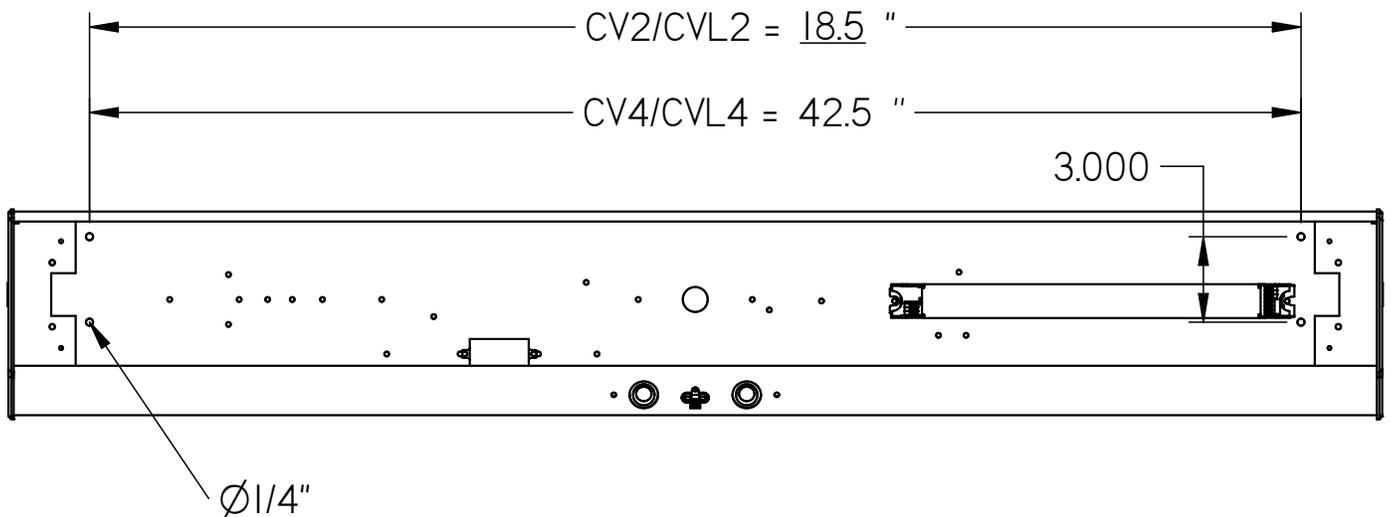
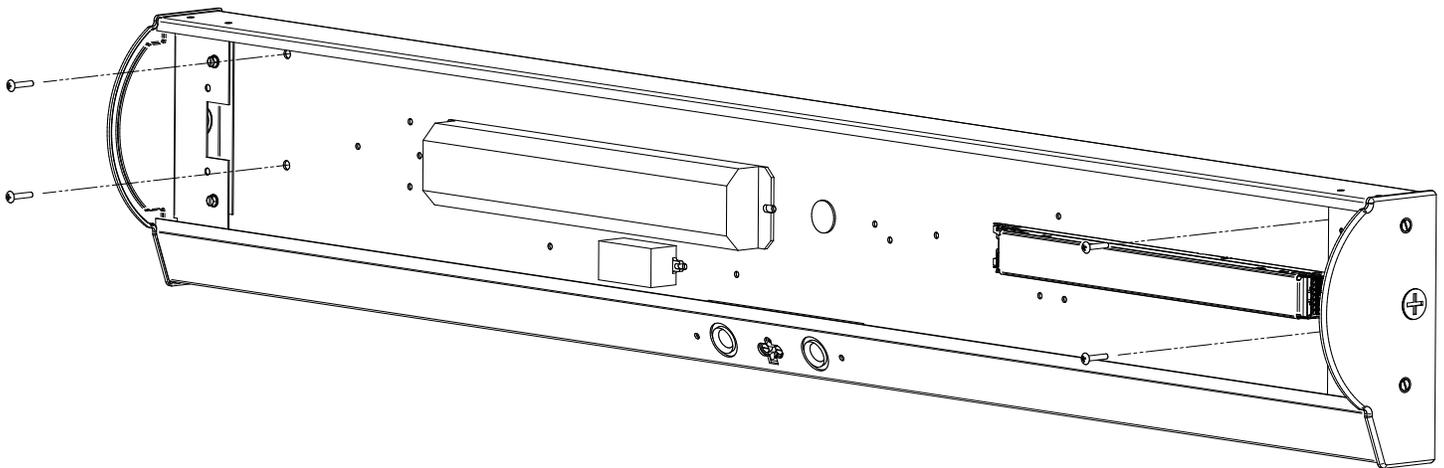


# CAVERN SERIES

## INSTALLATION & MAINTENANCE MANUAL

### Wall Mount Installation (Default)

Utilizing four screws (not provided), mount the fixture in the wall in the designated holes. The diameter of these holes is  $\frac{1}{4}$  in. Below details the position of the pre-existing installation holes in the fixture.



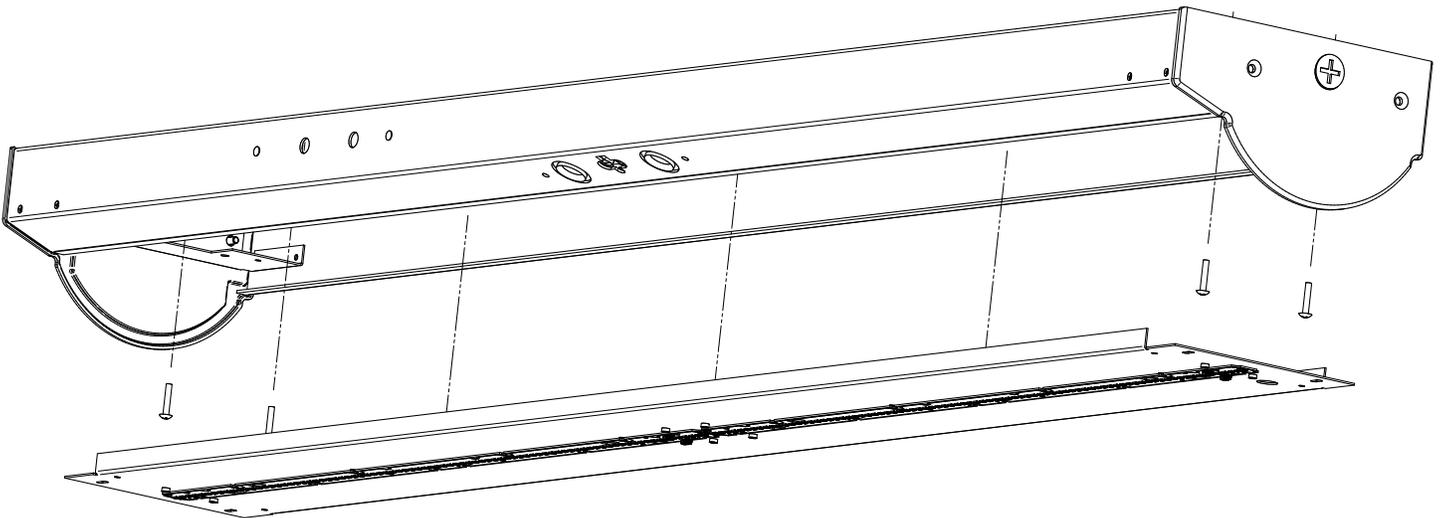


# CAVERN SERIES

## INSTALLATION & MAINTENANCE MANUAL

### Ceiling Mount Installation

Utilizing four screws (not provided), mount the fixture to the ceiling in the designated holes. The diameter of these holes is  $\frac{1}{4}$  in. Be sure to hold onto the led gear tray as to not let it fall when mounting the fixture. Fixture is to be mounted at 8-12 ft high for use with ultrasonic sensor.

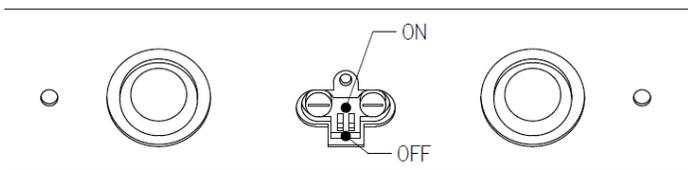
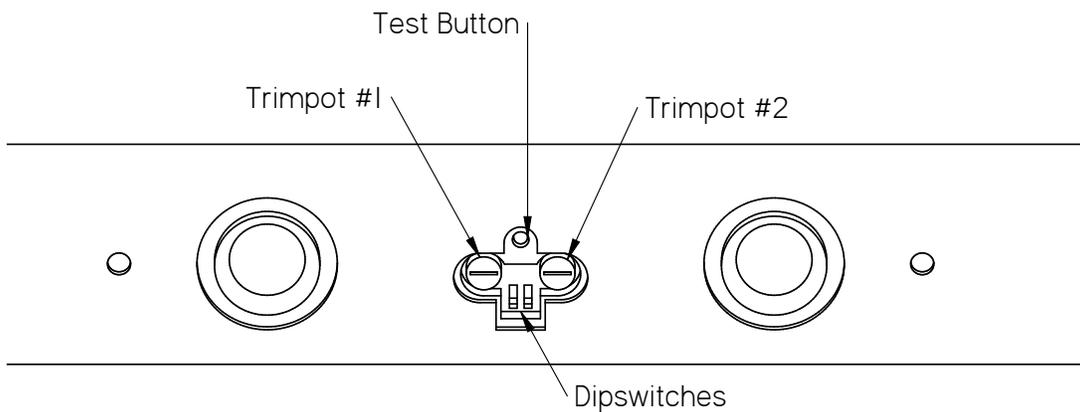




### Bi-Level Dimming Ultrasonic Sensor

Fixtures ordered with a bi level dimming ultrasonic occupancy sensor will have the following inputs exposed. Trimpot #1 on left adjusts motion detection range and sensitivity (13-35 feet wall mounted). Trimpot #2 on right adjusts time delay (1-20 minutes). Turn clockwise to increase, turn counterclockwise to decrease. Dipswitches control dimming capabilities. Set both to off to turn off occupancy mode. Set both to dim to half the output in unoccupied mode.

Test Button sets the time delay to five seconds and runs for 5 minutes. LED flashed 2 times to indicate Test Mode started. After 5 minutes (or push the Test Mode button again), LED flashed 3 times, the sensor returns to the selected Trimpot time delay setting.



Dipswitch 1	Dipswitch 2	Dim Level
OFF	OFF	OFF
OFF	ON	10%
ON	OFF	25%
ON	ON	50%



# CAVERN SERIES

## INSTALLATION & MAINTENANCE MANUAL

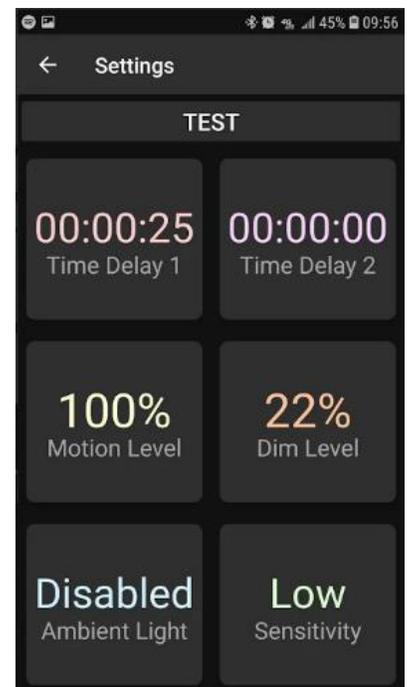
### User Selectable Bluetooth Occupancy Sensor

1. Download the PacWave App found in the Android or IOS App stores. Connect the app to the sensor on the front of the fixture by pressing SCAN in the app.

2. Fixtures ordered with selectable Bluetooth sensor will have the following input parameters selectable:

- Time Delay#1 - When this time is expired the sensor will go to Dim level.
- Time Delay#2 - When this time is expired the lights will be dimmed to OFF.
- Motion Level - This sets the maximum light output level that will be reached when motion is detected by the sensor.
- Dim Level - This sets the dimming light output level that will be reached when Time Delay#1 is expired.
- Ambient Light - When toggle is switched to the enabled position, the lights are activated by motion detection when the ambient light is below the preset lux and turns off the fixture at dawn.
- Sensitivity - Sets sensitivity of the sensor. By default, medium is selected. There are 3 occupancy levels: low, medium and high.

3. Press SAVE to save parameter selections to the sensor.





### Troubleshooting

If the fixture fails to operate once installation has been completed:

- Ensure there is power to the fixture.
- Ensure the fixture is properly wired and grounded.
- Check to see if there are any loose wires inside the light fixture.
- Ensure the line voltage at the fixture is correct.

If none of these steps resolve the issue, contact your ILP representative for further assistance.

### Maintenance

Depending on the application of the fixture, maintenance schedules will vary and should be developed by the customer following periodic observation once fixtures are in operation. At a minimum, the exterior surfaces should be wiped down as part of regular maintenance.

The fixture should only require dusting/wipe-down of the exterior surfaces as part of the regular maintenance. However, if a more thorough cleaning is required or desired, the lens may be removed and washed according to the following steps:

#### Lens Cleaning

1. Ensure power is turned off or disconnected before proceeding with maintenance. Once fixture is powered off, ensure the fixture is given enough time to cool.
2. a. The Cavern product has two series: Cavern (CV) and Cavern Lite (CVL). The Cavern (CV) encompasses two cast end panels with two phillips head end panel screws on each end, which will need to be loosened prior to proceeding to step two. This action is not required for the Cavern Lite (CVL).  
b. Remove the lens from fixture by gently squeezing on the top and bottom of the lens to pop it out of the fixture.
3. Clean the lens using warm water, then wipe down to dry. Use non-abrasive materials to prevent damage.
4. Reinstall lens onto fixture housing.