

## INSTALLATION INSTRUCTIONS | PLUS Series: P3SD 3-Inch Square Downlight

The important safeguards and instructions here are not meant to cover all possible conditions and situations that may occur.

### IMPORTANT SAFETY INSTRUCTIONS:

- **WARNING: RISK OF FIRE AND ELECTROCUTION**
- **WARNING: TO AVOID FIRE, SHOCK OR DEATH**, disconnect power at circuit breaker before installing or servicing device
- **READ AND SAVE THESE INSTRUCTIONS FOR LATER USE**
- Product should be installed by an electrician
- All electrical connections must be in accordance with local and National Electrical Code (NEC) standards. If you are unfamiliar with proper electrical wiring connections, consult an electrician.
- Before starting the installation, disconnect the power by turning off the circuit breaker or by removing the appropriate fuse at the fuse box. Turning the power off at the light switch is not sufficient to prevent electrical shock.
- Product must be grounded to avoid potential electric shock and any other potential hazards as well as to ensure reliable starting
- Product must be mounted in locations and at heights and in a manner consistent with its intended use, in compliance with National Electrical Code and local codes and where it will not readily be subject to tampering by unauthorized personnel
- To prevent damage to the wiring, do not expose wiring to edges of sheet metal or other sharp objects
- Wear rubber soled shoes and work on a sturdy wooden or non-conductive ladder
- Double check all connections and screws, ensuring they are tight and correct
- Most dwellings built before 1985 have supply wire rated at 60°C
- Supply conductors (power wires) connecting the luminaire must be rated at minimum of 90°C
- Installing contrary to instructions may cause unsafe conditions
- If the product has any visible damage do not install it
- Call the Technical Support department at ConTech Lighting with any installation questions: 847.559.5500

### INSTALLATION PROCEDURE

#### FOR DIRECT INSTALL/REMODEL APPLICATIONS

- Cut a 4-1/8-inch square hole (FIGURE 1)
  - NOTE:** The P3 LED module requires an accurate hole cut-out for best results and to ensure a secure fit
- Conduit must be run within close proximity to the ceiling cut-out
- The Flexible Conduit should be pulled through the ceiling opening in order to make the electrical connections
- Open Junction Box by loosening screw and sliding cover open, providing access to Wiring Compartment (FIGURE 2)
- Remove required knock-outs and assemble appropriate Conduit Connectors for the Supply Wires
- Follow the proper wiring diagram for the selected electrical/dimminging option (see wiring diagrams below)
- Ensure wiring is the correct voltage for the fixture: 120V, 277V or 347V
- Close Junction Box Cover by placing cover over Junction Box Base, align and slide Cover into place, tighten screw to secure
- WARNING:** All wiring must be safely tucked into Junction Box to avoid pinching wires when closing Junction Box
- Place Driver/Junction Box close to the ceiling cut-out so the Seismic Tether and Low Voltage Wiring Harness are accessible from below the ceiling opening

FIGURE 1

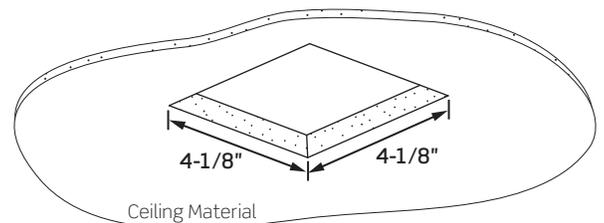
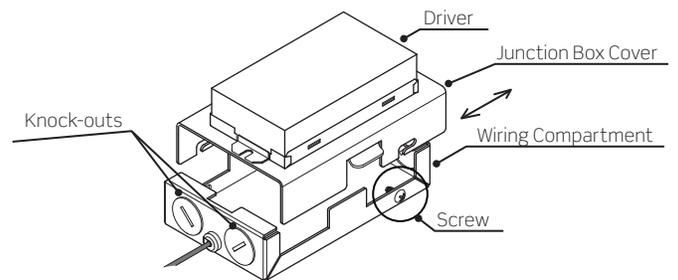
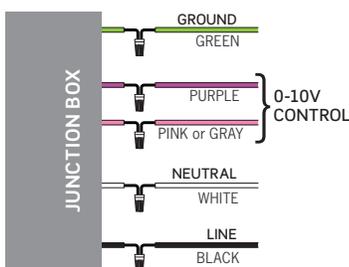


FIGURE 2

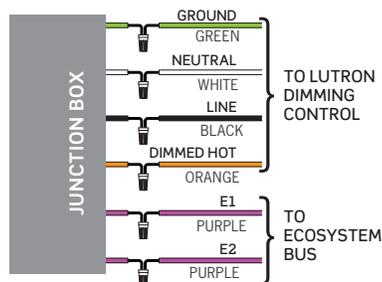


### WIRING DIAGRAMS

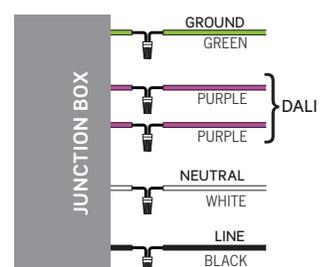


DIMMING OPTIONS: MVD, MVD2, 34D2, MVD6, MVD8  
 ELECTRICAL: 120V, 277V or 347V  
 DIMMING: Forward/Reverse Phase and 0-10V

- Phase Dimming requires Purple and Pink/Gray wires to be capped
- When dimming with 0-10V, Class 1 wiring (300V wiring inside conduit) is required; consult factory for additional details



DIMMING OPTION: MVD4  
 ELECTRICAL: 120V or 277V  
 DIMMING: Lutron EcoSystem



DIMMING OPTIONS: MVD7, MVD9  
 ELECTRICAL: 120V or 277V  
 DIMMING: DALI

CONTINUED

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### INSTALLATION PROCEDURE, CONTINUED

#### FOR DIRECT INSTALL / REMODEL APPLICATIONS ONLY

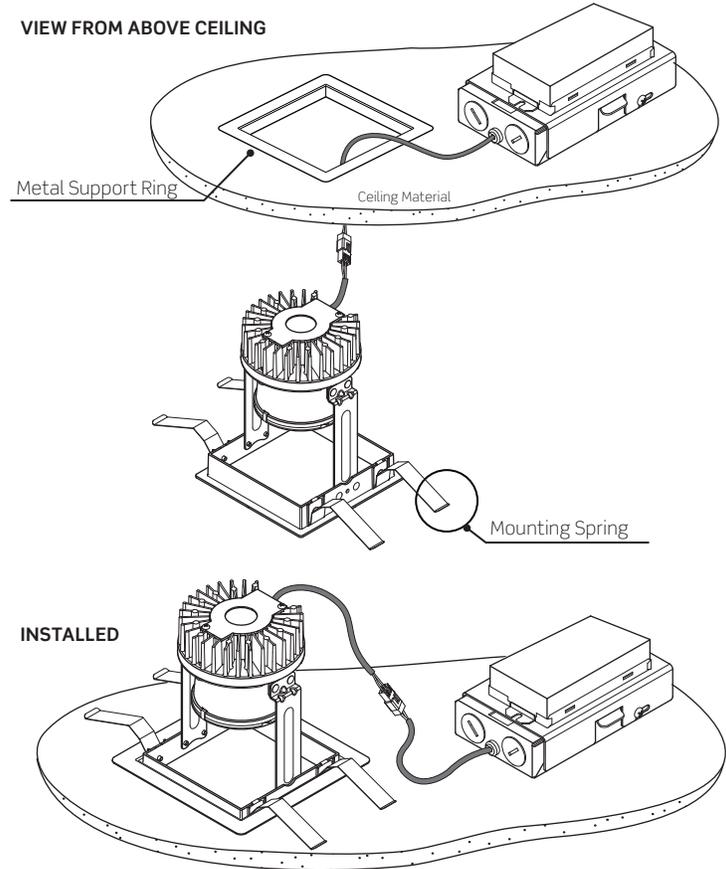
- It is recommended to install the metal support ring provided to the back of the ceiling for added stability (FIGURE 3)
- Connect the seismic tether and low voltage wiring harness from the driver/junction box assembly to the LED module.
- Position driver/junction box away from ceiling cut-out to provide clearance for the installation of the downlight module. Ensure metal support ring is in position.
- While squeezing the mounting springs on the downlight module, gently guide the LED module and springs through the ceiling opening and the metal support ring.
- Once the module is within the ceiling opening, firmly push on the module's base ring to ensure springs engage and it sits flush against the ceiling.
- With LED module fully in place, reach up through the opening and push the metal support ring so that it is positioned flat against the backside of the ceiling surface.

#### INSTALLATION PROCEDURE

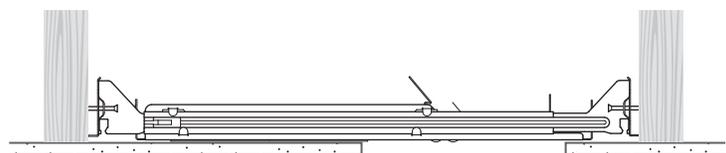
#### FOR INSTALL WITH OPTIONAL NON-IC FRAME OR ICSA HOUSING

- Install the Frame or Housing using the Hanger Bars
- Extend Hanger Bars to fit between the joists and secure by hammering nail on bars into joists  
**NOTE:** Hangers should be level with bottom of the joists (FIGURE 4)
- Use the T-bar slot in the bottom bars for Suspended/T-Bar ceilings, bending the base to hold the T-bar tightly
- Once the Frame or Housing is mounted in the desired location, tighten the Hanger Bar Locking Screw to ensure location is maintained throughout ceiling installation process
  - **FOR INSTALLATION USING THE NON-IC FRAME ONLY:**
    - Conduit must be run within close proximity to the ceiling cut-out
  - **FOR INSTALLATION USING THE ICESA HOUSING ONLY:**
    - Electrical connections are made on the housing's outer Junction Box
    - Follow the proper wiring diagram for the selected electrical/dimming option
    - Ensure wiring is the correct voltage for the fixture: either 120V, 277V or 347V
- After the housing is installed, cut a 4-1/8-inch square ceiling cut-out using the opening in the frame as a guide
- Flexible Conduit should be pulled through the ceiling opening in order to make the electrical connections
- Open Junction Box by loosening screw and sliding cover open, providing access to Wiring Compartment (FIGURE 2, PAGE 1)
- Remove required Knockouts and assemble appropriate Conduit Connectors for the Supply Wires
- Follow the proper wiring diagram for the selected electrical/dimming option (WIRING DIAGRAMS, PAGE 1)
- Ensure wiring is the correct voltage for the fixture: 120V, 277V or 347V
- Close Junction Box Cover by placing cover over Junction Box Base, align and slide Cover into place, tighten screw to secure  
**WARNING:** All wiring must be safely tucked into Junction Box to avoid pinching wires when closing Junction Box
- Position Driver/Junction Box assembly through the ceiling cut-out
- Secure Driver/Junction Box to Frame by inserting the Tab into the Retention Slot of the Frame and swinging the Junction Box down to be retained by the Spring Catch. (FIGURE 5)
- Connect the seismic tether and low voltage wiring harness from the Driver/Junction Box assembly to the LED module.
- While squeezing the mounting springs on the downlight module, gently guide the module and springs through the ceiling and frame opening.
- Once the module is within the ceiling opening, firmly push on the module's base ring to ensure springs engage and it sits flush against the ceiling.

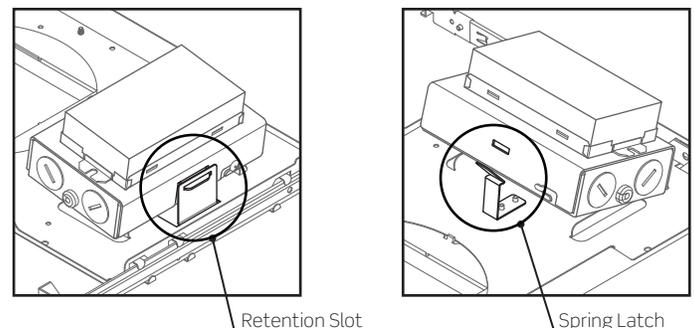
**FIGURE 3**



**FIGURE 4**



**FIGURE 5**



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### INSTALLATION PROCEDURE, CONTINUED

#### TRIM INSTALLATION PROCEDURE

- Trims may accept up to one (1) piece of media. (FIGURE 6)
- Trims are held securely in place with Friction Snap Springs.
- Align the Trim to the Downlight Module Base, then push trim up to snap into place. (FIGURE 7)

#### INTEGRAL EMERGENCY TEST SWITCH

- Remove the Nut located on the Test Switch (FIGURE 8)
- Insert the Test Switch into the hole in the Trim from the show or room side, connector first. Re-install the Nut and hand tighten. Over tightening the Nut can result in damage to the Trim.
- Ensure the Extension Harness for the Test Switch is plugged into the Emergency Driver before installation in the ceiling and routed through the aperture of the Light Engine
- When installing the trim: plug in the test switch to the extension harness and carefully install the trim (FIGURE 8)
- Align the Trim to the Downlight Module Base, then push trim up to snap into place. (FIGURE 7)

#### REMOTE EMERGENCY TEST SWITCH

- Locate and install a junction box for the switch location. Ensure sufficient wire length for location.
- Remove the nut located on the test switch
- Insert the Test Switch into the hole in the single gang cover provided. Reinstall the nut and hand tighten. Over tightening the nut can result in damage to the cover.

#### MODULE REMOVAL / DRIVER REPLACEMENT

**NOTE:** LED Driver should be replaced by a qualified electrician. Turn off power at Fuse or Circuit Breaker Box before replacing the LED Driver

- Remove Trim by pulling Trim straight down out of Downlight Module
- Carefully remove Downlight Module by pulling down from the Base Ring. When the four (4) Trim Springs become exposed, depress and hold tightly against Housing as it is being removed from ceiling. This will prevent Springs from damaging the ceiling material.
- Disconnect the Seismic Tether and Low Voltage Connector to remove the Downlight Module.
- Carefully pull Remote Driver Box through the ceiling opening. For Non-IC frame and ICSCA Housing installations, release the Driver / Junction Box assembly by depressing the Spring Latch. (PAGE 2, FIGURE 5)
- Loosen the two (2) screws on the Junction Box assembly to allow wiring access
- Disconnect LED Driver from line voltage input wiring in Junction Box and from the LED Leads.
- Reinstall factory approved LED Driver by reversing above procedure and following appropriate installation procedures.

FIGURE 6

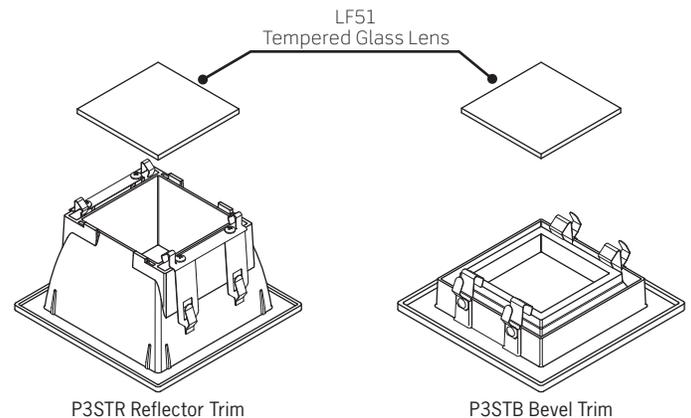


FIGURE 7

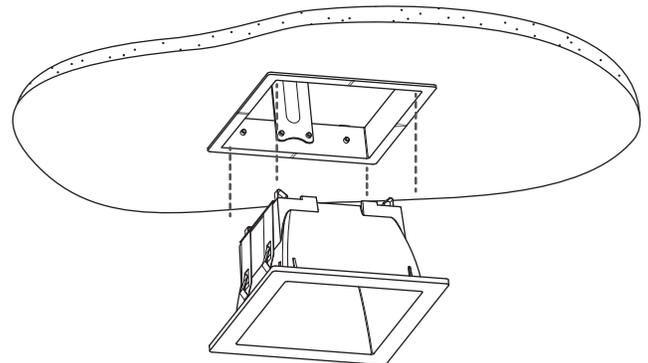


FIGURE 8

