

## INSTALLATION INSTRUCTIONS | 2" LED Downlight: R2RM Series

**Note:** Before attempting installation please refer to your local electrical code.

### INSULATED and NON-INSULATED CEILING APPLICATIONS

- 8W Series 05 and 10W Series 1 housings can be installed in direct contact with insulation (either as a remodel or when used with new construction optional mounting frame, NCF1).
- 12W Series WD1 (warm dimming) and 14W Series 2 housings can NOT be installed in direct contact with insulation. Do not install insulation within 3" of fixture sides or wiring compartment, nor above fixture in such a manner to entrap heat (either as a remodel or when used with new construction optional mounting frame, NCF1).

### REMODEL TYPE INSTALLATION PROCEDURES:

- Ensure you have the proper location for the housing. The flexible electrical cable above the ceiling needs to be in close proximity to the hole that will be drilled in the ceiling for easy access.
- The housing requires a precision fit with the ceiling opening. This opening needs to be a diameter of 2-7/8". It is highly recommended that a 2-7/8" hole saw be used for an accurate ceiling opening.
- Pull flexible cable through ceiling opening to wire fixture.
- Make all electrical connections (See "Electrical Connection").
- Squeeze friction mounting springs (3) on housing to guide it through ceiling opening. Once housing is into ceiling opening, firmly push on the housing remodel ring to ensure springs engage and it sits flush against the ceiling.

### NEW CONSTRUCTION TYPE INSTALLATION PROCEDURES

*Using Accessory NCF1 Mounting Frame:*

- Install hanger bars to NCF1 mounting frame; ensure end tab is facing outward. (Figure 1)
- Extend bar hangers to fit between joists and position fixture by hammering nail on bars into the joists. Hangers should be level with bottom of the joists.
- Use T-Bar slot in the bottom of the hanger bars for suspended (T-Bar) ceilings, bending the tabs to hold T-Bar tightly.
- Insert the flexible electrical cable above the ceiling into the cable-clip (2-provided) on the mounting frame. The clips will keep the cable in close proximity to the hole that will be cut in the ceiling for easy access. (Figure 2)
- If you are in a region that requires a seismic tether to support the housing when installed into the mounting frame, ensure that it is in close proximity to the opening in the mounting frame for easy access. (Figure 2)
- When ceiling material is installed, verify that the mounting frame opening location is identified.
- **IMPORTANT NOTE:** The housing requires a precision fit with the ceiling opening. Using a rotary type cutting tool, plunge tool bit into ceiling and through mounting frame opening. Using the mounting frame opening as a guide, carefully cut an accurate opening in the ceiling.
- Locate the electrical cable in the mounting frame and pull it through the ceiling opening.
- Make all necessary electrical connections (See "Electrical Connection").
- If required, locate seismic tether and attach it using the screw at the seismic anchor point. (Figure 3)
- Squeeze friction mounting springs (3) on housing to guide it through ceiling opening. Once housing is into ceiling opening, firmly push on the housing remodel ring to ensure springs engage and it sits flush against the ceiling.

### ELECTRICAL CONNECTION:

- Remove the two screws on the junction box cover to allow wiring. (Figure 3)
- A convenience 2-in-1 duplex connector is provided if daisy-chaining housings is desired. The duplex connector must be installed in the knockout located at the end of the junction box to allow the housing to fit through the ceiling opening. (Figure 3).
- For electrical/dimming option MVD follow wiring Diagram 1; for option MVD4 Diagram 2
- Ensure all wires are safely within junction box. Close junction box and reinstall screws.

### TRIM INSTALLATION:

- Trims are held securely in place with friction springs. Simply push reflector into housing until it sits firmly against the ceiling.

### HOUSING REMOVAL AND LED 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.
- Pull trim straight down out of housing.
  - With fingers against housing walls pull down carefully. When springs (3) become exposed, depress and hold tightly against housing as it is being removed from ceiling. This will prevent springs from damaging the ceiling material.
  - Remove driver cover. (Figure 3)
  - Disconnect LED driver from line voltage input wiring in J-Box. Open up the LED driver enclosure and disconnect the LED driver from the LED leads (leads are terminated by crimp connectors).
  - Reinstall factory approved LED driver by reversing above procedure.

### IMPORTANT SAFETY INSTRUCTIONS:

- Read all the instructions before installation. Save instructions for later use.
- Turn off power at fuse or circuit breaker box before installation or before doing any maintenance work.
- Product must be grounded to avoid potential electric shock and any other potential hazards.
- Product must be mounted in locations and at heights and in a manner consistent with its intended use, and in compliance with National Electrical Code and local codes. Use of accessory equipment is not recommended.
- Installing contrary to instructions may cause unsafe conditions.
- Do not block light from the trim aperture, in whole or in part, as this may cause unsafe conditions.
- **Warning:** Risk of fire. Most dwellings built before 1985 have supply wire rated at 60°C. Consult a qualified electrician before installation.
- Avoid hazards to children: account for all parts and properly dispose of all packing materials.
- Call the Technical Support department at ConTech Lighting with any installation questions: 847.559.5500.

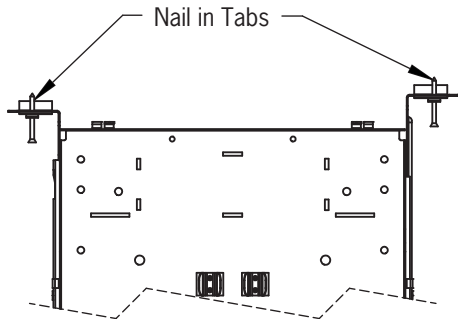
### WARRANTY:

- Energy Star products are covered for three (3) years by a full replacement guarantee after date of installation. In addition, ConTech LED products carry a five (5) year limited warranty from date of purchase.

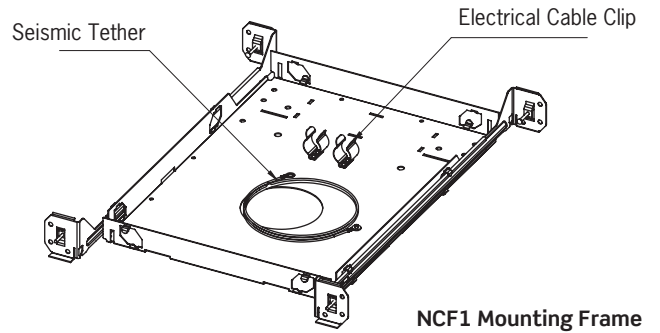
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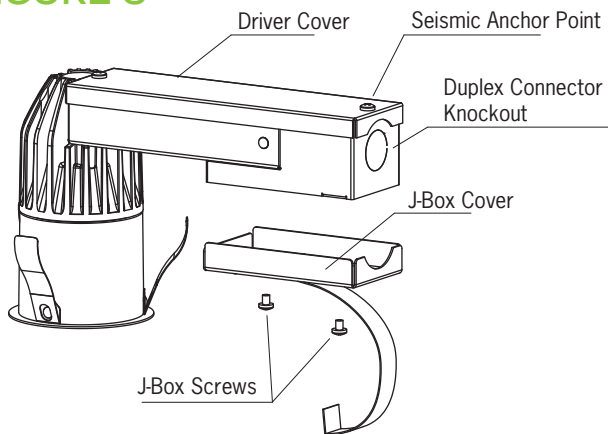
**FIGURE 1**



**FIGURE 2**



**FIGURE 3**



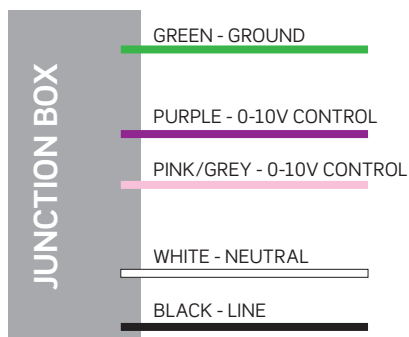
## WIRING DIAGRAMS

**DIAGRAM 1**

**MVD OPTION 120V-277V**

Electrical/Dimming (Triac, ELV & 0-10V)  
Triac & ELV 120V Dimming Only

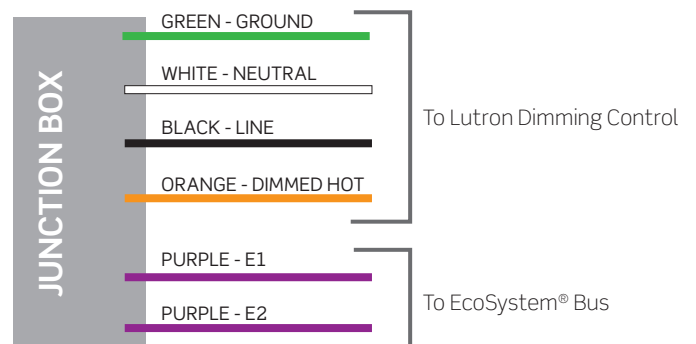
*Triac and ELV Require Purple and Pink/Grey wires to be capped*



**DIAGRAM 2**

**MVD4 OPTION**

120V or 277V  
Lutron EcoSystem® Dimming



All specifications subject to change without notice. For ConTech's limited product warranty, go to [www.contechlighting.com](http://www.contechlighting.com). For a printed copy of the warranty, call 1-847-559-5500.