



**400 SERIES**  
**NEW CONSTRUCTION**  
TYPE IC RATED  
INSTALLATION INSTRUCTIONS

**WARNING:** Read and understand these instructions completely before installation. Disconnect power at circuit breaker or fuse panel before installation. Always allow LED assembly to cool before servicing. To be installed by qualified electricians only. Products should be installed in accordance with these instructions, local electrical codes, and the National Electric Code (NEC). These products may represent a possible shock or fire hazard if improperly installed.

Do not install where insulation or ambient temperatures will exceed maximum values noted in product specifications. See [www.8lighting.com](http://www.8lighting.com) for current product specifications.

**NOTE:** Number Eight Lighting fixtures are designed to meet the latest NEC requirements and are listed in full compliance with UL standards. Before attempting installation check and understand your local electrical code which sets the wiring standards and installation requirements for your locality.

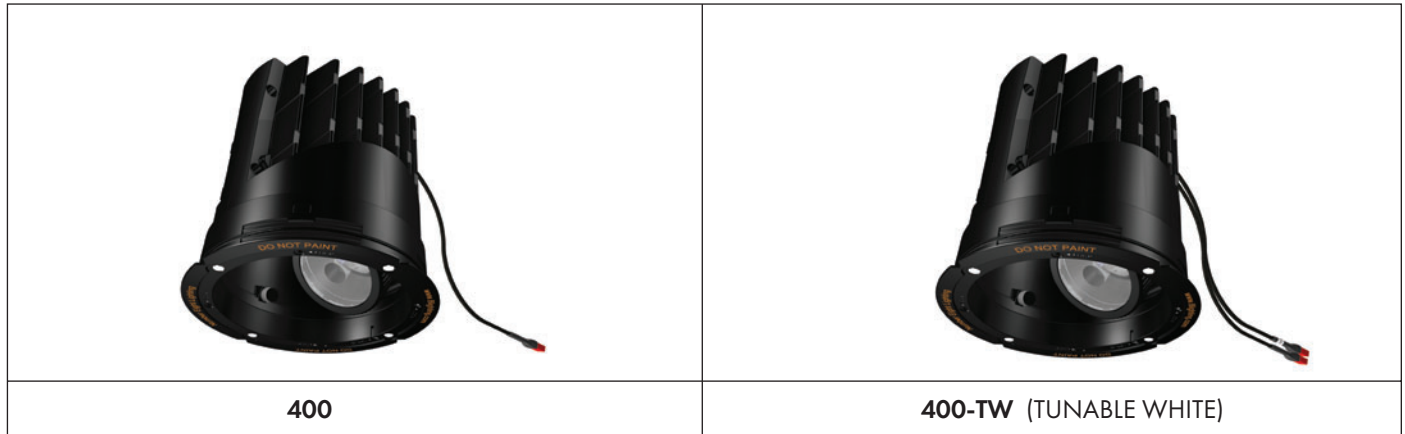
**Save these instructions.**

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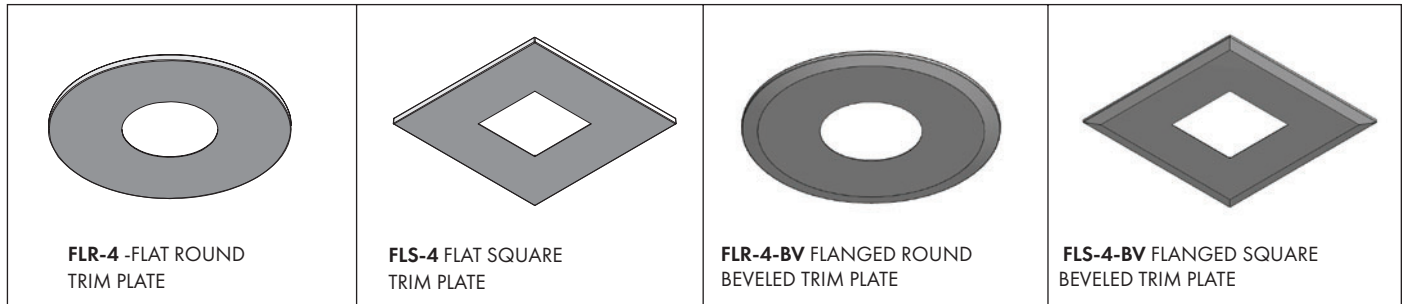
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## 400 SERIES COMPONENTS

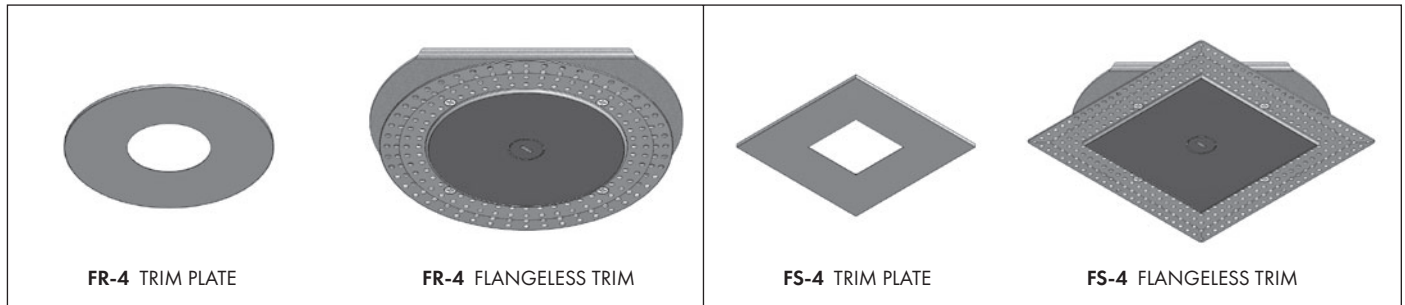
LED NEW CONSTRUCTION HOUSING + LIGHT ENGINE AIR-TIGHT + I.C. RATED



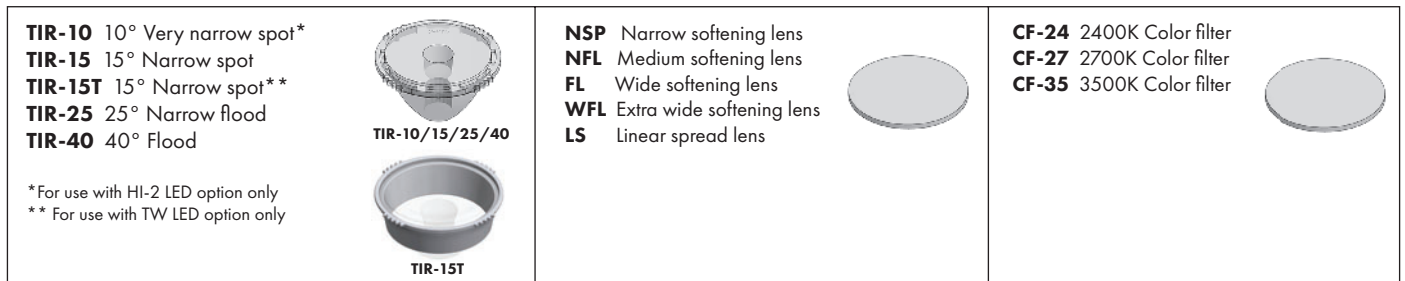
### 400 SERIES – TRIMS



### 400 SERIES – FLANGELESS TRIMS for SHEETROCK CEILING APPLICATIONS

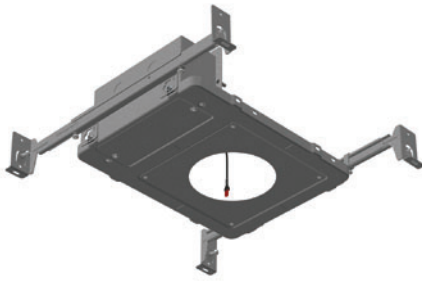


### 400 SERIES – OPTIC OPTIONS + ACCESSORIES

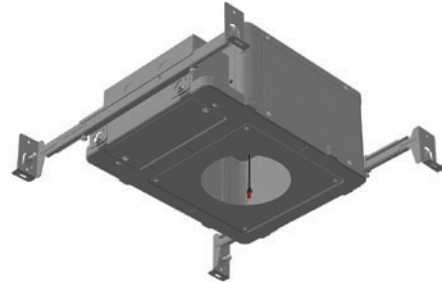


## 400 SERIES COMPONENTS

### NEW CONSTRUCTION MOUNTING FRAMES for FLANGED TRIM INSTALLATION



**FRM2-4** MOUNTING FRAME for FLANGED INSTALLATION WITH **FLR-4/FLR-4-BV** ROUND or **FLS-4/FLS-4-BV** SQUARE trims in Sheetrock/Wood/Stone ceilings.



**FRM2-4-CP** MOUNTING FRAME for FLANGED INSTALLATION with **FLR-4/FLR-4-BV** Round or **FLS-4/FLS-4-BV** SQUARE trims in Sheetrock/Wood/Stone ceilings. CCEA plenum rated for City of Chicago environmental air spaces and rated for direct contact with spray-foam insulation.

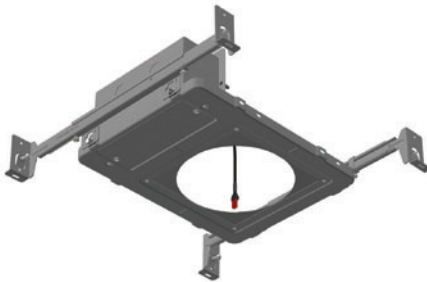


**FRM2-4T** MOUNTING FRAME for FLANGED INSTALLATION WITH **FLR-4/FLR-4-BV** ROUND or **FLS-4/FLS-4-BV** SQUARE trims in Acoustic Tile/Fabric ceilings.

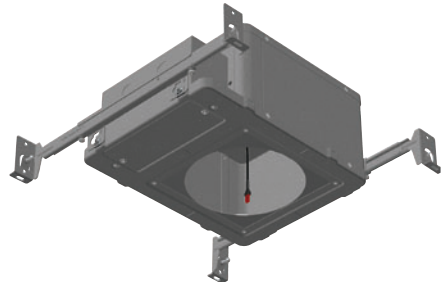


**FRM2-4T-CP** MOUNTING FRAME for FLANGED INSTALLATION with **FLR-4/FLR-4-BV** Round or **FLS-4/FLS-4-BV** SQUARE trims in Acoustic Tile/Fabric ceilings. CCEA plenum rated for City of Chicago environmental air spaces and rated for direct contact with spray-foam insulation.

### NEW CONSTRUCTION MOUNTING FRAMES for FLANGELESS TRIMS with SHEETROCK CEILINGS



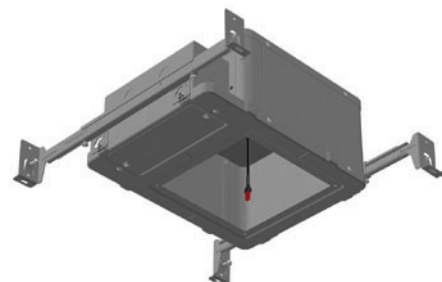
**FRM2-R6** MOUNTING FRAME for FLANGELESS INSTALLATION with **FR-4** trim in Sheetrock ceilings.



**FRM2-R6-CP** MOUNTING FRAME for FLANGELESS INSTALLATION with **FR-4** ROUND trim in Sheetrock ceilings. CCEA plenum rated for City of Chicago environmental air spaces and rated for direct contact with spray-foam insulation.







**FRM2-S6** MOUNTING FRAME for FLANGELESS INSTALLATION with **FS-4** SQUARE trim in sheetrock ceilings.




**FRM2-S6-CP** MOUNTING FRAME for FLANGELESS INSTALLATION with **FS-4** SQUARE trim in sheetrock ceilings. CCEA plenum rated for City of Chicago environmental air spaces and rated for direct contact with spray-foam insulation.

## 400 SERIES COMPONENTS

### NEW CONSTRUCTION MOUNTING FRAMES for FLANGELESS TRIM INSTALLATION with WOOD/STONE CEILINGS

 <p><b>FRM2-4W-R</b> MOUNTING FRAME for FLANGELESS INSTALLATION with <b>FLR-4</b> ROUND FLAT trim in Wood/Stone ceilings.</p>	 <p><b>FRM2-4W-R-CP</b> MOUNTING FRAME for FLANGELESS MOUNTING ROUND FLAT trim in Wood/Stone ceilings. CCEA plenum rated for City of Chicago environmental air spaces and rated for direct contact with spray-foam insulation.</p>
 <p><b>FRM2-4W-S</b> MOUNTING FRAME for FLANGELESS INSTALLATION with <b>FLS-4</b> SQUARE FLAT trim in Wood/Stone ceilings.</p>	 <p><b>FRM2-4W-S-CP</b> MOUNTING FRAME for FLANGELESS INSTALLATION with <b>FLS-4</b> SQUARE FLAT trim in Wood/Stone ceilings. CCEA plenum rated for City of Chicago environmental air spaces and rated for direct contact with spray-foam insulation.</p>
<p><b>Note:</b> Mounting frames are Airtight and IC rated for direct contact with standard thermal insulation with a max R-value of R-42 (may also be installed in Non-IC applications). Not for use with spray-foam insulation. Frames include power supply, junction box and mounting accessories.</p> <p><b>Caution:</b> When installed in contact with thermal insulation, ambient temperatures in ceiling space should not exceed 25°C (77°F) during normal operation. For installations where insulation is held back a minimum of 3" from sides and top, ambient temperatures in ceiling space should not exceed 40°C (104°F) during normal operation.</p>	<p><b>Note:</b> CP Mounting frames are Airtight and IC rated for direct contact with standard or spray-foam thermal insulation with a max R-value of R-42 (may also be installed in Non-IC applications). Frames include power supply, junction box and mounting accessories.</p> <p><b>Caution:</b> When installed in contact with thermal insulation, ambient temperatures in ceiling space should not exceed 25°C (77°F) during normal operation. For installations where insulation is held back a minimum of 3" from sides and top, ambient temperatures in ceiling space should not exceed 40°C (104°F) during normal operation.</p>

### FRAME MOUNTING ACCESSORIES

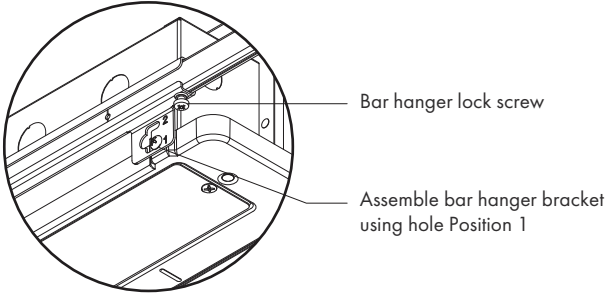
			
<p><b>BB BUTTERFLY BRACKET</b> (Set of 2) For commercial c-channel or bar mounting</p>	<p><b>BH BAR HANGER</b> (Set of 2) For joist mounting)</p>	<p><b>PMB PANEL MOUNTING BRACKET</b> (Set of 2) For direct mounting to wood panels</p>	<p><b>TBC T-BAR MOUNTING CLIPS</b> (Set of 4) For use with BH Bar Hanger in T-GRID ceiling applications</p>

# NEW CONSTRUCTION INSTALLATION

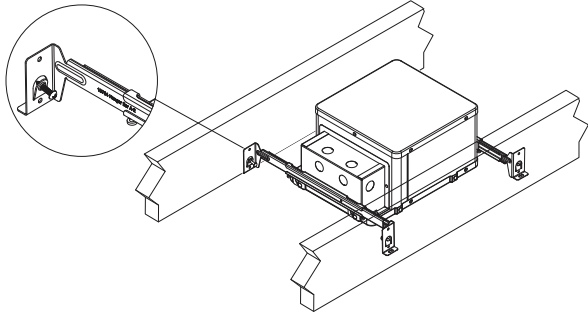
## STEP 1 - MOUNTING FRAME ASSEMBLY AND INSTALLATION

**BH - BAR HANGER MOUNTING OPTION**

**1a.** Attach bar hangers to either ends or sides of mounting frame using hole position 1

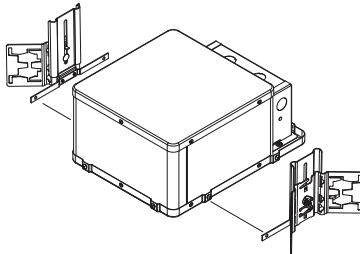


**1b.** Attach mounting frame to joists

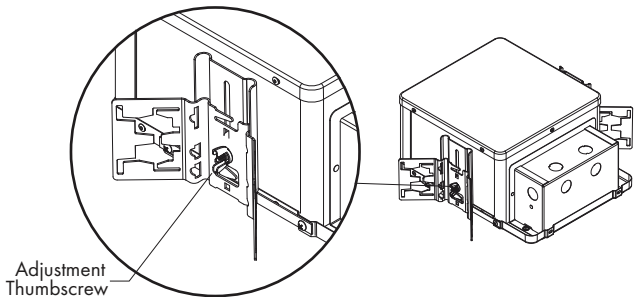


**BB - BUTTERFLY BRACKET MOUNTING OPTION**

**1a.** Attach butterfly brackets to either ends or sides of mounting frame

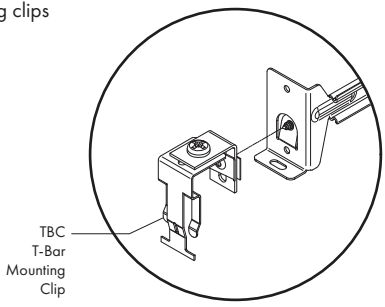


**1b.** Attach supports to bracket and adjust height with thumbscrew

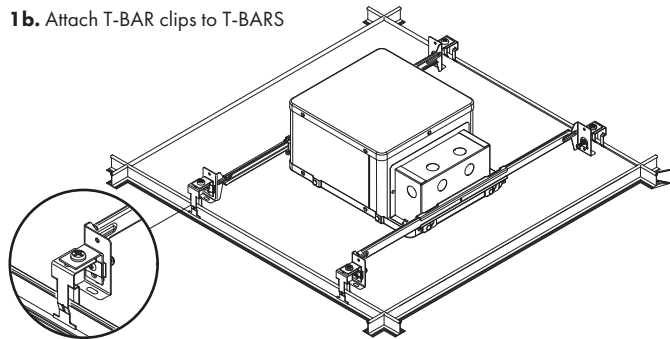


**TBC-BH - T-BAR CLIP + BAR HANGER MOUNTING OPTION**

**1a.** Assemble bar hangers as shown above and attach T-BAR mounting clips

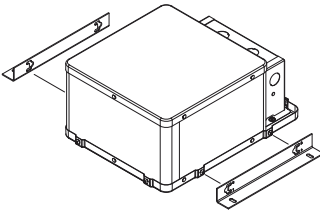


**1b.** Attach T-BAR clips to T-BARS

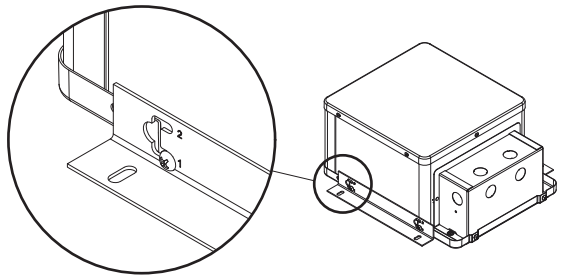


**PMB - PANEL MOUNTING BRACKET OPTION**

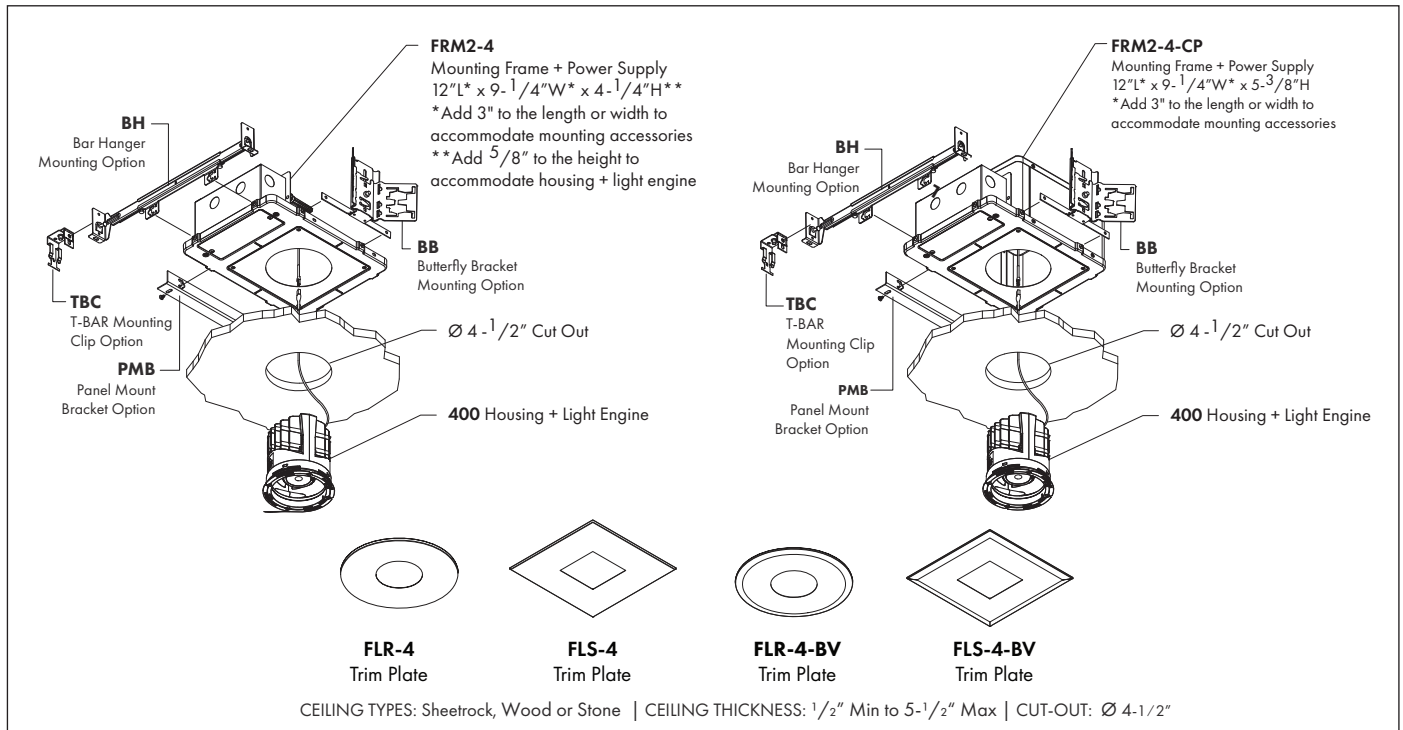
**1a.** Attach panel mount brackets to either ends or sides of mounting frame.



**1b.** Attach panel mount brackets to panel using hole position 1.



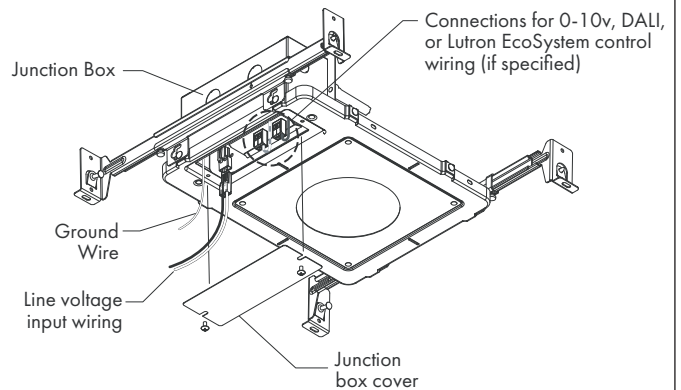
## FRM2-4 & FRM2-4-CP - FLANGED TRIM INSTALLATION with SHEETROCK/WOOD/STONE CEILINGS



### STEP 1 – FRM2-4 AND FRM2-4-CP MOUNTING FRAME ASSEMBLY AND INSTALLATION (see page 4)

### STEP 2 – FIXTURE WIRING

- 2a.** Disconnect power at circuit breaker.
  - 2b.** Remove junction box cover and install appropriate conduit connector(s) using one or more of the provided junction box knock-outs.
  - 2c.** Review wiring diagrams on Pages 19-21, wire fixture accordingly. Place all wiring and connectors back in junction box and replace cover.
- Note:** 0-10v, DALI, or Lutron EcoSystem power supplies (if specified) require additional dimming control wiring.

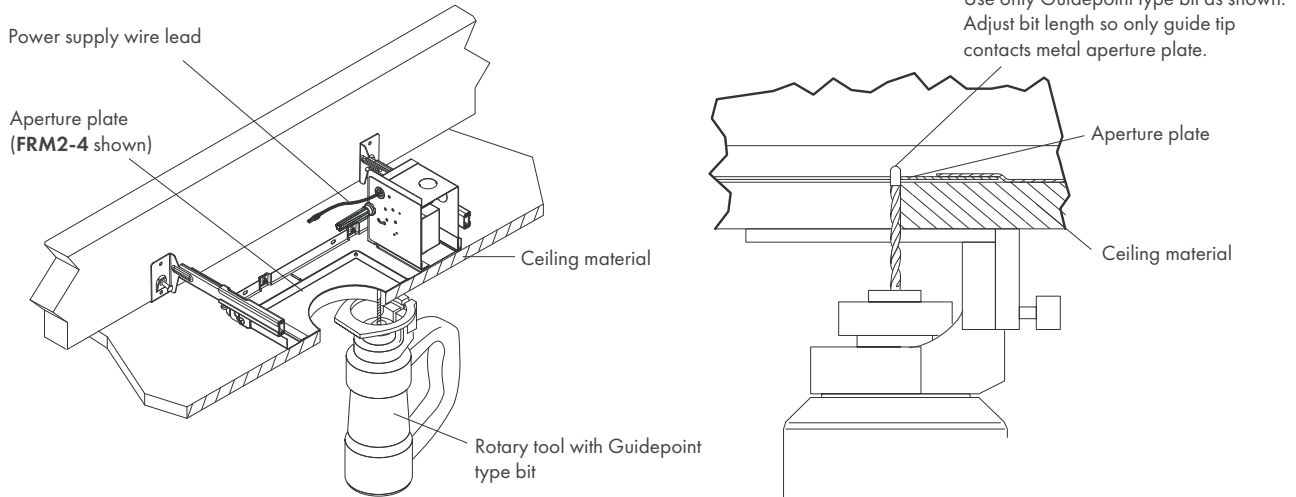




# FRM2-4 & FRM2-4-CP - FLANGED TRIM INSTALLATION with SHEETROCK/WOOD/STONE CEILINGS

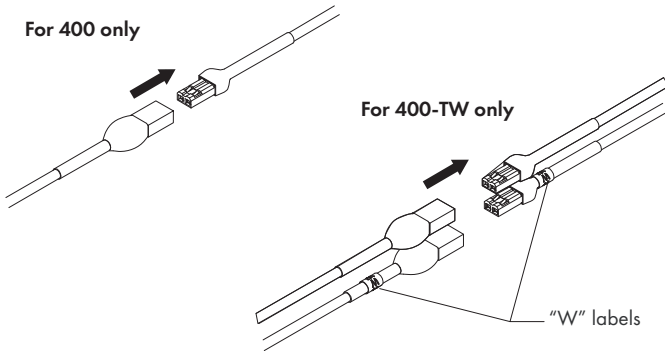
## STEP 3 – CEILING CUT-OUT

**3a.** Install ceiling material over **FRM2-4** or **FRM2-4-CP** Mounting Frame. Make  $\varnothing 4\text{-}\frac{1}{2}$ " cut-out in ceiling material using spiral saw with appropriate guide bit using aperture plate as guide.

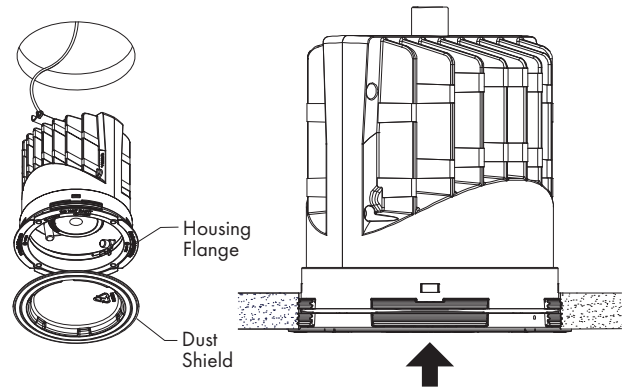


## STEP 4 – HOUSING + LIGHT ENGINE WIRING AND INSTALLATION

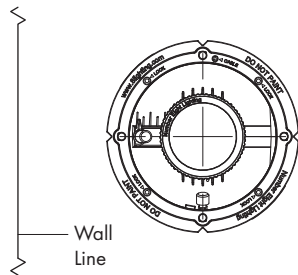
**4a.** Support housing and connect fixture wire lead to power supply wire lead. For model 400-TW ensure connectors labeled "W" are attached together.



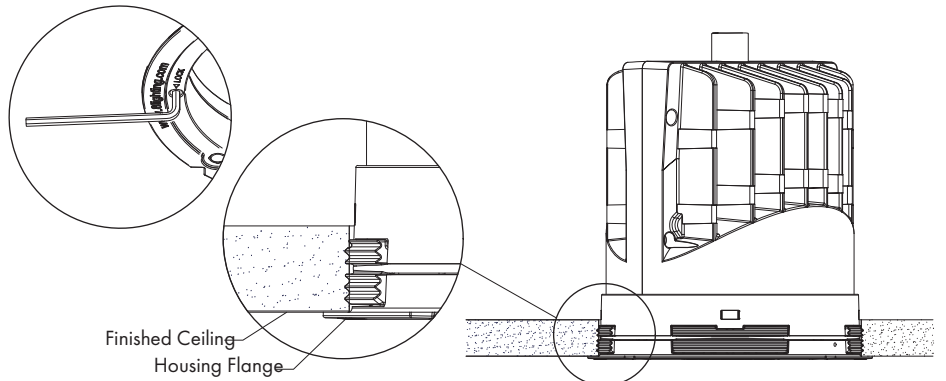
**4b.** Remove temporary dust cover and save. Install housing into mounting sleeve.



**4c.** Rotate housing flange so notches are aligned with adjacent walls or fixtures.

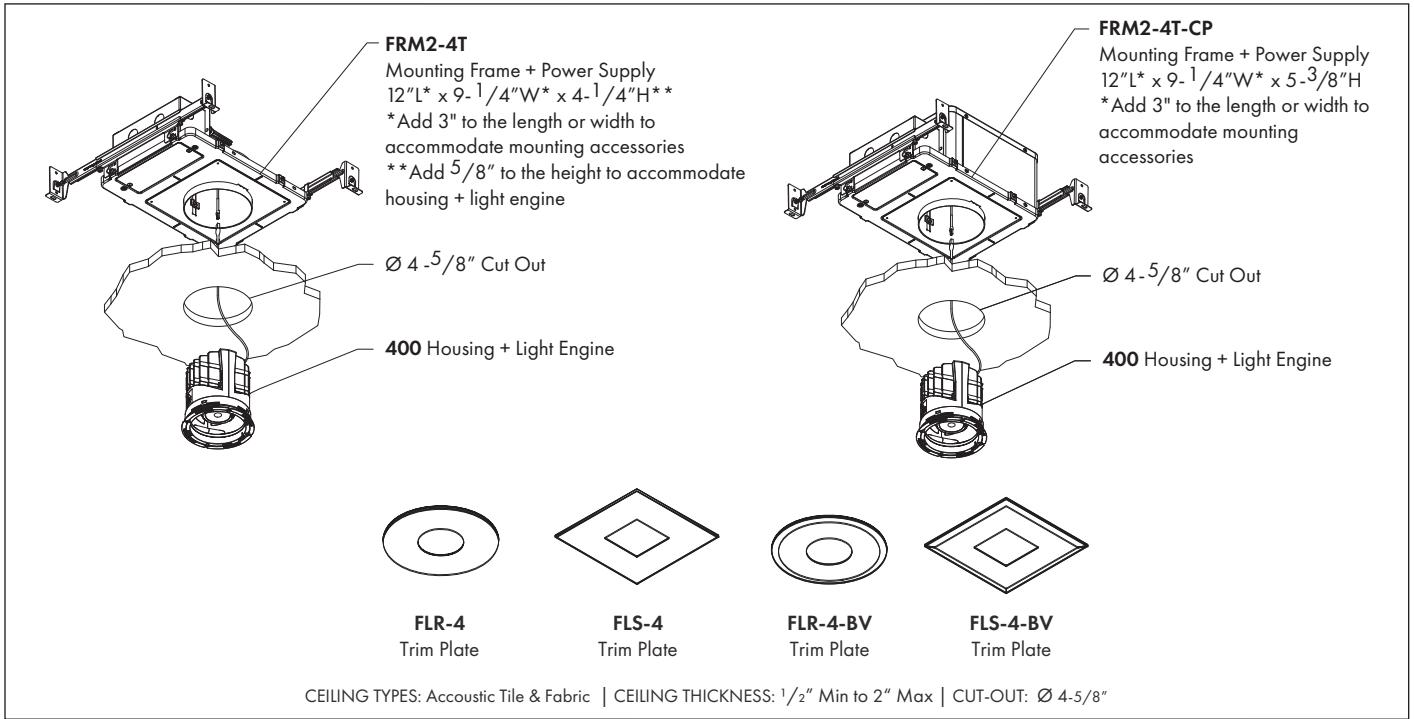


**4d.** Locate (4) four locking screws. While applying upward pressure on housing flange, hand tighten using supplied  $\frac{3}{32}$ " hex-key. Ensure housing flange is tight against finished ceiling. **Caution:** Ceiling finish must not extend above backside of housing flange.



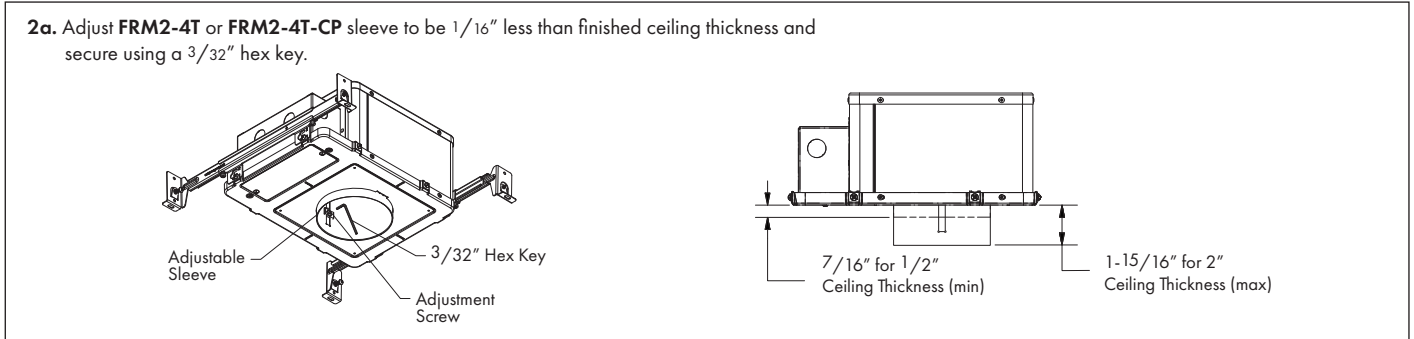
**4e.** Replace temporary dust cover before finishing ceiling.

**FRM2-4T & FRM2-4T-CP - FLANGED TRIM INSTALLATION with ACOUSTIC TILE/FABRIC CEILINGS**



**STEP 1 – FRM2-4T AND FRM2-4T-CP MOUNTING FRAME ASSEMBLY AND INSTALLATION (see page 4)**

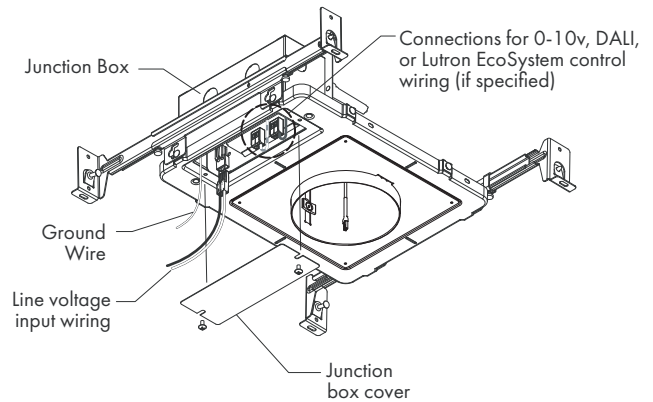
**STEP 2 – FRM2-4T AND FRM2-4T-CP MOUNTING FRAME SLEEVE ADJUSTMENT**



## FRM2-4T & FRM2-4T-CP - FLANGED TRIM INSTALLATION with ACOUSTIC TILE/FABRIC CEILINGS

### STEP 3 – FIXTURE WIRING

- 3a. Disconnect power at circuit breaker.
- 3b. Remove junction box cover and install appropriate conduit connector(s) using one or more of the provided junction box knock-outs.
- 3c. Review wiring diagrams on pages 19-21, wire fixture accordingly. Place all wiring and connectors back in junction box and replace cover.
- Note:** 0-10v, DALI, or Lutron EcoSystem power supplies (if specified) require additional dimming control wiring.



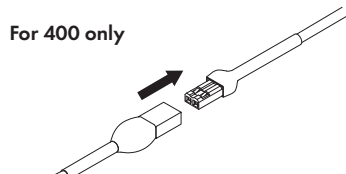
### STEP 4 – CEILING CUT-OUT

- 4a. Make  $\text{Ø}4\text{-}5/8\text{'}$  cut-out in ceiling material.
- 4b. Install ceiling material over **FRM2-4T** or **FRM2-4T-CP** Mounting Frame ensuring sleeve is centered with  $\text{Ø}4\text{-}5/8\text{'}$  cut-out in ceiling.
- 4c. Adjust mounting sleeve (as shown in Steps 1 a) to be  $1/16\text{'}$  above finished ceiling.

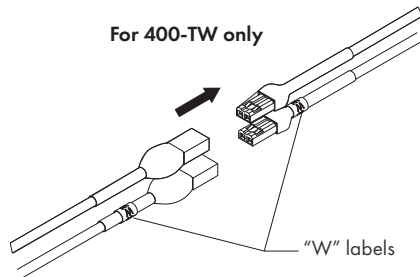
### STEP 5 – HOUSING + LIGHT ENGINE WIRING AND INSTALLATION

- 5a. Support housing and connect fixture wire lead to power supply wire lead. For model 400-TW ensure connectors labeled "W" are attached together.

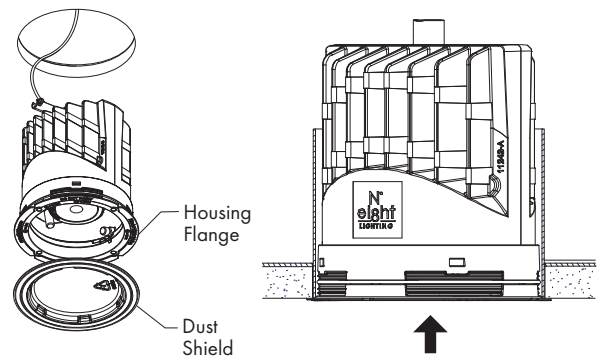
For 400 only



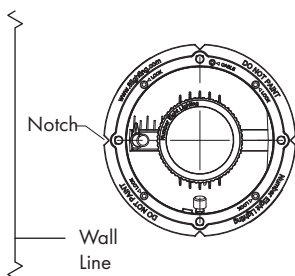
For 400-TW only



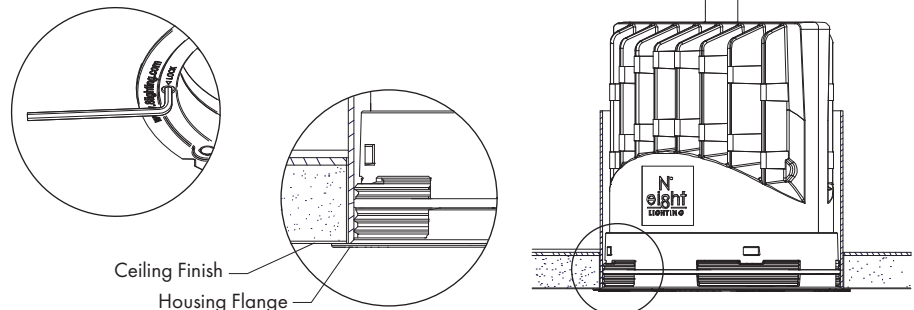
- 5b. Remove temporary dust cover and save. Install housing into mounting sleeve.



- 5c. Rotate housing flange so notches are aligned with adjacent walls or fixtures.

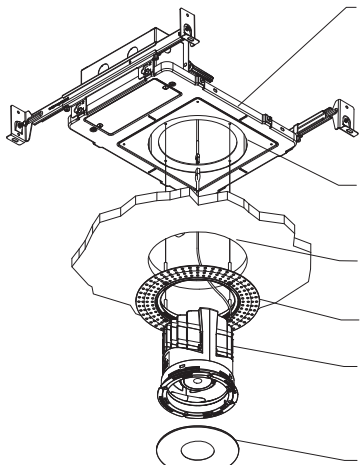
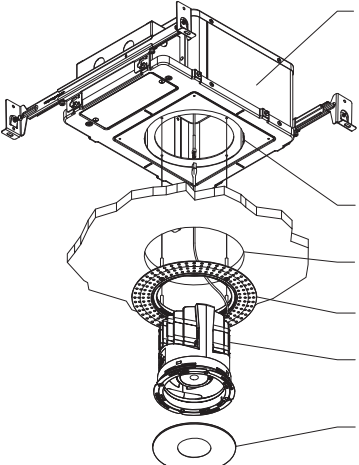
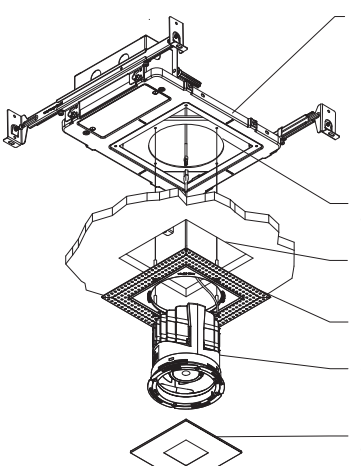
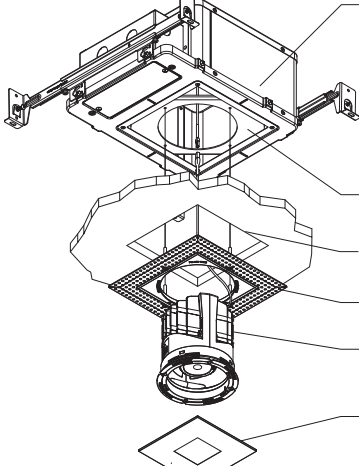


- 5d. Locate (4) four locking screws. While applying upward pressure on housing flange, hand tighten using supplied  $3/32\text{'}$  hex-key. Ensure fixture flange is tight against finished ceiling. **Caution:** Ceiling finish must not extend above backside of housing flange.



- 5e. Replace temporary dust cover before finishing ceiling.

# FRM2-R/S6 & FRM2-R/S6-CP - FLANGELESS TRIM INSTALLATION with SHEETROCK CEILINGS

<p><b>FR-4 FLANGELESS TRIM &amp; FRM2-R6 MOUNTING FRAME</b></p>  <p><b>FRM2-R6</b> Mounting Frame + Power Supply 12"L* x 9-1/4"W* x 4-1/4"H** *Add 3" to length or width to accommodate Mounting Accessories **Add 5/8" to the height to accommodate Housing + Light engine</p> <p><b>FR-4</b> Trim Mounting Bracket</p> <p>Ø 6" Cut Out</p> <p><b>FR-4 Trim</b></p> <p><b>400</b> Housing + Light Engine</p> <p><b>FR-4</b> Trim Plate</p> <p><b>CEILING TYPES:</b> Sheetrock <b>CEILING THICKNESS:</b> 1/2" Min - 1 1/4" Max* <b>CUT-OUT:</b> Ø 6"</p>	<p><b>FR-4 FLANGELESS TRIM &amp; FRM2-R6-CP MOUNTING FRAME</b></p>  <p><b>FRM2-R6-CP</b> Mounting Frame + Power Supply 12"L* x 9-1/4"W* x 5-3/8"H CP Rated Mounting Frame + Power Supply *Add 3" to length or width to accommodate mounting accessories</p> <p><b>FR-4</b> Trim Mounting Bracket</p> <p>Ø 6" Cut Out</p> <p><b>FR-4 Trim</b></p> <p><b>400</b> Housing + Light Engine</p> <p><b>FR-4</b> Trim Plate</p> <p><b>CEILING TYPES:</b> Sheetrock <b>CEILING THICKNESS:</b> 1/2" Min - 1 1/4" Max* <b>CUT-OUT:</b> Ø 6"</p>
<p><b>FS-4 FLANGELESS TRIM &amp; FRM2-S6 MOUNTING FRAME</b></p>  <p><b>FRM2-S6</b> Mounting Frame + Power Supply 12"L* x 9-1/4"W* x 4-1/4"H** *Add 3" to the length or width to accommodate Mounting Accessories **Add 5/8" to the height to accommodate Housing + Light Engine</p> <p><b>FS-4</b> Trim Mounting Bracket</p> <p>6" x 6" Cut Out</p> <p><b>FS-4 Trim</b></p> <p><b>400</b> Housing + Light Engine</p> <p><b>FS-4</b> Trim Plate</p> <p><b>CEILING TYPES:</b> Sheetrock <b>CEILING THICKNESS:</b> 1/2" Min - 1 1/4" Max* <b>CUT-OUT:</b> 6" X 6"</p>	<p><b>FS-4 FLANGELESS TRIM &amp; FRM2-S6-CP MOUNTING FRAME</b></p>  <p><b>FRM2-S6-CP</b> Mounting Frame + Power Supply 12"L* x 9-1/4"W* x 5-3/8"H CP Rated Mounting Frame + Power Supply *Add 3" to length or width to accommodate mounting accessories</p> <p><b>FS-4</b> Trim Mounting Bracket</p> <p>6" Square Cut Out</p> <p><b>FS-4 Trim</b></p> <p><b>400</b> Housing + Light Engine</p> <p><b>FS-4</b> Trim Plate</p> <p><b>CEILING TYPES:</b> Sheetrock <b>CEILING THICKNESS:</b> 1/2" Min - 1 1/4" Max* <b>CUT-OUT:</b> 6" X 6"</p>

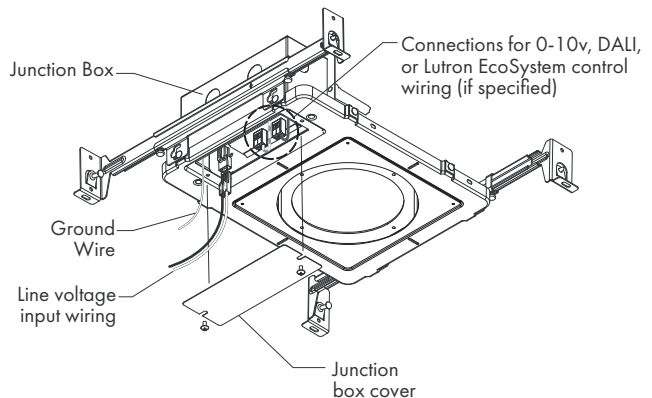
**\*NOTE:** For ceiling thicknesses over 1-1/4" use longer FHMS 8-32 screws (not supplied)

**STEP 1 – FRM2-R/S6 AND FRM2-R/S6-CP MOUNTING FRAME ASSEMBLY AND INSTALLATION (see page 4)**

## FRM2-R/S6 & FRM2-R-S6-CP - FLANGELESS TRIM INSTALLATION with SHEETROCK CEILINGS

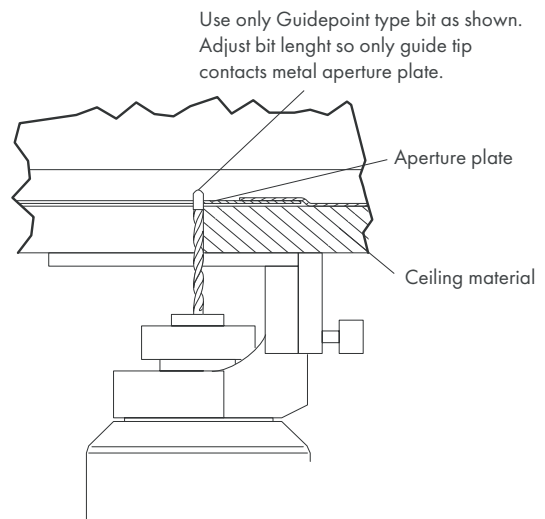
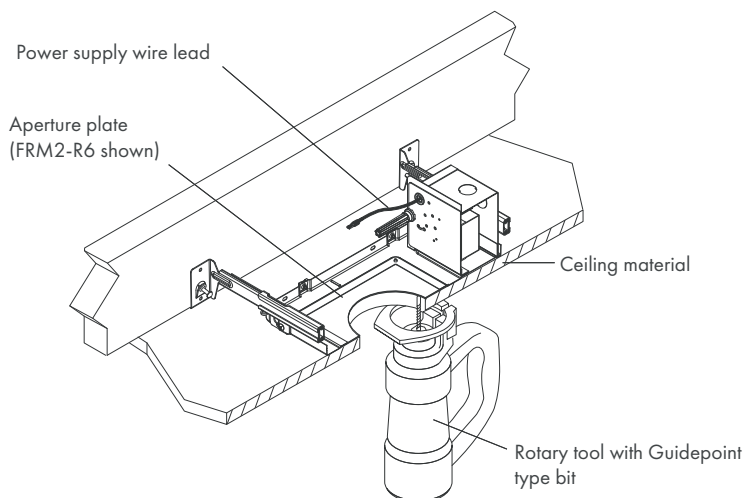
### STEP 2 – FIXTURE WIRING

- 2a.** Disconnect power at circuit breaker.
- 2b.** Remove junction box cover and install appropriate conduit connector(s).
- 2c.** Review wiring diagrams on pages 19-21, wire fixture accordingly. Place all wiring and connectors back in junction box and replace cover.
- Note:** 0-10v, DALI or EcoSystem power supplies (if specified) require additional dimming control wiring.



### STEP 3 – CEILING CUT-OUT

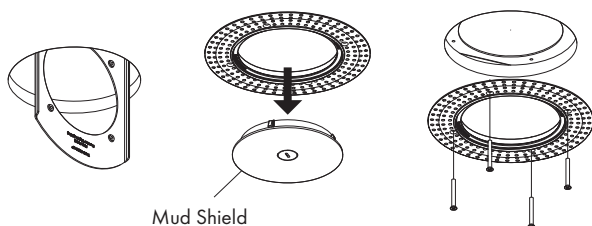
- 3a.** Install ceiling material over FRM2-R/S6 or FRM2-R/S6-CP Mounting Frame. Make  $\varnothing$  6" cut-out for FR-4 trim with FRM2-R6 (-CP) or 6" x 6" cut-out for FS-4 trim with FRM2-S6 (-CP) using spiral saw with appropriate guide bit using aperture plate as guide.



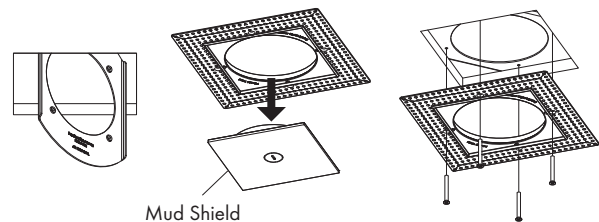
### STEP 4 – FLANGELESS TRIM INSTALLATION

- 4a.** Install ceiling bracket through cut-out. Remove mud shield and save. Install trim using four screws. Note: do not tighten screws until Step 4b.

#### FR-4 FLANGELESS TRIM



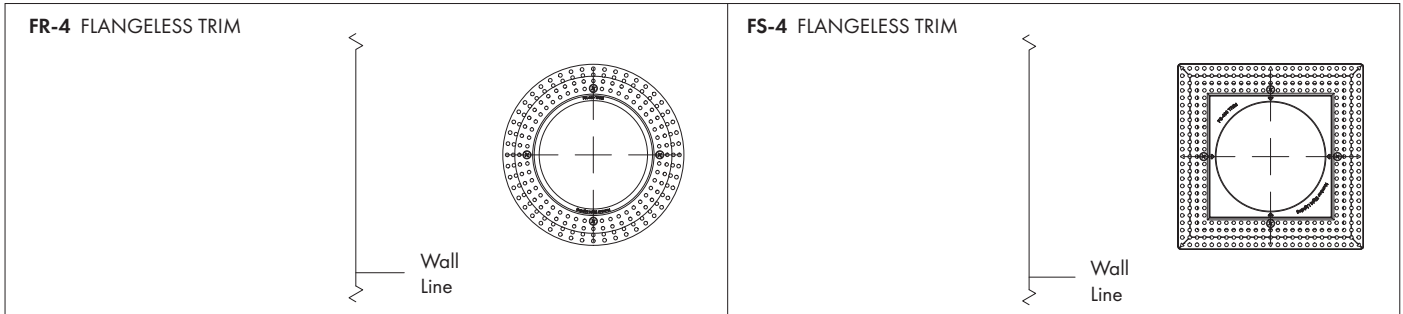
#### FS-4 FLANGELESS TRIM



# FRM2-R/S6 & FRM2-R/S6-CP - FLANGELESS TRIM INSTALLATION with SHEETROCK CEILINGS

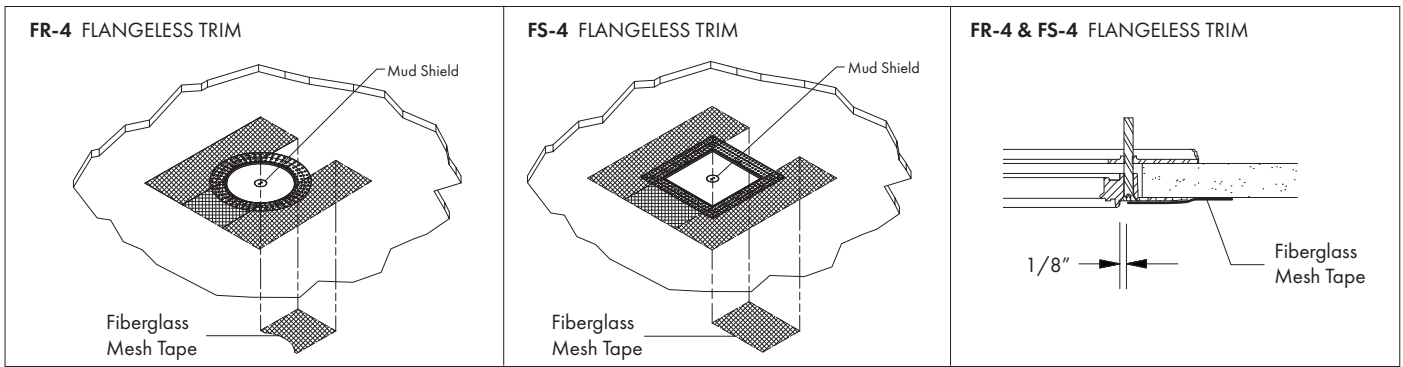
## STEP 4 – FLANGELESS TRIM INSTALLATION (CONTINUED)

4b. Rotate trim so screws are aligned with adjacent walls or fixtures. **Caution** - Hand tighten trim screws. Power driver is not recommended.



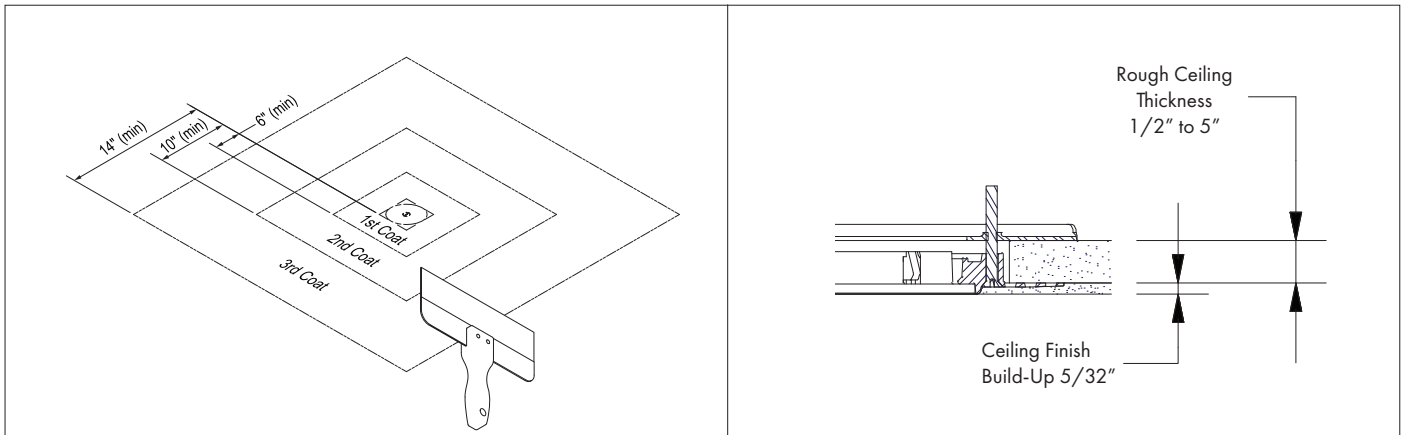
4c. Re-install mud shield.

4d. Apply 6" wide fiberglass mesh tape over perforated metal trim flange leaving 1/8" cut-out around the outside edge of the raised trim lip and extending over ceiling board.



4e. Apply ceiling finish **FR-4 & FS-4** FLANGELESS TRIM.

**Note:** Minimum Level 4 or 5 finishes are recommended for optimum appearance.

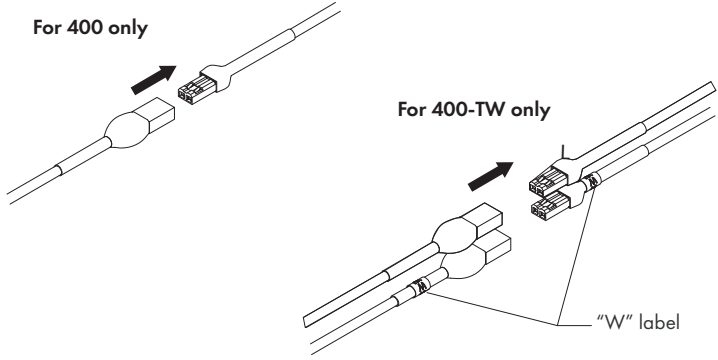


- 4f. First Coat - Apply USG "Durabond" setting-type joint compound for embedding the perforated flange and fiberglass mesh tape following the manufacturer's instructions and warnings for outside corners and trim. The compound should extend a minimum of 6" from the trim edge. Allow first coat to dry completely and remove any high spots by lightly sanding before applying the second coat.
  - 4g. Second Coat - Apply USG general purpose ready-mixed joint compound flush to finished edge of trim, floating outward following the manufacturer's instructions and warnings. The compound should extend a minimum of 10" from the trim edge. Allow second coat to dry completely and remove any high spots by lighting sanding before applying the third coat.
  - 4h. Third Coat - Apply USG ready-mixed finishing joint compound flush to finished edge of trim, floating outward following the manufacturer's instructions and warnings. The compound should extend a minimum of 14" from the trim edge. Allow third coat to dry completely before sanding.
  - 4i. Sand third coat with fine grit sandpaper until mud shield and finished metal edge of trim lip are barely exposed.
  - 4j. Remove mud shield knock-out and remove mud-shield by pulling outward.
  - 4k. Remove excess material from inside edges of trim.
  - 4l. Apply primer (USG Sheetrock or equivalent) and paint following the paint manufacturer's instructions and warnings.
- Caution:** Do not paint inside of **FR-4** or **FS-4** trim surface.

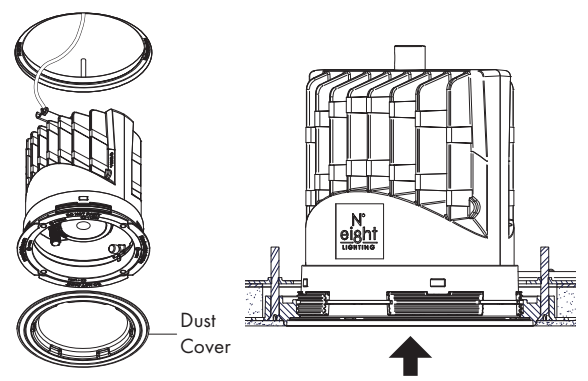
# FRM2-R/S6 & FRM2-R/S6-CP - FLANGELESS TRIM INSTALLATION with SHEETROCK CEILINGS

## STEP 5 – HOUSING + LIGHT ENGINE WIRING AND INSTALLATION

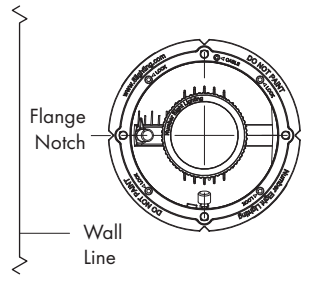
**5a.** Support housing and connect fixture wire lead to power supply wire lead. For model 400-TW ensure connectors labeled "W" are attached together.



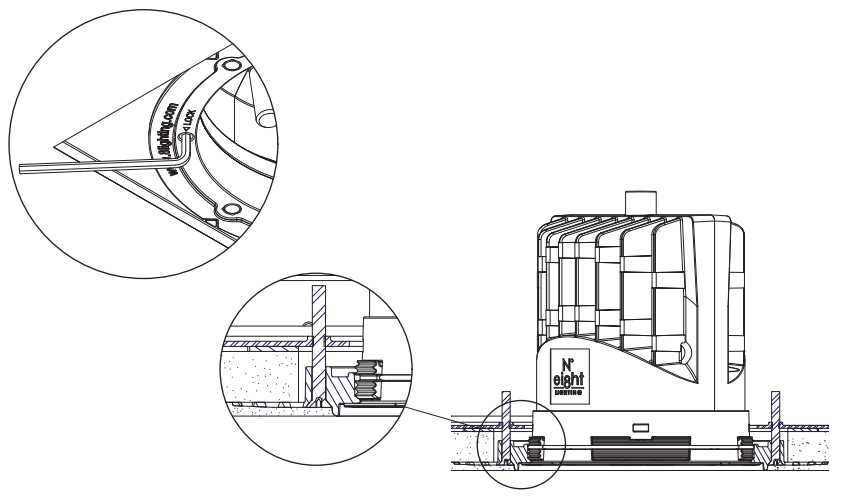
**5b.** Remove temporary dust cover and save. Install housing into mounting sleeve.



**5c.** For FR-4 trim, rotate housing flange so notches are aligned with adjacent walls or fixtures. For FS-4 trim, rotate housing flange until notches in flange mate with notches in trim.



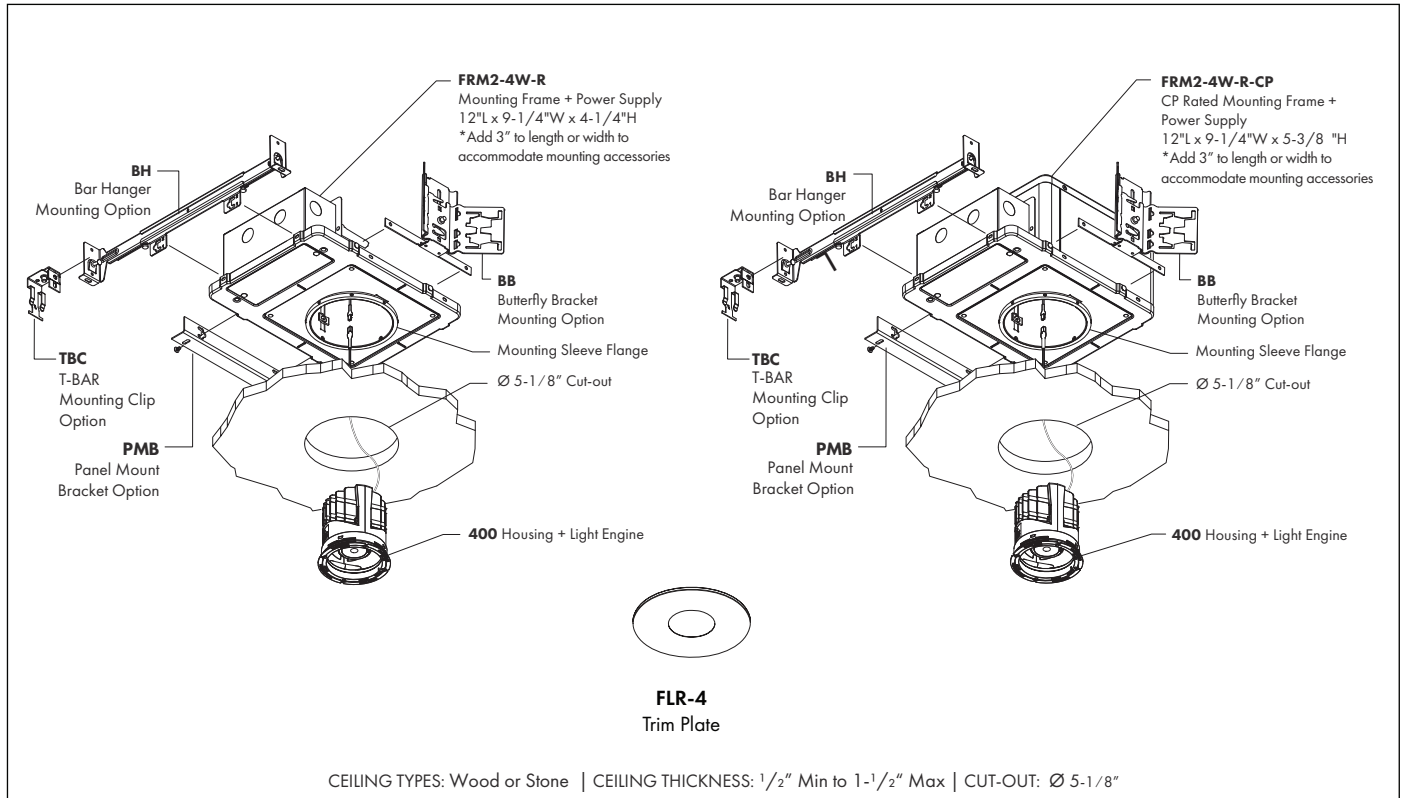
**5d.** Locate (4) four locking screws. While applying upward pressure on housing flange, hand tighten using supplied 3/32" hex-key. Ensure Light Engine flange is tight against trim. **Caution:** Ceiling finish must not extend above backside of Light Engine flange.



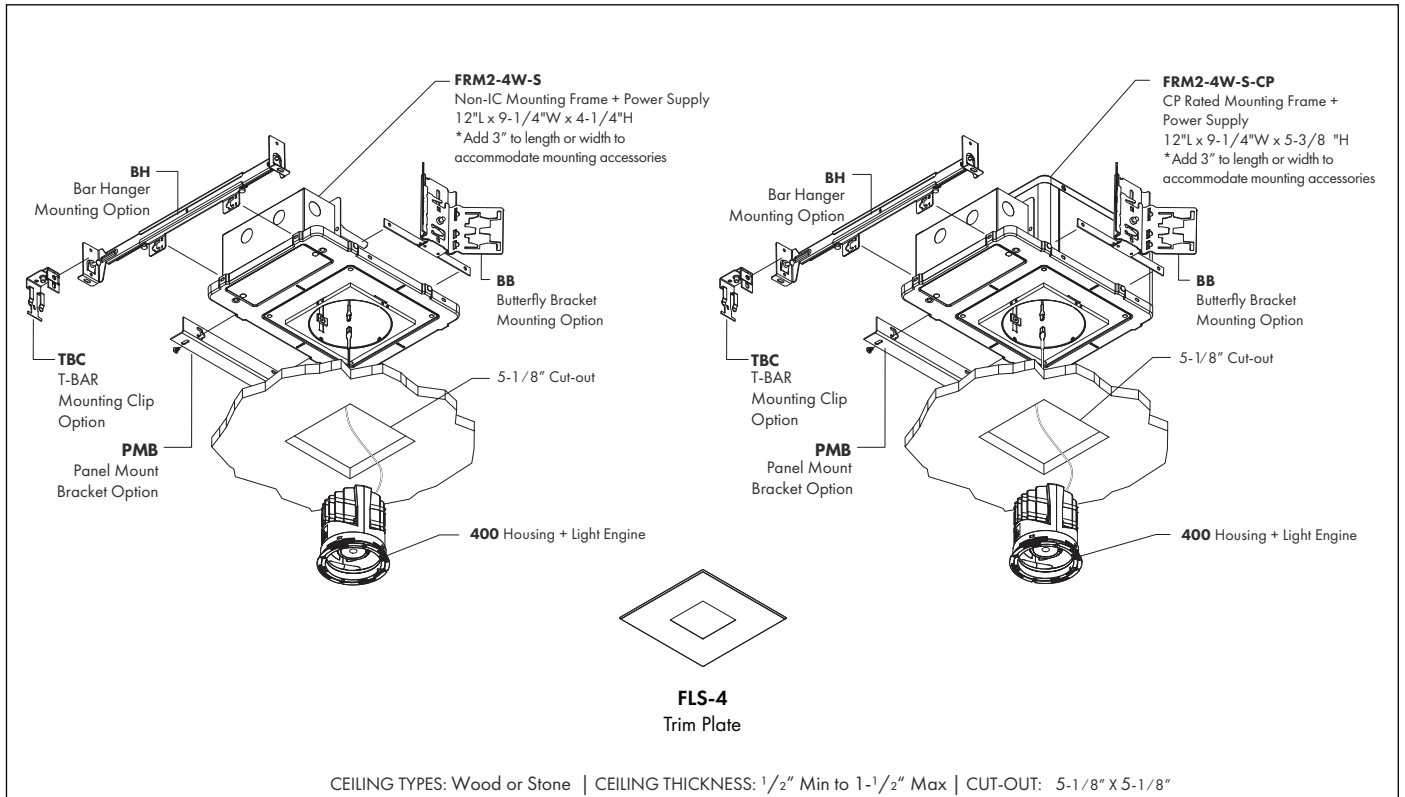
**5e.** Replace temporary dust cover before finishing ceiling.

# FRM2-4W-S/R & FRM2-4W-S/R-CP - FLANGELESS TRIM INSTALLATION with WOOD/STONE CEILINGS

## FRM2-4W-R & FRM2-4W-R-CP MOUNTING FRAMES



## FRM2-4W-S and FRM2-4W-S-CP MOUNTING FRAMES



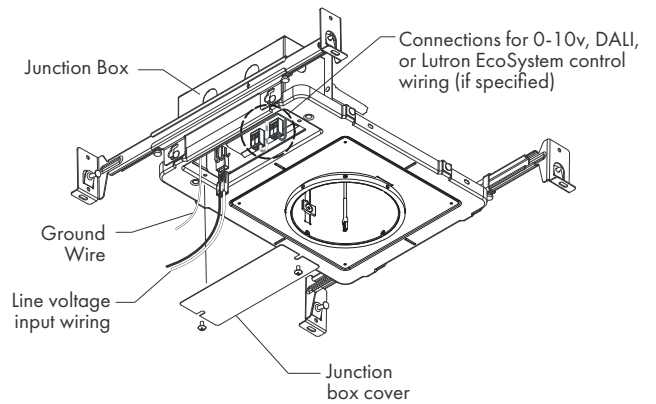
**STEP 1 – FRM2-4W-S/R and FRM2-4W-S/R-CP MOUNTING FRAME ASSEMBLY and INSTALLATION (see page 4)**



# FRM2-4W-S/R & FRM2-4W-S/R-CP - FLANGELESS TRIM INSTALLATION with WOOD/STONE CEILINGS

## STEP 2 – FIXTURE WIRING

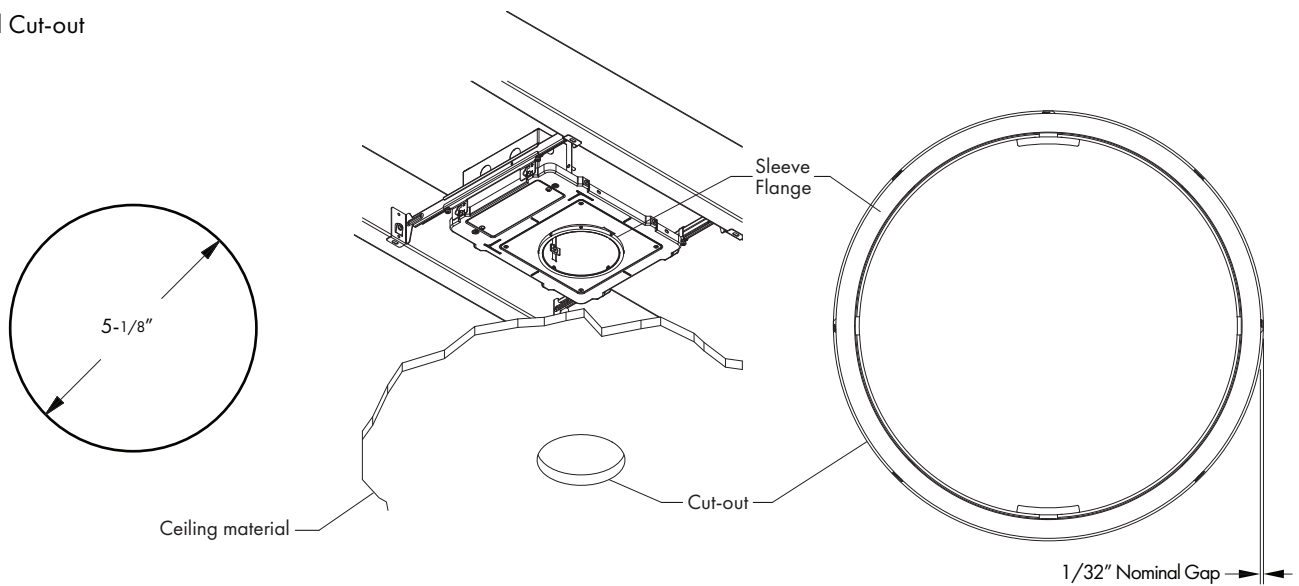
- 2a. Disconnect power at circuit breaker.
  - 2b. Remove junction box cover and install appropriate conduit connector(s) using one or more of the provided junction box knock-outs.
  - 2c. Review wiring diagrams on pages 19-21, wire fixture accordingly. Place all wiring and connectors back in junction box and replace cover.
- Note:** 0-10v, DALI, or Lutron EcoSystem power supplies (if specified) require additional dimming control wiring.



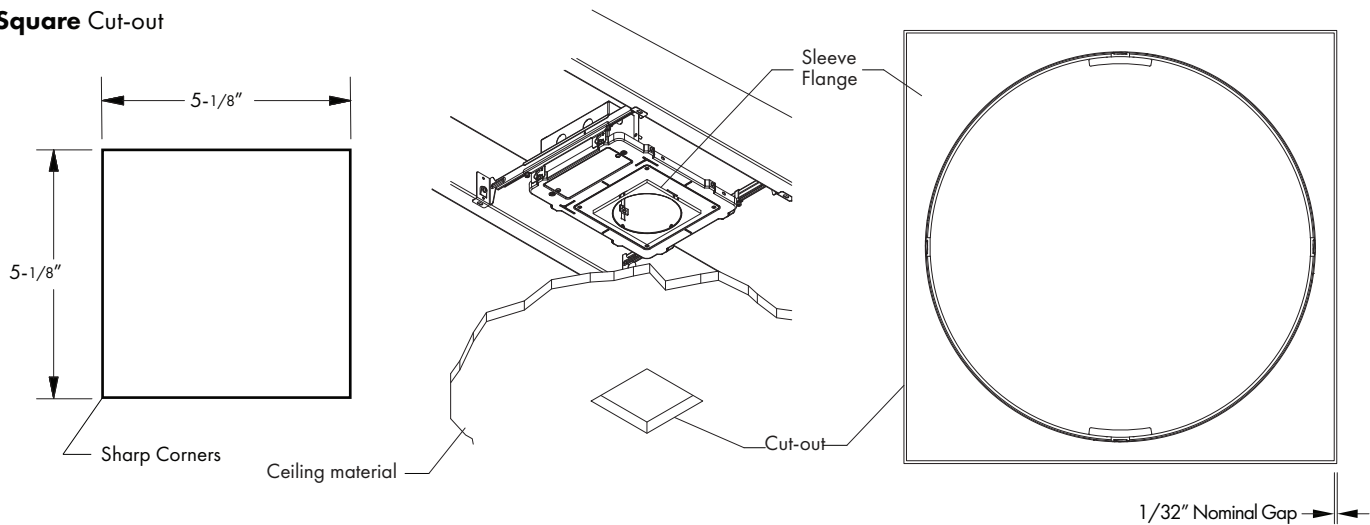
## STEP 3 – CEILING CUT-OUT

- 3a. Ceiling cut-out must be precisely located & oriented to Square or Round collar location. All dimensions are +/- 1/32".

### Round Cut-out



### Square Cut-out

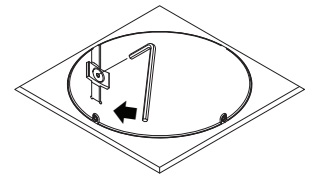
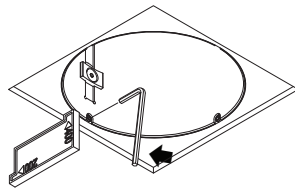
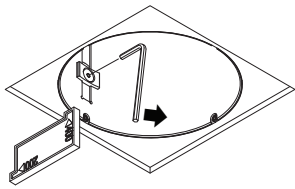
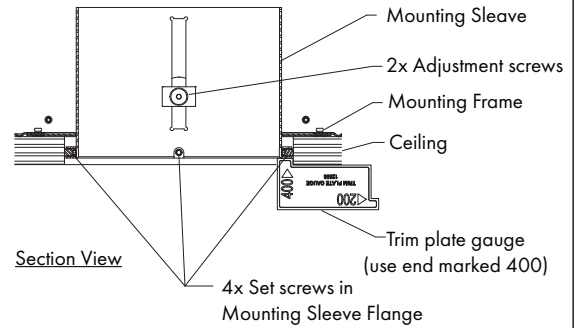


# FRM2-4W-S/R & FRM2-4W-S/R-CP - FLANGELESS TRIM INSTALLATION with WOOD/STONE CEILINGS

## STEP 4 – FLANGELESS TRIM COLLAR ADJUSTMENT

**CAUTION:** Accurate Collar depth is required to install trim plate flush to surface.  
To ensure trim plate will be flush to the mounting surface, the collar must be recessed up into the mounting surface by the depth of the supplied trim plate gauge tip. Use tip marked **◀ 400**.

- 4a.** Loosen the collar screws and check depth of mounting sleeve at each set screw location using the trim plate gauge.
- 4b.** Confirm depth using gauge. Once depth is corrected at each location, tighten the set screws to lock in the collar depth. (DO NOT OVERTIGHTEN!)
- 4c.** Tighten 4x collar screws.



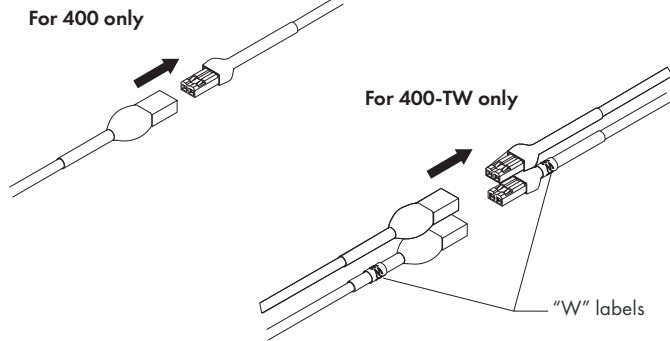
**Fig 4a.** Loosen Adjustment Screws, check & adjust Mounting Sleeve depth

**Fig 4b.** Confirm depth and tighten Set Screws. DO NOT OVERTIGHTEN.

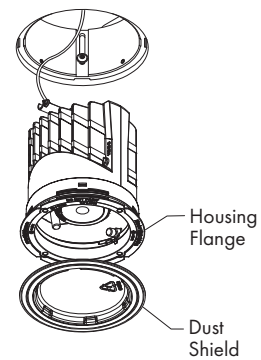
**Fig 4c.** Tighten Collar Screws

## STEP 5 – HOUSING + LIGHT ENGINE WIRING & INSTALLATION

**5a.** Support housing and connect fixture wire lead to power supply wire lead. Ensure connectors labeled "W" are attached together.



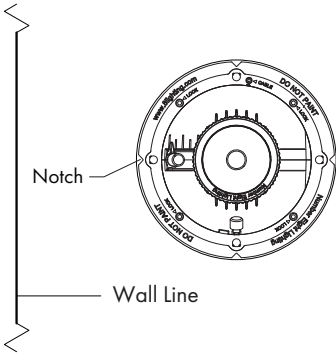
**5b.** Remove temporary dust cover and save. Install housing into mounting sleeve.



**FRM2-4W-S/R & FRM2-4W-S/R-CP - FLANGELESS TRIM INSTALLATION with WOOD/STONE CEILINGS**

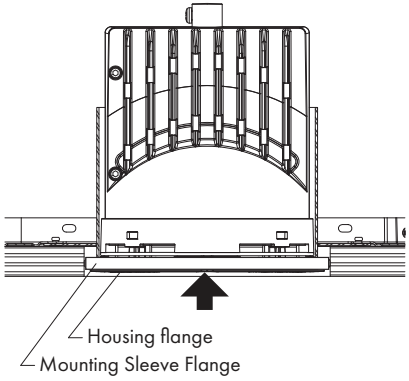
**STEP 5 – HOUSING + LIGHT ENGINE WIRING AND INSTALLATION (continued)**

**5c.** Orient light engine so a notch on the housing flange will be perpendicular with adjacent wall.



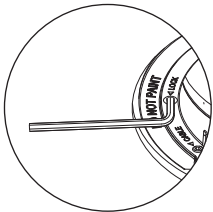
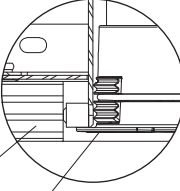
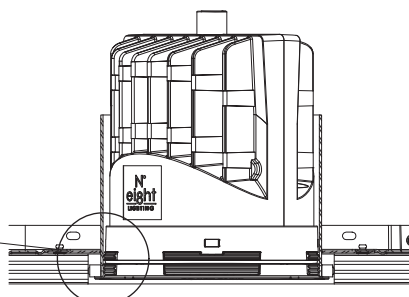
The diagram shows a top-down view of the circular light engine housing flange. A notch is clearly marked on the outer edge. A vertical line labeled 'Wall Line' is shown to the left of the flange, indicating the intended orientation where the notch is perpendicular to the wall.

**5d.** Install light engine through cut-out and push housing flange flush up against Mounting Sleeve Flange.



This cross-sectional diagram illustrates the light engine being pushed through a hole in the ceiling. An upward-pointing arrow indicates the direction of installation. The 'Housing flange' is shown at the bottom, and the 'Mounting Sleeve Flange' is shown below it, which the housing flange is being pushed against.

**5e.** Locate (4) four locking screws. While applying upward pressure on housing flange, hand tighten using supplied  $3/32$ " hex-key. Ensure housing flange is tight against finished ceiling. **Caution:** Ceiling finish must not extend above backside of housing flange.

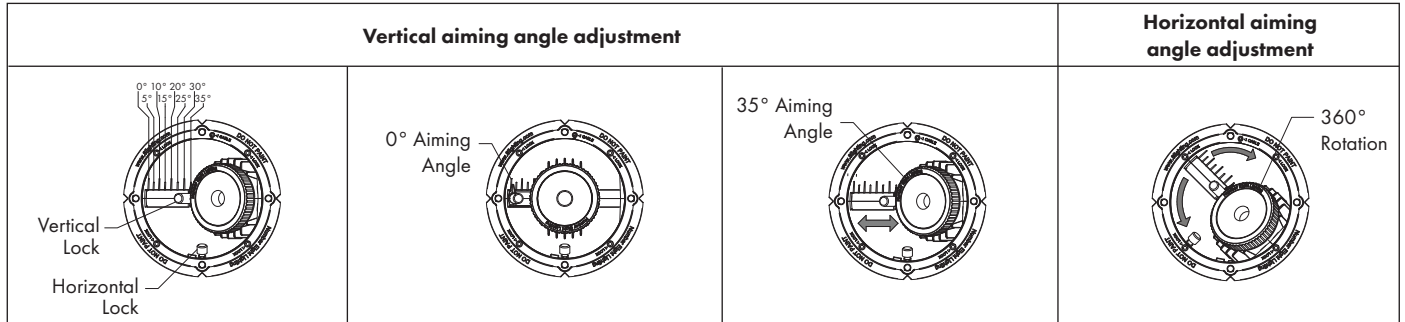
The diagrams show the final tightening step. The first is a circular inset showing a hex-key being used to tighten one of the four locking screws on the 'Light Engine Flange'. The second is a cross-section showing the 'Light Engine Flange' now fully secured against the 'Ceiling' by four screws. The third is a full view of the light engine with the 'N° eight' logo visible on the front panel.

**5f.** Replace temporary dust cover before finishing ceiling.

# AIMING & ADJUSTING

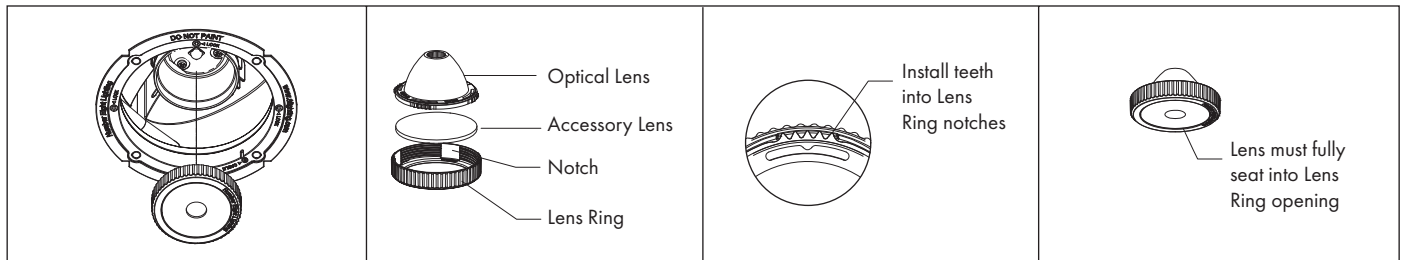
## STEP 1 – VERTICAL AND HORIZONTAL AIMING AND ADJUSTMENT

- 1a. After ceiling is finished, remove temporary dust cover and discard.
- 1b. Loosen vertical and horizontal adjustment locks.
- 1c. Adjust vertical aiming by sliding the lamp holder to desired angle (0-35°).
- 1d. Adjust the horizontal aiming by rotating the lamp holder & housing assembly to desired angle (0-360°).
- 1e. Tighten vertical and horizontal adjustment screws.



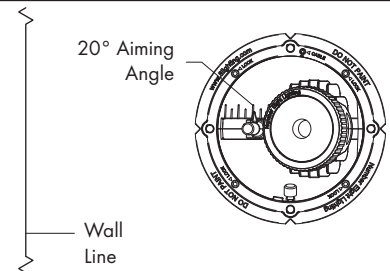
## STEP 2 – LENS AND ACCESSORY REMOVAL AND REPLACEMENT

- 2a. Remove lens ring from lamp holder by unscrewing counter-clockwise.
- 2b. Remove optic lens (and accessory lens if installed) by gently pressing upward on the center while holding the lens ring.
- 2c. Install desired optic (and accessory lens if used) by aligning the optic lens teeth with notches in lens ring.
- 2d. Re-install lens ring on to lamp holder by turning clockwise.



## STEP 3 (OPTIONAL) – AIMING AND ADJUSTMENT FOR **WW-4** WALL WASH LENS ACCESSORY

- 3a. Install 40° optic in lens ring.
  - 3b. Adjust the vertical aiming to 20°.
  - 3c. Adjust the horizontal aiming so the lamp holder is aimed perpendicular towards the wall surface.
- NOTE:** For optimal wall wash effect, position fixtures 24"-30" from wall using 24"-30" maximum on center housing spacing. Refer to **WW-4** installation instructions 11701 (included with **WW-4** trim plate) for additional information.



## TRIM PLATE FINISHING & INSTALLATION

### STEP 1 (OPTIONAL) – PAINT TRIM PLATE

- 1a. Remove the trim plate from packaging.
- 1b. Clean and prepare exposed surfaces for painting following the paint manufacturer's instructions and warnings.
- 1c. Paint as desired using a "dry roller" or light spray application.

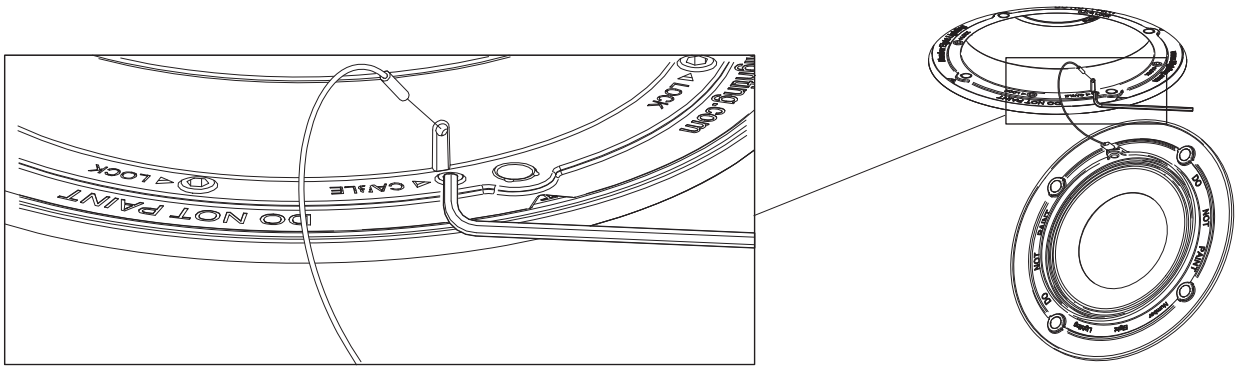
**Note:** If applying paint by spray method, mask trim plate lens (if installed).

**Caution:** Paint must be rated for minimum 90°C (150°F). Do not paint trim plate while installed in fixture. Do not paint backside of trim plate or trim safety cable. Do not paint edges of **FR-4** or **FS-4** trim plate.

- 1d. Allow trim plate to dry completely before installing.

### STEP 2 – INSTALL TRIM PLATE

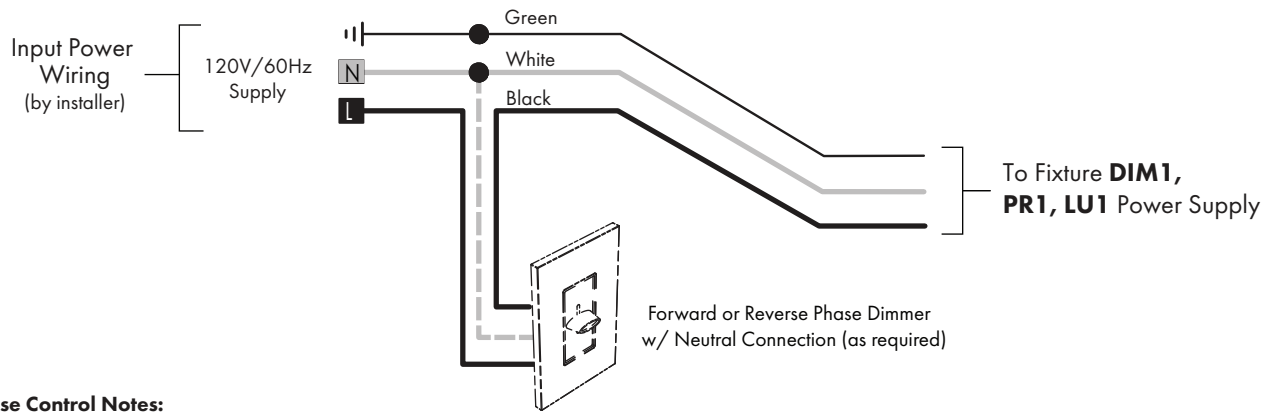
- 2a. Remove temporary dust cover and discard.
- 2b. Install trim safety cable into attachment hole on housing marked "CABLE," and secure by hand tightening set screw using supplied 1/16" hex key.



- 2c. Align trim plate with magnets and install.

# WIRING DIAGRAMS

## DIM1 / PR1 / LU1 - PHASE CONTROL



**Phase Control Notes:**

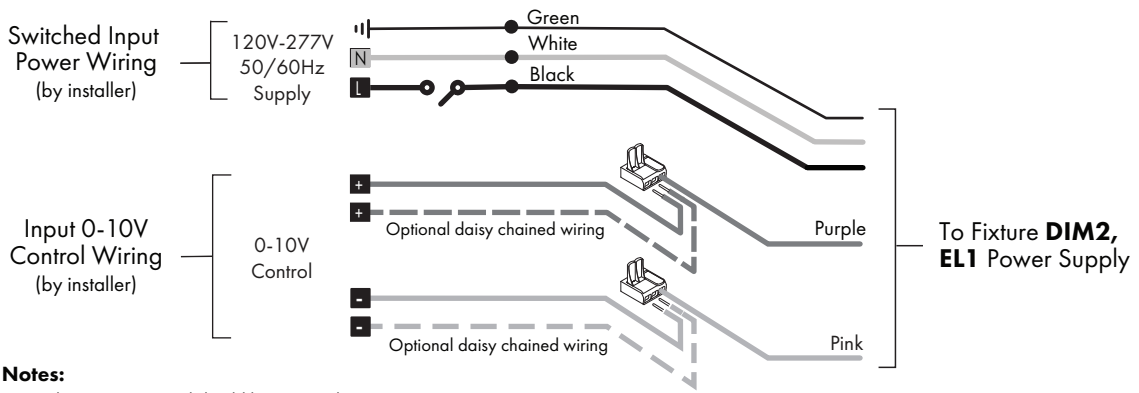
**DIM1 / PR1** drivers are Forward or Reverse Phase dimmable.

For compatible dimmers for use with **DIM1 / PR1** drivers see: [www.8lighting.com/resources-downloads](http://www.8lighting.com/resources-downloads)

**LU1** drivers are Forward Phase dimmable only.

For compatible dimmers for use with **LU1** drivers, contact Lutron LED Center of Excellence at 1.877.346.5338 or [LEDs@lutron.com](mailto:LEDs@lutron.com).

## DIM2 / EL1 - 0-10V CONTROL



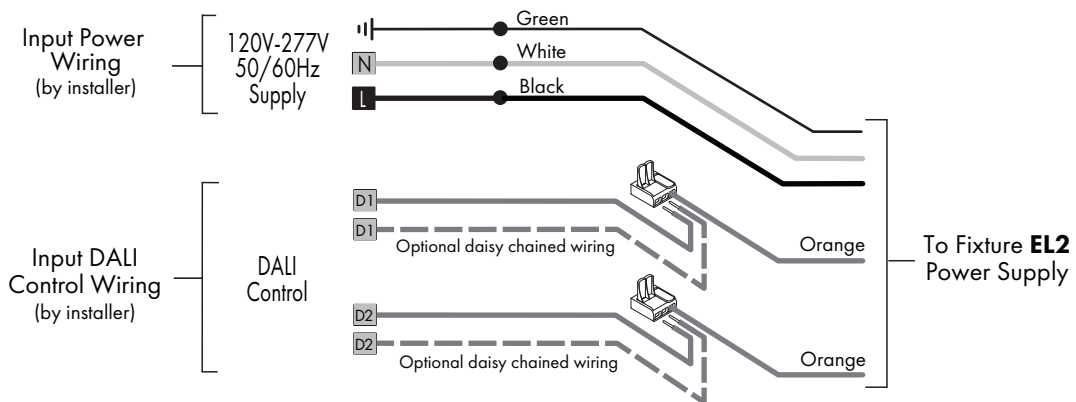
**0-10V Control Notes:**

0-10V control wiring is polarity sensitive and should be run as Class 2.

300' is the maximum control wiring run length to reduce EMI susceptibility and voltage drop. Voltage drop should be no greater than 0.3V.

For compatible dimmers for use with **DIM2 / EL1** drivers see: [www.8lighting.com/resources-downloads](http://www.8lighting.com/resources-downloads).

## EL2 - DALI CONTROL



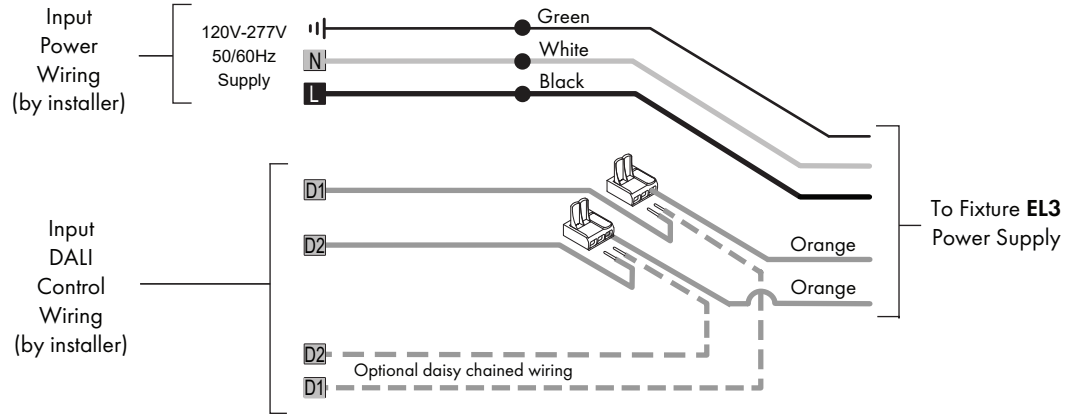
**DALI Control Notes:**

DALI control wiring is not polarity sensitive and can be run as Class 1 or 2. Up to 64 **EL2** power supplies can be daisy chained per DALI control loop. Maximum control wiring run length is 1000'.

For compatible dimmers for use with **EL2** drivers see: [www.8lighting.com/resources-downloads](http://www.8lighting.com/resources-downloads).

WIRING DIAGRAMS continued

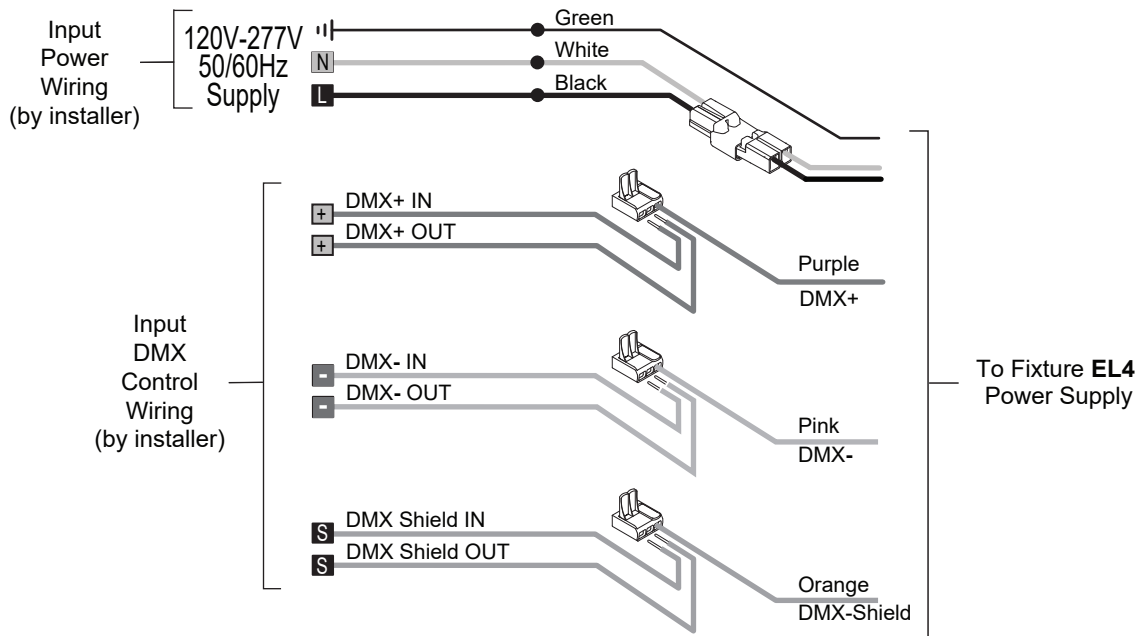
**EL3 - 2 CHANNEL DALI CONTROL (FOR TUNABLE WHITE)**



**DALI Control Notes:**

DALI control wiring is not polarity sensitive and can be run as Class 1 or 2. Each **EL3** driver will be discovered with two incremented short addresses: one for CCT and one for INTENSITY. Up to 32 **EL3** drivers can be daisy-chained per DALI control loop. Maximum control wiring run length is 1000'. For compatible dimmers for use with **EL3** drivers see: [www.8lighting.com/resources-downloads](http://www.8lighting.com/resources-downloads).

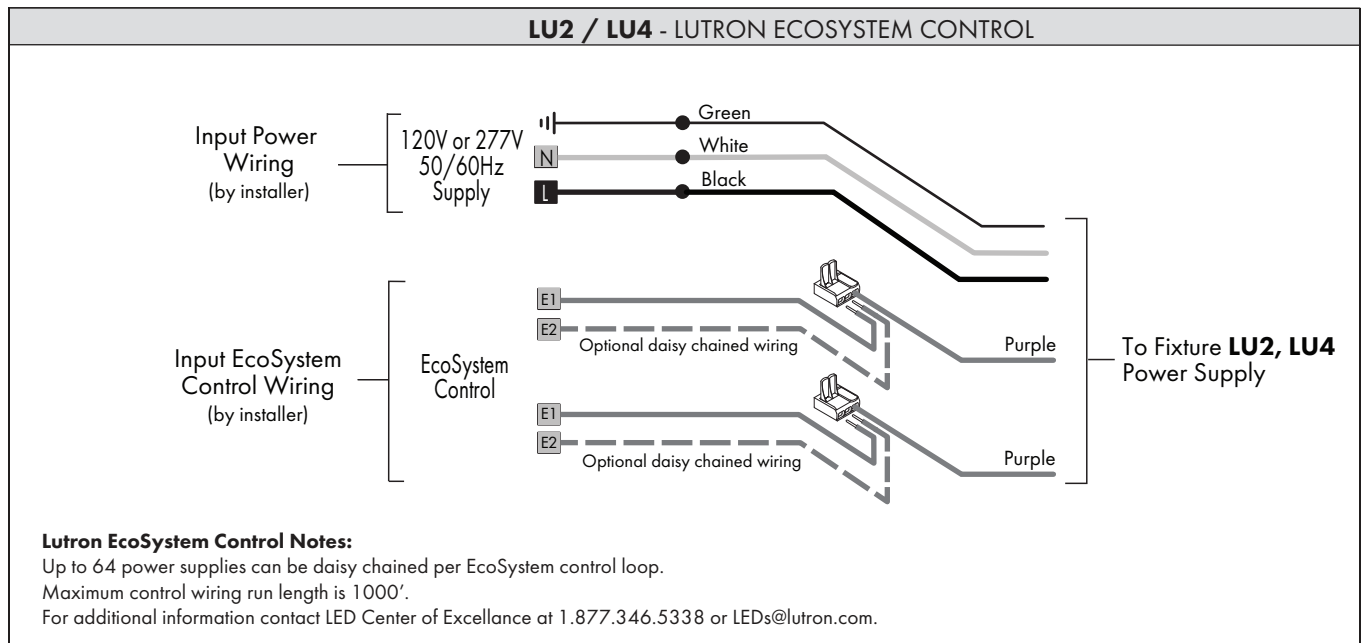
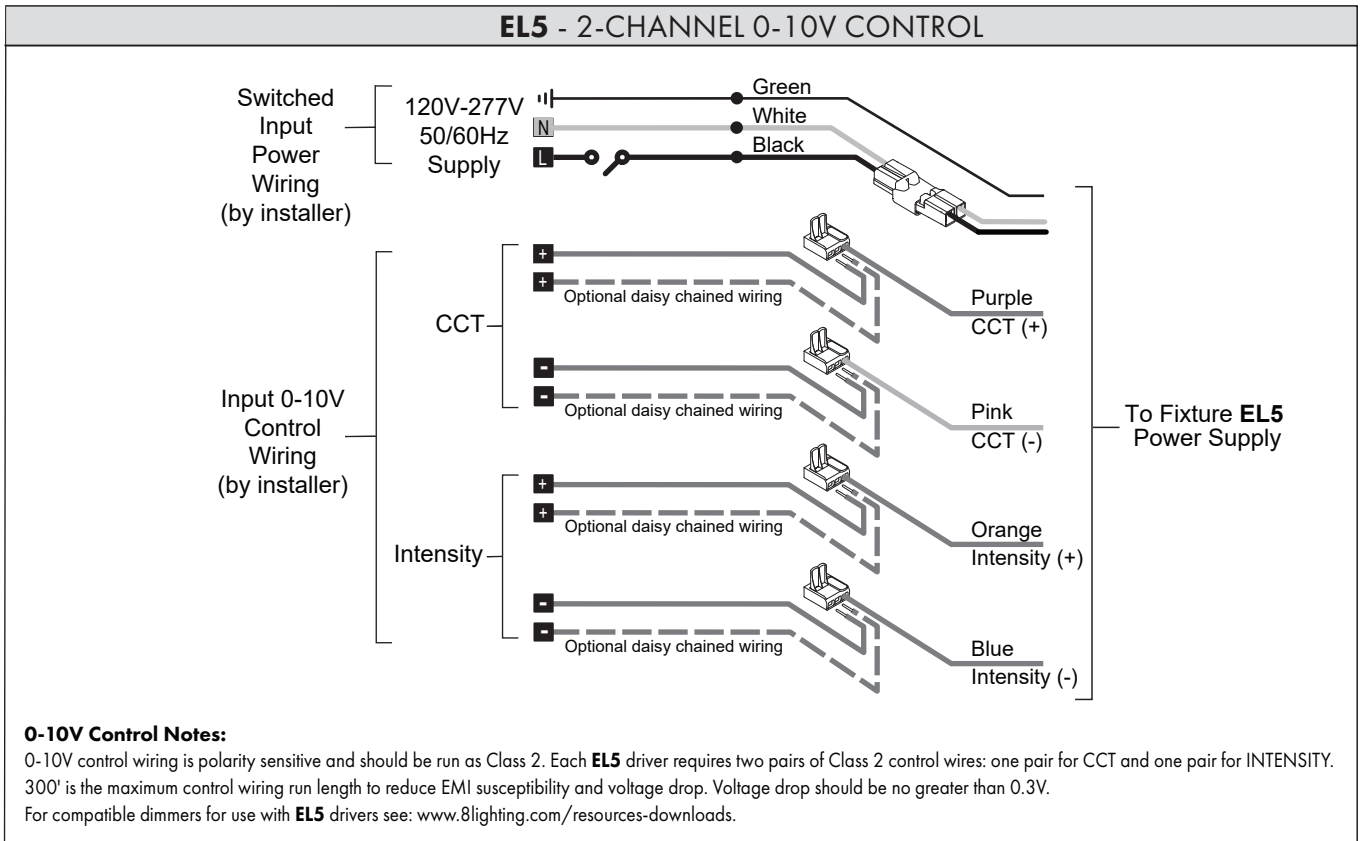
**EL4 - 2 Channel DMX CONTROL**



**DMX Notes:**

DMX control wiring is polarity sensitive and should be run as Class 2. Each **EL4** driver is one "unit load". DMX runs without a repeater/signal booster should be limited to no more than 32 fixtures including controller depending on the site conditions. **EL4** drivers are RDM compatible and addressable by others in the field. Termination of the DMX runs is to be done by others per DMX512A specification. Maximum control wiring run length is 1000'. For compatible dimmers for use with **EL4** drivers see: [www.8lighting.com/resources-downloads](http://www.8lighting.com/resources-downloads).

WIRING DIAGRAMS continued







**[www.8lighting.com](http://www.8lighting.com)**

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