



400 SERIES
REMODEL
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 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.

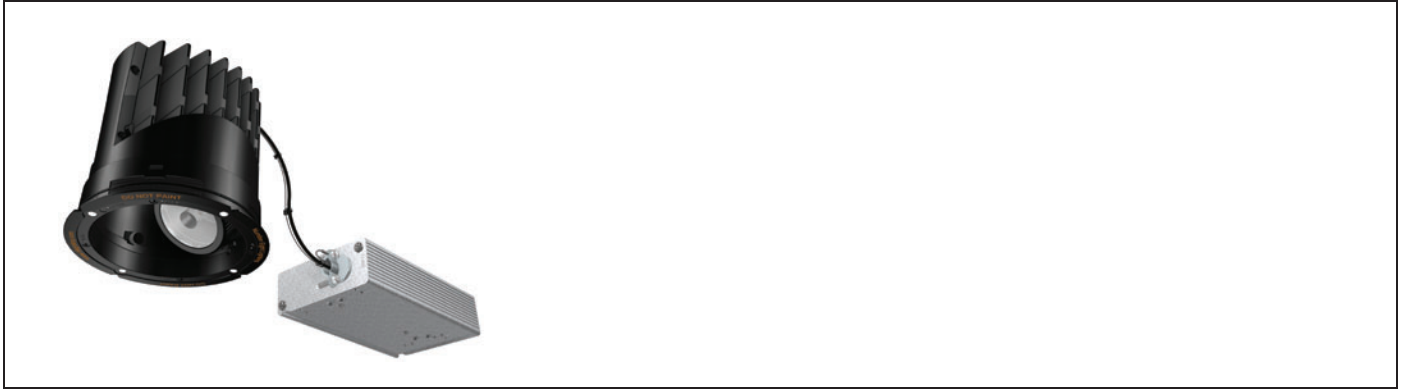
Save these instructions.

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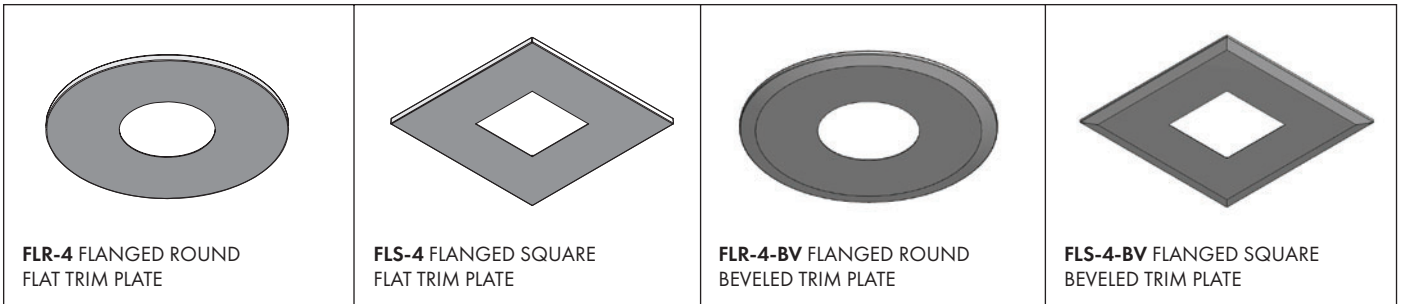
400 SERIES COMPONENTS

AIR-TIGHT + I.C. RATED HOUSING

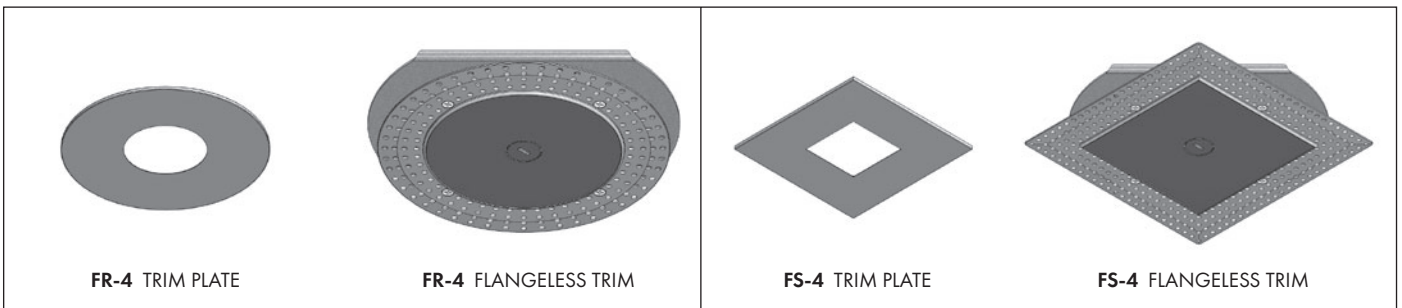


400-R LED REMODEL HOUSING + LIGHT ENGINE AND POWER SUPPLY/JUNCTION BOX

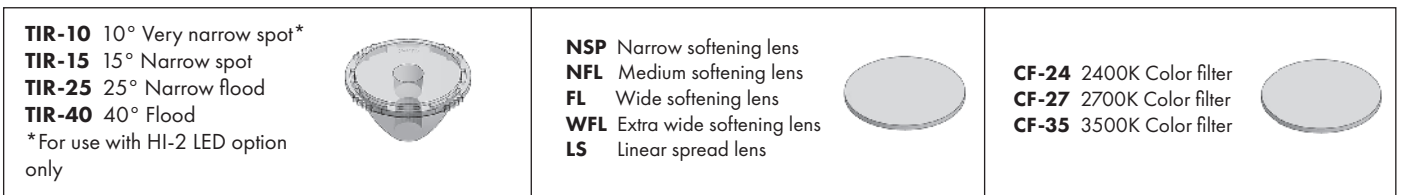
400 SERIES – FLANGED TRIMS



400 SERIES – FLANGELESS TRIMS

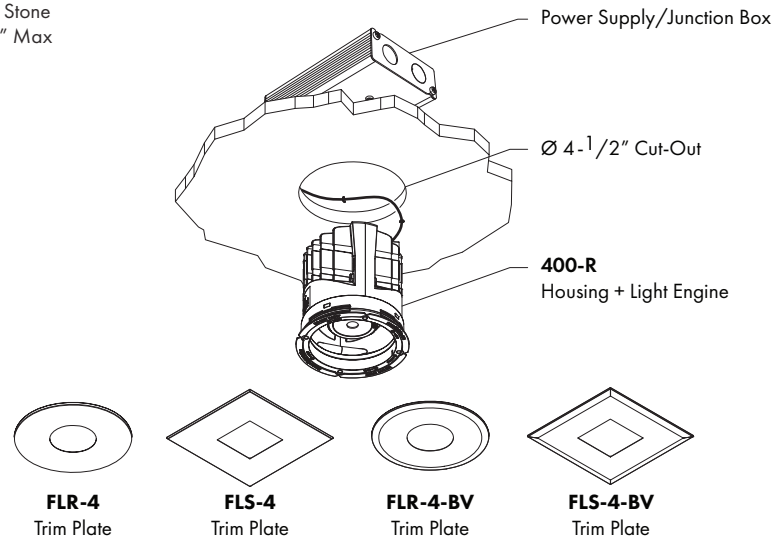


400 SERIES – OPTIC OPTIONS + ACCESSORIES



REMODEL INSTALLATION-FLANGED TRIMS

CEILING TYPES: Sheetrock, Wood, & Stone
CEILING THICKNESS: ½" Min – 5 ½" Max
CUT-OUT: Ø 4 ½"



Caution: Cut-out must be within +/-1/32" Ceiling material must be rigid and able to support weight of fixture (approximately 5lbs.). Not for use with acoustic tile or non-rigid ceiling materials.

STEP 1 – ROUGH WIRING

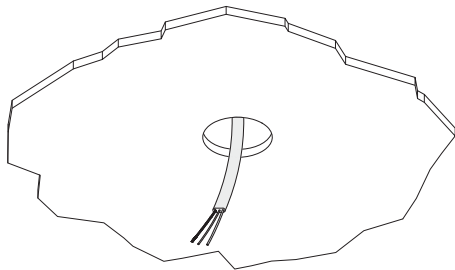
- 1a. Disconnect power at circuit breaker.
 - 1b. Review wiring diagrams on pages 9 & 10, wire accordingly.
 - 1c. Install wiring to fixture location leaving a 12-18" flexible whip to facilitate installation/servicing.
- Note:** 0-10V, DALI or EcoSystem power supplies (if specified) require additional dimming control wiring.

STEP 2 – CEILING CUT-OUT AND INSTALLATION

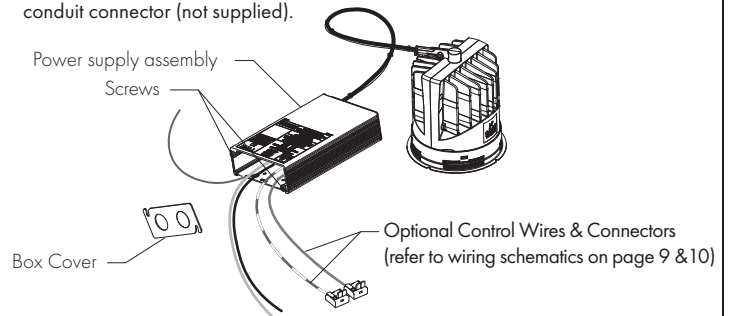
- 2a. Ensure location of fixture will be a minimum of ½" from edge of cut-out to nearest framing member and there will be sufficient space for installation of power supply assembly.
 - 2b. (Skip this step if installing into existing ceiling)
Install ceiling material over rough wiring.
- Note:** Rough wiring will be accessible after making ceiling cut-out. Certain local electrical codes may require rough wiring to be installed in temporary junction box (not supplied) prior to installing ceiling.
- 2c. For sheetrock ceilings - apply all coats of finish and primer coating before making cut-out.
 - 2d. Make Ø 4 ½" cut-out using appropriate hole saw.

STEP 3 – FIXTURE WIRING

- 3a. Locate rough wiring and pull through ceiling cut-out ensuring a minimum of 6" of wire extends below the ceiling.



- 3b. Remove box cover on power supply assembly and install appropriate conduit connector (not supplied).

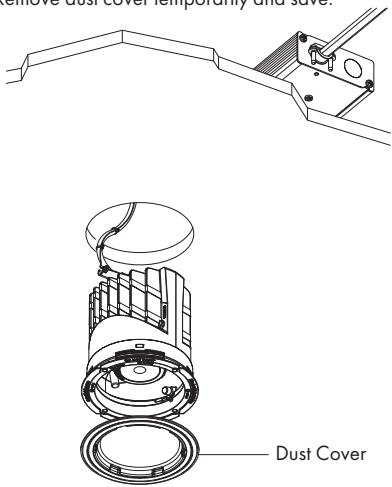


- 3c. Review wiring diagrams on page 9 & 10, wire accordingly. Place all wiring and connectors back in power supply box and replace cover.

REMODEL INSTALLATION – FLANGED TRIMS

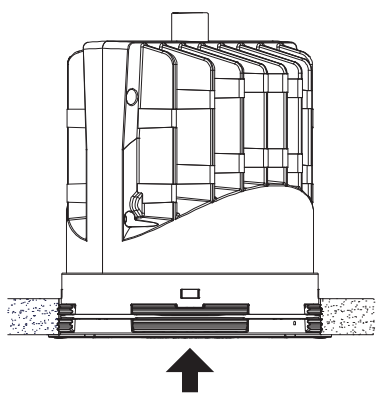
STEP 4 – HOUSING + LIGHT ENGINE WIRING AND INSTALLATION

4a. Support housing + light engine and install power supply assembly through ceiling cut-out. Remove dust cover temporarily and save.

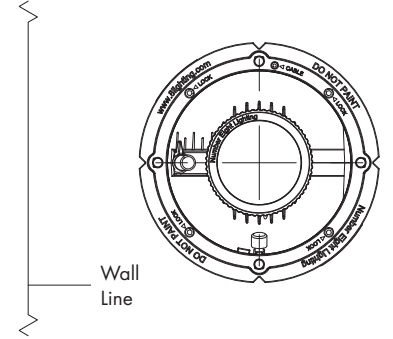


Dust Cover

4b. Install housing into cut-out.

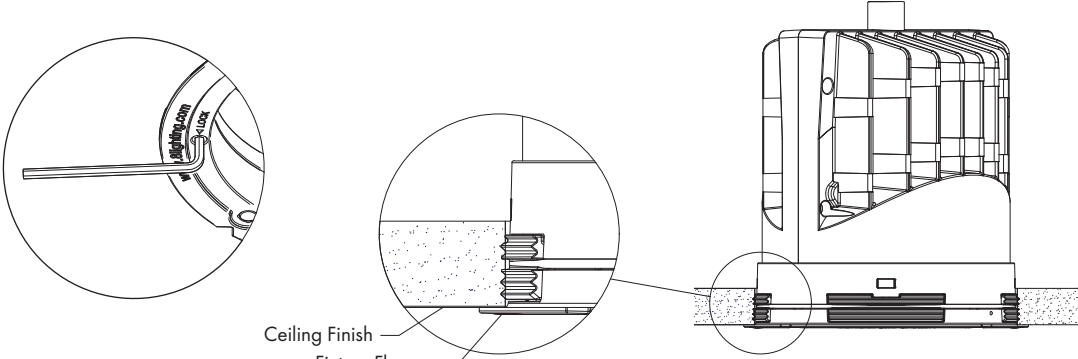


4c. Rotate housing flange so notches are aligned with adjacent walls or fixtures.



Wall Line

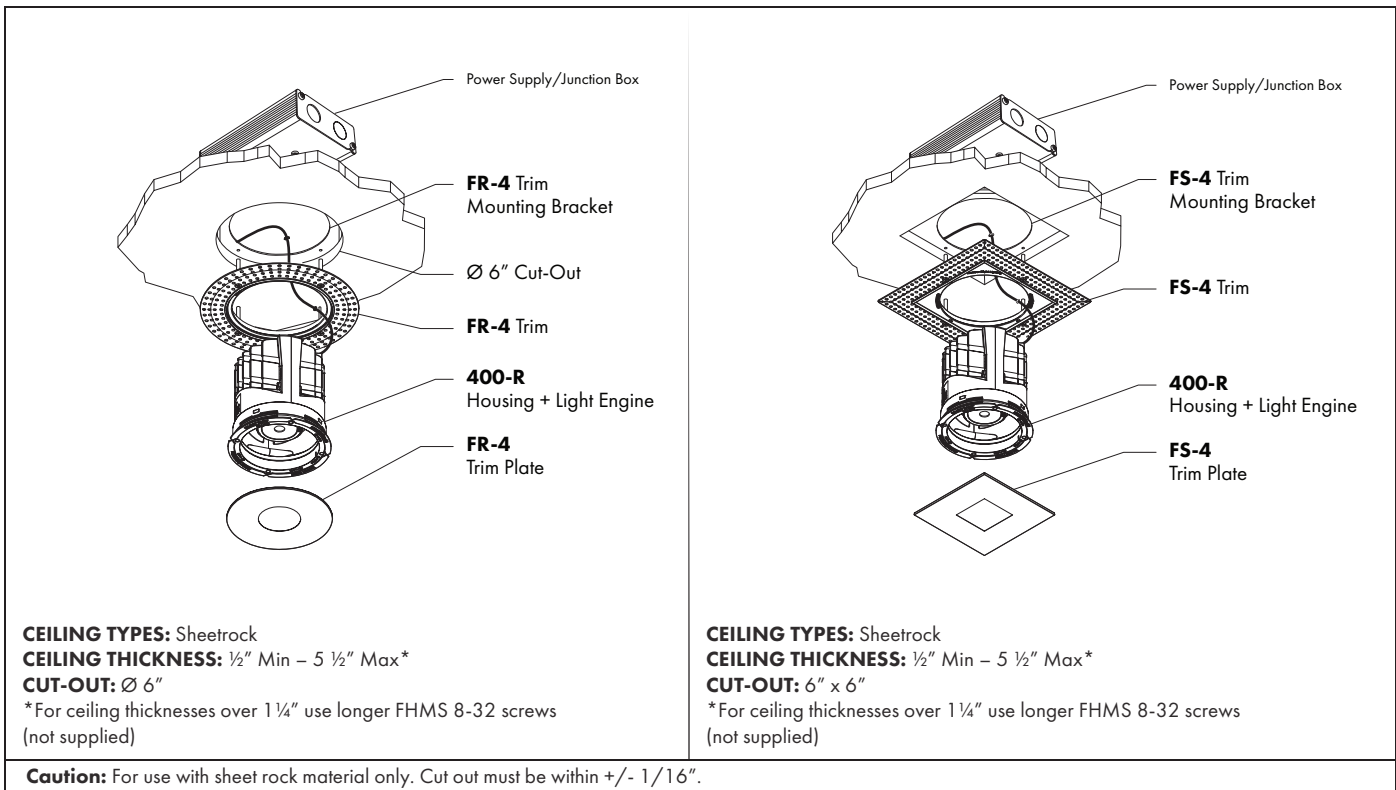
4d. Locate (4) four locking screws. While applying upward pressure on fixture flange, hand tighten using supplied 3/32" hex-key. Ensure fixture flange is tight against ceiling. **Caution:** Ceiling finish must not extend above backside of fixture flange.



Ceiling Finish
Fixture Flange

4e. Re-install temporary dust cover until after ceiling has been completely finished.

REMODEL INSTALLATION – FLANGELESS TRIMS



STEP 1 – ROUGH WIRING

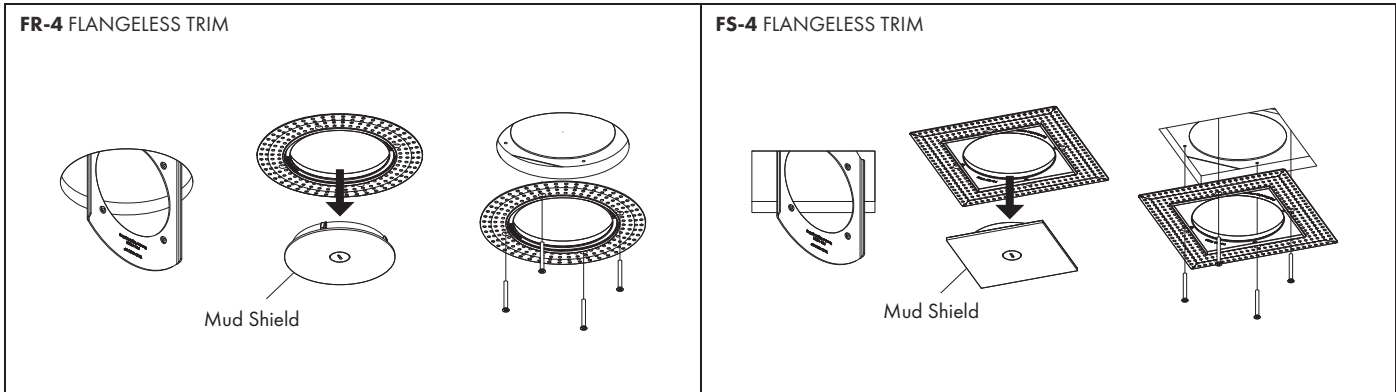
- 1a. Disconnect power at circuit breaker.
 - 1b. Review wiring diagram on pages 9 & 10, wire accordingly.
 - 1c. Install wiring to fixture location leaving a 12-18" flexible whip to facilitate installation/servicing.
- Note:** 0-10v or EcoSystem power supplies (if specified) require additional dimming control wiring.

STEP 2 – CEILING CUT-OUT AND INSTALLATION

- 2a. Ensure location of fixture will be a minimum of ½" from edge of cut-out to nearest framing member and there will be sufficient space for installation of power supply assembly.
 - 2b. (Skip this step if installing into existing ceiling)
Install ceiling material over rough wiring.
- Note:** Rough wiring will be accessible after making ceiling cut-out. Certain local electrical codes may require rough wiring to be installed in temporary junction box (not supplied) prior to installing ceiling.
- 2c. Make Ø 6" cut-out for **FR-4** trim or 6" x 6" cut-out for **FS-4** trim.
- Note:** For FS-4 trim, align cut-out with adjacent walls and fixtures.

STEP 3 – FLANGELESS TRIM INSTALLATION

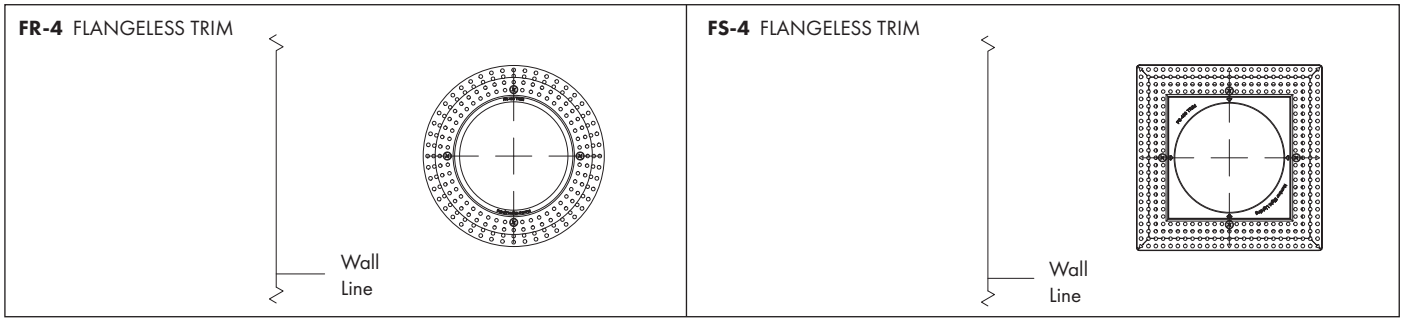
- 3a. Install ceiling bracket through cut-out. Remove mud shield and save. Install trim using four screws. **Note:** do not tighten screws until Step 3b.



REMODEL INSTALLATION – FLANGELESS TRIMS

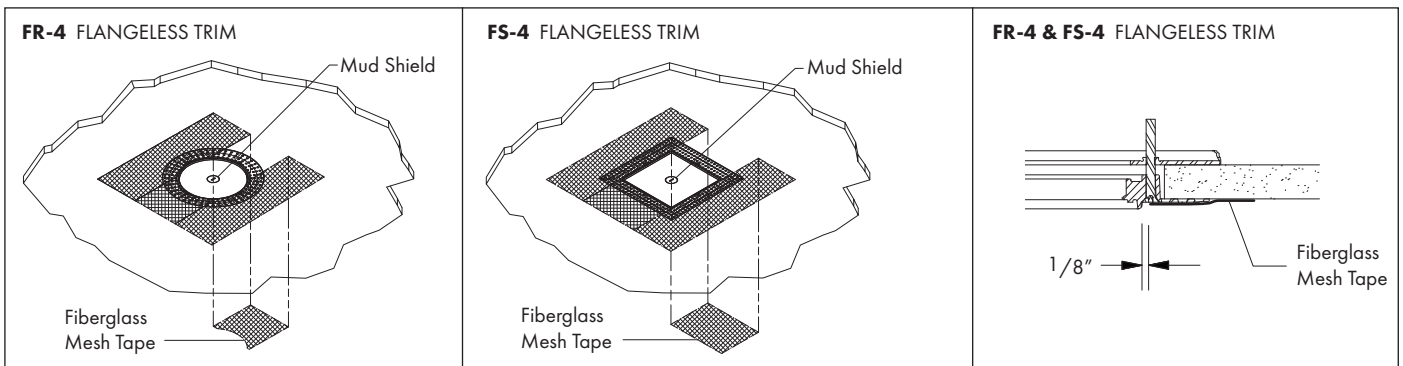
STEP 3 – FLANGELESS TRIM INSTALLATION (CONTINUED)

3b. Rotate trim so screws are aligned with adjacent wall or fixtures. **CAUTION:** Hand tighten trim screws. Power driver is not recommended.



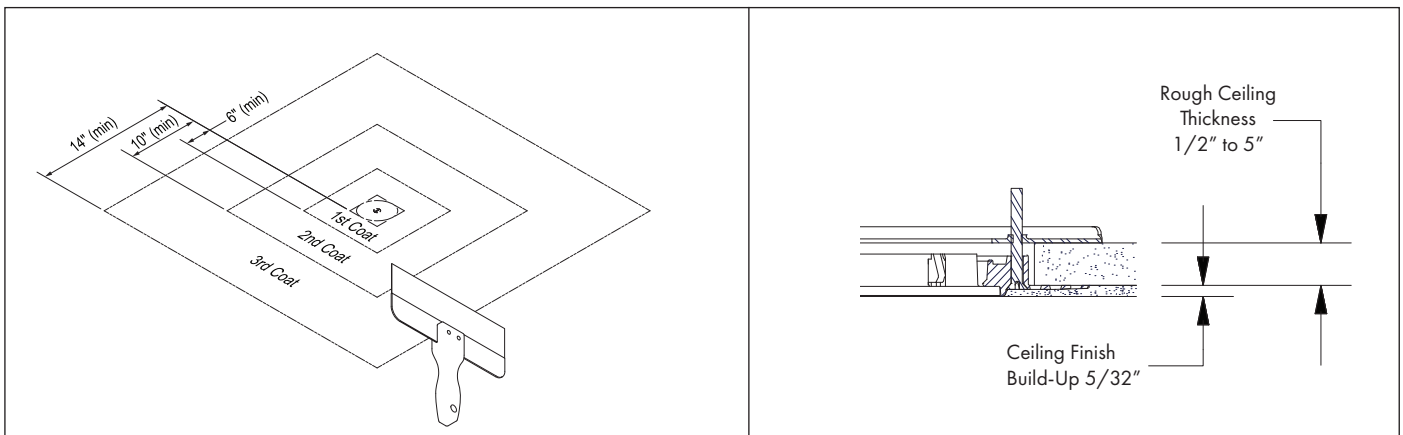
3c. Re-install mud shield.

3d. 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.



3e. Apply ceiling finish **FR-4 & FS-4** FLANGELESS TRIM.

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



3f. 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.

3g. 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.

3h. 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.

3i. Sand third coat with fine grit sandpaper until mud shield and finished metal edge of trim lip are barely exposed.

3j. Remove mud shield knock-out and remove mud-shield by pulling outward.

3k. Remove excess material from inside edges of trim.

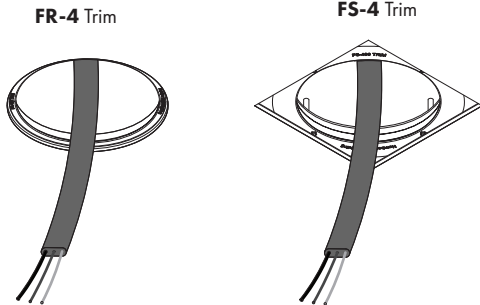
3l. Apply primer (USG Sheetrock or equivalent) and paint following the paint manufacturer's instructions and warnings.

Caution: Do not paint inside of **FR-4** or **FS-4** trim surface.

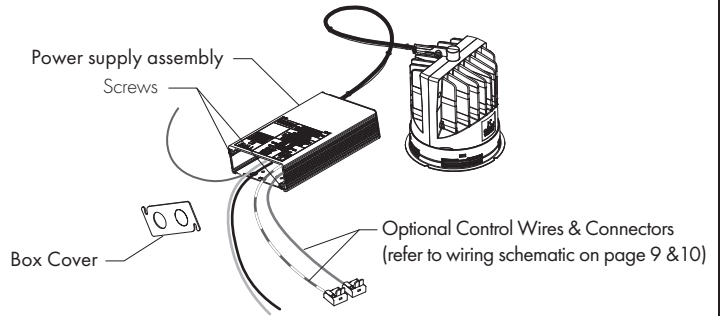
REMODEL INSTALLATION – FLANGELESS TRIMS

STEP 4 – FIXTURE WIRING

4a. Locate rough wiring and pull through trim opening ensuring a minimum of 6" of wire extends below ceiling.



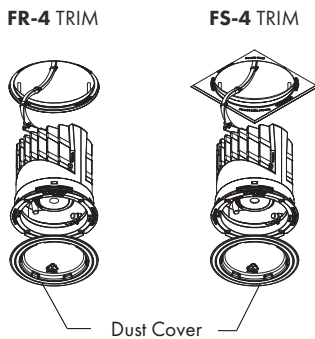
4b. Remove box cover on power supply assembly and install appropriate conduit connector (not supplied).



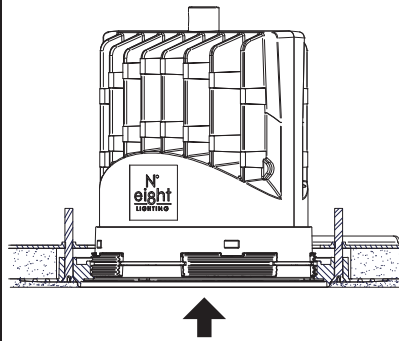
4c. Review wiring diagrams on Page 9 & 10, wire fixture accordingly. Place all wiring and connectors back in power supply box and replace cover.

STEP 5 – HOUSING + LIGHT ENGINE INSTALLATION

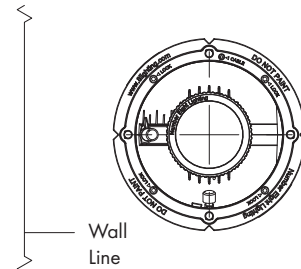
5a. Support housing and install power supply assembly through trim cut-out. Remove temporary dust cover and save.



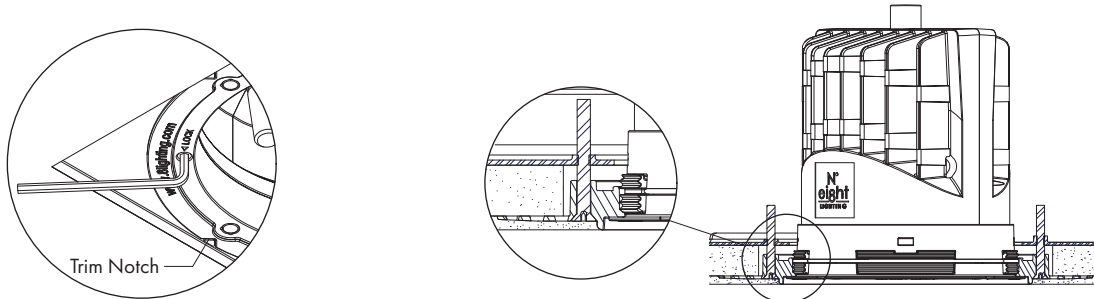
5b. Install housing into trim cut-out.



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 flanges mate with notches in trim.



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

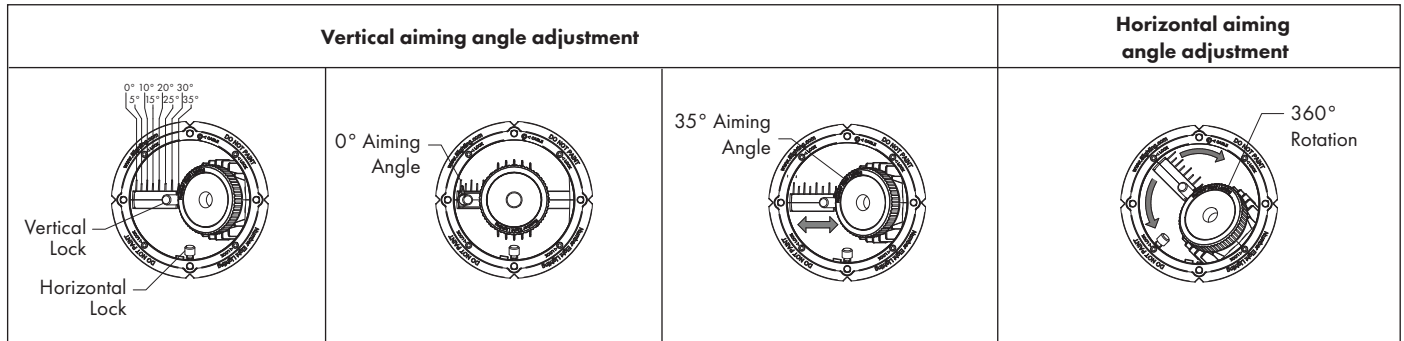


5e. Re-install temporary dust cover until after ceiling has been completely finished.

AIMING & ADJUSTING

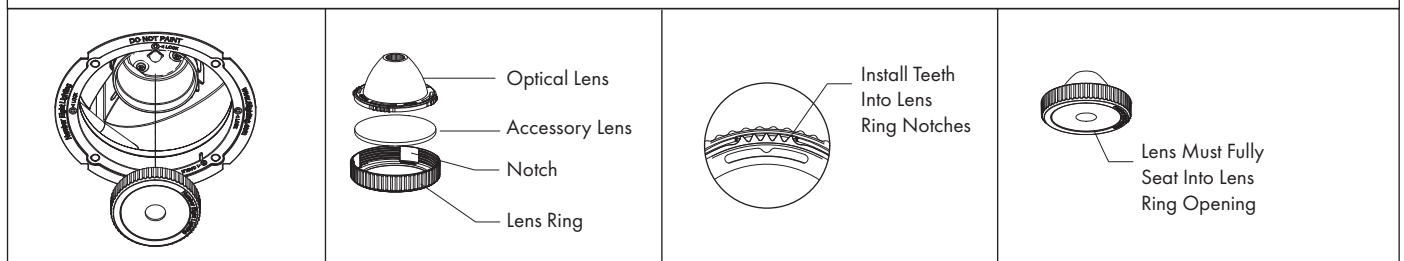
STEP 1 – VERTICAL AND HORIZONTAL AIMING AND ADJUSTMENT

- 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.



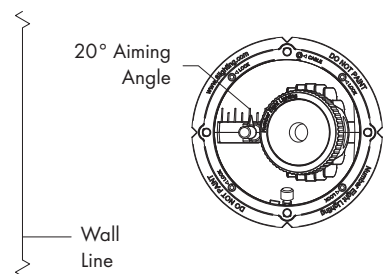
STEP 2 – LENS AND ACCESSORY REMOVAL AND REPLACEMENT

- 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 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).

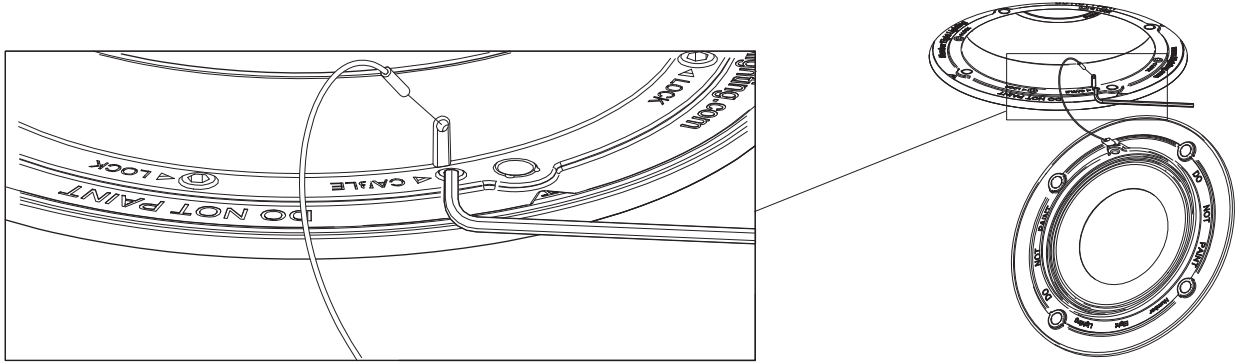
Caution: Paint must be rated for minimum 90°C (150°F). Do not paint trim plate while installed in fixture. Do not paint backside of trim plate or trim safety cable. Do not paint edges of **FR-4 / FS-4** trim plate.

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

STEP 2 – INSTALL TRIM PLATE

2a. Remove temporary dust cover and discard.

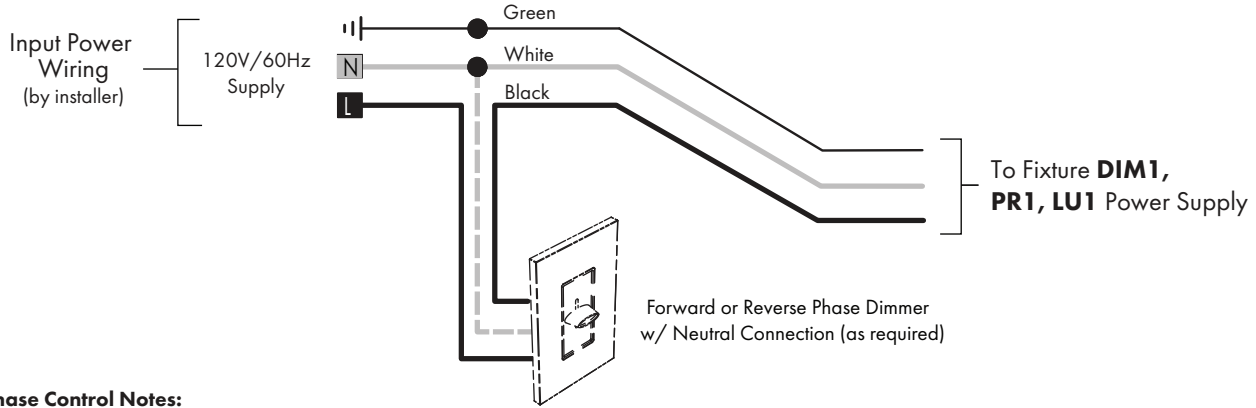
2b. Install trim safety cable into attachment hole on housing marked "CABLE" and secure by hand tightening set screw using supplied 1/16" hex key.



2c. Align trim plate with magnets and install.

WIRING DIAGRAMS

DIM1 / PR1 / LU1 - PHASE CONTROL



Phase Control Notes:

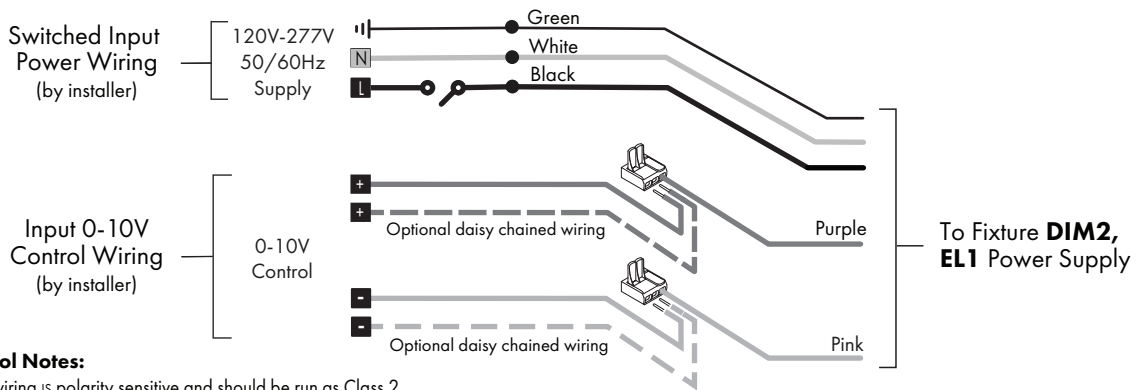
DIM1 / PR1 drivers are Forward or Reverse Phase dimmable.

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

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

DIM2 / EL1 - 0-10V CONTROL



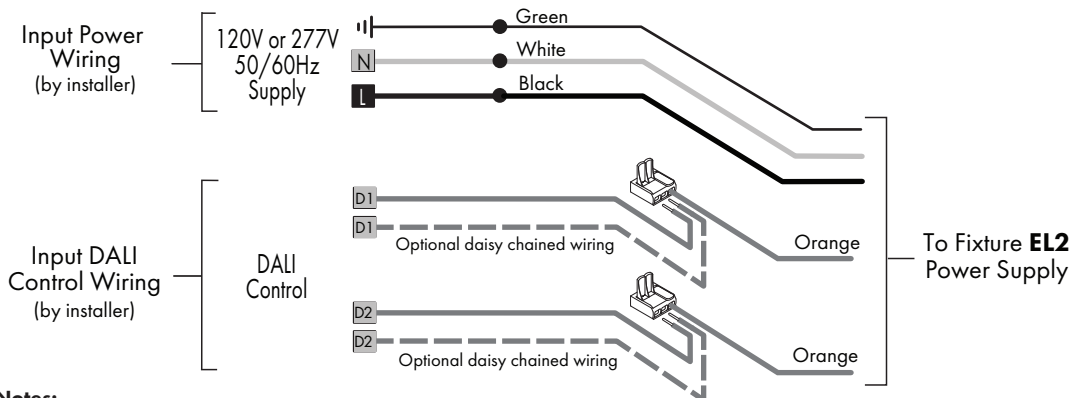
0-10V Control Notes:

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.

EL2 - DALI CONTROL

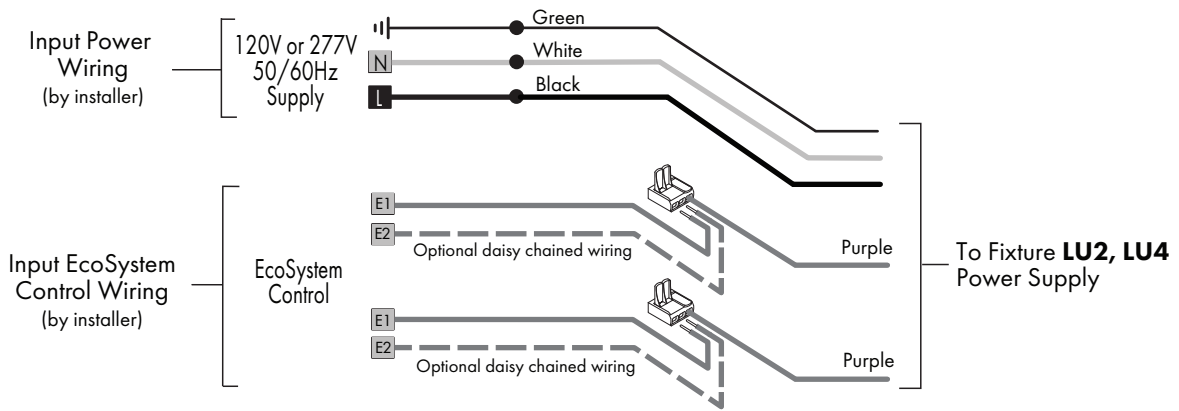


DALI Control Notes:

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.

LU2 / LU4 - LUTRON ECOSYSTEM CONTROL



Lutron EcoSystem Control Notes:

Up to 64 power supplies can be daisy chained per EcoSystem control loop.

Maximum control wiring run length is 1000'.

For additional information contact LED Center of Excellence at 1.877.346.5338 or LEDs@lutron.com.



www.8lighting.com

Number Eight Lighting Company

526 Portal Street, Cotati, CA 94931