Exposed Flange/Trim Patterns (CT)

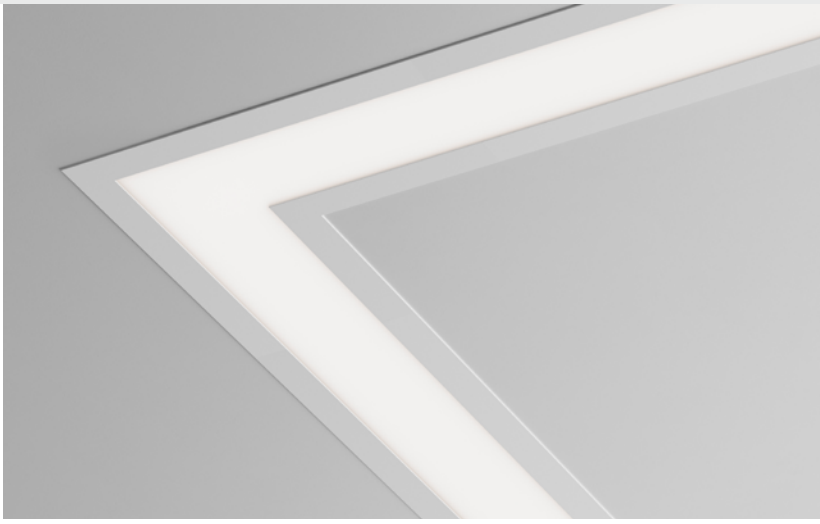
This installation guide details the steps for installing Interspace Exposed Flange/Trim Patterns (CT) for both discrete and continuous run applications.

The components required for a run include:

Fixture Module(s), Driver Box, Jumper Box, Mount Brackets, Joiner Bracket, and End Cap Kit

Key Installation Features

- No advanced site framing or coordination required.
- Simple and variable positioning avoids structural and mechanical obstructions.
- Factory assembled with integral line voltage drivers and Molex connectors—prewired modules eliminate on-site assembly, LED installation, wiring and soldering.
- Bring line voltage power to any driver or jumper location.

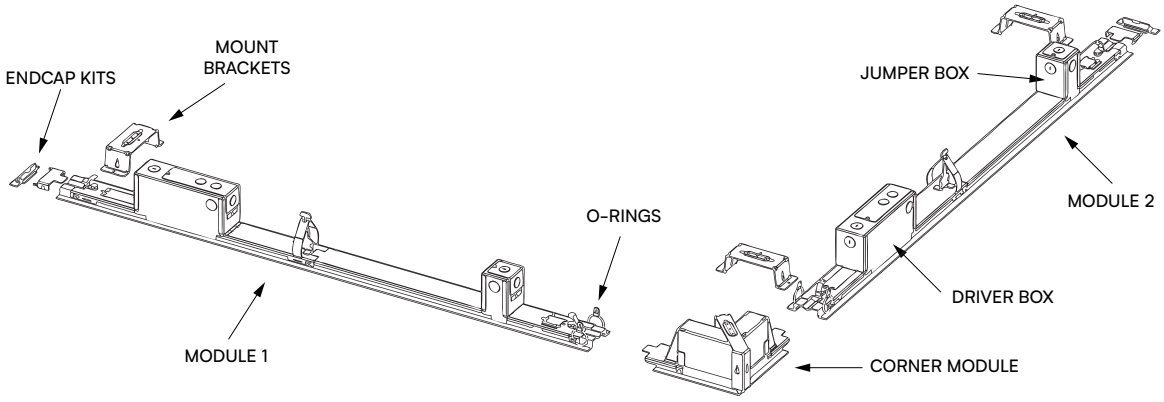


Contents

Exposed Flange/Trim Patterns (CT)

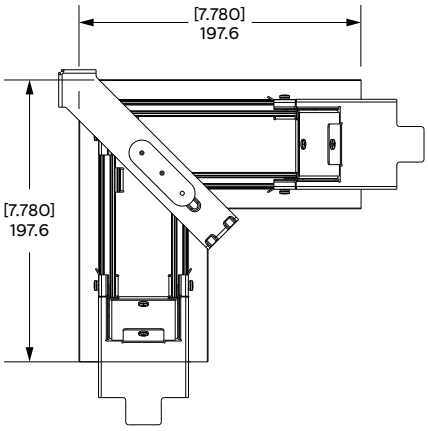
System Overview

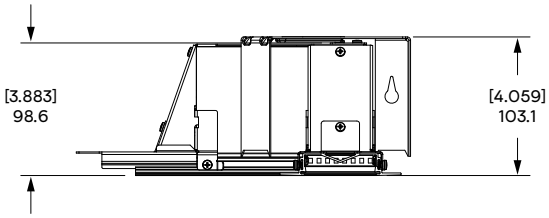
Corner Fixture



L-SHAPE SHOWN FOR REFERENCE

Corner Fixture Dimensions





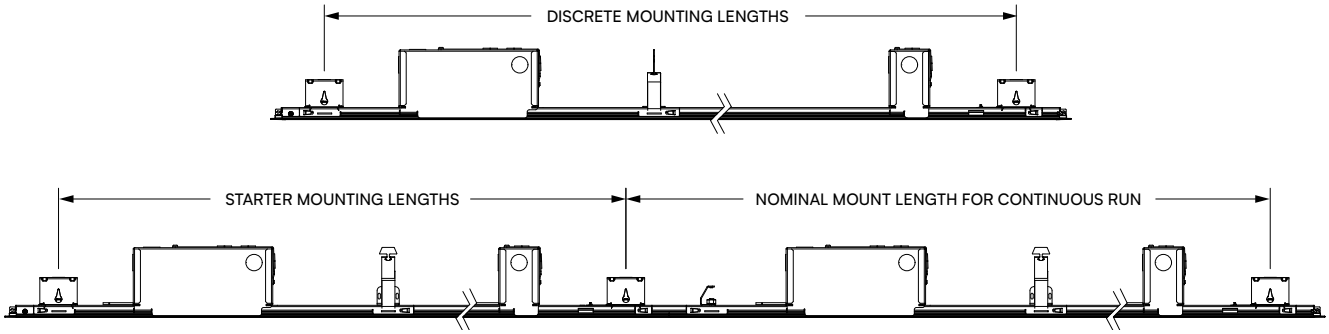
Exposed Flange/Trim Patterns (CT)

Discrete + Starter + Continuous Run Mounting Lengths

NOTE: Mounting dimensions are driven by suspension wire grippers fastened to the fixture.

Discrete + Starter Mounting Length (in)	18.7*	43.0	55.0	67.0	79.0	91.0
Discrete + Starter Mounting Length (mm)	475*	1092.2	1397	1701.8	2006.6	2311.4
Nominal Mounting Length Continuous Run (ft)	3.0*	4.0	5.0	6.0	7.0	8.0

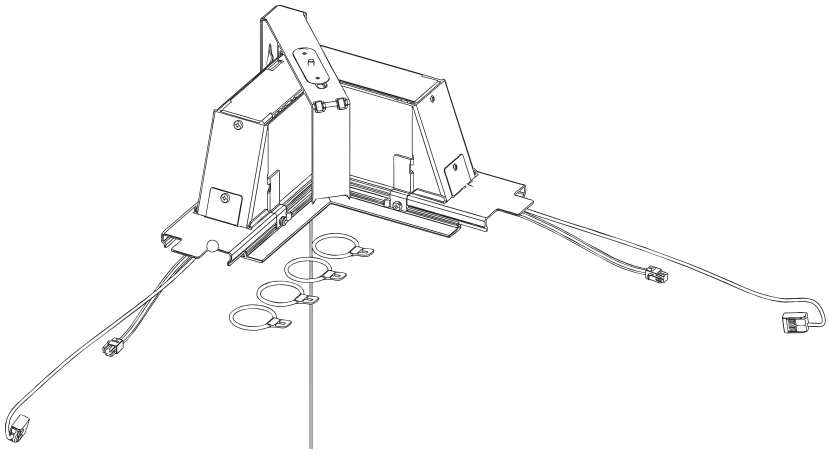
*Refer to layout drawings for lengths as fixtures between 2ft and 3ft are factory-adjusted and come in 1" increments.



Corner Fixture

Corner fixtures for patterns come with all necessary parts, hardware, and wires installed and shipped assembled from the factory.

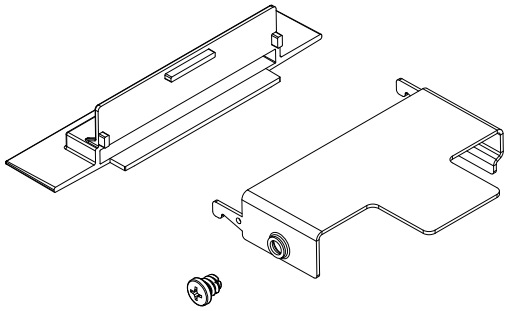
O-rings will be taped to housing.



Exposed Flange/Trim Patterns (CT)

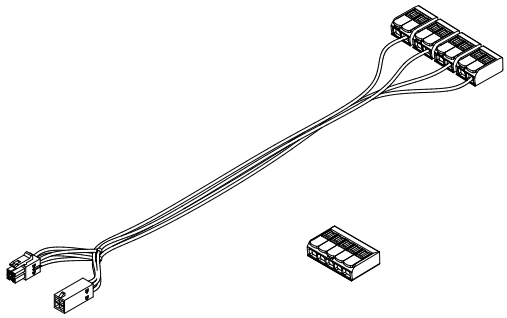
Endcap Kit

- 1 x White Aluminum Diecast Endcap
- 1 x 10-32 Screws
- 1 x Endcap Joiner



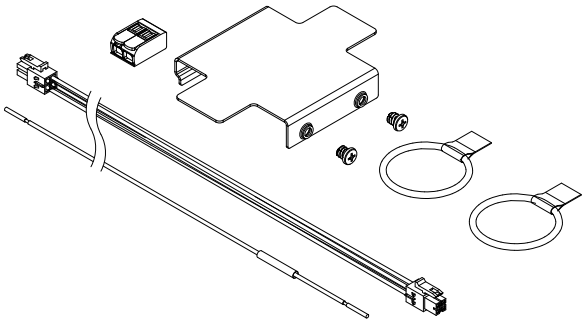
Power Drop Kit

- 1 x Wire Harness
- 4 x 2-Lever WAGOs
- 1 x 5-Lever WAGO



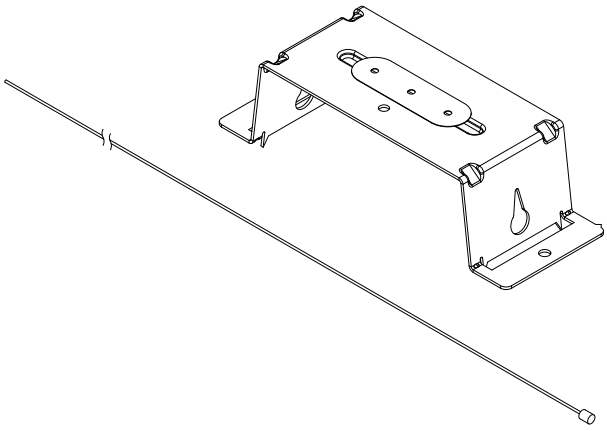
Joining Kit

- 1 x Power Connect
- 1 x Ground Wire Connect
- 1 x Joiner Brackets
- 1 x 2-Lever WAGO
- 2 x 10-32 Screws
- 2 x Pull O-Rings



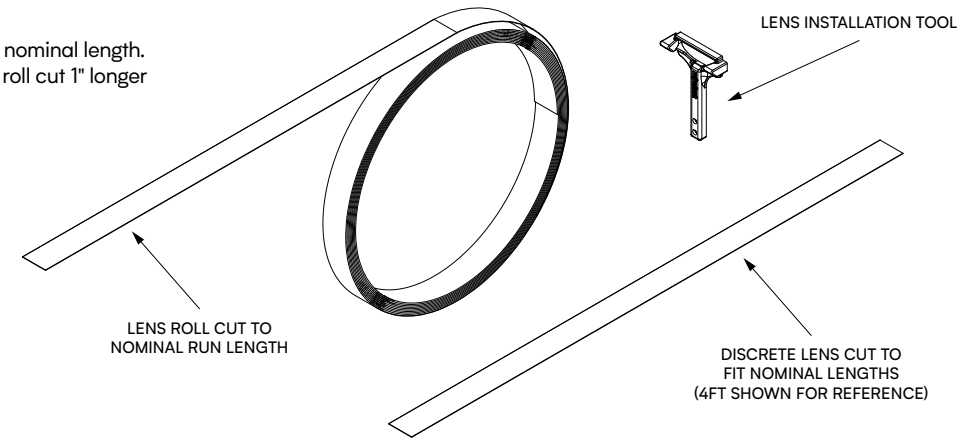
Mounting Kit

- 1 x Mounting Brackets
- 1 x 3ft Suspension Cables



Lens + Lens Install Tool

NOTE: For discrete the lens comes cut to nominal length. For continuous runs, the lens comes on a roll cut 1" longer than the nominal run length.



Exposed Flange/Trim Patterns (CT)

Information

Important

- Read all instructions including wiring and mechanical details before the start of the installation.
- Install in accordance with the local and national building and electrical codes.
- Do not join fixtures on the ground and raise them into place. This will damage the fixtures due to the significant forces on the joining brackets.
- Fixture through wiring is 18 AWG. Calculate maximum row length per fixture watts per foot and local and national building codes.
- Contact the factory if you require assistance or have questions.
- CONSULT A QUALIFIED ELECTRICIAN TO ENSURE CORRECT BRANCH CIRCUIT CONDUCTOR. / CONSULTER UN ÉLECTRICIEN QUALIFIÉ POUR VOUS ASSURER QUE LES CONDUCTEURS DE LA DÉRIVATION SONT ADÉQUATS.

Tools Required

Tools:

- #2 Phillips Screw Driver
- Flat Head Screw Driver
- Pliers
- Drywall Cutting Tool
- Lens Installation Tool (provided)
- Wire stripper + cutter

Materials:

- 2" and/or 3" sheet metal screws (by others for securing the stud)
- Hanger Wire (by others)
- #8 Sheet Metal Screws (by others)

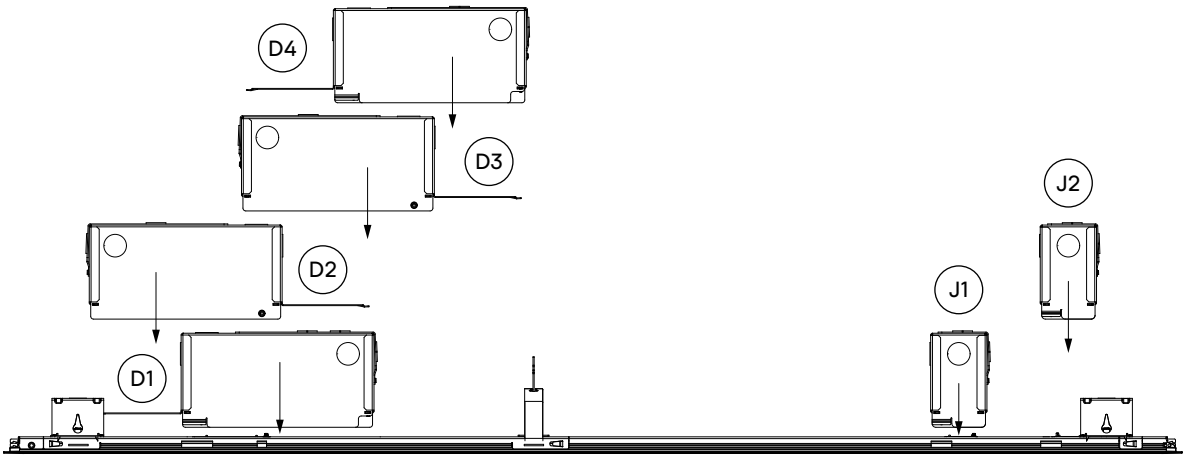
Safety Warnings

- **Shock hazard!** Fixtures must be connected to building ground via provided ground wire before connecting to main supply power.
- Disconnect or turn off power supply before attempting any installation maintenance or servicing operations.
- **CCEA applications** driver box and jumper box **can not** be adjusted.

Ceiling Preparation

Drywall Gypsum

Interspace is designed to allow for minimal to no framing or furring of studs, and to avoid obstructions in the ceiling plenum. Driver boxes and jumper boxes are supplied from the factory with the default positions D1 and J1 for standard nominal stud spacing at 16" (406.4 mm) through can be adjusted as needed – Refer to Additional Steps section at end of install instructions for adjustments steps.



Exposed Flange/Trim Patterns (CT)

1 Layout Planning

As per the layout drawings, plan locations for fixture mounting and power drop locations.

Understanding the stud orientation will help determine the steps to install the power locations, mounting brackets, drywall ceiling installation, and cutout openings.

2 Prepare Ceiling

NOTE: During planning, identify locations of obstructions in the path of the installation.

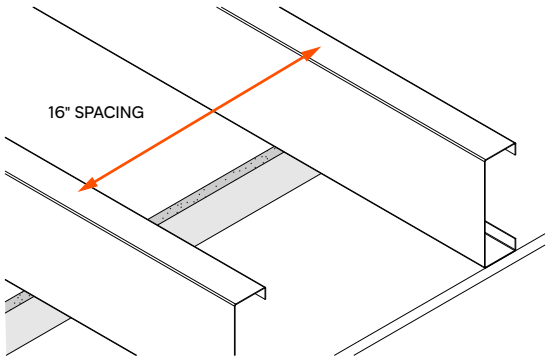
The driver or jumper boxes can be adjusted accordingly if required prior to power installation and fixture installation steps.

OPTION A: Perpendicular studs to cutout length

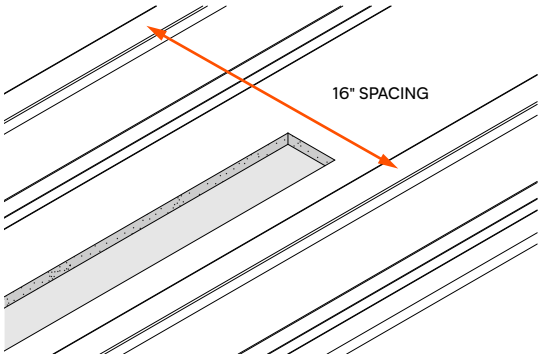
OPTION B: Parallel studs to cutout length

3 Prepare Ceiling Options: A + B (Cutout Shown for Reference)

OPTION A: Perpendicular Stud

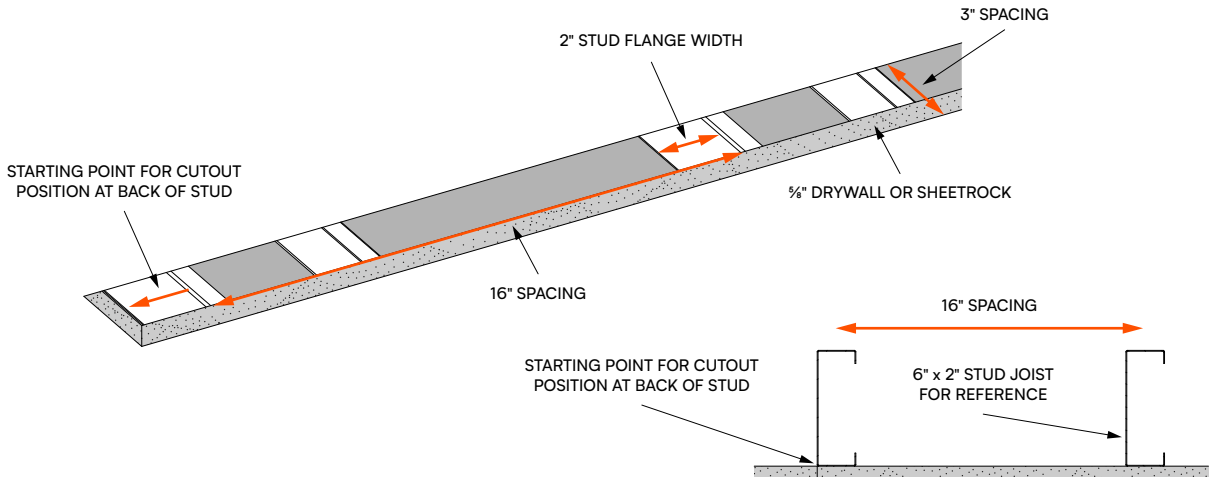


OPTION B: Parallel Stud



4 Prepare Ceiling Option: A — Predetermine Starting Point(s)

Starting locations to allow for minimal to no adjustment of the driver and jumper box positions for stud avoidance are determined in the following instructions. Cutout shown for reference. Recommended to start the cutout or drywall placement at the back of the stud for the opening. The cutout starting positions are designed around ≤ 2" (76.4 mm) stud flange width with a minimum stud height of 3.5".

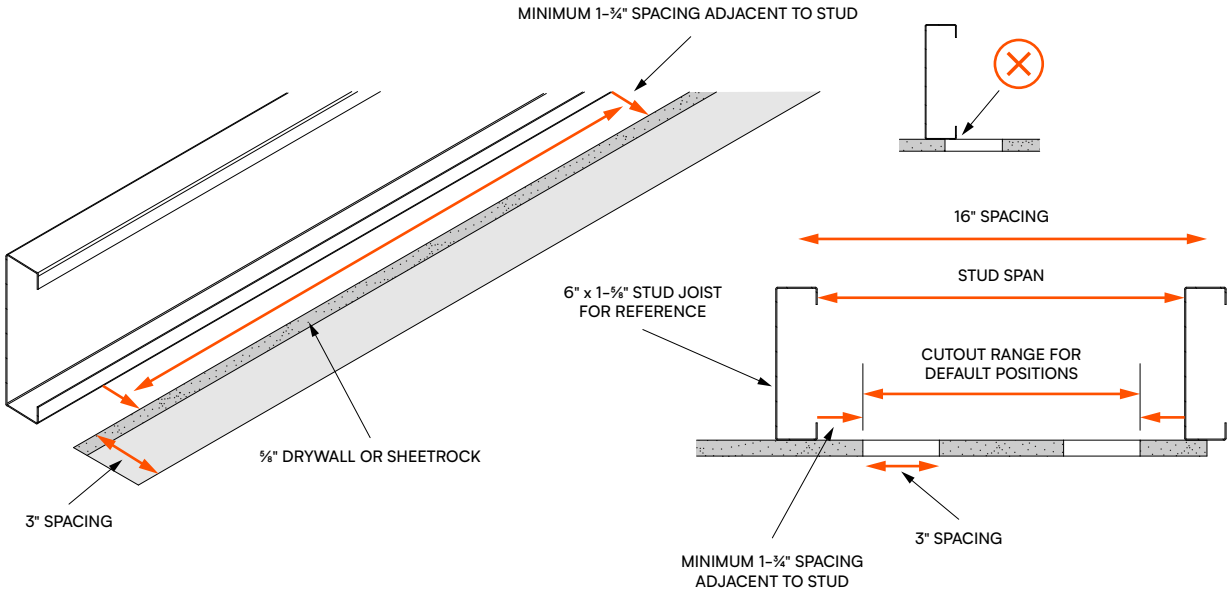


Exposed Flange/Trim Patterns (CT)

5 Prepare Ceiling Option: B — Predetermine Starting Point(s)

Optimal cutout range between stud span. Start the parallel cut minimum 1-¾" adjacent to the stud face and into the middle of the span. This cutout location will ensure the mounting bracket can be installed with the default, mounting bracket, driver box, and jumper box positions. Cutout shown for reference.

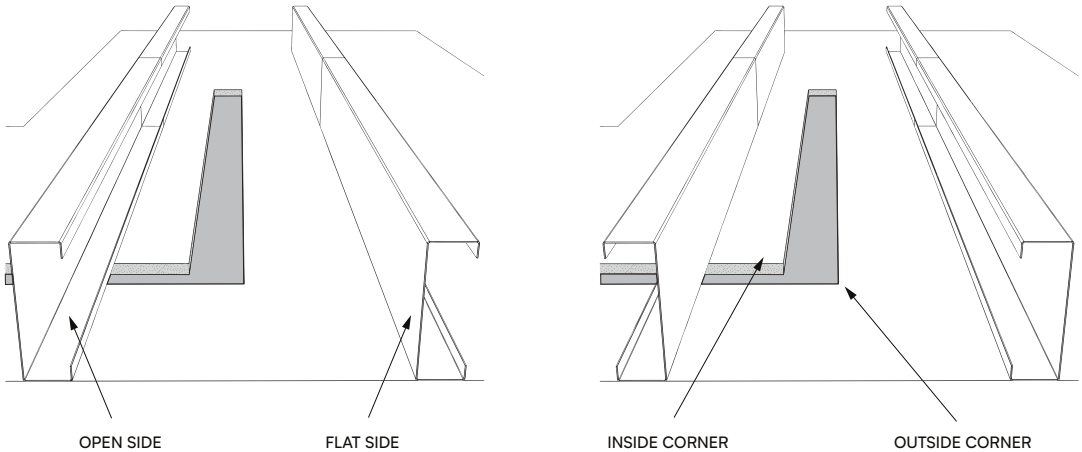
IMPORTANT: The cutout can not fall under a stud in parallel application.



6 Prepare Ceiling – Pattern Stud Interface Planning Option A to B Transition

Follow the layout drawing for the cutout pattern. Framing segments of the pattern opening may be necessary to facilitate fixture installation.

NOTE: The stud orientation can be the open side or flat side of the C-shape relative to the opening of the corner.



Exposed Flange/Trim Patterns (CT)

7 Prepare Ceiling – Pattern Stud Interface Planning Option A to B Transition Continued

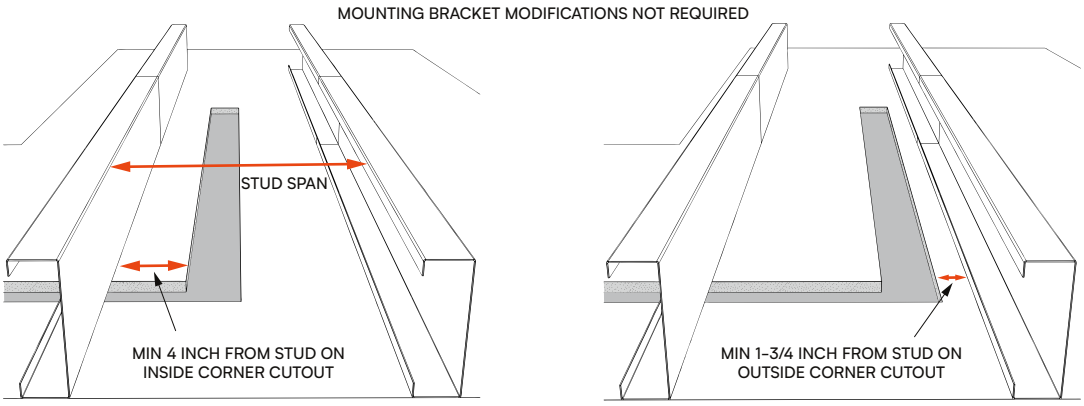
Corner Cutouts for Parallel Stud Span Applications

No Mount Bracket Modification: Refer to the next Step 8 (page 8) for applications where the mount bracket is not modified, specifically for between-span installations in parallel applications.

Mount Bracket Modification: Refer to Step 9 (page 9) for applications requiring mount bracket modification. This applies to the space outside the no-mount bracket modification, and for flush-to-stud, outside/inside corner cutouts in parallel applications.

8 Prepare Ceiling – No Mount Bracket Modification Required

For parallel cutouts, the optimal placement that does not require mounting bracket or stud framing modifications is within the parallel stud span, ranging from 4" from the inside corner of the stud to the cutout, to 1 ¾" from the outside corner.



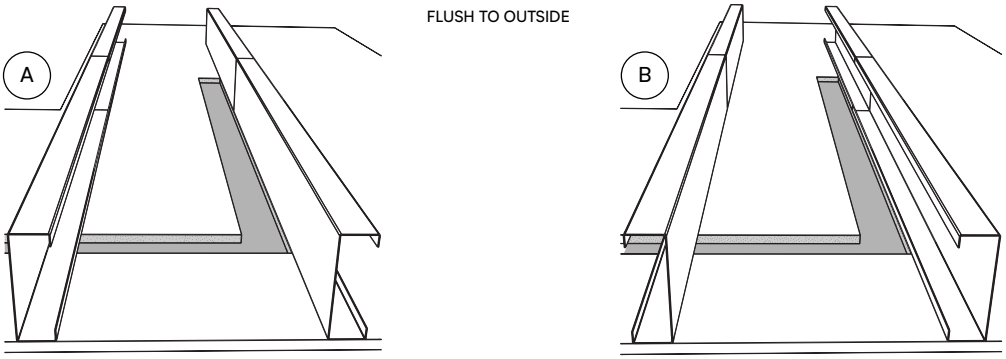
Exposed Flange/Trim Patterns (CT)

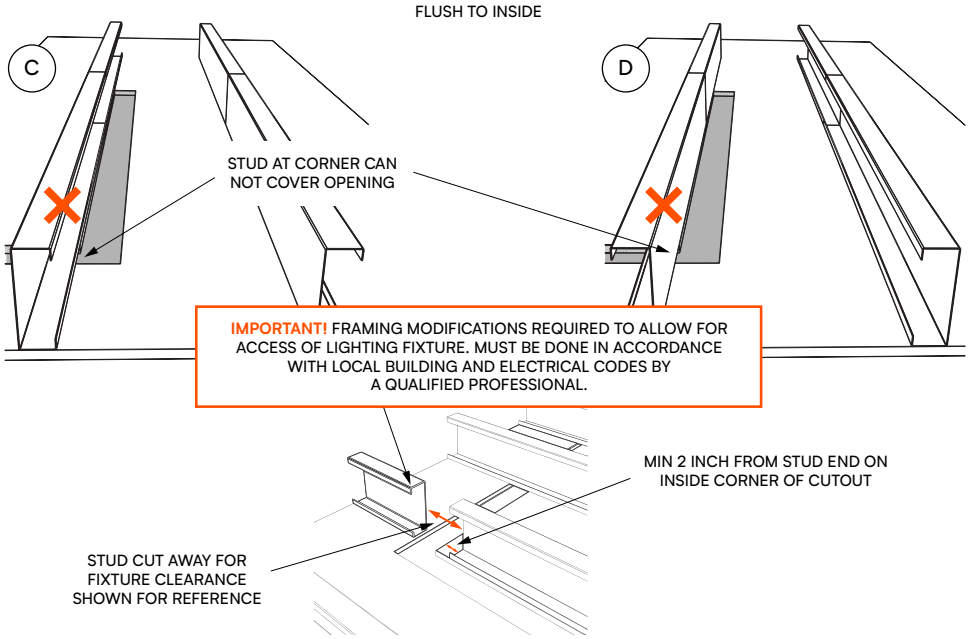
9 Prepare Ceiling – Mount Bracket Modification Required

The below application cases require mounting bracket modification. Additional Steps (page 41) section will provide further instructions on dealing with the below stud-to-cutout applications.

Outside Flush Applications (Case A+B): Mounting bracket modifications are necessary.

Inside Flush Applications (Case C+D): Both mounting bracket and framing modifications are required to ensure adequate clearance for fixture installation.





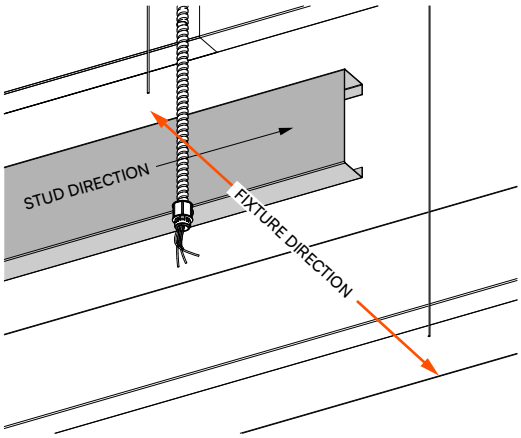
Exposed Flange/Trim Patterns (CT)

10 Install Power Drops + (Optional Hanger Wires)

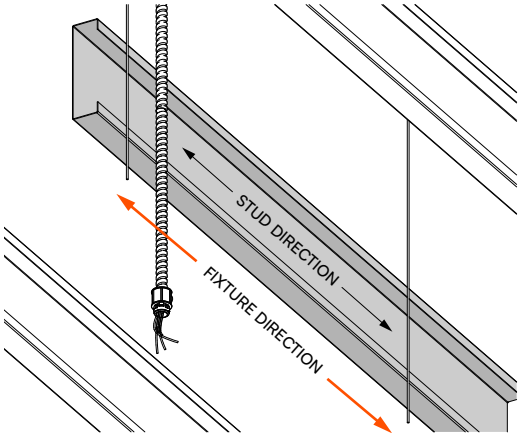
Once starting locations are determined, install power drops at locations as power layout drawings. Allow the power drop to fall 12" to 16" below the ceiling. Optional step: (per local building codes and authorities having jurisdiction): Install hanger wires above mounting locations and nominal mounting locations as per layout drawings. Leave 6 to 10" of hanger wire below ceiling to allow wires to be secured to brackets with slack once final position is known.

NOTE: For corner cutouts suspend hanger wire near outside corner of the cutout.

OPTION A: Perpendicular Stud

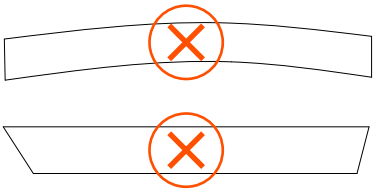


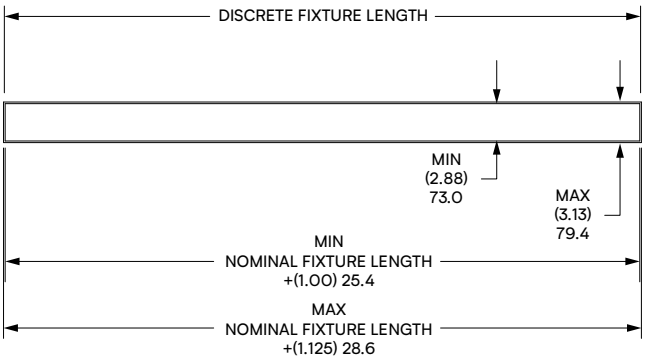
OPTION B: Parallel Stud

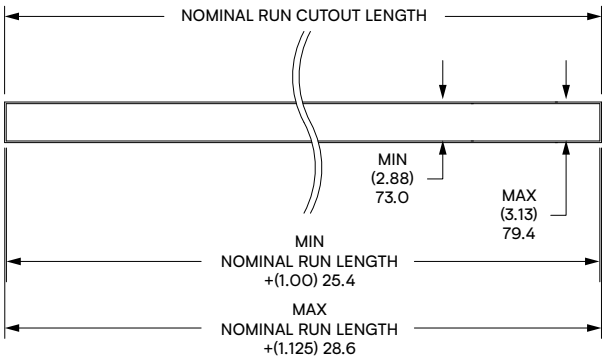


11 Install GWB + Cutout Openings as per Layout Drawings and Predetermined Planning

- Recommend using appropriate tools to outline specific ceiling cutout dimensions and locations to ensure straightness of the cuts.
- Avoid cutting uneven cuts and curves over the length.
- Proper care to ensure straightness of cuts with accuracy is important in the drywall to avoid rework and for proper fit and function of the Interspace Lighting fixtures.
- For patterns refer to layout drawings for cut lengths.





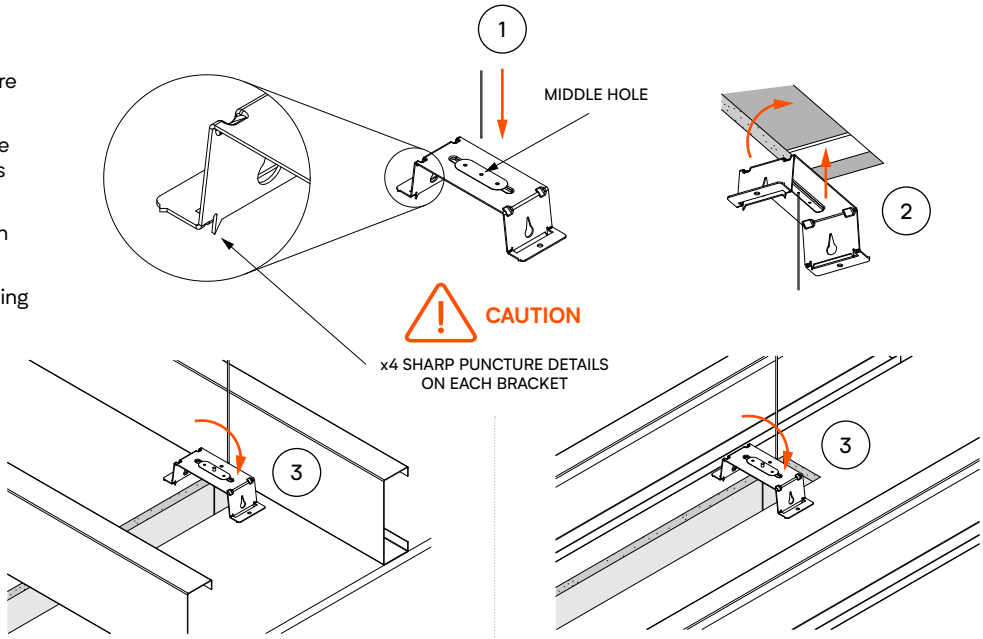


Exposed Flange/Trim Patterns (CT)

12 Install Mounting Brackets Options: A + B

CAUTION: Be mindful of sharp puncture detail x4 on each bracket.

1. Feed suspension cable through hole on mounting bracket (middle hole is default position).
2. Raise up and rotate to pass through the opening.
3. Rotate back perpendicular to opening and push down to puncture the surface of the GWB.

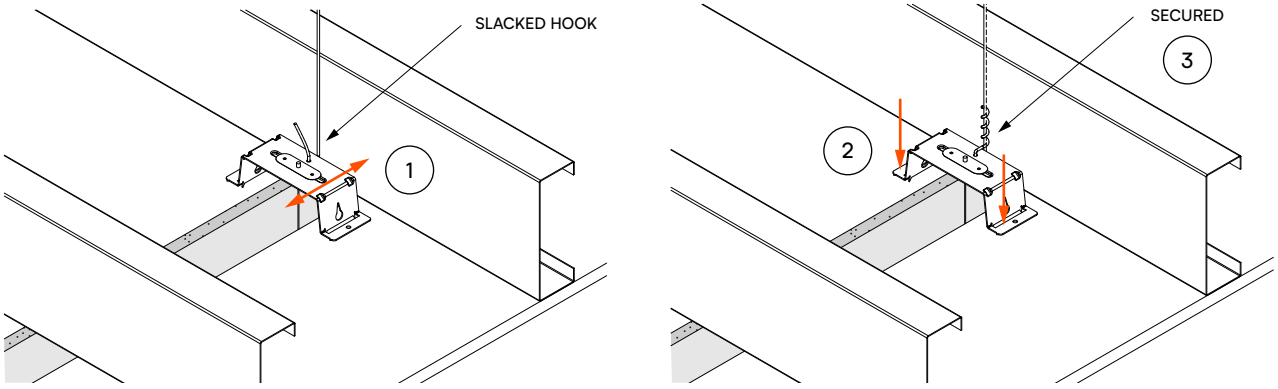


OPTION A: Perpendicular Stud

OPTION B: Parallel Stud

13 Secure Hanger Wire to Bracket (Optional)

1. When securing hanger wire, leave a slacked hook to allow adjustment of bracket during locating bracket to final position.
2. Finalize adjustments and seat.
3. Secure hanger wire. Option A shown for reference.



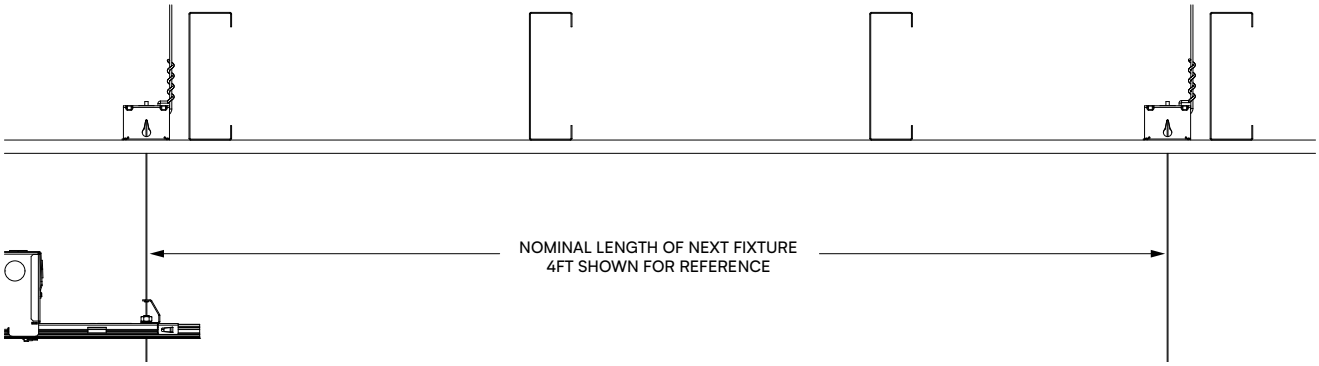
Exposed Flange/Trim Patterns (CT)

14 Continuous Run Mount Bracket Location Installation

The next mount bracket in a run is to be installed a nominal distance of the length of the fixture.

EXAMPLE: The next fixture in the run to be installed is 4ft, the next bracket is to be installed 4ft from the last mount bracket in the run.

IMPORTANT: The corner mounting bracket is pre-installed from the factory. Instructions for installing the corner mounting bracket will be provided during the corner fixture installation steps.



15 Additional Steps for Completion of Fixture Installation

The following conditions may arise during installation and require adjustments and modifications. These additional steps are provided to assist with ceiling preparation and the final installation of the fixture(s). Additional steps can be found on page 41.

- **Driver and Jumper Box:** Adjust to avoid studs or obstacles in the cutout path.
- **Mounting Brackets:** Modify if the cutout edge is flush with a parallel stud.
- **Spring Clips:** Move or reinstall if stud interference occurs or if the clip activates prematurely.
- **Suspension Cable Gripper Adjust + Move + Remove:** Adjust, move, or remove if studs are located under or near the components.
- **Lens Removal:** Removal may be required for troubleshooting.

Contact the factory for assistance if you have any questions.

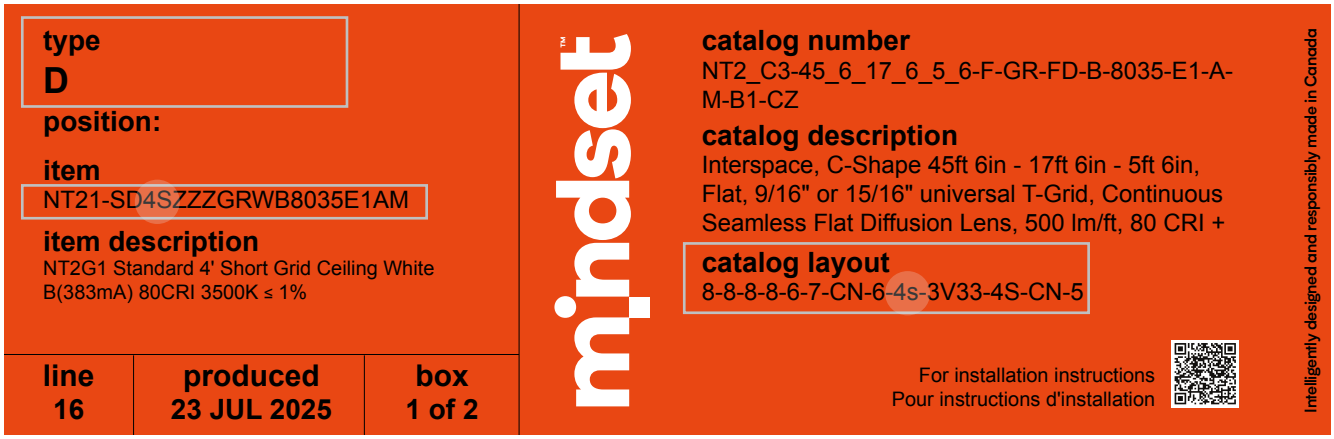
Exposed Flange/Trim Patterns (CT)

Installation Steps

1 Place Boxes

IMPORTANT: The pattern identified in the layout drawing(s) will have matching identifiers on the fixtures and lens labels.

The image below is an example of an Open C-pattern for a 4s fixture (Grid GR). The label on the box and on the lens will have a matching type and and layout.



type: D

catalog layout: 8-8-8-8-6-7-CN-6- 4s -3V33-4S-CN-5

This sequence of the catalog layout is important as it represents the order of the installation to follow. Lay the fixtures on the ground as per the catalog layout order as per the matching layout drawing(s).

Unpackage the fixtures from the package. Do not remove protective plastic and any care labels during installation.

IMPORTANT: The lens will have matching identifiers on the label for the type.

For example, the segment that is 45'-6", the identifier on the label will have 4506 at the end. The next segment 17'-6" will be identified by 1706 , and the final segment of the pattern is 5'-6" and the lens will be identified as 0506 . Go to Step 35 (page 36) for further instructions of the lens installation and matching to the pattern.

2 Prepare fixture(s) for start of pattern installation – Open + Closed Shapes

Open Shape: Start at the beginning of the pattern.

Closed Shape: Start the pattern at a corner intersection and identify the type of fixture to connect to the corner based on the catalogue layout and layout drawings.

Exposed Flange/Trim Patterns (CT)

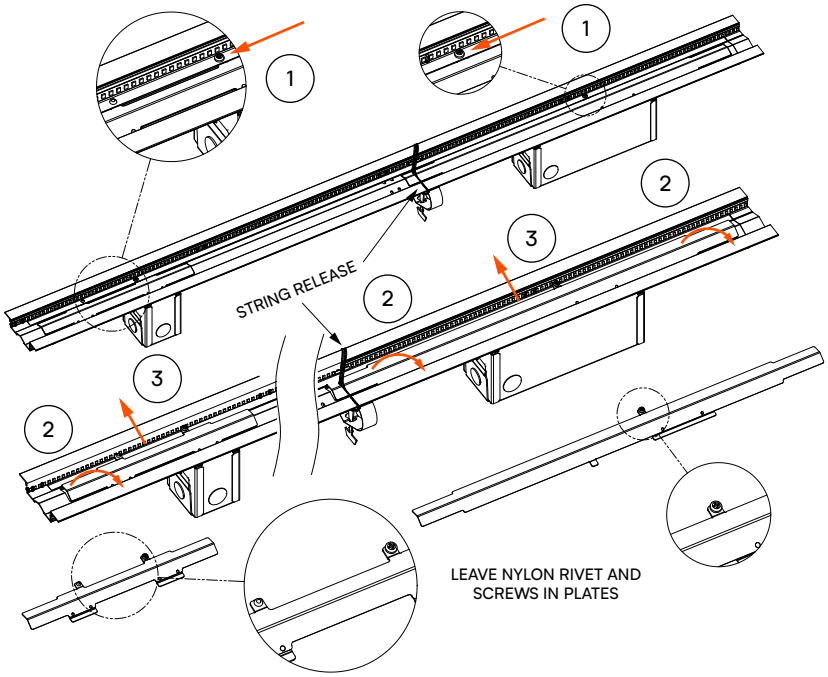
3 Driver Box Access Plate + Jumper Box Access Plate Removal

NOTE: Turn the fixture over so the optical cavity faces up.

DO NOT REMOVE STRING RELEASE.

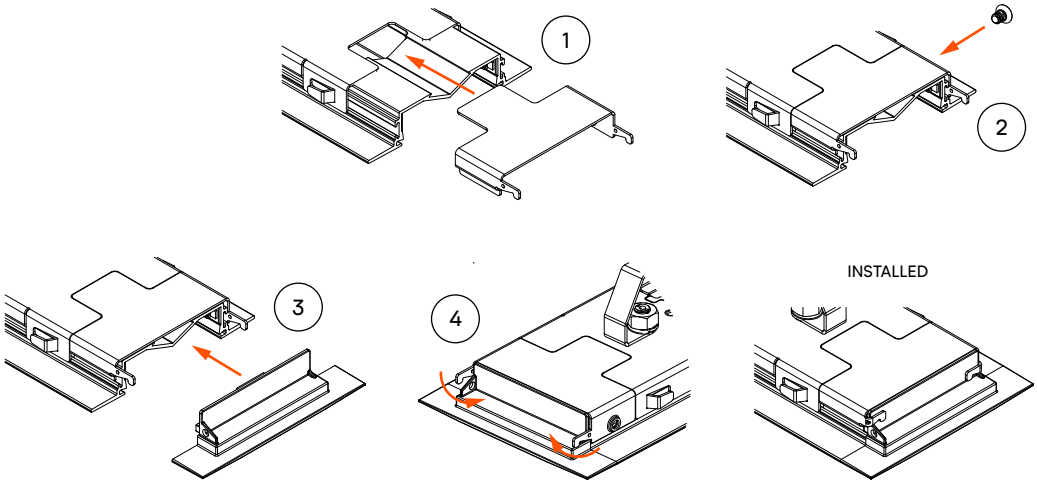
1. Use #2 phillips screwdriver to remove retention screws.
   NOTE: The retention screw is captive and will stay with the cover plate – there is no need to fully remove it. Do not remove the nylon rivet on the jumper access plate.
2. Remove access plates.
3. Grippers will become accessible for suspension.

NOTE: Middle run fixture shown for reference, endcaps not installed.



4 To Raise to Suspension Cables

Open Shape Start: Gather endcap kit(s), install end cover onto extrusion end of straight fixture and hand tighten with screw. Next install diecast endcap into end and secure in place by folding over tabs onto back face of diecast endcap to secure to fixture.



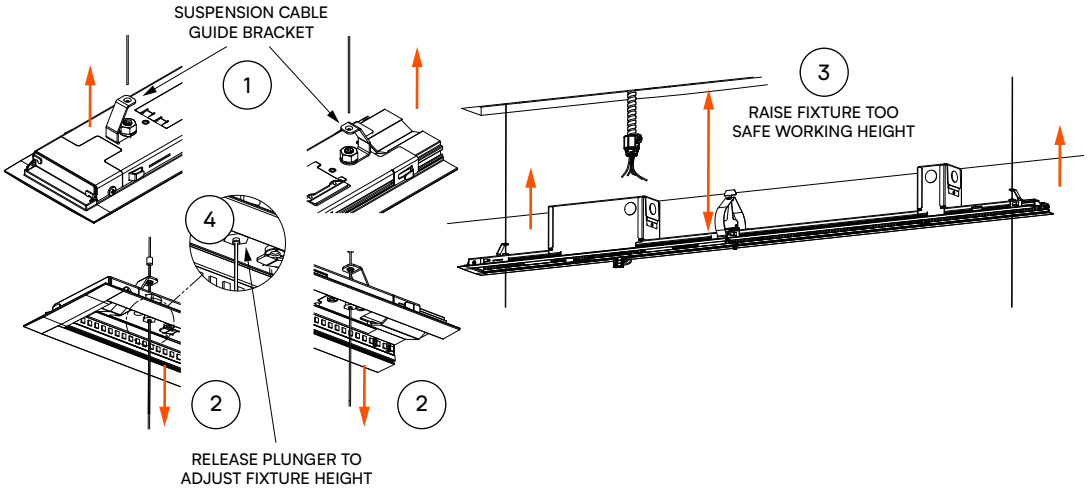
Close Shape Start: No endcap is to be installed. Proceed to the next step.

Exposed Flange/Trim Patterns (CT)

5 Raise Fixture to Suspend from Cables

1. Raise fixture to suspension cables.
2. Insert cable through the suspension guide bracket through the gripper.
3. Raise the fixture to a safe working height.
4. Adjust height by releasing gripper plunger to lower fixture.

NOTE: Start of an open shape application shown for reference.



6 Prepare Next Fixture in the Pattern for Connection

To prepare the next straight fixture segment in the pattern see below to proceed to the installation steps based on the type of fixture to install next.

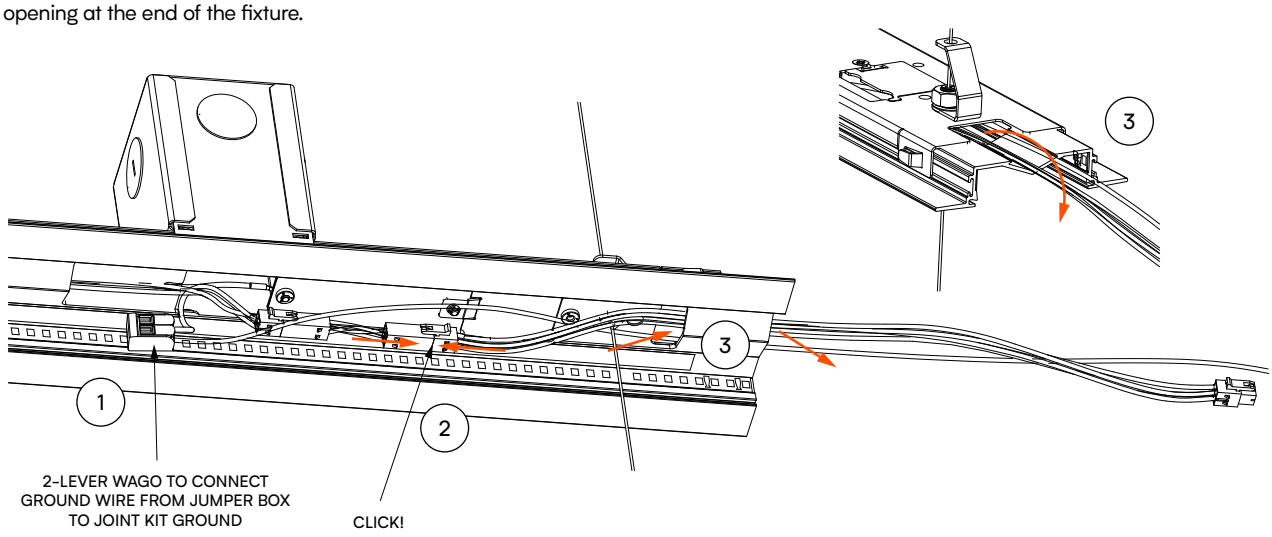
Straight Fixture (page 16).

Adjusted-length Fixture (page 18).

Exposed Flange/Trim Patterns (CT)

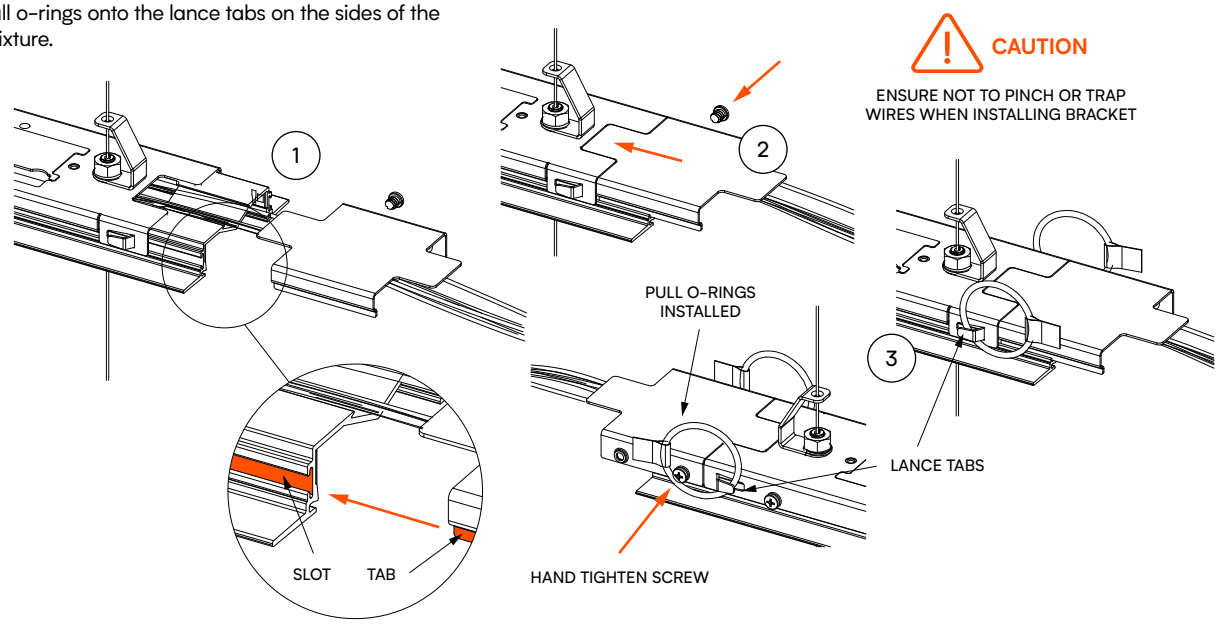
7 Prepare Suspended Fixture for Joining

1. Gather the joiner kit, first install the ground wire to the ground wire in the jumper box with the 2-Lever WAGO.
2. Connect jumper harness connector to jumper box harness connector.
3. Feed ground wire and joiner harness connector up and through the opening at the end of the fixture.



8 Install Joiner Bracket to Suspended Fixture

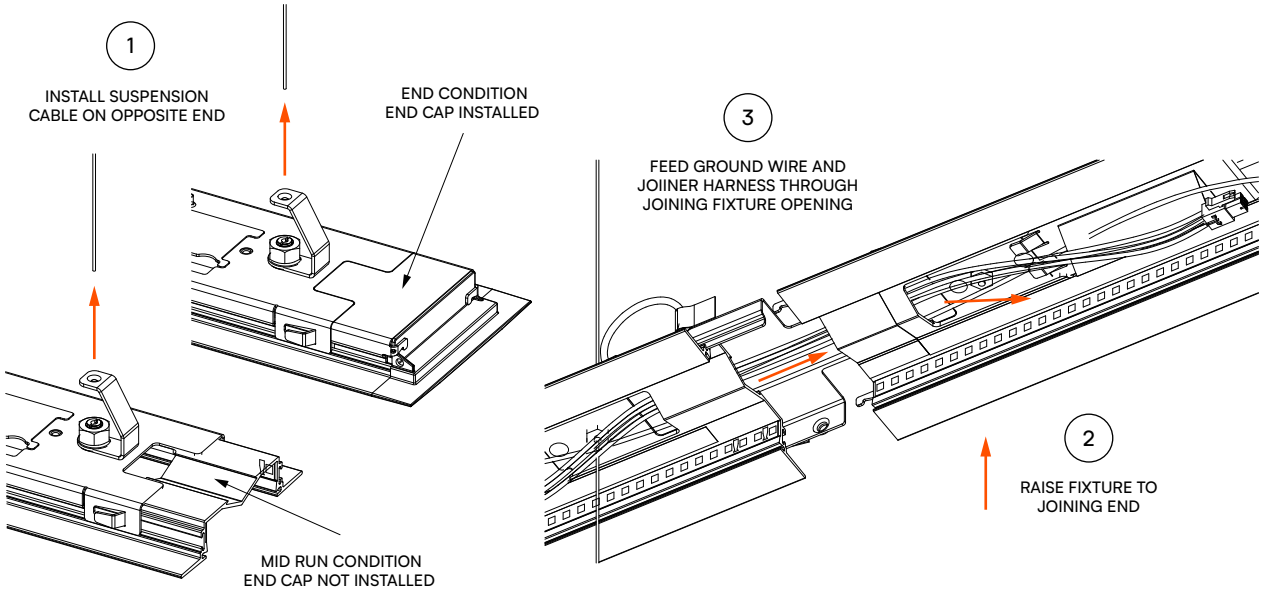
1. Install joiner bracket, guide the tab on the bracket into the slot on extrusion profile on one side.
2. Secure with provided screw on other side of suspended fixture.
3. Install the pull o-rings onto the lance tabs on the sides of the suspended fixture.



Exposed Flange/Trim Patterns (CT)

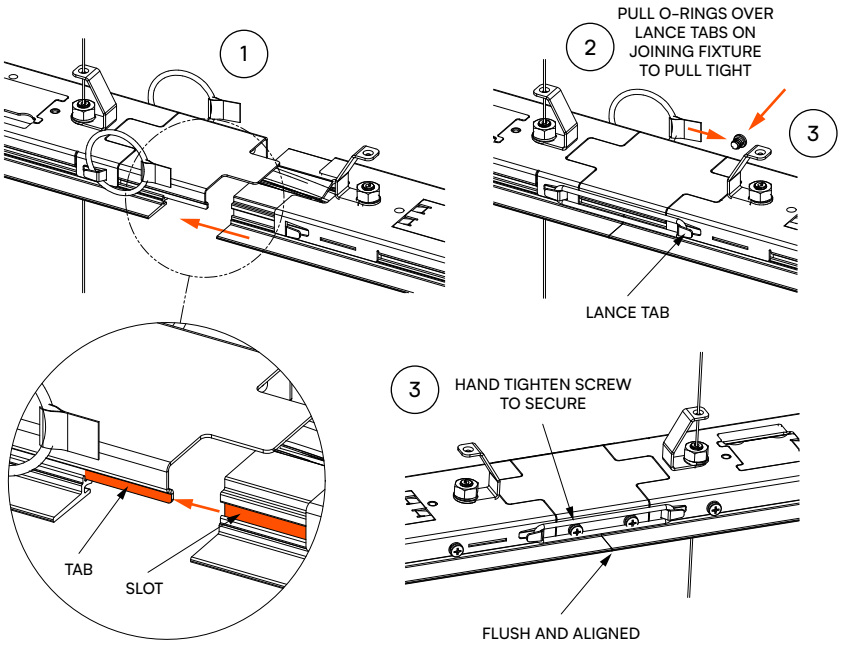
9 Prepare and Raise Joining Fixture (Mid Run or End Run)

1. Repeat Step 3 (page 14) to prepare the next joining fixture.
2. Raise the fixture to the next suspension cable on the opposing end to free up both hands.
3. At the joining connection end, feed ground wire and jumper harness through the opening on the joining fixture.



10 Join Fixtures with Joining Bracket

1. Guide the joiner bracket into the joining fixture and gently push fixtures together.
2. Pull the o-rings to the lance tabs on the joining fixture tabs to pull the joint tight together.
3. Align fixtures and secure with the provided screw to the joining fixture. (repeat Steps 7-10 (page 16-17) if adding additional fixtures in the run).

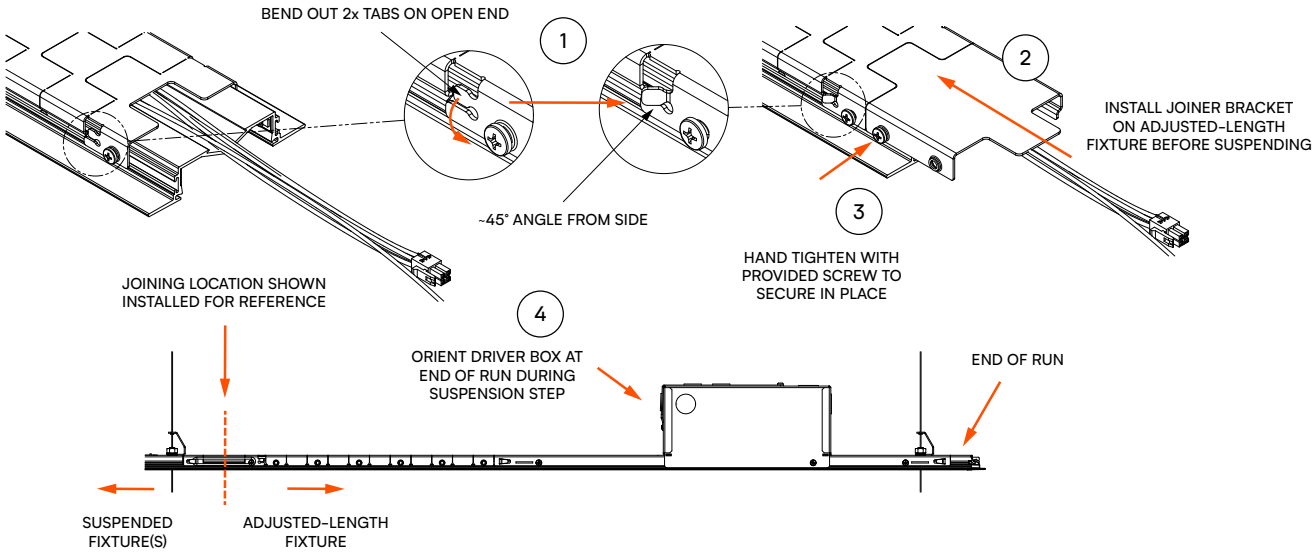


Exposed Flange/Trim Patterns (CT)

11 Adjusted-Length Fixture Joining

Fixture lengths between 2-3 ft are factory-adjusted to specified lengths in 1" increments. For these adjusted fixture segments, the tabs on the end to join the o-rings must be bent out at an approximate 45 degree angle to allow for the o-ring to be installed on it. Note ground wire and connector harness will be installed on adjusted-length fixtures. Refer to Steps 8 to 10 as reference to connect to the suspended fixture.

IMPORTANT: The joiner bracket is installed onto the adjusted-length fixture not to the suspended fixture and then connected to the suspended fixture. Suspend the adjusted-length fixture with the driver box end oriented at the end of the run. Refer to layout drawings for suspension cable mount location.



Refer to Steps 8 to 10 (page 16) as reference to connect to the suspended fixture.

Exposed Flange/Trim Patterns (CT)

12 Corner Fixture Segment in a Pattern

To prepare the next segment in the pattern at a corner connection, see below instruction to proceed to the appropriate installation steps based on the type of connection to install next.

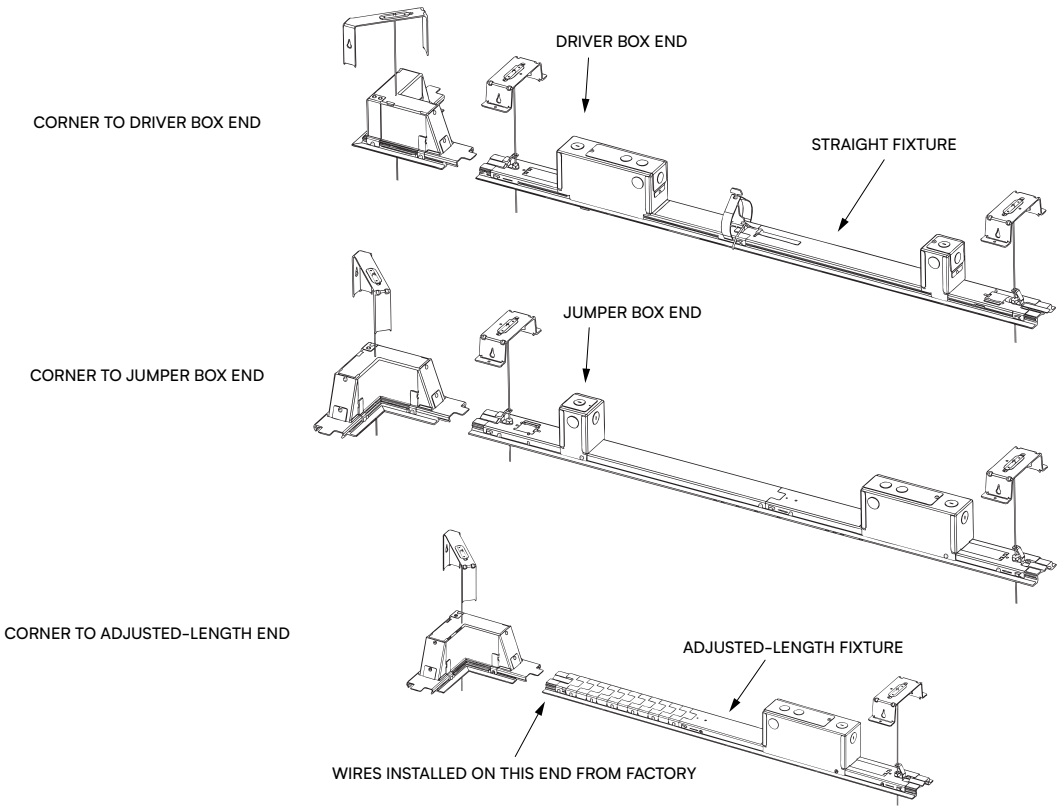
Straight fixture to corner fixture as the next fixture (page 20).

Adjusted-length fixture to corner fixture as the next fixtures (page 22).

End of run fixture in pattern (see note).

NOTE: For an end of run fixture in a pattern, refer to end cap installation steps found in step 4 (page 14). Once end cap is installed, return to step 13 (page 20) to complete installation steps.

NOTE: Below are three common connections for a corner fixture (CN) to a straight or adjusted-length fixture based on the catalogue layout and layout drawings.



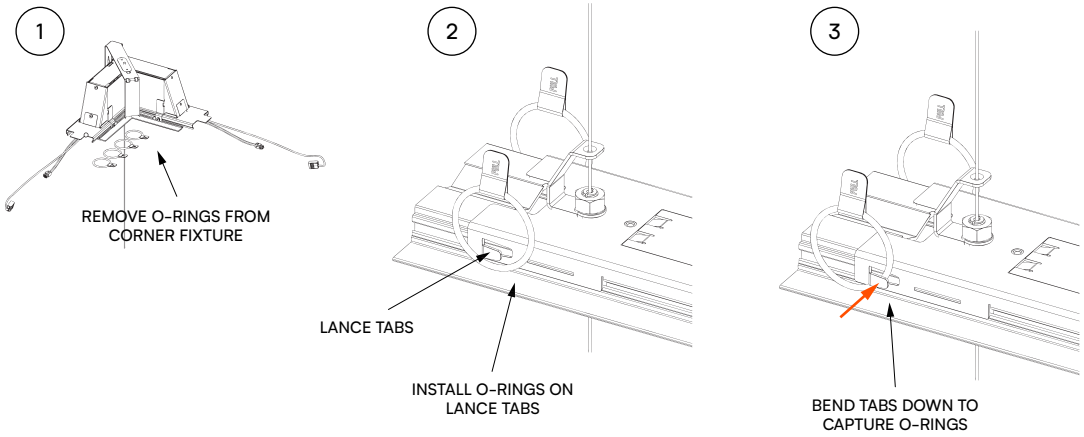
Exposed Flange/Trim Patterns (CT)

13 For a Straight Fixture to a Corner

Gather a corner fixture (CN).

1. Remove the four o-rings from the corner fixture.
2. Install two o-rings onto the connecting end of the straight fixture that is to be suspended.
3. Bend the lance tabs down to capture the o-rings.

Continue to Step 14.



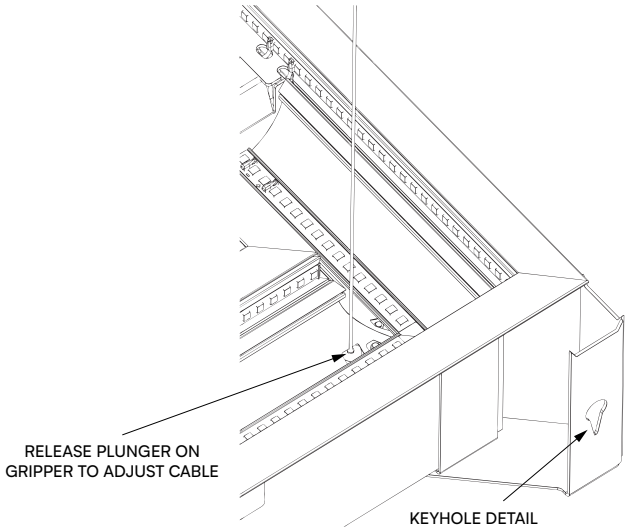
Exposed Flange/Trim Patterns (CT)

14 For a Straight Fixture to a Corner Continued

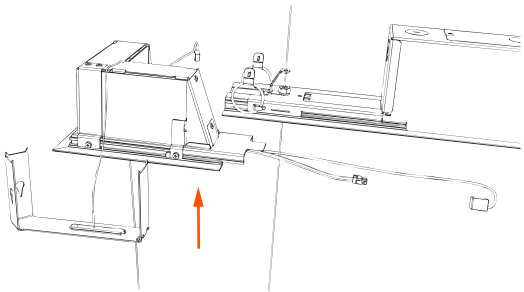
NOTE: The suspension cable attaching corner mount bracket to corner fixture will have ~2ft of length with ~10" of accessible cable from below. If the cable needs adjustment, turn the fixture over to access the cable gripper. Pull on the release plunger on the gripper to adjust the suspension cable length.

IMPORTANT: do not fully remove the cable from the gripper leave ~6"-8" below the optical cavity. Be careful to not damage or dislodge the reflector.

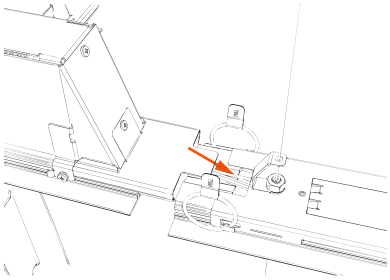
4. Gather the corner fixture and raise up to the connecting fixture.
5. Feed corner fixture ground wire and corner harness wires through opening on the connecting fixture.
6. Carefully bring the fixtures together until flush.
7. Secure together by pulling o-rings over tabs on the corner fixture.



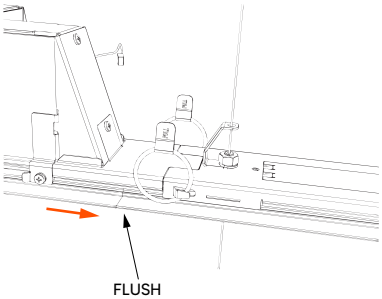
4
RAISE CORNER FIXTURE



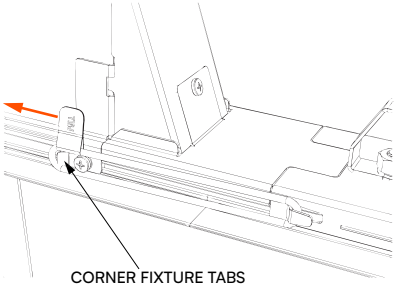
5
FEED GROUND WIRE AND HARNESS THROUGH OPENING



6
BRING TOGETHER UNTIL FLUSH



7
PULL O-RINGS OVER CORNER TABS



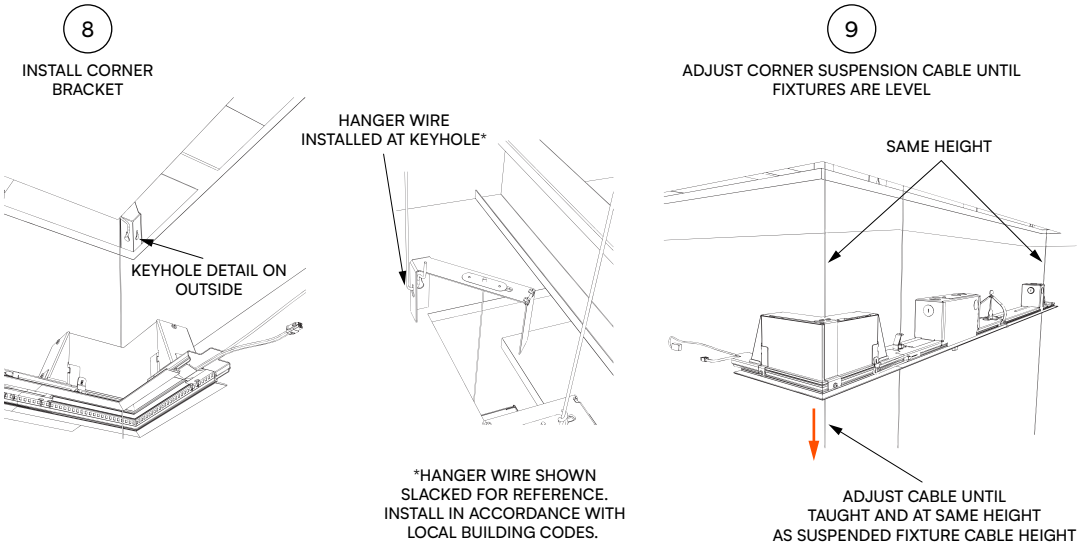
Exposed Flange/Trim Patterns (CT)

15 For a Straight Fixture to a Corner Continued

8. Raise the corner bracket and install the bracket with the keyhole detail on the outside of the cutout. Press down on the bracket to pierce the top of the drywall board.

Optional step (per local building codes and authorities having jurisdiction): if hanger wire is installed, secure hanger wire to corner bracket to keyhole detail.It is recommended to use hanger wire on the corner bracket.

9. Raise or lower the corner fixture suspension cable to be level with the suspended connecting fixture.



16 For an Adjusted-length Fixture to a Corner Fixture

There are two conditions to connect the adjusted-length fixture to the pattern.

A. Before raising into the ceiling cutout

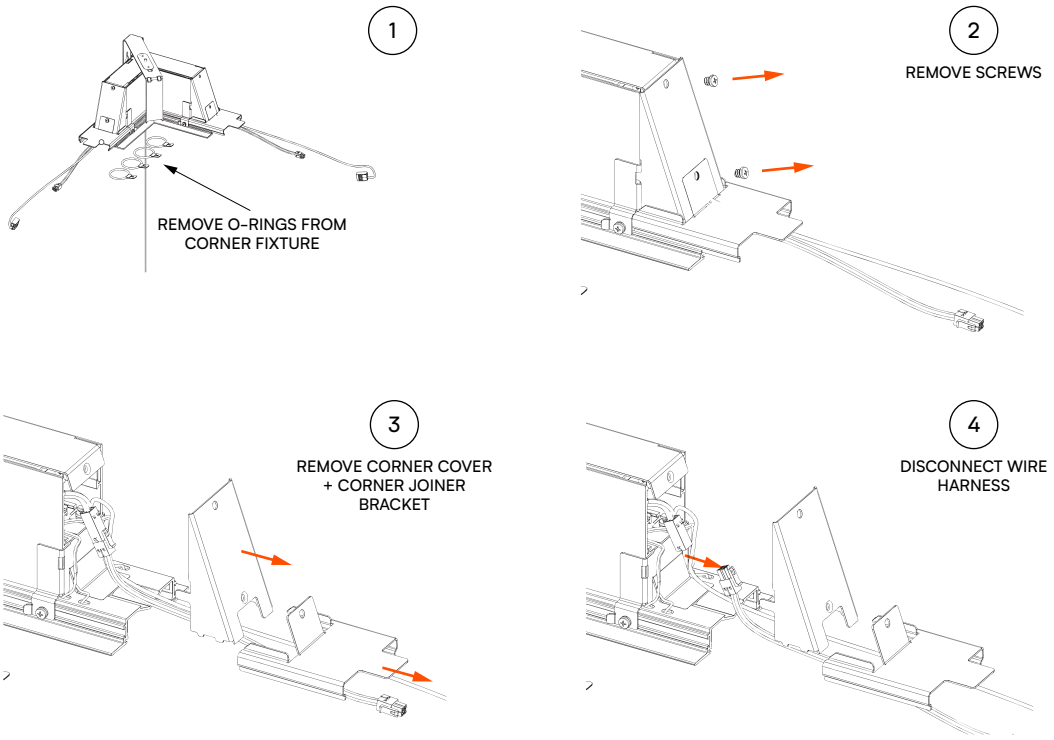
B. Attaching to a corner that is already suspended from the ceiling

Exposed Flange/Trim Patterns (CT)

17 Prepare for Conditions A+B: For an Adjusted-length Fixture to a Corner Fixture

Prepare corner fixture for adjusted-length fixture connections

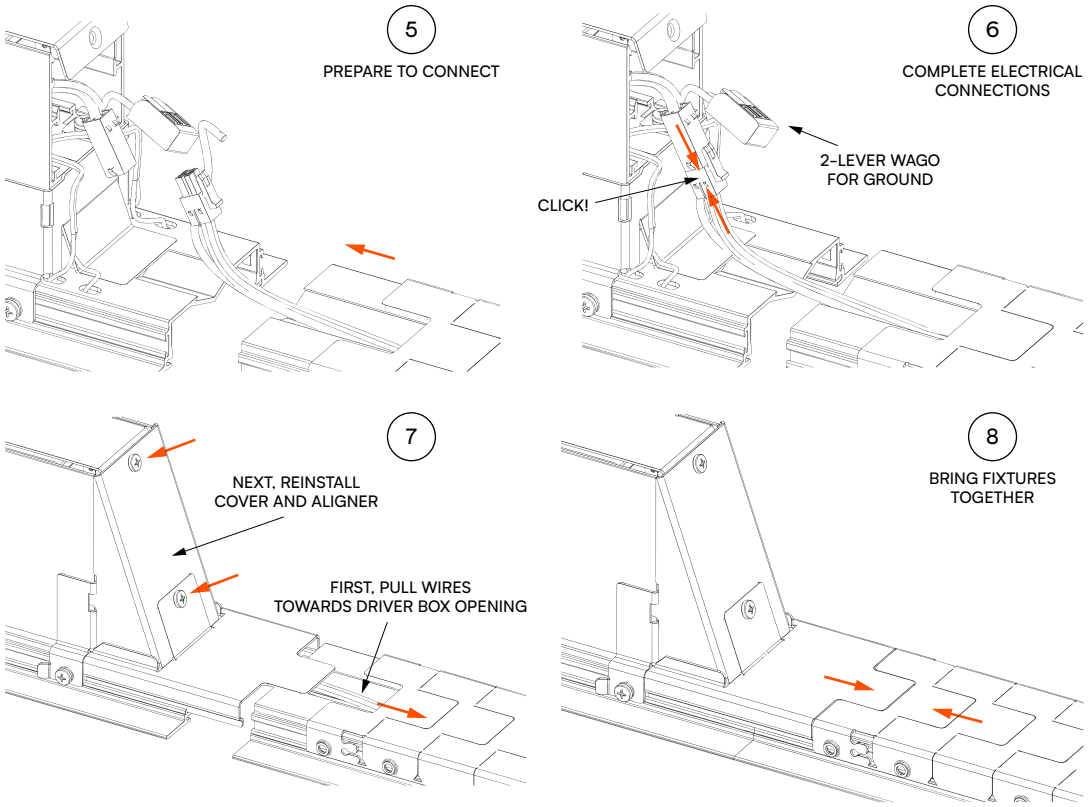
1. Gather a corner fixture and remove O-rings from the corner fixture.
2. Remove the screws holding the corner cover and corner joiner bracket
3. Remove the corner cover and joiner bracket from corner fixture
4. Disconnect corner fixture ground wire from the 2-lever WAGO and disconnect corner wire connector harness from the corner fixture connector.



Exposed Flange/Trim Patterns (CT)

18 Condition A: For an Adjusted-length Fixture to a Corner Fixture

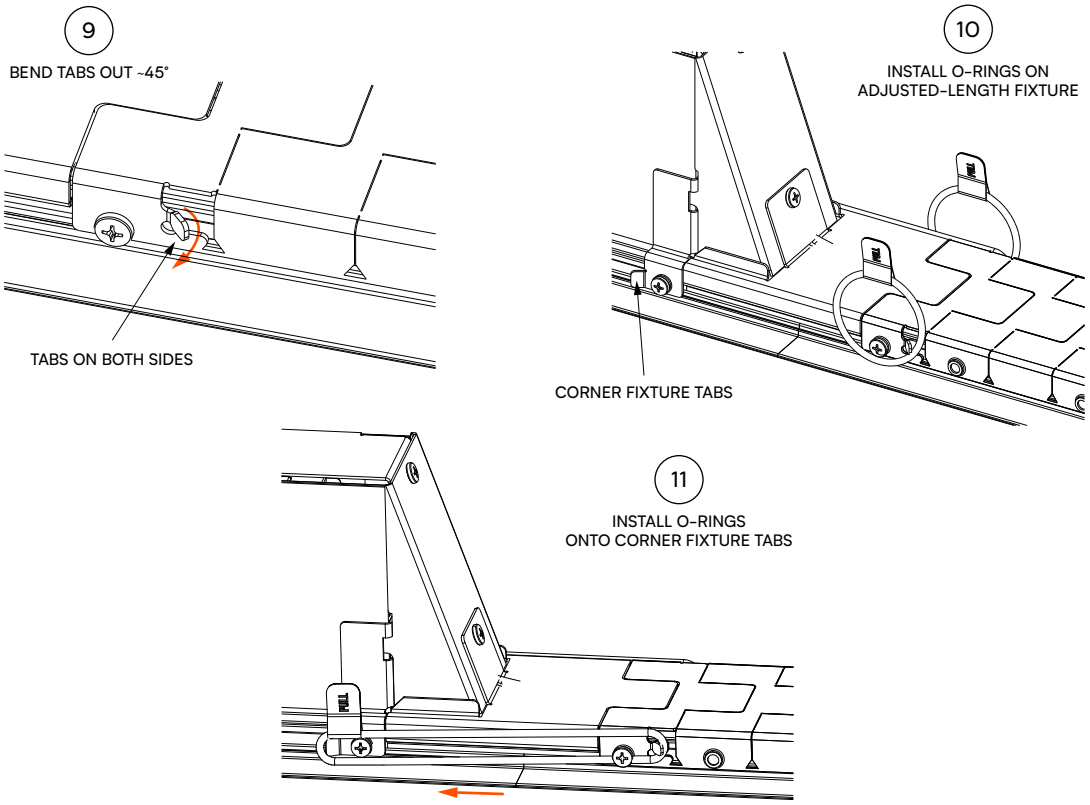
5. Gather the adjusted-length fixture and prepare to connect to corner fixture.
6. Connect the adjusted-length wire harness and ground wire to the corner wire harness and ground wire.
7. Pull the wires carefully from the adjusted-length fixture driver box's wire access opening. This allows for more space to feed the remaining wires into the corner fixture. Afterward, reinstall the corner cover and joiner bracket with the screws.
8. Carefully bring fixtures together by aligning the tabs on the joiner bracket end to the extrusion slot on the adjusted-length fixture.



Exposed Flange/Trim Patterns (CT)

19 Condition A: For an Adjusted-length Fixture to a Corner Fixture Continued

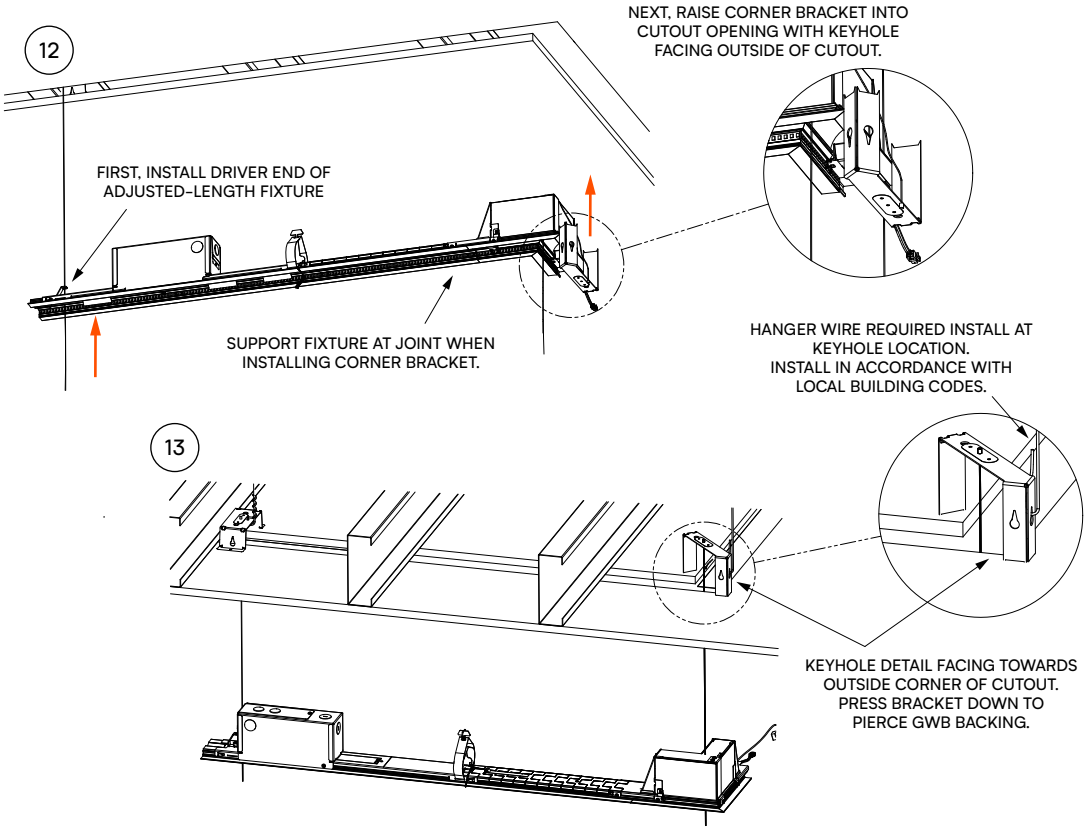
9. Bend out tabs on both sides of the adjusted-length fixture ~45 degrees.
10. Gather the o-rings and install them onto the bent out tabs on the adjusted-length fixture.
11. Pull the o-rings onto the retention tabs on the corner fixture to secure in place.



Exposed Flange/Trim Patterns (CT)

20 Condition A: For an Adjusted-length Fixture to a Corner Fixture Continued

12. Raise fixtures to suspension cables and install the driver end of the adjusted length fixture to the cable.
13. Raise the corner fixture bracket into the cutout opening and install to suspend the fixtures.



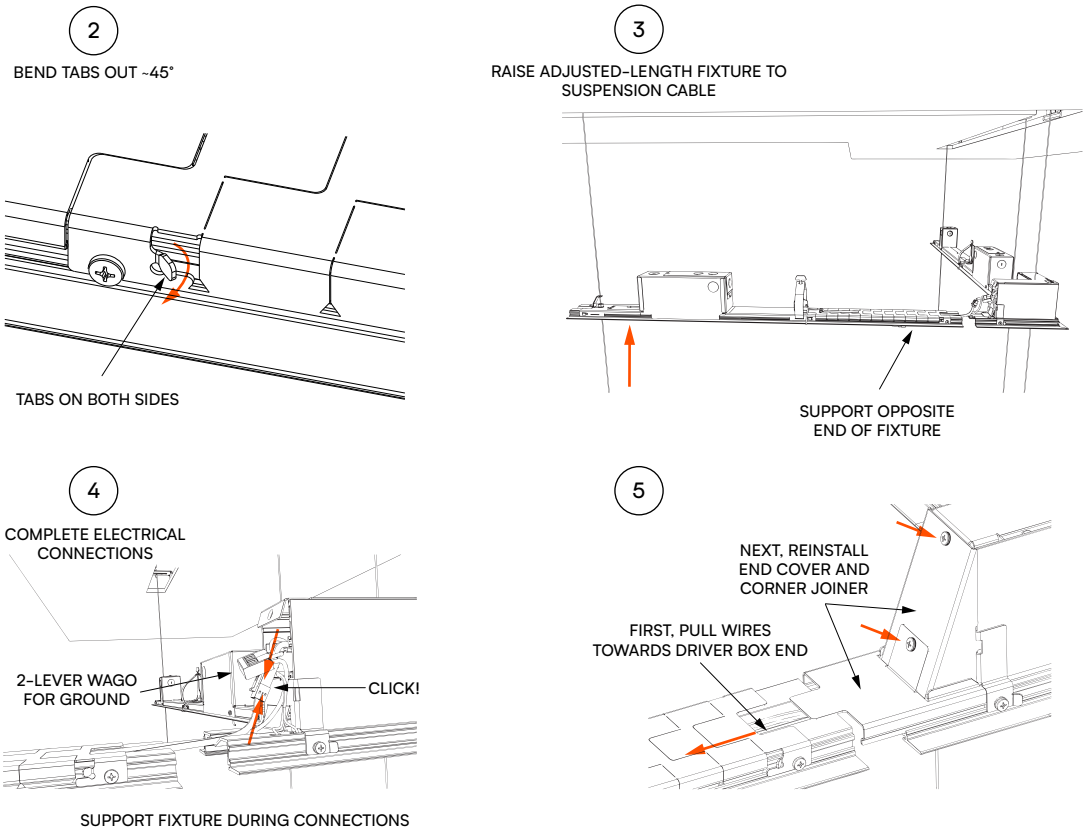
Exposed Flange/Trim Patterns (CT)

21 Condition B: For an Adjusted-length Fixture to a Corner Fixture

1. Repeat step 17 (page 23) to prepare the corner fixture for connection to the adjusted-length fixture.
2. Bend out tabs on both sides of the adjusted-length fixture ~45 degrees.

NOTE: ensure to have two of the o-rings ready to install while the fixture is raised.

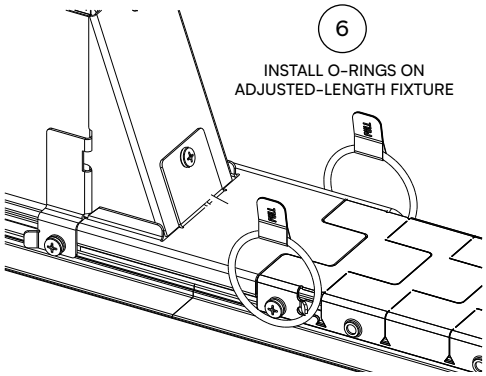
3. Raise adjusted-length fixture to the suspension cable and install the cable to the gripper.
4. Complete electrical connections.
5. Carefully pull the wires from the adjusted-length fixture driver box's wire access opening. This allows for more space to feed the remaining wires into the corner fixture. Afterward, reinstall the corner cover and corner joiner with the screws.

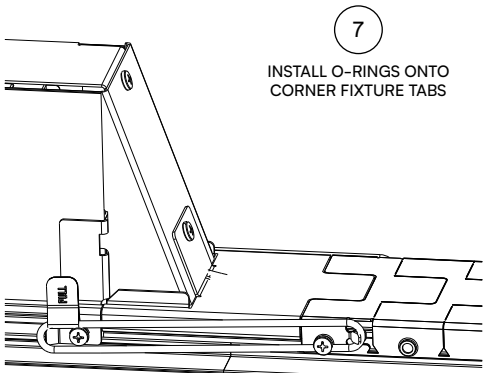


Exposed Flange/Trim Patterns (CT)

22 Condition B: Corner Fixture Connection to Adjusted-length Fixture Continued

1. Carefully bring fixtures together and install the o-rings onto the lance tabs on the adjusted-length fixture.
2. Pull the o-rings onto the retention tabs on the corner fixture to secure in place.

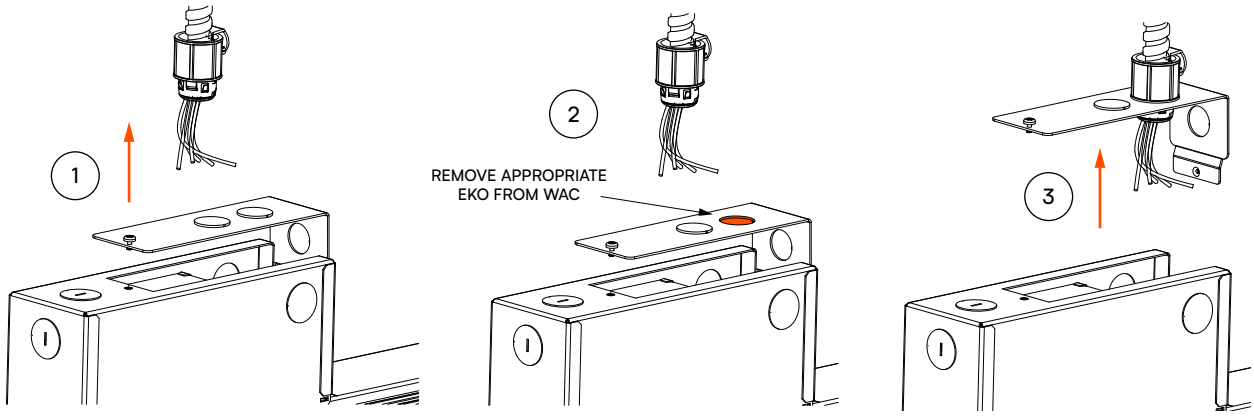




Electrical Connections

23 Prepare Power Connection – Driver box

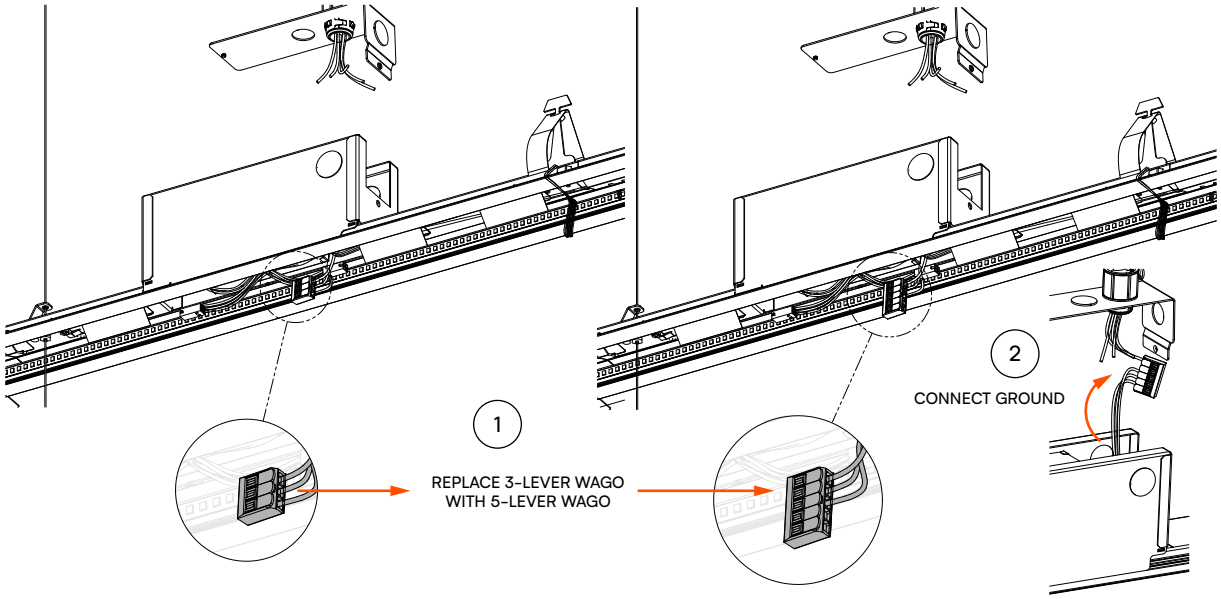
1. Loosen captive screw from driver box to remove wire access cover (WAC) from driver box.
2. Remove EKO.
3. Install WAC onto an armored cable *(quick connect shown for reference)*.



Exposed Flange/Trim Patterns (CT)

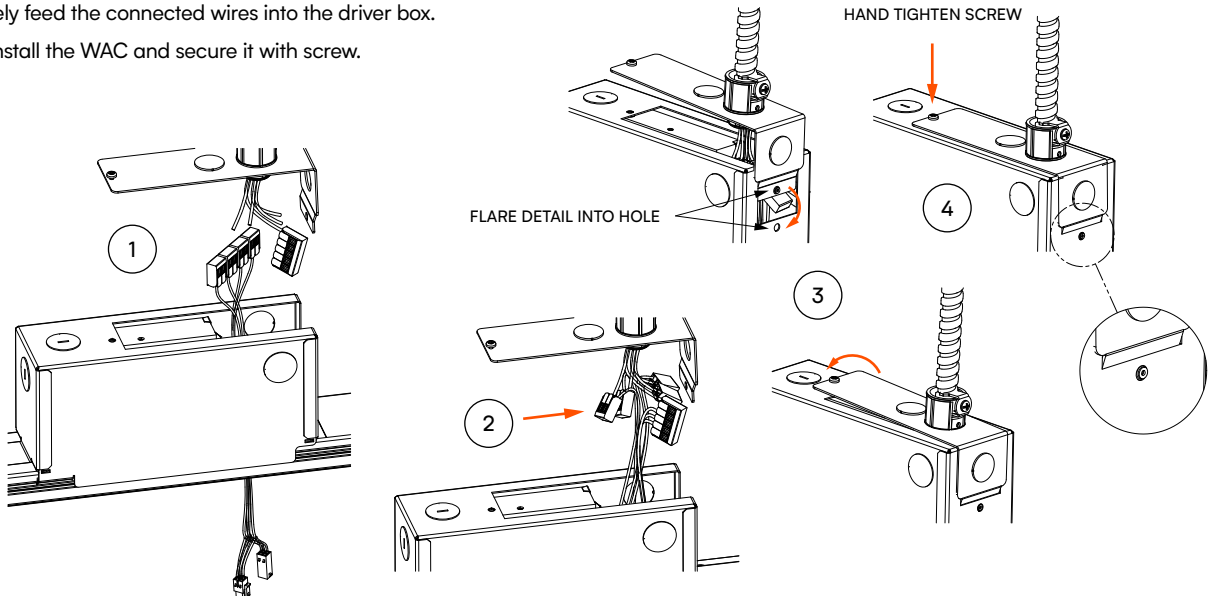
24 Gather the Power Drop Kit and Make Ground Connection – Driver Box

1. Replace 3-Lever WAGO connecting the ground wires with provided 5-Lever WAGO.
2. Pass ground wire WAGO up to supply ground to connect to supply ground first.



25 Connect Power Drop Harness – Driver Box

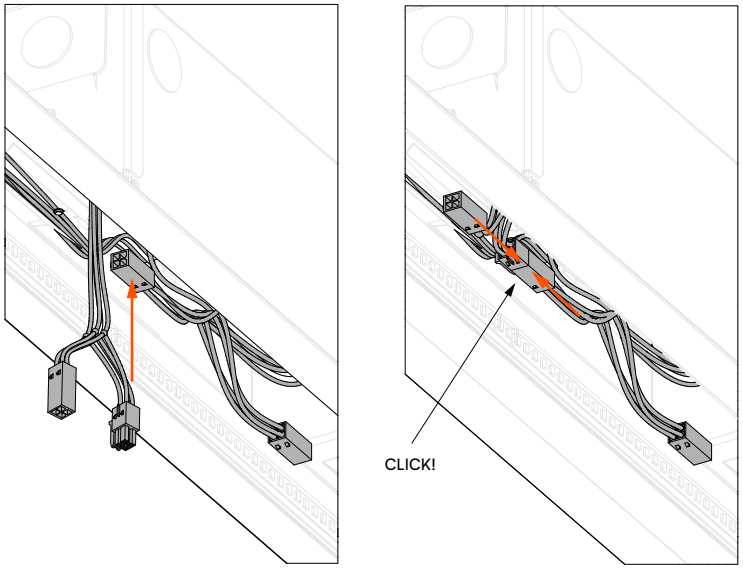
1. Pass the power drop harness through the driver box.
2. Connect the 2-Lever WAGOs to complete electrical connections to supply.
3. Safely feed the connected wires into the driver box.
4. Reinstall the WAC and secure it with screw.



Exposed Flange/Trim Patterns (CT)

26 Connect Power Drop to Fixture Connectors – Driver Box

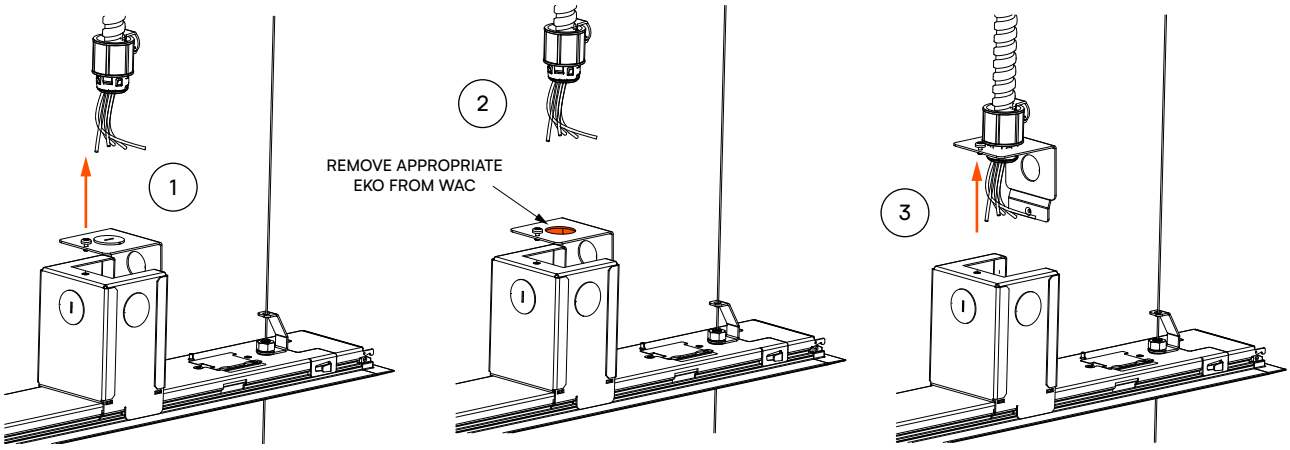
Connect the power drop harness connector to the driver connector harness to complete the electrical connection.



BEFORE CONNECTION AFTER CONNECTION

27 Prepare Power Connection – Jumper Box

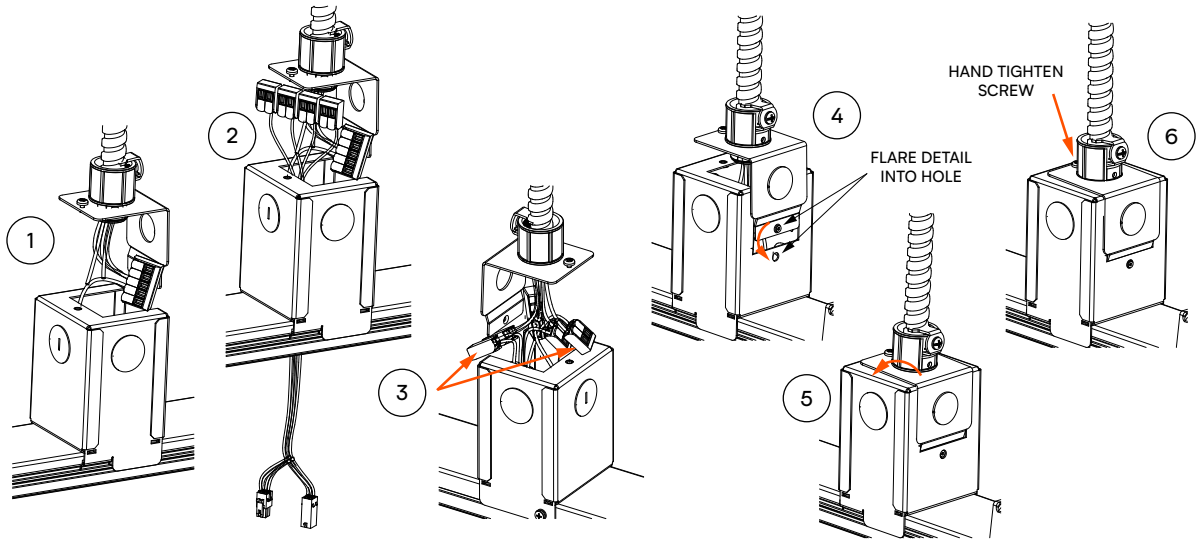
1. Loosen the captive screw from the jumper box to remove WAC from the jumper box.
2. Remove EKO.
3. Install WAC onto an armored cable (quick connect shown for reference).



Exposed Flange/Trim Patterns (CT)

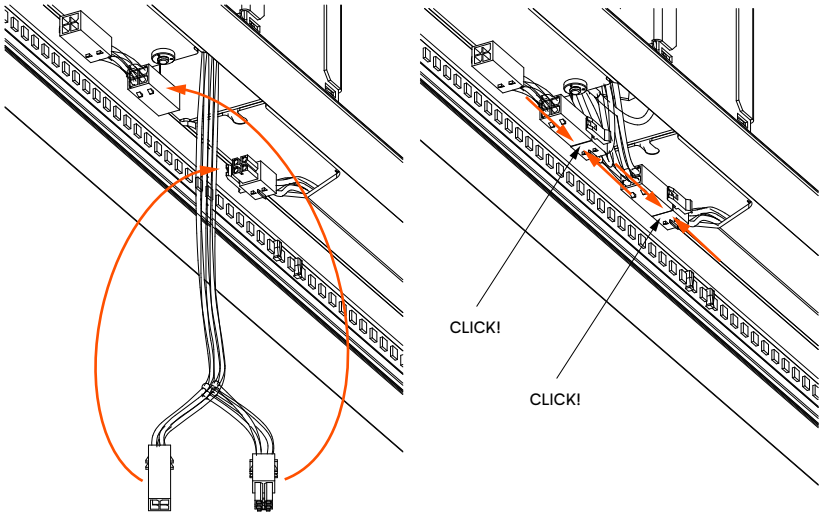
28 Gather the Power Drop Kit and Make Electrical Connection – Jumper Box

1. Connect ground wire to supply ground and connect with provided 5-Lever WAGO from the power kit.
2. Feed power drop harness through jumper box.
3. Secure the supply leads to the 2-Lever WAGOs to the power drop connections.
4. Reinstall jumper WAC, inserting flare detail into hole.
5. Lower WAC to jumper box.
6. Fasten with screw.



29 Make Power Connections + Prepare Next Mount Location

Connect the power drop connectors between the pass thru connector and jumper box connector harness. Refer to Step 10 under ceiling preparation section to determine the next mounting bracket and suspension cable location.

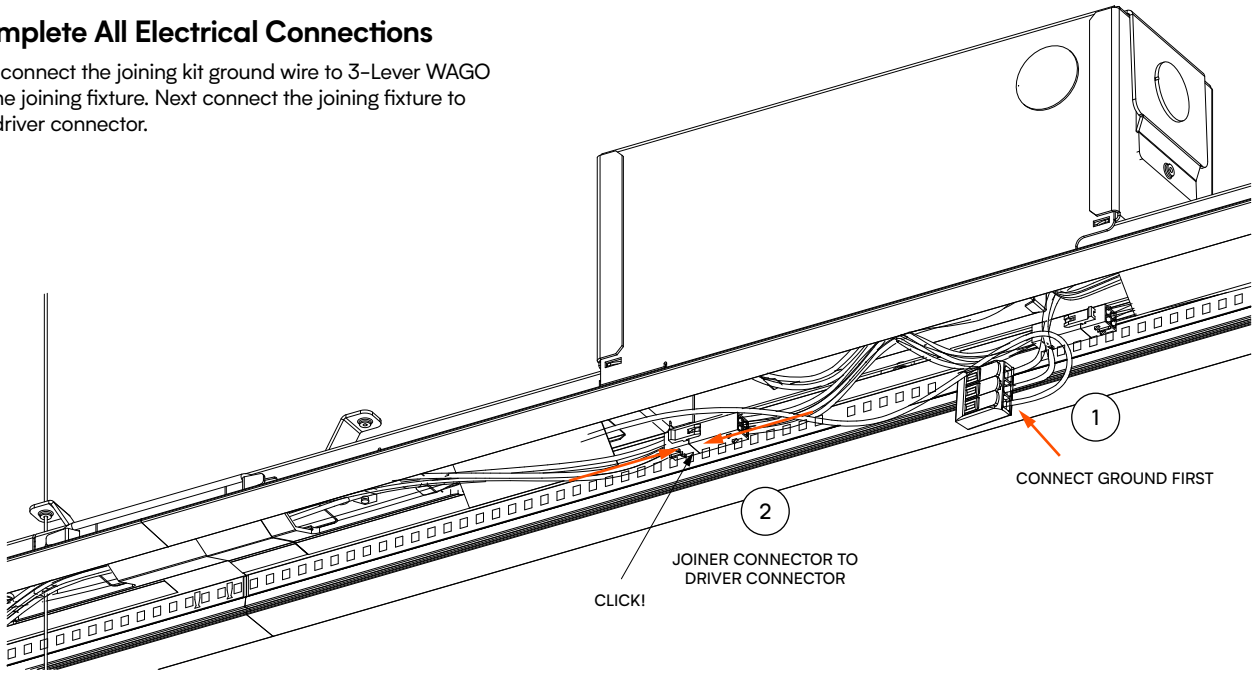


BEFORE CONNECTION AFTER CONNECTION

Exposed Flange/Trim Patterns (CT)

30 Complete All Electrical Connections

First connect the joining kit ground wire to 3-Lever WAGO on the joining fixture. Next connect the joining fixture to the driver connector.

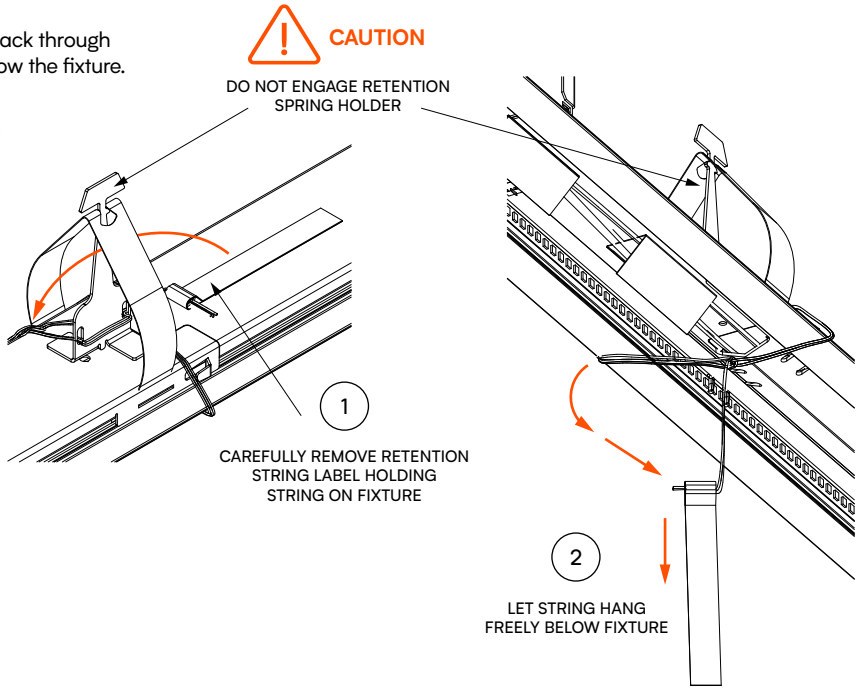


Installation–Raise Pattern and Finishing Steps

31 Prepare Fixture to Raise Into Opening

1. Carefully remove the retention spring string label holding the string to the housing.
2. Feed the string with the label still on swag back through the spring loop to allow it to freely hang below the fixture.

DO NOT PULL DOWN ON STRING. THIS WILL ACTIVATE THE RETENTION SPRING AND IT WILL NEED TO BE RESET.

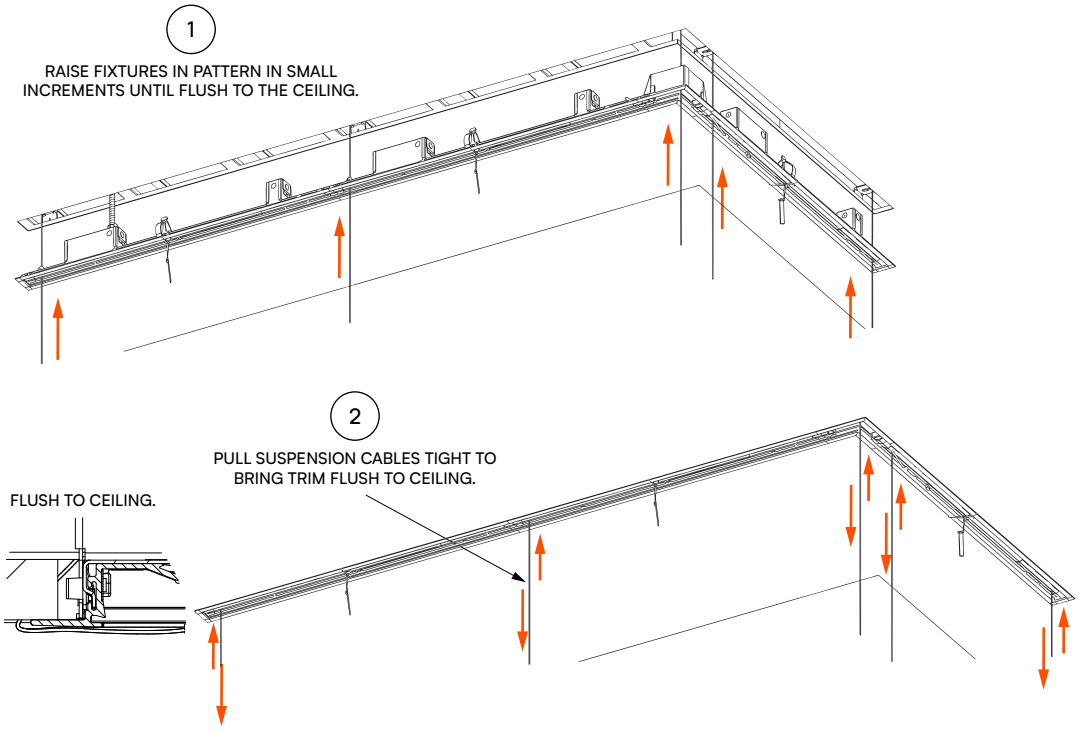


Exposed Flange/Trim Patterns (CT)

32 Raise Joined Pattern Into the Opening Until Flush

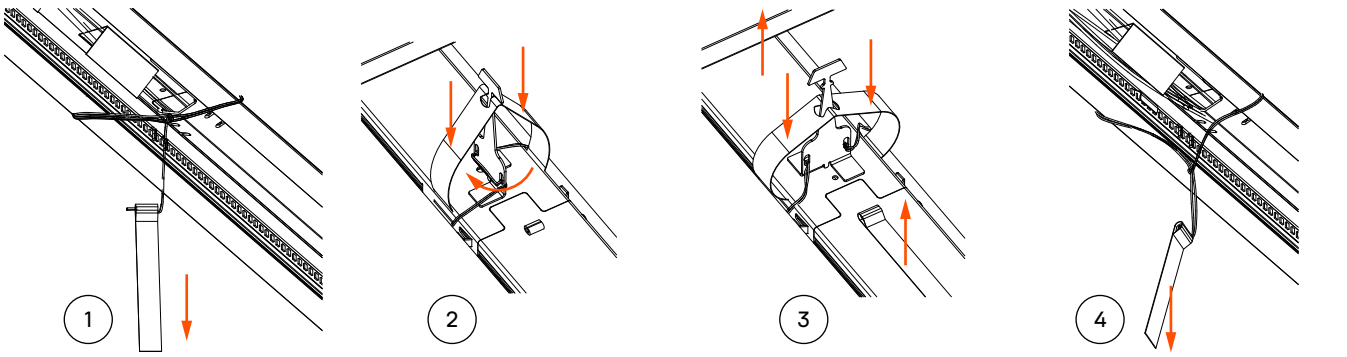
Carefully raise the pattern slowly in small increments to maintain the straightness of the pattern as it is raised into the opening until flush. Pull suspension cables taut to ensure the pattern is flush to the ceiling. Be mindful not to activate the retention spring clips while raising the pattern.

Once the pattern is flush to the ceiling and tight, proceed to the next step for instructions to activate the retention spring and remove the retention spring string from the fixtures.



33 Pull Retention Spring String to Engage Retention Spring

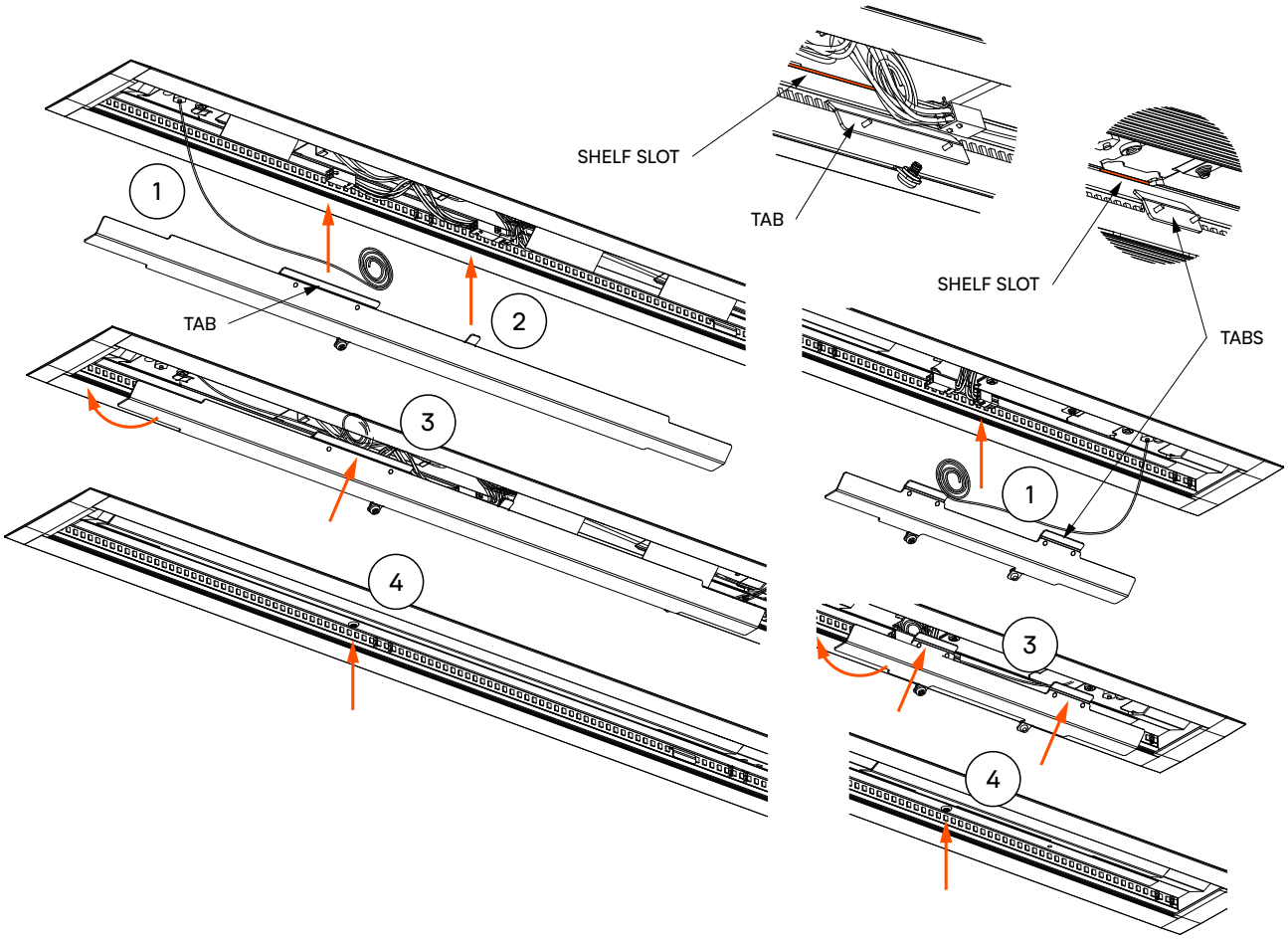
The retention spring will engage once the string is pulled to help suck the fixture into the opening and flush to the ceiling.



Exposed Flange/Trim Patterns (CT)

34 Reinstall Access Cover Plates

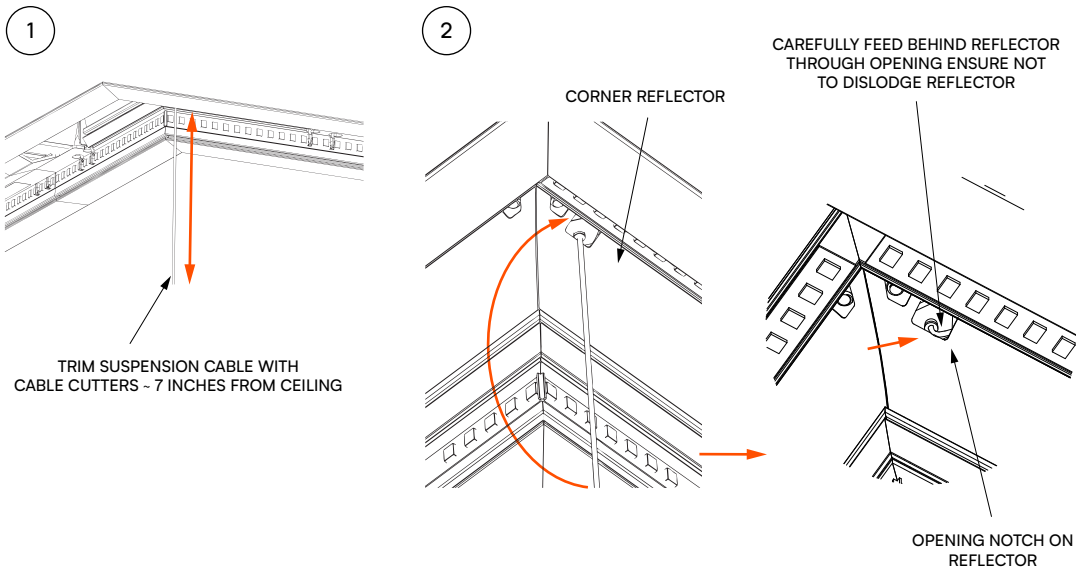
1. Coil and safely tuck excess suspension cables into the driver cavity and jumper box cavity.
2. Safely tuck wires into the driver cavity.
3. Reinstall cover plates, slot the none screw side with the tab(s) into the shelf slot and rotate up to flush.
4. Ensure all wires are safely tucked in before securing in place with the provided screw.



Exposed Flange/Trim Patterns (CT)

35 Trim Corner Suspension Cable and Tuck Behind Reflector

1. Trim the corner suspension cable cleanly with cable cutters. Leave ~7" from the ceiling of the cable.
2. Carefully feed cable in behind the corner reflector. Ensure not to dislodge the reflector as installed.



Exposed Flange/Trim Patterns (CT)

Lens Installation

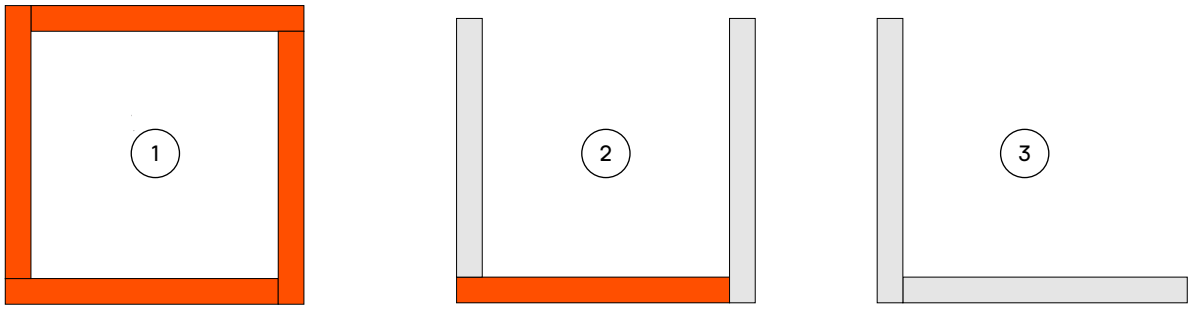
36 Lens Install at the Corner in a Pattern

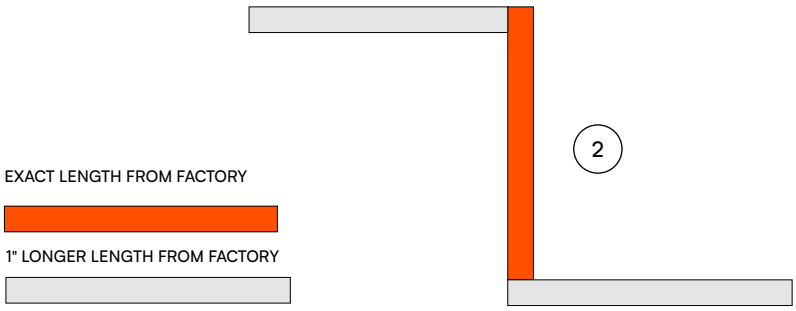
The fixture type in the layout drawing will match the type on the lens label.

Once you have identified the lenses for the pattern. Review the below three conditions for how the lens in a pattern is to be installed.

1. Closed shape: square or rectangle, must be installed in a head to tail sequence as seen in image 1 below.
2. Open shape: U + Z shapes will have one exact lens cut to length from factory, with two end lenses that will be 1" longer to be shortened on site during the final step of lens install (by others).
3. Open shape: L shapes will have two end lenses that will be 1" longer to be shortened on site during the final steps of lens install (by others).

Once the pattern and lens segments have been identified proceed to the next step to begin the installation steps.



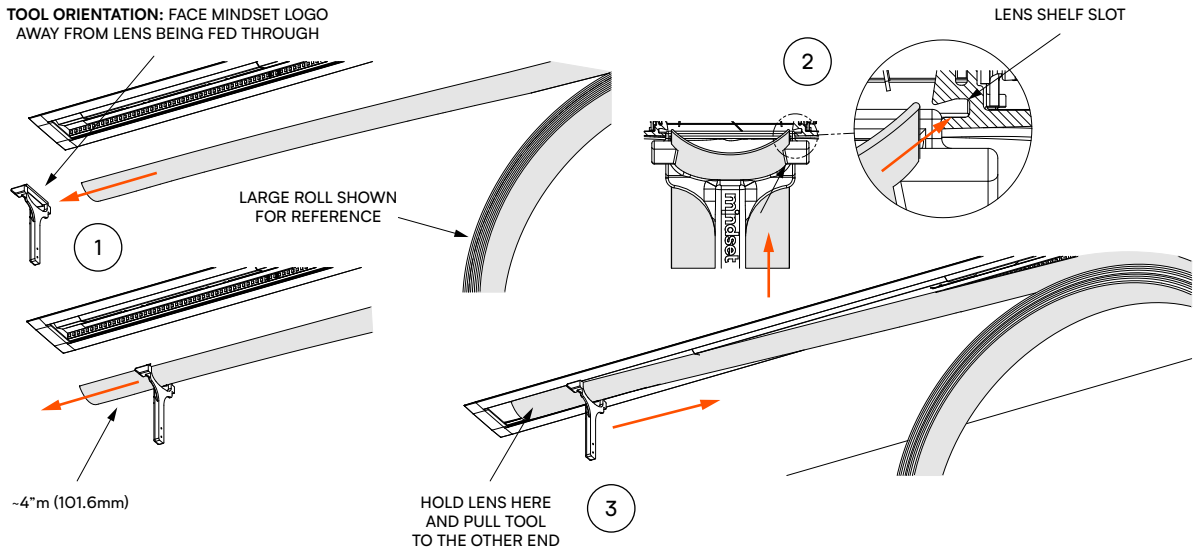


Exposed Flange/Trim Patterns (CT)

37 Install Continuous Lens

Gather lens roll and lens installation tool.

1. Insert non-dominant arm through lens roll and rest roll on shoulder.
2. Next take one end of the start of the lens roll. Note: the orientation of the tool is important see image. Bend with your hand and feed through the install tool. Allow for ~4" of the folded lens to pass through the tool to provide enough length for the lens to feed into the shelf. Raise to fixture aperture and insert lens into lens shelf slots.
3. Hold the lens and push the lens tool into aperture and slide the tool along the trim face. The lens will feed into the shelf pocket. Slide to the opposite end, stop ~1ft before you reach the end.

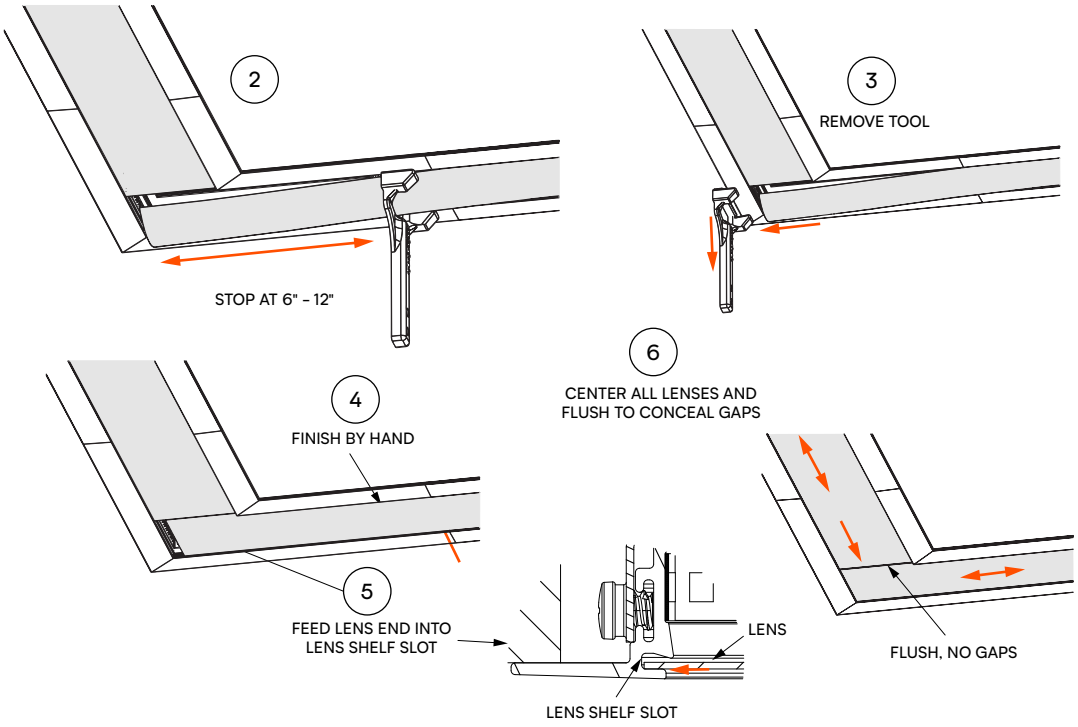


Exposed Flange/Trim Patterns (CT)

38 Lens Install for a Corner Intersection

Gather the next lens segment in the pattern for a corner intersection.

1. Repeat Step 37 (page 37) to start the lens installation from an end condition.
2. When you reach approximately 6"-12" from the corner intersection stop.
3. Slide the lens install tool off the end of the lens.
4. Complete the installation by hand, run your hand and push gently up along the remaining length.
5. Ensure to feed the end of the lens at the corner intersection into the lens shelf slot in the corner fixture.
6. Center all lenses for all apertures and flush lenses against the corner edges to conceal any gaps.

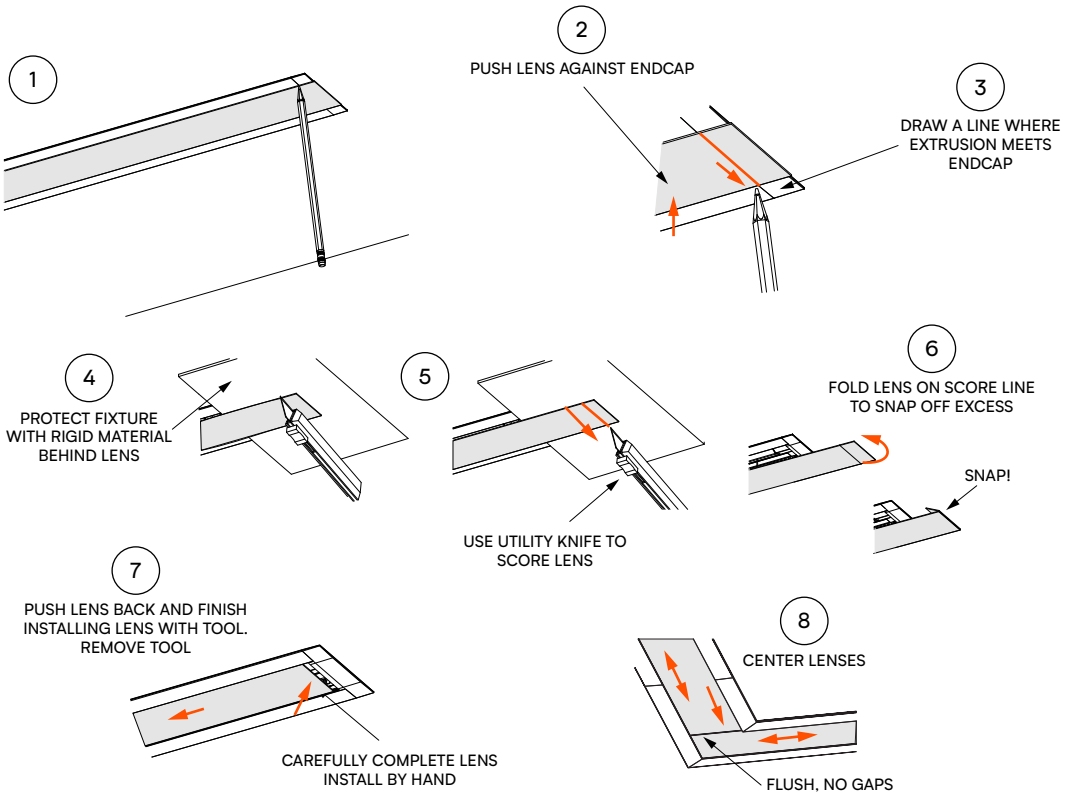


Exposed Flange/Trim Patterns (CT)

39 Lens Install for End Condition

At ~1 ft from the end of the pattern, stop and slide the lens install tool off the end of the lens

1. Slide the lens towards the corner fixture and ensure the lens tucks into the lens shelf slot until it stops (see step 38 sub-step 5 on page 38 for instructions on feeding lens into the shelf slot detail).
2. Push lens flush to the endcap shelf edge. The edge can be seen through the lens.
3. Draw a line on the lens where the extrusion and endcap meet.
4. Next pull the lens out ~8" to 10" past the end of the fixture. Obtain a piece of rigid material (e.g. scrap corrugated fiberboard) and place the board behind the lens.
5. Use the utility knife to score along the line to create a snap line.
6. Remove the board and fold the lens over itself to snap the lens along the scored line.
7. Push lens back to starter end until it stops. Finish installing the lens with the tool until the end and slide tool out.
8. Center all lenses for all apertures to conceal any gaps.

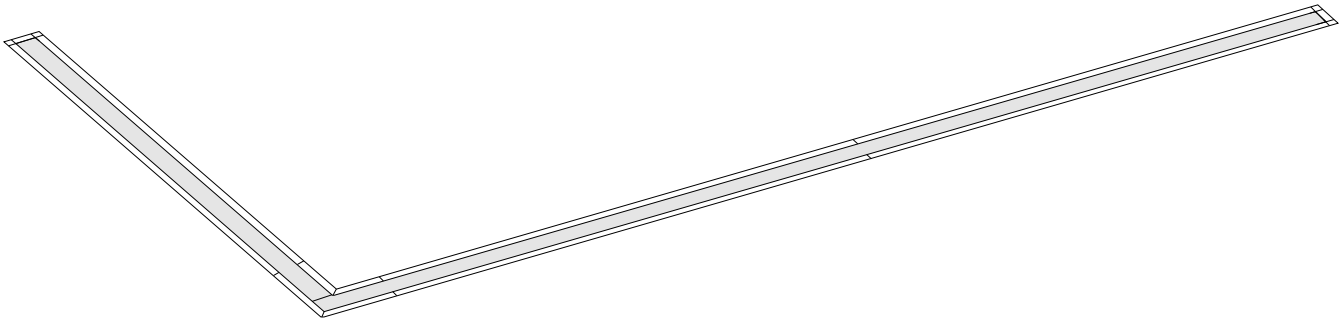


Exposed Flange/Trim Patterns (CT)

40 Pattern installed

All lenses centered.

Finished L pattern shown for reference.



Exposed Flange/Trim Patterns (CT)

Additional Steps – Appendix

Driver + Jumper Box: Adjust to avoid studs or obstacles in the cutout path.

Mounting Brackets: Modify if the cutout edge is flush with parallel stud.

Spring Clips: Move or reinstall if stud interference occurs or if the clip activates prematurely.

Suspension Cable Gripper Adjust + Move + Remove:

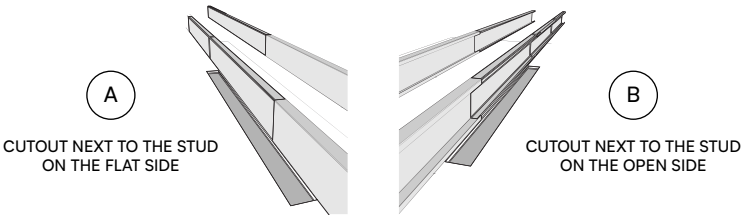
Lens: Removal may be required for troubleshooting.

Contact the factory for assistance if you have any questions.

Reference

CASE A: Cutout next to the stud on the flat side

CASE B: Cutout next to the stud on the open side



Exposed Flange/Trim Patterns (CT)

1 Driver + Jumper Box Adjustments Diagram + Table

IMPORTANT: The modular fixtures offer 180° rotation, which supplements the adjustments available on the driver and jumper boxes. Simply rotating a fixture 180° to clear an obstruction typically does not require any corresponding adjustments to the driver or jumper box.

IMPORTANT: All measurements are from the end of the fixture without endcaps installed.

NOTE: The dimensions found in Table 1 are the same for all nominal lengths as measured from the end of the fixture with endcaps not installed.

NOTE: The dimensions found in Table 2 provide the distance between the driver box and jumper box for each nominal fixture length from 4ft to 8ft in each combination of positions.

To determine if an adjustment is necessary, measure the distance from the cutout opening to the stud face.

For Trim (CT endcap): Add approximately 7/16" (11.1 mm) to this measurement.

Measure the fixture with a tape measure, starting from the end. If the measured distance aligns with D1 or J1, the driver or jumper box needs adjustment. Refer to Step 2 (Page 43) for adjustment instructions.

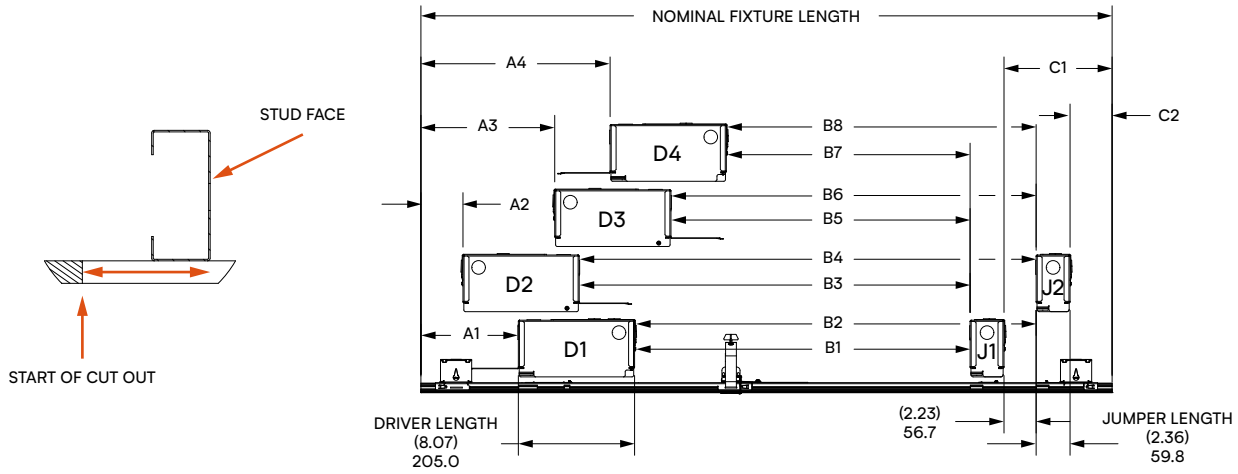


Table 1 – Distances for Dimensions A + C

A to D-Box	IN	MM	C to J-Box	IN	MM
A1 (D1)	6.77	171.9	C1 (J1)	7.51	190.7
A2 (D2)	2.92	74.2	C2 (J2)	2.92	74.2
A3 (D3)	9.29	236			
A4 (D4)	13.14	333.7			

Table 2 – Distances for Dimension B

	B*	IN	MM
	B1 (D1—J1)	23.3	591.8
	B2 (D1—J2)	27.89	708.3
	B3 (D2—J1)	27.14	689.5
4ft	B4 (D2—J2)	31.73	806
	B5 (D3 to J1)	20.77	527.6
	B6 (D3 to J2)	25.36	644.1
	B7 (D4 to J1)	16.93	429.9
	B8 (D4 to J2)	21.51	546.4

***NOTE:** For 5ft, 6ft, 7ft, and 8ft nominal fixture lengths. To calculate the B values add 12" (304.8 mm) for every additional foot. 5ft add 12", 6ft add 24", and so on.

E.g. To calculate the B1 value for a 7ft nominal fixture length:

Take the 4ft B1 value and add 36" to the B1 value.

7ft B1 = (23.3" + 36") = 59.3"
7ft B1 = 591.8 mm + 914.4 mm = 1506.2 mm

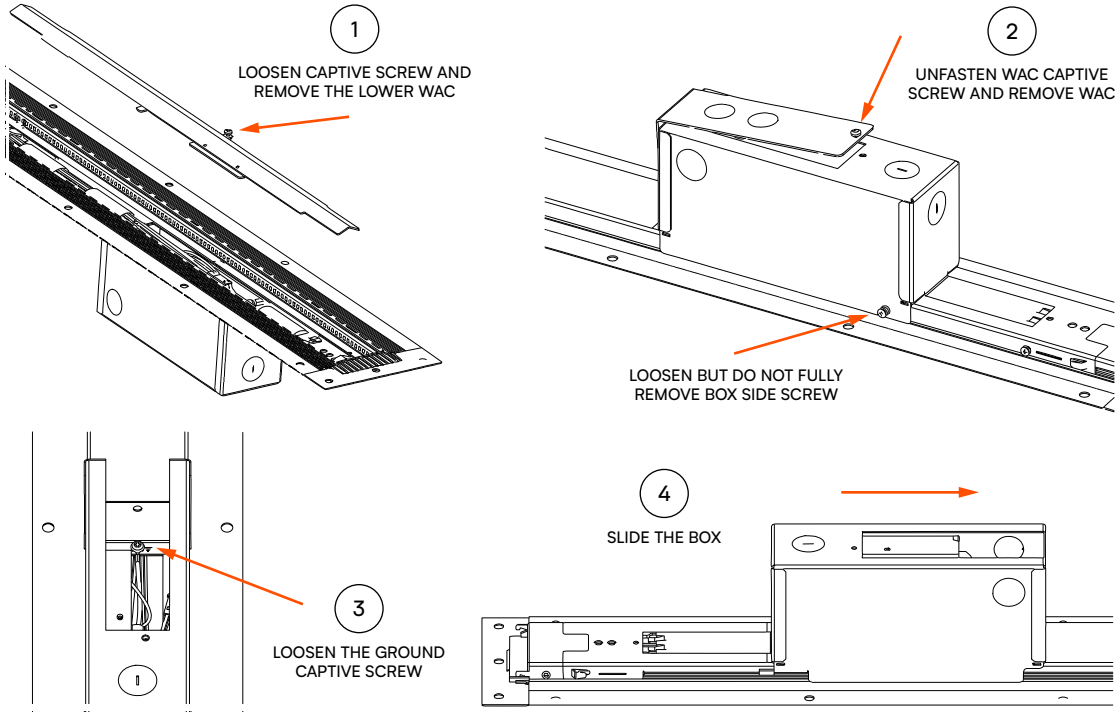
Exposed Flange/Trim Patterns (CT)

2 Driver Box Adjustments

When the driver box is to be adjusted, begin by turning the fixture over so the optical cavity is facing up.

1. Remove the wire access cover by loosening the captive screw.
2. Turn the fixture back over so the driver box is facing up. Loosen the captive screw holding down the WAC on the driver box and the screw on the side of the driver box.
3. Loosen the captive ground screw inside the driver box.
4. Slide the driver box over to free it for removal.

NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.



Exposed Flange/Trim Patterns (CT)

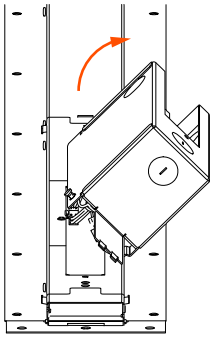
3 Driver Box Adjustments — Continued

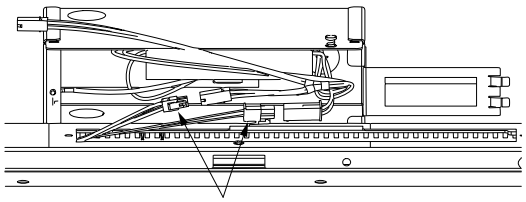
5. Rotate the drive box off the fixture and lay it on its side.
6. Disconnect all connectors. **NOTE:** If adjusting the driver box to Position D2, STOP and proceed to Step 5 (Page 46) for instructions. To prepare the top cover for adjustment positions D3 or D4, continue to Step 7 below.
7. Pull wires down below the opening.
8. Loosen the side screws to remove the top cover.

NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.

5

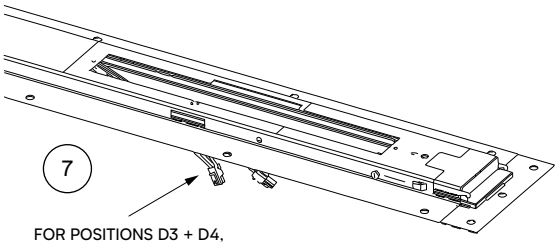
ROTATE BOX OFF OF THE FIXTURE





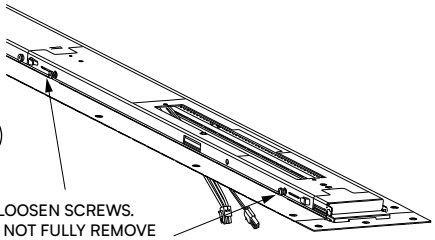
DISCONNECT WIRE HARNESSES

6



7

FOR POSITIONS D3 + D4, PUT THE BOX ASIDE AND PULL THE WIRING THROUGH THE LOWER ACCESS OPENING



8

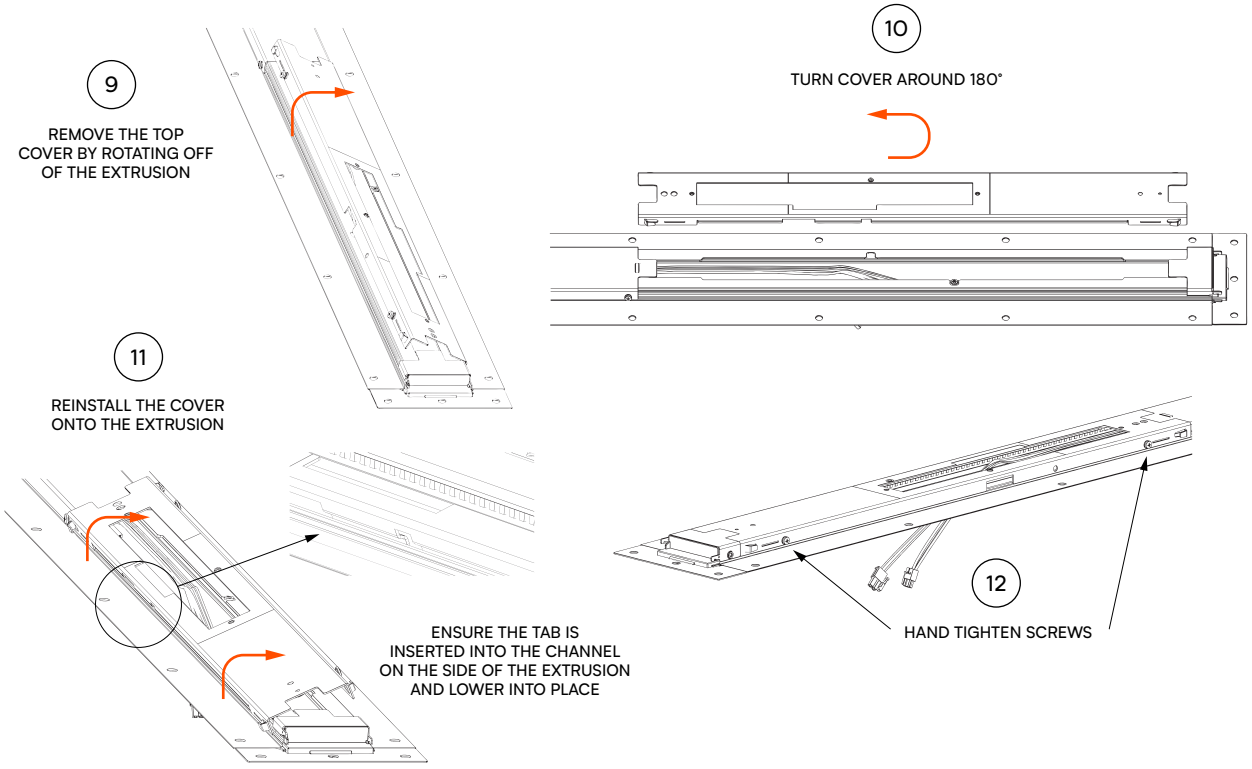
LOOSEN SCREWS. DO NOT FULLY REMOVE THE SIDE SCREWS FROM SHEET METAL TOP

Exposed Flange/Trim Patterns (CT)

4 Driver Box Adjustments — Continued

9. Remove the top cover.
10. Rotate the top cover 180°.
11. Reinstall the top cover, align the tabs to seat into the channel on the side of the extrusion. Once seated carefully lower the top cover down into place. **IMPORTANT:** Ensure not to trap any wires while reinstalling the top cover.
12. Hand tighten the screws to secure the top cover into place.

NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.



Exposed Flange/Trim Patterns (CT)

5 Driver Box Adjustments — Continued

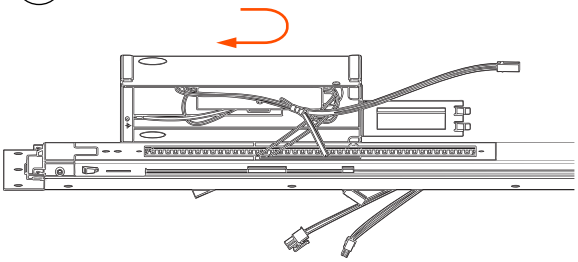
13. Rotate the driver box 180°.
14. Guide the wires back through the opening beneath the fixture.
15. Reattach the driver box. Align the tab on the driver box into the extrusion channel, then rotate the box down until it rests on the top of sheet metal. Rotate the driver box to rest on the top.

NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.

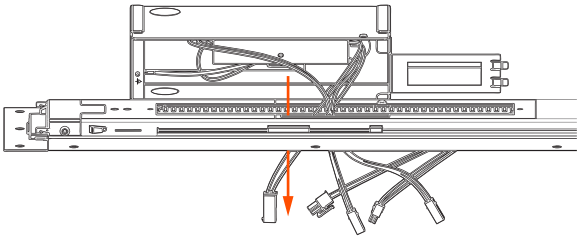
IMPORTANT: Before reinstalling confirm position D2, D3, or D4 and the orientation by checking the diagram in Step 1 (Page 42).

NOTE: D2 and D3 have the tongue with tabs to be facing the jumper box side. D1 and D4 have the tongue facing the end of the fixture.

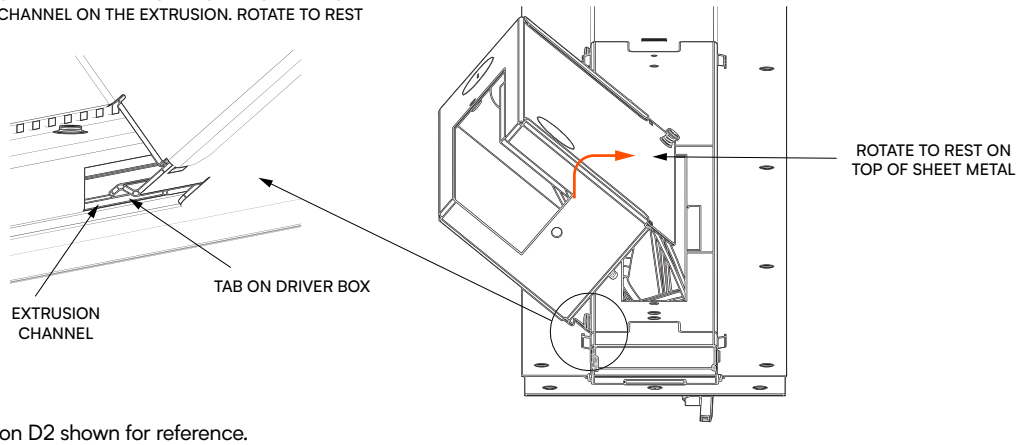
13 TURN BOX AROUND 180°



14 FEED WIRES THROUGH OPENING



15 REINSTALL THE DRIVER BOX BY SEATING TAB INTO THE CHANNEL ON THE EXTRUSION. ROTATE TO REST



NOTE: Position D2 shown for reference.

Exposed Flange/Trim Patterns (CT)

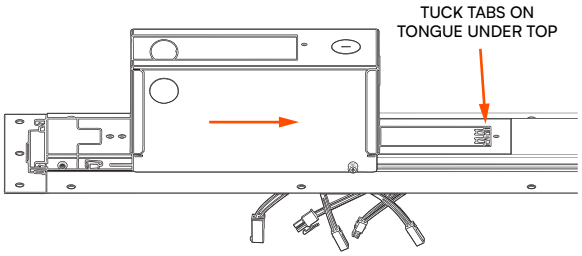
6 Driver Box Adjustments — Continued

16. Slide the driver box into place.
17. Reconnect the wiring harnesses.
18. Secure driver box ground screw to sheet metal top through the driver box WAC opening.
19. Reinstall and secure the WAC onto the driver box. Secure the WAC and driver box by hand tightening the screws.

NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.

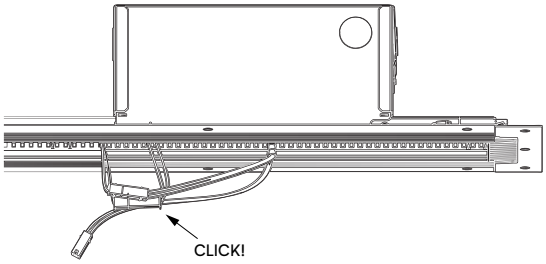
16

SLIDE DRIVER BOX INTO PLACE



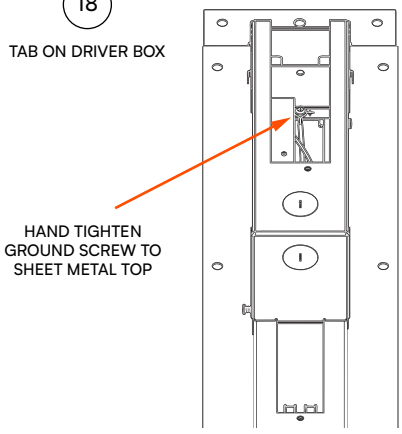
17

RECONNECT THE WIRES



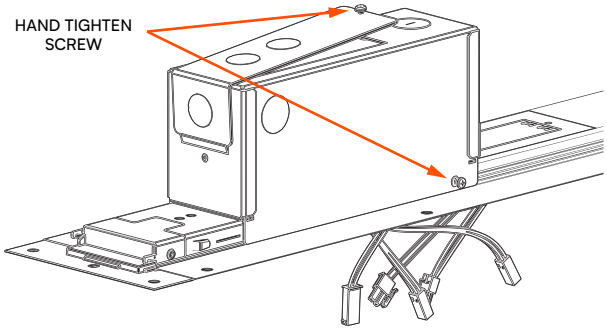
18

TAB ON DRIVER BOX



19

REINSTALL WAC AND SECURE
WITH CAPTIVE SCREW



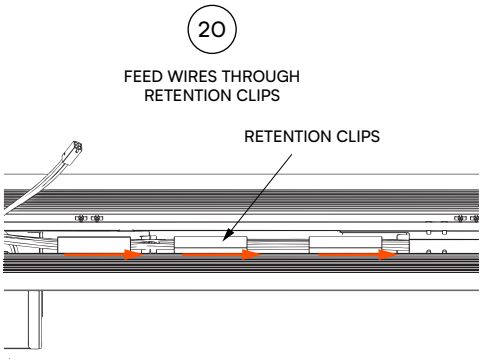
Exposed Flange/Trim Patterns (CT)

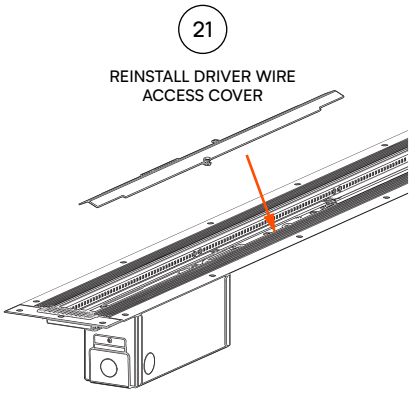
7 Driver Box Adjustments — Continued

20. Feed wires through the retention clips and secure in place.

21. Reinstall the driver wire access cover the same way it was uninstalled.

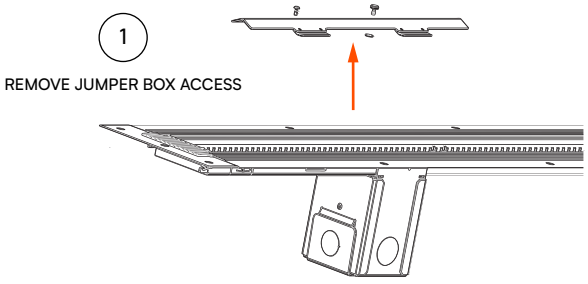
NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.

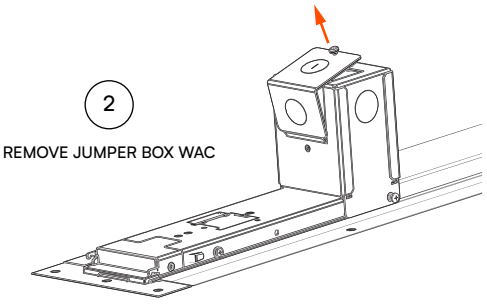


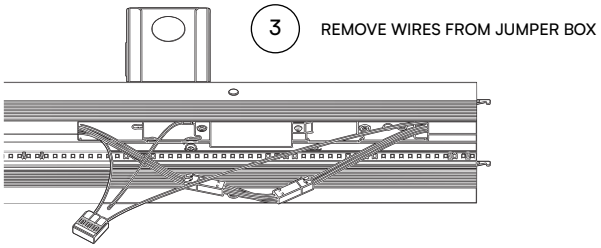


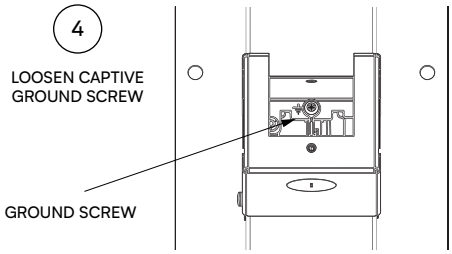
8 Jumper Box Adjustments

1. Remove jumper box cover plate. Leave the captive screw and nylon rivet attached to the plate.
2. Loosen screw on jumper box WAC to remove.
3. Pull wires down out of jumper box.
4. Loosen ground screw holding jumper box to sheet metal top.









Exposed Flange/Trim Patterns (CT)

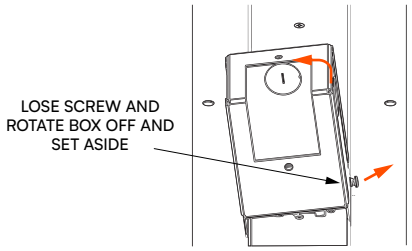
9 Jumper Box Adjustments — Continued

5. Loosen screw on side of jumper box and remove jumper box from fixture.
6. Loosen screw holding cover on end position and remove.
7. Reinstall the cover on the position the jumper box was on and secure in place by hand tightening the screw.
8. Gather the jumper box and reinstall it on the end position and rest on top insert tab into channel on extrusion.

NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.

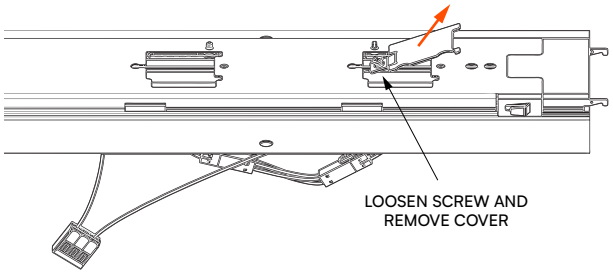
5

REMOVE JUMPER BOX FROM FIXTURE



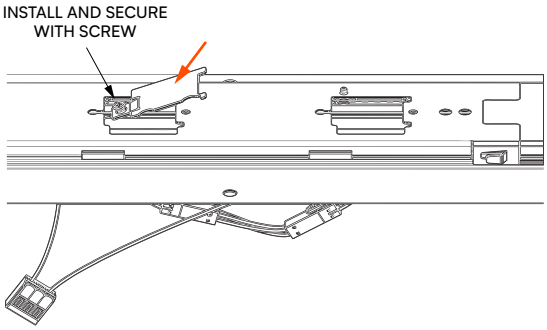
6

REMOVE JUMPER WAC



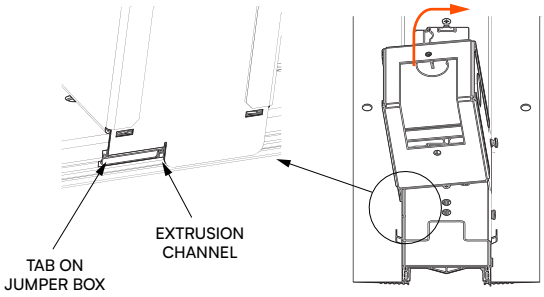
7

REINSTALL COVER ON
SECOND POSITION



8

REINSTALL JUMPER BOX IN
END POSITION



Exposed Flange/Trim Patterns (CT)

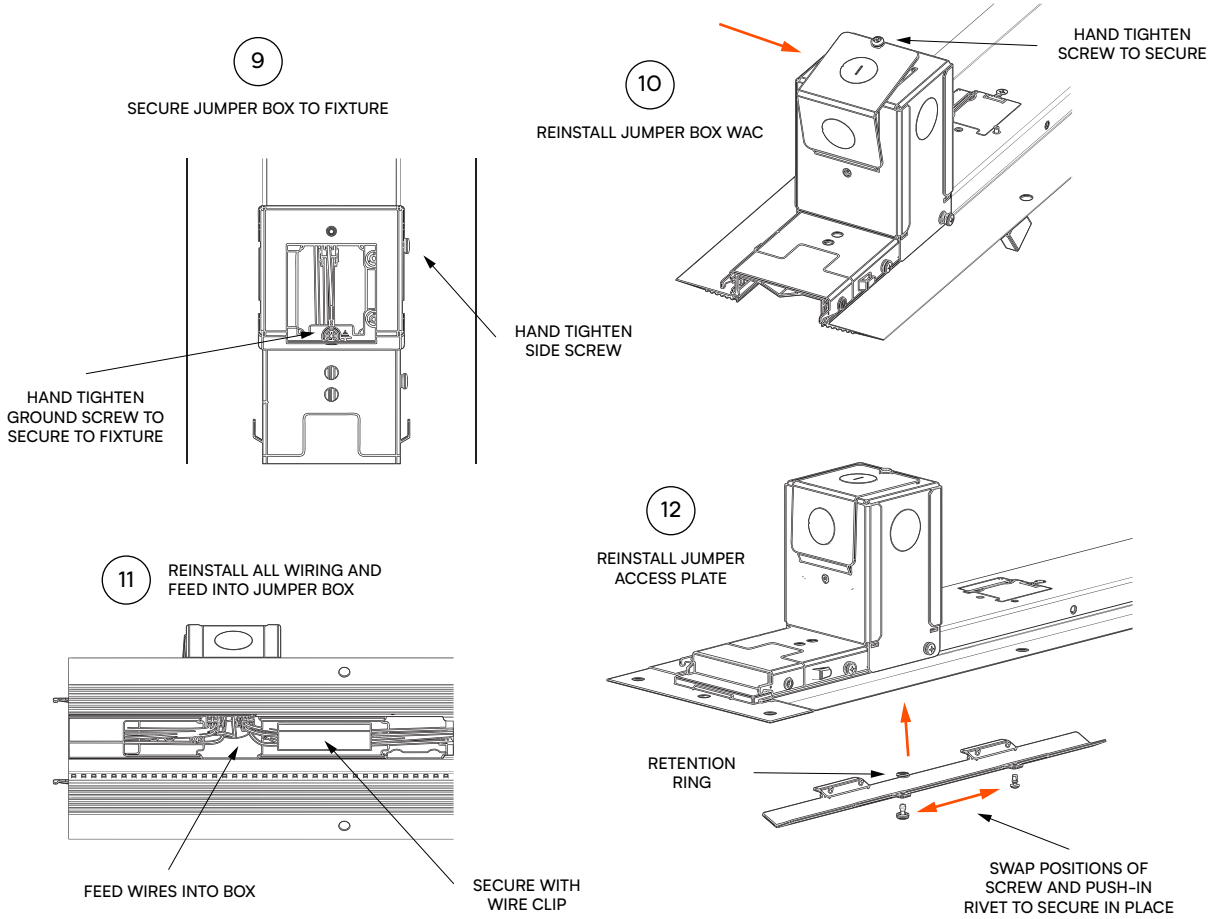
10 Jumper Box Adjustments — Continued

9. Secure jumper box by tightening ground screw and side screw.
10. Reinstall jumper box WAC and tighten screw to secure.
11. Reconnect wires and feed into jumper box as required

IMPORTANT: Ensure not to trap or pinch wires when reinstalling the jumper access plate.

12. Swap push-in rivet and captive screw positions before reinstalling the access plate. Ensure the retention washer is installed.

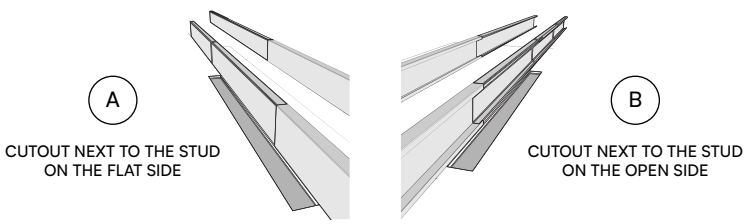
NOTE: Flangeless Mud-in (CM) shown for reference. Steps identical for Exposed Flange Trim (CT) version.



11 Parallel Stud Bracket Modifications — Case A+B

CASE A: Cutout next to the stud on the flat side

CASE B: Cutout next to the stud on the open side

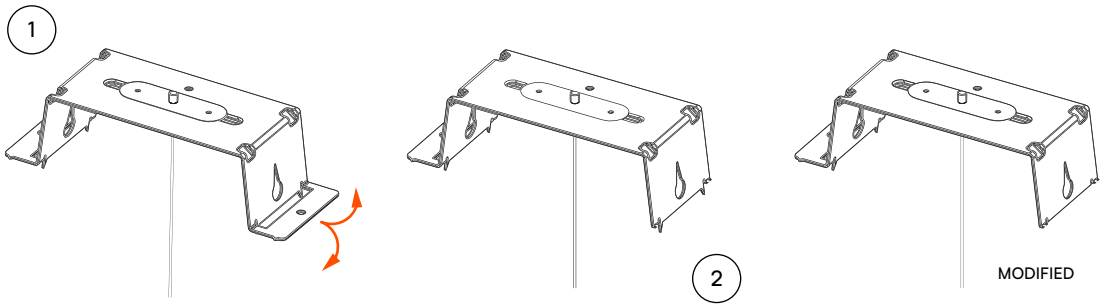


Exposed Flange/Trim Patterns (CT)

12 Case A: Breaking Bracket Tabs

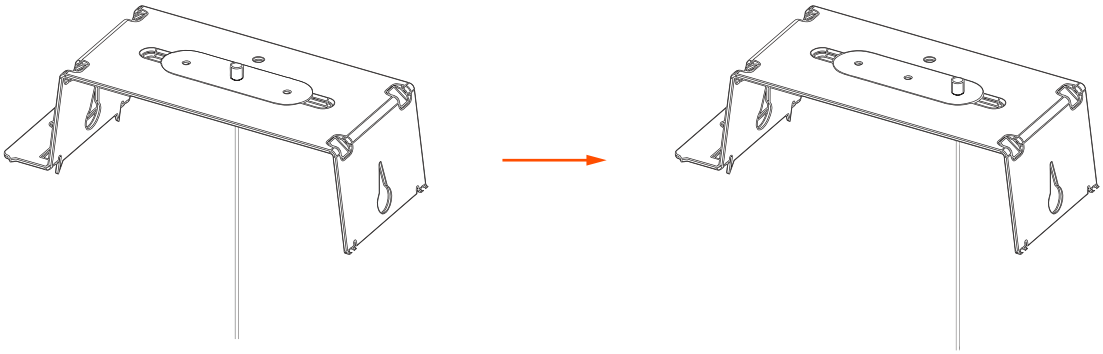
Using pliers, bend the tab on either side of the mounting bracket multiple times until it breaks. Once the tab has been removed, trim the sharp teeth on the same side using metal snips. Bracket is modified.

CAUTION: Be mindful of sharp puncture detail x4 on each bracket.



13 Case A: Repositioning Aircraft Cable

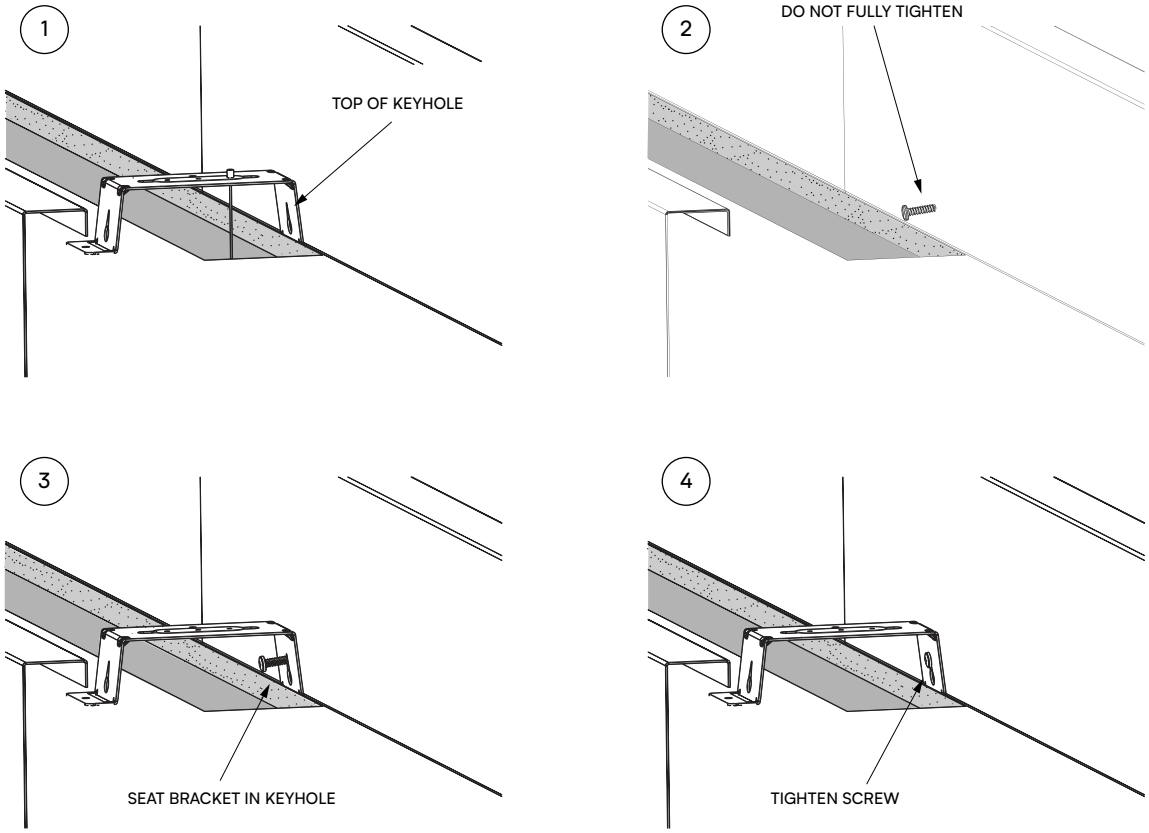
Remove the Aircraft Cable from the middle hole and reinsert it in the hole closer to the tab removed in Step 1.



Exposed Flange/Trim Patterns (CT)

14 Case A: Installing Mounting Bracket

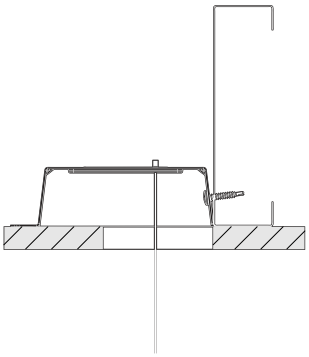
1. Place the modified mounting bracket at the mount location and mark the stud at the top of the keyhole area.
2. Install a #10-32 sheet metal screw at the marked location; do not fully tighten.
3. Hook and seat the bracket in the screw using the keyhole shape.
4. Tighten the screw to secure the bracket.

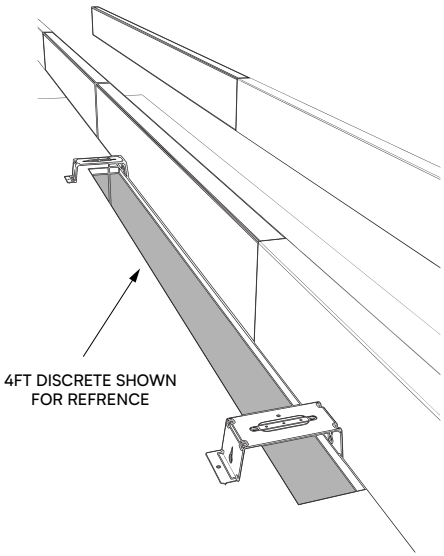


Exposed Flange/Trim Patterns (CT)

15 Case A: Finalizing the Mounting Bracket Installation

Repeat Steps 13–15 for the rest of the existing mounting brackets.
Check mounting lengths to ensure proper installation.

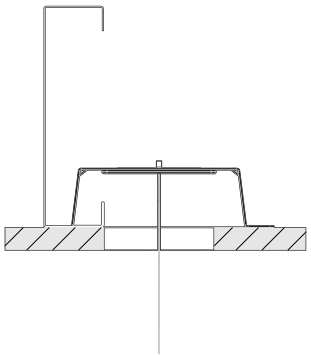


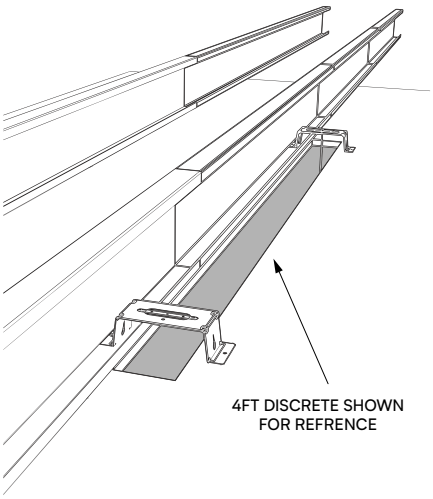


16 Case B: Installing the Mounting Bracket

Install the mounting bracket as per instructions and place the tab in the stud channel. Both the tab and the sharp teeth can be removed by following Step 12 (Page 51) if needed.

NOTE: If solid stud, refer to Step 14 (Page 52) – Case A: Installing Mounting Bracket.





Exposed Flange/Trim Patterns (CT)

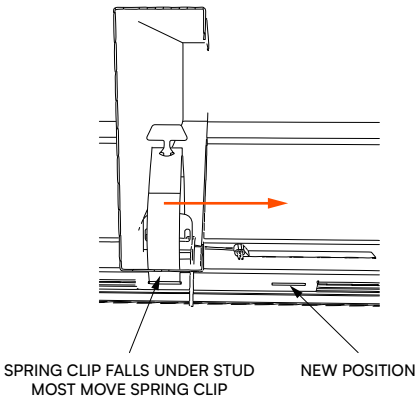
17 Spring Clip Move and Reinstall Steps

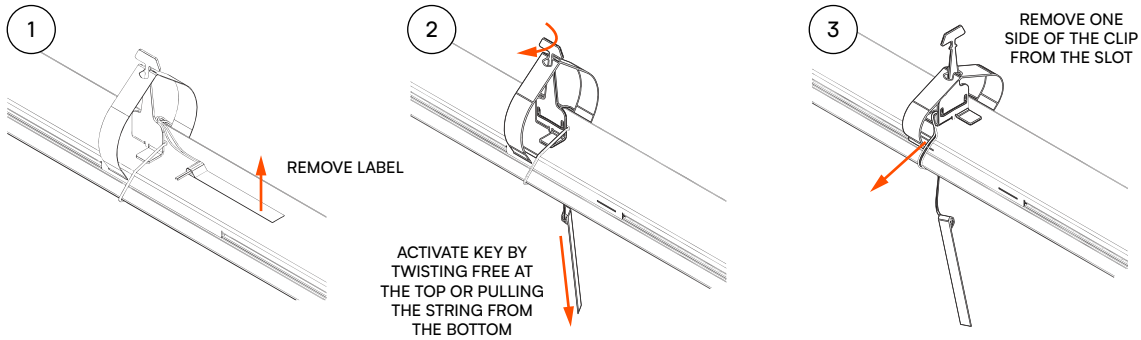
All steps to be executed on the ground before raising it into the opening for installation.

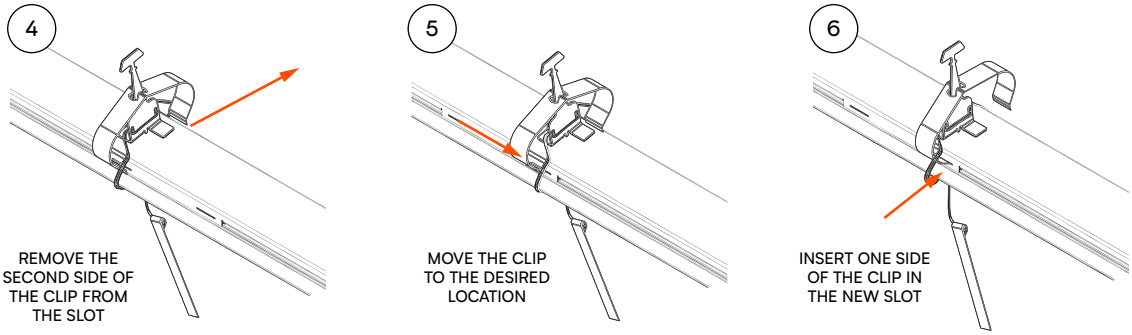
1. Carefully remove the label holding string on the sheet metal top.

IMPORTANT: Do not remove the pull string from the key, it is to remain attached to the key during clip move and reinstallation.

2. Activate key by twisting at top or pulling string.
3. Push the clip to one side to allow for easier removal of the small tab from the opposite side of the sheet metal slot.
4. Remove second side of clip from slot on other side.
5. Move clip to next slot locations.
6. Insert one side of clip into first slot.



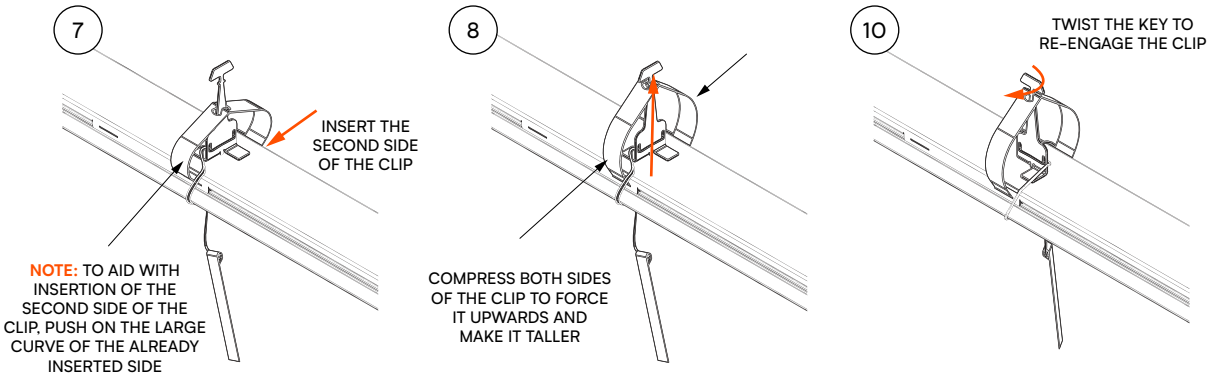




Exposed Flange/Trim Patterns (CT)

18 Spring Clip Move and Reinstall Steps — Continued

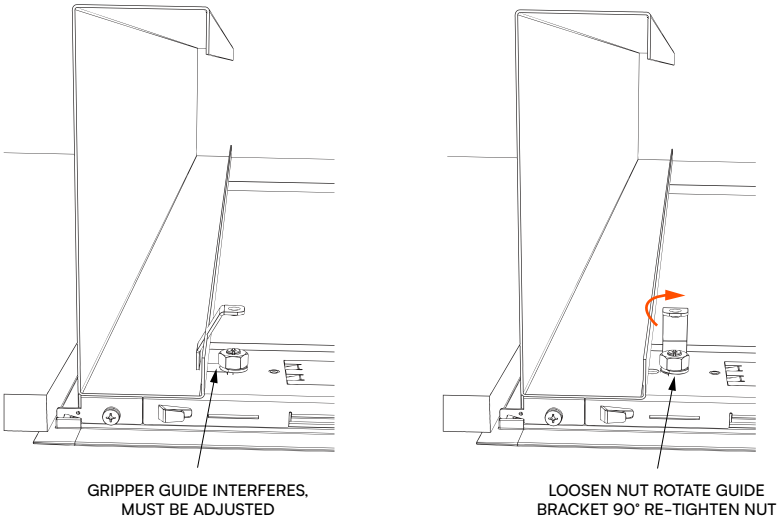
7. Insert clip into other side of top. Note: ease of installation of clip by pushing on the opposing side of the clip that is installed in the slot.
8. Compress both sides of clip to raise it up past the key neck.
9. Twist the key to re-engage the clip.



19 Adjust Gripper Bracket for Suspension Cable When Close to Perpendicular Stud

If the gripper guide falls under the stud, **adjust** it by loosening the nut. Rotate the guide bracket 90°, then hand tighten the nut to secure the guide bracket in place.

IMPORTANT: The stud is for visual reference of interference.
Adjust the guide bracket on the ground before raising it into the opening for installation.



Exposed Flange/Trim Patterns (CT)

20 Move Gripper Components for Suspension Cable When Close to Perpendicular Stud

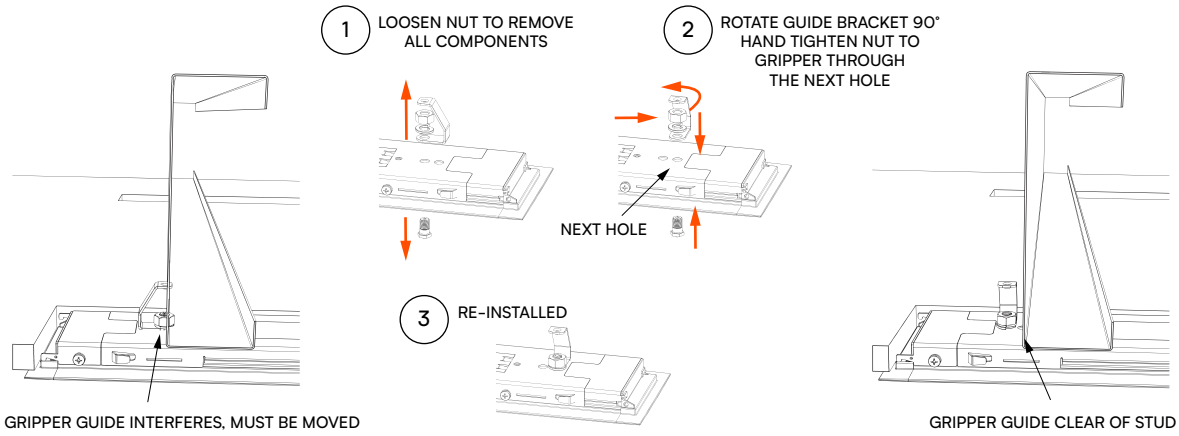
If the gripper guide falls under the stud where it must be **moved**.

IMPORTANT: The stud is for visual reference of interference. Move the guide suspension components on the ground before raising it into the opening for installation.

With the fixture on the ground, remove the access cover plate to reach the gripper from below. See Step 3 (Page 14) for instructions on removing the access plate(s).

1. Remove the nut, lock washer, and guide bracket from the top, and remove the gripper from the optical cavity below.
2. Relocate these components to the next hole on the top.
3. Reinstall the components.

For reference, the guide bracket is shown installed at a 90° rotation to provide clearance from the stud.



Exposed Flange/Trim Patterns (CT)

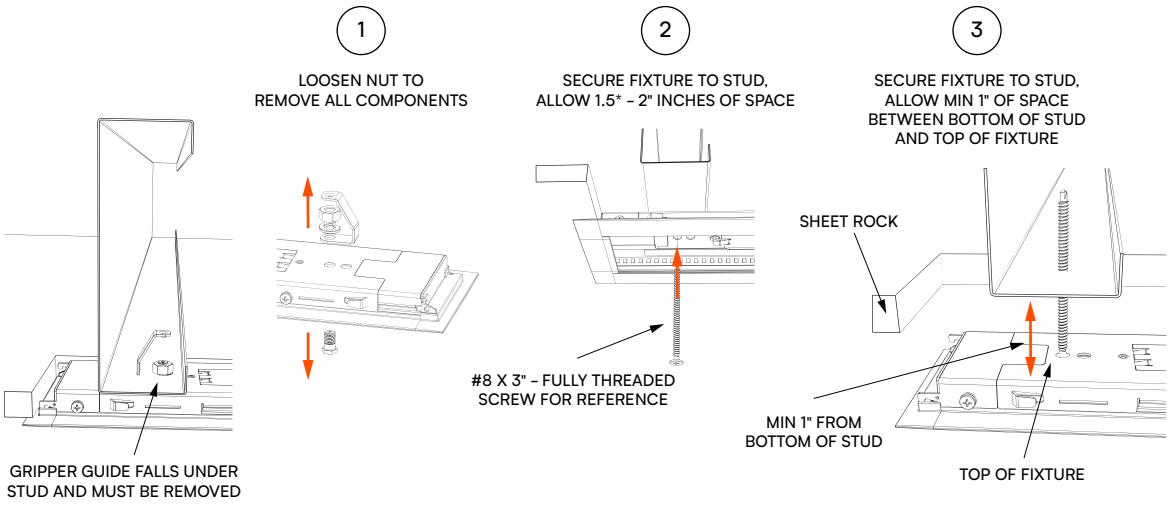
21 Remove Gripper – Securing Fixture with 2.5–3" Self-Tapping Screw When Mount Falls Under Stud

If the gripper guide falls under the stud where it must be **removed** to use a self-tapping screw.

IMPORTANT: The stud is for visual reference of interference. Remove the guide suspension components on the ground before raising it into the opening for installation to the stud.

With the fixture on the ground, remove the access cover plate to reach the gripper from below. See Step 3 (Page 14) for instructions on removing the access plate(s).

1. Remove the nut, lock washer, and guide bracket from the top of the fixture. Remove the gripper from the optical cavity below the fixture.
2. Raise the fixture into the opening, recommend using a #8 x 2.5–3" long fully threaded self-tapping screw (by others) to secure to stud.
3. Leave a minimum of 1" between the bottom of the stud and the top of the fixture. This space allows for connections to additional fixtures in longer runs or patterns.



Exposed Flange/Trim Patterns (CT)

22 Lens Removal (Troubleshooting)

Affix a 1 ft length of duct tape to the lens, creating a folded tab to serve as a handle. Flex the lens outward; once a section is dislodged, the remainder can be easily slid out.

The need for full lens removal depends on its length. Shorter lenses are simpler to remove entirely. For lengths exceeding 20 ft, it might be sufficient to pull the lens down only enough to access the troubleshooting area.