

USG
Ceiling
Solutions

**USG CEILINGS PLUS[®]
ILLUSIONS[®] + GLOW[™]**

LIGHTED MODULAR
CEILING PANELS

INSTALLATION GUIDE



Introduction

Enter **ILLUSIONS® + GLOW™** a new lighted ceiling design brought to you by **USG Ceilings Plus®**. In this manual we'll show you how to perform the installation the right way, the first time, with confidence.

The purpose of this installation manual is to provide you with general steps and procedures on how to properly and safely install the **ILLUSIONS® + GLOW™** ceiling system and address various field conditions.

Please read this entire manual and familiarize yourself with all procedures before you begin. If you have been supplied with project drawings specific to your order, make sure you have a thorough understanding of those. Any details within those documents will supersede this manual. Work area must be clear of debris and obstacles to ensure a safe and fast installation.

Please work safely!

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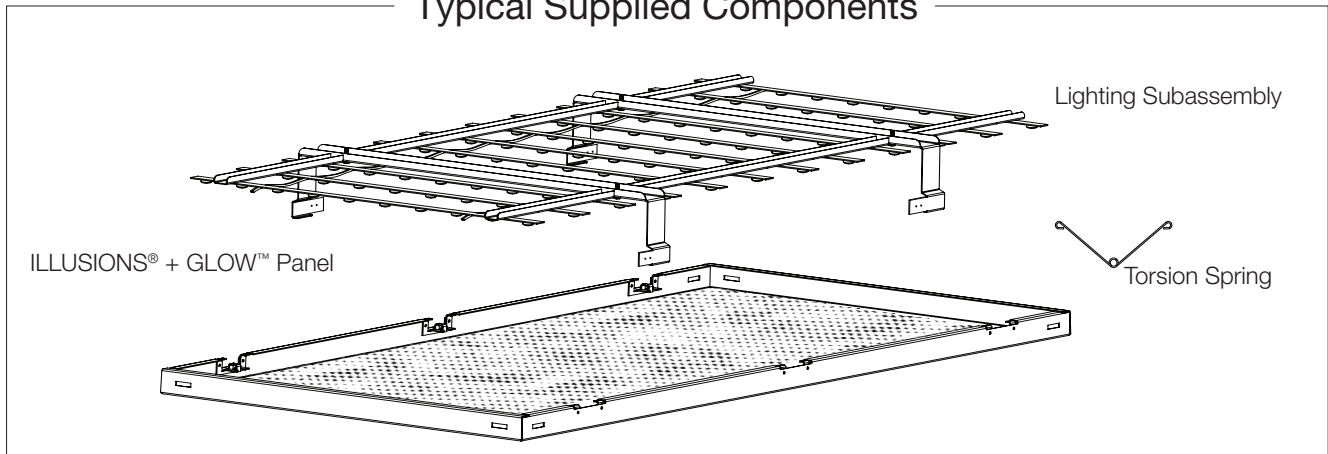
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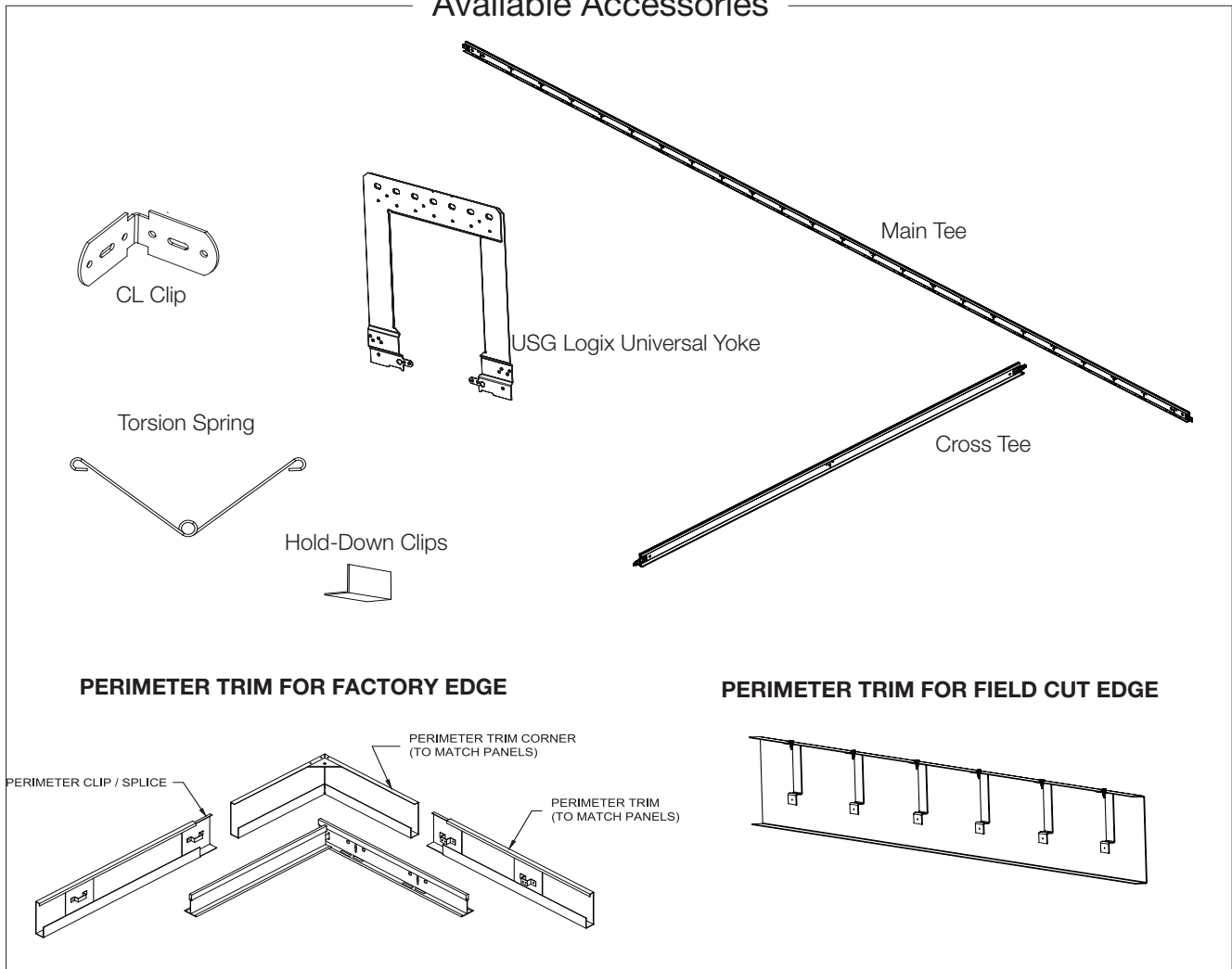
Preparation

Component Identification

Typical Supplied Components



Available Accessories

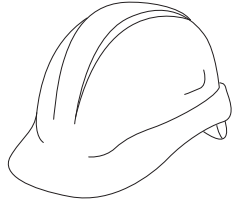


Preparation Tools

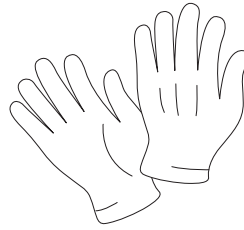
Standard Tools



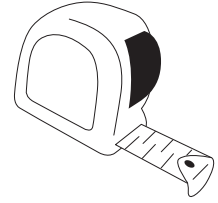
Safety Goggles



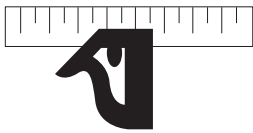
Hard Hat



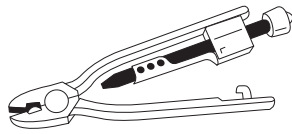
White Cotton Gloves



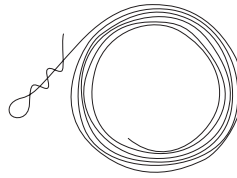
Tape Measure



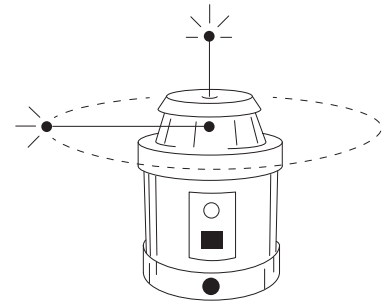
Square



Lineman Wire Cutters

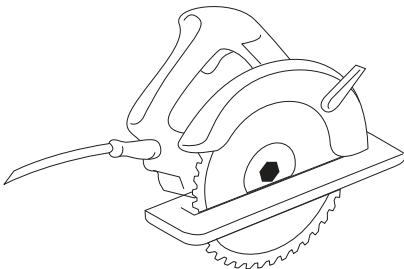


Hanger Wire

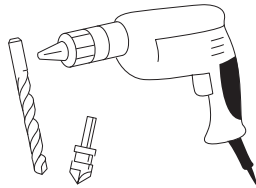


Laser Level

Field Modification Tools



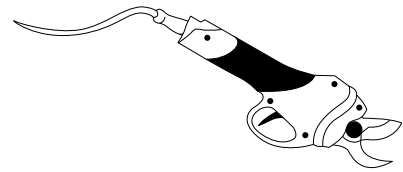
Rotary Saw



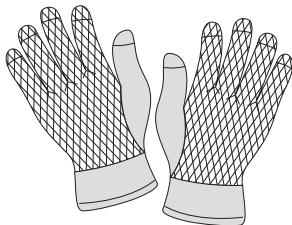
Drill with 1/8" Diameter
Standard & Counter-Sink
Bits



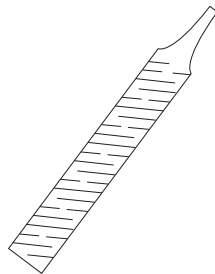
Hole Saw



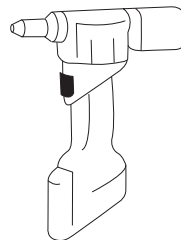
Electric Shears



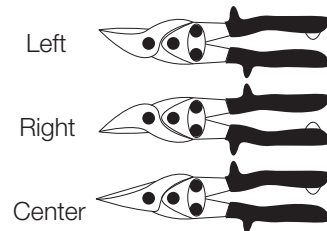
Working Gloves



File



Rivet Gun

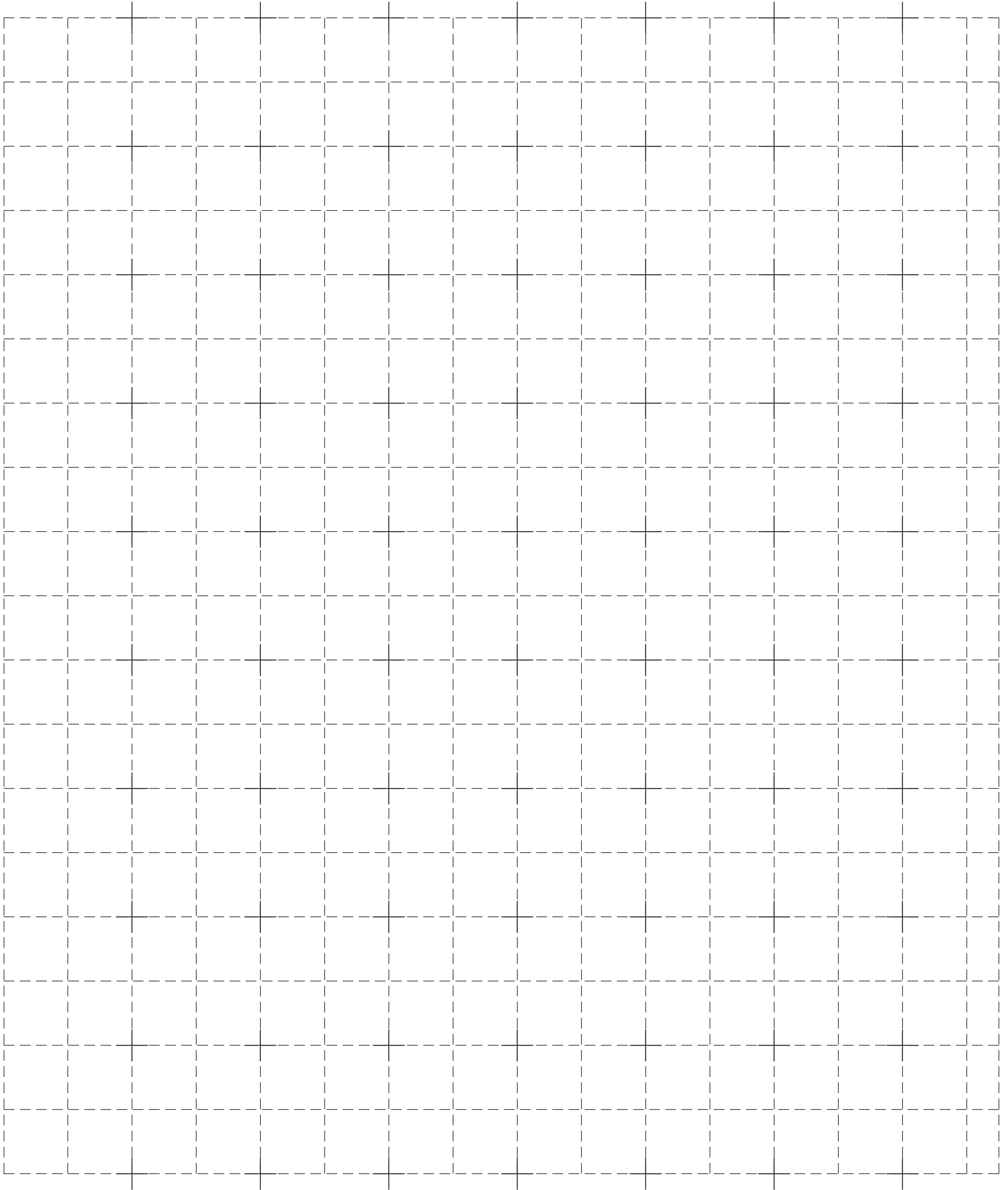


Snips

Grid Planning

Blank Grid

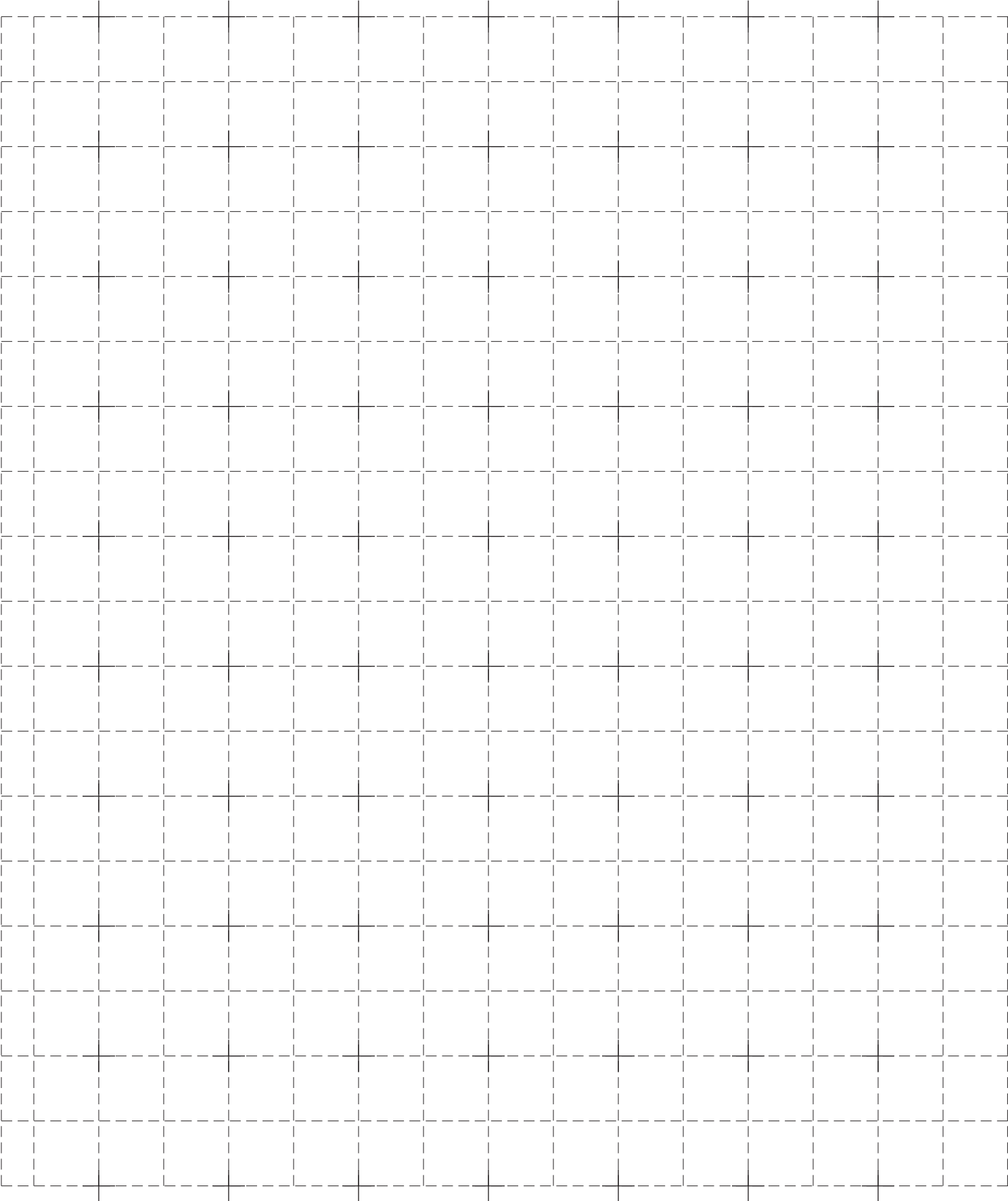
Crosses @ 4'⌞ ,Dashed Lines @ 2'⌞



Grid Planning

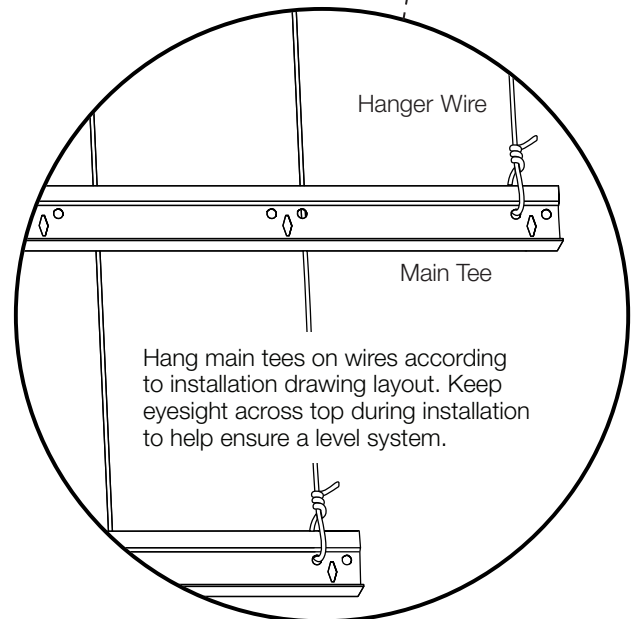
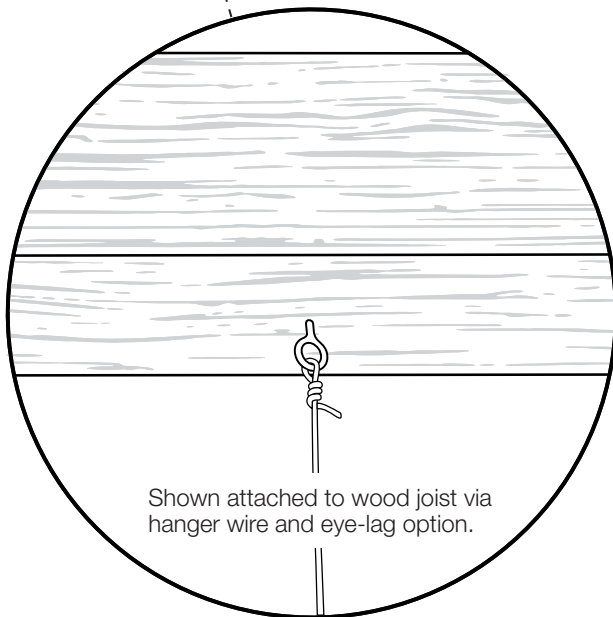
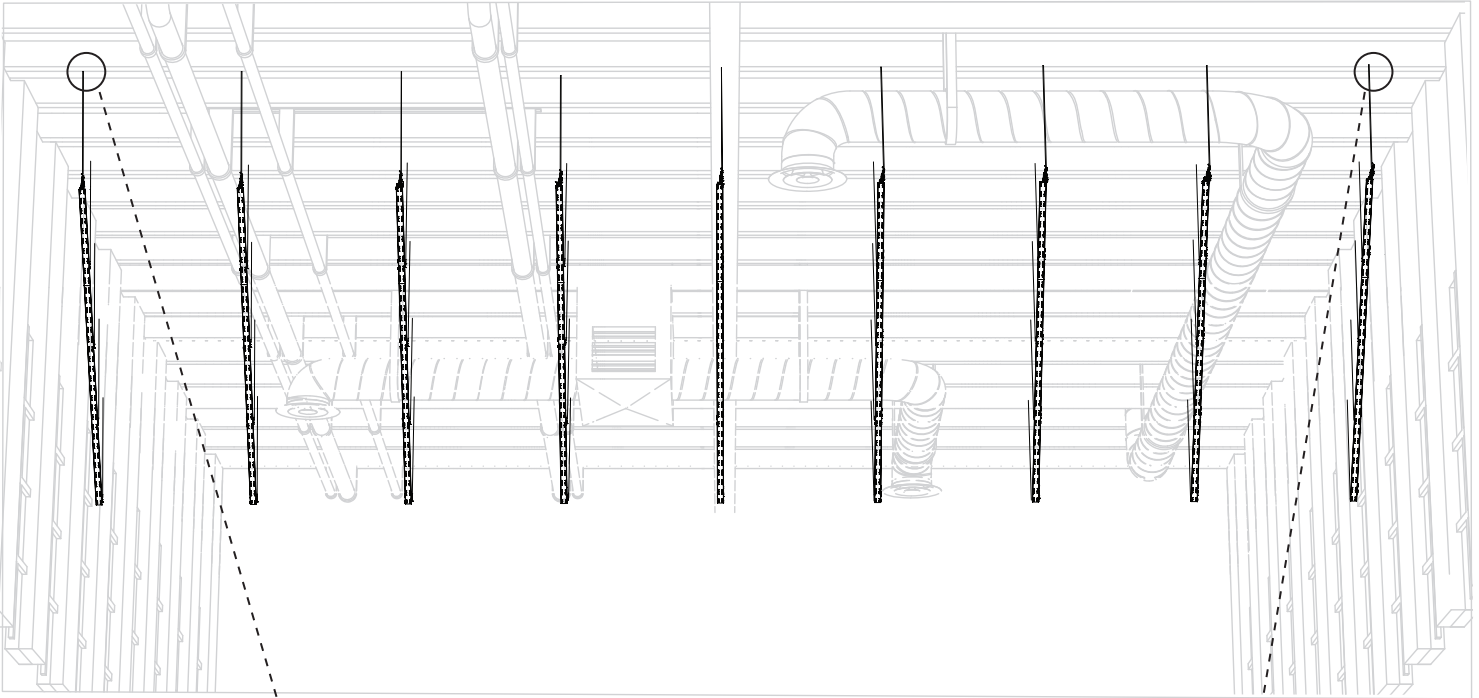
Blank Grid

Crosses @ 4'⌀ ,Dashed Lines @ 2'⌀



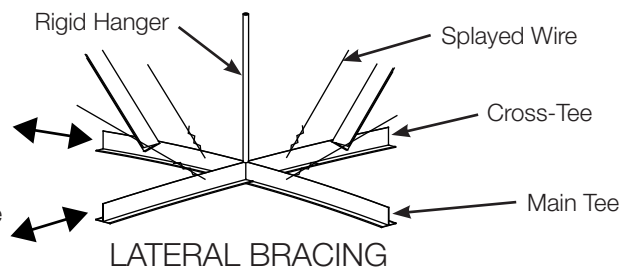
General Installation

Install Hanger Wire & Main Tees



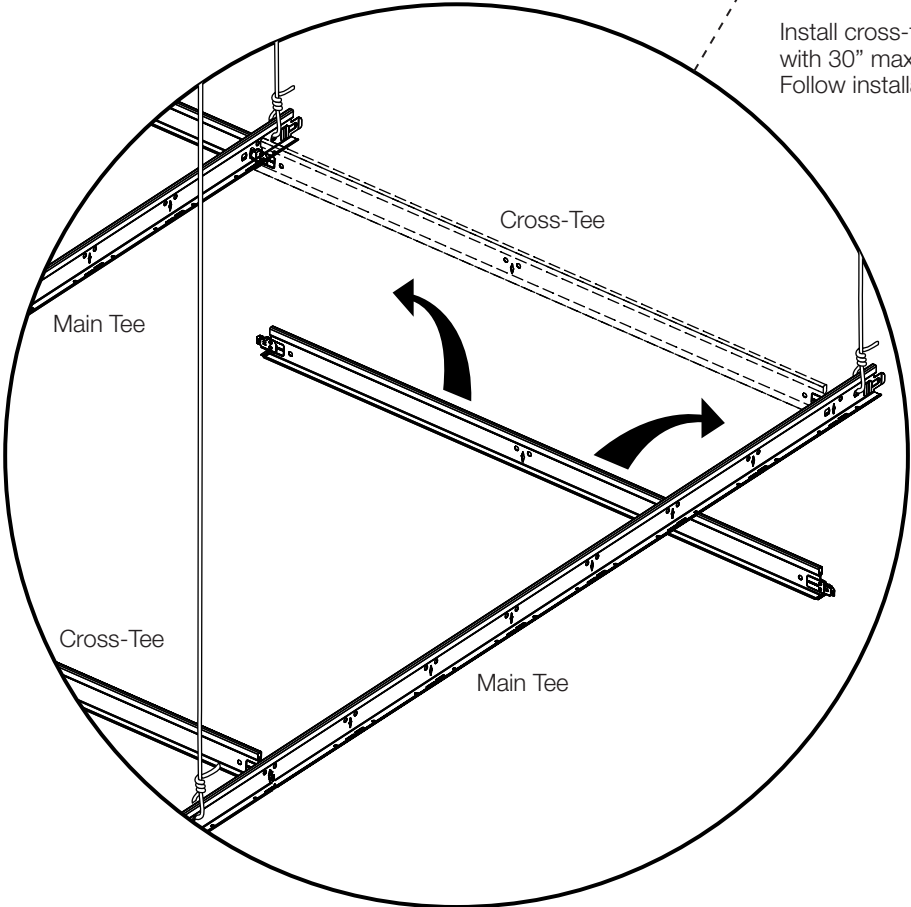
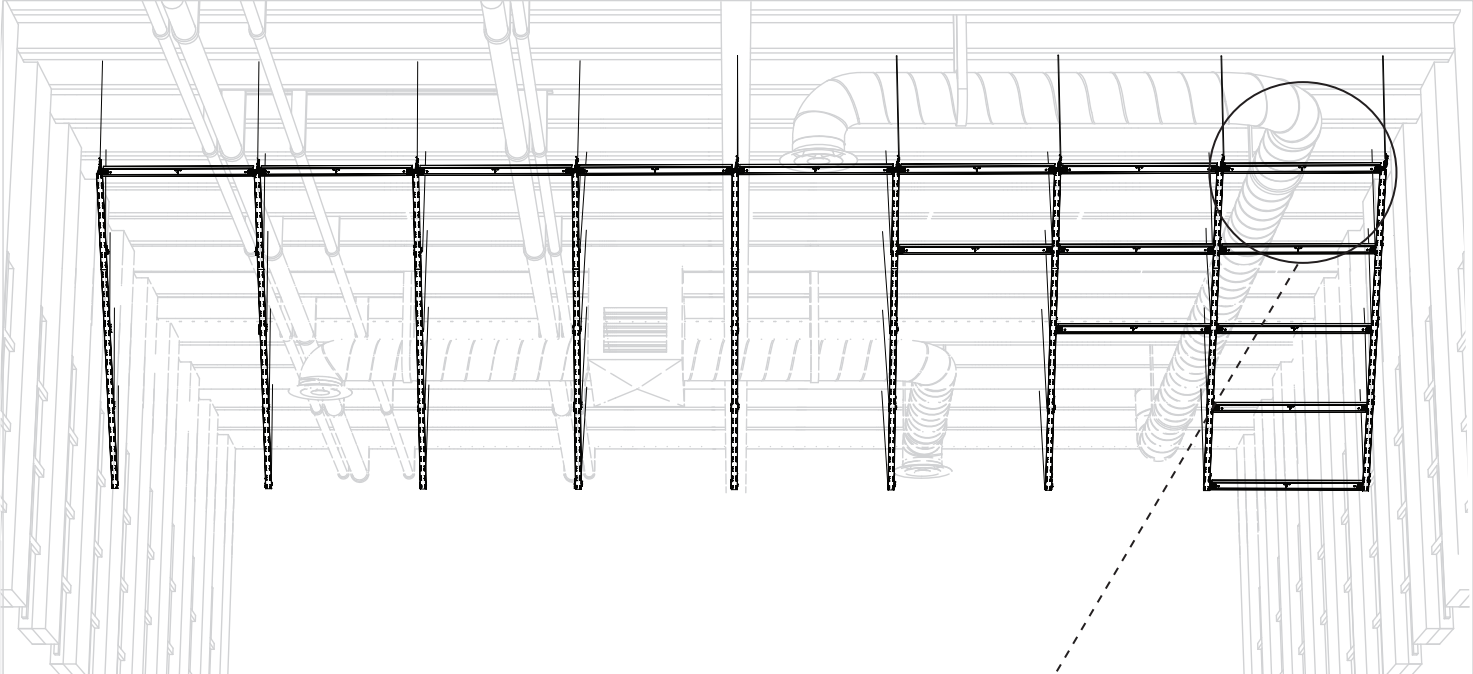
Install per ASTM C636 and ASTM E580 specifications. Select the correct fastener based on your field conditions, i.e. shot-in pin, anchor bolts, screw/clip, etc.

Install additional bracing required for project's seismic codes. Lateral bracing wires/compression posts. For lateral bracing, counter-splayed wires or diagonal bracing are required for each direction.



General Installation

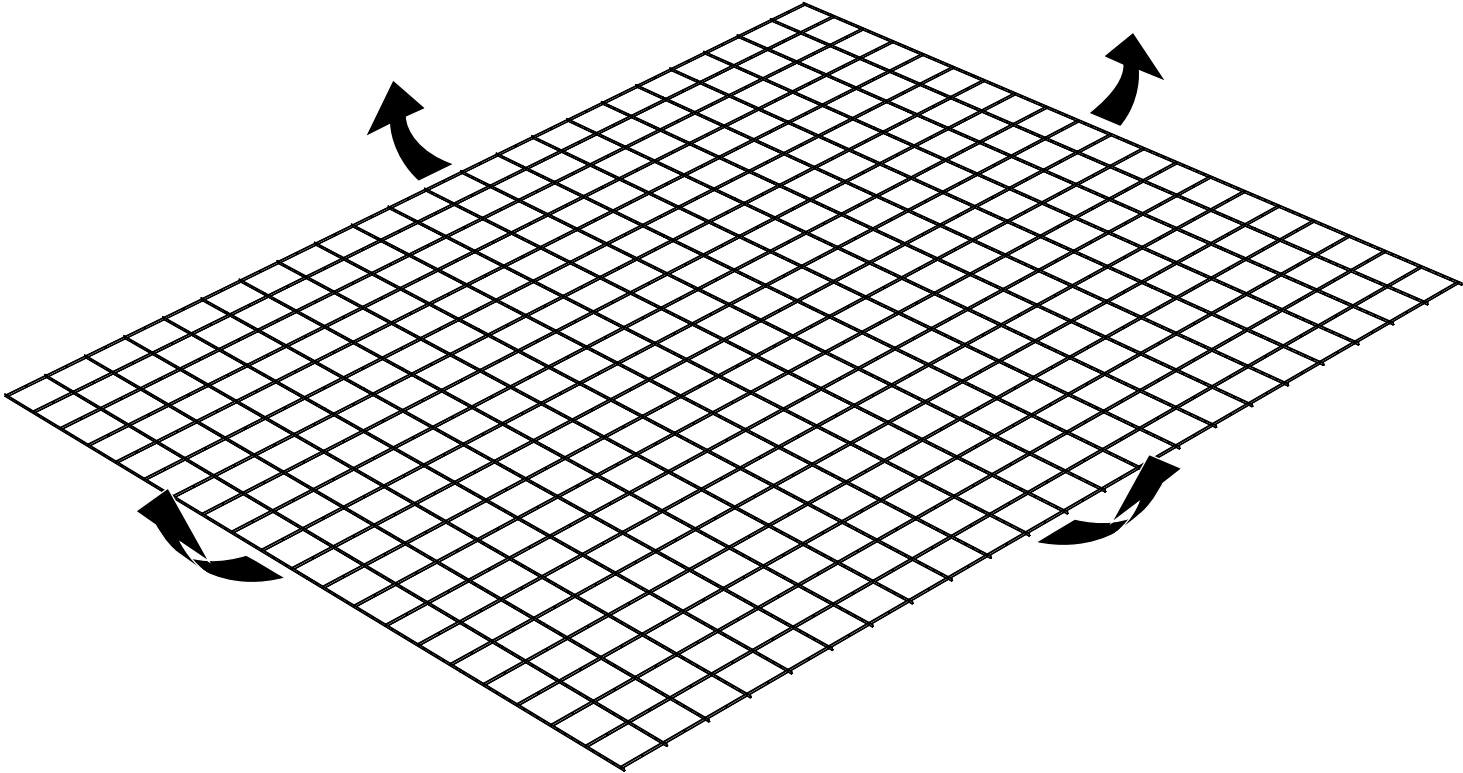
Install Cross Tees



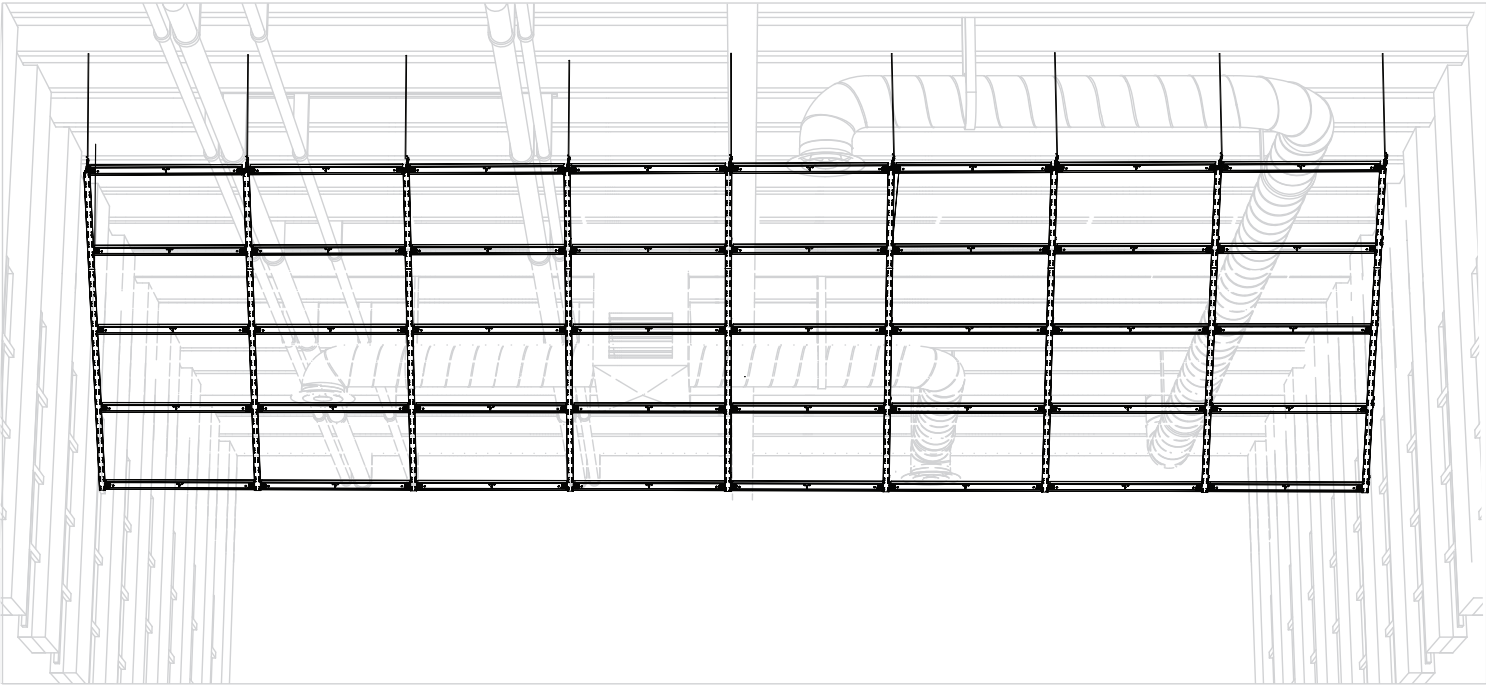
Install cross-tees between main tees with 30" maximum \varnothing spacing. Follow installation drawing layout.

General Installation

Level Grid System

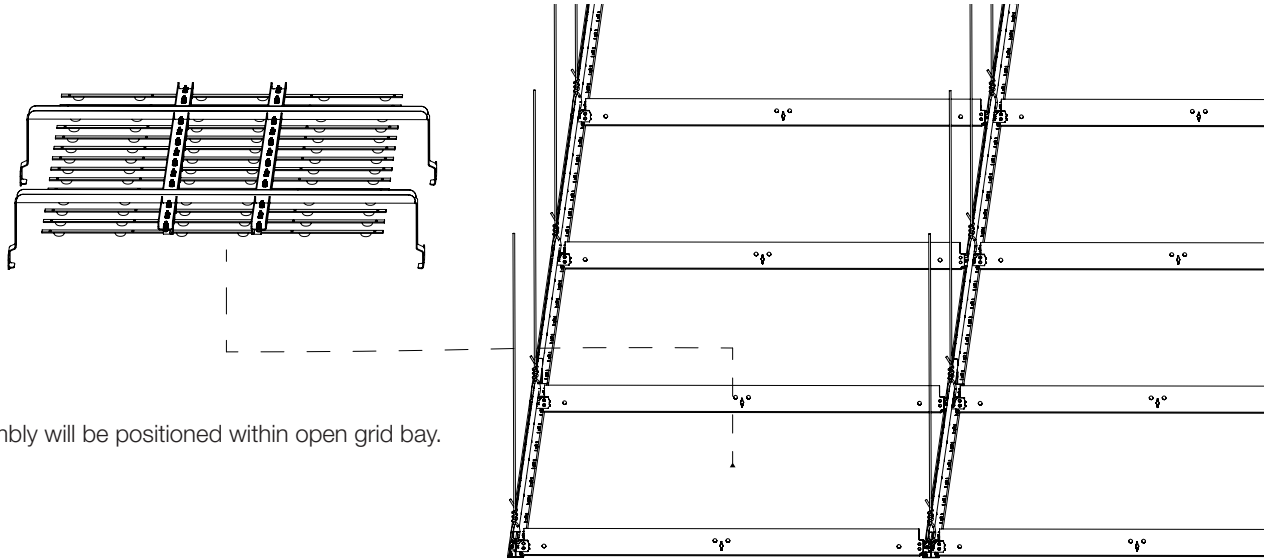


Use laser level to ensure whole grid is leveled to a 1/8" maximum variance.

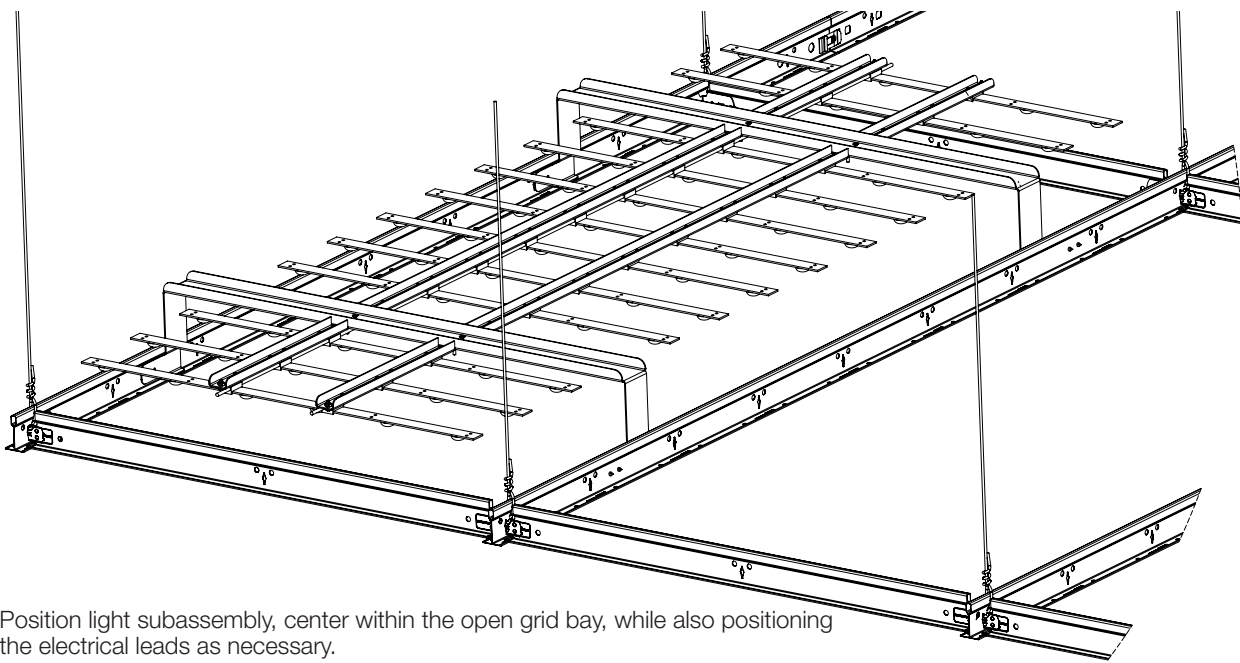


General Installation

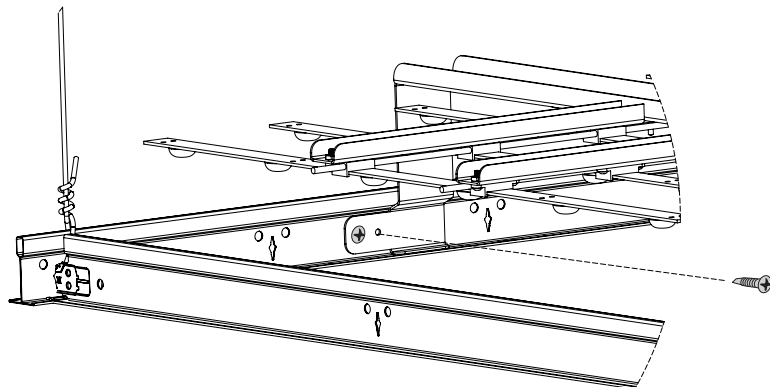
Light Subassembly Installation



Light subassembly will be positioned within open grid bay.



Position light subassembly, center within the open grid bay, while also positioning the electrical leads as necessary.

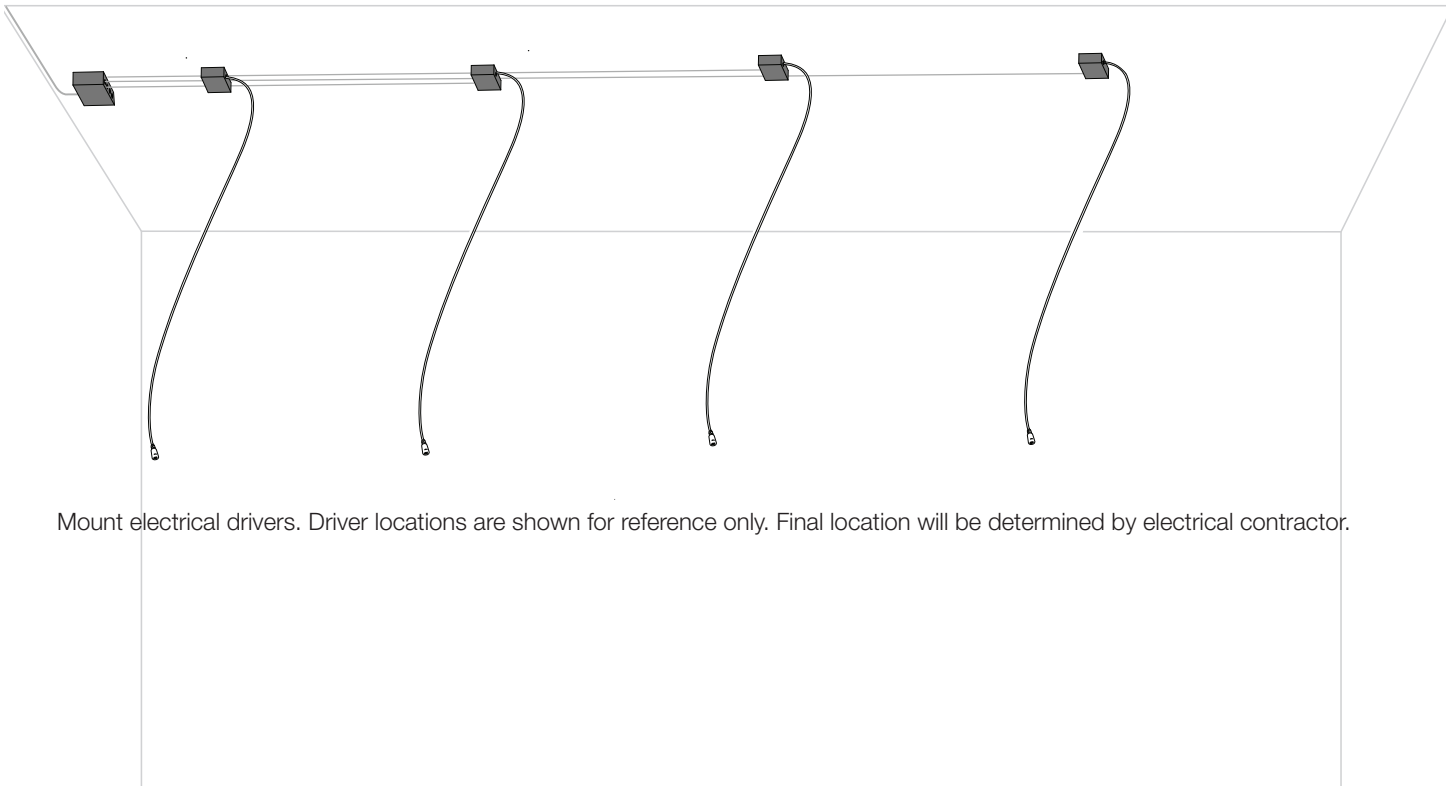
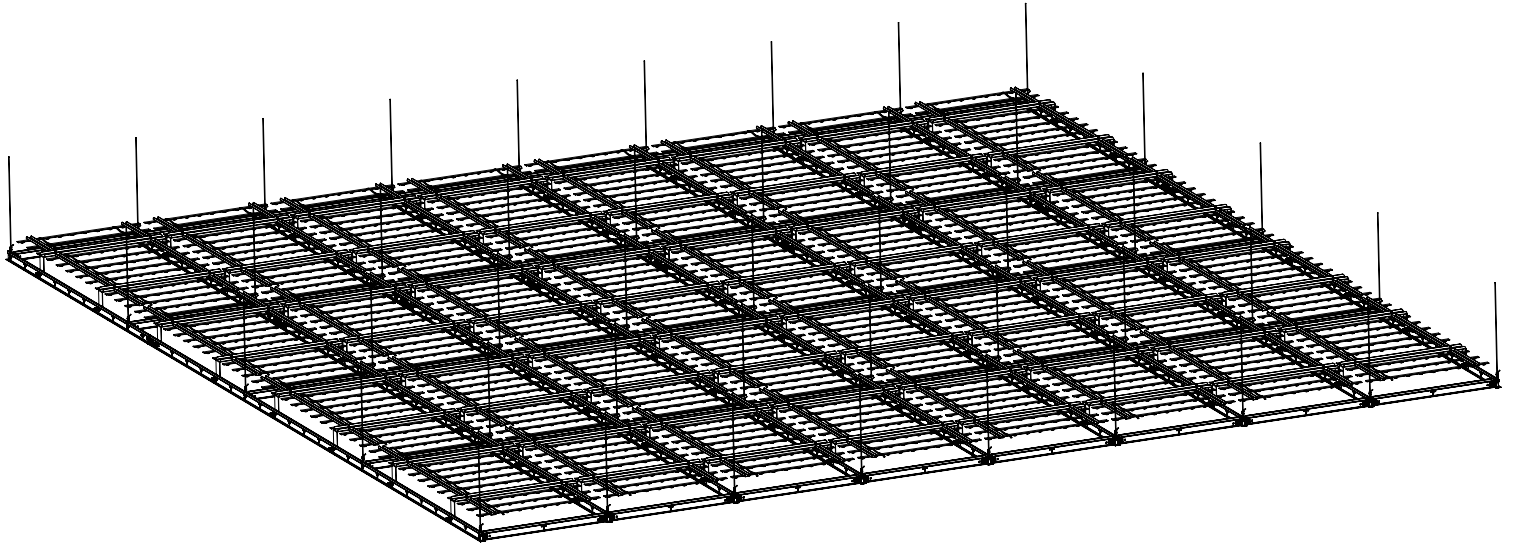


Mount light subassembly to grid using self-tapping screws at the four light subassembly (4) tabs.

General Installation

Light Drivers Installation

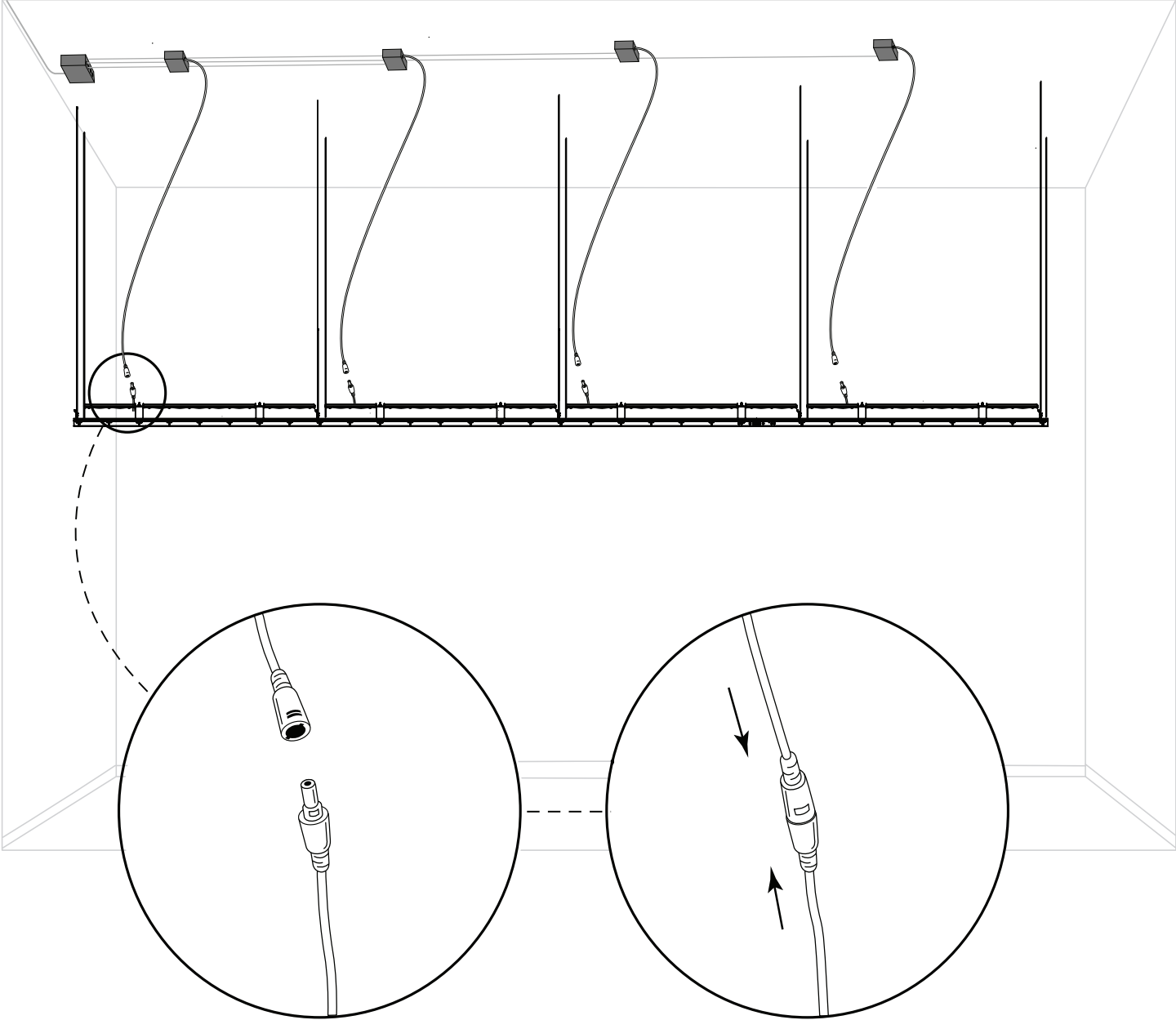
Mount light subassemblies to remaining open grid bays.



Mount electrical drivers. Driver locations are shown for reference only. Final location will be determined by electrical contractor.

General Installation

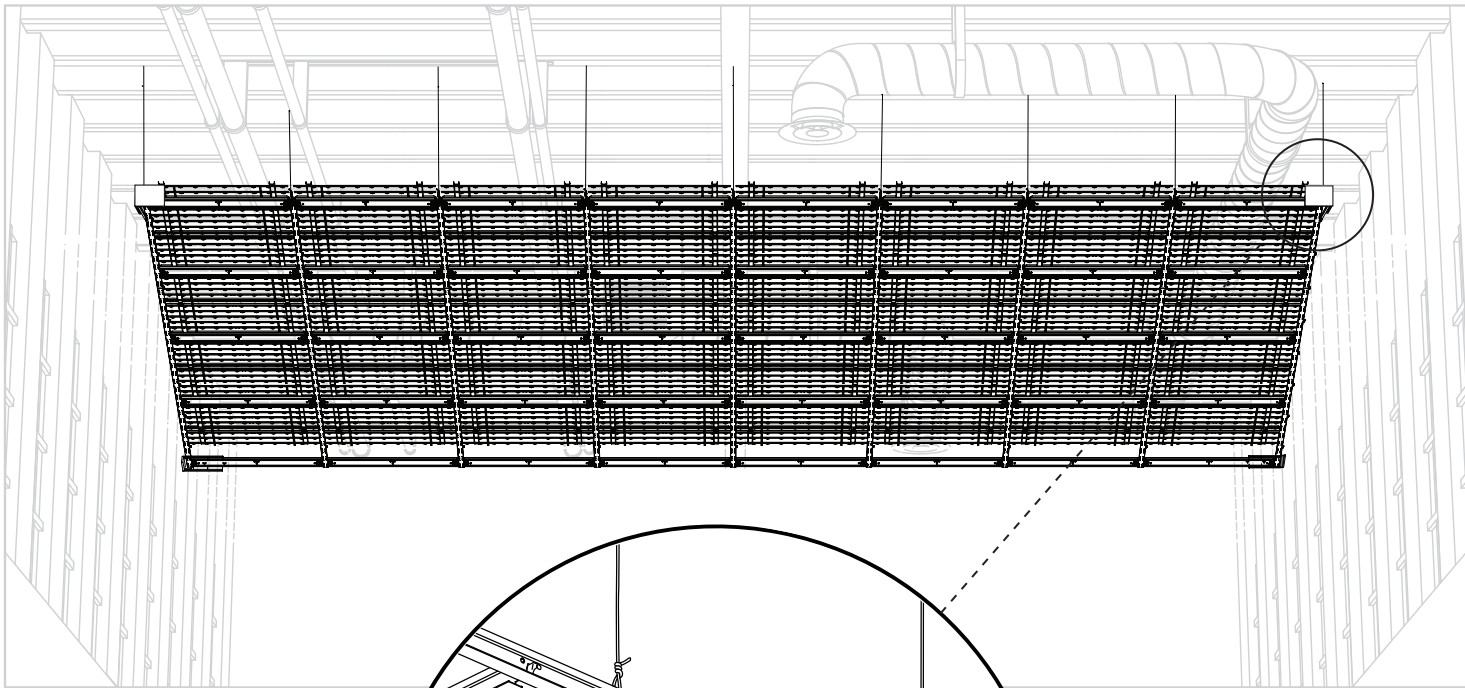
Light Drivers Connection



Connect electrical drivers to light subassemblies.

General Installation

Install Perimeter Trim Corner Units



Step 1

PREPARE PRE-ASSEMBLED CORNER TRIM UNIT

A) Insert and slide Splicer Brackets into place at each end of the assembled corner unit to approximately 6-5/8" On Center from edge. Horizontal positions of splicer brackets may be adjusted as needed, but noting that other splicer brackets from adjoining sections will occupy area over seams on center and will need clearance.

Fully Installed Perimeter Trim Corner.

All corners must be installed PRIOR to any Perimeter Trim Sections.

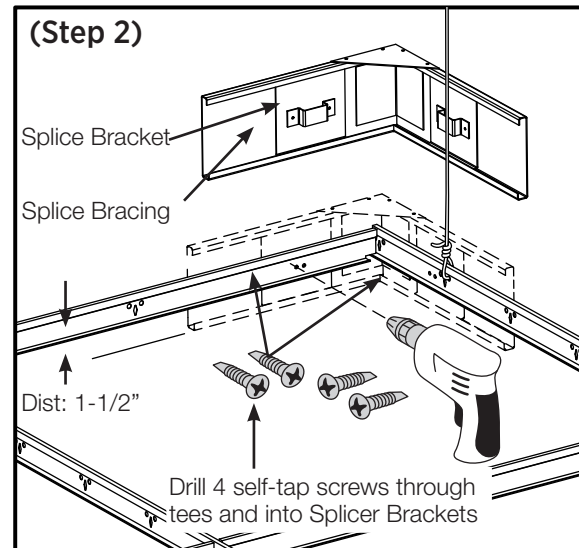
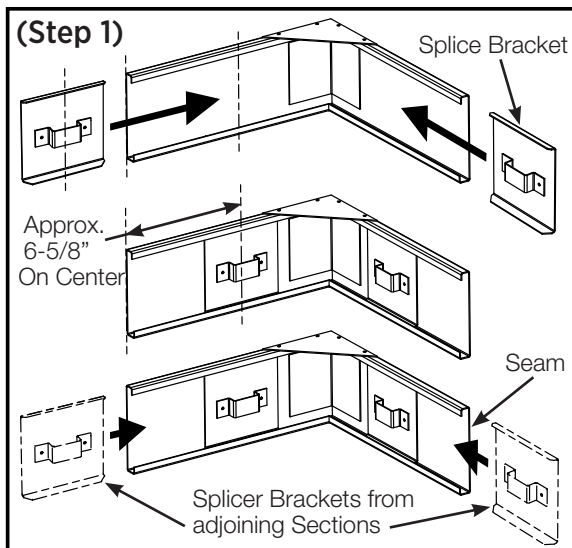
Pre-Assembled Corner Unit

Step 2

MOUNT CORNER TRIM UNIT

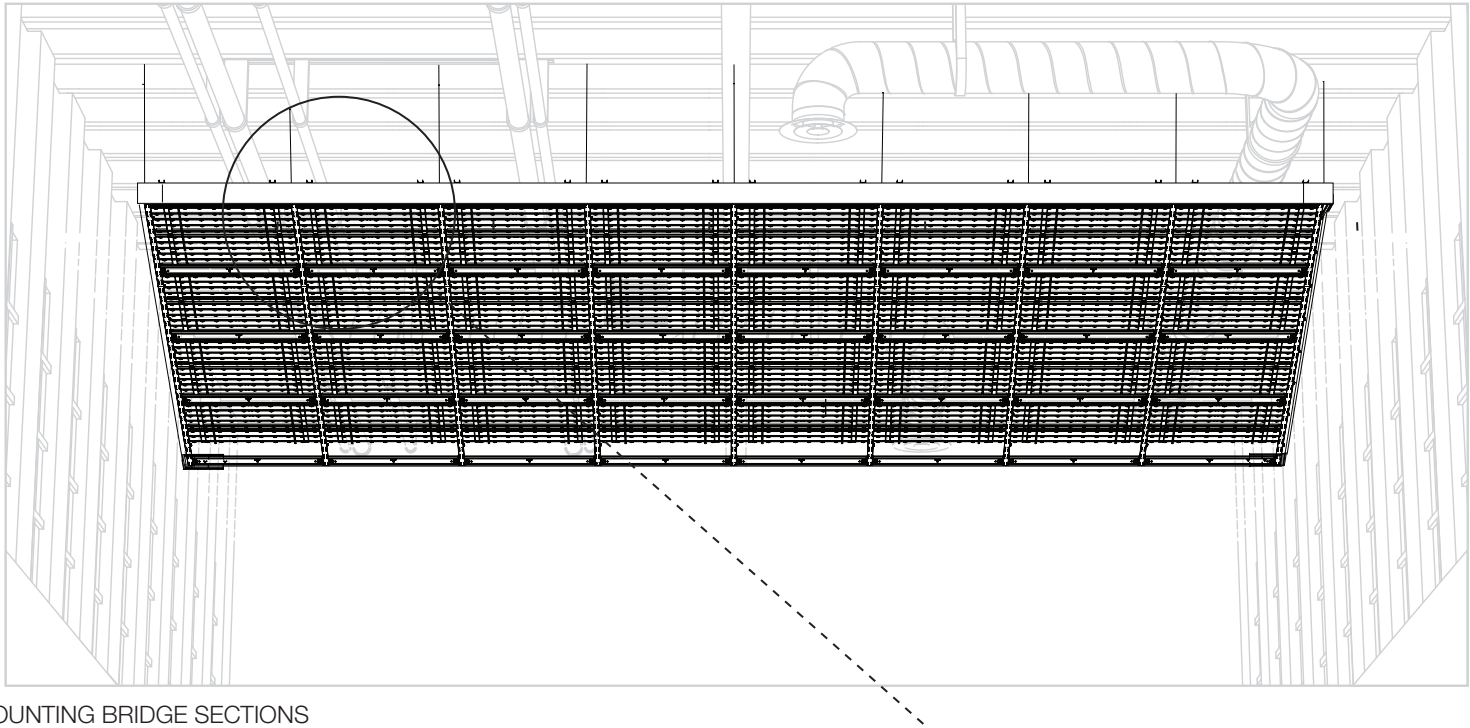
A) Align assembled Corner Trim Unit with Tees as shown below and hold in place at 1-1/2" down from bottom of Tee to bottom of Corner Unit.

B) Using 4 self-tap screws, fasten Splicer Bracing to Tees.



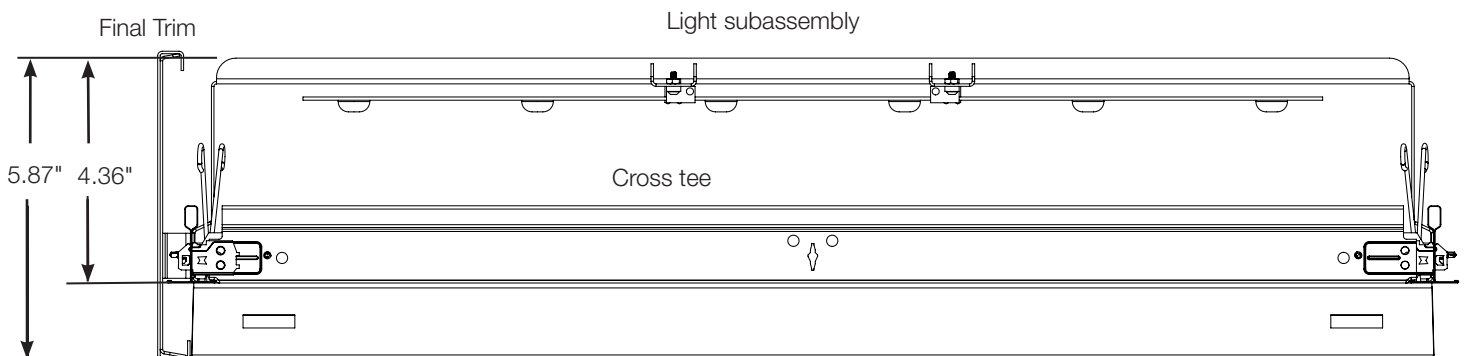
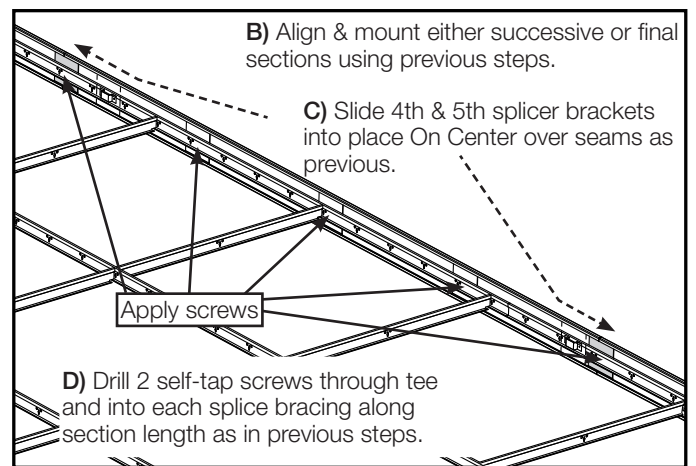
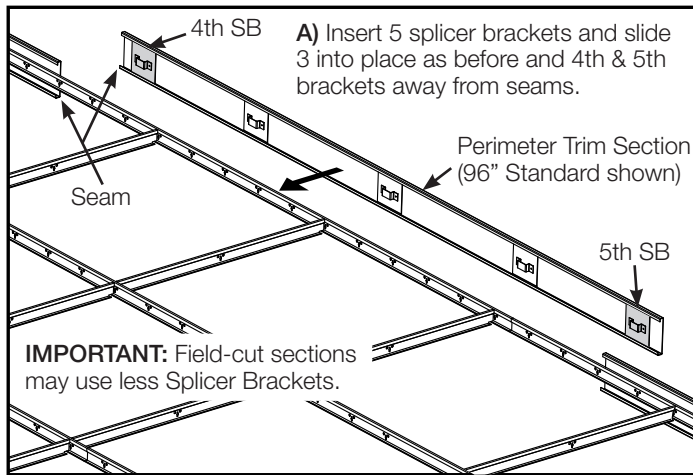
General Installation

Install Successive & Final Trim Sections



MOUNTING BRIDGE SECTIONS

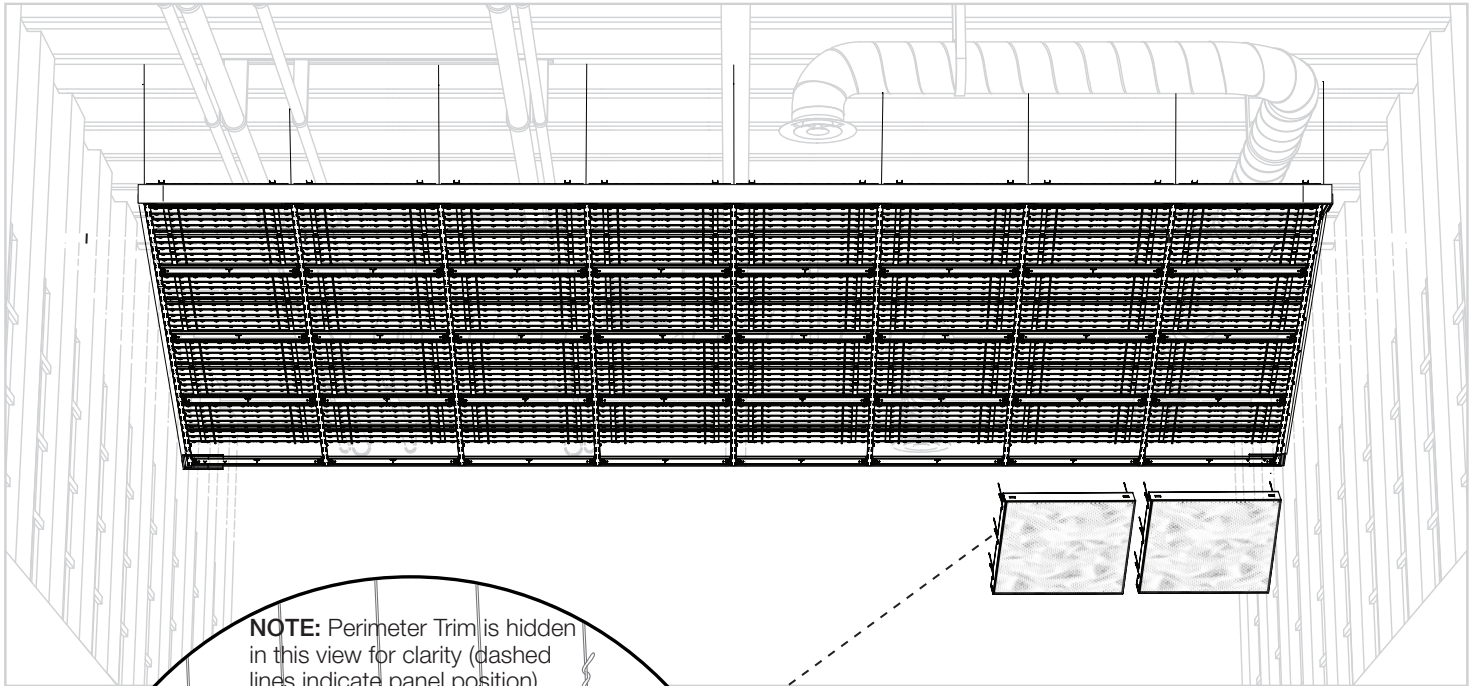
NOTE: Image below may represent a “successive”, a “final”, or a “Field-Cut” Section mounting procedure (same rules apply).



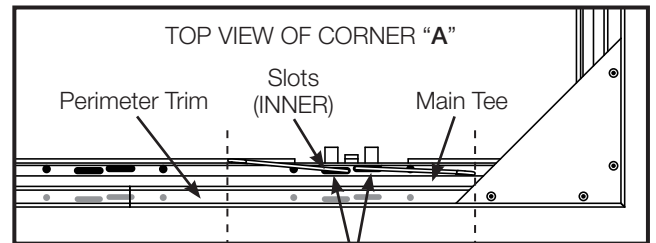
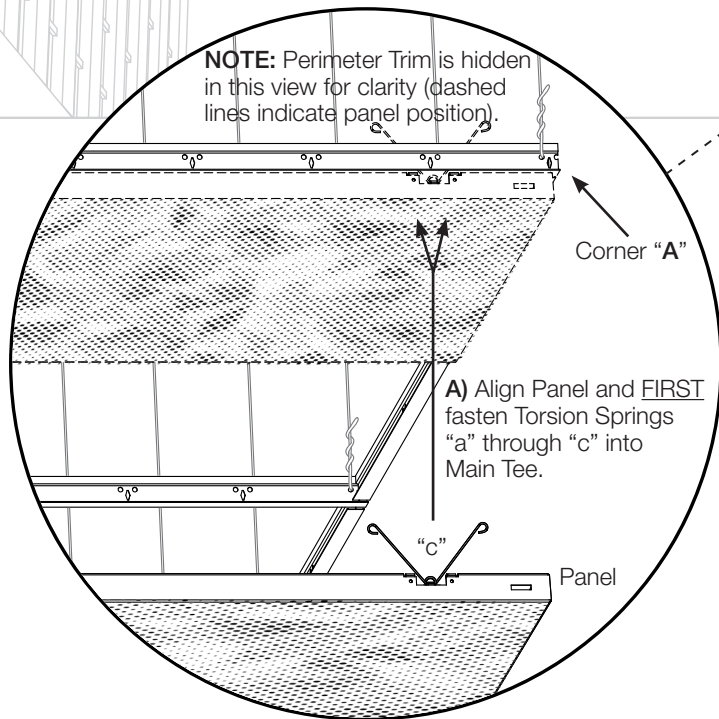
See dimensions for Trim reference. View includes perforated panel for reference

General Installation

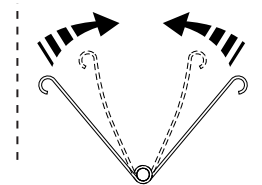
Install Illusions Panels



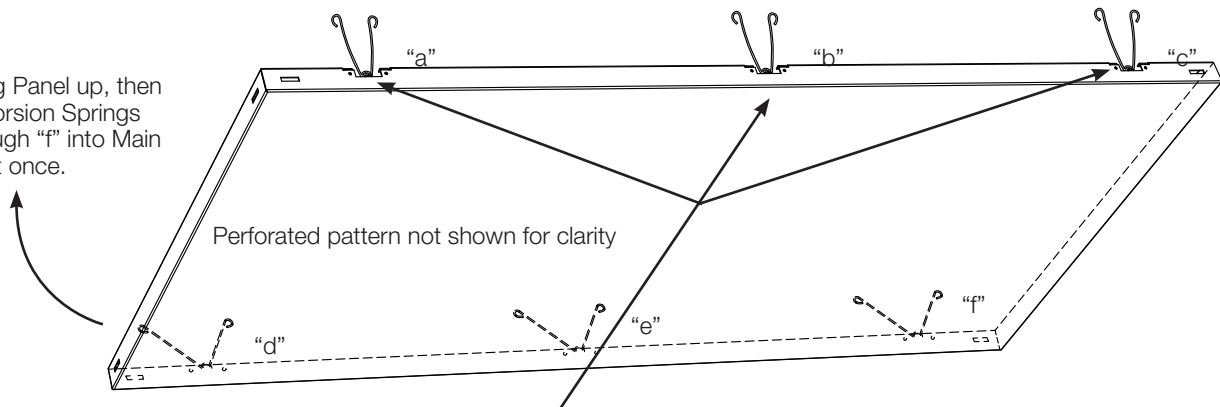
NOTE: Perimeter Trim is hidden in this view for clarity (dashed lines indicate panel position).



Compress and insert Torsion Springs into corresponding **INNER** Slots of Main Tees



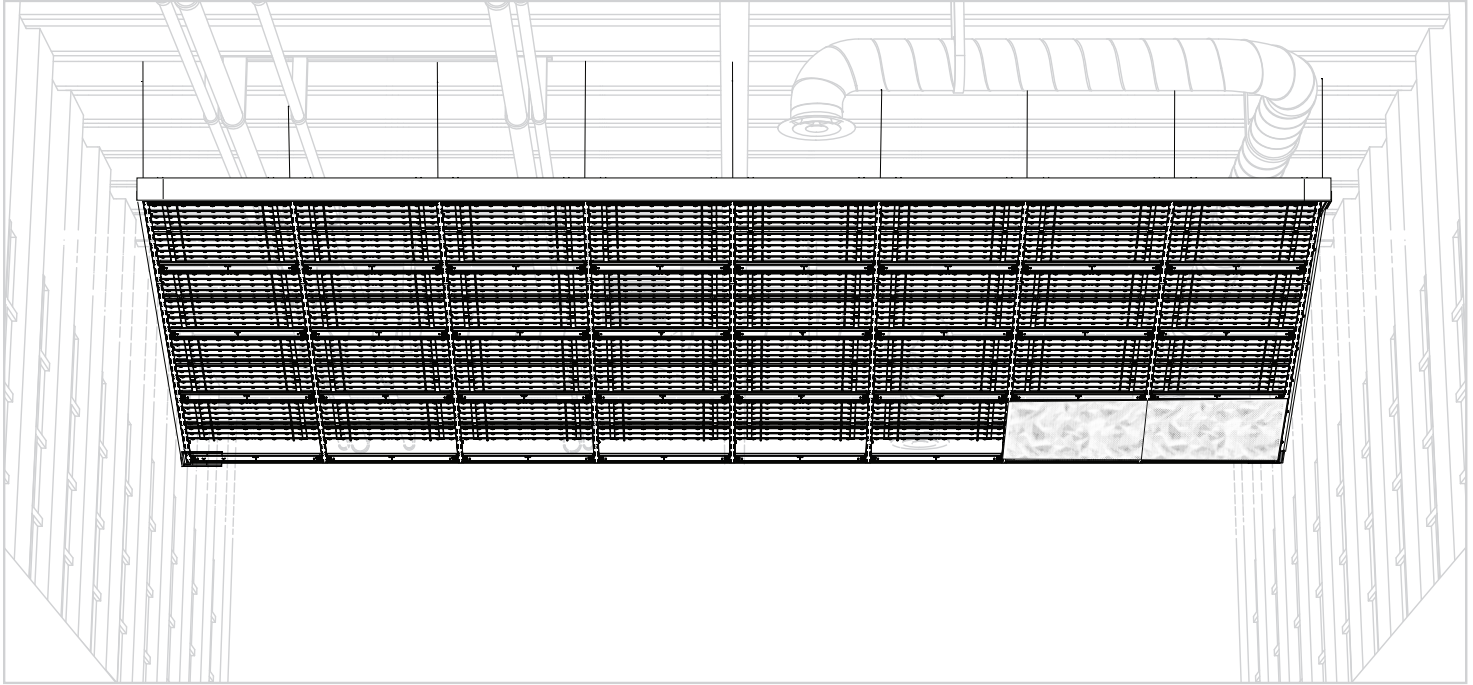
B) Swing Panel up, then fasten Torsion Springs "d" through "f" into Main Tee all at once.



IMPORTANT: One side of Panel features Notches which allow for it to hinge down temporarily prior to fastening Torsion Springs on opposite side. This side of Panel must be fastened first. This functionality also provides for plenum access after full installation.

General Installation

Install Remaining Illusions Panels

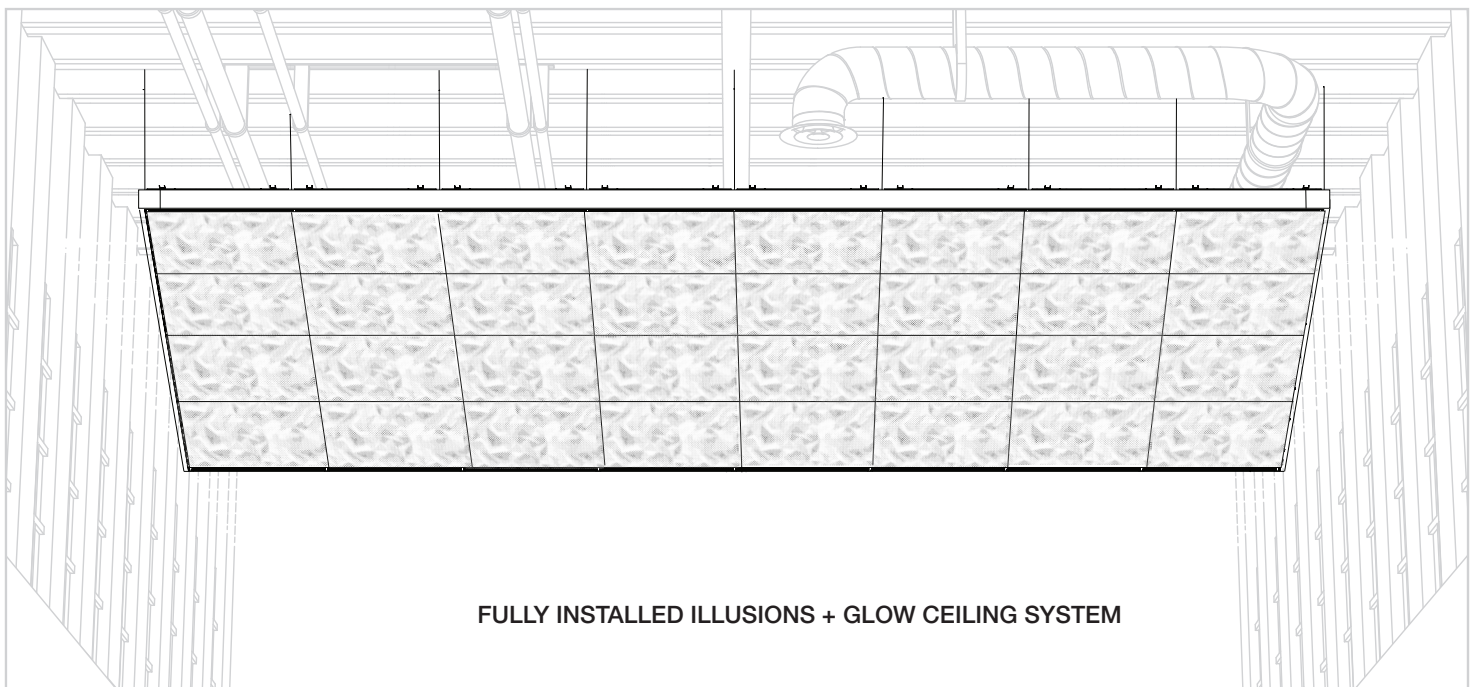


C) Continue installing **all** successive Panels adjacent to Perimeter Trim using previous procedures.

D) Once **all** perimeter-adjacent panels have been installed, proceed with with next round of panels, working inward towards center. **NOTE:** It is important to work from perimeter to center, to prevent fastening of Torsion Springs to incorrect Slots. Working inward will make clear which row of slots is next.

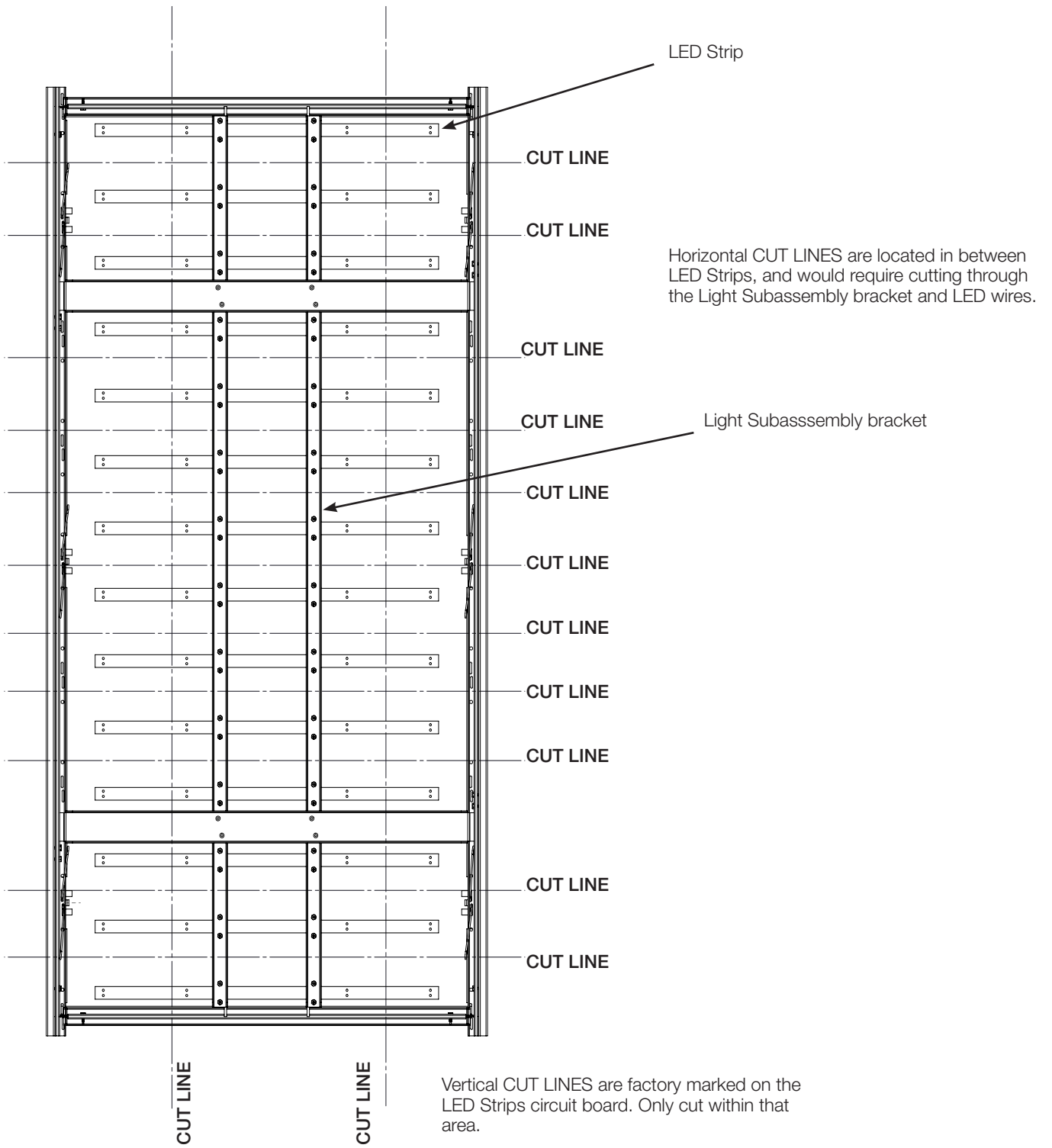
E) INSPECT INSTALLATION:

- Make sure all hanging-wire and supports are properly connected.
- Make sure grid is leveled and all electrical connections are secure.
- Check for any scratches and smudges and address accordingly.
- Sign off.



Perimeter Condition

Field cut options

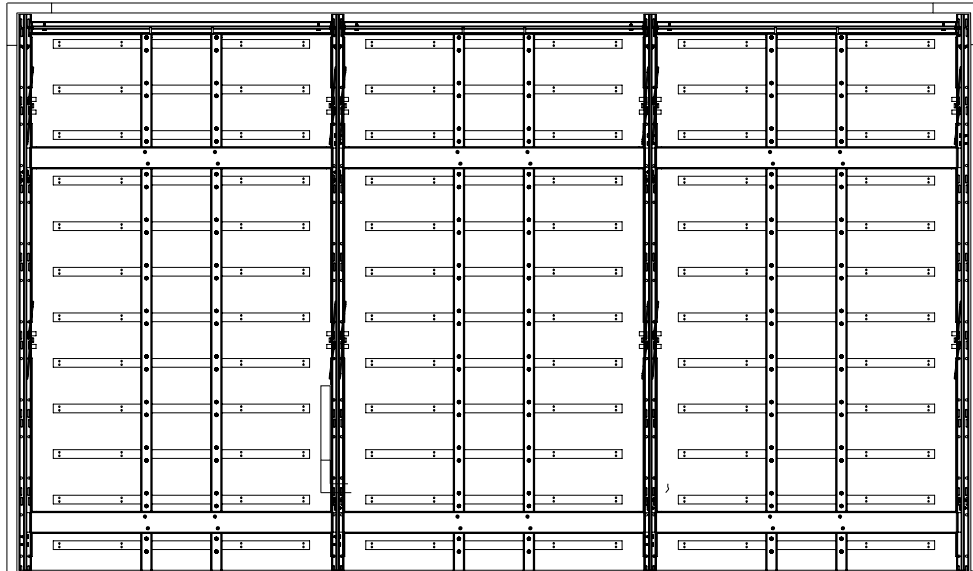


VIEW FROM PLENUM

Perimeter Condition

Field cut - End

PANEL ASSEMBLY
SHOWN WITH TRIM

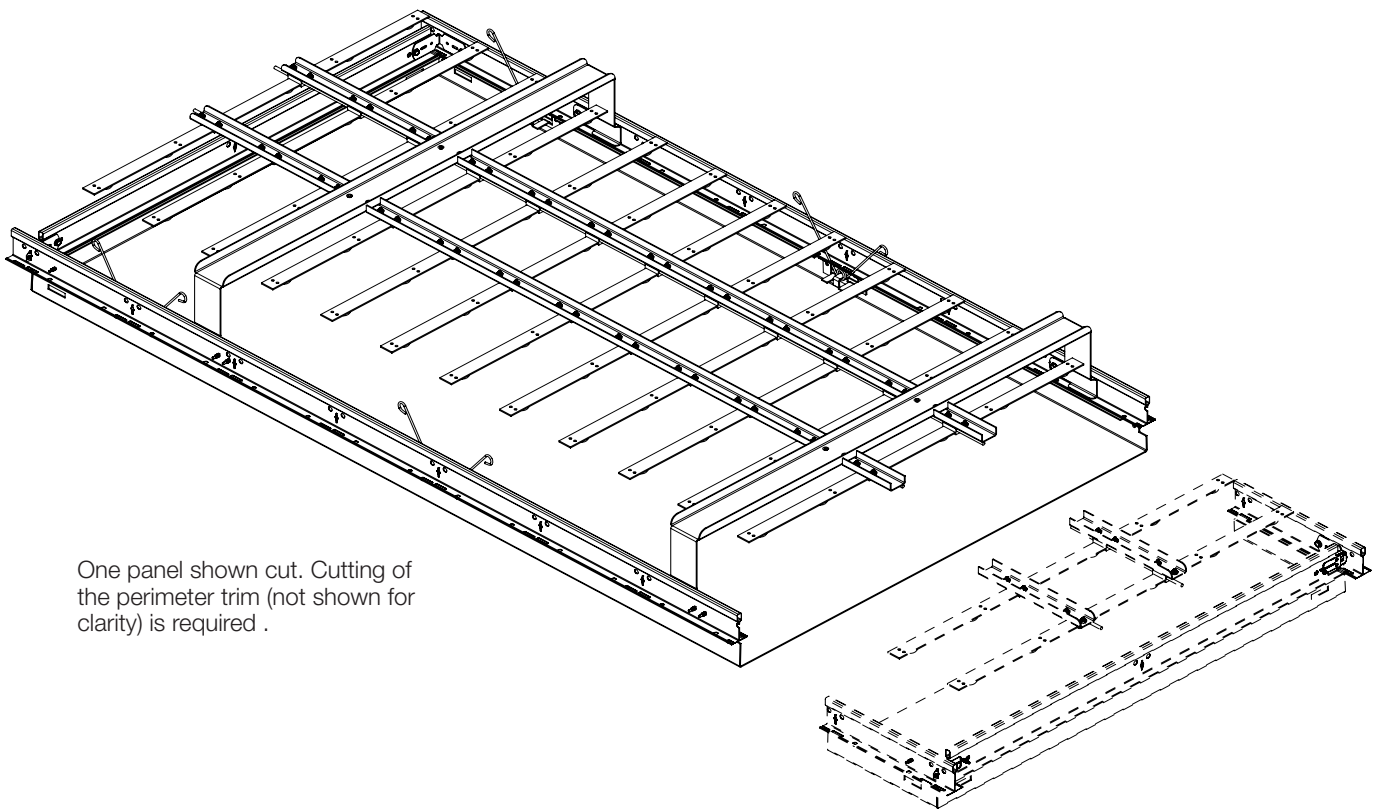


CUT LINE

MATERIAL REMOVED



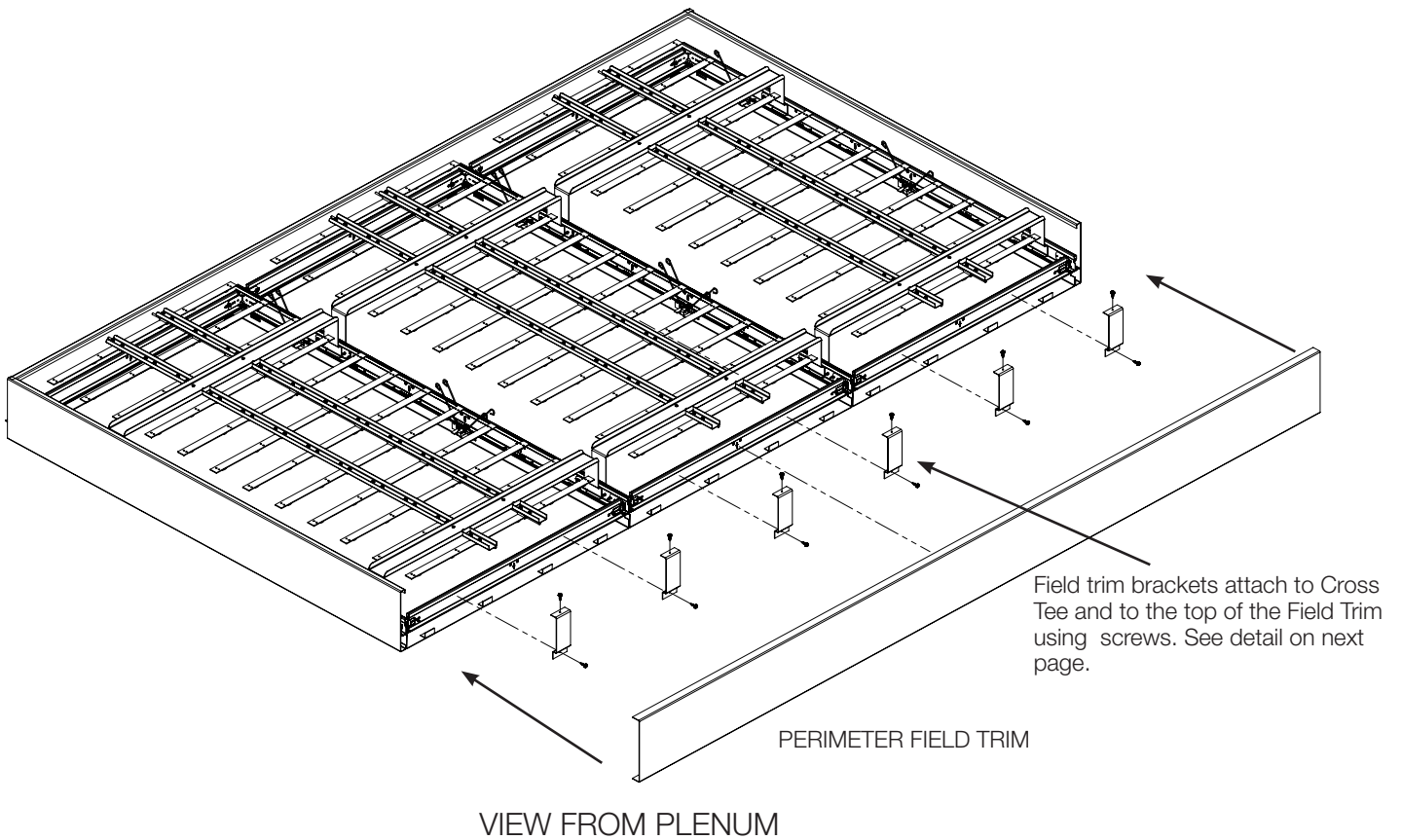
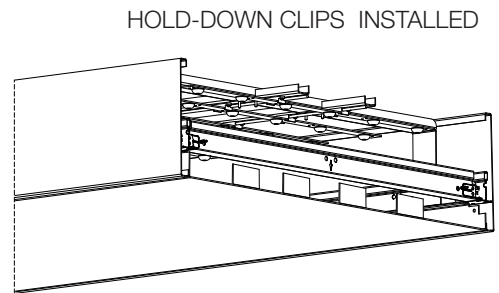
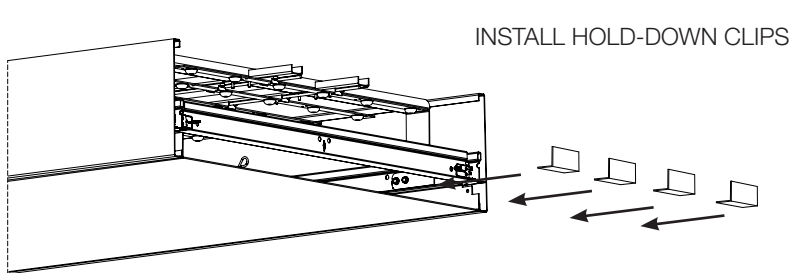
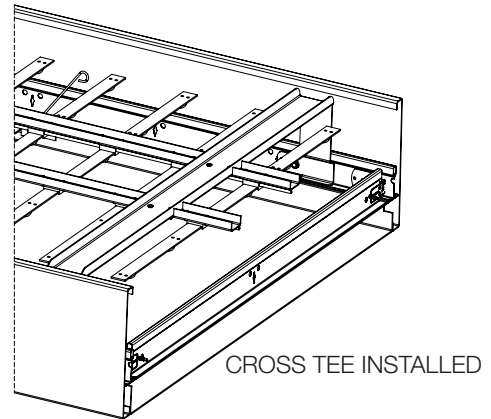
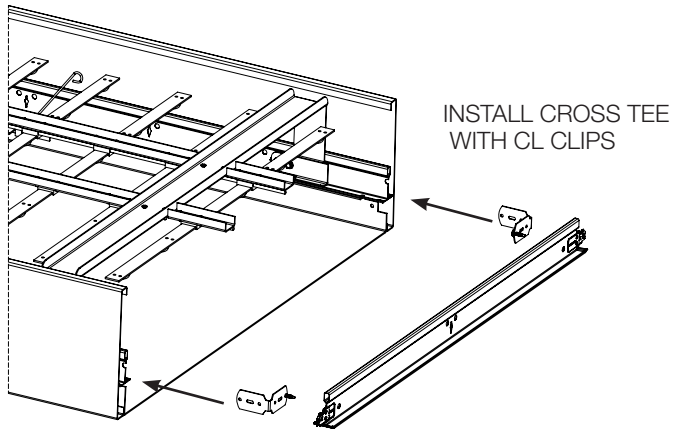
VIEW FROM PLENUM



One panel shown cut. Cutting of the perimeter trim (not shown for clarity) is required .

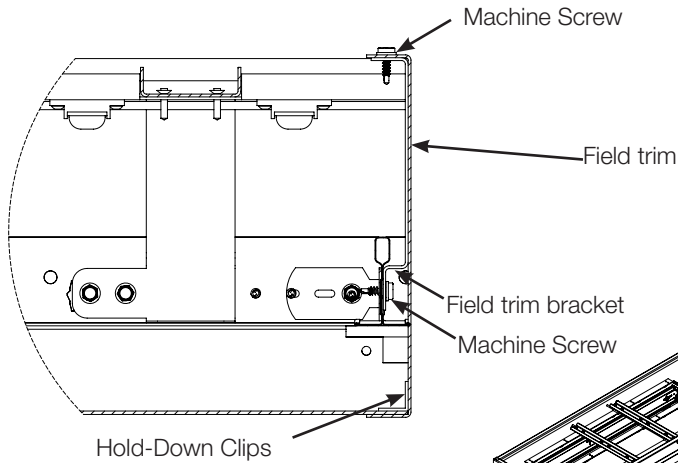
Perimeter Condition

Cross tee installation



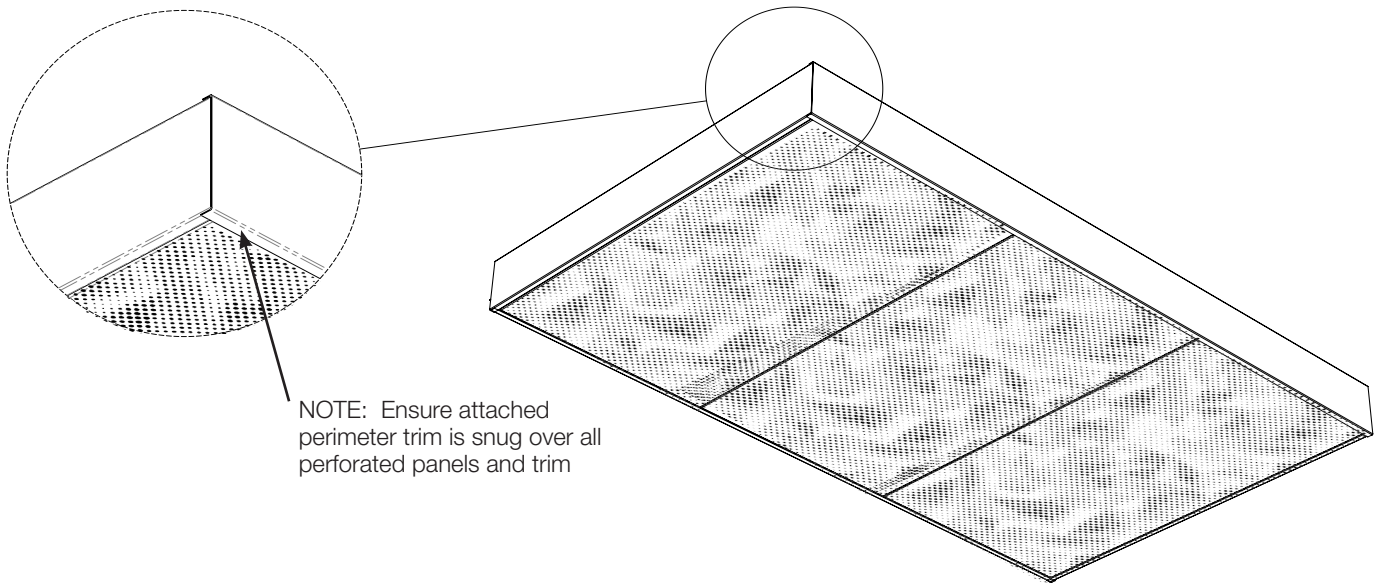
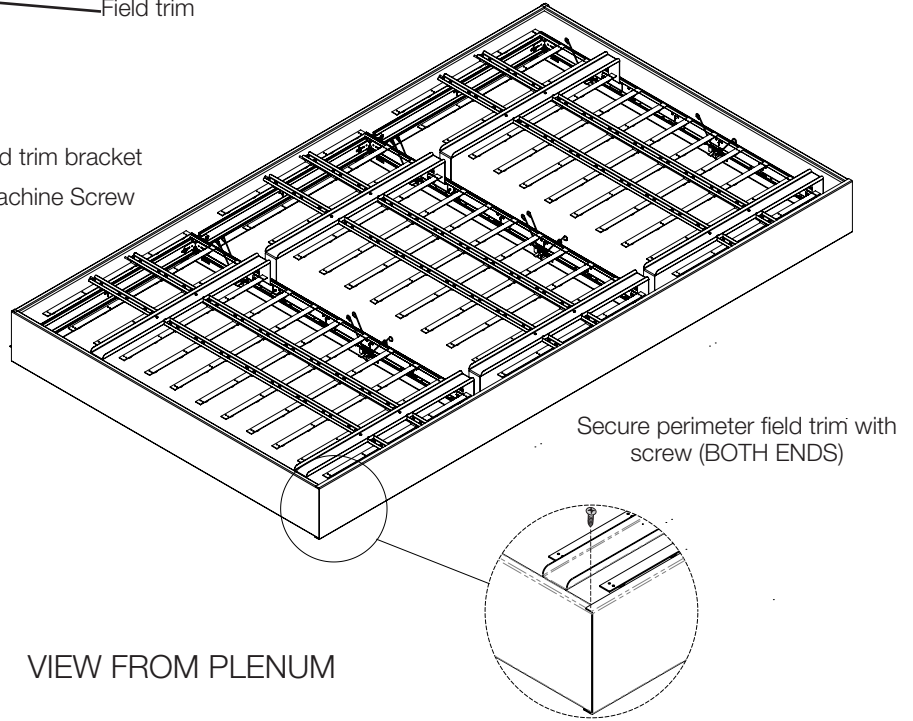
Perimeter Condition

Attaching perimeter trim to cross tee



NOTE: Ensure Hold-Down Clips and Field Trim are firmly in place with no gaps.

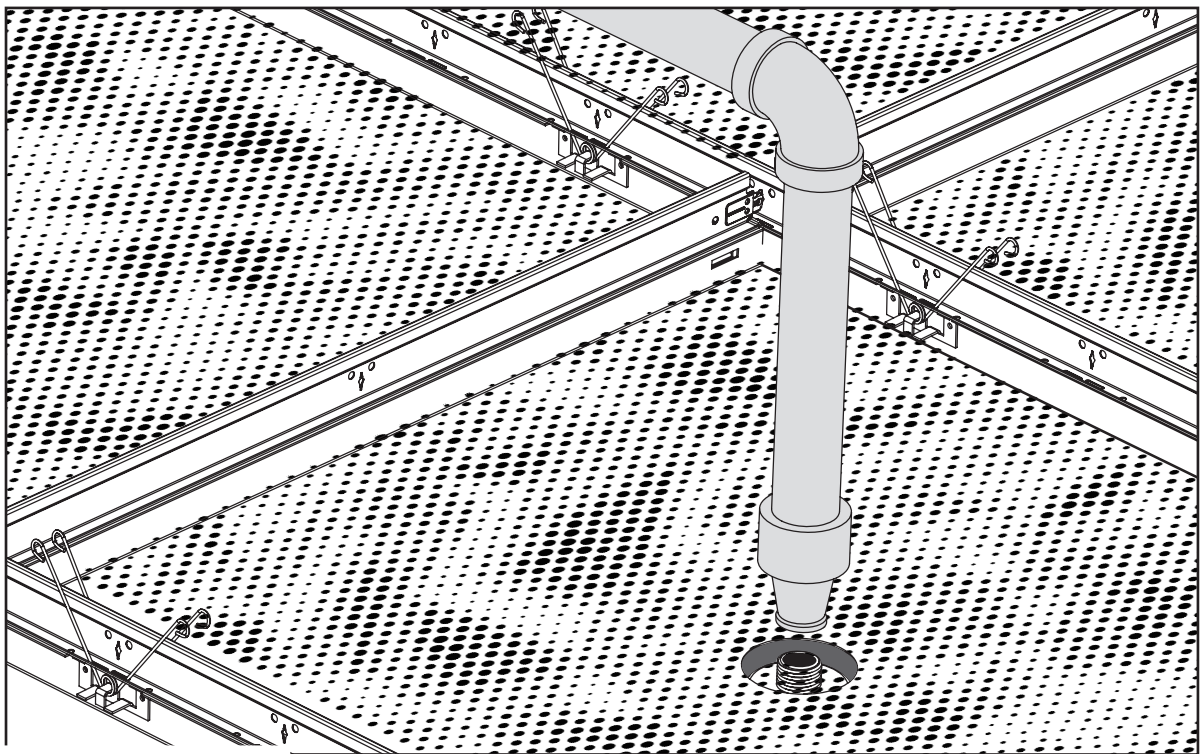
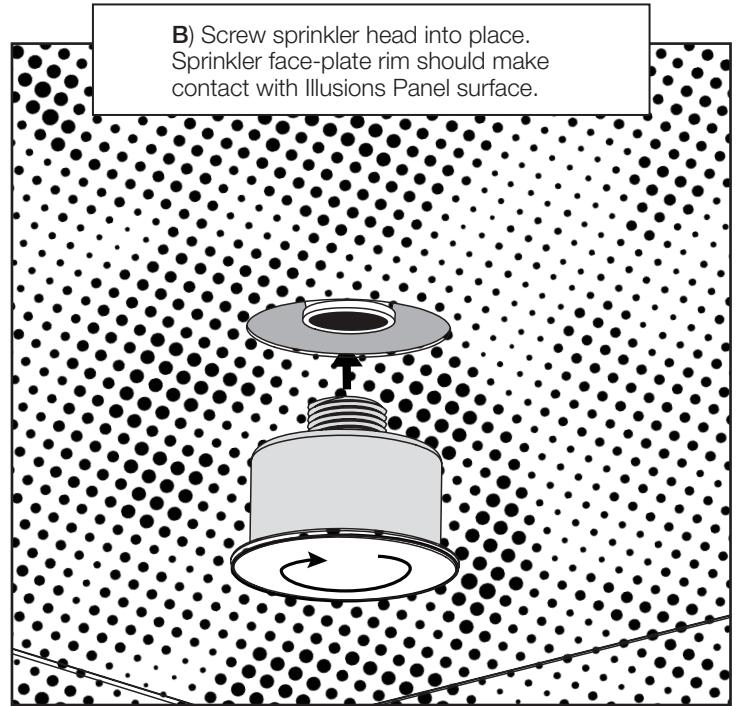
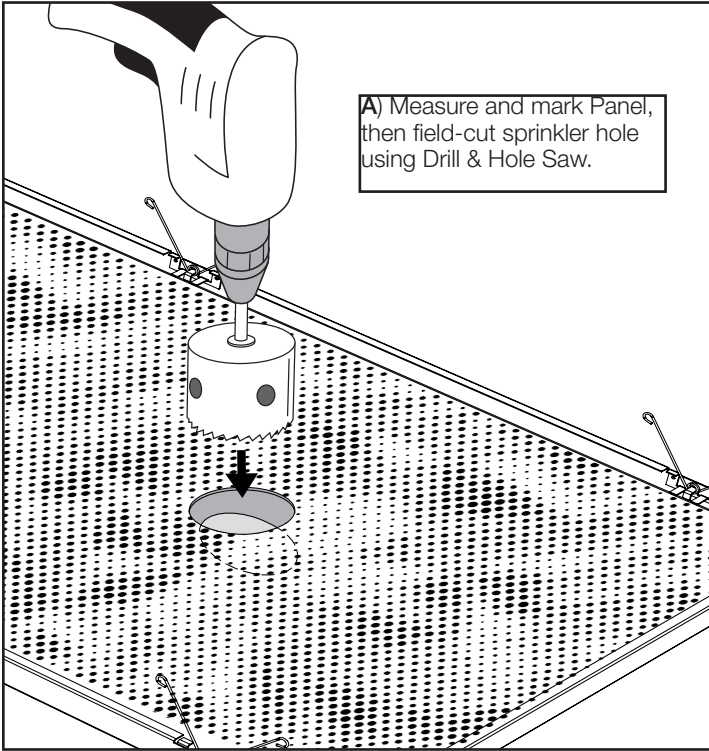
DETAIL SECTION VIEW OF
FIELD TRIM ASSEMBLY



FULLY MODIFIED ILLUSIONS + GLOW CEILING SYSTEM

MEP Integration

Fire Sprinklers Integration

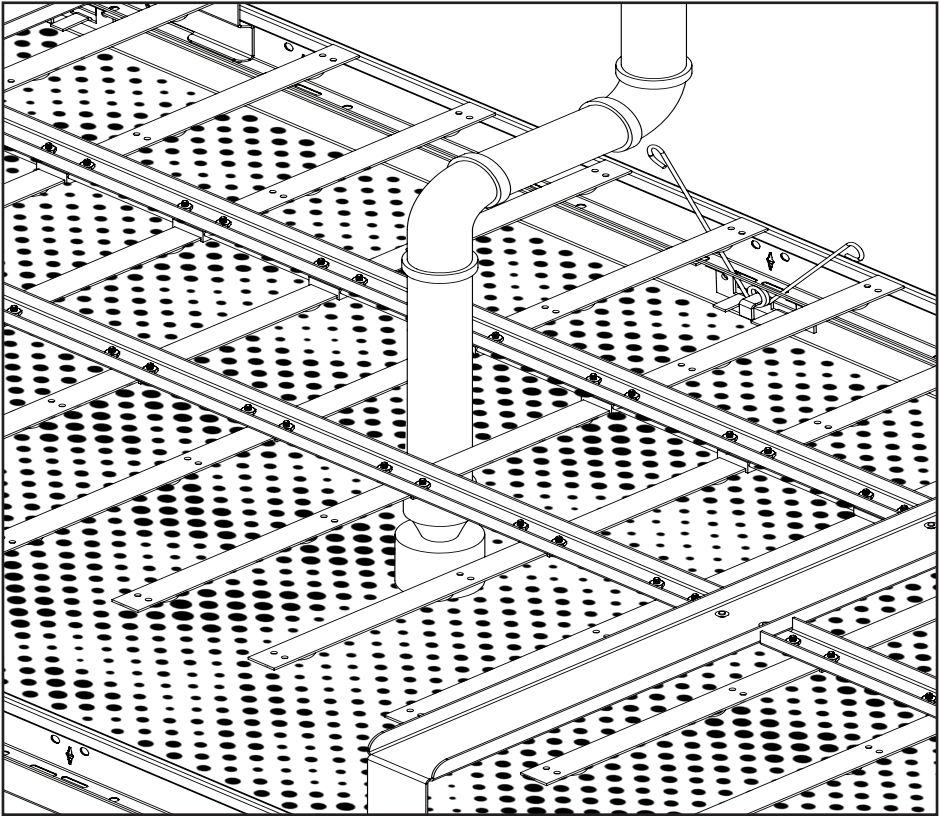


Note: Sprinkler installation type is for "Concealed Pendant".

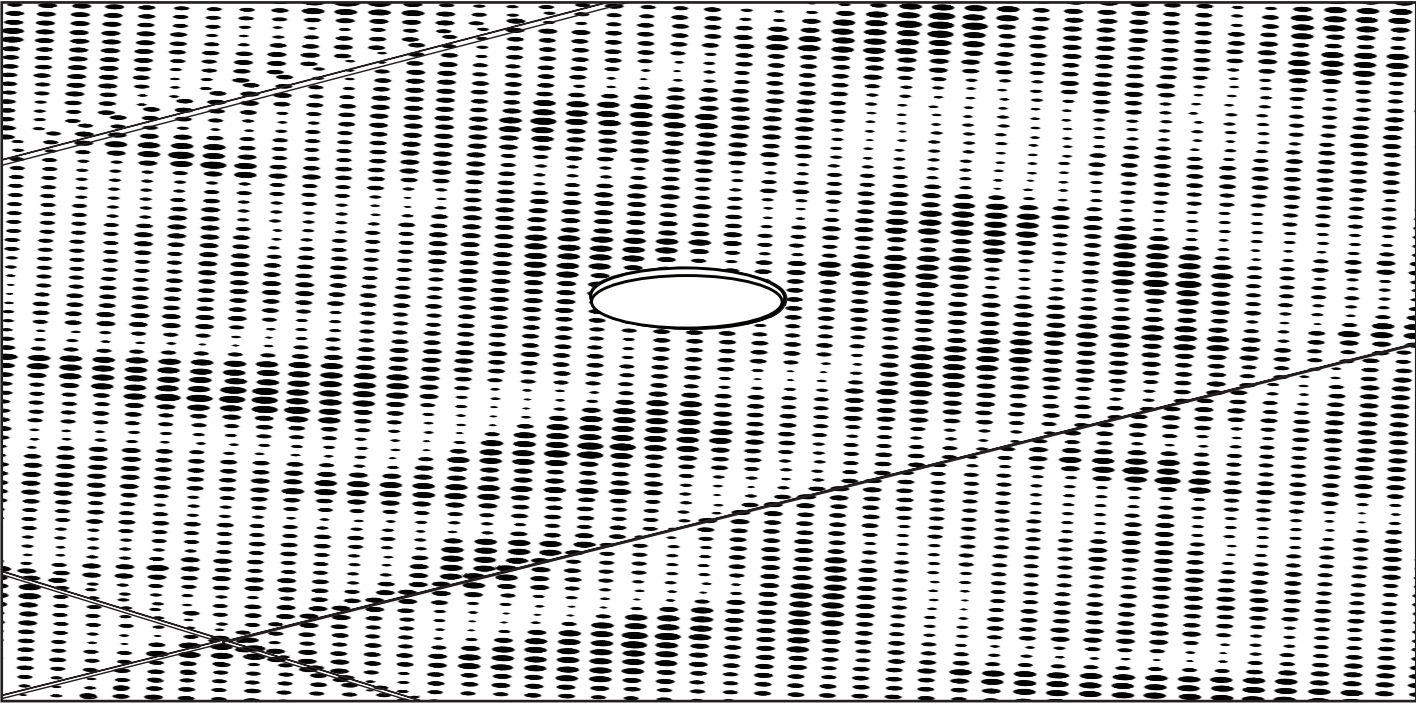
LIGHT SUBASSEMBLY NOT SHOWN FOR CLARITY (view from plenum)

MEP Integration

Sprinkler Integration Completed



LIGHT SUBASSEMBLY NOT SHOWN FOR CLARITY (view from plenum)



COMPLETED INSTALLATION (view from floor)

Maintenance

Adjust & Clean

- A.** Adjust ceiling components to provide a consistent finish and appearance in conformity with established tolerances and requirements.

- B.** Clean exposed surfaces of acoustical metal panel ceilings and walls. Comply with manufacturer's written instructions for cleaning and touch-up of minor finish damage.

- C.** Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage, including dented and bent units.

Support Contacts

Contact your sales rep for any additional support.

Notices

SAFETY

Safety First! Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation. Be cautious with exposed sharp edges when handling ceiling system components.

INSTALLATION

Prior to installation, make sure your project complies with any seismic & non-seismic requirements. Must be installed in compliance with ASTM C636, ASTM E580, utilizing standard industry practices and adopting applicable code requirements. Alternative assemblies and installation methods may be utilized when approved by the authority having jurisdiction. USG Ceiling Plus recommends checking with the authority having jurisdiction prior to designing and installing a suspended ceiling system.

LIMITATION

Some commercially acceptable color variation may occur between lots and between different size products of the same color.

LIABILITY

We shall not be liable for any incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Notes

Notes

