

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

LIGHTED MODULAR  
CEILING PANELS

**INSTALLATION GUIDE**



CEILINGS PLUS®

# 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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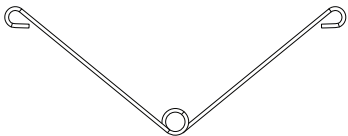
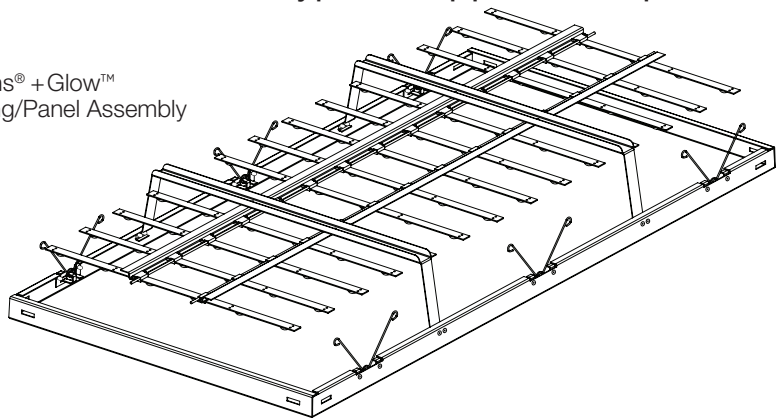
## Notices

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Preparation  
Component Identification

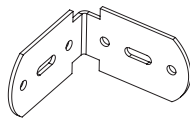
Typical Supplied Components

Illusions® + Glow™  
Lighting/Panel Assembly

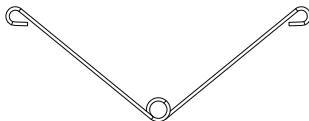


Torsion Spring  
(included, shipped loose)

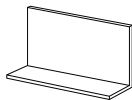
Available Accessories



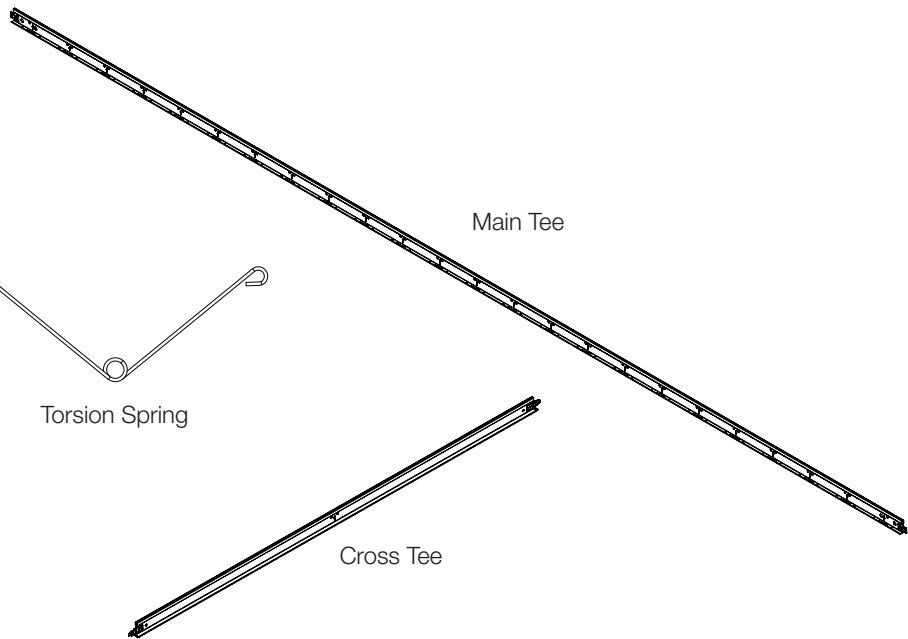
CL Clip



Torsion Spring



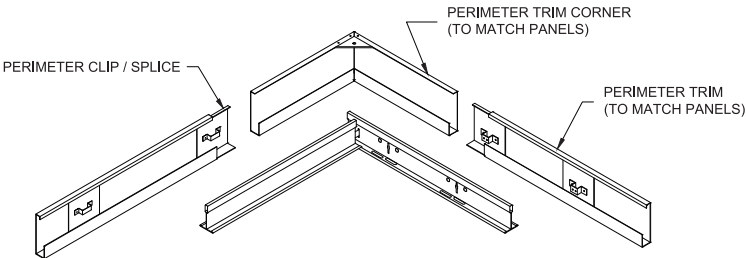
Hold-Down Bracket



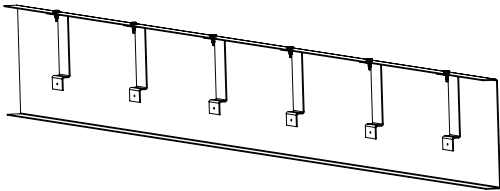
Main Tee

Cross Tee

PERIMETER TRIM - for **Factory Edge**



PERIMETER TRIM - for **Field-Cut Edge**





# Preparation

## Tools

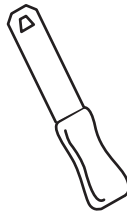
### Standard Tools



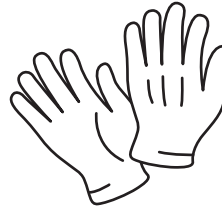
Safety Goggles



Hard Hat



Plenum Access Tool



White Cotton Gloves



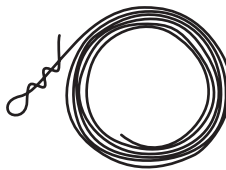
Tape Measure



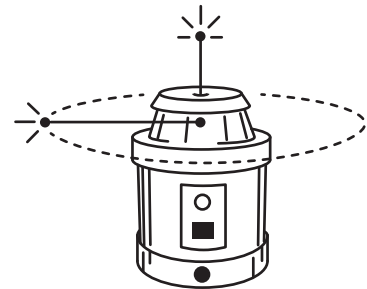
Square



Lineman Wire Cutters

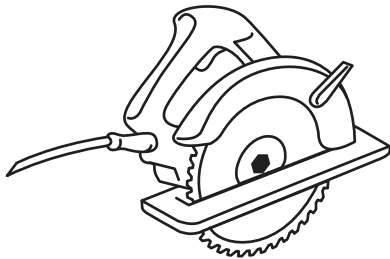


Hanger Wire

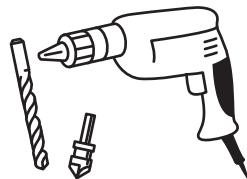


Laser Level

### Field Modification Tools



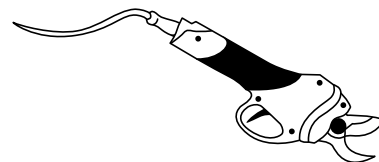
Rotary Saw



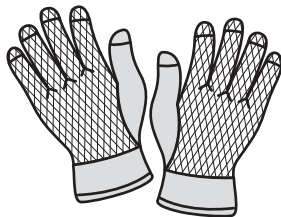
Drill with 1/8" Diameter  
Standard & Counter-Sink  
Bits



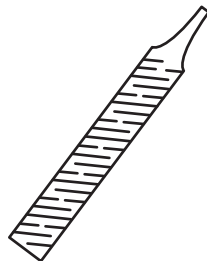
Hole Saw



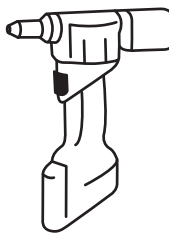
Electric Shears



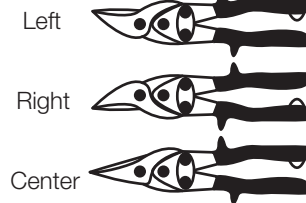
Working Gloves



File



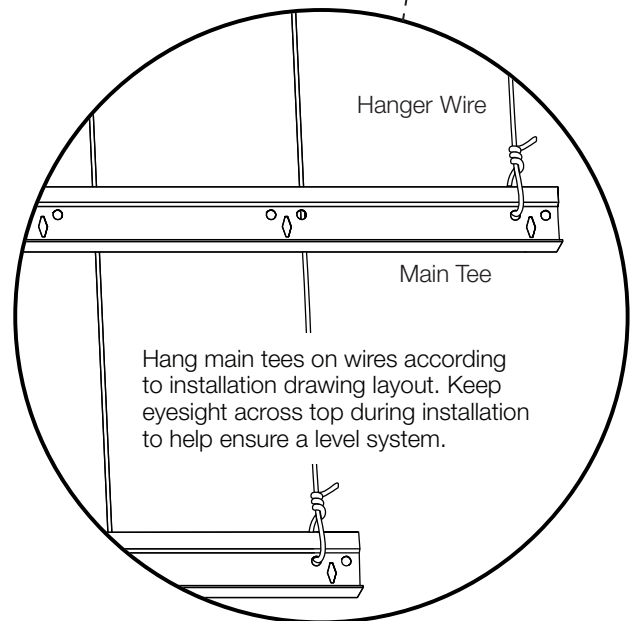
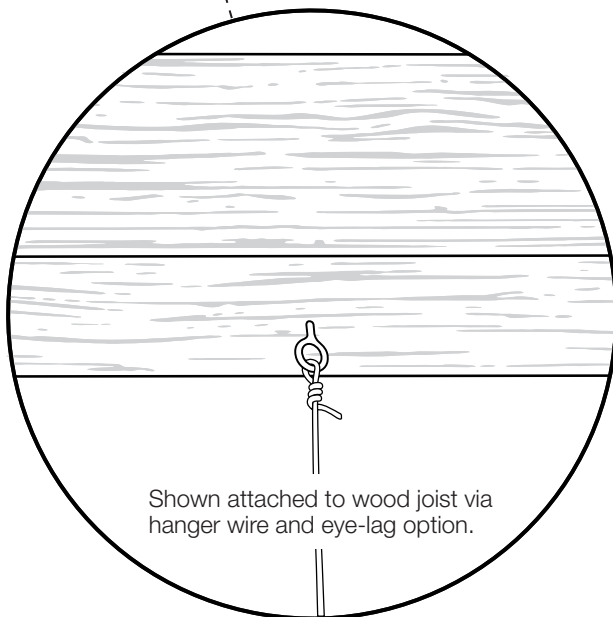
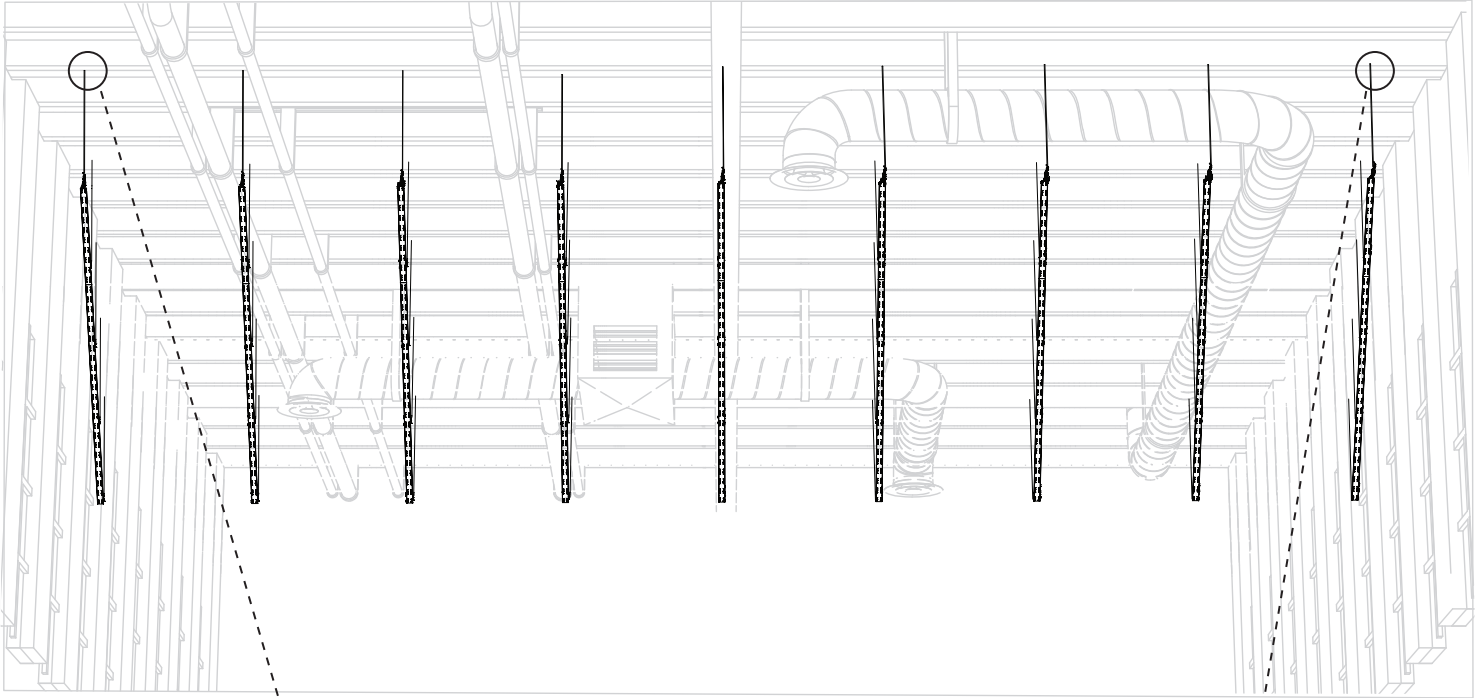
Rivet Gun



Snips

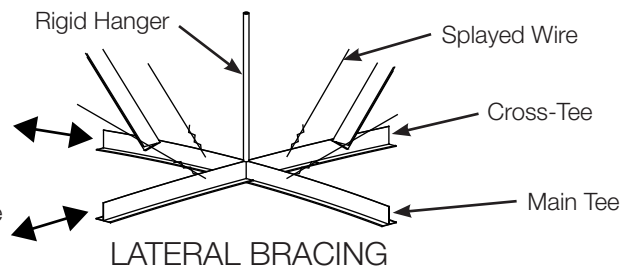
## General Installation

### Install Hanger Wire & Main Tees



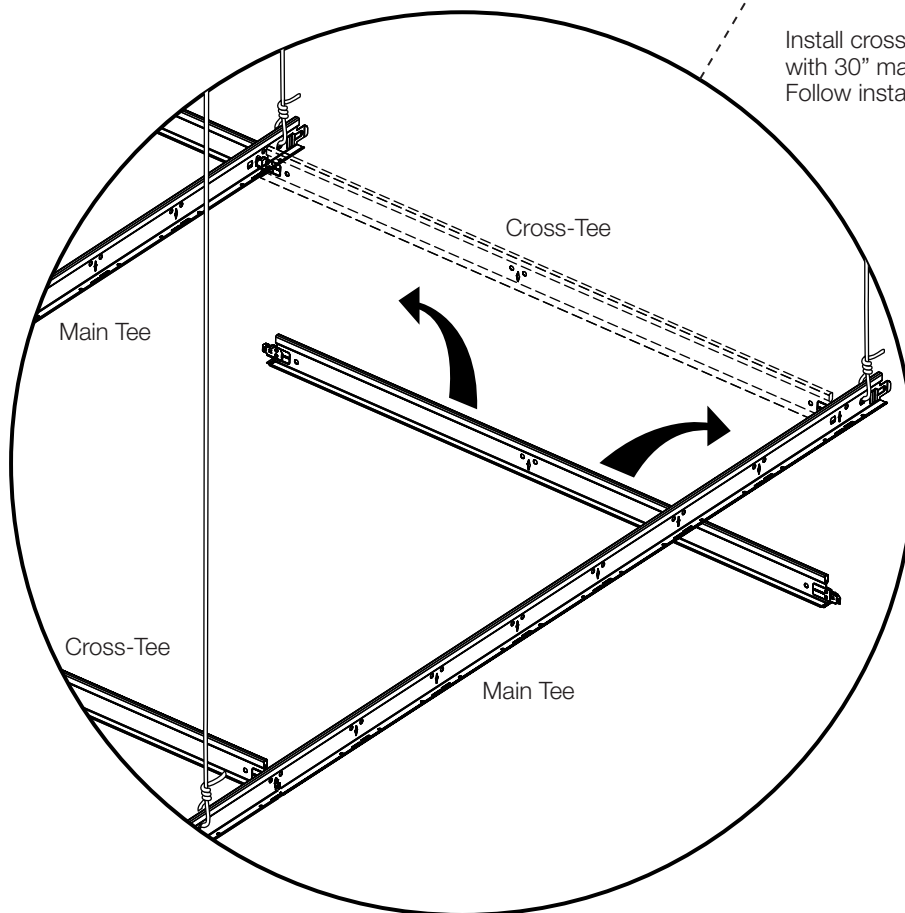
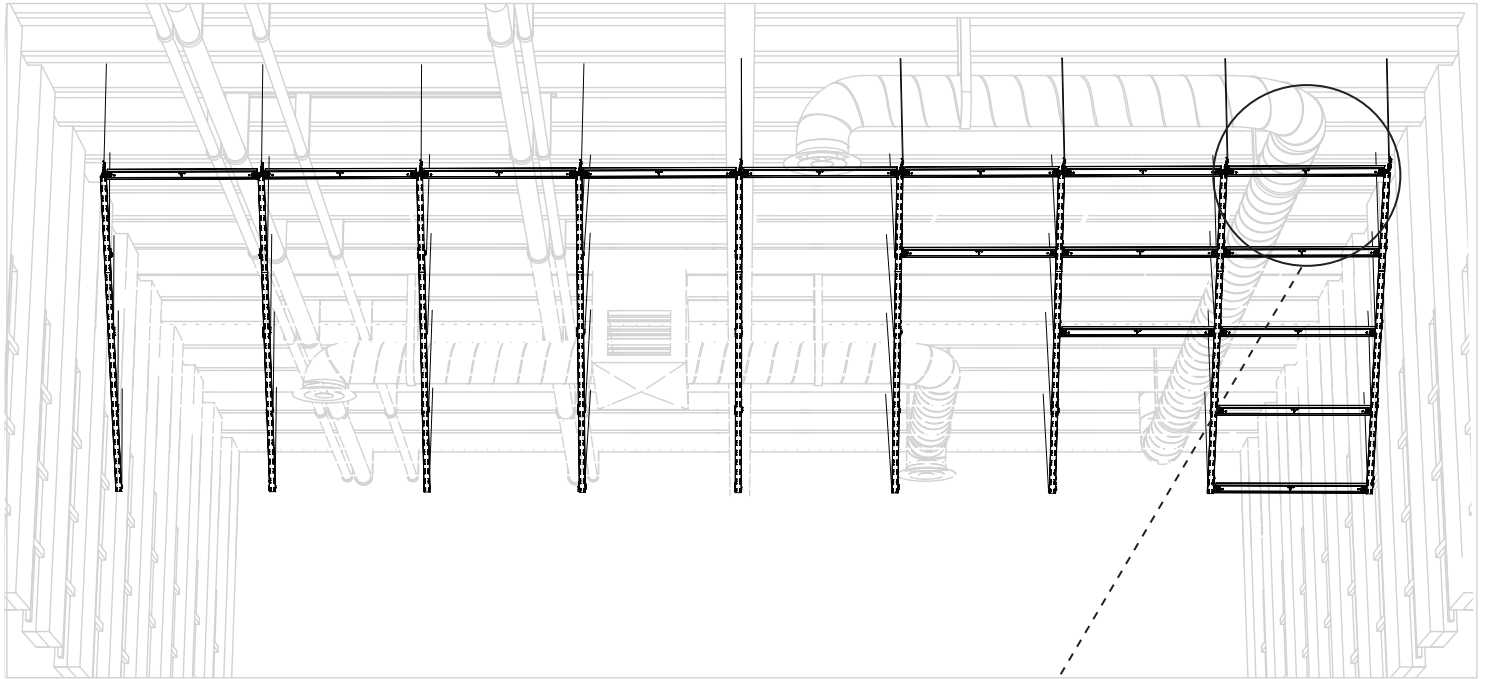
Install per ASTM C636 and ASTM E580 specifications. Select the correct fastener based on your field conditions, i.e. shot-in pin, anchor bolts, screw/clip, etc.

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

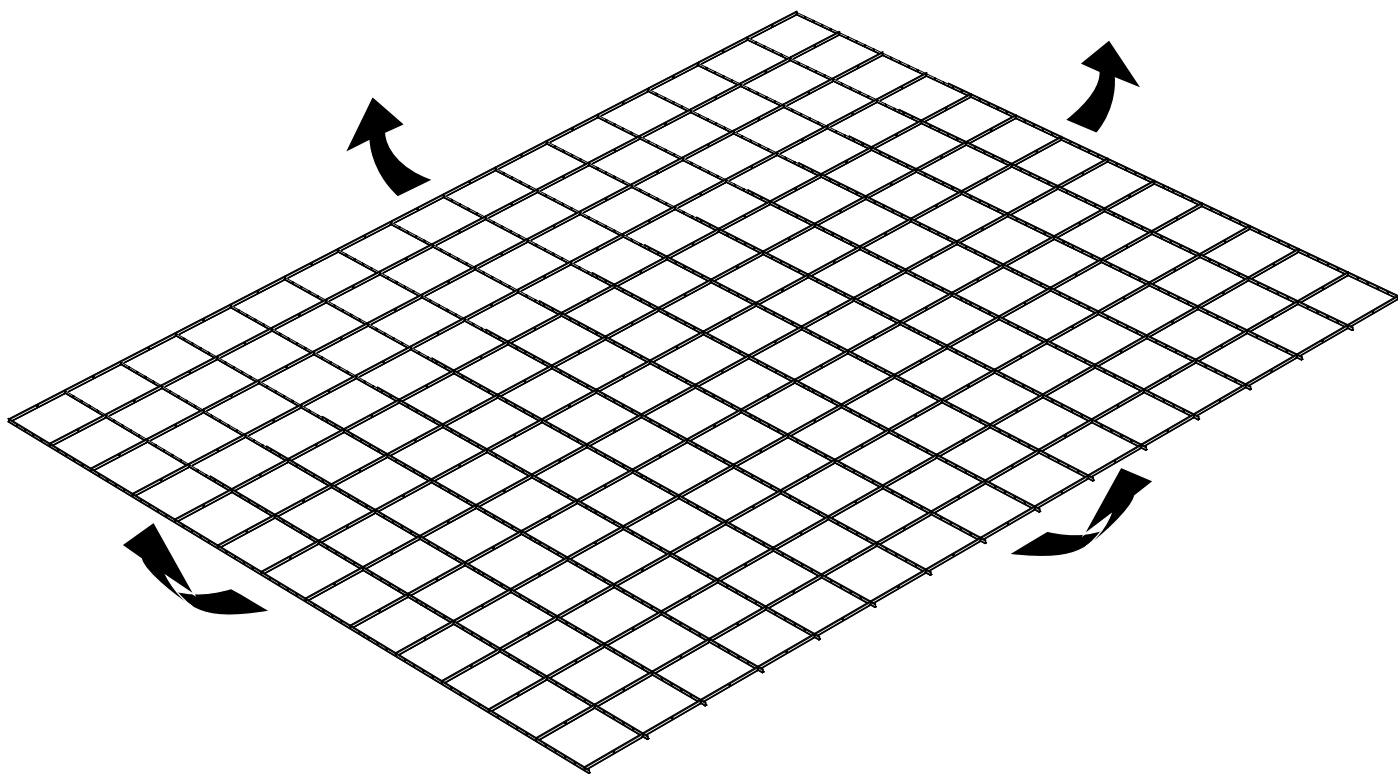


Install cross-tees between main tees with 30" maximum  $\varnothing$  spacing. Follow installation drawing layout.

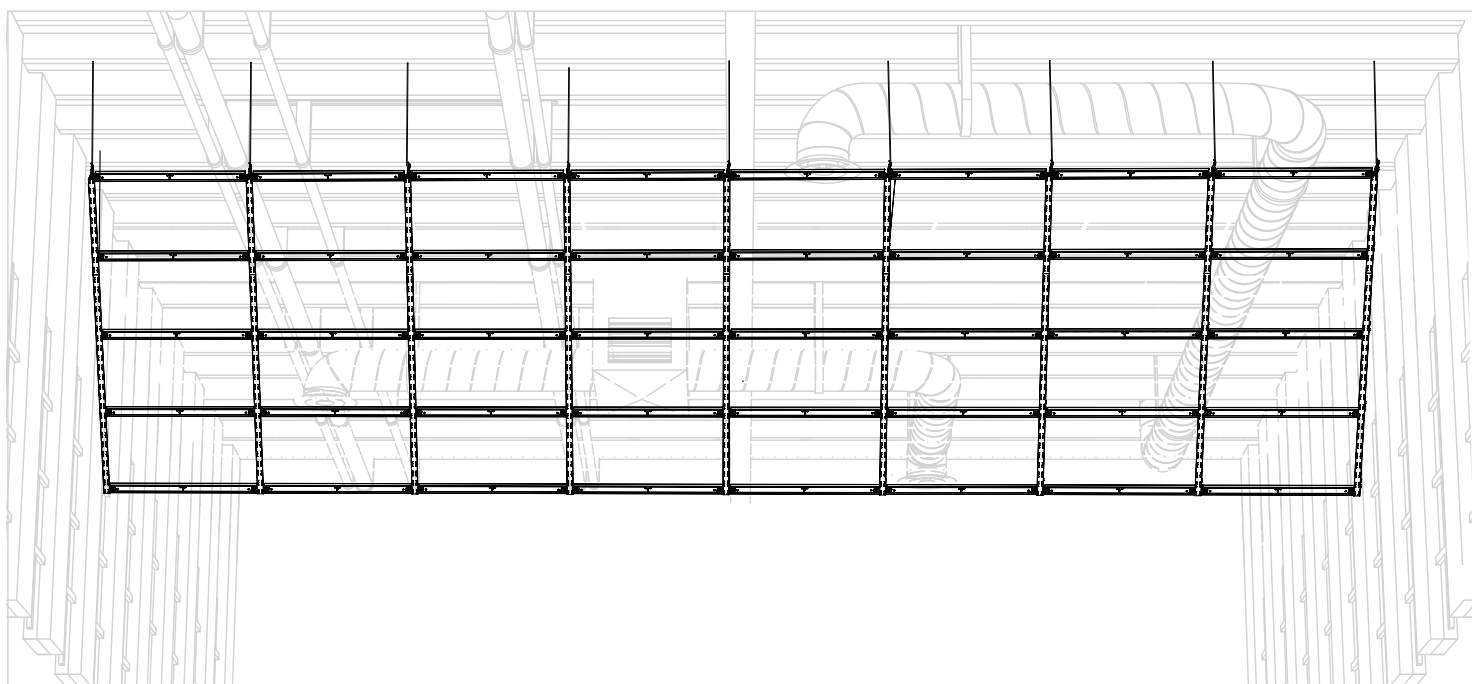


## General Installation

### Level Grid System

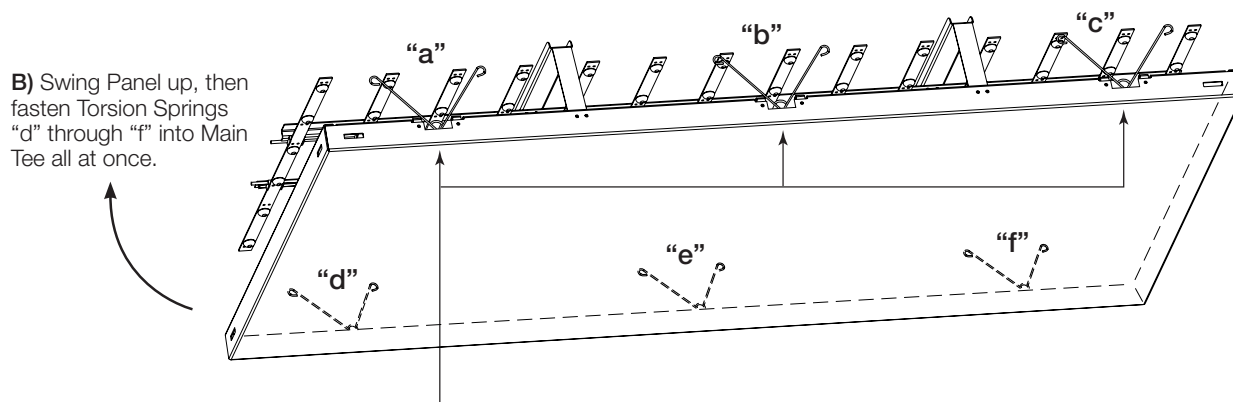
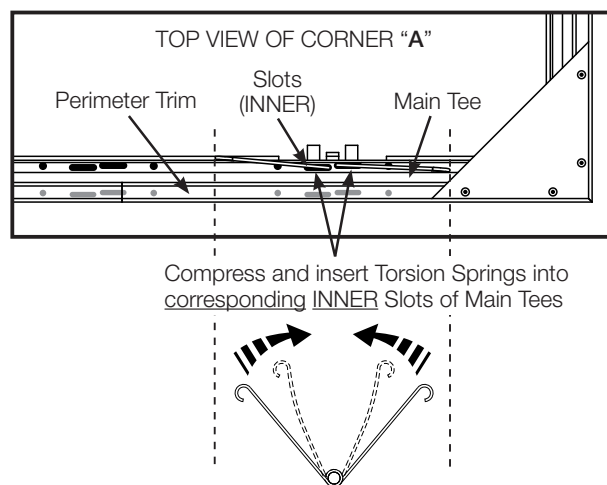
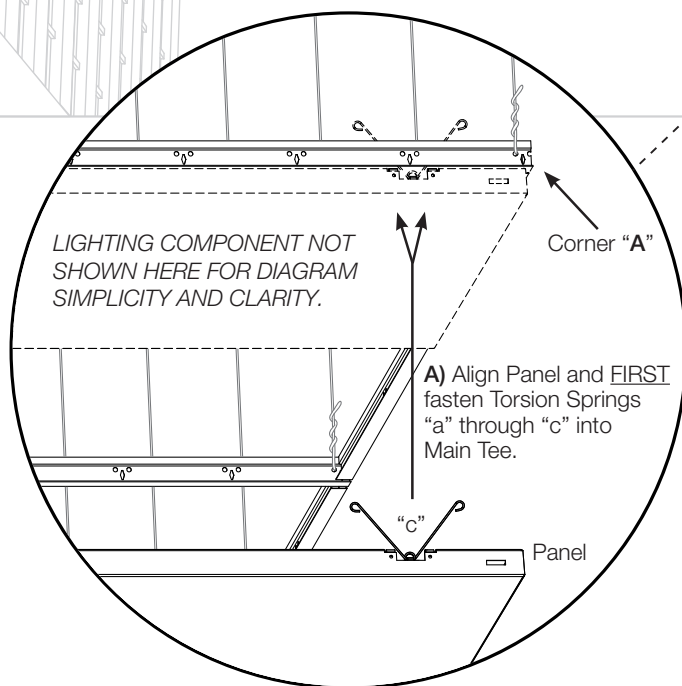
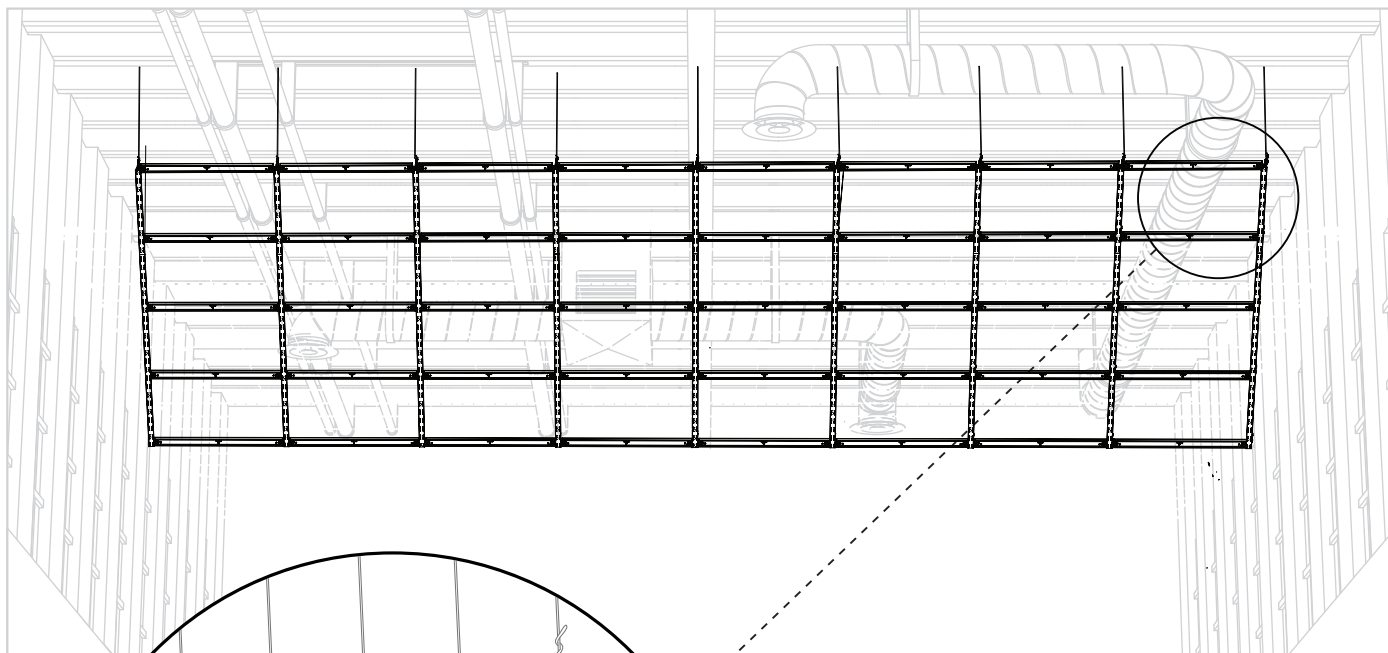


Use laser level to ensure whole grid is leveled to a 1/8" maximum variance.



# General Installation

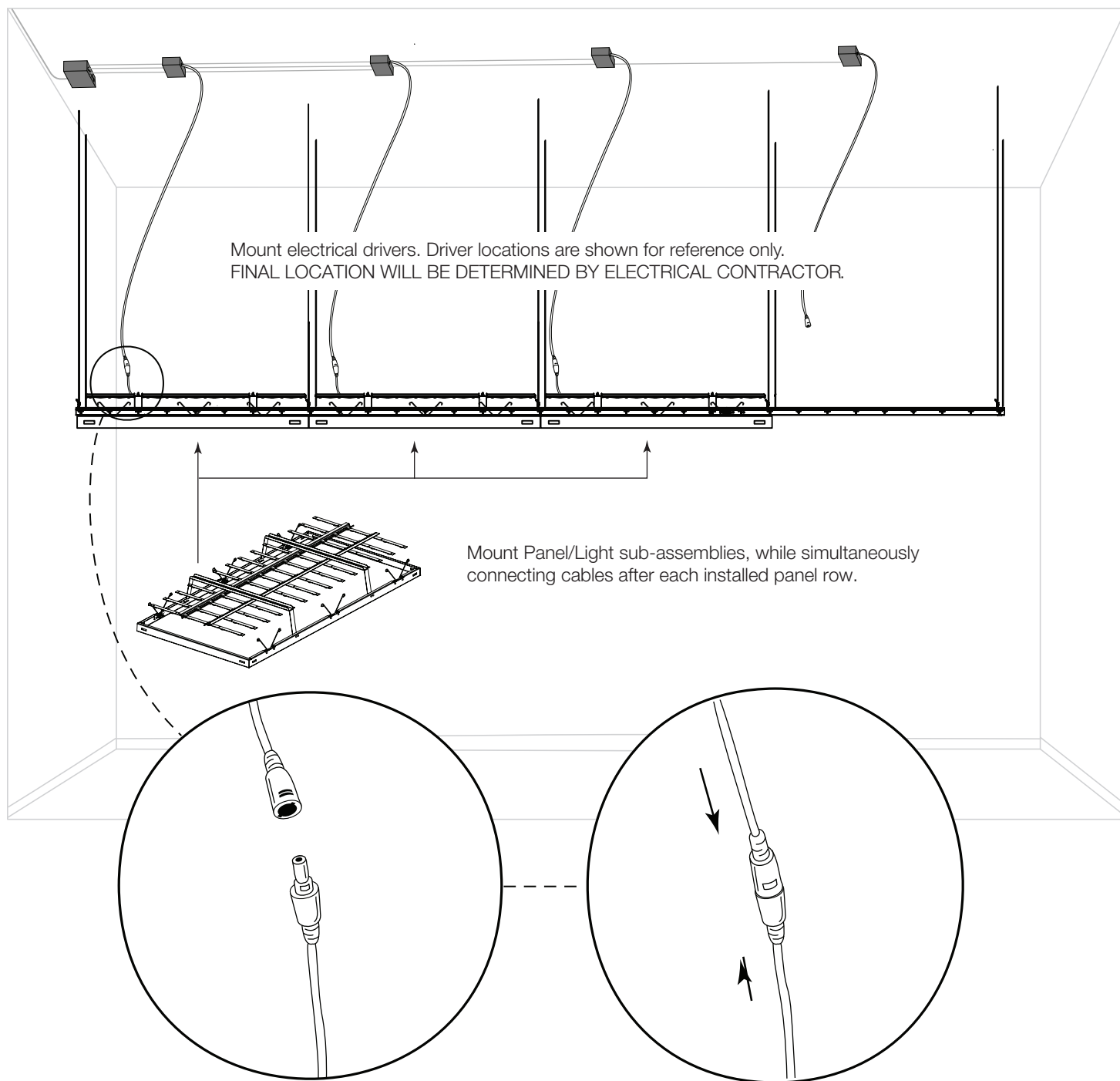
## Installing Light/Panel Assemblies



**IMPORTANT:** One side of Panel features Notches (a, b, c), to 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.

## Preparation

### Light Drivers and Panel Wiring

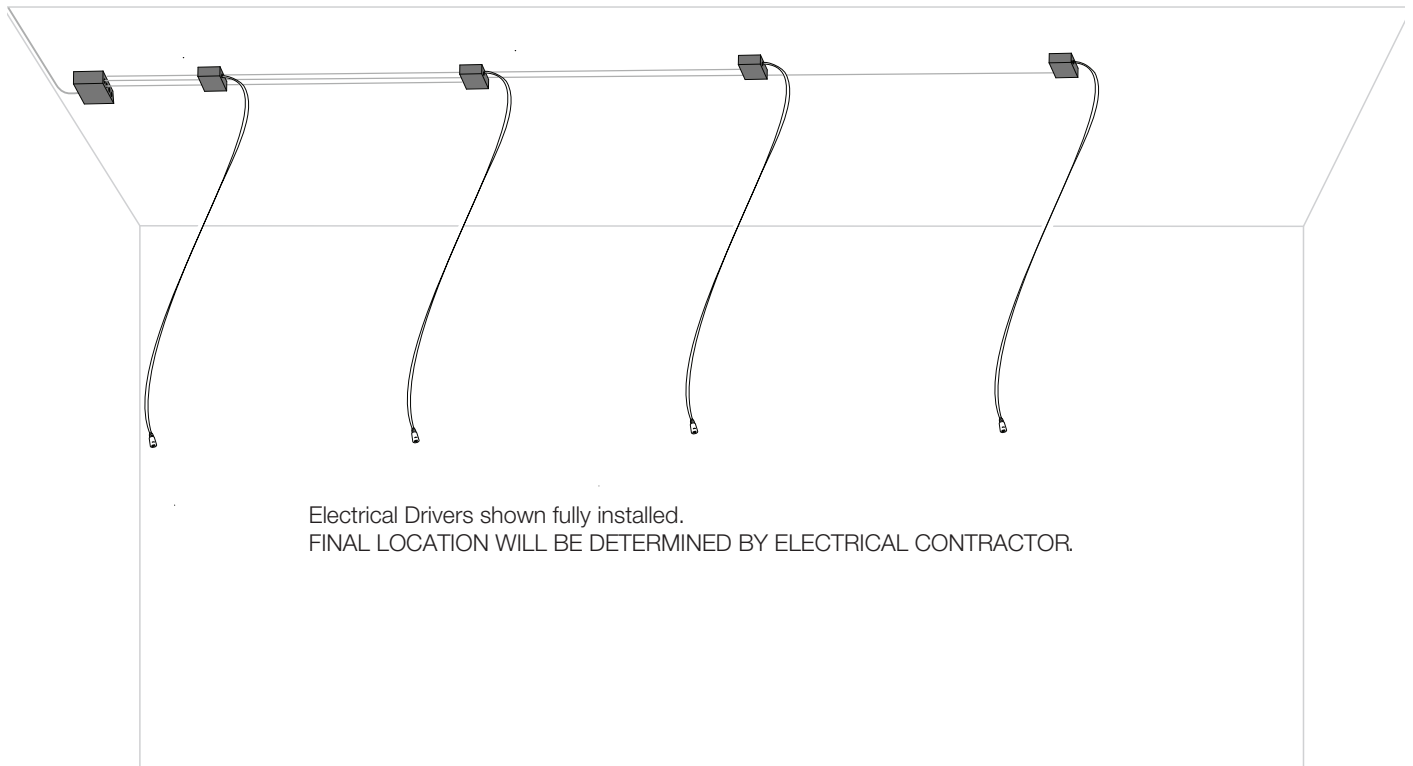


NOTE: If you are not utilizing Barrel Connectors, determine proper connections and strip/connect wire ends as necessary.

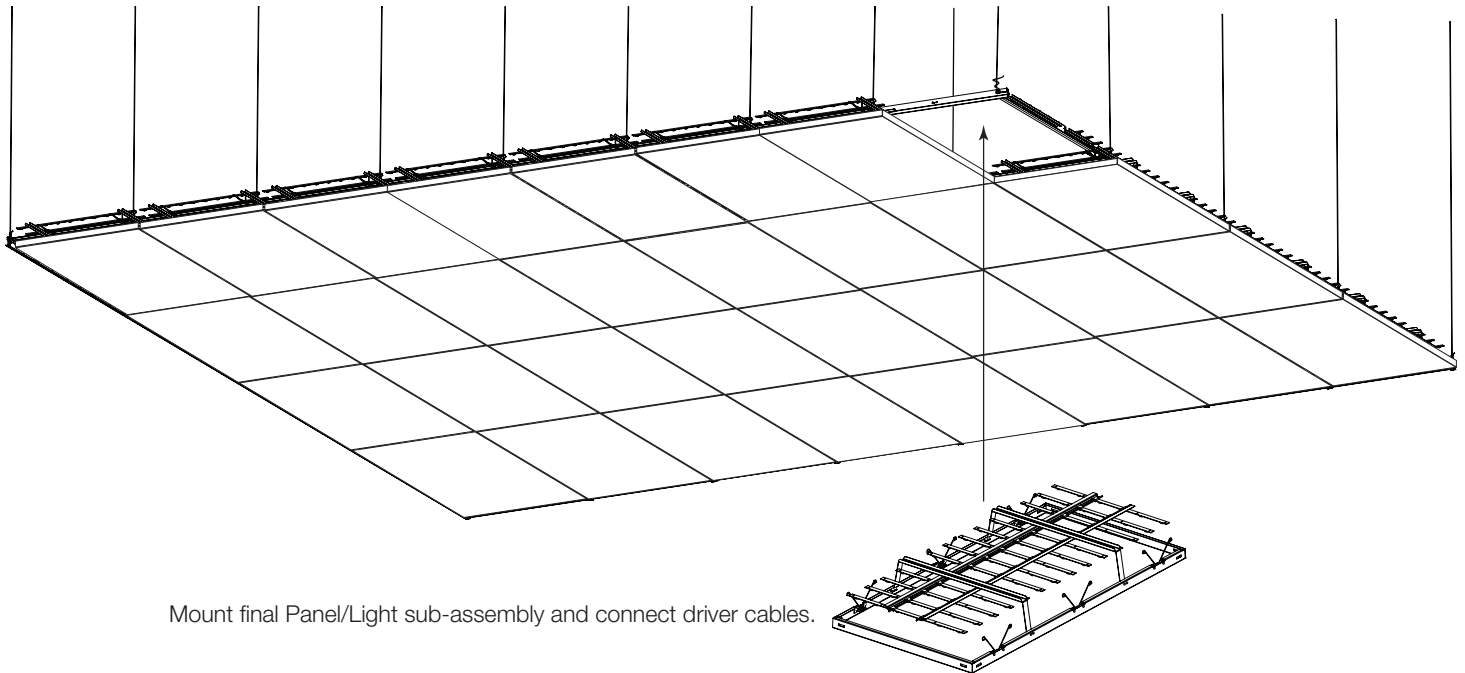


## Preparation

### Light Drivers Installation



Electrical Drivers shown fully installed.  
FINAL LOCATION WILL BE DETERMINED BY ELECTRICAL CONTRACTOR.

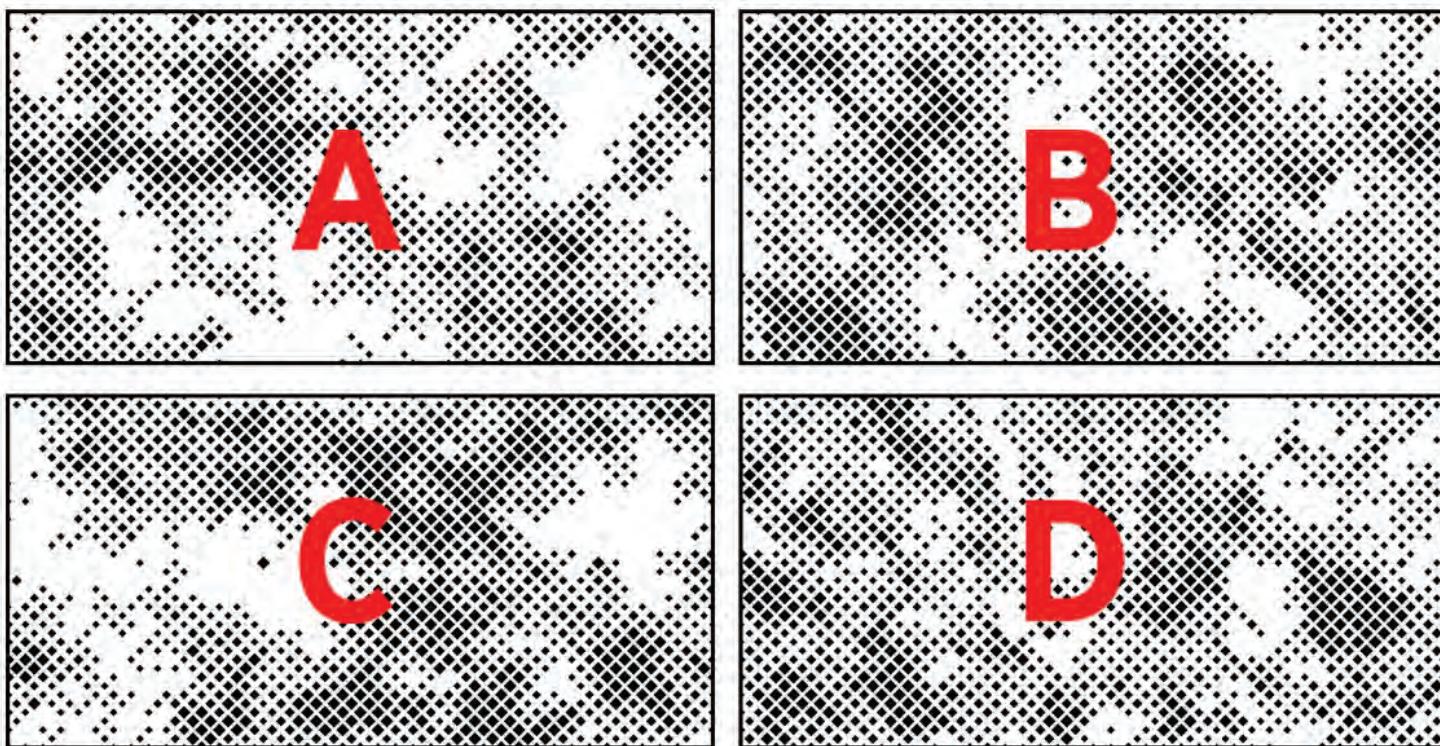


Mount final Panel/Light sub-assembly and connect driver cables.



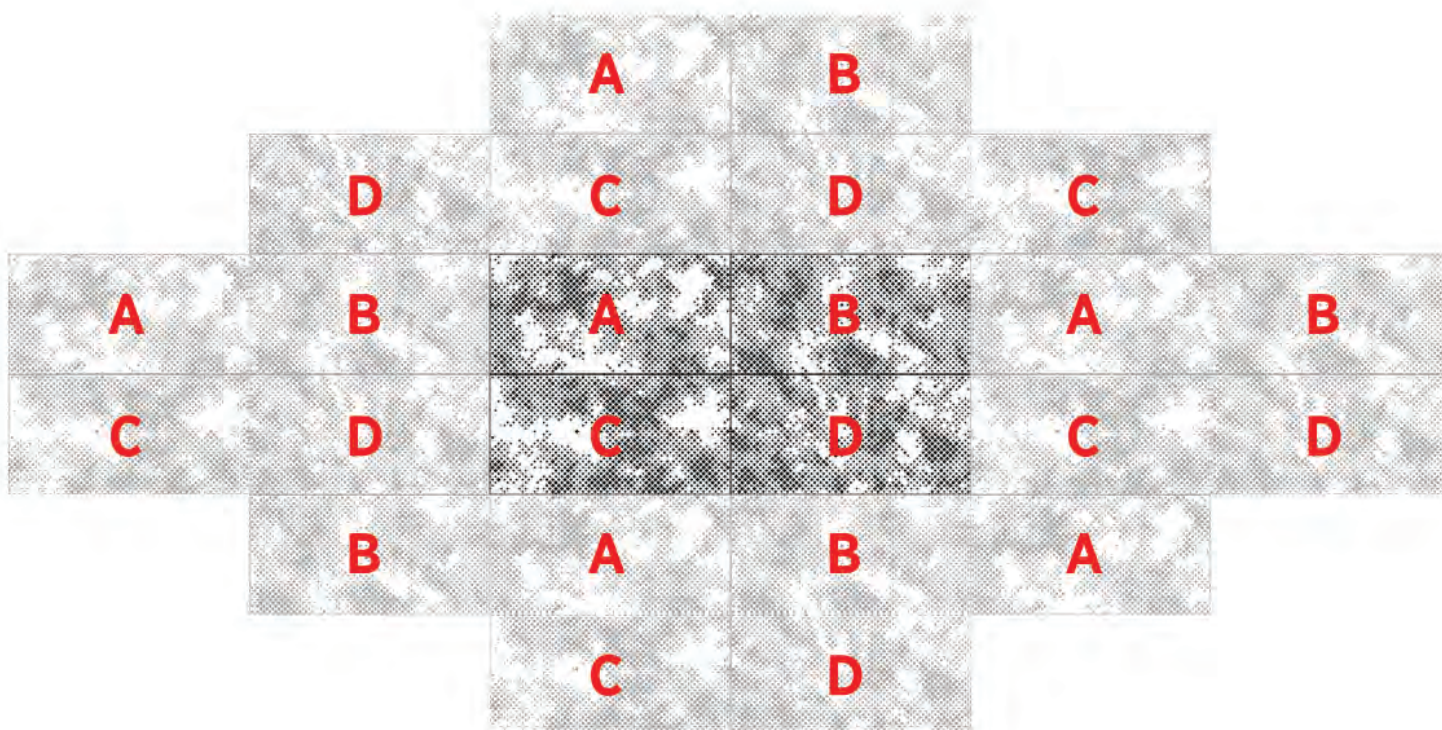
## Preparation

### Panel Layout



4-PANELS SETS FORM 1 UNIQUE DESIGN INSTANCE

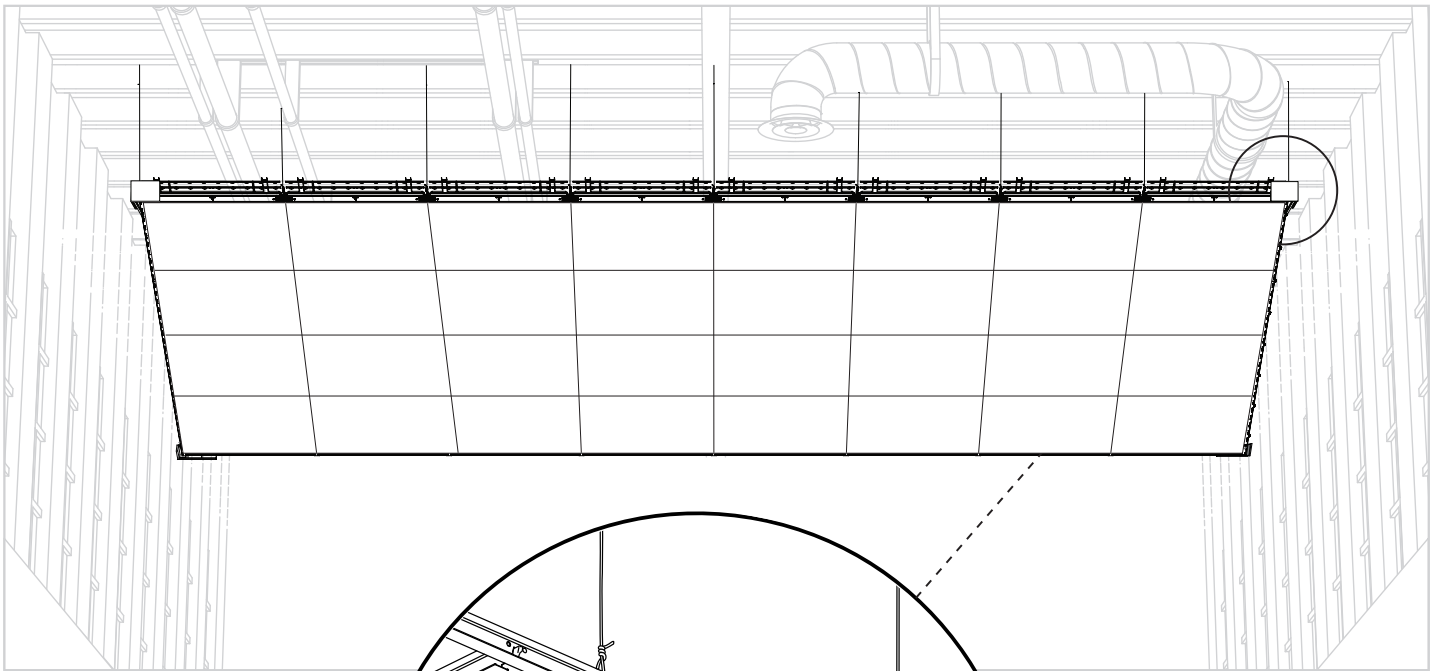
To expand design instance, panels must be installed in the order shown by the indicatory letters. Please refer to tiling layout guide below to ensure proper perforation continuation/repetition.





# 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.**

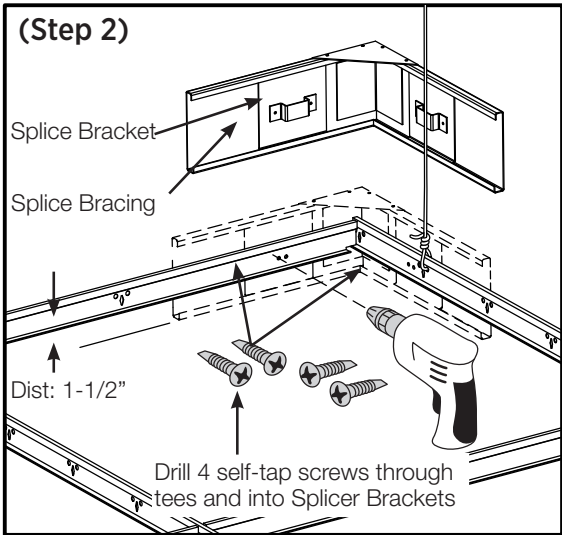
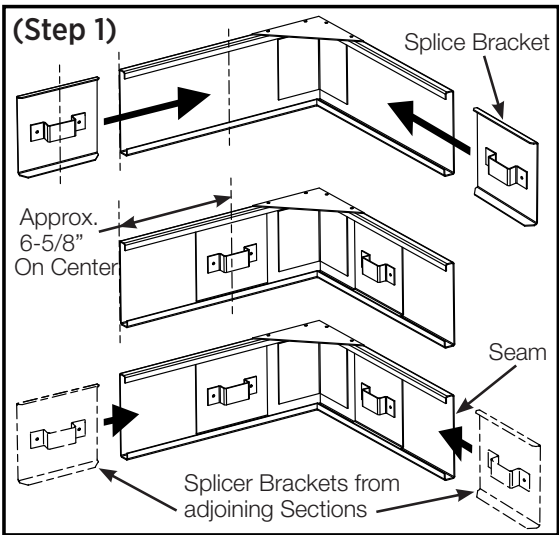
Pre-Assembled Corner Unit

### 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.

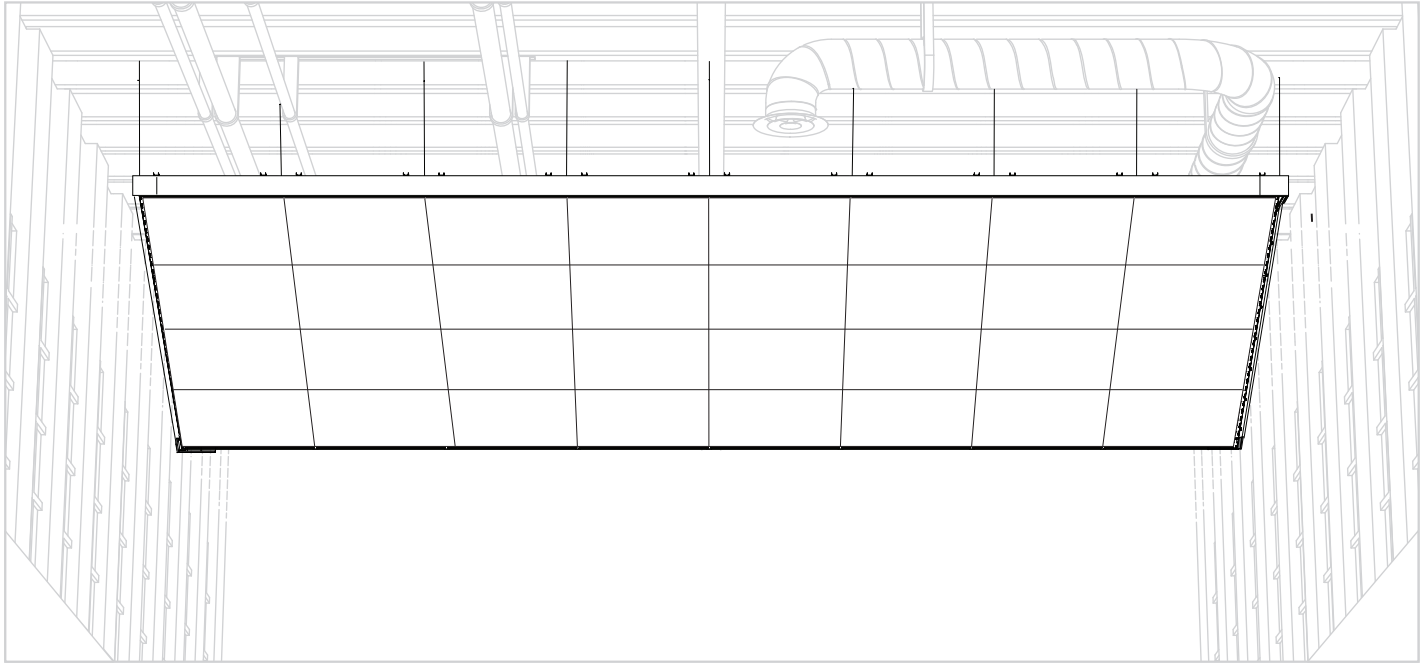
B) Using 4 self-tap screws, fasten Splicer Bracing to Tees.





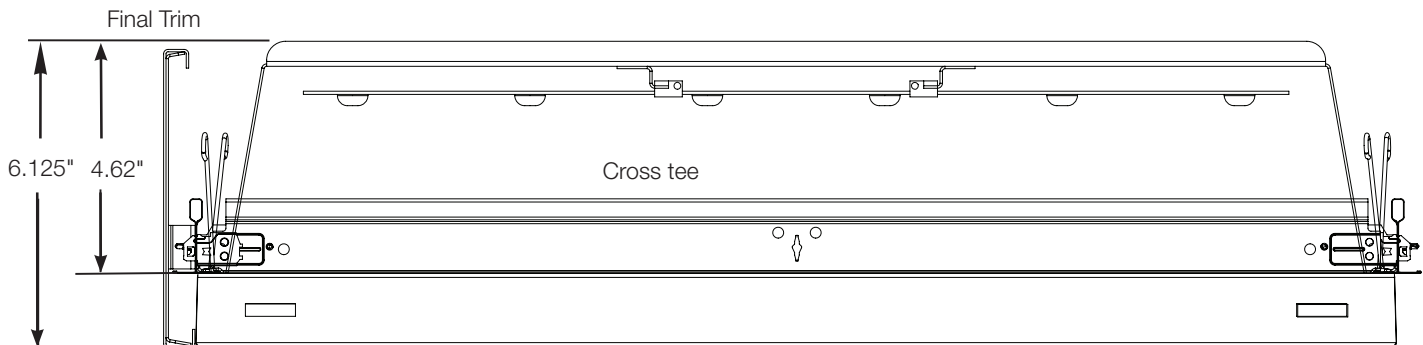
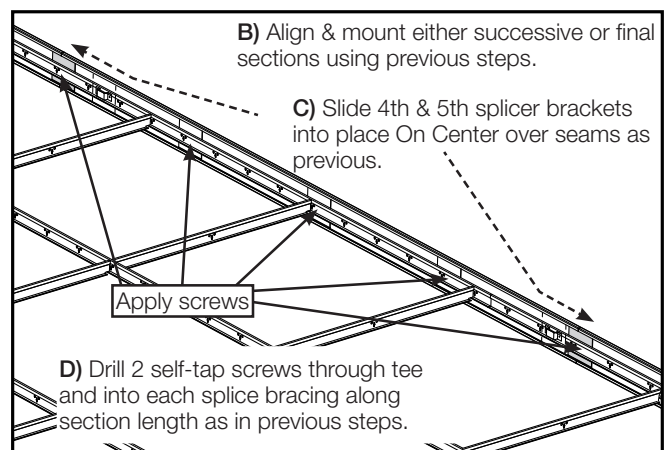
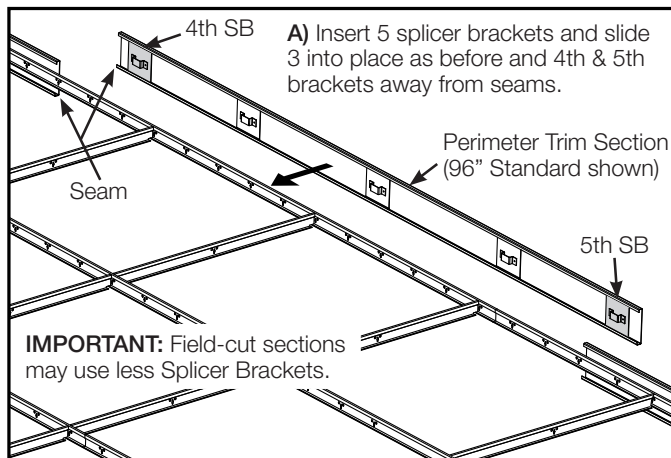
## General Installation

### Install Corner-Adjacent Trim Sections



#### MOUNTING BRIDGE SECTIONS

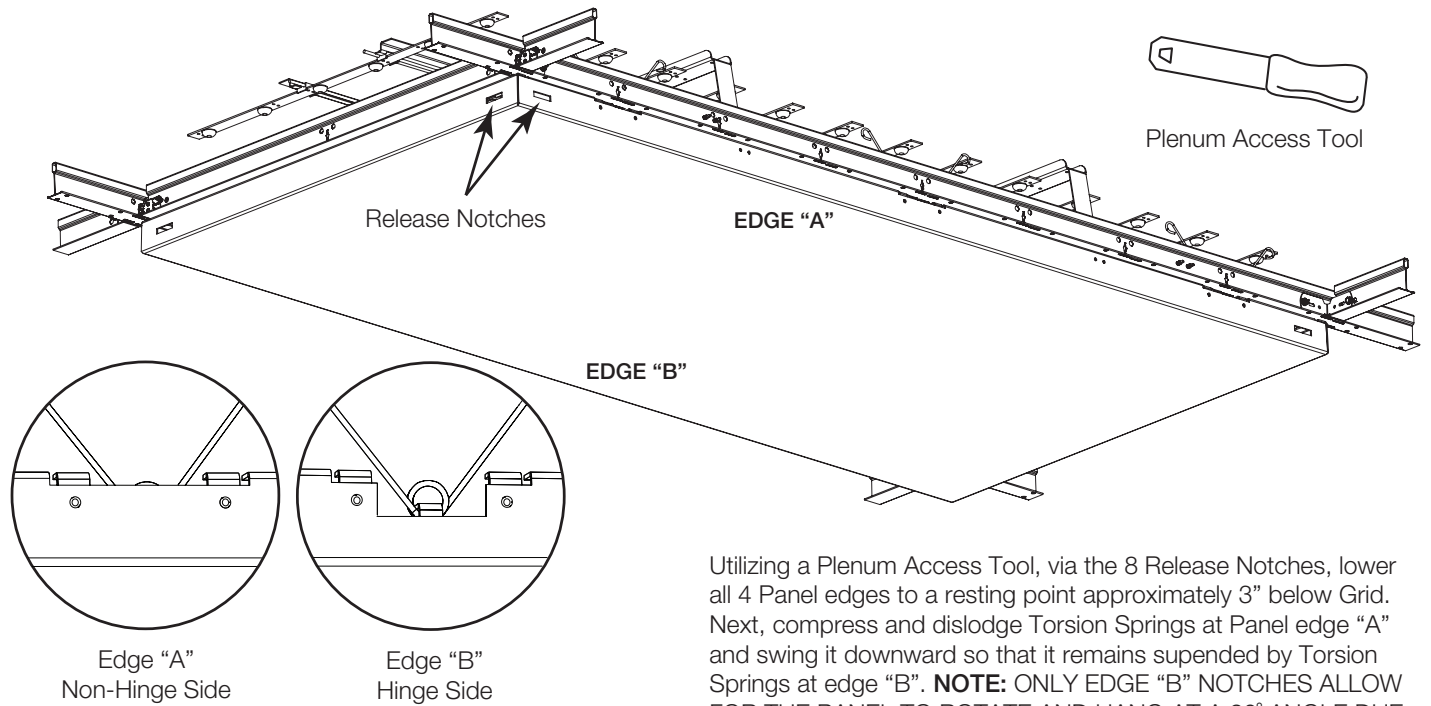
NOTE: Image below may represent a “successive”, a “final”, or a “Field-Cut” Section mounting procedure (same rules apply).



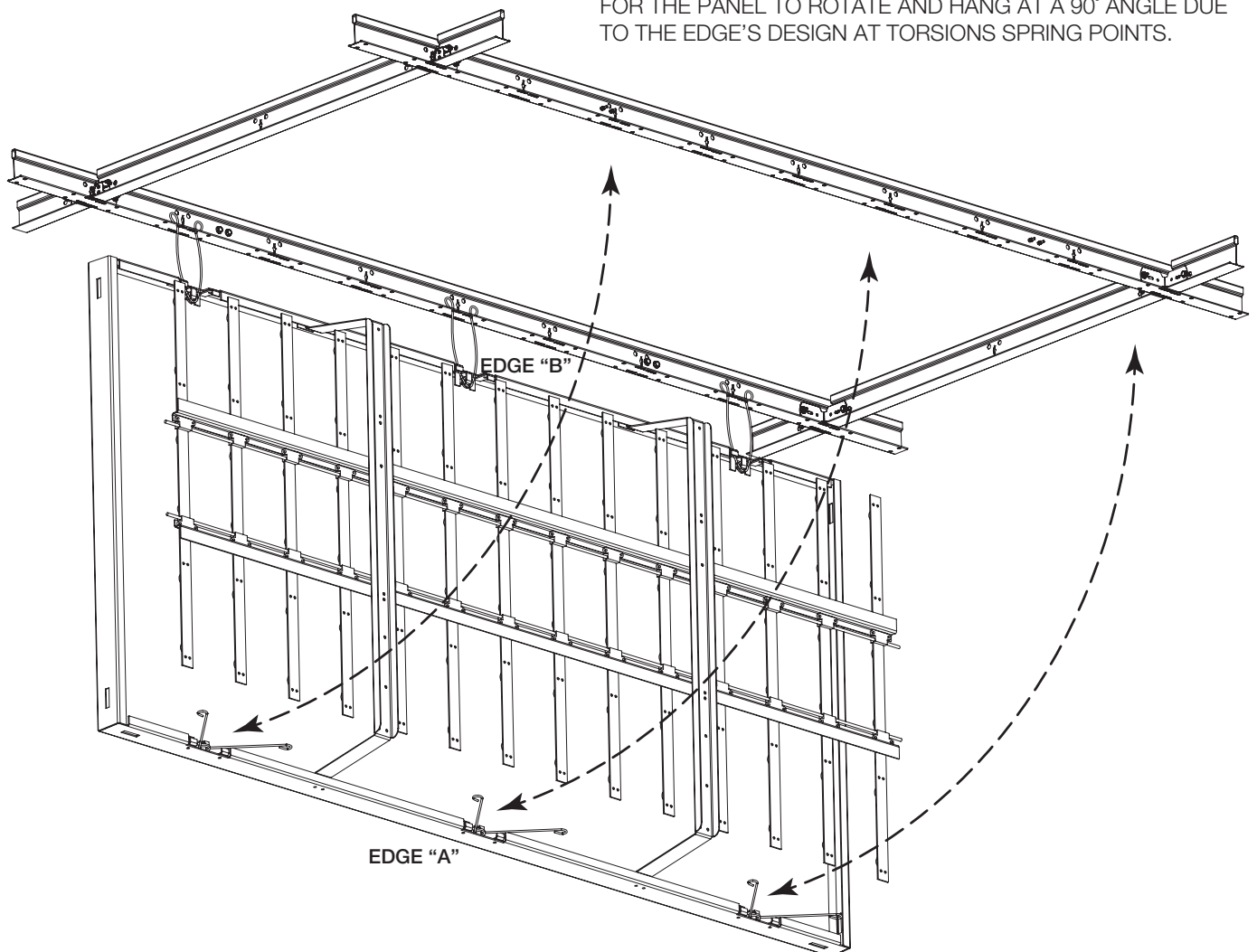
See dimensions for Trim reference. View includes perforated panel for reference

# General Installation

## Plenum Accessibility

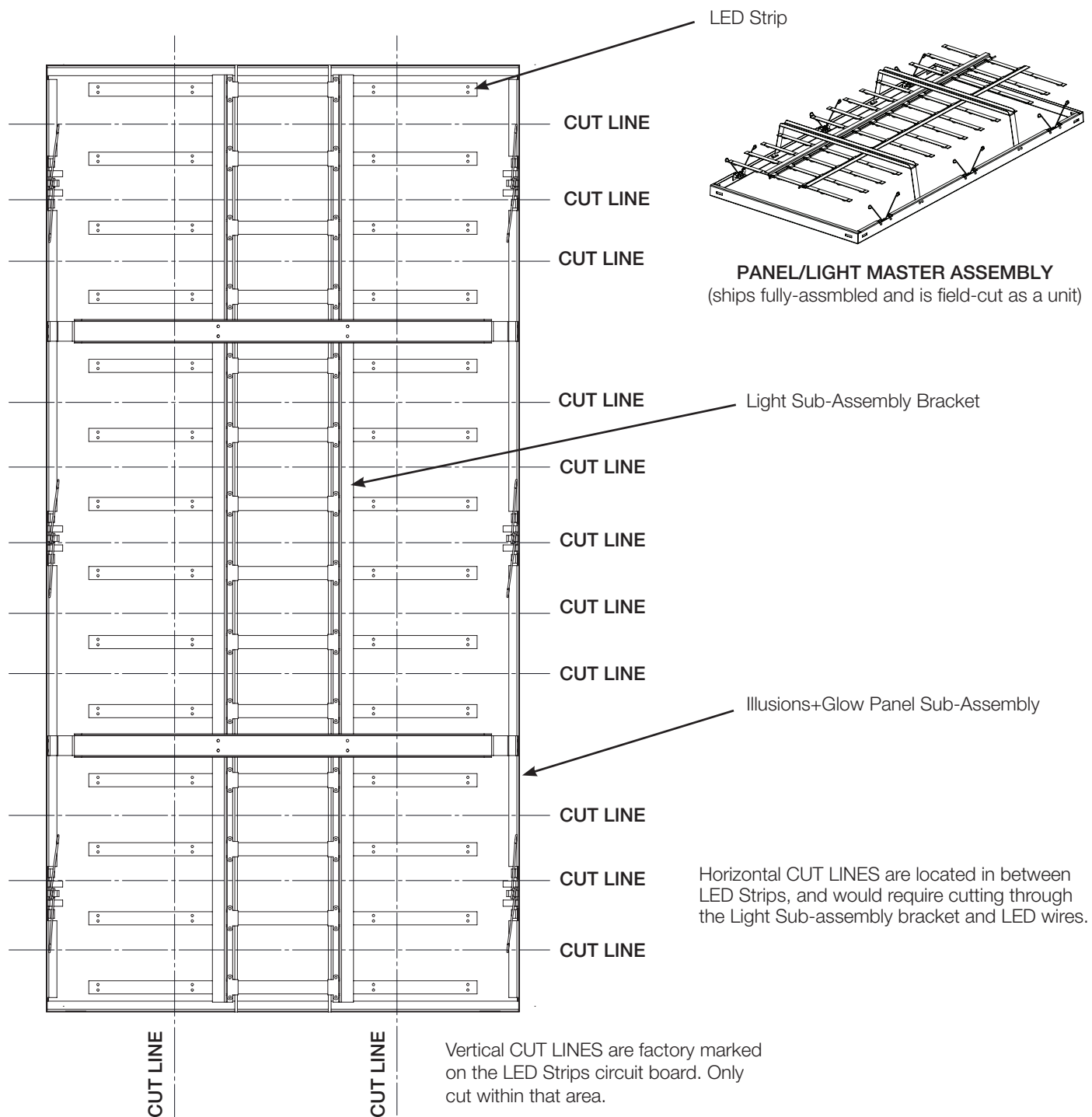


Utilizing a Plenum Access Tool, via the 8 Release Notches, lower all 4 Panel edges to a resting point approximately 3" below Grid. Next, compress and dislodge Torsion Springs at Panel edge "A" and swing it downward so that it remains suspended by Torsion Springs at edge "B". **NOTE: ONLY EDGE "B" NOTCHES ALLOW FOR THE PANEL TO ROTATE AND HANG AT A 90° ANGLE DUE TO THE EDGE'S DESIGN AT TORSIONS SPRING POINTS.**



## General Installation

### Field-Cut Options

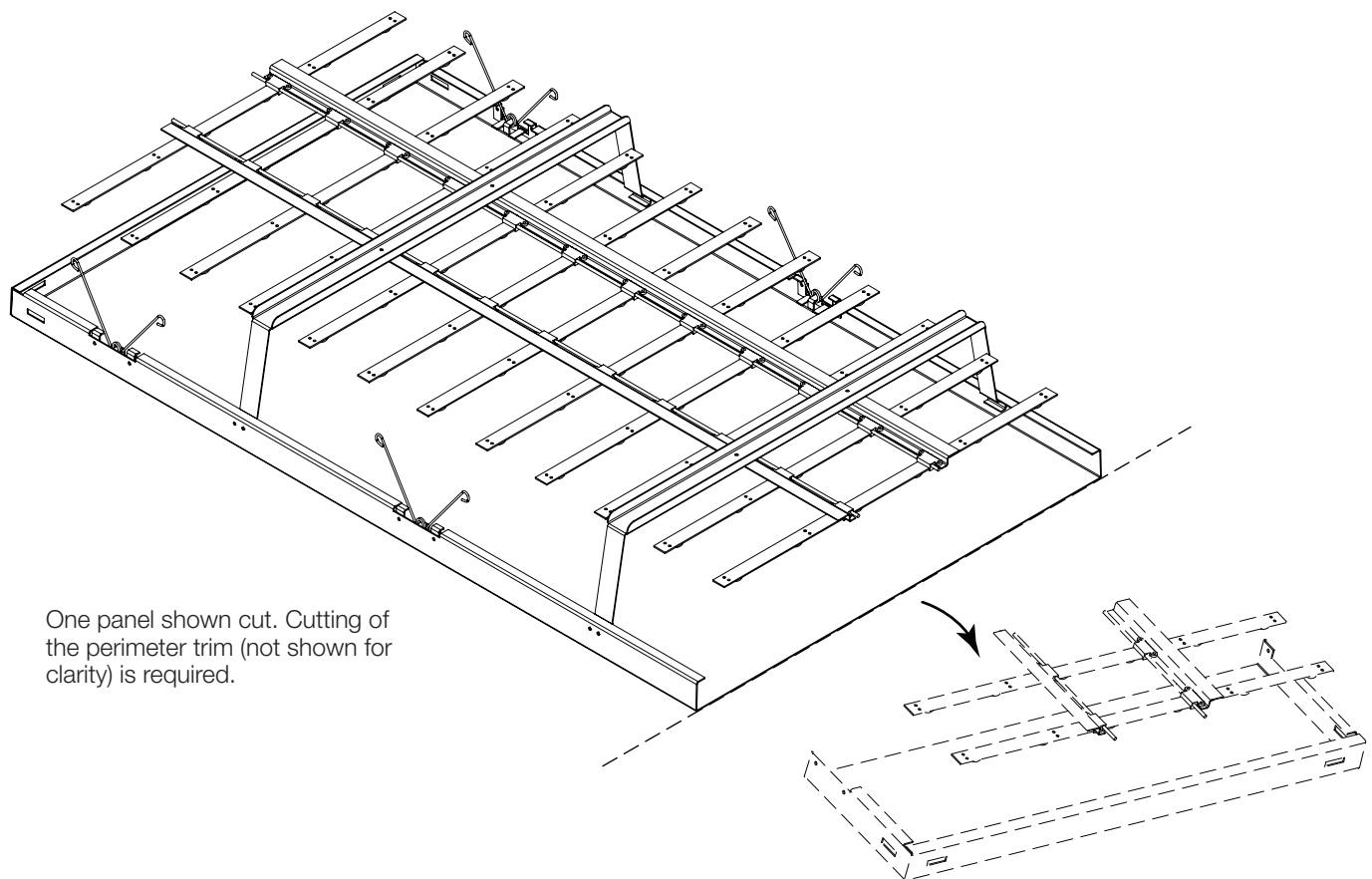
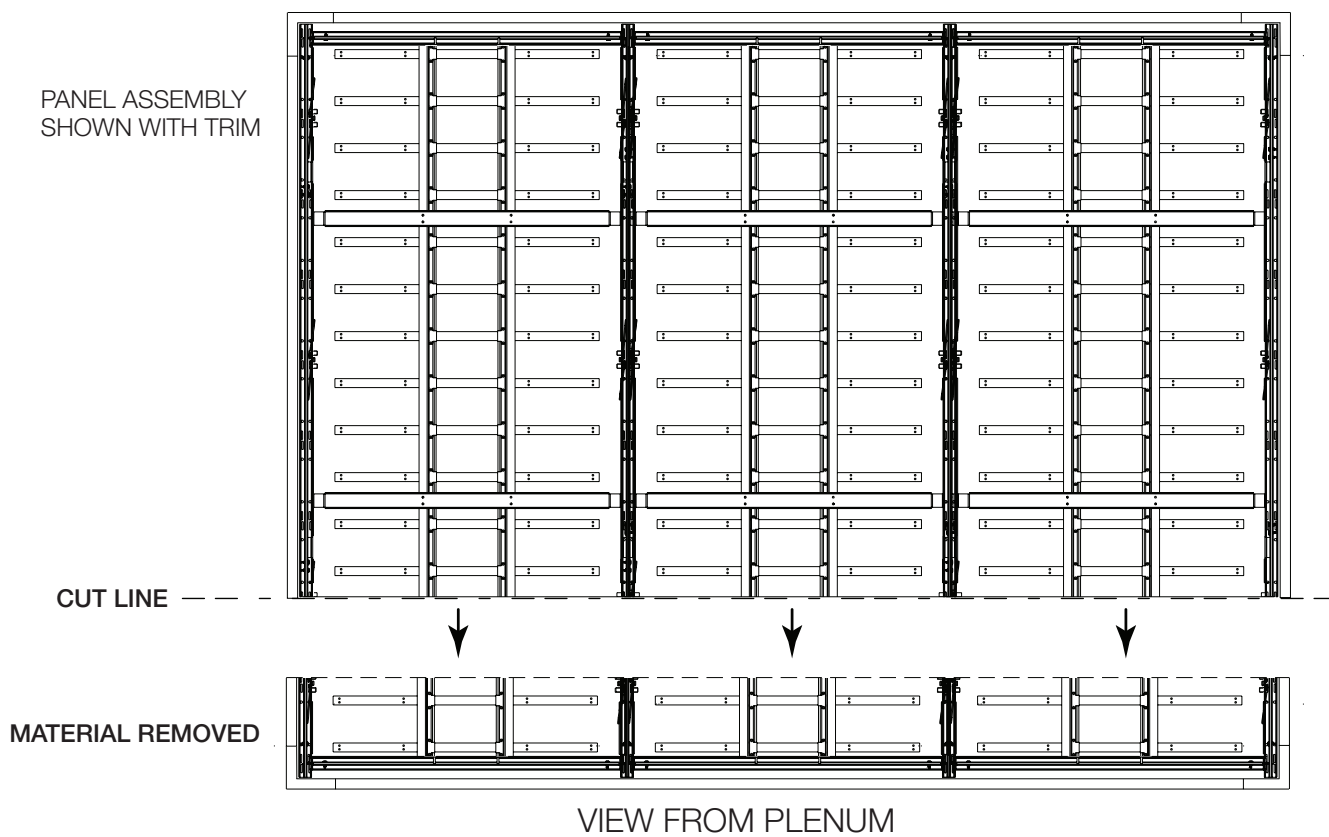


VIEW FROM PLENUM



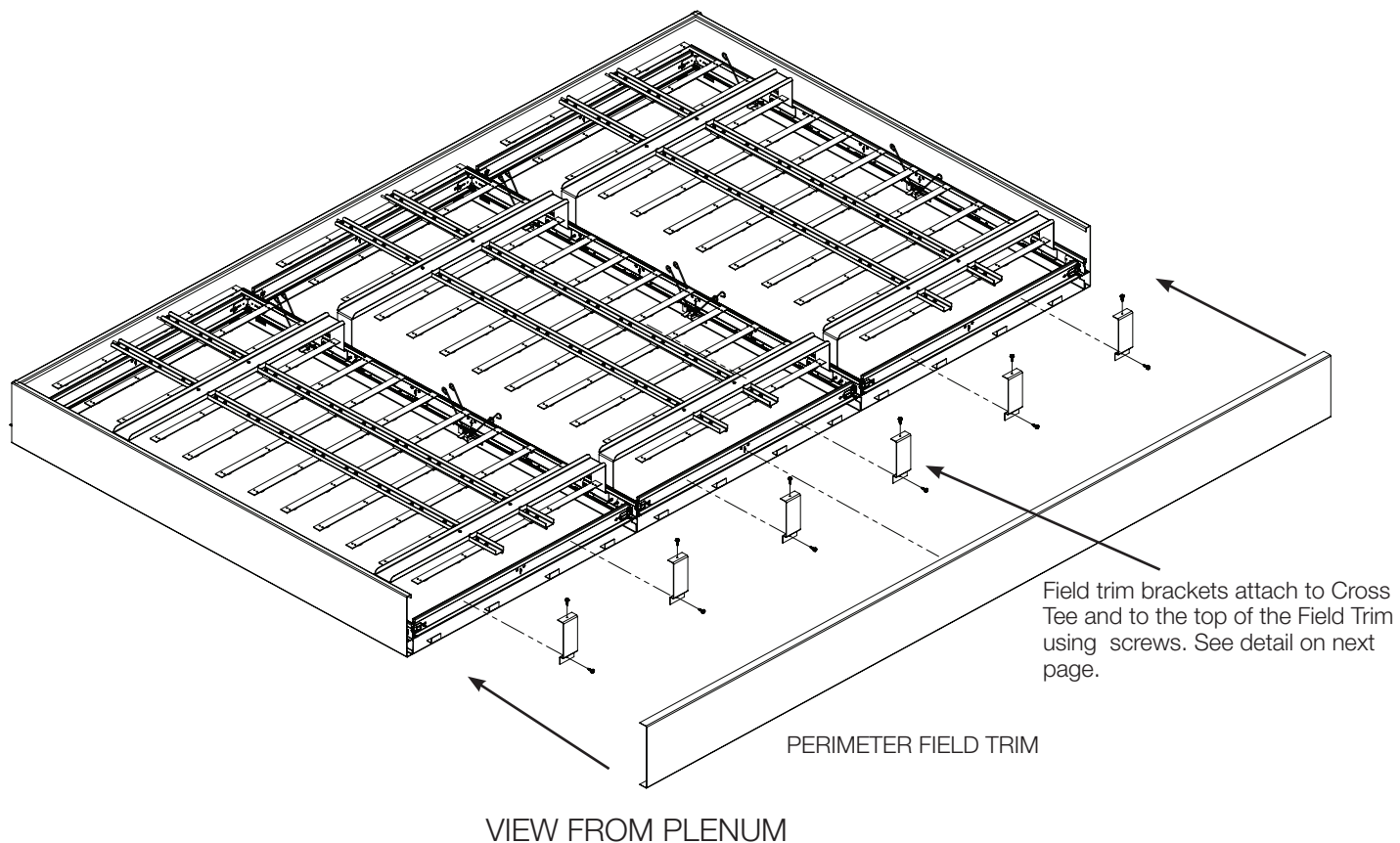
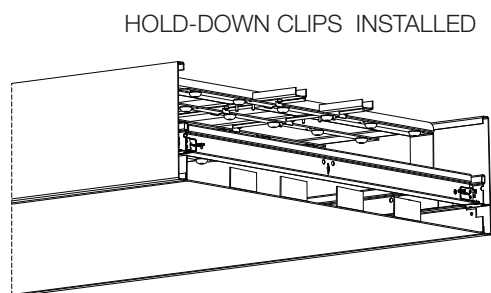
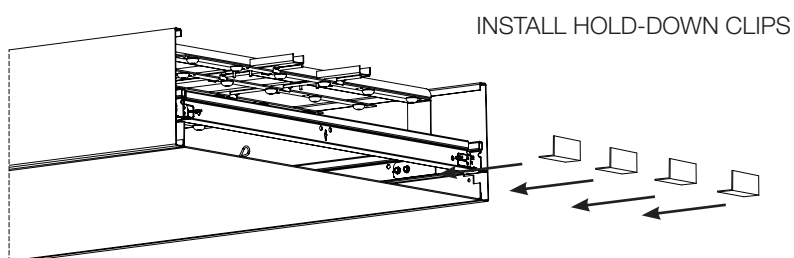
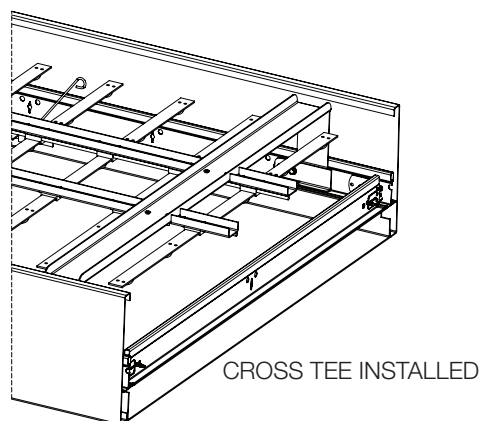
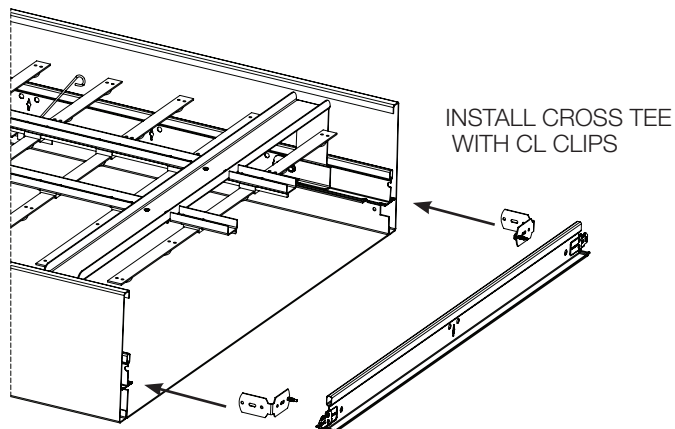
## General Installation

### Field-Cut Options



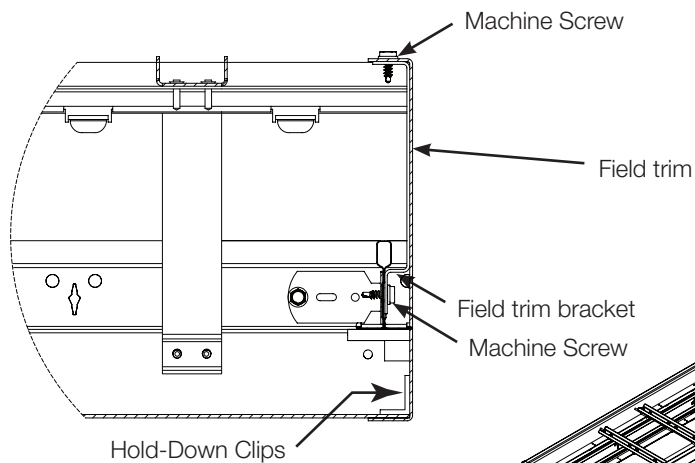
## General Installation

### Adding Cross-Tee Post Field-Cut



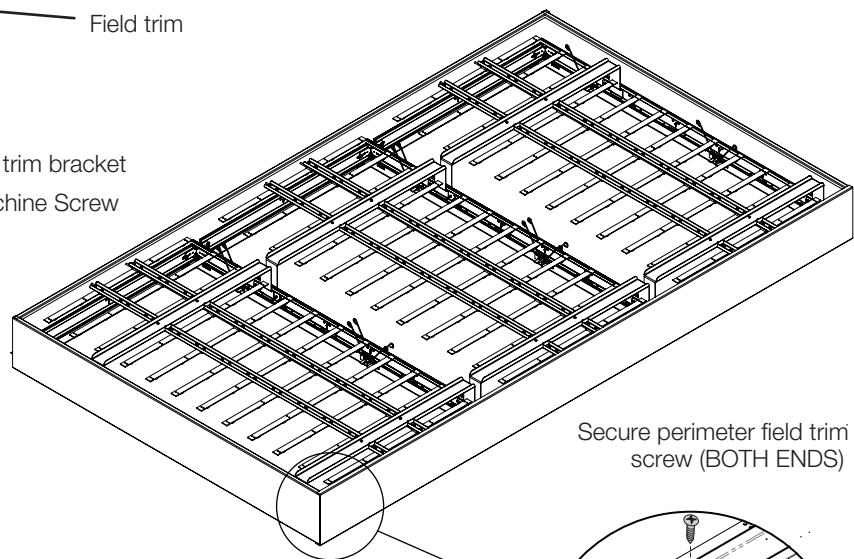
## General Installation

### Adding Perimeter Trim Post Cross-Tee Addition

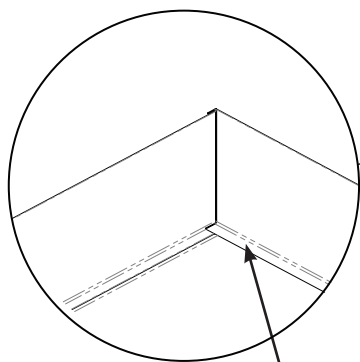


NOTE: Ensure Hold-Down Clips and Field Trim are firmly in place with no gaps.

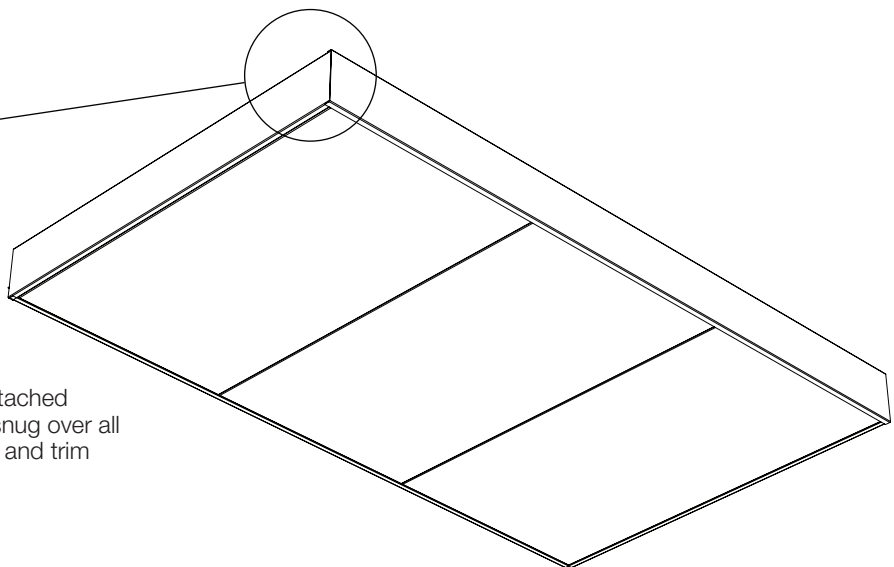
DETAIL SECTION VIEW OF  
FIELD TRIM ASSEMBLY



VIEW FROM PLENUM



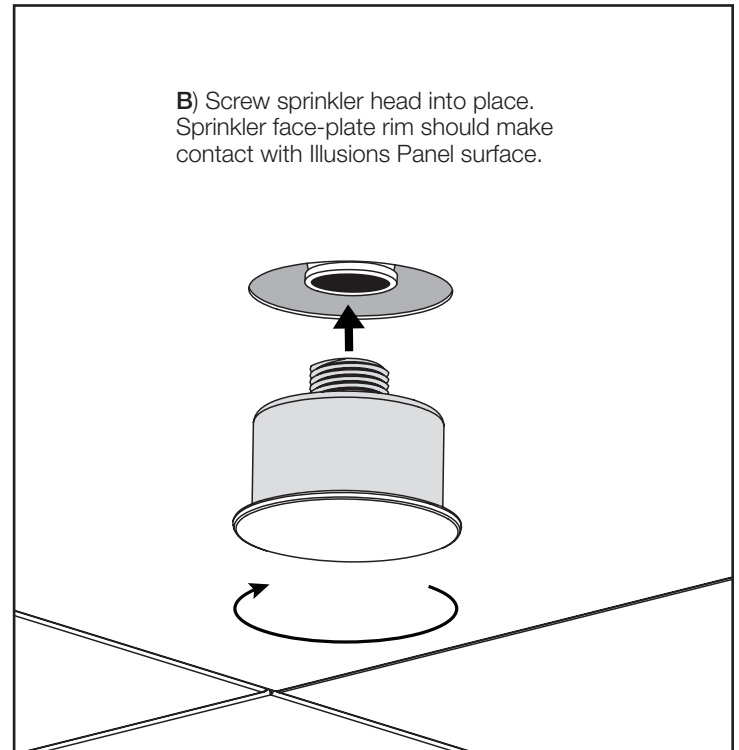
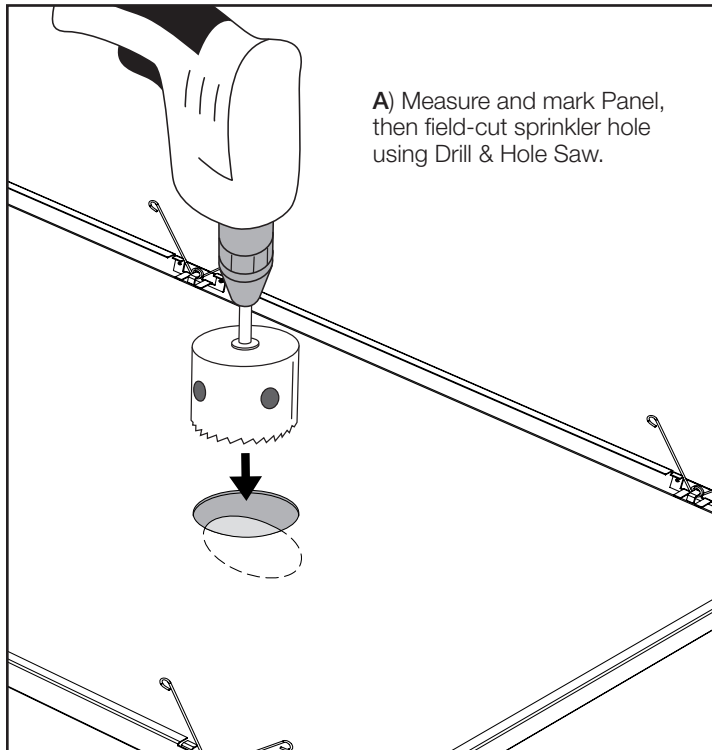
NOTE: Ensure attached perimeter trim is snug over all perforated panels and trim



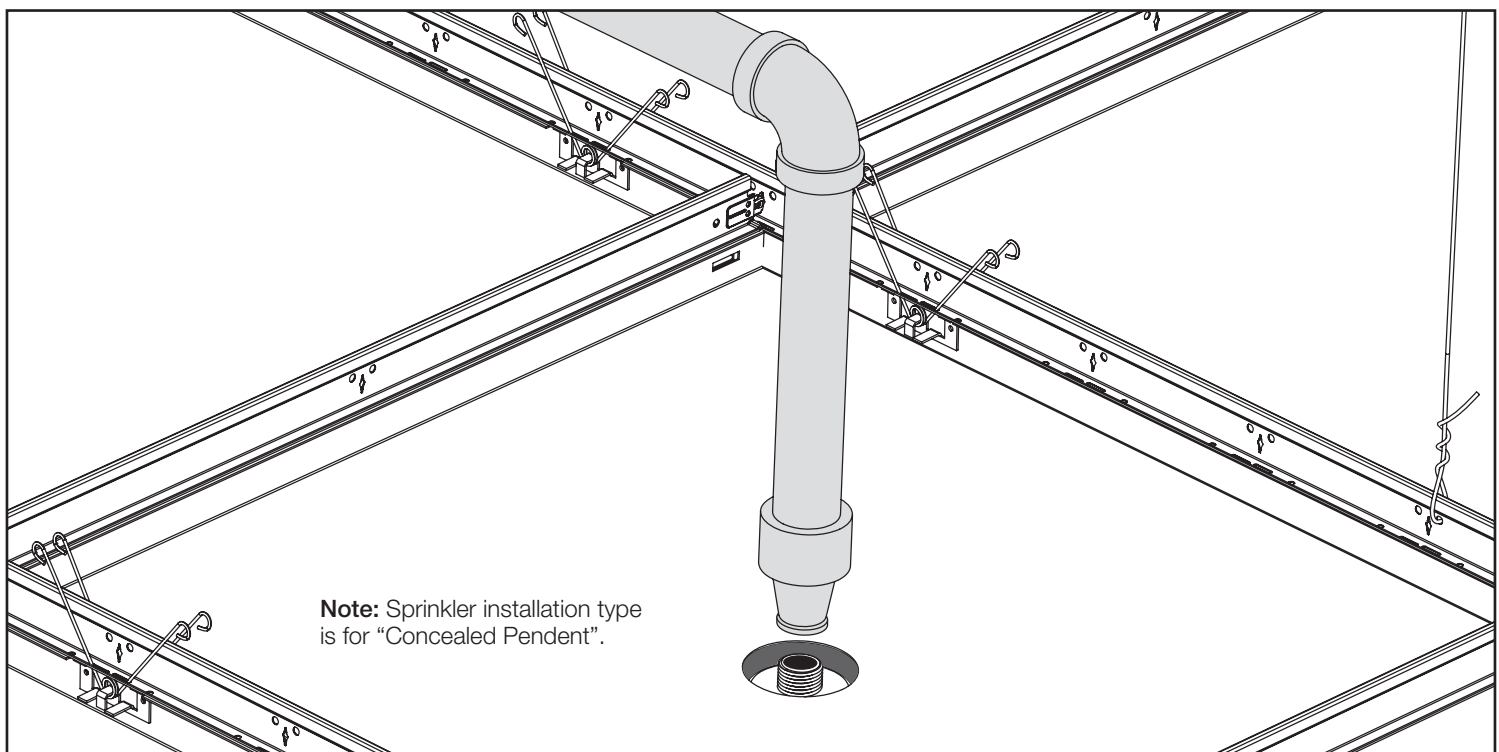
FULLY MODIFIED ILLUSIONS + GLOW CEILING SYSTEM

## MEP Integration

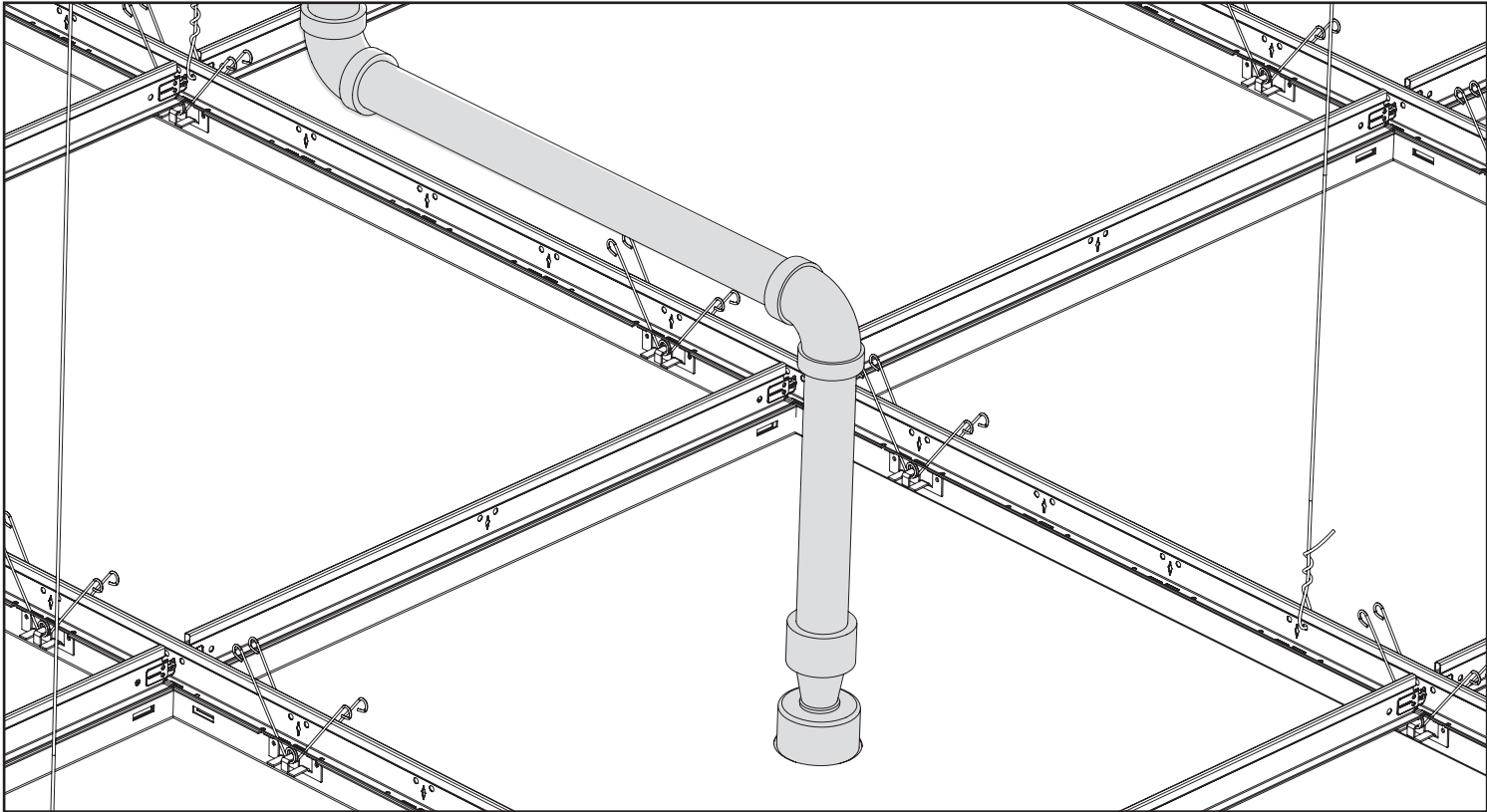
### Fire Sprinklers Integration



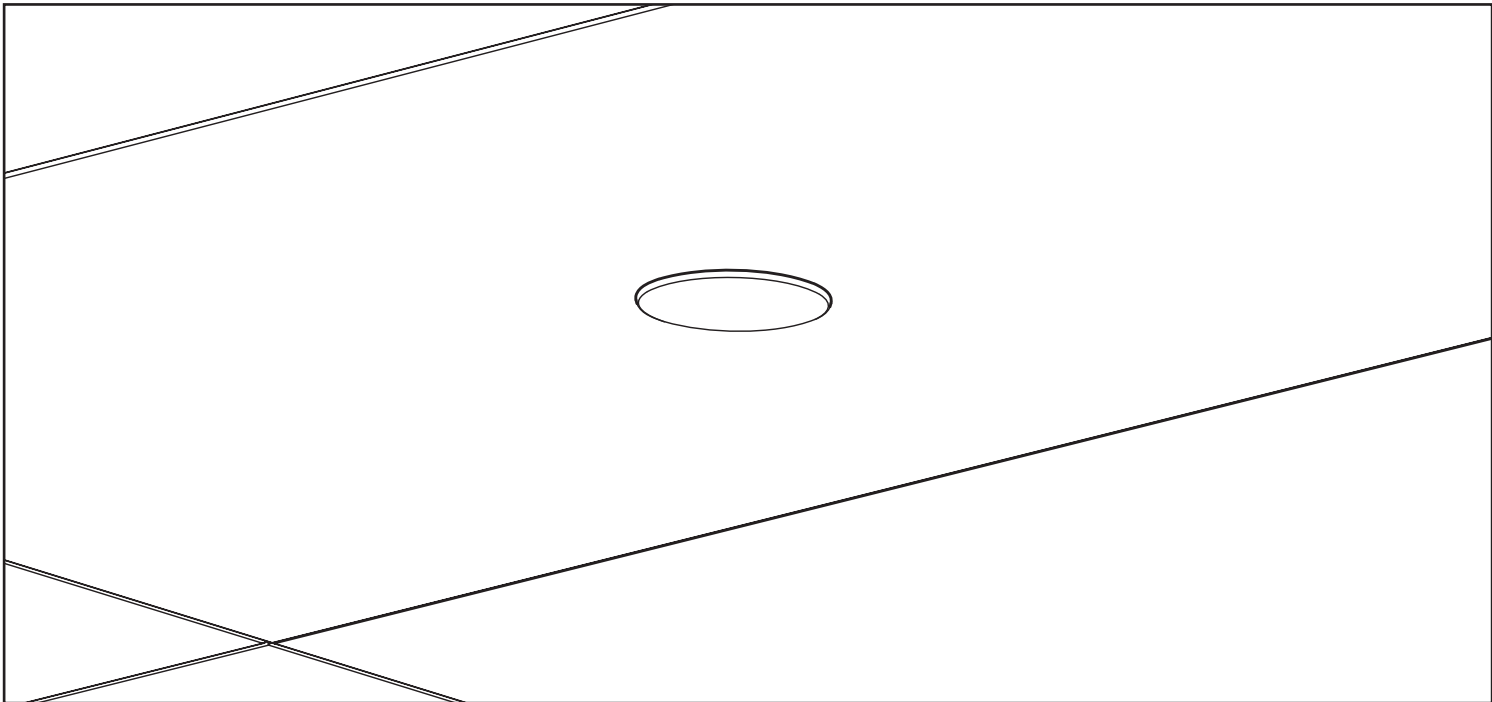
LIGHTING COMPONENT NOT SHOWN HERE FOR DIAGRAM SIMPLICITY AND CLARITY.



MEP Integration  
Sprinkler Integration Completed



COMPLETED INSTALLATION (view from plenum)  
**LIGHTING COMPONENT NOT SHOWN HERE FOR DIAGRAM SIMPLICITY AND CLARITY.**



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.

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## 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.