

WoodWorks® Torsion Spring

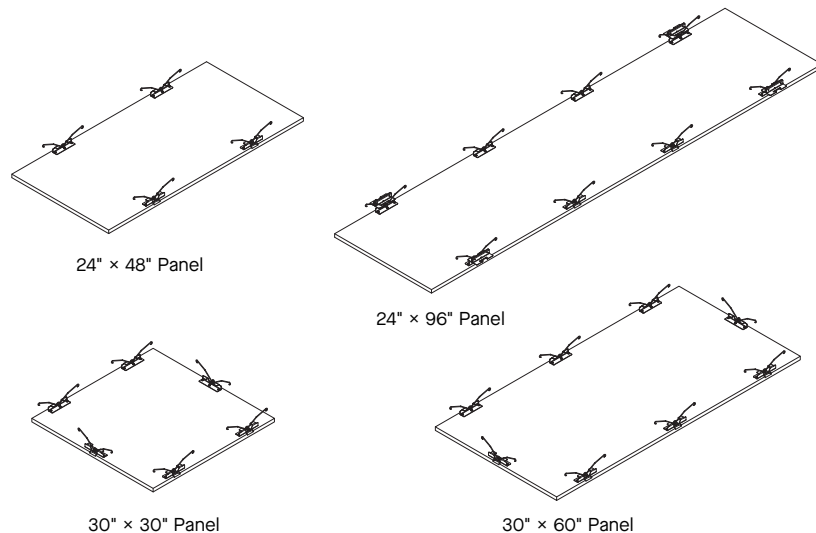
Assembly and Installation Instructions



1. GENERAL

1.1 Product Description

WoodWorks® Torsion Spring ceiling panels consist of veneered panels that are downward accessible, available in 24" x 24", 24" x 48", 24" x 72", 24" x 96", 30" x 30", and 30" x 60". Panels are designed to be installed on an Armstrong® Heavy-duty Prelude® XL® 15/16" wide T-Bar suspension system with field-attached hardware to panels. All panels can be removed and reinstalled for access to the plenum. Panels are supported from the suspension system by metal brackets and springs that are screw-attached through pre-drilled holes. Panels are also available unperforated and in a variety of perforated options for acoustics (Fig 1).



(Fig 1)

Custom panel sizes are available in a maximum of 16 SF.

1.2 Material and Surface Finish

WoodWorks Torsion Spring ceiling panels are constructed of fire-retardant particle board with face-cut veneers. All exposed edges are banded with the same finish as the face.

The panels are offered in 14 finish options: Plain Slice White Maple (NWM), Plain Slice White Ash (NWA), Plain Slice White Oak (NOK), Plain Slice Cherry (NPC), Plain Slice Walnut (NWN), Vertical Grain Fir (NVF), Rift White Oak (NRO), Quartered Walnut (NQW), Quartered Sapele (NQS), Quartered Mahogany (NQM), Maple (NMP), Light Cherry (NLC), Walnut (CWA), and Redux Wood Wheat (CRW).

Natural variations in color and grain are characteristic of wood products. To maximize visual consistency, panels should be unpacked and examined collectively to determine the most desirable arrangement for installation.

IMPORTANT NOTE: For phase projects or large orders, it is recommended to work with your local rep to give advance notice prior to placing an order. This will allow the manufacturing facility to secure the quantity of material needed for your project and have the best chance to produce coordinating panels for a selected finish.

1.3 Storage and Handling

Ceiling components should be stored in a dry interior location and must remain in cartons or crates prior to installation to avoid damage. The protectors between panels should not be removed until installation. Proper care must be taken when handling to avoid damage and soiling. Do not store in unconditioned spaces with a humidity greater than 55% or lower than 25% RH and temperatures lower than 50°F or greater than 86°F. Panels must not be exposed to extreme temperatures, for example, close to a heating source or near a window where there is direct sunlight.

1.4 Site Conditions

WoodWorks® Torsion Spring ceiling panels and veneer-wrapped trim should be permitted to reach room temperature and have stabilized moisture content for a minimum of 72 hours before installation. (Remove plastic wrap to allow panels to acclimatize.) **NOTE:** They should not, however, be installed in spaces where the temperature or humidity conditions vary greatly from the temperatures and conditions that will be normal in the occupied space.

1.4.1 Temperature and Humidity During Installation

WoodWorks Torsion Spring ceiling panels are interior finish products that are designed for installation to be carried out in temperature conditions between 50°F (10°C) and 86°F (30°C), in spaces where the building is enclosed and HVAC systems are functioning, and will be in continuous operation. Relative humidity should not fall below 25% or exceed 55%. There must be proper ventilation of the plenum in high moisture areas.

All plastering, concrete, terrazzo or any other wet work must be completely dry. All windows and doors must be in place. The heating, ventilation, and air-conditioning system should be installed and operable where necessary to maintain proper temperature before, during, and after installation of the WoodWorks panels.

In addition, during construction a humidity meter should be located at the height of the installed ceiling. This will measure humidity and temperature before and during installation to ensure the job site meets industry standard conditions per Armstrong warranty requirements.

1.5 Safety Consideration

The product arrives in a crate; make arrangements for safe handling.

This product is made of wood fibers. Sawing, sanding, or machining these products can produce wood dust. Airborne dust can cause respiratory, eye, and skin irritation. Respirable wood dust is classified as a carcinogen. Personal protective equipment includes safety glasses or goggles, and impervious gloves. Respiratory protection may be required and depends on how the product is being cut and handled. Job site environmental conditions must be evaluated in determining what type of respiratory protection is required. In all cases, cutting is to be performed in a well-ventilated area and power tools must be equipped with a dust collection system. Refer to the Safety Data Sheet for additional information.

1.6 Warranty

The WoodWorks Torsion Spring system has been tested based on the installation guidelines described in this document. The warranty will be voided if you do not follow these instructions and guidelines.

1.7 Fire Performance & Sprinklers

The WoodWorks Torsion Spring panels are tested to ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index 25 or less. Smoke Developed Index 50 or less. Panels may obstruct or skew the existing or planned fire sprinkler water distribution pattern, possibly delaying the activation of the fire sprinkler or fire detection system, or accelerating the activation of the sprinkler by channeling heat from the fire either toward or away from the device. Designers and installers are advised to consult a fire protection engineer, NFPA 13, and their local codes for guidance on the proper installation techniques where fire detection or suppression systems are present. A hole may be cut through the panel to allow for sprinkler head and other penetrations, refer to Section 6.2.

1.8 Cleaning Recommendations

WoodWorks Torsion Spring panels can be cleaned with a soft, dry cloth. An abrasive or strong chemical detergent should not be used.

1.9 Ordering Consideration

Be sure to account for extra material that is normally needed for wood installations. When installing WoodWorks Torsion Spring panels, you should consider ordering at least 5% extra material. Up to 10% more may be needed for odd size or unique installations. It is the customer's responsibility to plan each layout and order the correct amount of installation material needed, taking into account their design. If extra material is ordered after the first batch of material has been placed, panels will be produced to best coordinate with the finish of the first order. Refer to Section 1.2 for important notes for phase projects or large orders.

2. DESIGN AND INSTALLATION CONSIDERATIONS

2.1 Plenum

Although WoodWorks Torsion Spring panels are installed from below and never travel into the plenum, they will require a minimum 6" clearance above the suspension system. This allows enough room for the springs to travel into the plenum space during installation or removal.

NOTE: Light fixtures and air handling systems require more space and will usually determine the minimum plenum height for the installation.

2.2 Sprinklers

WoodWorks® Torsion Spring panels hang below the suspension system to which they are attached. The face of the installed panels will be 3/4" below the face of the suspension system. A hard pipe sprinkler is recommended due to the system weight.

2.3 Mixing Perforated Panel Sizes

Do not mix different panel sizes with slotted perforations, the borders of these perforations will not align.

2.4 Slopes and Exterior Installations

WoodWorks Torsion Spring panels are not recommended for sloped or exterior ceiling installations.

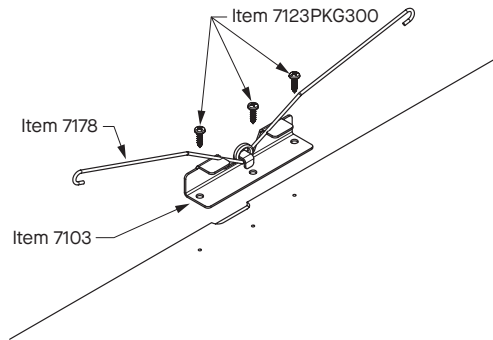
2.5 30" Wide Panels or Greater

Panel with 30" width or greater will require additional installation accessories. Refer to Section 4.6 for details.

3. ACCESSORIES

3.1 Included with Panel (Fig 2)

- Bracket (Item 7103)
- Springs (Item 7178)
- Screws (Item 7123PKG300)



(Fig 2)

3.2 Ordered Separately

3.2.1 Spring Mounting Saddles (Item 7104) (Fig 3)

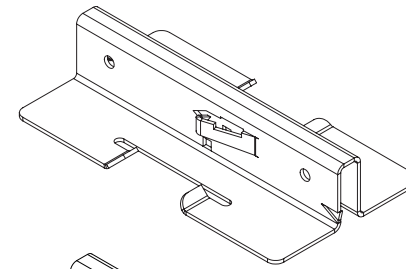
3.2.2 Half Saddles (Item 7232) (Fig 4)

3.2.3 3-Way Grid Clip (Item GC3WG90) (Fig 5)

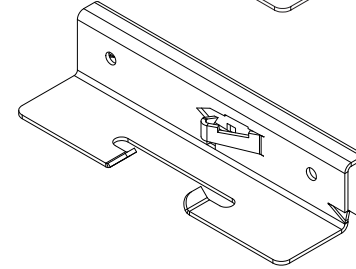
3.2.4 Removal Tool (Item 7129) (Fig 6)

3.2.5 HD Wall Anchor (Item 7100) (Fig 7)

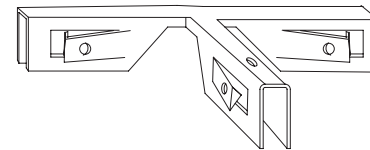
3.2.6 Top Lock Main Beam Splice (Item TLMBS) (Fig 8)



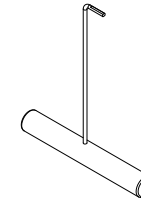
(Fig 3)



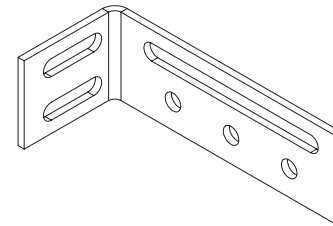
(Fig 4)



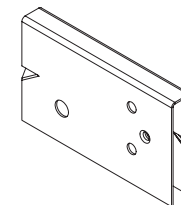
(Fig 5)



(Fig 6)



(Fig 7)



(Fig 8)

4. SUSPENSION SYSTEM FOR WALL-TO-WALL NON-SEISMIC INSTALLATION

Before starting any WoodWorks® Torsion Spring ceiling panel installation, be sure to confirm any seismic requirements that need to be met for your project and follow the recommended installation instructions. Refer to Section 7 for Seismic Installation.

4.1 General

Use Heavy-duty 15/16" Prelude® XL® T-Bar suspension system, main beams, cross tees, and wall molding to support the WoodWorks Torsion Spring panels.

All installations should follow ASTM C636. All references to suspension component duty ratings are per ASTM C635.

Hangers and bracing are to comply with all local code requirements. The suspension system must be properly installed and leveled using no less than 12-gauge galvanized steel wire. The suspension system must be leveled to within 1/4" of 10' and must be square to within 1/16" of 2'. Installation of suspension systems that do not meet this tolerance will produce unacceptable panel alignment.

The requirements listed here represent the manufacturer's minimum acceptable installation recommendations and may be subjected to additional requirements established by the local authority having jurisdiction.

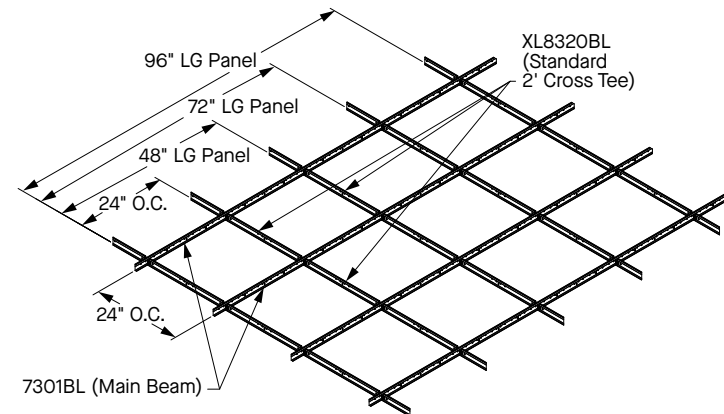
4.2 Hanging Points

Before setting hanging points, review the RCP drawings for saddle clip locations as these may interfere with hanger wires. Before tying any wires to the suspension system, place saddle clips along the main beams per the drawing plans. This will eliminate re-hanging wires that are found to interfere with the saddle placement.

4.3 Suspension System Layout

4.3.1 2' x 2', 2' x 4', 2' x 6', & 2' x 8' Panels:

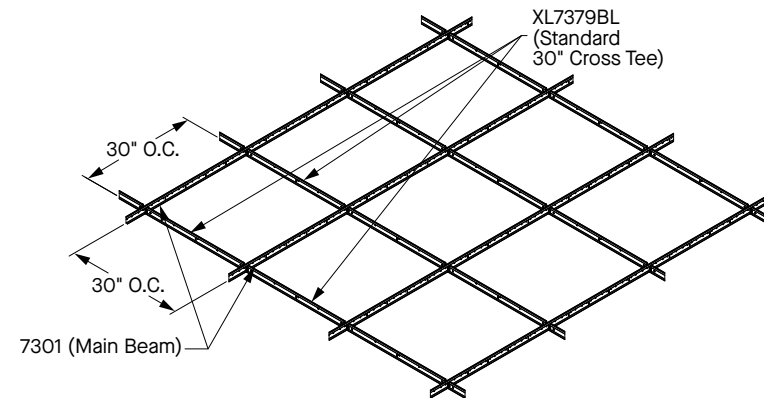
Prelude XL HD 12' main beams (Item 7301BL) are installed 24" O.C. with hanger wires supporting at no more than 48" O.C. along the mains. The 2' Prelude Cross Tee (Item XL8320BL) will install perpendicular to the main, every 24" creating a 24" x 24" grid module (**Fig 9**).



(Fig 9)

4.3.2 30" x 30" Panels:

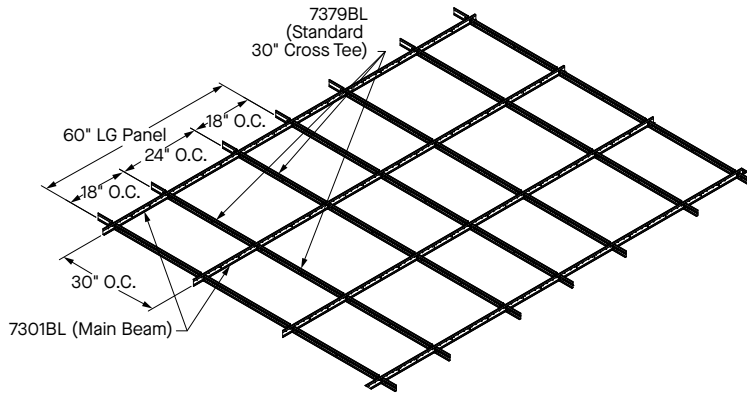
Prelude XL HD 12' main beams (Item 7301BL) are installed 30" O.C. with hanger wires supporting at no more than 48" O.C. along the mains. The 30" Prelude Cross Tee (Item XL7379BL) will install perpendicular to the main, every 30" creating a 30" x 30" grid module (**Fig 10**). Additional accessories will be required for this panel size. Refer to Section 4.6 for details.



(Fig 10)

4.3.3 30" x 60" Panels:

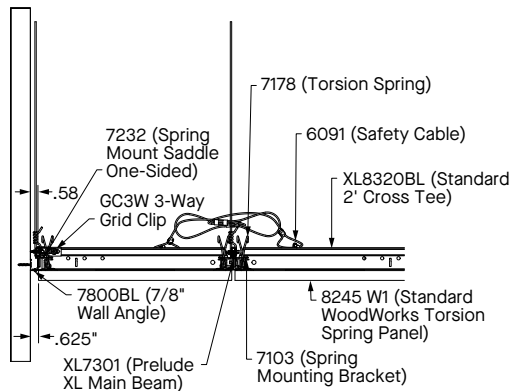
Prelude® XL® HD 12' main beams (7301BL) beams are installed 30" O.C. with hanger wires supporting at no more than 48" O.C. along the mains. Due to middle spring along the length of the panel, the 30" Prelude Cross Tee (XL7379BL) will install perpendicular to the main and grid layout will follow a pattern: 18" O.C., 24" O.C., 18" O.C. and repeat (**Fig 11**). Additional accessories will be required for this panel size. Refer to Section 4.6 for details.



(Fig 11)

4.4 Wall Molding

A 7/8" wall angle molding (Item 7800BL) should be used with this installation (**Fig 12**). A typical 1/2" reveal is recommended around the perimeter of the system.

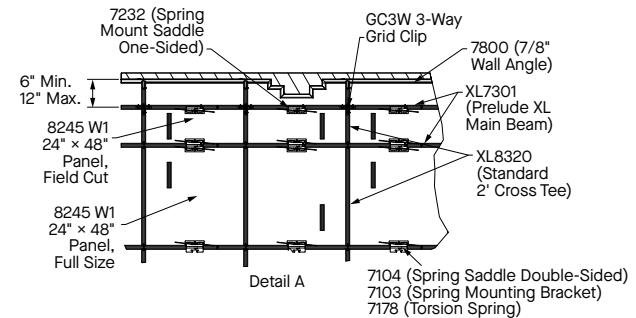


(Fig 12)

4.5 Main Beam

Location of the first main beam must be as detailed on the reflected ceiling plan to provide borders that are equal in size and greater than 1/2 of the full panel width. The main runner will be installed as a "slip main". The main will rest on the edge of the 7/8" molding and be supported with 12-gauge wire spaced at 48" O.C. along the heavy-duty main, as detailed in **Fig 12**, then at 2' O.C. Refer to Section 4.3 for grid layout based on panel size.

For walls with varying dimensions, grid and panel will need to be altered at the perimeter. Main beam should be moved in 6" increments, towards the center of the panel (**Fig 13**). Refer to Section 6.2 for panel modification details.

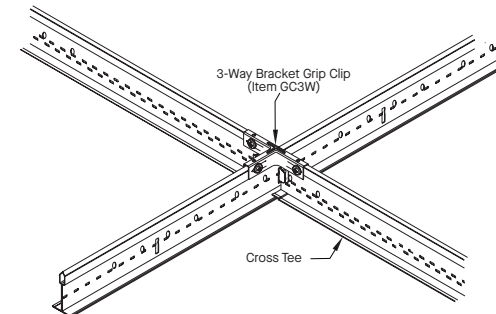


(Fig 13)

Installations for 30" wide panels or greater, will require additional suspension system support. Refer to Section 4.6 for details.

4.6 Additional Suspension System Support for 30" Wide Panels or Greater

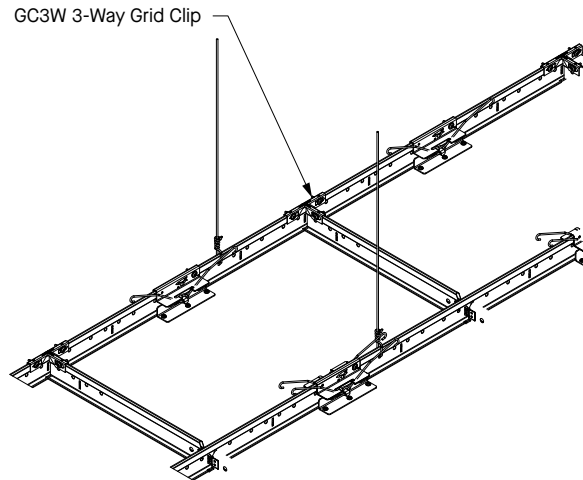
Thirty-inch wide panels have springs along the width of the panel in addition to the ones found along the length. The springs on the width require saddles on the 30" cross tee for hanging. All cross tee connections to the main, that will have saddles for hanging, must be reinforced with a 3-way Grip Clip (Item GC3W). Refer to reflected ceiling plans for exact positioning and fasten these clips for additional reinforcements to the suspension system (**Fig 14**).



(Fig 14)

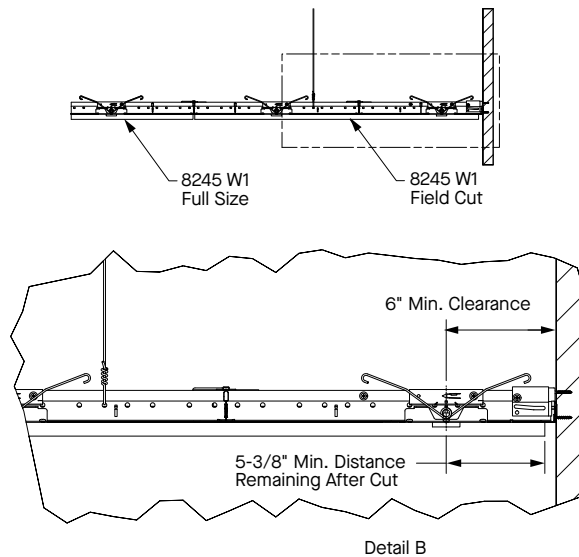
4.7 Perimeter

A 3-way Grid Clip (Item GC3W) will be required at perimeter on all main and cross tee intersections that will have saddles for hanging. Fasten the GC3W using three #8 truss head sharp point screws (Fig 15).



(Fig 15)

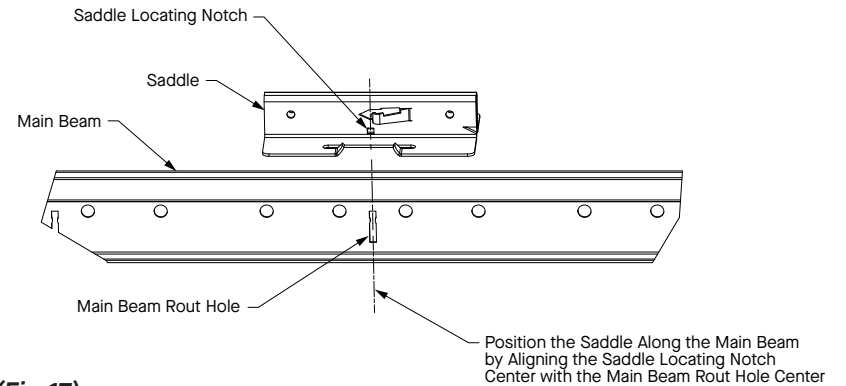
Any perimeter modifications to panels will need to maintain a 6" minimum clearance of springs (Fig 16).



(Fig 16)

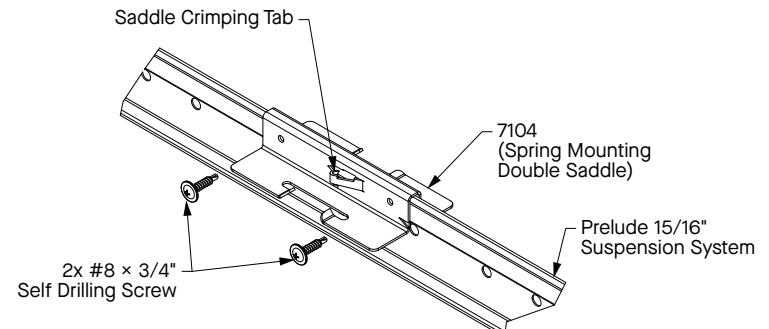
4.8 Install Suspension Accessories

Install all spring mounting saddles along the main beams at each spring location. For ease of installation, use the notch found at the midpoint of the saddle and line it up with rout holes on the main, which can serve as an alignment for correct placement of the saddles (Fig 17). Saddles will snap into place and can slide along the main beams until the final attachment. Crimp or clamp suspension system locking detail for temporary positioning.



(Fig 17)

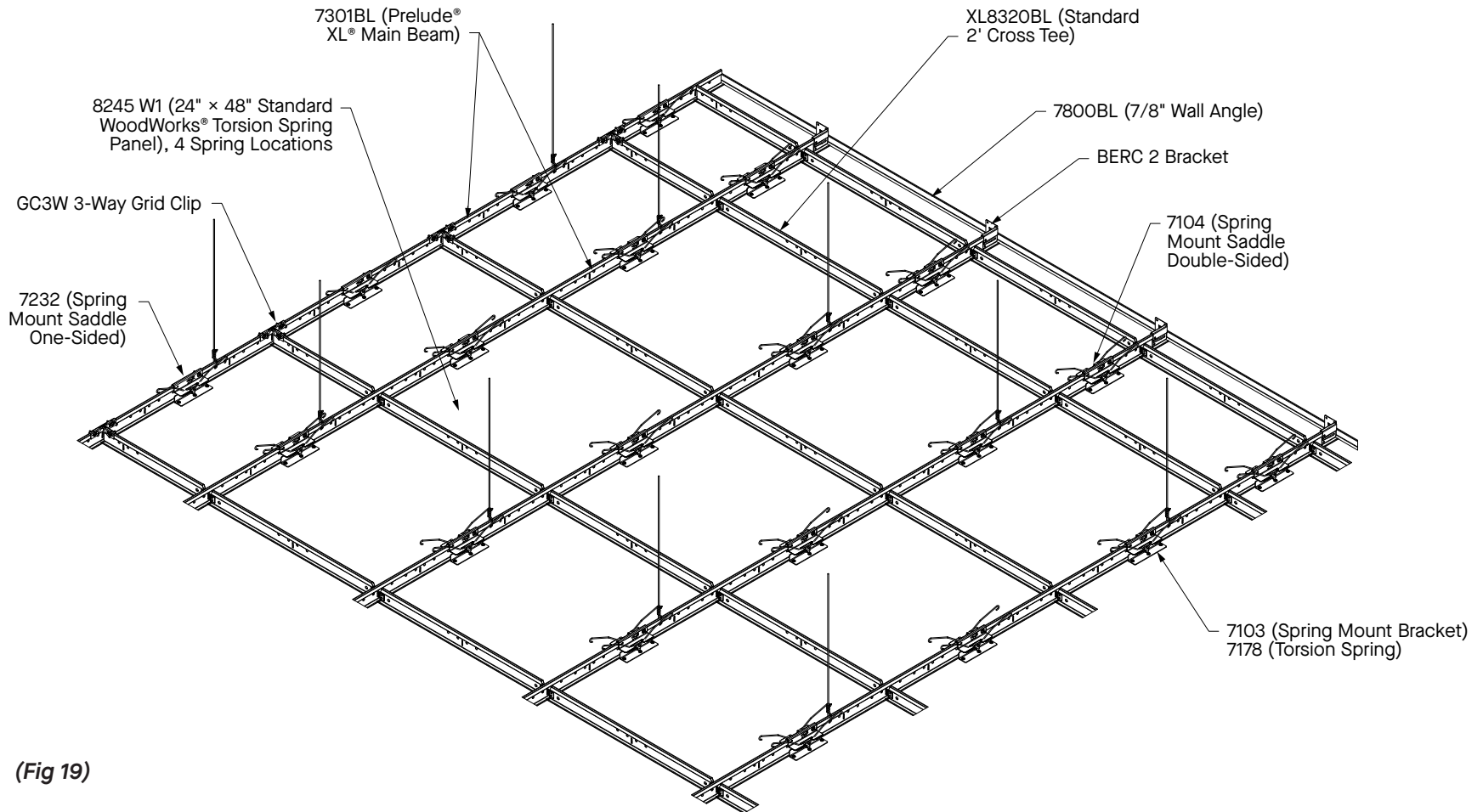
Once final saddle position is verified, crimp the locking detail and screw the mounting saddle to the suspension system (Fig 18).



(Fig 18)

The Spring Mounting Double Saddles (Item 7104) will be installed for the field of the ceiling, while the Single Slot Saddles (Item 7232) will be installed at the perimeter.

Full Installation Detail (Fig 19)

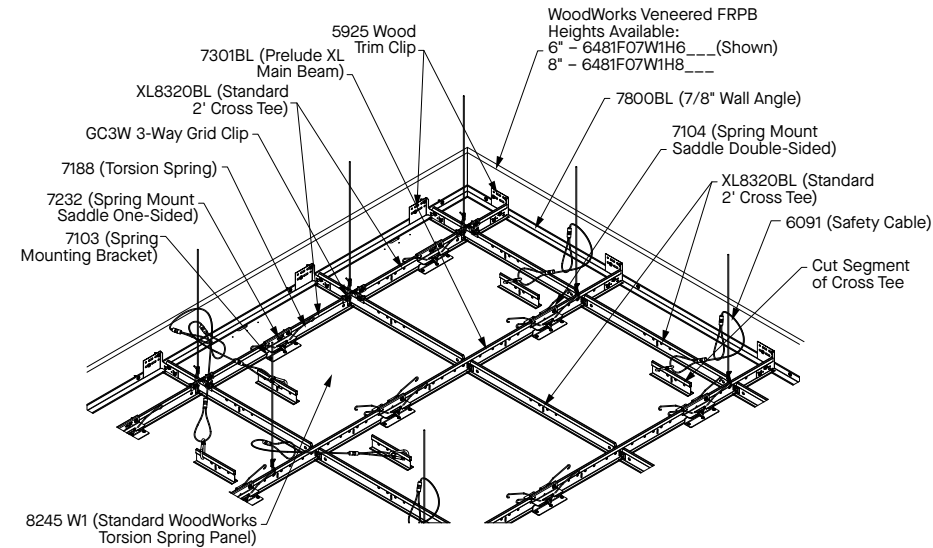


(Fig 19)

5. FLOATING/DISCONTINUOUS INSTALLATION

The suspension for floating perimeters will require main beams and cross tees to be in place around the entire perimeter so perimeter trim can be attached to the suspension system. The suspension layout should be the same as what is detailed in Section 4.0., with some modifications along the perimeter for both the grid and the panel as follows:

Grid Modification: Running parallel to the main beam, install cross tee (24" or 30"), no less than 6" from the trim, intersecting the 24" or 30" cross tee at 90° (**Fig 20**). New cross tee at perimeter will serve as hanging points for saddles and panel springs.



(Fig 20)

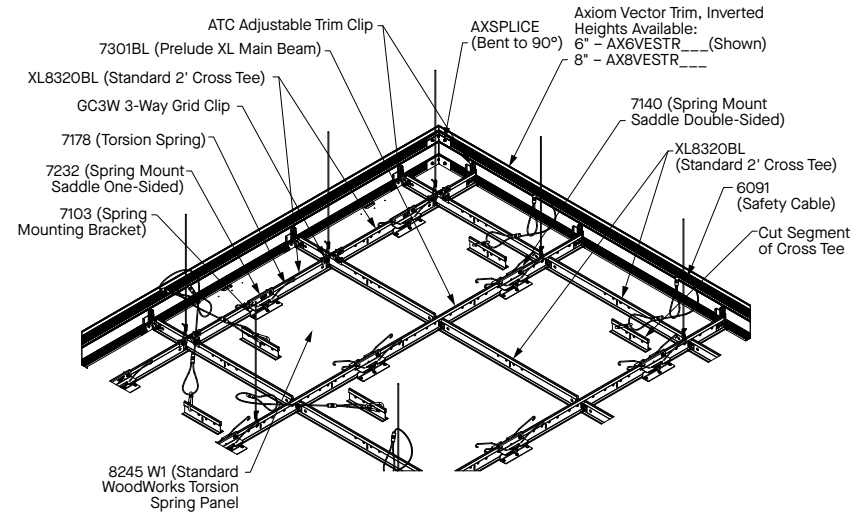
For 30" wide panel installations, the 30" cross tees running perpendicular to the main will also move 6" from the trim at perimeters.

Panel Modification: Panel bracket and springs will be relocated 6" in towards the center of the panel at perimeter and should match the cross tee and saddle locations as detailed in **Fig 20**. Refer to Section 6.2.1 and 6.2.2 for details on bracket and spring relocation instructions.

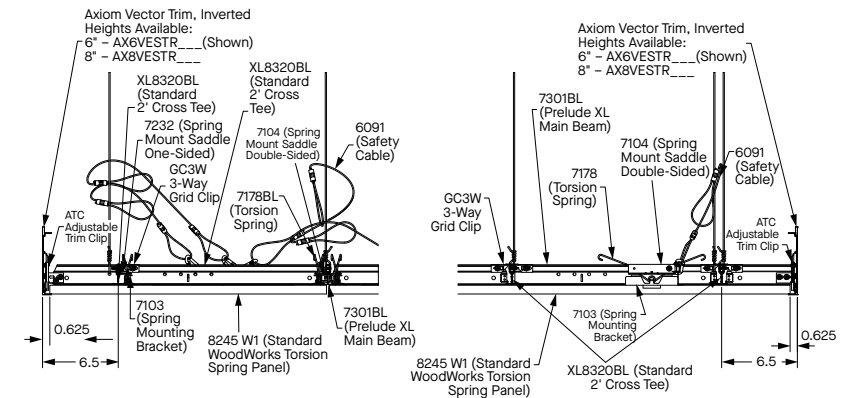
For 30" wide panels, bracket and springs along the width of the panel will also need to be relocated 6" in towards the center of the panel.

5.1 Axiom® Trim

Axiom® Vector inverted trim can be used for cloud installations with WoodWorks® Torsion Spring panels. The use of the Adjustable Trim Clip, Item 7239BL, will fasten trim to the suspension system and allow for trim height adjustments as needed. For the best visual, it is recommended to have a black finish on the trim (**Figs 21 & 22**).



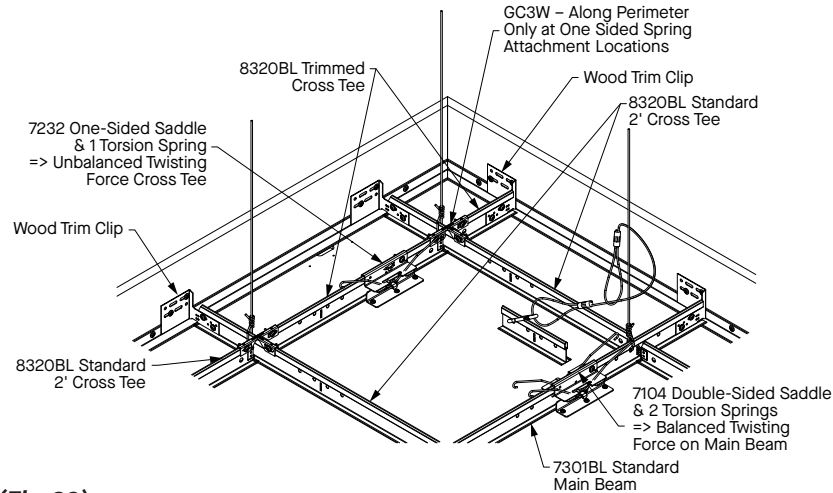
(Fig 21)



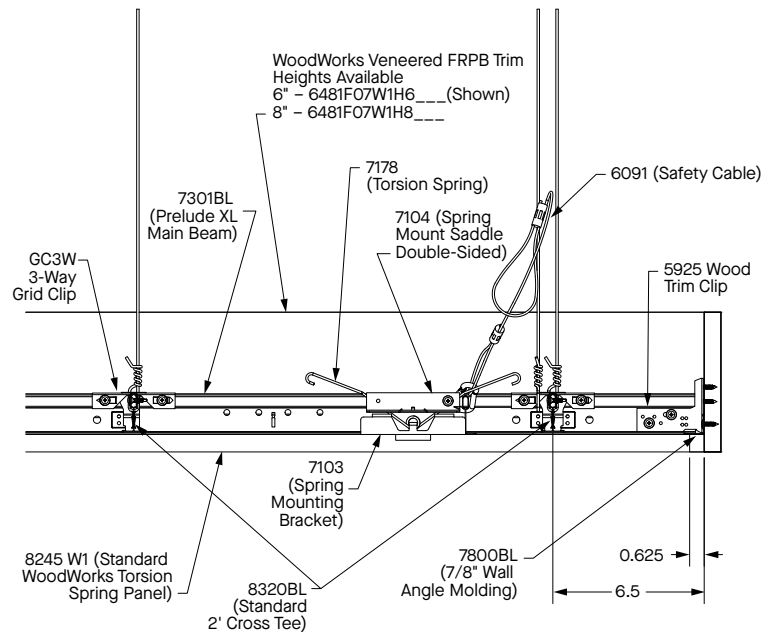
(Fig 22)

5.2 WoodWorks® Veneered Trim

WoodWorks veneered trims can be used in cloud applications, paired with angle wall molding (Item 7800BL). The suspension system will be fastened to the wood trim using Item 5925 Wood Trim Clips and #8 × 1/2" pointed truss-head screws (by others) (**Figs 23 & 24**).



(Fig 23)

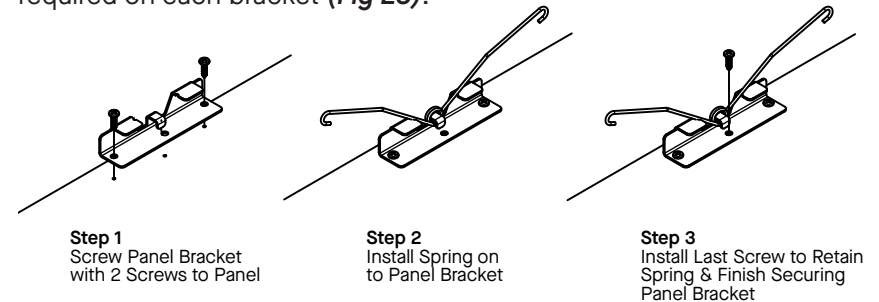


(Fig 24)

6. PANEL INSTALLATION

6.1 Attach Brackets and Springs

Attach Spring Mounting Bracket (Item 7103) and springs (Item 7178) using the provided screws. Three screws (Item 7123PKG300) are required on each bracket (**Fig 25**).



(Fig 25)

1. Attached mounting bracket, using two screws (Item 7123PKG300) at factory-drilled pilot holes on each panel.
2. Insert spring into each bracket.
3. Using last screw (Item 7123PKG300), screw into the last middle factory pilot hole, this will secure spring in place.
4. Rotate the spring so the spring stands in a vertical position.

6.2 Cutting the Panels

Cut the panel using standard woodworking tools and, where possible, a straight edge. A table saw is recommended for straight cuts and a band saw for curved cuts. In general, these practices will be typical of those employed in finish carpentry.

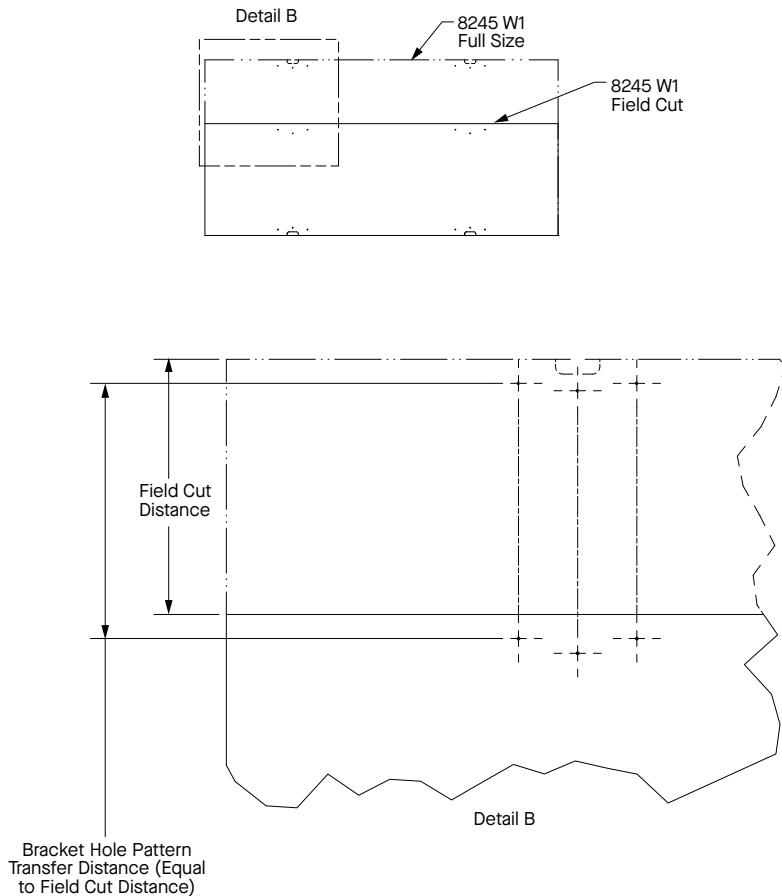
CAUTION! WOOD DUST. Sawing, sanding, and machining wood products can produce dust. Airborne wood dust can cause respiratory, eye, and skin irritation. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.

Precautionary measures: Avoid inhalation of dust. If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH-designed dust mask. Avoid dust contact with eyes and skin.

First Aid Measure in case of irritation: Flush eyes or skin with water for at least 15 minutes.

6.2.1 Cutting the Long Edge

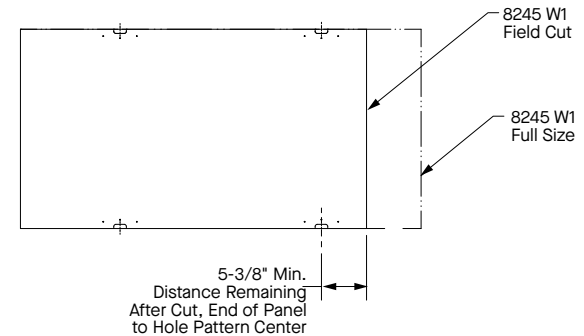
When the long edge of the panel is to be cut, first use a straight edge to draw lines across the back of the panel through the factory holes. Cut the panel to size. Attach Spring Mounting Bracket (Item 7103) to each set of factory-drilled holes; three screws are required in each bracket. Measure the grid opening and place bracket on the reference lines so that the dimension from the outer edge of the factory located bracket to the outer edge of the relocated bracket matches the grid opening dimension and saddle locations. Drill pilot holes at the new screw locations. Use a stop on the drill to prevent penetrating through the panel. Attach the relocated bracket with screws in each following steps in Section 6.1 (**Fig 26**).



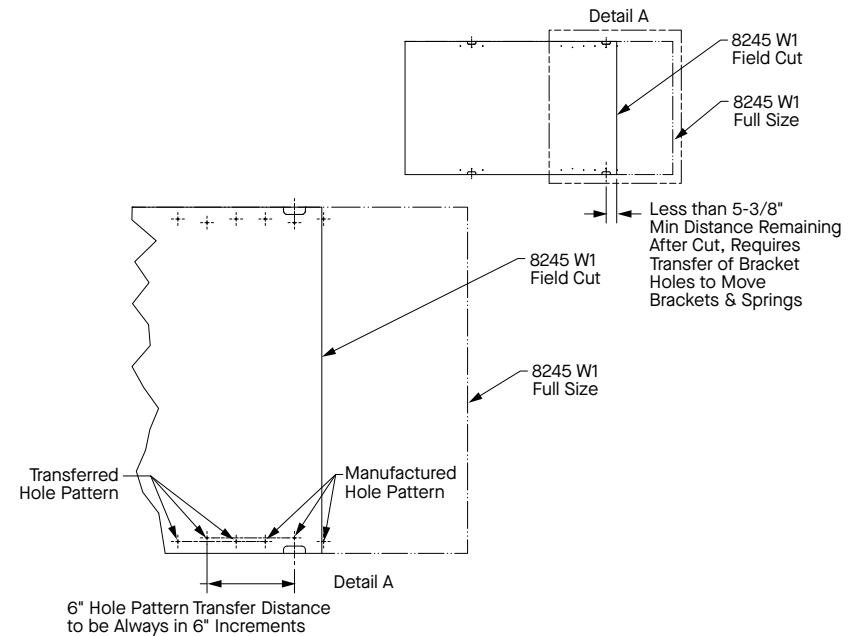
(Fig 26)

6.2.2 Cutting Short End

When panels ends are cut, use a straight edge to draw lines across the back of the panel through the factory holes. Minimum distance from center of bracket location to panel edge should be no less than 5-3/8". Cut the panel and attach the hooks to the factory holes and on the lines. Be careful to maintain the correct position along the lines. Measure the factory holes for uncut edges and follow the procedure in Section 6.2.1 where the long edge has also been cut, for correct bracket placement in relation to grid opening and saddle locations. Refer to Section 6.1 for bracket and spring attachment. Each clip must have three screws installed. **NOTE:** Pre-drill holes prior to installation (**Figs 27 & 28**).



(Fig 27)



(Fig 28)

6.3 Treating Exposed Edges

Cut panel edges that are exposed to view will have to be treated to look like factory edges. Prefinished edgebanding in coordinating finishes is available for this purpose. The cut edge must be clean and smooth before applying edgebanding. Apply a small amount of wood glue to the exposed edge and apply the edgebanding using finger pressure or a small trim roller. Trim the excess material with a sharp knife blade or with the edge trimmer available for order through Armstrong. Edgebanding and trimming tools are ordered directly from Armstrong. Edgebanding and trimming tools are ordered directly from Armstrong through the Customer Focus Center.

6.4 Installing Panels

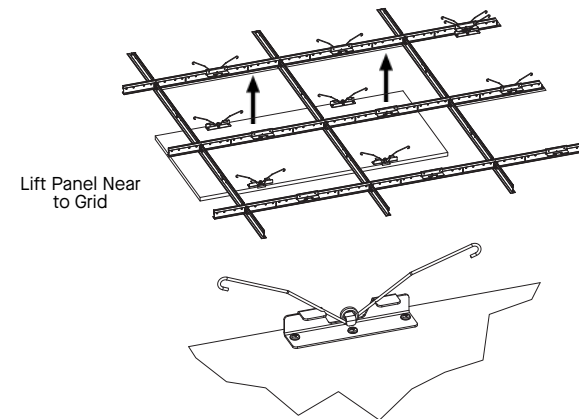
24" × 48" panels and larger, that weigh in excess of 20 pounds, must have safety cables attached to prevent them from falling to the floor in the event of a grid failure. The safety cables will consist of an 18" length of wire rope with a small loop formed at each end and a bag snap fitted to one of the loops. Two cables are required at diagonal corners of each panel.

Attach two 18" long sections of HD Prelude® 15/16" Grid, near opposite corners, on the back of the panels. Use six #8 × 9/16" long framing screws to secure each piece of grid. Be careful not to strip out the holes when screwing.

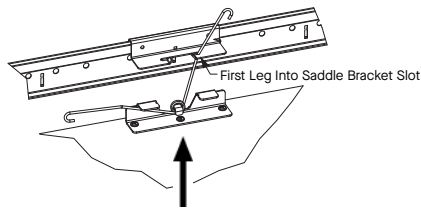
Hold the panel in the vertical position and align the springs on one side with the corresponding saddles on the suspension system. Springs should be inserted into the corresponding slots by starting with one side of the spring first and then the other as shown. Inserting springs in this manner will minimize spring compression. Panels should not be allowed to hang completely unsupported while the rest of the spring are installed. Swing the panel up into the horizontal position and engage the remaining springs into the saddles. When all springs are engaged in saddles, gently press the panel up into place with the palm of the hand. The springs will spread apart in the slots of the suspension system and seat the panel into place (**Figs 29 – 32**).

Once panel is seated in place, cinch the plain end of the safety cable around the hanger wire closest to the corner of the panel and connect the bag snap to a hanger wire hole on the grid section. For the last panel installation, the cable will need to be in place before panel is push up to the grid.

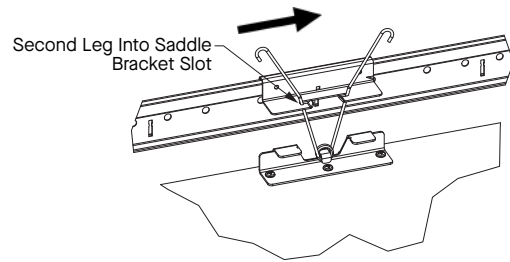
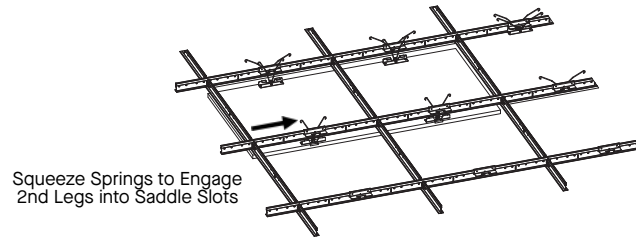
NOTE: If misalignment of the panels is noted, ensure proper alignment of the springs inside of the saddles to correct any visual issues.



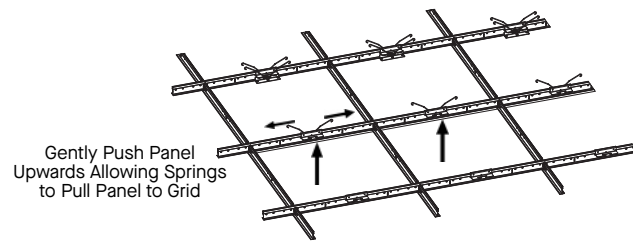
(Fig 29)



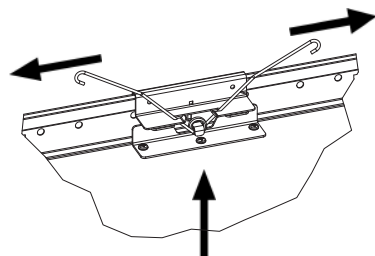
(Fig 30)



(Fig 31)

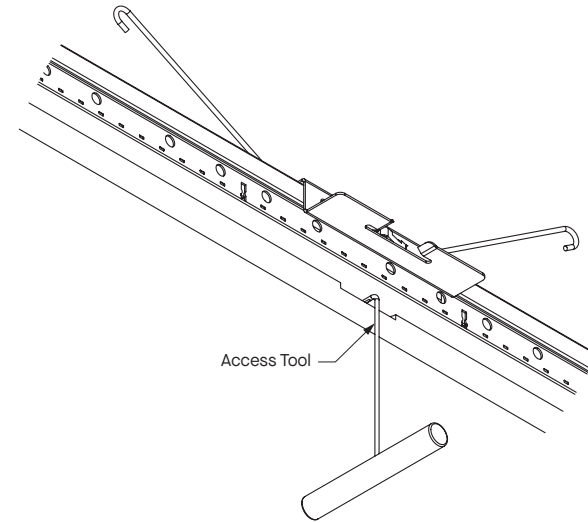


(Fig 32)



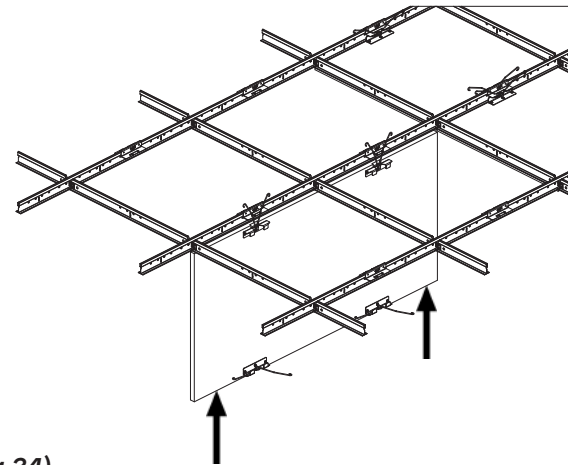
6.5 Panel Removal

Panels can be removed from the system using the Access Tool (Item 7129) at the panel removal pocket. WoodWorks® Torsion Spring border panels will always move away from the wall (Fig 33).



(Fig 33)

IMPORTANT NOTE: For WoodWorks Torsion Spring, the swing-down feature on the panels is only intended to aid with installation and removal (Fig 34). Due to the panel weight, the product is not designed to be left hanging in the swing-down position and should always be removed from the space for access.



(Fig 34)

7. SEISMIC SUSPENSION SYSTEM INSTALLATION

WoodWorks® Torsion Spring panel systems have been engineered and tested for application in all seismic areas based on these installation procedures. The following installation guidelines are required in areas where anticipated seismic activity will be moderate to severe (IBC Seismic Design Categories C, D, E, and F). Consult the local building department to ensure compliance with their unique requirements.

7.1 Suspension System Installation

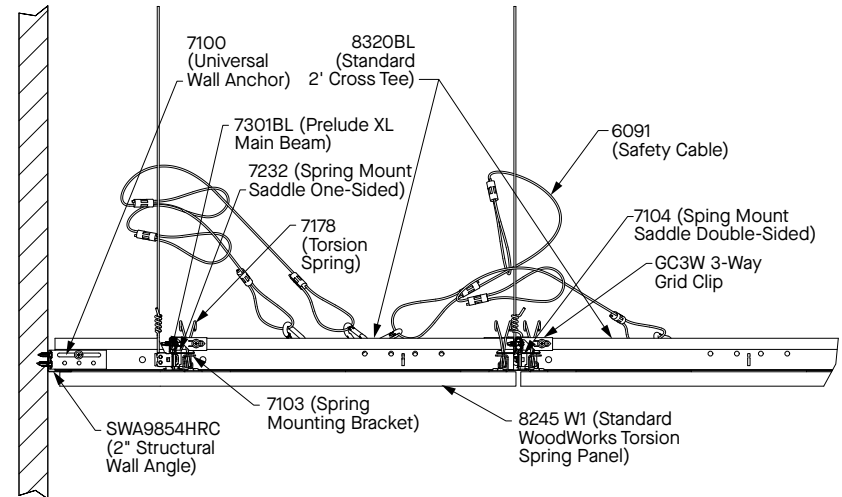
Use a Heavy-duty 15/16" Prelude® XL® T-Bar suspension system to support the WoodWorks Torsion Spring panels as listed in Section 4.1. The installation should, in all cases, conform to the International Building Code Seismic Design Category D, E, and F. Refer to Armstrong Seismic Ceiling Installation Guide BPCS-4141 for more details. Refer to the reflected ceiling plan to determine the panel orientation and size. Panel size will determine the suspension system layout. Remember to account for any infill panel weight in addition to panel weight to determine total system weight. In addition to the above requirements, also follow ASTM C636 requirements. The requirements listed here represent the manufacturer's minimum acceptable installation recommendation and may be subject to additional requirements established by the local authority having jurisdiction.

7.2 Hanging Points

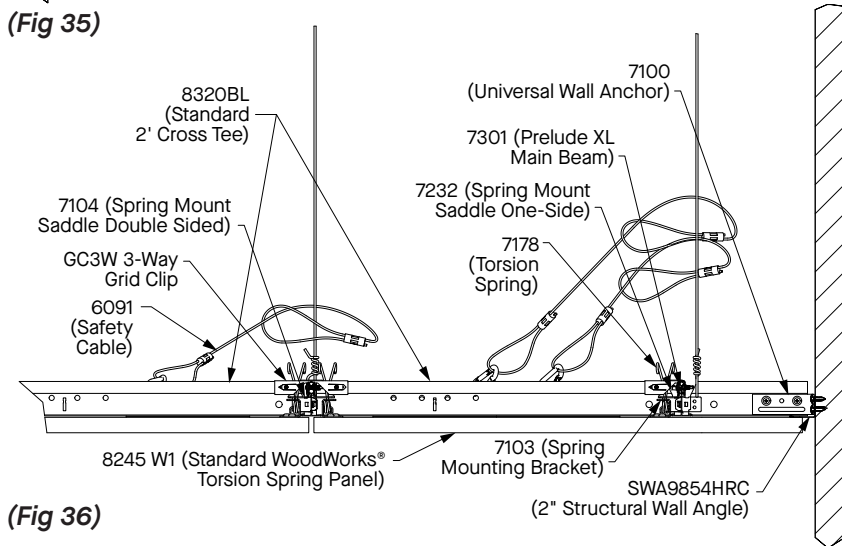
Before setting hanging points, review the RCP drawings for saddle clip locations as these may interfere with hanger wires. Before tying of any wires to the suspension system, place saddle clips along the main beams per the drawing plans. This will eliminate re-hanging wires that are found to interfere with the saddle placement.

7.3 Perimeter Attachment

Using 2" Structural Wall Angle (Item SWA9854HRC) secure the ends of the suspension system to the wall using the HD Wall Anchor (Item 7100). At the two adjacent attached walls, insert one screw through the slot and one screw through a pre-drilled hole. At the two adjacent unattached walls, insert one screw through the center of the slot (*Figs 35 & 36*).



(Fig 35)

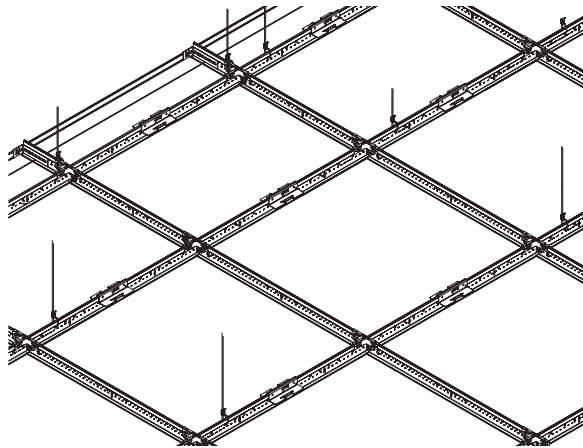


(Fig 36)

NOTE: Perimeter wires must be attached to the terminal ends of each piece of suspension system at least 4" but not greater than 8" from the wall. These wires must be plumb within 1 in 6 (10° angle).

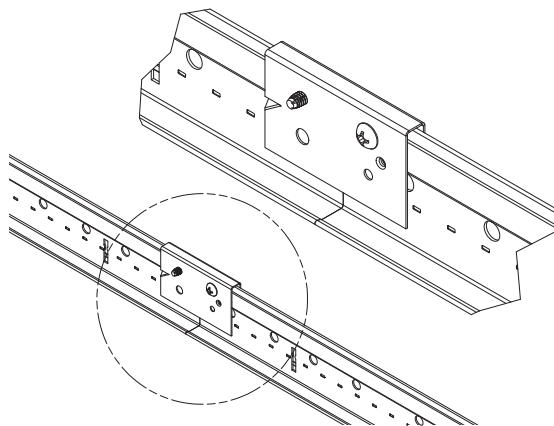
7.4 Main Beams

The O.C. main beam spacing is determined by the width of the panel; refer to Section 4.3 for grid layout based on panel size. For seismic, the first main must be placed 6" towards the center of the panel (**Fig 37**). This will also require the perimeter panel to be modified; refer to Section 7.7. A typical 1" reveal is recommended around the perimeter with 2" wall molding.



(Fig 37)

Install the Top Lock Main Beam Splice (Item TLMBS) onto each main beam coupling to secure the connection using four #8 truss head sharp point screws. The Top Lock Main Beam Splice is required at every main beam splice location in the field of installation (**Fig 38**).

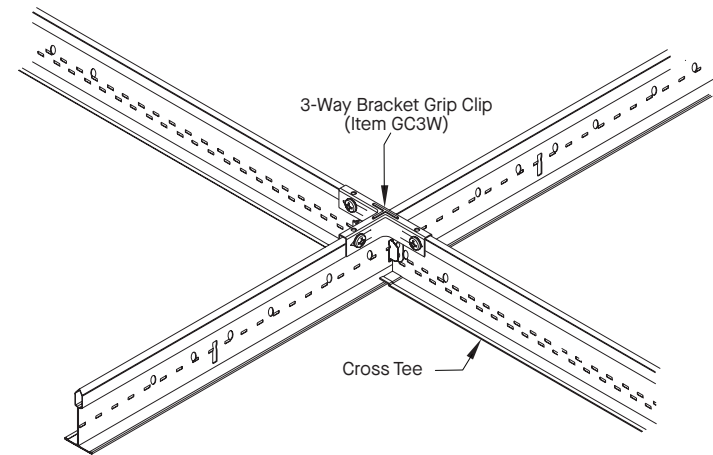


(Fig 38)

NOTE: Be sure to insert the screw from the larger (pilot) hole into the smaller hole on the other side of the clip.

7.5 Cross Tees

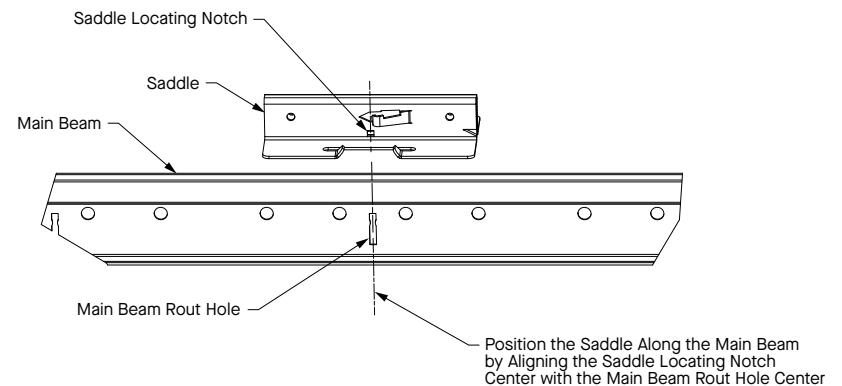
For the cross tee location, refer to your reflected ceiling plan. All cross tee connections must be reinforced with a Grip Clip 3-way bracket (Item GC3W) (**Fig 39**).



(Fig 39)

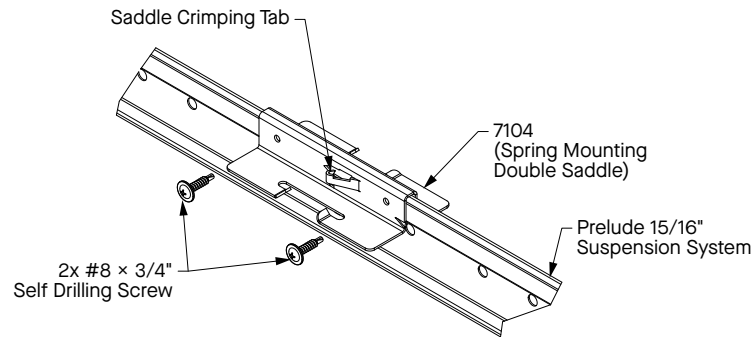
7.6 Install Suspension Accessories

Install all spring mounting saddles along the main beams at each spring location. For ease of installation, use the notch found at the midpoint of the saddle and line it up with rout holes on the main, which can serve as an alignment for correct placement of the saddles (**Fig 40**). Saddles will snap into place and can slide along the main beams until the final attachment. Crimp or clamp suspension system locking detail for temporary positioning.



(Fig 40)

Once final saddle position is verified, crimp the locking detail and screw the mounting saddle to the suspension system (**Fig 41**).



(Fig 41)

The spring mounting double saddles (Item 7104) will be installed for the field of the ceiling, while the One-sided Saddle (Item 7232) will be installed at the perimeter.

7.7 Panel Installation

Bracket and springs on perimeter panels will need to be relocated 6" towards the center of the panel to match grid layout. Refer to Section 6.2.1 and 6.2.2. for instructions on bracket and spring relocation. For additional panel installation details refer to Section 6.4.

7.8 Seismic Rx® Suspension System

Ceiling installation should conform to basic minimums established in ASTM C636.

- Minimum 7/8" wall molding
- Suspension system must be attached to two adjacent walls
- HD Wall Anchor maintains the main beam and cross tee spacing; no other components are required
- Heavy-duty systems as identified in ICC-ESR-1308
- Safety wires required on light fixtures
- Perimeter support wires within 8"
- Ceiling areas over 1,000 SF must have horizontal restraint wire or rigid bracing
- Ceiling areas over 2,500 SF must have seismic separation joints or full height partitions
- Ceilings without rigid bracing must have 2" oversized trim rings for sprinklers and other penetrations
- Changes in ceiling plane must have positive bracing
- Cable trays and electrical conduits must be independently supported and braced
- Suspended ceilings will be subject to special inspection
- Suspension layouts are the same as described in Section 4: Suspension System
- Connection to wall – See BPCS-4141 Seismic Design: What You Need to Know – Code Requirements Seismic Rx® Suspension System Tested Solutions – Seismic Rx Suspension System Approaches to Category C, D, E, and F Installations
- Special bracing required – See BPCS-4141 Seismic Design: What You Need to Know – Code Requirements Seismic Rx Suspension System Tested Solutions – Bracing and Restraint for Seismic Installations
- Seismic separation joints – See BPCS-4141 Seismic Design: What You Need to Know – Code Requirements Seismic Rx Suspension System Tested Solutions – Seismic Separation Joints

Item No. ♦	Description	Ordered Separately/ Included with	Required for Install	Sold by the	PCS/CTN
WOODWORKS® TORSION SPRING PANELS					
8245F01__S1__	24" × 24" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F01__S2__	24" × 48" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F01__S3__	24" × 72" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F01__S4__	24" × 96" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F01__S5__	30" × 60" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F01__S6__	30" × 30" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
FSC® CERTIFIED WOODWORKS TORSION SPRING PANELS					
8245F02__S1__	24" × 24" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F02__S2__	24" × 48" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F02__S3__	24" × 72" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F02__S4__	24" × 96" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F02__S5__	30" × 60" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
8245F02__S6__	30" × 30" Panel	Ordered Separately	Based on Design	250 SF Min.	Bulk
SUSPENSION SYSTEM					
7301BL	Prelude® XL® 12' HD Main Beam	Ordered Separately	Yes	CTN	20
XL8320BL	Prelude XL 24" Cross Tee	Ordered Separately	Based on Grid Layout	CTN	60
XL7379BL	Prelude XL 30" Cross Tee	Ordered Separately	Based on Grid Layout	CTN	60
7891	12-gauge Hanger Wire	Ordered Separately	Yes	Bundle	140
PERIMETER TRIM					
7800BL	Angle Wall Molding	Ordered Separately	Based on Design	CTN	30
6481F07W1H6__	6" Veneer Trim – For Veneer Panels/4 Clips included	Ordered Separately	Based on Design	PC	8 LF
6481F07W1H8__	8" Veneer Trim – For Veneer Panels/4 Clips included	Ordered Separately	Based on Design	PC	8 LF
AX_VESTR__	Axiom® Vector Straight Trim – Recommended in Black	Ordered Separately	Based on Design	PC	10 LF
ACCESSORIES					
7104	Double Saddle	Ordered Separately	Yes	CTN	25
7232	Half Saddles	Ordered Separately	Yes	CTN	25
6408__	3/4" Veneer Edgebanding	Ordered Separately	Based on Design	Roll	25 FT
5925	Replacement Trim Clip	Ordered Separately	Based on Design	CTN	25
7100	Heavy-duty Wall Anchor (Seismic)	Ordered Separately	Yes – Seismic D, E, & F	CTN	50
7239	Adjustable Trim Clip (ATC)	Ordered Separately	Based on Design	CTN	50
BERC2	2" Beam End Retaining Clip	Ordered Separately	Based on Design	CTN	200
7129	Removal Tool	Ordered Separately	Yes – For Removal	PC	1
6091	WoodWorks Safety Cable With Spring Snap 2'	Ordered Separately	Yes – For 2' × 4' and Up	CTN	50

♦ When specifying or ordering, include the appropriate 2-digit perforation and/or 3-letter veneer suffix (e.g., 8245F01 W 1S 1 N M P)

MORE INFORMATION

For more information, or for an Armstrong Ceilings representative, call 877 276-7876.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 877 276-7876 or FAX 800 572-TECH.

FSC® is a registered trademark of Forest Stewardship Council®, A.C., license code FSC-C007626;

All other trademarks used herein are the property of AWI Licensing LLC and/or its affiliates.

© 2023 AWI Licensing Company Printed in the United States of America

BPLA-298019-1123



Armstrong®
World Industries