

W-Truss Shade Structure System

Assembly Instructions



P.O. Box 458 - 27725 Danville Avenue - Castle Rock, MN 55010 - www.poly-tex.com
U.S. & Canada Toll Free - 800-852-3443 - (651) 463-7009 - fax (651) 463-2479

REV: AH-230407

PLEASE READ THE INSTALLATION INSTRUCTIONS CAREFULLY BEFORE BEGINNING TO ASSEMBLE THE STRUCTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

There is no guarantee of the load capacity of the structure or foundation for snow, wind, seismic, or other loads unless buyer has received certified engineering drawings with the structure, and Poly-Tex does not warrant that the frame or foundation will comply with local or state building codes in buyer's location.



This structure is intended to be self-supporting, provided it is constructed with all frames, hardware, sheathing, sheeting, bracing, cables, and membrane in place, and secured to the foundation as shown in the manual. Stability during construction, from winds and loads imposed during erection, is the sole responsibility of the installer. Observe safety codes required by the local jurisdiction, and relevant safety practices for working at heights. Avoid the risk of electrical shock from overhead lines or electrical storms. Poly-Tex recommends contracting a licensed electrician to perform electrical work. Eye protection is recommended under all circumstances and hearing protection is recommended when cutting components with power tools.



No part of this structure is engineered to function as an anchorage point for a fall arrest system. Use a safety net or work from a safe work platform (i.e. scaffolding). Select a calm day for work. Wind can be sufficient enough to knock materials or workers off a work platform or ladder, resulting in a potentially deadly fall.

Overview of assembly procedure

While each structure and site is unique, and may require special considerations, these instructions are for a tilt-up method (where frames are assembled on the ground and tilted onto ground stakes or anchor rods using ropes or lifts). If installer is not confident to erect the structure, Poly-Tex suggests hiring a general contractor, carpenter, or similar licensed business familiar with construction, to assemble and erect the structure.



Do not overload structure. Consult with a Poly-Tex representative prior to adding any amount of weight over the specified capacity of this structure. Basket purlins, shelving or any objects of significant weight shall not be hung, attached, or secured to roof or truss members in a manner that will overload the structure.



Do not walk on polycarbonate sheets. If structure is to be covered with polycarbonate sheets, always use scaffolding for the erection process to avoid damage to sheeting and to ensure safety. Polycarbonate sheeting has UV coating protected with vinyl film on the exterior surface. Install sheets with the film intact and toward the exterior. Remove film once the sheet has been fastened

Poly-TEX, Inc. Limited Warranty

Poly-TEX, Inc. warrants its products to be free from defects in material and workmanship for a period of (1) year from date of invoice. This warranty is provided to the original purchaser of the product and is not transferable. Poly-TEX does not warrant parts not manufactured by Poly-TEX, but does assign any transferable manufacturer or supplier warranties. Should any defect be found, full repair or replacement will be rendered to the customer at no cost following inspection by a Poly-TEX representative and the return of the defective product to our Castle Rock, MN factory. Expenses for removal or reinstallation of defective products will not be covered by the warranty. The sale of custom projects are final and are not eligible for refund.

POLY-TEX SHALL NOT BE HELD RESPONSIBLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY DELAY IN PERFORMANCE OF THIS WARRANTY BEYOND OUR CONTROL. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER IMPLIED, WRITTEN, OR ORAL INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ADDITIONALLY, THERE IS NO GUARANTEE OF THE LOAD CAPACITY OF THE STRUCTURE FOR SNOW, WIND, SEISMIC, OR OTHER LOADS UNLESS BUYER HAS RECEIVED CERTIFIED ENGINEERING DRAWINGS WITH THE STRUCTURE AND POLY-TEX, INC DOES NOT WARRANT THAT FRAME WILL COMPLY WITH LOCAL OR STATE BUILDING CODES IN BUYERS LOCATION.

This warranty does not cover damage from customer abuse, misuse, improper installation, customer modifications, customer negligence in performing normal maintenance, damage resulting from acts of nature.

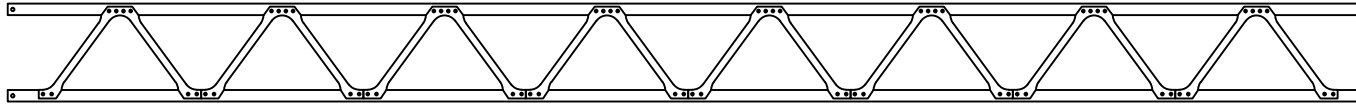
REV - 11/20

Sheet Index

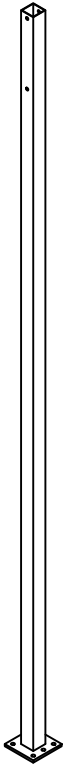
Safety Guidelines	2
Warranty and Index	3
Part Identification	4
Post Installation	5
Fitting Installation	6
W-Truss Installation	7
Cable Installation	8
Brace Installation	9
Shade Cloth	10
Bungee Installation	11

Part Identification

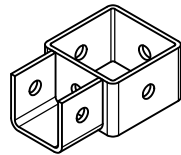
Note: Not all W-Truss kits will include all parts shown.



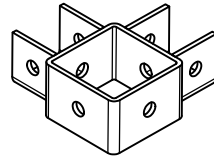
WT2000
W-Truss
(or Custom Size)



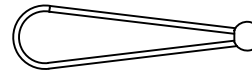
SU2005
13'-0" Post 3" SQ
7" x 7" x 1/2"
(or Custom Size)



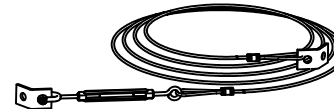
FT4013
1-Way Fitting



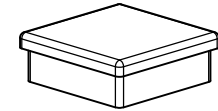
FT4010
2-Way Fitting



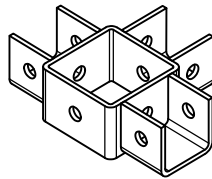
PT2521
Bungee



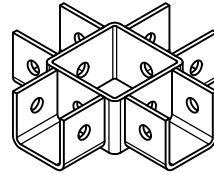
SH2006
Cable Assembly
(or Custom Size)



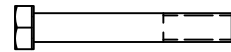
RS6020
3" X 3" Black Post Cap



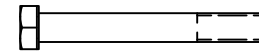
FT4011
3-Way Fitting



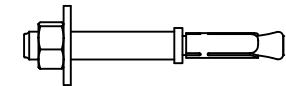
FT4012
4-Way Fitting



NB1917
1/2" x 3-1/2" Hex Bolt



NB1934
1/2" x 4" Hex Bolt



NB1930
1/2" x 4 1/2" Expansion Anchor



NB1937
1/2" Lock Washer



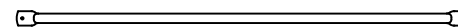
NB1868
1/2" Flat Washer



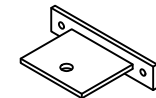
NB1936
1/2" Hex Nut



NB1908
1/2"-13 Thin Locknut



WT1011
Horizontal Brace



FT2158
Brace Attachment



NB1852
3/8" x 1" Hex Bolt



NB1864
3/8" Lock Washer



NB1874
3/8" Hex Nut



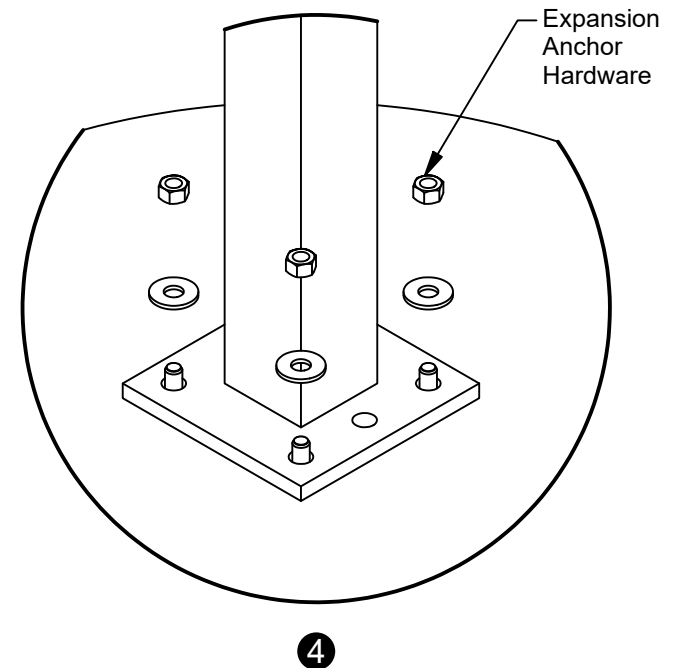
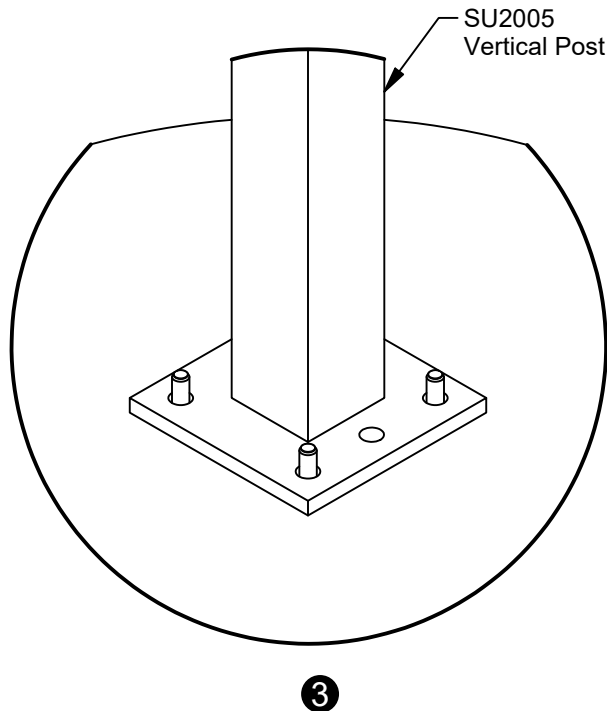
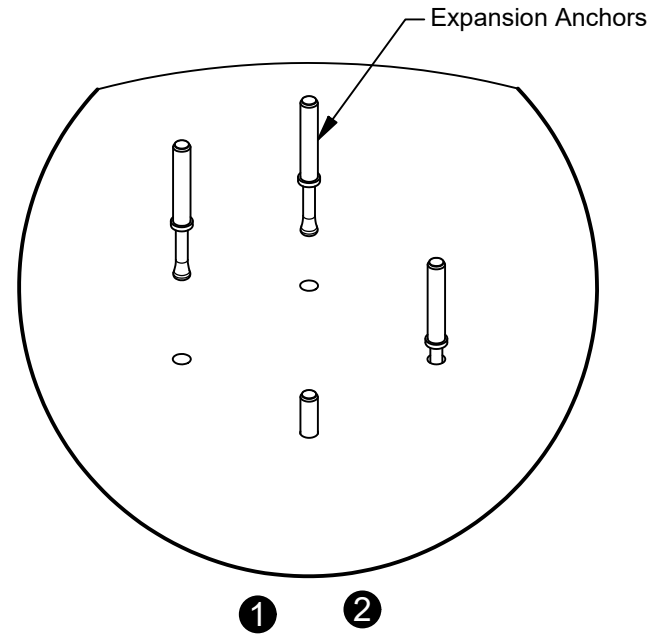
NB1809
1/4" x 1" Self-Drill Screw

Optional W-Truss Horizontal Brace Kit - WT1012

Before installing the vertical posts please refer to the layout sheet that was provided for details regarding foundation and post locations. Failure to build according the layout sheet could result in a shortage of parts required to complete the installation.

To ensure the structure is built square, ensure equal corner to corner dimensions of the structure and in each bay.

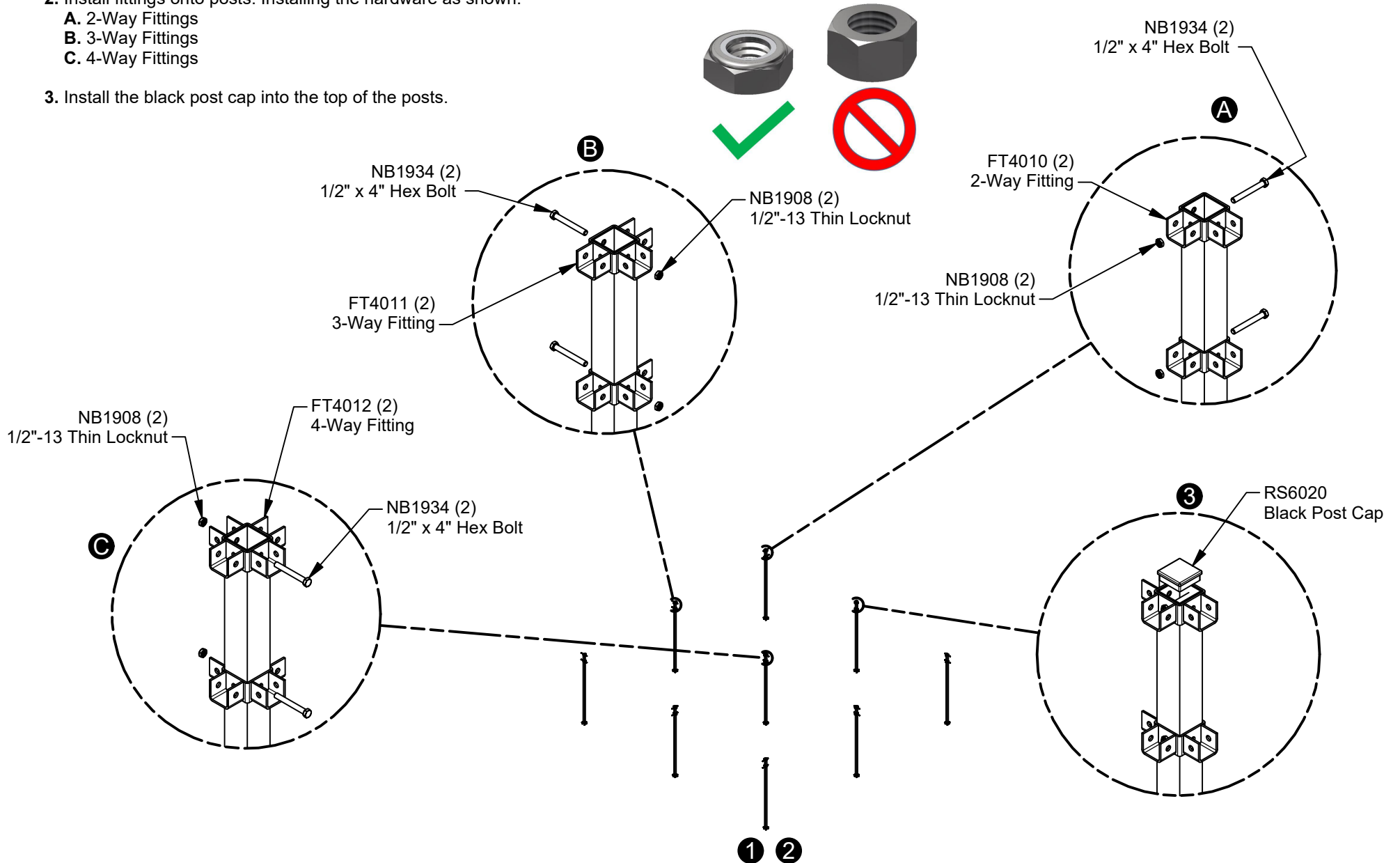
1. At each post, mark the anchor locations and drill holes 3-1/2" deep using a 1/2" concrete masonry drill bit at each anchor location.
2. Install the expansion anchors following the instructions for **NB1930 1/2" x 4 1/2" Expansion Anchor** with 3-1/2" minimum embedment. Ensure the drilled holes are clear of debris or dust before installing anchors.
3. Install the vertical post SU2005
4. Install the hardware as shown, ensuring the post is installed plumb.



Fitting Installation

1. At each column, find the appropriate fitting for the number of trusses to be attached.
2. Install fittings onto posts. Installing the hardware as shown.
 - A. 2-Way Fittings
 - B. 3-Way Fittings
 - C. 4-Way Fittings
3. Install the black post cap into the top of the posts.

NOTE: This is the only assembly step that uses a Thin Nylon Insert Locknut

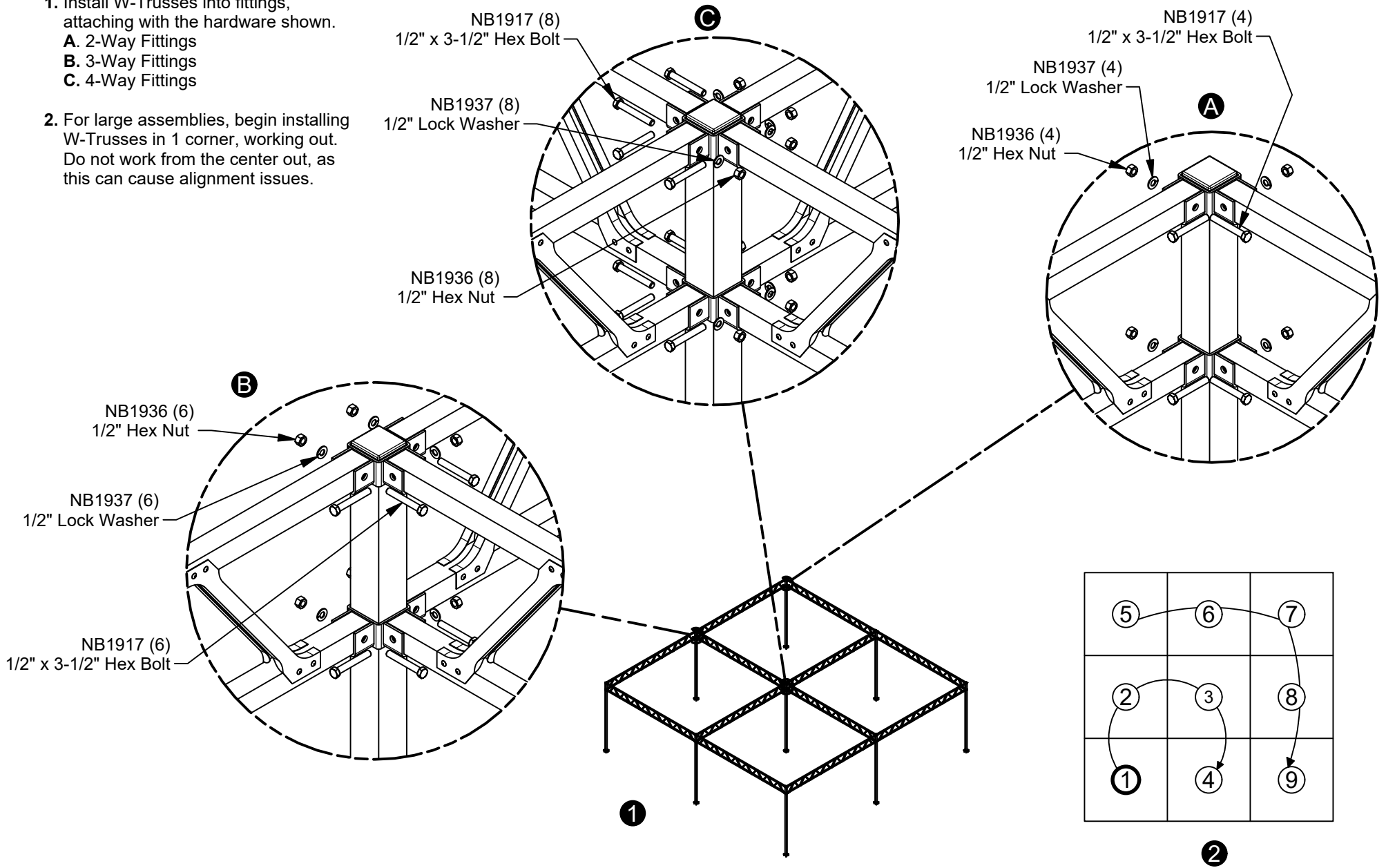


W-Truss Installation

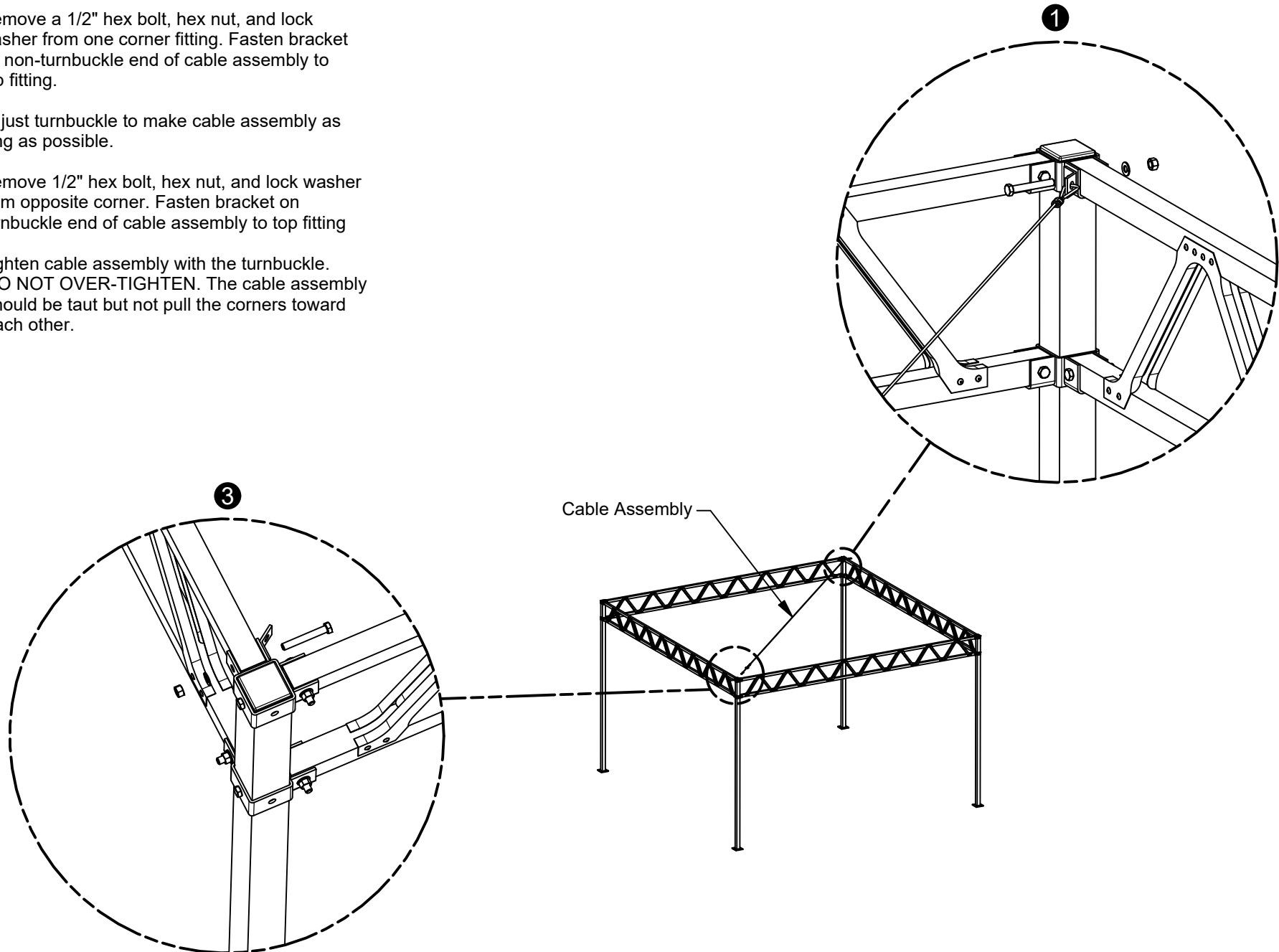
1. Install W-Trusses into fittings, attaching with the hardware shown.

- A. 2-Way Fittings
- B. 3-Way Fittings
- C. 4-Way Fittings

2. For large assemblies, begin installing W-Trusses in 1 corner, working out. Do not work from the center out, as this can cause alignment issues.



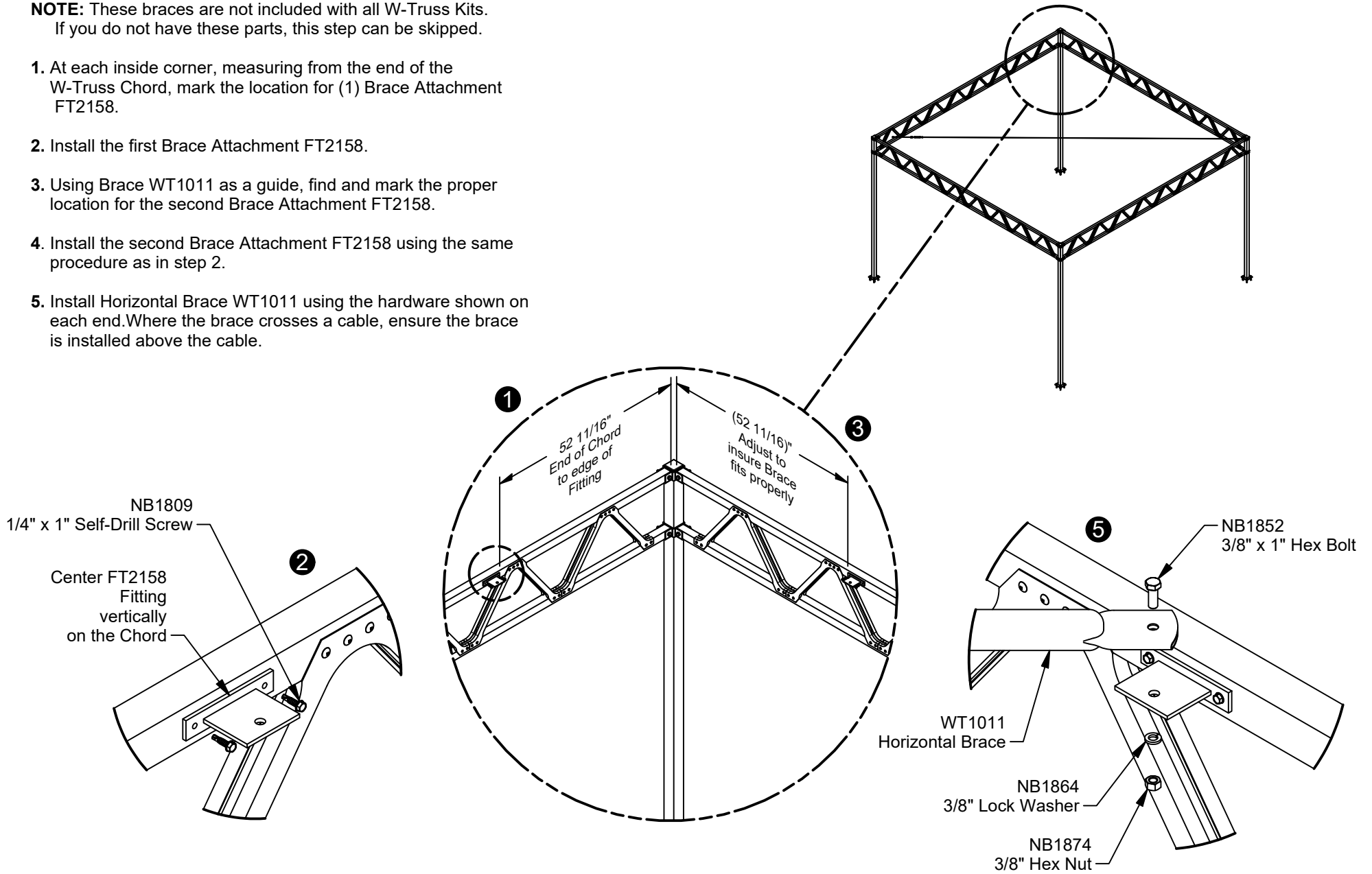
1. Remove a 1/2" hex bolt, hex nut, and lock washer from one corner fitting. Fasten bracket on non-turnbuckle end of cable assembly to top fitting.
2. Adjust turnbuckle to make cable assembly as long as possible.
3. Remove 1/2" hex bolt, hex nut, and lock washer from opposite corner. Fasten bracket on turnbuckle end of cable assembly to top fitting.
4. Tighten cable assembly with the turnbuckle. **DO NOT OVER-TIGHTEN.** The cable assembly should be taut but not pull the corners toward each other.



Brace Installation (OPTIONAL)

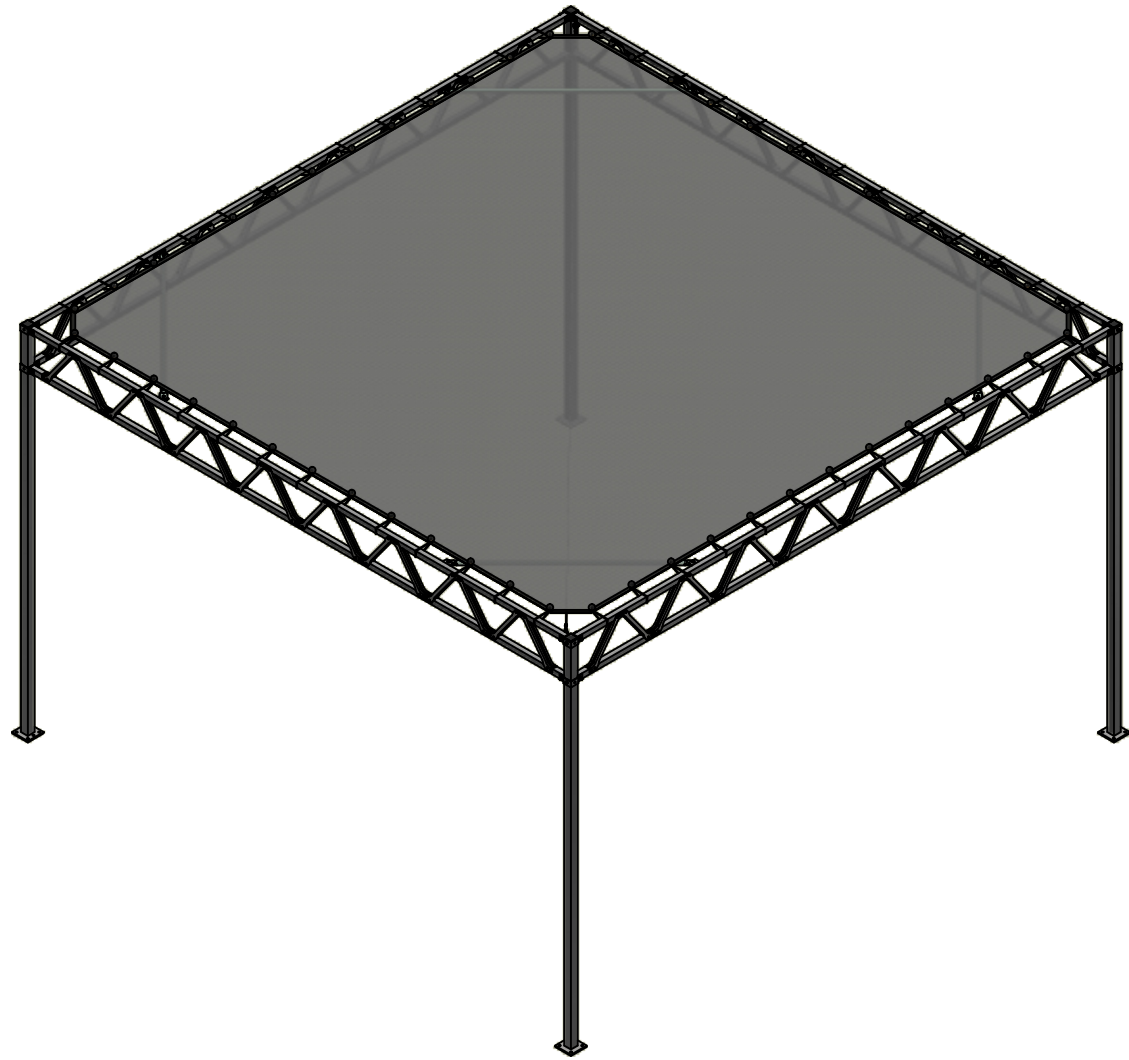
NOTE: These braces are not included with all W-Truss Kits.
If you do not have these parts, this step can be skipped.

1. At each inside corner, measuring from the end of the W-Truss Chord, mark the location for (1) Brace Attachment FT2158.
2. Install the first Brace Attachment FT2158.
3. Using Brace WT1011 as a guide, find and mark the proper location for the second Brace Attachment FT2158.
4. Install the second Brace Attachment FT2158 using the same procedure as in step 2.
5. Install Horizontal Brace WT1011 using the hardware shown on each end. Where the brace crosses a cable, ensure the brace is installed above the cable.



WARNING: This product was not designed to support ANY amount of snow. Be sure all chances of snow accumulation have passed before installing the shade cloth. If by chance snow does accumulate on top of the shade cloth, IMMEDIATELY remove the bungee balls securing the shade cloth to allow snow to fall to the ground.

TIP: To ensure the shade cloth is centered in the opening, start with the corners and then do a few bungees on each side (see next page) before installing all of them. If all bungees are installed on one side first, the gap will be too large on the opposite side and it will be hard to pull the shade cloth enough to get it evenly spaced.



Caution: Wear eye protection when installing bungee cords.

1. Insert bungee cord through grommet in fabric.
2. Wrap cord around support.
3. Insert ball through loop.
4. Once in place, move bungee so ball is over the grommet as shown.

A bungee may slip off if not installed properly. Occasionally check installation to ensure all bungee cords remain attached.

When reinstalling, inspect bungee cords for wear or damage, **do not use damaged bungees.**

For adjacent shade panels, use one bungee ball per grommet. **Do not double up on the grommets per bungee cord.**

