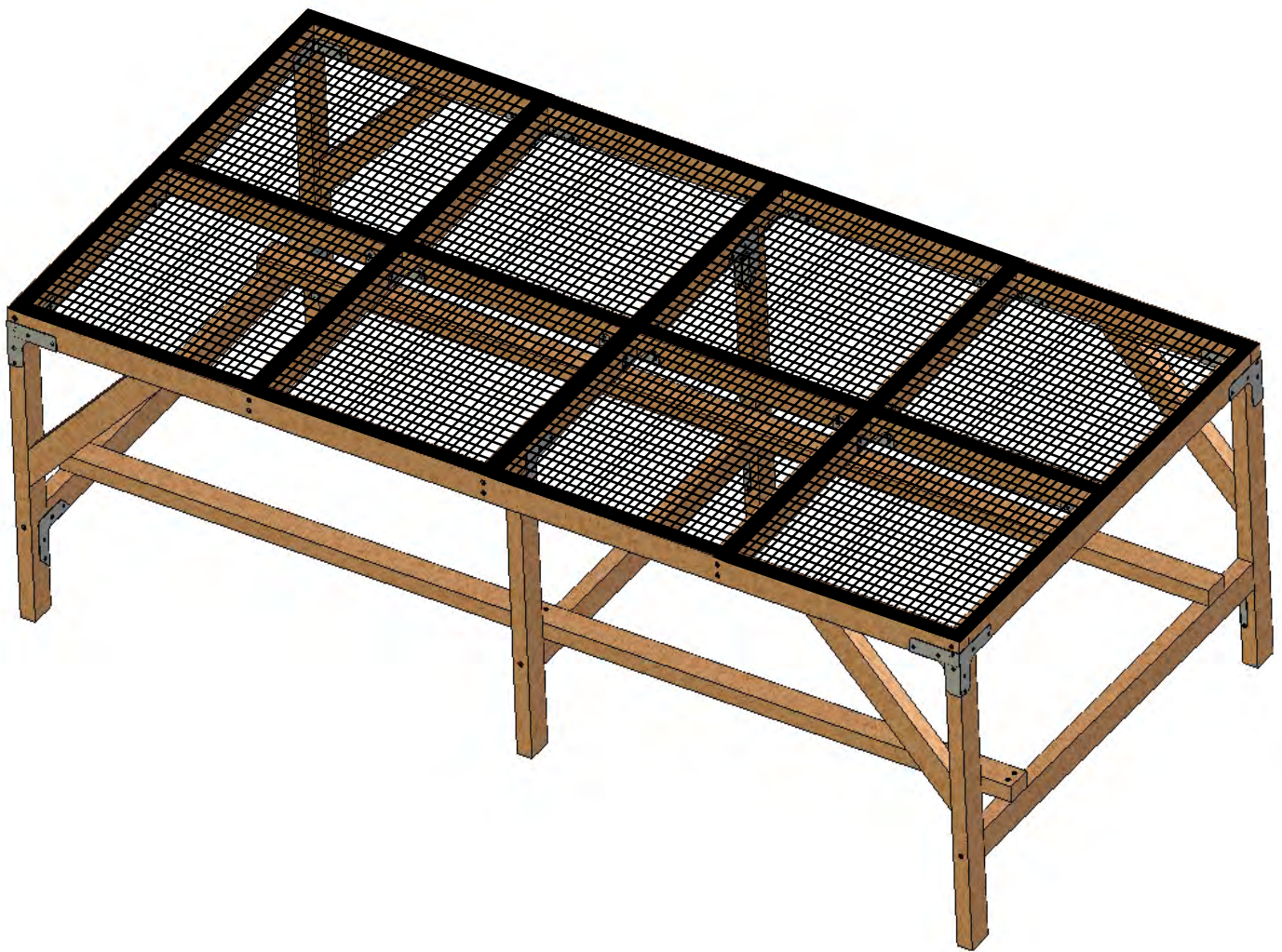


4' x 8' Premium Cedar Greenhouse Bench Assembly Guide



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Revision date: 08.27.08

SKU #108291
Premium Cedar Greenhouse Bench


Thank you for purchasing the 4' x 8' Premium Cedar Greenhouse Bench. This attractive and durable bench is designed for general greenhouse use and is ideal for potting plants, plant display, and plant maintenance.

This guide includes helpful hints and important information needed to safely assemble and maintain the cedar bench. Please read these instructions **before** you begin.

If you have any questions during the assembly, contact customer service for assistance.

SAFETY PRECAUTIONS

- Wear eye protection.
- Wear head protection.
- Wear gloves when handling the components.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with electric power tools and cords.
- Do not climb on the bench during or after assembly.

 **WARNING:** For safety reasons, those who are not familiar with the use of basic hand tools and assembly techniques are encouraged to *seek the help of a qualified contractor.*

ASSEMBLY PROCEDURE

The steps below describe the basic bench assembly steps. Verify that all parts are included in the shipment. Contact customer service for questions or concerns.

Read these instructions and additional documentation (if any) included with the shipment **before** you begin.

1. Gather the tools and assistants as needed to assemble the bench.
2. Assemble the bench on a smooth, level surface.
3. Cover the area with cardboard or other material to protect the bench components during assembly.
4. Assemble the bench as described within this guide.
5. Read the care and maintenance information.
6. Complete and return all warranty information as instructed (if present).

REQUIRED TOOLS

The following list identifies the main tools required to assemble the bench. *Additional tools may be needed.*

- Tape measure or measuring device
- Variable speed drill or driver (cordless with extra batteries works best)
- Square-headed driver bit and Phillips®-head bit to drive fasteners
- Carpenter's square
- Pencil or comparable marker
- Hammers, gloves and eye protection
- Assistants (optional but recommended)
- Other basic hand tools as needed

UNPACK AND IDENTIFY PARTS

The following steps help to ensure that you have all the necessary parts *before* you begin.

1. Unpack the contents of the shipment and place where you can easily inventory the parts. Refer to the Bill of Materials/Spec Sheets and this guide.
2. Verify that all parts listed on the Bill of Materials/Spec Sheets or within this guide are present. If anything is missing or you have questions, consult diagrams for clarification or contact customer service.

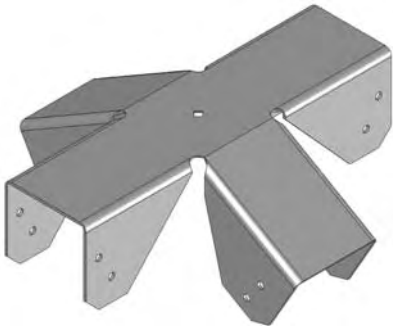
NOTE: At this time, you do not need to open the plastic bags containing smaller parts such as fasteners and clamps (if present).

CARE AND MAINTENANCE

Proper care and maintenance is important. Check the following items periodically to properly and adequately maintain your cedar greenhouse bench:

- Regularly check the screws and braces to verify they are tight and in good condition.
- Do not climb or stand on the cedar bench at anytime.
- Do not overload bench with excessive weight.
- Replace all worn or damaged parts immediately.
- Bench is not designed to withstand the weight and forces resulting from the installation and use of clamps or vices. Do not attach vices or clamp devices to bench.
- For replacement or missing parts, call 1-800-245-9881 for assistance.

The parts shown below are specific to the assembly of the cedar bench. *Graphics are not to scale.*



105085 Connector
Quantity: 3



104638 "T" Connector
Quantity: 8



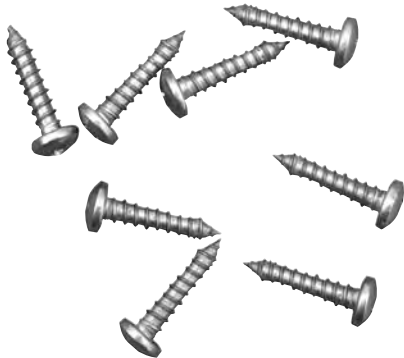
104636 Corner Connector
Quantity: 4



104637 90° Connector
Quantity: 10



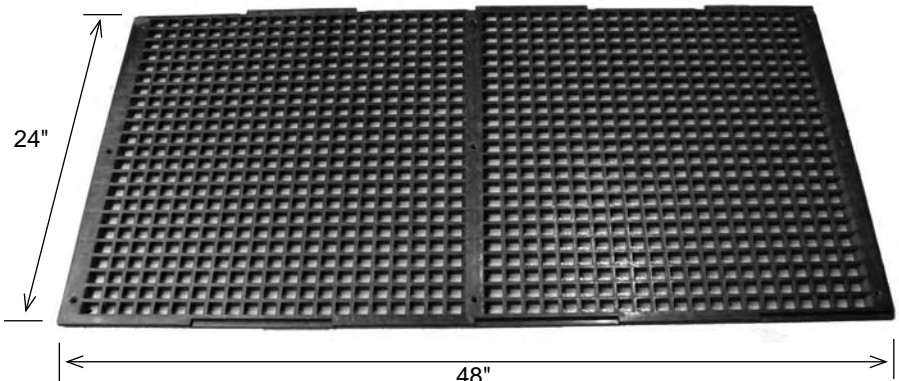
FAS13B #10 x 2-1/2" Fastener
Quantity: 50



FAF25PB #8 x 3/4" Fastener
Quantity: 275



FAS11B #6 x 1-5/8" Fastener
Quantity: 36



HA2217 PolyMax
Quantity: 4

#108291
Premium Cedar Greenhouse
Bench (4' x 8')

The parts shown below are specific to the assembly of the cedar bench. *Graphics are not to scale.*



10513620D

Diagonal Corner Brace: 4
1-1/2" x 2-1/2" x 20"



1051362225

Bench Top Support: 4
1-1/2" x 2-1/2" x 22-1/4"



10513627D

Leg: 6
1-1/2" x 2-1/2" x 27"



10513634

Horizontal Support (Middle Leg): 1
1-1/2" x 2-1/2" x 34"



10513643

Horizontal Support (End Legs): 2
1-1/2" x 2-1/2" x 43"



10513645

Bench Top Ends and Mid Supports: 5
1-1/2" x 2-1/2" x 45"



105136965AD

Bench Top Sides: 2
1-1/2" x 2-1/2" x 96-1/2"



105136965BD

Leg Braces: 2
1-1/2" x 2-1/2" x 96-1/2"

STEP ONE: ASSEMBLE BENCH TOP FRAME

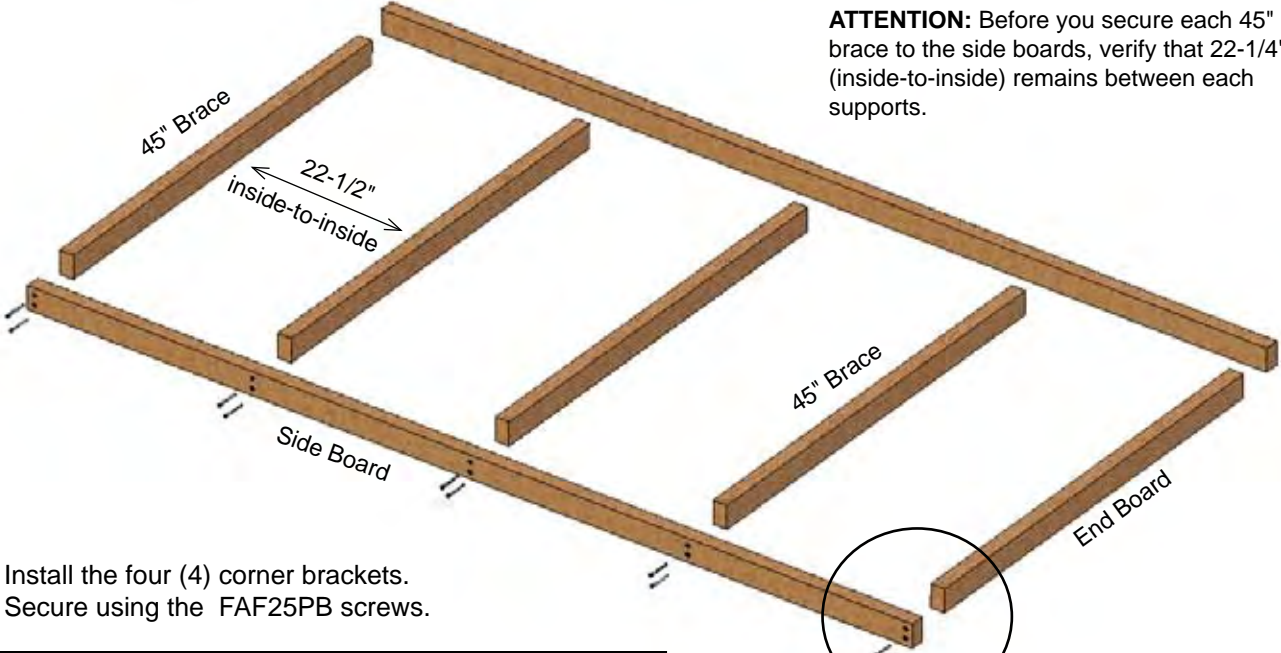
Required parts:

- 5 lengths of 1-1/2" x 2-1/2" x 45" cedar (10513645)
- 2 lengths of 1-1/2" x 2-1/2" x 96-1/2" cedar (105136965AD)
- 4 lengths of 1-1/2" x 2-1/2" x 22-1/2" cedar (1051362225)
- 4 corner brackets (104636)
- 8 "T" brackets (104638)
- 3 rafter-to-ridge brackets (105085)
- FAF25PB #8 x 3/4" screws
- FAS13B #10 x 2-1/2" screws (20)

Complete these steps:

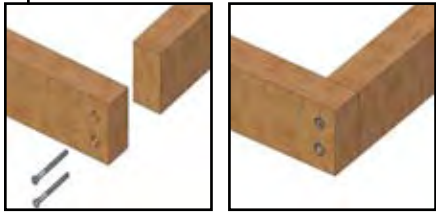
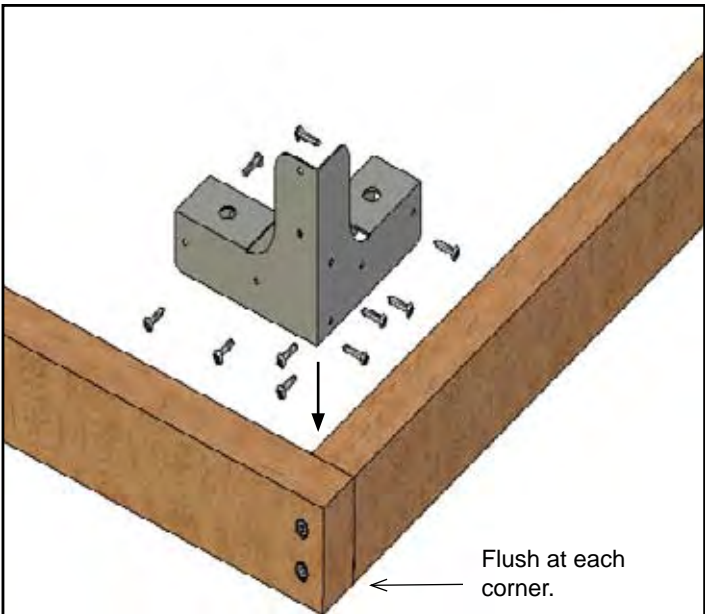
- a. Position the five (5) 1-1/2" x 2-1/2" x 45" cedar supports between the two (2) 96-1/2" side boards of the bench top and secure using the 20 FAS13B screws. Assemble the frame on a flat, level surface.

Verify that the two (2) end boards are flush with the ends of the side boards and positioned between the side boards. Center the three (3) inside 45" boards with the pre-drilled holes of the side boards and secure using the screws. *To prevent stripping or splitting the wood, do not over-tighten the screws.*



ATTENTION: Before you secure each 45" brace to the side boards, verify that 22-1/4" (inside-to-inside) remains between each supports.

- b. Install the four (4) corner brackets. Secure using the FAF25PB screws.

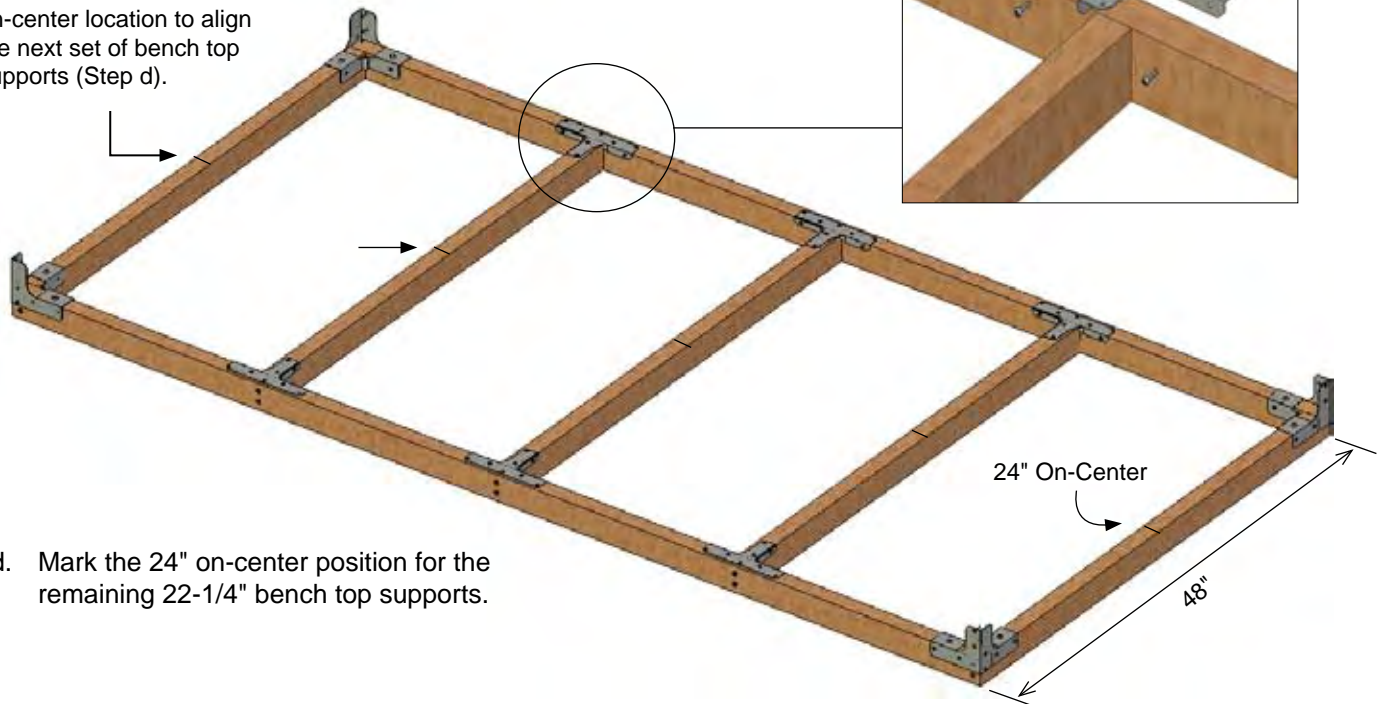


Cedar Bench

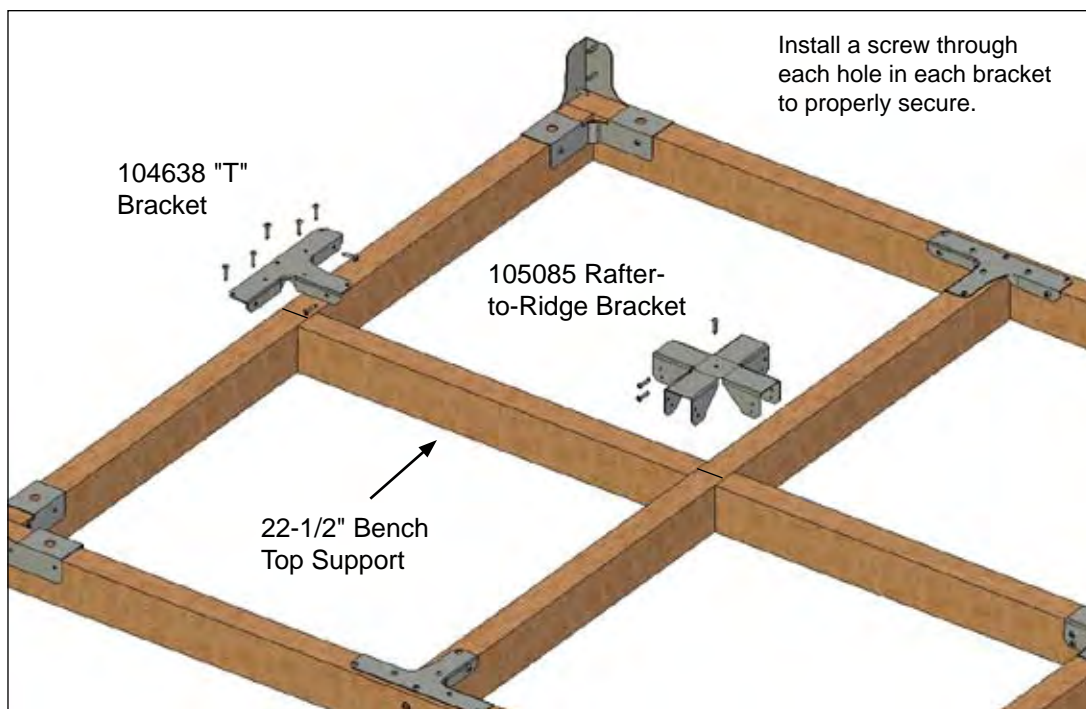
STEP ONE: ASSEMBLE BENCH TOP FRAME (continued)

- c. After installing the corner brackets, install the six (6) outer 104638 "T" connectors. Secure using the FAF25PB screws.

Measure from outside-to-outside and mark the 24" on-center location to align the next set of bench top supports (Step d).



- d. Mark the 24" on-center position for the remaining 22-1/4" bench top supports.
- e. Install the four (4) 1-1/2" x 2-1/2" x 22-1/4" cedar bench top supports. Secure the end pieces to the end frame board using the 104638 "T" brackets. Secure the mid pieces using the three (3) 105085 rafter-to-ridge brackets. Secure all brackets using the FAF25PB screws. *Do not over-tighten screws.*



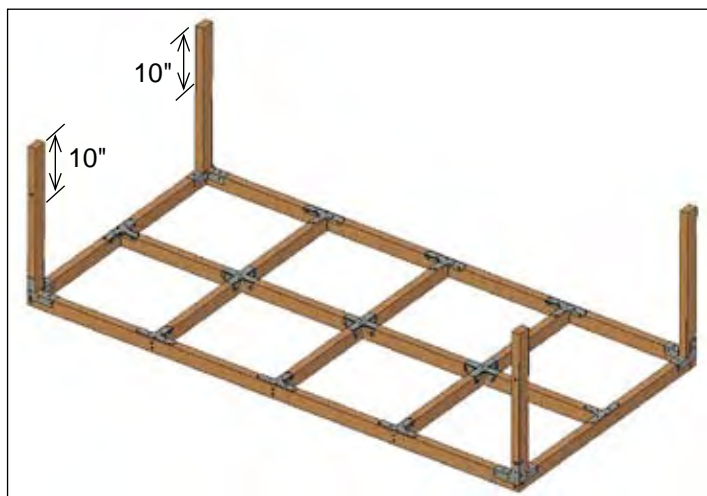
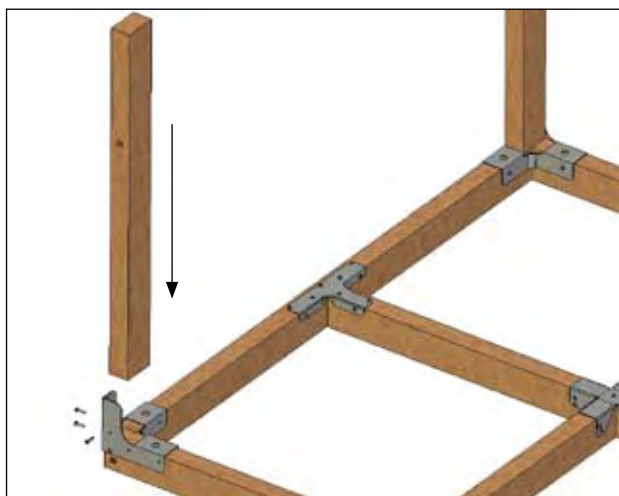
STEP TWO: ATTACH THE LEGS AND LEG BRACES

Required parts:

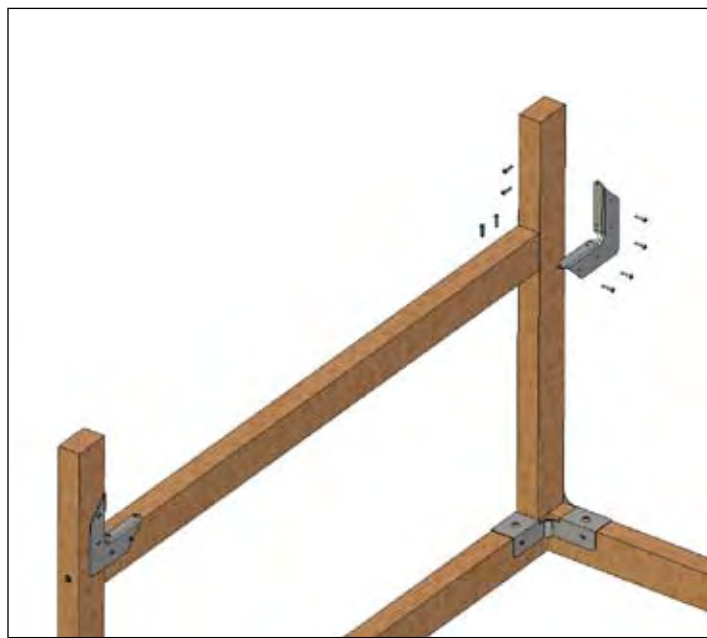
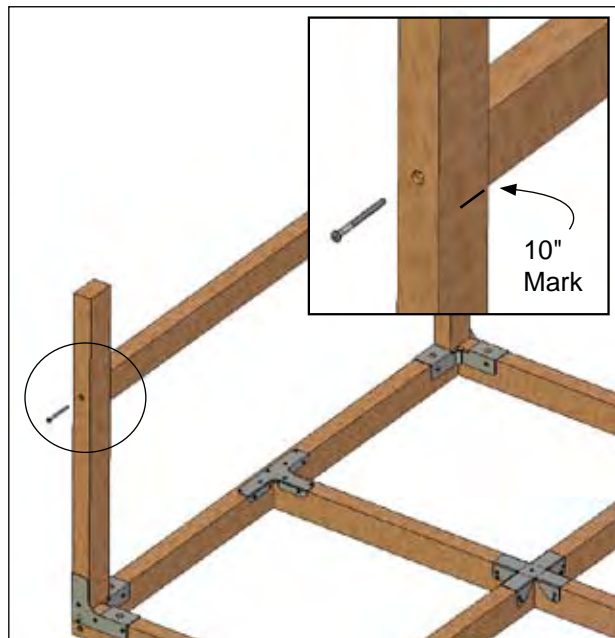
- 6 lengths of 1-1/2" x 2-1/2" x 27" cedar (10513627D)
- 2 lengths of 1-1/2" x 2-1/2" x 43" cedar (10513643)
- 1 length of 1-1/2" x 2-1/2" x 34" cedar (10513634)
- 10 brackets (104637– 90° angle)
- FAF25PB #8 x 3/4" screws
- FAS13B #10 x 2-1/2" screws (6)

Complete these steps:

- Secure one 1-1/2" x 2-1/2" x 27" cedar leg at each corner using the FAF25PB #8 x 3/4" screws. *Position the countersunk hole of each leg to the outside of the bench.*
- With the legs secure, measure 10" from the free end of each leg and mark the location. *This marks the top edge of each horizontal leg brace when the bench is upright and setting on its legs.*



- Take the two 1-1/2" x 2-1/2" x 43" horizontal braces and secure one between each set of legs using the FAS13B screws. Align the edge of each brace with the mark on the legs. The countersunk hole in the leg will align with the center of the horizontal brace. *Do not over-tighten the screws. Use a carpenter's square to square the connection.*

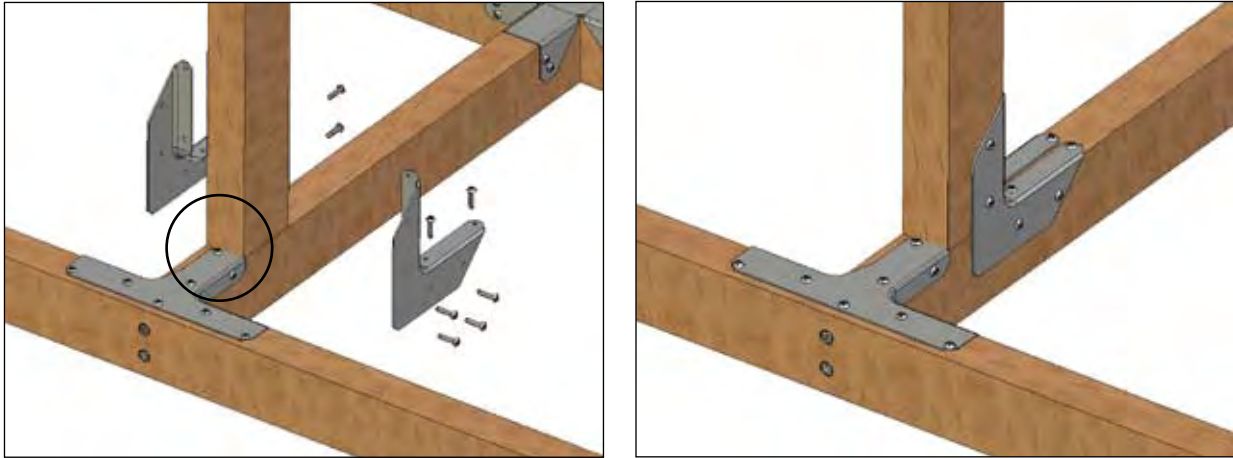


- Using the FAF25PB #8 x 3/4" screws, secure two 104637 angled brackets to the leg and horizontal brace as shown. Install the bracket so that it is on the underside of the leg assembly *when the bench is standing on its legs.*

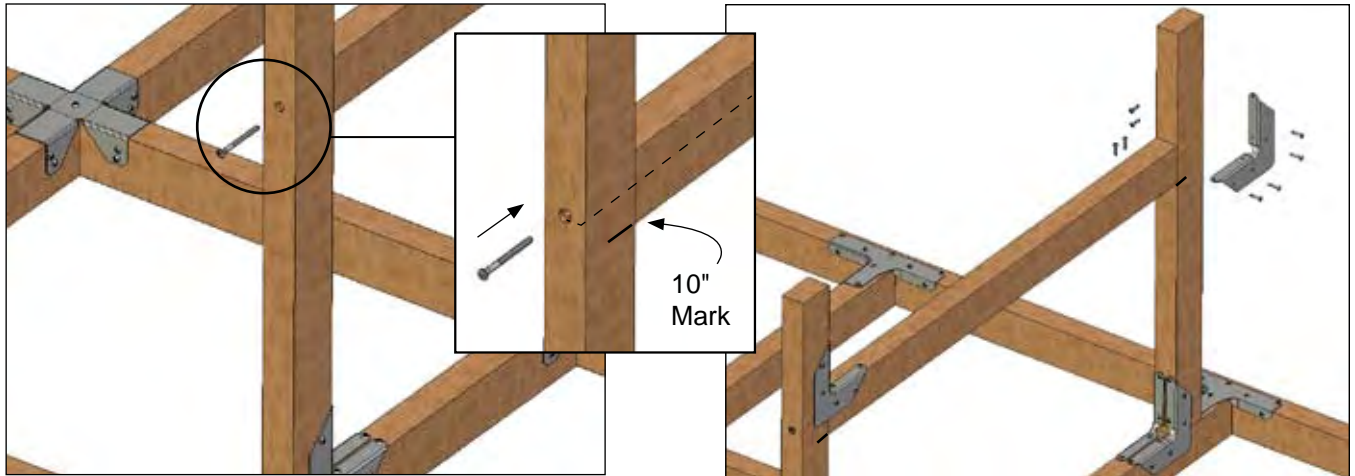
Cedar Bench

STEP TWO: ATTACH THE LEGS AND LEG BRACES (continued)

- e. Take the remaining two 27" legs and attach them to the bench frame using the 104637 brackets and the 3/4" screws. Position one bracket on each side of the leg as shown. Leg is set tight against the bench top support and "T" bracket. See circled area below. Use a square to check the joint before installing the brackets.

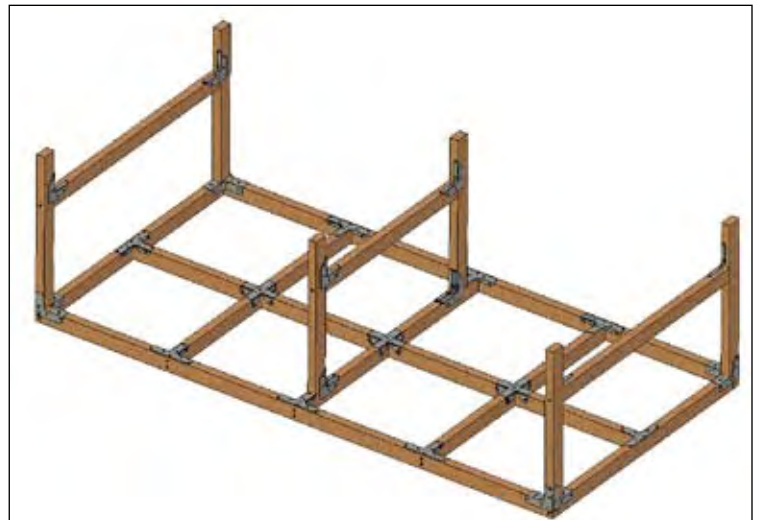


- f. Measure 10" from the free end of each leg and mark. This marks the top of the remaining horizontal leg brace when the bench is setting upright. See Step C for details if needed.
- g. Secure the 1-1/2" x 2-1/2" x 34" horizontal brace between the center legs using two FAS13B #10 x 2-1/2" screws. Align the brace with the marks on the legs. The center of the brace will align with the countersunk hole in each bench leg. Verify that the edges of the legs and leg brace are flush and install the remaining two 90° angle brackets as previously described.



NOTE: To this point, the assembled bench should appear as shown in the diagram to the right.

- h. Continue by installing the corner braces and the remaining horizontal braces as described in the procedures that follow.



STEP THREE: ATTACH CORNER BRACES, FINAL LEG BRACES, POLY MAX TOP

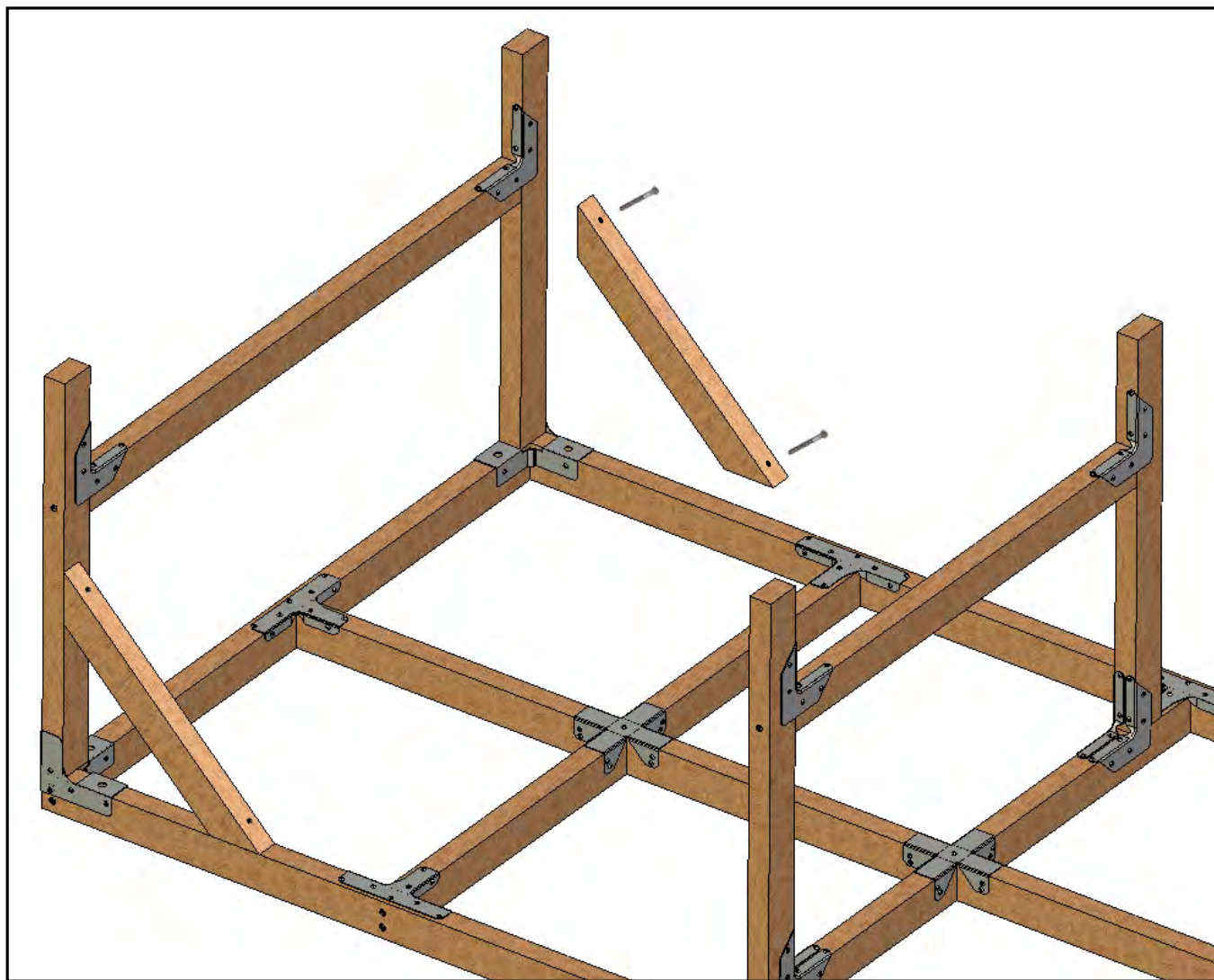
Required parts:

- 4 lengths of 1-1/2" x 2-1/2" x 20" cedar (10513620D)
- 2 lengths of 1-1/2" x 2-1/2" x 96-1/2" cedar (105136965BD)
- FAS13B #10 x 2-1/2" screws (20)
- 4 HA2217 Poly Max panels
- FAS11B #6 x 1-5/8" screws (36)

Complete these steps:

- Using the FAS13B #10 x 2-1/2" screws, secure one 1-1/2" x 2-1/2" x 20" cedar corner brace to the top and leg at a corner. Verify that the leg is square and in the desired position before installing the screws.

Do not overtighten screws.

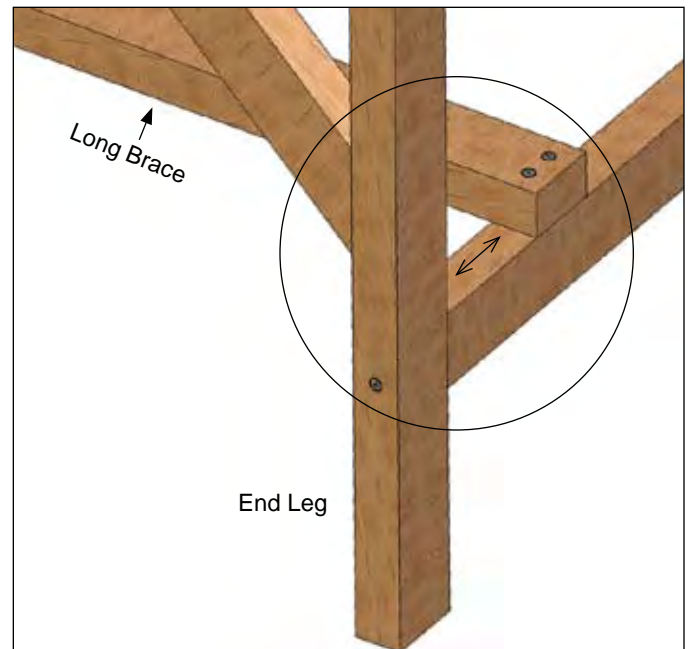
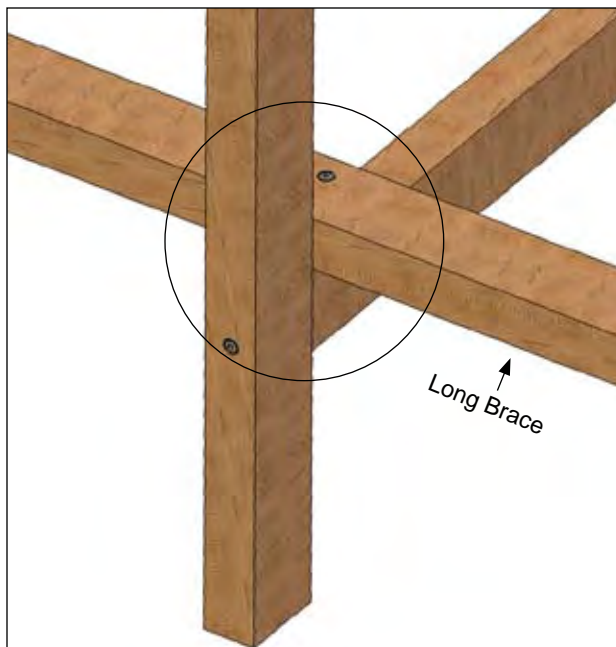
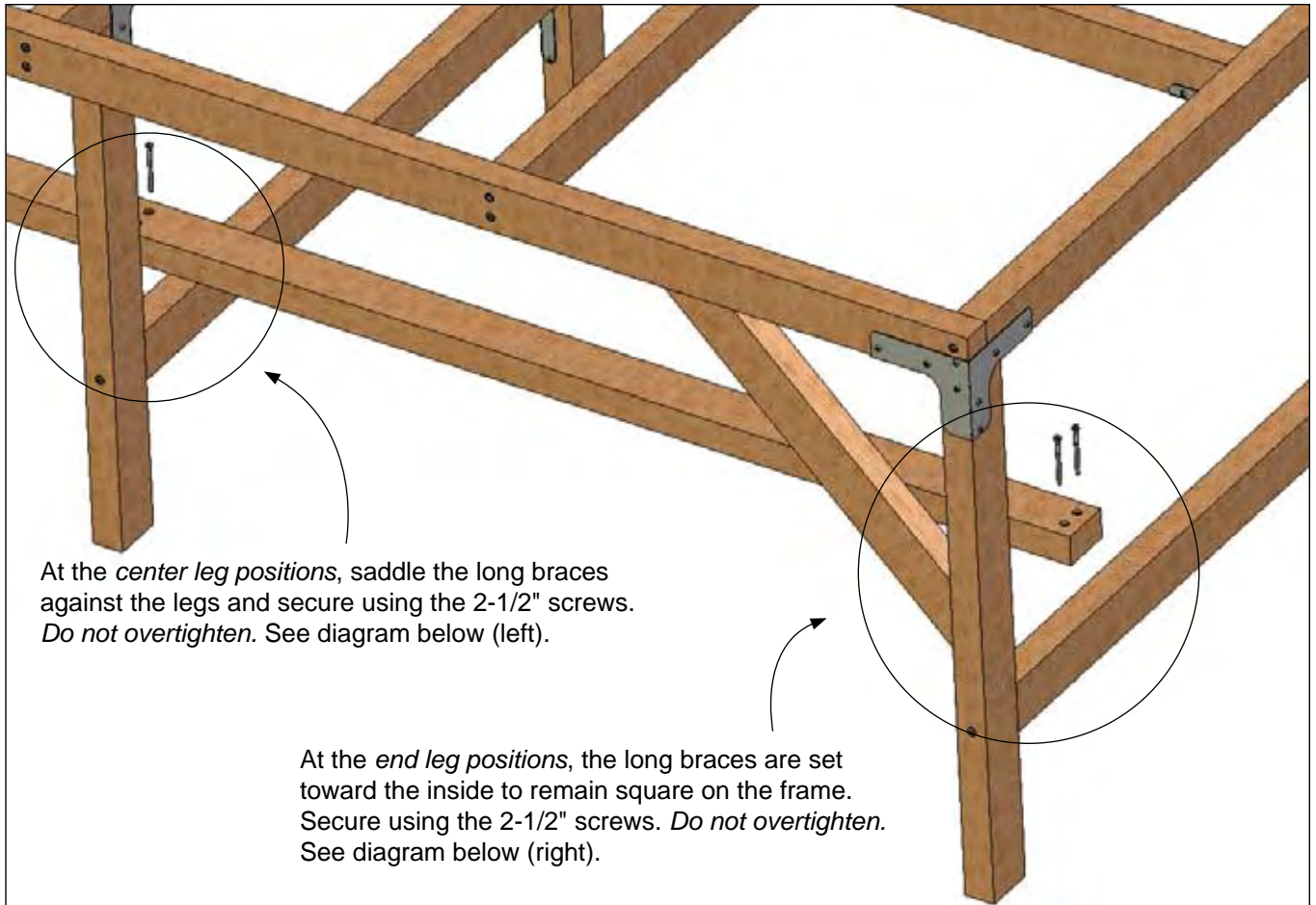


- Repeat this step for all remaining corners.

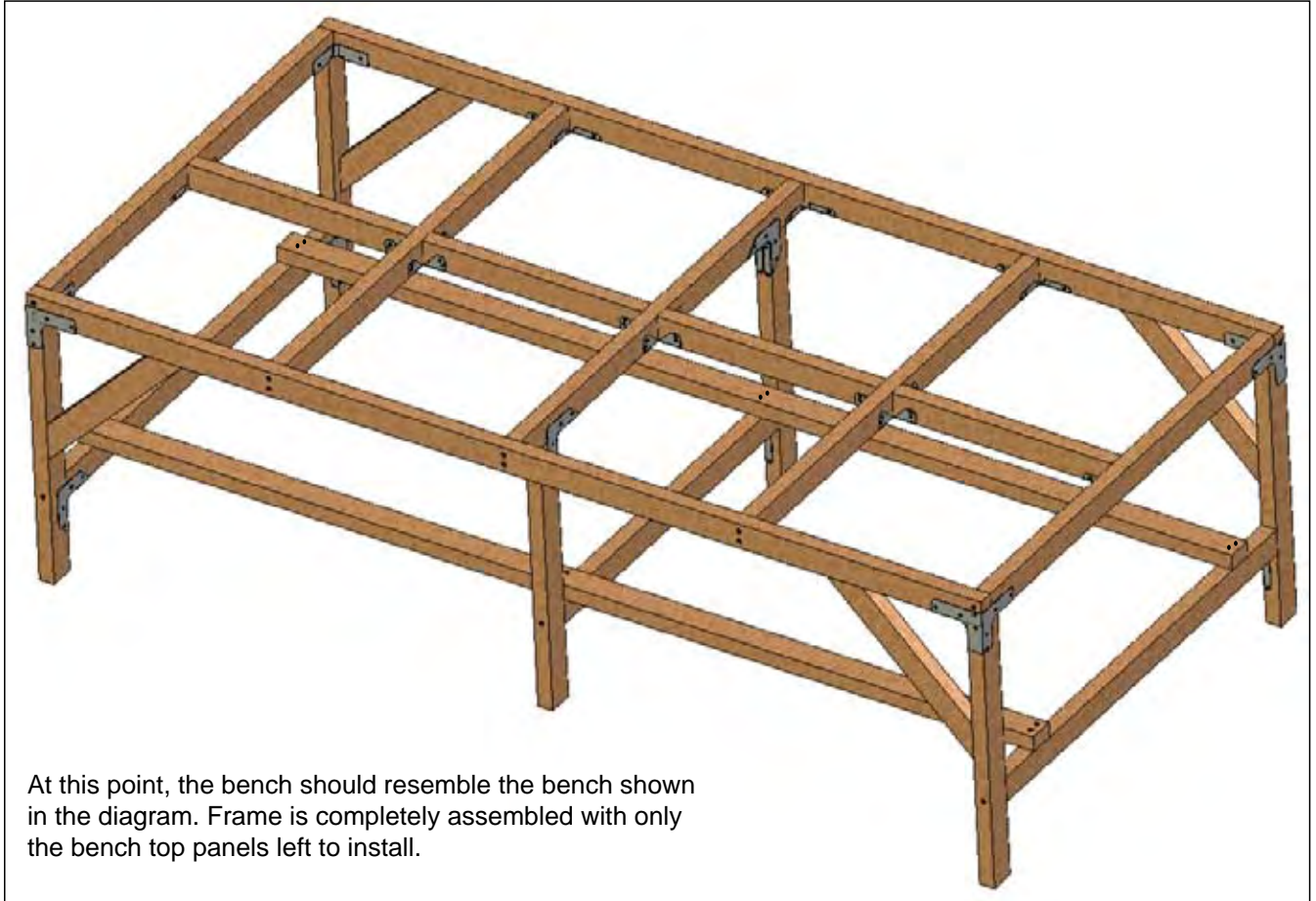
Cedar Bench

STEP THREE: ATTACH CORNER BRACES, FINAL LEG BRACES, POLY MAX TOP (continued)

- c. With assistance, flip the assembled bench over onto its legs and attach the final two 96-1/2" cedar braces using the FAS13B #10 x 2-1/2" screws. Braces run along the top of the horizontal leg braces. Verify that the ends of each brace are flush to the outside of each end horizontal leg brace and tight against the center leg as shown.



STEP THREE: ATTACH CORNER BRACES, FINAL LEG BRACES, POLY MAX TOP (continued)



At this point, the bench should resemble the bench shown in the diagram. Frame is completely assembled with only the bench top panels left to install.

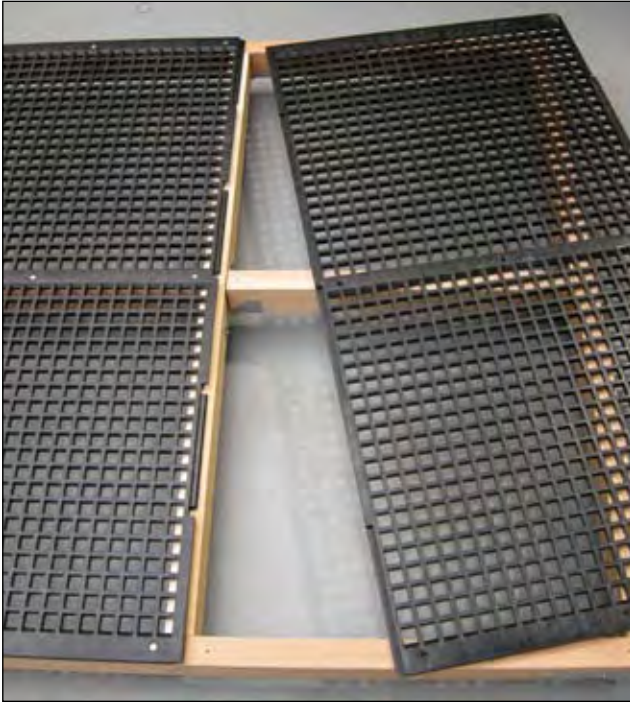
- d. Take one HA2217 panel and place it on the bench. Verify that it is positioned so the next panel can interlock with the first. Square the panel on the frame and secure using the FAS1B #6 x 1-5/8" screws. Do not fully tighten at this time.



Cedar Bench

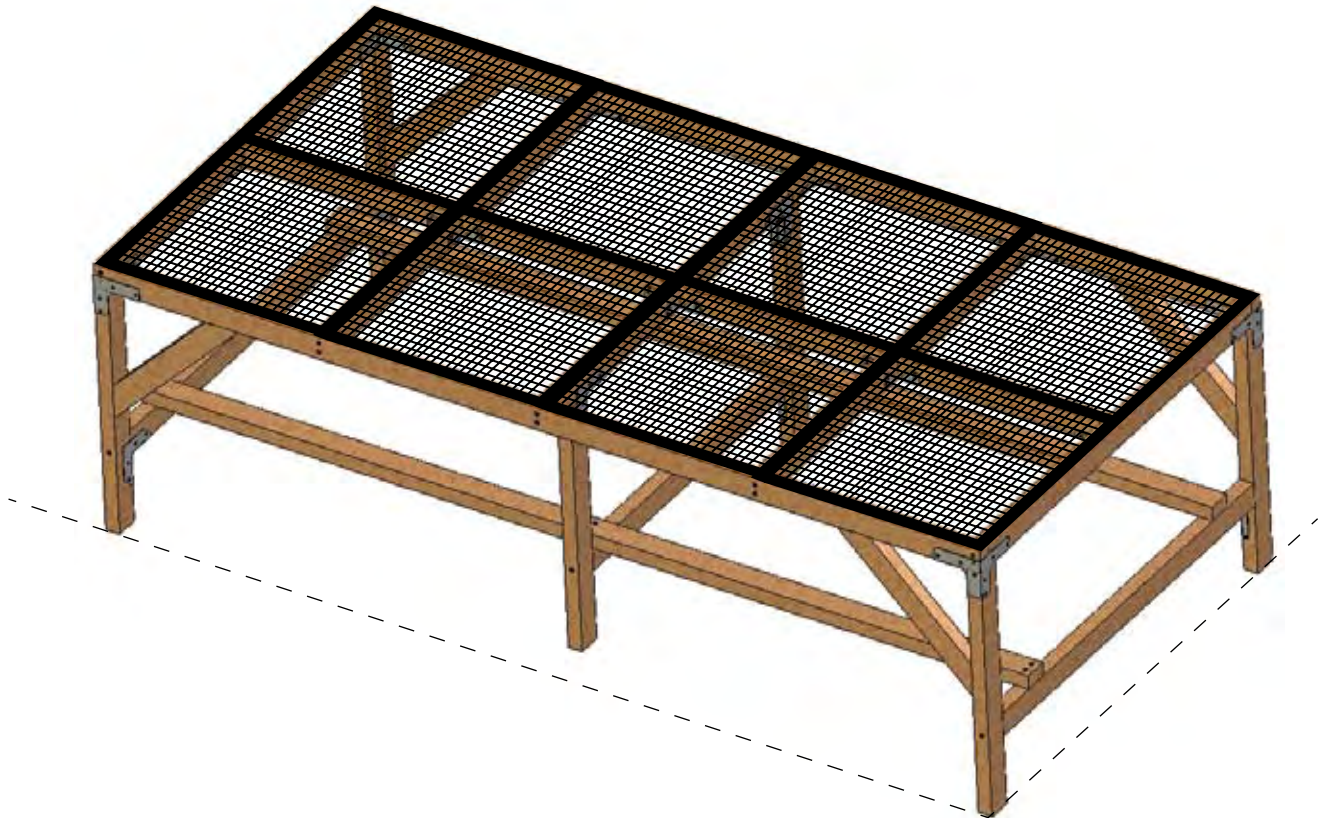
STEP THREE: ATTACH CORNER BRACES, FINAL LEG BRACES, POLY MAX TOP (continued)

- e. Set the next panel in place. If needed, lift the panel at a slight angle to allow the flanges along the edge to interlock with the edge of the first panel. Loosen the screws of *the first panel* as needed to allow the panels to lock together and tighten.



ATTENTION: Loosen or remove the screws of the installed panel and slide the next panel into position. When installed correctly, the panels are locked together. Secure all bench panels using the FAS11B #6 x 1-5/8" screws.

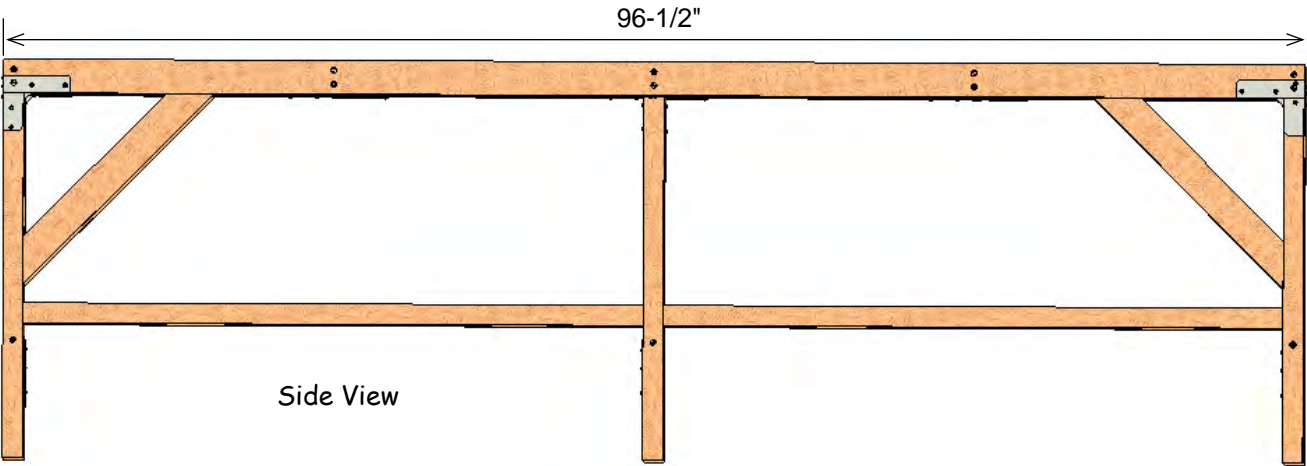
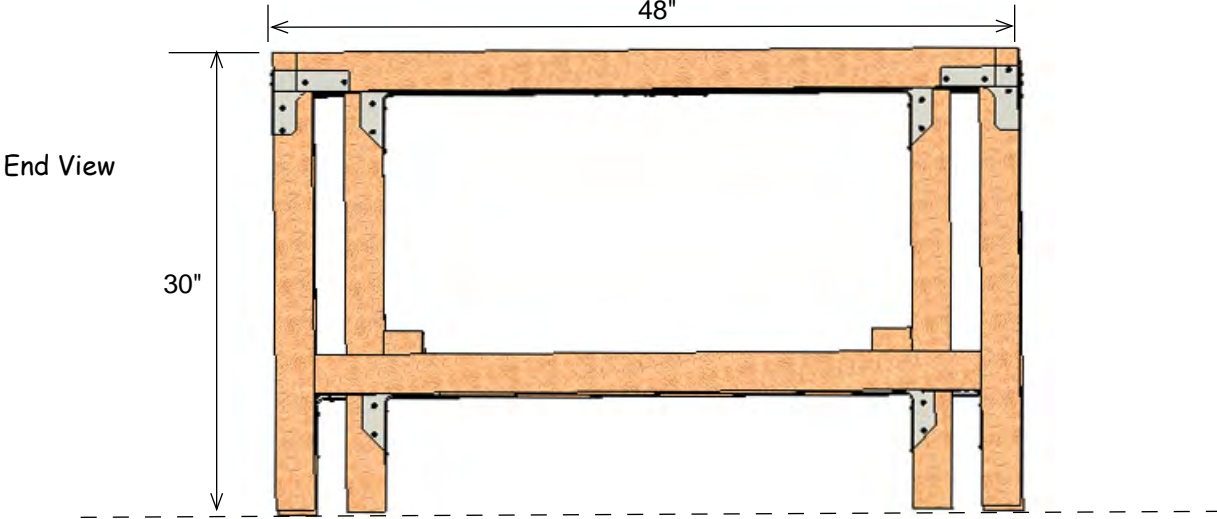
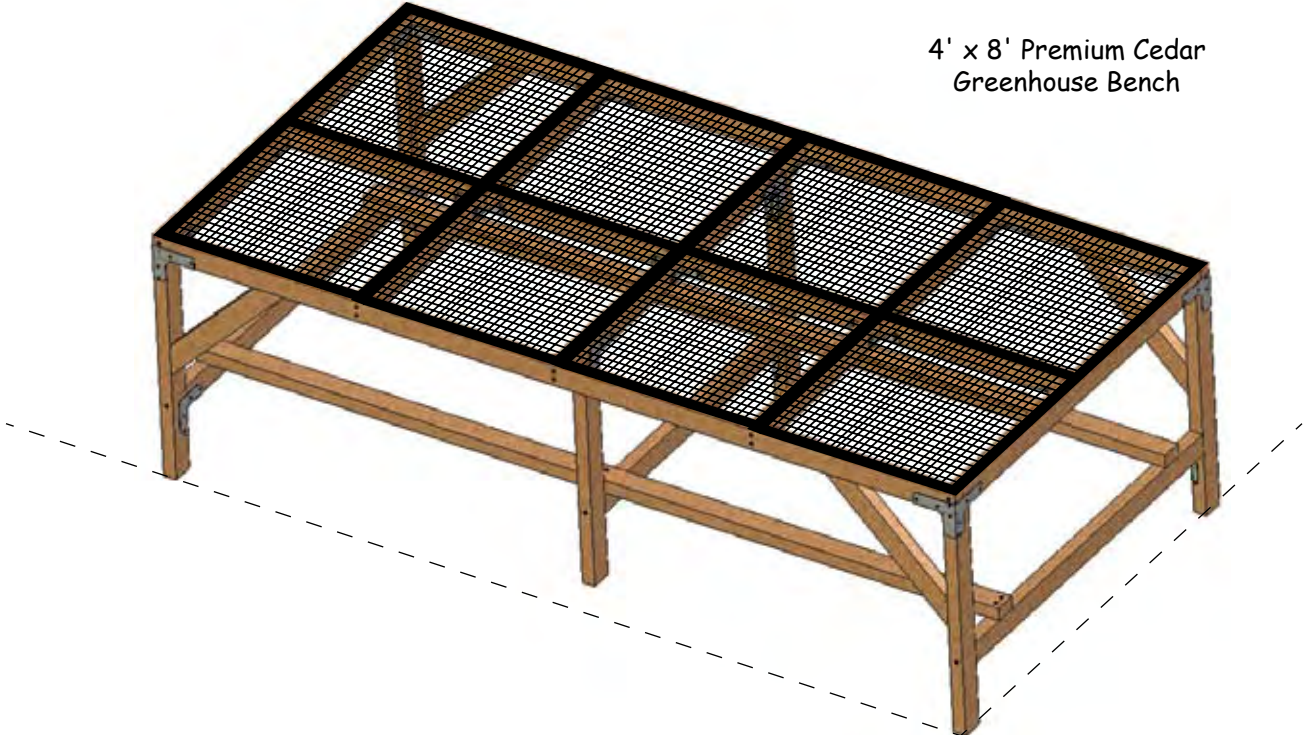
- f. Repeat the steps to install the remaining bench top panels.



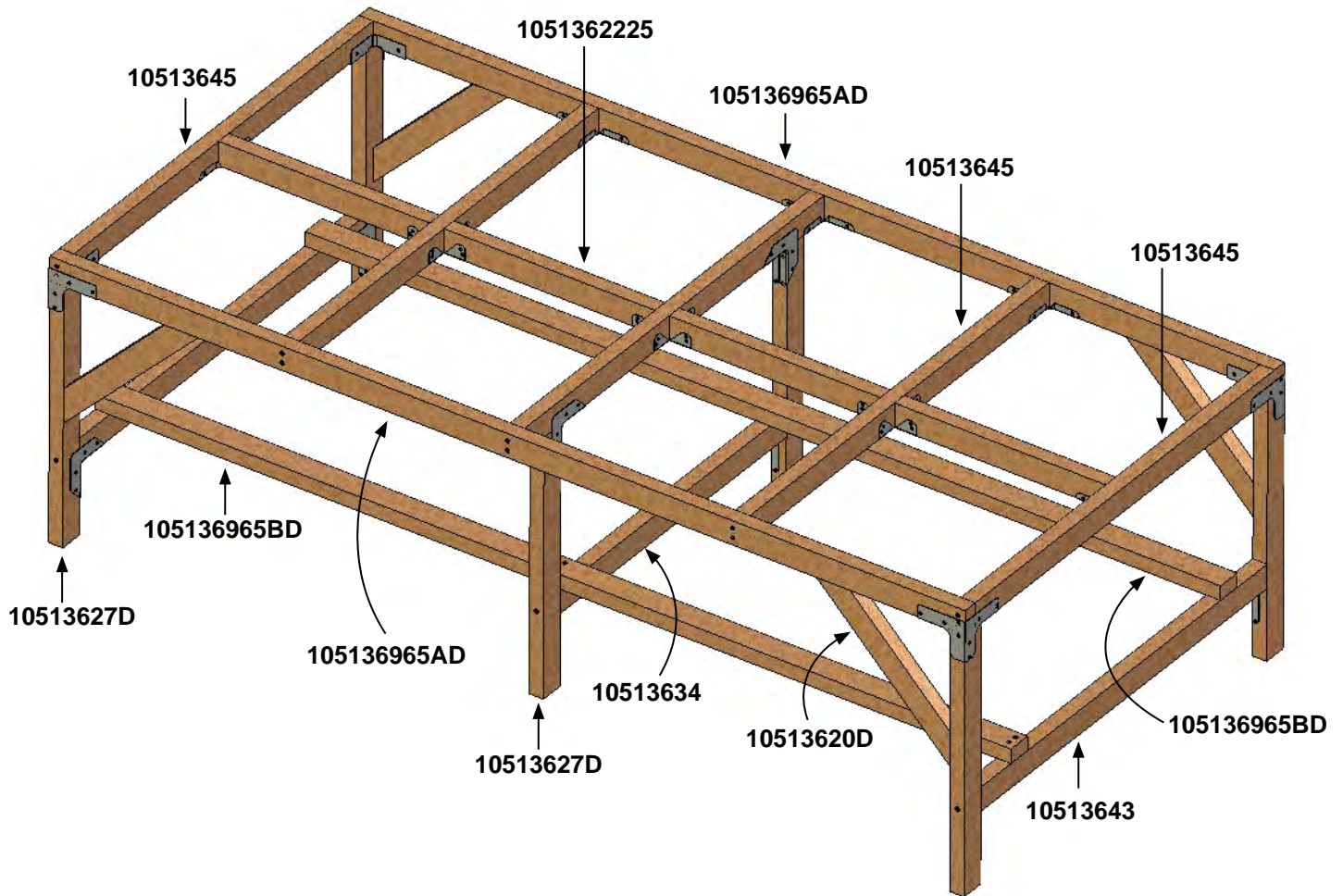
- g. Return to all screws and verify that all are tight. Continue by reading the care and maintenance information present at the beginning of this guide.

Cedar Bench

4' x 8' Premium Cedar
Greenhouse Bench



108291 Parts List - Cedar only



Part Number	Description	Quantity
10513620D	Diagonal Corner Brace	4
1051362225	Bench Top Support	4
10513627D	Leg	6
10513634	Horizontal Support (Middle Leg)	1
10513643	Horizontal Support (End Legs)	2
10513645	Bench Top Ends and Mid Supports	5
105136965AD	Bench Top Sides	2
105136965BD	Leg Braces	2