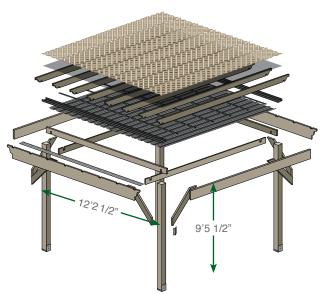




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# **Table of Contents**

Important Safety Notice		
Additional Information		
Materials List		
	Step 1 Layout Foundation	7
	Step 2 Layout Foundation Continued	8
	Step 3 Mounting Posts	9
	Step 4 Outside Support Rails	10
	Step 5 Inside Support Rails	11
	Step 6 Detailed Support Rails	12
	Step 7 Inside Support Rails	13
	Step 8 Installing Knee Braces	14
	Step 9 Mounting Top Joists	15
	Step 10 Lattice Assembly	16
	Step 11 U and G-Channel Installation	17
	Step 12 Carrier Rails	18
	Step 13 Installing Panels	19

## Important Safety Notice

- Fresco components are intended for privacy, decorative and ornamental use only.
   Product is NOT INTENDED for the following:
  - A safety barrier to prevent unsupervised access to pools, hot tubs, spas, or ponds.
  - Safety railings for elevated platforms or decks.
  - As load bearing support for a building, structure, heavy objects or swings. Used in structures that trap wind, rain or snow that would create extra load on the product.
- Permanent structures may require a building permit. As the purchaser and or installer of this product you are advised to consult local planning, zoning, and building inspection departments for guidance on applicable building codes and or zoning requirements.
- Wood is NOT flame retardant and will burn. Grills, fire pits and chimneys are a fire hazard if placed too close to a Fresco structure. Consult user's manual of the grill, fire pit or chimney for safe distances from combustible materials.
- During installation, follow all safety warnings provided with your tools and use OHSA approved safety glasses.
- Fresco structures will require two or more people to install safely. Check for underground utilities before digging or driving stakes into the ground!

**General Information:** Wood components are manufactured with Southern Yellow Pine which is protected with factory applied water-based stain. Knots, small checks (cracks) and weathering are naturally occurring and do not affect the strength of the product. Annual application of a water-based water repellent sealant or stain will help reduce weathering and checks.

### Additional Information

#### **Tools Required**

□ Tape Measure	□ 1/4" Hex Drive Bit	□ 6' Step Ladder	☐ Tin Snips
□ Carpenters Level	□ Adjustable Wrench	□ Hammer	
☐ Standard or Cordless Drill	□ 5/8" Masonry Drill Bit	□ Staple Gun	
□ Phillips Bit	□ Hammer Drill	□ Speed Square	

#### **Keys To Assemble Success**

This identifies information that requires special attention. Improper assembly could lead to an unsafe or dangerous condition.



Use Help



Use Help



Where this is shown, 2 or 3 people are required to safely complete the step. To avoid injury or damage to the assembly make sure to get help!

Measure Distance



Check that assembly is square before tightening bolts.

Use a measuring tape to assure proper location.

Square Assembly



Check that set or assembly is properly level before proceeding.

#### Use Level



Tighten Bolts



This indicates time to tighten bolts, but not too tight! Do not crush the wood. This may create splinters and cause structural damage.

#### Time

For a seasoned contractor installation will take 6-8 hours.

### **Material List**



### **Material List**

**K1 T1 B**1 (16) 3/8 - 2-1/2" Lag Screw (DWG ITEM #24) B2 ( (1) U-Channel Water Tray (16) ½ - 13 x 4" Carriage Bolt (DWG #18) (8) 4 x 6 Knee Brace Bracket (DWG ITEM #27) (DWG ITEM #19) **B3 K**3 **T2** (8) ½ - 13 x 10" Carriage Bolt (DWG ITEM #28) (4) Post Mount Bracket - ABE66 (14) 1/2" Lattice (24) 1/2 -13 x 12" Carriage Bolt (DWG #22) (DWG #19) (DWG ITEM #29) K4 **T3 B**5 (4) 5/8 - 8" Anchor Bolt (DWG ITEM #N/A) (4) G-Channel - VDCGC6 (DWG #25) **B6** (12) Hurricane Bracket - H1 (DWG #27) (1lb. box) No. 10d Construction Nails (DWG ITEM #N/A) **B8 K**5 1-1/2" Joist Hanger Nail (DWG ITEM #15) **B7** (14) Screen (DWG ITEM #29) (50) 1-1/2" Barn Screw (4) Joist Hanger Bracket - LUS26 (DWG ITEM #N/A) (DWG #28) **N1 R1** (48) 1/2-13 Carriage Nut InsideOut® Carrier Rails (DWG ITEM #25)





1/2" Carriage Bolt Washer





(DWG ITEM #14)

### **Layout Foundation**

Tools Needed:

Materials Needed:





4x K3 Post Mount Bracket



4x B5 Anchor Bolts

- 1. Layout the footprint of the Fresco.
- 2. From center to center on each side, the anchor bolt locations are 11'-8 7/8" apart and 16'-8 1/8" along the diagonal. (Fig.1).
- For reference, the outside to outside dimensions of the brackets are 12'-2 3/8". Measuring diagonal from outside to outside dimension should be 17'-3" (Fig. 3).
- 4. The diagonal of the Inside of bracket dimension should be 15'-11 7/16".
- Determine which side of Pergola you would like the water to drain. This is key to how the assembly process will start. The two shorter posts are installed on the drainage side.

Fig. 1

11'8-7/8"

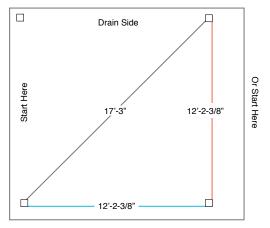
11'8-7/8"

16'8-1/8"

Fig. 2



Fig. 3



Do not start assembly on drainage side or opposite

### Tip:

If this is your drainage side, start assembly on the right or left side, not across from it. See step #4 for start of assembly process.

### **Layout Foundation Continued**

Tools Needed:

Materials Needed:













4x W1 Carriage Washer



4x N1 Carriage Nut

- 1. Foundation requirements per drawing page below.
- 2. Drill holes for the anchors with a 5/8" masonry drill bit.
- 3. Secure post mount brackets K3 using anchor bolts **B5** . (Fig. 1 & 2)
- 4. Follow steps 1 and 2 from above to secure the other three brackets.
- 5. Verify brackets are in correct location per page 5 by measuring outside to outside and diagonal.

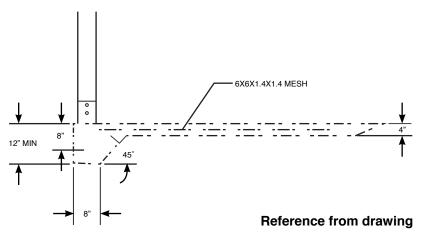
Fig. 1



Fig. 2



#### 5/8" anchor bolt with 8" embed



Base of footing must be below local frost elevations or 4" minimum slab with a 12" turned down perimeter plus W6 x 6 x 1.4 x 1.4 mesh.

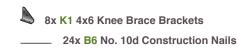
Or provide minimum 18" diameter concrete filled Sonotube, depth per local code requirements.

### **Mounting Posts**

Tools Needed:

Materials Needed:





4x K 6x6x103" Posts 16x B1 3/8 - 2-1/2" Lag Screws

- 1. Obtain the knee brace brackets K1 and attach to the 6x6 post K as shown, using lag screws B1. Do this while the posts are laying on the ground (Fig. 1 & 2). Make sure the brackets face the inside of the pergola when standing the posts in position (Fig. 3). The two shorter posts need to be installed on the drain side.
- 2. Secure the post mount brackets to the 6x6 post by using No. 10d construction nails B6 (Fig 4 and Fig 7).
- 3. Temporarily cross brace each post using the 2x2 lattice support. (Fig. 8).
- 4. Complete #2 above for remaining three posts.
- 5. Verify the posts are all plumb.

Fig. 8

Fig. 1 Fig. 2



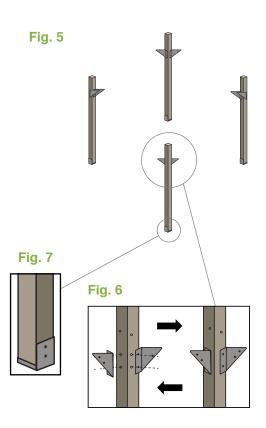


Fig. 3



Fig. 4





### **Outside Support Rails**

Tools Needed: Materials Needed:



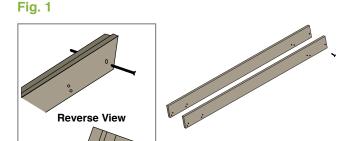
- Align one 2x10x146-3/8" inside plain joist F and one 2x10x149-3/8" support joist E next to each other.
- 2. Drive the 12" B4 carriage bolts through both boards flush with the inside.
- Raise this joist assembly into position aligning the bolt with the corresponding hole at the top of the post. Pound one bolt through the post.
- 4. Raise the opposite end of the joist assembly and drive the bolts through the corresponding holes. Install the second bolt on the first post.
- Repeat above steps for opposite side of Pergola.
   (Fig.6)

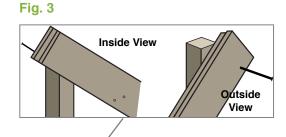
Note: Do not attach washers at this time.

Fig. 6

Fig. 5

Drain Side







### **Inside Support Rails**

Tools Needed:

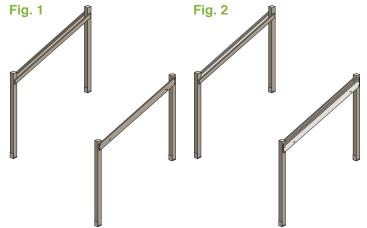
Materials Needed:

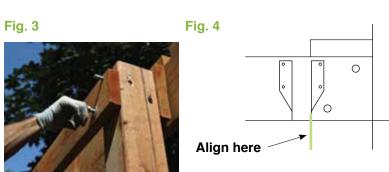


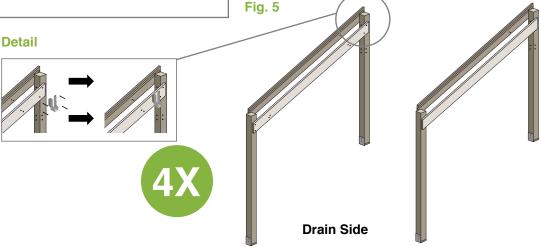
2x A 2 x 6 x 146 3/8" Support Joist A ⊢ 16x B7 3" Barn Screws

4x K5 Joist Hanger Brackets

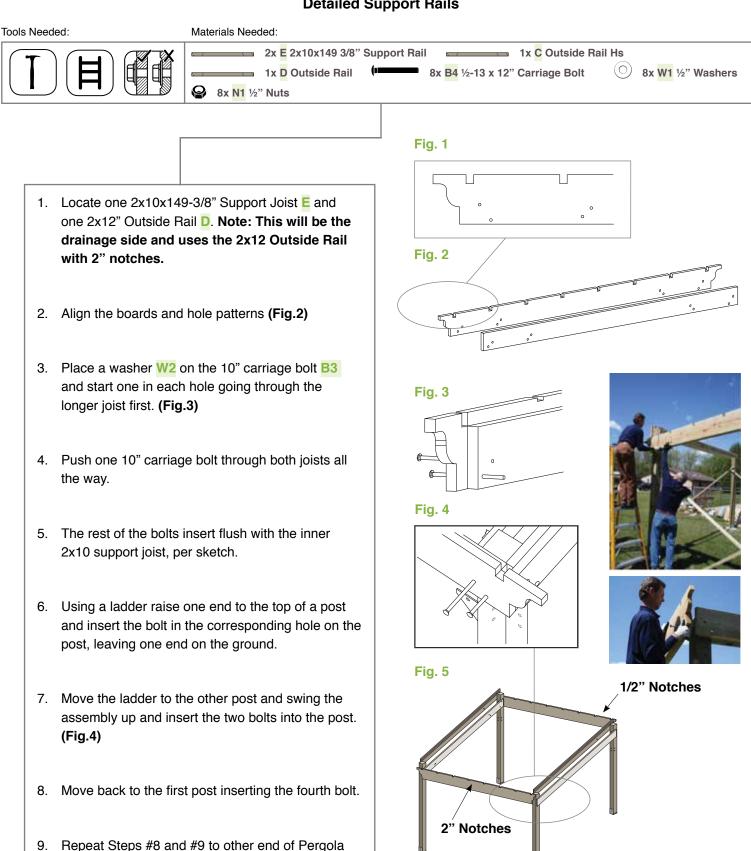
- 1. Install 2x6x146-3/8" rail A to inside of post as shown on the bolts protruding through the posts from the previous step (Fig.1).
- 2. Complete on both ends (Fig.2).
- 3. Place washer W1 on the carriage bolt and start nut N1 but do not tighten with a wrench!
- Repeat for other side of pergola. Note: Go to step 7 before tightening (Fig. 3). This will allow for easy install of the knee brace.
- 5. Assemble joist hanger brackets K5 onto 2x6 rail using 1-1/2" joist hanger nails B7. Joist hanger should be aligned with the inside surface of the post (Fig.4).
- 6. Complete the above step at the opposite end of 2x6 rail and to (2) other locations on the opposite side. (Fig.5).







#### **Detailed Support Rails**



D<sub>rain</sub> Side

(the non-drainage side). (Fig.5)

### **Inside Support Rails**

Materials Needed: Tools Needed:



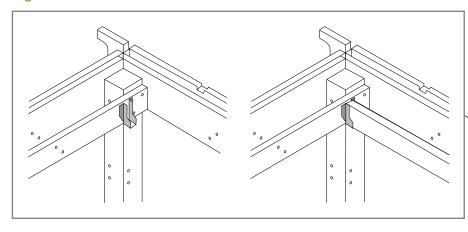




2x B 2x10x132 3/8" Inside Support Joist 8x B6 No. 10d Construction Nails

- 1. Locate two 2x6x132-3/8" Inside support rails B.
- 2. Place the boards in the joist hangers previously installed as shown in (Fig. 1). Make sure they butt tight to the opposing 2x6 rails.
- 3. Secure 2x6 boards in place with B8 1-1/2" joist hanger nails.
- 4. Repeat on opposite side.

Fig. 1





### **Installing Knee Braces**

Tools Needed: Materials Needed:

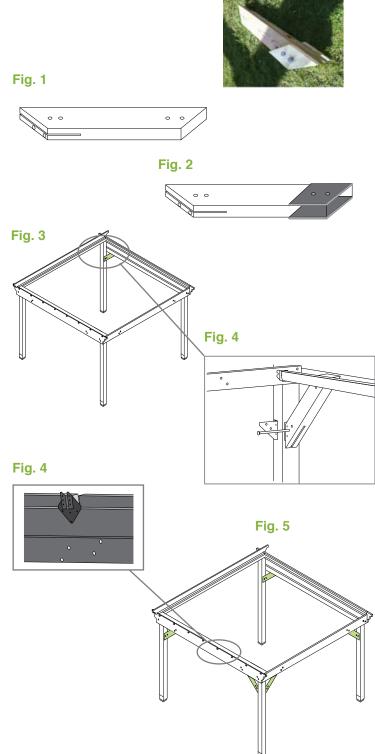


 Obtain the knee braces and spacers. Align them using the carriage B4 bolt through both holes.
 Then attach spacers using 10d nails on each side.

#### Tip:

The spacer should be placed at the opposite end of the cutout (Fig. 2) for the knee brace bracket.

- Slide the end of the knee brace with the spacers up between the outer joist assembly and inner
   2x6 rail. Align the holes and inset bolts B4 through them. Repeat this step for all (8) knee braces.
- With one top carriage bolt B3 in place assemble the carriage bolts B2 through the knee brace brackets and secure with washer and nuts. (Fig.4) Install the second top bolt.
- 4. Verify all post are straight and level.
- 5. Tighten all nuts on carriage bolts at this time!
- 6. Align the K4 hurricane brackets with each notch along support joists E, on both sides.
- 7. Nail in each bracket using B8 joist hanger nails on the inside surface of the (4) support joists.



### **Mounting Top Joists**

Tools Needed:

Materials Needed:







14x H 2x8x12 Lattice Support
7x G 2x2x144 Detailed Top Joist Grand

168x B7 3" Barn Screws

 Nail the Lattice Supports H on each side of the (5) 2x8x12 rafters, G flush with the bottom and equal distance from each end.

Fig. 2



- 2. Nail every 12 inches using 10d nails.
- 3. Both end rafters will only have one 2x2 on inside surface, at the angle of the other rafters (Fig. 2). Due to the slope of the ceiling, you will need to angle the lattice supports on the two end rafters, at the same slope.
- 4. All other rafters will have a 2x2 on both sides flush to the bottom edge.
- 5. Set each rafter assembly in the joist hangers aligning the ends for a consistant overhang (Fig. 4). Nail rafters into hurricane ties with (4) joist hanger nails each.

Fig. 5

Fig. 6

Fig. 3

Fig. 4



**Materials Needed:** 

Tip:

Rafters with only one 2x2 **H** lattice supports attached are to be assembled to the outside notches with the lattice support to the inside.

### **Lattice Assembly**

Tools Needed:

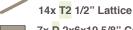
Materials Needed:

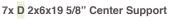












14x T4 Screen Cover

- 1. Down the center of the ceiling, set 2x6 center supports J into place securing on each end through the rafters (Fig. 2 & 3) with 10d nails.
- 2. Set the lattice between the joists resting on the 2x2 lattice supports. (Fig. 1)
- 3. Cut the screen down to 72". Place screen on top of lattice, then secure with staples (Fig. 4 & 5).
- 4. Continue the process, placing the lattice in positions one at a time. This allows access from the bottom up through the rafters (Fig. 6 & 8). Secure lattice and screen in place before moving to the next lattice for the remaining six sections on one half (Fig. 8). Then move on to the other half following the same procedure (Fig. 9).

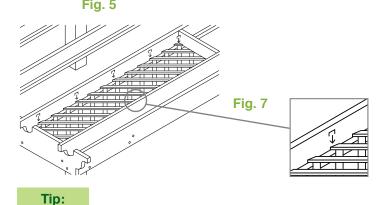
Fig. 1



Fig. 3

Fig. 8





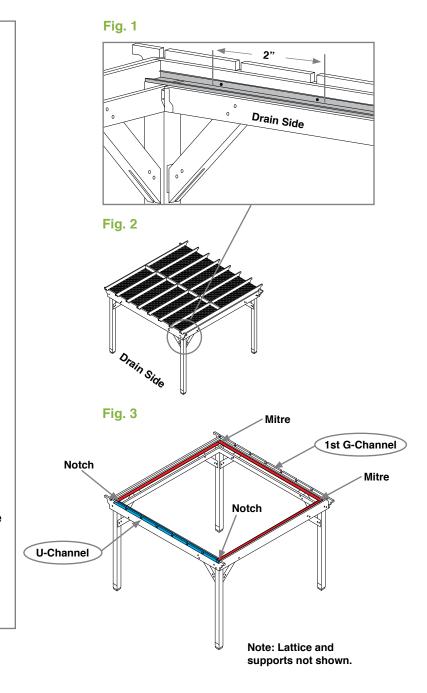


Notice that the screens are stapled to the lattice, NOT the 2x2 supports (Fig. 6 & 7).

#### U and G-Channel Installation



- Locate the U-Channel T1 and three G-Channels T3.
- 2. On the drain side, lay the U-Channel T1 flat on the top of the 6x6 posts (Fig. 1). The top of these posts should be flush with the top edge inside 2x6 rail.
- 3. Screw the back of the U-Chanel into the 2x10 joist behind it. Do this every 3 feet along the back of the U-Channel.
- 4. On the opposite side of the U-Channel measure 1.25" down from the joist bottom to determine the top of the G-Channel. (Fig. 3)
- 5. Secure this G-Channel opposite the U-Channel with screws into the joist behind it every 3 feet as well.
- 6. Install the two side G-Channels by aligning them with the U and G-Channels already installed. On the non drainage side cut away enough of the face of the G-Channel to get it to mitre into the one already installed opposite the U-Channel. On the drainage side, cut away enough of the G-Channel to fit it over the U-Channel flush with the bottom. Secure with screws every 3 feet. (Fig. 3)













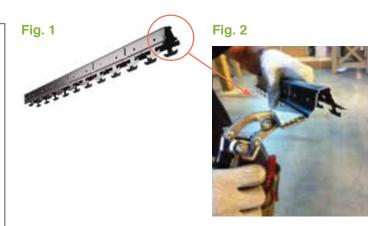


#### **Carrier Rails**

Tools Needed: Materials Needed:



- 1. Locate the five InsideOut Carrier rails R1.
- 2. Bend the first two teeth of the carrier R1 outward 90° so that it will not interfere with the U or G-channel when installed. (Fig. 1 & 2)
- 3. Install the carrier every 24". Mark out the locations of each carrier rail on the joists as shown.
- 4. Align all the carriers with the top edge of the G-Channel on one side. When installing the carrier (Fig 4) put a 3" barn screw through the end hole of the rail to make room for the panel to slide in and up into the 2x2 lattice support.
- 5. Put a barn screw through the carrier and up into each joist (Fig 5). Do this for all five carriers.



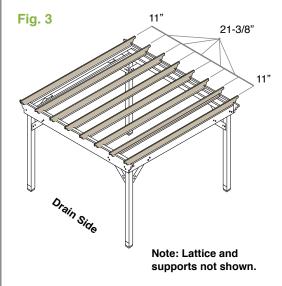






Fig. 5





### **Installing Panels**

Tools Needed:

Materials Needed:







18x R3 InsideOut Panels

- 1. Locate the 18 panels. R3
- Snap in the first panel starting at one side. Make sure to slide the panel into the G-Channel as far as it will go. (Fig. 1 & 2) before locking the leading edge into the carrier.

#### Tip:

Note: Make sure that the panels are centered (side to side) in the pergola by checking the length of overhang on the outside.

- Continue installing panels until you have 4 R3
  remaining. (Fig. 3) Always install the leading edge
  first. Make sure the panel locks in all three contact
  points within the carrier.
- 4. At this point, install the last panel against the G-Channel and work backwards installing last three panels. (Fig. 3 & 4) Secure the last panel into the inside rim joist through the G-Channel using barn screws before installing the remaining three panels.









Fig. 5



