# 16657-ST



## *Call Us First! DO NOT RETURN TO STORE.*

For immediate help with assembly or product information

call our toll free number: 1-800-577-9663 or email:

customerservice@heartlandind.com

Our staff is ready to provide assistance

March through November M-F 8:00 AM to 9:00 PM EST / 6:00 PM PST Saturday 8:30 AM to 5:00 PM EST / 2:00 PM PST

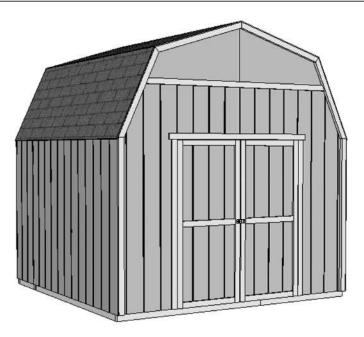
December through February M - F 8:00 AM to 8:00 PM EST / 5:00 PM PST Saturday 8:30 AM to 5:00 PM EST / 2:00 PM PST (This page intentionally left blank.)



### ASSEMBLY MANUAL

VALUE SERIES RAINIER 10' x 10' (305 x 305 cm) ACTUAL FLOOR SIZE IS 120 x 116-5/8" (305 x 296,2 cm)

**KEEP THIS MANUAL FOR FUTURE REFERENCE** 



### A IMPORTANT! A READ INSTRUCTIONS THOROUGHLY PRIOR TO BEGINNING ASSEMBLY.

### **BEFORE YOU BEGIN**

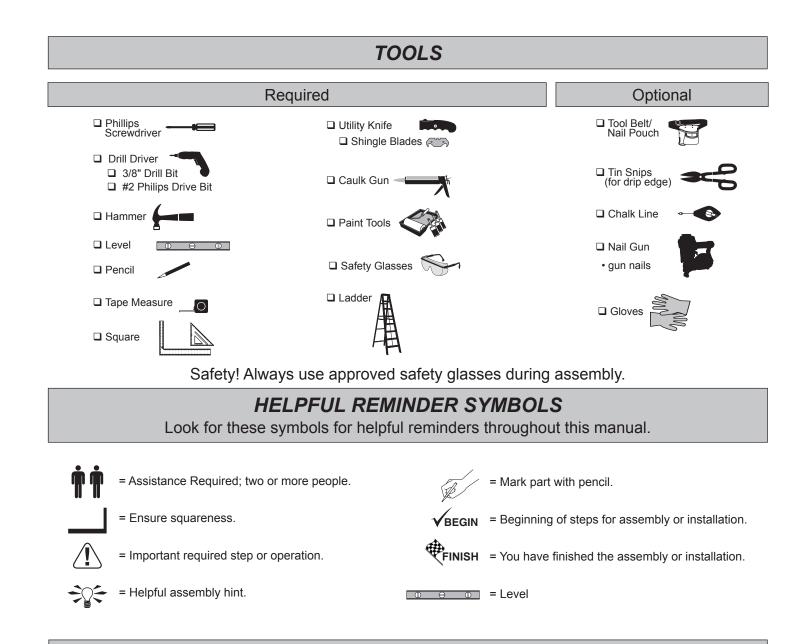
- BUILDING RESTRICTIONS AND APPROVALS Be sure to check local building department and homeowners association for specific restrictions and/ or requirements before building. ENGINEERED DRAWINGS
- Contact our Customer Service Team if engineered drawings are needed to pull local permits.
- SURFACE PREPARATION To ensure proper assembly you must build your shed on a level surface. Recommended methods and materials to level your shed are listed on page 7.
- CHECK ALL PARTS Inventory all parts listed on pages 4-6.
- ADDITIONAL MATERIALS You will need additional materials to complete your shed. See page 3 for required and optional materials and quantities.



\*\*\*CONTACT OUR CUSTOMER SERVICE TEAM IF ANY PARTS ARE MISSING OR DAMAGED\*\*\*



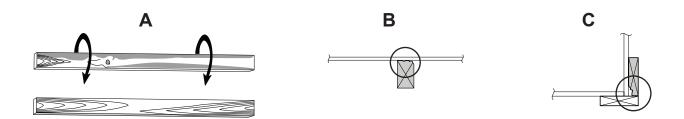
Call: 1-800-577-9663 email: customerservice@heartlandind.com



#### ORIENT LUMBER AND TRIM FOR BEST APPEARANCE

Framing lumber is graded for structural strength and not appearance. Exterior trim is graded for one good side.

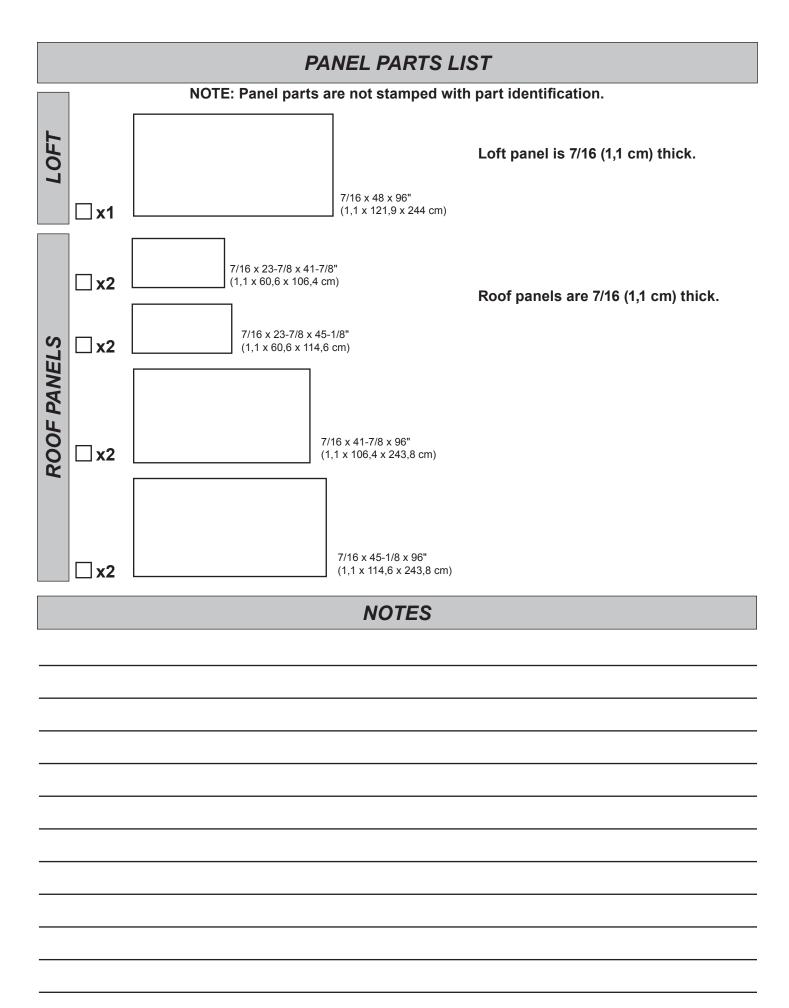
Always install the material leaving the best edge and best surface visible. Please remember that these blemishes in no way negatively affect the strength or integrity of our product. (See Fig. **A**, **B**, **C**.)



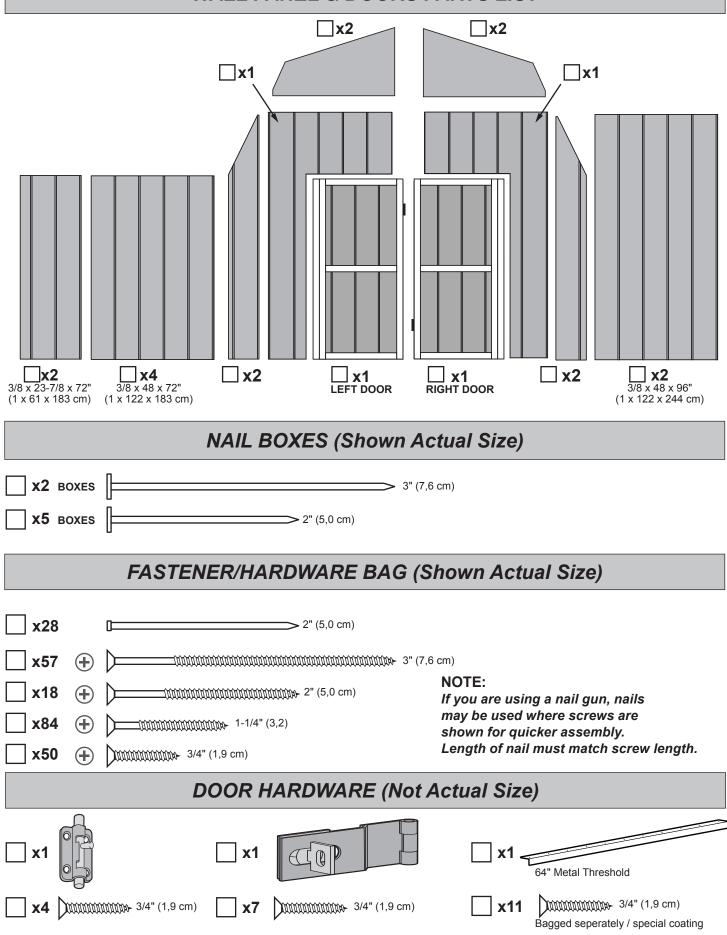
ADDITIONAL MATERIALS FOR BUILDING YOUR SHED					
3-TAB SHINGLES 6 Bundles	1" GALVANIZED ROOFING NAILS 3 Lbs For shingles.				
PAINT FOR SIDING 2 Gallons Use 100% acrylic latex exterior paint. (2) coats recommended.	PAINT FOR TRIM1 Quart Use 100% acrylic latex exterior paint.				
CAULK	1" GALVANIZED ROOFING NAILS1/4 Lb For roofing felt.				
FOUNDATION OR FLOO	R MATERIALS				
<ul> <li>This shed kit does not include a wood floor frame or floor panels. See pages 10 through 14 for suggested floor construction.</li> <li>It does not include ANY leveling materials.</li> </ul>					
<ul> <li>See the FLOOR LEVELING section on page 8 for recommended methods floor, as this will vary depending on your specific site.</li> </ul>	and suggested materials to properly level your				
See the CONCRETE FOUNDATION section on page 9 for recommended method	· · ·				
WOOD FLOOR FRAME (NO	DT INCLUDED) Use Treated Lumber For Floor Framing				
MATERIAL LIST:					
<b>x11</b> 2 x 4 x 10' (5 x 10 x 305 cm) Treated Lumber	$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
X36 10D 3" (7,6 cm) Hot Dipped Galvanized Nails					
FLOOR PANELS (NOT	(INCLUDED)				
MATERIAL LIST:	CUT LIST:				
<b>x4</b> 5/8 x 48 x 96" (1,6 x 122 x 243,8 cm) OSB Panels	X1 5/8 x 23-7/8 x 96" (1,6 x 60,4 x 244 cm)				
(Recommend 5/8" (1,6 cm) (minimum) thick OSB panels)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
x178 6D 2" (5,0 cm) Hot Dipped Galvanized Nails					
REINFORCED WOOD FLOOR FRA	AME (OPTIONAL)				
IMPORTANT! Depending on your specific use, you may want to construct a heavy duty flo frame by adding additional floor joists. Below is a list in addition to the framing materials above (not included):	or				
x2 2 x 4 x 10' (5 x 10 x 305 cm) Treated Lumber Cut to: 2 x 4 x 117" (5 x 10 x 297,1 cm)					
<b>X8</b> ea. 10D 3" (7,6 cm) Hot Dipped Galvanized Nails	→ Optional 12" (30,5 cm) spacing				
TO VALIDATE YOUR WARRANTY YOU MUST USE THE FOLLOWING:					
DRIP EDGE 30 Feet	#15 ROOFING FELT To cover 145 Sq. Ft. of r oof ar ea.				
REFER TO THE BACK OF THIS MANUAL AND THE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION OF SHINGLES, DRIP EDGE AND FELT.					

3

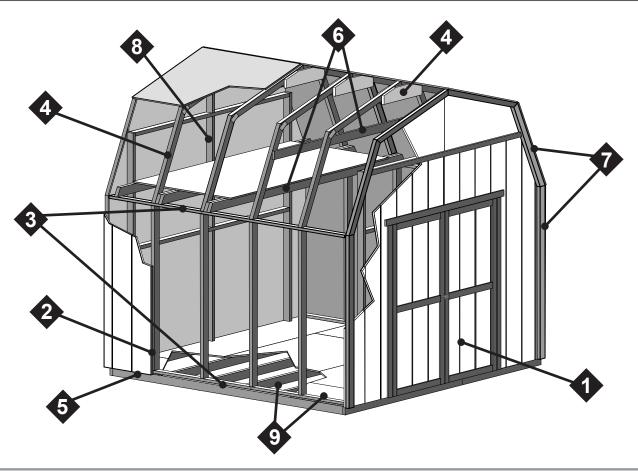
PARTS IDENTIFICATION AND SIZES					
	art identification stamped on some parts.	Nominal Board Size Actual Size			
15		2 x 41-1/2" x 3-1/2" (3,8 x 8,9 cm)			
	RS RS	1 x 43/4" x 3-1/2" (1,9 x 8,9 cm)			
• C	Check these locations for part stamp.	2 x 31-1/2" x 2-1/2" (3,8 x 6,3 cm) 1 x 33/4" x 2-1/2" (3,8 x 6,3 cm)			
	, PARTS LIS				
	<b>INVENTORY YOUR PARTS before you begin.</b>				
	We suggest sorting parts by the cate	gory they are listed in.			
	<b>x1 GAA</b> 1 x 3 x 5" (2,5 x 7,6 x 12,7 cm) <b>GAUGE BLOCK FOR 3</b> /4	<b>4" (1.9 CM) MEASUREMENT.</b> 3/4" (1,9 cm)			
	<b>x1 LV</b> 2 x 3 x 22-1/2" (5 x 7,6 x 57 cm)				
	<b>x2 CO</b> 2 x 3 x 25" (5 x 7,6 x 63,5 cm)				
	<b>x1 NC</b> 2 x 3 x 45" (5 x 7,6 x 114,3 c	cm)			
ΓS	<b>x4 NH</b> 2 x 3 x 46-1/4" (5 x 7,6 x 11				
MALL	<b>x1 NK</b> 2 x 3 x 48" (5 x 7,6 x 122	cm)			
Z	<b>x8 OU</b> 2x3x68	3-3/4 " (5 x 7,6 x 174,6 cm)			
		70-1/4" (5 x 7,6 x 178 cm)			
	x4	2 x 3 x 94-1/2" (5 x 7,6 x 240 cm)			
		2 x 3 x 96" (5 x 7,6 x 244 cm)			
SS	6 x 24" (15 x 61 cm)				
<b>ERS</b>	Pre-assembled				
VF1					
<b>X BE</b> 1 x 3 x 96" (2,5 x 7,6 x 244 cm)					
F	<b>x4 HHP</b> 2 x 4 x 28-3/4" (5 x 10 x 70 cm)				
OF	<b>x2 SU</b> 2 x 4 x 59-3/4" (	(5 x 10 x 152 cm)			
<b>X4 JRA</b> 2 x 4 x 92-5/16" (5 x 10 x 234 cm)					
4	<b>x4 PD</b> 2 x 3 x 45-1/8" (5 x 7,6 x 115 c	cm)			
TRIM	<b>X4 PF</b> 2 x 3 x 41" (5 x 7,6 x 104 cm)				
F		4-1/2" (2,5 x 7,6 x 240 cm)			
	<b>X4 OB</b> 2x3	x 72-5/8" (5 x 7,6 x 184,5 cm)			
	1				
OR	<b>X2 OO</b> 69" Door 5	Stiffener (175,3 cm)			
DOOR	<b>x1 HJ</b> 1x3	x 72" (1,9 x 7,6 x 183 cm)			
7					
	4				



#### WALL PANEL & DOORS PARTS LIST



#### **BUILDING ANATOMY**



This building has been designed using our patented EZ Frame construction method.EZ Frame is a unique construction method which has been engineered to use fewerframing members. This reduces assembly time and cost by as much as 30% compared toconventional construction methods.EZ Frame patent no. 5,666,766

All of our buildings have been engineered to withstand demanding wind and snow loads. If you live in an area with extreme wind/snow load requirement, contact us and we can assist with engineering to meet your local codes.

**1** Sub-assembled doors.

2 2x3 wall studs have been engineered to support roof load and to meet demanding wind loads.

**3** Sidewall top and bottom plates tie wall studs together and provide nailing support for top and bottom edge of siding.

Rafters line up over wall studs to effectively transfer roof load to the floor and eliminate need for double top plate. Oversized wood gussets at peak provide a strong connection for rafter halves.

**5** Treated siding overhangs the wall framing and floor to keep the elements out.

6 Collar ties and storage loft tie sidewalls together to prevent spreading under heavy roof loads.

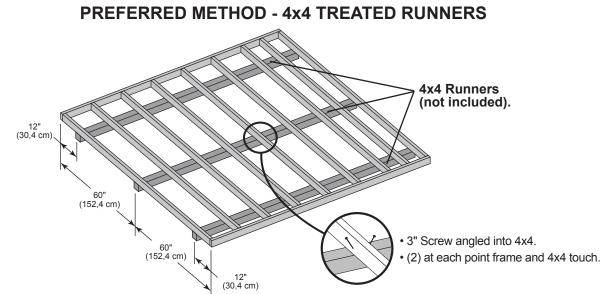
Corner studs & end rafters are positioned to the outside of the siding where they serve the dual purpose of framing and trim.

3 The EZ Frame design transfers the roof load to the side walls allowing for reduced framing at the front and back wall.

9 Treated floor frame and Oriented Strand Board (OSB) floor (not included).

### FLOOR LEVELING OPTIONS

There are multiple ways to level your floor frame. Our recommended leveling method is shown below. Leveling materials are not included in this kit.



#### MATERIAL REQUIRED

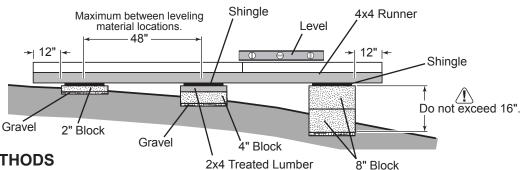
**x3** 4 x 4 x 116-5/8" (10 x 10 x 296,2 cm) Treated Lumber

#### Fasteners for Frame to 4 x 4

(3" Screws shown as one option.) Minimum (48) 3" screws / exterior grade.

Use only wood treated for ground contact and fasteners approved for use with treated wood.

#### Always support frame seams.



#### LEVELING METHODS

- Level under 4x4 runners only.
- Locate leveling material 12" from ends of runners and no more than 48" apart.
- Asphalt shingles should be used between 4x4 runners and blocks or treated lumber. Never use shingles in direct contact with ground.
- For best results and aiding in water drainage use gravel under each concrete block.

#### LEVELING MATERIALS

Gravel

Solid Masonry Blocks in 1", 2", 4" or 8" thickness

2x4 Treated Lumber Asphalt Shingles

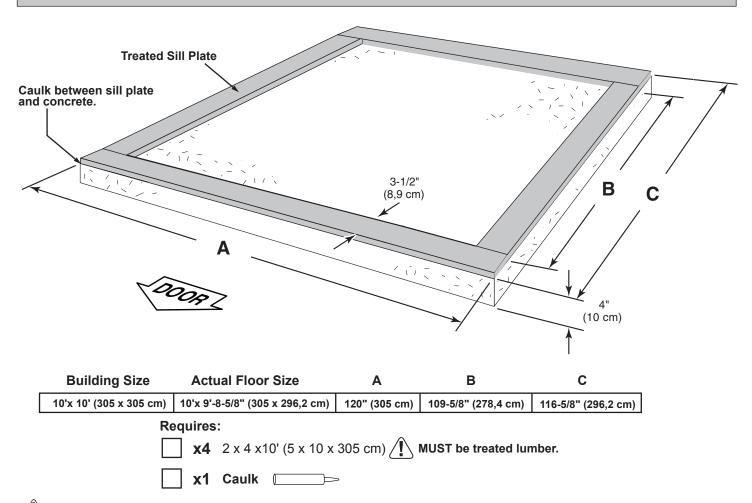


#### CONCRETE

• If you are building your shed on a concrete foundation see the following page.

#### **CONCRETE FOUNDATION**

If you choose to install your kit on a concrete slab refer to the diagram below.



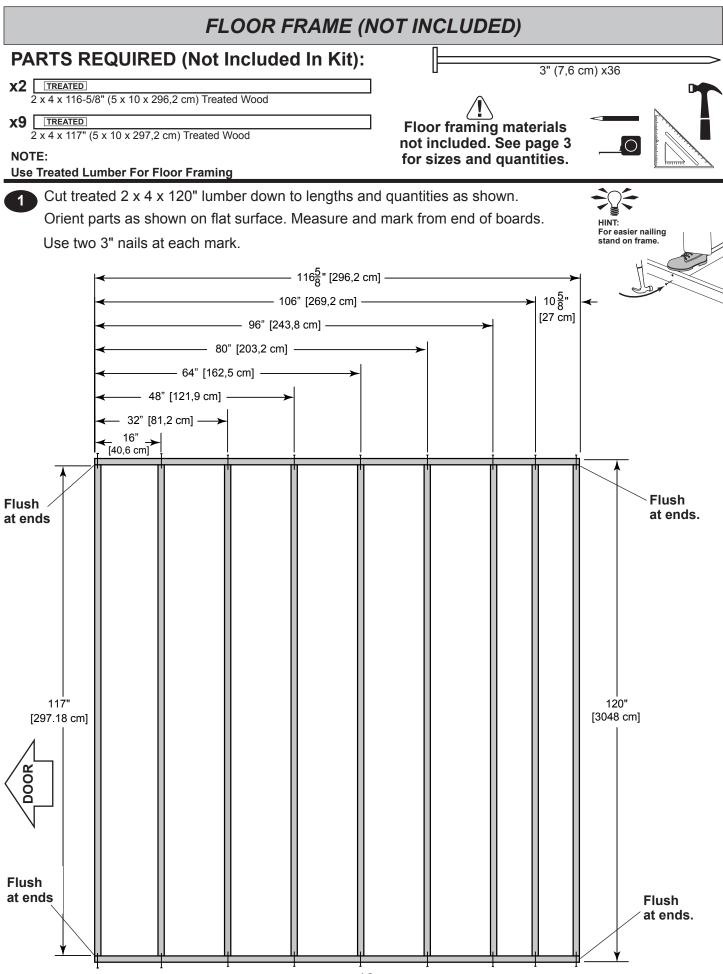
Allow new concrete slabs to cure for at least seven (7) days.

• A treated 2 x 4" (5 x 10 cm) sill plate is required when installing your shed on concrete. Hint: Purchase full length treated lumber.

- Use a high quality exterior grade caulk beneath all sill plates.
- Fasten 2 x 4" (5 x 10 cm) sill plates to slab using approved concrete anchors (fasteners not included).

Check local code for concrete foundation requirements.

### NOTES



FLOOR FRAME (NOT INCLUDED)					
3" (7,6 cm) x6					
STOP! LEVEL AND SQUARE FLOOR FF Before attaching floor decking, it is important to level an A level and square floor frame is required to correctly	d square the floor frame. STOP!				
3 A See page 8 for the preferred floor leveling method.					
4 Use level and check the frame is level before applying floor panels.					
5 Check for frame squareness by measuring diagonally across corners. If the measurements are the same, the frame is square. The diagonal measurement will be approximately 167-3/8" (425 cm).					
6 When the frame is level and square secure one side of frame to the 4x4 runners using one fastener at ends of each runner. At the opposite end of the frame, secure the frame to 4x4 runners with one fastener at ends of each runner making sure the frame remains square ( <b>Fig. A</b> ).					
First, secure at ends with one fasterne.	116-5/8" (296 cm)				

Once the floor frame is level and square, fasten the frame at each point the frame contacts the 4x4 runners.

Your floor frame is now constructed.

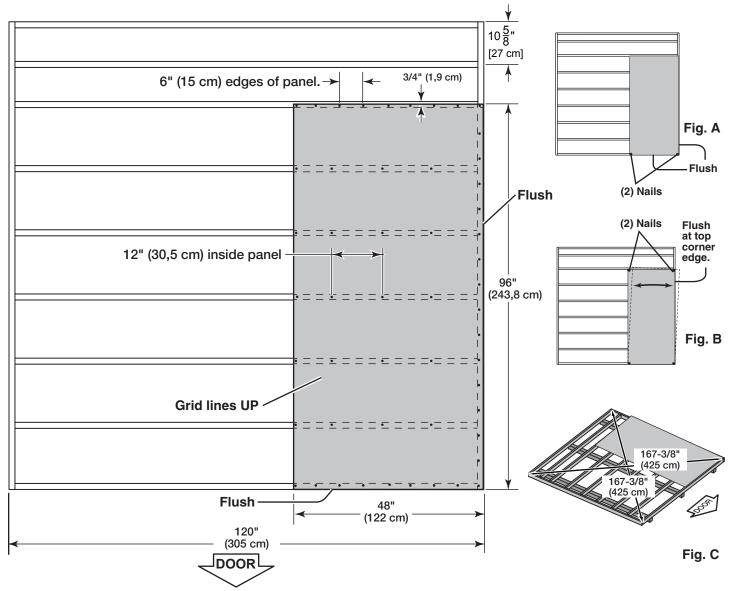
FLOOR PANELS (NOT INCLUDED)						
PARTS REQUI	RED:		2" (5 cm) x45			
x1	5/8 x 48 x 96" (1,6 x 122 x 243,8 cm)	Floor Panels not included See page 3 for panel sizes and quantities.				

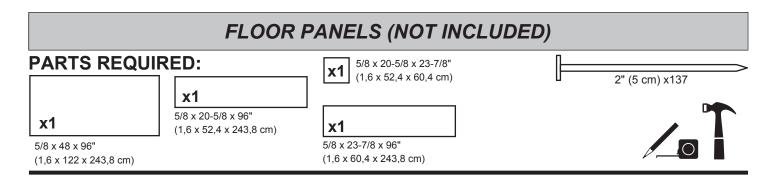
Ensure your floor frame is square by installing one panel and squaring frame.
 BEGIN
 Attach the 5/8 x 48 x 96" panel with the rough side up (painted grid lines side) with the 48" edge and corner flush to the floor frame (Fig A). Secure panel with two 2" nails in the corners

2 Move to the opposite end. Using the long edge of the panel as a lever, move the panel side-to-side until the top corner is flush to the floor frame (Fig. B). Secure panel with two 2" nails in the corners.

Check the floor frame is square by measuring diagonally across the frame corners. If the measurements are the same your floor frame is square. The measurement will be approximately 167-3/8" (425 cm) (Fig. C).

Continue attaching the panel using 2" nails 6" apart on edges and 12" apart inside panel. Use a chalk line or use pre-painted grid lines to nail into joists under panel.

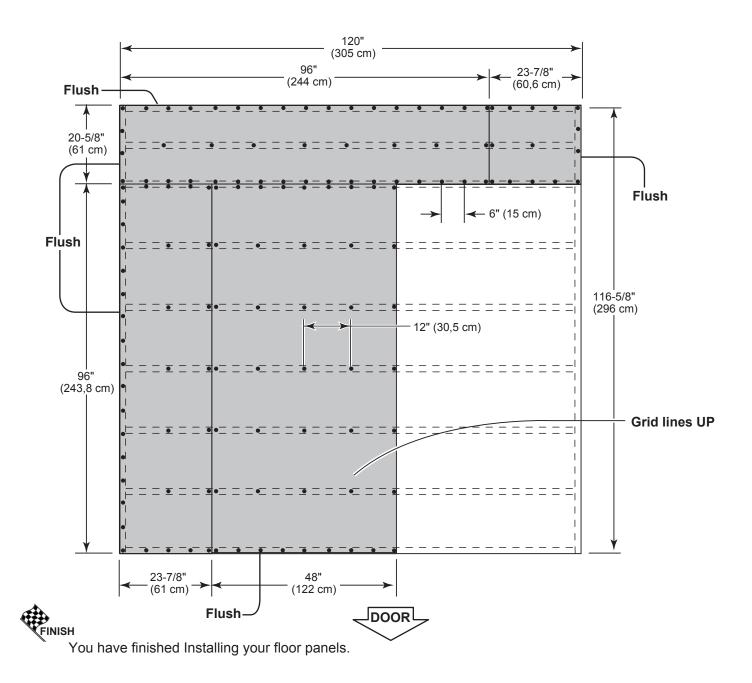




Continue installing panels with rough side up (painted grid lines).

5

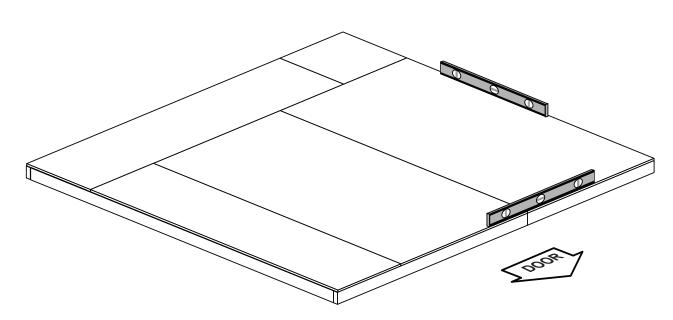
Use a chalk line or grid lines on panels for 2" nails 6" apart on edges and 12" apart inside panel.



### IMPORTANT!

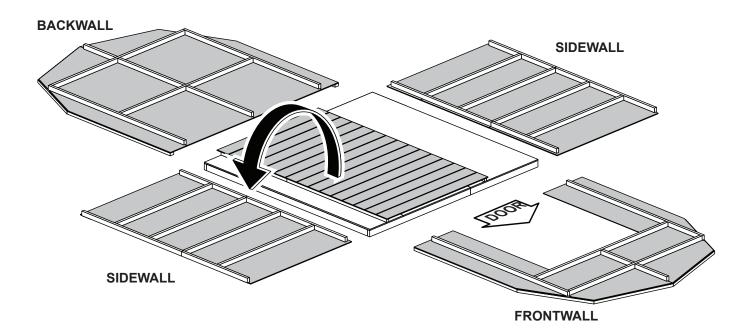


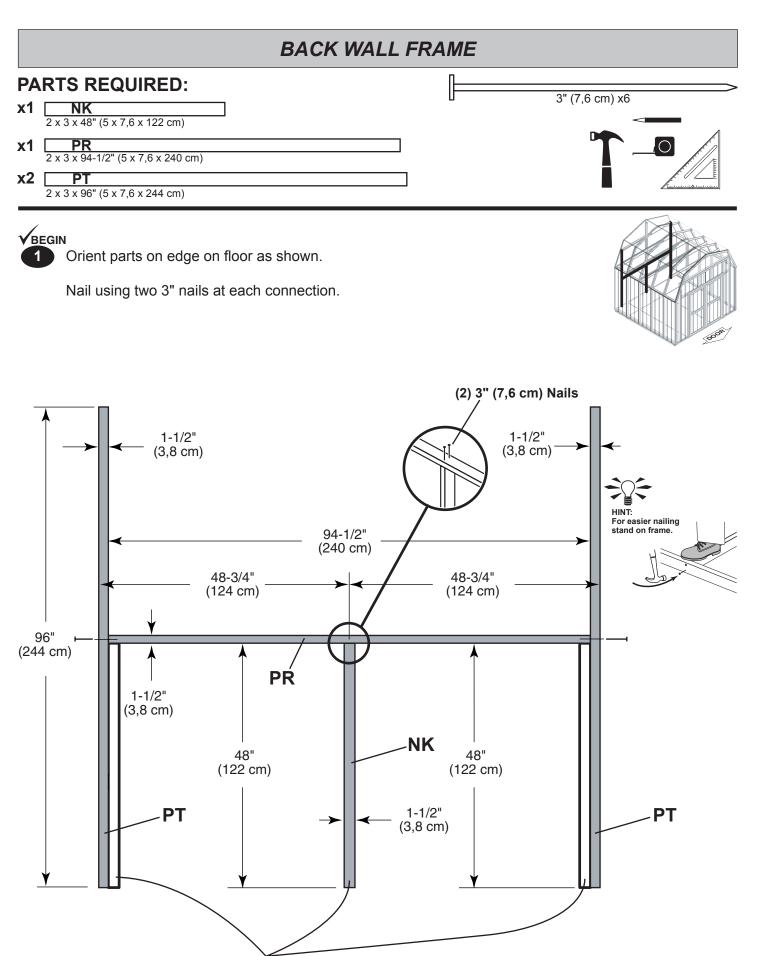
Check that the floor frame is level after installing floor panels. Re-level if needed.



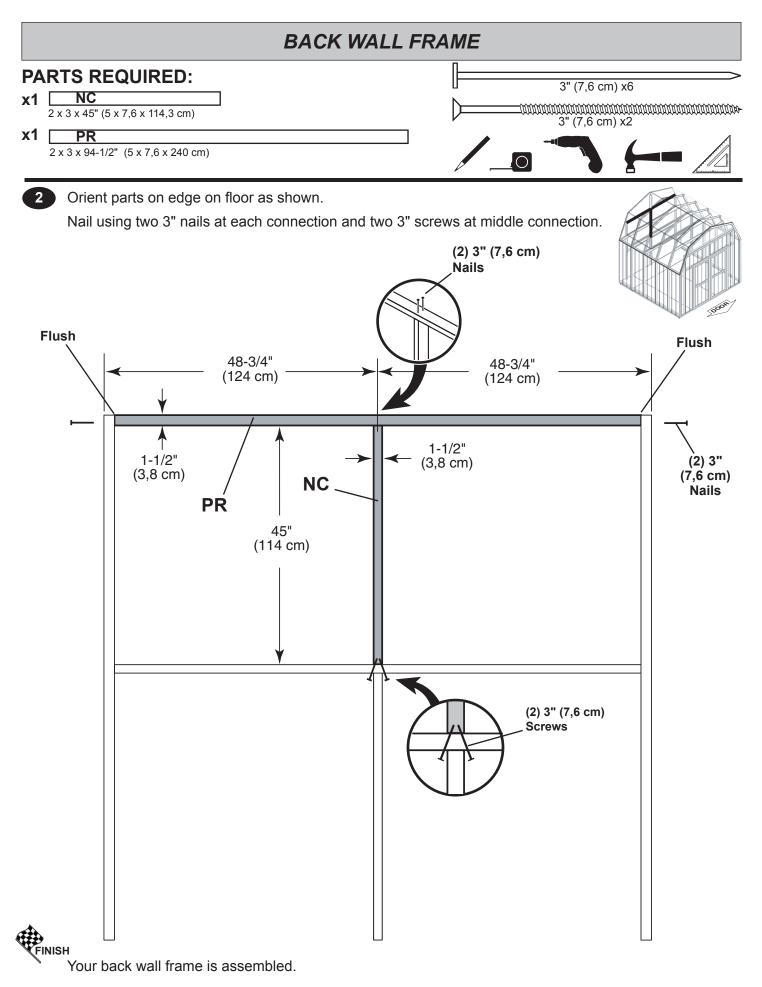


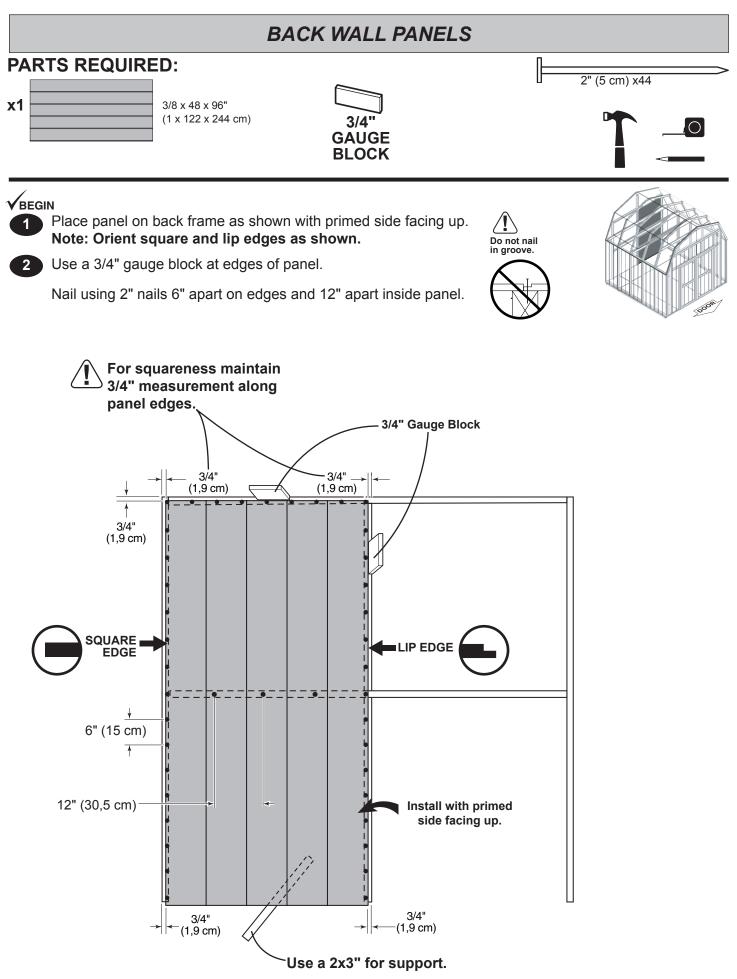
HINT: • Organize your wall sections during subassembly to avoid over-handling of the walls.

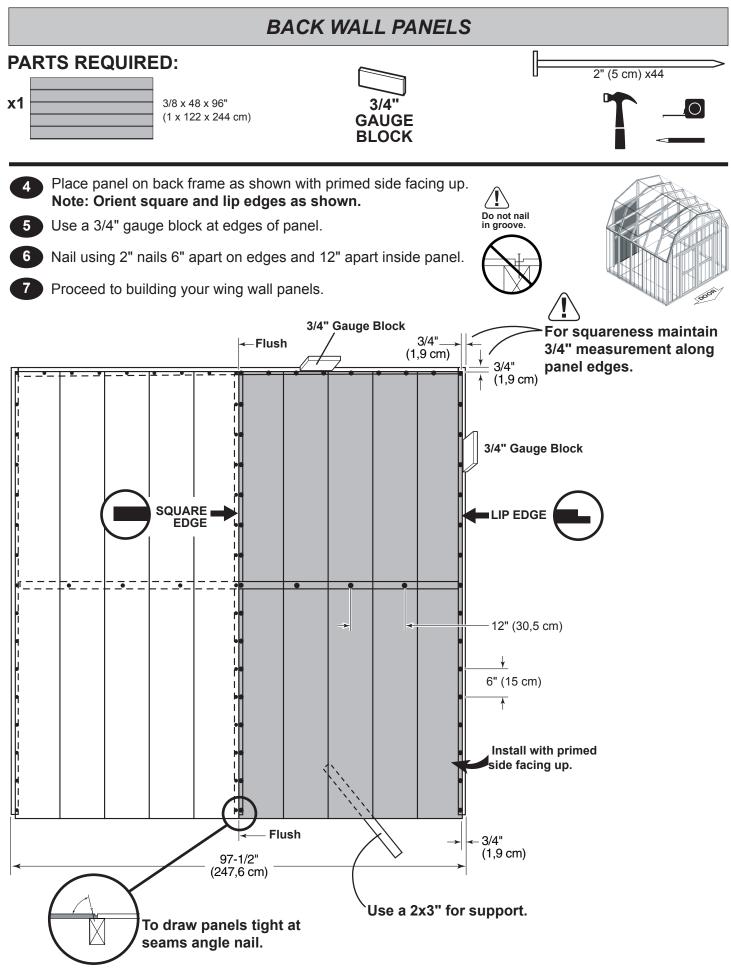


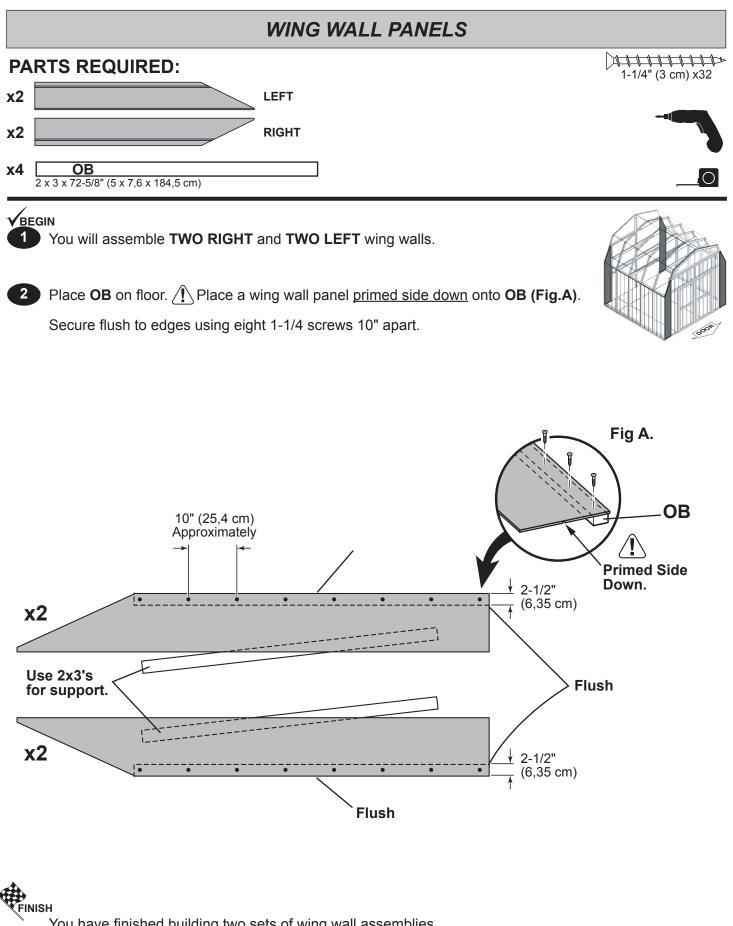


Use NK as a guide to locate PR. (Do not nail.)



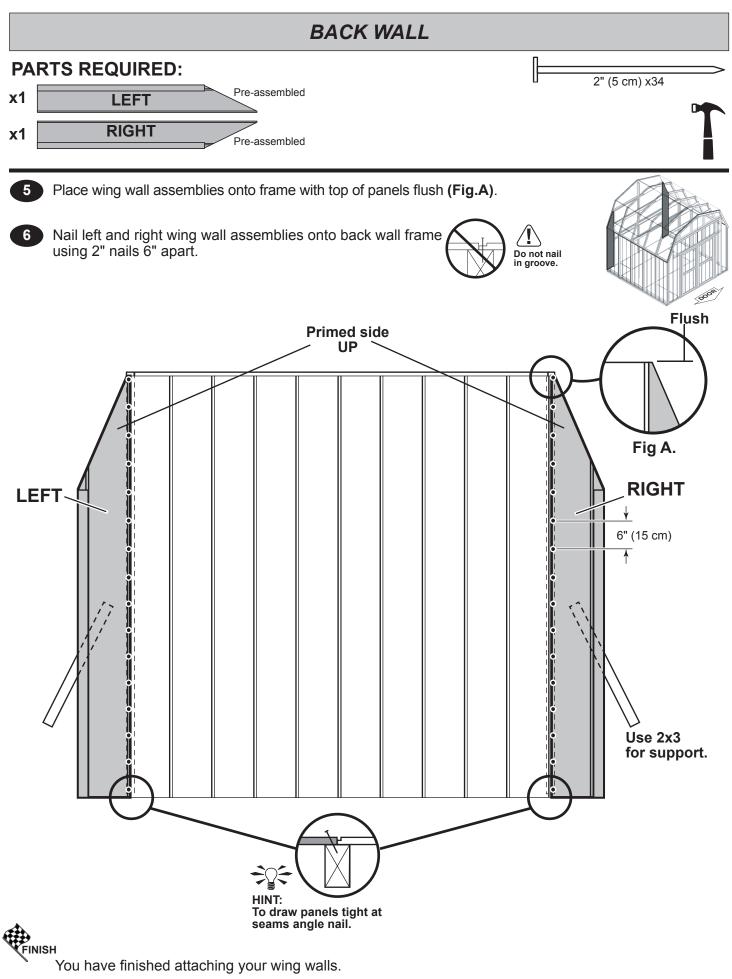


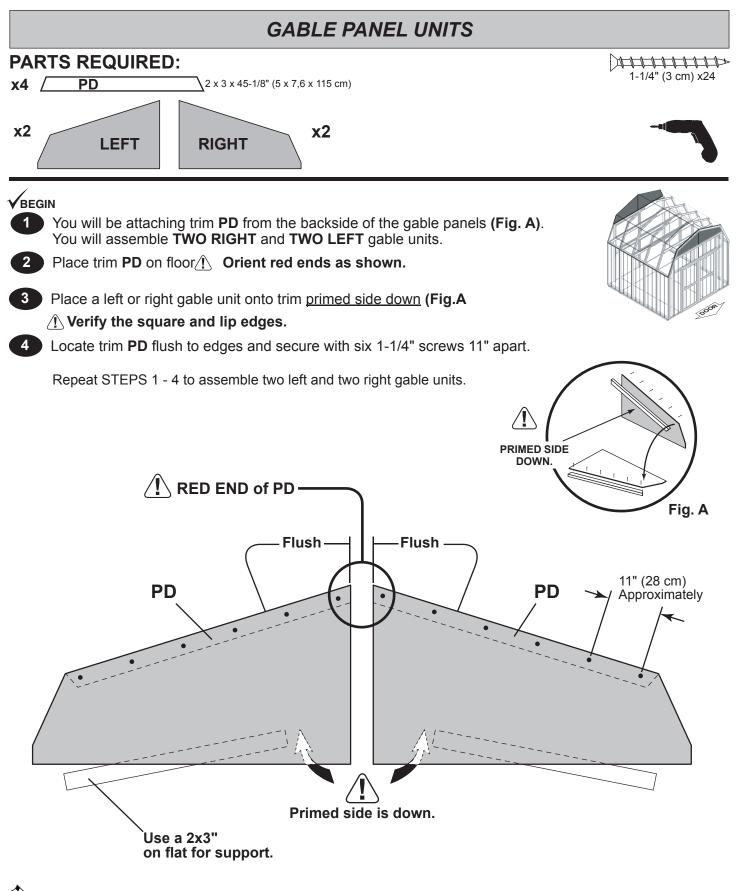




You have finished building two sets of wing wall assemblies.

Set the assemblies aside.



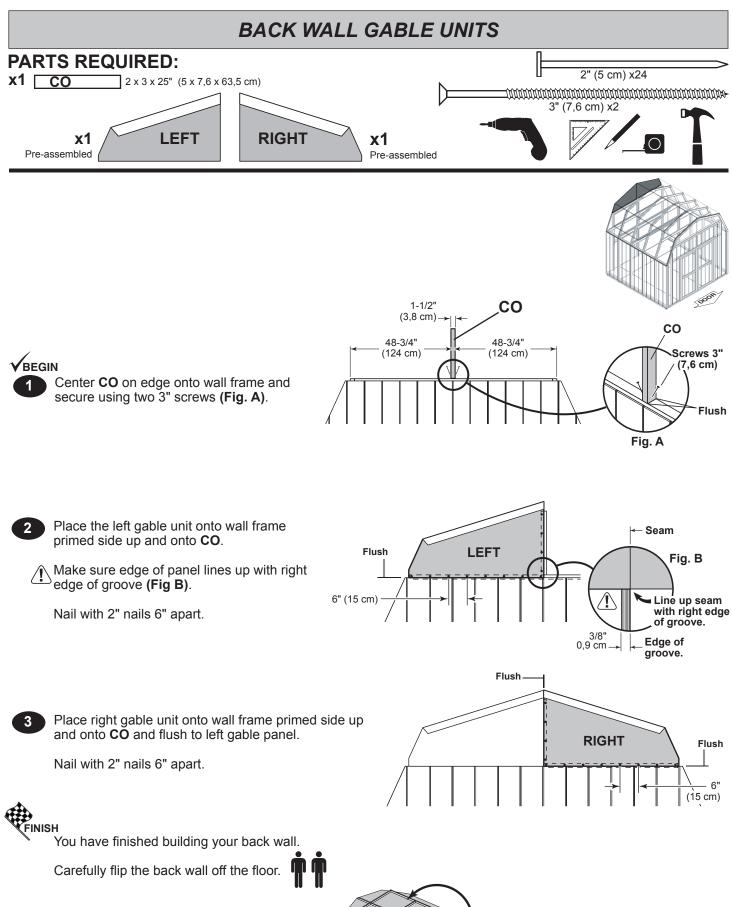


FINISH

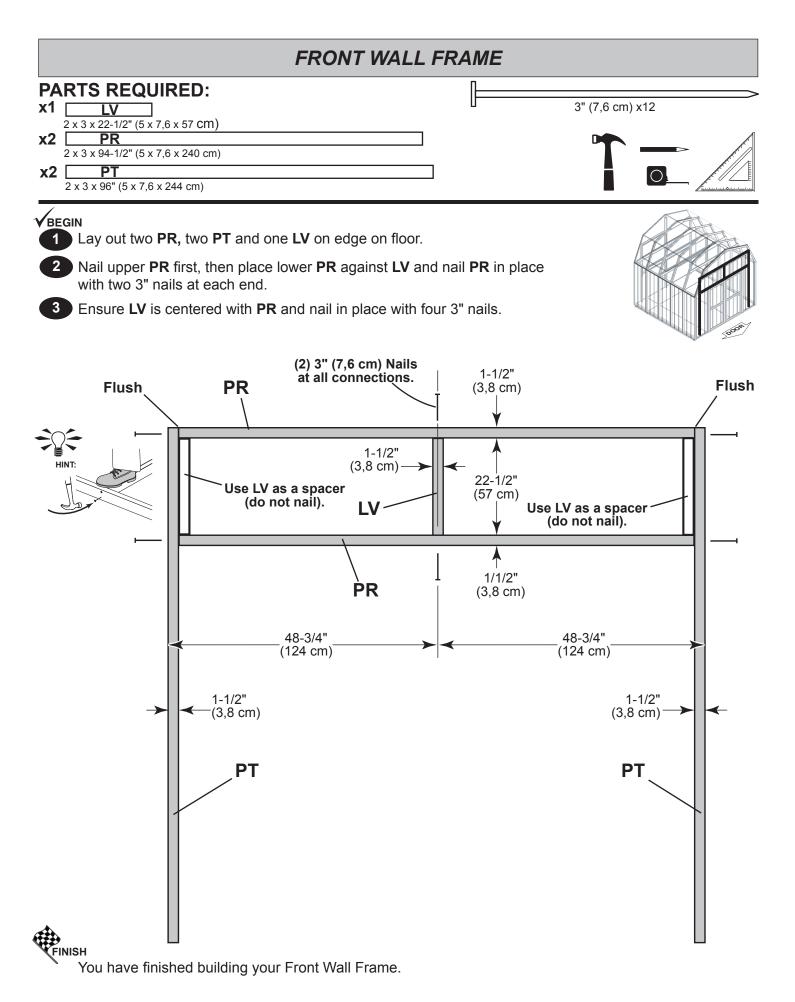
You have finished building two sets of gable units.

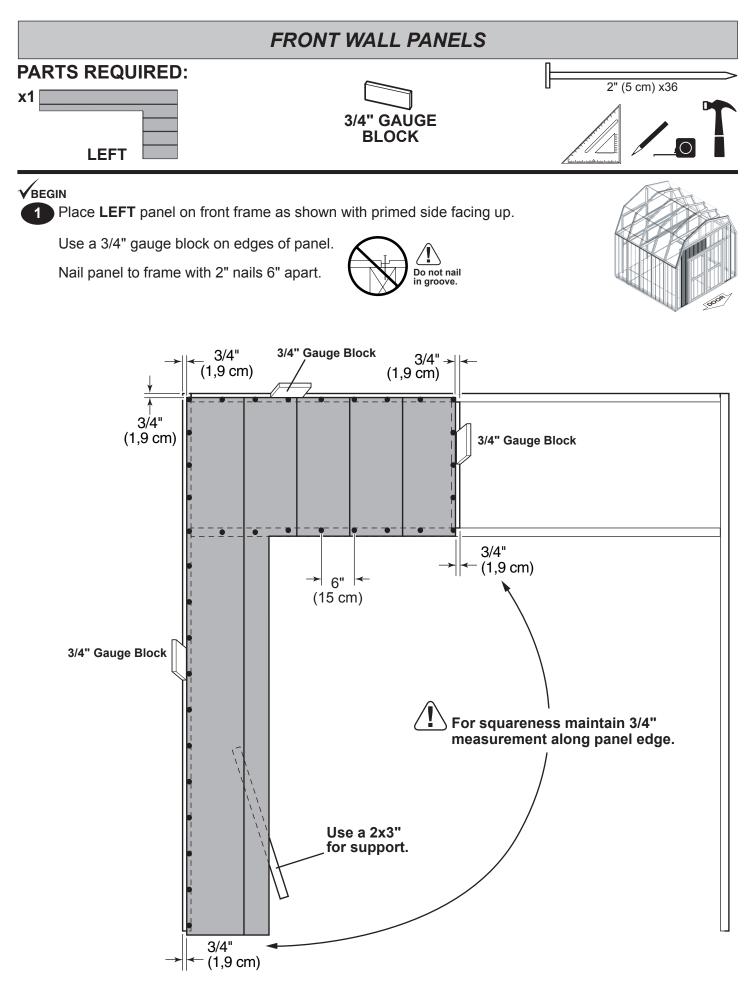
Set one left and one right aside.

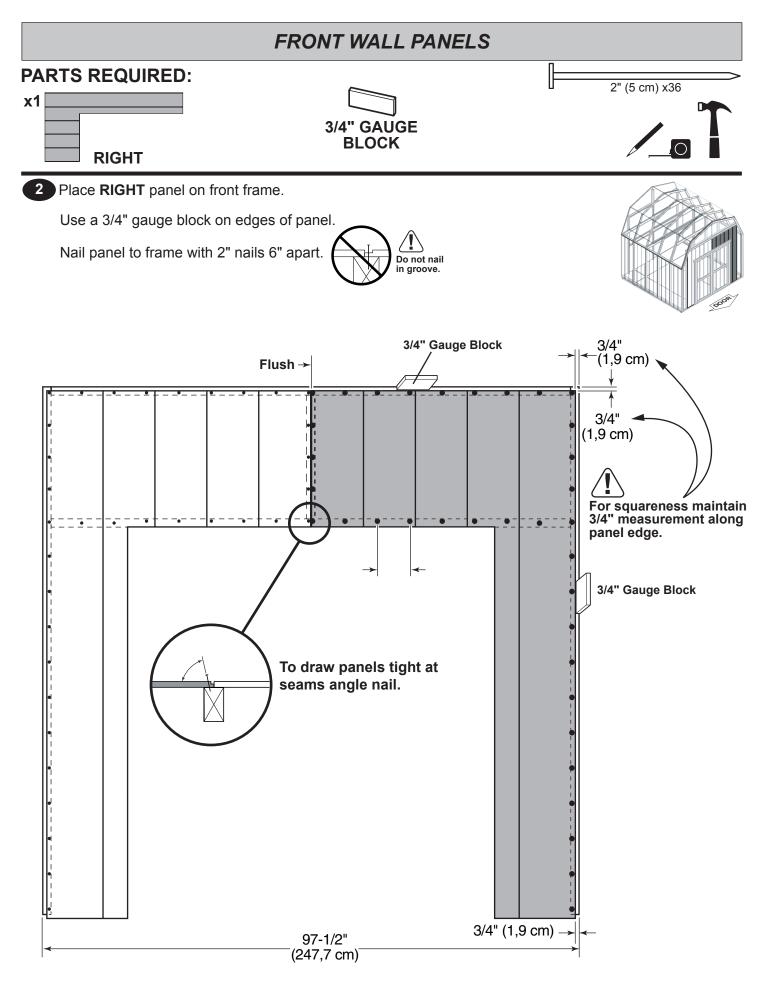
Continue building your backwall.

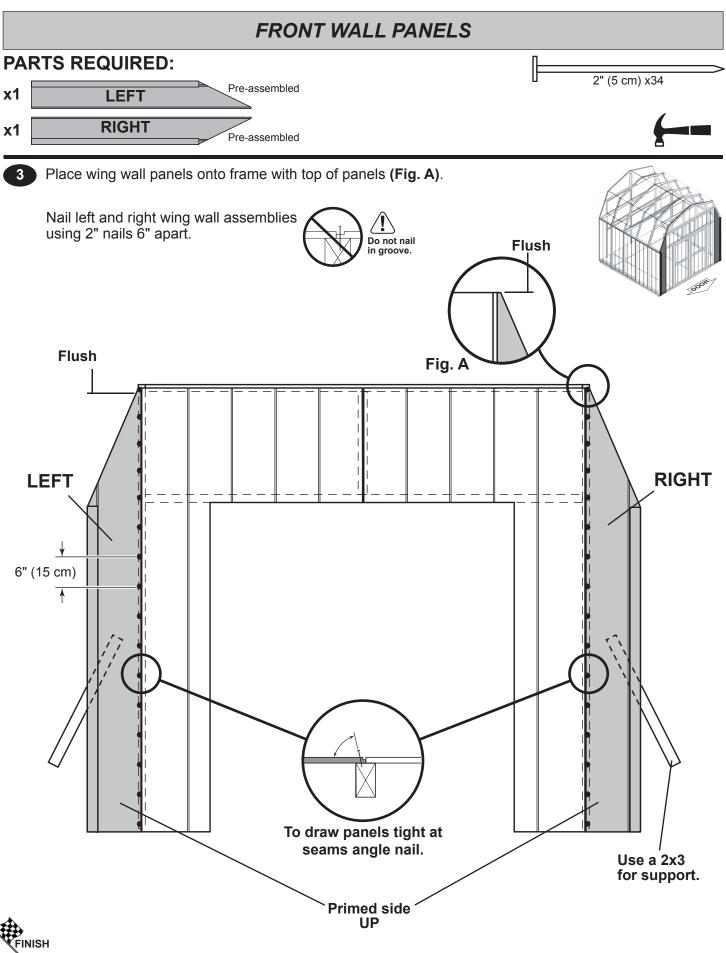




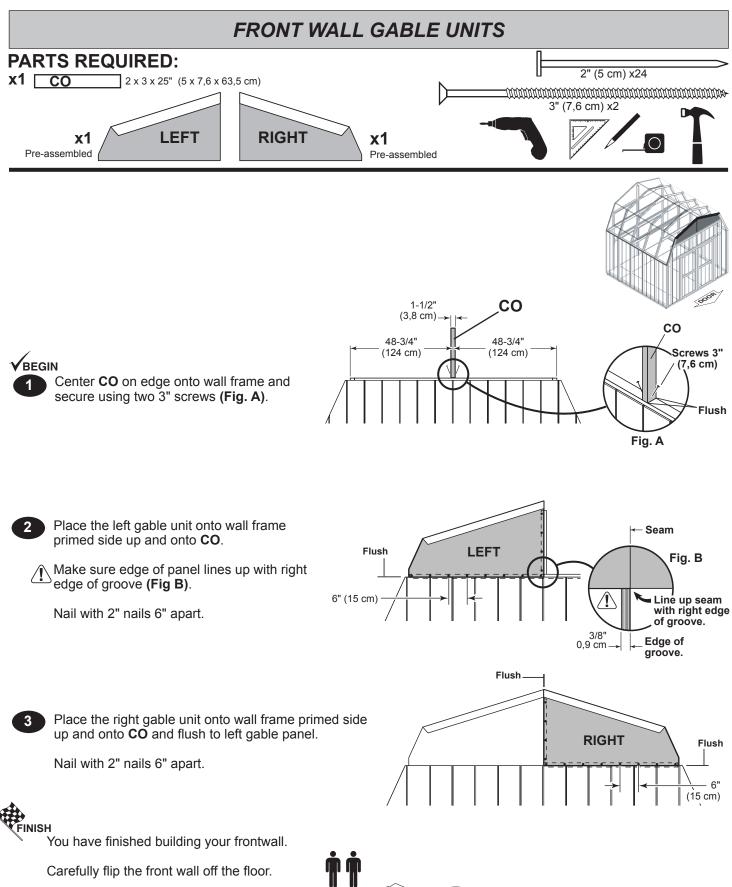


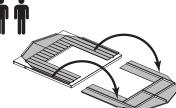


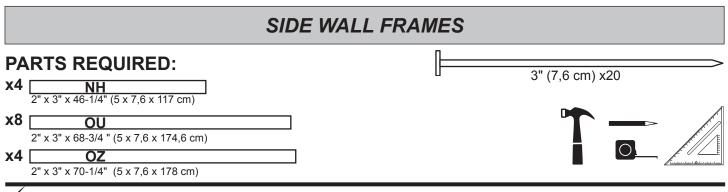




You have finished building your front wall.







#### 

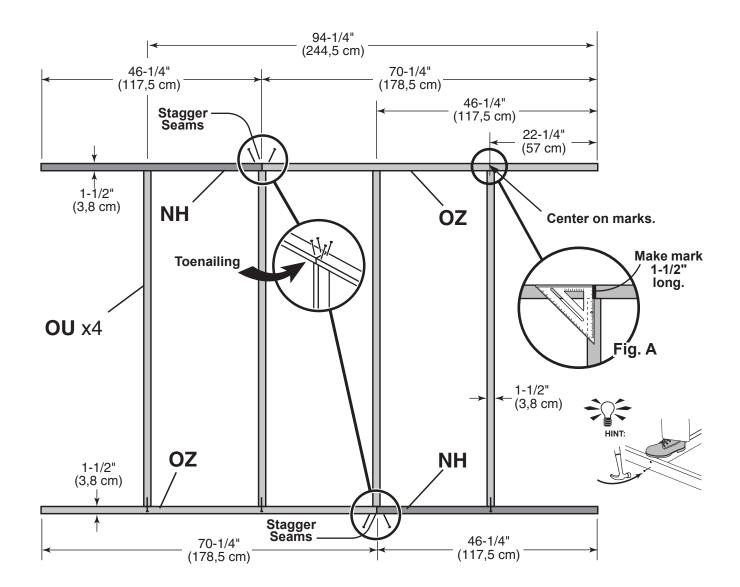
Orient parts on edge on floor. Measure and mark from end of boards. Make marks 1-1/2" long. They will be used later (**FIG. A**).

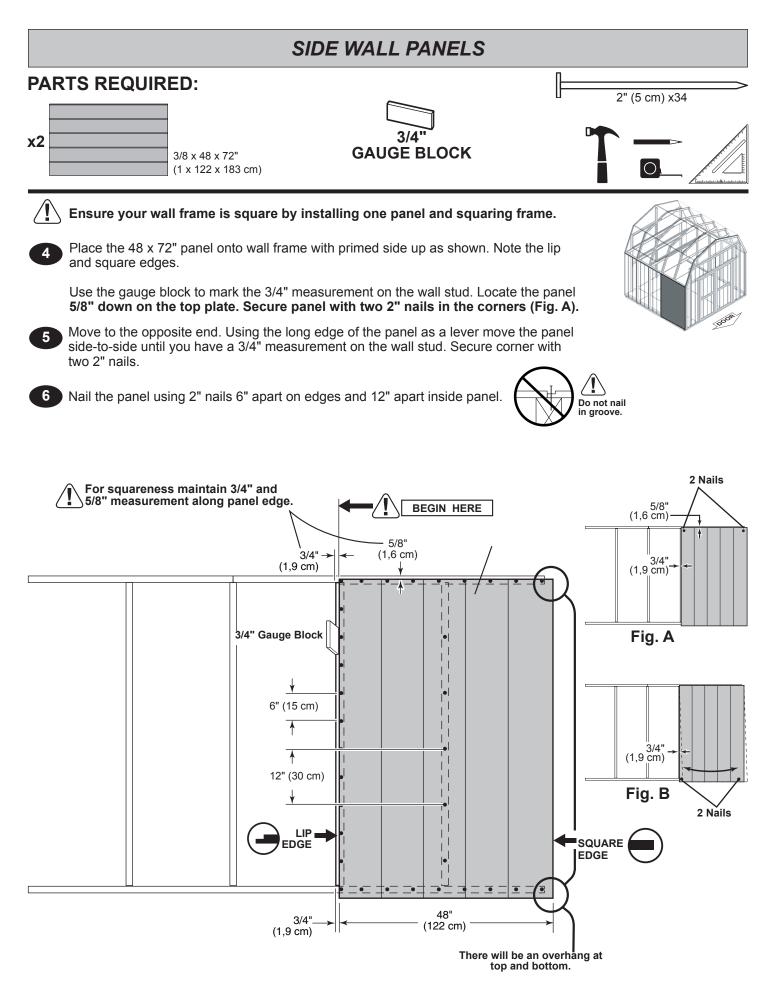
#### IMPORTANT! You will build two walls the same.

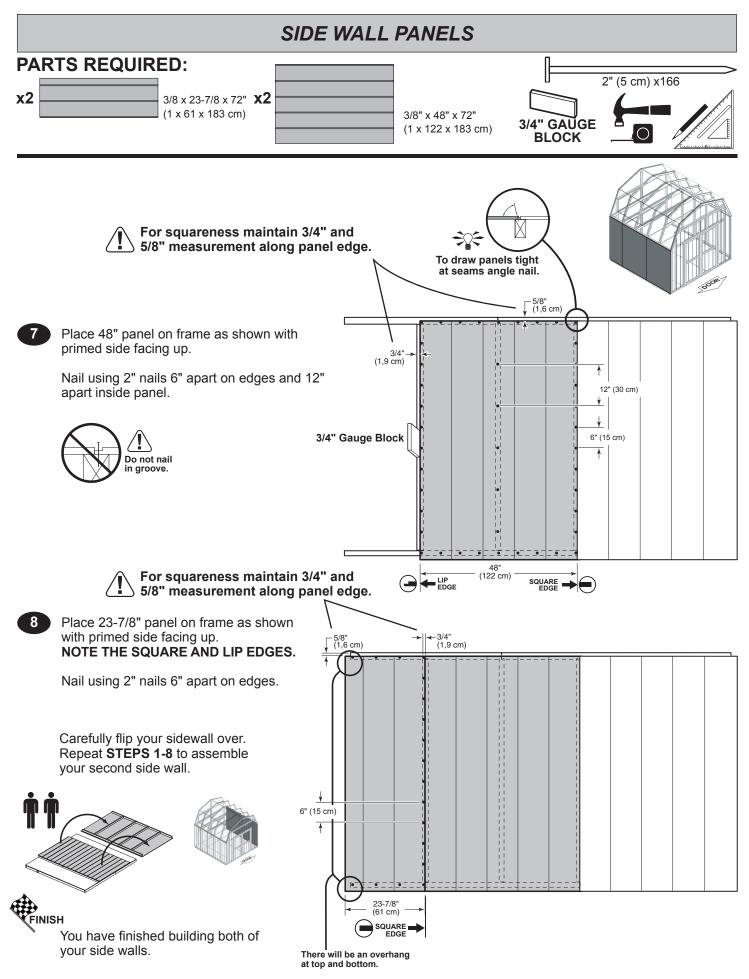


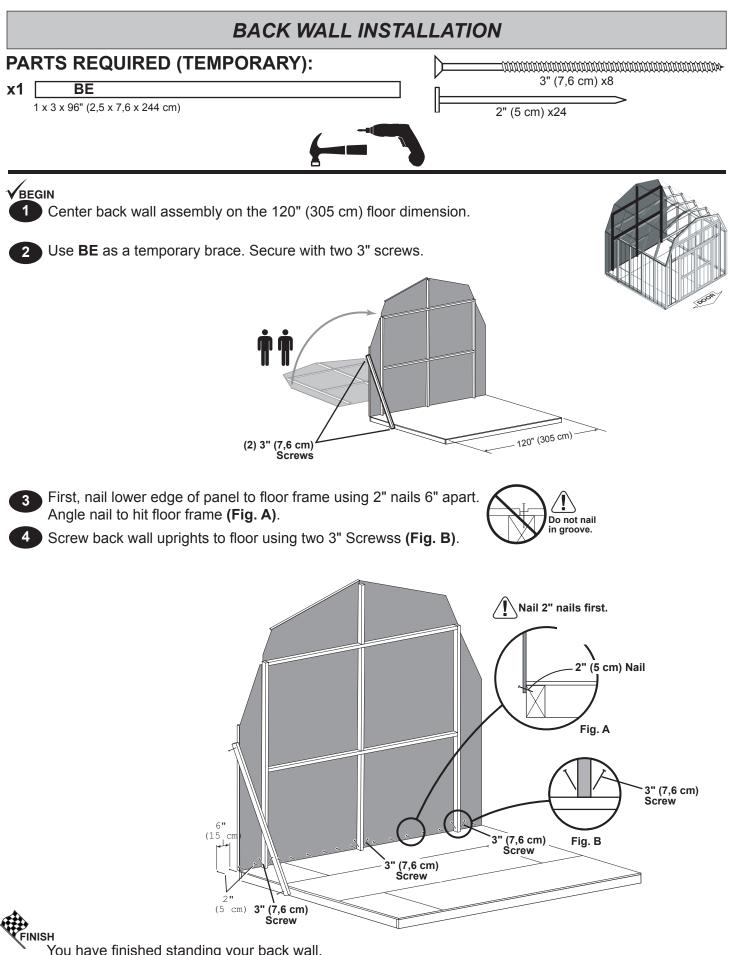
Use two 3" nails at each mark.

You have finished building one side wall frame. Proceed to attach wall panels.

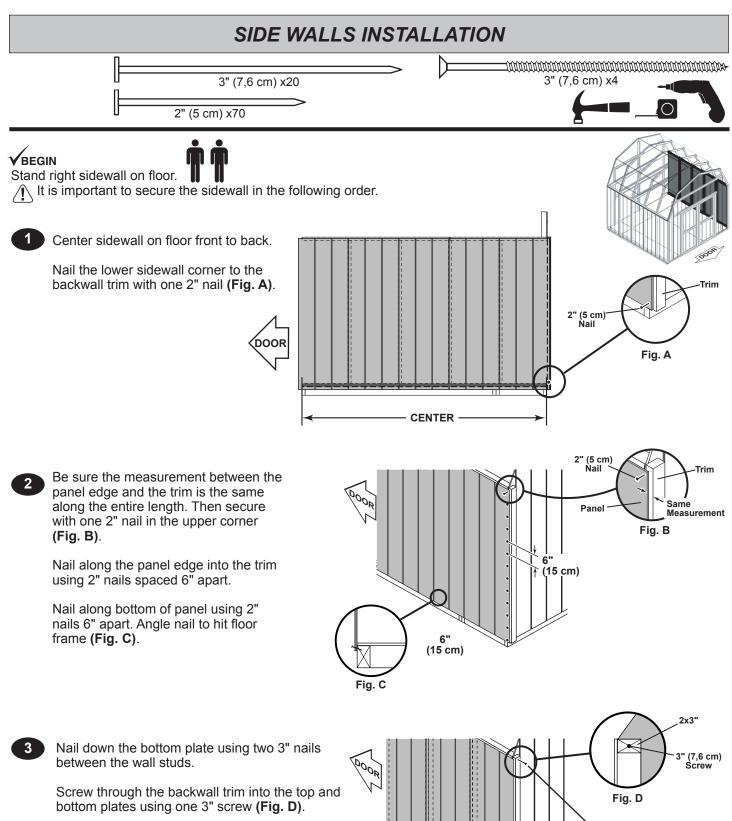






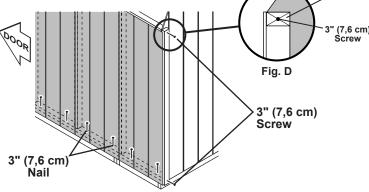


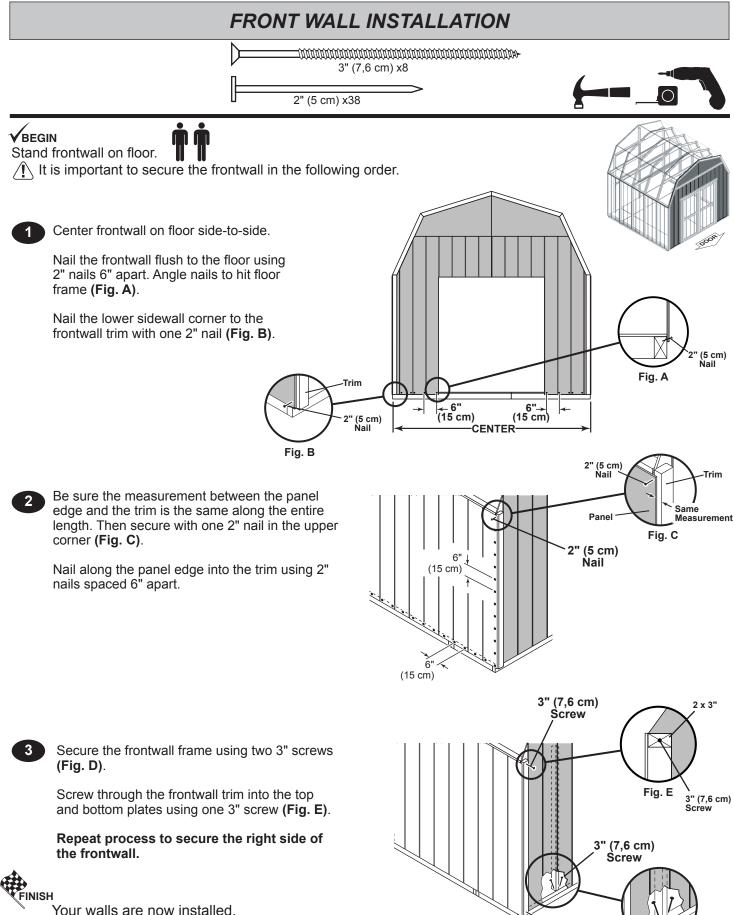
You have finished standing your back wall.



Remove temporary brace. Repeat process to secure the left sidewall.







Your walls are now installed.

3" (7,6 cm) Screw

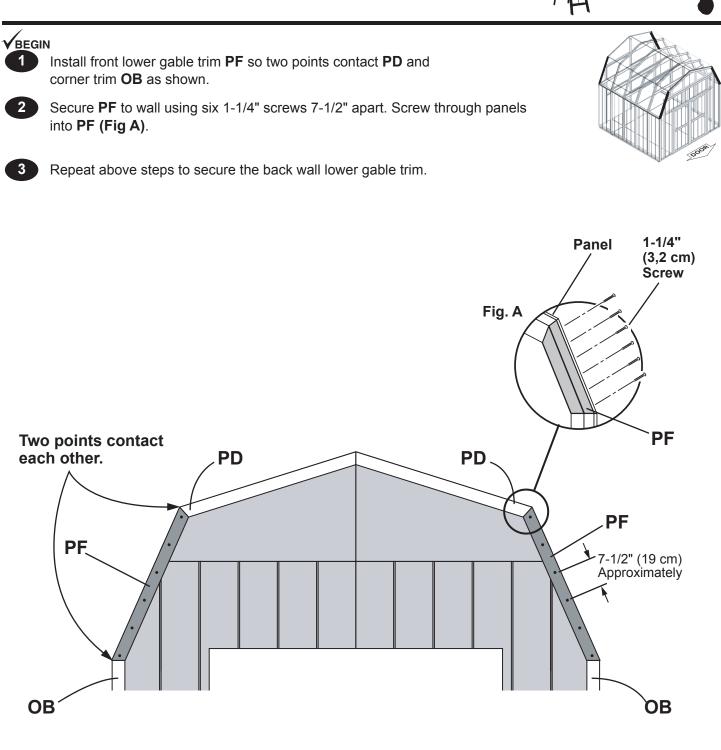
Fig. D



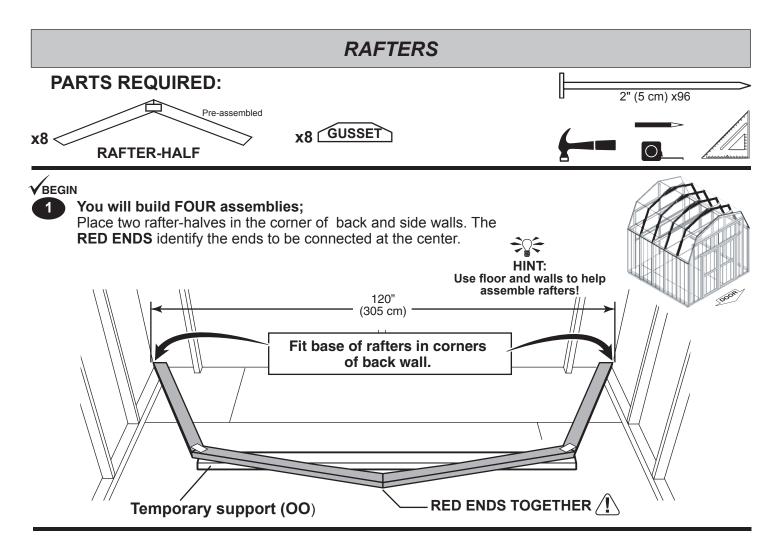
**PARTS REQUIRED:** 

**x4 PF** 2 x 3 x 41" (5 x 7,6 x 104 cm)

1-1/4" (3 cm) x24

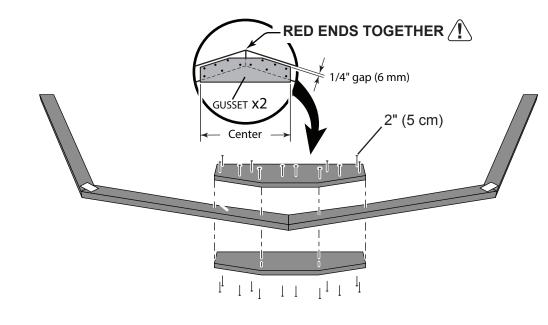




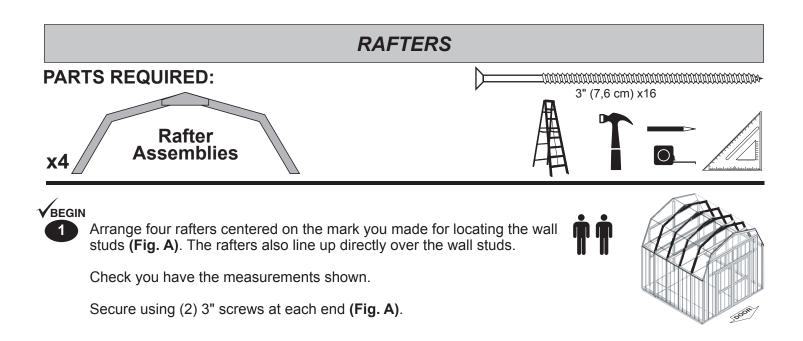


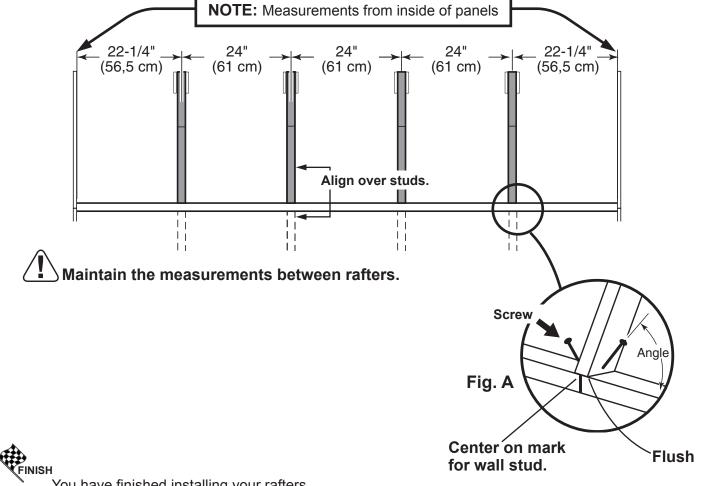
- **RED ENDS** of Rafters must touch together at the peak. Nail gusset to rafters using twelve 2" nails in pattern shown.
  - Flip over rafter assembly to attach second gusset to other side.

Repeat STEPS 1 - 3 to build THREE additional rafter assemblies.

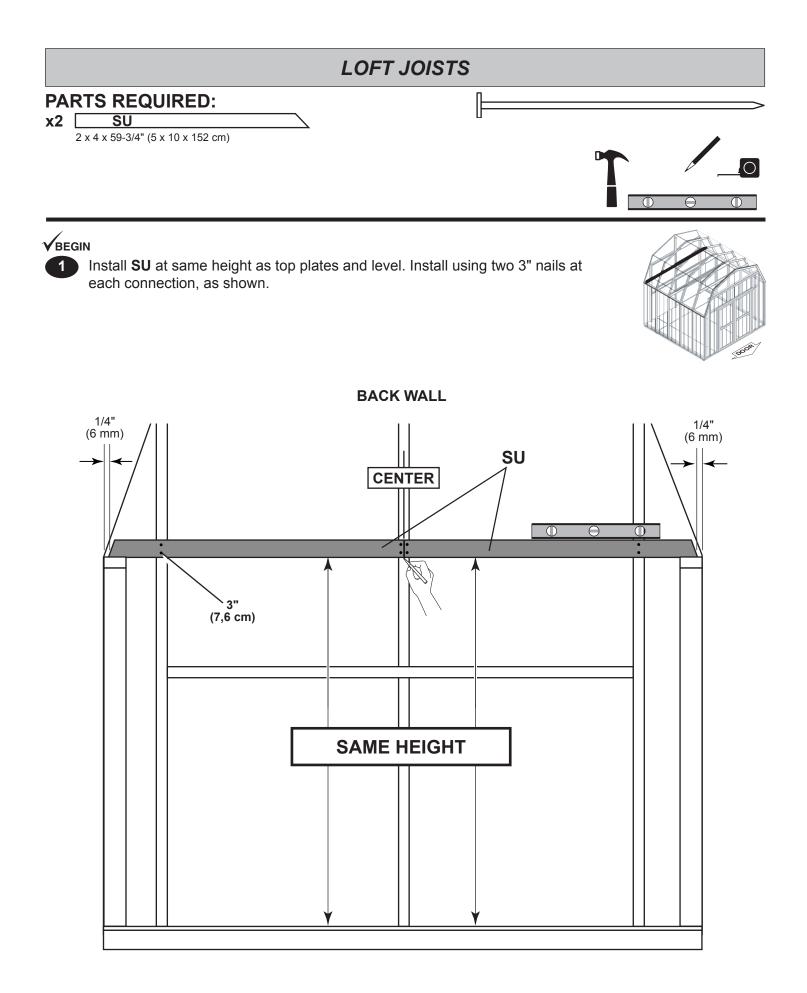


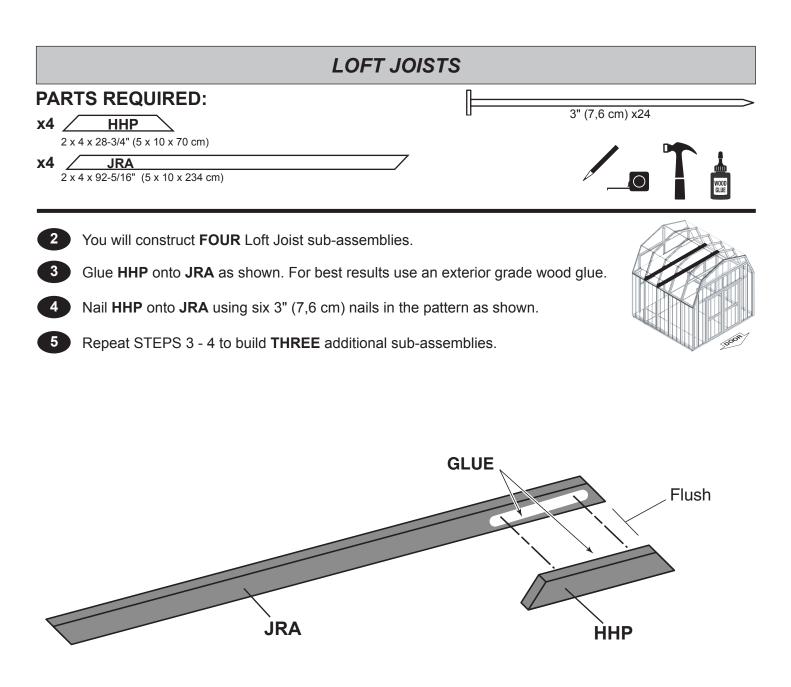
You have finished assembling your rafters.

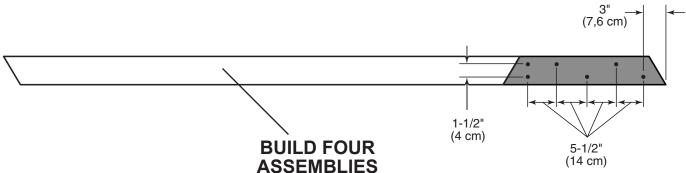




You have finished installing your rafters.



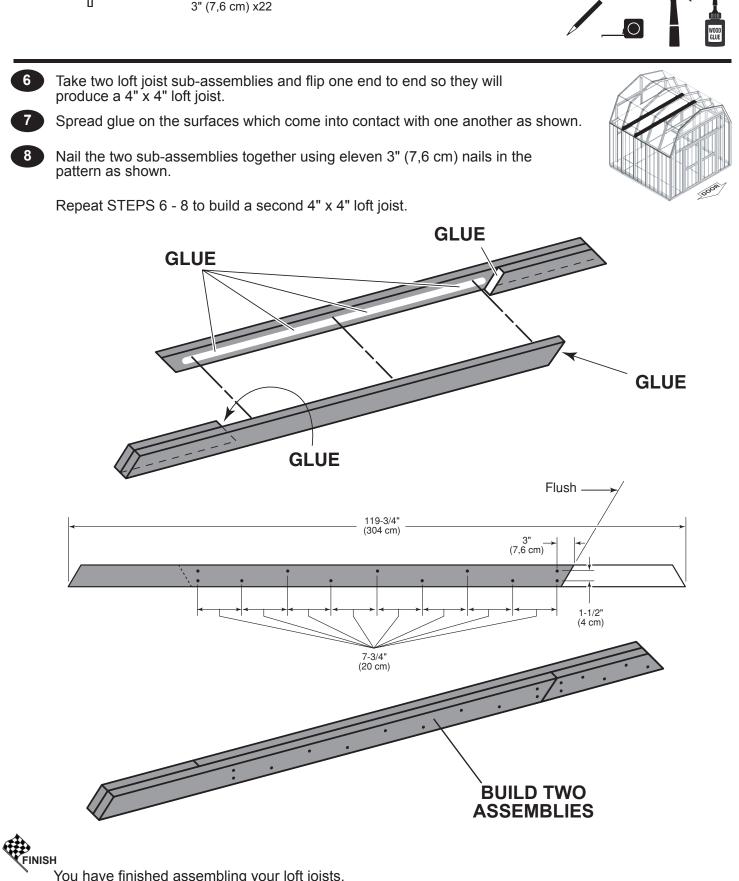




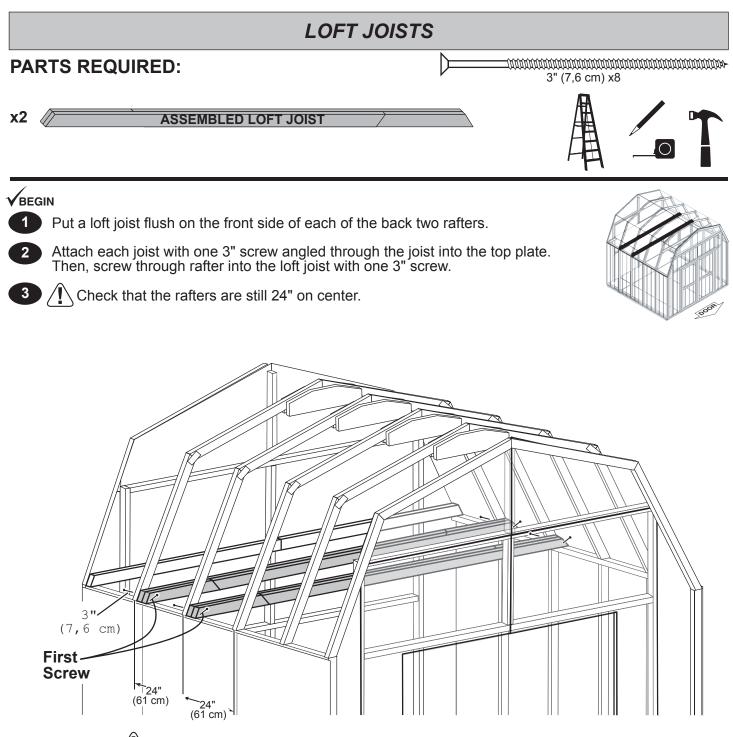
# LOFT JOISTS

3" (7,6 cm) x22

lŀ



You have finished assembling your loft joists.



L Check 24" (61 cm) is maintained.

You have finished installing your loft joists.

# LOFT PANEL

## PARTS REQUIRED:

2" (5 cm) x4

7/16 x 48 x 96" (1 x 122 x 244 cm) / 1

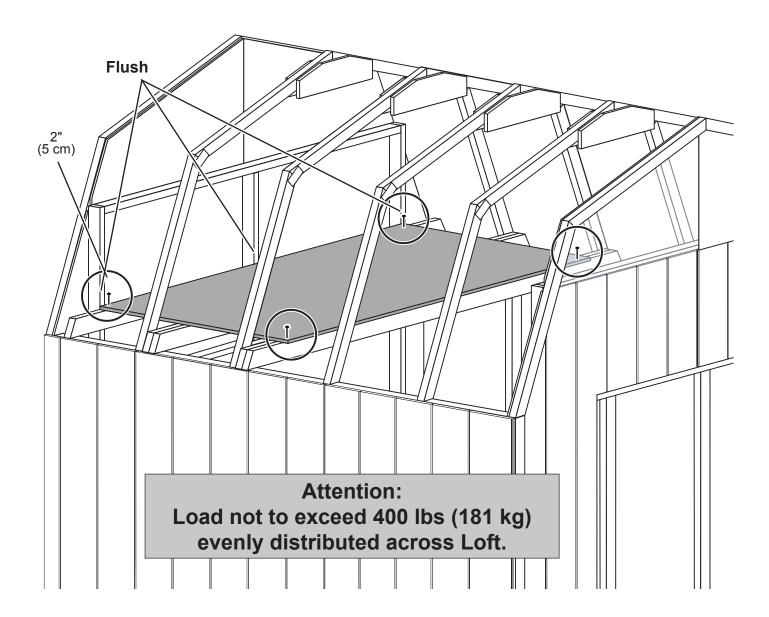
## 

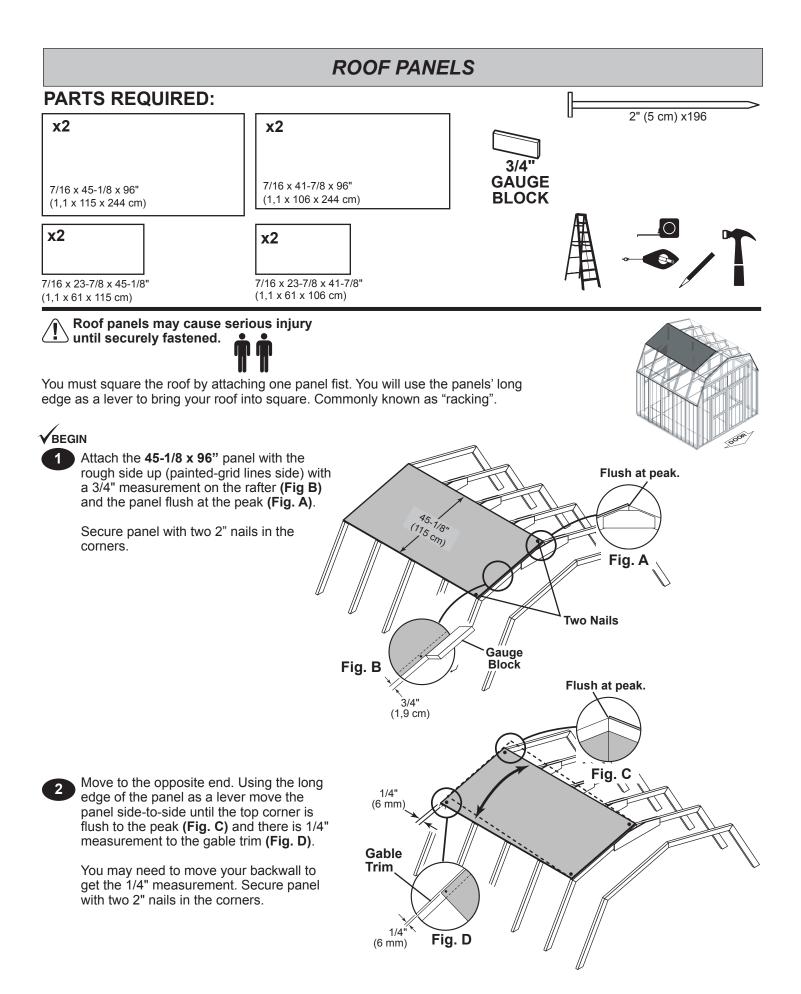
2

Place loft panel grid lines up onto the three loft joists centered from side-to-side and flush with the back wall frame.

**IMPORTANT!** Using only FOUR 2" nails, nail loft panel in place to allow racking of the roof. You will complete nailing the loft panel later.

You have temporarily installed your loft panel.



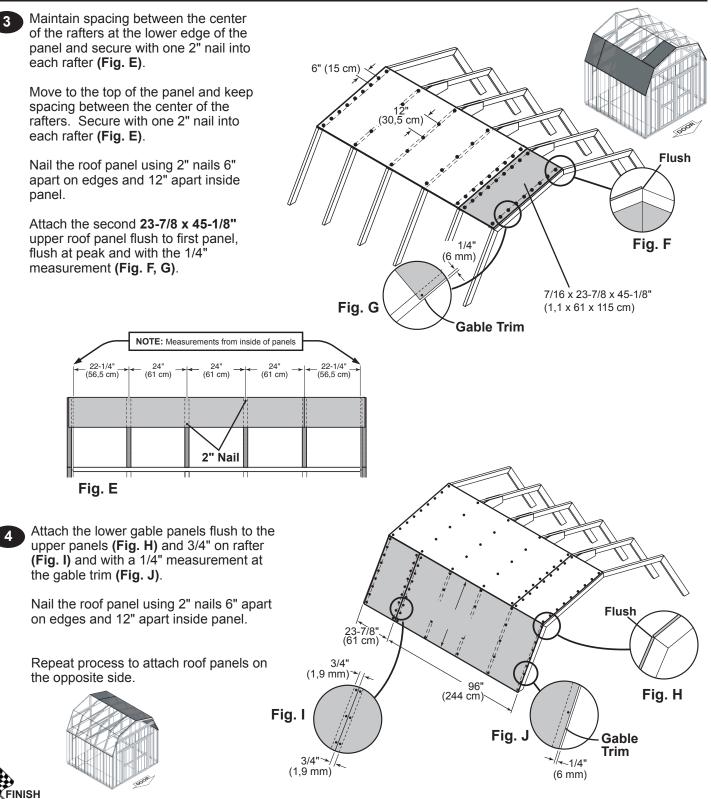


# **ROOF PANELS**

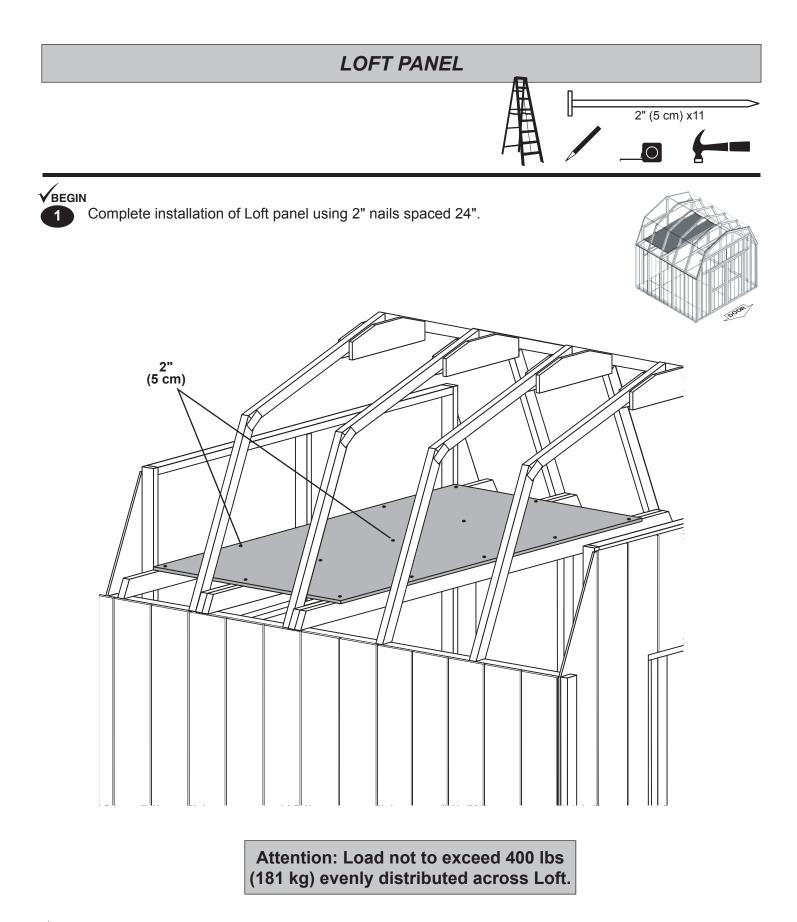
## PARTS REQUIRED:

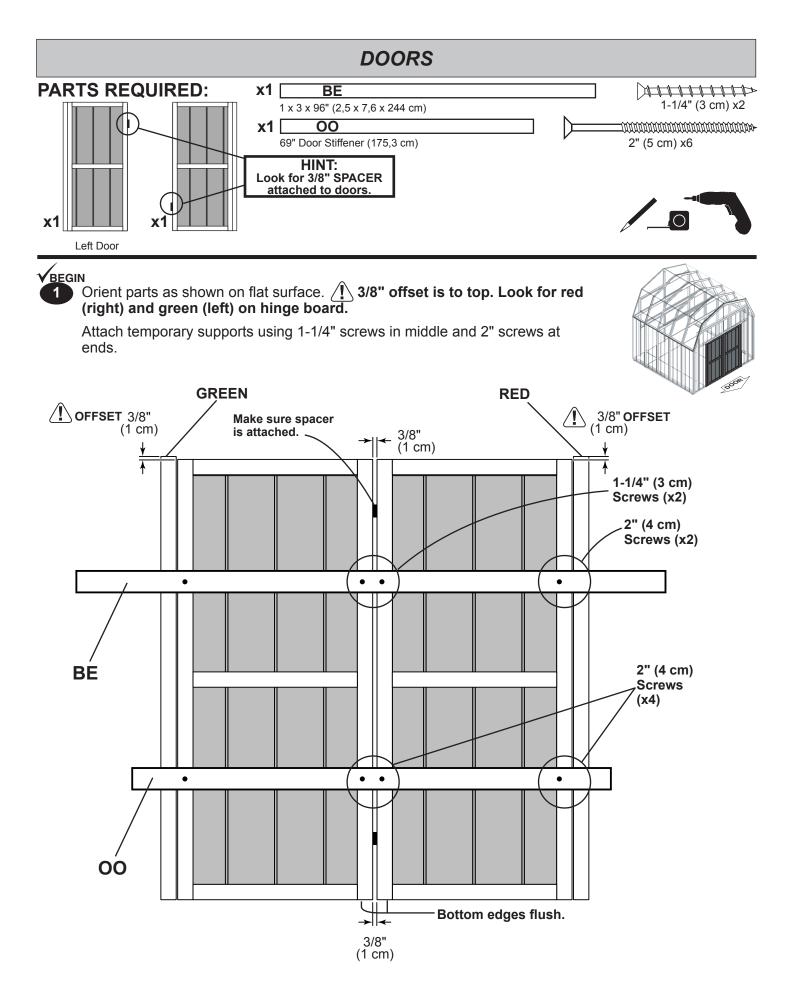


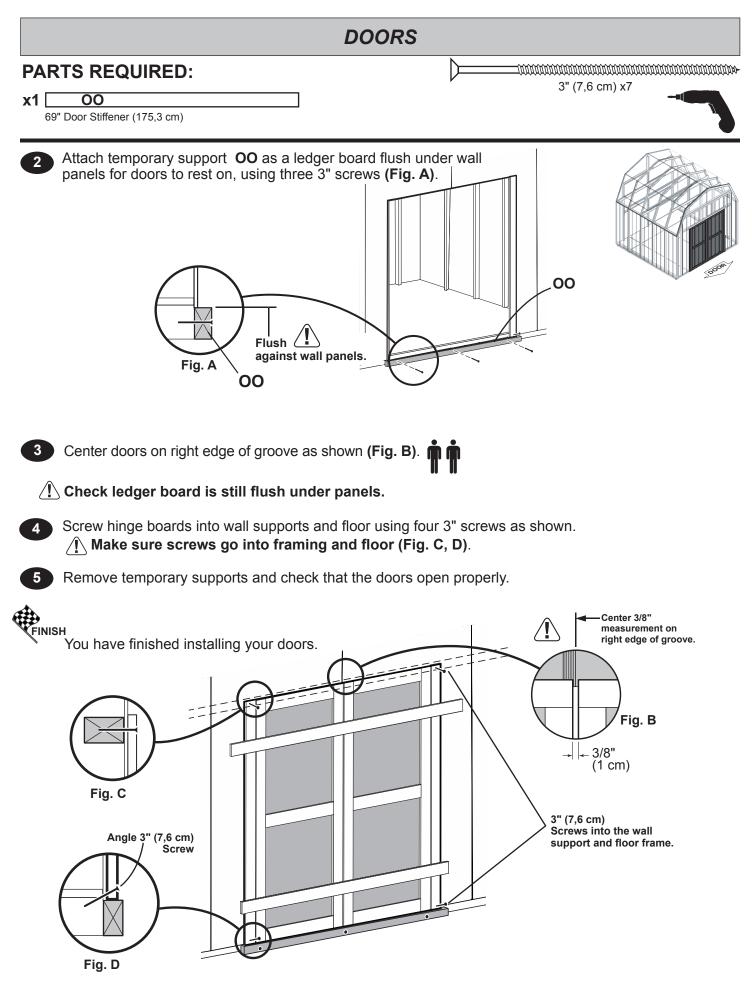


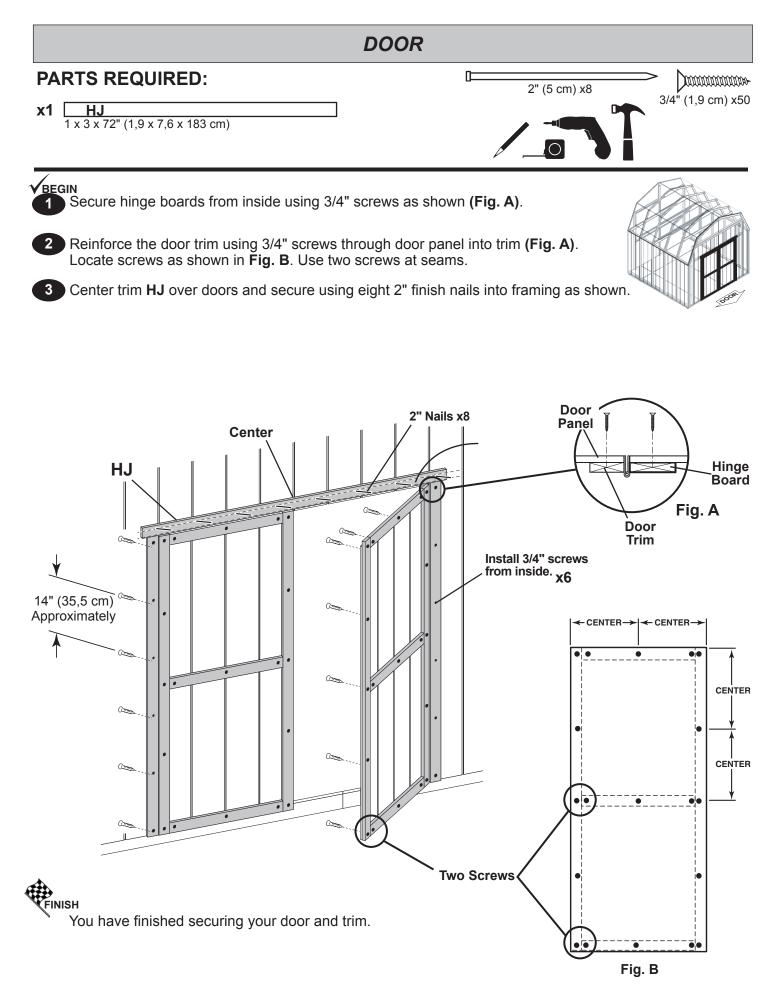


Your roof panels are installed.

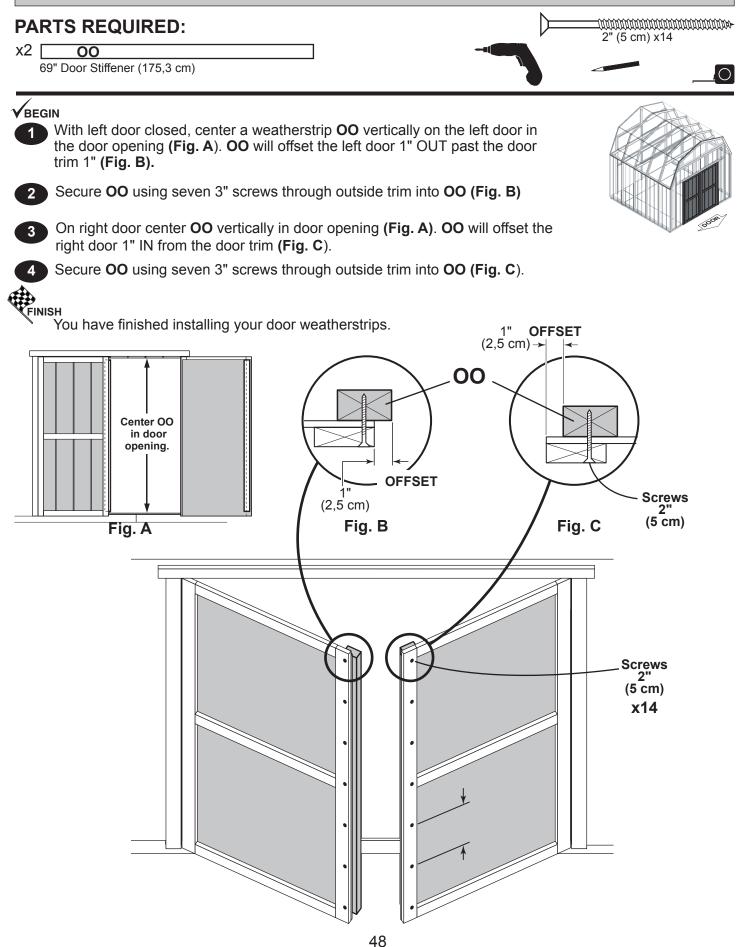


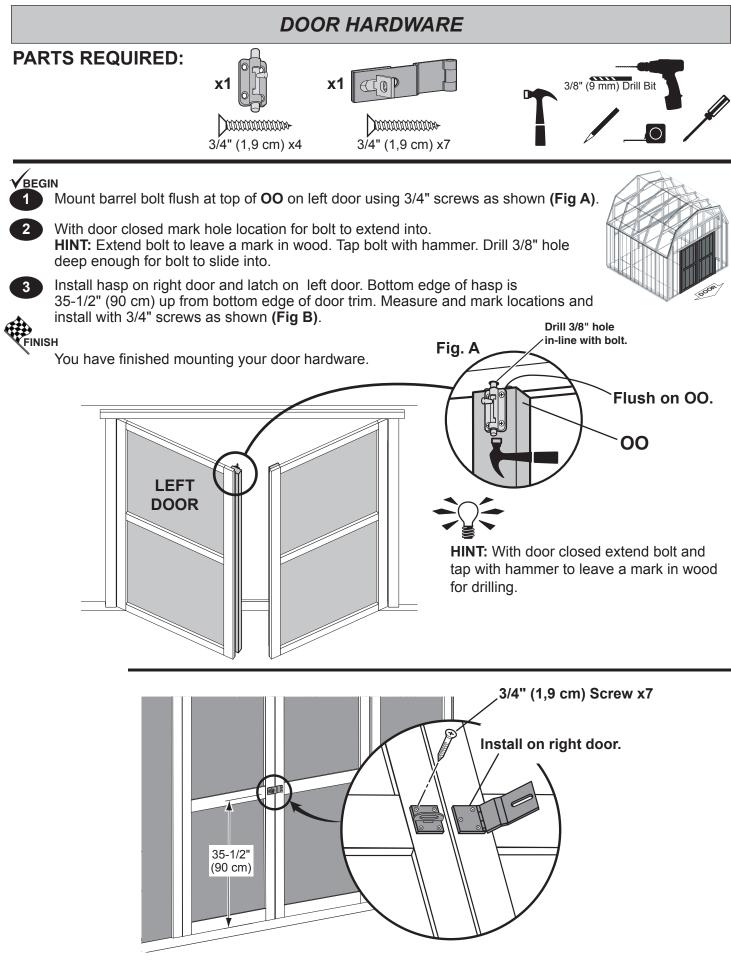


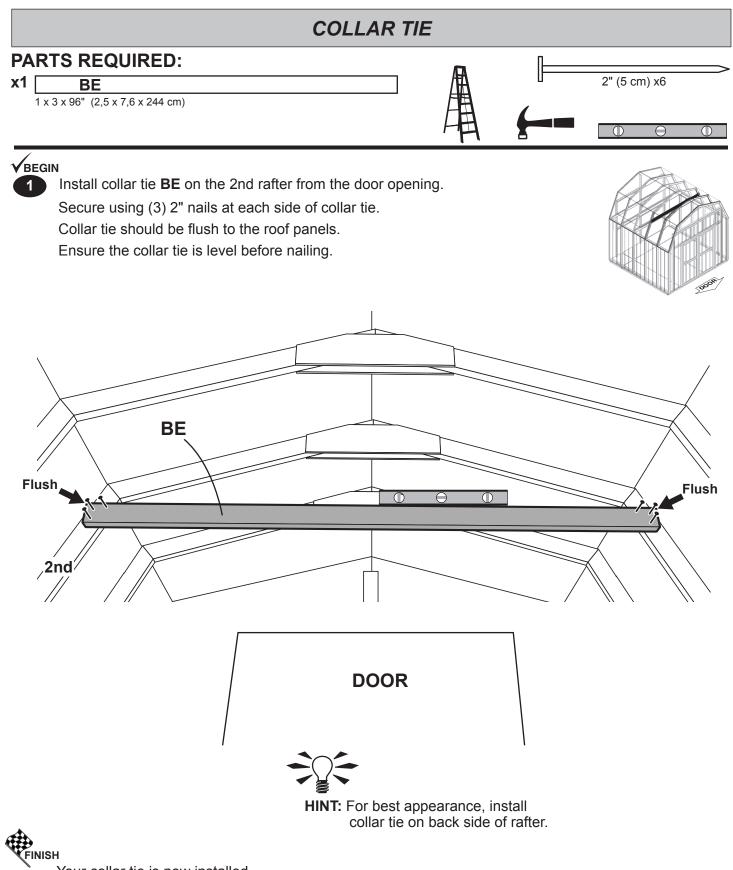




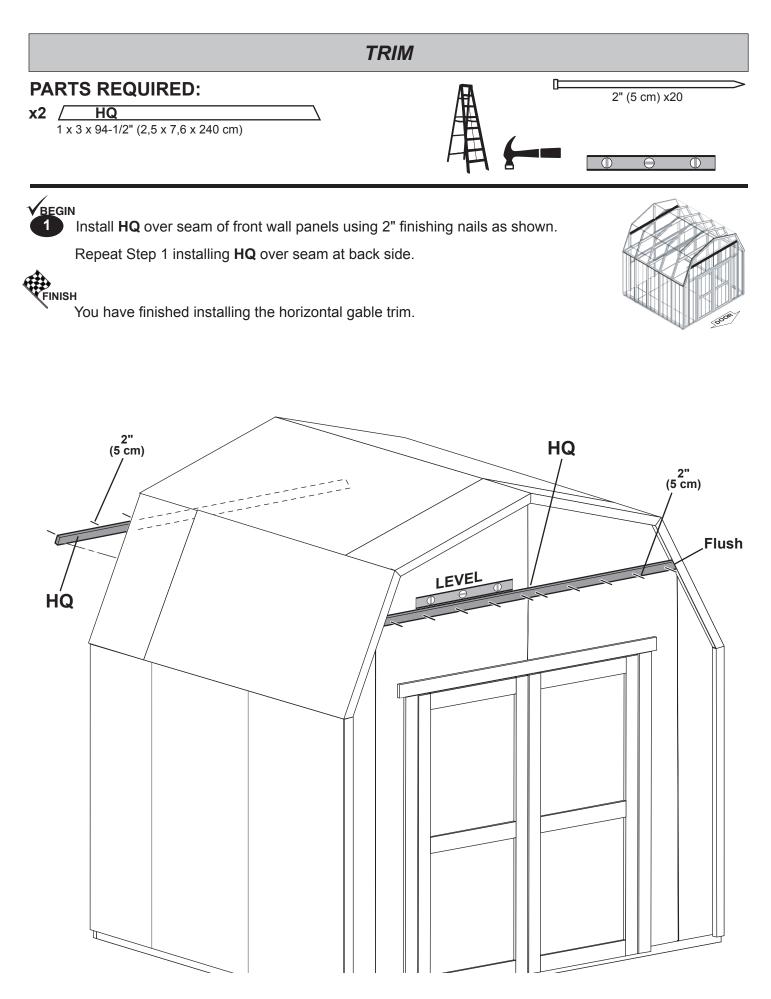
# DOOR WEATHERSTRIP







Your collar tie is now installed.

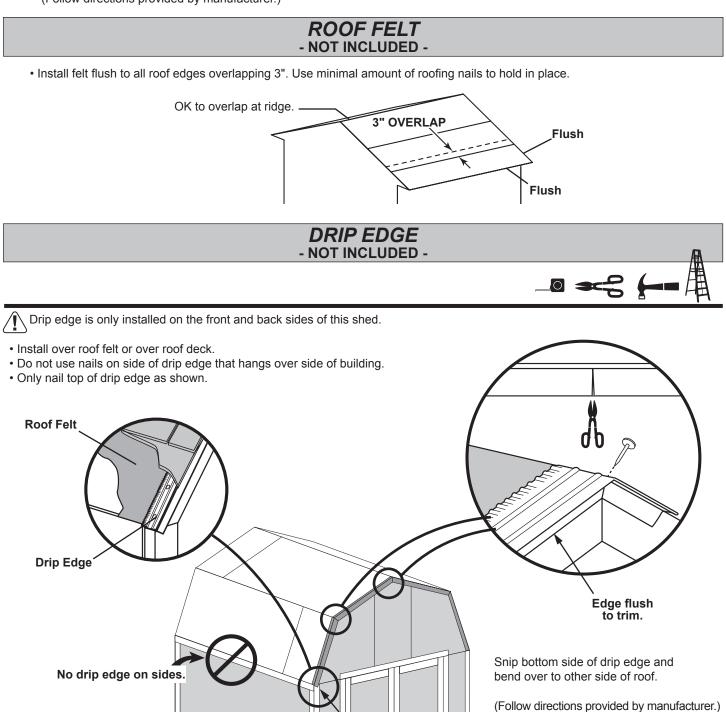


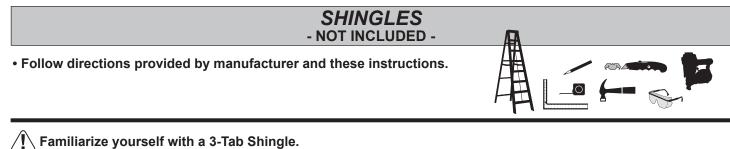
## PAINT & CAULK - NOT INCLUDED -

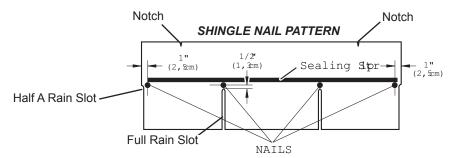
- Use acrylic latex caulk that is paintable. Caulk at all horizontal and vertical seams, between the trim and walls, and all around the door trim.
- Use a high quality exterior acrylic latex paint. When painting your building, there are a few key areas that can be easily overlooked that must be painted:
  - · Bottom edge of all siding and trim
  - Inside of doors and all 4 edges

#### Note:

Prime all un-primed exterior wood before painting. (Follow directions provided by manufacturer.)







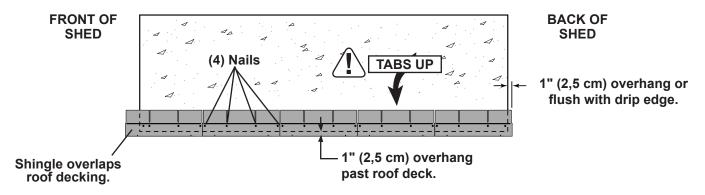
## NEVER DRIVE FASTENERS INTO OR ABOVE SEALING STRIPS.

## 1

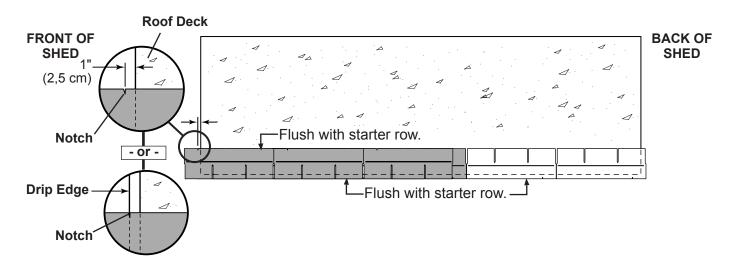
2

Install first starter row upside down and color up with a 1" overhang at back and bottom of roof panel. Use (4) nails per shingle. Starter row must be straight and level all the way across with lower edge of roof deck.

**NOTE:** If you have installed drip edge install shingles flush to drip edge.



Beginning at front of shed, install first row of shingles with notch at 1" past roof edge or flush with drip edge.



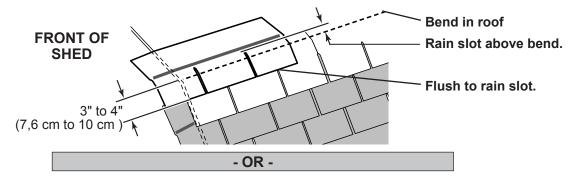
# **SHINGLES** continued... Install second row of shingles flush at top of first row's rain slots. Ensure 1" overhang or flush to drip edge at front, 3 stagger each row. FRONT OF **BACK OF** SHED SHED Bend in roof (2,5 cm) Notch Flush with rain slots. Flush with rain slots. (2.5 cm) Continue installing rows of shingles by staggering at front. FRONT OF SHED Notch

The shingle over the bend in the roof will be nailed down. You will need 3" to 4" of this shingle to extend downward over the bend for nailing.

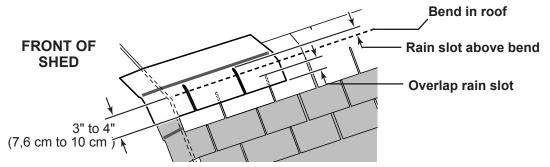
Look for either of the following:

5

• If the rain slot of the shingle installed over the bend is ABOVE the bend and 3" to 4" of it overhangs down over the bend, continue shingling up to the peak. You have enough to nail shingle down over the bend.



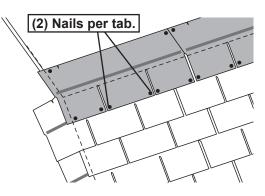
• If the rain slot of the shingle installed over the bend is BELOW the bend, install the shingle over the bend and overlap the rain slot to get the 3" to 4" overlap.



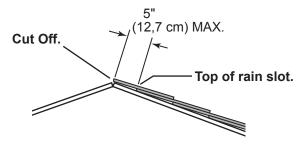
/ The shingle OVER the bend must be installed with a 3" to 4" overlap **AND** the rain slot above the bend.

## SHINGLES continued...

6 After shingles are installed over bend, nail down overlap using two roofing nails per tab.



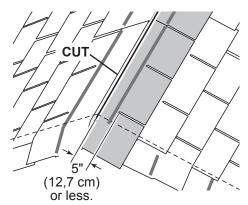
Continue installing rows of shingles to the peak. At the peak make sure there is a maximum of 5" or less to the rain slot, as shown below. If shingles overlap at ridge cut to peak with a utility knife.



7

9

10)

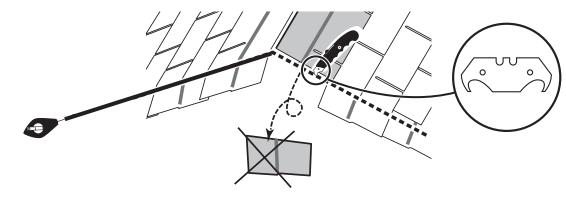


/  $\cdot$  If more than 5" to rain slot you must install another row of shingles.

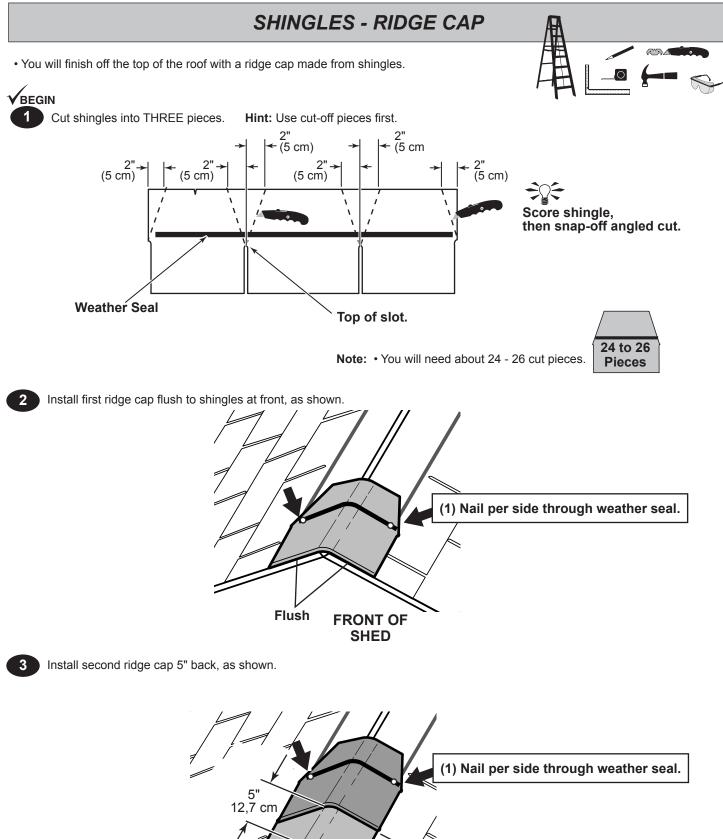
Repeat steps 1 - 7 to shingle the opposite side of your roof. Trim shingles at ridge.

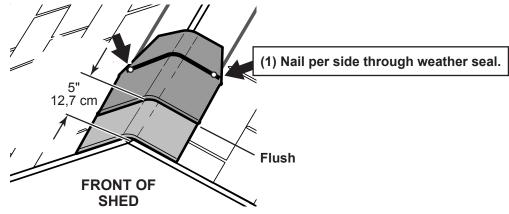
Once both sides are shingled you need to trim ends. Strike a chalk line 1" from edge.

Using your shingle hooked blade carefully cut shingles along chalk line.



# You have finished shingling your roof. Proceed to capping the ridge.





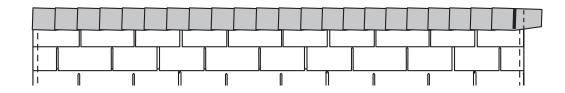
# SHINGLES - RIDGE CAP continued...

Continue installing ridge cap to back of roof.

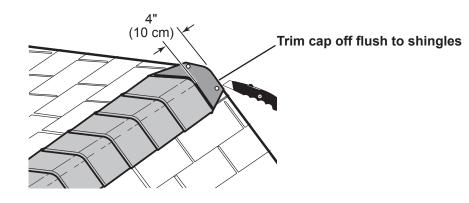
4

6

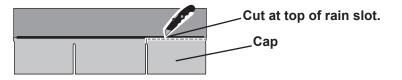
7

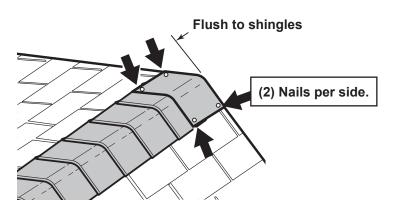


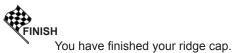
5 Make sure there is 4" between the shingle-color and edge of shingles.



When you have 4" minimum of shingle color cut one piece to cap your roof.







Install flush to shingles.

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### LIMITED CONDITIONAL WARRANTY\*

Backyard Storage Solutions, LLC warrants the following:

- 1. Every product is warranted from defects in workmanship and manufacturing for 1 year.
- 2. All accessories, hardware and metal components are warranted for 2 years.
- 3. All Oriented Strand Board (OSB) is warranted for 2 years
- 4. Siding and Trim is warranted for 10 years.
- 5. Solar Shed windows are warranted for 1 year.
- 6. Cedar lumber is warranted for 15 years.
- 7. Preserved Pine is warranted for 10 years.
- 8. Redwood is warranted for 10 years.

Backyard Storage Solutions, LLC will repair, replace or pay for the affected part. In no event shall Backyard Storage Solutions, LLC pay the cost of labor or installation or any other costs related thereto. All warranties are from date of purchase. If a cash refund is paid on an affected part, it will be prorated from the date of purchase.

#### CONDITIONS

The warranty is effective only when:

- 1. The unit has been erected in accordance with the assembly instructions.
- 2. The unit has been properly shingled and painted or stained and reasonably and regularly maintained thereafter.
- 3. The failure occurs when the unit is owned by the original purchaser.
- 4. Backyard Storage Solutions, LLC has received the warranty registration card within thirty (30) days of purchase and notification of the failure in writing within the warranty period specified above.
- 5. Backyard Storage Solutions, LLC has had reasonable opportunity during the sixty (60) days following receipt of notification to inspect and verify the failure prior to commencement of any repair work.

#### REQUIREMENTS

### Storage Buildings

To validate your warranty, it is necessary to properly maintain your Backyard Storage Solutions, LLC unit; shingle the roof and paint or solid-colored stain the siding using quality, 100% acrylic latex exterior product with a minimum of two (2) coats within thirty (30) days of assembly; caulk above all doors and all horizontal and vertical trim boards; paint and seal all exposed edges, sides and faces of siding/trim and OSB siding to include all exterior walls and all sides and all edges of doors.

#### Gazebos & Pergolas

To validate your warranty, it is necessary to properly maintain your Backyard Storage Solutions, LLC unit. This includes treating all of the exposed cedar and pine surfaces on your gazebo or pergola structure with an exterior grade wood preservative, an exterior oil-based semi-transparent stain, an acrylic latex exterior paint or an acrylic latex solid color exterior stain within 30 days of assembly and as needed thereafter to maintain your warranty.

Keep vegetation trimmed away from building and make sure siding panels and trim do not come in contact with masonry or cement. The minimum ground clearance for siding must be one half inch (½ inch) from concrete slab or two and one half inches (2 ½") from the ground when building is erected or constructed on a treated wood floor kit. Water from sprinklers must be kept off unit. In no event will Backyard Storage Solutions, LLC be responsible for any indirect, incidental, consequential or special damages nor for failure(s) that are caused by events, acts or omissions beyond our control including, but not limited to, misuse or improper assembly, improper maintenance (which eventually leads to rot or decay) and acts of God. Backyard Storage Solutions, LLC will not be held responsible for any labor costs incurred to construct your unit.

This warranty gives you certain specific rights that vary from state to state.

#### CLAIM PROCEDURE

To make a claim under this warranty, you can either call 1-888-827-9056 or email: customerservice@backyardproducts.com. Please have ready the information below when you call or include the information in your email:

- 1. The model and size of the product.
- 2. A list of the part(s) for which the claim is made.
- 3. Proof of purchase of the Backyard Storage Solutions, LLC item, as shown on the original invoice or receipt.
- 4. Run code: found on exterior product label or assembly instructions enclosed in the product package.

All other inquiries can be mailed to:

Backyard Storage Solutions, LLC Attn: Customer Service 1000 Ternes Monroe, MI 48162

> \*WARRANTY TERMS MAY VARY OUTSIDE THE U.S.A. IMPORTANT: This is your warranty certificate.