SAWMILL STRUCTURES™

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LOFT CUBE 100, CABIN DEPOT SIGNATURE SERIES MANUAL

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Welcome to your new structure! Assembly is relatively simple, take your time to review this manual and enjoy building your new log cabin structure which is certain to bring you a lifetime of cherished memories.

QUICK OVERVIEW

Your Sawmill Structure log cabin kit comes to you very neatly and uniformly packaged on a rectangular pallet. The entire kit is already precision milled to fit together perfectly with minimal fasteners. All of the main pieces are also individually ID numbered so it's easy for you to understand where everything goes when you assemble it.

We include everything essential for you to create your cabin structure. The contents of the kit include our industry leading premium InterStack log wall system, beautiful tongue and groove wood plank flooring, pre-assembled gable ends, sturdy roof beams, tongue and groove roof ceiling planks plus all the windows and doors and trim.
The majority task to assemble your structure is simply stacking up the log wall system.
After you have stacked up the walls you can install the wood plank flooring , add on the pre-assembled gable ends and roof beams, apply the roof ceiling planks and pop in the windows and doors and you are done!
The entire structure can be assembled in as little as one day. Our kit systems are designed so there is no interior wall finishing required, once assembled everything inside and out is finished in beautiful aromatic natural timber.
Your new structure is extremely well engineered and durable and with normal care it can last for generations.
All you need to supply for assembly is the people power plus provide your choice of roof covering material such as shingles, steel or may we suggest exploring Ondura roof panels.
(More information about Ondura contained in this manual)

- You will also need to provide a level foundation base to assemble your structure on top of.
- Finally add a coat of exterior weather protection such as www.cutekstain.com after assembly is complete

(More information provided on foundations and ONDURA roof panels as your read on)

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TOOLS YOU NEED FOR ASSEMBLY

- Hammer
- Rubber Mallet (To set the stacked logs on top of each other)
- Level
- Measuring Tape
- Cordless Screw Driver
- Nail gun (optional)
- Ladder
- Hand saw or circular saw for trim or needed cuts.

TOOLS YOU NEED FOR ASSEMBLY

FASTENERS:

Although we include the 3" and 2" screws for you to assemble your structure.

You should always be prepared especially in remote areas in case the fasteners are misplaced or lost during shipping.

STANDARD FASTENERS INCLUDED IN THE KIT (YOU MAY WANT TO HAVE EXTRA ON HAND JUST IN CASE)

- #8 - 3" deck screws (used in corners to secure logs together)
- # 8 - 2" or 2-1/2" Screws (For flooring and roof planks)

OTHER USEFUL FASTENERS AND TOOLS THAT CAN BE HELPFUL (NOT INCLUDED IN THE KIT)

- # 10 - 5" deck screws - (used in case a log isn't sitting down in the middle and needs some help)
  Made by Reliable Fasteners.
- Nail Gun (for trim around flooring inside and wind flap trim outside and also can be used to tongue nail the floors in)
- Ratchet straps and or bar clamps can help untwist a stubborn log should that situation arise for any reason.

EXTRA LUMBER INSIDE THE KIT

You will notice there are many extra pieces of lumber in your kit, We use extra wood to neatly stack the contents of the kit so don't worry, just assemble the parts you need.

INTERIOR AND EXTERIOR TRIM

We do not label any trim, you can use these "extra" long thin pieces of wood in the kit to create interior floor trim or any other area you wish to trim out.

(These pieces are also very useful to cut to size and use as the shim at the bottom of your windows and doors)

USING YOUR RUBBER MALLET

*Helpful Hint: When using your rubber mallet to tap down the main log walls, If you are seeing any damage to the tongue while tapping logs in to place, simply use a use a scrap piece of wood as a buffer.

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LOFT CUBE 100 - WOODEN FOUNDATION BASE - PART 1

EASY TO BUILD BASE PLAN

The following plan is intended to assist you in building a wooden foundation base frame for the model structure you have purchased above.

This wooden base plan is sized 122.25" wide x 122.25 deep to fit the footprint of your structure exactly.
We recommend using pressure treated lumber minimum 2" x 6" profile to build this wooden base foundation.

- If you wish to incorporate any outdoor deck space such as a front or side porch area to your foundation base you will still need to provide support footings to the structures footprint.
- It may be wise to add your extra porch space after you have finished your structure assembly.

Footings:

Ultimately It's up to you to decide on the optimal footing method you need to suit your particular building site conditions. The amount of footings you will need depends largely on the grade, soil and general site conditions. We provide a rough guide below to illustrate the quantity of footings commonly used for a foundation base of this size.
Explore all your options and choose the best type of footing and quantity to suit your own sites grade and soil conditions.

FOOTINGS REQUIRED BASED ON COMMON FOOTING SOLUTIONS AS FOLLOWS.

- **Pre cast cement deck block on grade:** Typically 6 - 8 footings required on top of a well packed layer of lime stone.
- **Titan deck foot anchor system:** (DIY SCREW PILE SYSTEM)Typically 4 - 6 footings required
- **Concrete filled Sono tubes:** Typically 6 footings required
- **Professional Installed Screw pile:** Typically 4 - 6 footings required

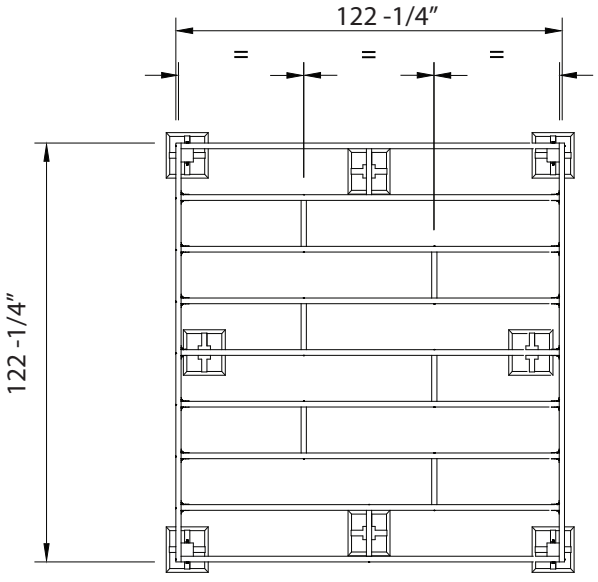
Resting your foundation base on your footings may require you to use either 4" x 4" or 6" x 6" pressure treated vertical posts to achieve level. Attaching the wooden foundation base to the posts can be done by notching each top post end so the base rests in the notch area to carry the foundation base load to the footing. You will then need to fasten the base to the post using lag bolts to secure it. Other methods do exist to join these two parts together decide what you feel is best to support the weight.

QUICK OVERVIEW

- WOOD BASE OUTSIDE MEASUREMENT: 122- 1/4" x 122 -1/4"
- STRUCTURE WEIGHT: 2800 lbs
- JOIST SPACING: APPROX 13 " ON CENTER
- JOIST DIRECTION: 122- 1/4" WAY

(SQUARE BASE SO YOU CAN CHOSE ANY DIRECTION)

- FOOTINGS: 4 TO 8 LOCATED AT PERIMETER (QTY DEPENDANT ON YOUR FOOTING CHOICE)
- MATERIAL: 2" x 6" or 2" x 8" PRESSURE TREATED LUMBER



FRONT DOOR WALL

LOFT CUBE 100 - WOODEN FOUNDATION BASE - PART 2

MATERIAL LIST

WOOD BASE OUTSIDE MEASUREMENT: 122-1/4" x 122-1/4"
Suggested lumber to build with is 2"x6" or 2"x8" pressure treated.

MATERIALS REQUIRED

- 2" x 8" pressure treated lumber cut to size
- 3" long #8 deck screws to fasten blockings.
- joist hangers for 2" x 8" lumber
- 1 .25" nails or screws to secure joist hangers.

OPTION:

In place of joist hangers you can use the following to secure joists to frame and corners 4" GRK Brand R.S.S Screws (rugged structural screws) two or three screws for each joist side available at most hardware stores

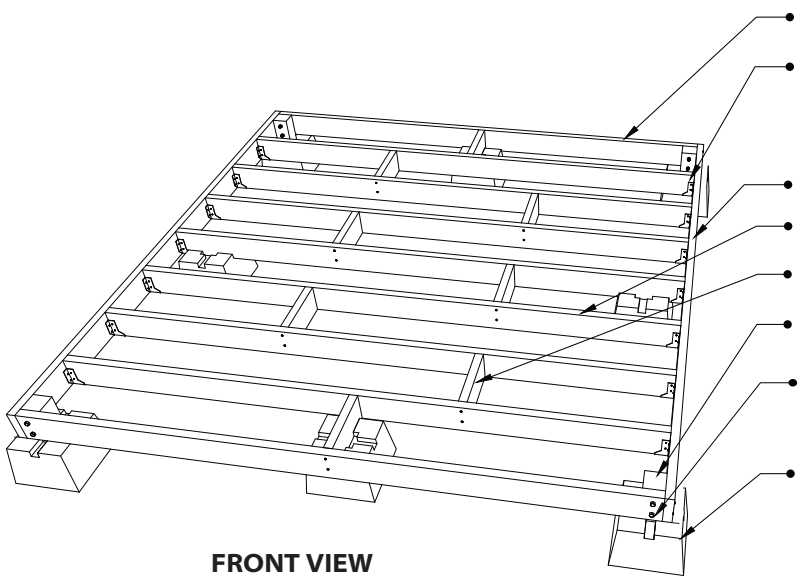
FOOTINGS:

Approx footings required based on common footing solutions as follows.

- Pre cast deck block on grade: usually 6 - 8 footings on top of well packed lime stone.
- Titan deck foot anchor system: (DIY SCREW PILE SYSTEM) usually 4 - 6 footings **www.fastfooting.com**
- Concrete filled Sono tubes: usually 4 - 6 footings
- Professional Installed Screw pile: usually 4 - 6 footings

JOIST:

- Joist Spacing: 12.7" on center
- Joist Direction: Parallel to front door or side wall (Square Base so either is fine)



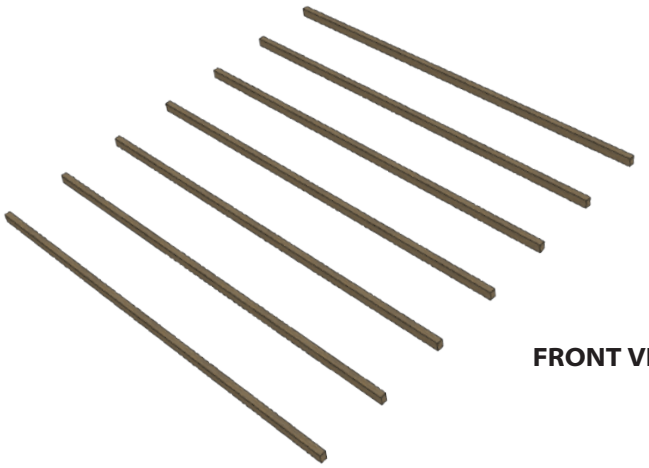
FRONT VIEW

NOTE: Be advised you will need to determine the type of footing you will require for your particular site and soil conditions.
The deck block on grade footings shown in this plan are only to illustrate the suggested general footing locations you may need. You may add footing locations as desired to suit your building site and consult a professional for advisement on what type of foundation you may require for your site. If you are choosing a concrete pad please use the perimeter dimensions on this plan as your pad footprint to support the building.
Please be aware this is a suggested foundation base plan if you require permits and compliance to local regulations please b sure to investigate those requirements before building.

LOFT CUBE 100 ASSEMBLY INSTRUCTION

Now that you have completed your foundation base, its time to assemble your structure.
The following pages offer a step by step guide to assembly. Also included in the second half of this manual are elevation drawings and a complete parts list for your reference.

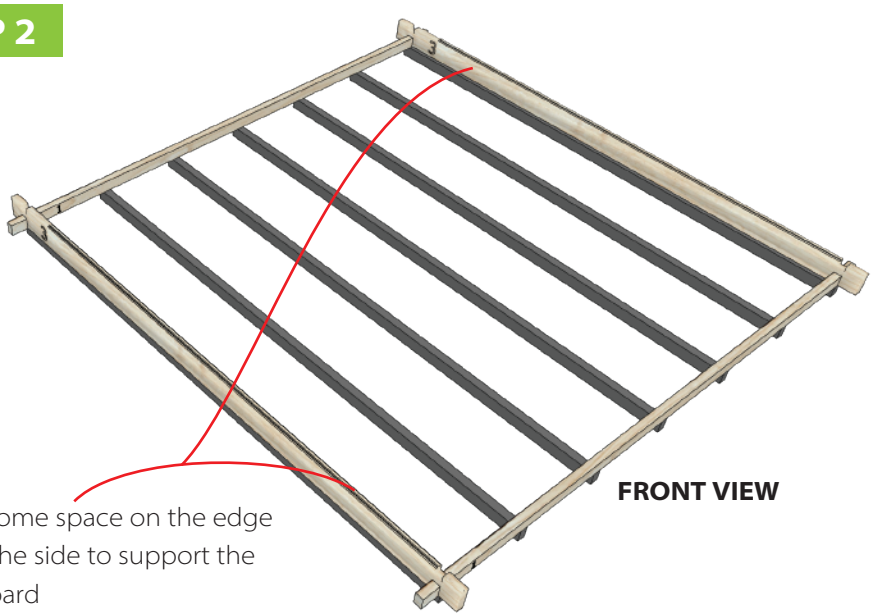
STEP 1



FRONT VIEW

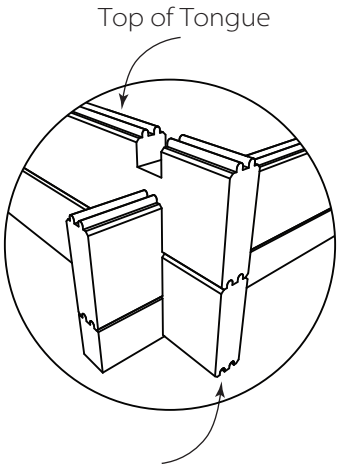
1) Start by laying down the first layer support strips (part #12) on top of your chosen foundation base.
These support strips should run in the OPPOSITE DIRECTION to your foundation base joists and then be secured to the joists with 3" long screws.
Note: This manual illustrates the direction of the part #12 support strips running parallel to the front door wall, Your flooring boards will eventually be screwed directly to these part #12 in the opposite direction to which you have installed them.

STEP 2



Leave some space on the edge facing the side to support the floor board

FRONT VIEW



TONGUE AND GROOVE JOINTS

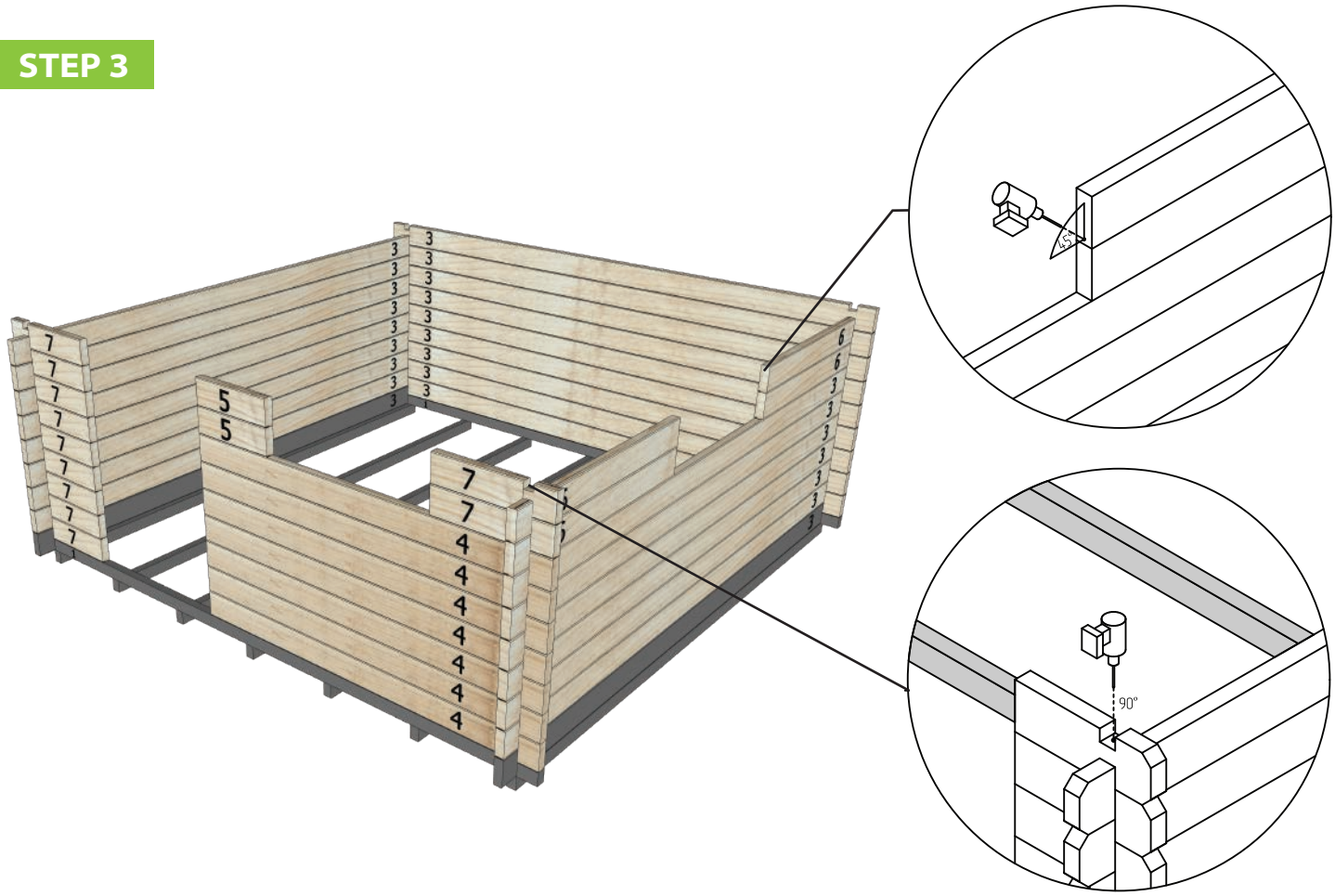
1) Arrange your starter wall logs (part #1, #3) on the top of the part #12 support strips as shown in Step 1.

2) Make sure to orientate the part #1 logs on the wall side you would like your front door and back wall to face.

3) Using 3" long screws to fasten parts #12 support strips to the foundation base joists and also use 3" screws to fasten the corner of parts #1 #3, #5 to part #12 (see Step 3 drawing for a corner screw application visual)

LOFT CUBE 100 ASSEMBLY INSTRUCTION

STEP 3



1) Begin to build all walls using parts #3, #6, #7 as shown.

2) Fasten each corner down by screwing a 3" long number 8 screw on a 90 degree angle at every corner log notch to secure both pieces together. (be sure to offset the screw position on each level) so you do not hit the screw underneath of the previous log)

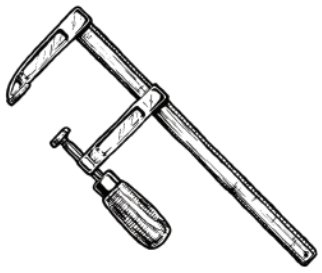
3) Secure the front wall parts #4, #7 and at every log by screwing a 3" long number 8 screw on a 45 degree angle on the side of each piece.

QUICK TIP

If you experience a log that will not sit down evenly across its entire span you may use a 5" long number 10 screw drilled down on the top of the log in the troubled spot to help seat it down firmly into the previous log under it.

QUICK TIP

If you experience a log that has a bit of a twist, the use of a bar clamp to help grip and guide the log into place can be helpful. A ratchet strap can also be helpful



Bar Clamp

LOFT CUBE 100 ASSEMBLY INSTRUCTION

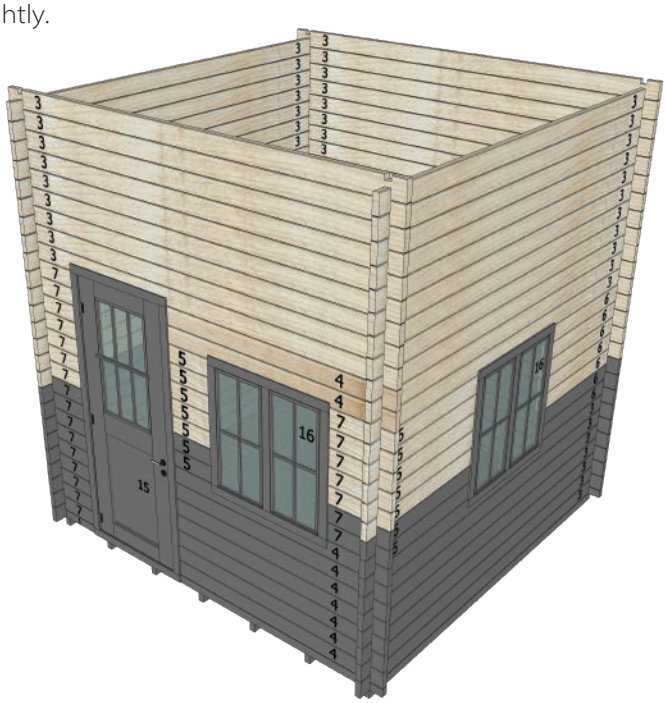
STEP 4

WINDOW INSTALL NOTE:
You may choose to stack up the logs higher than shown here before sliding the door into place from above.
This will allow you to fasten more logs together at a 45 degree angle before the door goes in.
* The door is heavy so wise to install now and be sure it goes in before the gable end is installed.

1) Interior floor boards: Screw the main floor boards into the starting strips part#12 using 2" or 2.5" long screws or appropriate nail gun fasteners.
Note: Floor board parts are not ID numbered however should be easily identifiable by size.
Note: You may need to rip down the last board. Screw into the face of the boards not the tongue. You may use a nail gun if you choose to tongue nail the floor boards down.

2) All windows and front door will insert into the allocated openings at this stage, you may add a wood shim under the windows and door to achieve level if needed, Typically its not required, however its an option should the door need to be leveled slightly.

STEP 5



1) Continue stacking and fastening the wall log parts as pictured.

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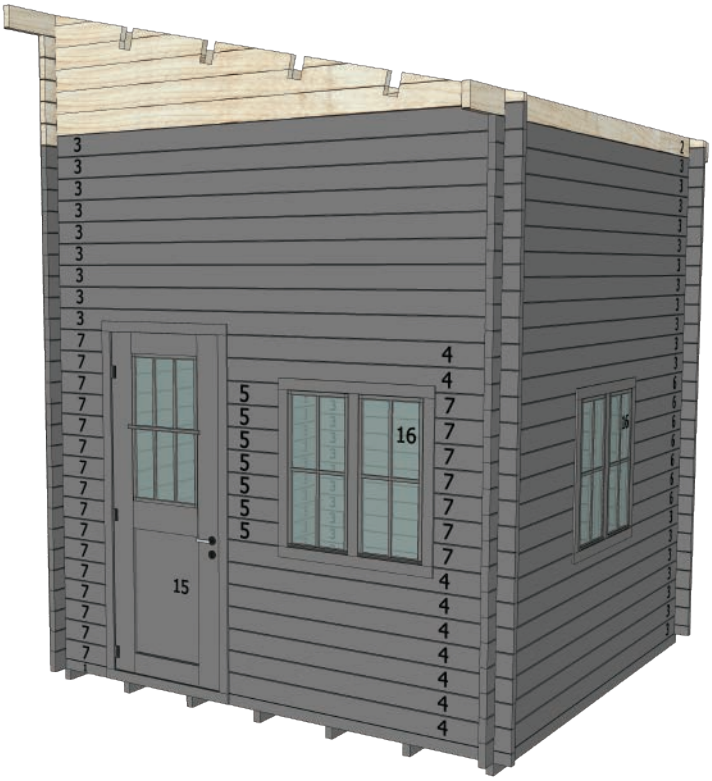
LOFT CUBE 100 ASSEMBLY INSTRUCTION

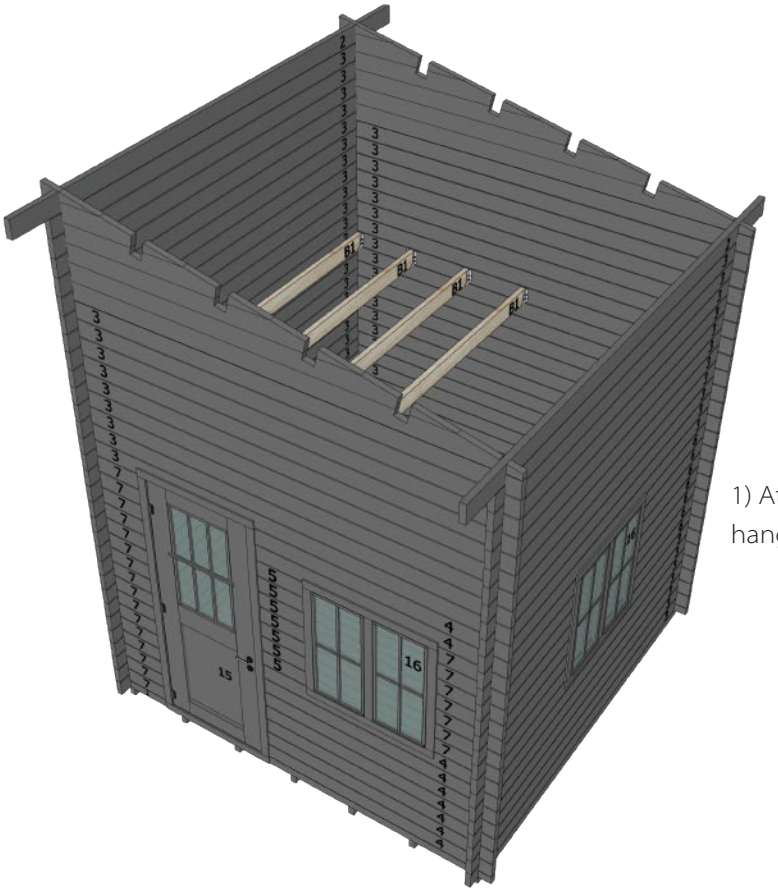
STEP 6



1. The triangular side pediment is delivered as a single piece for ease of transport and must be reassembled during the process of installing the beams.

2. The cabin can be built with the roof sloping in any direction you prefer.

STEP 7



1) Attach the loft support logs #B1 using joist hangers.

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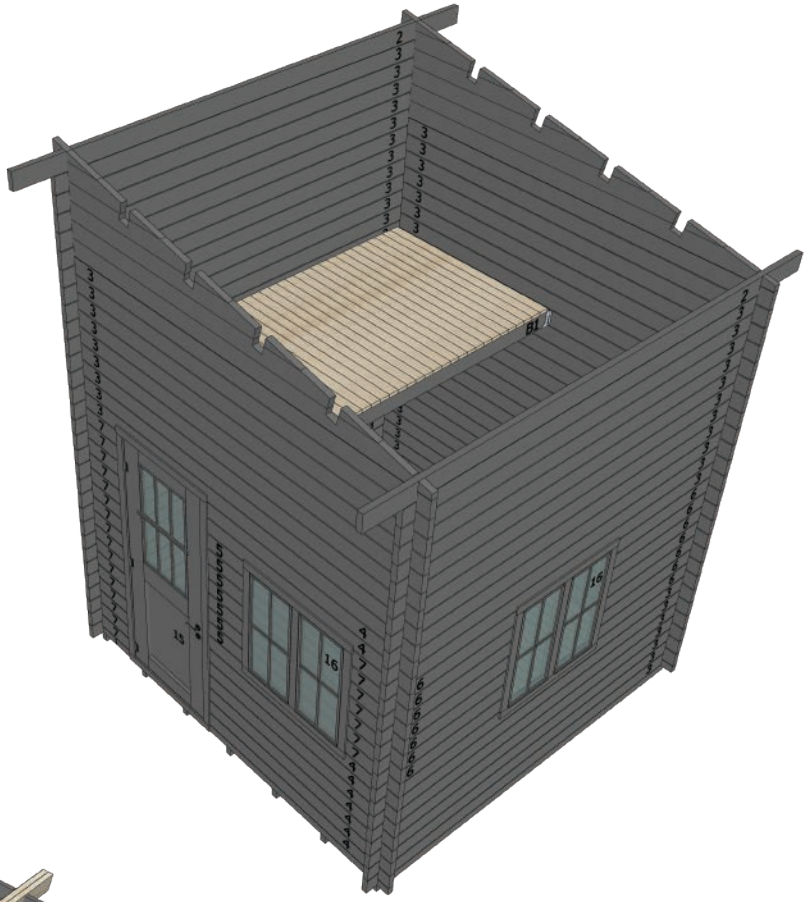
LOFT CUBE 100 ASSEMBLY INSTRUCTION

STEP 8



1) Install the storage loft floor boards by screwing them into the loft support logs Parts #B1.

Note: Floor board parts are not ID numbered however should be easily identifiable by size.

STEP 9

1) Insert the roof rafters part #S1 as sown

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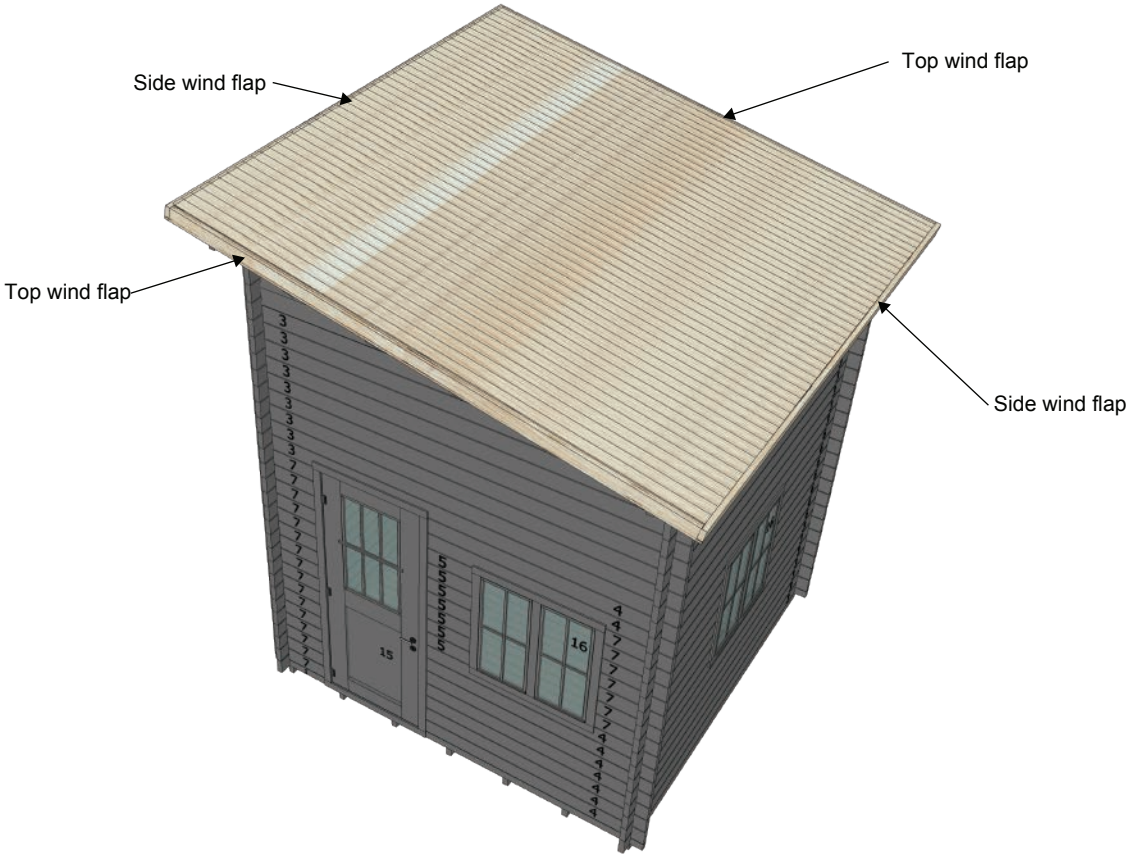
LOFT CUBE 100 ROOFING

STEP 10



1) Apply the roof planks smooth side down, This will be the side you see inside the structure. The grooved side is meant to face outward towards the sky.

Important Note: Make sure the roof boards are uniformly level and square all the way across the ridge beam. Any misalignment will be magnified as you move down each board, So make sure to start as level and square as possible with your first roof board.

The roof boards are not typically ID labeled. however they are easily identified and listed in the parts list at the end of this manual.

2) Fasten the roof planks to roof beams (rafters) using a nail gun or screws so no fasteners are visible from the inside.

3) Attach the wind flap trim pieces (not ID numbered) at this stage if desired or you can also wait until after your roof finishing material is installed to do this step. These wind flap trim pieces strictly serve an aesthetic purpose and you may elect to trim out your structure any way you choose.

SPECIAL NOTE: AS YOU INSTALL THE ROOF PLANKS YOU MAY ALSO ELECT TO INSTALL YOUR ROOF FINISHING MATERIAL AS YOU MOVE ALONG THIS PROCESS. SOME CLIENTS FIND IT EASIER TO INSTALL 5 or 6 ROOF BOARDS AND THEN APPLY A LAYER OF ROOF FINISHING MATERIAL OVER THAT AREA AT THE SAME TIME AND KEEP MOVING ON AS FAR AS YOU CAN GO. (see Ondura roof finihsing material for more details on this method)

LOFT CUBE 100 ROOFING

We do not include roof finishing panels for our DIY kits

We recommend a panel system such as Sheet Steel, Standing seam steel or Ondura roof panels. All are available at most local hardware stores. Roof panel systems can easily be fastened into the roof beams. You can add an ice and water shield first if desired although its not required

The area of roof to cover on each sloped side of a Loft Cube 100 model is 153.5 ”L x 153.5 ”H .

Shingles require an extra layer of plywood to avoid nail penetration through the roof boards supplied. Be sure to use a plywood thickness that will avoid any nail penetration.

ONDURA

ONDURA is an asphalt organic product which comes in sheet sizes of 36 ” x 79" and is available at most local Hardware store locations such as Home Depot.

The area of roof to cover on each sloped side of a Loft Cube 100 is 153.55 ”L x 153.55 ”H
You would need apporx 10 sheets of Ondura to cover the roof area plus 2 ridge caps

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LOFT CUBE 100

GABLE

#f6 (2)1¾"x5⅛"x1'5¹¹⁄₁₆"

#f5 (2)1¾"x5⅛"x3'–5¾"

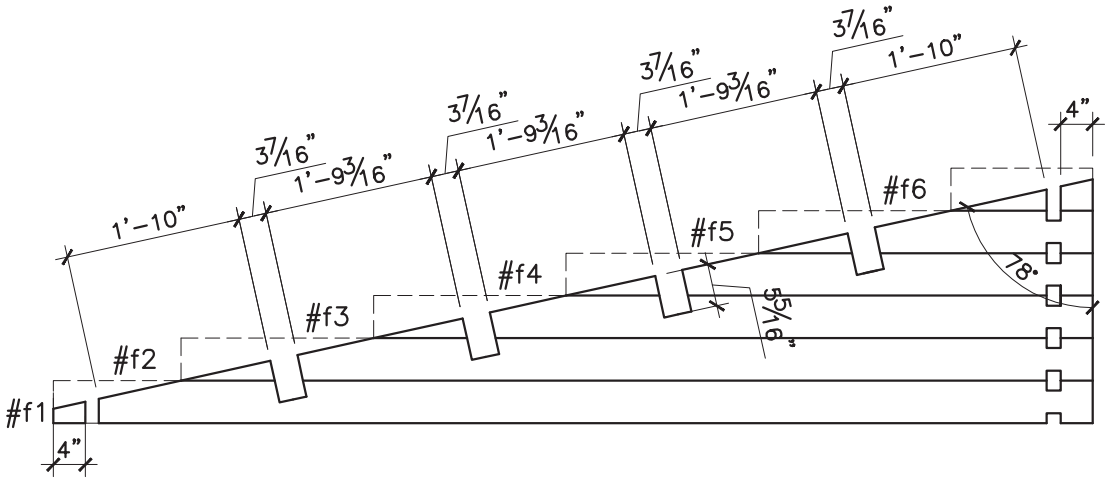
#f4 (2)1¾"x5⅛"x5'–5¹³⁄₁₆"

#f3 (2)1¾"x5⅛"x7'–6"

#f2 (2)1¾"x5⅛"x9'–6"

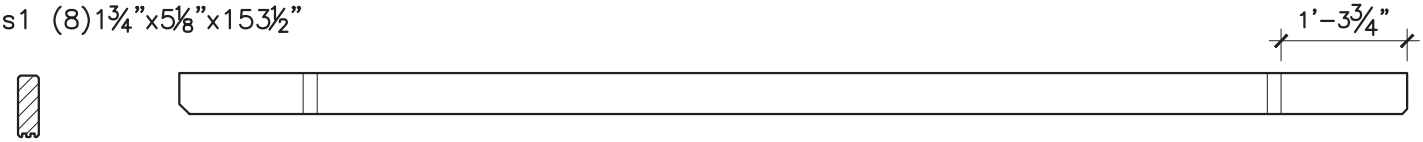
#f1 (2)1¾"x5⅛"x10'–10"

(2) GABLE



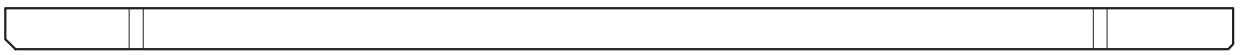
BEAM (RAFTERS)

#s1 (8)1¾"x5⅛"x153½"



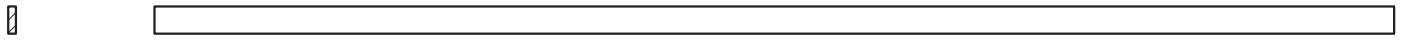
SECTION

#2 (2)1½"x5⅛"x153½"



SIDE ROOF STRIP

(2)0⅝"x3⅜"x155"



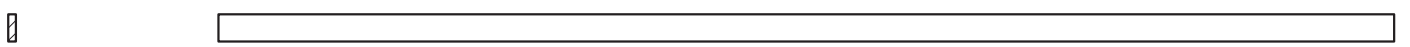
SECTION

(2)1½"x2"x153½"

SECTION

SIDE ROOF STRIP

(2)0⅝"x3⅜"x147³⁄₁₆"



SECTION

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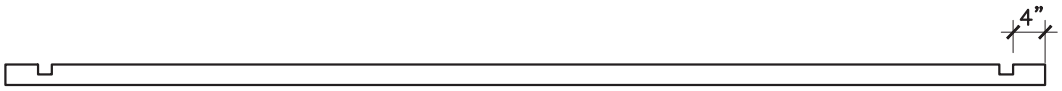
LOFT CUBE 100

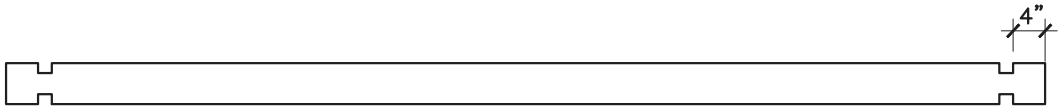
STARTING LOG

#1 (2)1½"x2⁹⁄₁₆"x130"

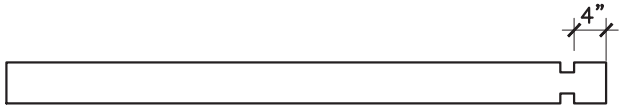


WALLS

#3 (82)1½"x5⅛"x130"

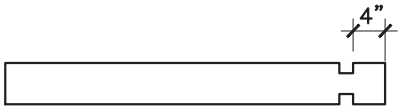


#4 (9)1½"x5⅛"x75"

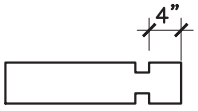


#5 (7)1½"x5⅛"x17"

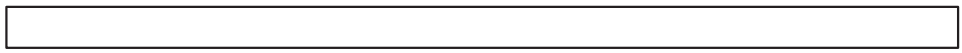
#6 (14)1½"x5⅛"x47½"



#7 (23)1½"x5⅛"x22"



#B1 (4)1½"x5⅛"x119"

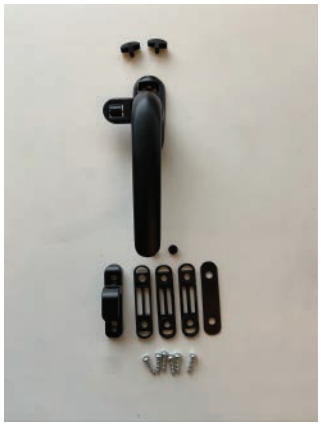


NO.	NAME OF PART	LENGTH	AMOUNT
	HARDWARE BOX	PC	1
#12	FLOOR SUPPORT BOARDS 2x2½"	122"	7
	MAIN FLOOR BOARDS ¾"	119"	24+1
	LOFT FLOOR BOARDS ¾"	60"	35+1
	ROOF PLANKS BOARDS ¾"	154¾"	45+2
	DOOR 33x76¾"	PC.	1
	WINDOWS	PCS.	2

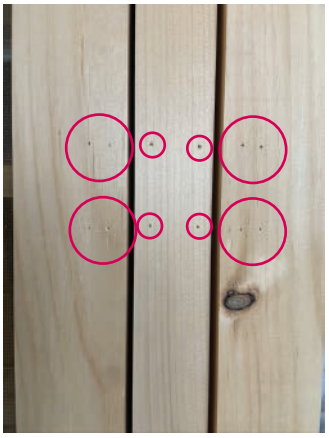
ATTACHING WINDOW HANDLES

Left side handle and hardware

Right side handle and hardware

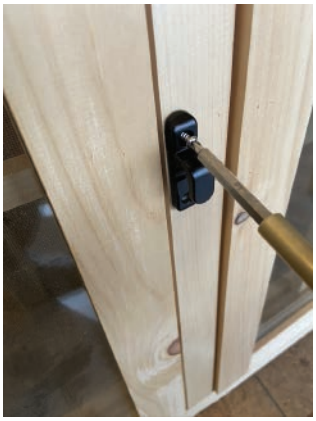


Locate the pre drilled holes on the inside of frame

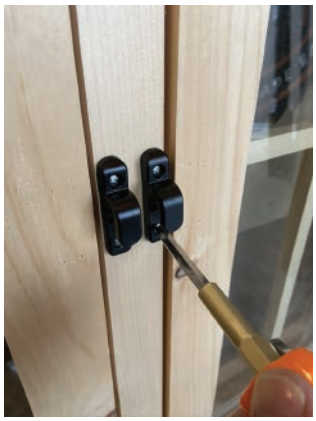


Insert a height washer under both handle clasps

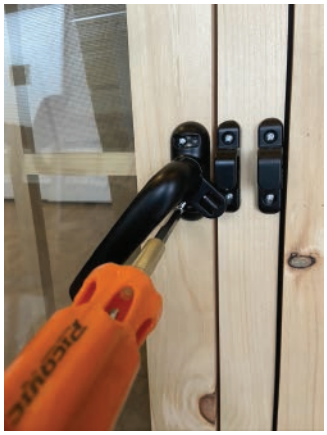
Fasten a handle clasp to the left side window frame using 2 screws in the pre drilled locations.
(hook faces down)



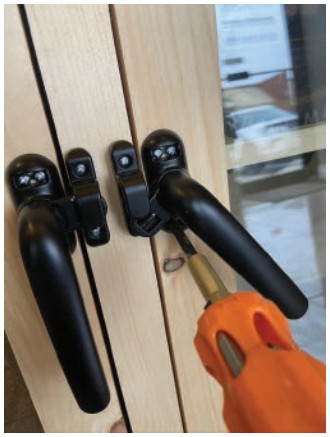
Fasten a handle clasp to the right side window frame using 2 screws in the pre drilled locations.
(hook faces down)



Fasten the left side window handle using 4 screws in the predrilled locations



Fasten the right side window handle using 4 screws in the pre drilled locations



Test window closure and adjust washer height if you need a tighter or looser seal

- Handles pointing down window is secured
- Turn handles horizontal to open