Thank you for choosing a Mighty Shed from Pan Tek. We believe that you have chosen the highest quality exterior building product on the market. With proper site planning, installation precautions, use and maintenance, your new Mighty Shed will provide you many years of exceptional appeal and performance.

This building package is comprised of 4 basic building assemblies to make up a completed structure. Pan Tek assumes a certain level of mechanical understanding and carpentry skill for those attempting to assemble the Mighty Shed. While this product can be assembled by one competent individual, we recommend at least two people for proper assembly.

For assembly questions or Customer Service, please call (425) 255-8260 8am to 5pm PST. Mon. thru Fri. All materials should be inventoried per supplied Material List and inspected upon delivery. Shortages and damage are required to be reported within 24 hours of delivery.

If a shipping company is used, contact the shipping company Claims Dept. not Pan Tek. Inspection of the damaged goods will most certainly be required. All claims for freight damage must be made within 15 days of receipt of goods in accordance with ICC regulations.
Tools required/suggested are...
- 8’ & 10’ step Ladder, scaffolding optional...
- Drill with screw bit holder, bit supplied...
- Level...
- Square...
- Sliding T-bevel
- Tape measure...
- Chalk line
- Hammer...
- Circular saw...
- Reciprocating saw or hand saw...
- Belt Sander
- Caulking gun...
- Gloves and protective eye wear...

Assembly Procedure Overview...
It is suggested that you read the Construction Guide completely before you begin. A total understanding of the complete sequence for erection will facilitate better completion results. The proper sequence and steps to install this unit will produce a quality completed structure. Failure to read and follow these guidelines may result in an improper assembly installation and void material warranties.

The outline of the proper steps are as follows:
1. Perform inventory check before beginning erection. Check all quantities and materials against supplied material list.
2. Prepare location/site by clearing brush and debris. Level site or building pad and place materials near by.
3. Assemble floor system on owner supplied foundation system.
4. Assemble solid wall system.
5. Install and assemble roof system, trim and covering (roofing).
6. Install Doors and Windows. Trim exterior.
8. Caulk & Seal exterior for weather tightness.
9. Dispose of scrap material in a responsible manner.

1. Inventory Materials & Shipping Packet:
   Shipping Packet... Included with your new Cabana Kit of Materials is a document package referred to as the “Shipping Packet”. Contained within is...
   - Copy of the building plan
   - Construction Guide with Material List attached to back
   - Manufacturing details
   - Manufacturer installation manuals
   The installation manuals and construction guides are also available on our web site www.mighty-shed.com

Upon delivery of your Mighty Shed material package, you must first inventory materials against the material list supplied with your shipping packet. Ensure all materials are present and are of the size and length noted on the material list. Also check quantities. If shortages are present contact Customer Service right away as there is a deadline for claims. The “Material List” usage sheets will be attached to the back of the supplied construction guide in your shipping packet. Use these sheets for direction of materials assumed for the various assemblies of your Mighty Cabana and inventory of your materials.

Wall and roof decking “timbers” will either have an “R” for roof board, or the wall “E or G” designation marked on the end of the members.

For all questions and reports of shortages please call Customer Service at (425) 255-8260.
2. Prepare shed site:

Select as level as possible site for erection of your Mighty Shed. We recommend the existing site have no more than 8” site elevation change from one corner to the furthest opposite corner. Location should be free of debris and should be able to support structure and contents.

Pay attention to setback requirements to utilities and areas of dangerous location. Take notice of drainage around intended location. While water can flow under structure, erosion should be of concern as foundation could be compromised.

Layout and organize materials for Mighty Shed in a location near by. Have materials organized to minimize misuse of materials supplied.

Place and level foundation support to prepare for floor installation. It may be necessary to level foundation as floor system is constructed. Utilize supplied 4x girder members to level foundation system. We recommend concrete pier blocks with a saddle connector. You can shim the 4x girder at the saddles but make sure full nailing of saddle to 4x girder can occur.

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**Mighty Cabana Config.**

**Figure 1**

Style may vary
3. Assemble Floor System: (Refer to Figure 2)
Place 4x4 girders on foundation system per plan and verify they are level with one another. The exterior dimensions taken on the outside of girders should be the size of your Mighty Shed (ex: 8’x10’ etc.)

Refer to material sheets and compare 2x treated framing members to floor framing layout on plan sheet. (Dimensions are given on plan for the individual members) Construct floor from inside out. Joists are laid out at 16” o.c. from exterior edge. The inner frame consists of 2x4 members with joists and rim. Use 2-3” screws each connection. Exterior dimensions should be 3” less in each dimension. (ex: 8’x10’ = 7’-9”x 9’-9” outside dimensions).

Each joist is attached to the girders by a metal connector. Refer to plan detail and Figure 2 for placement. Fill every hole with thick galvanized nails supplied.

Locate 5/8” plywood to be used for floor surface. Make sure plywood grade stamp faces down. Plywood should be sealed with good exterior sealer or paint! Start layout from same edge you started the 16” o.c. joist layout from. Lay in full sheet with length perpendicular to joists & make sure edge to join with next sheet falls on half of 2x joist. Screw plywood to joists per plan. Trim plywood with Circular saw to match edge of joists.

After inner frame & plywood application is completed apply outer rim members to frame. These pieces are 5/8” taller than the framing members and ripped edge should be applied facing down. Make sure bottom edge of outer rim is flush with bottom edge of inner frame ~ outer rim will stick up 5/8” higher. Screw per plan.
4. Timber Wall assembly:
To begin assembly of exterior wall system it is imperative that you locate the pattern (starter) timbers for each wall segment. These are wall timbers that are ripped in half. Also locate the vertical timber connectors, marked by the evident channels cut into the length.

Refer to supplied plan sheets. On the plans is the actual drawing of each wall segment shown as it should be constructed. The wall segments are drawn as you would view the walls from the exterior with the “V-groove” facing to the exterior. The corresponding vertical column number is noted at the top of the wall segments on either end. The individual wall segments are labelled at bottom as they appear on the floor plan. "G" walls are gable walls. "E" walls are eave walls. (gable = wall face with a triangular shape, other walls with a rectangular shape are “eave” walls) *(Roof decking and wall timbers are the same material, make sure you do not use roof decking for wall timbers. Roof decking pieces are labelled “R”)*

The vertical columns are oriented standing up, with the smaller face facing the gable end of the building, and channels facing inward on the plan. The columns are marked by designation and “Column #” on the bottom. This end has been factory cut and is intended to be glued to the floor system. *(Orient per Fig. 3A)*. Locate and utilize bracing material supplied to stabilize vertical columns during erection. When affixing bracing to columns, be careful that column will not interfere with the timbers when they are slid in the grooves.

Refer to Figure 3 for actual bracing system placement. Use 1-3” screw ea. end of brace to column and floor system. Start layout at front (door) gable face of shed and work to rear.

Glue note: All glue “Sikaflex” beads in assembly of shed are assumed to be 3/16”. Bigger beads will waste glue supplied. If glue oozes from timber, do not wipe off but allow glue to set up and cut off with knife later.
Set corner columns on floor with exterior edges hanging off floor 3/4” (you will notice edge of channels will align with floor edge Fig. 3A), and set starter course timbers in between. (The starter course is the half timbers) (Starter course at door opening is continuous through opening and will need to be cut away later after walls are set, do not screw or glue where door is) Use the half timber starter course as a pattern to locate the vertical columns. Attach bottom of column to floor with glue bead to floor and 1-3” toe screw. (Fig. 4) Work your way around the floor to the back. It is more important to have the starter timber exterior face flush with the floor system than having the wall timbers tight to the column in the grooves. Variations due to wood swelling and construction way make the timbers seem short. If this occurs, split the difference between the columns. Once you have all columns in place glue and screw the starter course down to the floor. Use a generous bead of supplied “Sikaflex” glue/caulk on the exterior side of the rim joist at the edge of the floor. If glue oozes out resist the urge to wipe it off as it will stain the wood. Wait for glue to set and later cut it off with a knife.

Attach timber to floor system with 5” screws per plan & glue. Screw is placed at center of tongue. Allow screw head to seat through tongue 1/2”. Glue and screw each successive timber course fully with “Sikaflex” at tongue/groove. (Its easier to apply glue in the groove of the next timber than trying to keep glue on the tongue of the lower)
Each timber course receives an angled 3” screw at each end to columns, and if the timber is longer than 24”, a 7” screw in the center at midpoint into the timber below. This ensures proper seating of timber and glue adhesion. The end screws are angled at 30 degrees to top of timber. A pounding block supplied may be required to seat timbers. Do not pound on tongues. (Bevelled timber face “v-groove” meant to face toward exterior) (Figure 4). Start the angle screw back about an 1 1/2” from the end of the timber and on the inside side of the tongue angling to the outside. When you seat the screw in this fashion the screw will pull the timber tight to the outside face of the column groove. Refer to the cutting elevations on your plans for locations of the 7” Timber to Timber screws. Use the supplied bit to predrill a pilot hole in the center of the timber at the tongue and drill straight down. This will start the long screw plumb with the wall so it will resist coming out at the wall faces. Be mindful that if you pick a spot for this screw and a knot is in the access of this screw, the knot may force the screw to bend and come out of the timber. Move the screw as to miss the knot. Stagger the screws as the detail shows in the plans. (Figure 5) Work all wall segments 3-5 courses at a time to control stack-up variation. Stack-up of eave walls is generally 18 1/2 timbers on the lowest eave walls. Refer to building section on the plans.

Pay attention to make sure each course seats fully with timber below. Once all timbers are stacked to the height established by the eave walls, stacking at the gable end timbers can begin. Diagonal braces should be left in place until roof deck is installed to ensure proper alignment of walls to roof. Glue each gable timber as before and screw angle cut end to one below. (Figure 4) Install 7” Timber to Timber screw as cutting plan shows.

Once stack up is complete, observe the relation of the gable timbers to eave timbers. If difference in height occurs, trimming of gable timbers may need to happen. Use the pre-determined roof angle to now trim the top of the vertical columns at that same angle of the roof. A reciprocating saw works best here but a hand saw will also work with better precision.
5. Roof installation:
In preparation for installation of roof system, you must first install the Corbels supplied, the roof beam and the compression seal. The foam compression seal is self adhesive and is placed at the top of the perimeter wall timbers. Pull off wax backing and apply to top of wall all the way around. If compression seal is not sticking, it may be necessary to staple.

Install the corbel system to the corner columns by flushing them up to the outside face of the column (Figure 1). Make sure top of corbel is not higher than top plane of walls. Secure with 2-5” screws. Plug, putty, or leave screw heads exposed. (Use screws from inside for concealed look if desired)

Cut beam pocket at peak of gable walls to accommodate ridge beam supplied. Pocket should be same size as beam. Cut ridge beam on site to allow for building length + front over hang established by corbels. Orient factory cut towards front, and trimmed end toward back. Secure with 3” toe screw at timber wall to beam each side.

Locate roof boards and start application at front of building with groove facing out and bevelled face facing down. Use 1-3” screw at wall and at ridge. Hold end back from ridge of roof to not conflict with application of roof boards on other side of roof. Place roof boards tight to one another. Use pounding block and pry bar to pull boards together if necessary. Screw roof board that occurs over gable wall with screws at 12” o.c. Field rip last board to correspond with rear end wall, columns, and end of beam. Allow enough over hang to attach gable trim. Cut eave end of boards with circular saw as required to be parallel with ridge if perpendicular eave is desired for application of gutter. Use straight edge or string line for nice straight cut.

Trim roof edge with 1x4 cedar trim. Attach Gable end trim first, eave trim last. When trimming gable trim you may want it to run past eave edge a couple inches. Use 3” screws.
6. Door & Window installation: (Refer to Figure 1)
Verify the sizes of the door and window sent. Each door and window is meant to be installed to a buck system. The buck system is a 2x member that lines the rough opening. This buck material is supplied with your package.

Window: You are required to field cut window vertical rough opening in the field. To finish the window r.o., refer to rough opening dimensions noted on floor plan. Window r.o. cannot cut into header timber above precut opening on eave wall locations. You must cut additional vertical r.o. out of bottom timber. Measure down from bottom of header timber the vertical length and scribe on uncut bottom timber. Cut timber by plunge cutting horz. cut with your circular saw. Finish side vertical cutes with hand saw. Line opening with 2x2 buck material supplied. Install vertical legs in first. Cut legs 1/2” shorter than r.o. Use 1-3” screw ea. course. Use buck to straighten timber if needed. Install lower bucks between side bucks.

Install window unit with 1/8” shims at bottom, center in opening horizontally. Nail works for 1/8” shim. Do not nail head of window. Fill all nail fin holes on both vertical sides and bottom. Window is ready for exterior trim.
Door: Same as window, but measure vertical dimension of door and add 2”. Combined that dimension with the horz. rough opening on the floor plan, this is your door rough opening. Verify horizontal dimension (supplied door width + 3 1/2” = R.O.) Scribe and cut vertical height. Install only the two 2x4 vertical buck legs for a door. No head buck. Screw every other course and straighten timbers as needed. Place door in opening so that hinges face outward. Shim and center horizontally in opening. Secure with 3-3” screws each vertical door jamb leg to buck. Install shims at point of screw. 1-top, 1-center, 1-bottom. Verify door opens without binding. Re-shim if necessary to correct. Install supplied latching system (knob). Door is ready for exterior trim.

Trim window and door with 1x4 cedar trim supplied. Install top trim first, then vertical legs, then bottom trim. Nail trim at window to buck. Nail trim at door to door jamb. (Figure 5)

7. Optional Front Deck System:
The deck frame system is intended to be constructed on a level surface and then attached to the Mighty Shed floor system.
Assemble deck frame per floor plan. Construct deck system similar to inner floor frame of Mighty Shed. When attaching deck to Mighty Shed rim joist, hold top of deck frame down 1 1/8” lower to account for decking thickness. Attach per plan with 3” screws. Use frame to set top of supports under outermost rim joist as shown on plan. The deck is not usually supported by a girder. If girder is supplied, adjust accordingly.

Attach deck covering to deck joist system with 2” screws. Start at front of deck and work towards door. Allow first board to hang off front 1/2”. Space deck boards with 1/8” spacing. Use framing nail for spacer. 2” screw to joists with 2 @ ends, and 1 @ each interior joists in a stagger fashion alternating from side to side from joist to adjacent joist. Rip last deck board to fill remaining gap at wall.

8. Caulking, Trim and seal:
Mighty shed must be painted with an approved exterior sealer to maintain the performance & appeal. Whether you paint or enhance the natural wood, a good exterior coating will make your Mighty Shed last a long time.

Optional cedar deck should be stained on all 6 sides for best performance. Staining prior to installation should be considered.

Caulking should be done before sealing. Caulk at windows and doors. Caulk at vertical columns. Caulk around beam penetration. A bad caulking job can detract from a well executed installation. Practice first if you are not confident of your skill to apply caulk.

Small trim has been supplied for the exterior wall to gable roof transition. This is optional and should be applied after caulking and before sealing.

9. Waste material:
Dispose of waste material in a responsible manner. Recycle where applicable.