# **COLORADO YURT COMPANY**



# YURT PITCHING GUIDE



## **Contact Information:**

Colorado Yurt Company 28 W South 4th St Montrose, CO 81401 (970)240-2111 www.coloradoyurt.com

Hours: 8-5 Monday thru Friday Mountain Time info@coloradoyurt.com





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Have your deck ready and your bender board in place.

## Warning:

Do not attempt to pitch your yurt on a windy day! Even moderate winds can be dangerous until your yurt is completely pitched and secured.

**Have your deck ready, and your bender board in place.** Please refer to the Yurt Deck Plans at the back of this booklet for drawings of simple yurt decks. Extended yurt deck plans can also been seen on our website www.coloradoyurt.com.

**If you receive your yurt by freight truck:** a Phillips head screwdriver or star drive T25 is required to open the big crate. A cordless drill with a Phillips head or star drive T25 bit is suggested.

**Read your packing list.** The packing list describes each item, each quantity, and what it's used for. Make sure you have everything!

Report any missing items or shipping damage immediately by calling (970)240-2111





# **Tools & Supplies**

## You should have the following tools on hand:

- Stepladders: 6' and 8' stepladders; larger-10' and 12' are helpful for big yurts, especially if you don't intend to build a scaffold.
- Drill (impact wrench) with 1/4", 5/16", 3/8" & 7/16" socket drivers, Phillips screw-driver bit, straight screwdriver bit, 3/16" drill bit
- Adjustable wrench
- 7/16" open end wrench
- 9/16" open end wrench & 9/16" ratcheting box end wrench or 9/16" socket with ratchet wrench
- Needle-nose pliers
- Tape measure (16-30' metal, 100' Flexible tape)
- Level: 4' or 6'
- Scissors
- Pencil
- 40'-60' 3/8" Rope (or comparable)
- · Reciprocating saw (Sawzall) and Circular saw (skill saw)
- Also handy to have on hand: staple gun, drill bit set, Phillips and straight screwdrivers, materials and tools to build a scaffold. (See BELOW.)

## SCAFFOLDING:



## Useful info

When setting the compression ring and the rafters ofyour yurt it is highly recommended that you build a simple scaffold to carry the weight of the ring and rafters while the framework is being securedespecially when pitching 24' yurts and larger. Scaffolding is also very helpful when you raise the exterior roof, which on a larger yurts are very heavy. Build the scaffold according to the dimensions in the chart and illustration (shown here).

#### YURT HEIGHTS Height to top of compression ring.\* Subtract 3" for scaffold height. Add 16" for height with dome.

Yurt Size (diameter)		Tall Boy Height
16'		10'-5"
20'		11'-4"
24'		12'-10"
27'		13'-7"
30'		14'-4"
*Plus or minus one inch		

### Hints:

- **1.** Make the top bars at least 42" long.
- The four main posts can be 16" shorter than the finished height of the ring. Clamp extensions to the posts, so that when the ring is supported by the rafters, the extensions can be removed.

# Section 1

#### Tools:

-100' soft tape -Drill with 7/16" driver, (or phillips screwdriver), -7/16" wrench (or adjustable wrench) -drill with phillips bit -Pencil.

#### Hardware needed:

-L-brackets -L-Bracket to lattice wall Hardware. -L bracket to Deck Lags. -Door Hardware bag.





**PROTIP:** measure twice to make sure doors are exactly spaced on deck



## Setting Up the Yurt Frame

## Setting Up the Lattice & Door

The bottom of the wall has a rivet omitted at every other lattice joint. Set the lattice wall on the deck opposite the door, or between the doors if you have more than one. With the smooth side of the rivets facing in, expand the wall equally around the perimeter of the yurt (this will make it easier to adjust the height later). Leave a 47" space for each door; a 54" space is required for a French door.

Note: If you have two or more doors your yurt will include the same number of lattice wall sections. In almost every yurt, your doors will be 180° apart (at 6:00 & 12:00). It is critical that they are exactly opposite each other along the circumference of the circle. Use a soft tape measure to verify this fact by measuring from the center point of the first door threshold to the center point of the second door threshold - measure both directions to insure the distances are equal.

Locate the bag labeled "door hardware" from the yurt hardware kit box.

Set the door(s) in position\*. Remove the two 1" x 4" back-up boards and the aluminum track (trailer molding) from the door jambs. Adjust the lattice wall height so the holes at the end match the holes in the door jambs on one side. With the lattice to the inside of the door jamb, slide the  $(5/16" \times 5")$  carriage bolts from the outside, through the holes in the jamb and the corresponding holes in the ends of the lattice. Place the 1" x 4" back-up board over the carriage bolts and tighten the wingnuts a few turns. Repeat this process for the other side of the door jam other doors).

Hint: to align the holes in the jamb with the holes in the lattice, pivot the door so it meets the plane of the lattice as it comes around the perimeter.

3. Later you will install the threshold of the door into the deck. For now adjust the door(s) so they are centered at the proper position along the perimeter. Align the inner surface of the door jamb (not the back-up boards) with the outer surface of the bender board. The outer edge of the door threshold(s) will extend beyond the perimeter a few inches. Put a single screw in the center of the threshold. This will allow for slight modifications later.

#### Tools:

-1 00' soft tape -Drill with 7/16" driver,(or phillips screwdriver), -7/16" wrench (or adjustable wrench) -drill with phillips bit -Pencil.

#### Hardware needed:

-L-brackets -L-Bracket to lattice wall Hardware. -L bracket to Deck Lags. -Door Hardware bag.



#### PROTIP:

Secure center point by installing L-bracket(s) before adjusting height in windy areas.





Steel brackets anchor lattice wall to deck.

## Adjusting the Lattice Height

Consistent lattice wall height, at every point of the wall, is crucial to the way your fabric fits and looks. The easiest place to begin adjusting lattice wall height is from the center of the wall, working toward the door(s). Start by locating this center position along the perimeter of the deck. This measurement starts at the middle of the door threshold.

Using a soft 100' tape, measure along the circumference of the deck. Locate and mark the exact center position(s). On one door yurts you will measure the whole circumference and the mark will be made at exactly half of that number (mark will be opposite of the door). On two door yurts measure from the middle of the threshold of door one, to the middle of the threshold of door two and mark the centers on both sides. (These marks will be opposite of each other)

Now locate the center of your lattice wall. Count lattice crowns to locate the center of the lattice section- either at a "crown"(crossing end of two lattice sticks) or between two crowns. Align this point with the corresponding center marks previously made on the bender board. *\*see PRO TIP* 

Adjust the height of the lattice all the way around the perimeter by expanding or contracting the lattice-86" tall. The height of the lattice wall may vary+/- 1/2" from the specified height (especially if you have more than one door), but try to get the lattice an even height all the way around the perimeter, or between each door.

Locate the "L" brackets and "L" bracket Hardware bags in the hardware kit box. Attach your "L" brackets through open rivet holes with the  $\frac{1}{4}$ " x  $\frac{1}{2}$ " machine screws and  $\frac{1}{4}$ " nylock nuts provided. The longer leg of the bracket (with one hole) attaches to the inside of the lattice. The head of the bolt goes to the inside of the yurt and the nut goes to the fabric side. Using the  $\frac{1}{4}$ " x 1" lag screws provided, attach brackets to the deck. When attaching the bracket, push the lattice wall to within  $\frac{1}{2}$ " of the bender board, leaving room for fabric insulation.



Hint: use provided 1/2" wood spacers between the lattice wall and the bender board to leave a space for insulation.



Tools:

-Small step ladder or bench. -Flat head screwdriver Hardware needed: -Cable Bands



Cable rests on the top of the lattice wall.





Cable hook on top of door frame.

## Installing the Cable

The cable has been pre-cut to the correct circumference. Begin by placing the hook of the cable above the door header.

**Be careful** not to let any of the cable's components (hook or ferrules) obstruct the channels on the door header.

Place the cable in the top of the lattice wall all the way around as shown.

Hint: If at first the ends of the cable don't meet, pull the top of your lattice wall in. Notice how this will create slack in the cable. Gently pull the top of the lattice wall in, all the way around, bringing the extra cable slack with you, until you are able to hook the ends of the cable. If you seem to have too much slack in the cable distribute the slack evenly around the perimeter and push the top of the lattice out to take up the slack.

It's important that you do not have any uneven cable on any one side. This is key to creating equal tension on the cable once it is under the weight of the roof framework and plays a role in how well your fabric fits and looks.

## **Cable Ties**

Cable ties have been provided to insure that the yurt cable stays secure in the top of the lattice "crown". Simply loop the cable tie band around the lattice crown and cable and then itself.

Evenly space the cable ties around the yurt (every 7 or 8 crowns or so).





If you are pitching a smaller yurt and wish to assemble the roof framework without a scaffold, read steps in <u>Attaching Rafters</u> carefully and then refer to steps on pages 8 -



#### Tools:

-Two 9/16 ratcheting box end wrenches or socket wrenches. -Flathead screw driver(s) -Impact wrench or drill -6' or 4' bubble level

#### Hardware Needed:

-CORR Bracket Hardware bag. -Door Hardware bag.

## Scaffolding method SAFETY TIP:

Hard hats required for all steps involving rafters & ring installation!



Hint: each rafter will have a "cable-keeper bolt" in the notch where it fits over the main cable except for the <u>door rafters</u>. It is helpful to back out each of these screws now so the rafters can be hooked over the cable with ease. DO NOT remove the bolts entirely. **PROPERLY INSTALLED RAFTERS WILL HAVE THE ROUNDED EDGE ON TOP, AND THE BOLT ON THE BOTTOM.** 



## Preparing to Raise the Ring with Scaffolding

Center the scaffold inside the lattice wall, adjust the height according to chart (pg 5). The ring will come with rafter brackets or CORR brackets installed. Set the ring on top of the scaffold with the CORR brackets pointing down.

**Note:** If you have a Euro-Dome Lifter, the lower "U" bracket is attached to the inside of the ring. Orient the ring so it ends up where you ultimately want the lifter (away from the prevailing wind). Tie or clamp the ring to the scaffolding.

## Preparing to Install Rafters

Locate the bag labeled CORR bracket hardware in the hardware kit box. These are the bolts used to attach the rafters to the CORR brackets.(3/8" x 2" hex head) It's also helpful to separate the door rafters from the rest of the rafters. The door rafters will be cut at a slightly different angle at the notch and *will not* contain a keeper bolt. There are two door rafters *perdoor*.

**Before you begin** it is important to know that the notched end of each rafter is intended to go onto every other cable gap and in between the lattice wall L-brackets below (every other crown). You **do not** want to have rafters directly over the lattice wall L-brackets.

Begin by mapping out the positions of the first 6 rafters.

You want these 6 rafters to be evenly distributed around the yurt. This can be tricky! So pay close attention to spacing.

It's helpful to make small removable reference marks: 6 marks at the cable and 6 corresponding marks at the CORR brackets on the ring. Once you have a plan for the first 6 positions you are ready to install the rafters. To do this you must have one person on the scaffold platform and another on the deck.

(continued on page 7)



#### Tools:

-Two 9/16 ratcheting box end wrenches or socket wrenches. -Flathead screw driver(s) -Impact wrench or drill -6' or 4' bubble level

#### Hardware Needed:

-CORR Bracket Hardware bag. -Door Hardware bag.



## **\*PROTIP:**

Slide each rafter into each CORR bracket from under the ring, using the rafter to push out on the cable.

## Raising the Ring & Attaching Rafters

(continued from previous page)

Have the person on the deck hand the top end of the first rafter to the person on the scaffold. Hook the notched end of the rafter onto the cable first, keeper bolts facing down. Secure the keeper bolts as you go.

Next, have the person on the scaffold platform guide each rafter into the correct CORR bracket. (see pro tip) Slide a bolt through the hole in the CORR bracket and through the predrilled hole in the rafter. Put the nylock nut on the bolt and tighten with wrenches firmly.

Using the same procedure bolt another rafter into place 1/3 of the way around. Continue alternating sides as you install each rafter. Once the first six rafters are in place, bolts tightened firmly, it's okay to remove the top layer of scaffolding that was in place to hold the ring. Continue to alternate sides, always placing the next rafter in the middle of the biggest empty section. This step is necessary to create balanced compression on your cable and lattice wall. Adjust the ring into a level position and tighten each bolt firmly for a final time. A 6-foot level is recommended.

NOTE: If the ring is twisting out of level OR can easily be pushed out of level, the CORR bracket bolts are not tight enough. Tighten down bolts rigorously.





## Alternate Method: Raising the Ring without Scaffolding

#### Tools:

-10' or 12' Step Ladders -5/16 driver bits -Two 9/16 ratcheting box end wrenches or socket wrenches. -Impact wrench or drill -6' or 4' bubble level

-Flathead screw driver(s)

#### Hardware Needed:

-CORR Bracket Hardware bag. -Door Hardware bag.



\*PRO TIP: Before raising the ring, use cable bands to keep cable from coming out of the two crowns, on both sides of the starting rafters.

It may prove useful to raise the ring using four rafters. Apply the same directions given for raising the ring with three rafters, "tripod method", but use two rafters to stabilize the ring as it is being raised. Pivoting on the adjacent two rafters that are attached to the ring and installed on the cable.



**Tripod method:** If you wish to raise your compression ring without the benefitof a scaffold, you will need a tall stepladder. We recommend 10' or 12'. It is relatively easy to raise a ring for a 20' (or smaller) yurt without using scaffolding. A scaffold is recommended for additional safety.

Note: If you have a Euro-Dome Lifter, the lower "U" bracket is attached to the inside of the ring. Orient the ring so it ends up where you ultimately want the lifter (away from the prevailing wind).

Map out three rafter locations on the cable by dividing the circle into three equal sections. Never above an L-bracket . **Do not use a door rafter** as one of the tripod rafters.

Map out these locations on the ring as well. This can be tricky! So pay close attention to spacing. Make small, removable reference marks, at 3 CORR brackets on the ring as well.

Place the ring in the center of the deck (CORR brackets pointing down). Let one side of the ring rest on the deck and raise the other side of the ring. Slide two rafter ends into the CORR brackets and bolt them *tightly* in place. Make sure the keeper bolts on the tail end of the rafters are pointing down. Place the ends of both rafters on the cable and close the keeper bolts, so that the rafter cannot come off the cable.

Next place the stepladder in position: opposite of the pivoting rafters and so that the ring will not hit the ladder when you raise it. Lift the ring to the person on the ladder.

Now the 3rd rafter can be bolted *tightly* into the appropriate CORR Bracket. With one person using this rafter as a "tag" for balance, the person on the ladder will carefully lift the ring up so the tail end of the third rafter can be placed on the cable at the appropriate position. Always close the keeper bolts as you go.



## Alternate Method: Raising the Ring without Scaffolding (continued)

#### Tools:

-10' or 12' Step Ladders
-5/16 driver bits
-Two 9/16 ratcheting box end wrenches or socket wrenches.
-Impact wrench or drill
-6' or 4' bubble level



Once you have the ring up and stable, in a tripod, adjust the ring into a level position. You will only need to use a bubble level once all of the rafters are in place. For now just "eyeball it" level. Having the ring in a level position will help the rest of the rafters install smoothly.

Alternate the rafters between sections, always placing the next rafter in the middle of the biggest empty space. Space the rafters around the cable evenly. Remember to look up at the compression ring and make sure each rafter comes off of the ring straight. Make sure the ring is not twisting. Make sure to tighten all CORR bracket bolts *firmly*, so that the ring is sturdy. *Do not tighten the bolts so tight that you cannot adjust the ring to a level position.* 

Once all the rafters are in place, adjust the ring into a level position using a bubble level and tighten each bolt <u>tight</u>, for a final time. A 6-foot level is recommended.

**REMEMBER:** If the ring is twisting, easily falling out of level OR can easily be pushed out of level, the CORR bracket bolts are not tight enough. Tighten down bolts rigorously once all rafters are in place and the ring is level.

**Note:** two rafters are labeled "door" for each door of the yurt. These are specially cut to sit in the channels of the door header. Bolt them to the ring and onto the cable above the door.

The Basic Yurt Framework is now completely erected. If necessary, you can move the rafters to different spaces around the lattice so they are more-evenly spaced.



Completed basic yurt framework.





Lattice wall and door in place. Cable rests on top of lattice







Entire yurt frame in place.

## Section 2 Installing the Roof Insulation



If your yurt includes roof insulation, a liner has been provided. After the entire framework of the yurt is complete, carry the roof liner up the ladder (or scaffold) and put the liner through the compression ring. Open and unfold the liner over the rafters.

When the liner is spread out over the rafters, adjust it to hang more or less evenly over the lattice (about 8-10") all the way around. Tighten the drawstring around the lattice firmly. At the door, raise the liner so the drawstring sits on top of the door header against the ends of the door rafters.



At the compression ring, arrange the liner material so it is centered and then tighten the drawstring until it covers up approximately half the ring.

The roof insulation is in two large accordion folded sections. One person should stand up in the compression ring on a ladder (or scaffold platform) while another on a ladder outside the yurt, hands the narrow end of one of the sections up. Unfold the section so it lays flat on top of the liner.



Adjust the two sections of roof insulation so they overlay the compression ring at the top by 1-2" and extend over the ends of the rafters by 1-2"at the bottom. Tape the two sections together, where they overlap, with the aluminum tape provided.

Hint: the entire length of the overlap can be hard to reach. Secure the insulation with a little (4' piece of tape at the top & bottom. Then starting at the top, unroll the tape down to your helper. Cut the tape approx. 8" longer than necessary. With the silver side down, align the tape right beside where the insulation overlaps. Working together peel the white paper backing up and off. Keeping the tape taut between you, liftjust above the surface of the roof, flip it over, and center it above the overlap. Press it down firmly.





## Section 3 Installing Roof Fabric

**Tools:** Step ladders Drill or Impact wrench 5/16 driver bits

#### Hardware needed:

Roof to ring. Door hardware.



The yurt roof has been folded and rolled into "two rolls" (see *illustration*). Carry the bundle up the ladder or scaffold.

One of the rolls of the roof has been labeled with an arrow pointing in the direction of the door. *(see illustration)* 

Maneuver the bundle up the ladder or scaffold. *Be careful! larger yurt* roofs *are very heavy!* (see pro tip)

While standing on the scaffold or a ladder, positioned in the center of the compression ring:

Make sure you orient the roof correctly.

Unroll each side down a rafter. There should now be two long rolls from end to end. At the center, separate the rolls to find the dome opening. Place yourself in the opening and throw the ropes (provided) on each roll to the corresponding side of the yurt (two people will be on the ground). Pull the ropes to open the roof completely.

2. Adjust the roof by rotating it so the door cut-outs in the valance line up with the doorjambs. To do this, have two people (more is better) around the perimeter of the yurt hold onto the valance. Simultaneously ("on the count of three ... ") shift the roof until it is aligned.

Hint: the roof of the yurt can be very stiff and difficult to work with in cold weather. Put the roof in a warm place for a few hours (or over-night) if you are pitching youryurt on a cold day.

*Hint:* do not untie the cord around the roof until it is on top of the scaffold (or compression ring). With especially heavy roofs, untie the cord when the roof is on top of the scaffold platform and then "snake" the rolls up through the ring.



\*PRO TIP: For larger, heavier yurt roofs, rent or borrow a manual hand lift or "portable fork lift" to raise large fabric roofs to the top of the scaffold or ring.





## Installing Roof Fabric (continued)

Next center door cutouts in the valance with the center of the door header(s)(see pic). To do this, have two or more people (more is better) around the perimeter of the yurt, hold onto the lacing tab. Simultaneously ("on the count of three ... ") shift the roof until the grommet in the center of the door cutout lines up with the center of the door header.

Make sure the roof sits on top of the rafters evenly. Check to see that the lacing tab meets the end of the rafters at the same point all the way around the perimeter. Tug on the roof to adjust it. Don't let one area sag lower than another. The roof may be wrinkled or baggy. It will settle later.

At the top of each door cut-out in the valance nine grommets are set in webbing. Center the door cut-out(s) over the door(s) side to side, and align the grommets so that they can be screwed into the center of the door header (to avoid splitting). Using the 1" self-tapping screws provided, screw two center grommets into the door header so the roof will remain centered over each door. You will go back and screw through the rest of the grommets later.

Once the door cut outs are secured to the door header, find the Roof To Ring Screws hardware bag. Use the 1" self tapping screws provided, screw the dome cutout of the roof fabric into the top of the ring, through the small grommets provided.

## Section 4 Installing the Wall Insulation



*Hint: to keep the panels from getting soiled, fold them before you feed them up under the wall, so they don't touch the ground or the deck.* 

The wall insulation comes in multiple panels, which overlap 12" when installed. There is a panel for each window, with a cut-out for the window opening. There are also solid panels for between windows. When the windows in the exterior wall are close together, the corresponding insulation panels may Velcro together rather than overlap.

Each insulation panel is numbered sequentially, starting with #1 to the left of the door (from outside the yurt). Before you start installing the insulation panels, take them out of their packaging and notice the numbers on the back of each. The side of the panel with the fabric sewn to it faces the inside of the yurt. The top of each panel has cotton webbing for tying to the cable.

Install the panels in order, with a 12" overlap. Panel #1 goes on the left of the door (from the outside). Tuck the panels under the roof line and between the bender board and the lattice wall. The panels will be adjusted after the fabric wall is installed.

The wall insulation is now complete. Go to Section II, Hanging the Yurt Wall, step 3 on page 12.

## Section 5 Hanging the Yurt Wall, Plumbing the Door, Installing the Dome

#### Tools:

3/8" Driver Bit 1/4" Driver bit Impact wrench 2 or more Ladders

#### Hardware bags:

Door Hardware. Wall to bender board.

more than one door you will have the same number of wall sections. The walls will be labeled "wall1" "wall2" Determine which wall section goes where, considering the length and window layout. Wall 1 always starts to the left ofthe front door (6:00).

Note: if you have





## Hanging the Yurt Wall

The yurt walls are fastened to the roof using a hook and loop system, or commonly referred to as velcro. Each yurt wall has a 2" 'loop' strip sewn to the top of the wall. This strip fastens to the corresponding 2" 'hook' strip sewn onto the bottom of the roof where the yurt wall and roof adjoin, under the roof valance. Grommets are located on the bottom of the yurt wall and will be fastened to the bender board later.

Starting from the left of the door, unroll the sections of the wall and join the hook and loop, or velcro, together. Work the hook and loop strips together ensuring the 2" strips are aligned perfectly and are pressed together. Repeat this process with any additional wall sections and adjust the hook and loop accordingly to eliminate any bagginess or excessive tension in the wall fabric. Once you are satisfied with the look of the wall fabric press the hook and loop firmly together from the outside ensuring a strong connection between the wall and roof.

Next, attached the ends of your fabric to the door jambs with the aluminum tracks provided.

Locate the aluminum tracks (trailer molding) The trailer moldings are labeled T "top" and B "bottom" and the left and right side are opposite of one another or "mirror" each other. There are two trailer moldings per door.

The ends of the fabric wall have rope sewn into them. This is called the bead. Slide the aluminum track over this bead rope. The flat side of the track will face the inside of the yurt and will be fastened to inside of the door jamb. The bead and bead track will rest against the outer edges of the door jam. Use the self tapping screws provided in the *door hardware* bag. To make sure the trailer molding is oriented properly look at the pre-drilled holes on the flat edge of the trailer molding. These holes should line up with pre-drilled holes on the inside of the door jam. If they do not line up your trailer molding may be upside down, or on the wrong end of the wall.



#### Tools:

-Drill and 3/16" wood drill bit. -Impact wrench(if available) -3/8" Hex driver bit -5/16" Hex driver bit. -Bubble level. 4' or 6'

#### Hardware:

-Wall to bender board screws -Door Hardware bag -Valance rope and valance rope hardware.(eye screws) -Door Rafter to Header L-brackets and hardware. -2 1/2"Aluminum threshold screws



## Securing wall to bender board

With the stainless hex-slotted screws provided (1-1/4"), screw the bottom of the wall into the bender board through every grommet.

To do this correctly start with the grommets closest to the doors. Stretch any slack out of the wall by pulling these grommets toward the door and stretching them down. Secure them to the bender board. Next find the grommet nearest to the middle of the fabric wall and pull it straight down, so there is an even amount of wall on both sides and secure it to the bender board.

Continue alternating to the grommets at the center of the biggest open section. Stretch the wall straight down so there is even sections of wall on both sides of the grommet being set. Use this method until every grommet has a screw.

### Secure valance to door frame

The lower corners of the door cut-out(s) attach to the door jambs using the eye screws provided. Pre-drill for the eye-screws with a 3/16" bit. These eye screws are for tying the roof valance rope. Cinch the rope snug to the eye screws. Next Screw a 1" self-tapping screw through the grommets above eyes screws in the door jamb.



#### \*PRO TIP: If the deck is slightly out oflevel at the door, you may find that the door is rubbing against the door jam at either the threshold or at the header. Making the door difficult to open and close. Try removing the threshold screws and bumping the threshold left or right accordingly, until the door is closing smoothly . If this doesn't solve the problem the door jam may need to be

shimmed. Or preferably the deck needs to be reset to a level position.



### Plumb and square the door.

Tighten the wing nuts on the backup boards. Push the backup board tightly against the lattice and turn the wing nuts until they are "finger-tight" against the boards.

To plumb the door Locate the "Door Rafter to Header" Lbrackets in the kit box. There will be two per door. Start by installing these to the top of the door header, square to the door rafters.

Once the L- brackets are installed hold a level against the front face of the door jambs. Determine if the door threshold, at the bottom, needs to go in or out. Determine if the door header, at the top, needs to go in or out.

Make the appropriate adjustments until the door is swinging, all the way open, smoothly and closing easily. Use the 2 1/2" aluminum threshold screws, through the threshold and into the deck. These are often shipped in the bag that contains the door keys. Finish securing the door rafter L-brackets to the door rafters. Be sure to check that the door header is square to the door threshold, making sure the door jamb is not twisted. See pro tip.

Note: Your door has been designed to stay square and plumb in the jamb and it has been treated with penetrating oil to resist temperature and humidity changes. A sealant over the oiled finish, such as Urethane, can be applied to further protect the door from climate changes and weathering. If the operation of the door is not smooth, normal corrective measures such as block-planing may be necessary. If your door jamb goes out of square from side to side, shim underneath the door threshold.

Tools: needle-nose pliers



For Dome Lifter installation refer to the illustration on page 19.

### Setting the acrylic dome

One person standing in the ring on a ladder (or the scaffold platform) tosses a rope down to a person outside the yurt. Tie the end of the rope through two of the eye-screws in the dome. Gently lift the dome up onto the roof while the top person hauls up the rope.

This operation should be done carefully so the dome does not abrade the roof. Don't pull the dome up the roof upside down or you'll scratch the top surface of the dome.

Rotate the dome so the eyescrews in the dome align with the eyescrews on the ring. If you have a Euro-Dome Lifter align the "U" bracket on the dome with the "U" bracket in the ring.

Using a needle-nose pliers, attach the six springs from the ring to the dome. Attach safety cables to dome with carabiners.

<u>Attaching the valance rope:</u> *(if you have a Cistern System skip this step and go to page 22).* Tie the 3/16" poly valance rope to an eyescrew in the bottom corner of a door cut-out (step 4, on page 13) and lace the rope through the webbing loops at the bottom of the valance. Pull the rope tight and tie it off to the eyescrew on the other side of the door or to the next eyescrew if you have more than one door.

Operating the windows. Install the plastic window dowels into the pockets at the bottom of the window flaps. To operate the yurt windows, unzip the privacy flaps and roll them up. Con-nect the buckles and tighten the straps at the top of the flaps to keep the flaps rolled up. Tuck the rolledup flaps under the valance to keep them from catching rain coming off the roof. The clear plastic windows attached with Velcro over the screens can be completely removed and stored when not in use.

## **Dome Lifter Installation**



<u>Install the Dome Lifter</u> by attaching the lower spindle to the lower bracket

(mounted to the ring) with the two hex bolts provided.

Extend the brass inner threads at the top of the spindle up to the upper bracket (mounted to the dome). Pull the spring-loaded keeper bolt out and insert spindle to attach to dome.

<u>Attach the winding brace</u> by hooking it through the eye at the bottom of the spin-die and operate the dome.

WARNING: Do not open the dome more than six to eight inches. Dome should open on leeward side. Do not over tighten when closing. The spindle stop and safety straps are provided to protect your dome.



## Installing a Ceiling Fan Mount

The ceiling fan mount is designed to span the compression ring, providing a place to mount a ceiling fan. It will fit across the diameter of the ring, below the dome. Simply screw the bracket in place to the ring.

\*Not in every yurt- this is an option or upgrade.



\*Not in every yurt- this is an option or upgrade.

# Section 6 Finishing Up

## Attaching Wind Load Studs

Note: Due to possible variations in wall height, the square end of your studs may need to be cut to length. Studs should fit underneath rafters, tightly against lattice wall.

Attach the 3" angle brackets to the bottom of each stud as shown using the 1/4" x 1" lag screws provided.

Attach truss plates (hurricane clips) to the rafters with the #8 hex head (or Phillips head) sheet metal screws provided. Note that the truss plates are designated left and right as you face the stud from inside the yurt.

Make sure each stud is vertical (plumb), and attach the 3" angle bracket to the floor using 1/4" x 1" lag screw provided.



## Cistern



\*Not in every yurt- this is an option or upgrade.

## **Window Awnings**

Zippered window flap unzips to become window awning.

Awning hardware simply slides up under valance and attaches to deck or bender board.

Awning hardware "telescopes" to meet window flap at black nylon webbing.



## **Installation Instructions - GLASS WINDOWS**

## BEFORE YOU START!

It is easiest to install your window before the fabric wall and wall insulation are in place.

Cut the lattice wall opening

- Determine your preliminary window location
- Use the supplied cardboard template to mark the lattice opening
  - o Place the template on the lattice wall with the prescribed measurement from the template between the floor and the bottom of the template
  - o Slide the template right or left to align the marks at the top of the template with the rivets
  - o Mark the wooden lattice opening
- Temporarily attach a couple of cable bands to the upper part of the wall above the marked opening
- Use a circular saw to cut the lattice opening. Remove any rough or sharp edges, especially from the inside of the cut lattice.
- Remove the L-brackets from the desired window location (if they weren't already left off in this location when pitching) replacing the screw and nut.

Attach the window to the lattice wall

- Position the window in the lattice opening
- Press the lattice against the window frame
- Use a 3/16" bit to pre-drill where the lattice contacts the frame. Use up to 16 #8 x 1-5/8"" Deckmate screws to secure the lattice to the window.

Plumb the window

- Slide the bottom of the window's wooden frame tight to the lattice wall. Be careful not to push the wall out and lose the<sup>1</sup>/<sub>2</sub>" space between the lattice and bender board.
- Use 3 #9 x 3" Deckmate screws to attach the frame's base to the floor
- Place a level vertically on the inside face of the wooden frame. Tilt the frame in or out until it is plumb and screw up through the top of the frame into the rafters with 1 #9 x 3" Deckmate screw per rafter.

Cut the window opening in the exterior wall

- The roof, fabric wall, all insulation and studs need to be installed prior to cutting the hole
- Ensure that your fabric wall is hanging true (no wrinkles in the planned window location) and fully attached to the bender board around the entire circumference of the yurt.
- Hold the fabric and wall insulation, if purchased, against the wooden frame and use a utility knife to carefully cut along the outside edge of the window's frame. Start at the corners and cut inward toward the middle of the window to prevent accidentally cutting past the corner and into the fabric wall's exposed surface.

Install and caulk the outer trim

- Screw through the fabric and insulation to prevent them from sagging below the window. Find the approximate center of the fabric and insulation. Pinch them both together, raise and align to the bottom of the window. Attach with a #8 x 1-5/8" Deckmate screw.
- Apply 2 beads of Clear, Exterior, +30-year Silicon/Latex caulking to the INSIDE of the trim where it will meet the fabric. The beads must be continuous and should be at least 3/16" wide. The first should be ½" from the outer edge of the frame and the second should be ½" from the inner edge.
- Carefully slide the frame over the window and press it firmly to the fabric making sure that no wrinkles form in the fabric.
- Attach the trim with 14 #9 x 3" screws working across the top first, down the sides and then across the bottom

#### High-Precipitation Climates

If the yurt will be in a high precipitation area, additional caulking at the intersection of the fabric and trim, and where the trim and window meet, is advisable. This must be done carefully as the caulking results will be visible. (If you haven't performed finish caulking before, practice on some scrap materials where you can fill 90-degree corners. Caulking can start to dry quickly, so apply a single run and quickly smooth out the bead keeping a clean, wet fingertip as you move along.)

- Cut the tip of a second tube of caulking to a 1/8" opening will allow better control of the amount of caulk applied and make it easier to have good results
- Apply a continuous, even bead where the fabric and trim meet along the top. Smooth the bead so that it adheres to both components evenly. Repeat the process where the trim meets the window.
- Repeat these steps on the sides and bottom





# <u>Platform</u>s

Please contact us for suggested plans for your yurt platform. They can also be downloaded from our website.

Note: when building a yurt platform, the exact area the yurt covers (this is called the "footprint") should be at least 6" higher than the area around it to allow water run-off to drain away from the yurt.

When building a wooden yurt platform two basic approaches, or a combination of both, are suggested:

## The Simple Yurt Platform

A simple yurt deck is a round platform built to the exact footprint of the yurt. A "front porch" is also incorporated into the framing. In a simple yurt deck 2 x 6 tongue and groove deck material, which can be used as the finished floor, is screwed directly to beams. No joists are required, but, because of the relatively large spaces between the beams, tongue and groove material is required. The tongue and groove material can be sanded and finished for an attractive floor.



## The Extended Yurt Platform

An extended platform is a deck of any size or shape where the dimensions are larger that the size (diameter) of the yurt. A raised circular area the exact diameter of the yurt is then built on top of it.



A yurt can also be set on a concrete slab. Check with your local building department to determine footings and steel reinforcing required. When designing a concrete slab be sure to follow the basic principle in bold print above.