Blue Ridge Yurts Assembly Instruction Manual

Thank you for purchasing a Blue Ridge Yurt. We suggest you invite several friends to help you set up your yurt. Call us if you have any questions. We will be available to you if you tell us when you will be setting up your yurt. Have fun with it!

Yurt Installation Sequence

Note: it is important that each step be followed precisely andin order. Although you may be tempted by your own reasoning to do 'y' before 'x' – don't! Sequential installation will save time and prevent re-working.

Page

25 Sticks for storm flaps
25 Weatherizing

Check to see that you have all of your materials

You should have received:

- Set-up instructions
- Rafters
- Lattice Walls
- Center ring
- Door frame(s) and door(s) and handles (optional)
- Skylight with hardware attached and telescoping handle opener
- 3/8" strips of plywood to go around circumference of platform
- One tension cable, 1/4", fastened with cable connectors
- One 1/8" cable with turnbuckle and second cable clamp attached for tightening the bottom of the wall
- Roof, roof liner, and foil wedges for roof insulation (optional)
- Fabric walls
- 2 x 4s for vertical support (not included with 16')
- Rain diverter, foil pattern and vinyl cement (HH-66)
- Sticks for window stiffeners
- 2 – 8' "push" sticks one marked 7'4" to check wall height

Any options you have ordered—for example, window insulation, stovepipe insert, awning, etc.

Hardware package includes:

- Layout diagram
- Packet of screws to attach plywood band
- 2" Spacer block for setting plywood band
- Small screws for plywood band to lattice attachment
- Pan-head screws to attach lattice sections together if necessary

- Lag bolts and washers to attach lattice to sides "wings" of door frames
- Screws to attach door rafters and to set door frame
- Nails for closing rafter notches
- Shims
- 3" screws for attaching vertical supports to lattice (not for 16' yurts)
- Package of foam backer rod for dome mount
- Dome spindle
- Door knob (if using BRY door)

Tools you will need:

- Scaffolding, or a panel lifter; either can be rented
- Ladders and step stools
- Hard hats when raising rafters
- Drill with a variety of bits
- Rubber mallet or hammer and wood block
- Bungee cords or rope to stabilize ring while lifting
- Sockets to tighten cable connectors and dome hinge
- Stapler to attach wall fabric around door frame
- Level for door frame
- Tape measure for lattice wall height and door rafters
- Saw to cut plywood band
- #3 Phillips screwdriver for joining lattice sections
- Rope – 25'+
- Scissors or knife to cut excess fabric and cable ties
- Pencil
- Small clamps

SET-UP YURT ON PLATFORM

Door frames are set and plumb. Plywood band is being installed around bottom perimeter. Lattice wall is attached to exterior side of "wings" on door frame.

Frame Assembly

DOOR FRAME

You will need:

- Door frame
- Drill
- Long screws
- Tape measure
- pencil

- Set the door frame in position. The curved header of the frame is in line with your platform, so faces the outside. Both outside edges of the door jambs should be 3/8" outside the perimeter – (will be EVEN with the plywood band). Use screws to secure the door frame to the platform. If you have more than one door/window frame, set them all in place now, according to the layout diagram

- Remove the door spacer that was stabilizing the frame

At this point, lay your lattice pieces on the platform. Don't pinch your fingers! They are labeled on tops and bottoms, going clockwise, beginning at door: L1, L2, L3 etc.

PLYWOOD BAND

You will need:

- Plywood strips, one pre-cut for 36" door
- Drill
- Screws
- Saw
- 2" spacer block to keep the band a consistent height above floor

You may want to paint or stain your plywood strips as 2" will be visible inside your yurt. <u>This should be done ahead of time.</u>

- Starting with the doorway and using the 2" spacer block, bend the pre-cut door strip around the platform edge and screw it in. If you have more than one door mark a cut line on the outer edge of each door jamb and across the door opening, then cut.

-Finish wrapping perimeter band, screwing into the flooring edge at about 16” intervals. This will contain the lattice walls.

LATTICE WALL

Lattice wall is level and attached to exterior side of “wings” on door frame. Tension cable is in place. Ring is elevated to proper height on lifter and ready to begin installing rafters.

You will need:

- Lattice sections
- Pan head screws and white spacers
- #3 Phillips screw driver
- Clamps

- Orient lattice walls. The top is rounded and has white spacers. The bottom has angled cuts. Side with screw heads faces interior of yurt. Cut ends go on either side of the door or window frames.

- With the sections lying next to each other, overlap the single strips and screw in the pan-head screws. The longer screws and spacers go in the top row to hold the cable.

- The next step takes several people, as the lattice wall can be heavy. Lift the wall onto its bottom edge and open it from both ends, spreading it around to either side of the corresponding door and/or window frame(s). The wall will expand more easily if it's lifted up slightly as you pull it out.

- Adjust the lattice wall so it is a consistent height (7'4") all the way around, and against the plywood band at the bottom. Push or pull gently along the center row of screws to adjust. It should be level with the top of the door header(s). You can use the 7'4" push stick to check your heights

- Check that the distance between screws around center height is consistent. It may help to clamp the wall section to the plywood band as you make adjustments. The distance behind the "wings" allows a fudge factor which helps to get the spacing consistent. If the walls are too long cut them off so the height is right and they fit behind the "wings".

ATTACH LATTICE WALL TO DOOR FRAME AND PLYWOOD BAND

You will need:

- Lag bolts with washers (Hardware Kit)
- Drill, square bit, sockets
- Assorted other drill bits
- Short screws and washers (hardware kit)
- Socket for lag bolts

- The end of the lattice wall will go to the exterior side of the "wings" on the door and window frame(s). The top of the lattice will be level with the door header. Beginning with the center X piece, hold the holes in alignment and insert a lag screw and washer from the outside. Repeat with the top and bottom X's. Attach lattice to the other side of the door/window in the same manner. If you have more than 3 connections, you will have some spacer blocks for the single-layer connections.

- Go around outside of perimeter and put short screws through your plywood band and into the back lattice strip at about every 3rd X. This keeps your lattice flush with the band.

TENSION CABLE

Note: DO NOT adjust the tension cable.
- Unroll the tension cable and lay it on the platform inside the lattice walls, placing the cable connectors to the right side of the door. Lace the cable between the top V's in the lattice and through the groove in the door header. It should be taunt, but not tight, and sitting on the white spacers. It is important to have the tension even all around the perimeter. You may need to repeat this step if it is not evenly tensioned.

CENTER RING

You will need:
- The center ring (without the dome)
- Scaffold or panel lifter
- Bungees

- Center your panel lifter on the platform

- Remove the dome from the ring by undoing one end of the 2 springs and removing the hinge from the ring. Replace the 3 nuts that were removed from the hinge so they don't get lost.

**the following is very important! **

- ORIENT the center ring on the panel lifter with the hinged side facing the sky and positioned so the dome opener bracket (located on inside perimeter of ring) is away from the prevailing winds and hinge will be towards prevailing winds. This is to prevent strong winds from damaging the skylight when vented.

- Bungee or tie the ring to the lifter.

- Raise the ring. Approximate ring heights (to top of ring) are as follows:
16’ yurt: 10’10”
20’ yurt: 12’
24’ yurt: 12’10”
30’ yurt: 14’7”

If you are raising a 30’ yurt you might be using scaffolding. Put short blocks under the ring until the top of the ring is raised to about 14’7” from the platform. This will facilitate putting rafters up.

RAFTERS, CLOSE NOTCHES

You will need:

- Rubber mallet or hammer and block
- Hard hats
- Ladders (8’ for 16’yurt, 10’ for 20’ and 24’ yurts, 12’ for 30’)
- Step stool
- Nails to close notches (Hardware kit)
- Rafters (ones without notches are for door frames)

CAUTION Danger zone, have a minimum of people on the deck and all must wear hard hats.

- Start with rafter on one side of door. Insert pegs into ring holes, then seat the tension cable into the notched end of the rafter. This works best if the rafter is held above the tension cable. The rounded edge of the rafter faces the ground.

- The rafters usually sit on the tension cable in every other wide space, so you need to count over spaces and corresponding ring holes to align properly. It is not very difficult to move a rafter if necessary. It may help to use a mallet to drive the pegs into the ring.

- Put up a 2nd, 3rd and 4th rafter dividing the ring roughly in 4ths. To prevent rafters from slipping out of the notches, drop a nail (in hardware packet) into the pre-drilled holes behind the cable.

- If the lifter is in the way of a rafter hole, save that one for later, when the ring is self-supporting and you can move the lifter or scaffold.

- After the first several rafters are installed, you can undo the bungees on the ring and lower the lifter.

- If the cable is tight, pull out on the lattice. Don't pull up on the cable.

- Continue installing the rafters in a balanced fashion, opposite sides.

- The rafters over the door will be the last installed, as they need to be cut and screwed.

RAFTER(S) OVER DOOR

You will need:

- Drill
- Level
- Screws (hardware kit)

- Saw
- Tri-square
- Tape measure
- Pencil

- All the rafters are spaced ~30” apart, so measure where your door rafters will sit on the header. They may not be symmetrical with the door frame. Some door rafters have been pre-cut. If additional door rafters are needed, one can be used as a template or your hardware kit contains a template.

- Screw from the top of rafter into the door header, twice. The end of the rafter should be flush with the outside of the header. This may require several people pulling out or pushing on the frame. If it is flush, the door should be plumb.

VERTICAL SUPPORT KIT
(Not included with 16’ yurt)

You will need:
- Drill
- 3” screws (Hardware Packet)
- Saw
- 2 x 4’s
- Pencil

- Your supports can be located under every other rafter, or wherever you’d like. You may not want to block a vinyl window.

- Set a support against your lattice wall with the angled edge alongside a rafter and mark the 30 degree line of the rafter. Measure the distance down to the line and cut this amount off the bottom of the support.

-Remove 3 pan-head screws in a vertical line from the wall under the rafter where you will be setting the support. Screw the

support in place from outside the yurt, using 3” screws and using the T-nuts in the wall as washers. Toe-screw another 3” screw from the top of the support into the bottom of the rafter. You can also screw from the bottom of the support into the flooring.

- The supports add stability to your frame, in addition to providing surfaces for attachments for electrical, shelves, partitions, etc.

- Your frame is finished. Step back and enjoy the light filtering through the rafters. Now you’re ready to install the roof (or the insulation kit).

INSULATION

Cotton roof liner for roof insulation has been pulled up from outside the rafters and is ready to be unfolded.

Cotton roof liner is installed. Notice the liner is hanging evenly around the top of the wall. The foil insulation layer is being unfolded with the help of the push stick.

ROOF LINER

Not to be attempted in strong winds

You will need:

- Liner
- Push sticks
- Stapler
- ¼” staples
- Ladder (8’ for 16’ yurt, 10’ for 20’ and 24’ yurt, 12’ for 30’)
- Rope

- Hand wipes. Make sure everyone's hands are clean before handling the white fabric!

- The roof liner is the first step if you have insulation. You can carry it up through the center ring. Have a person on a ladder or scaffold inside the center ring

- Open (unfold) the liner halfway, making sure the side without the raised seams is facing towards the inside (floor) of the yurt. As you unfold it, it tends to fall between the rafters but can be poked back up using the push sticks.

- Once it is unfolded halfway, pull the top layer up over your head from the center hole while helpers hold the bottom edge around the perimeter, then help pull and push the other half into place over the rafters using push sticks.

- When in place, the edges of the liner should hang over the ends of the rafters. (Optional: At this point it helps to put a short staple through the liner into the TOP of several rafters. This will hold the liner in place while the insulation and roof are installed.)

ROOF INSULATION

All roof insulation wedges are taped together for last seam (there will be a gap).

You will need:

- Foil wedges
- Foil tape, flat spreader (fabric hardware kit)
- Rope

- On a flat surface, PREPARE AHEAD by taping the foil wedges together.
-Unfold and spread out bundles of foil. (16', 20', and 24' will have 2 packages; tape 1 section together. 30' will come in three packages, so 2 sections will need to be taped.)
-Butt the edges of 2 sections together and run foil tape down the edge of the seam. Run the spreader over the taped seam to get out any air spaces. Turn over and repeat on the other side. On 30 yurts, repeat process to add 3rd section of foil. When finished, your foil should look like a pie shape with a few pieces missing.
-Fold foil roof in half, then continue folding to make a long triangle.
-Throw the end of the rope from the center ring down to the ground and tie onto narrow end of foil. Pull the roof insulation up to the ring.
-From the center of the ring, open (unfold) the roof halfway with helpers on the ground (or ladders) using push sticks to assist.
-Once it is unfolded halfway, pull the top layer up over your head.
-From the center hole, spread out evenly over roof while helpers hold the bottom layer in place and others assist with the push sticks.
-Adjust placement of insulation so that when in place, the edges of the foil hang evenly over the edges of the rafters and have 2'' – 3'' of foil laying on TOP of the ring. The last wedges will overlap and will then need to be taped from top and bottom edges as far as possible. (If it overlaps too much the insulation will not cover the rafter ends and should be adjusted). Stick the foil tape to the seam starting at top, from center hole. Let the tape roll down the roof to a helper below, taping last wedge together.

- Stapling the roil to the top of the ring in a few places and into the top of several rafters to hold in place while the roof is installed.

OUTER ROOF

You will need:

- Ladders or scaffold
  - 8’ for 16’ yurt
  - 10’ for 20’ and 24’ yurt
  - 12’ for 30’ yurt
  - 6’ or 8’ for the outside
- Rope
- Push sticks

- Have a person on a ladder or scaffold inside the center ring sprinkle baby powder over the roof insulation if the roof is the Durolast option. This will help it slide.
- From the center, throw the rope out over the roof to the ground. Tie rope to the narrow end of the folded roof on the ground, and have the person in the center ring pull it over the doorframe up the rafters. If the yurt is a 16’ or 20’ with a standard roof you can carry it up the ladder through the center ring. If you have a 30’ Durolast roof, it may be easiest to heist it up onto the scaffolding and (with 3 people) lift it through the 5’ center ring.

- The roof is heavy so you’ll need 2 people on the ground (or ladders) to help lift the roof up the wall and onto the rafters. Leave about 1’ of roof hanging over the top of the wall (this helps keep it from falling between rafters). Unfold the roof half way. The people on the ground will need to assist with the unfolding around the edges. You can use your push sticks to help poke the roof into place.

-When the roof is open half-way, pull the top half up and over your head in the center. Helpers on the ground will need to hold the bottom edge down along the perimeter. You can use long

sticks to help push the roof around as needed. If you have the heavier Durolast roof, or a 30’ yurt, tie a rope to the top layer of valance cable when it is unfolded half-way. Pull the rope from the center ring until the roof edge arrives, then throw the rope to the opposite side where it is pulled down. The seam along the bottom edge of the roof should be even all the way around the perimeter.

DOME INSTALLATION

You will need:

- Spindle (in hardware kit)
- Utility knife
- Screws (hardware kit) and drill
- Wrench or socket for hinge nuts
- Backer Rod packet (hardware kit)

- Backer rod needs to be inserted under the fabric roof layer at this point to help close any gaps once the dome goes on. Cut it so it ends on either side of the hinge, and will lie under the flange of the dome.

- Trim off and screw down your liner, insulation, and roof fabric so they lay fairly flat on top of the ring (about 4”) and aren’t visible from your central opening. Make sure your backer rod is in place. Do not trim the fabric around the hinge, as this invites leakage. Punch 3 holes through your liner and roof fabric for the hinge screws. You may cut back the insulation at the hinge, if necessary.

- Your dome will have 2 hooks for the springs, a hinge, and an opener. It will have a gasket on the bottom of the flange. Gently pull the dome up (with flat side down) from the outside edge of the roof, using a rope. Set the hinge over the screws and tighten with the 3 nuts.

- Attach the springs to the 2 hooks on the ring.

- Attach the spindle to both the dome and the ring. It should allow the dome to be opened about 8” when extended.

NOTE: Use caution when closing the dome with the opener. Over-tightening may cause the dome to crack!

WALL INSULATION

Wall insulation is hanging on ¼” tension cable ties outside of the lattice.

You will need:

- Wall insulation panels
- Cable ties
- Step stool
- Diagram for panel placement

The wall insulation is made in panels: some with windows, the rest solid. All are tagged with their designated placement in your yurt, starting to the LEFT side of the door (when standing outside). (See the diagram)

The insulation hangs outside the lattice walls on the ¼” tension cable, with the white liner facing in. You will need one helper

outside, lifting the panels in place, and one inside, attaching the panels.

- Using the diagram, hang the insulation panels in their designated position. Thread the cable ties through the grommets and around the tension cable. The insulation should cover the outside edges of the door jambs. The rest of the panels will have about a 6” overlap.

- To begin, use the minimum number of cable ties necessary to hold the panel in place. Do not tighten them. After you get your outside wall fabric in place, you will probably need to make adjustments to line up the windows. Do this later by sliding the insulation panels on the cable. Once you are satisfied with the window alignment, you can go back and install all the cable ties, and tighten them.

Wall insulation is installed. It should cover the front of the door frame(s), not just butting to it.

FABRIC WALLS-

Hanging fabric wall with hanks to 1/8” cable in roof valance.

You will need:

- Fabric wall(s)
- Ladders or stepstools

- Your walls hang from the 1/8” cable in the roof valance. The “hanks” (white plastic connectors) on the top edge of the walls are twisted onto the cable. They only twist one way. The short roof fabric that is behind the valance cable may need to be pulled down into place as you go.

- Begin on the left side of the door, as you stand outside. Leave about 12” of fabric overhanging the side of the door (this wraps around your doorframe when you’re finished hanging the walls). You can use clamps to make sure it doesn’t get pulled short. The walls are heavy and awkward to carry. You will need a helper or two to unfold the fabric and hold it up while you connect the hanks to the cable. Be careful to keep the fabric from getting dirty!

- Attach every 3rd hank to begin with. This will get the weight of the wall distributed around the yurt quickly and make it easier to

go back and adjust the placement of the walls. If your wall ends at a 2nd doorway, there should be about a 12” overhang to wrap the door frame. If not, go back and readjust the walls now. The loops that hold the cable in the valance may be in the way of where you need to attach a hank. You can move the hank by loosening the little screw and sliding the hank to a better position. Try not to pull the hank off the fabric, but slide it along the fabric. When finished, your walls should hang straight without puckers or folds.

- If your walls are in 2 pieces, the piece you just put up will be ending at another doorway, and should have an overhang. If not, readjust the walls now. Repeat procedure, leaving a 12” overhang again.

-Now you can readjust your insulation panels to line up with your vinyl windows. Finish adding cable ties, and tighten appropriately. Your white roof liner should be behind the wall insulation and the insulation should hang straight and evenly.

-Note: If you are using regular hard windows in your yurt (not vinyl) these will be cut into the wall fabric after your yurt is completely erected. Notes on this later.

CINCH CABLE AROUND BOTTOM OF WALL-

Bottom cable installed and tightened with turnbuckle.

You will need:

- 1/8” bottom cable with turnbuckle attached
- Cable clamps (attached)
- Socket to tighten clamps

- Starting at the door, thread your cable through the hanks along the bottom edge of the walls.

- The cable ends will be joined under the doorway. They need to be pulled tight, so the fabric is tucked around and under your plywood band, and you do not see any white hanks. If you have 2 doors, place the turnbuckle under the back door.
-note: putting a nail through the eye on the lower cable turnbuckle facilitates tightening without spinning the cable.

- Using the cable connectors, make a loop on the end of the cable, connecting to the turnbuckle (which should be fully opened).

- Tighten your connectors so the cable is as tight as you can pull it, and then tighten with the turnbuckle.

It is very important to keep your cable cinched snugly under your floor. You will need to tighten it periodically.

FABRIC WALLS TO DOORFRAME

You will need:

- Stapler
- Scissors

- Neatly wrap your excess fabric around your door frame. Pull it tight to keep the walls wrinkle-free. Make a diagonal fold at the top and bottom corners. If you have excess fabric, fold it back; or if too much, cut some off before folding under and stapling. You do not want it to show inside the yurt once your door is set.

- Staple or screw the folded fabric to the inside of the frame.

- When your door is set in place, this fabric will be covered.

FABRIC ON DOOR FRAME THRESHOLD

Included in your supply box is a rectangular piece of fabric that matches your upper and lower panel. Using a stapler, install this so it will be under/over your door and overhanging the platform.

SET DOOR

You will need:

- Door
- Door shims

- Screws/driver
- Level
- Saw
- Caulk

- Caulk threshold and behind brick mould

- Set the door into the opening and push until the trim is flush with the outside walls. Use door shims behind the hinges and screw into place according to the directions with the door.

- Attach door knobs according to directions in package.

- Your brick mould and door frame must be painted to prevent moisture damage. It is primed. We recommend painting the door also.

TIGHTEN THE VALANCE AROUND ROOF

- Find the laces on the bottom of the valance. Pull VERY tight and tie off. If there is excess cord, you can cut it off.

GLASS WINDOWS

- Draw a rectangle about 4” inside the frame made for your window opening.

- Draw a diagonal line from each corner of the wooden frame to the corners on the inner rectangle that you’ve drawn.

- Using a sharp razor knife, start at the bottom of the window opening and cut along the diagonal lines drawn through the insulation, liner, and outer fabric. Repeat at the top two corners.

- Connect the cuts, taking out the inner rectangle.

RAIN DIVERTER

- To install your rain diverter(s), center the bubble-foil template over your door. Trace the top edge of the template onto your roof.

- Apply HH-66 adhesive in a ½" band to roof all along the top of the line you traced. Apply the HH-66 to the rain diverter where indicated. Allow the adhesive to "tack-up" for a minute or two.

- Starting at the top center, carefully stick your rain diverter to the roof. Do one side, then the other.

STICKS FOR STORM FLAPS

(For sewn in windows)

We have provided sticks for you to put in the sleeve across the bottom of your storm flap. This makes it easier to roll up your storm flaps. Roll flaps under to prevent catching water and debris.

WEATHERIZING SUGGESTIONS

- Caulk between your plywood band and floor. This needs to happen BEFORE the walls go up.

- Caulk around your door frame.