Installation Instructions

FUTURE TRAC
50' Wide Hip End

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Thank You for Purchasing a TopTec Tent

If you have questions about installation, maintenance, or take down, please call us at (800)845-2830. Our goal is that you are completely satisfied with our products. Please read this installation manual carefully and follow all instructions contained herein. Please note that the installer is responsible for the site selection, installation, and use. Do not erect during inclement weather and follow all safety procedures during the installation and take down process.

Please contact all utility companies for underground services. In many states, the utilities work together and have formed a Utility Locating Service. It is your responsibility to locate all underground services, including speaking to the owner about irrigation, pool and other special services that they may have installed. Also, please note that special precautions should be taken such that any overhead powerlines are duly noted and avoided during the tent erection process.

To provide the quickest possible service, please fill in the information below so that we may effectively help you should a problem arise.

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TopTec Products, LLC in no way represents the estimated holding power to be true in all cases. It is an estimate, and as such does not imply that the figures are sufficient to hold any tent securely in windy or adverse weather conditions. The tent installer accepts sole responsibility for the safe installation, teardown, and maintenance of any tent. TopTec does not represent in any way that the materials provided with the purchase of the tent are sufficient enough to hold it up in windy or adverse weather conditions. There is no way for TopTec to know the site conditions or the weather conditions at the event to be able to recommend the adequate amount of holding power needed to hold the tent safely in position. Furthermore, we are not responsible for the methods which the installer uses to erect the tent or anchor it in position. Installers MUST be empowered to deem the tent unsafe for occupancy if/when the weather becomes unstable. For further recommendations on determining necessary staking values, please consult the IFAI Procedural Handbook for the Safe Installation and Maintenance of Tentage and the IFAI's Pullout Capacity of Tent Stakes. These resources are available from the IFAI Tent Rental Division.
Recommended Tools and Equipment

Personal Safety
- Gloves
- Hard Hat
- Safety Glasses

Site Transport
- Hand Truck (tops)
- Pole dolly

Frame Erection
- Ratchet and Socket Set
- Files for deburring sharp edges
- Cable Ties (for rigging accessories)
- Frame Jacks (one per section)
- 8' and 10' Step Ladders

Stake Installation and Removal
- 10 to 16lb. sledge hammer
- Gas powered stake driving machine (optional)
- 24" Pipe wrench for loosening stakes
- Mechanical stake puller

Tent Installation
- Ground Covers
- Cleaning Supplies
- Keder Guides
- Pull Ropes

Important Notes for Pre-Installation

Note the locations of any potential obstacles or hazards, per the site survey that should have been conducted prior to this installation. **Please note that special precautions should be taken such that any overhead power lines are duly noted and avoided during the tent erection process.** Accordingly, define what will be the perimeter of the tent. Lay out the general size of the tent by measuring and matching the ground surface with the size of tent that will be placed there.

Establish which side of the tent is to be raised first. To have the tent located in the right position when finished, you must start the layout about 2' away from the first side you plan to raise. This procedure will keep the installer from having to move the tent much when it's on its legs.

Future Trac tents should be installed starting at one end and then progress through each mid section to the opposite end. With the Future Trac system, once the roof portion of the frame is assembled and sitting on the ground, the installer has the option of installing the fabric and then lifting the complete unit OR lifting just the roof frame and installing the legs prior to pulling the tops into position.
TENT ERECTION

STEP 1 - LAYOUT
The layout of this tent is an important part of its installation. It will allow the installer to account for pieces of the tent prior to it being erected and allow any missing or damaged pieces to be replaced before the tent is erected. It also allows for the orientation of the frame to obstacles or hazards such as sidewalks or shrubs. It's much easier to move the components of the tent than to move an entire assembled frame.

Lay out the Future Trac perimeter poles, corner brackets, and intermediate brackets first.

IMPORTANT! During the installation process, lay out all perimeter poles to be sure they are positioned so that the keder slots are facing the interior of the tent and a hole is visible on the scoreline of the pole. This will allow the perimeter poles to be rotated up so the top straps can be wrapped around the pole OR to allow the pole to be rotated down - for sliding sidewalls. (See illustration at right)

If the hole is not visible on the score line of the perimeter pole, the pole needs to be rotated 180° from end to end.

Continuing the layout process, lay the keder rafters with the 4" tail near the intermediate brackets along the side of the tent, angling the top of the rafter toward the center of the tent. Lay the keder rafter extensions at the ends of these rafters with the flat end toward the cluster. Continue this process until all rafters and extensions are laid out.

Hip Poles will be a 14'4" and a 21'10" coupled together, with the 14'4" being on the end that connects to the crown. There are also 16'1" poles that attach to the 6-way hip connector and the intermediate brackets. Lay all of these poles and brackets out in their proper orientation. The swing arms on the hip connector attach to the purlins (high side). There will be 9'4" round purlin poles that attach between the purlin brackets and the hip connector. The end rafter consists of one non-kedered 65" extension bolted to a 21'10" pole. The end with the extension gets connected to the cluster.

STEP 2 - PREASSEMBLY
Begin assembly by bolting all keder extensions to their rafters. Also bolt the end rafters and their extensions. Slide the purlin brackets in the channel on the bottom side of the rafter and bolt them to the rafter using the "high side" hole in the bracket. In other words, when the rafter is installed and the tent is in the air, the tube for the purlin will be to the "low side" of the hole that the bolt goes through. (See Illustration)
TENT ERECTION CONT’D

ASSEMBLY

The tent is most easily assembled by building arches, then standing those arches to build the roof framework, and then raising the roof framework to install the legs and brace bars.

Attach rafters to each side of the crown cluster with the 3/8" detent pins. Install the roof rafter brace bar (103") in the function slot of the rafter and pin with 3/8" detent pins. Attach the intermediate brackets to the tail end of the rafter with 3/8" detent pins. Finally, install the scissors truss cables at the intermediate brackets and also at the tab at the rafter extension. Each set of scissors truss cables will have 4 separate cables connected to a center 2" stainless steel ring. There are 2 short cables and 2 long cables. The short cables attach to the ear at the connector splice and the long cables attach to the intermediate bracket at the perimeter. (See Drawing).

Now would be the best time to install any attachments to the crown cluster or rafters for lighting or other accessory items that may need to be installed in the tent for the event.

Install the 14'4" hip poles onto the welded angle tubes of the crown cluster now so you don't have to make that attachment from the ladder later.

Next, connect the ridge tube for the next mid section (if assembling more than a 50x50) with a quick pin. Now connect the pre-assembled 2-piece end rafter to the crown with a quick pin. It will be necessary for one person to hold this up to relieve binding until the arch is raised.

ROTATING THE ARCH

Place the arch with the intermediates at the desired finish location. Placing personnel in this step is important. Two are positioned about 5' to either side of the crown and will do the main lifting. One person on the ridge tube pushes and the second person on the end rafter pulls and steadies the arch until it is upright. Working together as a team, the arch assembly can easily be raised with a crew of 4.

CAUTION! Once arch is upright, 2 people are needed to steady it until the next step is complete.
Next, build out the hip rafters and purlins. Attach the 6-way hip connector (swing arms to the high side) to the 14’4” hip pole that has already been attached to the cluster. Install 9’4” purlins between the swing arms of the 6-way hip connector and the keder rafters and end rafters (4 purlins on each end). Finish the hip by attaching the 21’10” hip pole that terminates the hip at the corner of the tent.

After the hip poles and purlins are connected, attach the intermediate rafters (16’1”) to the fixed tubes of the hip connectors. They terminate at intermediate locations on the perimeter.

To finish the end framework, assemble the perimeter by starting at one keder rafter and working in progression, pin by pin, until you reach the opposite keder rafter. Attempting to install the perimeter poles in any other sequence will lead to unnecessary frustration. Also, keep in mind that the perimeter poles, if laid out properly, can now be installed in either the “up” (26.5 degree angle) position for use with conventional clip-on sidewalls, or in the “down” position for use with sliding sidewalls.

The half end framework is now complete. Check for the security of all bolts, pins, and shackles.

Assembly of the remaining arches for the mid sections are typical of the first arch assembly, but must be done laying away from the half end that was just built. Assemble arch in the same sequence as the first assembly, then rotate the arch to its upright position and, while using a ladder, lift the ridge pole and connect to the second arch cluster with a quick pin. Next, connect the perimeter poles for this mid with quick pins. Finish the mid frame assembly by adding the purlins on each side of the arch with quick pins. You may find it easier to install the final purlins by sliding them past their pin holes on the brackets and then sliding them on the opposing brackets and making the pin connections after the pole is fully on both brackets.

Assemble the last hip end using the same procedures that were used to build the first hip end. It is helpful to stand this final arch toward the end so that the end rafter and hip poles can be attached while the arch is laying flat on the ground.
TENT ERECTION CONT’D

Check all the connections and fittings to ensure that the frame is ready for top installation. As was previously pointed out, make sure to turn all quick pins away from the direction that the tops are being pulled from, so as to minimize the risk of them being pulled out by the curtain rope or other potential snags.

TOP INSTALLATION

Know that the top may be installed either now, before the legs are attached to the frame, or after the legs are attached and the tent is “in the air”.

Preparation is important! Lay out ground cloths at perimeter line of the tent. Ground cloths should be large enough to protect the panels when opened to the length of the bay and should be 6’-8’ in width. Place top on ground cloth and roll out along the length of the section of tent that you are working on.

Throw pull ropes up and over the frame section where you're working. Connect carabiner of rope to the HEAVY DUTY 1” webbing that's sewn to the top - not the small beckett that's sewn to the valance. When making this connection, make sure to clip the carabiner with the gate facing away from the cluster to minimize the chance for snagging when the rope passes the crown.

Two people working together as a team will man the ropes at the loose end while the other two insert the top into the keder track. Optional keder guides (see illustration) will allow for a much simpler guiding of the material into the track and extend the life of the tops.
TENT ERECTION CONT’D

Utilizing a third rope as a return rope will allow you to pull back the pair of pull ropes without having to throw them over the frame each for each section of top fabric.

While working slowly and pulling evenly, the two people on the loose ends of the ropes will pull the top panels up and over the top and down to the opposite perimeter. If the fabric catches, stop and pull it back about a foot, or just far enough to clear the obstruction. Once the top panel is pulled into place, fasten a couple of the perimeter buckle straps to the perimeter poles. This will keep the wind from possibly backing the top back out of the frame.

IMPORTANT! It is best to start at one end and continue in order to the opposite end when installing roof panels. Furthermore, it makes good sense to start on the upwind end of the tent for the first section of top to be pulled into position.

When all tops are installed, with just enough straps connected to hold them in place, you are ready to lift the frame. Before lifting, connect the top portion of the hold-down ratchets to the top loops of the roof panels. This will keep you from having to get on a ladder to do it later.

LIFTING THE FRAME

Preparation is important at this time. INSTALL ANCHORING POINTS TO HOLD THE TENT WHILE THE FRAME IS BEING LIFTED INTO POSITION. A minimum of one anchor point at each corner is recommended. Drive a stake about 2' from the corner and attach a ratchet strap to temporarily secure the frame and top to the ground.

Pre-assemble the legs and bases and distribute them around the tent - leaving one leg at each perimeter bracket, including each corner.

CAUTION! Wind conditions can and will lift the entire tent if the tops are on the frame. It is for this reason that you should ALWAYS LIFT THE TENT INTO THE DIRECTION OF THE WIND. In other words, the windward side of the tent should be the LAST side you raise. Proceed with extreme caution.

Once wind direction has been determined, the tent jacks should be placed down the long side of the tent that is the most downwind. NO FEWER THAN ONE JACK PER SECTION OF TENT (Perimeter Pole) SHOULD BE USED. The tent jacks should be placed within 4’ of each corner leg and within 4’ of each intermediate leg position. The jack is designed such that the u-shaped base is oriented toward the tent, with the single outrigger leg pointing away from the tent.
TENT ERECTION CONT’D

After the jacks have been placed into position, attach the short sling with D-rings at each end around the perimeter tube of the tent and clip it to the hook on the end of the jack strap. PAY SPECIAL ATTENTION HERE TO BE SURE THAT THE JACK STRAP IS NOT TWISTED. This will make it more difficult to continue raising the tent as the jack strap shortens.

With one person manning each jack, begin cranking the handle of the jack clockwise such that the perimeter stays perfectly parallel to the ground. It is easy for members of the tent crew to get out of sync at this point, but it is imperative that they pay attention to each other and raise this side of the tent as a team. IT IS ALSO IMPORTANT TO WORK QUICKLY, BUT SAFELY TO GET THE LEGS ATTACHED AS SOON AS POSSIBLE.

Slide each tent leg into position on the corner and intermediate brackets and connect with a 3/8" detent pin. Brace bars should be installed during this process as well. It is the installer’s choice as to which position they mount the brace bar - high or low. MAKE SURE ALL OF THE LEGS ALONG THE LENGTH OF THE TENT ARE ORIENTED IN THE SAME DIRECTION, INCLUDING THE CORNERS.

Once the legs and brace bars have been completely installed and attached with pins along the first long side, move the tent jacks to the opposite side of the tent and repeat the process. The final step in this portion of the tent erection is to attach the legs on the ends of the tent. The jacks should remain in place until this step is complete because the installer will find it necessary to lift the frame so the end legs can be attached. Finish their installation by attaching their brace bars to the respective end rafters. Remove the jacks from the tent and store for future use.

It is at this point in the installation that attention needs to be given to the legs of the tent. If no sidewalls are being used, visually plumb each leg and drive one stake through the angled tube on the outside of the base plate and another through the large hole on the inside of the base plate. The tent is intended to be installed with two 40" double-headed stakes per leg and they should be used EVERY TIME. IF KEDERED SIDEWALLS ARE BEING USED, measure between the legs and drive both stakes through each base plate AS SOON as these measurements are correct. BE SURE TO MEASURE FROM THE CENTER OF THE LEG (BETWEEN THE KEDER TRACKS) so the keder walls fit correctly.
TENT ERECTION CONT’D

TO ACHIEVE THE ENGINEERED WIND LOAD CRITERIA OF THIS TENT, THE INSTALLER MUST ALSO ATTACH OUTGUYS FROM THE CORNER AND INTERMEDIATE BRACKETS ALONG ITS LENGTH. THE NUMBER AND CONFIGURATION OF THE STAKES DRIVEN MUST HOLD TO THE LEVELS ESTABLISHED IN THE ENGINEERING DOCUMENTS THAT ARE AVAILABLE FROM TOPTEC.

You have now successfully installed your new Future Trac frame tent from TopTec Products. If you should have any questions about this installation, call TopTec technical service personnel at (800)845-2830. We will gladly assist you in any way we can.

TENT TAKE-DOWN AND REMOVAL FROM SITE

This tent should be disassembled in the reverse of the installation with the exception of the top removal. The installer will find it simpler to remove the tops while the frame is still standing on its legs. Gravity is your friend and will aid you in pulling the tops off the frame. The top sections can then be accordion (fan) folded on the ground as they come off the frame. Otherwise, the tent disassembly is carried out in reverse of the installation.

ENSURE THAT THE TOPS ARE PLACED IN THEIR STORAGE BAGS TO PREVENT DAMAGE DURING TRANSPORT TO THE SHOP OR JOBSITE.

DO NOT STORE TOPS WHEN WET!! IF THE TOPS ARE WET WHEN REMOVED FROM THE FRAME, DRY THEM AS SOON AS POSSIBLE - BEFORE STORAGE - OR MILDEW WILL OCCUR.