

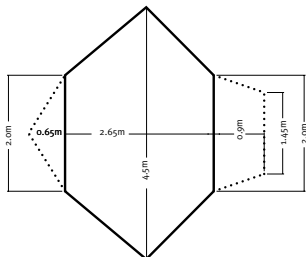
MEC FRONTENAC

This booklet tells you how to prepare, assemble, and maintain your new tent; please keep it for future reference. Set up your tent at home before your first trip; this will allow you to inspect it for any manufacturing defects, check that all parts are present, and learn the assembly procedure with minimal stress on the tent and on you.



Your Frontenac tent package includes:

- Tent body
- Tent fly
- One pole system on a centre hub
- Three separate shorter poles
- Aluminum pegs and nylon guylines
- Aluminum pole repair sleeve



FRONTENAC Height inside 1.40m

 MOUNTAIN
EQUIPMENT
CO-OP

SEAM SEALING

The seams of your tent have been waterproof taped on all exposed seams. All features, such as Velcro® pole anchors and door tiebacks, have been welded onto the inside of the fly to avoid any small leak points. However, for extremely wet and windy conditions, you may want to re-seal selected parts of your tent. These include parts of the inner tent where condensation or windblown rain could potentially wick through, such as lantern loops or pole clip suspension points. You may also wish to seal the “in” side of any untaped floor seams exposed to ground moisture or rainfall. For seam sealing and tent repairs, we recommend a quality after-market polyurethane sealer such as McNett Seam Grip®.

Work in a well-ventilated area to avoid inhaling sealant vapours. For complete sealing, evenly apply only the minimum required amount of sealant into needle holes, thread, and fabric joints. Allow to dry and cure overnight. McNett sealants (Seam Grip and similar) cure more quickly in a moist or humid environment. Before packing the tent for the first time, dust newly sealed areas with talcum powder or spray them with 303™ Protectant; freshly cured sealer can bond to itself even when dry. If the tent is used hard and often you may need to reapply seam sealer in high-wear areas.

If the main panel of the front vestibule is rigged as a roof (see Step 5 of Attaching The Fly) water can potentially pool where the panel meets the main fly, along the pole that runs over the door top. For this area at least, we strongly recommend “touch up” sealing on the outside of the fly where the hook-and-loop wrap-ties and toggle clips are sewn in.

SITE PREPARATION

Remove sharp objects that might puncture the tent floor.

A ground sheet beneath the tent is not necessary for waterproofness, but it will reduce long-term wear on the tent floor. A ground sheet should be cut or folded smaller than the tent floor to prevent water pooling between the floor and the ground sheet. Another light and convenient option is MEC’s custom-made, coated nylon Footprint.

In winter conditions, we recommend digging out a platform with surrounding walls. To avoid melting depressions in the snow under the tent, pack the snow down solidly by ski or foot.

SET-UP

A note about shock-corded poles

Shockcord (bungee cord) is meant to keep pole sections in the proper order—not as an automatic assembly mechanism for poles. Do not hold one section while whipping the rest of the pole back and forth, or toss the poles into the air; either procedure excessively stresses the pole joints and shockcord. Instead, fit poles together section by section, making sure that each piece slides completely into the next. Forcing an improperly assembled pole into place can damage the pole and/or the tent body and fly.

Assembling the Tent

1 *Assemble all poles carefully as described in the previous paragraph.*

You will have one six-poled system fitted into a centre hub, plus two equal-length poles and one shorter pole.

2 *Lay the tent body out flat.*

In windy conditions, you may wish to peg one or more corners.

3 *Lay the hubbed tent poles down on the tent body with the hub roughly in the middle, and the crooked gold poles pointing toward the gold webbing tabs on the tent body. **This will ensure the pole system is oriented correctly to the tent body.***

4 *Plug the pole ends into the grommets in the webbing tabs at each corner of the tent.*

It's easiest to plug in the poles in pairs. Attach one pole, followed by the pole directly opposite it. The poles arch up more easily this way, and have less of a tendency to pull out of the grommets. You may find it easiest to do the two black poles along the tent's longest axis first (that is, from the outermost corner to the other outermost corner). Then do one gold pole followed by one of the remaining black poles.

5 *Clip the pole clips to the poles that you inserted into the grommets.*

The clips have colour-coded ribbons that match their proper poles. The third highest gold-ribboned pole clips on each side of the front door should be clipped into the inside of the plastic elbow on the corresponding gold pole. Each wing of the tent has one gold ribbon that has two clips; leave these unattached for now.

6 Position the shortest pole across the top of the front door, and insert the ends into the holes on the plastic elbows of the gold poles.

7 Lay one of the equal-length poles **over** one of the black side poles, following the seam line and remaining gold-ribboned pole clips that run across the top of a corner wing. Plug the pole ends into the tabs on the nearest side of each door. Clip on the gold-ribboned clips. Note that the centre ribbon has two clips. Fasten them to the gold pole on either side of the black pole: this will lock the two poles together so they can reinforce one another.

Repeat Step 7 on the other side with the other pole.

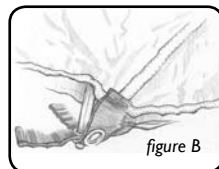
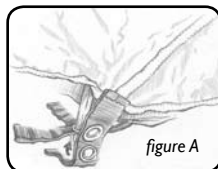
Attaching the Fly

1 To position the fly correctly over the tent, drape the fly over the tent and ensure the webbing tab colours on the fly corners correspond to the matching tab colours on the tent body: gold with gold at the front of the tent, and black with black at the side corners and back.

2 On the underside of the fly are several hook-and-loop wrap-ties. Attach these wrap-ties to make the tent its strongest.

Standing under the fly, attach the wrap-ties starting at the top of a pole and working down. Wrap the inner hook-and-loop tab as tightly as possible around the pole, then fold the outer hook-and-loop tab over it. Where the poles cross at the sides of the tent, the wrap-ties are extra-long. Wrap these ties tightly around both poles for further reinforcement. Don't forget to fasten the wrap-ties on the horizontal pole over the front door.

3 Fit all of the grommetted webbing tabs on the six fly corners over the appropriate pole ends, folding the grommet tabs under the tent body as shown in figures A and B.



There is more than one grommet on each webbing tab. Use the outermost (loosest) grommet on each tab when first erecting the tent. You can increase the tautness of the fly by moving the pole ends to the inner grommets. Changes in humidity can cause the fabric to slacken and tighten.

4 *If you have not already done so, peg out the six corners of the tent.*

5 *Peg out the two vestibules. Tie back the vestibules in whatever combination provides the desired balance of ventilation and weather protection.* Note that each door has peg loops on either side of the door zippers where they reach the ground. By pegging out one loop or the other, you can make each door side-opening or centre-opening to adapt it to the prevailing wind or local landscape features.

The centre panel of the front vestibule can also be rigged as a porch roof, using corner poles improvised from trees, deadwood, paddles, or hiking staffs. The most important thing to bear in mind if rigging this panel as a rain roof is not to leave flat or baggy surfaces where water can pool. You can rig the panel so that it slopes away from the tent, like a cap brim, or so that it slopes towards the tent, allowing water to drain to the sides. You can rig the panel with one front corner higher than the other so that water drains down the slope to the lower side. If an overhead branch is handy, you can run a line to it from the guyline tab at the centre of the front panel to create a water-shedding peak. Mix and match these different ideas to adapt the panel to the local landscape and weather.

6 *If desired, peg out the guyline loop at the bottom middle hem of each side wall.* These can be pegged so that the wall angles out from the tent toward the peg. This makes the tent more wind resistant and also allows maximum ventilating airflow.

Rigging the Side Windows

1 Each wing of the tent has a triangular window flap. *Weather permitting, you ventilate the tent by rigging a guyline from the loop at the bottom of the window flap and pegging it out so that the window is open.*

2 *To lower each window flap, fasten the hook-and-loop patches to hold it into place, clip the guyline loop into the plastic snap fitting on the tent fly, and re-adjust the guyline tension. Note that the plastic snap fitting should be run **through**, not **over**, the guyline loop. This will prevent the window flap from being jammed into the plastic snap fitting as the guyline comes under tension from wind.*

Rigging for Bad Weather

We recommend facing the back door of the tent into any prevailing winds. This will present the most streamlined shape to the wind, and also positions the front door where it is downwind and sheltered for entering and exiting the tent.

The Frontenac has a number of guyline attachments so you can rig it increasingly securely in response to actual or anticipated winds. To secure the tent:

1 *Guy out the four main corners of the tent using the attachment points that are about halfway up each corner of the fly. These lines should run out at about a 45-degree angle from the tent, that is, in about the same direction as each pole is "pointing."*

2 *Guy out the tab from the front door window.*

3 *Guy out the bottom hem of the front door main panel.*

4 *Guy out the two tabs at the very top of the tent roof. These guylines should run out at ninety degrees to the tent sides.*

5 *Guy out the tab from the roof vent; this will be most secure if the vent is shut with the hook-and-loop patches.*

Only extreme conditions require the use of all guyline points. To save weight and cost for the average user, the tent is not supplied with pegs and lines for all points.

Anchoring the Tent

The #7001-T6 aluminum stakes included with the tent are suitable for general use on relatively soft ground. However, in very hard-packed ground you will need stronger (and heavier!) stakes that can withstand the force needed to drive them in. On snow, sand, or other loose-packed surfaces, wider T-Stakes or aluminum snow stakes will hold better; these stakes hold best buried horizontally. You can also improvise with other "stakes" (hiking staffs, ice axes, branches, rocks, trees), using the tent's stake loops or cord as required.

When packing for your trip, consider the conditions you'll likely encounter and what sort of anchors you'll require. You can often leave several of the supplied pegs at home and replace them with improvised anchors, thereby saving weight and space in your pack.

Ventilating the Tent

Proper ventilation is the key to minimizing condensation in any tent. Keep fabric doors open as widely as the prevailing weather permits. If bugs or drafts aren't a problem, leave mesh doors open too. Crack each door open from the top down; warm, moist air rises and will escape through high openings. If the design of your tent allows for it, have openings at both ends or both sides of the tent to allow air to flow through for best ventilation. On very hot nights, when you are confident there will be no rain or dewfall, you can leave the flysheet off and use the inner tent alone as a "bug tent."

The Frontenac features a roof peak vent that allows rising, warm, moist air to escape, while encouraging cooler, drier air to flow in through other door and window openings. To open the vent, fasten the two hinged battens together at the centre using their hook-and-loop surfaces: this will form a prop rod that holds the vent open. You can adjust the length of this prop rod, and thereby the vent opening size, by fastening the two battens together at different places along their lengths. To close the vent, pull the battens apart, fold them flat, and seal them down with the hook-and-loop strip.

Disassembling the Tent

The most important consideration in taking down a tent is not to stress the poles and fabrics. First, disconnect guylines and release the tension from the tent. Next, release all the poles. If your tent has pole sleeves, push the poles out of the sleeves instead of pulling them out. To minimize the stress on the bungee cord in the poles and to speed disassembly, fold each pole in half first, and then fold down towards the outsides, two sections at a time.

Packing the Tent

If possible, fold and roll the tent rather than stuffing it into its sack—rolling makes a smaller package, and causes fewer creases in the polyurethane coating. The tent and poles may be carried separately for easier packing or load sharing. There are two drawcords on the tent sack. Use the lower one when carrying the tent separately from the poles; this makes a shorter package that fits sideways into a pack. If carrying the pole sack on the outside of a pack, securely attach the drawcord to the pack to avoid loss.

CARE AND MAINTENANCE

Protecting the Tent

Ultraviolet damage is the single largest hazard your tent faces in its lifetime. Fabrics should not be exposed to sunlight for extended periods of time; this will eventually result in colour fading and fabric failure. The uncoated fabrics of the tent canopy are most susceptible to damage from UV and should be covered by the more durable fly. If extended exposure is unavoidable, cover the tent with a tarp or a sheet of nylon.

Lighting your Tent

Using a candle lantern in a tent carries definite risks. Never leave a candle lantern burning unattended; always watch for fire hazard from overheating fabrics or spilling wax. Spilling wax can be dangerous, particularly to eyes and other sensitive areas. It is your responsibility to use candle lanterns wisely and with extreme caution: we do not endorse the use of any flame or heat source in a tent. Cooking in a tent is strongly discouraged because of fire hazards and carbon monoxide inhalation risks. Unlike campfire smoke and other fumes, which cause you to gasp for air, **carbon monoxide can render you unconscious without any warning.** 

Food in Tents

Mop up spills promptly with water. Many foods, particularly acidic ones like fruit or juices, can weaken synthetic fabrics over time. In any case it is best to eat and store food away from a tent to avoid attracting animals.

Cleaning

Clean the tent by hand while it is set up, using a sponge, a mild non-detergent soap, and warm water. Rinse thoroughly. Do not dry clean, machine wash, or machine dry. Stubborn stains like tar can be left in place and dusted with talcum powder to prevent transfer to other areas of the tent in storage. After cleaning, a spray-on water repellent designed for synthetic fabrics may be applied to the flysheet if surface water repellency is weakening. (This is apparent when water droplets no longer bead up on the fabric.)

If the poles are exposed to salt or salt water, rinse them in fresh water and allow them to dry before storing. (While aluminum does not rust, it can become brittle through unseen corrosion over time.)

Lubricating the Poles

Occasionally apply a light coating of a silicone-based lubricant like 303™ protectant to the tent pole connections. If the poles are used extensively in marine environments, treat them more frequently.

Storing your Tent

Dry the tent and poles completely before storage to avoid mildew or hidden pole corrosion. Store in a cool, dry place out of direct light.

Mildewed tents can be cleaned as described above, but there is no way to remove the dark stains without damaging the fabric. Mildew will probably take some time to affect the waterproof coatings, so the tent should still be usable.



REPAIRING YOUR TENT

Fabric Tears

Watertight repairs to rips can be made with seam sealant such as McNett Freesole™, Aquaseal™, or Seam Grip®. For tears shorter than about 1.5cm (1/2in.), apply duct tape to one side and sealant to the other. On longer tears, apply duct tape to one side of the tear and, on the other side, a patch of no-see-um netting that extends about 6-12mm (1/4-1/2in.) beyond each edge of the tear. Use oval or circular patches (rounded edges are less likely to peel away than sharp corners). Cover the patch thoroughly in sealant. Once the sealant is completely dry, the duct tape can be removed from small and large repairs alike.

For longer trips, we recommend taking an expedition sewing kit and extra nylon, webbing, a spare pole section, and narrow-diameter (2.5mm) tent pole shockcord. Coghlan's Seam Saturant or the like will prevent wicking through a tent fly via seams or webbing.

Fixing a Pole in the Field

Slip the pole repair sleeve over one pole end. Slide the sleeve along until it is centred over the break in the pole, then wrap it into place with duct tape. Be careful not to damage the tent fabrics when removing the damaged pole.

Replacing a Broken Pole Section

The MEC Grip-Tip™ pole tips are press-fitted into place. Carefully tug out the pole end tip closest to the broken section. Being mindful of how to re-tie it later, untie the end tip. Slide pole sections off the cord until you reach the damaged section. Remove the broken piece, being careful not to damage the shockcord. Thread on a new section of appropriate length and diameter, followed by the other sections, then re-tie the end tip knot.

Zippers

A worn slider is the cause of most zipper problems. An occasional application of 303 Protectant or a silicone-based lubricant will help reduce wear. Grit accelerates slider wear. Keep zippers clean by rinsing them under water after use in windy/sandy environments. Sometimes, carefully squeezing the top ends of the slider with a pair of pliers will restore some life. If an inner door slider fails, run it as far as possible toward one end of the zipper, and use only the other slider for the duration of the trip. A sewing repair shop can replace inoperable sliders.