

MSR® TENTS AND SHELTERS

OWNER'S MANUAL



MOUNTAIN SAFETY RESEARCH®

DANGER



KEEP ALL FLAME AND HEAT SOURCES AWAY FROM THIS TENT FABRIC

Never use any fuel-burning products (stoves, lanterns, heaters, etc.) inside or within proximity of this tent. Use of fuel-burning products

inside or within proximity of this tent can result in the accumulation of dangerous concentrations of carbon monoxide—a colorless, odorless gas. Breathing carbon monoxide will cause serious injury or death.

Keep all flame and heat sources away from this tent. This tent is made with flame resistant fabric which meets CPAI-84 specifications. It is not fireproof. The tent fabric will burn if left in continuous contact with an open flame or other heat source. Failure to keep all flame and heat sources away from this tent can result in a fire that can burn, injure, or kill you.

Before using this product, read and fully understand:

(1) attached warnings; (2) the instruction manual and all accompanying documentation. Failure to follow these directions can cause an unsafe situation leading to fire, burns, severe injury, or death.



NO FIRE

Never place your stove, campfire, or other flame source in or near your tent or shelter. Never cook, light, or refuel a stove or any other heat source inside your tent or shelter. Death by suffocation and/or serious burns are possible.



VENTILATION

Maintain adequate ventilation inside your tent at all times. Death by suffocation is possible.

CAMPSITE CHOICE

When choosing a campsite, carefully consider the possibility of falling rocks or tree limbs, lightning, flash floods, avalanches, strong winds, and other potential hazards to reduce the risk of loss or injury to the tent or occupants.



ANCHOR

Anchor your tent properly at all times to reduce the risk of loss or injury to the tent or occupants.

4 TIPS FOR LONGER TENT LIFE

- 1. Never Store Your Tent Wet:** Storing your tent while it's wet (or even just damp) leads to premature breakdown of the fabric and coatings. *(See page 6).*
- 2. Treat Your Poles Well During Setup:** 90% of pole damage occurs during setup. Don't allow the shock cord to pull and snap the ends together as this can damage the pole ends and result in breakage. *(See page 7).*
- 3. Use a Footprint:** Footprints keep your tent floor clean and dry and they minimize floor wear by protecting it from excessive abrasion. *(See page 4).*
- 4. Don't Rush the Zippers:** Be kind to your zippers. Go slow when zipping. *(See page 9).*

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SETUP AND USE

BEFORE YOU GO

Fully unpack your new MSR® tent or wing and pitch it at home. Familiarize yourself with the setup procedure and the various features, and attach the guy cords. This will help if you have to set it up in the dark or in adverse conditions.

SELECTING A SITE

Select a site that's level, will drain well if it rains, and is protected from wind and other elements. Clear the area of sharp stones, sticks, and other debris, both for comfort and to protect your floor. If possible, avoid setting the tent on ground that is already wet since this will make controlling condensation even harder.

USING A FOOTPRINT

It's recommended that you use a footprint (sold separately) underneath your tent. Designed for each specific model, a footprint will not only keep your tent floor clean and dry, it will protect it from excessive abrasion, prolonging the life of the tent.

USING TENT POLES

Handle tent poles carefully—90% of pole damage occurs during setup.

- When unfolding and folding, do not allow the shock cord to pull and snap the ends together. This can damage the pole ends and result in breakage when the pole is tensioned.
- Push, don't pull, your poles through the sleeves. Pulling the poles will cause sections to separate and potentially damage the pole or your tent fabric. Don't force the poles; if you feel resistance, find the snag and work your way through it.
- Exposure to saltwater may cause your frame to fail due to corrosion. Rinse poles in fresh water when you return from your trip and apply a light coat of silicone lubricant.
- In extremely cold weather or after extended use, the shock cord can lose some elasticity. To adjust, simply pull each pole section quickly back and forth to tension the cord. If more tension is needed, unscrew the end tip, pull out a few inches of cord, and tie a new knot in the cord.

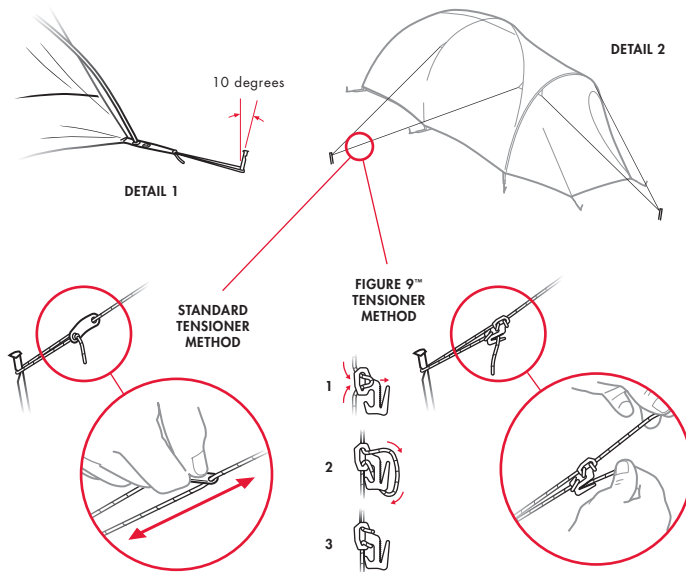
Note: Fabric expands and contracts in varying climates. To accommodate this, most MSR® tents have two grommets for inserting pole tips in the stake loops. Use the outer grommet in dry climates when the fabric is tight. The inner grommet is for humid climates when the fabric is loose.

STAKING

All tents, including freestanding tents, require staking to prevent them from flying away in a gust of wind, that's why it's necessary to always anchor your MSR tent. Enough stakes and guy cord are supplied to safely setup your tent in most situations. It may be necessary to purchase additional and/or specialized stakes and guy cords for use in extreme or varied soil conditions. Cascade Designs offers a full line of stake tensioning kits; see your dealer for more information. (See *detail 1*).

USING GUY OUTS

Tightly tensioning your tent with the guy out lines greatly increases the tent's strength and stability. (See *detail 2*). This will reduce fabric droop and wrinkles, and prevent rainwater from pooling. Attach the cord to the tent where needed and feed the cord through the tensioner. (See *Tensioner Methods below*).

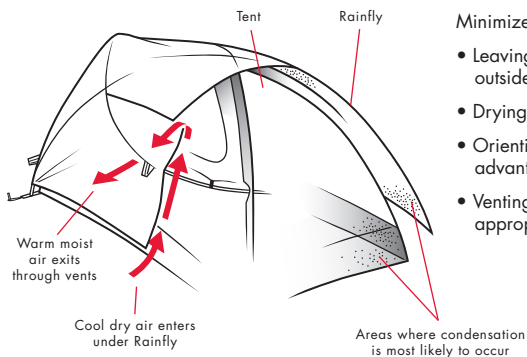


SETUP AND USE

CONDENSATION

Condensation is an unavoidable fact of physics. When warm, moist air comes in contact with the cool tent fabric it forms condensation. In most conditions condensation can be controlled by allowing air inside the tent to vent outside. During periods of high humidity, such as rain, it can be impossible to remove or reduce condensation. In these conditions, a high degree of ventilation can actually increase the condensation by drawing in more humid air. (See detail 3).

MSR® double-wall tents are designed to allow humid air to pass through the breathable canopy fabric or No-See-Um mesh and collect on the inner side of the rainfly. It is normal to find the underside of the rainfly covered in water droplets in the morning. In humid conditions condensation will also collect on the sill and parts of the floor inside the tent. This is also normal and does not indicate leaking floor fabric.



DETAIL 3

Minimize condensation by:

- Leaving damp items outside of tent
- Drying tent between uses
- Orienting the tent to take advantage of breezes
- Venting the inside when appropriate

FIRE

Never use fueled appliances or flame-producing items of any kind inside or near your tent. Position your shelter away from camp stoves, campfires, or other flame-producing items.

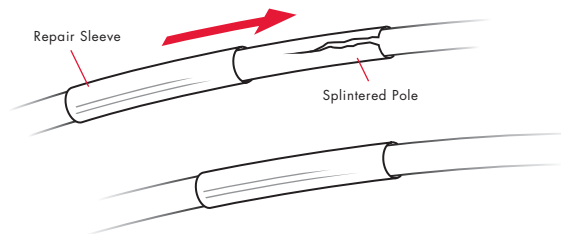
HOW TO MAKE FIELD REPAIRS

FABRIC & NO-SEE-UM MESH TEARS

If your tent fabrics are damaged while on a trip it's possible to do minor repairs in the field. The MSR® Tent Field Repair Kit (sold separately) includes waterproof, self-adhesive patches for tent fabrics, No-See-Um mesh, and even clear polyurethane for the rainfly. McNett Seam Grip® seam sealer is a good option for small holes. If you have a large tear, the MSR® Product Service Center can also fix your shelter—for a reasonable fee—after you return from your trip. Normal wear and tear is not covered under warranty.

POLE REPAIR

If a pole breaks, you can make a temporary splint with the pole-repair sleeve included with your tent. Slide the repair sleeve over the broken section and tape or wedge it in place to hold it secure to form a temporary repair. After you return from your trip, contact the MSR Product Service Center for information on a permanent repair to your pole. (See detail 4).



DETAIL 4

CARING FOR YOUR TENT AT HOME

STORAGE

Never pack or store your tent if it is wet/damp or dirty. Though we use the best polyurethane waterproofing available, prolonged exposure to moisture causes hydrolysis; the waterproof layer breaks down, becoming soft, sticky and no longer waterproof. Storing a wet tent for as little as 24 hours in warm weather is also likely to start the process of mildew forming on the fabric. Mildew will cause your tent to stain, smell, and will lead to the premature breakdown of the waterproof coating. Mildew and moisture damage are not covered under the Warranty.

Dry your tent thoroughly after every trip and store it outside of the stuff sack, the same as you would a sleeping bag, in a dry area out of direct sunlight.

CARE

Sun & Ultraviolet Rays

UV light is one of the most damaging elements for your tent or shelter. Though shelters are often used in the sun, extended and prolonged exposure will cause fabric to fade, lose strength, and eventually tear. The effects occur more rapidly at higher elevations. If possible, pitch your tent or shelter out of direct sunlight and use your rainfly to help protect the more fragile mesh and uncoated nylon. UV damage is not covered by the warranty.

Seam Sealing

Superior fabrics and construction make MSR® tents and shelters extremely waterproof. The rainfly and floor are factory seam-taped, so seam sealing is not necessary. If any problems develop, simply seam seal only the specific area using McNett Seam Grip® (www.mcnett.com). Follow the instructions on the seam sealer tube, and seam seal the inner, coated, shiny side of the fabric only.

Cleaning

A tent footprint is the most effective way to keep your tent clean (see “Using a Footprint,” pg. 4). If your tent should require cleaning, set it up and use a sponge with warm water. If further cleaning is needed, a garden hose should be able to wash off any remaining dirt. Do not use detergent, soap, bleach, or have it dry cleaned, as these may remove the waterproofing and/or damage the fabric. Allow the tent to air-dry completely before packing or storing.

Zippers

When sand and grit get in the zipper teeth, it can cause abrasion and damage to the metal zipper sliders. If you use your shelter in these conditions, keep the zipper teeth clean by rinsing them out with water. The pressure from a regular garden hose will push out small sand particles from inside the zipper coil. Handling your zipper slider with care can also prolong the life of a zipper. Just like a zipper on a duffle bag or piece of luggage, make sure to align the tracks before sliding the zipper—and don't exert excessive force. If fabric gets caught in the slider, stop and slowly reverse the slider to remove.

Animals

To prevent damage from animals chewing holes in the fabric, never store food or cooking equipment in your tent.

MSR® LIMITED WARRANTY

MSR MATERIALS & WORKMANSHIP GUARANTEE

Cascade Designs offers a limited warranty to the original owner that covers the materials and workmanship of every MSR tent we make. If your MSR tent has received proper care but fails due to a defect in manufacturing, the tent will be repaired or replaced at our discretion. Damage caused by accidents, improper care, or negligence where Cascade Designs is not at fault, will be repaired at a reasonable charge. Material breakdown due to sun degradation, mildew, and natural aging are not considered to be defects, and are generally unrepairable.

MSR POLE GUARANTEE

Cascade Designs offers a limited warranty, to the original owner, on all MSR tent framework. If your tent pole breaks, Cascade Designs will repair or replace it, free, at our sole discretion, for the lifetime of the tent, upon postage-paid delivery to the MSR Product Service Center.

REPAIR PROCEDURES

- In North America, contact MSR customer service at **1-800-531-9531** for a Return Authorization (RA) number and shipping address. For customer service outside of North America, refer to the dealer locator on the MSR Web site (www.msrgear.com) for a repair facility near you.
- Clean items before shipping it to us. Dirty products will not be processed.
- Clearly mark or tag the area on the product in need of repair.
- Include a note regarding reason for return along with the date and place of purchase, your name, your phone number, the RA number from Customer Service, and your physical address. We will not ship to a P.O. Box.
- Ship item prepaid and labeled "**MSR Tent Repair.**"

NOTES
