

INSTRUCTION MANUAL

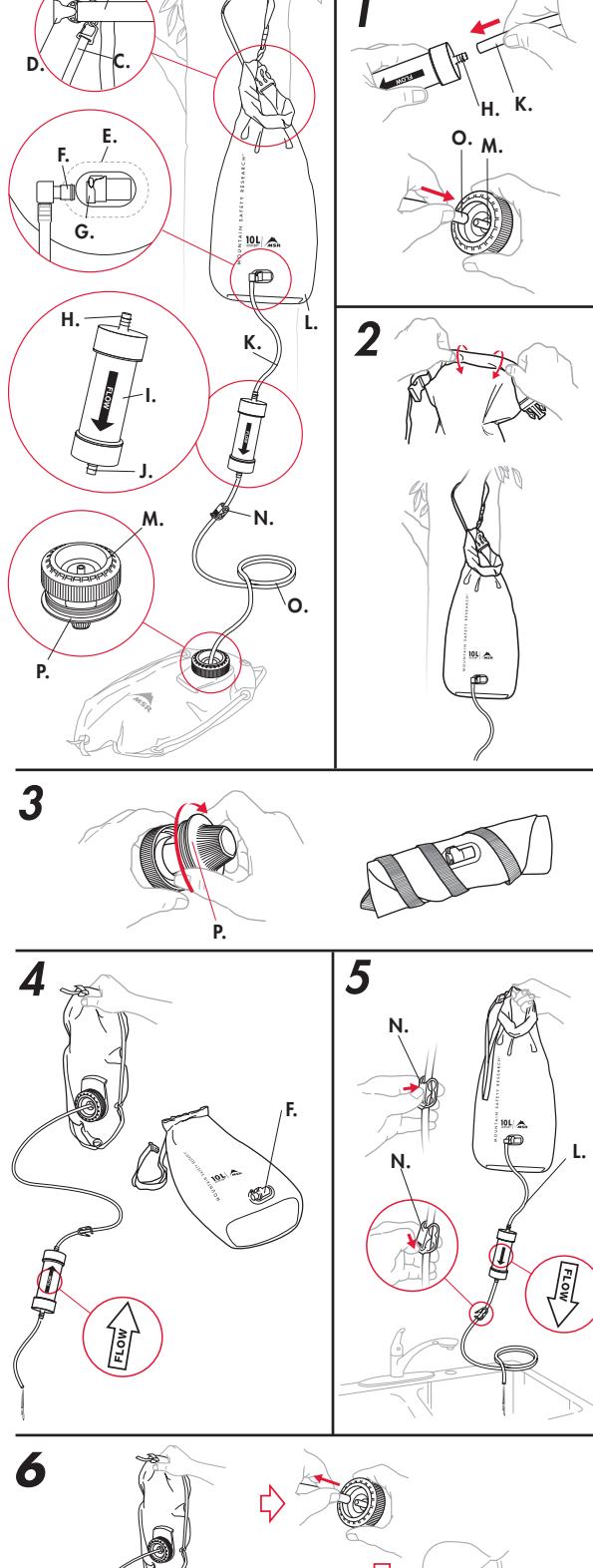


INSTRUCTIONS FOR 2L, 4L & 10L MODELS.



AUTOFLOW™ GRAVITY MICROFILTER

Retain these instructions for future reference.



IMPORTANT

Read and understand this entire manual carefully before assembling or using this water filter. Keep this manual for future reference. If you do not understand this manual or have any questions, please call Cascade Designs at 1-800-531-9531.

WARNING

BIOLOGICAL HAZARD

There are hazards associated with backcountry travel and the use of water filters. Drinking untreated water may expose you to harmful microorganisms and increase your risk of gastrointestinal illness. Using this filter improperly increases your risk of exposure to harmful microorganisms and increases your risk of gastrointestinal illness. Reduce your chances of becoming sick by following the warnings and instructions in this manual and educating others on backcountry water safety.

YOU ARE RESPONSIBLE FOR YOUR OWN SAFETY AND THE SAFETY OF THOSE IN YOUR GROUP. PLEASE USE GOOD JUDGMENT.

Never use the AutoFlow to filter seawater or chemically contaminated water, such as water from mining tailing ponds or near large agricultural operations. The AutoFlow does not make drinkable water from these sources and does not remove all viruses, chemicals and radioactive materials, or particles smaller than 0.2 microns.

Keep the hoses and other potentially contaminated parts away from filtered water to prevent cross contamination.

READ, UNDERSTAND, AND FOLLOW ALL instructions and warnings in this manual before using this filter. Failure to follow warnings and instructions may result in gastrointestinal illness.

AUTOFLOW™ GRAVITY MICROFILTER INSTRUCTIONS

The AutoFlow™ Microfilter uses hollow fiber technology to remove waterborne pathogenic bacteria and protozoa, as well as particulates, from fresh water sources. This filter does not remove viruses.

MICROFILTER PARTS:

A. Hang Buckle	G. Female Quick Disconnect	L. Dirty Collection Reservoir
B. Closure Strap	H. Inlet Hose Barb (black)	M. Universal Bottle Adapter
C. Hang Strap	I. Filter Cartridge	N. Shut-off Clamp
D. Closure Buckle	J. Outlet Hose Barb (white)	O. Outlet Hose (48 in/122 cm)
E. Prefilter Screen	K. Inlet Hose (12 in/30 cm)	P. Clean Side Cover
F. Male Quick Disconnect		

IMPORTANT NOTES:

- Clean the cartridge by backflushing it every 8 liters (1x/day of use) to prevent silt build-up and extend the filter's lifespan. (See Step 4, instruction manual.) If backflushing fails to restore water flow, replace cartridge.
- On extended trips, bring along a spare cartridge, which can be purchased from a local or online MSR dealer.
- Use the cleanest, clearest water available.
- Avoid filtering silty, cloudy, muddy, or glacial stream water or tea-colored water that contains visible tannins because these sources will quickly clog the filter.
- If clear water is not available, then let particles settle before filtering. Fill the Dirty Collection Reservoir with water and let the water stand until particles have settled to the bottom. Clear the Prefilter Screen behind the Female Quick Disconnect as needed.
- To treat water with suspected waterborne viruses, use an approved disinfectant such as Aquatabs®. For more information, see the Centers for Disease Control Web site: www.CDC.gov.
- To maximize water flow, hang the Dirty Collection Reservoir as high as possible without putting tension on the hoses or pulling the clean container off the ground.
- Trapped air in the top of the Filter Cartridge may reduce water flow. Purge the trapped air by first filtering some water (1/4 L) into the clean container and then lifting it (without kinking the hoses) above the Dirty Collection Reservoir to reverse the water flow. Once the air bubbles are purged, place the clean container on the ground and allow the system to resume filtering water.

1. PREPARE AUTOFLOW SYSTEM

1. Connect open end of Inlet Hose (K) to black Inlet Hose Barb (H). (NOTE: Arrow (water flow direction) on Filter Cartridge (I) should point toward clean container.)
2. Connect Outlet Hose (O) to white Outlet Hose Barb (J).
3. Connect open end of Outlet Hose to Universal Bottle Adapter (M).
4. Remove Clean Side Cover and attach a clean container to the Universal Bottle Adapter.
5. Close Shut-off Clamp (N) on Outlet Hose.

WARNING Handle Filter Cartridge carefully because a damaged filter cannot prevent exposure to harmful microorganisms. Test filter for damage if dropped 5 feet (1.5 meters) or greater onto a hard surface. (See Filter Integrity test.) If filter is damaged, discontinue use and replace cartridge.

2. FILTER WATER

1. Remove Male Quick Disconnect (F) from the Female Quick Disconnect (G) on the Dirty Collection Reservoir (L).
2. Fill the Dirty Collection Reservoir with unfiltered water.
3. Fold the Closure Strap (B) on the Dirty Collection Reservoir 4+ times to seal. Connect the buckles of the Closure Strap to each other.
4. Suspend the Dirty Collection Reservoir by the Hang Strap (C). (NOTE: Hang the Dirty Collection Reservoir as high as possible without putting tension on the hoses or pulling the clean container off the ground.)
5. Reinstall the Male Quick Disconnect. 6. Open Shut-off Clamp (N) to start water flow. Allow water to flow down from Dirty Collection Reservoir through Filter Cartridge (I) into clean container. (NOTE: Trapped air in Filter Cartridge will affect water flow. Purge air by filtering some water (1/4 L) into the clean container and then lifting it above the Dirty Collection Reservoir.)

WARNING When filtering water, never splash dirty or unfiltered water into clean container to avoid contamination.

3. PACK AND STORE AUTOFLOW SYSTEM

1. Empty all water from system.
2. Reattach Clean Side Cover (P) to Universal Bottle Adapter (M).
3. Wind hoses around Filter Cartridge (I). (NOTE: All parts (reservoir, hoses, cartridge, adapter) should remain connected to avoid cross contamination during field storage.)
4. Roll Dirty Collection Reservoir (L) around Filter Cartridge and hoses and place in the storage sack.

Always disinfect the filter before or after long-term storage, or after long-term use (15+ consecutive days). See Step 5.

WARNING Never store Filter Cartridge in cold temperatures (below 32 F/0 C) because freezing the filter will permanently damage the internal fibers. Always wash and dry filter parts.

4. BACKFLUSH FILTER CARTRIDGE

Regularly backflush Filter Cartridge (I) every 8 liters (more frequently for cloudy or tea-colored water) to clean it, maintain optimal water flow, and extend the filter's lifespan.

1. Collect at least 1/2 liter of filtered water in clean MSR recommended container.
2. Remove the Inlet Hose (K) from the barb of the Male Quick Disconnect (F).
3. Hold or hang clean container above the Filter Cartridge and allow water to flow back through the filter and out of Male Quick Disconnect.
4. Allow at least 1/2 liter to flow through Filter Cartridge to remove debris collected in the fibers.

For long-term storage of the AutoFlow system, see Step 5.

5. DISINFECT FILTER

To eliminate the growth of bacteria or mold, always disinfect the filter before or after long-term storage, or after long-term use (15+ consecutive days).

1. Remove Male Disconnect (F) from Dirty Collection Reservoir (L).
2. Rinse Dirty Collection Reservoir with clean water. Remove any debris from the Prefilter Screen (E).
3. Mix a solution of 2 drops of household bleach to 1 liter of water in Dirty Collection Reservoir.
4. Assemble AutoFlow system. Close Shut-off Clamp (N) to stop water flow. Place open end of Outlet Hose (O) (or Universal Bottle Adapter (M)) in sink. Hold or hang Dirty Collection Reservoir above sink.

5. Open Shut-off Clamp and let bleach solution filter through system into sink.

6. Air or towel dry AutoFlow system parts completely. (NOTE: It is not necessary for the inside of the Filter Cartridge to dry completely, as the bleach in the solution will prevent the growth of harmful microorganisms and biofilm. However, a fully dry filter helps protect against damage from drops or freezing.) To dry filter completely after disinfection: Remove gray protective bumpers from filter. Remove white and black thread-on caps and let filter sit at room temperature for at least 1 week.

To avoid cross contamination, replace white cap on outlet of filter, black cap on inlet side. Replace protective bumpers.

7. Pack and store AutoFlow assembly in storage sack.

WARNING Disinfect the filter thoroughly before long-term storage to prevent the growth of mold, mildew, and bacteria. Never use a dishwasher or microwave to disinfect parts because the high heat will damage or melt them.

6. FILTER INTEGRITY TEST

To test your filter:

1. Backflush a minimum of 1/2 L of water.
2. Remove Clean Hose.
3. Blow air and check for the following: Cannot blow through filter = Fiber OK to use. See steady stream of bubbles = STOP! — fiber is broken, do not use. REPLACE CARTRIDGE.

7. ALTERNATE COLLECTION METHODS

To avoid cross contamination when filtering water, MSR recommends these collection methods:

MSR® Universal Bottle Adapter – Threaded (MSR® Dromedary™ Bag, Nalgene® bottles, and other similar products) Remove Clean Side Cover. Thread Universal Bottle Adapter onto the bag/bottle spout. Follow Steps 1-3 (instruction manual). After the water is filtered and collected, replace bag/bottle cap. Reattach Clean Side Cover and store.

MSR® Universal Bottle Adapter – Pressed (Platypus® Hoser™, Sigg® bottles, and other similar products) Remove Clean Side Cover. Press Universal Bottle Adapter onto bottle spout. Follow Steps 1-3 (instruction manual). After water is filtered and collected, replace bottle cap. Reattach Clean Side Cover and store.

MSR® Universal Bottle Adapter – Drink Tube (Platypus®, CamelBak® hands-free hydration systems) Remove the Bite Valve and store in a clean place. Attach Hydration Drink Tube to Universal Bottle Adapter. Follow Steps 1-3 (instruction manual). After the water is filtered and collected, reinstall Bite Valve. Reattach Clean Side Cover and store.

Limited Warranty details at msrgear.com/warranty

For Troubleshooting Solutions, visit: msrgear.com/autoflow-gravity-filter



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