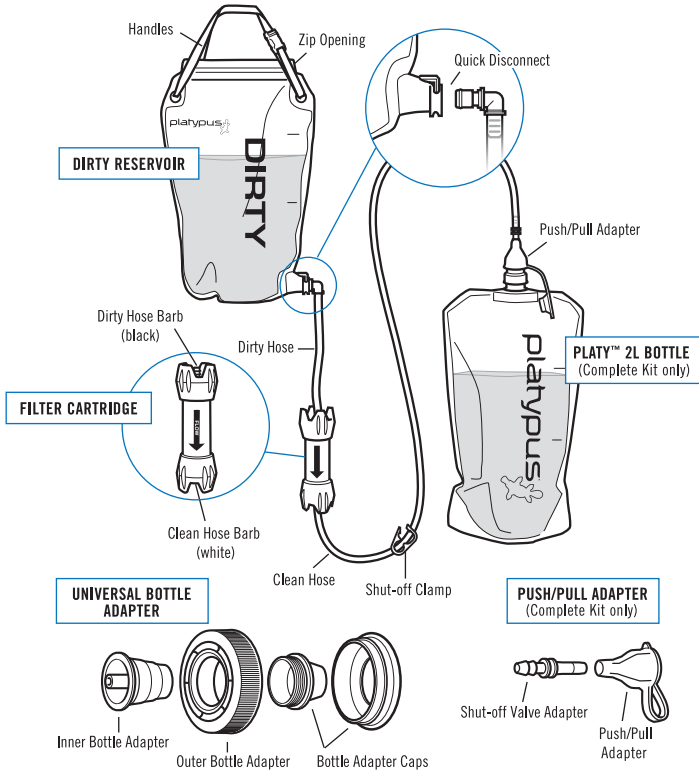


# GRAVITYWORKS™ 2.0L SYSTEM

## PUMP-FREE MICROFILTER SYSTEM COMPLETE KIT | BOTTLE KIT

### GRAVITYWORKS KIT INCLUDES:



### TIPS

#### TAKE ONLY WHAT YOU NEED

When filtering into small-diameter openings and hydration hoses, the two-part Universal Bottle Adapter lets you leave the threaded outer portion at home to save space and weight.

#### FILTER CARTRIDGE

Clean the cartridge by following backflushing procedure to prevent silt build-up and extend the filter lifespan (see step 5). If backflushing fails to restore water flow, replace cartridge.

On extended trips, bring along a spare cartridge.

If the cartridge freezes or is dropped hard, test it to be sure it is not damaged by following the Filter Integrity Test instructions.

#### WATER COLLECTION AND PREPARATION

Use the cleanest, clearest water available. Avoid water that is muddy, silty or tea-colored if possible.

To treat water with suspected waterborne viruses, use an approved disinfectant such as MSR® Aquatabs® (msrgear.com). Follow the manufacturer's recommendation for its use. Information on disinfectant use can be found on the Centers for Disease Control website: CDC.gov.

#### OPERATION

To maximize water flow, hang or hold the Dirty 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 trapped air at the beginning of each use (see step 4).

"Dirty"-side connection points are GREY or BLACK and "Clean"-side connection points are BLUE or WHITE. To avoid cross contamination when filtering water, do not let any BLUE/WHITE components come into contact with unfiltered water and keep GREY/BLACK components away from filtered water. If you suspect your filter has become cross contaminated, see instructions for Disinfection & Long-Term Storage.

### SPECIFICATIONS

	COMPLETE KIT	BOTTLE KIT
<b>KIT CONTENTS</b>	Dirty Reservoir Quick Disconnect Dirty Hose (short) Clean Hose (long) Filter Cartridge w/ Bumpers Shut-off Clamp Push/Pull Adapter 2L Platy™ Bottle w/ push/pull cap Universal Bottle Adapter	Dirty Reservoir Quick Disconnect Dirty Hose (short) Clean Hose (long) Shut-off Clamp Filter Cartridge w/ Bumpers Universal Bottle Adapter
<b>WEIGHT</b>	11.5 oz / 326 g	9.5 oz / 269 g
<b>DIMENSIONS</b>	10.5 x 6 in / 27 x 15 cm	10.5 x 6 in / 27 x 15 cm
<b>FLOW RATE</b>	1.5 liters per min. (depends on water quality)	1.5 liters per min. (depends on water quality)
<b>FILTER LIFE</b>	1500 liters (depends on water conditions)	1500 liters (depends on water conditions)
<b>FILTER MEDIA</b>	Hollow Fiber Membrane	Hollow Fiber Membrane
<b>STORAGE TEMPERATURE</b>	Above 32° F / 0° C (Do Not Freeze)	Above 32° F / 0° C (Do Not Freeze)

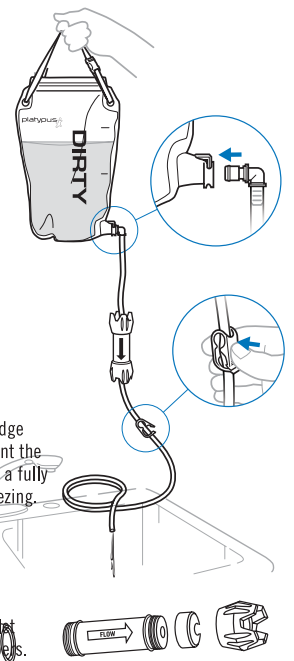
### DISINFECT FILTER

To eliminate the growth of bacteria or mold and help maintain flow rate, always disinfect the filter before and after long-term storage (15+ days).

1. Remove the Quick Disconnect from the Dirty Reservoir.
2. Rinse Dirty Reservoir with clean water.
3. Mix a solution of 2 drops of household bleach (without fragrance or dyes) to 1 liter of water in Dirty Reservoir, and zip closed.  
**Note:** Handle bleach carefully as it can discolor clothing.
4. Assemble GravityWorks system with Shut-off Clamp closed.
5. Place end of Clean Hose in sink and hold or hang Dirty Reservoir above sink.
6. Open Shut-off Clamp and let bleach solution filter through system into sink.
7. Rinse all other parts with clean water.
8. Air or towel dry GravityWorks system parts completely.

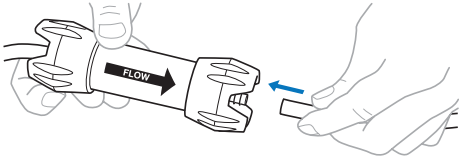
**Note:** It is not necessary for the inside of the Filter Cartridge to dry completely, as the bleach in the solution will prevent the growth of harmful microorganisms and biofilm. However, a fully dry filter helps protect against damage from drops or freezing. To dry filter completely after disinfection:

- 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.
9. Pack and store GravityWorks assembly in storage sack.

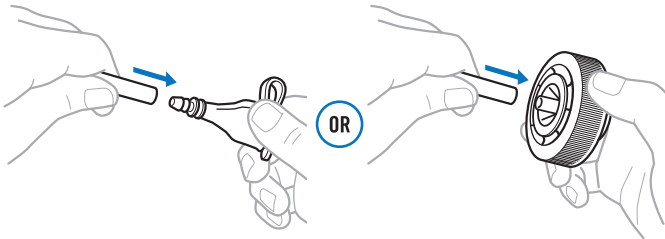


## STEP 1 INITIAL ASSEMBLY

01. Connect long Clean Hose to white Clean Hose Barb on Filter.



02. Select the proper adapter for your Clean Container, connect to opposite end of Clean Hose and close cap.

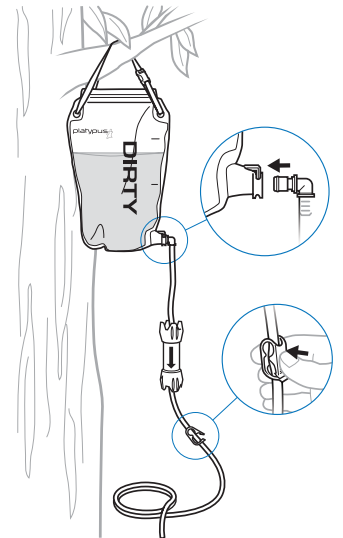


i) Use Push/Pull Adapter for Platypus® 2L bottle or hydration system shut-off valves. (Complete Kit only)

ii) Use Universal Bottle Adapter for most bottles and hydration systems. (See step 6) for recommended travel mode.

## STEP 2 COLLECT & CONNECT

01. Remove the Quick Disconnect from the Dirty Reservoir, if attached. Shut-off Clamp should be securely closed.
02. Fill Dirty Reservoir with the cleanest water available. Zip closed.
03. Hang or hold Dirty Reservoir by its Handles.
04. Reconnect the Quick Disconnect to the Dirty Reservoir.



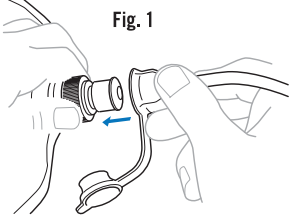
### ⚠ WARNING

To avoid contamination when filtering water, never splash dirty or unfiltered water into clean container.

## STEP 3 ATTACH CLEAN CONTAINER

### FOR PLATYPUS™ 2L BOTTLE (with Push/Pull cap):

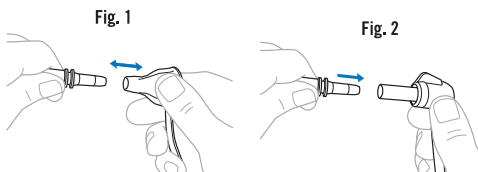
01. Open Adapter cap and push/pull cap.
02. Press Adapter over Push/Pull Cap (Fig. 1).
03. Ensure Push/Pull Cap is open.



### FOR RESERVOIRS:

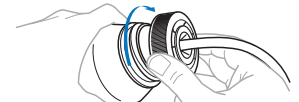
01. Remove Push/Pull Adapter from Shut-off Valve Adapter (Fig. 1).
02. Pull Bite Valve off Shut-off Valve. (Not shown)
03. Insert Shut-off Valve Adapter into Platypus or other reservoirs Shut-off Valve (Fig. 2).

For direct connection to Big Zip EVO reservoir, use the Platypus Big Zip™ EVO Water Filter Connector Kit.

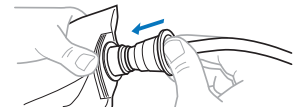


### FOR BOTTLES:

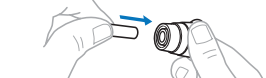
01. Thread Universal Bottle Adapter onto wide-mouth openings such as MSR® Dromedary Bags.



02. Press Inner Bottle Adapter onto small-mouth containers such as Platypus SoftBottles.



03. Insert most reservoir hoses and shut-off valves directly into central adapter port.



## STEP 4 FILTER WATER

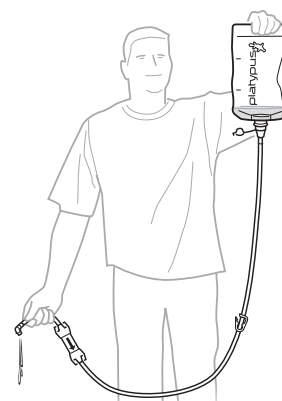
01. Open Shut-off Clamp to start water flow.
02. For maximum flow, once a small amount of water has been collected (approx. 1/8 L), lift Clean Container above Dirty Reservoir to purge air from the filter.
03. Allow clean water to flow back through the filter until air bubbles have cleared the hose above the filter.
04. Rehang Dirty Reservoir above Clean Reservoir to continue filtering.



## STEP 5 BACKFLUSH

To increase the life of your filter, follow this quick and easy backflush procedure\*. Depending on the water clarity/quality, backflush a ¼ liter of water for every 6 L filtered.

01. Just before Dirty Reservoir is empty, disconnect the Dirty Hose at the Quick Disconnect and raise Clean Container above it; allow water to flow out until it runs clear.
02. Raise the Dirty Reservoir above the Clean Container, reconnect Quick Disconnect and continue filtering.



\*NOTE: This backflush is designed to work with all adapters and clean containers.

### ⚠ WARNING

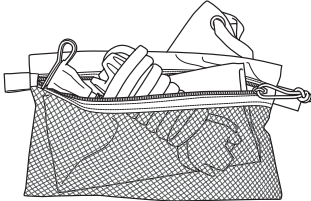
Handle Filter Cartridge carefully because a damaged filter cannot prevent exposure to harmful microorganisms. Test filter for damage if dropped. (See Filter Integrity Test.) If filter is damaged, discontinue use and replace cartridge.

## STORE

NOTE: Keep Filter Cartridge, Clean Hose, Adapter and Adapter Cap connected to prevent cross contamination.

01. Disconnect the Clean Container and close.
02. Remove the Quick Disconnect from Dirty Reservoir and drain remaining water from the system.
03. Replace the Adaptor Cap.
04. Wrap hoses around Filter Cartridge and place into mesh storage sack.
05. Roll Dirty Reservoir and place in non-mesh storage sack.

Always disinfect the filter before or after long-term storage, or after long-term use (15+ consecutive days). See **Disinfection** instructions on reverse side.



### ⚠ WARNING

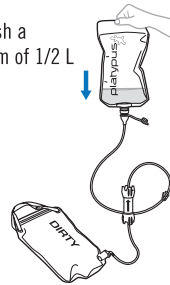
Disinfect filter thoroughly before long-term storage to prevent the growth of mold, mildew, and bacteria. Never use a dishwasher or microwave to disinfect parts because the high heat will damage or melt filter components.  
Never allow Filter Cartridge to freeze because freezing the filter will permanently damage the internal fibers.

## TROUBLESHOOTING

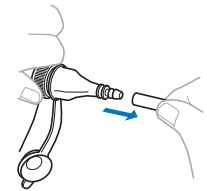
PROBLEM	CAUSE	SOLUTION
Leaking Quick Disconnect	Clogged Quick Disconnect	Rinse Quick Disconnect
Decreased/ no water flow	Trapped air in Filter Cartridge	Filter 1/8 L water into Clean Container and then lift it above Dirty Reservoir to purge air (see step 4)
	Clogged filter	Backflush Filter Cartridge (see step 5)
	Kinked hose	Straighten hose
	Disengaged Quick Disconnect	Push Quick Disconnect into fitting completely
	Closed Shut-off Clamp or Push/Pull Cap	Open Shut-off Clamp or Push/Pull Cap

## FILTER INTEGRITY TEST

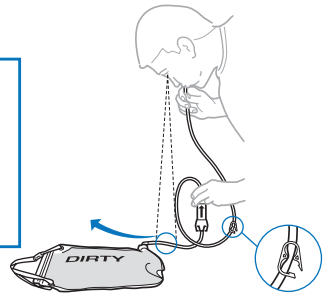
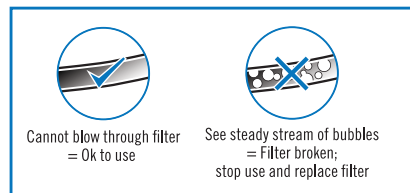
01. Backflush a minimum of 1/2 L of water



02. Remove Clean Hose



03. Blow air and check.



## LIMITED WARRANTY/LIMITATIONS OF REMEDIES AND LIABILITY USA AND CANADA

**Limited Warranty.** Cascade Designs, Inc. ("Cascade"), to the original owner ("Owner"), under intended use and maintenance, warrants the enclosed product ("Product") to be free from defects in materials and workmanship for the life of the Product. No warranty against defects in materials and workmanship will apply if Product is (i) altered in any way, (ii) used for purposes inconsistent with Product's intended purpose or design, or (iii) improperly maintained. Warranty will furthermore be voided where Owner/user (i) failed to follow Product instructions or warnings or (ii) subjected Product to misuse, abuse, or neglect.

During the warranty period, original Product parts determined by Cascade to be defective in materials or workmanship will be repaired or replaced as Owner's sole remedy. Cascade reserves the right to replace any discontinued product with a new product of comparable value and function. A returned product deemed irreparable becomes the property of Cascade and will not be returned.

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**Warranty Service.** To obtain service under this warranty, the warranty-eligible Product must be presented to a Cascade authorized dealer. In the United States and Canada, warranty service may also be obtained by calling 1.800.531.9531 [M - F, 8:00 a.m. - 4:30 p.m., PDT]. Owner is responsible for all costs associated with returning Product to Cascade for service. Where at its sole discretion Cascade deems Product eligible for warranty repair or replacement, Cascade will pay the shipping and handling associated with returning repaired or replaced Product to Owner. In instances where Cascade deems a returned product ineligible for warranty service, Cascade will, if possible, repair product for a reasonable charge that includes return shipping and handling. For warranty return service details, please go to [www.platypus.com](http://www.platypus.com).

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[www.platypus.com](http://www.platypus.com)

## ⚠ 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 yourself 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 GravityWorks™ to filter seawater or chemically contaminated water, such as water from mining tailing ponds or near large agricultural operations. The GravityWorks 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.

## 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.