

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.platypushydration.com.

Limitation of Remedies. Should a court of competent jurisdiction find the limited warranty set forth above breached, Cascade's only obligation will be to, at its option, either repair or replace Product. Should the aforementioned remedy fail of its essential purpose, Cascade will, in exchange for return of Product, refund to Owner Product's original purchase price. THE FOREGOING REMEDY IS THE SOLE AND EXCLUSIVE REMEDY OF THE PURCHASER AGAINST CASCADE, ITS AFFILIATES AND THEIR SUPPLIERS, REGARDLESS OF LEGAL THEORY.

Limitation of Liability. Cascade's, its affiliates' and their suppliers' maximum liability is limited to incidental damages not to exceed the original purchase price of the Product. CASCADE, ITS AFFILIATES AND THEIR SUPPLIERS HEREBY DISCLAIM AND EXCLUDE ANY LIABILITY FOR ANY CONSEQUENTIAL OR OTHER DAMAGES RESULTING FROM ANY REASON WHATSOEVER. THIS EXCLUSION AND LIMITATION APPLIES TO ALL LEGAL THEORIES UNDER WHICH DAMAGES MAY BE SOUGHT, AND WILL APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

This limited warranty gives Owner specific legal rights; Owner may have additional rights, which may vary state to state.

Always completely follow safety, use, operation, and maintenance instructions for this or any other Cascade product.

European Union customer statutory rights are not affected.

For product service and information contact

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1-800-531-9531 or 206-505-9500

Cascade Designs, Ltd.

Dwyer Road, Midleton, County Cork, Ireland
(+353) 21-4621400

www.platy.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 system to filter seawater or chemically contaminated water, such as water from mining tailing ponds or near large agricultural operations. The GravityWorks system 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.

SPECIFICATIONS

Kit Contents

Dirty Reservoir (with built-in Female Quick Disconnect fitting)
Male Quick Disconnect fitting
Clean Reservoir with Reservoir Cap
Filter Cartridge
Dirty Hose (12 in. / 30 cm)
Clean Hose (48 in. / 122 cm)
Shutoff Clamp
Cleanside Cap
Instruction Manual
Storage Sack

Weight	11.5 oz. / 326 g
Dimensions	10.0 x 4.0 in. / 25.4 x 10.1 cm
Flow Rate	~ 1.75 liters per min. (depends on filter condition, water quality)
Filter Life	~ 1500 liters (depends on water conditions)
Filter Media	Hollow Fiber Membrane (HFM)*
Storage Temperature	Above 32 F / 0 C (Do Not Freeze)

* The Hollow Fiber Membrane (HFM) is a collection of small porous tubes that can be damaged by dropping or freezing. This damage cannot be seen. Follow Filter Integrity Test to inspect filter to detect possible damage.

TROUBLESHOOTING

Problem

Poor Performance	Cause	Solution
Leaking Female Quick Disconnect	Clogged Female Quick Disconnect	Rinse Female Quick Disconnect
Decreased/no water flow	Trapped air in Filter Cartridge Clogged filter Kinked hose Disengaged Male Quick Disconnect Closed Shut-off Clamp	Filter 1/8 L water into Clean Reservoir and then lift it above Dirty Reservoir to purge air (see <i>Tips</i>) Backflush Filter Cartridge (see Step 3) Straighten hose Push Male Quick Disconnect into fitting completely Open Shut-off Clamp

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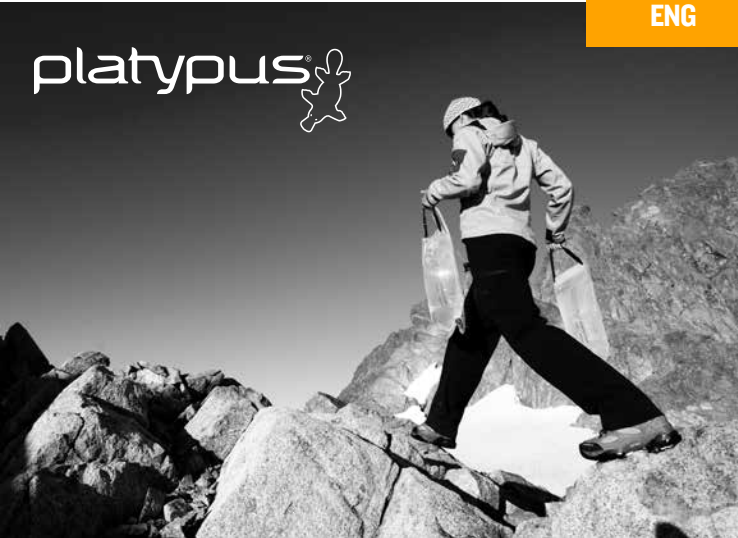
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33-277-4
rev 07-2014

PLATYPUS® GRAVITYWORKS™ PUMP-FREE WATER SYSTEM

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platypus®



INSTRUCTION MANUAL

TIPS

Filter Cartridge

Clean the cartridge by backflushing it before each use to prevent silt build-up and extend the filter's lifespan. (See **Step 3**, 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 Platypus dealer.

Water Collection and Preparation

Use the cleanest, clearest water available.

To treat water with suspected waterborne viruses, use an approved disinfectant. Follow the manufacturer's recommendation for its use. Information on disinfectant use can be found on the Centers for Disease Control Web site: www.CDC.gov.

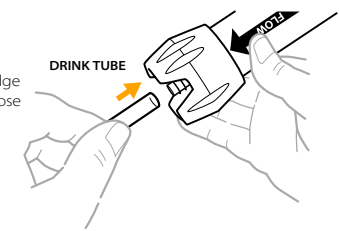
Operation

To maximize water flow, hang or hold the Dirty Reservoir as high as possible without putting tension on the hoses or pulling the Clean Reservoir 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 (1/8 L) into the Clean Reservoir and then lifting it (without kinking the hoses) above the Dirty 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.

Direct Hydration Reservoir Fill

Remove the Bite Valve and store in a clean place. Remove Clean Hose from Filter Cartridge and attach Hydration Drink Tube to Clean Hose Barb. Follow **Steps 1-2** (instruction manual). After the water is filtered and collected, reinstall Bite Valve. Reattach Clean Hose to Filter Cartridge and store.



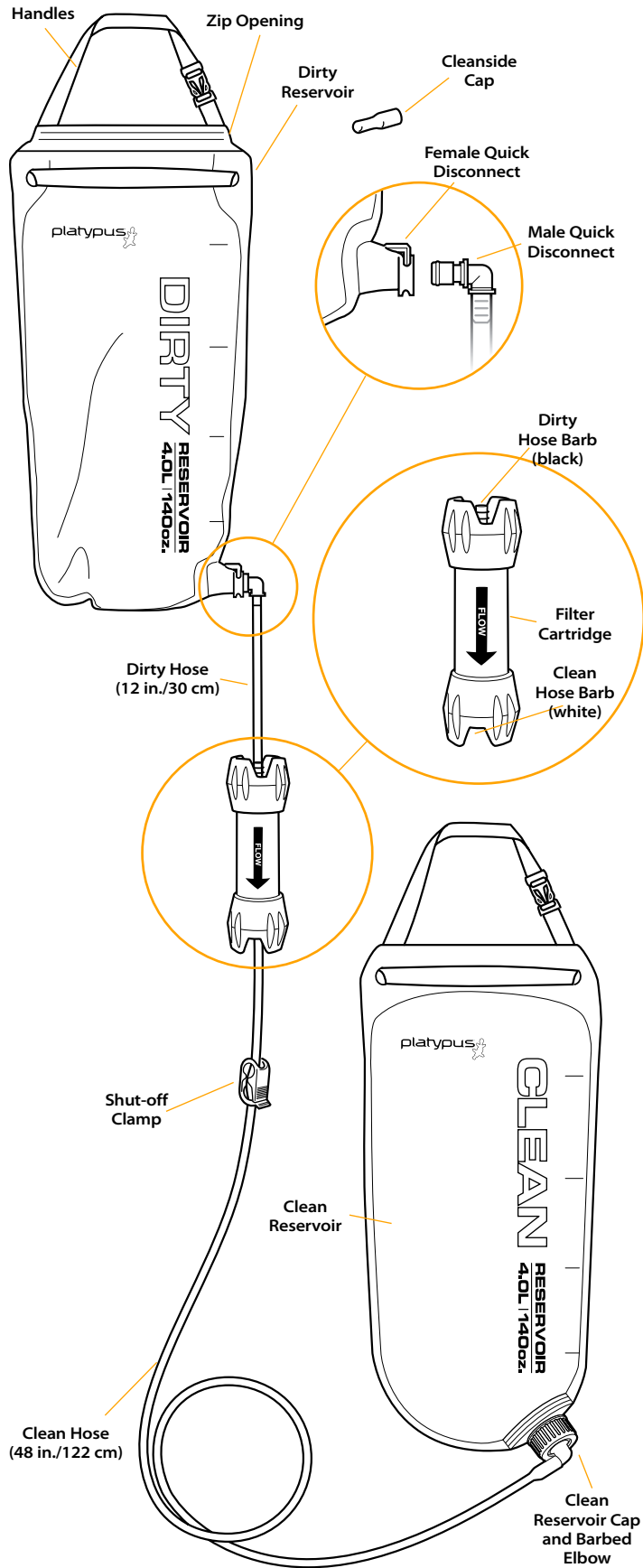
Camp Water Source

The Clean Reservoir may be used as an in-camp water source to provide water on demand for cleaning, drinking, or cooking by following these directions:

Close Shut-off Clamp after all water has been filtered. Remove Clean Hose from Clean Hose Barb. Push Cleanside Cap onto Clean Hose Barb (or Rinse Clean Hose Barb thoroughly with clean filtered water before later reinstalling Clean Hose). Hang Clean Reservoir by handles. Open Shut-off Clamp to start water flow.



IN-CAMP WATER SOURCE

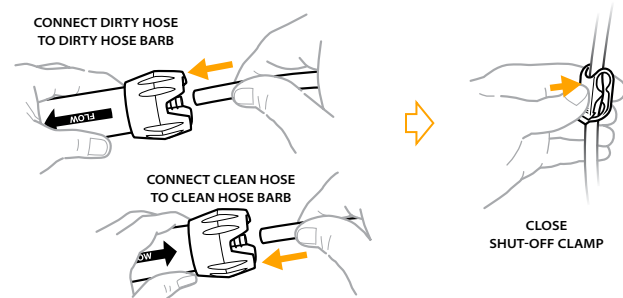


PLATYPUS® GRAVITYWORKS™
PUMP-FREE WATER SYSTEM
OPERATING INSTRUCTIONS

1 INITIAL SYSTEM ASSEMBLY

Only complete **Step 1** for the initial assembly of the GravityWorks system. Keep all parts (reservoirs, hoses, cartridge) connected to avoid cross contamination.

1. **Connect open end of shorter Dirty Hose to black Dirty Hose Barb.**
NOTE: Arrow (water flow direction) on Filter Cartridge should point toward clean container.
2. **Connect longer Clean Hose to white Clean Hose Barb.**
3. **Close Shut-off Clamp on the Clean Hose.**

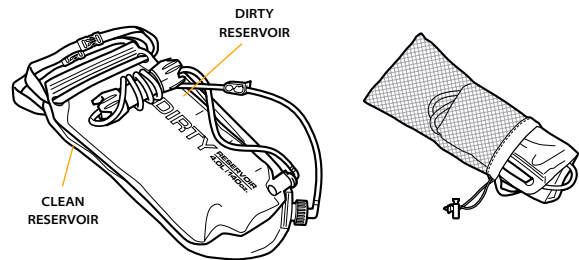


WARNING

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.

4 PACK AND STORE GRAVITYWORKS SYSTEM

1. **Empty all water from system.**
2. **Lay both reservoirs flat on top of each other.**
3. **Wrap hoses around Filter Cartridge and place assembly on top of reservoirs.**
NOTE: All parts (reservoirs, hoses, cartridge) should remain connected to avoid cross contamination.
4. **Roll both reservoirs 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 allow Filter Cartridge to freeze because freezing the filter will permanently damage the internal fibers. Always wash and dry filter parts after use.

2 FILTER WATER

1. **Remove the Male Quick Disconnect from the Female Quick Disconnect on the Dirty Reservoir.**
Close the zipper on the top of the Dirty Reservoir to seal.
2. **Fill the Dirty Reservoir with unfiltered water via zip opening.**
Close the zipper on the top of the Dirty Reservoir to seal.
3. **Hang or hold the Dirty Reservoir by its Handles.**
4. **Reinstall the Male Quick Disconnect.**
Zipper and Clean Reservoir Cap should be securely closed.
5. **Open Shut-off Clamp to start water flow.**
Allow water to flow down from Dirty Reservoir through Filter Cartridge into Clean Reservoir.
6. **Purge Air From Filter: See Step 3.**



WARNING

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

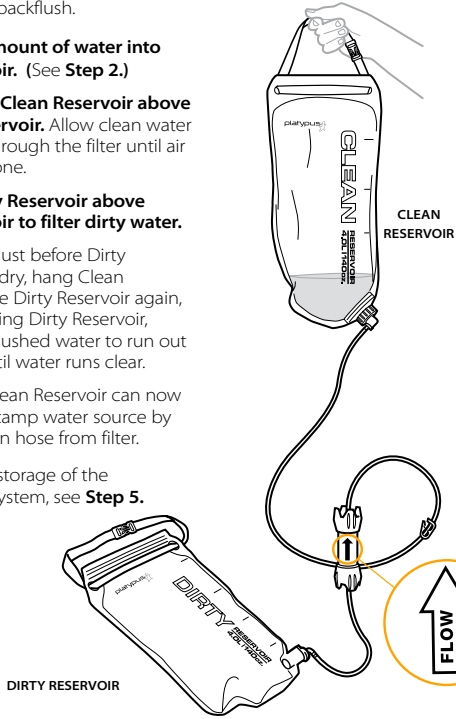
3 PURGE AIR AND BACKFLUSH

Purge air from filter to maximize flow rate, and finish with a backflush.

1. **Filter small amount of water into Clean Reservoir.** (See **Step 2**.)
2. **Hold or hang Clean Reservoir above the Dirty Reservoir.** Allow clean water to flow back through the filter until air bubbles are gone.
3. **Re-hang Dirty Reservoir above Clean Reservoir to filter dirty water.**
4. **To backflush:** Just before Dirty Reservoir runs dry, hang Clean Reservoir above Dirty Reservoir again, this time opening Dirty Reservoir, allowing backflushed water to run out of reservoir until water runs clear.

Water in the Clean Reservoir can now be used as in-camp water source by detaching clean hose from filter.

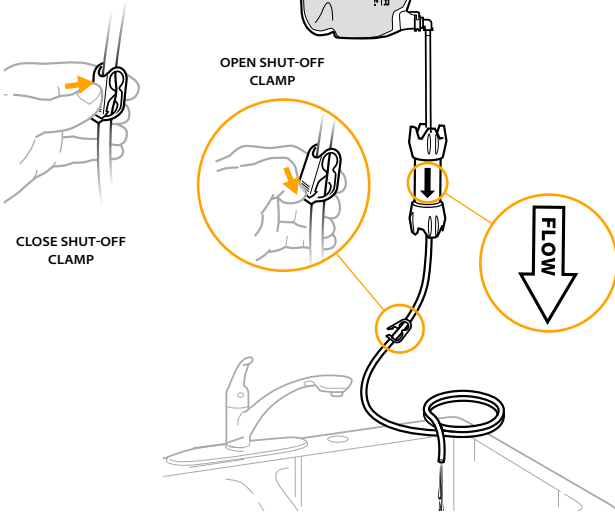
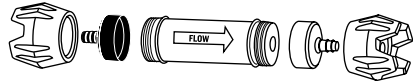
For long-term storage of the GravityWorks system, see **Step 5**.



5 DISINFECT FILTER

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

1. **Remove Male Disconnect from Dirty Reservoir.**
2. **Rinse Dirty Reservoir with clean water.**
3. **Mix a solution of 2 drops of household bleach (without fragrances or dyes) to 1 liter of water in Dirty Reservoir.**
NOTE: Handle bleach carefully because it can stain or discolor clothing.
4. **Assemble GravityWorks system.**
 - Close Shut-off Clamp to stop water flow.
 - Place open end of Clean Hose in sink.
 - Hold or hang Dirty Reservoir above sink.
5. **Open Shut-off Clamp and let bleach solution filter through system into sink.**
6. **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.
7. **Pack and store GravityWorks assembly in storage sack.**



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.