



Mobile Water Fill Station for Events Construction Instructions

The supplies and instructions below will build one (1) mobile water bar. Approximate cost for this 4 head mobile cart = \$650.00 plus labor. Assembly estimated at 4 hours per unit. You must search out lead free components for this cart.



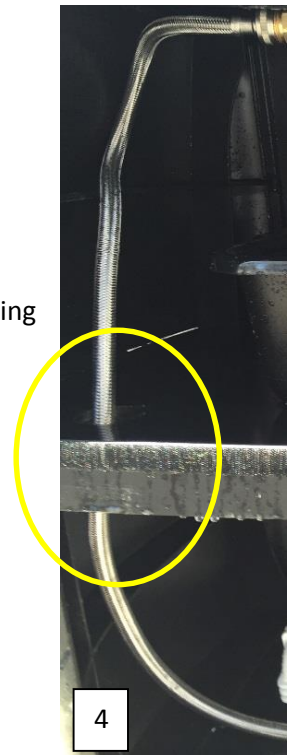
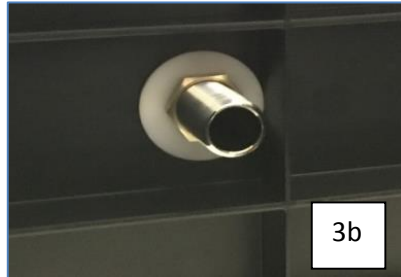
These instructions are provided freely as an open source instructional worksheet. TWSA assumes no liability for final products built with these instructions.

Questions/Information: Tahoe Water Suppliers Association / 775-832-1284 / wastenot@ivgid.org

1. Purchase the parts and gather tools. Use pipe thread or Teflon tape at all connections.
 - a. Parts list (see last page for vendor sources and process)
2. Follow the instructions to build the Carlisle utility cart.
3. Drill 7/8" holes in the top level of the Carlisle utility cart while centering the mounted fillers in the middle of the cart while also making sure that the mounts are about one foot apart.
 - a. Be careful when measuring. (Measure twice, cut once)
 - b. Take into account the plastic cross-support bars on the underside of the shelves in order to leave enough room for the mounted filler washers and tightening the nuts. Don't cut the ribs. Attach 7/8 washer and tighten lock nut on bottom of fill mount stem.



4. Drill 2" holes on middle shelf for threading water line.
 - a. Two separate 2"-wide holes will be drilled into the middle shelf. Locate these holes on the very edges in the center of the shelf where delivery hoses will be placed.
 - b. The bottom shelf will need one 2" hole in any corner. This will allow one delivery hose to feed through the cart. Feed the hose through.
- ✓ An additional hole may be drilled on the lowest shelf to allow flexibility when hooking up the water bar to a water source; however it could act as another source of dirt contamination.



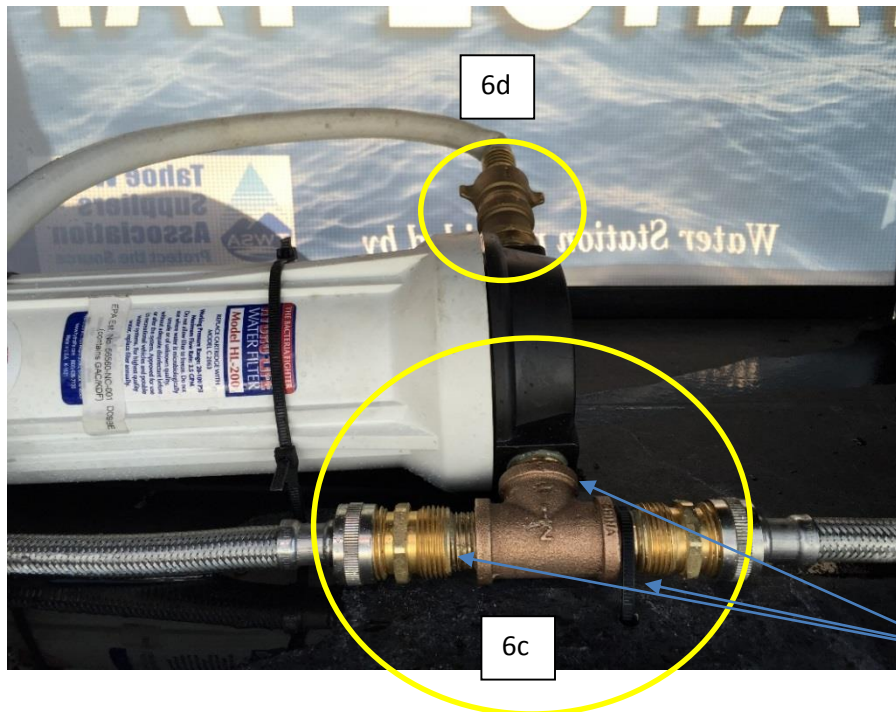
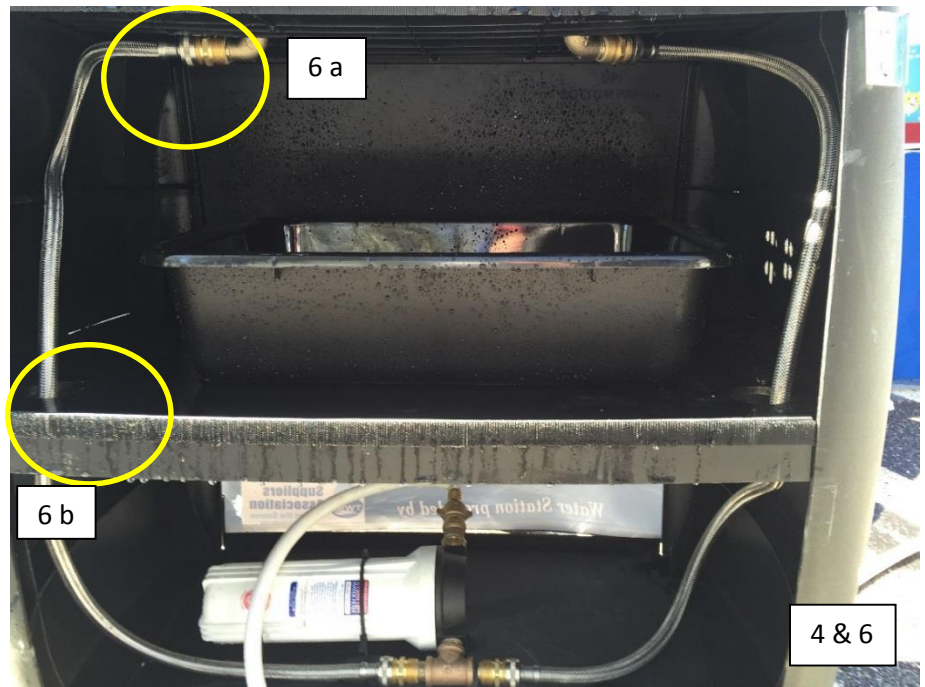
5. Follow the instructions to build and fit the T&S Brass Deck Mount Push-Back Double Glass Filler onto the 7/8" mounted with the washer and lock nut secured to the top shelf of the utility cart.
 - a. Attach the brass street 90 (elbow) modification to the mounted filler with the delivery hoses. From the male stainless steel line, attach the 3/4" use the adaptor (3/4" male to 1/2" female), then attach to 1/2" street 90 (elbow) and finally, secure to mounted filler.



6. The internal hoses from the mounted fillers to the filter must be installed.

- a. Connect the hoses from the mounted fillers.
- b. Feed the hoses through the 2" holes drilled in the center of the edges on the second shelf before finally connecting them to the metal T connector.
- c. Tighten the T connector to the Hydro Life RV/marine Exterior Water Filter Kit located on the bottom shelf. Brass nipples will be used here. From the

braided stainless steel hose, attach to the $\frac{3}{4}$ " brass garden hose fitting, then use $\frac{1}{2}$ " nipple into the $\frac{1}{2}$ " T. Repeat on other side. Then use $\frac{1}{2}$ " nipple to attach into filter.



✓ Make sure that the filter has been removed from the plastic shrink wrap by unscrewing the top of the filter enclosure.

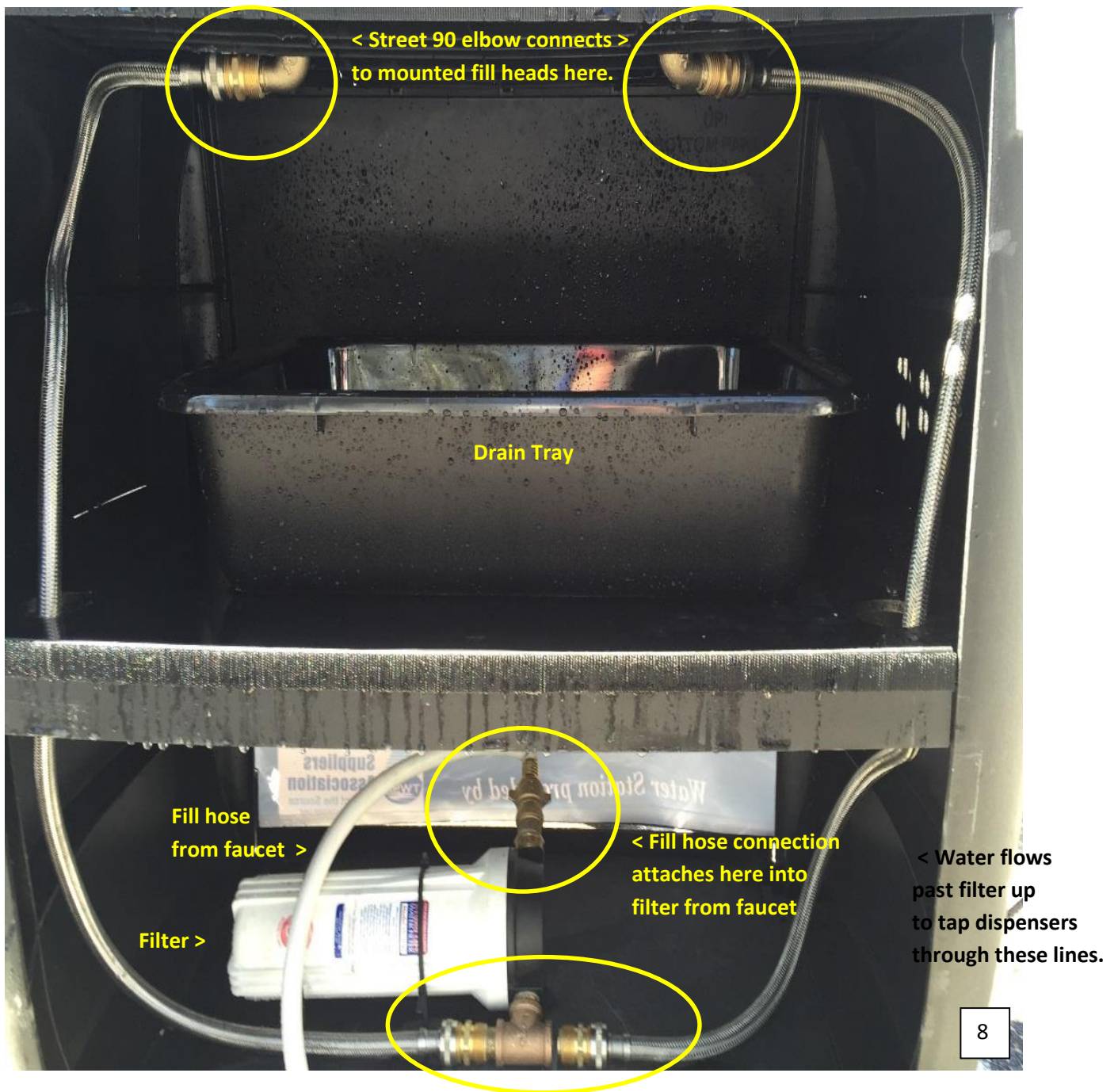
- d. Then tighten the top back on and secure to the T connector.
- e. The drinking water approved 4' RV hose is connected to the source of water is then fed through the hole on the lowest shelf and then secured to the water filter kit.
 - i. Additional hose of this type is required for reaching faucet tap sources, at least 50'.
 - ii. You can drill small holes for zip ties to secure the filter and T.

7. Once the mounted fillers are installed and tightened, drainage holes must be created. Drill 2" holes directly underneath each filler and then cover with the stainless steel drain covers.



8. Next, place the drainage basin on the middle shelf. Photo # 8 (at the end) shows the entire interior assembly.
9. The vinyl banners may be attached to the open sides of the black utility carts in one of several ways:
 - a. Sticky Velcro may be purchased from any hardware store and then applied to the edges of the banner and the corresponding shelf edges on the utility cart.
 - b. Riveting the banner on the cart is the other option which may be more difficult and requires hardware such as rivets and a rivet tool.
 - c. There is an option to purchase a utility cart with solid walls on every side; this is much more expensive; however, it would allow an organization to custom paint the sides.
10. Maintenance:
 - a. Rinse the hoses and equipment by allowing the water bar to discharge for several minutes when connected to a water source (especially important before first use at each event).
 - b. Use a light chlorine solution/disinfecting wipes to disinfecting the tap fillers and cart surface prior to each use.
 - c. You may only use approved drinking water hoses (RV/Marine style) otherwise plastic and rubber contaminants can leach into the water from irrigation hoses.
 - d. A pressure regulator at the faucet connection is highly recommended.
 - e. Hand tighten only any hose connections. Look for leaks when initiating use.
 - f. NEVER hook up the water bar to a water source that is past a backflow device (or use water source that is a part of an irrigation sprinkler system).
 - ✓ A backflow is needed for all drinking systems to have protection against contaminants that could enter the potable water from the irrigation line.
 - ✓ Drain tray may need to be hand emptied during large events.
 - g. Make sure all hoses, the filter and drains are dry when putting in storage.
 - h. The water filter should be replaced at least once per year.
 - i. Do not allow to sit outside overnight when connected to a hose (filter can freeze and crack).

Photo 8: Interior Parts Assembly Identification:



T connector allows for two
fill heads stations to be fed
from one filter assembly.

Mobile water station parts list to build ONE 4 head water fill station. Use the best parts and joint compound, do not cut corners on parts. Buy LEAD FREE Parts only! 2016 approximate pricing

<u># units needed</u>	<u>Part name</u>	<u>vendor</u>	<u>US \$ price per unit</u>	<u>part number</u>
1	Carlisle 3 shelf bus cart 300# Capacity	www.webrestaurantstore.com	125.99	CC203603
2	T&S 12" deck mounted push back double glass filler 2 heads 1/2" NPT male inlet	www.webrestaurantstore.com	199.99	B 1215-12
1	Hydrolife RV Marine Exterior Water Filter Kit	www.campingworld.com	67.86	16007
4	3/4"x3/4" brass garden hose fitting - 1/2 FIP Tap lead free	www.supplyhouse.com	2.99	G20103
2	1/2" Brass 90 degree (street 90) elbow lead free threaded	www.supplyhouse.com	5.10	TBNL7S08
1	1/2" FIP Brass Tee lead free	www.supplyhouse.com	4.99	TBNLT08
2	Braided stainless steel water lines			
4	½" Brass lead free nipples			
1	4' drink water use approved hose (from filter to longer hoses)	www.campingworld.com	\$ 6.09	59173
2	25' drinking water use approved hose			
1	Pressure regulator (optional)			
1	joint compound or Teflon tape			
2	7/8" washers			
4	18" zip ties			
4	flat drain hole covers			
1	Tupperware bin or bus tub for 2nd shelf drain			

Tool list:

- ✓ A rubber mallet
- ✓ A drill
- ✓ Small drill bit for zip tie holes
- ✓ A 7/8" hole saw
- ✓ A 2" hole saw
- ✓ A wrench and/or a set of channel locks