

HeaterCraft Products Marine Shower Installation

Operational Warning:

Carbon Monoxide (CO) is emitted from the engines' exhaust. Do not run the engine without proper ventilation. Do not run the engine in a confined space or where back drafting may occur. For more information about carbon monoxide refer to ABYC standards: A-7, T-22(1), and TH-23; or contact one of the following agencies.

Hot water may reach temperatures excess of 120F

American Boat and Yacht Council, Inc 410-956-1050

United States Coast Guard www.uscgboating.org 754-441-3287

National Marine Manufacturers Association www.nmma-

medialink.com

313-946-6200

Boat U.S. www.boatus.com 703-823-9550

Contact Us at HeaterCraft Products, LLC 11948 North Tracey Road Hayden, Idaho (208) 687-4400

Heater Craft 2 Year Limited Warranty

Heater Craft warrants your shower system to be free from defects in material and craftsmanship under normal use and service by the original consumer purchaser for a period of (2) two years from the date of purchase. This limited warranty does not apply if the system has been damaged by accident, improper installation, unreasonable use, lack of proper

maintenance, unauthorized repairs, or modifications, or causes not arising from defects in materials and craftsmanship.

Heater Craft's obligation under this warranty are limited to repair of the product at Heater Craft's production facility, or the replacement of the product at Heater Craft's option and at Heater Craft's expense. Any expense involved in the removal, reinstallation, or transportation of the product is not covered by this warranty. Prior to return of any product to Heater Craft customer must first call (208) 687-4400 and request a return authorization number. This number must be marked on exterior of carton for easy identification. Warranty product received at Heater Craft without a Return Authorization Number may be returned at expense of sender.

Postage must be prepaid, and the original dated proof-of-purchase must be included. Heater Craft will not be liable for any damages sustained in transport due to improper packaging or handling. The acceptance by Heater Craft of any product returned shall not be deemed as an admission that the product is defective or in any violation of any warranty.

This warranty is Heater Craft's only express warranty of this product. No implied warranty shall extend beyond (2) two years from the date of the original consumer purchase. Heater Craft will not be liable for any damages, for loss of use of this product, nor for any consequential damages, costs, or expenses.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights not mentioned here that vary from state to state.

*Any shower product subjected to direct saltwater use will have a (1) one year warranty. Direct saltwater use is defined as having saltwater circulating through the shower unit.

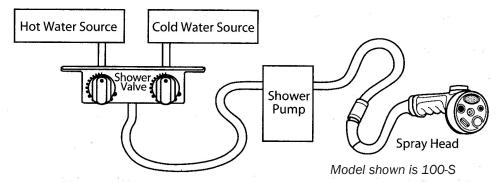
Recommendations

Important Note: We recommend that the shower pump is not mounted into the bilge, or any location or in such a manner that it would be easily submerged. The warranty for the pump may be void if, upon disassembly, Heater Craft determines that the pump has been submerged in water for any length of time.

1. Review Heater Craft installation instructions and warranty information completely before beginning installation.

2

2. Lay out the shower system in the boat before beginning installation to be sure the mounting location for all components, as well as the routing of water hoses and wiring will be sufficient (see general diagram below)



Use silicone sealant or Teflon tape on the threads of all brass fittings before installing to prevent water leakage.

- 3. Shower water hoses and wiring should be routed away from moving parts, high heat sources such as engine exhaust manifolds, and secured to prevent penetration from sharp objects or edges. All water hoses and wiring should be as short as possible for efficiency. Water hoses should be routed to prevent any kinking or pinching that may restrict water flow.
- 4. Shower components should not be installed on or near high heat sources such as engine exhaust manifolds.
- 5. Hose clamps should be fastened near the end of the hose to prevent the hose end from "mushrooming", and to prevent leakage.
- 6. Applications may vary! If you have any questions regarding your Heater Craft product, please contact us.

Shower Valve/Unit Installation

Important Note: In most applications the spray hose will be fed back into the box. Keep all parts away from high heat sources like the engine exhaust manifolds, sharp edges or objects that may kink, pinch or restrict the travel of the hose in any way.

- 1. Determine the location for the shower valve/unit. Consider the routing of the water hoses and wiring.
- 2. The S-102 valve should not be installed on or near high heat sources such as engine exhaust manifolds. the valve should also be accessible for adjustment.
- 3. Secure the valve in place.
 - The Flush mount valve can be mounted through a bulkhead or flat surface of 7" x 2" with access for adjustment.
 - The Surface Mounting of valve needs a flat surface area of 3"x8" with access for adjustment.

- For the Flush mount valve, cut a rectangular opening 7" x 2", always check for hoses/wiring behind the area before you cut. Mark the mounting holes with the valve and predrill using 7/64" drill bit.
- The 300 series (box) needs a flat surface area of 6" x 10-1/2" with 6" of depth is necessary for proper installation.
- Cut a 4-5/8" x 9-1/4" rectangular opening, always check for hoses/wiring behind the area before you cut. Mark the mounting holes with the box and predrill using 7/64" drill bit.
- Apply a thin line of sealant around the shower to prevent water from leaking behind the valve, if necessary (3M 5200 Marine Sealant is recommended).
- Mount the unit in place.

Questions? Call For Technical Support (208) 687-4400

Shower Pump Installation

If you are not installing a pump to pressurize the shower system, proceed to the Water Source section. IMPORTANT NOTE: We recommend that the shower pump is not mounted into the bilge, or any location or in such a manner that it would be easily submerged. The warranty for the pump may be void if, upon disassembly, Heater Craft determines that the pump has been submerged in water for any length of time.

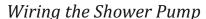
Mounting the Shower Pump

1. Determine the location for mounting the shower pump.

100-S Series—Consider the location where the quick-release hose fitting will be accessible (typically along the gunwale or into a storage area). The mixed water hose is one length and will be cut to install the pump in-line. This hose will be routed from the shower valve. The pump will have to be mounted so that this may be achieved with the length of hose provided.

300, Series—Consider the position of the shower unit. The spray hose will attach to the pump and be routed into the shower unit. The pump should be placed so that it will allow the spray hose to coil away from moving parts, high heat sources, sharp edges or objects that may kink, pinch, or restrict the travel of the hose in any way.

2. Install the hose barbs into the shower pump, then tighten wing-nut fittings by hand then mount the pump in place.



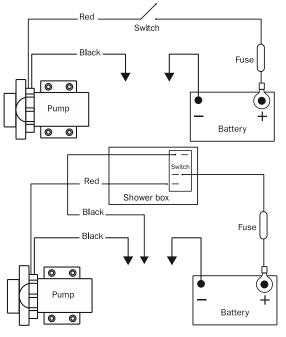
The pump wires should be routed with the factory wiring harness whenever possible. The wires should be routed away from moving parts, high heat sources and sharp edges or objects.

100 and 300 shower pump and switch should be protected with a 10 amp in-line fuse.

- Red positive lead—Wire to an on/off switch with a 12V DC power source.
- Black negative lead- Wire to ground source.
- 3-Red power wire to shower pump.
- 2-Wire to a 12V DC power source.
- 7-Wire to a ground source.
- Black negative lead (from shower pump) Wire to a ground source.

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Water Source

On-Board Fresh Water-Cooling System

Note: Due to variations in boat water systems and boat sizes, the following are only general instructions.

If you are installing the shower system to work in conjunction with the existing on-board water system or closed cooling, please consult the boat manufacturer before beginning installation and or contact us.

- The hot water connection should be in the water line exiting the hot water heater or hot water source typically found on the manifold or water pump with a brass fitting.
 - *Cold Water Outlet* The cold-water connection should be in the water line hose exiting the raw water pick up pump with a tee (requires hose to be cut)

Testing Shower Installation

IMPORTANT NOTE: With the 100 or 300 Series, the hot and cold valves need to be closed or turned to off position after using to prevent water leakage.

- 1. The shower pump can operate with an on/off switch or by the pump pressure switch which will automatically shut off once it has built up pressure in the outlet hose. if the shower pump does not operate, be sure hot and cold valves and the spray head are in the open position.
- 2. Check all hose and fitting connections to be sure there are no water leaks. Check the routing of all hoses to make sure they are away from moving parts and high heat sources, and secured from sharp objects or edges and are not kinked or pinched in any way.
- 3. Adjust the water temperature by turning the corresponding valve for the desired water temperature.

Troubleshooting Shower System

Poor Water Pressure

- 1. Check on/off switch and condition of fuse to pump.
- 2. Check the routing of all hoses to be sure they are not kinked or pinched in any way.
- 3. The shower valve may become clogged. To check, remove the hoses from the back side of the valve and inspect for debris. IMPORTANT. In many cases the debris can simply be scraped off or the valve can be backflushed with water pressure.
- 4. Remove spray head and check for debris.
- 5. Remove the hot and cold hoses from their water sources and check for debris.

Notice: Shower units comply with the U.S. Government's test procedure 7.4.4

ASME A112.18.1M-1996 That states "THE SHOWER HEAD VOLUME CONTROLS, WHETHER INTEGRAL OR

SEPARATE, SHALL BE DESIGNED SO THAT THEY CANNOT COMPLETELY SHUT OFF THE WATER TO THE

SHOWER HEAD". In short, the slide button on the side of the wand is designed to be a volume control, not a positive shut off. The only positive shut off is at the valve assembly itself.

Winterizing Shower System

- 1. The shower pump and all hoses should be completely drained of water to prevent damage.
- 2. RV/MARINE anti-freeze can be drawn into the shower system by removing the hot and cold hoses from their water sources and then inserting them into a container of anti-freeze. Turn on the shower pump until anti-freeze sprays out of the shower head. Rinse before next use.