



Liberty Bilge Systems

INSTALLATION INSTRUCTIONS

GENERAL PRECAUTIONS

Install on Bilge Lines Only
 Maximum Pressure: 125 psi
 Maximum Temperature: 125°F

Optimal Flow Rates should not exceed:
 Liberty I Cartridge (10"x2.5") — 2000 gallons per hour
 Liberty II Cartridge (10"x4") — 3000 gallons per hour
 Liberty III Cartridge (20"x4") — 4000 gallons per hour

Note: Higher flow rates can be accommodated with multiple systems installed in parallel. Lower output levels of hydrocarbons can be achieved by installing systems in series.

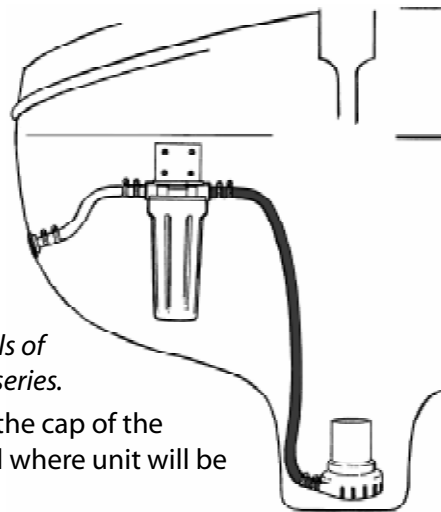
Do not use wicking or sealer for fitting connections into the cap of the filter housing. Teflon tape is recommended. Do not install where unit will be exposed to direct sunlight.

Allow a minimum of 1.5 inches clearance under the filter housing to facilitate changing the cartridge.

CAUTION: This filter must be protected from freezing. Failure to do so may result in cracking of the filter housing and water leakage may result.

WARNING: This system is not designed or intended to "clean the bilge." It is designed to remove hydrocarbons that are a part of common bilge water. For new installations, it is recommended that the bilge be cleaned first and all machinery be checked for oil leaks and those leaks fixed. Bilges that are full of sediment may require a pre-filter to screen sediments so that the oil absorbing Clerify™ cartridge does not plug and stop water flow.

Best results are obtained by keeping your bilge clean and machinery tight. To extend the life of the cartridge, you should minimize the amount of oil reaching the filter.



WARRANTY

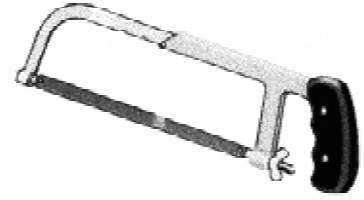
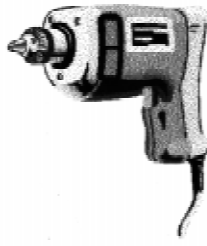
This warranty applies to the Filter Housings only. It does not apply to any disposable cartridge, which has a life expectancy that varies with the water being filtered. This warranty covers defects in materials and workmanship only for five full years from original date of delivery. US Filter will replace any part which in US Filter's opinion is defective unless:

- (1) any part of the system has been subject to any type of tampering, alteration, or improper use after delivery, or
- (2) any part of the system has been repaired by anyone not approved by US Filter. Our obligation does not include the cost of shipment of materials. US Filter is not responsible for damage in transit, and claims for such damage should be presented to the carrier by the customer.

This product has been designed solely for use as a housing for a disposable filter cartridge. It is Not warranted against freezing; neither this product nor its parts is warranted against defects or deterioration caused by uses for which this product was not expressly intended.

TOOLS REQUIRED

Phillips Head Screwdriver
Electric Drill
Adjustable Wrenches
Hacksaw or Tubing Cutter



INSTALLATION PROCEDURE

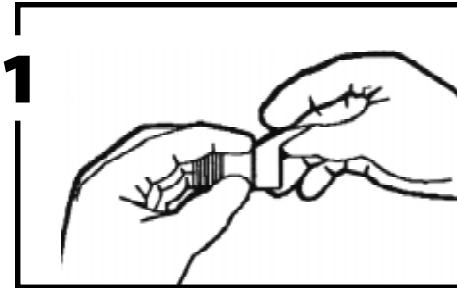
See diagrams for corresponding steps. Read all of the General Precautions and Instructions before beginning.

NOTE: Filter can be adapted to various pipe sizes by using reducing adapters.

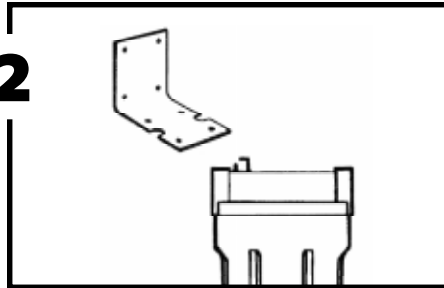
IMPORTANT: Before starting, shut off bilge pump switch.

3/4" • 1" • 1 1/2" Bilge Overboard Tubing or Hose Installation: Instructions

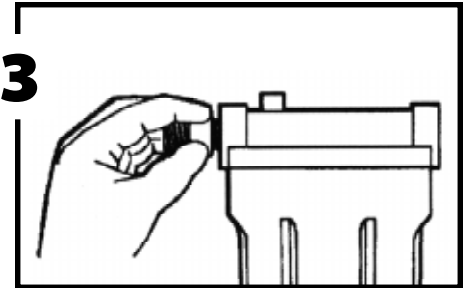
IMPORTANT: Before starting, shut off bilge pump switch.



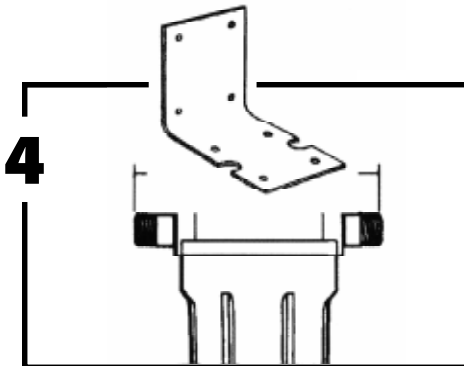
STEP 1: Apply about 6" of teflon tape in a clockwise direction to the pipe threads of each adapter.



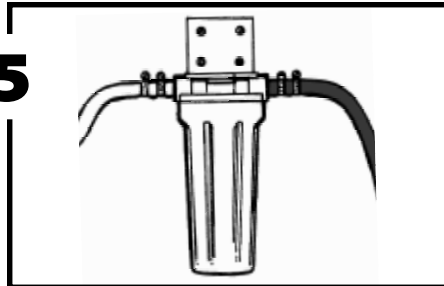
STEP 2: Determine appropriate location for housing. Use mounting bracket as a template to mark screw locations. Install bracket using the stainless steel screws supplied. See TIPS (below) for location suggestions.



STEP 3: Start adapters into the cap by hand. Be careful not to cross-thread the adapters. Use a wrench to tighten the adapters firmly, but do not overtighten. About 1 thread should remain visible.



STEP 4: Mount the filter housing to the bracket using the screws supplied.



STEP 5: Attach bilge hose from bilge pump to inlet side of filter housing. Attach hose from outlet side of filter housing to overboard through hull fitting. Use stainless steel hose clamps of a size appropriate for your hose.

Good Job!

You have just installed the most technically advanced Overboard Oil Protection System (OOPS) aboard your boat. It is something to be proud of and show off. New hose is inexpensive; clear hose is especially good for viewing the results produced by your new system. Don't forget to install your Liberty Bay Solutions OOPS sticker in your boat window.



Tips

■ Try to locate the filter housing in an easily accessible location such as a closet or a locker. The housing does not need to be in the

bilge. A little extra hose can make installation simpler and cartridge replacement easier.

- Some vessels could benefit from the installation of additional filters installed in series or parallel.
- Some installations may require through-bolting of the mounting bracket.



Liberty Bay Solutions Overboard Oil Protection System

Clerify™ Cartridge Replacement Instructions

Replace Your Cartridge Every Season or As Needed

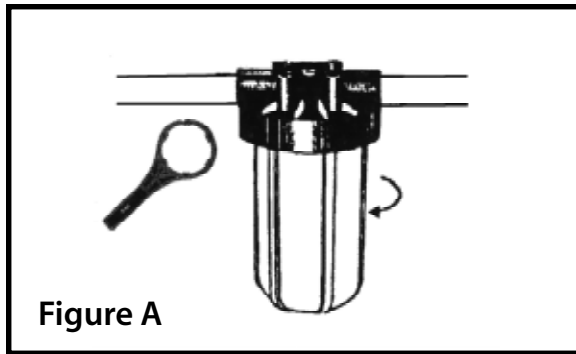


Figure A

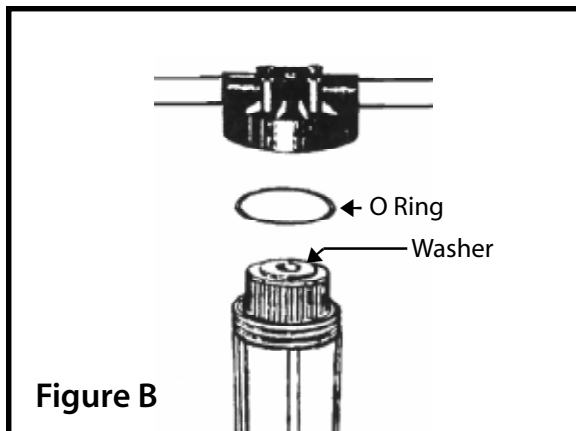


Figure B

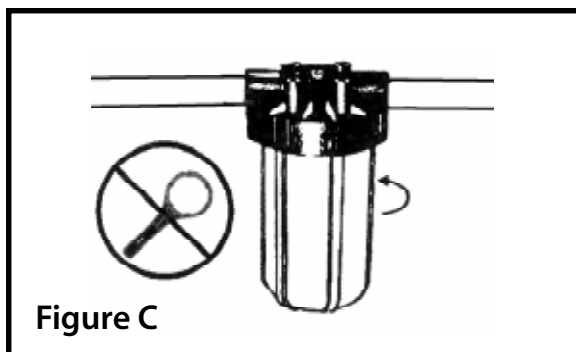


Figure C

1. Turn off bilge sump switch.
2. Unscrew sump from cap (Figure A) using the wrench supplied with the system. The wrench is only necessary to loosen and unscrew the sump.
3. Remove used cartridge from sump, and smile! Your OOPS cartridge will not release captured oil (if you are skeptical, give it a squeeze). Dispose of a filled cartridge in the appropriate manner.
4. Remove O-ring from groove in sump; wipe O-ring and groove clean. Reseat O-ring in the groove, being sure it is level (Figure B). Clean sump as required.
5. Insert a new cartridge into the sump making sure washers are attached to both ends of the cartridge. Make sure the cartridge (with washer attached) slips down over the sump stand pipe.
6. Screw the sump onto the cap and hand tighten (Figure C). Do not overtighten. Make sure the cartridge (with washer attached) slips over the cap standpipe.
7. Turn on bilge switch. You are one again protecting our waterways using the Liberty Bay Solutions Overboard Oil Protection System, with the Clerify™ filter.