

WATER SYSTEM INSTALLATION & MAINTENANCE

PUMP MOUNTING

SOLID SURFACES are required to lessen vibration and noise. A thin surface can amplify noise

EASY ACCESS for strainer and pump maintenance is needed, as well as space around the pump to keep it cool.

POSITIONING the pump horizontal is best but most pumps can be mounted in any position. Pumps will push water better than pull, so mount the pump within 6 feet of the water tank for best performance.

ANCHOR the pump snug, but don't flatten the feet to keep vibration from transmitting to the system.

INLET SIDE OF PUMP

FLEX LINES help reduce normal vibration of the pump being transmitted through the system. The lines should be rated to not collapse under pump vacuum. Collapsing inlet lines cause pump starvation, cavitation and noise.

STRAINERS with adequate screen size are required to keep debris out of the pump and minimize vacuum.

VALVES for tank shut-off or winterizing should be full-port style, or as open as possible to reduce vacuum and cavitation, which cause system noise.

PUMP FITTINGS on both inlet and outlet must seal on the internal taper of the *threaded pump ports*. For *quick-connect* fittings, make sure the o-rings are lubricated and the fittings are pushed in straight. Minimize side-to-side stresses on all plumbing system fittings.

OUTLET SIDE OF PUMP

FLEX LINES should be anchored where the flex meets the hard tubing and throughout the coach. Make sure plumbing does not rattle behind walls, showers and where it goes through walls and shelves. Valves should be full-flow with minimum back pressure. Check valves on the water heater inlet keep hot water from pressurizing the cold water side of the system.

ACCUMULATORS should be charged to the restart [On] pressure of the pump and should be 'teed in' to give the best system flow, low pump cycling and smooth performance. The Extreme™ series pumps do not require an accumulator.

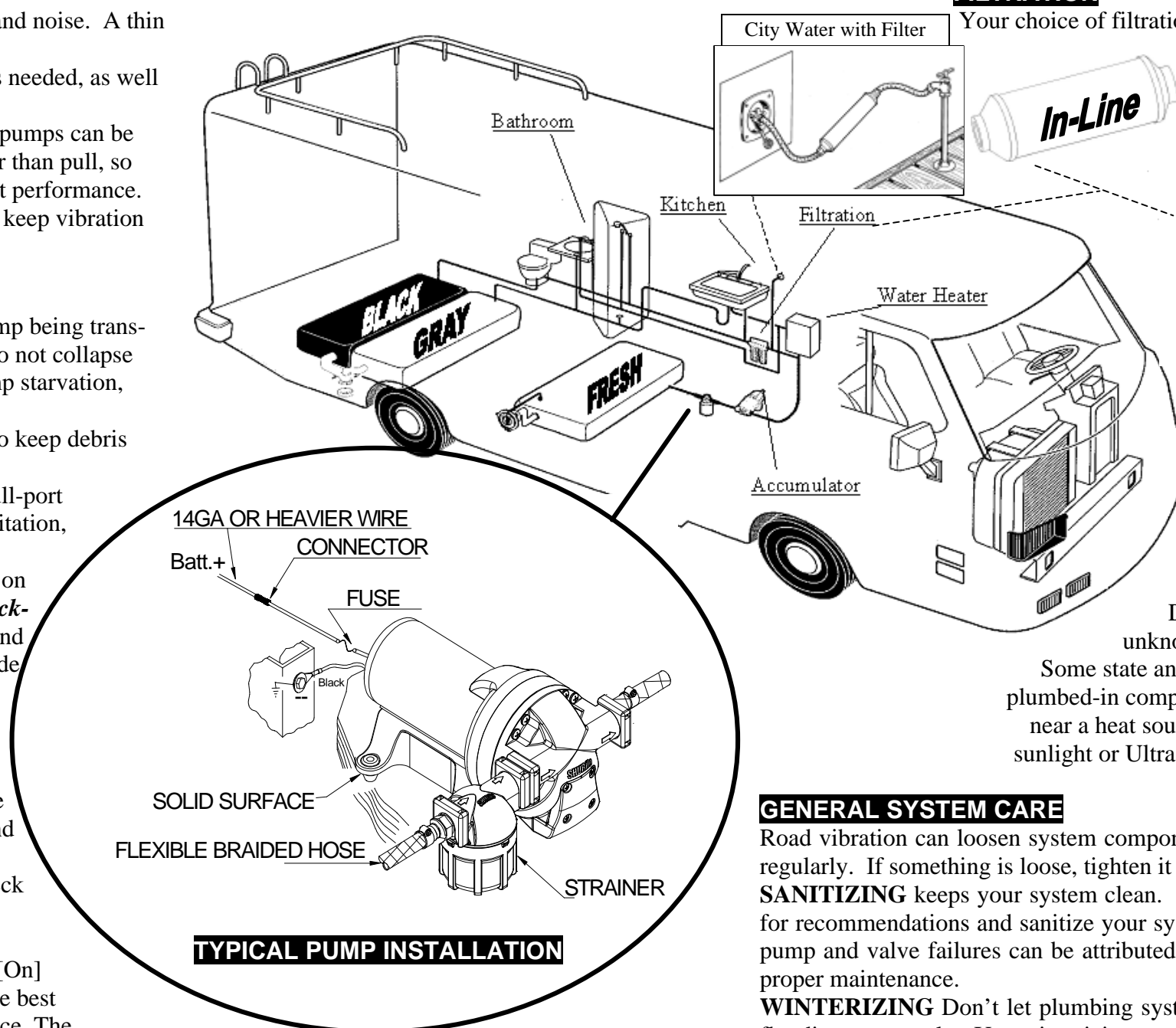
PUMP ELECTRICAL

WIRE SIZE is very important to keep proper voltage at the pump. See the chart for wire sizing.

FUSING & SWITCHING are very important, as they allow shutting the pump off separately for service and providing an extra layer of safety in case of problems. Be careful with pump switch controllers. Older power converters may need direct wiring to the battery with the Extreme™ series pumps.

12VDC 15 Amp Circuit		
Total Wire Length * Feet [M]	Minimum Wire Size	
	3% Drop	10% Drop
1-10 [.3-3]	#12	#16
11-20 [3.3-6]	#10	#14
21-30 [6.4-9.1]	# 8	#14
30-40 [9.1-12.2]	# 6	#12
40-60 [12.2-18.3]	# 6	#10

*Length from power source to motor and back to ground.
Red wire (+) positive. Black wire (-) negative.



FILTRATION

Your choice of filtration products will depend on your RV Lifestyle. From part-time to full-time, from pop-up to Class A's and beyond, Waterguard™ filters will meet your needs. **IN-LINE FILTERS** are great for under-the-sink installation, separate single-tap faucet and icemakers. They are sized to meet many flow and life requirements, and can even be used to filter the water coming in through the city water entry. Be sure to make clean tubing cuts, and handle tubing carefully to avoid scratches, kinks and damage.

HOUSING & CARTRIDGE FILTERS combine the ease and convenience of a permanent installation with a variety of filter media choices to meet your needs. If the housing is installed for "Full-House Filtration", make sure the filters meet your needs. A high flow of water through a filter reduces its' ability to clean the water and can create significant backpressure on the pump, creating low system pressure and flow. Most filters are only designed to filter at a low flow rate. If you want to use **REVERSE OSMOSIS**, the standard RV pumps are not designed for the high pressures and continuous-duty cycles that are needed. Contact SHURflo for help here.

Do not use filters with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit. Some state and local laws and regulations may pertain to the installation of any plumbed-in components. Check for compliance in your area. Do not install filters near a heat source. Do not allow filters to freeze. Do not expose filters to direct sunlight or Ultra Violet radiation [UV]. Do not use filters beyond stated capacity. Do not attach filters to hot water lines.

GENERAL SYSTEM CARE

Road vibration can loosen system components. Check all plumbing components, fittings and connections regularly. If something is loose, tighten it up. Don't store things on top of plumbing system components.

SANITIZING keeps your system clean. Make sure to follow your manufacturer and component manuals for recommendations and sanitize your system. It's easy to do and helps to extend component life. Many pump and valve failures can be attributed to scaling or other build-up that could easily be prevented with proper maintenance.

WINTERIZING Don't let plumbing system components freeze with water in them. Severe damage and flooding can result. Use winterizing procedures recommended by the coach manufacturer or your local dealer. There are many good ways to winterize systems for freezing weather and long storage.

These are recommendations and maintenance tips only. Local plumbing codes take all precedence. It is advisable to have regular professional installation and maintenance by certified mechanics. SHURflo reserves the right to update specifications at any time. Need more help? Check out your installation manuals or check out our web site at www.shurflo.com Call us: East of the Rockies (800) 762-8094 West of the Rockies (800)854-3218



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SHURflo reserves the right to update specifications, prices, or make substitutions.

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