

POWER DRIVE SERIES 3

RV Automatic Fresh Water System Pump with By Pass

Owner's Manual
Installation
Troubleshooting



Patent No.:US7,424,847 B2



Patent No.: US 7.424,847,B2



2021 Aeroplex Drive North, Elkhart IN 46514
P: 877-294-8997 F: 574-294-8698



SPECIFICATIONS FEATURES

Self- Priming
Dry-Running
Corrosion Resistant Materials
Low noise
Sealed Motor
Patented Diaphragm

PUMP

Four-Chambers
Back Flow/By-Pass Valve
Self-priming to 9 ft
Dry Run Capability
NSF Listed
Motor: Permanent magnet, totally sealed, enclosed ball bearing/ thermal protection

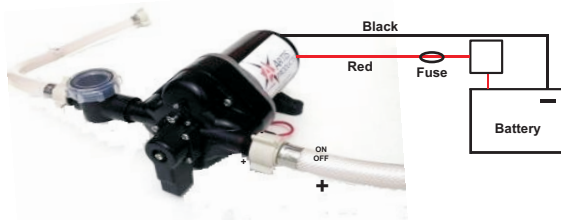
Design Ratings

MODEL	Amp Draw	Open Flow	Shut Off
PDS3B-130-1260E	3.9 AMPS@ 0 PSI 4.8 AMPS@ 50 PSI	3.0 GPM/11.36 LPM	60 PSI

INSTALLATION INSTRUCTIONS

- 1- Pump can be mounted vertically or horizontally using number 8 Stainless steel screws on a solid surface. Snug screws, do not over tighten screws or collapse feet, which could cause pump to transfer unwanted noise. When mounting vertically, always mount pump head down.
- 2- **!! WARNING !!** Install ARTIS Strainer 30 mesh on the inlet port of the pump, locating it for easy inspection and cleaning. The strainer or equivalent is required for pump warranty to be valid.
- 3- Use flexible high pressure hose on the inlet and outlet ports to reduce harmonic noise and vibration through the plumbing system as shown in figure A. The high pressure hose where connected to the hard plumbing should be anchored to a hard surface with a P-Clamp reducing plumbing vibration. Radius bends are recommended in place of PEX elbows to increase flow efficiencies.

FIGURE A



AD-M-0001-0

WIRING INSTRUCTIONS

- 1- An ON/Off switch is recommended to be used rated at 15 AMPS on the positive red motor lead wire.
- 2- Use 14-gauge stranded wire up to 20 feet or 12-gauge up to 50 feet. Length is the distance from the 12 VDC power source to the pump and back to ground.

! CAUTION ! SHUT OFF POWER TO THE PUMP WHEN RV IS UNATTENDED

OPERATION AND ADJUSTMENTS

With pump switch off and battery fully charged (fill water tank with fresh city water or, if well water is used, attaching a sediment filter to the hose will help keep tank clean from debris), open all faucets and turn pump switch on. Water will begin to flow once the system has purged all air in lines and water heater. When all faucets and valves are shut off, the pump will stop running. Should the pump fail to stop, turn power switch off and check troubleshooting guide.

TROUBLESHOOTING

Motor Fails to Start

- Blown Fuse
- Loose wire connections
- Failed pressure switch
- Motor hot? Thermal breaker may have triggered: once cooled will reset.
- Defective motor

Low Flow Rate/Rapid Cycling/No Flow

- Restricted water filter
- Partially open faucet
- Flow restrictions in faucets and shower head
- Debris in pump valves
- Restrictive fitting (elbows, T-fittings, or shut off valves etc.)
- Small ID water lines: water lines should be 1/2" (13mm) minimum for main lines.
- Shut off pressure set too low.

Pump Runs with Faucets Closed

- No water in tank
- Low battery voltage
- Leak in plumbing system
- Failed pressure switch

Pump Fails to Prime

- No water in tank
- Pump Strainer is full of debris
- Debris in pump head
- Air leaking at inlet plumbing line
- Failed diaphragm

Operation – PDS3B-130-1260E

The PDS3B is designed for intermittent duty only. The pump operates normally between 30 PSI and 40 PSI, equipped with a flow valve that allows water to flow back from the outlet side to the inlet side, providing water conservation and a smooth, steady water flow with no cycling. CAUTION- always turn the pump power switch to off position when the RV is unattended.

PRESSURE ADJUSTMENTS AND BY-PASS – all adjustments should be made by a qualified profession technician with proper gauges and equipment.

The By-Pass is set to begin opening around 35 PSI; improper adjustments for the By-Pass can cause the pump not to shut off properly. Full By-Pass pressure setting should be at 5 PSI higher than pump shut off pressure. Performance will vary depending on the voltage to the pump, low voltage equals low flow, and High voltage equals high flow.

Maintenance

Your ARTIS Fresh Water pump requires normal maintenance to operate efficiently. Sanitize the water system at least once per year, preferably at the beginning of your camping season. See Sanitizing Instructions. Winterize the water system upon winter storage. See Winterizing Instructions. Check and clean water pump strainers and replace water filters minimally once per year, preferably at the beginning of each season. Following these instructions will keep your ARTIS Fresh Water Pump operating for many years.

Sanitizing

Potable water systems require periodic maintenance to deliver a consistent flow of fresh, quality water. Sanitizing is required before and after storage. The following sanitizing procedure is in conformance with RVIA ANSI A 119.2 and the US Public Health Service. Use the following methods to determine the proper amount of common household bleach required to sanitize the tank and system.

Ounces of bleach needed = (gallons of tank capacity) x 0.13

or Milliliters of bleach needed = (liters of tank) x 1.0

Wearing the proper protective clothing and safety glasses, mix the proper amount of bleach and water in a container. Pour the mixture into the water tank. Open all faucets allowing the water to run until you smell a distinct odor of chlorine. This solution requires four hours of contact to completely disinfect. If you double solution it will reduce the contact time to one hour. After the contact time has completed, flush the tank and system and refill with potable water.

Winterizing

Never allow water to remain in the pump or water system during stored winter conditions. If water is allowed to freeze in the plumbing system, serious damage to the water delivery system and water pump may occur. The best solution is to completely drain the water system. **To drain the water system,** perform the following: Drain all water from the tank by opening all faucets and allow the pump to run until tank and all lines are dry. Leave all faucets open until ready to use. Additionally, be sure to completely drain the piping system by using low-point drains provided in accordance with paragraph 7.3.6 of NFPA 1192.

Damage to the water pump due to freezing voids the pump warranty.

! = CAUTION =! The use of automotive antifreeze to winterize the water system could result in serious injury or death. **This Pump has been evaluated for Use with Potable Water Only.**

LIMITED WARRANTY

ARTIS warrants its Original Equipment RV potable water pump to be free from defects in material and workmanship under normal usage and extends to the original owner a Two Year Limited Product Warranty. This Warranty is in effect from the date of the original purchase and falls under the warranty supplied by the manufacturer, as outlined in document AD-F-0008-0. ARTIS warrants its aftermarket retail PDS3B Series potable water pump to be free from materials and defects under normal use and service for 2 years from date of purchase with purchase receipt or 2 years from date of manufacture indicated on the motor nameplate if no purchase receipt is available. ARTIS shall not be liable for any labor, damage or other expenses, nor shall ARTIS be liable for any indirect, incidental or consequential damages of any kind incurred by use of any defective product or part. This limited warranty covers products distributed within the United States and Canada. This Limited Warranty will not apply to product that was improperly installed or incompatible with components not manufactured by ARTIS. ARTIS will not warrant any pump that is physically damaged or altered outside of the ARTIS factory. ARTIS' obligation under the warranty policy is limited to the repair or replacement of the pump.

Consumer Warranty Return Policy

Warranty claims may be resolved by an authorized dealer service center, or WFCO/ARTIS Products service center. Before returning any defective product, an RGA number is required. An RGA number can be acquired by first visiting www.artisproducts.com web site and downloading a copy of the Warranty Information Sheet. Once completed, email the form to warranty@artisproducts.com or fax to the Warranty Department @ (574)-294-8698. Returns are to be shipped with charges pre-paid. WFCO/ARTIS will not be responsible for freight damage incurred during shipping to a service center. **Package carefully, include Info Form Fax Sheet.**

! = WARNING =!

Product Warranty is void if installation instruction are not followed.

Explosion Hazard: Do not use pump units for pumping gasoline or other flammable liquids. Doing so may result in an explosion, which could cause personal injury, death or property damage. The motor is intended for CLASS 2 power source (a power source with ground protection device).

Risk of Electrical Shock: This pump has not been investigated for use in Swimming Pool or Marine Areas.

