

# AUTOMATIC BILGE PUMPS MADE IN ITALY

## It can be run in automatic and manual mode



Volt Volt	Model Modello	Ampere Ampere	Flow l/min Portata litri/minuto	Size Misura	Hose Adaptor mm Portagomma mm
12	500	1,8	32	151x78x95 mm	19 mm
12	750	3,0	50	151x78x95 mm	19 mm
24	750	1,5	50	151x78x95 mm	19 mm
12	1.100	4,0	75	151x78x95 mm	29 mm
24	1.100	2,2	75	151x78x95 mm	29 mm



ISO 8846  
EN 55014

This product carries the standard two-year warranty. **CAUTION:** Read all instructions carefully before installing and using this product. This pump is sealed and, therefore, submersible. However, the electrical wire connections must not be submerged. For extra protection, coat the butt joints and adjacent wire ends liberally with liquid electrical tape such as MDR® or Starbrite®. **WARNING:** To prevent injury, always disconnect the power source when installing or servicing any electrical product.

DO NOT use pump to remove gasoline, oil or other flammable liquids. Always use the fuse amperage rating specified for your pump model. Failure to do so could result in serious personal injury or fire hazards. Auto bilge pumps are designed to exhaust STANDING WATER ONLY. They are not intended to prevent rapid accumulation of on-board water due to rough weather, hull damage, and/or other unsafe navigational conditions. (stainless steel straight), No.3877(90°), or No. 3878 (double-end)

**PUMP MOUNTING INSTRUCTIONS WARNING:** Remove the pump mounting base (See Figure 1). Remove the foam block that supports the float during shipping. Failure to do this prevents the pump from starting when water is present.

1. Make sure the hull thickness is at least 1/2" thick. If not, place a block of 1/2" marine plywood (slightly larger than pump base) in the lowest part of the bilge. Be sure that the pump cover can be removed for cleaning in this position. Glue the plywood to the hull with a waterproof adhesive (epoxy, silicone adhesive, or fiberglass resin). See Figure 1.

2. Position the pump in the lowest part of the bilge on a flat, level surface (on the plywood block if it has been installed) with the outlet pointing toward the transom.

3. Be sure outlet nozzle is level. If pointed upward or downward, an airlock may form in the pump. (See Figure 1.)

4. **The float end of the pump must be level with or above the pump end** (See Figure 1). This prevents the pump from running out of water while the float is still high enough to activate the pump.

5. Mark location of the three (3) mounting holes with a pencil or scribe.

**WARNING:** When drilling holes do not drill through the hull!

6. Carefully drill two 1/8" diameter pilot holes in marked area and drive a screw in each hole.

7. Slide hose clamps (one to clamp hose to the pump, the other for the thru-hull connector) over end of the hose. Force hose over the discharge nozzle of the pump. Install clamp.

8. Route hose on an upward incline to the thru-hull connector. Avoid dips in hose that can trap water and airlock the pump. Avoid putting excess tension on hose, which can damage the pump outlet.

9. Force the hose over the thru-hull barbs and clamp into place. **THRU-HULL CONNECTOR INSTRUCTIONS** If no thru-hull connector exists, choose a location for the fitting.

1. Position thru-hull fittings at least 12" above the water line to prevent water from coming back into the hull. On sailboats, mount the thru-hull high enough on the center of the transom to be above the water line at all times.

2. Place fitting, if possible, on the same side as the steering wheel so the driver can see discharge of water when the pump is working properly.

3. Drill hole to match outside diameter of the thru-hull connector thread.

4. Place a small bead of suitable marine sealant around inside of the thru-hull connector flange. **WARNING:** Do not allow sealants containing acetic acid (smells like vinegar) such as silicone rubber sealant to contact the plastic pump housing or thru-hull connector. Such sealants can attack the plastic, causing the pump housing to crack, resulting in pump failure.

5. Insert thru-hull connector through the hole and tighten to hold the thru-hull connector firmly in place. **CAUTION: Do not overtighten the nut.**

**WIRING INSTRUCTIONS WARNING:** Be certain that power source is 12-volt D.C. Higher voltage will damage the pump.

1. Using the full length of wire provided (and additional wire if necessary), connect wires to the pump as shown in the diagram. (See Figure 2.)

2. Route wires out of the way and secure them to the bulkhead to avoid pulling.

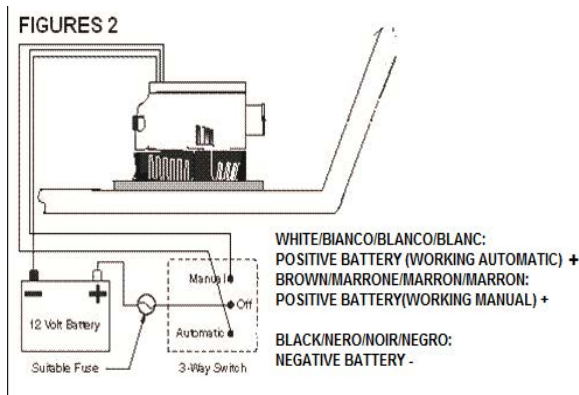
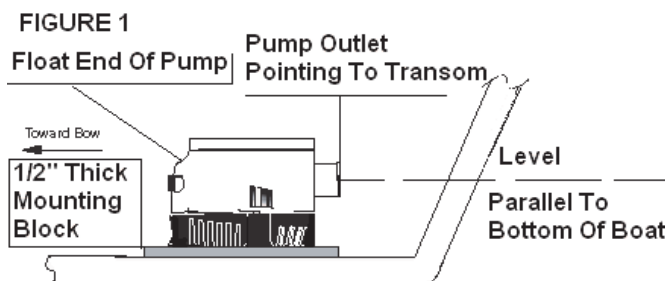
3. Using butt connectors sized for 16-gauge wire, splice fuse holder into positive lead (brown) between the battery and switch. Position fuse holder in a location that is easily accessible for changing fuses.

**IMPORTANT:** Use fuses of the proper amperage **WARNING: FAILURE TO PROPERLY FUSE AND MAKE THE APPROPRIATE WATERPROOF CONNECTIONS WILL VOID THE PRODUCT WARRANTY.**

4. Install a Three-Way Switch that allows for automatic or manual switching modes.

5. Turn the pump on and twist the Test Knob clockwise to check operation.

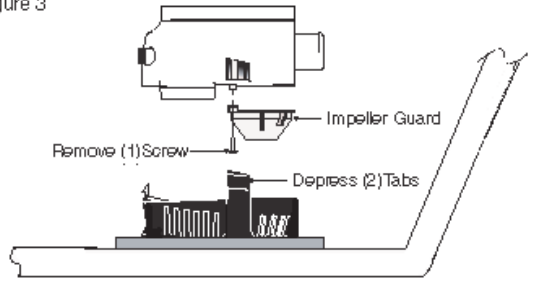
Feed water into the pump. If output appears to be too low, check the wire connections. Reversed connections result in opposite impeller rotation that drastically reduces capacity and can cause premature pump failure may damage the pump materials.



**CARE AND MAINTENANCE**

Occasionally check your pump to be certain debris is not jamming the impeller and/or float within the housing. Use the test knob by rotating in a clockwise direction. Careful attention will guarantee outstanding pump performance. To clean the water chamber, remove pump housing from the mounting base by pressing in tabs on sides. Lift the pump housing away. (See Figure 3.) To clean the impeller, remove the impeller guard screw and lift the impeller guard. Remove all debris that has accumulated in pump chamber and around the impeller. Ensure that all debris is removed from strainer slots around the pump base. Inspect the impeller to ensure that it is firmly attached to shaft and is not cracked or broken. Replace impeller guard, screw, and pump housing on base. Be certain that all tabs are fully engaged. Periodically check the electrical connections to ensure they are water-resistant and mounted high and dry. Do not use household cleaners on the pump because many of them special

Figure 3



**VERY IMPORTANT NOTICE: GROUNDING WHITE (+) AND BROWN WIRE (+) INVALID WARRANTY AND BURNS THE SWITCH!**

**WHITE/BIANCO/BLANCO/BLANC: POSITIVE BATTERY/POSITIVO BATTERIA (WORKING AUTOMATIC) +**

**BROWN/MARRONE/MARRON/MARRON: POSITIVE BATTERY(WORKING MANUAL) +**

**BLACK/NERO/NOIR/NEGRO: NEGATIVE BATTERY/NEGATIVO BATTERIA -**

**FAILURE TO FOLLOW THIS PROCEDURE WILL VOID THE WARRANTY/ IL NN RISPETTO DEI COLLEGAMENTI FA DECADERE LA GARANZIA.**

	This pump is designed for use with fresh water and salt water ONLY. Use with any other hazardous, caustic, or corrosive material could result in damage to the pump and the surrounding environment, possible exposure to hazardous substances and injury.
	Keep all wire connections above the highest water level. Wires must be joined with butt connectors and a marine grade sealant to prevent wire corrosion.
	Disconnect power from the system before working on the unit to avoid personal injury, damage to the surrounding environment and/or damage to the unit.
	Always install proper fuse size to prevent damage to product should a short occur. Failure to install proper fuse could increase risk of pump malfunction potentially resulting in personal injury and/or fire hazard.

