



# Model 36960-2 Series

## ELECTRIC BILGE PUMPS

### FEATURES

- Self-Priming
- Diaphragm Design Allows Dry Running
- Built-in Hydraulic Pulsation Dampener
- Pumpgard® Strainer Included with Pump
- Corrosion Resistant Materials Throughout for Sea Water Service
- Meets USCG Regulation 183.410 and ISO 8846 MARINE for Ignition Protection

### PRODUCT SPECIFICATIONS

**Open Flow** ..... 4.0 GPM  
**Vertical Dry Suction Lift** ..... 7 Feet (2.1 m)  
**Ports** ..... 3/4" Slip-on Hose  
**Weight** ..... 7 lb. (3.2 kg)

### INSTALLATION

#### MOUNTING

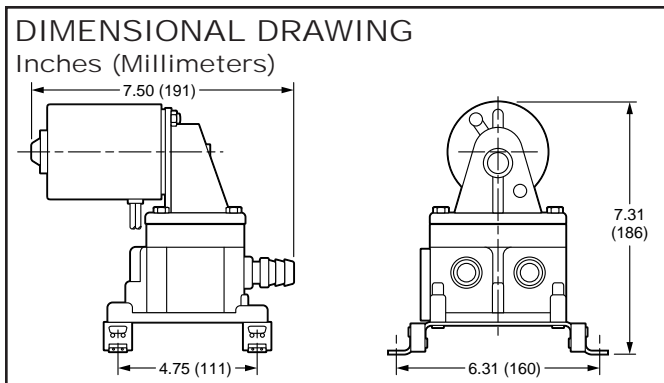
Mount upright in a dry location (above highest bilge water level) on a solid surface. Selection of a dry, cool, ventilated location will generally extend pump life. Locate Pumpgard strainer in accessible spot in suction hose.

#### PLUMBING

For intake and discharge use 3/4" ID non-collapsible hose. Keep intake and discharge line free of kinks and restrictions. To protect pump from debris, use the 3/4" in-line strainer, Model 36200-0000 in the intake line from the bilge.

#### WIRING

Wire pump in a circuit independent of all other electrical fixtures. Use stranded copper wire. Install fuse in positive circuit. See table for recommended wire and fuse size. See diagram for wiring instructions. Use a 10 amp-rated switch (44960-Series). After installation, it is recommended that voltage be checked at the motor terminals with motor operating under full load. Voltage should not be less than 90% of rated motor voltage.



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### STANDARD MODELS

Model	Voltage	Current	Fuse Size
36960-2000	12 Vdc	6 Amp	8 Amp
36960-2010	24 Vdc	5 Amp	7 Amp

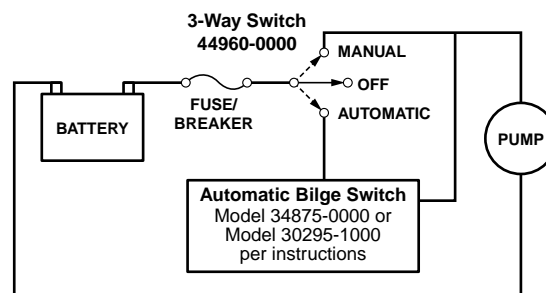
### WINTER STORAGE

When possible it is preferred that the complete pump be removed and stored in a warm dry place. If this is not possible the pump must be completely drained, hoses removed and pump run until all water is expelled.

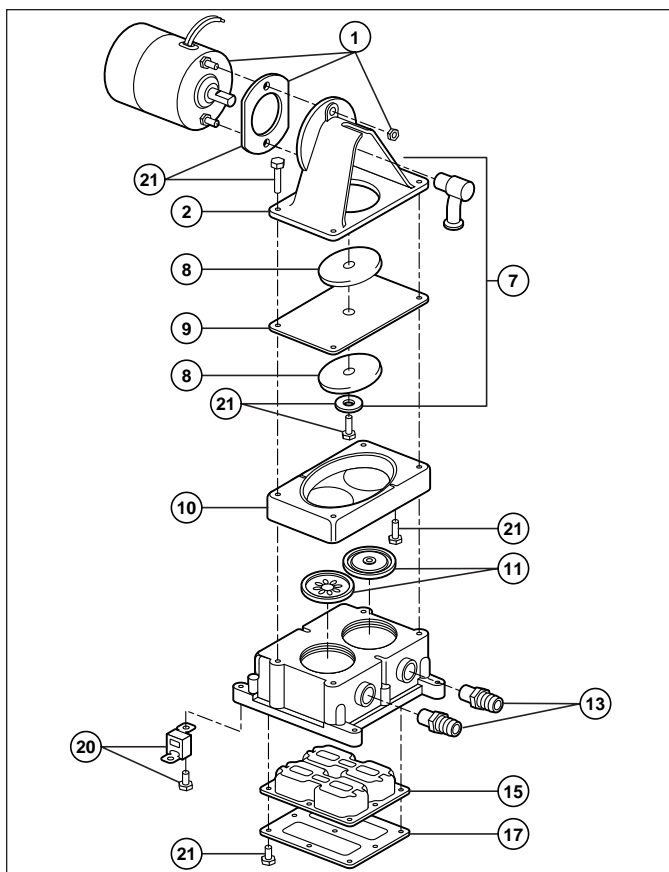
### WIRE SIZE TABLE

Wire Length Between Battery and Motor	Model 36960-2000 12 Volt	Model 36960-2010 24 Volt
1-25 ft.	12 AWG	14 AWG
26-50 ft.	10 AWG	14 AWG

### WIRING DIAGRAM FOR AUTOMATIC OPERATION



## EXPLODED VIEW



Key	Part No.	Description	Qty
1	30202-0000	Motor Kit 12 Vdc	1
1	30201-0010	Motor Kit 24 Vdc	1
2	35487-0000	Motor Mount	1
7	30040-0000	Connecting Rod Assembly*	1
8	35688-0000	Diaphragm Plate	2
9	30015-0000	Diaphragm*	1
10	35455-0000	Retainer	1
11	30003-0000	Valve Set (Inlet & Outlet)* ‡	1 Set
12	44114-1000	Base Assembly ‡	1
13	37175-0000	Ports (Inlet & Outlet) Barb ‡	1 Set
14	44127-1000	Pulsation Dampener*	1
15	35686-0000	Bottom Plate ‡	1
20	44990-0058	Vibration Pad Kit	1 Set
21	43990-0060	Hardware Kit	1 Set
	43990-0063	Service Kit*	

\* Indicates parts contained in Service Kit

‡ Indicates parts supplied with Base Assembly

## TROUBLESHOOTING

**Problems Causas**

- |  |   |
|--|---|
| <p>Loss of suction to pump</p> <p>Rough or noisy operation</p> | <ul style="list-style-type: none"> <li>• Air leak in suction line</li> <li>• Bilge pickup not submerged</li> <li>• Intake hose kinked or plugged</li> <li>• Fouled intake or discharge valve</li> <li>• Ruptured diaphragm</li> <li>• Intake or discharge hose kinked or plugged</li> <li>• Pump not mounted firmly</li> <li>• Loosened eccentric set screw or worn connecting rod assembly</li> <li>• Ruptured or collapsed pulsation dampener.</li> </ul> |
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**VALVE REPLACEMENT**

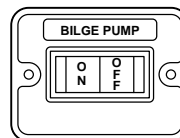
1. Turn off power to pump. Remove four motor mount tie down bolts.
2. Expose valves by lifting motor mount and the attached diaphragm assembly from pump base.
3. Remove valve retaining plate. Remove and clear or replace valves.
4. Install valves, making sure rubber flapper is UP on intake and DOWN on discharge. Replace valve retaining plate.
5. Replace motor-mount-diaphragm assembly and fasten evenly to base with the four tie down bolts.

**DIAPHRAGM AND CONNECTING ROD REPLACEMENT**

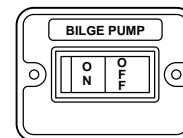
1. Turn off power to pump. Remove four motor mount tie down bolts.
2. Lift motor mount and the attached diaphragm assembly from pump base.
3. Remove two diaphragm retainer screws and the diaphragm retainer.
4. Pull connecting rod assembly and diaphragm from motor mount, then, unscrew bolt to separate diaphragm plates.
5. Loosely reassemble new diaphragm, diaphragm plates, washer and diaphragm bolt onto new connecting rod assembly.
6. Slide connecting rod on shaft. Ensure that eccentric is firmly seated on motor shaft and set screw firmly against flat side of shaft.
7. Tighten connecting rod bolt while maintaining alignment of rod bearing eccentric. NOTICE. Avoid misalignment or twisting of rod on eccentric shaft or excessive bearing wear will result.

**PULSATION DAMPENER REPLACEMENT**

1. Disconnect power leads from pump and remove from mount.
2. Remove nine bottom plate screws and the bottom plate. Pull out and replace pulsation dampener
3. Replace bottom plate and screws. Tighten evenly to ensure an air and water seal.
4. Reinstall pump and reconnect power leads.

**MARINE SWITCH PANELS**


**44960-0000**  
Lighted Switch  
w/Boot SPST



**44960-0001**  
Unlighted  
SPST

**Jabsco**

**ITT Industries**
*Engineered for life*

THE PRODUCTS DESCRIBED HEREIN ARE SUBJECT TO THE JABSCO ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.

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