

# Model 34600-Series

# ELECTRIC BILGE PUMPS FEATURES

- Self-Priming
- Diaphragm Design Allows Dry Running
- Quiet Operation
- Large Surge Chamber for Even Water Flow
- Permanently Lubricated Ball Bearings on Shaft and Connecting Rod
- Large Vibration Absorbing Pads
- Corrosion Resistant Materials Throughout for Sea Water Service

This pump meets the following US Coast Guard Regulations:

- Meets USCG Regulation 183.410 and ISO 8846 MARINE for Ignition Protection.
- Flow Requirements (Title 46, Chapter 1, Subchapter T, Section 182.25-10) for Small Passenger Vessels.

This pump listed as NMMA accepted.

## **SPECIFICATIONS**

Open Flow: 10.8 GPM

Vert. Dry

Suction Lift: 10 feet (3 m)

Ports: 1" Slip-on Hose

Weight: 13 lb (5,9 kg)

# **APPLICATION**

Jabsco diaphragm pumps are self-priming so that they can be mounted above and outside of harsh bilge environments. Because they are mounted remotely, the intake hose can be routed to the lowest point of the bilge regardless of space limitations. The reliable diaphragm design is not damaged by dry running.

## **INSTALLATION**

#### MOUNTING

Pump must be mounted in a dry location, the motor is not waterproof. Selection of a dry, cool ventilated location will generally extend pump life. Adjust belt tension for 1/4 inch play between pulleys.

#### **PLUMBING**

For intake and discharge use 1" ID non-collapsible hose. Keep intake and discharge lines free of kinks and restrictions. For separate pump-out of fore and aft bilge compartments, use ball valves to shut off dry compartments.



Use a 1" bilge strainer (Model 35890-0010) in the intake line from the bilge to protect pump from debris.

# WIRING - DC VOLTAGE MODELS

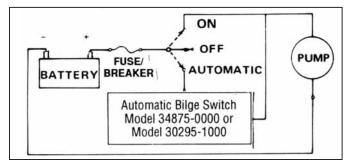
Wire pump in a circuit independent of all other electrical fixtures. Use stranded copper wire. Install fuse/breaker in positive circuit. See table for recommended wire and fuse size. See diagram for wiring connections. Use a 10 amp-rated switch (Model 44960-0000). After installation, it is recommended that voltage be checked at the motor terminals with motor operating under full load and all other appliances in the circuit operating. Voltage should not be less than 90% of rated motor voltage.

## **Standard Models**

Model No.	Voltage	Amperage Nominal
34600-0000	12 Vdc	9.5
34600-0010	24 Vdc	4.5
34600-0031	115 Vdc	1.0

# WIRING DIAGRAM FOR MANUAL-AUTOMATIC OPERATION

3-WAY SWITCH NO. 96070-0110 OR 44960-0000 OR 44960-0001



## **WIRING - AC VOLTAGE MODEL**

Use 16 gauge standard copper wire for lengths up to 100 feet from power source. Connect the grounded, unswitched conductor (white) to the white motor lead. Connect the ungrounded switched conductor (black) to the black motor lead. This conductor should include, at the power source, a 1.5 amp 125 Volt fuse. The green motor lead must be connected to the AC circuit ground.

#### **MINIMUM WIRE SIZES**

Model		Wire Size for Length of Run Fuse/		
Number	Voltage	1-25'	25-50'	Breaker*
34600-0000	12 Vdc	12 AWG	10 AWG	15 amp
34600-0010	24 Vdc	14 AWG	14 AWG	8 amp
34600-0031	115 Vdc	16 AWG	16 AWG	1-1/2 amp

<sup>\*</sup>Customer supplied, not included with pump.

#### **MAINTENANCE**

## WINTER STORAGE:

When possible, it is preferred that the complete pump or at least motor, diaphragm and valves 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.

## **SERVICE**

#### DIAPHRAGM AND CONNECTING ROD REPLACEMENT

- 1. Remove four tie down bolts.
- Lift jack shaft and the attached diaphragm assembly from pump base.
- Remove two diaphragm retainer screws and the bottom diaphragm retainer.
- Remove nut holding connecting rod to jackshaft. Remove connecting rod and diaphragm from the top diaphragm retainer, then unscrew bolt to separate diaphragm and plates.

- Check diaphragm for cuts and cracks. Check rod assembly bearing for excessive wear. Replace if badly worn.
- Loosely reassemble diaphragm, diaphragm plates, connecting rod spacer and diaphragm bolt onto connecting rod.
- Firmly secure connecting rod to jack shaft with the lock nut. Secure diaphragm to upper diaphragm retainer with the bottom diaphragm retainer and two screws.
- 8. Tighten connecting rod bolt.
- Replace motor-mount-diaphragm assembly and fasten evenly to base with the four tie down bolts and washers.

#### VALVE REPLACEMENT

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

#### SURGE CHAMBER GASKET REPLACEMENT

- 1. Remove six surge chamber screws and lift off the surge chamber. Remove and replace two gaskets.
- 2. Replace the surge chamber and six screws. Tighten evenly to ensure an air and water seal.
- 3. Reinstall and reconnect power leads.

#### **JABSCO MARINE SWITCH PANELS**

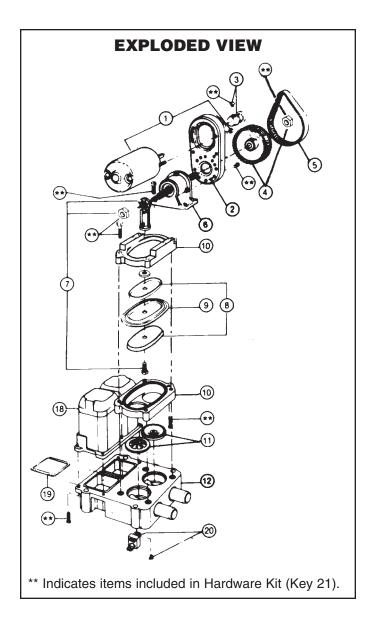


44960-0000 LIGHTED SWITCH W/BOOT SPDT



44960-0001 UNLIGHTED SPDT

(DC APPLICATIONS ONLY) (AC OR DC APPLICATIONS)



#### **PARTS LIST**

Part					
Key	Description	Number		Qty.	
1	Motor Kit 12 Volt dc	30200-0000		1	
	Motor Kit 24 Volt dc	30200-0010			
	Motor Kit 115Volt ac.	30200-0031			
2	Motor Mount	34628-0000		1	
3	Small Pulley	37169-0000			
4	Large Pulley	37170-0001			
5	Belt	30021-0000	*	1	
6	Jack Shaft Assembly	35037-0001	-See note		
7	Connecting Rod Kit	37172-0001	-See note		
8	Diaphragm Plates	34640-0060	-Top	1	
		34637-0000	•		
9	Diaphragm	30012-0000		1	
10	Retainer	34633-0000	-Top	1	
		34634-0000	-Bottom	1	
11	Valve Set				
	(inlet & outlet)	30002-0000	*† (set)	1	
12	Base Assembly <sup>†</sup>	34623-0000	†	1	
18	Surge Chamber	34635-0000			
19	Gaskets	37181-0000	(set)	1	
20	Vibration Pad Kit	37180-0000	† (set)	1	
21	Hardware Kit	37164-0001	(set)	1	
	Service Kit*	30101-0000			

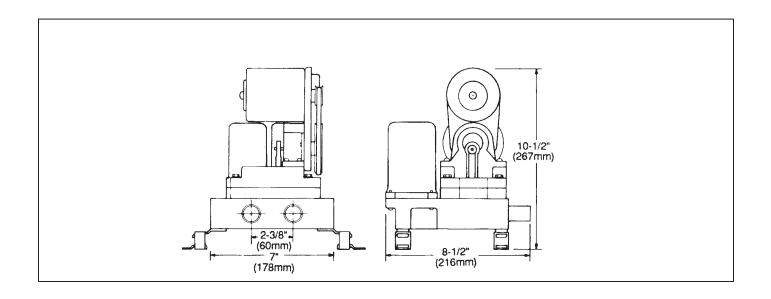
<sup>\*</sup>Indicates parts contained in service kit.

NOTE—Jack shaft assembly kit, with part number ending in -0001 includes new style connecting rod (37173-0001) with a 5/16" diameter hole and two (2) locknuts. Previous model pumps use a connecting rod (37173-0000) with a 1/4" diameter hole and a bolt.

# **TROUBLESHOOTING**

Problem	Solution
Loss of suction to pump	Air leak in suction line. Bilge pickup not submerged. Intake hose kinked or plugged. Fouled intake or discharge valve.
Rough or noisy operation	Intake or discharge hose kinked or plugged. Pump not mounted firmly. Loosened eccentric screw.

<sup>&</sup>lt;sup>†</sup> Indicates parts supplied with base assembly.



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

For more information visit us online at www.jabsco.com

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