

CONVERTIBLE JET PUMP QUICK REFERENCE GUIDE

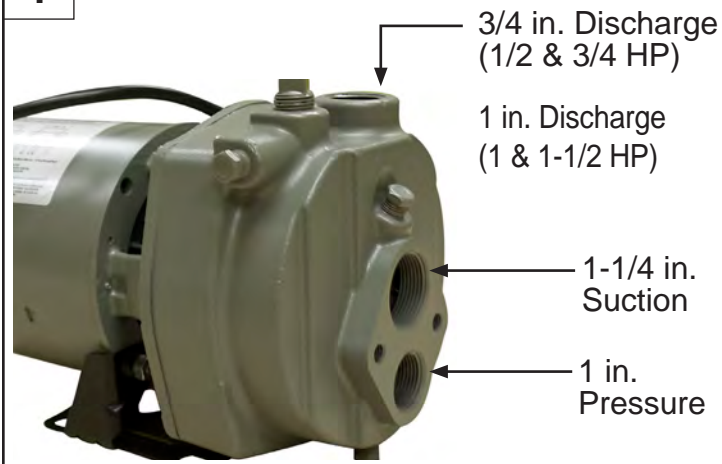
SEE INSTRUCTION
MANUAL FOR
COMPLETE DETAILS



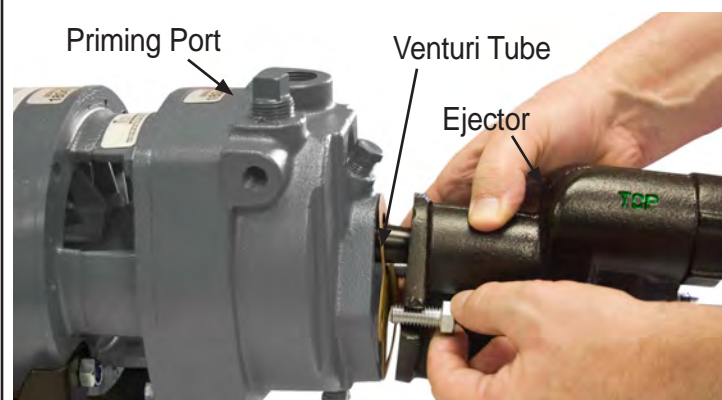
EJECTORS
(Purchase separately)



1 PIPE SIZES

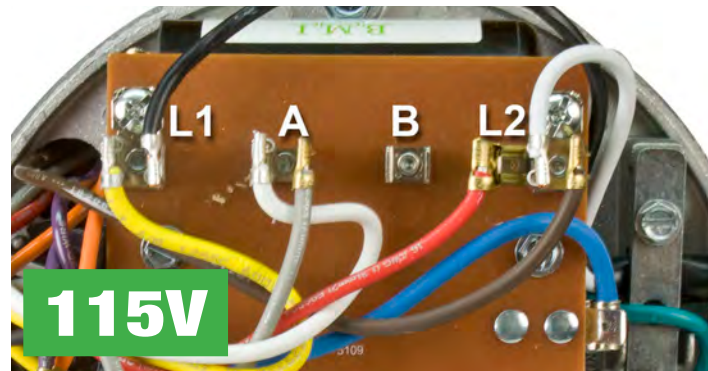


2 INSTALLATION Shallow Well Application Only

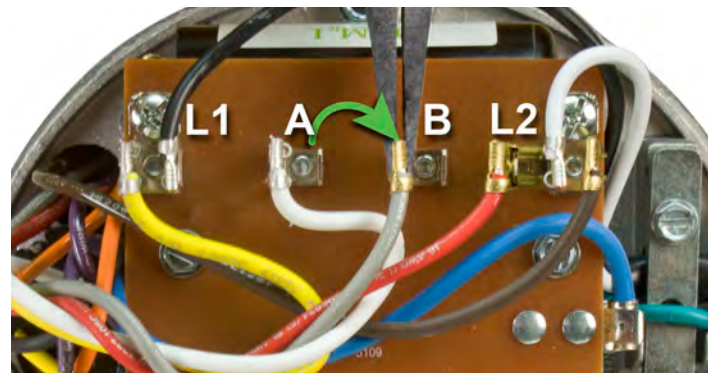


Attach ejector to face of pump with two (2) bolts and gasket provided. Venturi tube on the ejector inserts into the top tapping of the face of the pump.

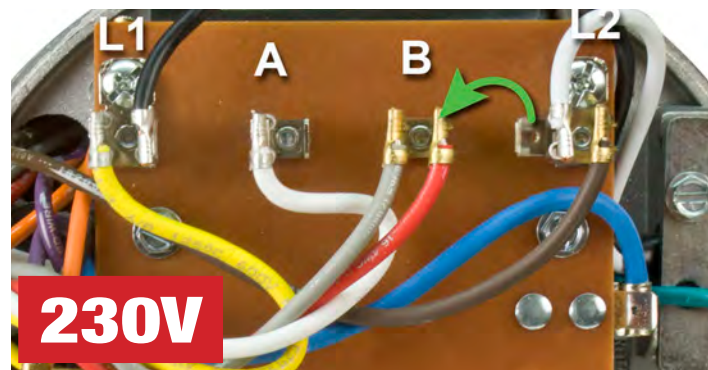
3 ELECTRICAL CONNECTIONS To change from 115V to 230V



- The motor of this pump is dual voltage and can run on either 115V or 230V. In general, 230V is more economical to run, and requires a smaller wire size. 1/2 and 3/4 HP pumps are pre-set in the factory to run at 115V. (Fig. 1)
- For 230V service, change the following wires on the terminal board:

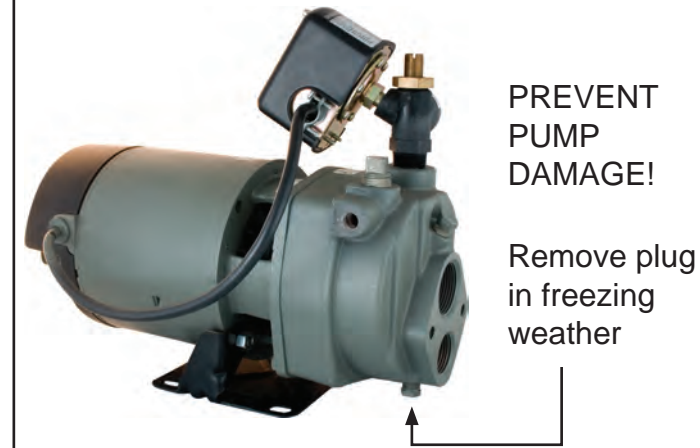


- Using a pair of needle nose pliers, pull the gray wire with the female flag connector from the "A" terminal spade post. Place it to the right on the "B" terminal space post. (Fig. 2a)



- Pull the red wire with the female flag connector from the "L2" terminal. Place it to the left on the "B" terminal space post. (Fig. 2b)

4 WINTERIZING



CAUTION: Drain the entire system if there is danger of freezing. A drain plug is provided at the bottom of the pump case for this purpose.

5 TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
Little or no discharge	1. Casing not initially filled with water	1. Fill pump casing
	2. Suction lift too high, or too long	2. Move pump closer to water source
	3. Hole or air leak in suction line	3. Repair or replace. Use pipe tape and pipe sealing compound
	4. Foot valve too small	4. Match foot valve to piping or install one size larger foot valve.
	5. Foot valve or suction line not submerged deep enough in water	5. Submerge lower in water
	6. Motor wired incorrectly	6. Check wiring diagram
	7. Casing gasket leaking	7. Replace
	8. Suction or discharge line valves closed	8. Open
Pump vibrates and/or makes excessive noise	1. Mounting plate or foundation not rigid enough	1. Reinforce
	2. Foreign material in pump	2. Disassemble pump and clean
	3. Impeller damaged	3. Replace
	4. Worn motor bearings	4. Replace
Pump will not start or run	1. Improperly wired	1. Check wiring diagram on motor
	2. Blown fuse or open circuit breaker	2. Replace fuse or close circuit breaker
	3. Loose or broken wiring	3. Tighten connections, replace broken wiring
	4. Stone or foreign object lodged in impeller	4. Disassemble pump and remove foreign object
	5. Motor shorted out	5. Replace
	6. Thermal overload has opened circuit	6. Allow unit to cool, restart after reason for overload has been determined

SEE REVERSE FOR PRIMING INSTRUCTIONS



Questions? Call 1-800-742-5044 BEFORE Returning Product

Pump will not deliver water or develop pressure	1. No priming water in casing	1. Fill pump casing
	2. Leak in suction line	2. Repair or replace
	3. Discharge line is closed and priming air has nowhere to go	3. Open ball valve
	4. Suction line (or valve) is closed	4. Open
	5. Foot valve is leaking	5. Replace foot valve
	6. Suction screen clogged	6. Clean or replace
Loss of suction	1. Air leak in suction line	1. Repair or replace
	2. Suction lift too high	2. Lower suction lift, install foot valve and prime
	3. Insufficient inlet pressure or suction head	3. Increase inlet pressure by adding more water to tank or increasing back pressure
	4. Clogged foot valve or strainer	4. Unclog
Pump vibrates and/or makes excessive noise	1. Mounting plate or foundation not rigid enough	1. Reinforce
	2. Foreign material in pump	2. Disassemble pump and clean
	3. Impeller damaged	3. Replace
	4. Worn motor bearings	4. Replace
Pump will not start or run	1. Improperly wired	1. Check wiring diagram on motor
	2. Blown fuse or open circuit breaker	2. Replace fuse or close circuit breaker
	3. Loose or broken wiring	3. Tighten connections, replace broken wiring
	4. Stone or foreign object lodged in impeller	4. Disassemble pump and remove foreign object
	5. Motor shorted out	5. Replace
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6 PRIMING

⚠ CAUTION: All pumps must be primed (filling the cavity with water) before they are first operated. This may take several gallons of water, as the suction line will be filled in addition to the pump cavity.

Deep Well Application Only:



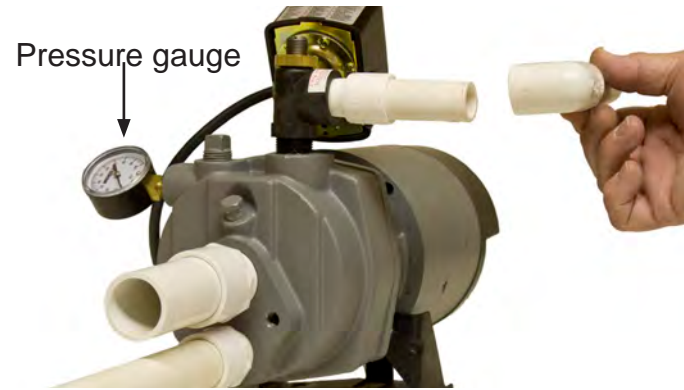
1. Remove the 1/2 in. priming plug. (Fig. 1)



2. Fill pump cavity with water until full and replace priming plug. (Fig. 2)



3. Tighten flow control screw completely by turning clockwise, then loosen two turns. Now start the pump. (Fig. 3)



4. If pump is properly primed, pressure will quickly build and register on the gauge mounted directly on the pump body. If pressure does not build repeat priming operation. All air must be vented from the drive and suction pipes as well as the body before the pump will prime. The pump body may need to be filled several times in order to achieve the prime. (Fig. 4)

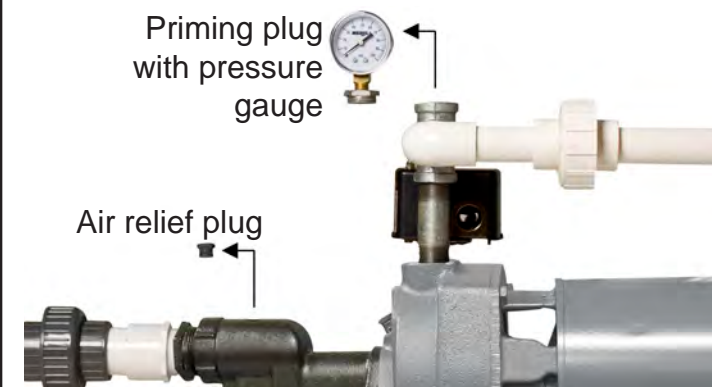


5. With pump operating at high pressure, open two or more faucets and slowly unscrew the flow control screw until maximum flow is obtained. This steady pressure will be minimum operating pressure and should agree with the pressure shown below. The flow control screw diverts the proper amount of water to operate the ejector. (Fig. 5)

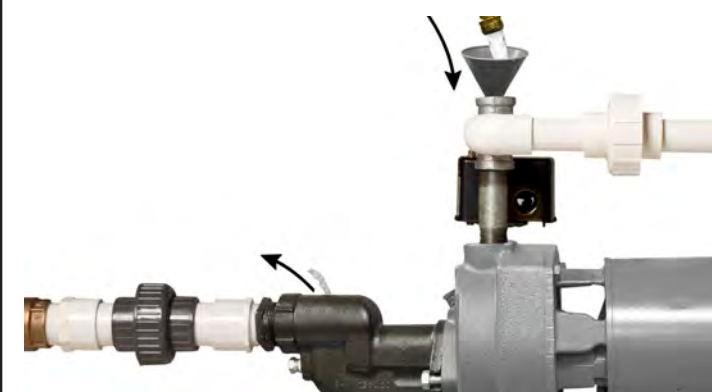
HP	Pressure Setting
1/3	24 PSI
1/2	27 PSI
3/4	38 PSI
1	46 PSI

The correct control valve setting will depend on the type of well installation and pressure switch setting for the particular pump.

Shallow Well Application Only



1. Remove the 1/2 in. priming plug with pressure gauge and air relief plug. (Fig. 1)



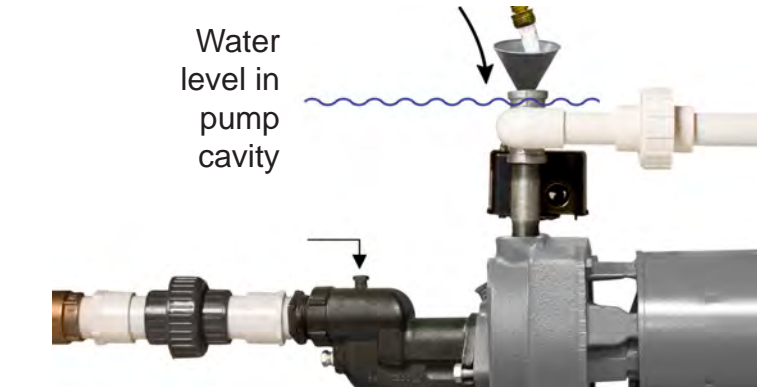
2. Slowly fill pump cavity until water comes out of air relief hole on top of the pump. (Fig. 2)

⚠ IMPORTANT: If the pump hums instead of pumping or turns off repeatedly, shut pump off immediately. Check voltage. Make sure your incoming voltage matches the pump wiring voltage. See wiring guide in the instructions.

NOTE: If the pump is being used for shallow well applications, the flow control screw should be set in the full open position.

⚠ IMPORTANT: If the pump fails to prime within five minutes:

Turn power off at the breaker box. Look for leaks or a milky color in the discharged water, which indicates an air leak. Re-prime if necessary, following steps 1 through 5 above. Reset breaker at the breaker box. All connections must be water and air tight in order for pump to operate.



3. Replace air relief plug and continue adding water to pump cavity until water reaches the top of the priming plug. (Fig. 3)



4. Thread in priming plug and then open optional ball valve if installed (see page 5) by turning handle to line up with the pipe. (Fig. 4)

5. Turn on breaker to start pump