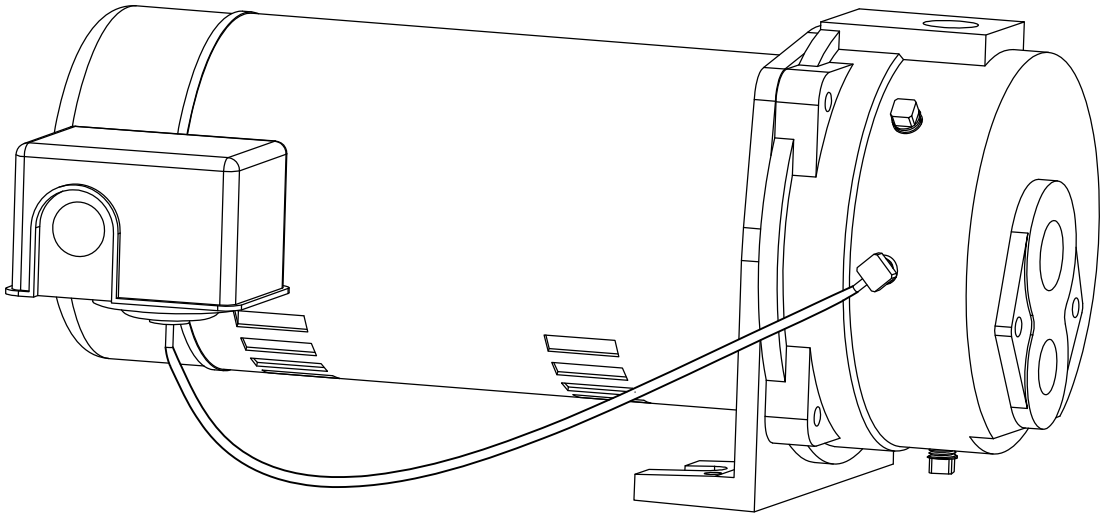
ITEM #0752650

1HP CONVERTIBLE JET PUMP

MODEL #EFCWJ10-L

Français p. 16

Español p. 31



ATTACH YOUR RECEIPT HERE

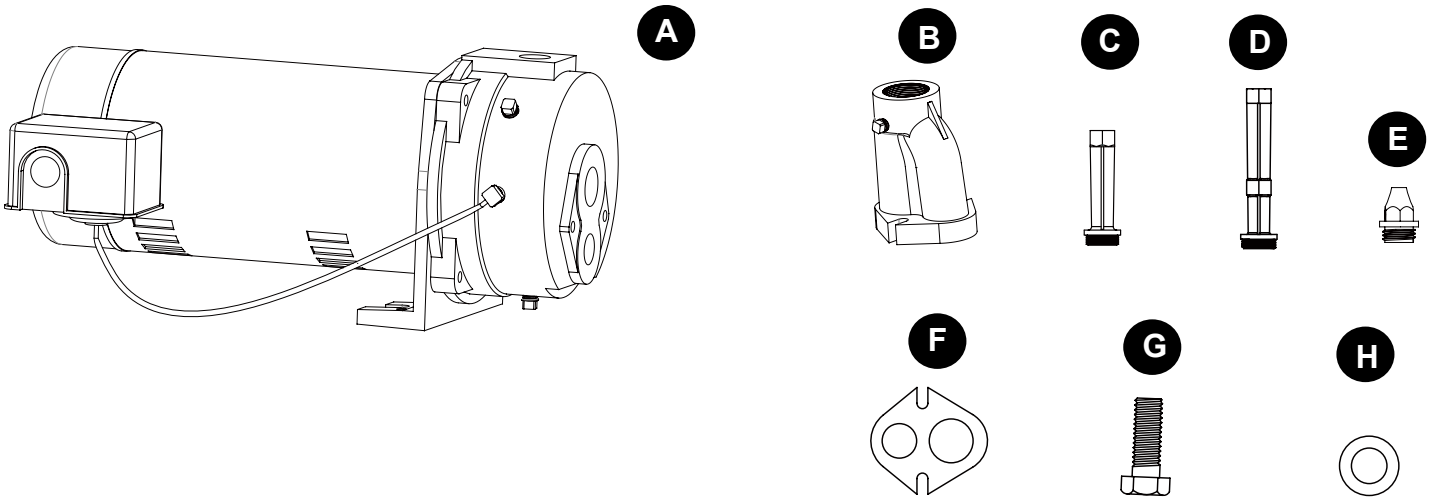
Serial Number _____ Purchase Date _____

Questions, problems, missing parts? Before returning to your retailer, call our customer service department 1-866-994-4148, 8 a.m. - 8 p.m., EST, Monday - Friday.

AB15905

Lowes.com

PACKAGE CONTENTS



PART	DESCRIPTION	QUANTITY
A	Pump	1
B	Ejector	1
C	Short Venturi Tube	1
D	Long Venturi Tube	1
E	Nozzle	1
F	Gasket	1
G	Bolt	2
H	Flat Washer	2

⚠ SAFETY INFORMATION

Please read and understand this entire manual before attempting to assemble, operate or install the product.

DANGER

- Keep pump equipment out of the reach of children! Failure to follow the directions given could cause serious risk to individuals or objects.

⚠ WARNING

- **DO NOT** work on pump until power is disconnected.
- **DO NOT** use an extension cord.
- The pump power cord should be connected to a separately fused, grounded line with a minimum capacity of 15 amps. It can be connected to a non-fused breaker at the recommended amperes.
- **ELECTRICAL PRECAUTIONS** – Before servicing a pump, always shut off the main power breaker and then unplug the pump. Make sure you are not standing in water and are wearing insulated protective sole shoes under flooded conditions. Contact your local electric company or a qualifed licensed electrician for disconnecting electrical service prior to pump removal.

SAFETY INFORMATION

WARNING

- Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- Replace damaged or worn wiring cord immediately.
- Do not kink power cable and never allow the cable to come in contact with oil, grease, hot surfaces, or chemicals.
- Wire motor to correct supply. See motor nameplate and wiring diagrams and check voltage of power supply.
- Unit must be securely and adequately electrically grounded. This can be accomplished by wiring the unit to a ground metal-clad raceway system or by using a separate ground wire connected to the bare metal of the motor frame or other suitable means.
- Do not disassemble the motor housing. This pump has no repairable internal parts and disassembling may cause leakage or dangerous electrical wiring issues.
- Make certain the electrical power source is adequate for the requirements of the pump.
- Install pressure relief valve in discharge pipe. Release all pressure on system before working on any component.
- The following may cause severe damage to pump and will void the warranty.
  - Using an extension cord.
  - Working on pump or switch while plugged in.
  - Removing motor housing, unscrewing impeller, or otherwise removing impeller seal.
  - Running the pump continuously.
  - Pumping chemicals or corrosive liquids.
  - Pumping gasoline or other flammable liquids.

CAUTION

- This pump is only to be used for water systems.
- Protect the power cable from coming in contact with sharp objects.
- Do not run pump dry.
- Pump and plumbing must be full of water before startup.
- Do not pump water which contains sand, mud, silt, or debris.
- Be careful when touching the exterior of a motor. It may be hot enough to be painful or cause injury.

PREPARATION

Before beginning assembly of product, make sure all parts are present. Compare parts with package contents list. If any part is missing or damaged, do not attempt to assemble the product.

Estimated Assembly Time: 2 hours.

Tools Required for Assembly (not included): pipe wrench, pliers, Phillips screwdriver, pipe clamp, 2-step PVC glue system (primer and sealer), thread tape.

Areas inside pump housing have been treated with a non-toxic, vegetable-based rust inhibitor. The presence of oil on raw metal parts is normal.

PREPARATION

Parts Required for Shallow Well Assembly (not included): PVC cement, thread tape, 1-1/4 in. foot valve, (2) 1-1/4 in. male PVC adapters, rigid 1-1/4 in. PVC pipe and couplings, well seal with vent plug, 1-1/4 in. PVC elbow, 1 in. discharge tee, pressure gauge, 1 in. male PVC adapter, 1 in. female PVC adapter, rigid 1 in. PVC pipe, 1 in. tank cross, (2) 1/4 in. plugs, 1/2 in. drain valve, 10 in. x 1 in. nipple.

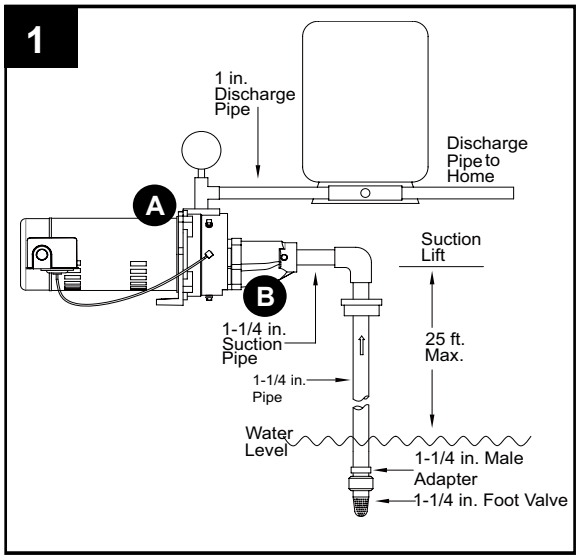
Parts Required for Deep Well Assembly (not included): PVC cement, thread compound, (2) 1 in. female PVC adapters, rigid 1-1/4 in. and 1 in. PVC pipe and couplings, 1-1/4 in. PVC elbow, 1-1/4 in. male PVC adapter, pressure regulator kit (includes fittings, tubing, and 1/4 in. plug), pressure gauge, (2) male 3/4 in. PVC adapters, rigid 3/4 in. PVC pipe to reach from pump to pressure tank to service line, tank tee, (2) 1/4 in. plugs, 1/2 in. drain valve, 1-1/4 in. foot valve,1-1/4 in. close nipple, 1 in. x 5 in. nipple,1-1/4 in. female adapter, well seal, rigid 1 in. PVC pipe and couplings to reach from bottom of well to pump (pressure pipe), 1 in. PVC elbow, (2) 1-1/4 in. male PVC adapters, 1 in. x 4 in. nipple.

GENERAL PUMP INFORMATION

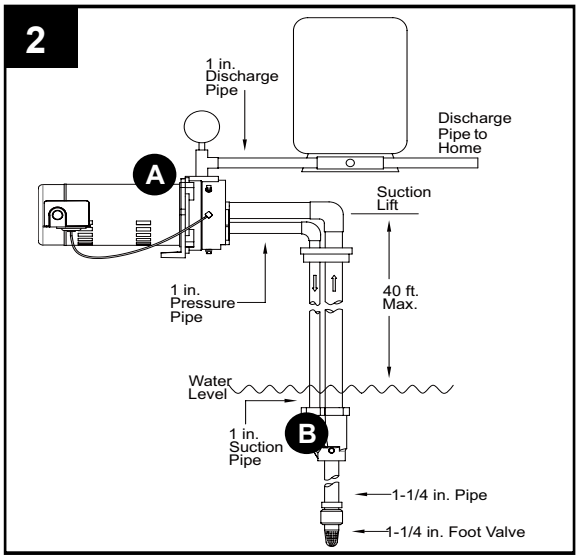
Typical Pump Setup

Convertible jet pumps are designed for use in these applications:

1. Shallow wells (0-25 ft. lift) where ejector (B) bolts to pump (A).

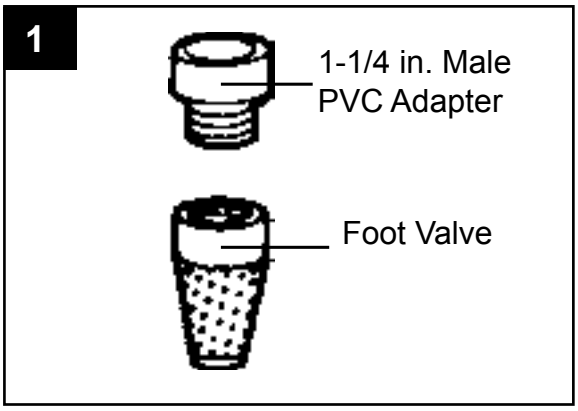


2. Deep wells (0-70 ft. lift) where well inside diameter is 4 in. or more and ejector (B) is installed in the well.

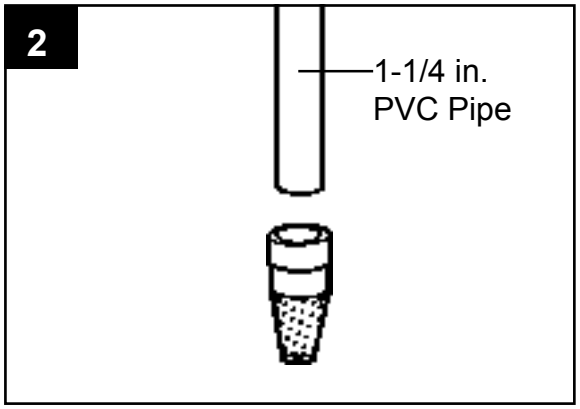


SHALLOW WELL INSTALLATION

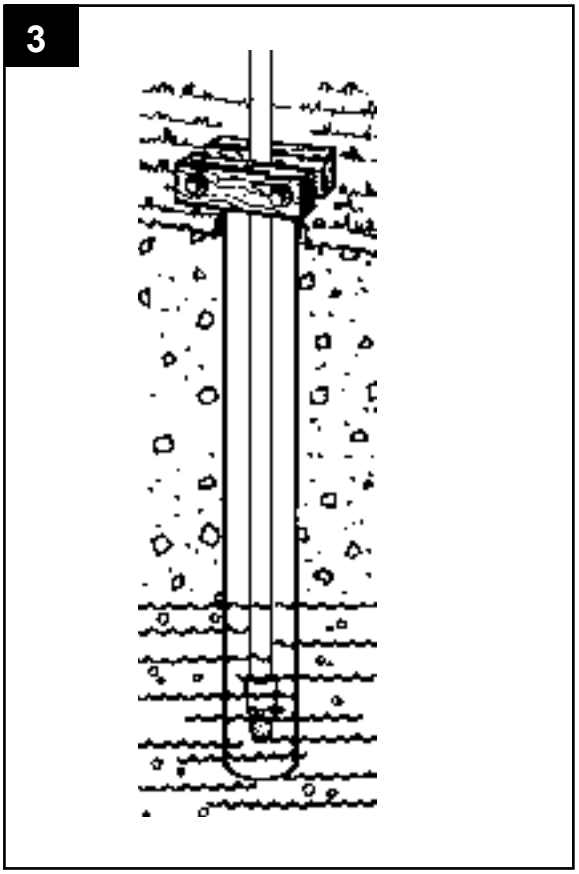
1. Thread 1-1/4 in. male PVC adapter (not included) into foot valve (not included). Hand tighten, then tighten 1/4 turn with pipe wrench.



2. Using a 2-step PVC system (not included), attach enough PVC pipe and couplings to the adapter to equal the depth of the well, minus 5 ft.

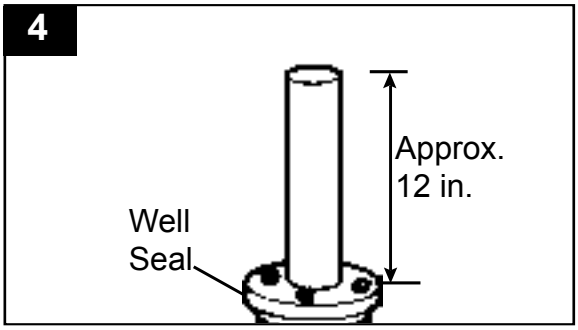


3. Cement PVC pipe sections and couplings, then firmly clamp the assembly with a pipe clamp (not included) to prevent the assembly from sliding down into the well.

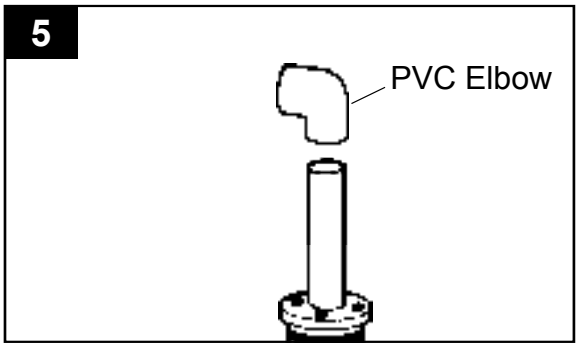


SHALLOW WELL INSTALLATION

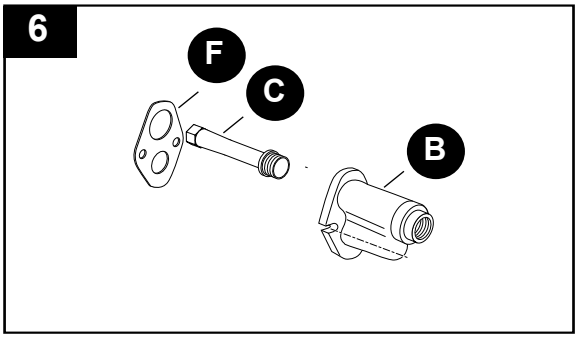
4. Remove pipe clamp and slide well seal (not included) over rigid PVC pipe and onto well casing. Position assembly so that 12 in. of rigid PVC pipe protrude from well seal. Using wrench, turn bolts on well seal clockwise until rubber gaskets are tight against well casing and rigid PVC pipe.



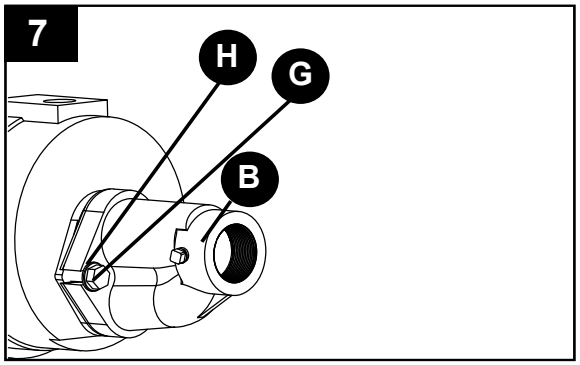
5. Using a 2-step PVC system, attach a 1 in. PVC elbow (not included) onto the rigid PVC pipe extending from the well seal.



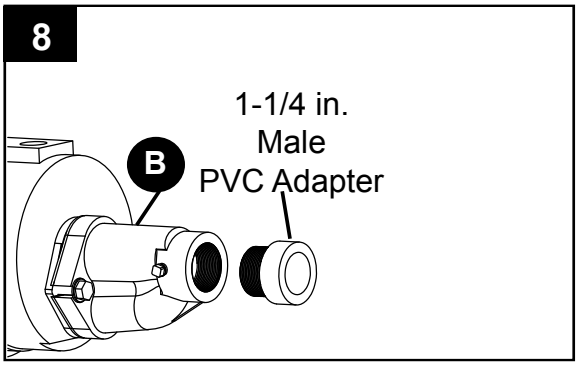
6. Open ejector kit. Thread shorter venturi tube (C) into ejector (B) until snug. Place gasket (F) over venturi tube so that openings in gasket line up with openings in ejector.



7. Slide bolts (G) through flat washers (H), then through the bolt openings on either side of the ejector (B), through the gasket (F) and bolt ejector to front of the pump. Tighten bolts securely.



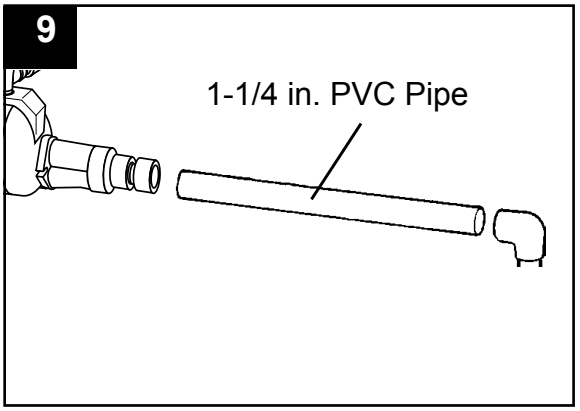
8. Wrap thread tape (not included) around the threads of a 1-1/4 in. male PVC adapter (not included). Thread the adapter into the front of ejector (B).



SHALLOW WELL INSTALLATION

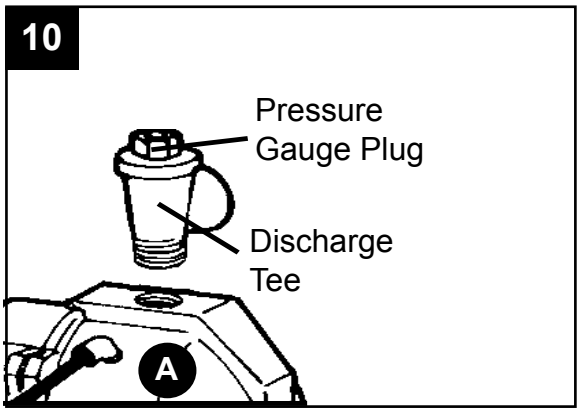
9. Using 2-step PVC system, attach 1-1/4 in. PVC pipe and couplings (not included) as needed to connect the 1-1/4 in. male PVC adapter to the 1-1/4 in. PVC elbow attached to the top of the well pipe in step 5.

NOTE: The horizontal pipe should be level or trending up toward the pump.

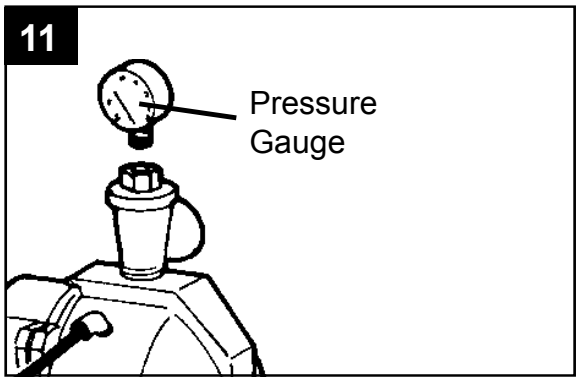


10. Wrap thread tape around the male threads on the discharge tee (not included). Using a pipe wrench, thread 1 in. discharge tee into top of pump (A). Remove pressure gauge plug from top of discharge tee.
    TO PRIME: See priming instructions on page 13.

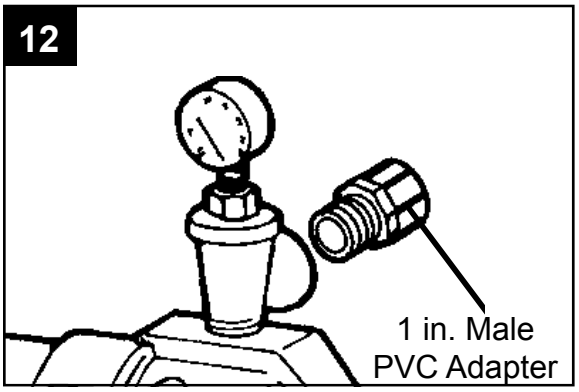
NOTE: To improve performance and consistency, a flow control (not included) is recommended for deep well applications in place of a standard discharge tee. This will help regulate water pressure fluctuations and may prevent loss of prime.



11. Thread pressure gauge or a pipe plug (both not included) into discharge tee. Make sure all connections are tightly sealed.

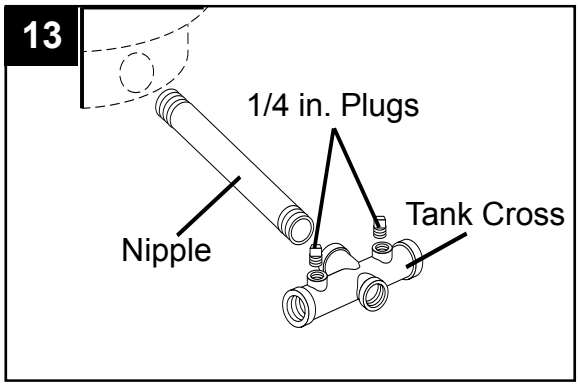


12. Wrap thread tape around the threads of a 1 in. male PVC adapter (not included) and thread the adapter into the discharge tee.

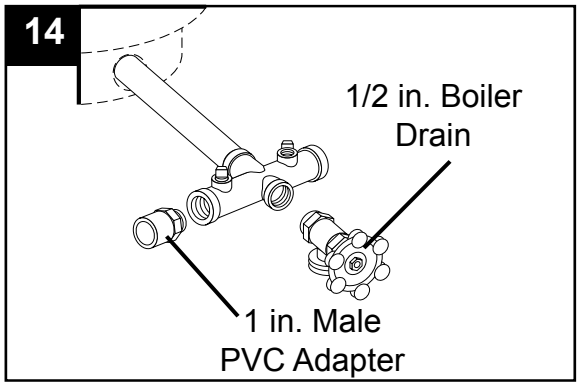


SHALLOW WELL INSTALLATION

13. Thread 10 in. x 1 in. nipple into pressure tank (both not included). Thread tank cross into nipple so that the two 1/4 in. holes in tank cross face upward. Plug two outlets on tank cross with two 1/4 in. plugs.



14. Thread 1/2 in. boiler drain into front of tank cross. Thread 1 in. male PVC adapter into inlet side of tank cross. Connect to household plumbing.

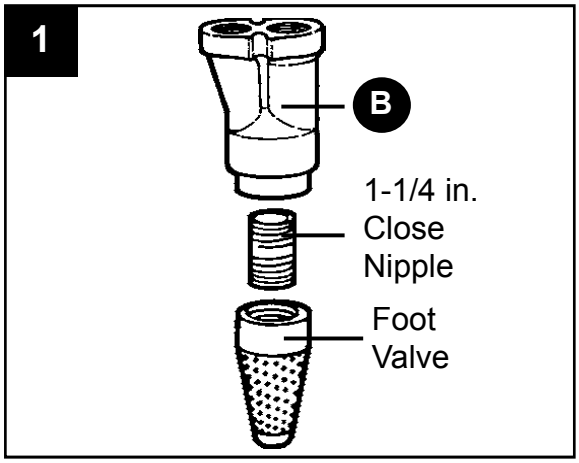


15. IMPORTANT: Air pressure in the tank must be 2 PSI lower than the "cut-in" of the pressure switch. Pump has a 30/50 PSI pressure switch, so tank pressure must be set at 28 PSI. Locate the air valve/stem on the tank and check pressure with a tire gauge (not included). If air needs to be removed, press down on valve to bleed off air. Use a tire pump or air compressor to add air if needed.

NOTE: The tank air pressure must be set when there is no water in the tank.

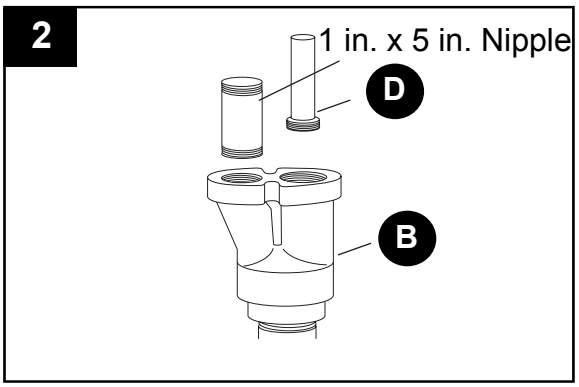
DEEP WELL INSTALLATION

1. Thread 1-1/4 in. close nipple into foot valve. Thread the other end of 1-1/4 in. close nipple into bottom of deep well ejector (B). Hand tighten, then tighten 1/4 turn with pipe wrench.

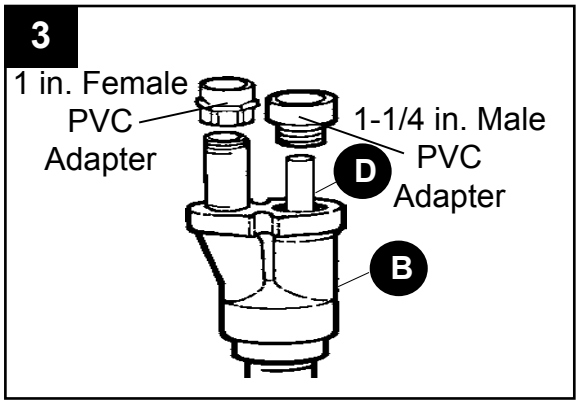


DEEP WELL INSTALLATION

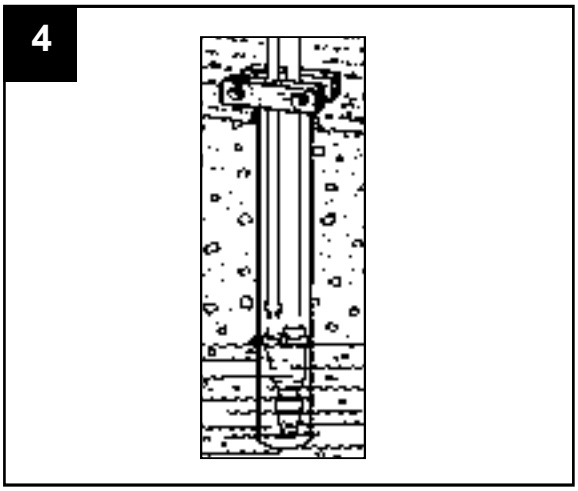
2. The ejector (B) has two holes in the top of it. Thread deep well venturi tube (D) (longer tube) into larger hole until snug. Thread 1 in. x 5 in. nipple (not included) into smaller hole. Only hand tighten venturi tube. Hand tighten nipple, then tighten 1/4 turn with pipe/adjustable wrench.



3. Thread a 1-1/4 in. male PVC adapter over the venturi tube (D) and into ejector (B). Thread a 1 in. female PVC adapter onto the 1 in. x 5 in. nipple. Hand tighten adapters, then tighten 1/4 turn with pipe/adjustable wrench.

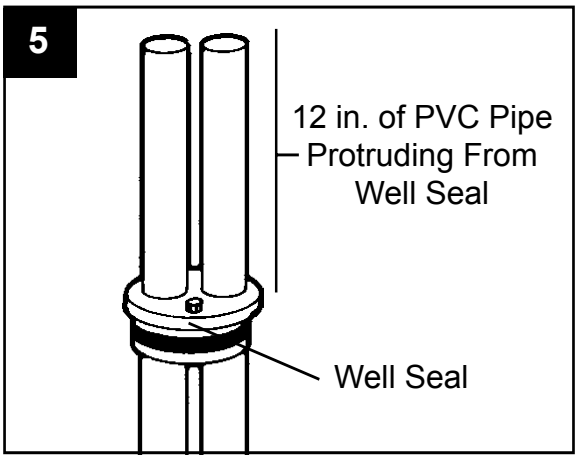


4. Subtract 5 ft. from the depth of your well. This is the total length of PVC pipe and couplings to cement onto both 1-1/4 in. male and 1 in. female PVC adapters. Cement a section of PVC pipe to each adapter, then lower the whole assembly into the well, foot valve first. Firmly clamp the end of the PVC pipes with a pipe clamp to prevent the assembly from sliding down into well. Be sure to keep track of which pipe is the pressure pipe and which is the delivery pipe.

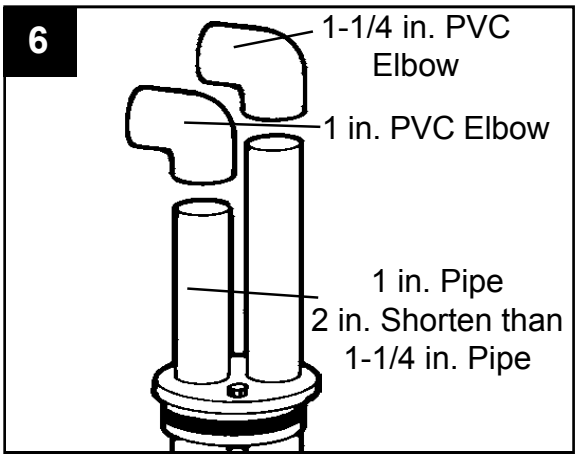


DEEP WELL INSTALLATION

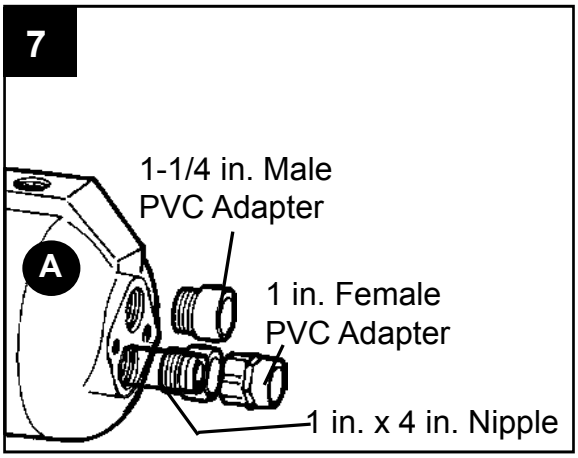
5. Remove pipe clamp and slide well seal over PVC pipes and onto well casing. DO NOT let assembly slide down into well. Position assembly so that 12 in. of PVC pipes protrude from well seal. Using wrench, turn bolts on well seal clockwise until rubber gaskets are tight against the well casing and the PVC pipes.



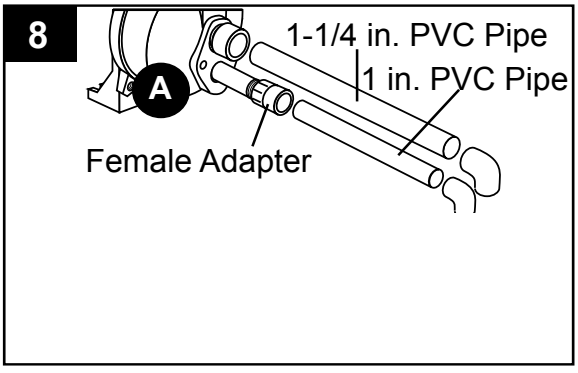
6. Cut 1 in. pipe 2 in. shorter than the 1-1/4 in. pipe. Smooth rough edges. Cement 1 in. and 1-1/4 in. PVC elbows to pipes protruding from the well seal.



7. Thread a 1-1/4 in. male PVC adapter into top hole in front of pump (A). Thread 1 in. x 4 in. nipple into bottom hole in front of pump. Thread the 1 in. female PVC adapter onto the 1 in. x 4 in. nipple. Seal the threaded pipe joints with thread tape.

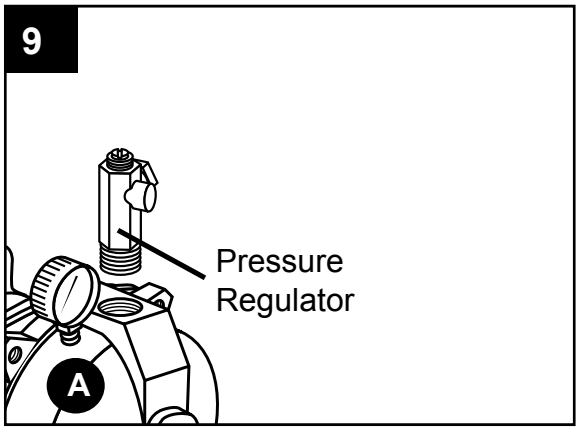


8. Cement as many sections and couplings of rigid 1 in. and 1-1/4 in. PVC as needed to connect the 1 in. female PVC adapter and the 1-1/4 in. male PVC adapter to the 1 in. and 1-1/4 in. PVC elbows.

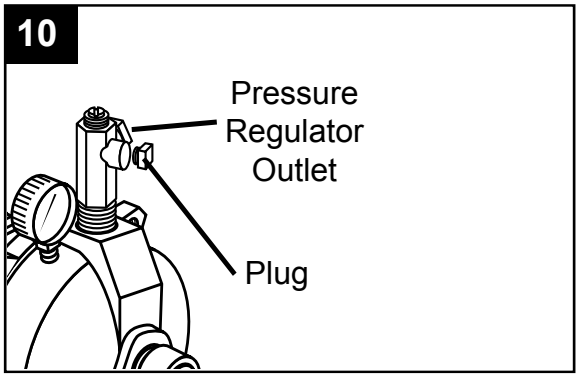


DEEP WELL INSTALLATION

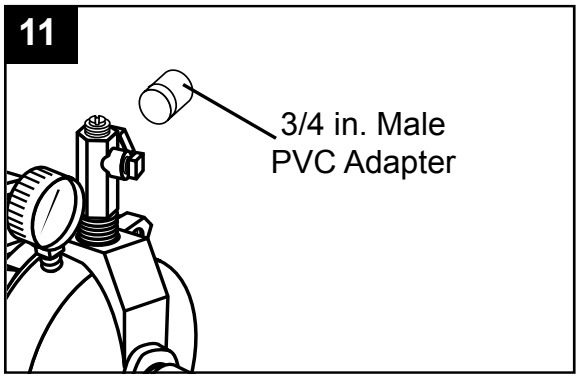
9. Open pressure regulator kit. Apply 2-3 wraps of thread tape to the male threads on the body of the pressure regulator. With pipe wrench, thread the pressure regulator into 1 in. discharge at top of pump (A). Use a pressure gauge with 1/8 in. NPT thread and thread pressure gauge into side of pump case.



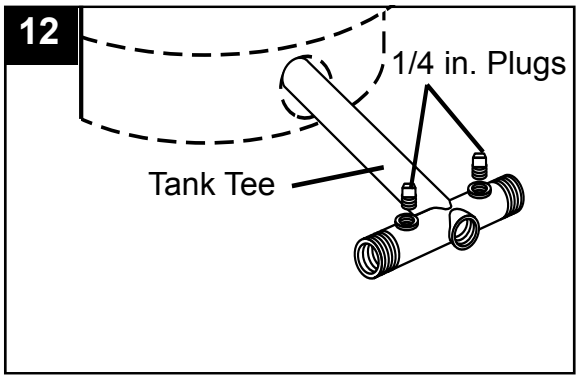
10. Thread plug into opening to right of pressure regulator outlet.



11. Thread 3/4 in. male PVC adapter into pressure regulator outlet.

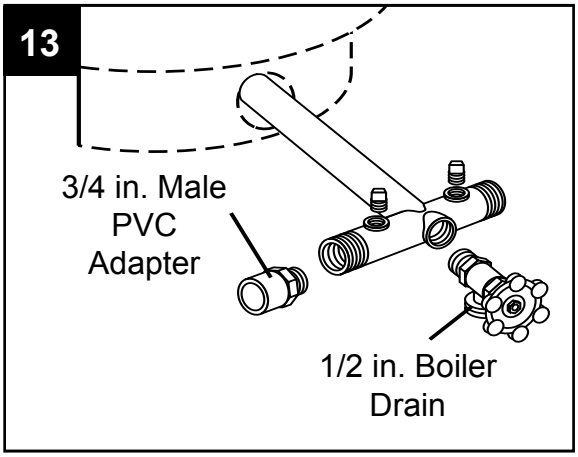


12. Thread tank tee into pre-charged pressure tank. Plug two outlets on tank tee with two 1/4 in. plugs.



DEEP WELL INSTALLATION

13. Thread boiler drain into front of tank tee. Thread 3/4 in. male PVC adapter into inlet side of tank tee. Connect to household plumbing.



PUMP ELECTRICAL CONNECTIONS

⚠ WARNING

- **Always disconnect pump from electricity before performing any work on the pump.**
- Under-sized wiring can cause motor failure and even fire. Use proper wire size specified in the Wire Size Chart.
- Replace damaged or worn wiring cord immediately.
- Do not kink power cable and never allow the cable to come in contact with oil, grease, hot surfaces, or chemicals.
- The pump must be properly grounded using the proper wire cable with ground.

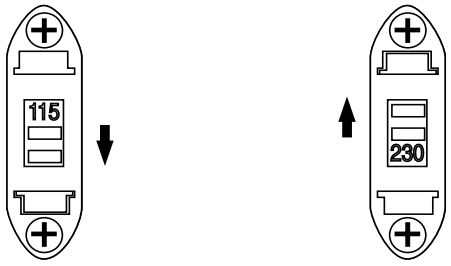
WIRE SIZE CHART		
Distance from Motor to Meter	Recommended Copper Wire and Fuse Sizes	
	Single Phase Motor	
	115 Volt	230 Volt
0-50 Ft.	12	14
50-100 Ft.	12	14
100-150 Ft.	10	12
150-200 Ft.	8	12
200-300 Ft.	6	10
Fuse Size (Amps)	30	15

⚠ CAUTION

- Prevent the power cable from coming in contact with sharp objects.
- All wiring should be performed by a qualified electrican in accordance with the National Electric Code and local electric codes.
- Connect the pump to a separate electrical circuit with a dedicated circuit breaker. Refer to the Wire Size Chart for proper fuse size.

Motor Switch Settings

Motors are designed to run on either 115 volt or 230 volt current. Be sure the motor's wires are attached properly to the motor's control panel for the voltage required.

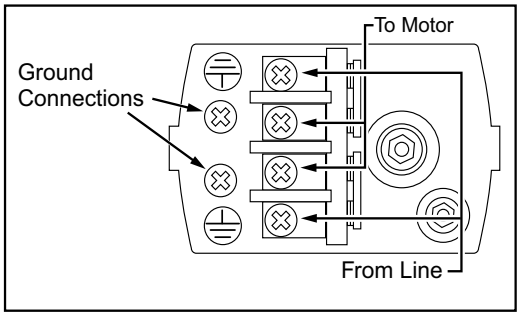


Conversion Switch from 115V to 230V

PUMP ELECTRICAL CONNECTIONS

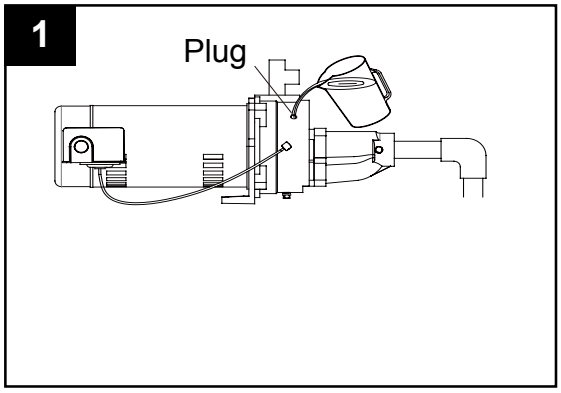
Wiring Pressure Switch

Remove pressure switch cover and follow wiring directions on inside of cover. Be sure to ground wire the pressure switch to the motor.



PUMP PRIMING

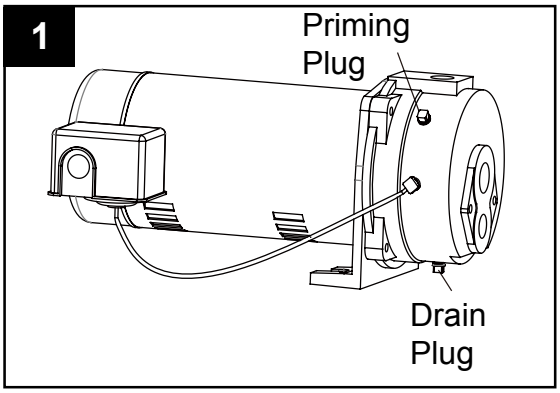
1. Remove plug or pressure gauge at the top of the pump case. Fill suction pipe and pump with water until the water overflows from the top of pump case. Install plug loosely into pump case. Turn the pump on. If pump does not produce water within 30 seconds, remove plug and refill suction pipe and pump body. Repeat this until pump is producing water. Tighten plug to ensure no leaks.



CARE AND MAINTENANCE

CAUTION: Drain the entire system if there is danger of freezing.

1. To drain the pump, remove the drain plug located on the front of pump and the priming plug located on the top of pump.



TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Little or no discharge	1. Pump is not primed. 2. Suction lift too high or too long. 3. Hole or air leak in suction line. 4. Foot valve or suction line not submerged deep enough in water. 5. Foot valve too small. 6. Voltage switch incorrect. 7. Casting gasket leaking.	1. Follow priming instructions. 2. Move pump closer to water source. Lift should be less than 25 ft. for shallow well installations and less than 90 ft. for deep well installations. 3. Repair or replace. Use pipe tape and pipe sealing compound. 4. Submerge lower in water. 5. Match foot valve to piping or install one size larger foot valve. 6. Be sure 115V or 230V power supply matches voltage switch setting on pump. 7. Replace.
Pump will not deliver water or develop pressure	1. Pump is not primed. 2. Leak in suction line. 3. Discharge line is closed and priming air has nowhere to go. 4. Foot valve is leaking. 5. Foot valve not submerged below water lever.	1. Follow priming instructions. 2. Repair or replace. Pipe dope all threads. 3. Open several outlets or faucets during priming procedure. 4. Replace foot valve. 5. Lower foot valve and reprime.
Pump vibrates and/ or makes excessive noise	1. Mounting plate or foundation not rigid enough. 2. Foreign material in pump. 3. Impeller damaged.	1. Reinforce. 2. Disassemble pump and clean. 3. Replace.
Pump will not start or run	1. Voltage switch incorrect. 2. Blown fuse or open circuit breaker. 3. Loose or broken wiring. 4. Stone or foreign object lodged in impeller. 5. Thermal overload has opened circuit.	1. Be sure 115V or 230V power supply matches voltage switch setting on motor. 2. Replace fuse or close circuit breaker. 3. Tighten connections, replace broken wiring. 4. Disassemble pump and remove foreign object. 5. Allow unit to cool, restart after reason for overload has been determined.

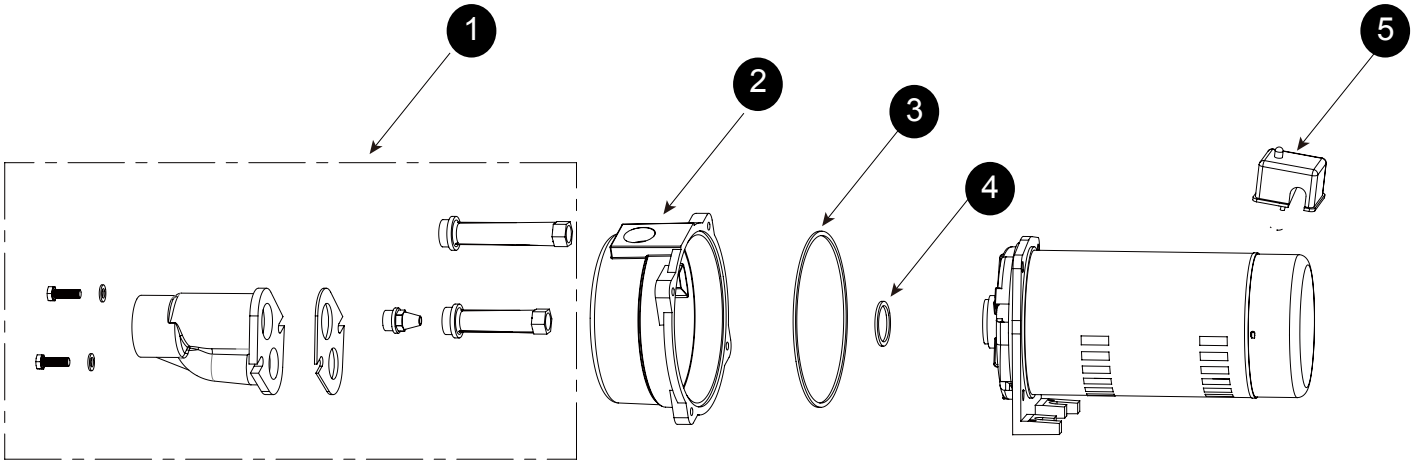
WARRANTY

LIMITED WARRANTY
This pump is warranted to be free from defects in material and workmanship and to perform within applicable specifcations for a period of one (1) year. Obligation under this warranty is limited to repairing or replacing any part thereof, which shall within one year be returned to us with transportation charges prepaid, and proved to be defective.

The above limited warranty takes the place of all other warranties, express or implied and correction of such defects by replacement or repair shall constitute a fulfilment of all obligations under the terms of the warranty, which specifcally EXCLUDES any incidental damages caused by or associated with this product or its use. The warranty does not cover any unit which has been damaged either in transit or by misuse, accident or negligence. No warranty or representative not contained herein shall be binding.

REPLACEMENT PARTS

NO	DESCRIPTION	PART NO
1	Ejector Kit	091CJET01
2	Volute	091CJET02
3	O-ring 1	091CJET03
4	O-ring 2	091CJET04
5	Pressure Switch	091CJET05



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