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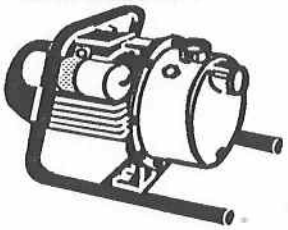
Simer Pump



OWNER'S MANUAL
MODEL 2825SS
PORTABLE UTILITY PUMP

*** WARNING ***

IMPORTANT SAFETY INFORMATION AND RULES FOR SAFE OPERATION

* Conformance with local and state electric codes is mandatory. Consult a licensed electrician or your power company if in doubt.
* To reduce risk of electric shock, connect only to a properly grounded electrical circuit equipped with a ground fault interrupter device. For all electrical connections, a separate line with a fused switch should be run from the meter, or breaker box, and properly grounded.
* Before installing or servicing any pump, be certain pump power is disconnected to avoid any possible electric shock hazard.
* **This pump motor is designed for 115V operation** Be sure the supply voltage is the same. Motor is single voltage only.
* This pump is not intended, nor been investigated, for use in swimming pool areas.
* If used with a well for potable water, always disinfect the well and test the water for purity before using. Check with your local health department for testing procedures.
* Complete pump and piping must be protected against freezing. Freezing will cause damage and void the warranty.
* This pump is not designed, nor intended, for the pumping of chemicals or corrosive liquids. This will shorten the life of the unit and void the warranty.
* Do not run pump dry. If the pump is dry, damage will result and void the warranty.
* Never pump gasoline or other flammable liquids or operate in the area where flammable or explosive fumes are present as fire or explosion could occur.
* DO NOT run this pump without first GROUNDING THE PRESSURE SWITCH OR MOTOR in compliance with National Electric Code and local codes and ordinances.
* This pump must be primed before running.
* Read instructions given in this manual before attempting operation or installation of this pump.

FOR BOOSTER PUMP APPLICATIONS

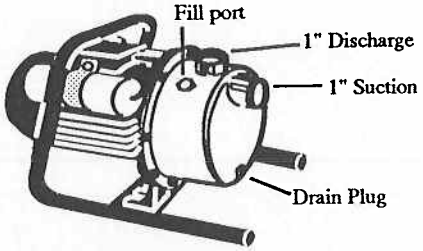
When unit is used as a booster pump, the source pressure and the developed pump pressure together must not exceed 60 PSI. Pressure above 60 PSI can result in pump damage and/or personal injury.

PUMP FEATURES

- 1" suction/1" discharge.
- Built-in handle for portability and ease of handling.
- Wide base plate attached for pump stability.
- Easy off plug for draining pump.
- Shallow well – 15 feet or less.
- Light – weighs only 23 lbs.
- Equipped with 6' grounded power cord with plug for any standard 115 volt household outlet.
- Garden hose fitting included for discharge.

MOTOR FEATURES

- 115 volt motor, plus bug and sand protection.
- Motor wired to handle standard 115 volt household current.
- Permanently lubricated and sealed sleeve and ball bearings require no maintenance.



PUMP PERFORMANCE

- Pressures to 60 PSI (booster service).
  CAUTION: Do not exceed total case pressure of 70 PSI.
- Flows up to 12 GPM at 0 feet of suction lift.
- Corrosion resistance.
- This is a pump design that can only pump water vertically from a depth of 15' or less.

PUMP PERFORMANCE GPM BASED ON 5' SUCTION LIFT

Model No.	GPM Setting	PSI Output						Max PSI
		0#	10#	20#	30#	40#	50#	
2825ss	GPM	10	9	6	5	3	2	60

NOTE: Performance will decrease as the depth of water increases

SHALLOW WELL SYSTEMS

Shallow well systems can be constructed in a bored or drilled well (Figure 2) or in a driven well (Figure 3).

In a cased well, such as in Figure 2, or an installation where the suction pipe is drawing water out of a stream or other open source of water, a foot valve and strainer must be used to prevent back flow of water when the pump shuts off.

Pumping applications from a pond, lake or stream should be set up like a cased well installation. In other words, a single suction pipe entering the water with a check valve or foot valve attachedto the end of the pipe, or underwater.

Driven wells (Figure 3) cannot be used in conjunction with a foot valve, so a check valve above ground must be used to prevent back flow.

CASED WELL

Single suction pipe with foot valve inside well casing.

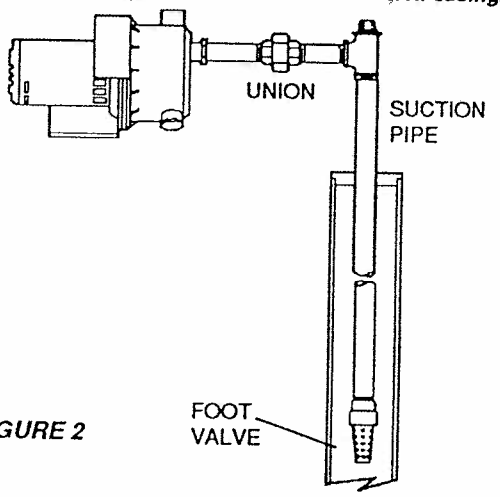


FIGURE 2

DRIVEN WELL

Driven shallow well installation with line check valve.

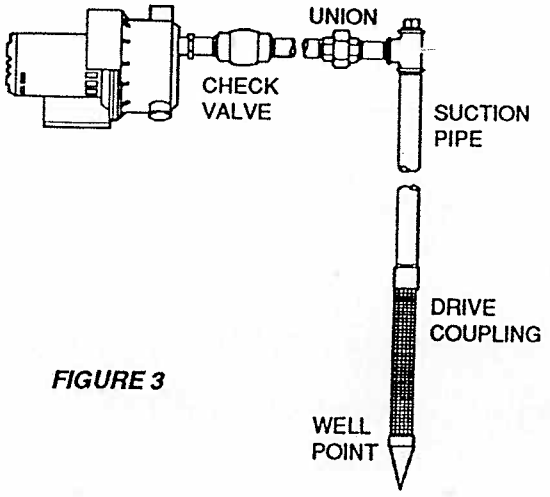


FIGURE 3

A driven well consists of 1-1/4" to 2" pipe, equipped with a point and well screen, and driven into the water table. It must not be deeper than 15 feet, including the point

The driven well is constructed of tightly coupled pipe lengths fitted with a well point at the lower end. The well point is forced through the ground by a series of blows on the pipe above it. When the point reaches the water table, water flows into the pipe through screened openings on the well point (Figure 4).

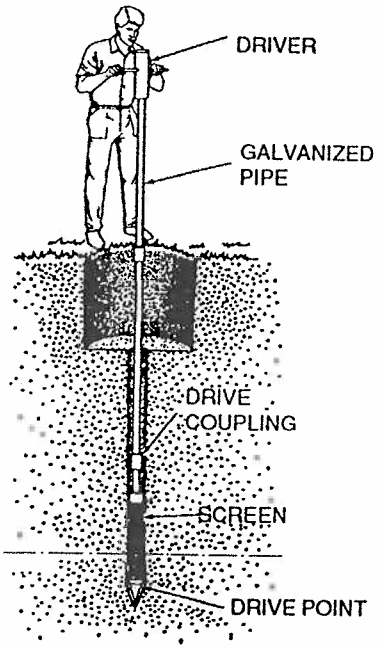


FIGURE 4

Driven wells must not be deeper than 15 feet. And obviously, the underground strata must be porous and free from rocks in order to permit driving of the well point. When these conditions are present, the driven well may be the simplest and cheapest means of developing a ground water supply.

PIPING

When the pump is offset more than 25 feet from the well, the suction pipe size should be increased to reduce friction losses:

0 - 25'	26' - 100'	101' - 200'
1"	1-1/4"	1-1/2"

NOTE: When horizontal distance and/or pipe size increases, prime time increases.

Try to keep the offset piping from the well to the pump as short as possible. The offset piping should pitch up towards the pump about 1" for every 10' of horizontal pipe (Figure 5).

This will prevent an airlock in the pipe and make priming the pump easier.

When the pump is a distance away from houses and barns, the discharge pipe should be sized to keep pressure losses at a minimum:

0 - 25'	26' - 100'	101' - 200'	201' - 300'
1"	1-1/4"	1-1/2"	2"

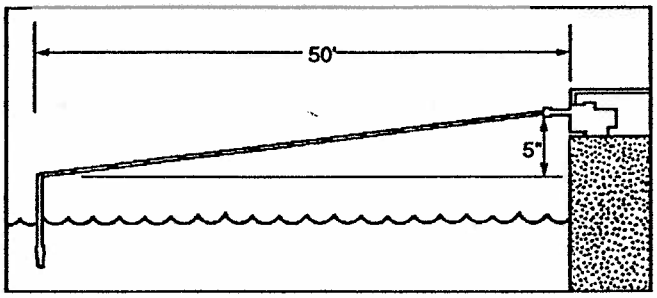


FIGURE 5

POWER

A 15 amp fusetron type fuse is recommended and the power supply should be 115 or 120 volts AC.

The power cord is already wired into the unit and must be plugged into a 3-prong grounded receptical. It is strongly recommended that a ground fault circuit interrupter device (GFCI) be used in conjunction with any AC electric pump. The pump will run when plugged into power, so it must be manually turned on and off for operation.

For distances of 100 feet or less, a minimum of 12 gauge cord must be used. For longer distance, refer to Wiring Size Chart.

WIRING SIZE

100'-200'	200'-300'	300'-500'
10 gauge	8 gauge	6 gauge

CAUTION: The pump can run continuously as long as water is pumped. If the unit runs more than five minutes without pumping water, damage to the pump will occur.

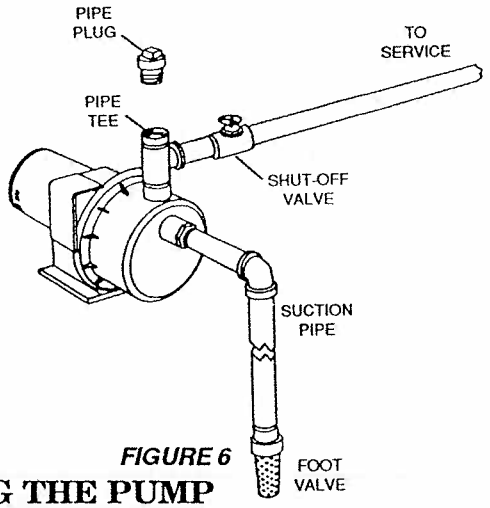


FIGURE 6

PRIMING THE PUMP

The most important thing to know about jet pump operation is that ***JET PUMPS CANNOT PUMP AIR***! If all air is not removed from the pump case and suction system . . . the pump will not pump water.

Remove plug on side of pump case and fill with water. Next, remove pipe plug on the top side of the pipe tee and fill with water. Then, as on a shallow well system such as Figure 6, water must be poured into the case until it runs out the top of the pipe tee. This will fill the jet case and some of the suction pipe. Be sure the valve on the discharge pipe is closed. The longer the suction pipe, the more water must be poured into the case.

After the pipe and pump are full of water, loosely hand tighten the pipe plug in the top of the pipe tee so air can escape. Start the unit. Be prepared to tighten the plug. Once the air has been displaced in the suction pipe, the pump should build pressure to approximately 58 PSI. If the unit does not build pressure within two minutes, shut off power to the pump, remove the pipe plug from the top of the pipe tee and pour more water in. Then screw in the pipe plug and turn on the power. If the unit does not build pressure within two minutes, repeat shutting off power, removing plug and refilling pump with water.

Every time you pour more water into the pump case, you are displacing air. This is good because ***JET PUMPS CANNOT PUMP AIR***! If you don't get rid of all the air in the pump and suction pipe . . . the pump will not prime.

If you never get the unit primed, it never builds more than 30 PSI and you are able to keep pouring water into the case, you have a leak or loose connection in the suction pipe between the water level and the pump case. The leak won't be visible because the suction pipe is under a vacuum when the pump is running and the leak will be drawing air in. Repair the leak by either replacing suction piping and sealing all threaded connections.

If the unit primes, is able to pump water, runs fine, etc., but after sitting overnight or a few hours has lost his prime upon start up, you may have a suction leak between the check valve and the water level that has let air into the suction pipe. You may also have a faulty foot valve.

Once the unit is primed and builds pressure, tighten the pipe plug at the top of the tee and open the valve on the discharge pipe. The pump will supply water to the rest of the system

Pumps on a drive point well such as Figure 7, are harder to prime than the other type of shallow wells because you can only fill water through the pump case down to the check valve.

To prime a drive point system, you fill the case until water flows out of the top of the pipe tee. Be sure the shut-off valve on the discharge line is closed.

Put in the pipe plug in the tee, hand tighten, and start the pump. Most likely, it will try to prime and then when air is pulled up through the suction pipe, it will run, but not build more than 30 PSI of pressure. You then shut off the unit take off the pipe plug at the top of the tee, fill the case with water, screw in the pipe plug, hand tighten and start the pump.

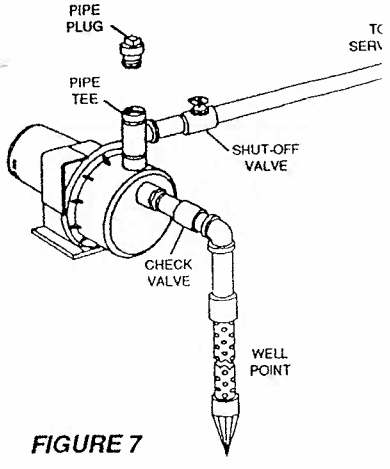


FIGURE 7

You may have to do this several times to draw the water up out of the drive point to the pump case. Every time the unit is shut off and more water poured in, you have pulled up that much water from the well and gotten rid of that much air. Keep trying to prime in this manner until the pump will build up pressure greater than 30 PSI. Then tighten the pipe plug at the top of the pipe tee, open the discharge valve.

If you cannot get the unit primed and can keep adding water, you have a leak or loose connection in the suction side of the system. You cannot see the leak because the suction pipe from the check valve to the water line is always under a vacuum. Fix the leak as no jet pump can pump any volume of air.

If the unit primes, is able to pump water, runs fine, etc., but after sitting overnight or a few hours has lost its prime upon start up, you may have a suction leak between the check valve and the water level that has let air into the suction pipe. You may also have a faulty foot valve. When you reprime and pour water in, that is the amount of air that was let in from the suction leak.

If it is a pump case, seal or discharge leak, water will be pushed out at the leak. Suction leaks draw air in, discharge leaks push water out; either is detrimental to the life of your pump and must be corrected.

MAINTENANCE

Maintenance on the pump and motor is not required. Permanently lubricated bearings are used and satisfactory pump life will be attainable with a properly installed system.

TROUBLESHOOTING

1) *Pump runs, but no water and no or low pressure delivered:*
   — Air in pump and/or pipes . . . keep priming.
   — Leak in suction line letting air in . . . fix leak.
   If the pump is running and you are able to add water every time you reprime, you don't have all the air out of the system and/or may have a suction leak. Remember, ***JET PUMPS CANNOT PUMP AIR!***

2) *Low capacity, low water flow delivered:*
   — Plugged drive point . . . clean or replace.
   — Low yield well . . . pump can pump more than well . . . clean well, reposition drive point deeper or shallower.
   — Water level deeper than 15 vertical feet from the pump . . . deep well pump is required.
   — Too small suction and/or discharge line . . . enlarge pipe size.
   — Plugged nozzle/venturi (injector), check valve, impeller, foot valve, etc. . . . clean out and try again.
   — Pump parts worn out . . . replace parts or pump.

3) *Low pressure, pump delivers water but at low pressure:*
   — Air leaking into suction line . . . fix leak.
   — Impeller or injector is partially plugged . . . clean out.
   — You may be requiring more water than the pump produces. Say 5 faucets or fixtures require 8 GPM each with 12 PSI. The pump physically cannot pump 40 GPM so you receive some water (approximately 12 GPM) at low pressure . . . close off some faucets and let the system build and maintain pressure.

4) *Motor hums but won't start:*
   — Impeller blocked by obstruction . . . clear obstruction.
   — Motor capacitor or switch failed . . . replace part.

5) *Leaks water between pump and motor:*
   — Shaft seal has failed . . . replace seal.

INSTALLATION PROBLEMS?
CALL
1-800-HOT-PUMP
Model #2825ss – Portable Utility Pump

REPAIR PARTS	PART NUMBER
Diffuser	2825ss - 1
Impeller & Seal	2825ss - 2
Pump O-ring	2825ss - 3
Jet Assembly (Ejector, washer, o-ring)	2825ss - 4
Capacitor	2825ss - 5

1-YEAR LIMITED WARRANTY

This Simer Product is tested before shipment and will give good service when used in accordance to the directions enclosed. When a customer believes he has a unit with defects of workmanship or materials, he need only return it to the store where he bought it. If this retailer is satisfied that it meets the time and other warranty criteria set forth below, the retailer is authorized to accept the unit on our behalf and return the unit to us for inspection, enclosing the name and address of its owner. (If return to the store is impractical, the customer may return the unit directly to our Warranty Department for inspection, enclosing his name, address and purchase receipt with a brief description of the problem.) If found defective, Simer Pump will repair or replace the unit at its option within a reasonable time and return it postpaid directly to the customer.

SITUATIONS NOT COVERED:
This limited warranty is extended only to the original purchaser and does not cover product failures resulting from the following:

a. handling flammable liquids, solvents, strong chemicals or severe abrasive solutions;
b. handling liquids hotter than product rating;
c. normal wear;
d. user abuse; including, but not limited to, immersing non-submersible products;
e. commercial or industrial use;
f. running rubber impeller pumps dry.

ALL WARRANTIES ARE VOIDED IF:

a. alterations are made to the electric cord or plug;
b. a pump, motor, switch, or control box is wholely or partially disassembled.

THIS PRODUCT IS WARRANTED FOR ONE YEAR FROM DATE OF PURCHASE.

Direct All Warranty Returns To:
SIMER PUMP/ A Rival Company
ATTN: Return Goods Dept.
217 East 16th Street, Sedalia, MO 65301
Questions? Call 1-800-HOT-PUMP, Cust. Service