



# **INSTALLATION & OPERATION MANUAL**

**for**

**High Pressure Lawn Sprinklers  
LSP Series**



**3/4 HP  
LSP-75**

**1 HP  
LSP-100**

**1 1/2 HP  
LSP-150**

**2 HP  
LSP-200**

## INTRODUCTION

Lawn Sprinkler Pumps, LSP Series are designed for pumping levels not to exceed 25 ft.

Before installation, check for damage in shipment. Any damage should be reported to dealer. Please note: Unitra pumps require professional installation.

### CAUTION - IMPORTANT SAFETY NOTICE

The installation, use and operation of this type of equipment is governed by the various federal, state and local laws and (the regulations concerning) OSHA. Compliance with such laws relating to the proper installation and safe operation of this type of equipment is the responsibility of the equipment owner and all necessary steps should be taken by the owner to assure compliance with such laws before operating.

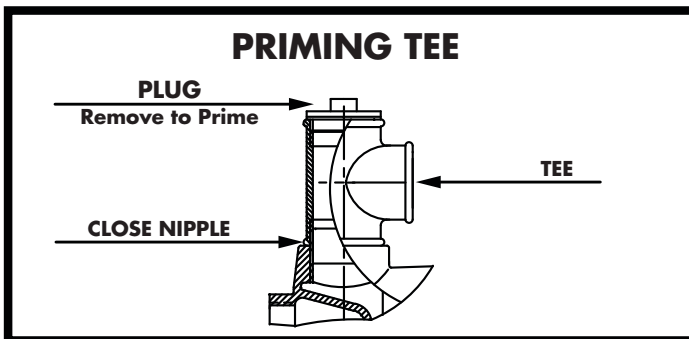
Check all local codes covering electrical installation, plumbing, pump and wells.

Please note that  $\frac{3}{4}$  HP and 1 HP motors are single voltage either 115 or 230 volts AC.  $1\frac{1}{2}$  HP and 2 HP motors are 230V only. Make sure nameplate voltage corresponds to power supply voltage. **MAKE SURE THAT ELECTRICAL CIRCUIT IS PROPERLY GROUNDED.**

**CAUTION: BEFORE INSTALLATION OR SERVICING PUMP, BE SURE POWER SOURCE IS DISCONNECTED.**

### INSTALLATION INSTRUCTIONS

The pump should be located as near the water source as possible while also considering accessibility for servicing. Vibration and noise will be minimized if the pump is attached to a solid foundation. Make certain all pipe is free of rust and scale. The static lift (vertical elevation from water to impeller eye) should be held to a minimum for obtaining maximum performance.



Suction pipe should be at least  $1\frac{1}{2}$ " ; a larger size may be used if horizontal runs are required in addition to the vertical drop pipe. Priming will be facilitated if a tee or cross is used at the pump discharge with a priming plug on top.

This pump will perform at "depths of water" of 25 feet or less and once the casing is filled with water the unit will be self-priming thereafter. However, if a foot or check valve is installed in the suction line, water will be delivered immediately without the delay required for priming.

Prior to making electrical connections, check the motor terminal board wiring against the terminal plate cover diagram to check compatibility with power available. All motors shipped from the factory are connected for 230V operation. Provide adequately sized wire for the horsepower and voltage on the motor. An automatic overload protector is built into the motor but proper fusing should also be provided.

### SUGGESTED WIRE SIZES

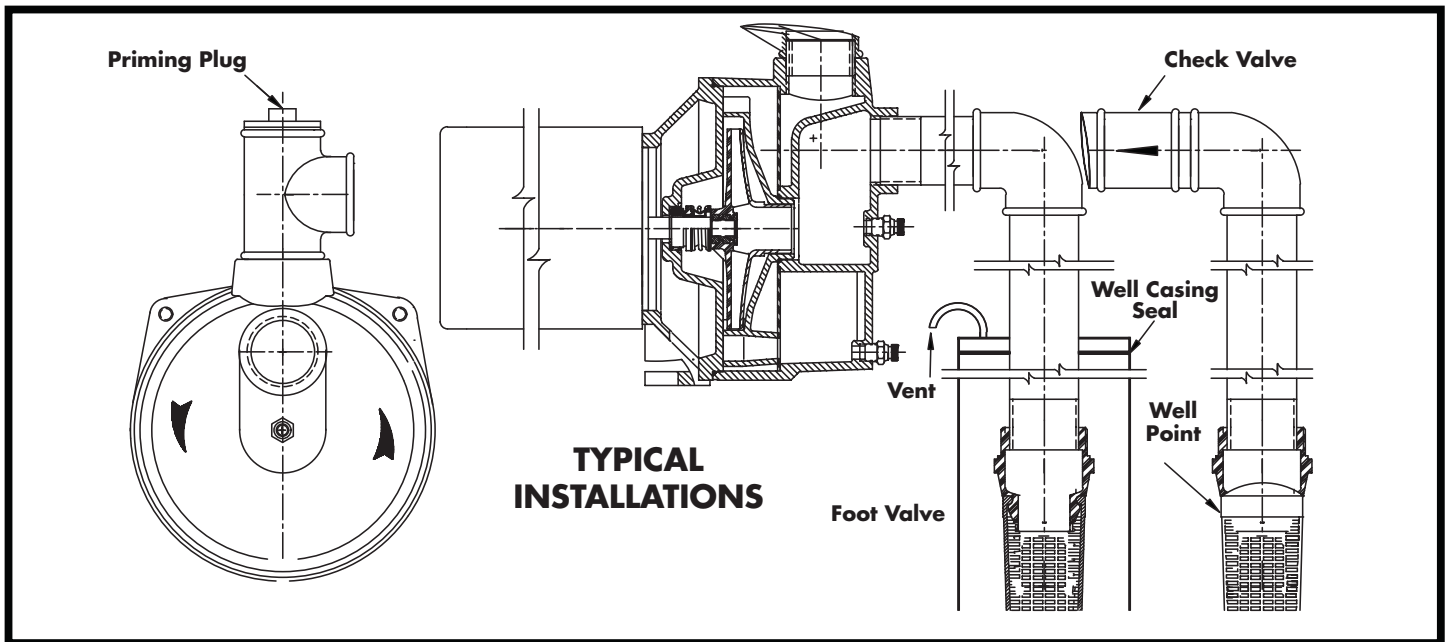
MODEL	HP	VOLTAGE	DISTANCE Pump-To-Power Source		
			0-50 ft.	51-100 ft.	101-200 ft.
LSP-75	$\frac{3}{4}$	115	14	12	10
		230	14	14	12
LSP-100	1	115	12	10	8
		230	14	14	12
LSP-150	$1\frac{1}{2}$	230	14	14	12
LSP-200	2	230	14	12	10

When the installation has been completed, fill the pump housing with water and replace the priming plug. Within a reasonable period of time after starting the pump, water should be delivered – any valves on the discharge pipe must be open to release the air being drawn from the suction pipe.

### DRAINING THE PUMP

Drain pump and piping when there is a danger of freezing. Piping should be drained below freeze line. Disconnect air volume control when draining.

**WARNING: DO NOT RUN PUMP DRY.**



**LIMITED WARRANTY : LAWN SPRINKLER PUMPS**  
**Effective January 1, 1987**

Products of our manufacture are warranted against defects in material and workmanship under normal use and service for twelve months from date of purchase, but not more than eighteen months from date of manufacture, ( effective with products manufactured since January 1, 1987. )

Notice of the alleged defect must be given to the manufacturer in writing within sixty days of failure, giving all identifying details including date code, type of equipment, date of installation, and date of failure. Manufacturer's sole obligation on this warranty shall be, at its option, to repair, replace, or refund the purchase price of any product or part thereof which proves to be defective as alleged. No allowances will be made for repairs or alterations effected without specific written authorization from manufacturer.

If requested by manufacturer, such product or part thereof must be promptly returned to the manufacturer prior to any attempted repair, or sent to an authorized service station designated by the manufacturer. Manufacturer accepts no responsibility for loss or damage in transit of goods, nor will any warranty claim be considered unless the returned goods are received intact and undamaged as a result of shipment. Repaired or replaced material returned to customer will be shipped F.O.B. the manufacturer's factory. Manufacturer warrants replaced parts for 90 days or

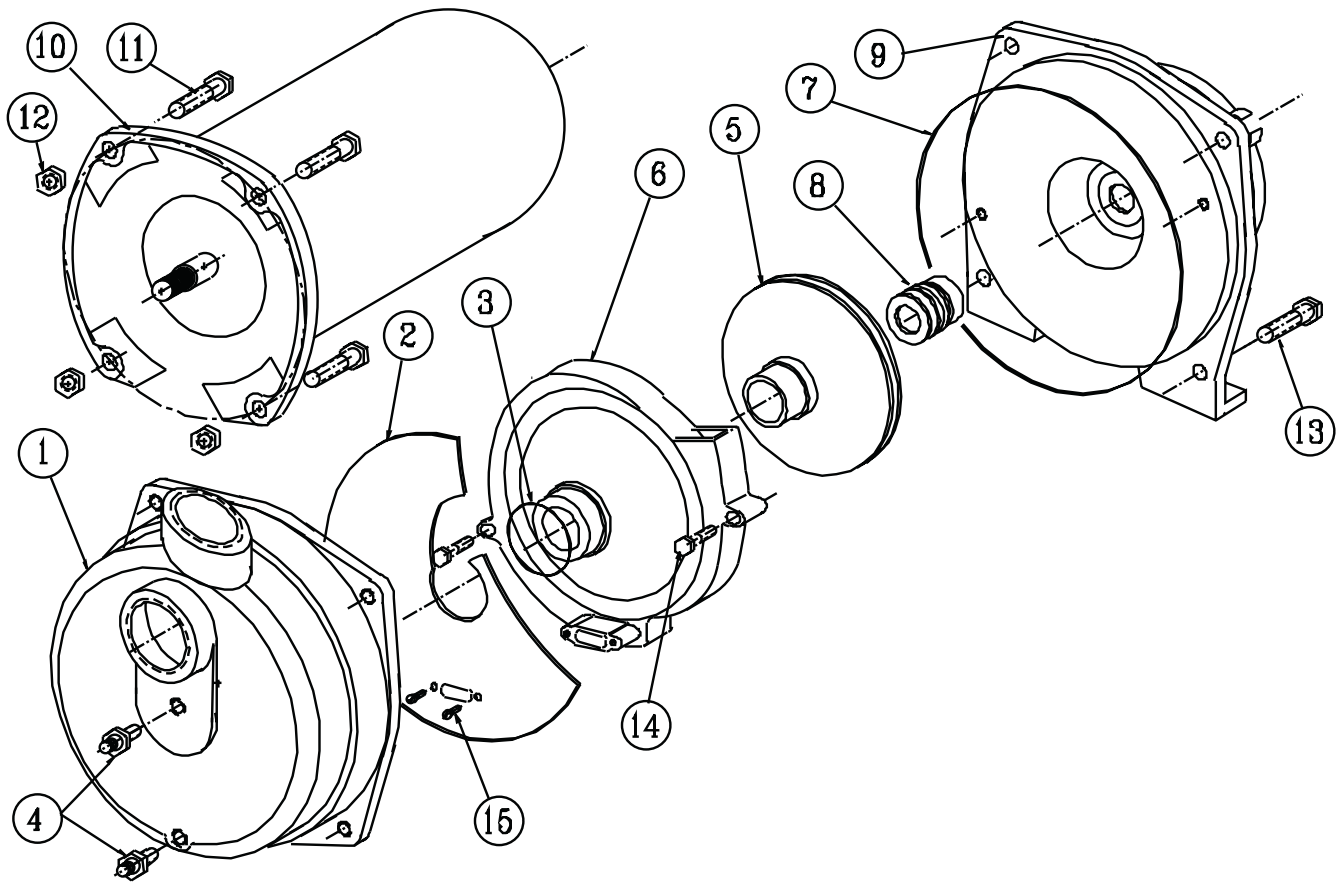
for the remainder of the warranty on the product being repaired.

Under terms of this warranty, manufacturer shall not be responsible nor liable for:

- a)** Consequential, collateral, incidental or special losses or damages;
- b)** Failures caused by reasonable wear and tear, abnormal conditions of use, accident, neglect or misuse of equipment;
- c)** Labor charges, loss or damage resulting from the supply of defective part(s) or improper repairs by others;
- d)** Damage caused by sand or abrasive materials, scale or chemical deposits, corrosion, lightning, improper voltage or mishandling.
- e)** Improper installation.

Manufacturer reserves the right to substitute new equipment and/or improve the part(s) of any equipment judged defective without further liability. All repairs and /or services performed by the manufacturer not adjusted as covered by this warranty, will be charged in accordance with the current equipment and service prices.

*This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.*



ITEM NUMBER	DESCRIPTION	PART NUMBER			
		LSP-75	LSP-100	LSP-150	LSP-200
1	Pump Housing	1500103			
2	Plate	4531046			
3	O-Ring Diffuser	1710808			
4	Plug-AVC	2860103			
5	Impeller	3154030	3154031	3154032	3154033
6	Diffuser	371105	3711006	371107	3711008
7	O-Ring Housing	1711111			
8	Mechanical Seal	0703000			
9	Motor Bracket	2400003			
10	Pump Housing Screws (4)	1820012			
11	Diffuser Screws (2)	1900010			
12	Plate Screws (2)	1958120			
13	Motor Nema J	000110026401	000110036401	000110046401	000110056401