



MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
 SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
 Tel: (502) 778-2731 • 1 (800) 928-PUMP

Visit our website:  
 zoellerengineered.com

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

## SERVICE MANUAL AND PARTS LIST FOR MODELS X6424- X6428 230 VOLTS 3 PHASE UNITS 460 VOLTS 3 PHASE UNITS 575 VOLTS 3 PHASE UNITS

### GENERAL

Since 1939 the name Zoeller has represented the standard for submersible sump and sewage pumps. The same high quality workmanship and easy maintenance design has now been incorporated into a line of solids handling centrifugal pumps.

This manual incorporates the parts lists and assembly/disassembly instructions for submersible centrifugal pumps with 4" or 6" discharge and Zoeller 250 frame UL and CSA approved (Class I, Division 1, Group C and D) submersible motor.

### NAMEPLATE DATA

The nameplate, located on the motor housing, indicates specific information about the construction of the pump.

### SHORT TERM STORAGE

Storage of six months or less will not damage the submersible pump. However, to ensure the best possible protection, the following is advised.

- Store pump inside whenever possible or cover with some type of protective covering.
- Tape or seal in plastic bag the terminal ends of wire leads.
- Spray coat unpainted surfaces with rust-inhibiting oil.
- See "Operation" section of this manual before start-up.
- Pump is to be stored in an upright position. Seal leaks that occur in storage to a pump laying on its side will not be repaired under warranty.

### GENERAL INSTALLATION

Zoeller Engineered Products pumps are lubricated and tested at the factory prior to shipment and require minimum pre-start-up maintenance.

Before installing a pump, check the pump rotation to insure that wiring has been connected properly to the power source, and that the green lead of the power cord (see Power and Sensor Cord

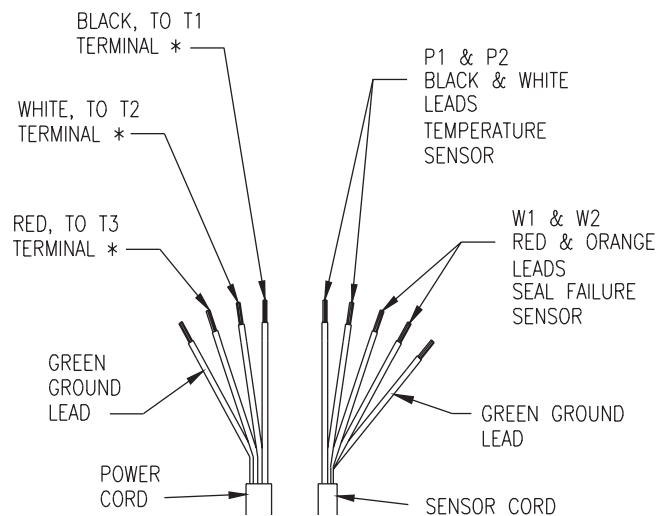
Lead identification illustration) is connected to a valid ground. Momentarily energize the pump, observing the direction of kick back due to starting torque. Rotation is correct if kick back is in the opposite direction of rotation arrow on the pump housing. If rotation is not correct, switching of any two power leads will provide the proper rotation. (All models are 3 Phase)

### OPERATION

Before putting the pump into operation, the following items should be checked to insure that the pump is installed correctly.

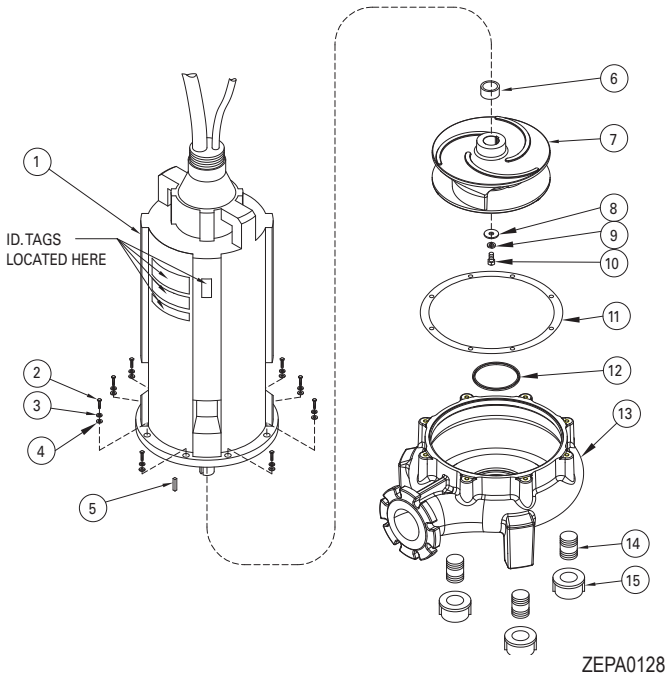
- Electrical connections
- Pump rotation

### POWER AND SENSOR CORD LEAD IDENTIFICATION 3 Phase



\* TERMINALS T1, T2 AND T3 IDENTIFY MAGNETIC STARTER TERMINAL CONNECTIONS.

**REPLACEMENT PARTS LIST FOR MODELS  
X6424, X6425, X6426, X6427, X6428  
230V 3PH UNITS- 460V 3PH UNITS- 575V 3PH UNITS**

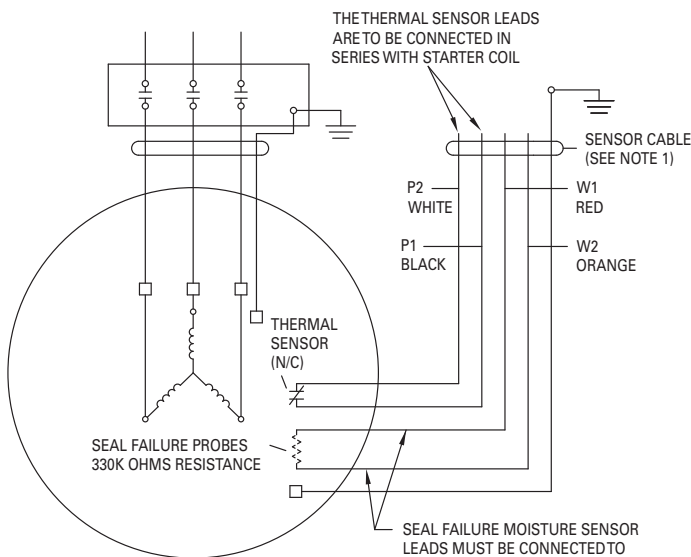


| No. | Description                     | Qty | Notes | 11/17 thru current |
|-----|---------------------------------|-----|-------|--------------------|
| 1   | Motor                           | 1   |       | See Job File       |
| 2   | Screw                           | 8   |       | 001909             |
| 3   | Lock Washer                     | 8   |       | 006404             |
| 4   | Flat Washer                     | 8   |       | 155218             |
| 5   | Impeller Key                    | 1   |       | 155219             |
| 6   | Impeller Spacer                 | 1   |       | 007409             |
| 7   | Impeller                        | 1   | 1     | See Job File       |
| 8   | Impeller Flat Washer            | 1   |       | 007412             |
| 9   | Impeller Lock Washer            | 1   |       | 006061             |
| 10  | Impeller Screw                  | 1   |       | 007401             |
| 11  | Pump Housing Gasket             | 1   |       | 007403             |
| 12  | Wear Ring 4" Discharge          | 1   |       | 154627             |
|     | U-Cup Packing 6" Discharge      | 1   |       | 007169             |
| 13  | Pump housing 4" or 6" discharge | 1   |       | See Job File       |
| 14  | Pipe Nipple                     | 3   |       | 007133             |
| 15  | Pipe Cap                        | 3   |       | 001406             |

**NOTES:**

1) If pump was equipped with a trimmed impeller, consult factory

ZEPA0128



**NOTE 1**  
SENSOR CABLE WITH THERMAL AND MOISTURE PROTECTION IS STANDARD ON ALL EXPLOSION PROOF MOTORS

ZEPA0038D

**DISASSEMBLY PROCEDURES**

Note: See Sections A and B below for impeller and pump housing removal. For seal replacement and other maintenance requirements on these motors see the motor manufacturer's instructions shipped with your pump.

**A. Before you begin...**

1. Disconnect power source.
2. Shut off pump.
3. Remove pump from system.

**B. When removing impeller (29)...**

1. Complete Section A.
2. Remove the eight hex head screws (2) lock (3) flat washer (4) from the flange of the motor (1).
3. Remove the pump housing (13) and gasket (11).

4. Immobilize the impeller (7) by holding the vanes with a pipe wrench. Using a socket, remove the impeller bolt (10), lock washer (9) and the impeller washer (8).
5. Using two long handled screwdrivers as levers, carefully pry the impeller (7) from the shaft.
6. Remove the impeller key (5) and the impeller spacer (6) from the motor shaft.

**ASSEMBLY PROCEDURES**

Submersible pumps are reassembled in reverse order of disassembly. The following suggestions are offered.

NOTE: Replace all worn items. Insure the all parts are thoroughly cleaned before assembly.

**Installing the impeller**

1. Install the impeller spacer (6) on the shaft and the impeller key (5) in the keyway in the shaft.
2. Install the impeller (7), impeller washer (8), lock washer (9), and secure by immobilizing the impeller (7) by gripping the vanes with a pipe wrench and installing the impeller bolt (10) in the end of the shaft.

**Note:** Apply thread locking compound to impeller bolt.

3. On a 4" discharge pump housing, press fit the brass wear ring (12) into the groove inside the suction housing. On a 6" discharge pump housing, use a waterproof rubber adhesive sealant, such as liquid silicone, to secure the U-cup packing (12) to the groove inside the suction housing.
4. Install the gasket (11) on the pump housing (13), and install the pump housing on the motor (1) securing with the eight screws (2), lock washers (3), and flat washers (4).
5. If removed, install the pipe nipples (14) and pipe caps (15) being sure the pump sits level when caps are installed.