# **Liberty Pumps**® ALM-3W Alarm Installation Instructions

This alarm system monitors liquid levels in lift pump chambers, sump pump basins, holding tanks, sewage, agricultural, and other non-potable water applications.

The ALM-3W indoor/outdoor alarm system will serve as a high level alarm when the control float switch is installed. The stainless steel alarm horn sounds and red beacon illuminates when a potentially threatening liquid level condition occurs.

### **ALM-3W ALARM**

Liberiy Pumps

- Voltage: 120 VAC, 50/60 Hz
- NEMA 4X enclosure rated for indoor or outdoor use.
- Automatic alarm reset and alarm test/normal/silence switch.
- Alarm horn sounds at 88 decibels at 10 feet (3 meters).
- Alarm system (when installed on separate circuit) operates even if the pump circuit fails.
- Complete package includes standard Sensor Float<sup>®</sup> control switch with 20 feet (6.1 meters) of cable (other lengths available) and mounting clamp.
- Auxiliary alarm contacts (NO/NC) for easy attachment of remote devices: 120 VAC, 5 amps max., 50/60 Hz
- Three-year limited warranty.

#### PREVENTATIVE MAINTENANCE

- Periodically inspect the product. Check that the cable has not become worn or that the housing has not been damaged so as to impair the protection of the product. Replace the product immediately if any damage is found or suspected.
- Periodically check to see that the float is free to move and operate the switch.
- Use only Liberty Pumps<sup>®</sup> replacement parts.

## LIBERTY PUMPS® THREE-YEAR LIMITED WARRANTY

LIBERTY PUMPS<sup>®</sup> warrants to the original consumer that this product shall be free of manufacturing defects for three years after the date of consumer purchase. During that time period and subject to the conditions set forth below, LIBERTY PUMPS<sup>®</sup> will repair or replace, for the original consumer, any component which proves to be defective due to defective materials or workmanship of LIBERTY PUMPS<sup>®</sup>.

#### THIS EXPRESS WARRANTY DOES NOT APPLY TO THE MOTOR START KIT COMPONENT. LIBERTY PUMPS® MAKES NO WARRAN-TIES OF ANY TYPE WITH RESPECT TO THE MOTOR START KIT.

#### ELECTRICAL WIRING AND SERVICING OF THIS PRODUCT MUST BE PERFORMED BY A LICENSED ELECTRICIAN.

THIS WARRANTY DOES NOT APPLY: (A) to damage due to lightning or conditions beyond the control of LIBERTY PUMPS®; (B) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided; (C) to failures resulting from abuse, misuse, accident, or negligence; (D) to units which are not installed in accordance with applicable local codes, ordinances, or accepted trade practices, and (E) to units repaired and/or modified without prior authorization from LIBERTY PUMPS®. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

TO OBTAIN WARRANTY SERVICE: The consumer shall assume all responsibility and expense for removal, reinstallation, and freight. Any item to be repaired or replaced under this warranty must be returned to LIBERTY PUMPS<sup>®</sup>, or such place as designated by LIBERTY PUMPS<sup>®</sup>.

ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. LIBERTY PUMPS® SHALL NOT, IN ANY MANNER, BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AS A RESULT OF A BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.



#### ELECTRICAL SHOCK HAZARD

Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.



**EXPLOSION OR FIRE HAZARD** Do not use this product with flammable liquids. Do not install in hazardous locations as defined by National Electrical Code, ANSI/NFPA 70.

Failure to follow these precautions could result in serious injury or death. Replace product immediately if switch cable becomes damaged or severed. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electric Code, ANSI/ NFPA 70 so as to prevent moisture from entering or accumulating within boxes, conduit bodies, fittings, float housing, or cable.

# **INSTALLING THE FLOAT SWITCH\***

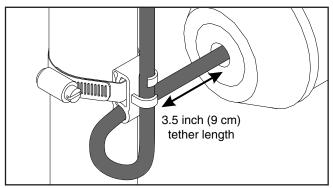
- 1. Place the float switch cord into the clamp as shown in Figure A.
- Locate the clamp at the desired activation level and secure the clamp to the discharge pipe as shown in Figure A.

Note: Do not install cord under hose clamp.

- Tighten the hose clamp using a screwdriver. Over tightening may result in damage to the plastic clamp. Make sure the float cable is not allowed to touch the excess hose clamp band during operation.
- 4. Bring cable leads back to control device and wire according to Figure B.
- 5. Check installation. Allow system to cycle to ensure proper operation.

**Note:** All hose clamp components are made of 18-8 stainless steel material. See your SJE-Rhombus<sup>®</sup> supplier for replacements.

## **Figure A**



\*If this alarm is used as an auxiliary alarm, disregard the float switch mounting detail.

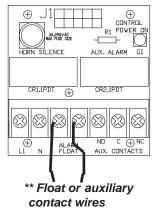
# INSTALLING THE ALARM

- 1. Determine mounting location for alarm panel.
- 2. Determine "power-in" and "conduit-in" location on alarm panel.

**Note**: When used with a pump application connect the alarm to a circuit separate from pump circuit. This allows the alarm to operate even if the pump circuit fails.

- 3. Drill holes for power and control conduit entry.
- 4. Mount panel using flange kit.
- 5. Bring alarm float cable (or auxiliary contact wires\*\*) through conduit and wire to terminal strip contacts labeled "alarm float" as shown in Figure B.
- 6. Wire "power-in" conductors to terminal strip contacts marked L1 & N.
- 7. If remote device is used, connect to terminal strip as shown on schematic located in plastic envelope inside alarm panel.
- 8. Check installation by turning on power and manually tipping the alarm float. The alarm light and horn should indicate an alarm condition.
- 9. Test unit periodically to ensure proper operation.

## **Figure B**



\*\* The main control monitoring the alarm must have normally open dry auxiliary contacts available to operate this auxiliary alarm.

NOTE: If this alarm is used as an auxiliary alarm device, power must be on at both the main control and this auxiliary alarm. Tipping the alarm float that runs to the main panel should activate this alarm.



7000 Apple Tree Avenue Eergen, New York 14416 USA Phone: 1-800-543-2550 www.libertvpumps.com

©SJE-Rhombus 01/15 Instl. Instr. PN 1043754A Model TA4X