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



FM0478 0317 Supersedes 0812

**SECTION: 6.10.110** 

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# ZOELLER DOUBLE PIGGYBACK VARIABLE LEVEL FLOAT SWITCH

10-0229, 10-1209 10-1964, 10-1966 - 115 V / 1 HP - 15' (5 m) cord 10-0230, 10-1210, 10-1965 and 10-1967 - 230 V / 2 HP - 15' (5 m) cord Designed for EFFLUENT, SEWAGE AND DEWATERING applications.

## **READ ALL INSTRUCTIONS BEFORE INSTALLING - ALL APPLICATIONS**



▲ WARNING | Make sure the pump electrical supply circuit is equipped with fuses or circuit breakers of proper capacity. A separate branch circuit is recommended, sized according to the National Electrical Code for the current shown on the pump name plate.



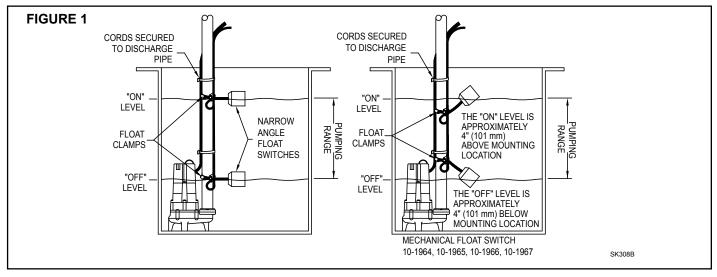
▲ WARNING FOR YOUR PROTECTION, ALWAYS DISCONNECT PUMP FROM ITS POWER SOURCE BEFORE HANDLING. Single phase pumps are supplied with a 3-prong grounded plug to help protect you against the possibility of electrical shock.



<u>A WARNING</u> DO NOT, UNDER ANY CIRCUMSTANCES, REMOVE THE GROUND PIN. The 3-prong plug must be inserted into a mating 3-prong grounded receptacle. If the installation does not have such a receptacle, it must be changed to the proper type, wired and grounded in accordance with the National Electrical Code and all applicable local codes and ordinances.

**ACAUTION** Zoeller 10-0229, 10-0230, 10-1209, 10-1210, 10-1964, 10-1965, 10-1966 and 10-1967 Double Piggyback Variable Level Float Switches are designed for use with the appropriate voltage and horsepower, nonautomatic, single phase Zoeller pumps.

▲ CAUTION Use 10-0229, 10-1209, 10-1964 and 10-1966 for 115 V and 10-0230, 10-1210, 10-1965 and 10-1967 for 230 V. All can be used as a control switch for a magnetic or combination starter. Maximum temperature must not exceed 140 °F (60 °C). NOTE: UL recognized and CSA approved. NOTE: Consult factory for controlling units over 1-1/2 HP with variable level float switch.

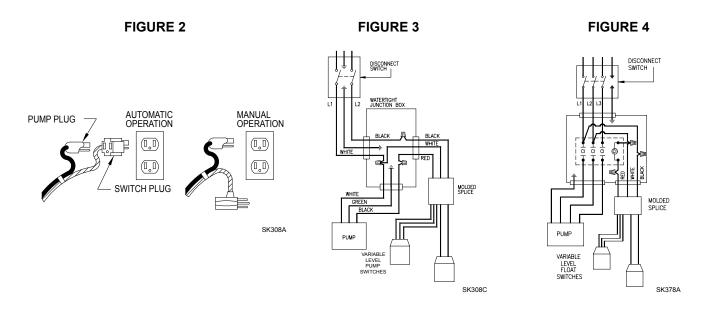


# **INSTALLATION INSTRUCTIONS**

1. Determine the desired pumping range for your installation (see Figure 1). Secure the float cable clamps to the discharge pipe at the distance you desire (See clamp detail in Figure 6 on next page). The float labeled "TOP" must be on top. The cable clamps are releasable, which permits readjustment and removal. **NOTICE**: Do not adjust "Off" level below discharge of pump.

#### INSTALLATION INSTRUCTIONS CONTINUED ON NEXT PAGE

- 2. Insert the piggyback plug from the switches into a standard grounded outlet of proper voltage. For automatic operation plug the pump directly into the piggyback plug. Pump can be manually operated by bypassing piggyback plug (see Figure 2).
  - NOTICE: For installation utilizing a watertight junction box or similar connections, see Figure 3.
  - NOTICE: For installation as a control switch for magnetic or combination starter, see Figure 4.
- Securely tape or clamp both piggyback switch cord and pump cord to the discharge pipe, clear of float operation (see Figure 1). Excess cord should be coiled and fastened to the discharge pipe.
- 4. Clean basin free of debris after installation.
- Check and test your installation. Fill basin with water and allow pump to cycle to ensure proper range and operation. NOTICE: For installation utilizing a Piggyback Float Switch connection use Zoeller Qwik-Box. See FM1420.



- A) Remove (cut) piggyback plug from variable level float switch. Remove approx. 3-1/2" (89 mm) of cord jacket and 1" (25 mm) insulation from wires.
- B) Wire switch into circuit as shown.
- C) Return to instructions.
- D) Installation must be in agreement with the National Electric Code and all local codes.

# ZOELLER SWITCH-MATE SINGLE PIGGYBACK VARIABLE LEVEL FLOAT SWITCH REFER TO OTHER SIDE FOR INSTRUCTIONS FOR ALL APPLICATIONS.

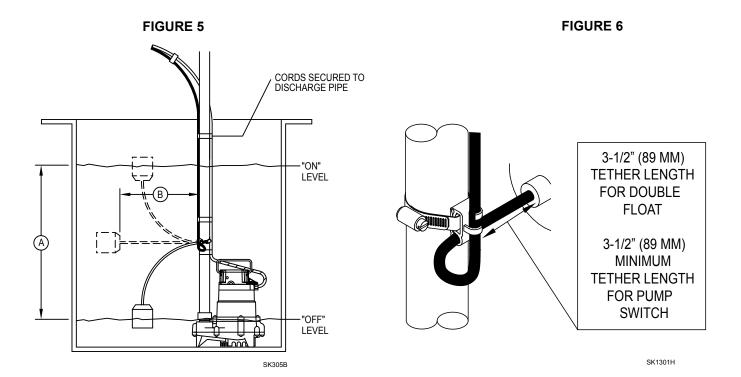
10-0055	115 V/Max.	1/2	ΗP	13 A	10' (3 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0032	115 V/Max.	1	HP	15 A	5' (5 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0033	230 V/Max.	2	ΗP	15 A	15' (5 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0034	115 V/Max.	1/2	ΗP	13 A	15' (5 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0035	230 V/Max.	1	HP	13 A	15' (5 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0063	115 V/Max.	1/2	HP	13 A	20' (6 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0559	230 V/Max.	2	HP	15 A	20' (6 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0705	115 V/Max.	3/4	HP	15 A	20' (6 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0706	230 V/Max.	1	HP	13 A	20' (6 m) cord for EFFLUENT, SEWAGE and DEWATERING
10-0748*	230 V/Max.	3	HP	20 A	25' (8 m) cord for EFFLUENT, SEWAGE and DEWATERING
*no plug (120 °F [49 °C] maximum liquid temperature)					

Zoeller Switch-Mate Variable Level Float Switches are designed for use with the appropriate voltage and horsepower, nonautomatic, single phase, Zoeller pumps. Maximum liquid temperature must not exceed 120 °F (49 °C) for 10-0748.

Zoeller Switch-Mate Variable Level Float Switches can be used as a control switch for a magnetic or combination starter. Maximum temperature must not exceed 140 °F (60 °C). See Figure 9.

Single Piggyback Variable Level Float Switches are recommended for use in 18" (457 mm) minimum diameter pits or basins.

**NOTE:** Consult factory for controlling units over 1-1/2 HP with variable level float switch.



## INSTALLATION INSTRUCTIONS

- 1. Determine the desired pumping range for your installation (see Figure 5 and Figure 10). (B) is the distance between the mounting point of attachment and the float. The distance (B) determines (A) the desired pumping range.
- 2. At distance (B), determined from Figure 10, place the cord into the clamp as shown in Figure 6.
- 3. Position the float to the desired "OFF" level and secure the clamp to the discharge pipe as shown in Figure 6. See Figure 5 noting water line. **NOTE**: Do not install cord under hose clamp.
- 4. Tighten hose clamp using a screwdriver. **NOTE**: Do not overtighten. Overtightening may result in damage to the plastic clamp. Make sure the float cable cannot touch the excess hose clamp band during operation.

NOTICE: Do not adjust "Off" level below discharge on pump.

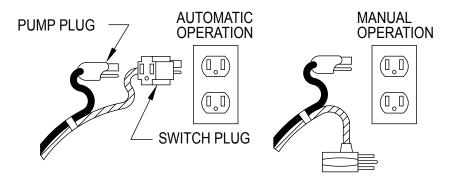
5. Insert the piggyback plug from the switch into a standard grounded outlet of proper voltage. For automatic operation, plug the pump directly into the piggyback plug (see Figure 7). Pump can be manually operated by bypassing the piggyback plug.

NOTICE: For installation utilizing watertight junction box or similar connections, see Figure 8.

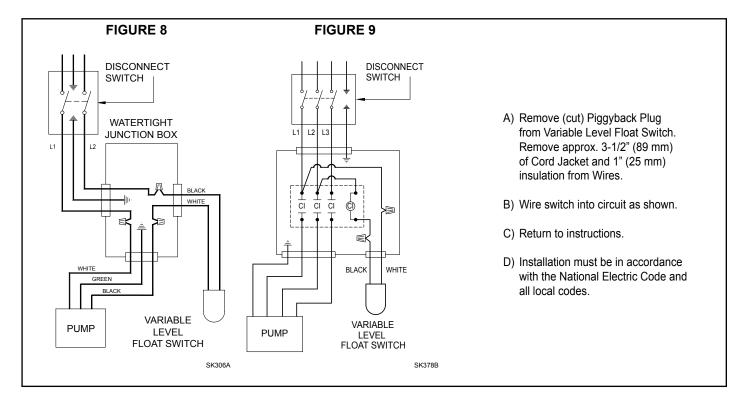
NOTICE: For installation as a control switch for magnetic starter, see Figure 9.

### INSTALLATION INSTRUCTIONS CONTINUED ON NEXT PAGE

## FIGURE 7

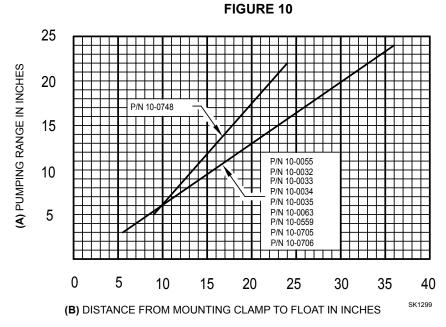


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# INSTALLATION INSTRUCTIONS, continued

- 6. Tape or clamp both piggyback switch and pump cords to the discharge pipe clear of float operation (see Figure 5). Excess cord should be coiled and fastened outside the basin.
- 7. Clean basin of debris after installation.
- 8. Check your installation. Fill basin with water, and allow pump to cycle to ensure proper range and operation.



Note: Measurements as shown are approximate. Exact measurements to be determined for each individual installation.

These are the original installation instructions.



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