



WIDE ANGLE FLOAT SWITCH



Applications

- Sumps
- Holding tanks
- Conversion of non-automatic pumps
- Replacement for diaphragm or probe type controls

Features

- Heavy duty contacts
- Totally self-contained pump switch — no control panel required
- Suitable for use in water and sewage applications
- Epoxy sealed switch and cord conductors
- Small enough to operate when space is limited
- Adjustable pumping range
- Not sensitive to rotation (no “up” side) or turbulence
- Piggyback plug (where applicable) allows manual operation

Specifications

- Non-corrosive PVC plastic float
- Flexible 16 gauge (12 gauge on RFSN-20), 2 conductor, UL/CSA SJOW neoprene, water-resistant cord

The float switch is a direct-acting, in-line control system for automatically controlling smaller lift pumps and sump pumps in water and sewage systems. The float switch consists of one float, one large mounting strap, and two small adjustable mounting clamps.

This pump switch is not designed to be directly wired to relays or motor contactors (the relay or motor contactor may experience chattering). A double float pump switch will operate more efficiently in these installations.

Engineering Data

Item Number	Cord Length	115VAC, 60Hz, Single Phase			208VAC, 60Hz, Single Phase			230VAC, 60Hz, Single Phase			Max. Temp(°F)
		Max HP	Max Run Amps	Max Starting Amps	Max HP	Max Run Amps	Max Starting Amps	Max HP	Max Run Amps	Max Starting Amps	
599118 *	10'	1/2	13	85	1	13	85	1	13	85	140
599117 *	15'	1/2	13	85	1	13	85	1	13	85	140
599128 +	15'	1/2	13	85	1	13	85	1	13	85	140
599210 *	20'	1/2	13	85	1	13	85	1	13	85	140
599211 *	20'	3/4	15	85	2	15	85	2	15	85	140
599318 ^	20'	1-1/2	20	120	3	20	120	3	20	120	120
599319 +	20'	3/4	15	85	2	15	85	2	15	85	140
599321 ^	30'	1-1/2	20	120	3	20	120	3	20	120	120

*: comes with a 120V piggyback plug; ratings for 208V and 230V apply if plug is removed

+: comes with a 230V piggyback plug; ratings for 120V and 208V apply if plug is removed

^: comes with stripped leads (no plug)

General Installation Instructions

WARNING: Turn off power source before installing or adjusting this device. Failure to turn off power could result in serious or fatal electrical shock.

1. Attach switch cord using the cable tie provided to any convenient rigid surface about 2" below the desired turn-on level. Do not tighten cable tie until turn-on and turn-off levels are established.
2. Figure "A" shows an example of turn-on and turn-off levels. Increasing cord length between float and tie point increases on-off differential. Decreasing cord length between float and tie-off decreases on-off differential. Do not tether switch less than 3.5" from pipe.
3. Tighten cable securely after turn-on and turn-off levels are established.
4. Testing: Without water in sump, plug pump cord into switch in-line plug. Plug switch into outlet. Lift float and watch for pump to operate. Do not run pump dry for more than 5 seconds.
5. Do not leave excess pump or switch cords inside sump as they may tangle float.

NOTE: To prevent pump damage, do not set switch turn-off level below 2" above the base of the pump.

WARNING - 230V INSTALLATIONS: In a 230V pump installation, one side of the line going to the pump is always "hot". This condition exists regardless of whether the float switch is "on" or "off". To avoid hazards when installing or servicing, install a double-pole disconnect switch near pump installation.

DIFFERENTIAL PUMPING CAPABILITIES
(approximate measurements, in inches – see Figure A)

Pumping Range (Dim "A")	7	10	16	22
Tether Length (Dim "B")	3.5	6	10	14

Figure B — Piggyback Plug Installation

Manual pump operation possible by plugging pump directly into outlet.

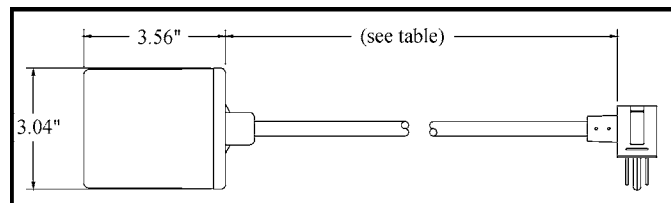
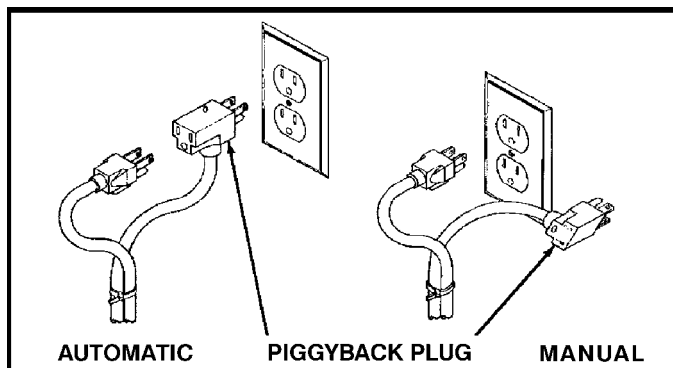


Figure A — Typical Installation

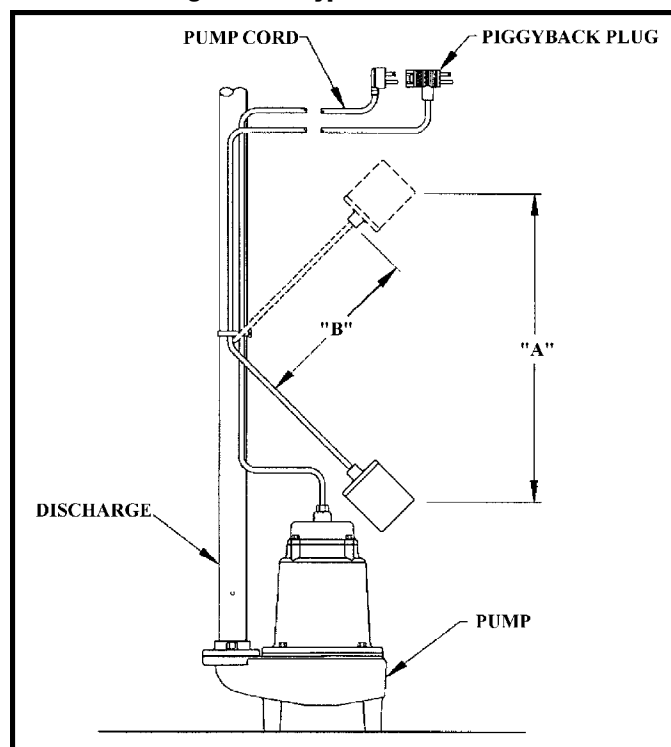


Figure C — Direct Wire Installation

