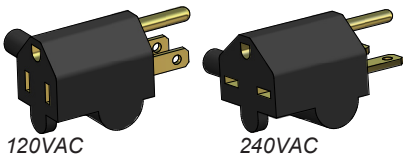
Pump Switch

BOSHART INDUSTRIES

13 and 15 Amp | 120/240VAC | Models: FS13U and FS15U Series



120VAC piggyback plug

240VAC piggyback plug

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QUICK START GUIDE

FS13U & FS15U Pump up Float Switches-Installation Guide | June 15, 2023 4:18 PM

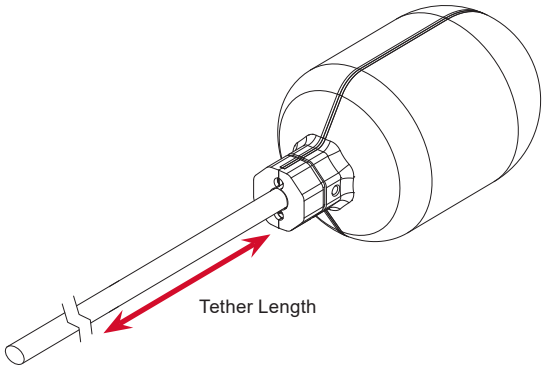
Safety Guidelines

WARNING

Before proceeding with the installation or operation of this product, read all instructions thoroughly, as well as complying with all federal, state and local codes, regulations, and practices. This product must be installed by qualified personnel familiar with all applicable local electrical and mechanical codes. Refer to the National Electrical Code (NFPA 70). Failure to properly install and test this product can result in personal injury or equipment malfunction.

Step 1: Tether Length, Activation Level

Determine desired activation level and tether float switch to appropriate length. Refer to the recommended tether length guide in the next section for the desired activation range. Use only as a guide, actual ranges are based on testing the float switch in non-turbulent conditions.



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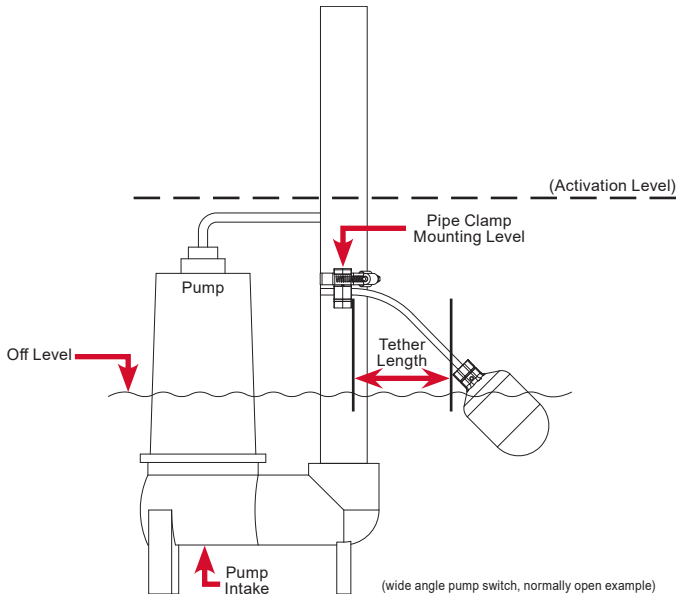
Recommended Tether Length Guide

CAUTION: USE AS GUIDE ONLY, ACTUAL RANGES MAY VARY (Reference Only - Testing Must Be Performed for Actual Ranges)									
Tether Length (inches)	3.5"	4.0"	6.0"	8.0"	10.0"	12.0"	16.0"	20.0"	24.0"
Pumping Range (inches) | NR = Not Recommended									
Wide Angle	7.5"	8.25"	9.75"	13.3"	15.8"	20.0"	25.5"	32.0"	40.0"
Pump Switches - MINIMUM Recommended Tether of 3.5"									

Tether, Activation, and Mounting Level



Step 2: Attach Float Switch

Attach the float switch cable to a pipe, float tree, or per local codes with the appropriate float attachment. Boshart offers multiple attachments including: stainless steel pipe clamp, plastic cable weight, or cast iron cable weight.

Note: Do not completely secure the float switch until the off level has been determined. After the off level has been set, check to make sure level is above the intake to the pump to prevent dry cycling. Refer to the instructions that came with the pump for complete operation. Once the pump switch is in the final mounting location, securely fasten the float attachment to maintain an accurate pumping range.

See example in next section for tether length, activation level, and mounting level of a final setup.

Step 3: Wiring

Wire the float switch per manufacturer's instructions. Refer to the installation instructions of the pump which the float switch is connected to for complete operating information.

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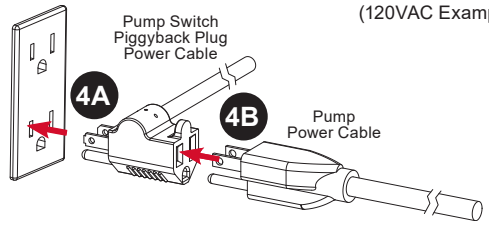
Step 4: Connecting Power and Testing

PIGGYBACK PLUG MODELS:

1) Plug the male end of the piggyback plug on the pump switch power cable into a standard wall outlet or power receptacle that matches the voltage of the pump switch (4A).

2) Plug the male end of the pump power cable into the female end of the piggyback plug on the pump switch power cable (4B).

(120VAC Example Shown)



TESTING:

1) PUMP OFF - When the pump switch is deactivated, the pump should be off.
(down position for normally open or up position for normally closed)

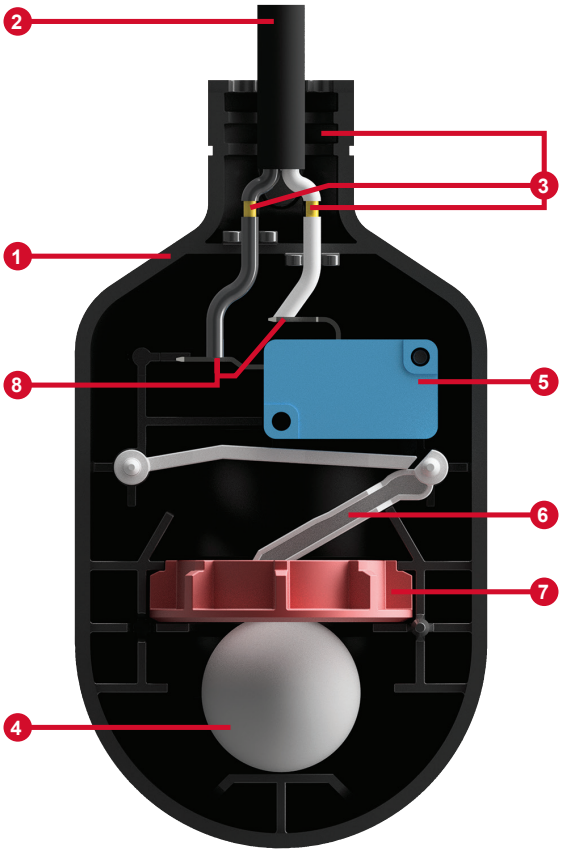
2) PUMP ON - When the pump switch is activated, the pump should be on.
(up position for normally open or down position for normally closed)

Specifications

Primary Voltage:	120VAC or 240VAC, 60 Hz (voltage depends on model/part number)
Amperage:	13 Amps, 120VAC 0.5HP or 240VAC 1.5HP 15 Amps, 120VAC 0.5HP or 240VAC 2.0HP
Float Housing:	Polypropylene
Housing Size:	2.6" (diameter) x 4.8" (length)
Cable Type:	SJOOW (UL/CSA), 16 or 14 gauge, 2-conductor, flexible, and water/oil resistant
Connection Types:	Piggyback Plug (120VAC or 240VAC)
Operating Temp:	0 - 140° F
Switching Differential:	90° (wide angle)
Switch Configuration:	Single Pole, Single Throw (pump up, or pump down)
Certifications:	CSA (US and Canada)

NOTE: The pump switch must be used with pumps that provide integral thermal overload protection.

Pump Switch - Features



1	**Polypropylene Housing** - Designed for temperatures up to 140° F
2	**Cable Type** - SJOOW (UL/CSA), 16 or 14 gauge, 2-conductor, flexible, and water/oil resistant 120VAC piggyback plug, and 240VAC piggyback plug, 13 or 15 Amp models
3	**Internal Wiring** - Solder dipped wiring with epoxy filled chamber, water protection (solder dipped wiring on bare lead models only)
4	**Ball** - Located inside the float housing and used to actuate the microswitch
5	**Microswitch** - Activated by the ball inside housing causing contacts to open or close
6	**Actuator Arm** - Turns the microswitch on/off as the float tilts above/below horizontal
7	**Switching Differential** - Total degrees of activation (90° wide)
8	**Innovative Mechanical Design** - Eliminates hazardous mercury, environmentally safe
9	**Omni-Directional (not shown)** - Not sensitive to either rotation or turbulence