



## Description of Operation

The DoubleMax™ pump switch provides maximum accuracy when pumping water or sewage. The DoubleMax includes two mechanical floats that are combined with a relay. On liquid rise, when both floats are up, the relay will activate and pump down to the lower float (reverse order for pump up applications).

## Features

2" - 60" Pumping Range

15 Full Load Amps

Operating Temperature 0-140 F

Flexible SJOOW (UL, CSA), water resistant, rubber (CPE) cable

High Impact PVC Housing

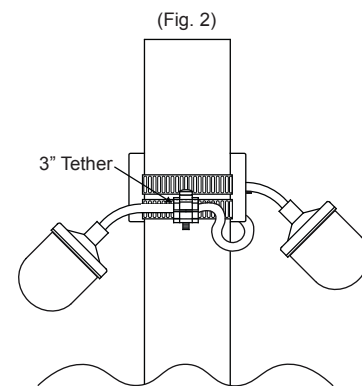
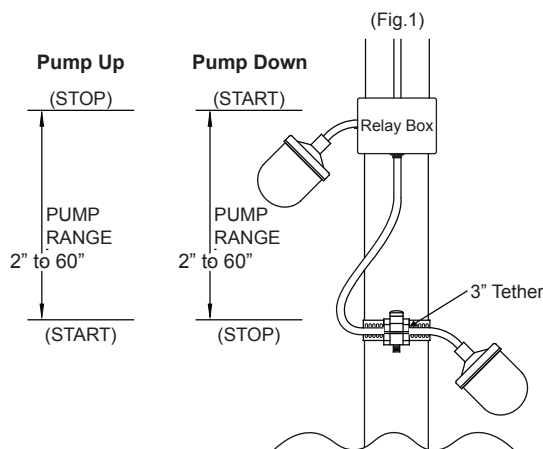
Float Housing 3.25" D x 4.55" L

## Installation

1. Determine the pumping range (Fig. 1 and Fig. 2).
2. Tighten the Relay Box on the discharge pipe at desired location, see Figure 1 for levels.
3. Tether the bottom float at 3", tighten the clamp on the discharge pipe.
4. Secure excess cable from float operation.
5. Plug the piggy back into the receptacle, then plug the pump into the back of the piggy back. For models with bare leads, see Figures 3, 4 and 5 for wiring diagrams.
6. Cycle system to ensure proper operation.

### Pump Down Model - Pump Activates on Upper Float

### Pump Up Model - Pump Activates on Lower Float



Note: To achieve minimum pump range the bottom float must be mounted as high as possible and clamped on the back side of pipe (Fig. 2) rather than "front side" as shown (Fig. 1).

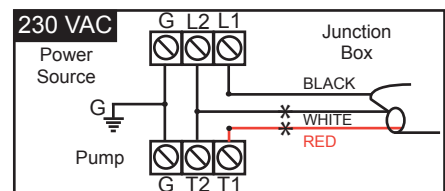
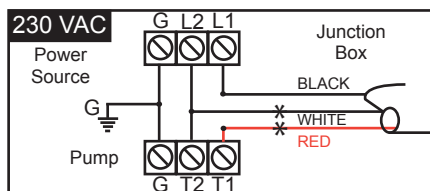
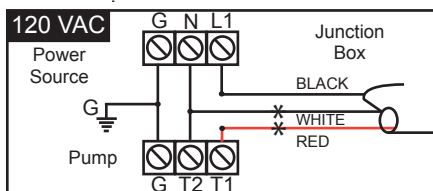
Note: To achieve minimum pump range the bottom float must be mounted as high as possible and clamped on the back side of pipe as shown above (Fig. 2).

### NOTE: Wire according to the diagram (Fig. 3, 4, 5)

(Fig. 3) - Hard Wire Installation with Bare Leads or Piggy Back Plug Removed

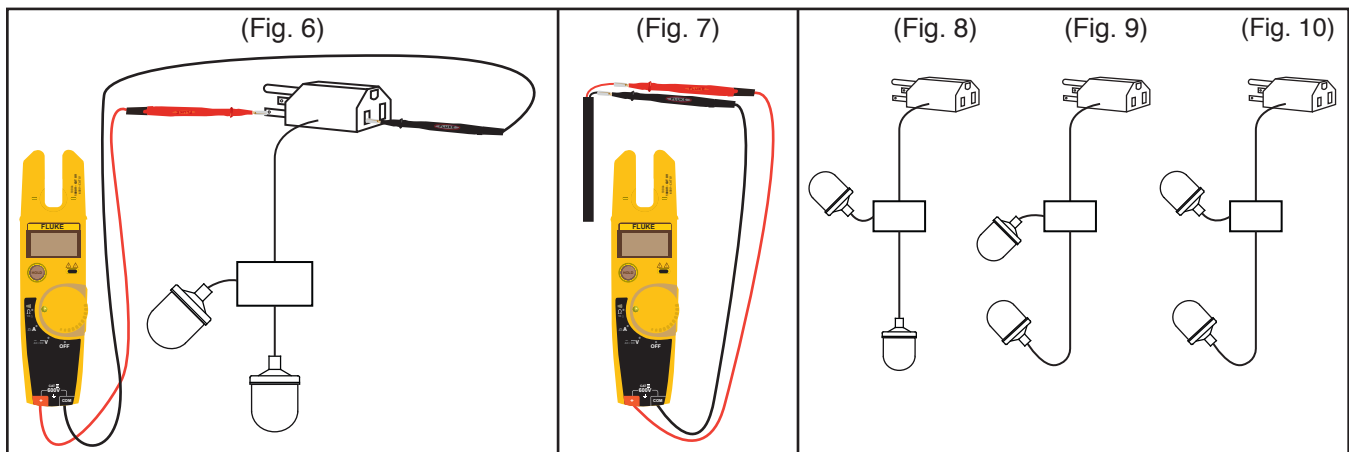
(Fig. 4) - Bare Leads by Removing Piggy Back Plug (DoubleMax must be 230 VAC model)

(Fig. 5) - Factory Ordered with Bare Leads



## Testing the DoubleMax with No Power

- Using an ohm meter and set to read at least 10,000 ohms, place one probe on the male blade that is closest to the cord entry. Place the other probe into the female entry that is closest to the cord entry (Fig. 6). For “bare lead models” place one probe on the black wire and the other probe on the red wire (Fig. 7). Do not place the probes on any other blades/wires for purposes of checking the float as the readings will have no determination if the switch is functional.
- For Pump Down models, start with both floats up - ohm meter should read 2,000 - 3,000 ohms (120V) or 8,000 - 9,000 ohms (230V) (Fig. 10).
  - Lower top float down (Fig. 9) - ohm reading should read out of range. Raise the top float - ohm meter should read 2,000 - 3,000 ohms (120V) or 8,000 - 9,000 ohms (230V) (both floats up).
  - Lower the bottom float down (Fig. 8) - ohm reading should read out of range. Raise the bottom float - ohm meter should read 2,000 - 3,000 ohms (120V) or 8,000 - 9,000 ohms (230V) (both floats up).
- For Pump Up models, start with both floats down - ohm meter should read 2,000 - 3,000 ohms (120V) or 8,000 - 9,000 ohms (230V) (Fig. 6).
  - Raise the bottom float up (Fig. 9) - ohm reading should read out of range. Lower the bottom float down - ohm meter should read 2,000 - 3,000 ohms (120V) or 8,000 - 9,000 ohms (230V) (both floats down).
  - Raise the top float up (Fig. 8) - ohm reading should read out of range. Lower the top float down - ohm meter should read 2,000 - 3,000 ohms (120V) or 8,000 - 9,000 ohms (230V) (both floats down).



## Testing the DoubleMax with Power

- To test the DoubleMax with power: Pump Down models, start with both floats down. Plug the piggy back into the receptacle and plug the pump into the piggy back receptacle. Raise the bottom float up - the pump should not start. With the bottom float up, raise the top float - the pump should start. While the pump is on, keep the bottom float up but lower the top float - the pump should remain on. Lower the bottom float so both floats are down - the pump should stop.
- For Pump Up models, start with both floats up. Plug the piggy back into the receptacle and plug the pump into the piggy back receptacle. With the bottom float up, lower the top float - the pump should be off. Next, lower the bottom float so both floats are down - the pump should start. While the pump is running, raise the bottom float - the pump should remain on. Next, raise the top float so both floats are up - the pump should stop.
- To test the pump without the switch, remove the piggy back from the receptacle and plug pump directly into the receptacle the pump should run.