

Water Smart® SCS Switch (Model #WSS12 or WSS24) Installation and Operator's Manual

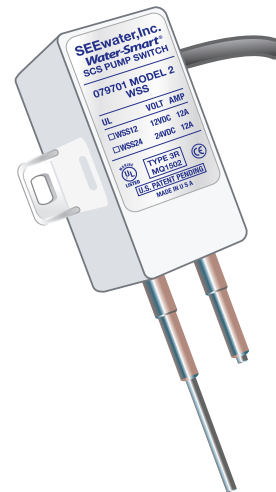
Water Smart® Switch:

The Water Smart® SCS Bilge Pump Switch is designed for use as an electronic bilge pump switch in boats. An upgrade from the original "Water Smart Switch", the SCS now features microprocessor memory for constant self-calibration to adapt to any environment for reliability. Installation of the Water Smart Switch allows you to comply with State and Federal regulations while reducing the risk of adverse publicity, fines and expensive cleanup costs from a large Oil Spill.

Model	Description	Volts	Amps
WSS12	Water Smart SCS Bilge Pump Switch	12VDC	12A
WSS24	Water Smart SCS Bilge Pump Switch	24VDC	12A

Features:

- No Moving Parts. Patent Pending Electronic Water Smart® Pump Switch
- Outlasts any other bilge pump switch through Self Calibrating Sensor (SCS) technology.
- After each cycle, the switch recalibrates to its original settings compensating for any environmental changes.
- Environmentally Responsive: Prevents major oil spills. Oil will not activate the switch
- Small enough switch to not overcrowd the bilge and can be placed at any predetermined level.
- Incorporates a pump on level sense point, an eight (8-10) second time delay allowing for maximum water elimination as well as the elimination of pump cycling for prolonged pump life. Includes backup sensor with its own pump down time-delay for ultimate "pump on" protection
- Solid state circuitry - no moving parts
- Defined trip point-Oil/fuel spills will not activate pump
- Performance is not hampered by accumulated oil and grease
- Extended sensors allow the switch to be mounted high above the contaminated water
- UL 508 Marine Listed "Electrical Industrial Control Equipment" and NFPA 302
- UL Listed in accordance with ISO 8846-Protection against ignition of surrounding flammable gases



Water Smart Bilge Installation:

- I. Disconnect voltage source, route and secure all wires as high as possible above the water level.
- II. **Mount switch in the vertical only, do not mount horizontally on bottom of bilge.** Complete Mounting Hardware included.
- III. Be sure the bottom of switch sensor (turn on level) is aligned high enough above the pump impeller (1 to 4 inches) for proper turn off and turn on.
- IV. For maximum efficiency of the eight (8-10) second delay the switch should be placed high enough that when the switch detects water, the switch turns on and runs for 8-10 seconds after it no longer detects water. At this time the water would be eliminated at the same time the pump turns off.
- V. If the switch is installed too low, the proper dead span (amount of distance between on and off) will not be achieved, the pump will continue to run pumping any oil/fuel that might be floating on the surface of water.

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Fail-Safe Technology since 1995.



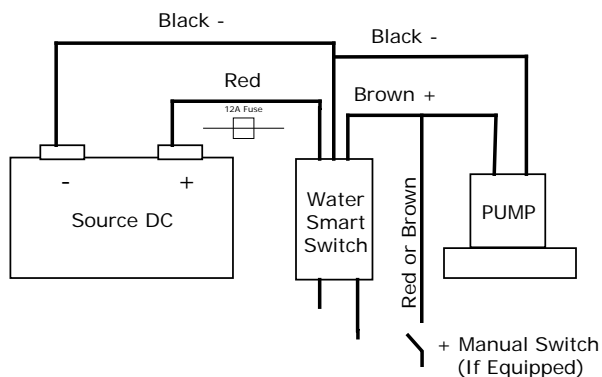
SEEwater, Inc.
"OIL SMART" Water Pump Switches

Water Smart® SCS Switch (Model #WSS12 or WSS24)

Water Smart Switch Wiring:

- I. Connect the switch positive (+) red wire to the (+) source with a **12 Amp maximum fuse within 2' of switch location, failure to install fuse protection will void warranty and may damage the boat.**
- II. Connect the switch and the negative (-) black wire to the (-) negative source.
- III. Connect the positive (+) brown wire from switch to the positive (+) wire of pump and pump manual wire if equipped, reconnect voltage source.
- IV. The switches shall be installed where the water intrusion will not directly contact or splash the white plastic case.
- V. Mud or other conductive materials left on the body of the switches will hamper its operation; take effort to clean the switch prior to initial installation.
- VI. Mount with enclosed screws.
Note: Keep sensors at least 2" clear of any metallic material.

Wiring Diagram:



Testing:

- Place finger on stainless steel sensor of long sensor and the pump will turn on. Remove finger from sensor and the pump will remain on for an additional 8-10 seconds. To test the backup sensor, touch finger to short sensor and the pump will turn on for 8-10 seconds after finger is removed.

*Note:

- Sensor can be shortened to accommodate any size bilge using small bolt cutters careful not to twist sensor, may damage electrical connection.

Troubleshooting:

Problem	Possible Cause and Solution
<i>No Water Pumped. Pump Does Not Run</i>	Make sure wire connections are not corroded. Visual check is not enough -- a slight pull of each wire will tell if the wires are still joined. Ensure wires are not in the water
<i>Blown Fuse</i>	Check fuse to see that it is the correct size recommended by manufacturer. DO NOT exceed amp rating. If fuse size is correct and fuse still blows, check impeller to be sure it is not jammed or full of debris.
<i>Pump Control is not operating properly; not consistent or staying on</i>	The switch may be mounted too low for the pump and should be reinstalled higher. Make sure the bottom of the switch sensor is higher than the top of the pump impeller/ intake. Make sure the plastic switch case is clean of soap or soap bi-products. Clean switch case with alcohol or oil based product: cleaning solvent, kerosene, or WD40.

Shower Pan Installation:

- I. Drill 3/8 to 1/2" hole in top of shower pan.
- II. Mount switch above (outside) tank, clear of any soapy water. Extend sensor down into tank approximately 1-1/2". Can be mounted horizontally for side of tank entrance, a 45% will work best.
- III. Keep sensor in center of hole, sensor should not contact tank material or switch will receive false signal. If installed correctly shower pan, problems will be a thing of the past.

