

Merrill MPS4060

Merrill MPS4060 Pressure Switch User Manual

Model: MPS4060-A | Brand: Merrill

PRODUCT OVERVIEW

The Merrill MPS4060 Water Well Pressure Control & Air-Pump Pressure Switch is engineered for reliable operation in water well systems. This lead-free switch is a direct replacement for various electrically driven water well pumps, including jet, submersible, and reciprocating types. It comes pre-set with a 40 PSI cut-in and 60 PSI cut-off pressure, which can be adjusted to suit specific system requirements. Its robust construction includes large silver contacts for enhanced durability and a longer service life.

Key features include:

- Standard water well pump replacement switch designed for use with electrically driven water well pumps of all types (Jets, Submersible, Reciprocating etc).
- Cut-In Pressure 40 PSI - Cut-Off Pressure 60 PSI - Adjustable.
- Large silver contacts for longer service life.
- Horsepower Rating (1-Phase) 2HP-115VAC.
- 1/4" Female NPT - Individually Boxed - OEM Replacement Part.



Figure 1: Front view of the Merrill MPS4060 Pressure Switch.

SAFETY INFORMATION

WARNING: Electrical shock hazard. Always disconnect power before installing, servicing, or removing this device. Installation should be performed by a qualified professional in accordance with all local and national electrical codes.

- Ensure the power supply matches the voltage requirements of the switch (115V or 240V AC).
- Do not operate the switch if it is damaged or shows signs of wear.
- Keep the switch enclosure dry and free from debris.
- Verify all connections are secure and properly insulated.

PACKAGE CONTENTS

Your Merrill MPS4060 Pressure Switch package typically includes:

- 1 x Merrill MPS4060 Pressure Switch (with cover)

Please inspect the package upon receipt to ensure all components are present and undamaged.

SETUP & INSTALLATION

The Merrill MPS4060 Pressure Switch is designed for straightforward installation as an OEM replacement part. It features a 1/4" Female NPT connection for easy integration into your water well system.

1. **Disconnect Power:** Before beginning any installation, ensure that all electrical power to the pump system is completely disconnected at the circuit breaker or fuse box.
2. **Remove Old Switch:** Carefully disconnect the wiring from the old pressure switch and unscrew it from the water line. Be prepared for residual water in the pipes.
3. **Apply Thread Sealant:** Apply appropriate thread sealant (e.g., PTFE tape or pipe dope) to the male threads of the pipe where the new switch will be installed.
4. **Install New Switch:** Screw the Merrill MPS4060 Pressure Switch onto the 1/4" Male NPT fitting on your water system. Tighten securely but do not overtighten.
5. **Wire the Switch:** Remove the top cover of the switch by unscrewing the captive nut. Inside, you will find four brass terminals for electrical connections. Connect the electrical wiring according to the diagram provided on the inside of the switch cover and your system's requirements. Ensure all connections are tight and secure. The switch is compatible with up to 240 volts.
6. **Replace Cover:** Once wiring is complete, replace the top cover and secure it with the captive nut.
7. **Restore Power & Test:** Carefully restore power to the pump system and observe the pressure switch operation. Check for any leaks or abnormal behavior.



Figure 2: Internal view of the pressure switch, showing the brass terminals for wiring.

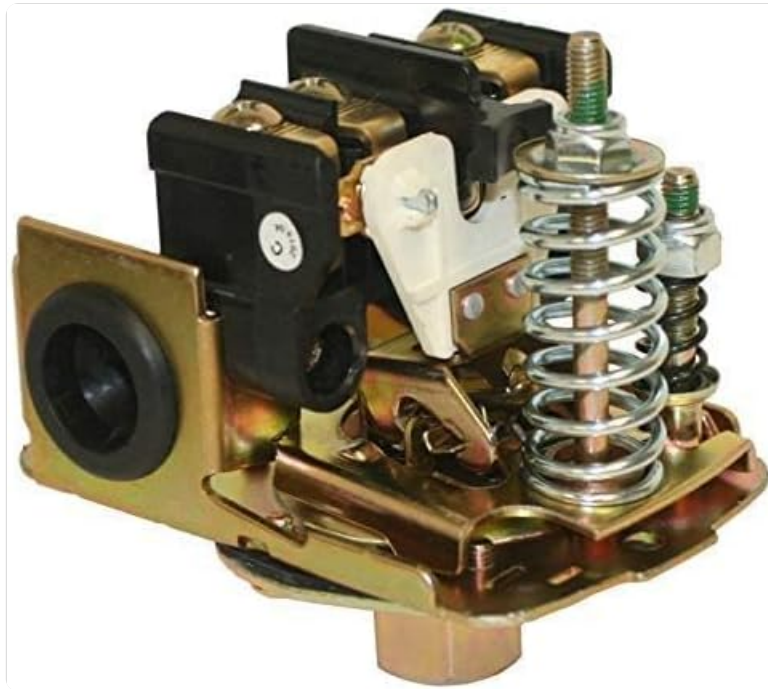


Figure 3: Another perspective of the internal components, highlighting the robust thermoplastic bracket.

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Video 1: Official Merrill Manufacturing video demonstrating the features and benefits of the MPS4060 Pressure Switch, including internal components and connection types.

OPERATING INSTRUCTIONS

The Merrill MPS4060 is pre-set to turn on your pump at 40 PSI and turn off at 60 PSI. The pressure settings are adjustable to fine-tune the operation for your specific well system.

Adjusting Pressure Settings:

Detailed adjustment instructions, including diagrams for the range adjustment screw and differential adjustment screw, are located on the inside of the switch cover. Always refer to these instructions for precise adjustments.

- The **Range Adjustment Screw** typically adjusts both the cut-in and cut-off pressures simultaneously.
- The **Differential Adjustment Screw** adjusts the difference between the cut-in and cut-off pressures.

Caution: Always check system operation after each adjustment to ensure proper functionality and to prevent damage to your pump or system.

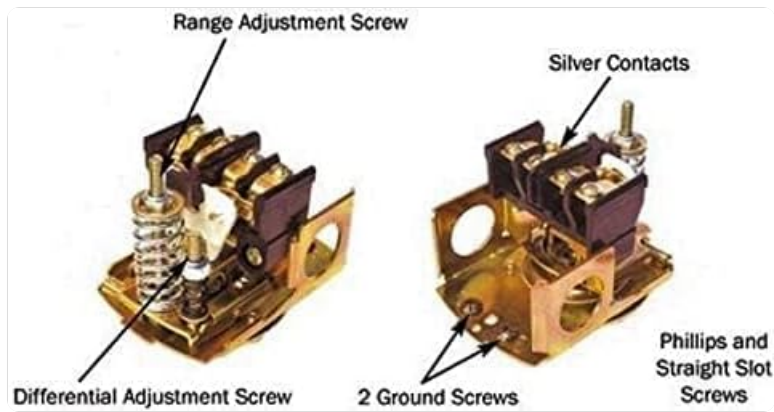


Figure 4: Labeled internal view indicating the Range Adjustment Screw and Differential Adjustment Screw.

MAINTENANCE

Regular maintenance can extend the life of your pressure switch and ensure consistent water pressure.

- **Inspect Annually:** Annually inspect the switch for any signs of corrosion, loose wiring, or physical damage.
- **Clean Contacts:** If the pump is cycling erratically or not engaging, the silver contacts inside the switch may be dirty or burnt. Disconnect power and carefully inspect the contacts. Clean them if necessary, or replace the switch if they are severely damaged.
- **Check for Leaks:** Periodically check the connection point for any water leaks, which can affect switch performance.

TROUBLESHOOTING

Here are some common issues and potential solutions for your pressure switch:

Problem	Possible Cause	Solution
Pump not turning on/off at correct pressures	Incorrect pressure settings, worn contacts, clogged pressure sensing port.	Adjust pressure settings (refer to Operating Instructions). Disconnect power and inspect/clean contacts or replace switch. Check for clogs in the pressure sensing port.
Pump cycles too frequently (short cycling)	Low air charge in pressure tank, waterlogged tank, small leak in system, worn switch contacts.	Check and recharge air in pressure tank. Inspect plumbing for leaks. Disconnect power and inspect/clean contacts or replace switch.

Problem	Possible Cause	Solution
No water pressure / Pump not running	No power to pump, faulty pressure switch, pump motor issue, low well water level.	Check circuit breaker. Disconnect power and test switch continuity. Consult a professional for pump motor or well issues.
Water pressure too high or too low	Pressure switch misadjusted or faulty.	Adjust pressure settings. If adjustment does not resolve the issue, the switch may need replacement.

If you are unable to resolve an issue after following these steps, it is recommended to consult a qualified plumber or electrician.

SPECIFICATIONS

Attribute	Value
Brand	Merrill
Model Number	MPS4060-A
Pressure Setting	40-60 PSI (Adjustable)
Connection Type	1/4" Female NPT
Voltage	115 Volts (AC), 240 Volts (AC) compatible
Horsepower Rating (1-Phase)	2HP-115VAC
Material	Stainless Steel, Cast Iron
Item Weight	0.9 Pounds (approx. 14.4 ounces)
UPC	642367450175

WARRANTY & SUPPORT

For warranty information and technical support, please refer to the official Merrill Manufacturing website or contact their customer service directly. Keep your purchase receipt as proof of purchase.

Merrill Manufacturing Company

Website: www.merrillmfg.com (Example link, please verify actual website)

