



Troubleshooting: Flow Switch

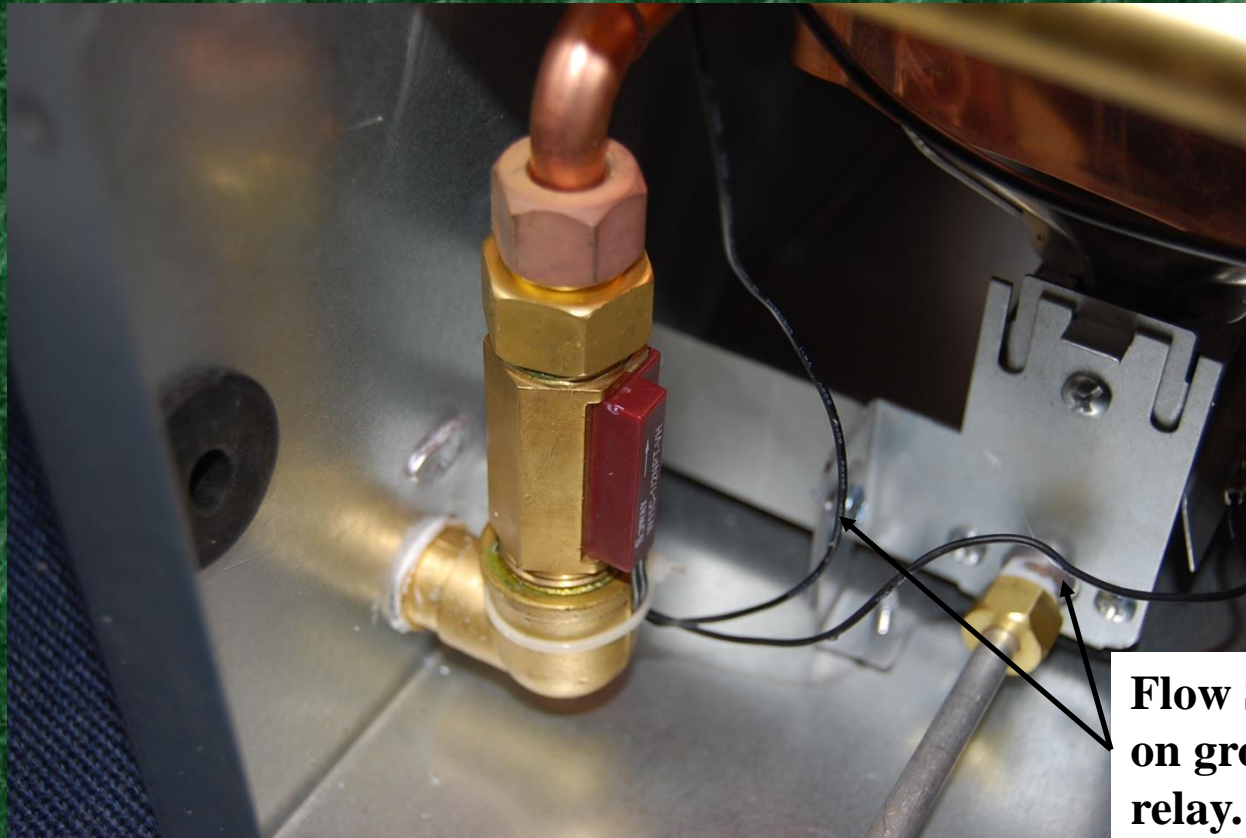
Quick Test

- Turn the Hot Water Faucet 'On'.
- Check Voltage at the ECO. If there is power at the ECO then...

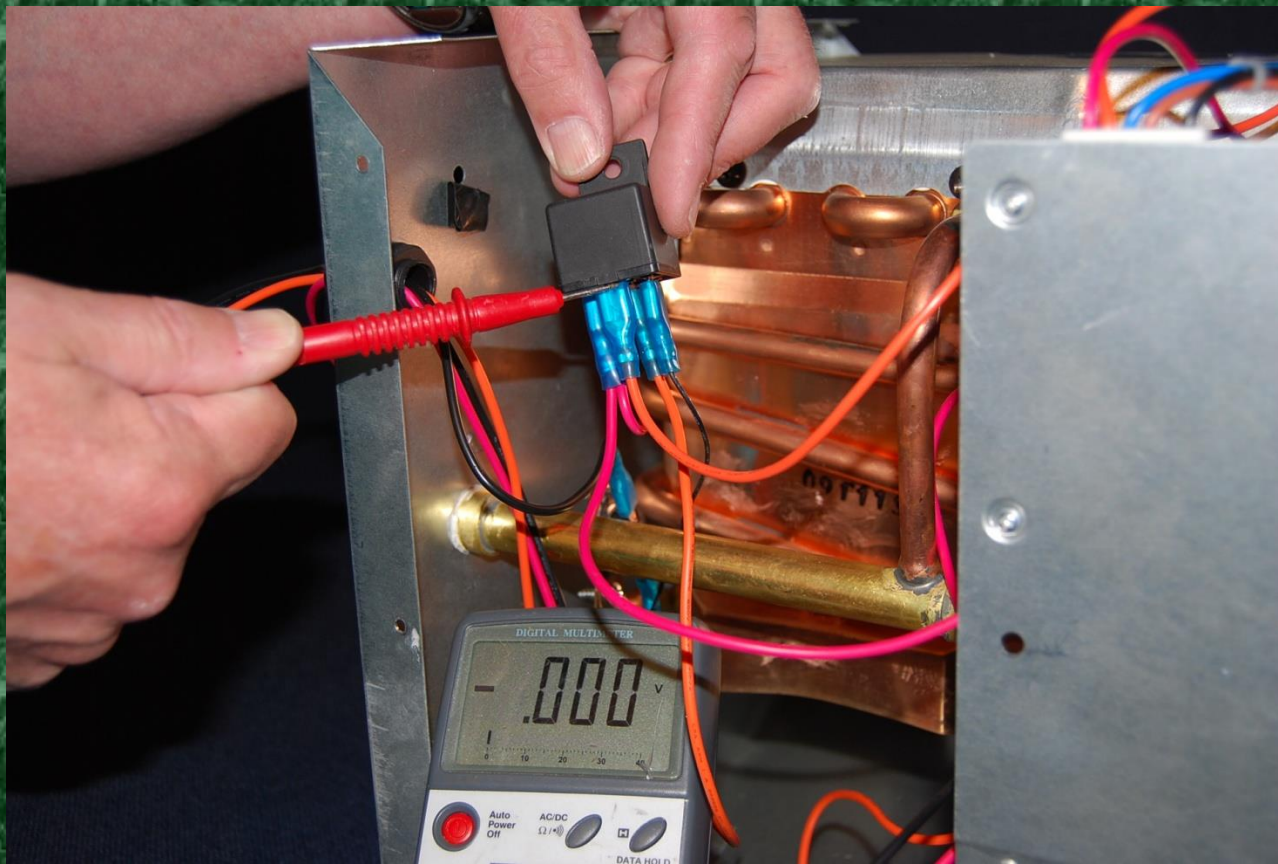
Conclusion

- The 'On/Off Switch' is Working Properly
- The 'Relay' is working Properly
- The 'Flow Switch' is working Properly

Flow Switch

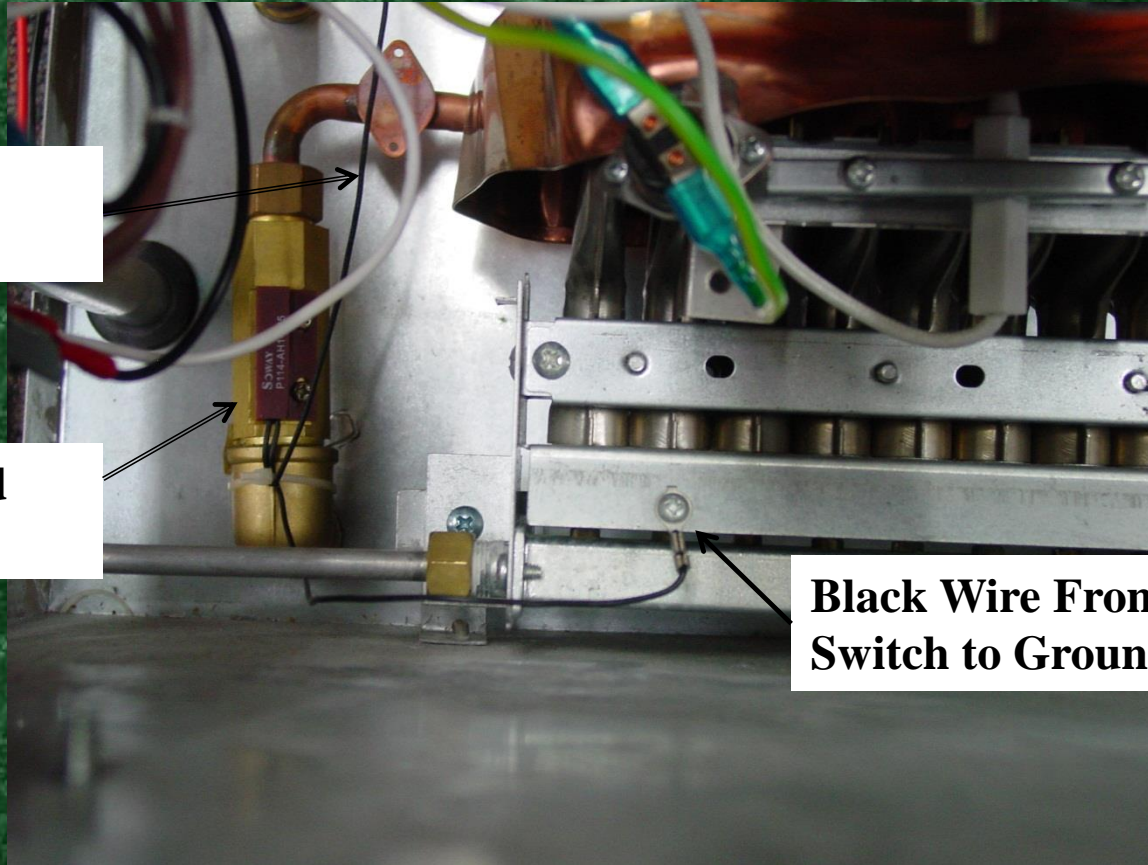


No Action Until Hot Water Faucet is 'Opened', then Black Wire De-Energizes and Closes the Relay



- **No Power at Orange Wire until Hot Water Faucet is Opened**
- **Once Water Begins Flowing through Heater, Relay Closes sending Power to ECO , One Connection of Circuit Board and One Side of the Sail Switch from the ECO**

Flow Switch Testing

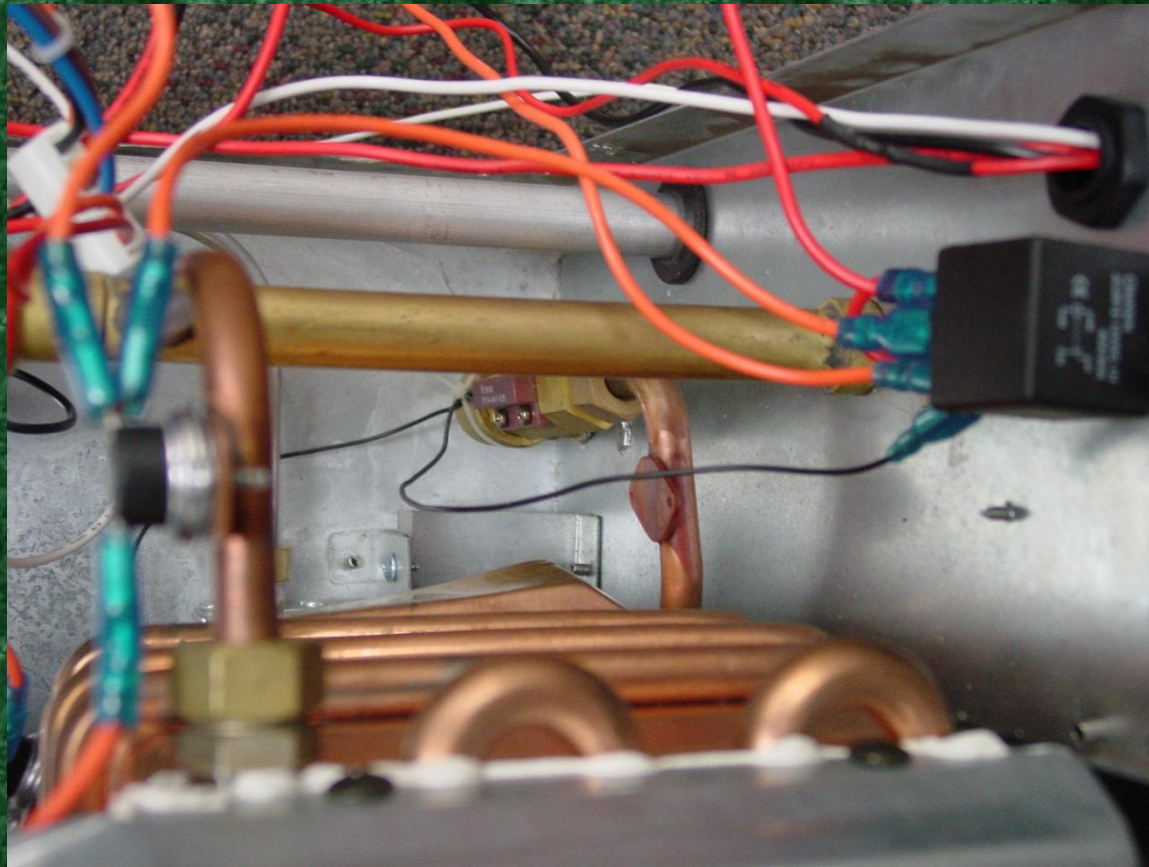


**Wire to Relay
Ground**

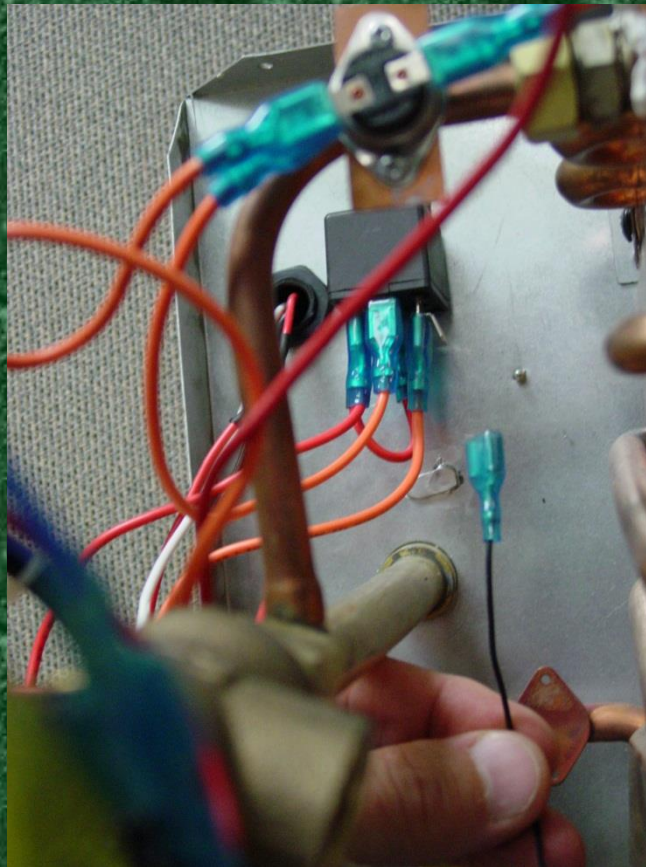
**Flow Switch And
Elbow**

**Black Wire From Flow
Switch to Ground**

Flow Switch and Relay From Above With Case Removed

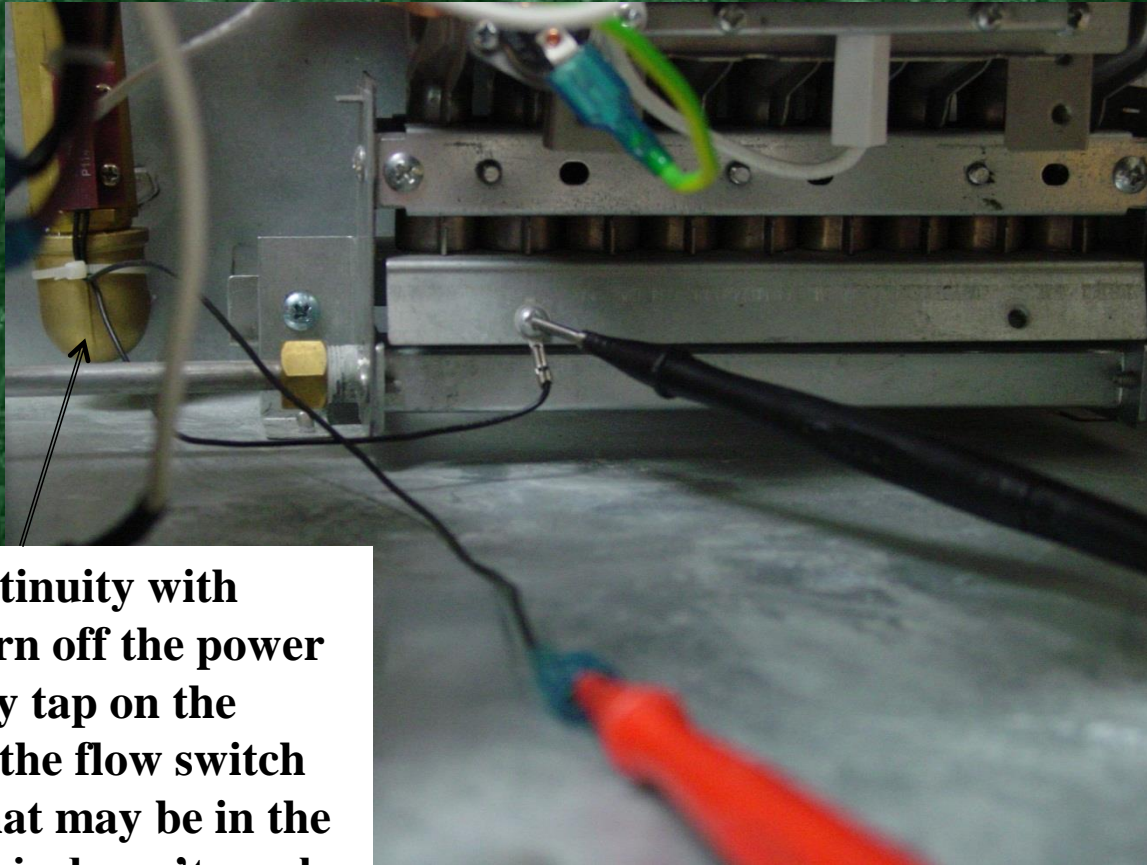


Remove Black Wire From Relay



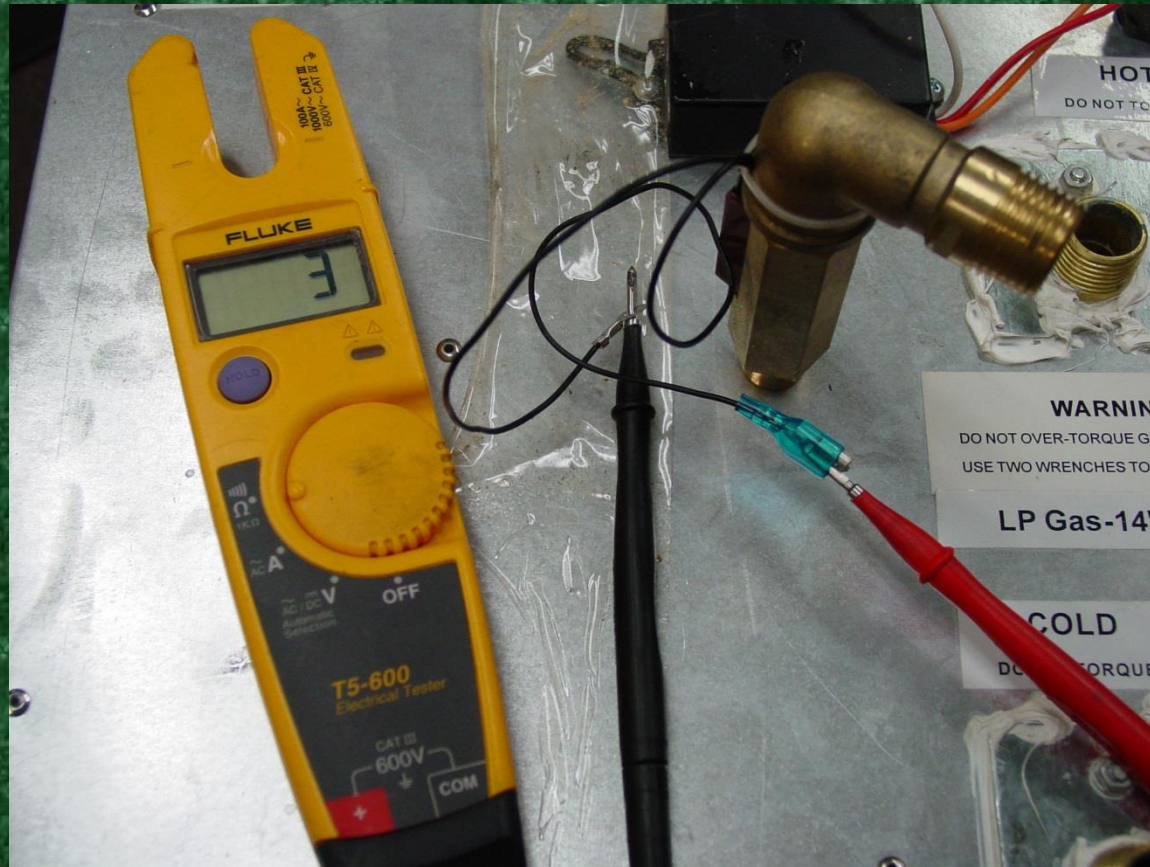
Resistance – Ohms Test.

Continuity with water on.
No Continuity with water off



If there is no continuity with water on then turn off the power switch and lightly tap on the bottom elbow of the flow switch to clear debris that may be in the flow switch. If this doesn't work then replace flow switch assembly.

Continuity



No Continuity.

The flow switch is replaced with the bottom elbow



Removal and Replacement

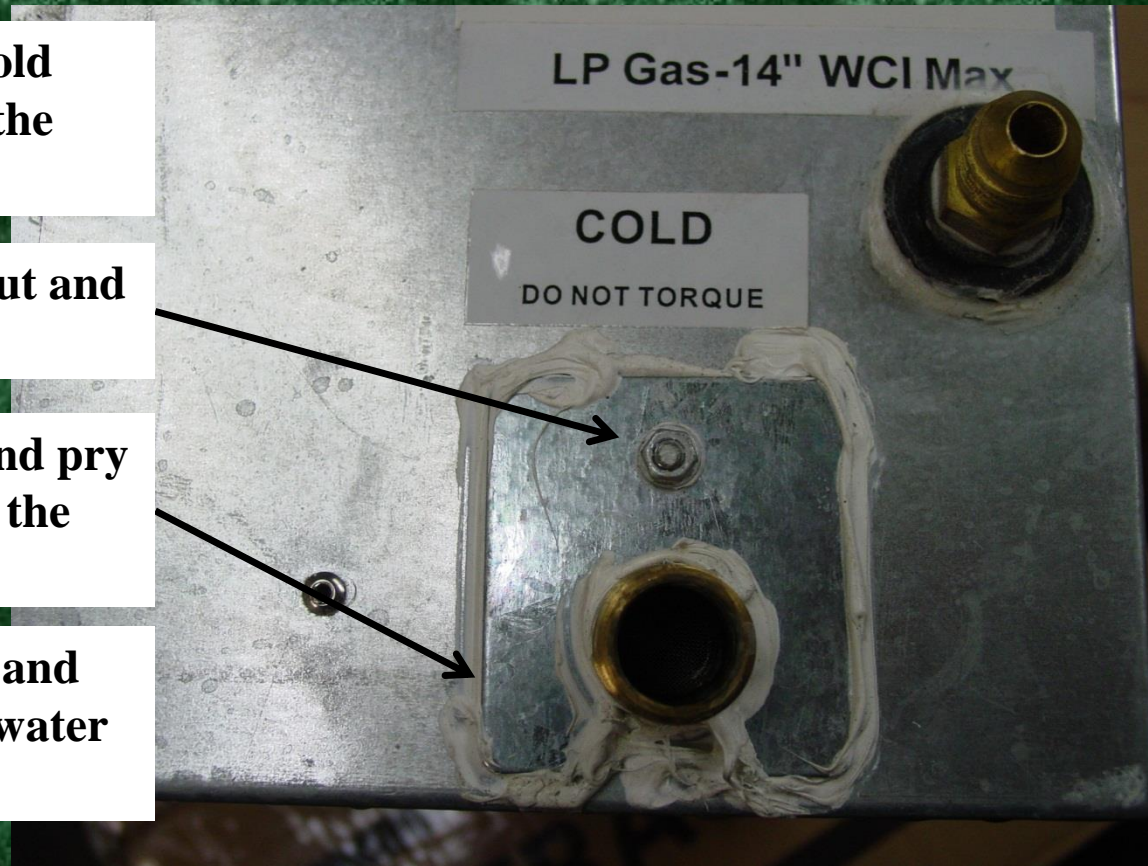
Remove cold water fitting plate

1) Remove the cold water line from the water heater.

2) Remove the nut and washers.

3) Cut silicone and pry plate away from the case.

4) Pull Plate up and away from cold water connection.

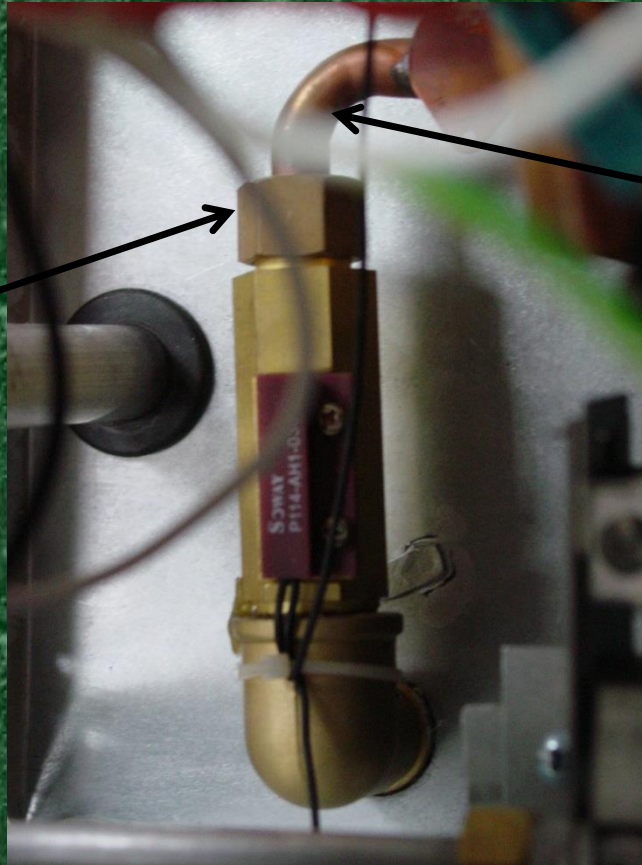


Removal of Flow Switch

1) Remove black wires from the ground and the relay.

2) Loosen compression fitting

3) Pull Flow Switch and Elbow down and away from the compression fitting.



WARNING:

Do not pull up of the copper pipe. This could cause the pipe to kink restricting water flow.