

Power Direct Vent Water Heater Ignition Problem

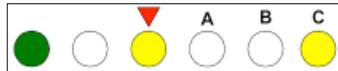
Problem: Ignition problem.

Models affected: All power direct vent models depending upon installation conditions.

Cause: Sudden boost in pressure at ignition that can trigger the inlet vacuum switch.

How to identify the problem:

- The water heater will not start or have a hard time starting.
- At start-up (when the burner ignites), you can hear the gas control solenoid clicking “ON” and “OFF” and the burner flame fluctuates. In most cases, this comes along with vibrations and noise.
- In some cases, the gas control may fall into Error Code 6:
The maximum number of ignition retries or recycles has been reached and the system is in lock-out mode.



Remedy: Replace the exhaust vacuum switch with a two-port vacuum switch set at:

-0.70” wc (1.8 cm) for models:
(Giant part # 60000008-A)
(ID on switch #6107 4261)

UG50-54LFPDV-N1U
UG50-59LFPDV-N1U
UG50-60LFPDV-N1U
UG50-65LFPDV-N1U

-0.90” wc (2.3 cm) for models:
(Giant part # 60000009-A)
(ID on switch #6107 4260)

UG50-41TFPDV-N2U
UG50-41TFPDV-P2U
UG60-41MFPDV-N1U
UG60-41MFPDV-P1U

Step-by-Step procedure:

Parts you will need in order to correct the problem:

- 1 x Dual port vacuum switch (Make sure to have the right switch for your water heater model number)
- 1 x Static tap (Giant part # 56001125-A)
- 1 x 14 ¼" (36.2 cm) long piece of square tubing

Tools you will need:

- No. 2 - Philips screw driver
- Measuring tape
- Electric drill with a 5/32" (0.40 cm) drill bit
- ¼" (0.63 cm) open wrench
- Knife or file

1. Turn "OFF" electrical power to the water heater by unplugging it from the wall receptacle.

2. Drill a 5/32" (0.40 cm) hole in the air inlet Tee at the back of the blower. The hole should be at 2 ¼" (5.7 cm) from the bottom of the Tee.



3. Screw the static tap (Giant part # 56001125-A) in the hole.



4. Open the blower electric box cover by removing the three (3) Philips screws.



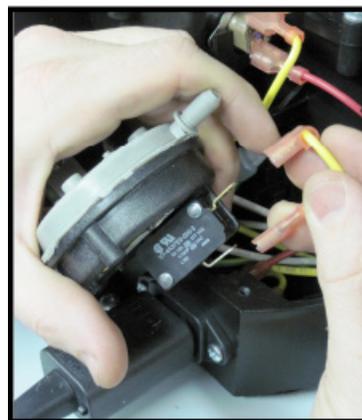
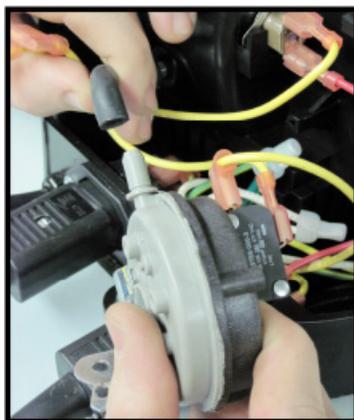
5. Disconnect the square tubing and wire connectors from the air intake vacuum switch (mounted on the blower electric box cover).



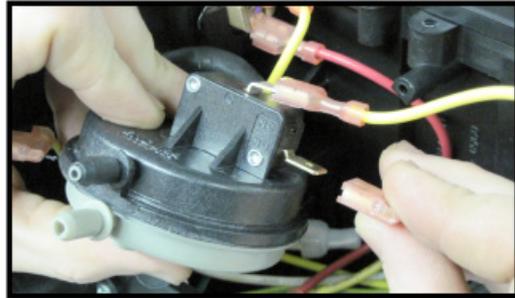
6. Cut a square opening in the electric box cover using a knife or a file.



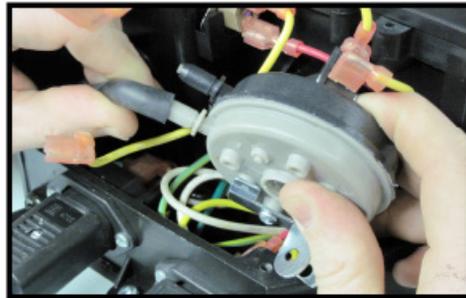
7. Remove the exhaust vacuum switch from the blower electric box.
8. Disconnect the round tubing and wire connectors from the exhaust vacuum switch.



9. Re-connect the wire connectors from Step 8 to the replacement dual port vacuum switch.



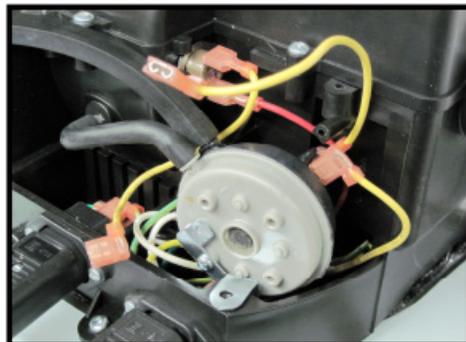
10. Re-connect the round tubing from Step 8 on the grey port of the dual port vacuum switch.



11. Connect the 14 1/4" (36.2 cm) long square tubing to the black port of the dual port vacuum switch.



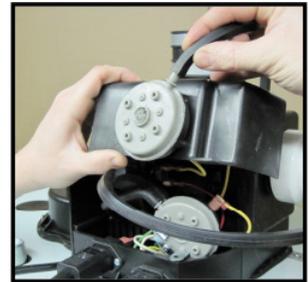
12. Install the dual port vacuum switch in the blower electric box.



13. Connect the free end of the 14 ¼" (36.2 cm) long square tubing to the static tap installed on the air inlet Tee.



14. Re-connect the wire connectors and the square tubing from Step 5 to the air intake vacuum switch.



15. Install the electric box cover on the blower. Make sure that the 14 ¼" (36.2 cm) square tubing pass through the electric box cover opening done in Step 6. Secure the cover using the three (3) Philips screws.



16. Turn "ON" electrical power to the water heater by plugging it to the wall receptacle.