



# 30 VDC AWS TROUBLESHOOTING GUIDE

## I'VE TRIED EVERYTHING AND IT STILL DOESN'T WORK!

FOR 30VDC SYSTEMS ONLY

FOR ALL TESTS: TURN GAS SUPPLY OFF

### ITEMS THAT SHOULD HAVE ALREADY BEEN CHECKED:

- 1 GOE-30VDC is plugged into a proper functioning outlet.
- 2 FG-1420-AOD receiver is plugged into a proper functioning outlet.
- 3 Wiring from the power supply to the remote receiver to the valve box (FG-ICB) is correct.
- 4 If additional wiring added, 12-gauge wire used within tolerable distances (Preferably with Die Electric Greased Wire nuts).
- 5 Remote transmitter "LEARNED" to the remote receiver.
- 6 Valve installed correctly (Not upside down).
- 7 Ensure that the pilot assembly fittings, igniter plug and thermopile plug are secured and locked in place correctly.

REMOTE RECEIVER



POWER SUPPLY



IGNITER



VALVE BOX



If you have tried all of these, then you may have a faulty one of the following:



#### TESTING THE REMOTE RECEIVER

- 1 Check transmitter battery by pushing on button. If red light seems faint, replace A23 battery.
- 2 Unplug Power Supply and Remote Receiver.
- 3 Disconnect the remote receiver out of "the loop" and directly connect the power supply to the valve box. Red to Red and Black to Black.
- 4 Plug power supply into outlet and observe.

**If the igniter starts glowing:** The FG-1420-AOD Receiver may be faulty or wire nuts were not securely tightened.

- 4a Reconnect FG-1420-AOD making sure wire nuts are tightly secured and try remote to see if igniter starts glowing.

**If nothing happens:** You may have a faulty Power Supply, Igniter, Thermopile or Valve Box.



#### REASONS FOR A FAULTY VALVE BOX (FG-ICB)

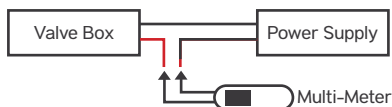
The most common reason is that the 120VAC power was sent directly to the Valve Box. This means that the power supply was bypassed and then damaged the valve. → **THIS IS NOT COVERED BY OUR WARRANTY**

The Power Supply (GOE-30VDC) takes the 120VAC power and converts it to 30VDC to operate the gas valve.



#### TESTING THE POWER SUPPLY

- 1 Unplug Power Supply.
- 2 Disconnect the Red wire from Power Supply to the Valve Box.
- 3 Set your Multi-Meter to the DC side of meter at a setting above 30VDC.
- 4 Connect 1 lead of the Multi-Meter to the Red wire of the Power supply and the other lead to the Red wire of the Valve Box. It should look like this.



**DO NOT ATTEMPT TO IGNITE SYSTEM!**  
This may cause damage to your multi-meter

- 5 Plug in your Power Supply. You should have a reading between 28.5 VDC and 31.5 VDC.  
**If your multi-meter reads between 28.5 VDC and 31.5 VDC:** The power supply is working as intended.

**If your multi-meter reads anything outside of 28.5 VDC and 31.5 VDC:** The Power Supply may be faulty.



#### TESTING THE IGNITER

- 1 Unplug power supply from outlet.
- 2 Unplug Igniter plug from side of Valve Box.
- 3 Set your Multi-Meter to Ohms (No less than 10 OHMS).
- 4 Stick the two leads from your Multi-Meter into the Igniter plug.
- 5 You MUST have a reading of 1.4 to 8.0 OHMS.

**If you have a reading below 1.4 or above 8.0 OHMS:** The Igniter may be faulty.

**If you get a reading from 1.4 to 8.0 OHMS:** The Igniter is good.



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