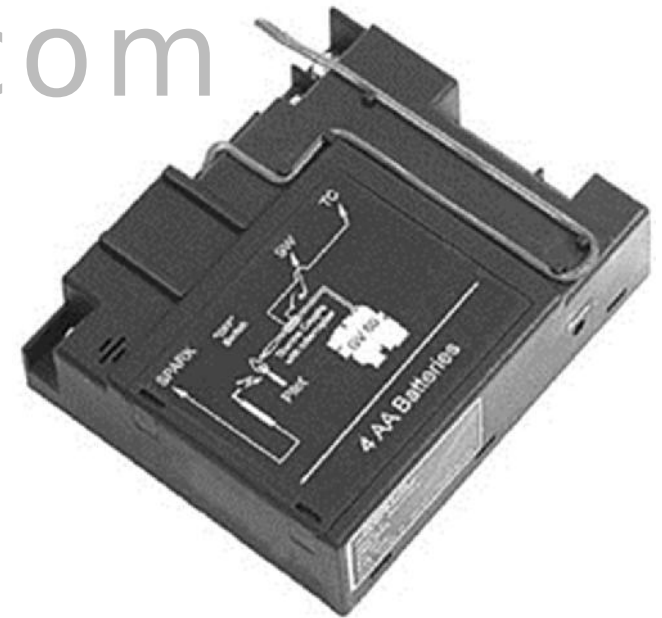


10 Important Technical Tests for Troubleshooting the Maxitrol GV60 System

fire-parts.com



Necessary Tools for Troubleshooting



Multi-Meter



Manometer



Leak Tester

The cost of these tools will be recovered in Time Saved

Confirm the Remote & Receiver Are Communicating

Test #1

Does it Say MAN (Manual) on Screen?

Does the Battery Icon Show Voltage?

Push the Up-Flame – Does the Knob Move?

Push the Down-Flame – Does the Knob Move?



**1 Beep –No Knob
Movement
Motor Failure**

**1 Long Beep
Electrical Problem**

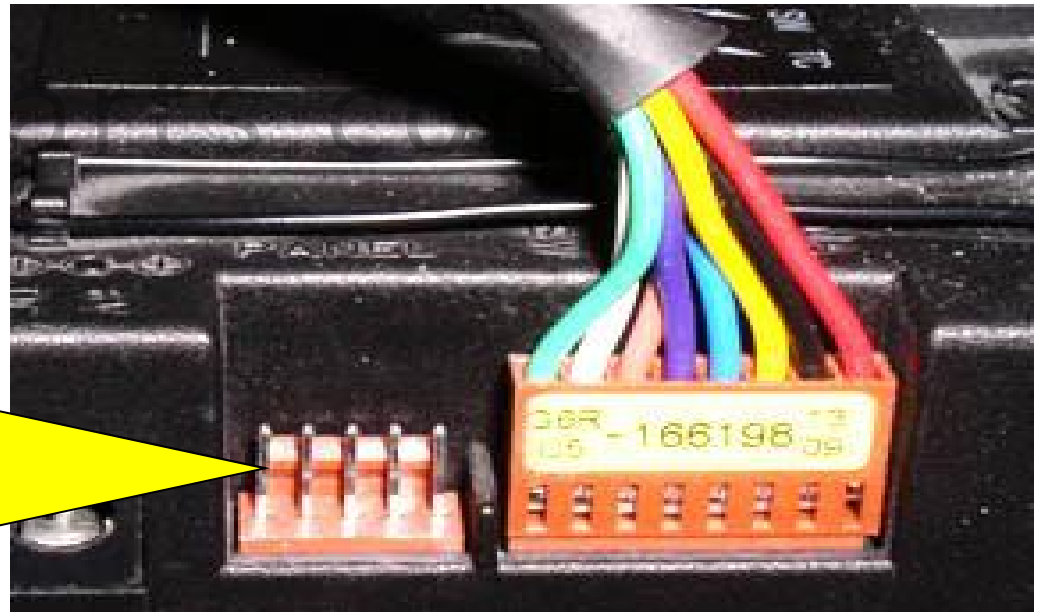
**Rapid Beeps
For 3-Seconds
Low Battery Voltage**

Batteries, Batteries, Batteries!!

Test #2

**Test Battery Box for- p
Proper Voltage
Not Less than 5.8 DCV**

Put Positive Test Probe
on Last Pin.
Put Negative Test Probe
on Ground



Corrosion in the Battery Compartment is the #1 Service Issue

Manual Lighting the Fireplace

Test #3

Do a Manual Light to see if the Fireplace will Light and Gas Supply is Sufficient

Turn Knob to Manual, Insert Small Tool into Large Hole and Depress.
Light Pilot and Hold for 10 sec.
Turn back to On Position for Burner



This Proves that the Thermocouple Circuit is Good

Testing the Thermocouple Circuit

Test #4

Take a MV Reading at the
Red Terminal
Should have 10 – 15 MV

Put Positive Test Probe
on Red Terminal
Put Negative Test Probe
on Ground

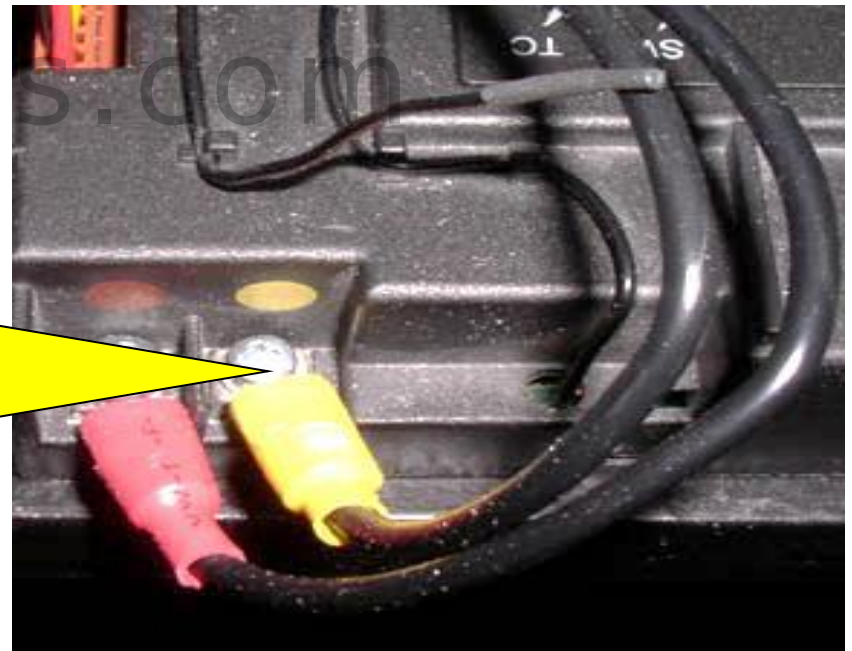


Testing the Startup Voltage

Test #5

**Do you hear the “Clunk”
When the Solenoid engages?
Should read 5+ MV at Yellow
as Batteries Power the Magnet**

Put Positive Test Probe on
Yellow Terminal
Put Negative Test Probe on Ground

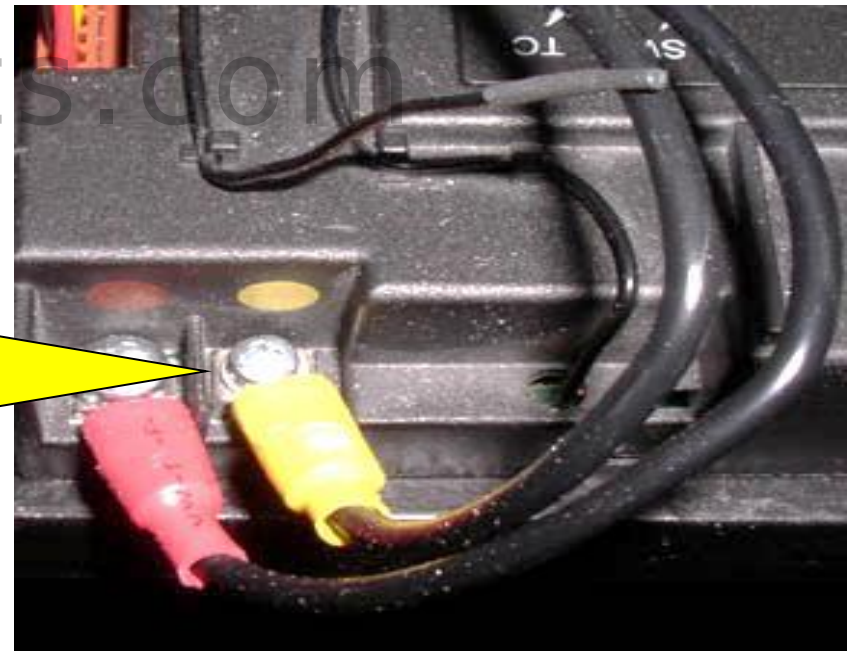


Testing the Voltage Loss in Receiver

Test #6

**Testing the Voltage Difference
Between the Red and Yellow
Terminal – No More Than
2-3 MV Loss.**

Put Positive Test Probe on
Red Terminal
Put Negative Test Probe on
Yellow Terminal



Testing the Gas Valve Dropout Voltage

Test #7A

Test Drop Out: Take a MV Reading at the Red Terminal. Shut Off Gas or Blow Pilot Out Should Dropout at about 2 MV

Put Positive Test Probe on Red Terminal
Put Negative Test Probe on Ground



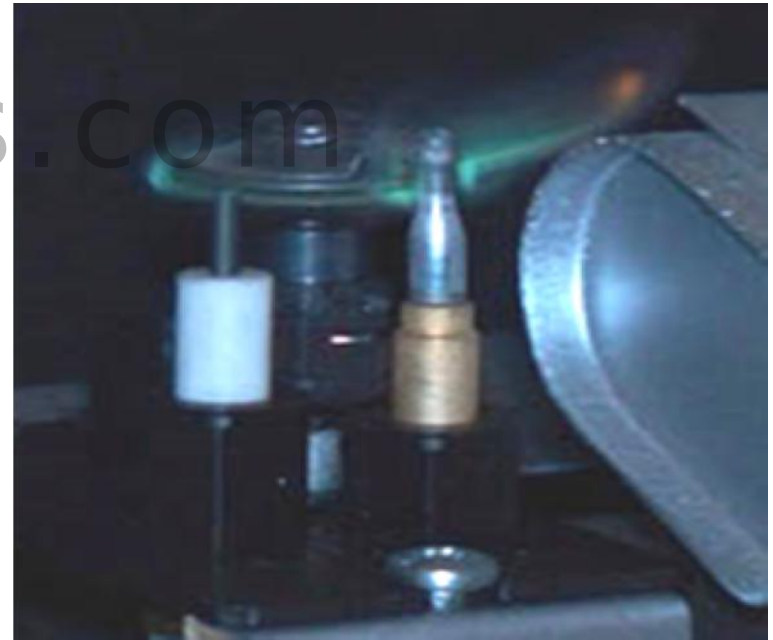
Testing the Gas Valve Dropout Time

Alternate Test for Test #7A – Measuring Dropout Voltage

Test #7B

Shut Off Gas and Measure
How Many Seconds Before You
Hear the Gas Valve Magnet Reset

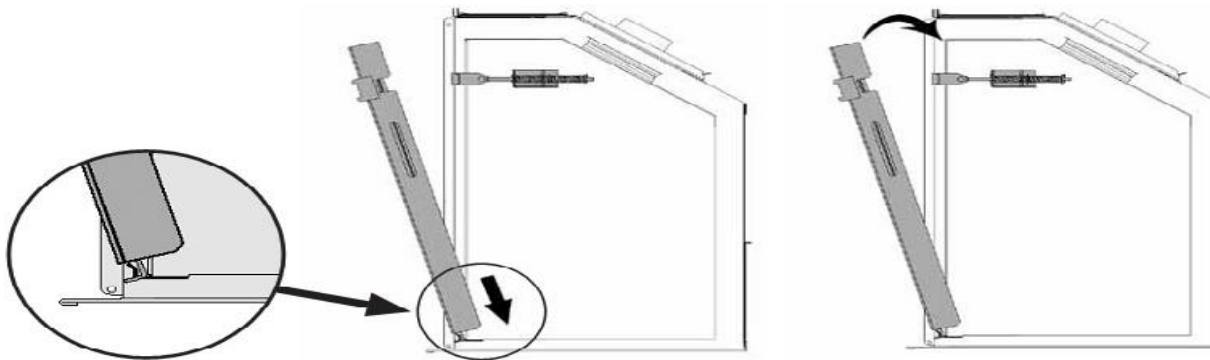
Less than 10 seconds – BAD
More than 20 seconds - GOOD



Direct Vent Window Test

Test #8

Fireplace Burns Right with Window Off
Will Not Burn Properly with Window On



**You Have a
Vent Problem**

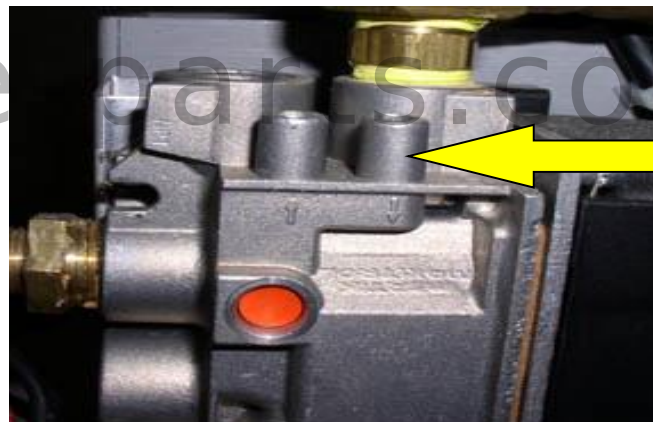
Remember the Air or Exhaust Restrictors are part of the Vent System

Testing Gas Inlet or House Pressure

Test #9



**Always Test Gas
Pressure at Full Flow**



**Inlet or House
Pressure Test Port**

**5 – 7" NG
11 – 14" LP**

**Remember the Pilot is Running on House Pressure
Make Sure You Close the Test Ports and Leak Check**

Testing Gas Manifold or Burner Pressure

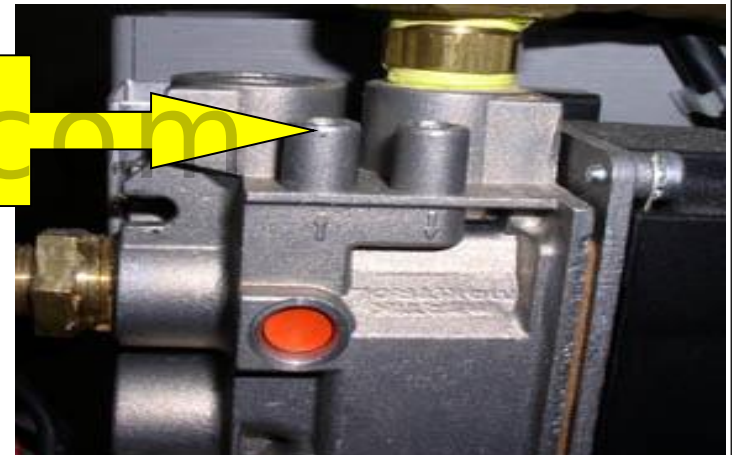
Test #10



**Always Test Gas
Pressure at Full Flow**

**Manifold or Burner
Pressure Test Port**

**3.5 – 4” NG
9.5 – 10” LP**



**Refer to Data Plate for Correct
Manifold Pressure**

GV 60 Startup Sequence

- User Pushes Up Flame and Off Buttons
- Handset Goes to Manual Mode
- Motor Moves Valve to Pilot Only Position
- Motor Ratchets to Prove Micro Switch
- 5 MV is applied to Gas Valve Magnet (Battery Power)
- Solenoid Hits Gas Valve Magnet (Clunk)
- Pilot Gas Starts Flowing
- Igniter Starts Sparking
- Pilot Lights and Proves Flame with Thermocouple
- Relay in Receiver Switches from Batteries to Thermocouple
- Motor Turns Valve to High Flame