



1



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## Necessary Tools for Troubleshooting



**Multi-Meter**



**Manometer**



**Leak Tester**

The cost of these tools will be recovered in Time Saved

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## Technical Troubleshooting Review

### Do You Have a Parts Kit?

**Get the Service Call Finished  
on the First Visit**

**Special Dealer Price \$288.75  
(45% off plus additional \$50 off)**

**Keep it Stocked!**

**Add Some New Alkaline Batteries**



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## 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**

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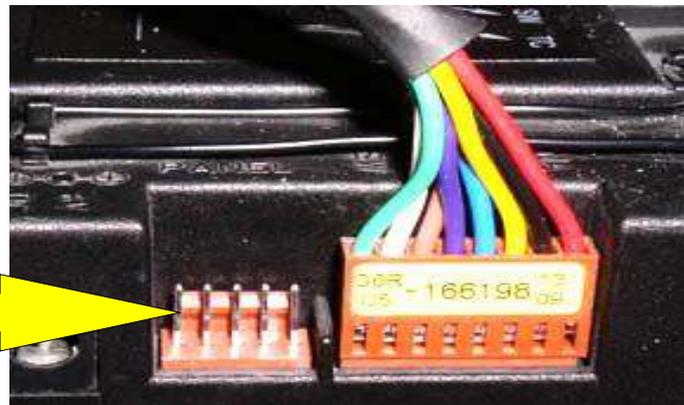
## Batteries, Batteries, Batteries!!

### Test #2

If Batteries ARE in the Receiver

**Test Battery Box for  
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**

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## Batteries, Batteries, Batteries!!

### Test #2



If Batteries are NOT in the Receiver

Positive Lead Inside Plug

Negative Lead Outside Plug

Replace Batteries if Less than 5.8 Volts

The Universal Symbol for DC Volts is a Straight Line with Dots Underneath

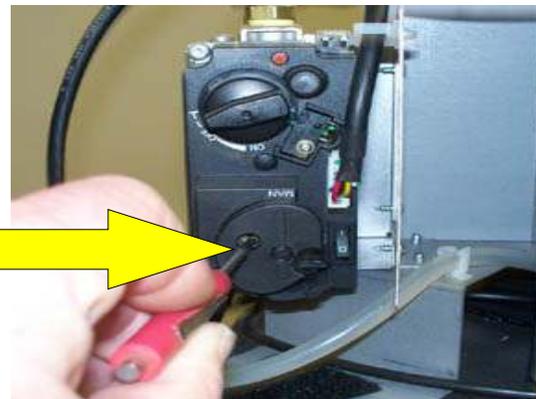
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## Manual Lighting the Fireplace

### 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

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## 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



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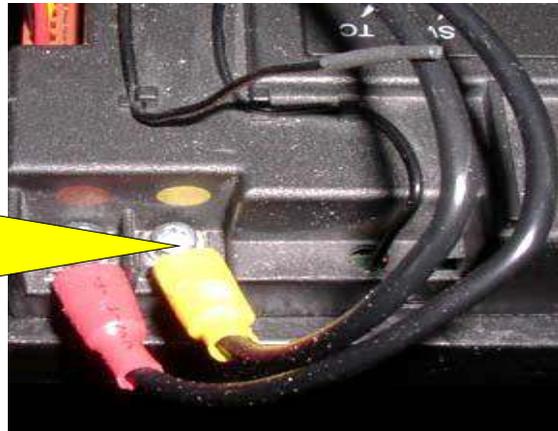
## Testing the Startup Voltage

### Test #5

Do you hear the “Clunk”  
When the Impulse Magnet engages?

Should read 5+ MV at Yellow Terminal  
as Batteries Power the Magnet

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



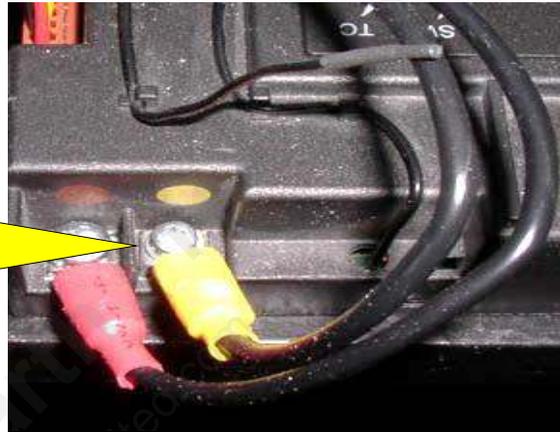
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## Testing the Voltage Loss in Receiver

### 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



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## 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



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## 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**

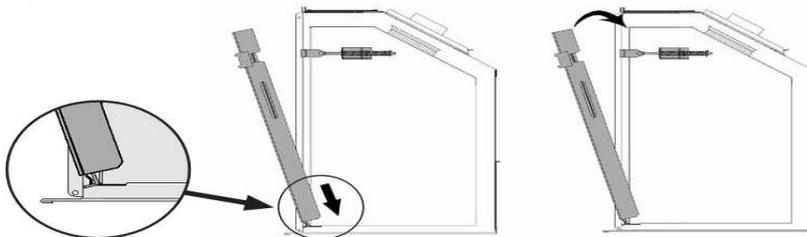


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## Direct Vent Window Test

### Test #8

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



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

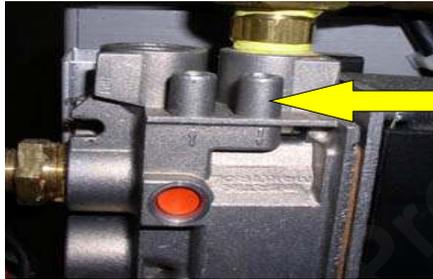
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## Testing Gas Inlet or House Pressure

### 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**

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## Testing Gas Manifold or Burner Pressure

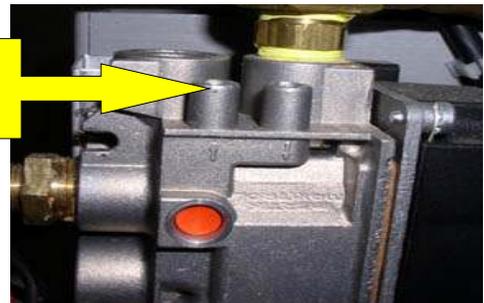
### Test #10



**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**

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## 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

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## Service Call Goal With a Parts Kit

The Right Testing Equipment

Performing the Right Troubleshooting Tests

**Let's Get the Job Done with One Visit!**

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