

# MERTIK MAXITROL®

## GV60 Remote Electronic Ignition and Control System

### INSTALLER TROUBLESHOOTING GUIDE

#### **▲ WARNING**

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

#### **WARNING TO THE APPLIANCE OWNER**

#### **▲ WARNING**

For your safety, read the user instructions before attempting to light the appliance.

**BEFORE OPERATING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### **WHAT TO DO IF YOU SMELL GAS**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this control or other appliances.

#### **GENERAL NOTES:**

Wiring of valve and receiver must be completed before starting ignition.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

The installation must conform with local codes or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or The International Fuel Gas Code or B149.1 in Canada. All piping must comply with local codes and ordinances. Tubing installation must comply with approved standards and practices.

Do not use this control or any gas appliance if any part has been under water. Immediately call a qualified service technician to inspect the control and or gas appliance and to replace any part of the control system and any gas control which has been under water.

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#### OBSERVED PROBLEM:

- A) No Transmission:  
(motor does not turn)

#### ⚠ WARNING

Creating an electrical short between the batteries/battery box and metal parts of the appliance may render the receiver inoperable (see figure 2).



Figure 2

#### POSSIBLE CAUSE:

1. Receiver must learn new code:

2. Dead batteries.
3. The receiver is surrounded by metal, reducing the transmission range.
4. Receiver
5. Transmitter
6. Wiring at valve damaged.
7. Bent pins on 8 wire connector.

#### REMEDY:

1. Press and hold the receiver's reset button until you hear 2 acoustic signals. After the second longer acoustic signal, release the reset button and within the subsequent 20 seconds, press the ▼ (down arrow) on the remote handset until you hear an additional long acoustic signal confirming the new code is set (see figure 1).

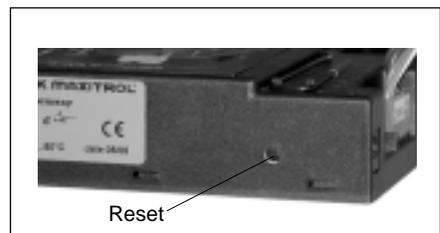


Figure 1: Receiver with Reset button

2. Replace the batteries.
3. Change the position of the antenna.
4. Replace receiver and reprogram code (remedy 1).
5. Replace the transmitter and reprogram code (remedy 1).
6. Replace valve.
7. Straighten pins on 8 wire connector.

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#### OBSERVED PROBLEM:

#### POSSIBLE CAUSE:

#### REMEDY:

#### ⚠ WARNING

Make sure that the antenna is not too close to the electrode cable and ignition coil (beneath the cover). It will damage the receiver (see figure 3).

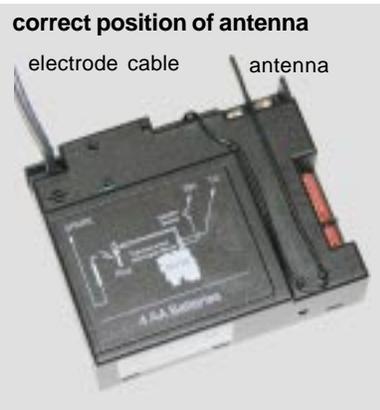


Figure 3



Figure 4

**B) No Ignition; No Tone:**

1. Receiver

1. Replace receiver and reprogram code (remedy 1).

**C) No Ignition; One 5 second continuous tone (7 short beeps might be heard prior to the 5 second tone):**

1. ON/OFF switch is in OFF position.

1. Push switch to ON position.

2. Loose wire.

2. Secure wire.

3. Receiver

3. Replace receiver and reprogram code (remedy 1).

4. Bent pins on 8 wire connector.

4. Straighten pins on 8 wire connector.

5. Valve

5. Replace valve.

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#### OBSERVED PROBLEM:

D) No Pilot Flame and control continues to spark:

E) Pilot is lit and control continues to spark. Valve shuts off after 10..30 seconds. Valve operates manually.

F) Pilot is lit and sparking stops. Valve shuts off after 10...60 seconds. Valve does not operate manually.

Note: For manual operation turn the valve knob to the manual position and hold the safety magnet open with a pen for approximately 60 seconds (see figure 5).



Figure 5

#### POSSIBLE CAUSE:

1. Air in the pilot supply line.
2. No spark at pilot burner.
3. Valve
4. Over tightened thermocouple interrupter.
5. Receiver

1. Receiver

1. Not enough voltage generated from the thermocouple or too much resistance in the circuit.

Note: To find which part of the circuit is causing the problem, a checklist for each application can be prepared using an Excel calculator available from Mertik Maxitrol.

Possible parts are:  
ON-OFF switch, Temperature switches, Thermo current connections, Receiver.

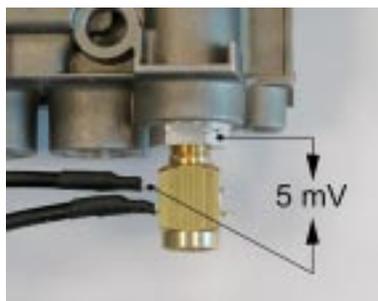


Figure 6

#### REMEDY:

1. Purge the line or start ignition several times.
2. Check spark gap; check wiring connection. Check for spark in location along cable.
3. Replace valve. Do not over tighten the thermocouple interrupter.
4. Replace valve and thermocouple interrupter.
5. Replace receiver and reprogram code (remedy 1).

1. Replace receiver and reprogram code (remedy 1).

1. Use a digital multimeter set in the mV range and measure the voltage by connecting the test leads to the spade connector. Spade connector is located on the outer surface, directly beside the magnet nut. (see figure 6). The available voltage must be at least 5mV. The manufacturer must specify the drop time for the application. The drop time can be measured after the thermocouple is heated.

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OBSERVED PROBLEM:	POSSIBLE CAUSE:	REMEDY:
<p><b>F)</b> Pilot is lit and sparking stops. Valve shuts off after 10...60 seconds. Valve does not operate manually.</p>	<p>2. Thermocouple</p> <p>3. Low inlet pressure.</p> <p>4. Valve</p>	<p>2. Replace thermocouple.</p> <p>3. Confirm regulator pressure and sizing. Replace if necessary.</p> <p>4. Replace valve. Do not over tighten the thermocouple interrupter.</p>
<p><b>G)</b> 3 short beeps while the motor turns:</p>	<p>1. Batteries are low.</p>	<p>1. Replace batteries.</p>
<p><b>▲ WARNING</b></p> <p>Creating an electrical short between the batteries/battery box and metal parts of the appliance may render the receiver inoperable (see figure 2).</p>		
<p><b>H)</b> Pilot flame lights but there is no main gas flow.</p>	<p>1. Manual override knob (if equipped) is in MAN position.</p> <p>2. Valve turned down to pilot flow.</p> <p>3. Low inlet pressure.</p> <p>4. Valve.</p>	<p>1. Turn Manual override knob to ON position (see figure 4).</p> <p>2. Turn flame to high fire by pressing up button on remote handset.</p> <p>3. Confirm regulator pressure, and sizing. Replace valve if necessary.</p> <p>4. Replace valve.</p>