MERTIK MAXITROL®

ORTAL

GV60 Remote Electronic Ignition and Control System

For 2008 and 2010 GV60 Systems Not Using Manually Selected Codes.

INSTALLER TROUBLESHOOTING GUIDE — FOR OEM USE ONLY

⚠ WARNING

Read the INSTALLATION AND OPERATING INSTRUCTIONS for the GV60 REMOTE ELECTRONIC IGNITION AND CONTROL SYSTEM carefully and completely before installing or operating. Failure to follow them could result in a fire or explosion causing property damage, personal injury, or loss of life. Service and installation must be performed by a trained/experienced service technician.

WHAT TO DO IF YOU SMELL GAS

- Do not operate any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately evacuate the area and contact the gas supplier. Follow the gas supplier's instructions.
- If you cannot reach the gas supplier, call the fire department.

This control **must** be installed and operated **strictly** in accordance with the instructions of the OEM and with all applicable government codes and regulations, e.g. plumbing, mechanical, and electrical codes and practices. These instructions do not supersede OEM's installation or operating instructions.

Do **NOT** use a Mertik Maxitrol control if you suspect it has been subjected to high temperatures, damaged, tampered with, or taken apart. Do **NOT** use a Mertik Maxitrol control if you suspect it has been under water or that liquid has seeped into the Valve. Any of these incidents can cause leakage or other damage that may affect proper operation and cause potentially dangerous combustion problems.

Damper position must be in accordance with Manufacturer's Installation Instructions and all applicable Standards. Failure to follow them could result in a fire or explosion causing property damage, personal injury, or loss of life.

Use only your hand to push in or turn the gas control knobs. Never use tools. If a knob will not push in or turn by hand, do not try to repair it. Call a qualified service technician. Force or attempted repair can result in a fire or explosion.

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

ELECTRIC SHOCK HAZARD

This control must be electrically wired and operated in accordance with all codes and local regulations. Service and installation must be performed by a trained/experienced service technician. Do not use the control if you suspect it may be damaged.

NOTICE

Wiring of the Valve and Receiver must be completed before installing any batteries and starting ignition.

If the Receiver is in a metal box or metal heat shield that is separated from the Valve and is not connected by a secured ground, an additional wire is recommended to connect the metal box to the Valve.

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GV60-LT-EN-10.2012-TSG

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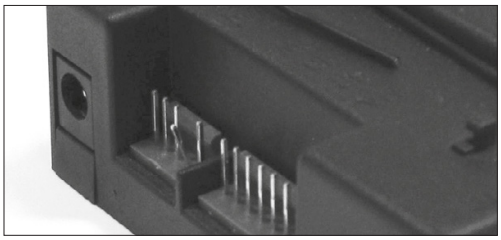
	Observed Problem	Possible Cause	Remedy
A	Will not operate with Touch Pad / Wall Switch / Switch Panel:	1. Bent pin	Straighten pin, replace Touch Pad, Switch and / or cable (see figure 1).  Figure 1
B	Will not operate with Handset:	1. Transmitter batteries low	Replace Transmitter batteries. Quality alkaline recommended.
		2. Receiver batteries low	Replace Receiver batteries with 1.5 V “AA” quality alkaline batteries.
		3. Optional Mains Adapter not operating properly	Check Mains Adapter.
		4. Check coding of Transmitter and Receiver (Initial sync)	Learn new code (reset). See label on Receiver.
		5. Transmitter distance limited	1. Straighten the antenna. 2. Replace Receiver. See wiring diagrams, pg. 8–12, in the operating/installation instructions for the GV60.

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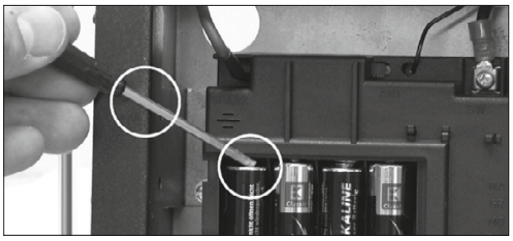
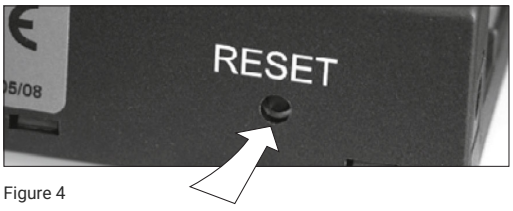
	Observed Problem	Possible Cause	Remedy
C	No transmission: (motor does not turn)	1. Dead batteries	Replace the batteries in the Receiver and/ or Remote Handset (quality Alkaline recommended). **⚠ WARNING** Do not use metal tools to remove batteries. Doing so will render the Receiver inoperable (see figure 2).  Figure 2 Application with internal and external battery box: **⚠ WARNING** Battery clip (see figure 3) must not come into contact with metal parts after unplugging the external battery holder, because there is voltage stored in the Receiver.  Figure 3
		2. Receiver must learn new code	Press and hold the Receiver's reset button (see figure 4) until you hear 2 acoustic signals. After the second, longer acoustic signal, release the reset button. Within the subsequent 20 seconds press the (small flame) button on the Remote Handset until you hear two additional short beeps confirming the new code is set.  Figure 4

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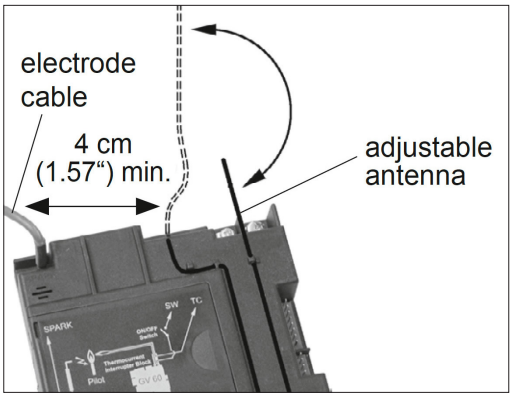
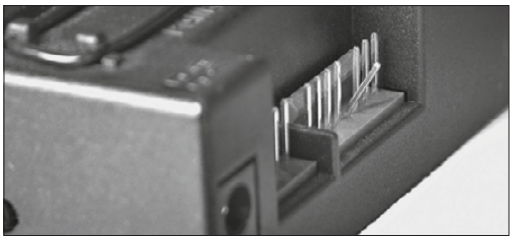
	Observed Problem	Possible Cause	Remedy
C	*Continued* No transmission: (motor does not turn)	3. The Receiver is surrounded by metal, reducing the transmission range	Change the position of the adjustable antenna. **⚠ WARNING** Make sure that the adjustable antenna is not too close to the electrode cable and ignition coil (beneath the cover). It will damage the Receiver (see figure 5).  Figure 5
		4. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
		5. Transmitter	Replace the Transmitter and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
		6. Bent pins on 8-Wire Connector on the Valve and Receiver (see figures 6 and 7)	Straighten pins on 8-Wire Connector.  Figure 6
		7. Wiring at Valve damaged	Replace Valve.
		8. IR-Eye (Infrared remote only)	Replace (check and change)

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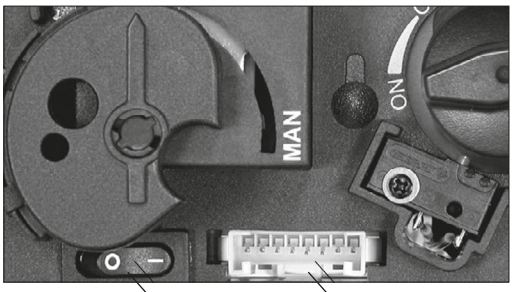
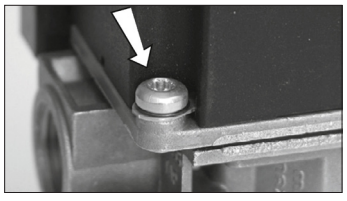
	Observed Problem	Possible Cause	Remedy
D	No ignition; no tone:	1. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
E	No Ignition; one 5-second continuous tone:	1. ON/OFF Switch is in (O) OFF position	Push Switch to (–) ON position (see figure 7).  Figure 7 ON/OFF Switch 8-Wire Connector
		2. Loose wire	Secure wire.
		3. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
		4. Bent pins on 8-Wire Connector (see figures 7 and 9)	Straighten pins on 8-Wire Connector.
		5. Valve	Replace Valve. Do not overtighten the Thermocouple Interrupter.
F	Ignition stops after the first spark:	1. Loose ground connection at the Valve  Figure 8	Check ground connection at the Valve and tighten screw (see figure 8).

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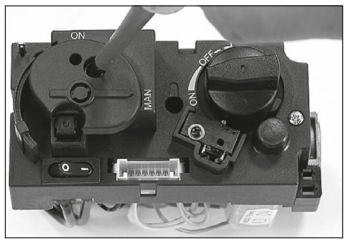
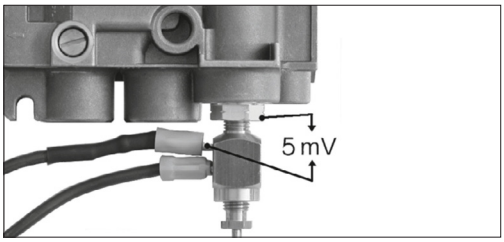
	Observed Problem	Possible Cause	Remedy
G	No pilot flame but spark:	1. No gas supply	Check the gas supply.
		2. Air in the pilot supply line	Purge the line or start ignition several times.
		3. No spark at Pilot Burner	Check manufacturer's instructions for pilot setup; check wiring connection. Check for spark in location along Cable.
		4. Valve	Replace Valve. Do not overtighten the Thermocouple Interrupter.
		5. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
		6. Thermocouple circuit wired incorrectly	Check polarity of the Thermocouple Wires.
H	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 9).  Figure 9	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 calculation available from Mertik Maxitrol. Possible parts causing excessive resistance are: ON-OFF Switch, Temperature Switches, Thermocurrent Connections, Receiver.	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 10). The available voltage must be at least 5 mV. The manufacturer must specify the drop time for the application. The drop time can be measured after the Thermocouple is heated.  Figure 10
		2. Thermocouple	Replace Thermocouple.
		3. Low inlet pressure to Valve	Confirm sufficient inlet pressure to the Valve. Adjust or replace inlet regulator if necessary.
		4. Valve	Replace Valve. Do not overtighten the Thermocouple Interrupter.

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	Observed Problem	Possible Cause	Remedy
I	Frequent beeps for 3 seconds while motor turns:	1. Batteries (Receiver) are low	Replace batteries (Quality Alkaline recommended). **⚠ WARNING** Do not use metal tools to remove batteries. Doing so will render the Receiver inoperable (see figure 2)
J	Pilot flame lights but there is no main gas flow:	1. Manual override knob (if equipped) is in MAN position	Turn manual override knob to ON position (see figure 7).
		2. Valve turned down to pilot flow	Turn flame to high fire by pressing up button on remote handset.
		3. Valve	Replace Valve. Do not overtighten the Thermocouple Interrupter.
K	Latching Solenoid does not work:	1. Loose connection	Check connection is tight and pins are straight.
		2. Latching Solenoid	Replace Latching Solenoid
		3. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
		4. Handset	Check that the Handset shows the AUX symbol if you press SET + UP
L	Fan/Light do not work:	1. No Mains Power	Confirm Mains Power supply.
		2. Wired incorrectly	Check Light and Fan are plugged into the correct connector. Check wiring.
		3. Fan and/or Light do not function.	Replace Fan or Light.
		4. V-module	Replace V-module.
		5. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).

	Observed Problem	Possible Cause	Remedy
M	Relay with Cable or Power Flue does not work:	1. Wired incorrectly	Check wiring and Relay contacts.
		2. Relay with Cable or Power Flue Control does not function	Replace Relay/Power Flue Control.
		3. Receiver	Replace Receiver and reprogram code (see OBSERVED PROBLEM C, REMEDY to POSSIBLE CAUSE 2).
		4. Handset	Check that the handset label shows the right part number.
N	Electronics do not work: (Motor does not turn, no beeping, or no sparks)	1. The Receiver is in a metal box or metal heat shield, this box is separated from the Valve, and is not connected by a secure ground	An additional wire is required to connect the metal box to the Valve (see figure 11). Press the Receiver's reset button (see figure 4).

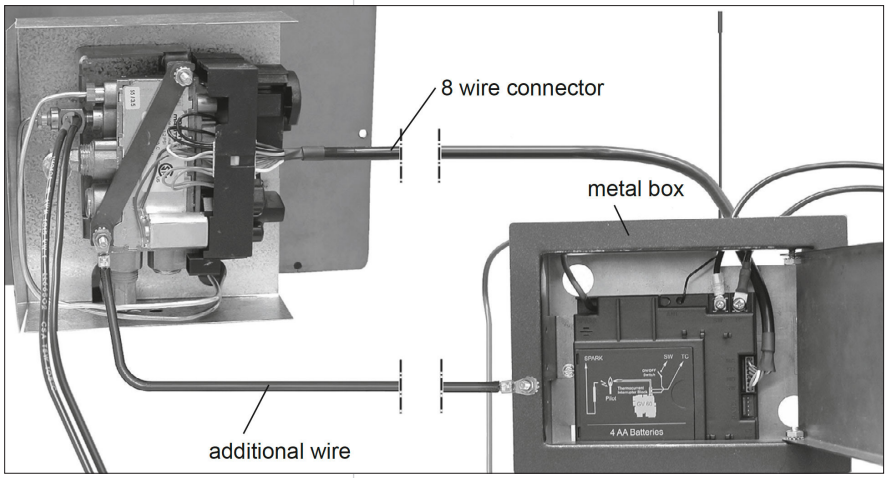

Figure 11

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