GV60 Remote Electronic Ignition and Control System

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## IMPORTANT SAFETY INFORMATION

### WARNING

Read these instructions 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.

Installation and service must be performed by a qualified installer, service agency, or the gas supplier. Installation shall conform with local codes, or in the absence of local codes, in accordance with the National Fuel Gas Code ANSI Z223.1/NFPA 54 or the IFGC or CSA B149.1. All piping and tubing must comply with local codes and ordinances.

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 use a product if you suspect it has been subjected to high temperatures, damaged, tampered with, or taken apart. Do NOT use a product if you suspect it has been under water or that liquid has seeped into the product. 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.

### WARNING

**ELECTRIC SHOCK HAZARD**

- Read these instructions carefully. Failure to follow them could result in property damage, personal injury, or loss of life.
- 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.
INSTALLATION INSTRUCTIONS

APPLICATION
GV60 is a battery-powered electronic remote ignition and control system for gas appliances with pilot burners and ODS systems.

COMPONENTS

Figure 1: Handsets

Switch Panel with cable G6R-SPN-...

Wall Switch US G6R-ZWSN-...

Wall Switch EU G6R-ZWSE-...

Touch Pad G6R-TPN-...

Cable Touch Pad G6R-CWSN-...

Figure 2: Operation

Combination Control GV60

Receiver B6R-R9(8)A... or B6R-R9(8)U... or B6R-R9(8)K...

Battery Box G60-ZB90/...

Interrupter Block G60-ZUS...

Thermocurrent Cable Interrupter-Receiver TC G60-ZKIRS?

Ignition Cable G60-ZKIS...

8 Wire Cable GV-Receiver G6R-C...

Cable with Relay (optional) G6R-CD..., G6R-CL..., G6R-CDB, G6R-CPB...

Thermocurrent Cable Interrupter-Receiver SW

with ON/OFF switch G60-ZSKSF/..., G60-ZSKLF/...

without ON/OFF switch G60-ZSKS/...

Figure 3: Basic RF

Latching Solenoid Valve (with cable) GV-S60

Receiver B6R-R9(8)U...

Cable V Module-Receiver G6R-CBV...

V Module G6R-BU..., G6R-BE...

Figure 4: Additional Function RF: FAN – Light/Dimmer – Latching Solenoid

Receiver G6R-R3(4)AUT; G6R-R3(4)AKT; G6R-R3(4)UT, G6R-R3(4)KT

Ground Cable G60-ZCGTC...

2nd Thermocouple Cable G60-ZCTC...

with connections for EU, UK and U.S.

Figure 5: Mains Adapter

2nd Thermocouple Cable G60-ZPT...

Figure 6: RF 2nd Thermocouple Option
TECHNICAL SPECIFICATIONS

Gas combination control according to CSA or CE approval (see label for certification)

APPROVALS

FUELS
- CSA: Suitable for natural, manufactured, mixed gases, liquefied petroleum gases, and LP gas-air mixtures.
- CE: Suitable for use with gases of EN 437 gas family 1, 2 and 3.

PRESSURE DROP/CAPACITY
- CSA: 1" w.c. at 65,000 BTU/hr
- CE: 2.5 mbar at 1.2 m³/h air

RANGE OF REGULATION
- CSA: 10,000 to 85,000 BTU/hr
- CE: Class C according EN 88

REGULATOR ADJUSTMENT
- CSA: 3" w.c. to 5" w.c.; 8" w.c. to 12" w.c.
- CE: 5 to 40 mbar (50 to 400 kPa)
- CE+ CSA: 3" w.c. to 12" w.c. (7.5 to 30 mbar)
- Convertible Regulator: 3 to 4.5 "NG/8.5 to 11.5" LP

MOUNTING POSITION
- In upright position, gas control knobs are on top of the valve. Valve may be mounted 0° to 90° any direction (including vertical) from the upright position. Valve must NOT be mounted upside down.

MAXIMUM INLET PRESSURE
- CSA: ½ psi (14" w.c.)
- CE: 50 mbar (5kPa)

MAIN GAS CONNECTION
- CSA: ½ NPT (ANSI/ASME B1.20.1), ½ Loxit
- CE: Rp ½ (ISO 7-1/EN 10226-1), compression fittings for 8 mm, 10 mm or 12 mm tube

PILOT GAS CONNECTION
- CSA: 7/16-24 UNS for ½" or ¾" tubing
- CE: M10x1 for 4 mm or 6 mm tubing

INLET AND OUTLET CONNECTION
- Side or Bottom

MAXIMUM ALLOWED TORQUE INLET AND OUTLET
- CSA: 280 inch-pounds
- CE: 35 Nm

THERMOCOUPLE/INTERRUPTER BLOCK
- 11/32-32 UNF, M10x1, M9x1, M8x1

AMBIENT TEMPERATURE RANGE
- CSA: Combination control: 32°F to 176°F
- Latching solenoid valve: 32°F to 176°F
- Receiver RF without batteries: 176°F
- Receiver RF with batteries: 140°F
- Handset: 140°F
- Wall switch/touch pad: 176°F
- Switch panel: 221°F
- Module: 176°F
- Ignition cable: 302°F

Misc. cables: 221°F
Cable with relay: 158°F
CE: Combination control: 0 °C to 80 °C
Latching solenoid valve: 0 °C to 80 °C
Receiver RF without batteries: 80 °C
Receiver RF with batteries: 60 °C
Handset: 60 °C
Wall switch/touch pad: 80 °C
Switch panel: 105 °C
Module: 80 °C
Ignition cable: 150 °C

HANDSETS

NOTICE
The handsets and receivers are not interchangeable with previous electronics (see figure 7).

RADIO FREQUENCY
- 868 MHz for Europe
- 915 MHz for U.S. and for Canada.

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna.

BATTERIES – HANDSET
- 2 x 1.5 V "AAA" (quality alkaline recommended).

BATTERIES – RECEIVER
- 4 x 1.5 V "AA" (quality alkaline recommended).
- An AC Mains Adapter may be used instead of batteries.

NOTICE
Only the Mertik Maxitrol AC Mains Adapter or one preapproved by Mertik Maxitrol can be used. Use of other adaptors can render the system inoperable.

V MODULE
- CE: Inlet: 230 VAC/50 Hz; 210 VA
- Outlet: 230 VAC/50 Hz; 100 VA each
- Built-in fuse 2.5A
- CSA: Inlet: 115 VAC/60 Hz; 210 VA
- Outlet: 115 VAC/60 Hz; 100 VA each
- Built-in fuse 2.5A
1. Turn off gas supply at the appliance service valve before starting installation, and perform a Gas Leak Test after the installation is complete.

2. Install the sediment trap (where required) in the gas supply line to prevent contamination of the gas valve (see figure 9).

3. 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 will void warranty and can result in a fire or explosion.

Location
Locate the combination gas valve where it is not exposed to steam cleaning, high humidity, dripping water, corrosive chemicals, dust or grease accumulation, or excessive heat.

To assure proper operation, follow these guidelines:
- Locate combination gas valve in a well-ventilated area.
- Mount combination gas valve high enough to avoid exposure to flooding or splashing water.
- Make sure the ambient temperature does not exceed the ambient temperature ratings for each component.

GV60 standard version is suitable for indoor use only.

GAS CONNECTIONS

Fire or Explosion Hazard. Can cause property damage, severe injury, or death. Do NOT bend tubing at gas valve connection point after compression fitting has been tightened. This can result in a gas leak at the connection.

Use new, properly reamed pipe free from metal or material chips. When tubing is used, assure that ends are square, deburred and clean. All tubing bends must be smooth and free of distortion.

When threads are tightened, the valve must be held at the designated clamping points (see figure 8).

Read these instructions carefully. Failure to follow them could result in a fire or explosion causing property damage, personal injury, or loss of life. The product must be installed and operated according to all codes and local regulations.
PERFORM GAS LEAK TEST

1. Check carefully for gas leaks immediately after the valve has been installed and the gas turned on. Do this before attempting to operate the appliance or other gas burning device.
2. Using a clean brush, apply an approved leak test solution to the tubing and pipe connections. Bubbles indicate a leak.
3. With the main burner in operation, apply an approved leak test solution to all tubing and pipe connections (including adapters) and the valve inlet and outlet. Bubbles indicate a leak.
4. If a leak is detected, tighten pipe connections (including adapters) according to “Gas Connections” (page 5).

**WARNING**

The main gas valve must be disconnected from the gas supply piping system during any pressure testing of the gas supply piping system at test pressures in excess of ½ psi (3.5 kPa CSA; 50 mbar CE). Overpressurizing can damage the control resulting in a leak or a control malfunction.

WIRING CONNECTIONS

(See figures 10–14, pages 7–11)

**NOTICE**

Wiring of valve and receiver must be completed before starting ignition. Failure to do so could damage the electronics.

Thermocouple Circuit

Total resistance of thermocouple circuit should be minimized to ensure proper operation.

**NOTICE**

The use of the Mertik Maxitrol interrupter block is recommended. Keep connection of interrupter block and thermocouple clean and dry. Avoid severe bending of the thermocouple tubing during installation (min. 1” radius; 2.5 cm) as this may cause it to fail.

**WARNING**

Absolutely no leakage should occur, otherwise there is a danger of fire or explosion depending upon conditions. Never use the appliance if leakage is detected.

**WARNING**

The use of the Mertik Maxitrol interrupter block is recommended. Keep connection of interrupter block and thermocouple clean and dry. Avoid severe bending of the thermocouple tubing during installation (min. 1” radius; 2.5 cm) as this may cause it to fail.

**ELECTRIC SHOCK HAZARD**

- Read these instructions carefully. Failure to follow them could result in property damage, personal injury, or loss of life.
- 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 module if you suspect it may be damaged.

**V Module**

An LED indicates that power is ON.

Use Power cord, Fan and Light with Molex connector according to wiring diagram (figure 11, page 8) or connect wires with core cable ends to the pluggable screw terminals.

V Module with screw terminals: max. AWG 12/2.5mm² (figure 11, page 8).

Connect the Light and the Fan first and then the power supply. Take care that unused outlets are protected from contact.

Connection Pilot Gas (Tubing Connections)

1. Do not use pipe joint compound or Teflon®/PTFE tape.
2. Slip fitting over tubing.
3. Insert pilot tubing into pilot outlet until it bottoms. Turn fitting finger tight.
4. Turn with a wrench until you shear off the ferrule. Turn an additional ¼ turn to make a gastight seal.
5. Connect other end of tubing to pilot burner.

**WARNING**

- Tighten interrupter block into valve ¼ turn beyond finger tight (2...3 Nm).
- Slide cables into plastic insert.
- Slide plastic insert with cables into the brass interrupter block.
- While keeping pressure on the cables and plastic insert, tighten the thermocouple ¼ ... ½ turn beyond finger tight (2...3 Nm).

**Ignition Cable**

**NOTICE**

Do not damage the ignition cable while attaching it to the ignition electrode. When the cable is in place, avoid contact with sharp objects or edges.

With cables longer than 900 mm, avoid contact with metal parts, as this could decrease spark.

**Receiver**

**NOTICE**

To keep the receiver free from debris, dirt, and humidity, do not remove the receiver from the plastic bag until all construction is complete.

1. Insert batteries or connect AC mains power. The module for circulating fan and light/dimmer includes a mains adapter. With mains adapter, batteries can be used for backup (RF only).
2. Place ON/OFF switch (if equipped) to ON position.
3. The receiver has to learn the handset code:
   - Press and hold the receiver's reset button (figure 10, page 7) until you hear two (2) beeps. After the second, longer beep, release the reset button. Within the subsequent 20 seconds press the button on the handset until you hear two (2) short beeps confirming the code is set.
   - **NOTE:** This is a one time setting only, and it is not required when changing the batteries in the handset or receiver.
4. When the RF-receiver is placed in the appliance, the surrounding metal can reduce reception considerably.

**IR Versions**

**WARNING**

Connect all components according to the appropriate wiring diagram.

- When GV60 components are installed, make sure they are not exposed to dirt, oil, grease or other chemical agents.
- Do not permit foreign particles under plastic cover.
- Place ON/OFF switch (if equipped) where it is easily accessible for the user.

Thermocouple Circuit

Total resistance of thermocouple circuit should be minimized to ensure proper operation.

**NOTICE**

The use of the Mertik Maxitrol interrupter block is recommended. Keep connection of interrupter block and thermocouple clean and dry. Avoid severe bending of the thermocouple tubing during installation (min. 1” radius; 2.5 cm) as this may cause it to fail.

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The use of the Mertik Maxitrol interrupter block is recommended. Keep connection of interrupter block and thermocouple clean and dry. Avoid severe bending of the thermocouple tubing during installation (min. 1” radius; 2.5 cm) as this may cause it to fail.

**NOTICE**

Absolutely no leakage should occur, otherwise there is a danger of fire or explosion depending upon conditions. Never use the appliance if leakage is detected.

**WIRING CONNECTIONS**

(See figures 10–14, pages 7–11)

**NOTICE**

Wiring of valve and receiver must be completed before starting ignition. Failure to do so could damage the electronics.

Connection Pilot Gas (Tubing Connections)

1. Do not use pipe joint compound or Teflon®/PTFE tape.
2. Slip fitting over tubing.
3. Insert pilot tubing into pilot outlet until it bottoms. Turn fitting finger tight.
4. Turn with a wrench until you shear off the ferrule. Turn an additional ¼ turn to make a gastight seal.
5. Connect other end of tubing to pilot burner.

**WARNING**

- Tighten interrupter block into valve ¼ turn beyond finger tight (2...3 Nm).
- Slide cables into plastic insert.
- Slide plastic insert with cables into the brass interrupter block.
- While keeping pressure on the cables and plastic insert, tighten the thermocouple ¼ ... ½ turn beyond finger tight (2...3 Nm).

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**WARNING**

The use of the Mertik Maxitrol interrupter block is recommended. Keep connection of interrupter block and thermocouple clean and dry. Avoid severe bending of the thermocouple tubing during installation (min. 1” radius; 2.5 cm) as this may cause it to fail.

**NOTICE**

Absolutely no leakage should occur, otherwise there is a danger of fire or explosion depending upon conditions. Never use the appliance if leakage is detected.
In addition to the basic version, a universal receiver, B6R-R8,9U(T), can be used to operate a second burner, a relay (3pin outlet), or to start a power flue control (2pin outlet). The same receiver outlet (3pin) is used for these functions, and the transmitter activates the function. Together with a module, the universal receiver, B6R-R8,9U, controls a circulating fan and a dimmer.

The receivers B6R-R9(8)U and B6R-R9(8)K have main burner supervision (2nd thermocouple option). For safety, this option is programmed so that it cannot be used without the second thermocouple installed and vice versa.
**WARNING**

**ELECTRIC SHOCK HAZARD**
- Read these instructions carefully. Failure to follow them could result in property damage, personal injury, or loss of life.
- 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 module if you suspect it may be damaged.

---

Max. AWG 12/2.5 mm²

4 levels from 60% to 100%
14 to 100 Watt
The appliance manufacturer must test levels with fan. Levels may vary with fan characteristics.

Infinitely variable 20% to 100%
14 to 100 Watt
Not for LED and not for energy saving lamp.

4 levels from 60% to 100%
14 to 100 Watt
The appliance manufacturer must test levels with fan. Levels may vary with fan characteristics.

---

This outlet can be used for different functions depending on handset:

<table>
<thead>
<tr>
<th>Handset</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>B6R-HB(9)D6</td>
<td>Powerflue</td>
</tr>
<tr>
<td>B6R-HB(9)T5</td>
<td>Powerflue</td>
</tr>
<tr>
<td>B6R-HB(9)TV14</td>
<td>Powerflue</td>
</tr>
<tr>
<td>B6R-HB(9)TV4</td>
<td>Relay, Latching Solenoid Valve (AUX), see figure 13, page 10</td>
</tr>
</tbody>
</table>

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A 2nd thermocouple is placed in the main burner to check that the main gas is ignited within a certain time after opening.

The voltage will be measured $T_1$ (22 sec) after the motor has turned in high fire direction (after ignition and after increasing flame height).

If the voltage is lower than 1.8 mV, the electronics shut off the gas completely.

A new start is blocked for $T_2$, which is 2 minutes after ignition failure and 1 minute after failure while opening main gas.

Receivers for 2nd thermocouple are identified with a yellow sticker on the back. They will not operate without the thermocouple connected.

Other versions will not operate if the thermocouple is connected.

The 2nd thermocouple function is certified as safety level “B” according to EN 13611.

To use Wall Switch, Switch Panel or External Operation Cable, the additional cable G60-ZCTCR/2000 is needed.

**NOTICE**

To connect the 2nd thermocouple make sure that the insulated connector is connected to the connection cable. The non-insulated connector must be connected to the ground cable.

**Installation steps**

2. Insert the Molex crimp terminal into the open connector hole of the plug. Listen for a “click”.
3. Insert the insulated receptacle into the insulated 2nd thermocouple terminal.
4. Insert the plug connector into the receiver (see figure 2).
Power Flue Control
The B6R activates and deactivates an external electronic control (not available from Mertik Maxitrol). The flue electronic control starts automatically with ignition. The flue electronic control is deactivated if the GV60 is shut off or if the motor turns to pilot end-stop. The control starts again when the motor leaves the pilot end-stop. The external power flue control operates a fan and a solenoid valve. A pressure switch checks the draft. If there is the required draft the solenoid valves open. For safety, the solenoid valve must close in case of a power outage. The solenoid valve should be installed between the GV60 and the main burner. (A pilot gas position is not possible upstream of the valve.)
Pilot Flame Adjustment
(Vented Units Only)

The pilot flow adjustment is preset to maximum at the factory. The pilot flame should envelope ⅜” to ½” of the thermocouple – vented only (see figure 16).

1. The adjustment screw can be reached through a hole in the MANUAL knob (see figure 15).
2. Turn the MANUAL knob to the ON position.
3. It is now possible to pierce through a film on the cover with a screwdriver to reach the adjustment screw beneath.
4. Turn the adjustment screw clockwise to decrease or counterclockwise to increase pilot flame.

Outlet Pressure Adjustment
(Vented Units Only)

STANDARD REGULATOR OR THROTTLE
(Throttle CE only)

1. Connect a pressure manometer to the valve outlet pressure tap. Pressure tap is opened by turning the screw counterclockwise.
Pressure regulator or throttle are located under the cover and can be reached by removing the plug (see figures 16 and 18).
2. Turn MANUAL knob and main valve knob to the ON position.
3. Turn pressure regulator adjustment screw to set required burner pressure (high fire). Pressure is increased by turning clockwise (pressure regulator models), or decreased by turning counterclockwise.

4. After adjustment, replace the plug.
5. If no other adjustments are required, close pressure tap(s) by turning the screw(s) full clockwise.
Check all connections/pressure tap(s) for leaks.
6. If the desired outlet pressure or flow cannot be achieved by adjusting the gas valve, check the gas valve inlet pressure using a manometer at the valve inlet pressure tap. If the inlet pressure is in the normal range, replace the gas valve; otherwise, take necessary steps to assure proper gas pressure to the valve.

CONVERTIBLE PRESSURE REGULATOR
(Optional)

Convertible regulators are designed to deliver either of two fixed outlet pressures for Natural Gas (NG) or LP Gas. To change from one gas to the other, turn the conversion plug (see figure 18) counter clockwise to remove. Unsnap and remove the plastic part, rotate it 180°, and then slide it back on the conversion plug until it snaps. Turn the conversion plug clockwise until it bottoms out.

GAS CONTROL KNOB SETTINGS

<table>
<thead>
<tr>
<th>KNOB</th>
<th>POSITION</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main valve</td>
<td>OFF</td>
<td>Prevents main gas flow through valve.</td>
</tr>
<tr>
<td>Main valve</td>
<td>ON</td>
<td>Permits main gas flow through valve if the pilot is lit and thermocouple is generating sufficient power.</td>
</tr>
<tr>
<td>MANUAL knob</td>
<td>MAN</td>
<td>Allows the pilot to be manually ignited and prevents main gas flow.</td>
</tr>
<tr>
<td>MANUAL knob</td>
<td>ON</td>
<td>Allows for automatic ignition.</td>
</tr>
</tbody>
</table>

ADJUSTMENT

**WARNING**
It is the appliance manufacturer’s responsibility to determine GV60’s suitability for a specific application.

**WARNING**
Do not attempt to remove screws from the top of gas valve. Do not change any adjustments marked with tamper indicating paint. Motor knob is not to be removed.

Outlet Pressure Adjustment

(Vented Units Only)

STANDARD REGULATOR OR THROTTLE
(Throttle CE only)

1. Connect a pressure manometer to the valve outlet pressure tap. Pressure tap is opened by turning the screw counterclockwise.
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CONVERTIBLE PRESSURE REGULATOR
(Optional)

Convertible regulators are designed to deliver either of two fixed outlet pressures for Natural Gas (NG) or LP Gas. To change from one gas to the other, turn the conversion plug (see figure 18) counter clockwise to remove. Unsnap and remove the plastic part, rotate it 180°, and then slide it back on the conversion plug until it snaps. Turn the conversion plug clockwise until it bottoms out.
FINAL CHECK

Observe several complete ON/OFF cycles to ensure proper operation. During these cycles the electronics will determine the optimum ignition sequence timing.

1. **STOP!** Read the safety information included before proceeding.
2. Turn main valve knob to the **OFF**, full clockwise position.
3. Place ON/OFF switch (if equipped) to the **O** (OFF position).
4. Wait a minimum of five (5) minutes to clear out any gas. Verify that no gas is in the area around the appliance, including near the floor. **If you detect gas STOP!** Follow “What to do if you smell gas” in the safety information (page 2). If no gas is present, proceed according to the Mertik Maxitrol Operating Instructions.

**WARNING**

Fire or explosion hazard. Attempted disassembly or repair can cause property damage, severe injury or death. Do not disassemble the gas valve; it contains no serviceable components.

Minimum Gas Flow Adjustment
(Vented Units Only)

1. Set the control into low fire setting by turning the motor knob to **OFF** position and back until the valve opens.
2. The minimum rate can be set either by screwing in a calibrated minimum rate screw (fixed orifice) or an adjustable minimum rate screw. Controls with adjustable screws without a customer specific setting are factory set at maximum flow.
3. Turn the screw clockwise to decrease the minimum flow.
4. Care should be taken to screw the fixed orifice until it stops.
5. Close pressure tap(s) by turning the screw(s) full clockwise. Check all connections/pressure tap(s) for leaks.

Changing the Fuel Type
(Vented Units Only)

GV60 is suitable for all gas types and can be converted to meet the manufacturer’s requirements for a specific gas type. Adjustments of pressure regulator, minimum rate and pilot gas are according to above-mentioned instructions. To convert for LPG CE it is necessary to block the pressure regulator by turning the regulator adjustment screw fully to the bottom limit (or the throttle adjustment screw fully to the upper limit).
OPERATING INSTRUCTIONS

SETTING THE ELECTRONICS CODE
(First time use only.)

Radio Frequency Handset
A code is selected automatically for all Mertik Maxitrol electronics from among 65,000 random codes available. The receiver must be paired with the handset:

▪ Press and hold the receiver’s reset button (see figure 19) until you hear two (2) beeps. The first beep is short and the second beep is long. After the second beep, release the reset button.
▪ Within the subsequent 20 seconds press the on the handset until you hear two additional short beeps confirming the code is set. If you hear one long beep, this indicates the pairing sequence has failed or the wiring is incorrect.

NOTE: This is a one time pairing only, and is not required after changing the batteries of the handset or receiver.

Figure 19: Receiver Reset Button
SETTING CELSIUS OR FAHRENHEIT

To change between °C and °F, press and buttons simultaneously.

NOTE: Choosing °F results in a 12 hour clock. Choosing °C results in a 24 hour clock.

SETTING THE TIME

1. Press and buttons simultaneously. Hour flashes.
2. To select hour press or button.
4. To select minutes press or button.
5. To confirm press and buttons simultaneously or wait.

MANUAL MODE (HANDSET)

NOTICE

BEFORE OPERATING
1. Make sure MANUAL knob on the GV60 Valve is in the ON, full counterclockwise position.
2. Place the ON/OFF switch (if equipped) in the “I” (ON position).

TO TURN ON FIRE

WARNING

When pilot ignition is confirmed, motor turns automatically to maximum flame height.

Handset

- Press button until a short beep confirms the start sequence has begun; release button.
- Beeps continue while ignition is in process.
- Rotating circle is shown on display until ignition sequence is complete.
- Main gas flows once pilot ignition is confirmed.
- Handset automatically goes into Manual mode after main burner ignition.

WARNING

If the pilot does not stay lit after several tries, turn the main valve knob to OFF and follow the instructions “TURN OFF GAS TO APPLIANCE” (page 28).

Standby Mode (Pilot Flame)

Handset

- Press and hold button to set appliance to pilot flame.
**TO TURN OFF FIRE**

**Handset**
- Press button to turn off.

**NOTE:** There is a 5 sec delay before the next ignition is possible.

**FLAME HEIGHT ADJUSTMENT**

**Handset**
- To increase flame height press and hold button.
- To decrease flame press and hold button.
- To set fire to pilot press and hold button.

**DESIGNATED LOW FIRE AND HIGH FIRE**

- To go to low fire, double-click button. “LO” is displayed.

**NOTE:** Flame goes to high fire first before going to low fire.

- To go to high fire, double-click button. “HI” is displayed.

**COUNTDOWN TIMER**

**ON/SETTING:**
1. Press and hold button until hourglass icon displayed and hour flashes.
2. To select hour press or button.
3. To confirm press button. Minutes flash.
4. To select minutes press or button.
5. To confirm press button or wait.

**OFF:**
Press button, hourglass and countdown time disappear.

**NOTE:** At end of countdown time period, the fire turns OFF. The Countdown Timer only works in Manual, Thermostatic, and Random modes. Maximum countdown time is 9 hours.

**CHILD PROOF**

**ON:**
To activate press and buttons simultaneously. Children icon displayed and the handset is rendered inoperable, except for the OFF function.

**OFF:**
To deactivate press and buttons simultaneously. Children icon disappears.

**WARNING**
If the appliance will not operate, follow the instructions “TURN OFF GAS TO APPLIANCE” (page 28).