



Installation & Maintenance Manual

MONTIGO
the art of **fireplaces**

MAHANA PL42VO

28,000 btu/hr Natural Gas or Propane Gas

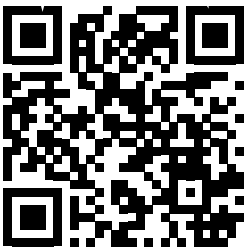
MAHANA PL60VO

47,000 btu/hr Natural Gas or Propane Gas

Outdoor Gas Fireplace



IMPORTANT



SCAN THE QR CODE OR VISIT THE WEBSITE TO VIEW THE MOST RECENT VERSION OF THE MANUAL
WWW.MONTIGO.COM/PRODUCT-GUIDES



- The installation of this fireplace must be done by a qualified and certified gas appliance installer.
- Check local codes and read all instructions prior to installation.
- Installer: leave this manual with the appliance.
- Consumer: retain this manual for future reference.

 DANGER	<p>CARBON MONOXIDE HAZARD</p> <p>This appliance can produce carbon monoxide, which has no odor. Using it in an enclosed space can kill you.</p> <p>Never use this appliance in an enclosed space such as a camper, tent, car or home.</p>

 DANGER	<p>If you smell gas:</p> <ul style="list-style-type: none"> • Shut off gas to the appliance. • Extinguish any open flame. • If odor continues, keep away from the appliance and immediately call your gas supplier or fire department.
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 DANGER	<p>HOT GLASS WILL CAUSE BURNS.</p> <p>DO NOT TOUCH GLASS UNTIL COOLED.</p> <p>NEVER ALLOW CHILDREN TO TOUCH GLASS.</p> <p>A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.</p>

 WARNING	<p>Do not store or use gasoline, or other flammable vapors and liquids, in the vicinity of this or any other appliance.</p> <p>A propane-cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.</p>
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 WARNING	<p>Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.</p> <p>Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.</p>
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 WARNING	<p>Some materials used in the manufacturing process of this product can expose you to Benzene which is known in the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov</p>
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	<p>WARNING: For Outdoor Use Only.</p>
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General Information & Safety

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General Information & Safety

Montigo products are designed with superior components and materials, and are assembled by trained craftsmen who take great pride in their work. Every component has been thoroughly inspected by a qualified technician before packaging and shipping to ensure that you, the customer, receive the quality product you expect from Montigo.

Conditions and Limitations

Montigo warrants its products against manufacturing defects to the original homeowner only, provided that the purchase was made through an authorized Montigo dealer and is subject to the following conditions and limitations:

- This limited warranty does not cover damages caused by misuse, lack of maintenance, grease fires, hostile environments, accident, alterations, abuse or neglect and parts installed from other manufacturers will nullify this warranty. Discoloration to plastic parts from chemical cleaners or UV exposure is not covered by this warranty.
- This limited warranty further does not cover any scratches, dents, painted finishes, corrosion or discoloring by heat, abrasive and chemical cleaners, nor chipping on porcelain enamel parts.
- Should deterioration of parts occur to the degree of non-performance (rusted through or burnt through) within the duration of the warranted coverage, a replacement part will be provided.
- After the first year, with respect to this Limited Warranty Montigo may, at its discretion, fully discharge all obligations with respect to this warranty by refunding to the original warranted purchaser the wholesale price of any warranted but defective part(s).
- Montigo will not be responsible for the installation, labor or any other costs or expenses related to the re-installation of a warranted part, and such expenses are not covered by this warranty.
- Notwithstanding any provision contained in this Limited Warranty Montigo's responsibility under this warranty is defined as above and it shall not in any event extend to any incidental, consequential, or indirect damages.
- This warranty defines the obligation and liability of Montigo with respect to the Montigo fireplace and any other warranties expressed or implied with respect to this product, its components or accessories are excluded.
- Montigo neither assumes, nor authorizes any third party to assume, on its behalf, any other liabilities with respect to the sale of this product.
- Montigo will not be responsible for: over firing, blow outs caused by environmental conditions such as strong winds, or inadequate ventilation,
- Any damages to the fireplace due to weather damage, hail, rough handling, damaging chemicals or cleaners will not be the responsibility of Montigo.
- The bill of sale or copy will be required together with a serial number and a model number when making any warranty claims from Montigo.
- Montigo reserves the right to have its representative inspect any product or part prior to honoring any warranty claim.
- Montigo shall not be liable for any transportation charges, labor costs, or export duties.

WARNING

For outdoor use only

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this gas appliance.



General Information & Safety

Getting Started

Congratulations on the purchase of a Montigo Fireplace

This product must be installed by a qualified installer.

- Do not install this model inside your home or any other confined space.
- See location section for minimum outdoor space requirements.
- Only burn this model with the glass front installed including the safety screen protecting you from accidental contact with the hot glass.
- Please unpack the fireplace and count all of the parts before you start installing.
- Make sure you inspected this fireplace for possible freight damage as well as scratches to the front portion of this fireplace. To clean the front portion use a mild cleaning agent and wipe the stainless steel in the direction of the grain.
- Build a structure of your choice around the fireplace with wood, steel studs or any other conventional building materials.
- Select a location that will limit the exposure to strong winds.
- Follow the location section guidelines for installations in smaller spaces

Gas line and connection:

- Have a certified gas fitter install a gas line that will supply the required level of gas to the left side of this fireplace with an accessible gas service shut off valve. Gas supply as per the rating and pressures shown in section "Gas Connection"

CAUTION

Ensure that all power to the appliance is off at the electrical breaker or fuse before beginning installation. Ensure gas is turned off at the shutoff valve before beginning installation.

Electrical:

- The unit has built in fans to force out all of the heat right above the glass window. Due to the glass window, this model is less sensitive to moderate wind conditions.
- Select a location where you would like to install the control box that will control this fireplace.
- Install a 120 Volt cable from this box to the fireplace as per the electrical diagram.
- Plug the power cable from your control box into a power supply that is protected by a ground fault Breaker (GFCI)
- The toggle switch that is located on the left side of the control box will start the blowers running.
- Safety switches in the bottom of the fireplace will sense the moving air stream and activate the gas burner system.
- The electrical installation must comply with applicable standards.

WARNING

During unpacking and assembly we recommended you wear work gloves and safety glasses for your protection. Although we make every effort to make the assembly process as problem free and safe as possible, it is characteristic of fabricated steel parts that the edges and corners might be sharp and could cause cuts if handled incorrectly.



General Information & Safety

Safe Operating Practices

- Contact with this appliance can cause severe burns.
- Installation and repair must be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative the control compartment, burners and circulating air passageways of the appliance be kept clean.
- Do not operate appliance before reading and understanding operating instructions. Failure to operate appliance according to operating instructions could cause fire or injury.
- Risk of burns. The appliance should be turned off and cooled before servicing.
- Do not install damaged, incomplete or substitute components.
- Young children should be carefully supervised when they are in the area of the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the vicinity. To restrict access to an appliance or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the vicinity and away from hot surfaces.
- Ensure you have incorporated adequate safety measures to protect infants/toddlers from touching hot surfaces.
- Under no circumstances should this appliance be modified.
- Keep the packaging material out of reach of children and dispose of the material in a safe manner. As with all plastic bags, these are not toys and should be kept away from children and infants.
- Do not leave appliance unattended when in use.
- For outdoor use only.
- This unit is not for use with solid fuel.
- Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.
- This appliance shall be used ONLY outdoors in a well-ventilated space and shall NOT be used inside a building, garage, or any other enclosed area.
- Clothing or other flammable materials should not be hung from the appliance, or placed on or near the appliance.
- Any guard or other protective device removed for servicing the appliance must be replaced prior to operating the appliance.
- Inspect the fuel supply connection for signs of leakage (including the hose for Propane models) before each use of the appliance.
- To extend the life of your appliance, protect and cover it from the elements when not in use.
- Inspect the burner before each use, burner must be replaced prior to the appliance being put into operation if it is evident that the burner is damaged. Replacement burner shall be one specified by Montigo.
- Inspect the hose before each use of the appliance, if applicable. Hose assembly must be replaced prior to the appliance being put into operation if there is evidence of excessive abrasion or wear or if the hose is damaged. Replacement hose assembly shall be that specified by the Montigo.
- This product must be installed by a licensed plumber or gas fitter. See appendix B for installation within the Commonwealth of Massachusetts requirements.
- The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).

General Information & Safety



Certification

Rating Plate Location:

The rating plate can be found on the underside of the control box cover.



Figure 2 Control box rating plate

Full Rating Plate Location:

A rating plate with additional information can be found secured with velcro on the inside wall of the base of the firebox. To access the rating plate, the door and lower air baffle can first be removed for easier access. (See Door Installation/Removal section for instructions)

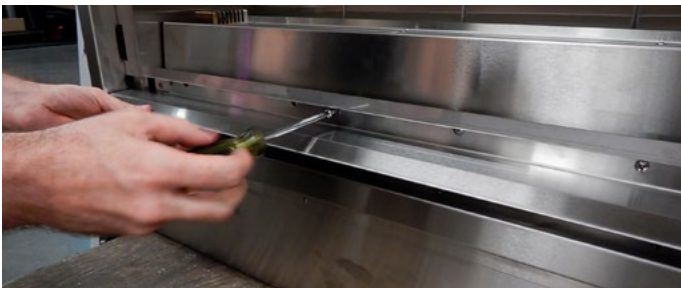


Figure 4 Removal of lower air baffle



Figure 3 Full Rating plate

Do Not Remove This Label
N'enlevez Pas Cette Étiquette



Type: Outdoor Decorative Gas Fireplace
 Not for use with solid fuel. / Pas pour l'usage avec le combustible solide.
 Not for use with air filters. / Pas pour l'usage avec des filtres à air.

Model No. / Modèle: PL60VONE

Serial No.: 2-170908-XXXXXX

Manufacturer / Fabricant: Canadian Heating Products Inc., Langley BC
 Montigo DelRay Corp., Ferndale, WA

Tested To / Examiné À: ANSI Z21.97-2014 / CSA 2.41-2014

Electrical Rating / Estimation Électrique: 115V/1Ph/60Hz/5.0A (GFCI ck)

Altitude Rating / Estimation D'Altitude: N & H (0 - 4500 ft. / 0 - 1371 m).

Fuel Type / Type De Carburant:

N - Natural Gas / Gaz Naturel
 LP - Propane / Gaz Propane

Max. Input Max. Entrée BTU/H	Min. Input Min. Entrée BTU/H	Output / Rendement BTU/H	Orifice Size / Taille D'Orifice Front/Avant Rear/Derrière
47,000	47,000	N/A	5@1.45mm / N/A 5@64 DMS / N/A

FOR USE WITH GLASS DOORS AND SCREENS CERTIFIED WITH THE APPLIANCE ONLY
 Pour utilisation avec portes de verre et écrans de certifiés avec l'appareil seulement.

***Refer to installation manual for more information.**
 *Référez-vous au manuel d'installation pour plus d'information.

*Clearance to Combustibles *Dégagements Aux Combustibles	
Sides/Côtés:	1"
Back/Derrière:	0"
Top-Top Vent/Du Haut-Évent Du Haut:	N/A
Top-Rear Vent/Du Haut-Évent Arrière:	N/A
Floor/Plancher:	0"
Mantel/Manteau:	6"
Recess Depth/Profondeur D'Encaissement:	N/A
To Ceiling:	36"

Gas Manifold Pressure / Pression D'Admission Du Gaz	Min. Gas Supply Pressure / Min. Pression D'Alimentation Du Gaz
3.5" W.C.	5.5" W.C.
10" W.C.	11" W.C.

Figure 1 Rating plate example



General Information & Safety

Appliance Certification

Certification

Standard: ANSI Z21.97-2014/CSA 2.41-2014

Type of Appliance: Outdoor Decorative Gas Appliance

Approvals: Approved for use in USA and Canada. Approved for use in the State of Massachusetts

Certification Agency: Canadian Standards Association (CSA)

Installation Standards:

The installations must confirm with the requirements listed in this document and to local codes. In the absence of local codes, it must conform to the National Standards listed below. The appliance must be electrically wired and grounded in accordance with the local codes and in the absence of local codes must confirm to the National Standards listed below.

USA: National Fuel Gas Code: ANSI 223.1/NFPA54

National Electrical Code: NFPA 70

Canada: Natural Gas and Propane Installation Code CSAB149.1

Canadian Electrical Code CSA 22.1

MAHANA MODEL	FUEL	ORIFICE SIZE	MAX. INPUT Btu/Hr	MIN GAS INLET PRESSURES
PL42VONE	Natural Gas	1.45mmx3	28,000	5.5" W.C.
PL42VOLE	Propane Gas	#64x3	28,000	11.0" W.C.
PL60VONE	Natural Gas	1.45mmx5	47,000	5.5" W.C.
PL60VOLE	Propane Gas	#64x5	47,000	11.0" W.C.

Figure 5 PL42VO, PL60VO Gas Standards

High Altitude Installations:

If the heating value of the Natural Gas or Propane supply is derated to compensate for the high altitude, the following requirements may not apply. Please check with your local gas supplier or authority having jurisdiction and contact your Montigo dealer.

USA: This appliance is approved for installations up to an altitude of 2000 ft. (610 m) above sea level. For installations beyond this level, please contact your Montigo dealer for high altitude conversion kits.

CANADA: This appliance is approved for installations up to an altitude of 4500 ft. (1370m) above sea level. For installations beyond this level, please contact your Montigo dealer for high altitude conversion kits.

Operational Warnings

WARNING! Initial Lighting: When lit for the first time, the appliance emits a slight odor. This is a normal temporary condition caused by the "burn-off" of internal paints and lubricants used in the manufacturing process and does not occur again. Simply run the main burner on high for up to 8 hours.

WARNING! You must have clear and easy access to the manual shut off valve AFTER the appliance is installed and connected to the gas supply in order to safely turn off the gas to the appliance for emergencies.

WARNING! Never use this appliance for other than the intended use.

WARNING!

- Children and adults should be alerted to the hazards of high surface temperatures and should stay away from the appliance to avoid burns or clothing ignition.
- Children should be carefully supervised when they are in the area of the appliance.
- Maintain 36" clearance from appliance front to any combustible material.
- Clothing or other flammable materials should not be hung from the appliance, or placed on or near the appliance.
- Any guard or protective device removed for servicing the appliance must be replaced prior to operating the appliance.
- Installation and repair should be done by a qualified service person.
- The appliance should be inspected before each use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.

NOTE The appliance has been designed with several safety features, which include a safety valve. If the burner flame is extinguished the appliance will automatically shut down.

This appliance is also equipped with two air proving switches which will shut off gas to the burner if the air supply to the unit is compromised.

WARNING! Any modification to the appliance may compromise the safety of this appliance.

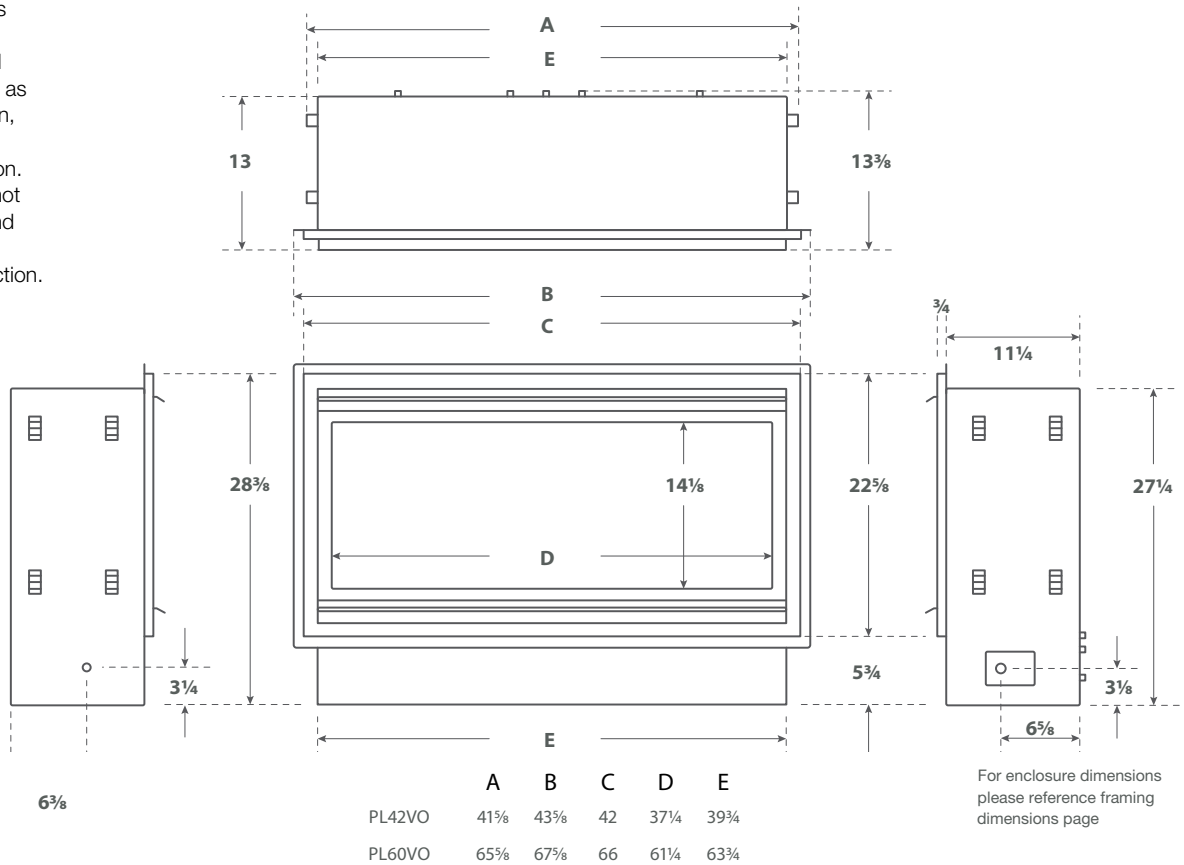
Do not operate the appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control, which has been underwater.



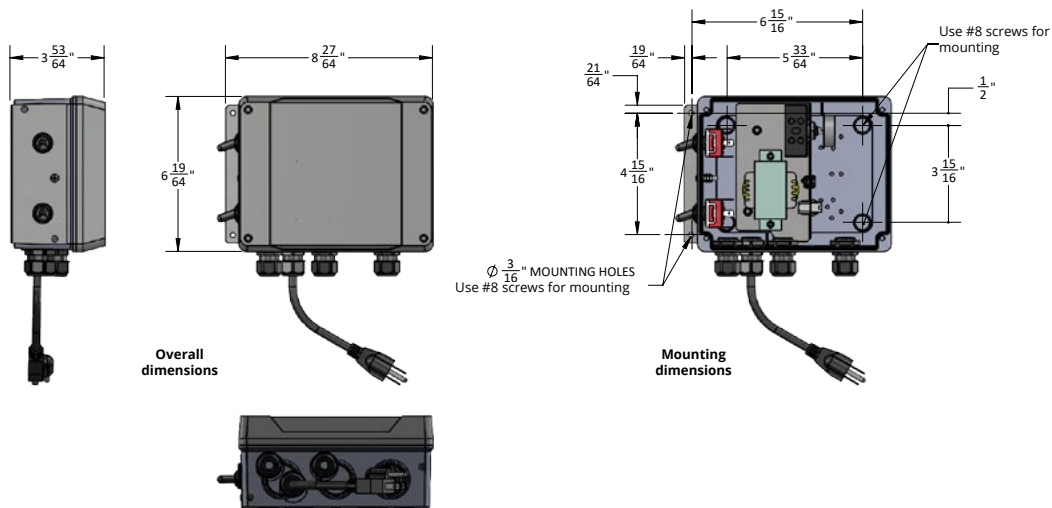
Dimensions

The fireplace may be installed in any location that maintains proper clearances to air conditioning ducts, electrical wiring and plumbing. Safety, as well as efficiency of operation, should be considered when selecting the fireplace location. Select a location that does not interfere with room traffic, and has adequate ventilation as described in the location section.

MAHANA Dimensions



Control Box Dimensions





Location Considerations

The fireplace is designed for outdoor use up to a temperature of -40 deg F and may be installed as a standalone unit or built into an outside wall. It may be installed in covered or screened porches that meet these minimum requirements:

- For covered porches, a minimum of ONE full side and ONE HALF side (top portion of the wall) must be open to outside ventilation.
- For screened porches, a minimum of TWO full sides must be screened with > 75% open area screen.
- Minimum Ceiling Height – 36 inches from the top of the fireplace opening.
- Minimum Distance to Combustibles in the front – 36 inches from the screen surface
- Mantle and side wall restrictions- see the finishing section

If this appliance is installed into a wall, you must:

- Provide access to the gas shutoff valve
- Flash the front perimeter of the appliance in accordance with regional requirements using exterior caulking or appropriate materials to prevent the penetration of water around the appliance into the wall. Considerations must be taken to manage the water that may penetrate through the appliance to prevent water accumulation and flooding at the bottom of the fireplace enclosure. The fireplace enclosure has water drainage holes and must be installed with proper drainage. Montigo encourages you to consult your Building Envelope Engineer or Waterproofing Consultant for further recommendations.

This appliance may be installed on a wood or combustible deck.

Refer to Framing section for framing dimensions and clearances.

Installation MUST comply with local, regional, state and national codes and regulations. Consult authorities having jurisdiction over restrictions, installation inspections and permits

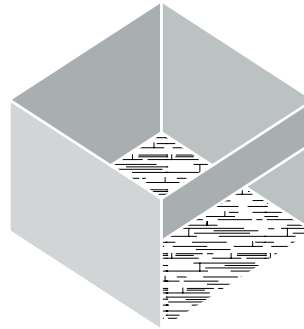


Figure 6

With walls on all sides, but at least one permanent opening at ground level and no overhead cover.

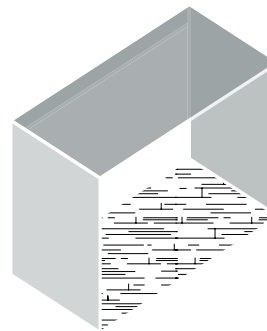


Figure 7

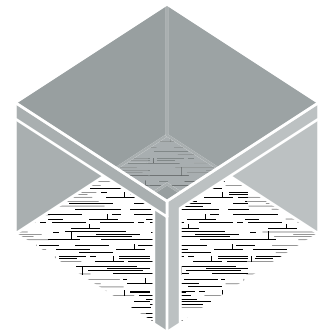


Figure 8

Within a partial enclosure which includes an overhead cover and no more than two sidewalls. These sidewalls may be parallel, as in a breezeway, or at right angles to each other.

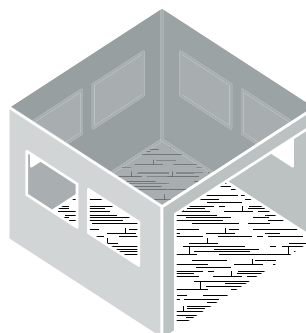
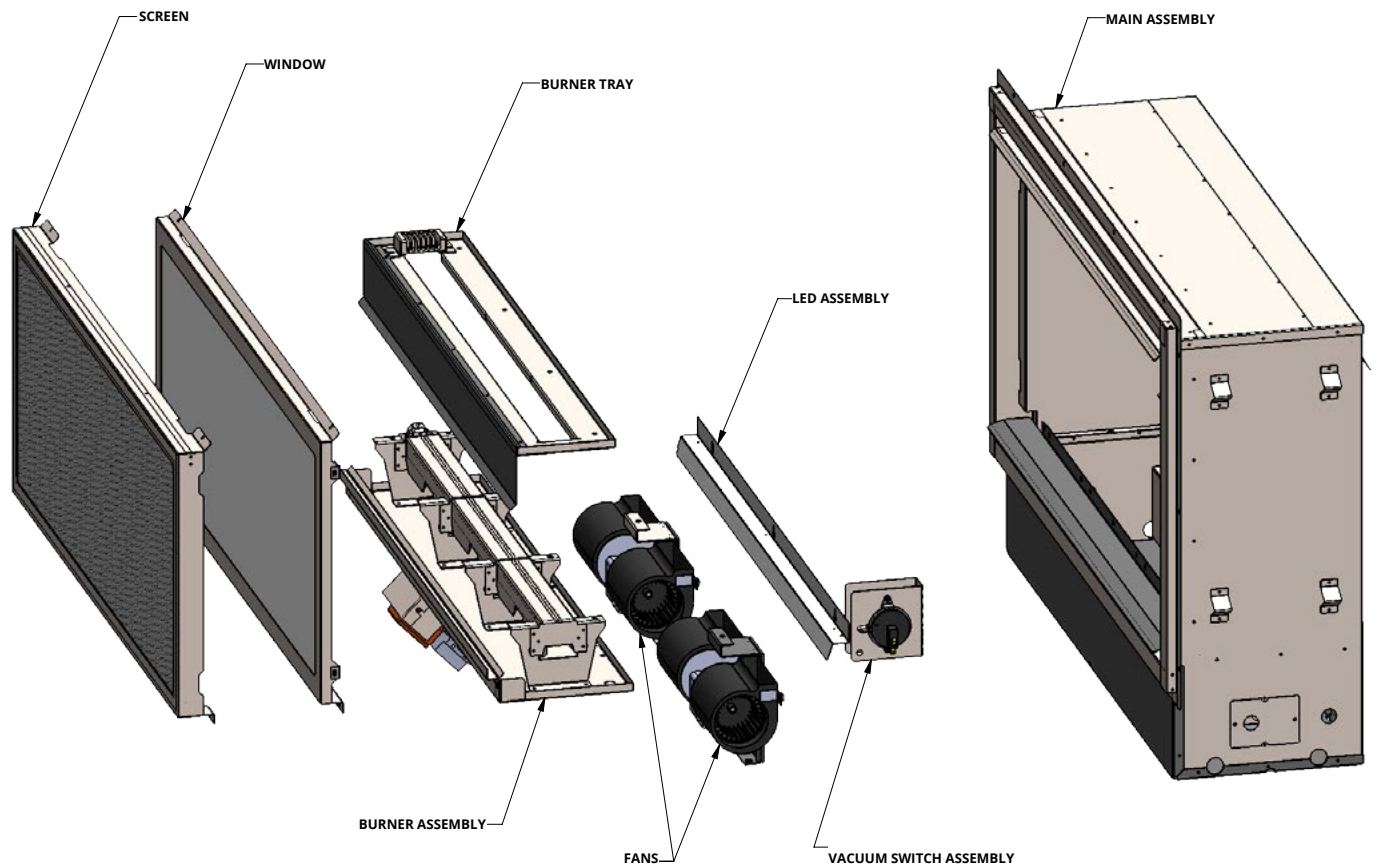


Figure 9

A three sided enclosure must feature 30 percent or more of the upper area of the enclosure is permanently open.



MAHANA Exploded Part View



Tools and Supplies required

The list below is only for guidance, please review the instructions fully before installation.

Tool List

- Phillips head screwdriver
- Wrenches (5/8", 1", and 8mm)
- Voltmeter
- 3/16" Allen key
- 1/4" barb x 1/8" MPT fitting, with corresponding deep socket
- Manometer (to measure gas pressures)

Supply List

- Non-corrosive leak test solution
- Control box mounting screws #8
- Fireplace mounting screws
- 3 Conductor outdoor power cable 18AWG (Live, Neutral, Ground) (30ft. or as required)



Gas supply requirements

Have a certified gas fitter install a gas line that will supply the required level of gas to the left side of this fireplace with an accessible gas service shut of valve. (shut off valve supplied)

Montigo requires a service shut off valve be located in an accessible location to isolate the gas supply.

Only install gas shut-off valves supplied or approved for use by the state, province, or other governing body in which the fireplace is being installed.

Flexible gas connectors must not exceed 3 feet in length, unless allowable within local regulations.

Connect incoming gas line to the 1/2" or 3/8" gas inlet port.

Keep the hose out of pathways where people may trip over it or in areas where the hose may be subject to accidental damage

GAS PRESSURE

- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z221.3 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.

Pressure requirements are:

Gas Pressure	Natural Gas	Propane
Minimum inlet pressure	5.5in. w.c.	11in. w.c.
Manifold pressure	3.5in. w.c.	10in. w.c.



Figure 12 Gas connection

Electrical Requirements

The fireplace is supplied with a waterproof control box which may be mounted to an outside wall and a 3 foot powercord. A GFCI protected plug to plugin the control box is required within 3 feet of the control box.

Electrical Requirement for Control Box: 120VAC, 60 Hz, 5 A. GFCI protected plug required.

30 foot communication cable is supplied with the fireplace to connect the control box to the fireplace.

3 conductor (Live, Neutral, and Ground) outdoor rated cable must be supplied by the installer to provide 120VAC power from the control box to the Fireplace (see figure below).

The optional Fireplace remote control comes in a separate water tight box and can be mounted to the outside wall close to the fireplace control box and needs to be wired to the control box using a 3-conductor outdoor rated cable (supplied).

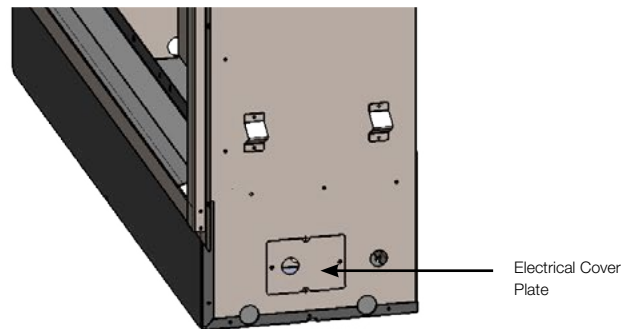


Figure 11 Electrical Plate location

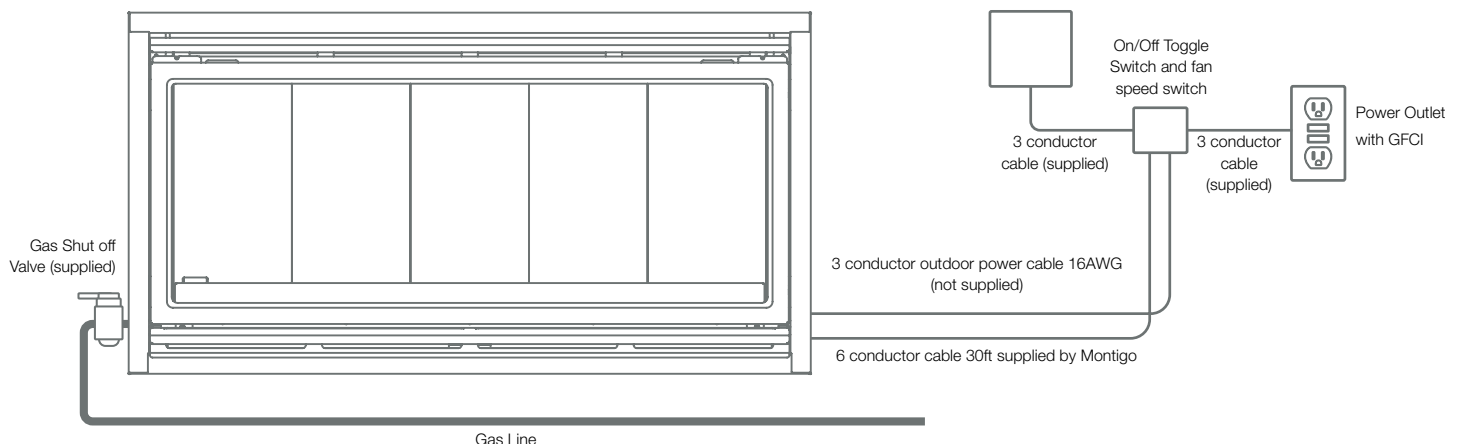


Figure 10 Gas and electrical



MAHANA Framing

PL42VO In The Wall and Corner Installation

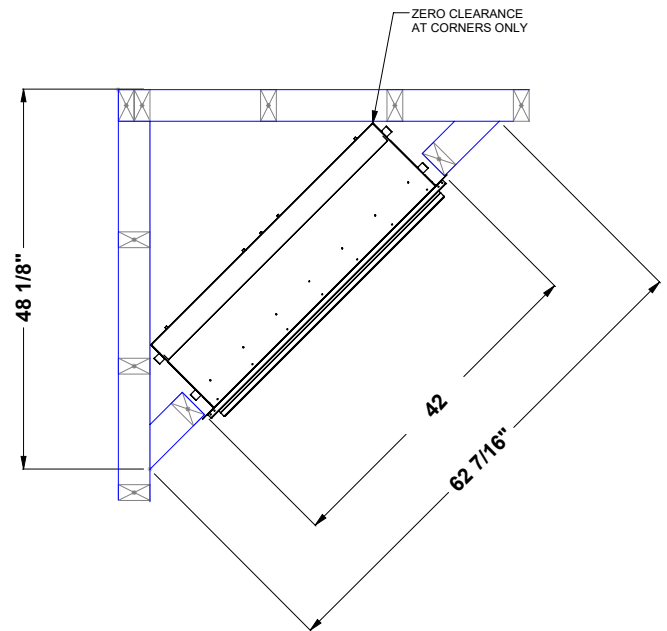
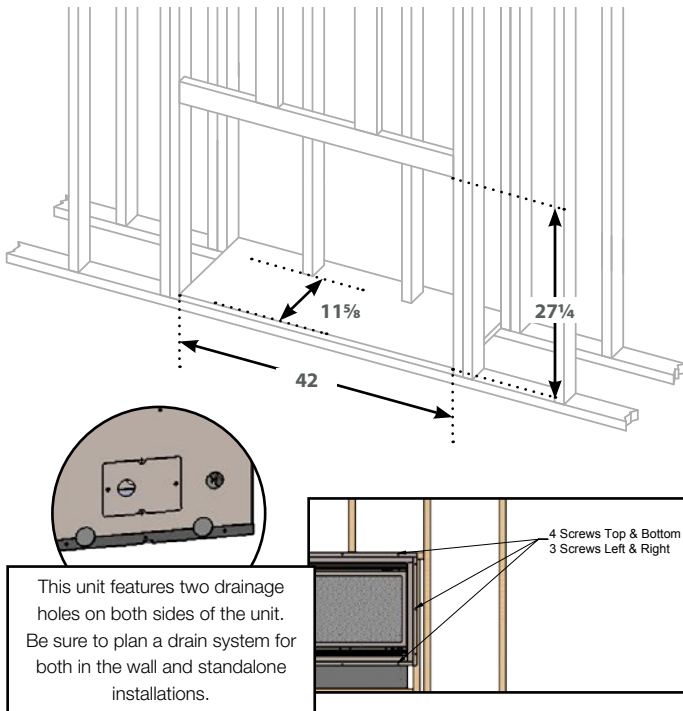


Figure 13 *Corner dimensions*

NOTE: Pre-fabricated stainless steel enclosure for the PL42VO is available from Montigo (Product code: PL42VOBE)

Frame in the enclosure for the unit with framing materials. An outdoor sealant must be used along the edge of the appliance and the non-combustible material to keep water from entering the chase.

NOTE: When constructing the framed opening, please ensure there is access to install the gas line and electrical when the unit is installed.

***Clearance to grade**

12" clearance to grade applies in situations where the fireplace and framing penetrates the building envelope. Additionally, if snow accumulation may occur, than the 12" clearance should be adhered to.

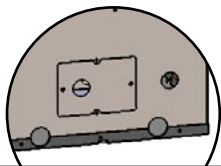
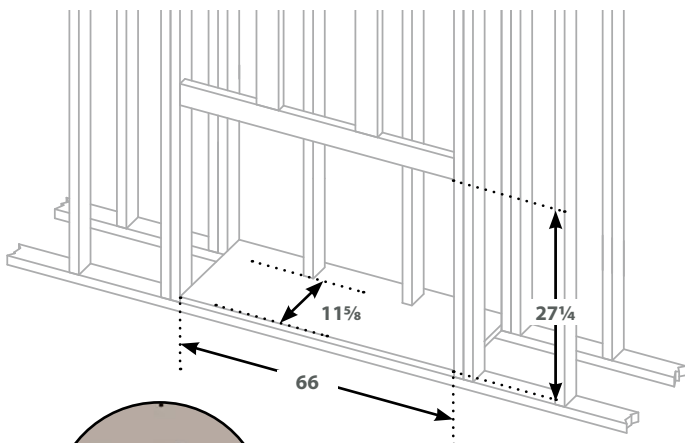
This 12" clearance can be disregarded in situations where:

- A standalone enclosure has been built or purchased.
- The fireplace and framing does not penetrate the building envelope.
- Covered porches with overhang that prevents weather from contacting the fireplace wall.

If local codes states a clearance greater than the one listed here, than revert to local code clearance.



PL60VO In The Wall and Corner Installation



This unit features two drainage holes on both sides of the unit. Be sure to plan a drain system for both in the wall and standalone installations.

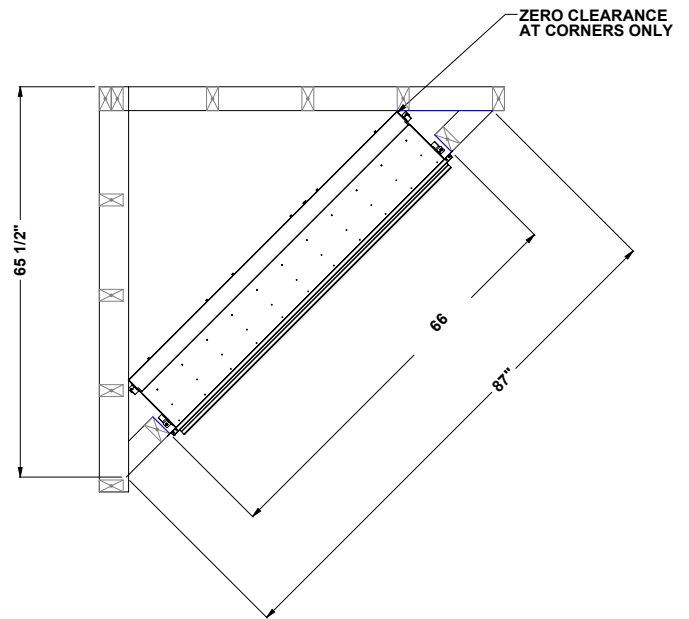
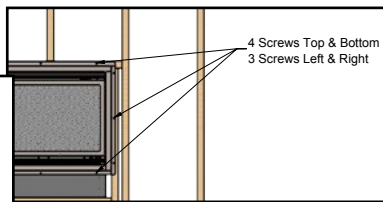
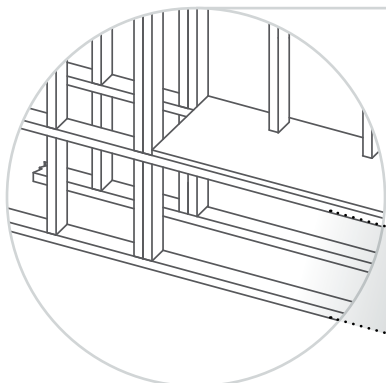


Figure 14 *Corner dimensions*

NOTE: Pre-fabricated stainless steel enclosure for the PL60VO is available from Montigo (Product code: PL60VOBE)

Frame in the enclosure for the unit with framing materials. An outdoor sealant must be used along the edge of the appliance and the non-combustible material to keep water from entering the chase.

NOTE: When constructing the framed opening, please ensure there is access to install the gas line and electrical when the unit is installed.



***Clearance to grade**

12" clearance to grade applies in situations where the fireplace and framing penetrates the building envelope. Additionally, if snow accumulation may occur, than the 12" clearance should be adhered to.

This 12" clearance can be disregarded in situations where:

- A standalone enclosure has been built or purchased.
- The fireplace and framing does not penetrate the building envelope.
- Covered porches with overhang that prevents weather from contacting the fireplace wall.

If local codes states a clearance greater than the one listed here, than revert to local code clearance.



Clearances

Combustible mantels and mouldings may be safely installed over the top and on the front of the fireplace provided that they do not project beyond shaded area shown.

Mantels & Surrounds

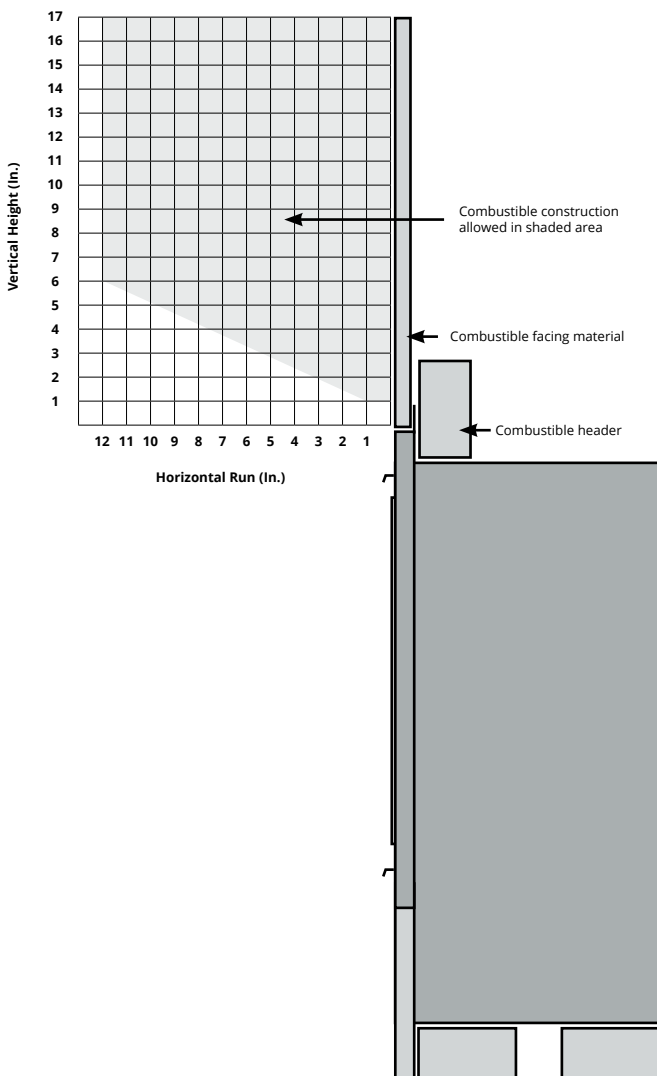


Figure 21.a Combustible mantels and facings. (Not to scale)

NOTE: National Canadian Gas Association mantel test requirements are for fire hazard prevention to combustible materials.

Please be aware; temperatures over the mantel will rise above normal room temperature and walls above fireplace may be hot to touch.

Side wall clearances are 6" as shown.

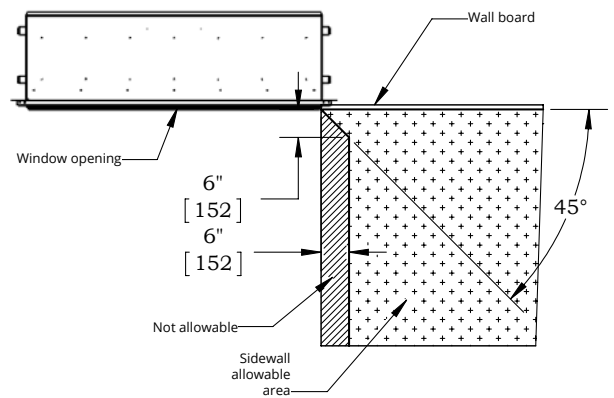


Figure 24 Sidewall Clearance

⚠ CAUTION

We recommend careful consideration be given to the effects of elevated mantel temperatures which may be in excess of product design, for example; candles, plastic or pictures. This can cause melting, deformation, discolouration or premature failure of T.V. radio, and other electronic components.

Clearance Specifications

- Full combustible construction allowed including combustible facing material
- 6" minimum clearance to perpendicular wall
- Minimum clearance to ceiling (from fireplace opening): 36"
- Distance to combustible material in front: 36"



Finishing

Standalone

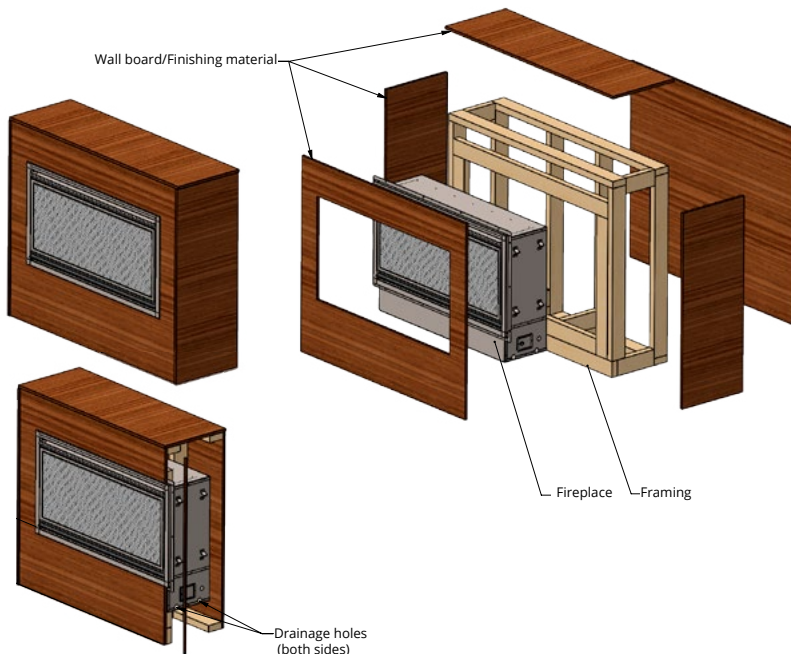
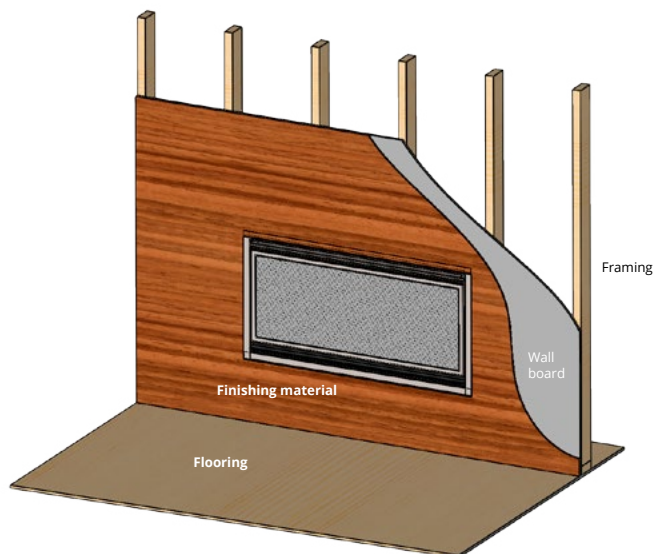


Figure 25 Standalone Finishing

Fireplace Facing

When sizing the finish material for your fireplace, it is important to remember the following: **THE OPENING MUST NOT BE OBSTRUCTED IN ANY WAY** - to do so restricts the air supply for the control compartments and heat exchanger it also prevents access for servicing controls.

In The Wall Installation



Decorative facing must not extend past the fireplace opening, because it will interfere with the access to retainers for removal of glass door and restrict airflow into the unit.



Control Box Install

Mounting the Fireplace Control Box

Install the Fireplace Control Box in an accessible location within 3' of the fireplace. The location should be where maintenance, adjustments and service may be made easily.

Mount the control box with 4 #8 screws (not supplied) and seal with an outdoor rated sealant.

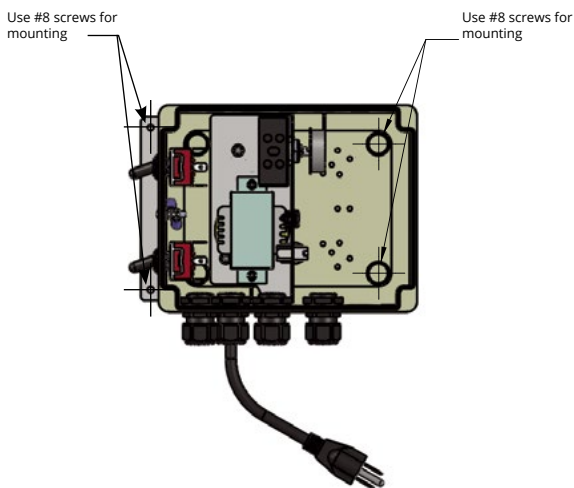


Figure 26 Control box mounting

⚠ CAUTION

Ensure the wires are properly isolated from metal parts or control system will be damaged.

The control box must be mounted in the orientation shown above with the wires descending from the bottom to minimize the potential for water ingress.

Wiring

A qualified electrician must install the wiring. The unit is supplied with an external electrical control box pre-wired by the factory. The control box is connected to the fireplace with a control cable that will communicate with the fireplace. The control box should be located where it can be accessed when the fireplace has been finished in.

Installations in Canada must be electrically grounded in accordance with CSA C22.1 Canadian Electrical Code Part 1 and/or Local Codes.

Installations in the USA must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70.

Note: If any of the original wire supplied with the appliance is replaced, it must be with the same it's equivalent.

Connect a 3-Conductor outdoor rated cable from the control box wire marked "to blowers in fireplace" to the 3 wires on the right side of the fireplace.

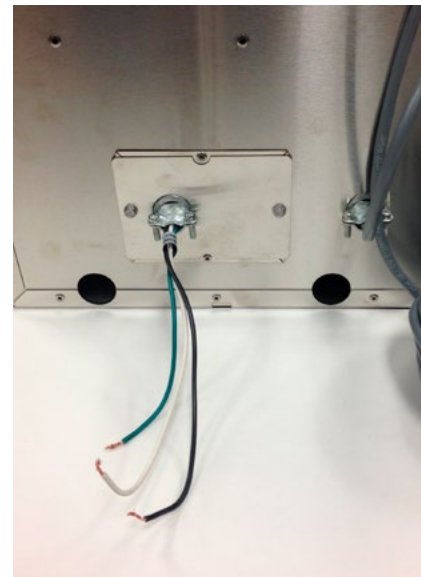


Figure 27 Wires to Blowers



Wiring Connection

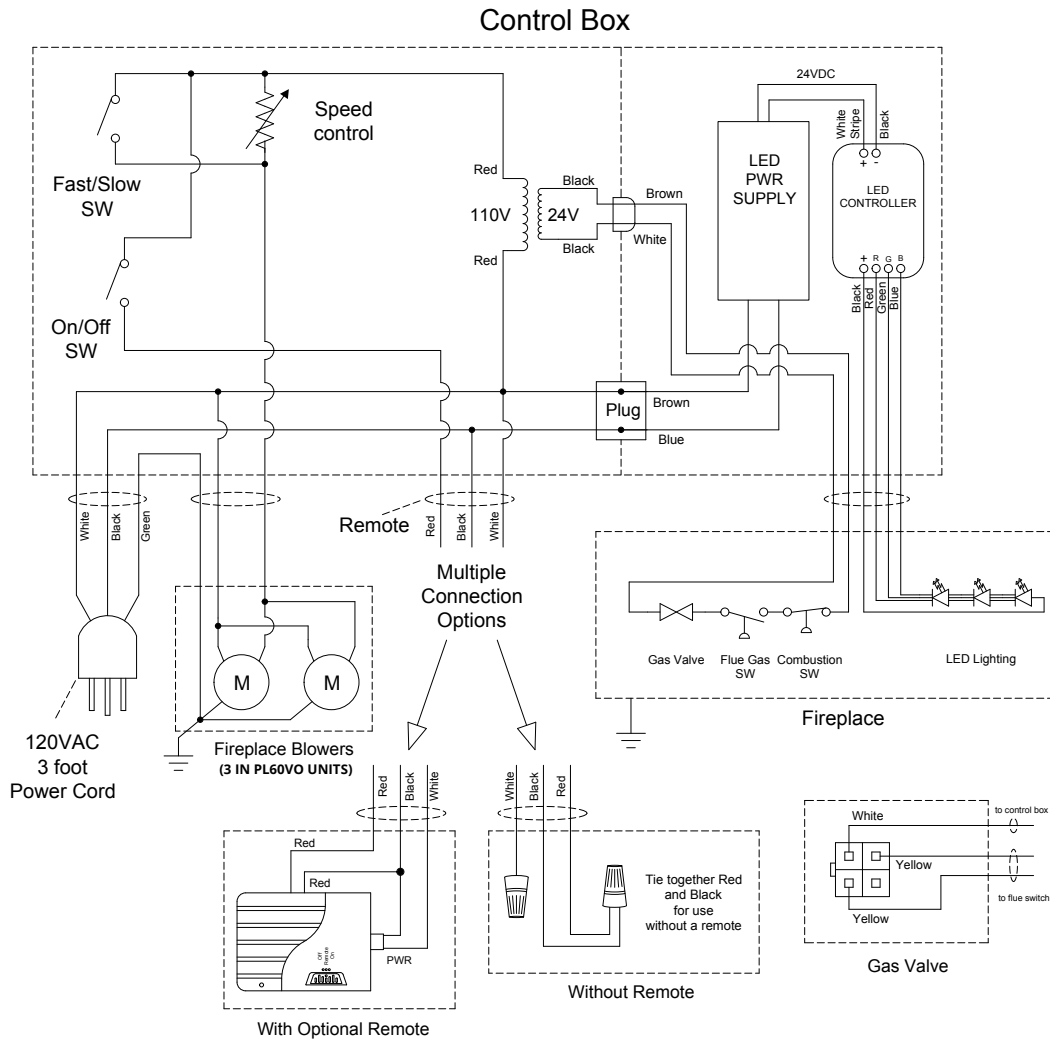


Figure 28 Wiring schematic



Installation

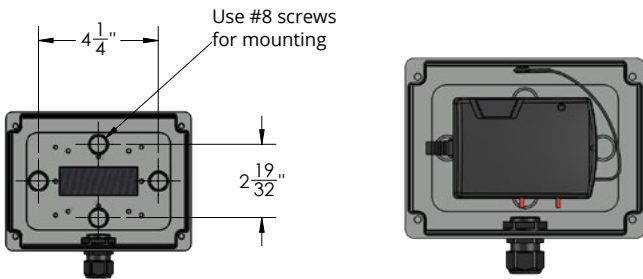
Wiring Instructions (remote box to main control box)

A qualified electrician must install the remote control system.
Turn off all power and gas to fireplace.

⚠ WARNING

This remote control system must be installed exactly as outlined in these instructions. Read all instructions completely before attempting installation. Follow instructions carefully during installation. Any modifications of this remote control or any of its components will void the warranty and may pose a fire hazard.

1. Attach the remote control box within 3 feet of main control box. (the remote receiver is attached with velcro and may have to be removed to access mounting screw slots.



MOUNTING DIMENSIONS
(Shown w/o receiver)

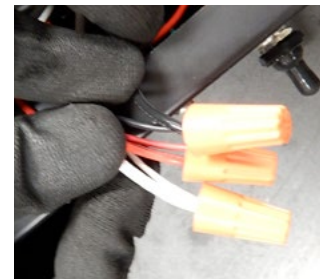
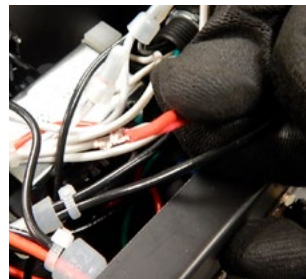
2. Locate the wire running from the remote receiver and remove the wire nuts at the ends of the wires.



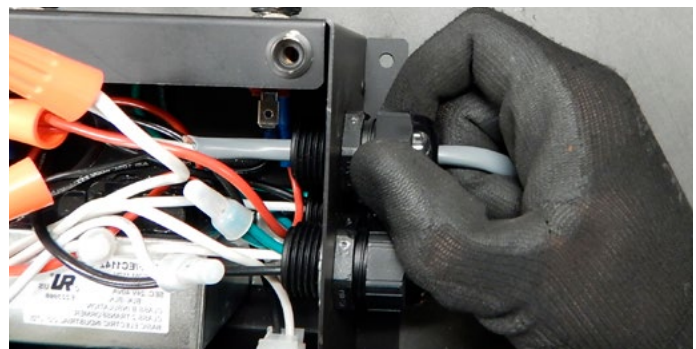
3. Feed the wire into the control box side.



4. Connect the wires shown above from the remote receiver to the wires from the control box. Black to black, red to red, and white to white.



5. After the wires are connected, tighten the strain relief connector nuts.





LED Remote Receiver Installation (Optional Accessory)

Wiring Instructions

A qualified electrician must install the remote control system.

Turn off all power and gas to fireplace.

WARNING

This remote control system must be installed exactly as outlined in these instructions. Read all instructions completely before attempting installation. Follow instructions carefully during installation. Any modifications of this remote control or any of its components will void the warranty and may pose a fire hazard.

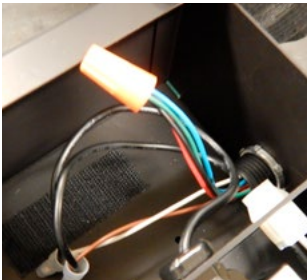


Figure 30 Removal of wire nut

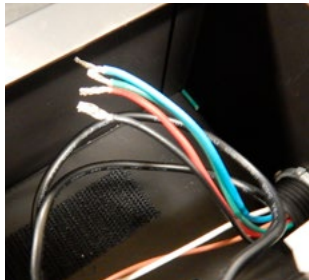


Figure 31 Removal of wire nut

1. The remote receiver is installed in the main control box. To start, remove the wire nut from the wire feeding into the control box.



Figure 32 Attaching the receiver



Figure 33 Attaching the receiver

2. Place a Velcro strip (provided) on the bottom of the control box to fasten the receiver in place, with the other strip on the bottom of the receiver. Then place the receiver into the box.



Figure 34 Connecting the LED receiver

3. Connect the white power connector from the LED receiver to the connector from the control box.



Figure 35 Wiring the LED receiver

4. Connect the wires from the remote receiver to their respective terminals in the LED receiver (BK-Black R-Red G-Green BL-Blue)



LED Strip Installation (Optional Accessory)

LED Strip Instructions

Power to the unit MUST be disconnected before installing

For instructions on how to remove the door please see the door install/removal section.

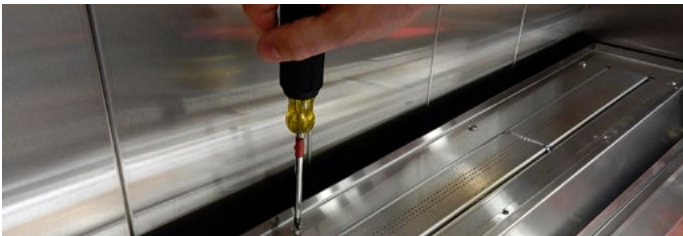


Figure 39 *Removing the media tray*

1. Unscrew the 4 screws securing the media tray to the burner.

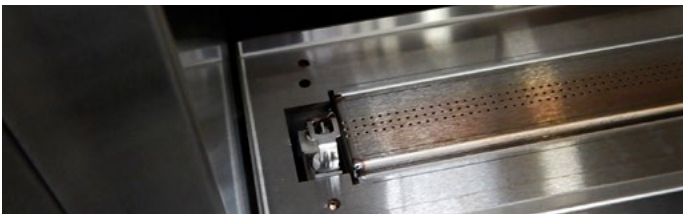


Figure 40 *Removing the pilot cover*

2. Remove the pilot cover from the burner tray.



Figure 41 *Firebox with tray removed*

3. The tray can now be removed from the firebox.



Figure 42 *Loosening air baffle bolts*

4. Loosen the 3 bolts securing the baffle to the back of the firebox.

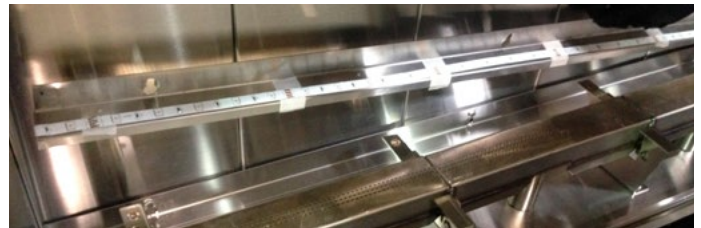


Figure 43 *Adding LED air baffle*

5. Place LED air baffle resting on the existing air baffle.

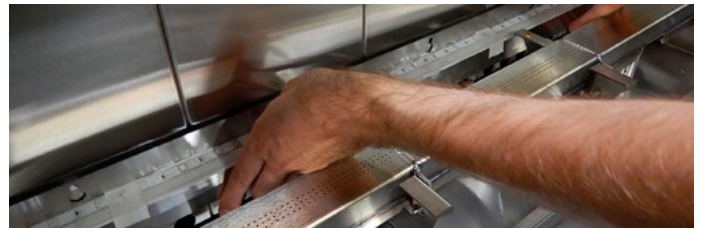


Figure 44 *Installing LED air baffle*

6. Install the LED strip baffle onto the bolts and tighten.



Figure 45 *Connecting power*

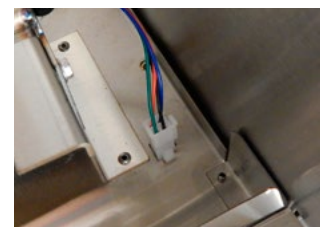


Figure 46 *connected power*

7. Connect the white power connector from the LED strip to the connector in the right side of the firebox.



Gas connection

FUEL CONVERSION

- Verify that your fireplace is compatible with your available gas type. (Natural Gas or Propane shown by "N" or "L" in your model number and rating plate.
- If gas type is not compatible, contact your local Montigo dealer as this fireplace is NOT field convertible.

GAS PRESSURE

- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z221.3 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.

Pressure requirements are:

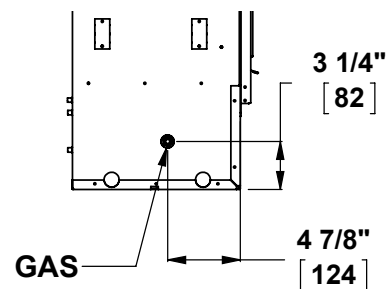
Gas Pressure	Natural Gas	Propane
Minimum inlet pressure	5.5in. w.c.	11in. w.c.
Manifold pressure	3.5in. w.c.	10in. w.c.

- The manifold outlet pressure is set from the factory to the appropriate pressure but should be verified.
- To check pressures, control valves have a provision to remove a 1/8" N.P.T. plug to be fitted with a hose barb.
- Montigo requires a service shut off valve be located in an accessible location to isolate the gas supply.
- Only install gas shut-off valves approved for use by the state, province, or other governing body in which the fireplace is being installed.

NOTE: After gas line is connected, each appliance connection, valve and valve train must be checked while under normal operating pressure with either a liquid solution, or leak detection device, to locate any source of leak. Tighten any areas where bubbling appears or leak is detected until bubbling stops completely or leak is no longer detected. DO NOT use a flame of any kind to test for leaks.

GAS CONNECTION

- The fireplace is supplied with a 1/2 FPT gas shutoff valve
- Connect incoming gas line to the 1/2" gas inlet pipe.
- Purge all air out of gas line.
- Check appliance connection, valve and valve train under normal operating pressure with a commercially available leak check solution.
- DO NOT USE A FLAME OF ANY KIND TO TEST FOR LEAKS.



NOTICE

Flexible gas connectors must not exceed 3 feet in length, unless allowable within local regulations.

WARNING

When pressure testing the fireplace, Gas line, and input system follow the appropriate local codes or your area. DO NOT connect the fireplace to pressures in excess of 1/2lb. This will damage the gas control valve.

WARNING

When installing the fireplace - gas lines, fittings, accessories or any other objects CANNOT impede the proper movement of the fans or door.



Installing the louvres

Step 1:

Remove the protective coating from the louvers. Phillips-head stainless steel screws are provided for installation.



Figure 55 *Removing the left side screw*

Step 2:

Position the top louver, as shown in this image, and attach using the screws provided.



Figure 56 *Removing the left side screw*

Step 3:

Position the bottom louver and affix using the remaining screws.
Note: this louver must be uninstalled to remove the door



Figure 57 *Removing the left side screw*



Installing & Removing the Door

Removing the door

The doors are removed in a few simple steps. Follow these instructions below.

Step 1:

Remove the Lower louvre below the door by removing screws as shown.

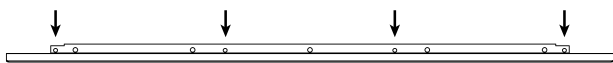


Figure 62 Removing the left side screw

Step 2:

Remove the inner screw on the lower left side below the door. **Place one hand underneath while unscrewing the door to catch the screw.**



Figure 58 Removing the left side screw

Step 3:

Remove the inner screw in the same location on the right side.



Figure 59 Removing the right side screw

Step 4:

Tilt the bottom of the door upward to release the door tab from the firebox slot.

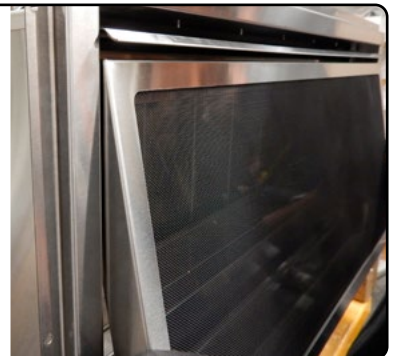


Figure 60 Lifting the base of the door

Step 5:

Lift slightly and pull the door forward to complete the removal of the door.



Figure 61 Completing removal of the door

Installing the Door

To install the door, simply follow the door removal instructions and reverse order.

WARNING

When installing the fireplace - gas lines, fittings, accessories or any other objects CANNOT impede the proper movement of the door or other moving parts.



Installing the Firestones

The unit is supplied with firestones, 6lbs for PL42VO, 9lbs for the PL60VO (order code HW1106). Remove the door as shown in the previous Instruction. Follow these instructions to ensure all parts are removed or replaced as required. Once the glass door is removed place the firestones randomly across the pan and the burners as described.

Note: Only cover the burner with one layer of media



WARNING

Firestones or another approved media must be installed before operating the fireplace.



Figure 64 *Installation of the firestones. (Ensure ONLY one layer of firestones cover the burner surface).*



Figure 65 *Spreading the firestones evenly and make sure there are no firestones covering the pilot.*



Figure 66 *DO NOT place ANY firestones on top of the pilot cover).*

WARNING: This appliance is intended for use only with the included Montigo burners and accessories. Never install or add any additional or alternative media, rock wool or other material in this appliance. The use of additional or alternative materials may pose potential safety hazards, damage to the appliance, and void manufacturer's warranty.



Installing Optional Media

Installing Optional Speckled Stones

[RR150SS for PL42VO, RR300SS for PL60VO]

Once the glass door has been removed, place the speckled stones evenly across the pan and burner see figure 55. Ensure stones do not overlap too much as this will effect the flame pattern, see Figure 55. **DO NOT** cover the pilot with stones, see Figure 56. Ensure numbers are facing down.

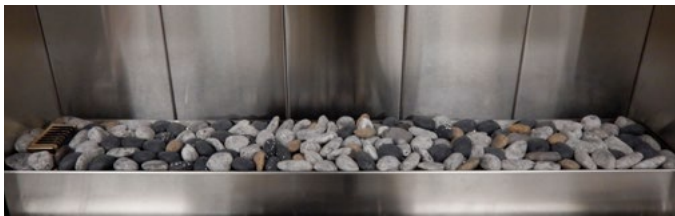


Figure 67 *Evenly placed speckled stones*



Figure 68 *Ensure the stones DO NOT cover the pilot.*

WARNING: This appliance is intended for use only with the included Montigo burners and accessories. Never install or add any additional or alternative media, rock wool or other material in this appliance. The use of additional or alternative materials may pose potential safety hazards, damage to the appliance, and void manufacturer's warranty.

Installing Optional Driftwood Log Set (PL42VO)

[LGS59]

The PL42VO has the option of installing a driftwood log set. Once the firestones or speckled stones have been installed the log set can be installed.

Ensure logs are securely placed and will not tip or fall. Remove media where logs touch the burner tray to ensure a more secure position.

Driftwood logset **MUST** be installed with Firestone, Fireglass or Speckled Stone media as a base.

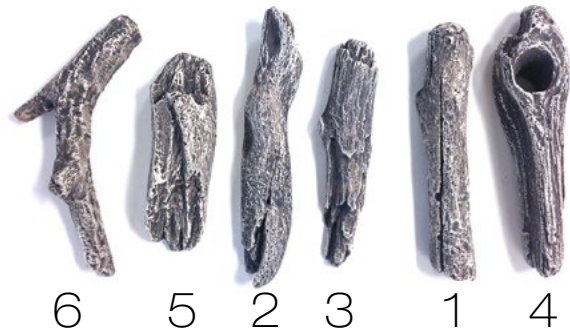


Figure 69 LGS59

Step 1. Place Log 2 in the front left corner of the burner tray. Ensure log does not cover pilot. See Figure 58.



Figure 70

Step 2. Place Log 5 to the right of log 2 at the back of the media tray. Figure 59.



Figure 71



Installing Optional Media

Step 3. Place Log 3 resting diagonally against log 5, with the thinner end pointing into the top left corner of the firebox. See Figure 60.



Figure 72

Step 4. Log 6 is placed in the center of the media tray with the curved end pointing out of the fireplace. See Figure 61.



Figure 73

Step 5. Place Log 4 at the rear of the firebox, parallel to the media tray. See Figure 62.



Figure 74

Step 6. Log 1 is placed at the right end of the media tray, parallel to the right side wall of the firebox. See Figure 63.



Figure 75

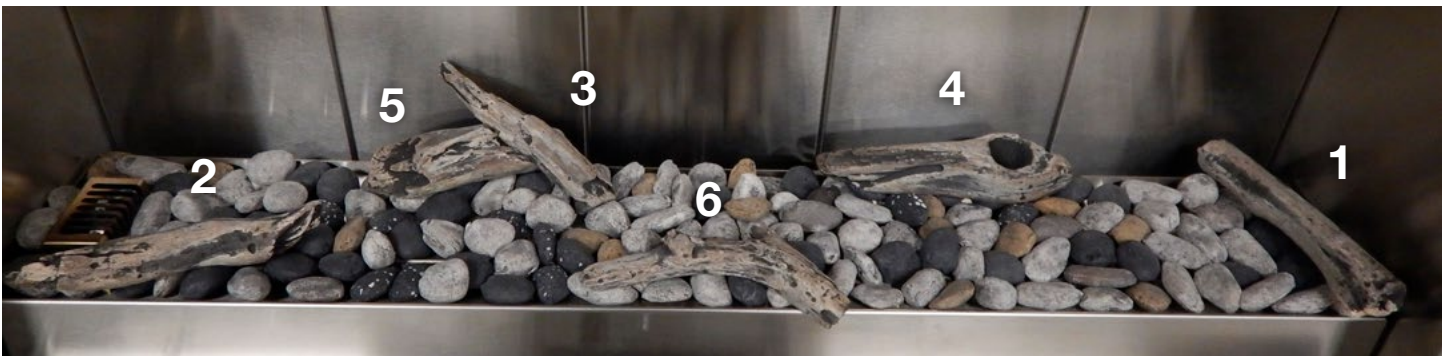


Figure 76 *Completed Installation*



Installing Optional Media

Installing Optional Driftwood Log Set (PL60VO)

[LGS59 x2]

The PL60VO has the option of installing a driftwood log set. Once the firestones or speckled stones have been installed the log set can be installed.

Ensure logs are securely placed and will not tip or fall. Remove media where logs touch the burner tray to ensure a more secure position.

Driftwood logset **MUST** be installed with Firestone, Fireglass or Speckled Stone media as a base.

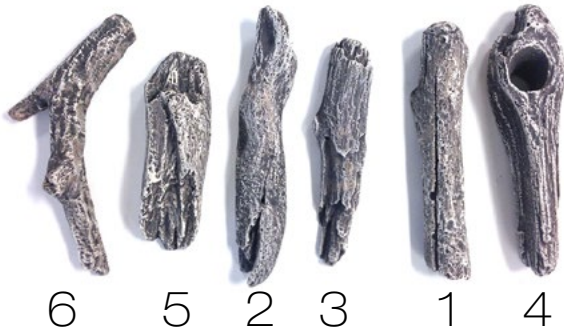


Figure 76.a LGS59x2

Step 1. Place Log 6 in the left back corner of the burner tray. Ensure log does not cover pilot. See Figure 76.b



Figure 76.b

Step 2. Place Log 5 to the right of log 6 at the back of the media tray. See Figure 76.c



Figure 76.c

Step 3. Place Log 1 resting diagonally against the front of the media tray. See Figure 76.d



Figure 76.d

Step 4. Log 1 is placed in the back center of the media tray. See Figure 76.e



Figure 76.e

Step 5. Place Log 2 resting diagonally against log 1, with the thinner end pointing into the top right corner of the firebox. See Figure 76.f

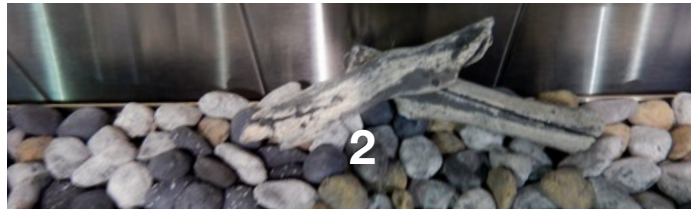


Figure 76.f

Step 6. Log 4 is placed in the back of the media tray between logs 2 and 5. See Figure 76.g



Figure 76.g



Installation

Step 7. Place Log 3 resting diagonally against log 4, with the thinner end pointing into the back of the firebox. See Figure 76 .h



Figure 76 .h

Step 11. Place Log 4 resting diagonally against the top right corner of the firebox. See Figure 76 .l



Figure 76 .l

Step 8. Log 2 is placed in the center-front of the media tray in front of log 2. See Figure 76 .i



Figure 76 .i

Step 12. Log 6 is rested diagonally on log 4. See Figure 76 .m



Figure 76 .m

Step 9. Place Log 5 parallel to the right of log 1 . See Figure 76 .j



Figure 76 .j

Step 10. Log 3 is placed in front of log 5, resting against the front of the media tray. See Figure 76 .k



Figure 76 .k



Startup and initial operation

LED Operation Verification – Applicable if light kit (MCLEDVO) is installed

- Install 2 AAA batteries into LED remote
- Turn on main power to fireplace control box
- Fireplace ON/OFF switch does not need to be turned on to operate LED lights.
- Using the LED remote, turn lights OFF then ON
- Using the LED remote, switch between blue, red and green. When each color is selected, verify all LEDs display the same color.
- Turn off the LEDs



Figure 78 Remote Front



Figure 79 Remote Back

Initial Fireplace Operation Verification – If gas supply is connected

- Check that the door glass is clean. Clean if required.
- Check that the visible surfaces inside the fireplace and on the door frame are free of smudges. Clean if required prior to initial lighting.
- Ensure the fan speed control toggle switch is set to the SLOW position
- Refer to lighting instructions for information on how to light the appliance.
- Turn the fireplace on using the control box ON/OFF switch. If the fireplace remote option is installed, also turn on using the fireplace remote. The following sequence of events should take place:
 - The igniter will attempt to light the pilot. The igniter will glow for 30 seconds, pause for 30 seconds. This cycle will occur twice before the system enters a lockout mode. After 5 minutes the system will attempt to light again.
 - The pilot will light.
 - The igniter will stop glowing.
 - The Burner will light
- If driftwood logs have been installed, check the logs for carboning and reposition if necessary.
- Refer to Troubleshooting if you encounter any issue during the ignition sequence.

Initial Fireplace Operation Verification – If gas supply not yet connected

- Check that the door glass is clean. Clean if required.
- Check that the visible surfaces inside the fireplace and on the door frame are free of smudges. Clean if required prior to initial lighting.
- Ensure the fan speed control toggle switch is set to the SLOW position
- Turn the fireplace on using the control box ON/OFF switch. If the fireplace remote option is installed, also turn on using the fireplace remote.
- The fans will turn on and the hot surface igniter start to glow. If the igniter doesn't glow within 1 min, refer to Troubleshooting.

Optimizing the Fan Speed

Adjust the fan to optimal operational speed by performing the following steps. This will ensure the quietest operation possible at slow speed.

- Step 1:** Ensure the fan speed control toggle switch is set to the SLOW position
- Step 2:** Decrease the fan speed to the minimum speed using the dial in the control box
- Step 3:** Turn the fireplace ON/OFF switch to the ON position. If the fireplace remote option is installed, also turn on using the fireplace remote.
- Step 4:** Slowly increase the fan speed in small increments until the hot surface igniter starts to glow.

Note: It is very important that if while adjusting the fan speed you would like to decrease it, you must begin again at step 2 to ensure correct fan speed set-up.

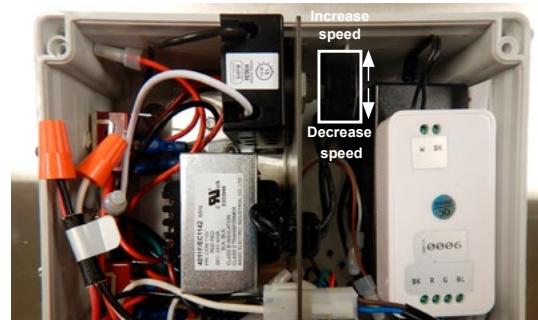


Figure 77 Setting fan speed

NOTICE

Fan speed optimization must be performed only when fireplace is cold



Operating the Fireplace

The unit is controlled using the ON/OFF switch at the side of the control box or by using the optional remote control (RXM40VACVO).

When placed in the ON position the fans will initialize, the igniter will start to glow and the pilot will light, followed by the main burner.

When placed in the OFF position the flame and fans will turn off.

If the fireplace does not light after two attempts it will go into a safety lock-out mode. After five minutes the fireplace will attempt to light again. If the fireplace will not light, turn the fireplace off, turn off all the electrical power to the appliance, locate the gas shut off valve and turn the gas off. Call your service technician or local Montigo dealer. **Never attempt to light the pilot by hand.**

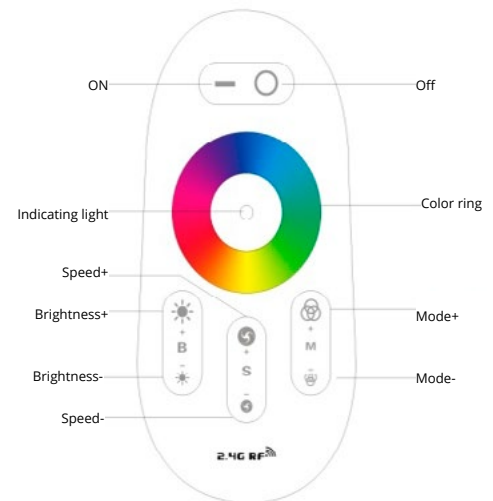
This fireplace includes a screen barrier which helps prevent injury from burns. Never operate this appliance without the screen attached. Children and other at risk individuals should be monitored at all times.

Operation Suggestions

- If on a windy day the fireplace flame goes out unexpectedly while the fan is set at high speed, toggle switch to slow speed. The flame should relight.
- If on a calm day you prefer warmth spread farther from the fireplace, switch may be set to high speed.
- If on a cold morning the fireplace doesn't light on slow speed, switch to high speed until the fireplace is warm, then switch back to low speed.

Operating the Accent Lights

The accent lighting is operated by the LED remote control. See LED Remote Control Operation section for detailed instructions.



CAUTION

Follow all warnings and instructions when using the appliance



FOR YOUR SAFETY - READ BEFORE LIGHTING:

DANGER

**HOT GLASS WILL CAUSE BURNS.
DO NOT TOUCH GLASS UNTIL COOLED.**

NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

WARNING If the information in these instructions are not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

WARNING / CAUTION: Hot while in operation. Do not touch. Severe burns may result. Keep children, clothing, furniture, gasoline and other liquids having flammable vapors away.

See installation and operating instructions accompanying this appliance.

- | | |
|---|--|
| <p>A. This appliance has a pilot which is lit automatically. Do not attempt to light the pilot by hand.</p> <p>B. BEFORE LIGHTING 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.</p> <p>What To Do If You Smell Gas:</p> <ul style="list-style-type: none"> ■ Do not try to light the appliance. ■ Do not touch any electrical switch. Do not use any phone in your building. ■ Immediately call your gas supplier from a neighbour's phone. Follow the gas suppliers instructions. | <ul style="list-style-type: none"> ■ If you cannot reach your gas supplier, call the Fire Department. <p>C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempt to repair may result in a fire or explosion.</p> <p>D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system, and any gas control which has been under water.</p> |
|---|--|

LIGHTING INSTRUCTIONS:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. STOP! Read the safety information above on this label. 2. Turn the fireplace "OFF" using the wall switch or remote control. 3. Wait 5 minutes to clear out any gas. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step. 4. Turn the fireplace "ON" using the wall switch or remote control. <p>NOTE: This unit is equipped with an ignition system that lights the pilot burner automatically. Do not attempt to light the pilot by hand.</p> <p>This unit is equipped with advanced safety controls. The fireplace will not turn on until all of the safety conditions are met.</p> | <ol style="list-style-type: none"> 5. Once the predetermined airflow is established in the firebox. The hot surface igniter will start to glow. The pilot will light up, followed by the main burner. The fireplace will then start up. <p>NOTE: If the igniter does not glow, even after 3 minutes have passed, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or Montigo dealer.</p> |
|--|---|

TO TURN OFF GAS TO APPLIANCE:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Turn the fireplace off using the wall switch or remote control. 2. Turn off all electrical power to the appliance. | <ol style="list-style-type: none"> 3. Locate the gas shut off valve for the appliance and turn off. |
|--|--|

PINLBI214-061216



Remote (RXM40VACVO)

Installation

Protection from extreme heat is very important. The remote receiver should be kept away from temperatures exceeding 130°F. Extreme heat can cause damage, which is not covered under warranty.

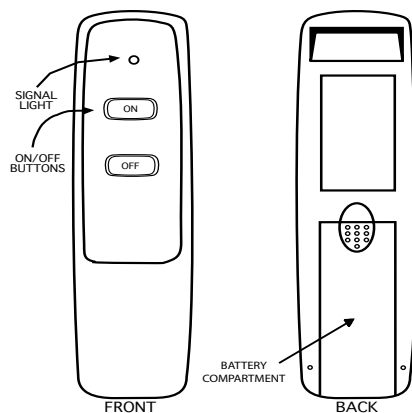
- Before installation, make sure you turn the slide switch to OFF. After installation, make sure you turn the slide switch to REMOTE.
- The remote receiver can be placed close to the electrical control box

Remote

The transmitter operates on a 12V (A23) battery that is included. Install the 12V battery supplied with the unit into the battery compartment. It is recommended that ALKALINE batteries always be used for this product.

Be sure the batteries are installed with the (+) and (-) ends facing the correct direction.

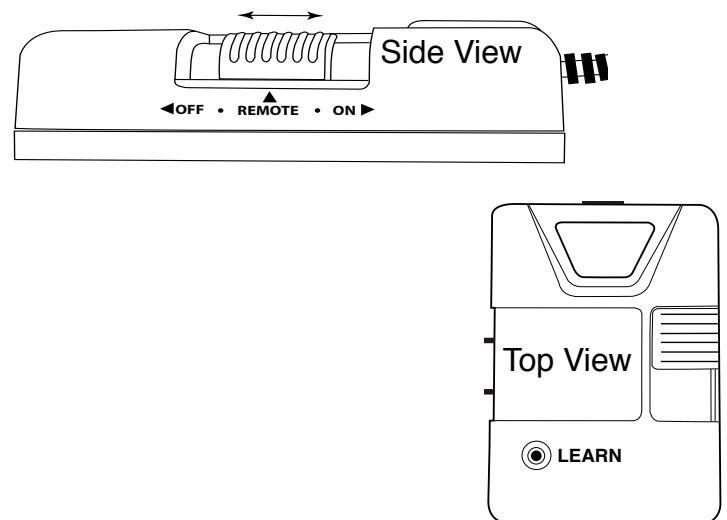
The LED signal light should illuminate when either the ON or OFF button is pressed. If the signal light does not illuminate, check the position of the transmitter's battery, and if the battery is fully charged.



Receiver

When plugged into a standard 110-120 VAC receptacle, the remote receiver operates on commands from the transmitter or from the slide switch on the face of the receiver.

- **ON:** will manually turn on the appliance.
- **REMOTE:** will allow use of handheld transmitter. If the system does not respond to the transmitter on initial use, check the battery positions in the remote. If that does not work, see the LEARNING TRANSMITTER TO RECEIVER section.
- **OFF:** will disable the remote receiver.
- **It is suggested that the slide switch be placed in the OFF position if you will be away from your home for an extended period of time.**





Remote (RXM40VACVO)

BATTERY LIFE

Life expectancy of the alkaline batteries in the transmitter should be at least 12 months.

Check and replace all batteries:

- Annually.
- When operating range becomes reduced.
- When transmissions are not received by the remote receiver.
- If the hand held transmitter battery measures less than 9.0 volts.

WARNING

Battery Operated Device

Read the battery instructions before installing them into the system.

Do not expose any battery, or its holder, or a device in which batteries are involved, to a working temperature of the device to which the batteries are connected is reported to be greater than 54C / 129F. In bad cases, overheating can cause hydrogen gas and danger of explosion.

NOTICE

Please note leaving batteries installed in the remote for an extended period when not in use may cause the batteries to drain and/or corrode.

FCC REQUIREMENTS

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THE EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

LEARNING TRANSMITTER TO RECEIVER

Each transmitter uses a unique security code. It will be necessary to press the LEARN button on the receiver to accept the transmitter security code upon initial use, if batteries are replaced, or if a replacement transmitter is purchased from your dealer or the factory. In order for the receiver to accept the transmitter security code, be sure the slide button on the receiver is in the REMOTE position; the receiver will not LEARN if the slide switch is in the ON or OFF position. The LEARN button is located on the front face of the receiver; inside the small hole labeled LEARN. Using a small screwdriver or end of a paperclip gently Press and Release the black LEARN button inside the hole. When you release the LEARN button the receiver will emit an audible "beep". After the receiver emits the beep press any transmitter button and release. The receiver will emit several beeps indicating that the transmitter's code has been accepted into the receiver.

To delete all of the transmitter codes on your receiver, press and hold the LEARN button for 10 seconds. Then you will hear a series of beeps, indicating that the receiver's memory has been cleared.

TROUBLE SHOOTING

If you encounter problems with your fireplace system, the problem may be with the fireplace itself or it could be with the remote. Review the fireplace manufacturer's manual to make sure all connections are made properly. Then check the operation of this remote in the following manner:

- Make sure there is a 110-volt power source to the receiver.
- Check battery in transmitter to make sure contacts are touching (+) and (-) ends of battery. Bend metal contacts in for a tighter fit.
- Check if the transmitter battery is fully charged.
- Ensure that the transmitter and receiver are within 20 to 25-foot operating range.
- If the receiver is installed in a tight enclosed metal surrounding, the operating range will be shortened.
- Make sure the hand-held transmitter and remote receiver are communicating properly (see LEARNING TRANSMITTER TO RECEIVER section).



LED Remote Control Operation (MCLEDVO-01)

This system is a high-performance RGB LED touch remote controller, adopting the most advanced PWM control technology, controlling all RGB LED products with five lines and three circuits (common anode), allowing 640 thousand colors and 12 automatic changing modes to choose from.

Also, It has a memory function(that is to say, the previous settings will be resumed when power is on again). It is widely used in LED RGB strip light, LED modules and so on. With the technology of the 2.4G high frequency wireless remote control, it has the characteristics of low power consumption, long distance transmission, and strong anti-interference ability ,high speed telecommunications, etc.

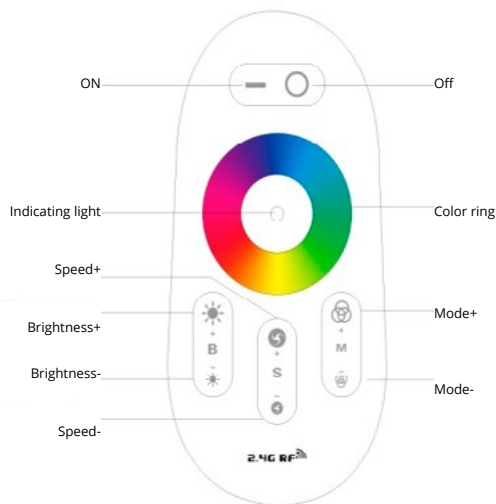


Figure 80 Remote functions

#	Mode	Brightness state	Speed state
1	Static white color	Adjustable	Unadjustable
2	White color gradual changes	Adjustable	Adjustable
3	All colors gradual change	Adjustable	Adjustable
4	Red/green/ blue three colors gradual change	Adjustable	Adjustable
5	Seven colors jump to change	Adjustable	Adjustable
6	Three colors jump to change	Adjustable	Adjustable
7	Red/ green jumps to change	Adjustable	Adjustable
8	Red/blue jumps to change	Adjustable	Adjustable
9	Blue/green jumps to change	Adjustable	Adjustable
10	White color frequently blinks	Adjustable	Adjustable
11	White color glitters	Adjustable	Adjustable
12	Red color frequently blinks	Adjustable	Adjustable
13	Red color glitters	Adjustable	Adjustable
14	Green color frequently blinks	Adjustable	Adjustable
15	Green color glitters	Adjustable	Adjustable
16	Blue color frequently blinks	Adjustable	Adjustable
17	Blue color glitters	Adjustable	Adjustable
18	Yellow color frequently blinks	Adjustable	Adjustable
19	Yellow color glitters	Adjustable	Adjustable
20	Circulation mode		

Figure 82 Remote modes

Item	Parameters
Working Voltage	AAA*2pcs(3V)
Radio Frequency	2400-2483.5MHz
Modulate Method	GFSK
Transmit Power	6db
Standby Power Consumption	10uA
Remote Distance	20-30m
Dimension	110×52×30mm

Figure 81 Remote parameters

Programming (Code Clearing and Code Matching)

Code Matching : Confirm it is correctly connected between power supply, LED controller and LED load.

Switch off the power, then switch on again, and press S+ button once (within 3 seconds) the moment you see the light on the power supply. The LED light blinks twice slowly when it is done.

Code Clearing : Confirm it is correctly connected between power supply, LED controller and LED load.

Switch off the power, then switch on again, and long press S+ button (within 3 seconds) the moment you see the light on the power supply. The LED light quickly blinks nine times when it is done.



LED Remote Control Operation (MCLEDVO-02)

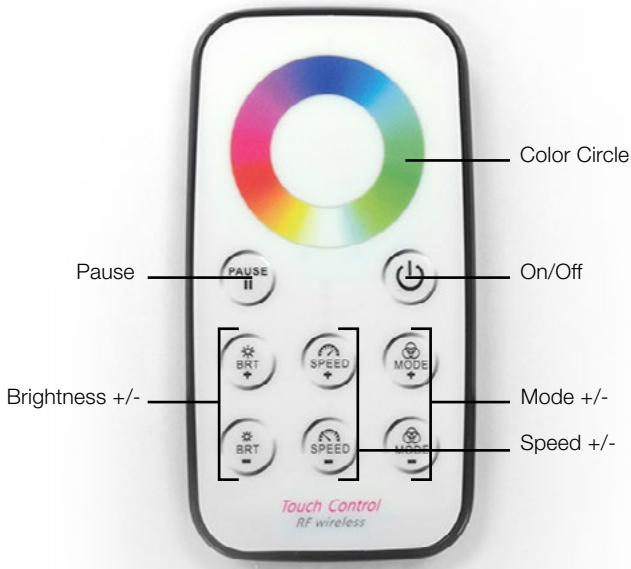


Figure 83 Remote functions

#	Mode	Brightness state	Speed state
1	RGB Change	Adjustable	Adjustable
2	Color Change	Adjustable	Adjustable
3	White Flash	Adjustable	Adjustable
4	RGB Fade	Adjustable	Adjustable
5	Color Fade	Adjustable	Adjustable
6	RG Fade	Adjustable	Adjustable
7	RB Fade	Adjustable	Adjustable
8	GB Fade	Adjustable	Adjustable
9	White Fade	Adjustable	Adjustable
10	All Mode Cycle	Adjustable	Adjustable

Figure 85 Remote modes

Item	Parameters
Input voltage	DC12V-24V
Output	max 3A x 3CH
Power	max 108W (12V)/216W (24V)
Working Temp	-30°C to 55°C
Dimensions	L135xW30xH20 (mm)
Weight (N.W.):	248g
Remote Working Voltage/ Frequency	3V / 433.92MHz
Remote Working Distance/Temp	40-50m / -20°C to 55°C
Remote Dimensions/Weight	L106xW156xH9 (mm) / 40g

Figure 84 Remote parameters

Programming (Code Matching)

Learning ID Method : The remote and receiver have been paired in the factory. If deleted, you can pair the two as follows. To LEARN, Press red ID learning button on the receiver until the running light is on. Now press any key on the remote. To CLEAR, press ID learning button on the receiver for 5s.



Installing & Removing the Screen (For cleaning outside of glass)

Note: Do not operate fireplace without screen in place.

Step 1:

Remove the door/screen from the firebox (see door removal instructions on previous page)



Figure 88

Step 2:

Remove the screws, from the top and bottom.



Figure 89

Step 3:

Pull the screen upwards to remove it from the door.



Figure 90

Replacement Screens:

For replacement part order numbers, please refer to section "Replacement Parts:"



Troubleshooting guide

Problem	Possible Causes	Solution
When the wall switch on the control box is in the on position the fans are not running.	No power to the control box or the power from the control box is not connected to the fireplace. Fan Dial could be turned down.	Test the power outlet for a full 110 Volts of power. Make sure that the power from the control box is connected to the PPO box of the fireplace.
The fans are running but the glow plug is not glowing red.	Fans are running too slow or air intake under the door is restricted.	Turn the fan speed to a higher speed that will power up the smart valve.
The glow plug is glowing but the pilot is not burning.	No gas to the fireplace, or air blocking the gas from reaching the burner.	Check the gas valve and make sure it is in the on position make sure that the air has been bled out of the gas supply line.
Fans are running at maximum speed and glow plug is not glowing.	No power to the valve	Remove the power supply plug and test for voltage when fans are running at full speed. If you measured 24 or more volts on the plug, replace gas valve. Water may have penetrated the gas valve.
Losing the main burner flame on a windy day	The wind is too strong to overcome the blowers from the fireplace	If the unit does not light at maximum fan speed in high-wind conditions, toggle the fan speed to low

Figure 91

If your fireplace still does not operate correctly, consult your local Montigo dealer.

All service and repairs must be performed by a qualified Technician.

All spare parts, optional fans, media, and optional trim finishes are available from your local Montigo dealer.

Visit www.montigo.com to locate your nearest dealer.



Maintenance / Cleaning Instructions

WARNING! Media may have sharp edges, wear safety glasses and gloves when handling. Do not change or substitute the media material provided with this appliance. If replacing, use only approved replacement media available from your local montigo authorized dealer/distributor.

WARNING! To avoid the possibility of burns, maintenance should be done only when the appliance is cool. Avoid unprotected contact with hot surfaces. Ensure burner is turned off. Turn gas off at source and disconnect the power to the appliance before servicing.

Note: Stainless steel tends to oxidize or stain in the presence of chlorides and sulfides, particularly in coastal areas and other harsh environments, such as the warm, highly humid atmosphere around pools and hot tubs. These stains could be perceived as rust, but can be easily removed or prevented. To provide stain prevention and removal, wash all stainless steel surfaces every 3-4 weeks or as often as required with fresh water and/or stainless steel cleaner.

MAINTENANCE / CLEANING INSTRUCTIONS

WARNING! Hose: Check for abrasions, melting, cuts, and cracks in the hose. If any of these conditions exist, do not use the appliance. Have the part replaced by your Montigo dealer or qualified gas installer.

WARNING! If the gas control is exposed to water in any way, DO NOT try to use the appliance. The gas control must be replaced.



Appendix B: Warranty

MONTIGO RESIDENTIAL WARRANTY PROGRAM

Empire Comfort Systems, Inc. and/or Empire Comfort Systems Canada, Inc. (collectively referred to herein as "The Companies"), warrants the Montigo gas appliance (referred to herein as 'the appliance') to be free from defects in materials and workmanship at the time of manufacture. The gas appliance and related components are further subject to the terms and conditions set forth below.

This warranty covers the following Montigo product series: **Distinction, Divine & Divine Outdoor (H-Series), Illume (FID Inserts), Phenom (L/P/PL-Series), Exemplar (R/RP-Series), Mahana and DelRay**

Component	Coverage Period	Labor Coverage
Firebox, heat exchanger	15 years	1 year
Main burner	15 years	1 year
Gas control valve and related control components (pilot assembly, spark electrode flame sensors, thermopile)	1 year	1 year
Electrical components (internal blowers, ignition control module, wiring, switches, remote control systems, blower control module, accent bulbs)	1 year	1 year
Firebox media (logset, glass beads, river rocks)	1 year	1 year
Glass (thermal breakage)	1 year	1 year
Plated, painted finishes (including interior reflective glass) *	1 year	1 year
Refractory lining	1 year	1 year
Mesh/Glass safety barriers	1 year	1 year
Power vent termination	1 year	1 year
Montigo terminations*	10 years	1 year
Montigo venting (excluding termination)	15 years	1 year

* Exterior painted surfaces exempt

QUALIFICATIONS TO THE WARRANTY

This Warranty only covers gas appliances installed in the United States or Canada.

To receive the benefits of this warranty, the appliance must be purchased, installed and serviced annually by a dealer authorized by The Companies for the warranty to be valid.

The gas appliance must be installed by a licensed professional in accordance with The Companies' installation instructions and local building codes. The warranty on the appliance covers only components manufactured by The Companies. The use of components manufactured or supplied by other manufacturers and used in conjunction with the appliance could create serious safety hazards, may result in the denial of certification by recognized national safety agencies and could violate local building codes. Such use may untimely void this warranty. This warranty does not cover any damages occurring from the use of any components not manufactured or supplied by The Companies.

The appliance must be subjected to normal use. The appliance is designed to burn natural gas (NG) or liquefied petroleum (LP)

only. Burning conventional fireplace fuels such as wood, coal or any other solid fuel will cause damage to the appliance, produce excessive temperatures will result in a fire hazard and void all warranties. This warranty is transferable. The appliance must remain in its original place of installation to be valid.

If the components of the appliance covered by this warranty are found to be defective within the time frame stated (see The Companies investigation of claims), The Companies will, at its option, replace or repair defective components of the appliance manufactured by The Companies at no charge and will also pay for labor costs (in accordance with schedule) incurred in replacing or repairing components. If repair or replacement is not commercially practical, The Companies will, at its sole discretion, fully discharge all obligations under the warranty by refunding the verified dealer purchase price of the appliance, excluding the cost of labor unless the labor is covered by the terms of the warranty.

This warranty covers only parts and labor as provided above. In no case shall the companies be responsible for materials, components or construction, which are not manufactured or supplied by The Companies, or for the labor necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. from the nearest Company factory.

LIMITATION ON LIABILITY

It is agreed and understood that The Companies sole obligation, and purchaser's exclusive remedy under this warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to repair, replacement or refund as specified above. The opinion of The Companies with respect to these matters shall be final.

In no event shall The Companies be responsible for any incidental or consequential damages caused by (but not limited to) improper installation, installation by an unqualified or unauthorized installer, accident, lack of regular maintenance, user error, abuse, misuse, Acts of God, power surges, floods, natural disasters, force majeure, defects in its appliance whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by The Companies negligence. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to the appliance is limited to the duration of the foregoing warranty. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.



Appendix B: Warranty Continued

EXCLUSIONS TO WARRANTY

Corrosion or rust of any kind due to a lack of maintenance, inadequate combustion air or improper venting and corrosive chemicals/environments, expansion and contraction of metals or minor movements of components causing noise are not covered by this warranty.

Willful misconduct (i.e. use of the appliance with problems known to the purchaser and causing further damages), including unauthorized or self-performed 'fixing' or exploration of the appliance's internal workings will void the warranty.

Appliances on which the serial number has been altered, defaced, removed or made illegible will void the warranty.

Costs incurred for diagnosis, service work, shipping and handling of defective or replacement parts are not covered under this warranty.

The published warranties are not applicable for any equipment manufactured by The Companies that has been sold direct to the consumer via internet or auction websites. The Companies do not endorse, approve or certify any online sale of its products through auction websites, online retailers or any other method of online sales direct to consumers.

INVESTIGATION OF CLAIMS AGAINST WARRANTY

The Companies reserve the right to investigate any and all claims against this warranty and decide upon method of settlement.

The Companies are not responsible for work done without written consent of The Companies.

The Companies shall in no event be responsible for any warranty work done without first obtaining the Companies written consent.

The Companies employees and dealers have no authority to make any warranties to neither alter this warranty nor authorize any remedies in addition to or inconsistent with those stated within this warranty.

IF WARRANTY SERVICE IS NEEDED

To make a claim under this warranty, contact your installing dealer or contractor. The installing dealer is responsible for providing service and will contact the companies to initiate warranted parts replacements. In the event the installing dealer is unavailable, contact your nearest authorized Montigo dealer (www.Montigo.com) or contact Montigo direct at techsupport@montigo.com. Ensure you have your sales receipt and the model and serial number of your appliance.

DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF

If you cannot locate the installing dealer, or nearest dealer/distributor, you must notify The Companies in writing.

USA Offices

6955 Salashan Parkway
Ferndale WA, 98248
techsupport@montigo.com

Canadian Offices

27342 Gloucester Way
Langley, BC V4W 4A1
techsupport@montigo.com

The terms and conditions of this warranty may be altered or amended from time to time without prior notice.

WARRANTY PERIOD: Warranty coverage begins on the date of original purchase. In the case of new construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized Company dealer/ distributor, whichever occurs earlier.



Appendix B: Amendment

(Gas Fireplace / Equipment sold in the State of Massachusetts)

5.08: Modifications to NFPA-54, Chapter 10

- (1) Revise NFPA-54 section 10.5.4.2 by adding a second exception as follows:
- Existing chimneys shall be permitted to have their use continued when a gas conversion burner is installed, and shall be equipped with a manually reset device that will automatically shut off the gas to the burner in the event of a sustained back-draft.
- (2) Revise 10.8.3 by adding the following additional requirements:
- (a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:
1. **INSTALLATION OF CARBON MONOXIDE DETECTORS.** At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors
 - a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.
 - b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.
 2. **APPROVED CARBON MONOXIDE DETECTORS.** Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2042 listed and IAS certified.
 3. **SIGNAGE.** A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".
4. **INSPECTION.** The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.
- (b) **EXEMPTIONS:** The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:
1. The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
 2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.
 - (c) **MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED.** When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:
 1. Detailed instructions for the installation of the venting system design or the venting system components; and
 2. A complete parts list for the venting system design or venting system.
 - (d) **MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED.** When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:
 1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
 2. The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.
 - (e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.
- (3) After NFPA-54 section 10.10.4.2 add a new section 10.10.4.3 as follows:
- When more than four gas appliances are to be vented through a common gas vent or common horizontal vent manifold, a plan of the proposed vent installation shall be submitted to the Inspector and the serving gas supplier for review and approval.

Extraction from: Massachusetts Rules and Regulations

5.00: Amendments To 2002 Edition Of ANSI Z223.1-NFPA-54

MONTIGO®

MAHANA

PL42VO

PL60VO

Ventless Outdoor Fireplace