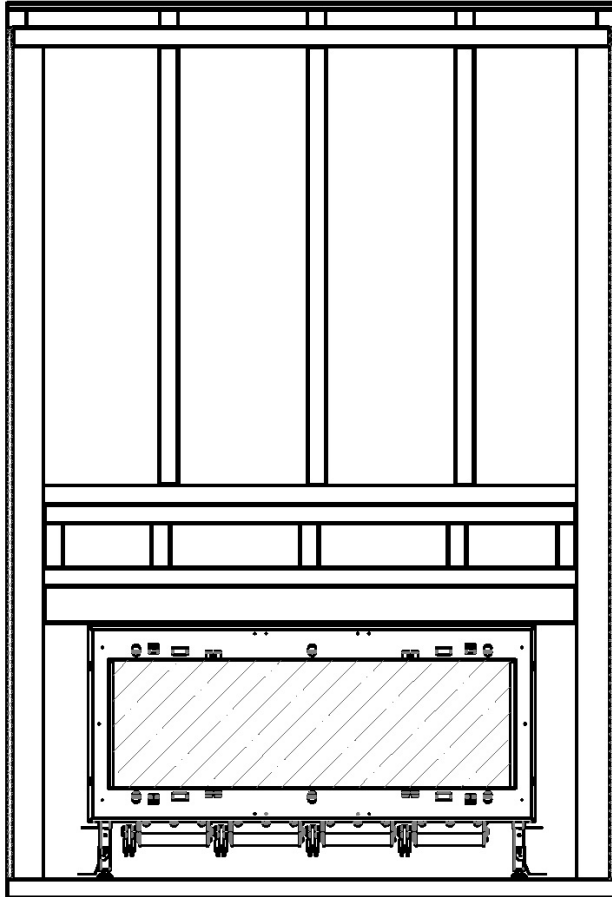


ORTAL

YOUR LIFE. YOUR FIRE.

Installation and Operation Manual Built-In Models



Manufacturer Update
Serial Number 21818 and Forward

⚠ WARNING:
FIRE OR EXPLOSION HAZARD
Failure to follow safety warnings exactly
could result in serious injury, death, or
property damage

- **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **What to do if you smell gas**
 - **DO NOT** try to light any appliance
 - **DO NOT** touch any electrical switch. **DO NOT** use any phone in you building
 - Leave ther building immediately
 - Immediatly call your gas supplier from a neighbor's phone. Follow the gas suppliers's instructions
 - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

Built-In Models:

Front Facing
Traditional
Corner (RS/LS)
Tunnel
Three Side
Space Creator
Curve
Island
Wilderness

! 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



Safety Information and Warnings

→ **IMPORTANT NOTE: LOCAL CODE**

Local codes and regulations that are more stringent than the requirements in this manual take precedence over Ortal requirements.

→ **WARNING: HANDLING SPACE CREATOR FIREPLACES**

The Space Creator fireplace must be handled with care due to its special and sensitive shape. Do not remove the securing brackets before installation. After removing the securing brackets, the appliance must be treated with care to maintain its leveled shape. Do not shake, throw, stand, or put weight on it.

WARNING: REVIEW ALL WARNINGS

Be sure to review all safety warnings and installation guidelines contained in this manual. Consider installation location, vent configuration, clearances, structural requirements, framing and finish materials, and local codes. ALL warnings and instructions apply to all products manufactured and distributed by Ortal.

WARNING: DO NOT OPERATE FIREPLACE IF:

The glass is NOT properly secured in place; Connection points are not sealed (for fireplaces with glass-to-glass connections); Glass is cracked; You smell gas; Any part of the fireplace has been under water; You have any doubt about safe operation of the fireplace; Or if any part has been under water, do not use the fireplace. Immediately call a qualified, professional service technician to inspect the fireplace and to replace any parts of the control system and any gas controls which have been under water.

WARNING: ELECTRICAL GROUNDING

All electrical connections must be properly installed, insulated, and secured to avoid potential **ELECTRICAL SHOCK** and **FIRE HAZARD** and malfunction of the system. Consult local building code requirements. In the absence of local codes, refer to the National Electric Code, ANSI/NFPA 70, or the Canadian Electric Code, CSA C22.1.

WARNING: MATERIAL USAGE

All materials and objects used to carry out the installation must be certified/approved or specified by Ortal and are suitable for use. Do NOT install the system with different materials or objects than those approved for installation by Ortal.

WARNING: INSTALLATION AND SERVICE

Installation and repairs on the fireplace and vent system must be done by an authorized Ortal qualified installer service agency or gas supplier. If these components are not installed by an authorized Ortal dealer/installer, the warranty of all components will be void and Ortal will not be responsible for any damage caused by improper installation. The fireplace should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. Control compartments, burners and circulating air passageways of the fireplace must be kept clean. Any alteration to the product can cause soot or carbon to form and may result in damage. This damage and any other damage that results from not following the instructions outlined in this manual is not the responsibility of Ortal.

WARNING: HEAT BARRIER

A barrier designed to reduce the risk of burns from hot viewing glass is provided with this fireplace and shall be installed. The fireplace **MUST** not be used without the heat barrier in place. If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this fireplace. **Any safety screen, guard, or barrier removed for servicing the fireplace must be replaced before operating.**

WARNING: FIREPLACE TEMPERATURE

Due to hot temperatures, the fireplace should be located out of traffic and away from furniture and draperies. Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition. Clothing or other flammable material should not be placed on or near the fireplace. **Young children should be carefully supervised when they are in the same room as the fireplace.** 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 house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children, and other at-risk individuals out of the room and away from hot surfaces.

WARNING: GLASS HANDLING

Only an Ortal certified installer is authorized to remove the glass using a suction cup supplied by Ortal.

WARNING: INSTALLATION AND OPERATION

The fireplace and accompanying components must be installed as an OEM installation in manufactured homes (USA only) or an aftermarket permanently located, or a mobile home, where not prohibited by local codes. The fireplace must be installed in accordance with the Manufacturer's instructions and the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, in the United States, or the Standard for Installation in Mobile Homes, CAN/CSA Z240 MH Series, in Canada. **Exceeding the restrictions imposed in these instructions may result in a fire or explosion, causing property damage, personal injury, or loss of life. Ortal will not be responsible for any damage caused by improper installation. Do not store or use gasoline or other flammable vapors and liquids near this fireplace.**

WARNING: GAS FIREPLACE

This fireplace is for use only with the type of gas indicated on the rating plate. These fireplaces are not convertible for use with other gases unless a certified kit is used, and the conversion is performed by an authorized and qualified technician. Applicable standards are Vented Gas Fireplace Heaters ANSI Z21.88 / CSA 2.33a and Gas-fired Fireplaces for Use at High Altitudes CAN/CGA 2.17-M91

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“→” Denotes new or updated information.

Product Information

Certification

Built-In Model fireplaces have been tested and approved by CSA Group for safety and efficiency for use with Natural Gas (NG) and Propane (LP) only, and **NOT** for use with solid fuels. **CSA Group is approved by the American National Standards Institute (ANSI) as an Accredited Standards Developer.**

Certification Standard:

ANSI Z21.88/CSA 2.33 – 2016: Vented Gas Fireplace Heaters

ANSI Z21.50/CSA 2.22 – 2016: Decorative Vented Gas Fireplaces



Products:

CLASS 2901 84: DOMESTIC HEATERS (GAS) Vented Fireplace: Certified to US Standard

CLASS 2901 04: DOMESTIC HEATERS (GAS) Vented Fireplace

The fireplaces are permitted for indoor use only. “Indoor” is defined as a conditioned space. The fireplaces are not approved for outdoor or partial outdoor installation.

Exception: Tunnel models with the Ortal “Indoor-Outdoor Kit” are approved for partial (indoor-outdoor) outdoor installation.

The fireplaces must be installed while maintaining required clearances. Installation is recommended in living spaces such as bedrooms, living rooms, great rooms, etc. The fireplaces are not approved for closet installation. The fireplace must be installed according to Ortal requirements in addition to any local codes that may apply, such as USA: ANSI Z223.1/NFPA 54, Canada: CSA B149.

! IMPORTANT – PLEASE READ:

- It is the responsibility of the fireplace dealer and installer to ensure that this fireplace is installed and framed in compliance with these instructions and all applicable codes.
- Before starting, take careful note of **ALL** the **WARNINGS** in this manual.
- Consult the authority having jurisdiction to determine the need for a permit prior to starting the installation.

Patent Pending for screen barrier glass bracket: USSN 60/040,074

Models

Series	Models	Burner	Certification Standard	Available Gas Types	Venting
40	Clear 40H70 F/RS/LS/TS/TN	30 Single	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	4"x6" Co-axial Direct Vent
60 75	Clear 60x80 F/TN Clear 75 F/RS/LS/TS/TN Space Creator 75 Clear 75x65 F/TN Clear 75x65H F/TN	45 Single	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent
→ Curve	Stand Alone 75x65 Curve Stand Alone 75x65 Curve TN	45 Double	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent
→ TR 90 TR 110	Traditional 90 Traditional 110	45 Decorative Double	US: ANSI Z21.50 - 2016 Canada: CSA 2.22 - 2016	Natural Gas	5"x8" Co-axial Direct Vent
		45 Double	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Propane	
→ 110 120 130	Clear 110 F/RS/LS/TS/TN Clear 110H F/RS/LS/TS/TN Space Creator 120 Clear 130 F/RS/LS/TS/TN Clear 130H F/RS/LS/TS/TN Island 130	100 Single	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent
44 51 60	Wilderness 44 F/RS/LS/TS Wilderness 51 F/RS/LS/TS Wilderness 60 F/RS/LS/TS	Driftwood Firelog	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent
150 170	Clear 150 F/RS/LS/TS/TN Clear 150H F/RS/LS/TS/TN Space Creator 150 Clear 170 F/RS/LS/TS/TN Clear 170H F/RS/LS/TS/TN	135 Single	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent
200	Clear 200 F/RS/LS/TS/TN Clear 200H F/RS/LS/TS/TN Space Creator 200	160 Single	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent
250	Clear 250 F/RS/LS/TS/TN Clear 250H F/RS/LS/TS/TN	180 Single	US: ANSI Z21.88 - 2016 Canada: CSA 2.33 - 2016	Natural Gas or Propane	5"x8" Co-axial Direct Vent



NOTE: Venting is not supplied by Ortal with the fireplace. The fireplace is certified to be used with, and can be obtained from, the vent manufacturers outlined in "General Venting Requirements" section.

Rating Label

The following figure shows a sample certification label for various product series. The fireplace rating label is found on a separate metal plate that is included with the fireplace.

DEALERS/INSTALLERS: You **MUST** leave the fireplace's rating label with the fireplace in an area easily accessible by the owner (typically near the access panel, if available). You must instruct the owner before handing over the fireplace where this label can be found.

OWNERS: Make sure the installer leaves your fireplace's rating label in an area that is easily accessible for you. This information is required for servicing and receiving replacement parts.

			
Manufacturer/Fabricant Ortal Ltd. 14 Haharash St. Hod Hasharon, 4524087 Israel Tel: 011-972-9-7402828 Fax: 011-972-9-7402687		For use only with vent, glass and interior design media certified and approved for use with the appliance. Not for use with solid fuel. For use with barriers certified for this appliance only. Utilisez uniquement avec des conduits, des panneaux vitrés et des accessoires décoratifs intérieurs homologués et approuvés pour une utilisation avec cet appareil. Pas pour l'usage avec le combustible solide. Pour une utilisation avec des barrières certifiées pour cet appareil uniquement.	
<input type="checkbox"/> ORTAL <input type="checkbox"/> LYRIC			
Serial No.:	<div style="border: 1px solid black; width: 100px; height: 15px;"></div>	Approved By: Homologué Par:	CSA No.: 2358468
Tested to: CSA/ANSI Z21.88-2016 • CSA 2.33-2016 for Vented Gas Fireplace Heater Examiné à: CSA/ANSI Z21.88-2016 • CSA 2.33-2016 pour Poêles-foyers ventilés			
Altitude rating: Estimation d'altitude:	0-2000 ft. / 0-610 m.	Electrical Rating: Estimation Électrique:	110 volt / 60 Hz / less than 5A
Model Series / Modèle Séries: 110-130 With 100 Burner			
<input type="checkbox"/> Clear 110/RS/LS/TS/Tunnel <input type="checkbox"/> Clear 130/RS/LS/TS/Tunnel <input type="checkbox"/> Clear - 110 Base <input type="checkbox"/> Clear 110H RS/LS/TS/Tunnel <input type="checkbox"/> Clear 130H RS/LS/TS/Tunnel <input type="checkbox"/> Clear - 110TS Base <input type="checkbox"/> Clear 110HH RS/LS/TS/Tunnel <input type="checkbox"/> Clear 130HH RS/LS/TS/Tunnel <input type="checkbox"/> Island 130 <input type="checkbox"/> Stand Alone 110 /TS <input type="checkbox"/> Space Creator 120 / Mini / Midi <input type="checkbox"/> Space Creator 120H			
Fuel Type/Type de combustible:	<input type="checkbox"/> NG/GN Single Orifice Double Orifice		<input type="checkbox"/> PROPANE Single Orifice Double Orifice
Max Input / Débit max. (BTU/HR):	37,167	42,185	35,316 42,185
Min Input / Débit min. (BTU/HR):	22,798	28,878	25,113 28,878
Orifice Size / Taille de l'orifice:	1200	650F+650R	380 180R+180F
Gas Inlet Pressure (W.C.) inches: Pression d'entrée de gaz (CE) pouces:	7.0	7.0	11.0 7.0
Gas manifold Pressure (W.C.) inches: Pression d'alimentation (CE) pouces:	5.6	5.0	10.0 5.0
Clearances to Combustibles: Espace par rapport aux matériaux inflammables:	Sides: Côtés:	2"	Back: Arrière:
		2"	In front of Glass Devant le panneau vitré:
			40"
Also adhere to clearance diagrams and instructions included in the ORTAL manual. Adhérer également aux schémas d'espace et des instructions figurant dans le manuel ORTAL.			
SKU: M209-B100DS			

Sample Rating Label

Installation

Prior to Installation

Locate the Fireplace

Keep the following factors in mind when selecting a location for the fireplace:

- Fireplace clearance requirements (review “General Clearances” sections).
- Heat release and air intake requirements (review “Heat Release” and “Air Intake” sections).
- Adequate space for servicing.
- Access panel recommendations (review “Access Panel” section).
- Minimum vertical vent rise, allowed horizontal lengths, and degree of offset (review “Venting” section).
- Framing and finishing requirements (review “Framing” and “Finishing” sections).
 - Front wall installation and finishes to be completed after fireplace and vent installation (review “Step-By-Step Chase Construction” section).
- Floor or Platform requirements (review “Platform” section).

Fireplace Installation

Use the following guidelines to ensure a smooth installation. The installation sequence is divided into three phases: Planning, Installation, and Startup.

First Trip to Site: Planning

Consult with the contractor and go over all requirements:

- Chase framing requirements.
- $\frac{5}{8}$ " Type X Drywall (or equivalent) requirements.
- Heat release requirements.
- Air Intake requirements (if applicable).
- Access panel size and location.
- Gas and electric specs and location.
- Vent configuration.
- Finishing details.

 **NOTE:** Provide the contractor with a printed copy of the “Building Checklist” and review requirements with them.

→ Second Trip to Site: Installation

- Confirm the following items are properly located and built to specification:
 - Framing (with $\frac{5}{8}$ " Type X Drywall)
 - Platform
 - Gas and electric
 - Access panel (if applicable)
 - Heat release
 - Air intake (if applicable)
- Clear a path free of any possible obstruction to carry in the fireplace.
- Uncrate the fireplace and set in place.
- Secure the fireplace by attaching the seismic brackets to the framing. See “Securing the Fireplace” section below.
- Remove plastic sleeve covering pilot tube and electrical wires.
- Remove all zip ties.
- Optional: Remove gas and electrical components from metal shipping plate if desired.
- Move the components to the access panel location. Be mindful of the routing for future service needs.
- Connect the light grounding cable to the fireplace leg closest to the access panel.
- Install the vent components. See “Vent Installation” section below.
- Review the front wall requirements (see “Step-By-Step Chase Construction” section) and finishing details with the contractor.
- Protect the fireplace and components from damage.

→ **WARNING: HANDLING SPACE CREATOR FIREPLACES**

The Space Creator fireplace must be handled with care due to its special and sensitive shape. Do not remove the securing brackets before installation. After removing the securing brackets, the appliance must be treated with care to maintain its leveled shape. Do not shake, throw, stand, or put weight on it.

→ **WARNING: LIP INSTALLATION IN H FIREPLACES**

To ensure the glass is removable after installation, Magnetic Screw (Part #M03) under the fireplace lip **must** be secured tightly to the firebox and screwed in as far as possible prior to installation of framing and finish material. If the magnet is not completely screwed down into the firebox, the lip will sit ajar to the firebox, preventing glass removal.

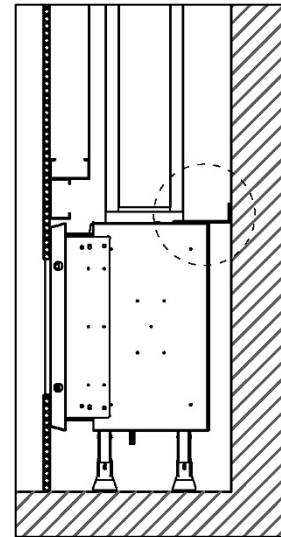
→ Securing the Fireplace

During shipping, two L-shaped seismic brackets are attached from the fireplace to the crating for stabilization. These brackets must be re-used during installation to secure the fireplace to the back (or side) framing. It is crucial to the finishing that the fireplace is stable, level, and plumb. For added stability (though not required), re-use the leg shipping brackets to secure the legs of the fireplace to floor/platform.

Vent Installation

Venting must be installed according to the requirements detailed in the "Venting" section of this manual in conjunction with the vent system manufacturer's installation instructions. Venting must be supported by the structural surrounding and not by the fireplace. Each offset (elbow) must be strapped to reduce movement or possible disconnection.

The first section of venting must be secured to the fireplace starter collar with a minimum of 3 sheet metal screws no longer than ½". DO NOT use silicone to seal the sections. If sealing is required by the vent manufacturer or local code, use Mil-Pac sealant.



Seismic Bracket

Third Trip to Site: Startup

- Perform a visual inspection to confirm that all work was completed correctly and per specification.
- Confirm that gas and electric are properly connected and live and operating the specs specified within this manual.
- Remove the safety barrier and glass and clean the inside of the fireplace.
- Install the Interior Design Media (if desired) on the burner as specified in "Interior Design Media" section.
- Confirm the fireplace is operating properly.
- Check remote-control setup.
- Remove protective layer from glass.
- Clean glass.
- Reinstall the glass and safety barrier.
- Review operation of the fireplace and remote control with the owner.
- Set up return visit to clean glass after the Initial Burning Period (see "Post-Installation" section below).

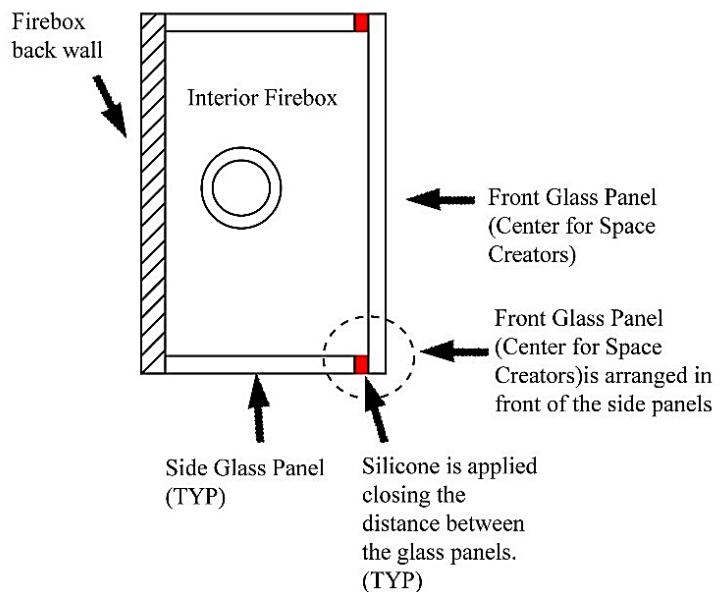
Working with Glass Panels

Inner glass panel is 5mm ceramic glass. Exterior double glass panel is 3/16" tempered glass.

Silicone comes pre-applied to any glass-to-glass connections (multi-sided models), on both sides of the glass. Keep the following guidelines in mind when handling silicone and glass panels:

The purpose of the silicone is to create a gasket, not to "glue" the glass panels together. When placing glass panels, ensure that the glass is fully in place and that the silicone is filling the space between the glass panels. Place the front (or center) panel in place first and then slide the side panel into place so that the silicone edge touches the glass edge.

- Re-apply silicone only if the original silicone is damaged (Rutland 500° Clear Silicone is recommended).
- If new silicone is applied, cure time is 24 hours before operation of the fireplace.
- Do not use silicone to seal the glass after it is in place.
- Always use appropriate materials and cleaning agents to clean glass. Ammonia free glass cleaners and/or ceramic glass cleaners are recommended.



Glass Seal Assembly Diagram

Post-Installation

Complete the following post-installation steps upon 4th trip to site.

Initial Burning Period

There is a 12-hour minimum burning period following installation of the fireplace. This 12-hour period must include a minimum of 4 consecutive hours of continuous burning. During this time, the owner or installer may notice:

- The glass developing a white or “cloudy” residue.
- An unusual smell

Both the residue and the smell are due to the paint on the fireplace metal heating and “burning off”. This is normal. The cloudiness and odor will disappear after the 12-hour period elapses and the installer returns to service the fireplace and complete startup.

Final Inspection Procedure

When the 12-hour burning period is complete, the installer must return and perform the final inspection, which includes:

- Cleaning the glass with a ceramic glass cleaner (otherwise the white residue will remain)
- Checking the interior media setup
- Checking for gas leaks
- Adjusting the restrictor (if necessary)
- Performing an overall check to make sure that all systems and components is working properly.

When these activities are complete, initial startup is concluded and the fireplace may be operated by the owner.

Final Checks and User Instruction

Before releasing the fireplace to the customer for use without installer supervision, the installer must ensure that the fireplace is burning correctly. In addition, the installer must review and explain the following to the owner:

- Safety warnings
- Fireplace operation
- Warranty requirements
- Maintenance requirements
- Glass and firebox components are hot during and after operation.
- If any questions or concerns arise, owner must contact the local Ortal dealer/installer for support.

Building Around the Fireplace

→ Building Checklist

The following building checklist is a quick reference for a typical Ortal Built-In Series fireplace installation. This list is not exhaustive and does not supplement thorough review of the installation manual.

- ☑ **Fireplace Location:** Ensure the location allows for min. 36" clearance from viewing area to combustibles and 12" to non-combustibles. Make sure a clear path is established to allow the fireplace to be safely transported to installation location.
- ☑ **Venting:** Confirm vent size (either 4"x6" or 5"x8" for natural vent and 3"x5" for power vent), vent clearance (1" on sides and bottom, 3" on top), vent configuration, and termination location.
- ☑ **Platform Height:** Determine desired fireplace viewing area location on the wall. Average height of bottom of glass to the floor is 12"-24". Platform must be able to bear the weight of the fireplace. Platform can be constructed out of wood, concrete, metal, or any other solid materials (not required to be non-combustible). A platform is not required. The fireplace may sit directly on the floor. The floor has the same construction requirements as a platform.
- ☑ **Chase Construction:** No materials can be attached directly to the fireplace (exception: 5/8" Type X Drywall). The area of the chase interior must meet minimum chase area requirements (depending on the model). All chases require a heat release, and double glass fireplaces require an air intake (details below).
- ☑ **Framing:** Adhere to minimum framing dimensions (or greater). Keep min. 2" clearance from back and sides (as applicable by model) of fireplace to any material. The first 18" above the top of the fireplace viewing area must always be non-combustible framing. Maintain min. 1/4" clearance from front face of fireplace and front metal off-set to the framing. Maintain min. 4" space between air vents at top of fireplace to any material. For recessed fireplaces, do not exceed 12" max. front overhang depth limit. Side overhang depth is unlimited. No material is permitted to extend past the 1/2" metal lip surrounding the fireplace viewing area to allow for glass removal.
- ☑ **5/8" Type X Drywall Requirements:** One layer of 5/8" Type X Drywall (or equivalent) must be installed on the exterior of the chase framing. 5/8" Type X Drywall (or equivalent) may be fastened to the front face of the fireplace with 1" self-tapping drywall screws 16" on center a minimum of 2 1/2" from the metal lip (above the viewing area).
- ☑ **TV/Artwork:** TV/Art must be min. 12" above top of fireplace viewing area.
- ☑ **Gas Supply Line and Power Location:** Locate gas line with manual shut off according to local code. Power provided by single gang 120V outlet in same area as gas line.
- ☑ **Access Panel:** Access panel highly recommended to access gas and electrical components for servicing. Depending on the model, access panel can be placed at side or back of the fireplace within 3' of the pilot. Access panel is required for power-vented fireplaces. Min. recommended size 10"x10".
- ☑ **Heat Release:** *Crucial for Cool Wall Technology.* Must start within 6" (max.) from the chase's ceiling. Heat release must meet minimum size (depending on the model) of net free air space. Height of the heat release must not exceed 1/3 of the width.
- ☑ **Air Intake:** Only required for double glass heat barrier. Must be located at or below level of double glass fans. Air intake must meet minimum size (depending on the model) of net free air space.
- ☑ **Finishing:** Maintain required clearances depending on your finish material.

→ **Framing**

Fireplace chase may be framed with either combustible (typically wood studs) or non-combustible framing (typically metal studs). **Any framing within 18 inches from the top of the fireplace glass (viewing area) must be non-combustible.**

The framing of the fireplace chase must be designed to carry the entire weight of the wall and finish material. Surrounding material must not transfer weight to the fireplace or be connected in any way to the fireplace, with the exception of 5/8" Type X drywall (or its equivalent). It may be fastened to the front face of the fireplace with 1-inch self-tapping drywall screws 16 inches on center, with a minimum of 2 1/2 inches from the metal lip (above the viewing area).

⚠ IMPORTANT: No material is permitted to extend past the 1/2" metal lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

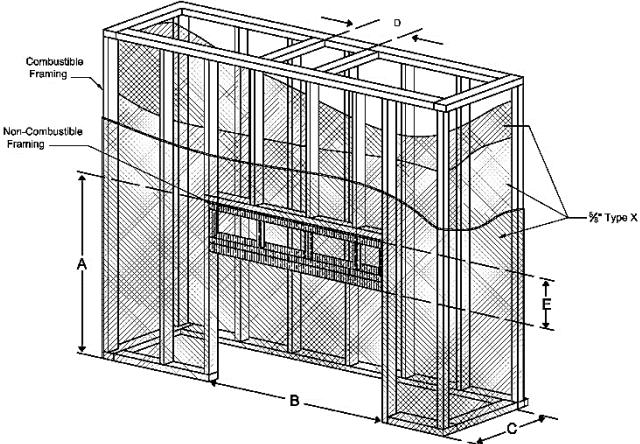
→ **⚠ IMPORTANT:** To ensure the glass is removable after installation, Magnetic Screw (Part #M03) under the fireplace lip must be secured tightly to the firebox and screwed in as far as possible prior to installation of framing and finish material. If the magnet is not completely screwed down into the firebox, the lip will sit ajar to the firebox, preventing glass removal.

→ **Framing Dimensions**

The following diagrams are for illustrative purposes only. There are multiple approved installation scenarios. A flush application is not the only permitted application. The fireplace may be recessed into the wall. Refer to diagrams and values below and in the following pages for details.

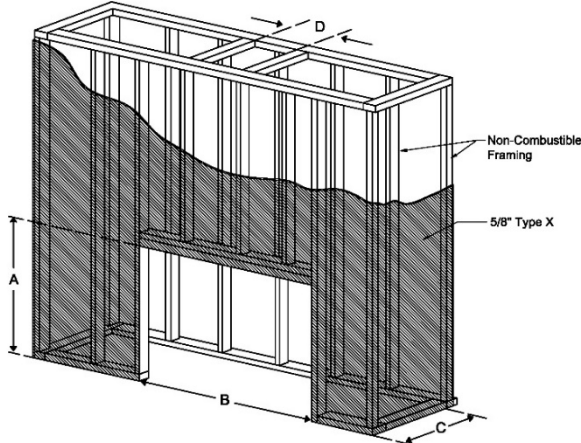
Traditional Series Framing

Combustible Framing



Dimension A: Rough Combustible Framing Opening Height
Dimension B: Rough Framing Opening Width
Dimension C: Framing Depth
Dimension D: Firestop Opening
Dimension E: Non-combustible Framing Zone

Non-Combustible Framing



Dimension A: Rough Framing Opening Height
Dimension B: Rough Framing Opening Width
Dimension C: Framing Depth
Dimension D: Firestop Opening

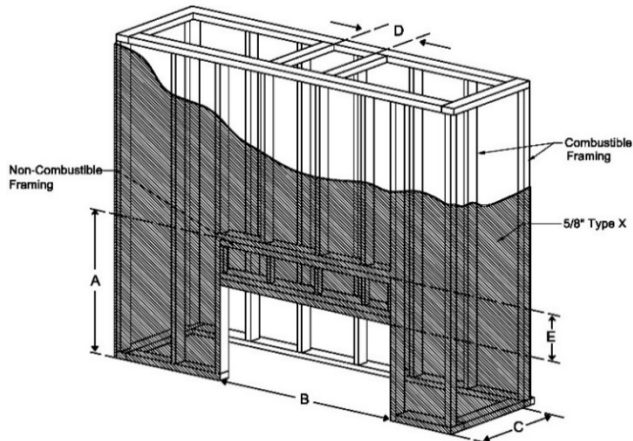
⚠ WARNING – MAINTAIN AIR FLOW CLEARANCE: Firebox top vent must have minimum 4" of clearance to any material achieve sufficient airflow. Failure to do so could result in improper fireplace operation, property damage, or physical injury. Review “General Clearances” section prior to framing to ensure all clearances are followed.

Model	Framing	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
TR 90	Combustible	51 7/8"	46 1/8"	26 3/4"	Refer to pipe manufacturer's firestop dimensions	13 3/8"
	Non-Combustible	37 7/8"	44 7/8"	26 1/8"		N/A
TR 110	Combustible	54 3/8"	53 5/8"	27 3/4"		13 3/8"
	Non-Combustible	41 1/8"	52 3/8"	26 1/8"		N/A

ⓘ NOTE: Traditional series fireplaces require 5/8" Type X Drywall on both the interior and exterior sides of the chase when framing with combustible material.

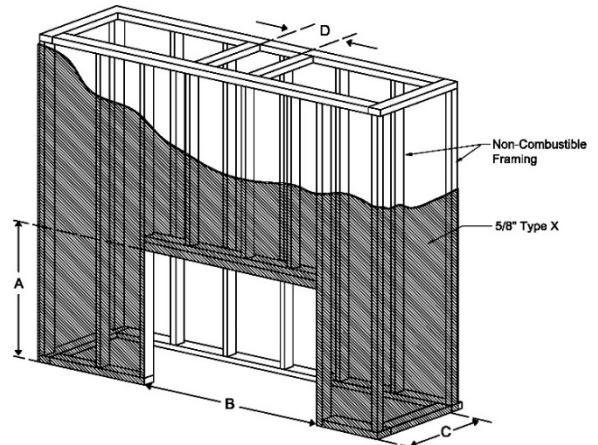
Front Facing Series Framing

Combustible Framing



Dimension A: Rough Combustible Framing Opening Height
 Dimension B: Rough Framing Opening Width
 Dimension C: Framing Depth
 Dimension D: Firestop Opening
 Dimension E: Non-combustible Framing Zone

Non-Combustible Framing



Dimension A: Rough Framing Opening Height
 Dimension B: Rough Framing Opening Width
 Dimension C: Framing Depth
 Dimension D: Firestop Opening

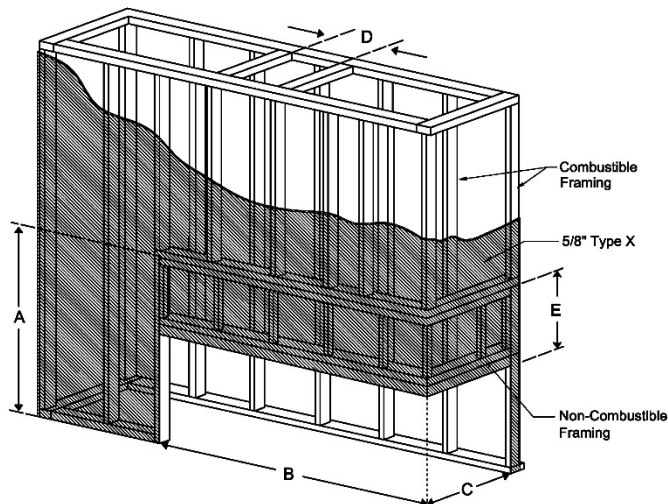
⚠ WARNING – MAINTAIN AIR FLOW CLEARANCE: Firebox top vent must have minimum 4" of clearance to any material achieve sufficient airflow. Failure to do so could result in improper fireplace operation, property damage, or physical injury. Review "General Clearances" section prior to framing to ensure all clearances are followed.

Model	Framing	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
40H70 F	Combustible	55 ³ / ₈ "	24 ⁵ / ₈ "	18 ¹ / ₈ "	Refer to pipe manufacturer's firestop dimensions	14 ¹ / ₄ "
	Non-Combustible	41 ¹ / ₄ "				N/A
75 F	Combustible	45 ¹ / ₈ "	37 ³ / ₄ "	18"		15 ³ / ₈ "
	Non-Combustible	29 ⁷ / ₈ "				N/A
75x65 F	Combustible	53 ³ / ₈ "	38 ³ / ₈ "	18"		15 ¹ / ₈ "
	Non-Combustible	38 ³ / ₈ "				N/A
60x80 F	Combustible	57"	29 ³ / ₈ "	18 ¹ / ₈ "		14 ⁵ / ₈ "
	Non-Combustible	42 ¹ / ₂ "				N/A
110 F Wilderness 44 F	Combustible	41 ⁵ / ₈ "	51 ⁷ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
110H F	Combustible	49 ¹ / ₂ "	51 ⁷ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
130 F Wilderness 52 F	Combustible	41 ⁵ / ₈ "	58 ⁵ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
130H F	Combustible	49 ¹ / ₂ "	58 ⁵ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
150 F Wilderness 60 F	Combustible	41 ⁵ / ₈ "	68 ¹ / ₂ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
150H F	Combustible	49 ¹ / ₂ "	68 ¹ / ₂ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
170 F	Combustible	41 ⁵ / ₈ "	76 ³ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
170H F	Combustible	49 ¹ / ₂ "	76 ³ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
200 F	Combustible	41 ⁵ / ₈ "	85 ³ / ₄ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
200H F	Combustible	49 ¹ / ₂ "	85 ³ / ₄ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
250 F	Combustible	43 ⁵ / ₈ "	104 ³ / ₈ "	18 ¹ / ₈ "		14
	Non-Combustible	29 ⁵ / ₈ "				N/A
250H F	Combustible	49 ¹ / ₂ "	104 ³ / ₈ "	18 ¹ / ₈ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A

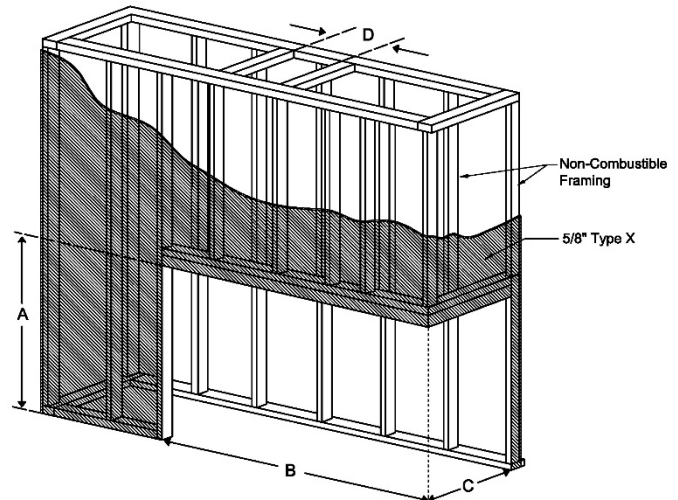
Corner (RS/LS) Series Framing

Combustible Framing

Non-Combustible Framing



Dimension A: Rough Combustible Framing Opening Height
 Dimension B: Rough Framing Opening Width
 Dimension C: Framing Depth
 Dimension D: Firestop Opening
 Dimension E: Non-combustible Framing Zone



Dimension A: Rough Framing Opening Height
 Dimension B: Rough Framing Opening Width
 Dimension C: Framing Depth
 Dimension D: Firestop Opening

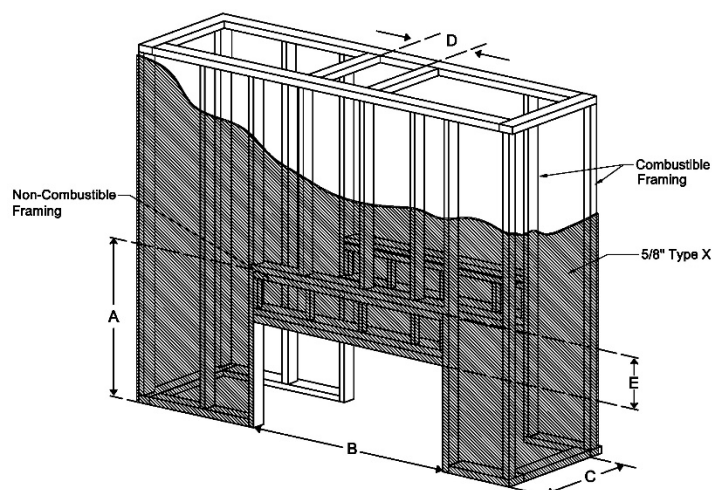


WARNING – MAINTAIN AIR FLOW CLEARANCE: Firebox top vent must have minimum 4" of clearance to any material achieve sufficient airflow. Failure to do so could result in improper fireplace operation, property damage, or physical injury. Review "General Clearances" section prior to framing to ensure all clearances are followed.

Model	Framing	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
40H70 RS/LS	Combustible	55 3⁄8"	24 1⁄4"	18 3⁄8"	Refer to pipe manufacturer's firestop dimensions	14 1⁄8"
	Non-Combustible	41 3⁄8"				N/A
75 RS/LS	Combustible	46 3⁄4"	35 1⁄4"	20 1⁄8"		13 1⁄4"
	Non-Combustible	33 1⁄2"				N/A
110 RS/LS Wilderness 44 RS/LS	Combustible	43 5⁄8"	50 3⁄4"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
110H RS/LS	Combustible	49 1⁄2"	50 3⁄4"	22 1⁄4"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
130 RS/LS Wilderness 52 RS/LS	Combustible	43 5⁄8"	57 5⁄8"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
130H RS/LS	Combustible	49 1⁄2"	57 5⁄8"	22 1⁄4"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
150 RS/LS Wilderness 60 RS/LS	Combustible	43 5⁄8"	57 3⁄8"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
150H RS/LS	Combustible	49 1⁄2"	67 1⁄2"	22 1⁄4"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
170 RS/LS	Combustible	43 5⁄8"	75 1⁄8"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
170H RS/LS	Combustible	49 1⁄2"	75 3⁄8"	22 1⁄4"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
200 RS/LS	Combustible	43 5⁄8"	84 5⁄8"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
200H RS/LS	Combustible	49 1⁄2"	84 7⁄8"	22 1⁄4"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
250 RS/LS	Combustible	43 5⁄8"	104 1⁄4"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
250H RS/LS	Combustible	49 1⁄2"	104 1⁄2"	22 1⁄4"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A

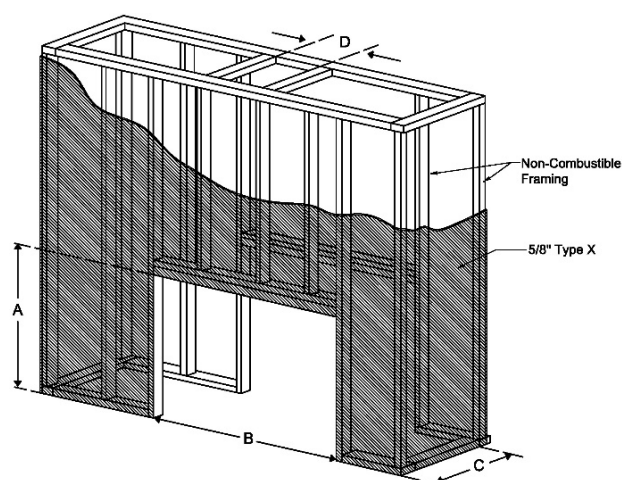
Tunnel Series Framing

Combustible Framing



Dimension A: Rough Combustible Framing Opening Height
 Dimension B: Rough Framing Opening Width
 Dimension C: Framing Depth
 Dimension D: Firestop Opening
 Dimension E: Non-combustible Framing Zone

Non-Combustible Framing

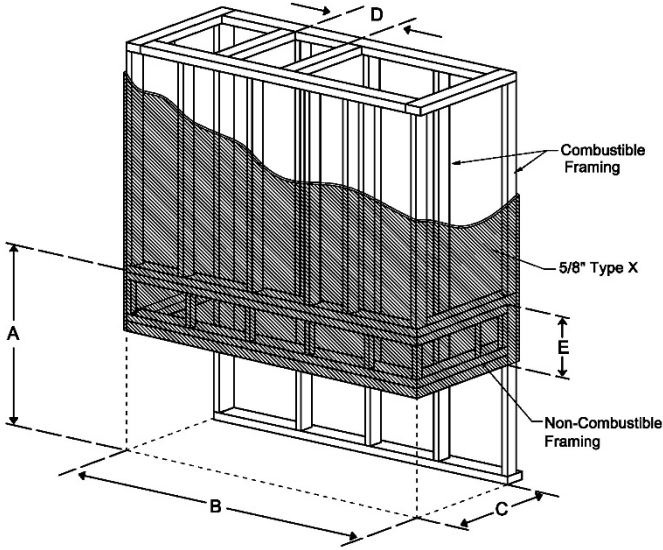
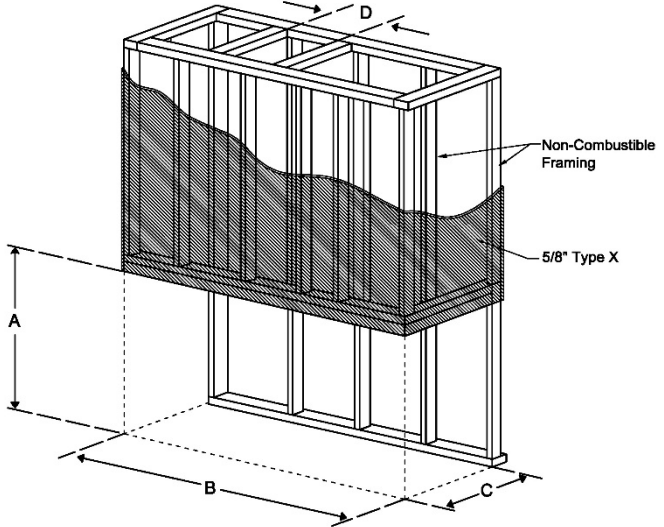


Dimension A: Rough Framing Opening Height
 Dimension B: Rough Framing Opening Width
 Dimension C: Framing Depth
 Dimension D: Firestop Opening

WARNING – MAINTAIN AIR FLOW CLEARANCE: Firebox top vent must have minimum 4" of clearance to any material achieve sufficient airflow. Failure to do so could result in improper fireplace operation, property damage, or physical injury. Review "General Clearances" section prior to framing to ensure all clearances are followed.

Model	Framing	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
40H70 TN	Combustible	55 ³ / ₈ "	24 ¹ / ₄ "	19 ¹ / ₈ "	Refer to pipe manufacturer's firestop dimensions	14 ³ / ₈ "
	Non-Combustible	41 ¹ / ₄ "				N/A
75x65 TN	Combustible	53 ³ / ₈ "	38 ³ / ₈ "	19 ¹ / ₈ "		15 ¹ / ₈ "
	Non-Combustible	38 ³ / ₈ "				N/A
60x80 TN	Combustible	57"	29 ³ / ₈ "	19 ¹ / ₈ "		14 ⁵ / ₈ "
	Non-Combustible	42 ³ / ₈ "				N/A
110 TN	Combustible	41 ⁵ / ₈ "	51 ⁷ / ₈ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
110H TN	Combustible	49 ¹ / ₂ "	51 ⁷ / ₈ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
130 TN	Combustible	41 ⁵ / ₈ "	58 ⁵ / ₈ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
130H TN	Combustible	49 ¹ / ₂ "	58 ⁵ / ₈ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
150 TN	Combustible	41 ⁵ / ₈ "	68 ¹ / ₂ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
150H TN	Combustible	49 ¹ / ₂ "	68 ¹ / ₂ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
170 TN	Combustible	41 ⁵ / ₈ "	76 ³ / ₈ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
170H TN	Combustible	49 ¹ / ₂ "	76 ³ / ₈ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
200 TN	Combustible	41 ⁵ / ₈ "	85 ³ / ₄ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	27 ¹ / ₂ "				N/A
200H TN	Combustible	49 ¹ / ₂ "	85 ³ / ₄ "	19 ¹ / ₄ "		14 ¹ / ₈ "
	Non-Combustible	35 ³ / ₈ "				N/A
250 TN	Combustible	43 ⁵ / ₈ "	104 ¹ / ₄ "	19 ¹ / ₄ "		14
	Non-Combustible	29 ⁵ / ₈ "				N/A
250H TN	Combustible	49 ¹ / ₂ "	104 ¹ / ₄ "	19 ¹ / ₄ "		14
	Non-Combustible	35 ¹ / ₂ "				N/A

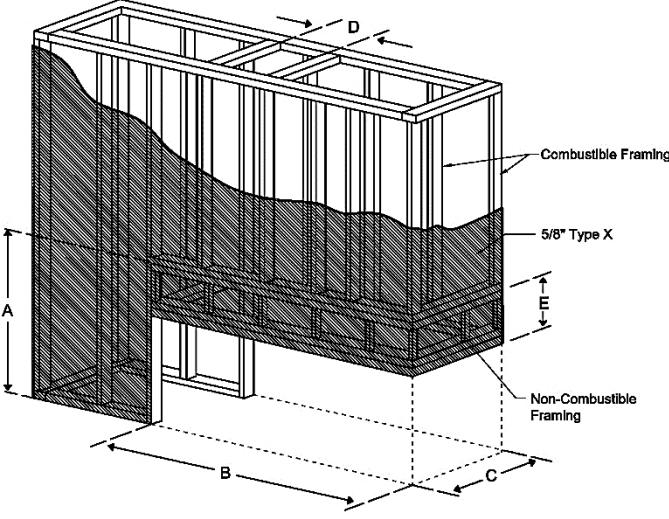
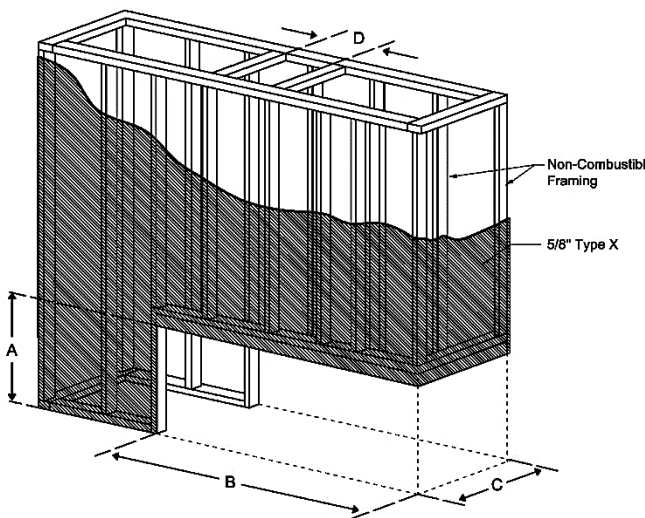
Three Side Series Framing

Combustible Framing	Non-Combustible Framing
 <p> Dimension A: Rough Combustible Framing Opening Height Dimension B: Rough Framing Opening Width Dimension C: Framing Depth Dimension D: Firestop Opening Dimension E: Non-combustible Framing Zone </p>	 <p> Dimension A: Rough Framing Opening Height Dimension B: Rough Framing Opening Width Dimension C: Framing Depth Dimension D: Firestop Opening </p>

⚠ WARNING – MAINTAIN AIR FLOW CLEARANCE: Firebox top vent must have minimum 4" of clearance to any material achieve sufficient airflow. Failure to do so could result in improper fireplace operation, property damage, or physical injury. Review "General Clearances" section prior to framing to ensure all clearances are followed.

Model	Framing	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
40H70 TS	Combustible	55 3⁄8"	22 3⁄8"	18 1⁄4"	Refer to pipe manufacturer's firestop dimensions	14 1⁄8"
	Non-Combustible	41 3⁄8"				N/A
75 TS	Combustible	38 3⁄4"	33 5⁄8"	20 1⁄8"		13 1⁄4"
	Non-Combustible	33 1⁄2"				N/A
110 TS Wilderness 44 TS	Combustible	43 5⁄8"	49	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
110H TS	Combustible	49 1⁄2"	49	20 5⁄8"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
130 TS Wilderness 52 TS	Combustible	43 5⁄8"	55 5⁄8"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
130H TS	Combustible	49 1⁄2"	55 5⁄8"	20 5⁄8"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
150 TS Wilderness 60 TS	Combustible	43 5⁄8"	65 1⁄2"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
150H TS	Combustible	49 1⁄2"	65 1⁄2"	20 5⁄8"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
170 TS	Combustible	43 5⁄8"	73 3⁄8"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
170H TS	Combustible	49 1⁄2"	73 3⁄8"	20 5⁄8"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
200 TS	Combustible	43 5⁄8"	82 3⁄4"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
200H TS	Combustible	49 1⁄2"	82 3⁄4"	20 5⁄8"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A
250 TS	Combustible	43 5⁄8"	102 1⁄2"	20 5⁄8"		12 1⁄2"
	Non-Combustible	31 1⁄8"				N/A
250H TS	Combustible	49 1⁄2"	102 1⁄2"	20 5⁄8"		12 5⁄8"
	Non-Combustible	36 7⁄8"				N/A

Space Creator Series Framing

Combustible Framing	Non-Combustible Framing
 <p>Dimension A: Rough Combustible Framing Opening Height Dimension B: Rough Framing Opening Width Dimension C: Framing Depth Dimension D: Firestop Opening Dimension E: Non-combustible Framing Zone</p>	 <p>Dimension A: Rough Framing Opening Height Dimension B: Rough Framing Opening Width Dimension C: Framing Depth Dimension D: Firestop Opening</p>

⚠ WARNING – MAINTAIN AIR FLOW CLEARANCE: Firebox top vent must have minimum 4” of clearance to any material achieve sufficient airflow. Failure to do so could result in improper fireplace operation, property damage, or physical injury. Review “General Clearances” section prior to framing to ensure all clearances are followed.

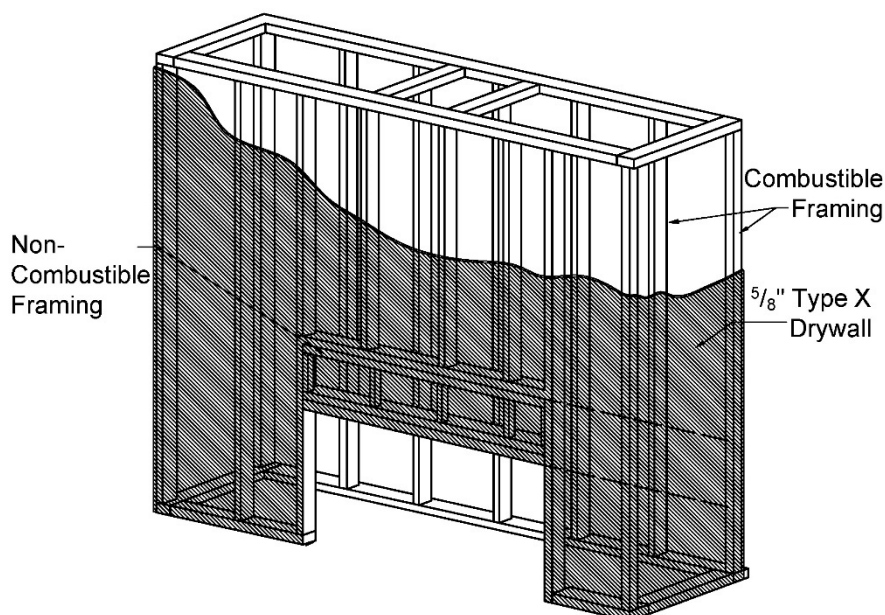
Model	Framing	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
SC 75	Combustible	44 1/2"	37 3/8"	19 3/8"	Refer to pipe manufacturer's firestop dimensions	13 5/8"
	Non-Combustible	30 7/8"				N/A
SC 120	Combustible	44 1/2"	56 3/4"	19 3/8"		12 7/8"
	Non-Combustible	31 5/8"				N/A
SC 150	Combustible	44 1/2"	68 5/8"	19 3/8"		12 7/8"
	Non-Combustible	31 5/8"				N/A
SC 200	Combustible	44 1/2"	88 5/8"	19 3/8"		12 7/8"
	Non-Combustible	31 5/8"				N/A

→ 5/8" Type X Drywall Requirements

Exterior side (i.e., room-facing side) of the framing must be covered with 5/8" Type X Drywall (or equivalent). This applies to combustible and non-combustible framing.

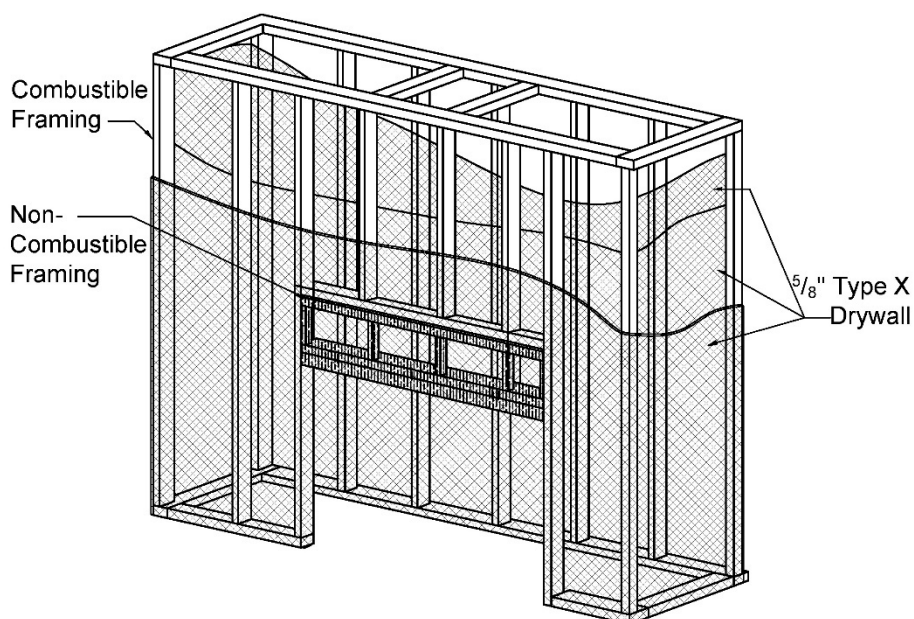
5/8" Type X Drywall is not required on the exterior portion of an insulated outside-facing wall.

NOTE: 5/8" Type X Drywall (or equivalent) is not required on the chase interior (*exception: Traditional series fireplaces - see below for details*).



5/8" Type X Drywall Requirements for Traditional Series

Traditional series fireplaces require 5/8" Type X Drywall (or equivalent) on the exterior side (i.e., room-facing side) of the chase. When building with combustible framing, or installing a TV/Artwork above the fireplace, an additional layer of 5/8" Type X Drywall is required to line the inside of the chase as well.



Platform

The fireplace must be installed on a flat, solid, continuous surface. Surface can be wood, concrete, metal, and other typical solid floor types. Surface material is not required to be non-combustible.

To raise the fireplace higher than standard height, build a platform to which the fireplace can be secured. Platform must be stable and able to bear the full weight of the fireplace. Platform can be constructed out of wood, concrete, metal, or any other solid materials. Material is not required to be non-combustible.

To lower the fireplace, it must be recessed into the floor. Fireplace legs cannot be removed, cut, or adjusted.

NOTE: For fireplaces with the double glass heat barrier, an air intake might be necessary to incorporate into the platform depending on the design. See "Air Intake for a Platform" for details.

→ **General Clearances**

Viewing Area Clearances

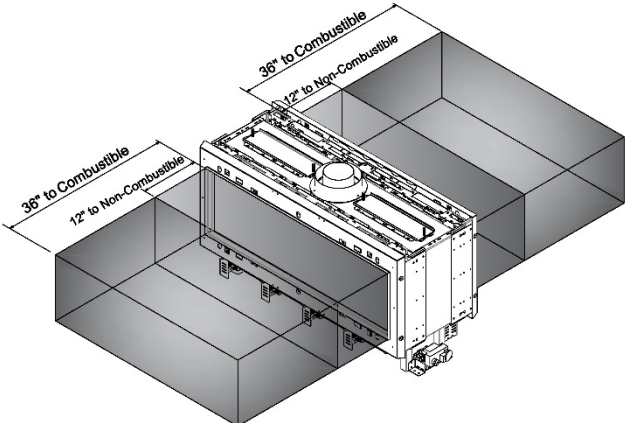
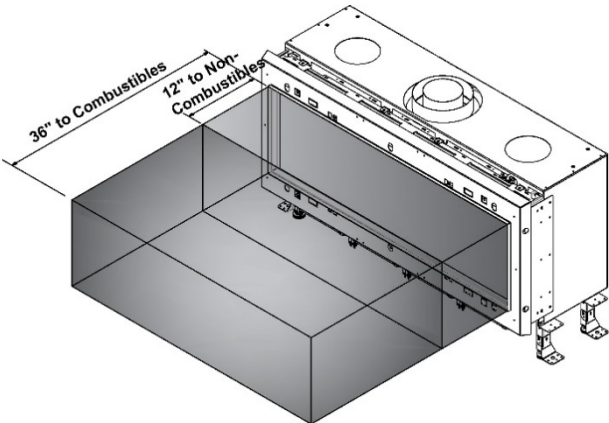
The viewing area clearance zone is an area that extends perpendicular from the fireplace viewing area. The depth of the viewing area clearance zone depends on the combustibility of the material in question. Distance is measured from the fireplace heat barrier.

→ Non-Combustible Materials	Must be minimum 12 inches from fireplace viewing area.
Combustible Materials	Must be minimum 36 inches from fireplace viewing area.

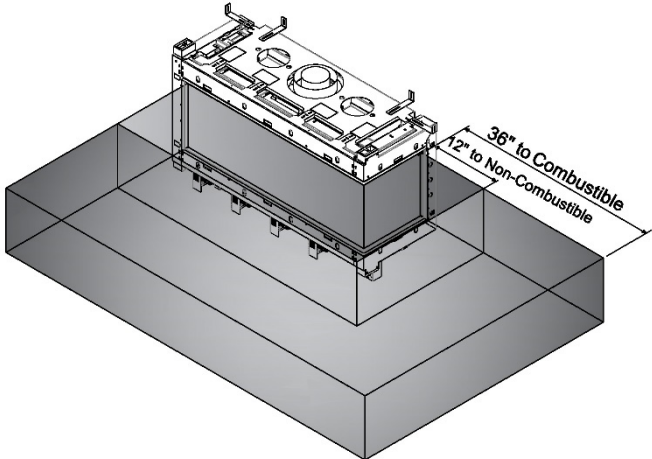
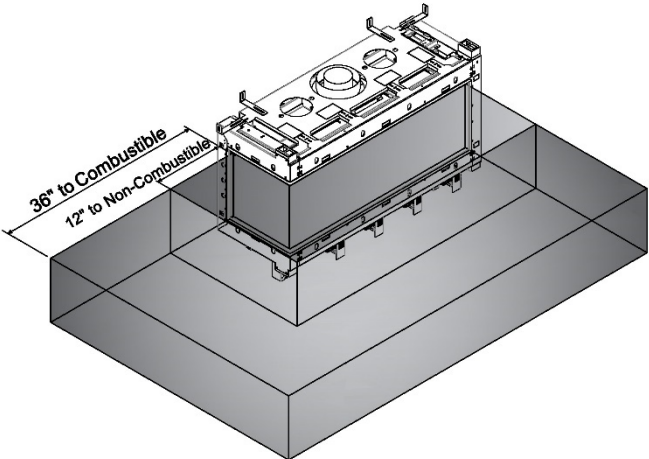
Materials (including combustible flooring and combustible finish material) are permitted below and around the viewing area clearance zone.

! IMPORTANT NOTE: When placing material near the glass, take care to consider fireplace serviceability. It is strongly recommended that any items/materials placed in front of the front (long) glass be movable for easy access to the fireplace during servicing. Recommendation does not apply to side (short) glass.

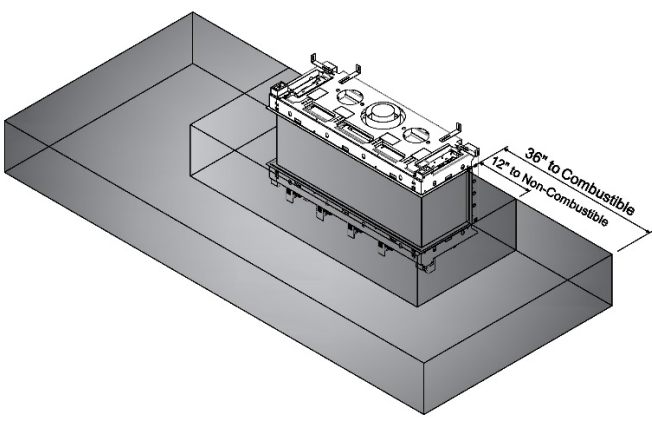
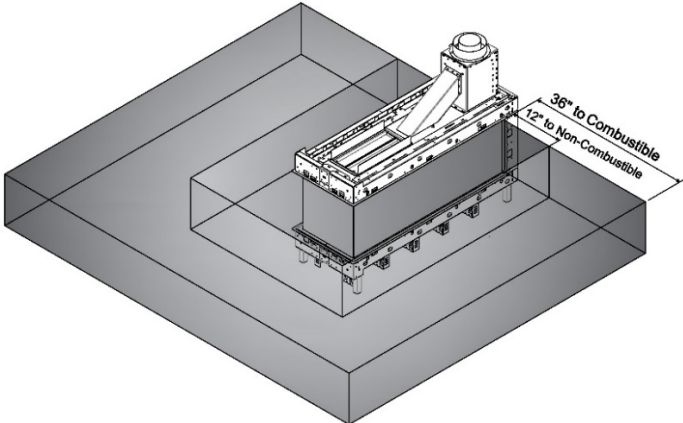
Viewing Area Clearances Per Model	
Front & Traditional	Tunnel



Corner: Left Side	Corner: Ride Side
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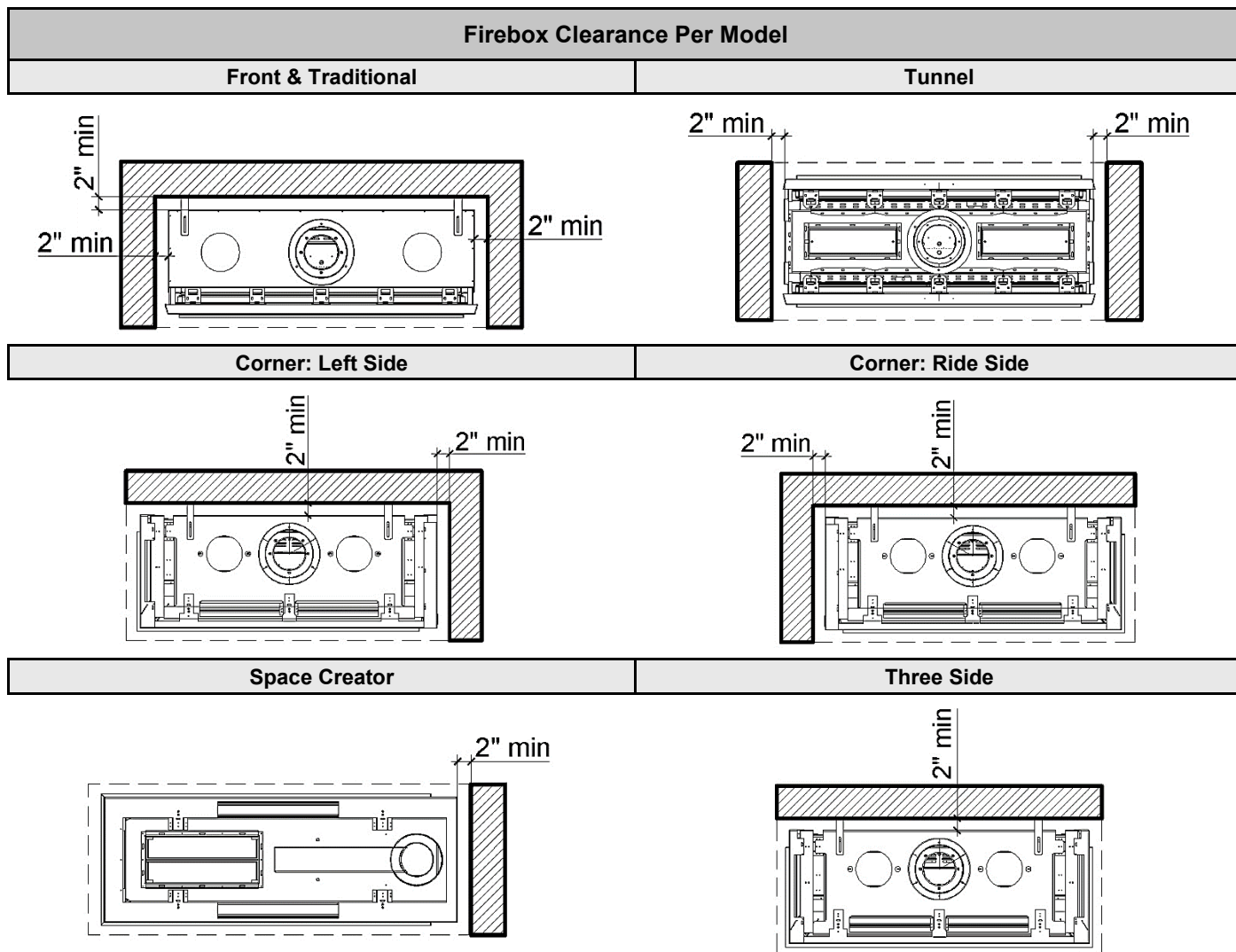


Space Creator	Three Sided
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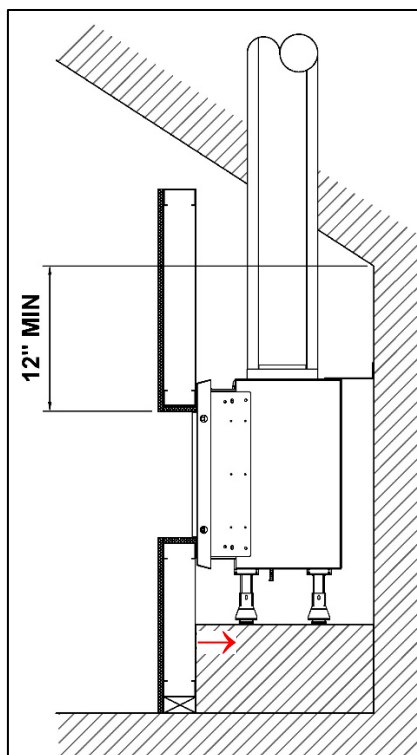
Firebox Clearance

Maintain a **2-inch** clearance from the back and/or side of the fireplace (depending on the model) to any material.



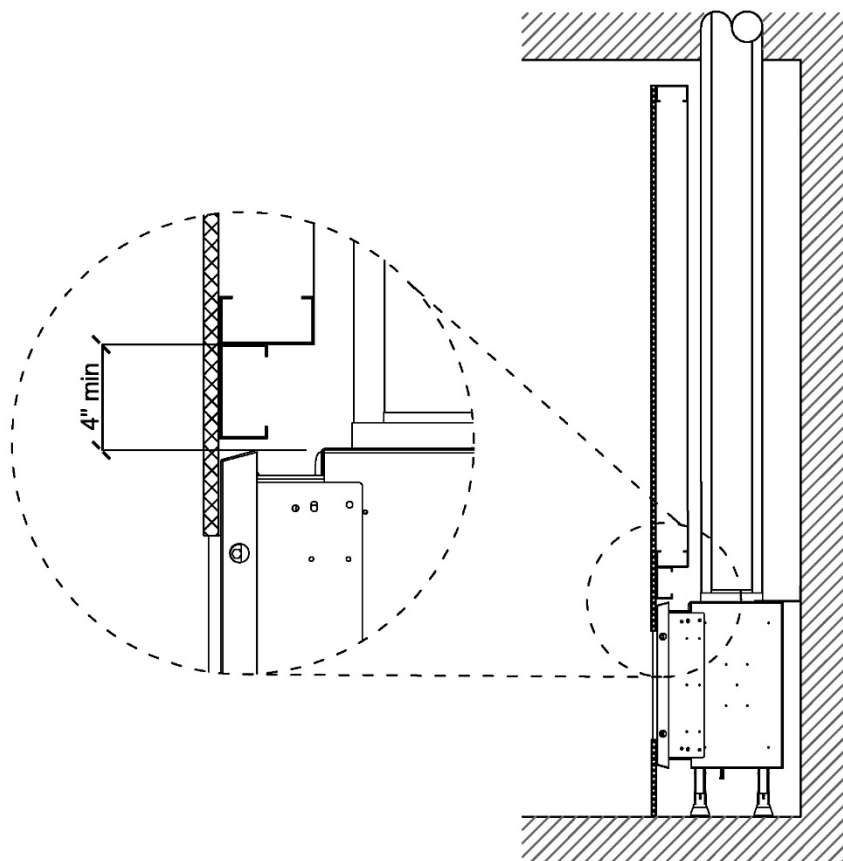
→ Clearance to Ceiling

Maintain a **12-inch** clearance from the top of the fireplace viewing area to the lowest point of the ceiling or to any building materials.



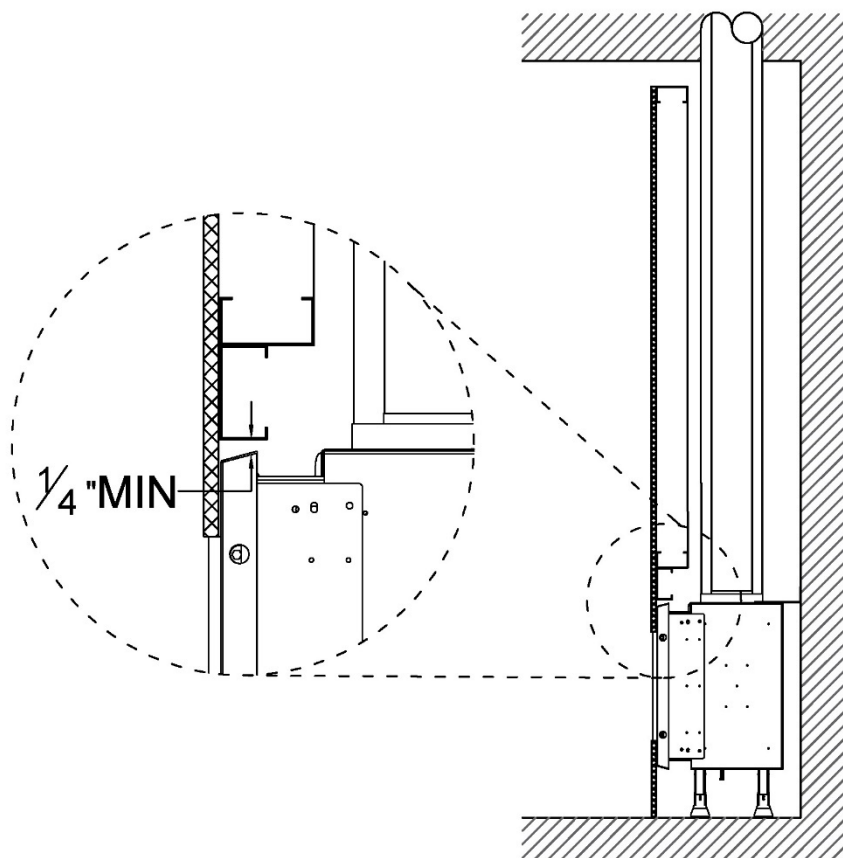
Air Flow Clearance

A 4-inch clearance from the vent openings on the top of the firebox is required. Framing and/or building material is **NOT** permitted in this area. Doing so will block the air vents on the fireplace and cause the entire surrounding to overheat.



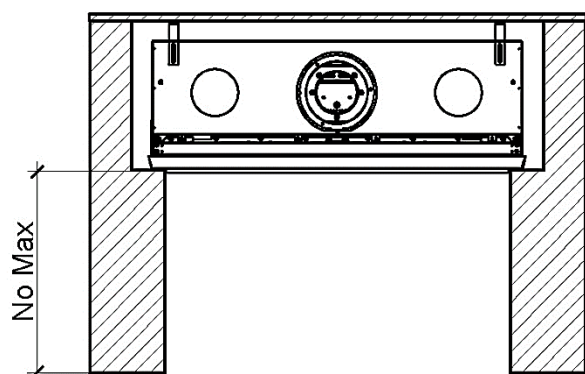
Framing Clearance

Maintain a minimum $\frac{1}{4}$ inches of space between the framing and the face of the fireplace.

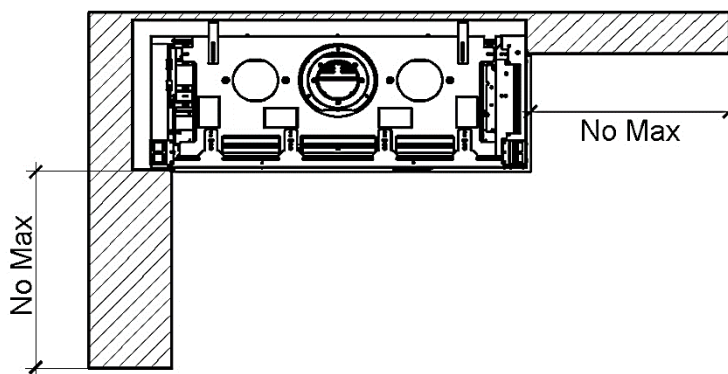


→ Clearance to a Side Wall

The fireplace viewing area is zero-clearance to a side wall. A side wall is defined as a wall that meets the viewing area at a 90° angle.



Alcove Side Walls (Top View)



Corner Side Walls (Top View)

 = Building Material

The temperature on the side wall can get as high as 150°F above ambient temperature. While the fireplace certification allows for this temperature variance, building and finish materials will have their own limitations. Consult the material manufacturer to ensure the material can safely withstand this temperature range.

This information does not apply to a wall that is constructed in front of the viewing area. For materials that will be in front of a main or side viewing area, please refer to the "Viewing Area Clearances" section.

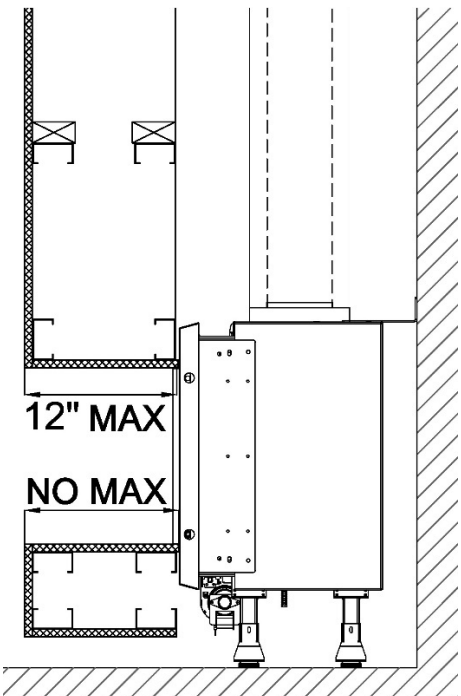
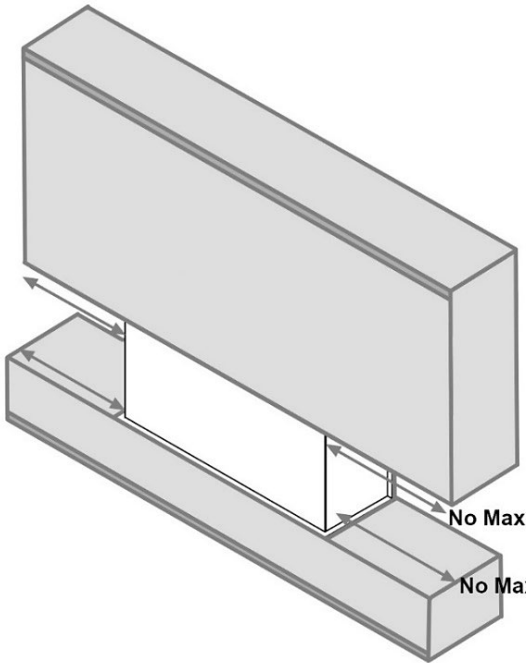


NOTE: This section was previously titled "Clearance to an Inside Corner".

→ Maximum Overhang Depth

Overhang depth of a recessed fireplace must not exceed the clearances shown in the diagrams below. Overhang depth is measured from the edge of the fireplace lip to the out-most part of the wall (including finish material).

Bottom recess (or "hearth extension") has no minimum or maximum depth requirement. If bottom recess depth exceeds 12 inches, ensure the structure is capable of supporting the weight of a fireplace technician for servicing.

Front (Long Side) Overhang	Side (Short Side) Overhang
 <p>12" MAX</p> <p>NO MAX</p>	 <p>No Max</p> <p>No Max</p>

→ Heat Release

A heat release is an opening in the fireplace chase that allows the heat inside the chase to passively circulate into an interior room. This heat is generated convectively as the fireplace heats up. It is separate from exhaust heat produced at the combustion chamber of the fireplace. For safety purposes, a **heat release is required** to keep the wall around the fireplace cool.

→ Heat Release Requirements

- The heat release must be located at or near the top of the fireplace chase and **start within** 6 inches (0-6 inches max) of the chase ceiling (draft stop). It can start at the chase ceiling. It can be located on the front, sides or back of the chase. It can be released into any interior space that shares a wall with the chase.
- Minimum heat release size requirement depends on heat release orientation:

Fireplace Series	Horizontal Heat Release	Vertical Heat Release
40-130*	Minimum 124 sq. in. of free air space	Minimum 160 sq. in. of free air space
150-200	Minimum 200 sq. in. of free air space	Minimum 260 sq. in. of free air space
250	Minimum 250 sq. in. of free air space	Minimum 325 sq. in. of free air space

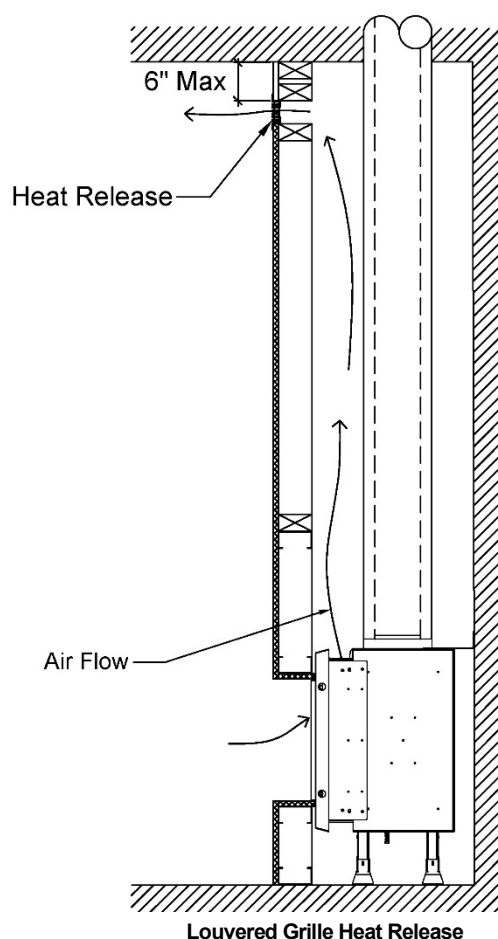
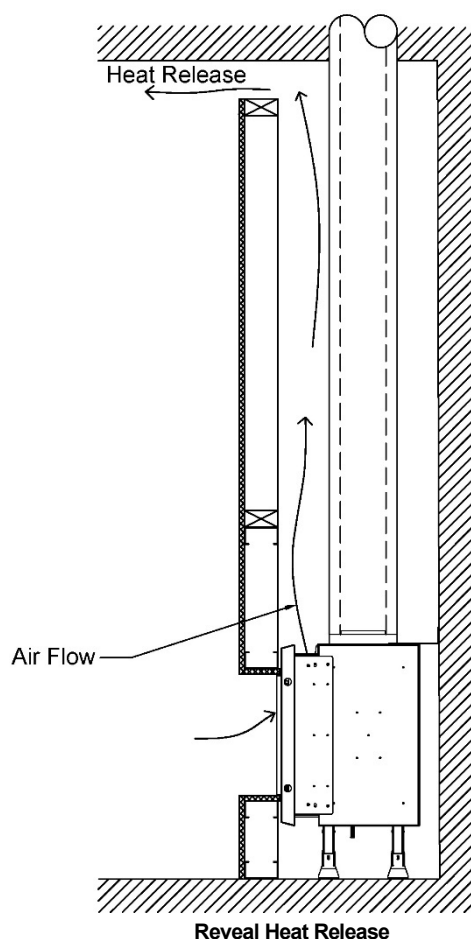
*Includes Built-In Curve & Island fireplaces. Heat release requirements do not apply to Stand-alone Curve & stand-alone Island fireplaces.

- ■ For horizontal heat releases only, the height of the heat release must not exceed 1/3 of the width. (This does not apply to vertical heat releases.)
- ■ The space the heat release vents into must have a minimum volume of 184 ft³.
- The heat release can be in the form of (but not limited to) a louvered ventilation grille, gap, or reveal.
 - For louvered/perforated ventilation grilles, the net free air space allowed in the louvered area must be equal or greater than the minimum number of square inches required per fireplace.
- The interior area of the narrowest part of the fireplace chase (in square inches) must never be less than your required heat release size (see "Chase Area Minimum" section for details).
- The heat release cannot be vented outdoors as this would expose the fireplace to outdoor elements.

→ **NOTE:** An angled heat release is not permitted.

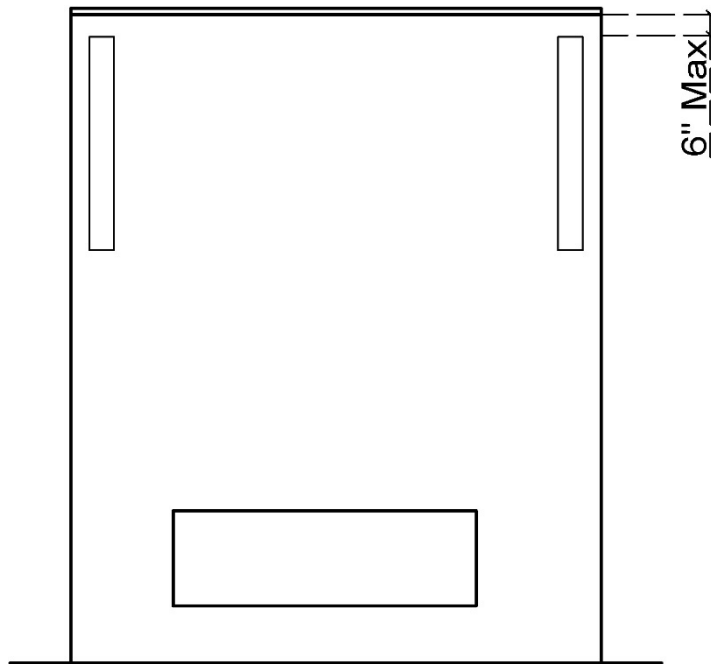
The following diagrams are examples of potential heat release options. These drawings serve as illustrative purposes only.

Horizontal Heat Release



Vertical Heat Release: Split Front

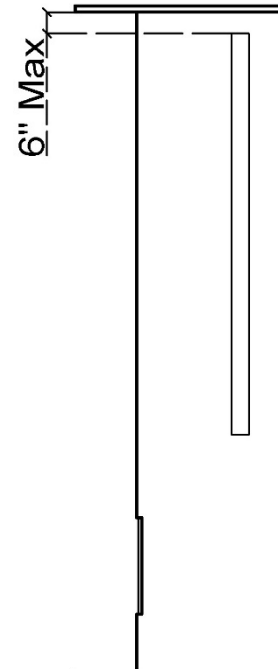
The heat release is oriented vertically and split between the two sides of the chase.



Split Front Vertical Heat Release

Vertical Heat Release: Full Side

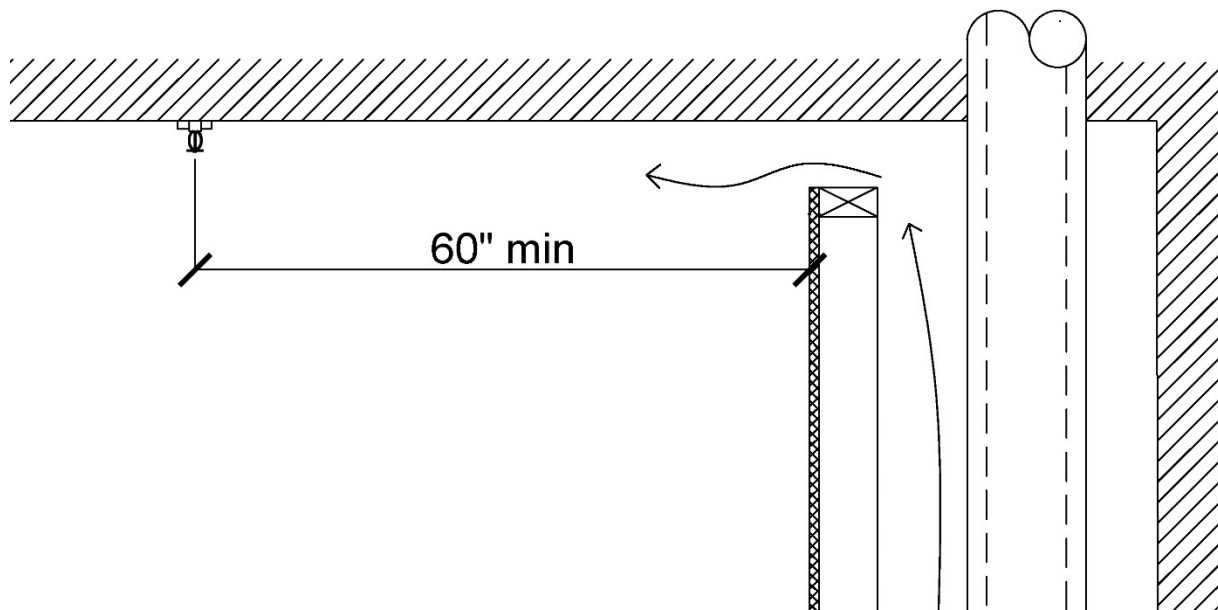
The heat release is oriented vertically. Entire heat release is on one side of the fireplace chase.



Full Vertical Heat Release on One Side

Sprinkler Clearance to Heat Release

In a situation where a sprinkler head is near the heat release, the sprinkler head must be minimum **60 inches** (linear length) from any point of the heat release opening.



Air Intake

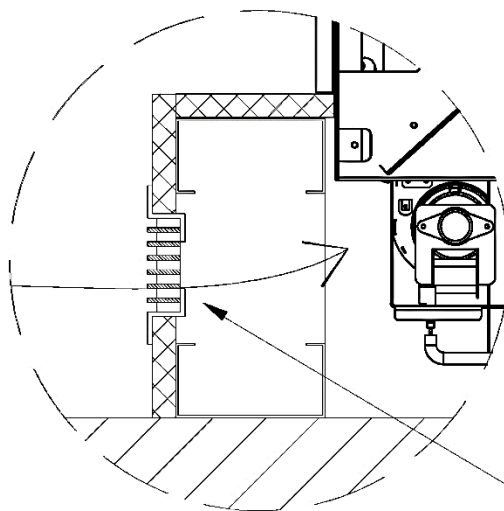
When installing a fireplace with a double glass heat barrier, it is essential to maintain cool air flow between the double glass panels. For this purpose, an opening must be provided toward the bottom of the wall to allow the double glass fans to circulate room air through the glass panels and up into the chase. This opening, called an air intake, needs to be made before closing the wall surface below the fireplace. Air intake must meet the minimum size requirement.

Fireplace Series	Air Intake
40-130*	Minimum 124 sq. in. of free air space
150-200	Minimum 200 sq. in. of free air space
250	Minimum 250 sq. in. of free air space

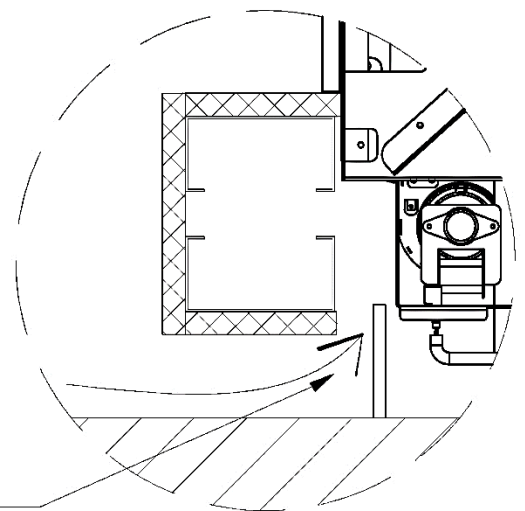
***Includes Built-In Curve & Island fireplaces. Stand alone Curve & Island fireplaces have an air intake already built into the base.**

The air intake can be in the form of a louvered/perforated ventilation grille, gap, or toe-kick (reveal). For louvered ventilation grilles, the net free air space allowed in the louvered area must be equal or greater than the minimum number of square inches required per fireplace.

The entire air intake must be located at or below the level of the double glass fans. The air intake is not required to be on the front wall of the fireplace. The air intake cannot be on a wall that allows air from outside the house directly into the fireplace chase. Air must be from a conditioned space.



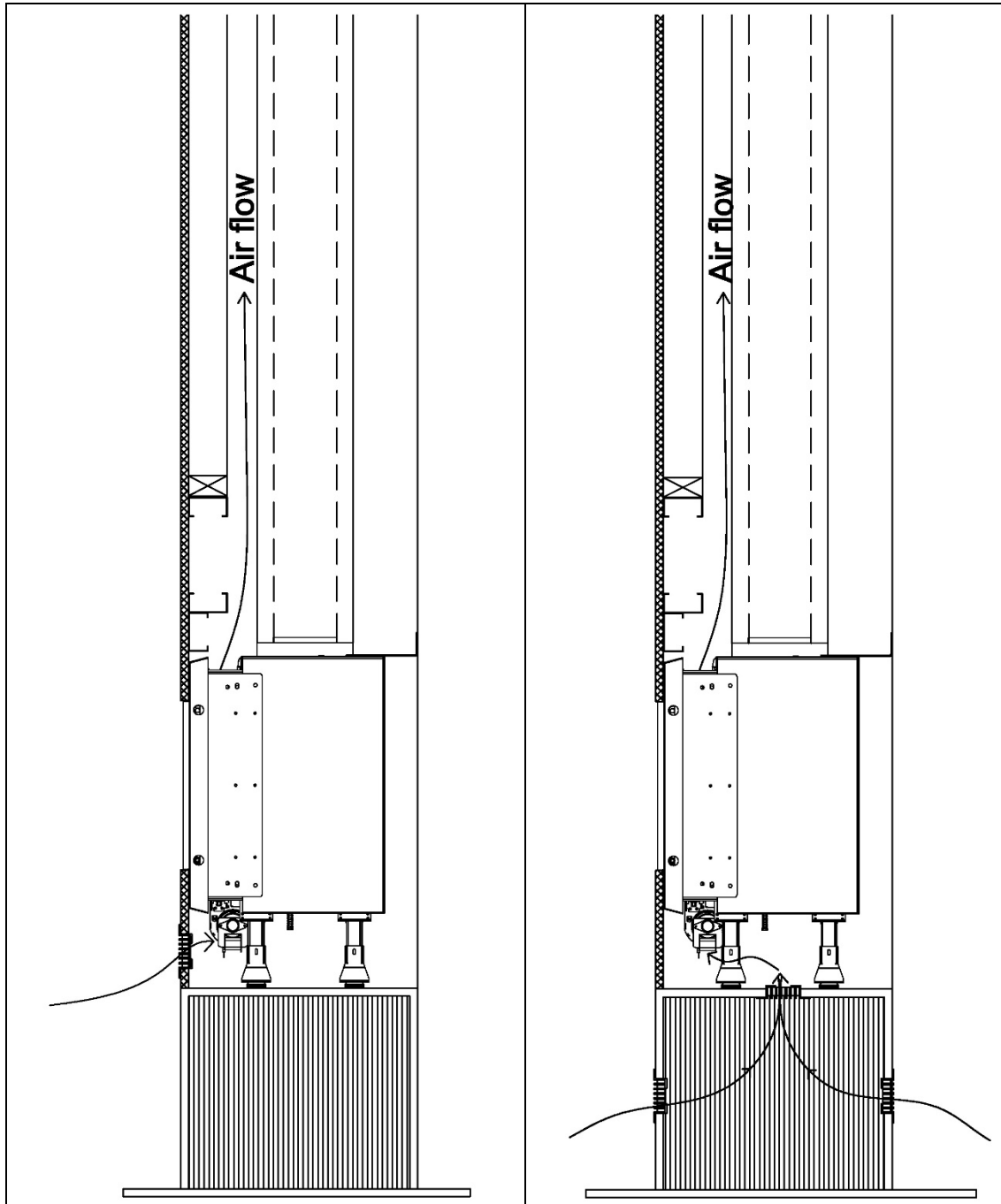
Air Intake as Louvered Grille



Air Intake as Toe-kick

Air intake opening must allow for minimum square inches of air space specified in table above.

Air Intake for a Platform



LEGEND



5/8" Type X Drywall



Combustible Framing



NOTE: Please refer to the “Platform” section for details on platform construction.

→ Mounting a TV/Artwork

Ortal's Cool Wall Technology is a technique that reduces the convective heat from the fireplace and prevents heat buildup inside the fireplace chase, mitigating any damage that may result from the wall reaching high temperatures. Ortal's Cool Wall system enables the option of safely installing artwork, a TV, or other similar electronic components above the fireplace by reducing the wall temperature above the fireplace.

Location	Wall Temperature
0-6 inches above fireplace	100°F - 120°F
6-12 inches above fireplace	90°F - 100°F
12 inches above fireplace	80°F - 90°F

Required minimum clearance between bottom edge of TV or other similar device or artwork and top of fireplace viewing area is 12 inches.

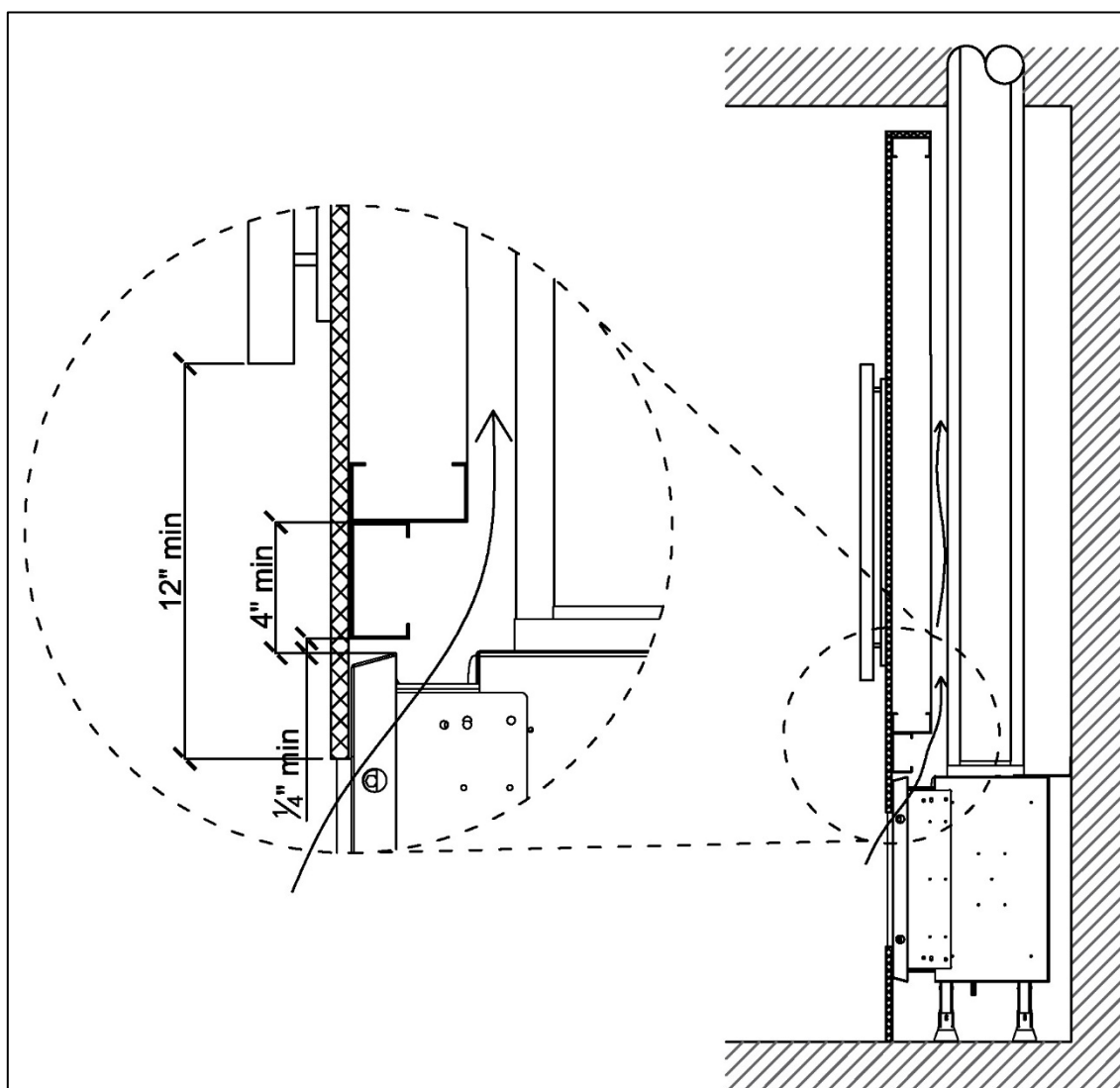
Maintain the following general requirements to mount a TV or artwork above the fireplace and prevent heat damage:

- Mount the TV or artwork a minimum of **12 inches** above the top of the fireplace viewing area.
- ▪ TV wires must be routed through framing and cannot pass through the fireplace chase.

The decision to install a television above the fireplace is up to the discretion of the owner. TV and art manufacturers may specify that their product should not be installed on, near or above a heat source. Ortal will not be held liable for any adverse effects on a TV, artwork or other equipment located near the fireplace. It is the owner's responsibility to verify that their TV or artwork can withstand the wall temperatures as outlined in the above wall temperature chart.

The following diagrams can be used as a guide for customers who do decide to locate their TV and artwork above their fireplace. These drawings illustrate ways of reducing the amount of heat impact to the area surrounding the fireplace.

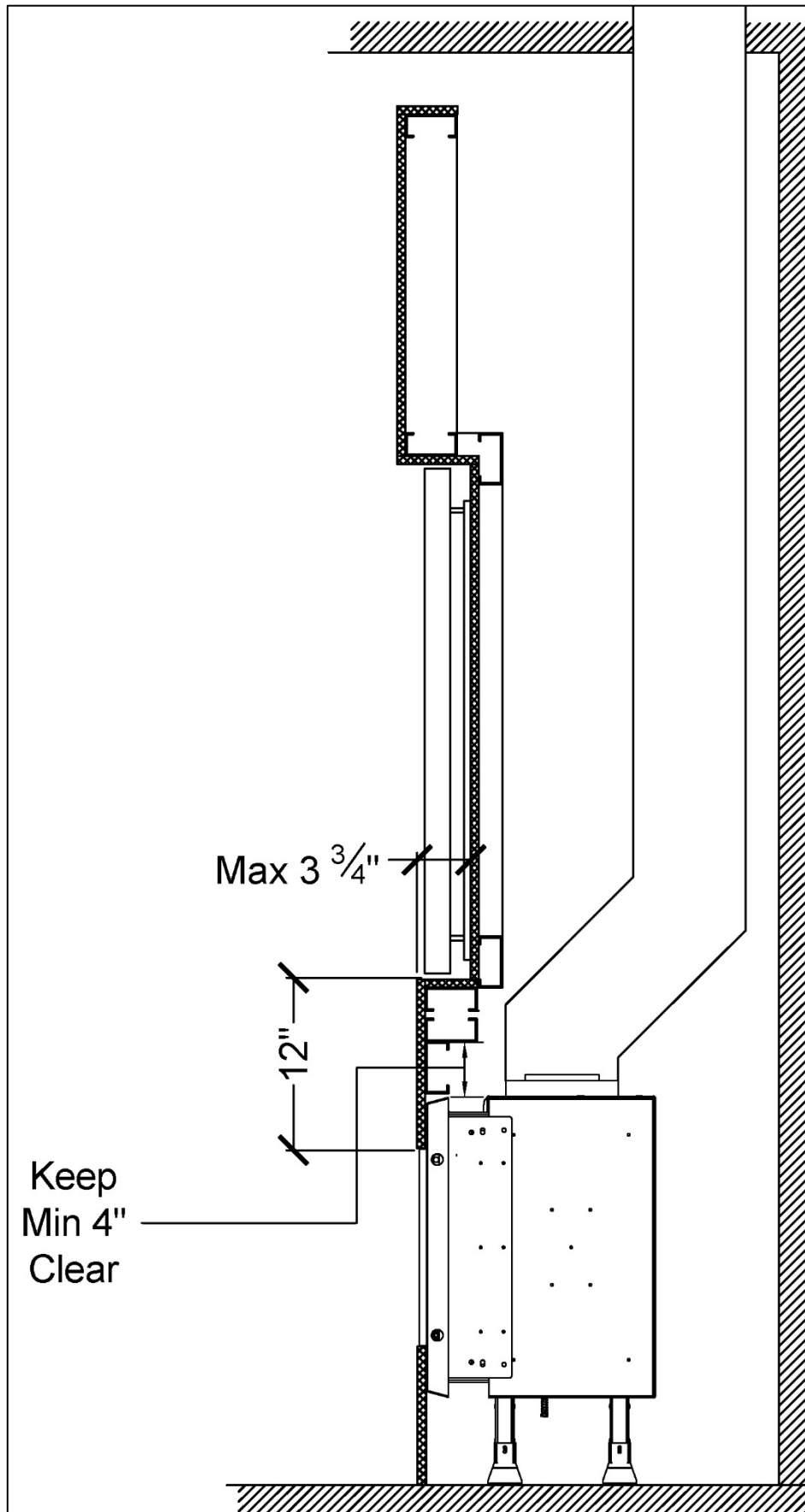
Flush Mounted TV/Artwork



! NOTE: Vent clearances must be maintained. See "Vent Clearances" section for details.

→ **Recessed TV/Artwork**

At 12 inches above the fireplace viewing area, maximum possible recess is 3 ³/₄ inches. A deeper recess will interfere with required clearances to venting. Maximum possible recess increases at <12 inches above the viewing area when venting is offset (as shown in diagram below).



NOTE: Vent clearances must be maintained. See “Vent Clearances” section for details.

→ Access Panel

An access panel is not required (see notes below for exception), but it is ***highly recommended***. It allows for access to the fireplace's gas and electrical components for servicing.

→ **NOTE:** An access panel at the fireplace is ***required*** for fireplaces with a power vent to allow access to the power vent control box for servicing.

NOTE: An access panel is built into the inside wall of the Traditional series fireplace. See "Access Panel for Traditional Series" for more information.

Access Panel Size and Location Recommendations:

- Minimum of 10 inches x 10 inches in size
- Located within 36 inches of the pilot to the side or back of the fireplace (see "Routing the Gas Line")

The size and location of the access panel may vary, but in all cases, it must allow the technician to comfortably access and service the fireplace's gas and electrical components. These components are attached to the pilot on a flexible gas line and can be moved within 36 inches of the pilot (located at the center front of the burner).

For ease of access, move the fireplace's gas and electrical components as close to the access panel as possible. **If there is any distance between the access panel and the gas and electrical components, the access panel size must be increased accordingly.** Prior to installation, fireplace dealers/installers should work with the owner, builder, project architects and/or interior designers to determine the best size and location of their access panel.

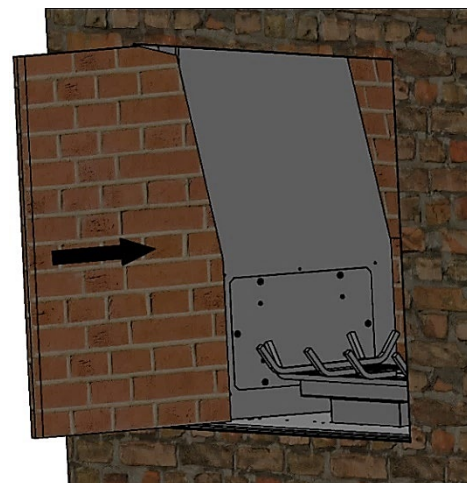
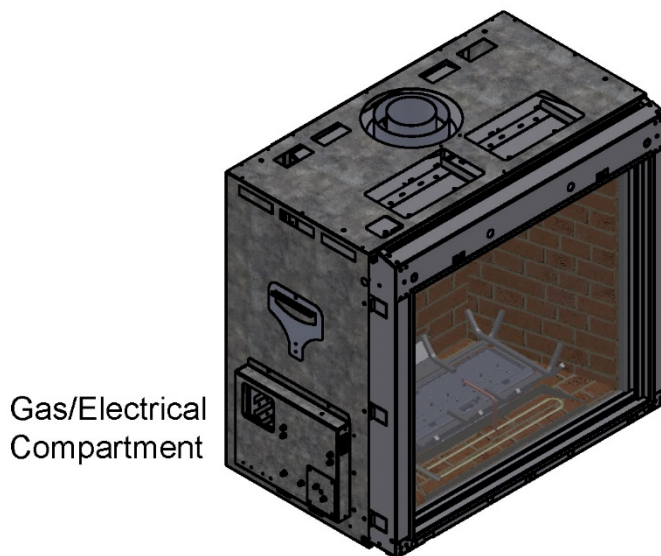
If an access panel cannot be incorporated, the alternative method of servicing the gas and electrical components is through the fireplace. This procedure requires removing the glass panel(s) and interior design media, and lifting the grill, burner, and bottom pressure release valve. This will increase service time and difficulty. An access panel is always preferred. Fireplace dealers/installers are advised to consult with their clients regarding the advantages and disadvantages of each service option.

NOTE: If local code requires an access panel, defer to local code requirements.

Access Panel for Traditional Series

The Traditional series has an access panel built in on the left side of the interior of the firebox and does not need an access panel incorporated into the fireplace chase. This access panel is hidden behind a removable decorative interior panel, and opens to the gas and electrical components, which have been built onto the left side of the unit. To access these components, remove screen heat barrier, interior glass, and left decorative side panel, and access components through the access panel door.

→ **NOTE:** An access panel at the fireplace is ***required*** for fireplaces with a power vent to allow access to the power vent control box for servicing.



Traditional Series Interior Access Panel

Chase Area Minimum

To ensure the convective heat within the chase passively moves to the heat release at an optimal rate, all parts of the interior of the chase must at least the same size as the fireplace heat release (see "Heat Release" section to determine your model's required heat release size) at size at any given point. To determine if your chase meets this requirement, use the following equation at the narrowest part of the chase.

$$\text{Chase Area} = (\text{Chase Length} \times \text{Chase Depth}) - (\text{Area of the Pipe})$$

Area of the Pipe:

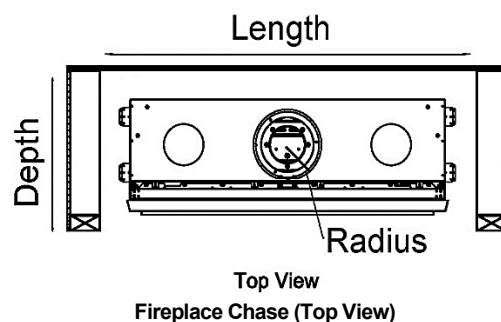
4"x6" venting = 28.27 in²

5"x8" venting = 50.27 in²

3"x5" venting* = 19.63 in²

*Used for Power Venting only

If the heat release is split into 25/75 portions due to an oversized ledge, the chase only needs to be the size of 75% of the heat release because 25% of the heat is already being released at the ledge (see "Ledge Detail" section below for details).



→ Recessed Ledge Detail

A ledge over the top of a fireplace that is less than 24 inches (48 inches for Traditional series) from the top of the fireplace viewing area must maintain a minimum of **12 inches from the top of the viewing area to the bottom of the building material**.

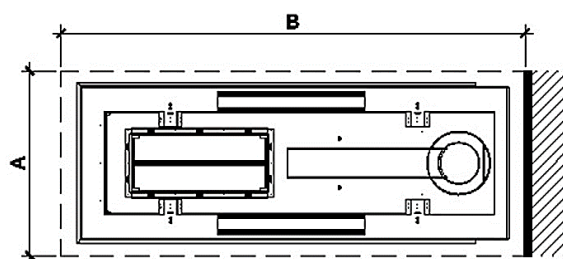
→ Entire structure must be non-combustible (framing and finish).

If ledge surface area exceeds the values shown in the chart below, the heat release must be divided between the ledge and the chase ceiling: 25% at the ledge and 75% at the chase ceiling. This is referred to as an oversized ledge (see diagram below).

Fireplace Series	Maximum Ledge Surface Area
75*	A x B ≤ 220 sq. in.
90-130**	A x B ≤ 340 sq. in.
150-170	A x B ≤ 410 sq. in.
200	A x B ≤ 520 sq. in.
250	A x B ≤ 580 sq. in.

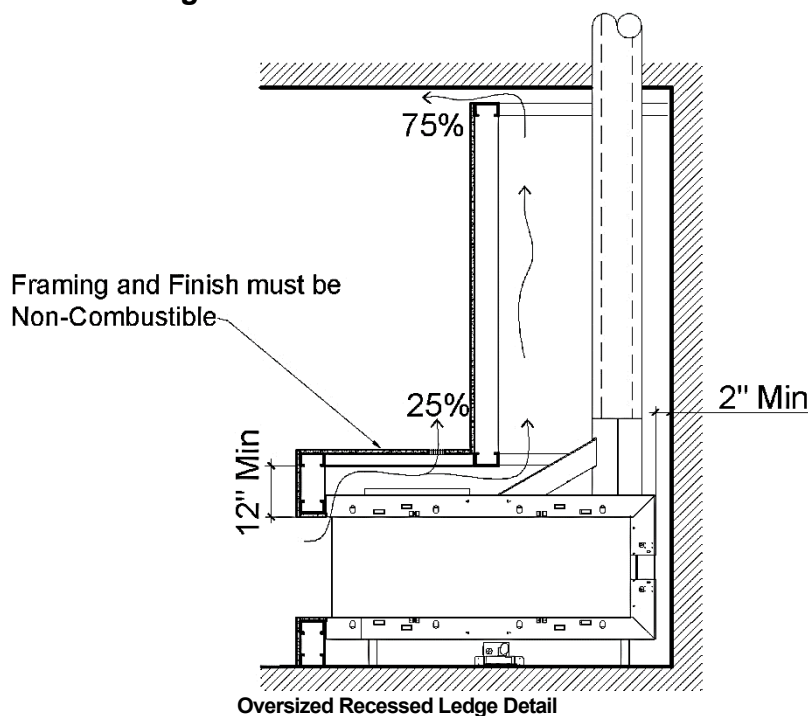
*Includes 75x65 Curve/Curve TN

**Includes Island



A = ledge depth, B = ledge width (Top View)

Oversized Ledge



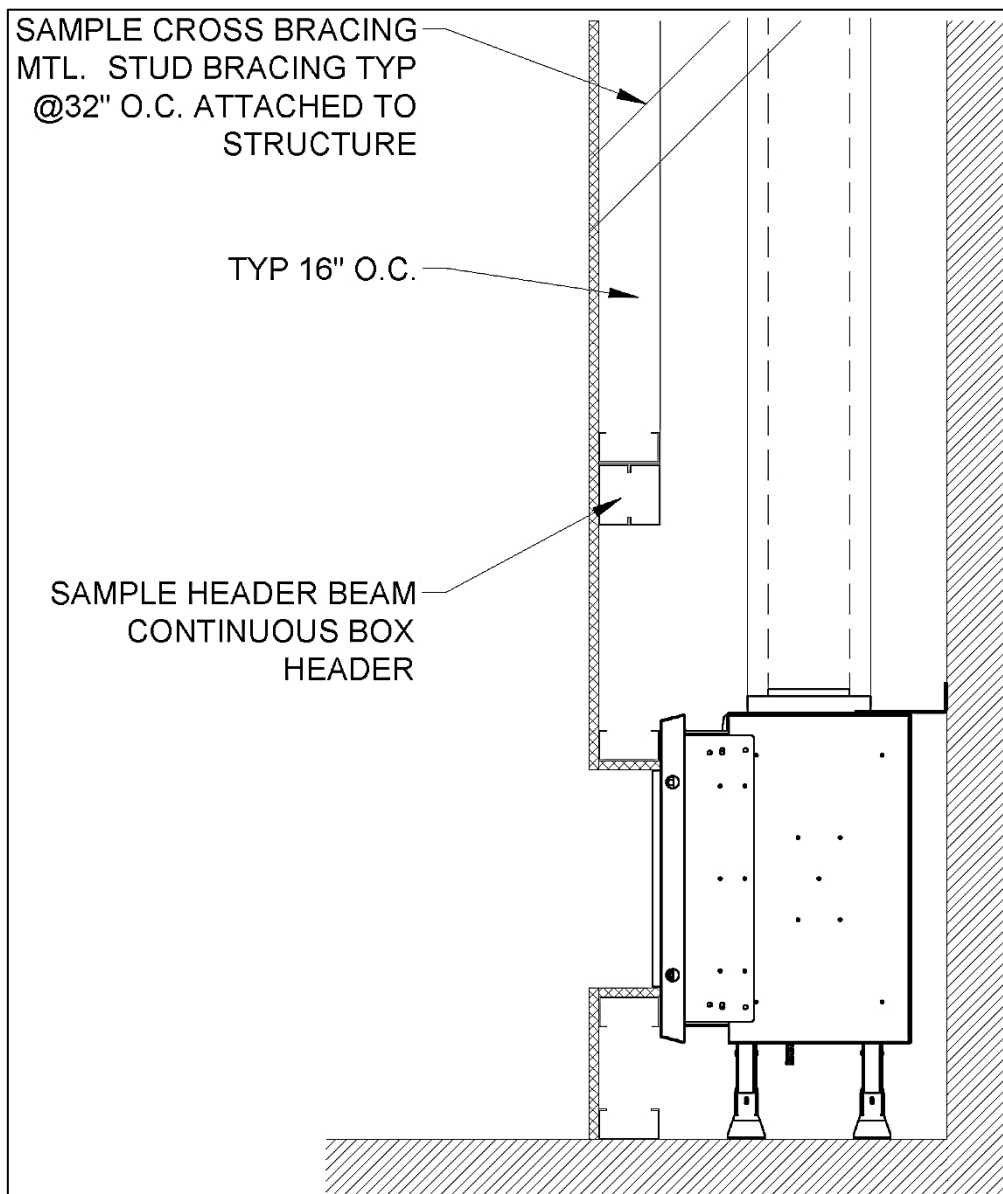
NOTES:

- Chase area minimum requirements must be met throughout the entire fireplace chase. See "Chase Area Minimum" section above for details.
- A Space Creator is shown in the diagrams in this section for illustration purposes only. These requirements apply to **all models** in this installation manual.

Structural Weight Support

The fireplace must not carry any structural weight. The framing must be supported by another surface. Consult with the project structural engineer and refer to your local building codes for proper wall support.

The following drawing shows a recommended approach to this type of installation. Please note that these drawings are not to scale. All fireplace drawings with correct dimensions are available on the Ortal website.



→ Step-by-Step Chase Construction

The following checklist is a simplified overview of typical chase construction for a built-in fireplace installation. This list is not exhaustive and does not supplement thorough review of the installation manual.

Step 1

BUILD BACK AND SIDE WALLS

- ☑ Frame the back and side walls according to framing requirements.
 - For Traditional series fireplaces with combustible framing, cover the combustible framing on the inside of the chase with 5/8" Type X Drywall (or equivalent).
- ☑ Build the platform (if necessary) to the desired height and install inside fireplace chase.
 - Platform must be stable and able to bear the full weight of the fireplace. Platform can be constructed out of wood, concrete, metal, or any other solid materials. Material is not required to be non-combustible.

Step 2

INSTALL FIREPLACE AND VENTING, RUN GAS AND ELECTRICAL

- ☑ Install the fireplace and venting. This must be completed by an authorized Ortal dealer (unless otherwise authorized by Ortal with written approval).
- ☑ Move the gas valve and receiver unit to the designated access panel location. If the fireplace will not have an access panel, keep gas valve and receiver unit directly underneath the fireplace. (Skip this step for Traditional series fireplaces.)
- ☑ Run gas and electric to the gas valve and receiver unit location.

Step 3

BUILD FRONT WALL

- ☑ Install front chase wall:
 - Build front wall according to framing requirements.
 - Stand up the front wall and move into place.
 - Secure front wall to the rest of the chase structure.
- ☑ Cover the exterior of each wall (sides and front, and back if applicable depending on your design) with 5/8" Type X Drywall (or equivalent) and seal gaps with a non-combustible fire sealant.

→  **NOTE: 5/8" Type X Drywall (or equivalent) is not required on the exterior portion of an insulated outside-facing wall.**

- ☑ Check to make sure constructed chase meets heat release and air intake (if applicable) requirements.

Step 4

APPLY FINISHES

- ☑ Apply finishes and install accessories, following all clearances and building requirements.
- ☑ Ensure furniture and other combustible materials maintain a minimum 36 inches of clearance directly in front of the fireplace viewing area for both front and side viewing areas (as applicable).

→ Finishing

The following diagrams show various finish applications. **Diagrams apply to both combustible and non-combustible finish material.**



IMPORTANT NOTES:

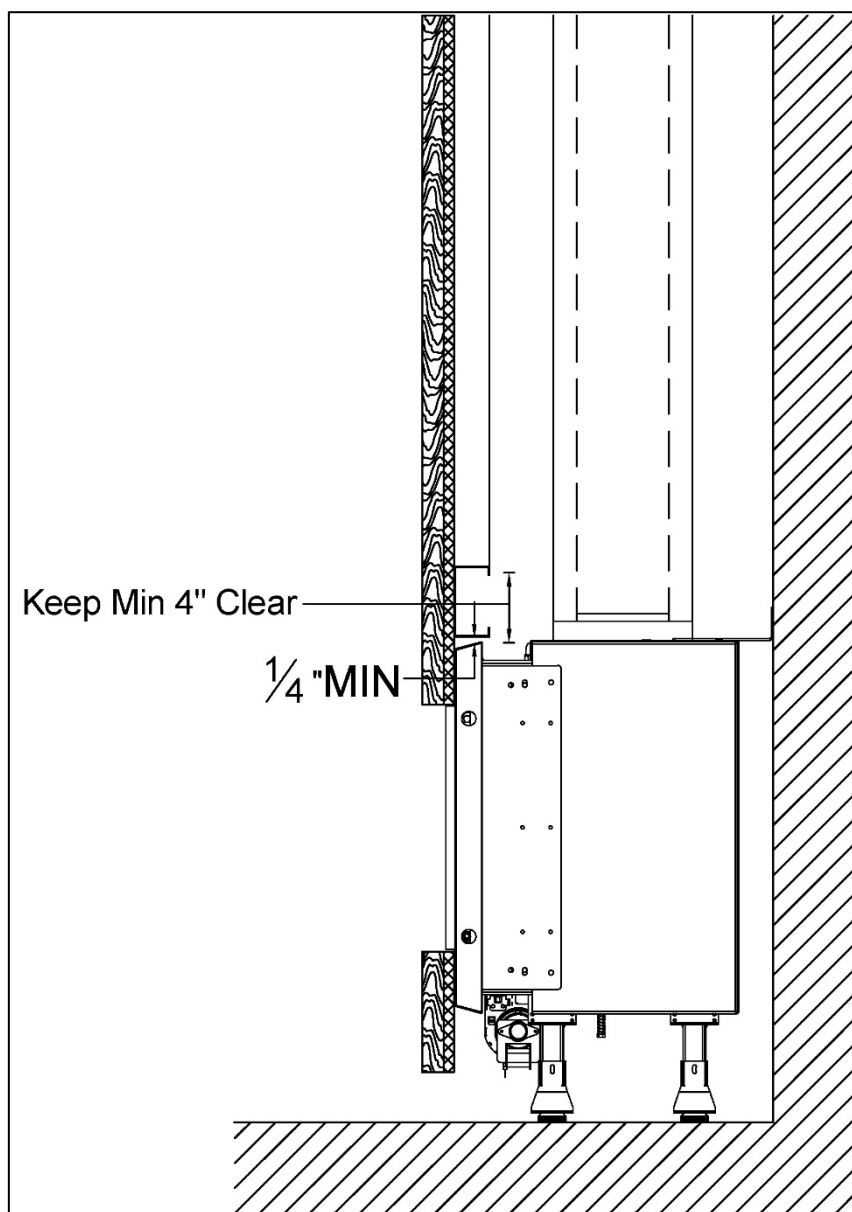
- All recessed installations must comply with applicable maximum overhang limit and side wall clearances. See "Maximum Overhang Depth" and "Clearance to a Side Wall" sections for details.
- No material is permitted to extend past the metal lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.
- MANUFACTURED STONE: A minimum 2-inch recess is suggested. Consult stone manufacturer for clearance requirements.
- $\frac{5}{8}$ " DensGlass® Fireguard® Sheathing is an approved $\frac{5}{8}$ " Type X Drywall equivalent. This may be necessary for use with heavier finishes.



WARNING: Wood finish or floor/hearth extension may dry out, crack, warp or become discolored over time. Consult with floor manufacturer for required clearances to a heat source.

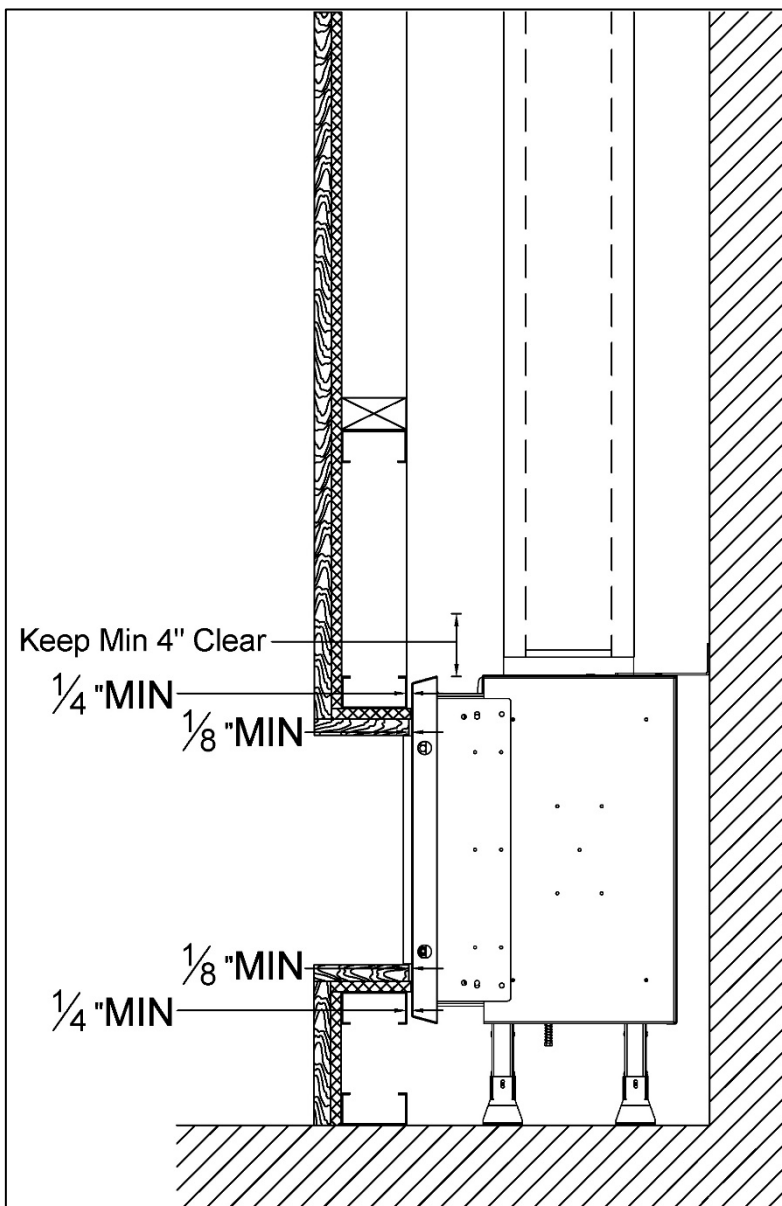
→ Flush Installation

Diagram applies to both combustible and non-combustible finish material.



→ Recessed Installation

Diagram applies to both combustible and non-combustible finish material. The finish must maintain at least a $\frac{1}{8}$ " clearance to the fireplace.



Venting

General Venting Requirements

The fireplace operates using a direct vent system and require a co-axial direct vent pipe. The fireplace must be properly connected to an approved vent system. Venting is not provided with the fireplace and must be sourced from one of the approved vent manufacturers mentioned in the table below. Proper installation, use, and maintenance of venting is determined by and can be acquired from the vent manufacturer.

Vent Requirements			
Fireplace Series	Vent Type	Vent Size	Approved Vent Manufacturers
40 60 75	Direct Vent	4x6 co-axial direct vent pipe (4" interior, 6 5/8" exterior)	Olympia: Ventis DuraVent: Direct Vent Pro ICC: EXCELDirect BDM: Pro-Form Direct Vent System Selkirk: Direct-Temp System
	Energex Power Vent	4x6 co-axial direct vent pipe (4" interior, 6 5/8" exterior)	
	Ortal Power Vent*	3x5 co-axial direct vent pipe (3" interior, 5" exterior)	DuraVent: CVS line
110 120 130 150 170 200 250 Traditional Wilderness	Direct Vent	5x8 co-axial direct vent pipe (5-inch interior, 8-inch exterior)	Olympia: Ventis DuraVent: Direct Vent Pro ICC: EXCELDirect BDM: Pro-Form Direct Vent System Selkirk: Direct-Temp System
	Energex Power Vent	5x8 co-axial direct vent pipe (5-inch interior, 8-inch exterior)	
	Ortal Power Vent	3x5 co-axial direct vent pipe (3-inch interior, 5-inch exterior)	DuraVent: CVS line
Curve Island	Direct Vent	5x8 co-axial direct vent pipe (5-inch interior, 8-inch exterior)	Olympia: Ventis DuraVent: Direct Vent Pro ICC: EXCELDirect BDM: Pro-Form Direct Vent System Selkirk: Direct-Temp System
	Energex Power Vent (see note below)	5x8 co-axial direct vent pipe (5-inch interior, 8-inch exterior)	

Power Vent: a fan-assisted direct vent system that boosts airflow for vent configurations with too much constriction. Review "Vent Configuration Diagrams" section to determine if your fireplace needs a power vent. See the Ortal Power Vent Manual for more details on power venting.

→  **NOTE:** The Curve and Island series fireplaces are not permitted for use with an Ortal Power Vent.

 **WARNING:** Do not combine vent components from different vent manufacturers. Please follow the manufacturer's instructions for vent system installation.

Vent Installation

Venting must be installed to meet the requirements as detailed in the following sections in conjunction with the vent system manufacturer's installation instructions. Venting must be supported by the structural surrounding and not by the fireplace. Each offset (elbow) must be strapped to reduce movement or possible disconnection.

The first section of venting must be secured to the fireplace starter collar with a minimum of 3 sheet metal screws no longer than 1/2". DO NOT use silicone to seal the sections. If sealing is required by the vent manufacturer or local code, use Mil-Pac sealant.

 **WARNING:** Do not combine vent components from different vent manufacturers. Please follow the manufacturer's instructions for vent system installation.

→ Vent Clearances

The following clearances apply to the vent system regardless of vent manufacturer.

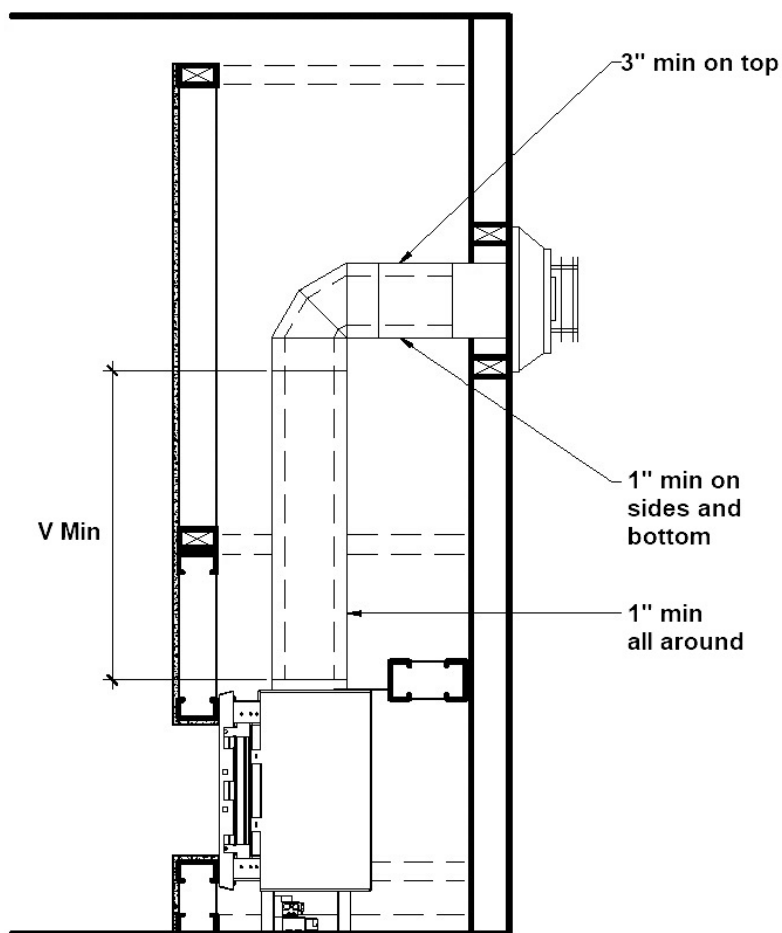
Vent Clearances	
Sides: 1"	Applies to entire circumference when venting is oriented vertically. Clearance is to any material.
*Top: 3"	Applies to venting oriented horizontally or at an angle. Clearance is to any material.
Bottom: 1"	

→ *Exception: Wall thimble top clearance to any material is 1".

Minimum Vertical Rise (V minimum)		
Series 40-170*, Wild 44-61	3 feet	Required from the top of the fireplace before any offset can be used**
Series 200-250	6 feet	

*Includes Island and Curve fireplaces.

**See "Offset Maximum Exception" below.



Offset Maximum

Up to 180° of offset (elbows) can be used in the vent configuration. If the vent configuration exceeds this maximum, consider an Ortal Power Vent System, which can allow for up to 540° of offset. See the Ortal Power Vent Manual for details.

Offset Maximum Exception

Two 45° offsets may be used directly on the fireplace with up to a 12" straight section between them. The minimum vertical rise starts above them. They do not count in the offset total.

NOTE: If the initial vertical vent rise off the top of the fireplace does not meet the V minimum, consider an Ortal Power Vent System, which can allow for any initial vertical rise amount. See the Ortal Power Vent Manual for details.

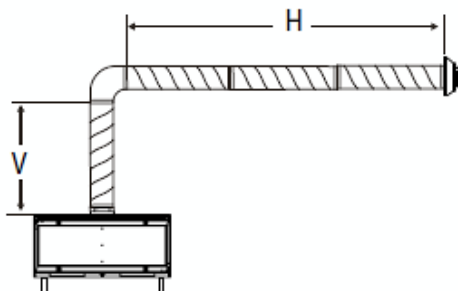
Vent Configuration Diagrams

The following sections provide information for calculating vent configuration distances. For vent configurations that exceed these maximums, consider Ortal's Power Vent System. See the Ortal Power Vent Manual for details.



NOTE: It is not required to maintain ¼" of rise per foot of venting.

Horizontal Termination Venting Diagram



Use this diagram and tables below to calculate distances for venting runs that terminate horizontally.

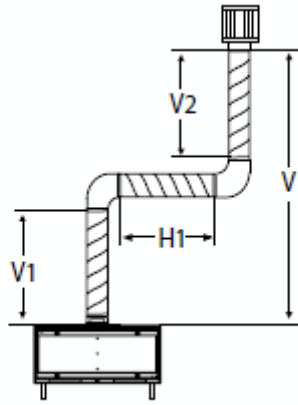
Series 40-75	
V minimum = 3 feet	
Vertical (V)	Max Horizontal (H)
3 ft	21 ft
6 ft	24 ft
9 ft	24 ft
12 ft	24 ft
15 ft	24 ft
18 ft	21 ft
21 ft	18 ft
24 ft	15 ft
27 ft	12 ft
30 ft	12 ft
33 ft	12 ft

Series 110-130 & Wilderness 44-60	
V minimum = 3 feet	
Vertical (V)	Max Horizontal (H)
3 ft	12 ft
6 ft	18 ft
9 ft	24 ft
12 ft	21 ft
15 ft	21 ft
18 ft	18 ft
21 ft	15 ft
24 ft	12 ft
27 ft	12 ft
30 ft	12 ft
33 ft	12 ft

Series 150-170 & Traditional	
V minimum = 3 feet	
Vertical (V)	Max Horizontal (H)
3 ft	9 ft
6 ft	12 ft
9 ft	18 ft
12 ft	21 ft
15 ft	18 ft
18 ft	18 ft
21 ft	15 ft
24 ft	12 ft
27 ft	9 ft
30 ft	9 ft
33 ft	9 ft

Series 200-250	
V minimum = 6 feet	
Vertical (V)	Max Horizontal (H)
N/A	N/A
6 ft	9 ft
9 ft	12 ft
12 ft	12 ft
15 ft	15 ft
18 ft	15 ft
21 ft	12 ft
24 ft	12 ft
27 ft	9 ft
30 ft	9 ft
33 ft	6 ft

Vertical Termination Venting Diagram



Use this diagram & tables below to calculate distances for venting runs that jog and terminate vertically. $V = V1 + V2$

Series 40-75	
V1 minimum = 3 feet	
Vertical (V)	Max Horizontal (H1)
3 ft	15 ft
7 ft	18 ft
10 ft	18 ft
13 ft	18 ft
16 ft	18 ft
19 ft	15 ft
22 ft	12 ft
25 ft	9 ft
28 ft	6 ft
31 ft	6 ft
34 ft	6 ft

Series 110-130	
V1 minimum = 3 feet	
Vertical (V)	Max Horizontal (H1)
3 ft	6 ft
7 ft	15 ft
10 ft	18 ft
13 ft	15 ft
16 ft	15 ft
19 ft	12 ft
22 ft	9 ft
25 ft	6 ft
28 ft	6 ft
31 ft	6 ft
34 ft	6 ft

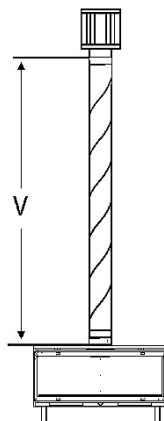
Series 150-170 & Traditional	
V1 minimum = 3 feet	
Vertical (V)	Max Horizontal (H1)
3 ft	6 ft
7 ft	12 ft
10 ft	15 ft
13 ft	12 ft
16 ft	12 ft
19 ft	12 ft
22 ft	12 ft
25 ft	9 ft
28 ft	9 ft
31 ft	6 ft
34 ft	6 ft

Series 200-250	
V1 minimum = 6 feet	
Vertical (V)	Max Horizontal (H1)
N/A	N/A
6 ft	3 ft
10 ft	12 ft
13 ft	12 ft
16 ft	12 ft
19 ft	12 ft
22 ft	12 ft
25 ft	12 ft
28 ft	12 ft
31 ft	9 ft
34 ft	9 ft

Vertical Termination Venting Diagram

Use this diagram and tables below to calculate distances for vent configurations that vent and terminate vertically.

V minimum = 3 feet.



Series 40-250 & Wilderness 44-60	
V minimum = 3 feet	
Vertical (V)	Max Horizontal (H)
44 ft	N/A

Vent Restrictor Sizing Guidelines

SCENARIO A

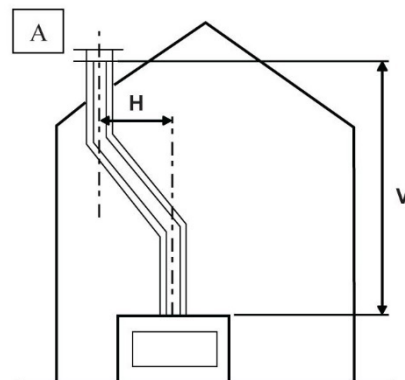
The vent configuration has two vertical 45° offsets. No additional length for the (H) calculation for the restrictor plate size is needed.

For example:

Total height of duct work = 6 feet (V)

Length between the center of the two 45° elbows = (B) = 3 feet

The (H) calculation is (H) = (B) so the restrictor plate size is 1.97", per the table.



SCENARIO B

The vent configuration has two 90° offsets. An additional 6 feet must be added to the (H) calculation for the restrictor plate size.

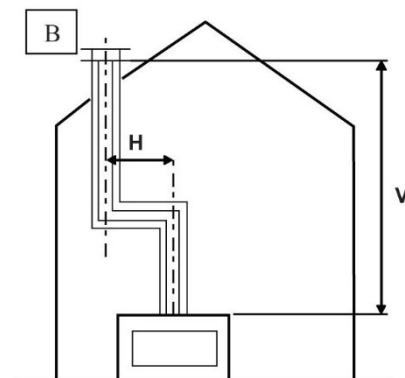
For example:

Total height of duct work = 18 feet (V)

Length between the center of two 90° elbows = (B) = 21 feet

The (H) calculation to be used in the restrictor table is (H) = (B) + 6 feet, so the (H) length is 27 feet.

Per the table, the restrictor plate is 0. No restrictor is required.



SCENARIO C

The vent configuration has one 90° offset. The first 90° offset is not taken into calculation of the (H) length for the restrictor plate size.

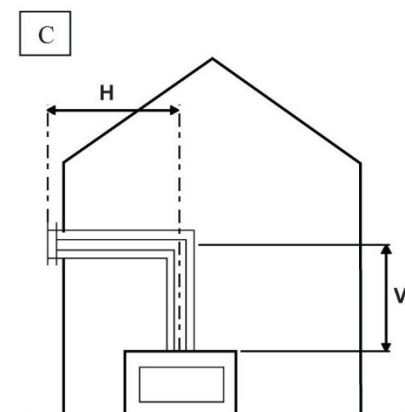
For example:

Total height of duct work = 15 feet (V)

Length between the center of the 90° elbow and wall termination cap = (B) = 11 feet

The (H) calculation is (H) = (B) = 11. Therefore, the restrictor plate size is 1.18", per the table.

The value of 11 does not appear on the x scale of the table. The choices are then 9 and 12. Always choose the next **higher** value, which is also the smaller restrictor if there is a difference between the values provided.



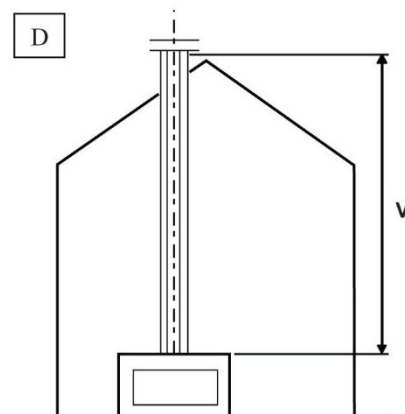
SCENARIO D

The vent configuration is straight vertical (no 45° or 90° offsets).

For example:

Total height of duct work = 24 feet (V)

The (H) calculation is = 0. Therefore, the restrictor plate size is 1.97".



The information in this section will help you calculate the correct restrictor selection for your vent configuration. The table below shows the restrictor required for a specific rise to run vent configuration. Any venting pathway that does not appear in the tables requires approval from the manufacturer.

The table below applies to both Natural Gas and Propane. This table represents manufacturer's guidelines. Environment, gas type and other factors may affect the best restrictor choice.



How to use the “Recommended Restrictor” table:

1. Find the total vertical rise in your vent configuration along the y-axis.
2. Find the horizontal run in your vent configuration along the x-axis.
3. Follow the rise and run values on the chart until they meet. This is the recommended size restrictor for your vent configuration.

Legend:

x: Vent configuration is not allowed.

0: No restrictor required.

Numbers other than 0: Represents the recommended restrictor (by width).

Restrictor Sizes:

- 20mm (0.79")
- 30mm (1.18")
- 40mm (1.57")
- 50mm (1.97")
- 60mm (2.36")
- 80mm (3.15")

		Recommended Restrictor: Series 40											
Total Vertical Vent Rise	27'	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	0	x	x	x
	24'	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0	x	x
	21'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0	x
	18'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0	0
	15'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	1.18"	0	0	0
	12'	1.97"	1.97"	1.57"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0
	9	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0
	6'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0
3'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	x	x	
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'	33'
		Horizontal Vent Run											

		Recommended Restrictor: Series 75											
Total Vertical Vent Rise	27'	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	0	x	x	x
	24'	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0	x	x
	21'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0	x
	18'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0	0
	15'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	1.18"	0	0	0
	12'	1.97"	1.97"	1.57"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0
	9	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0
	6'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0
3'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	x	x	
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'	33'
		Horizontal Vent Run											

Recommended Restrictor: Series 110-130												
Total Vertical Vent Rise	27'	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	x	x	x	x
	24'	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	x	x	x
	21'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	x	x
	18'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	x
	15'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0
	12'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0
	9'	1.97"	1.97"	1.97"	1.57"	1.57"	1.57"	1.18"	1.18"	0	0	0
	6'	1.97"	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	x
	3'	1.97"	1.97"	1.97"	1.57"	1.18"	0	0	0	0	x	x
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'
		Horizontal Vent Run										

Recommended Restrictor: Wilderness 44-60												
Total Vertical Vent Rise	27'	1.97"	1.97"	1.97"	1.97"	1.57"	1.18"	1.18"	x	x	x	x
	24'	1.97"	1.97"	1.97"	1.57"	1.18"	1.18"	1.18"	0	x	x	x
	21'	1.97"	1.97"	1.97"	1.57"	1.18"	1.18"	1.18"	0	0	x	x
	18'	1.97"	1.97"	1.97"	1.57"	1.18"	1.18"	1.18"	0	0	0	x
	15'	1.97"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	x	0	0	0
	12'	1.57"	1.57"	1.57"	1.57"	1.18"	1.18"	1.18"	x	0	0	0
	9'	1.57"	1.57"	1.57"	1.18"	x	x	x	x	0	0	0
	6'	x	x	x	x	x	x	x	x	0	0	x
	3'	x	x	x	x	x	0	0	0	0	x	x
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'
		Horizontal Vent Run										

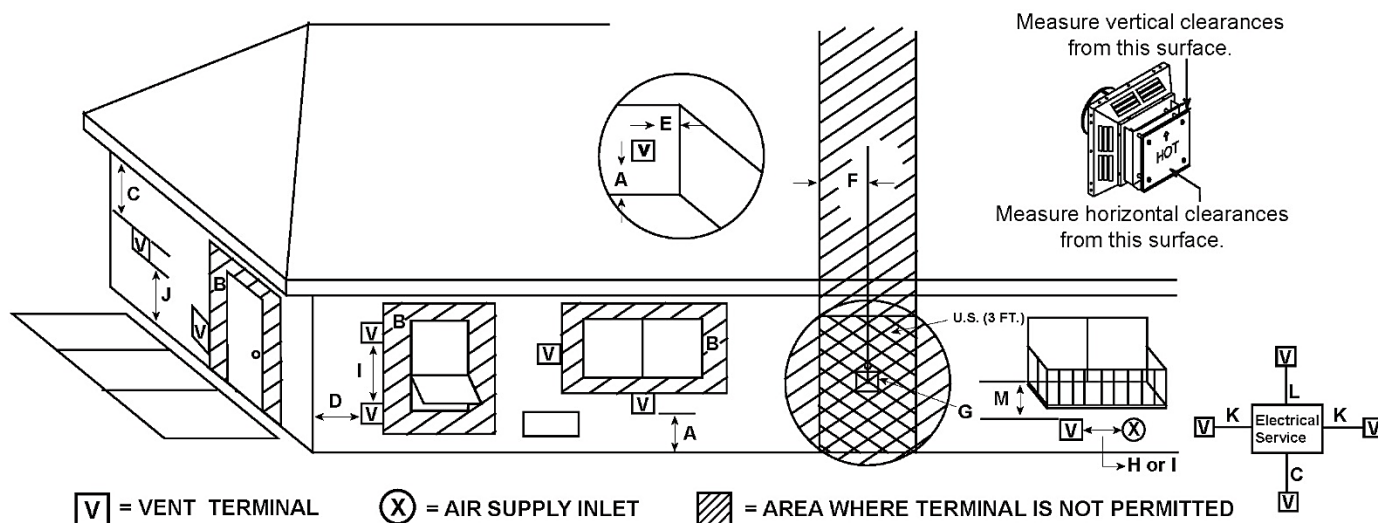
Recommended Restrictor: Series 150-170												
Total Vertical Vent Rise	27'	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	x	x	x
	24'	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	x	x
	21'	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	1.18"	0	0	0	x
	18'	1.97"	1.57"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0
	15'	2.76"	1.97"	1.57"	1.57"	1.57"	1.18"	1.18"	0	0	0	0
	12'	2.76"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0
	9'	2.76"	1.97"	1.57"	1.57"	1.18"	1.18"	1.18"	0	0	0	0
	6'	2.76"	1.97"	1.97"	1.57"	1.18"	1.18"	1.18"	0	0	0	x
	3'	1.97"	1.97"	1.97"	1.57"	1.18"	1.18"	1.18"	0	0	x	x
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'
		Horizontal Vent Run										

Recommended Restrictor: Series 200													
Total Vertical Vent Rise	27'	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	0	x	x	x
	24'	1.97"	1.57"	1.57"	1.18"	1.18"	0	0	0	0	x	x	x
	21'	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	0	x	x	x
	18'	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	0	x	x	x
	15'	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	x	x	x	x
	12'	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	x	x	x	x
	9	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	x	x	x	x
	6'	1.97"	1.57"	1.57"	1.18"	0	0	0	x	x	x	x	x
	3'	x	x	x	x	x	x	x	x	x	x	x	x
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'	33'
Horizontal Vent Run													

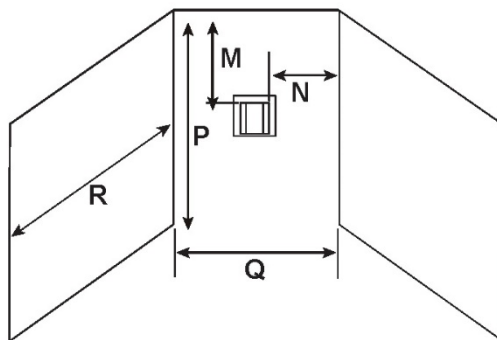
Recommended Restrictor: Series 250													
Total Vertical Vent Rise	27'	x	x	x	x	x	x	x	x	x	x	x	
	24'	x	x	x	x	x	x	x	x	x	x	x	
	21'	x	x	x	x	x	x	x	x	x	x	x	
	18'	x	x	x	x	x	x	x	x	x	x	x	
	15'	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	x	x	x	x
	12'	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	x	x	x	x
	9	1.97"	1.97"	1.57"	1.18"	1.18"	0	0	0	x	x	x	x
	6'	1.97"	1.57"	1.57"	1.18"	0	0	0	x	x	x	x	x
	3'	x	x	x	x	x	x	x	x	x	x	x	x
		0'	3'	6'	9'	12'	15'	18'	21'	24'	27'	30'	33'
Horizontal Vent Run													

Vent Termination

→ Horizontal Termination Clearance Diagram



Location	Country	Minimum Clearance	Description
A	US & Canada	12 inches	Clearance above grade, veranda, porch, deck or balcony. NOTE: On private property where termination is less than 7 feet above a sidewalk, driveway, deck, porch, veranda or balcony, use of a listed cap shield is suggested.
B	US	≤ 50,000 BTU: 9 inches > 50,000 BTU: 12 inches	Clearance to an operable window or door.
	Canada	12 inches	
C	US & Canada	24 inches	Vertical clearance to a ventilated soffit located above the vent termination.
		18 inches	Vertical clearance to an unventilated soffit located above the vent termination.
		42 inches	Vertical clearance to vinyl clad soffits and below electrical service.
D	US & Canada	9 inches	Clearance to an outside corner.
E	US & Canada	6 inches	Clearance to an inside corner.
F	US	N/A	Not to be installed above a gas meter/regulator assembly within 3 feet (90 cm) horizontally from the center-line of the regulator.
	Canada	3 feet	
G	US & Canada	3 feet	Clearance to gas service regulator vent outlet.
H	US	9 inches	Clearance to a non-mechanical air supply inlet to the building or the combustion air inlet to any other appliance. NOTE: Termination in a covered alcove space (spaces open only on one side and with an overhang) are permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. 1. There must be 3 feet minimum between termination caps. 2. All mechanical air intakes within 10 feet of a termination cap must be a minimum of 3 feet below the termination cap. 3. All gravity air intakes within 3 feet of a termination cap must be a minimum of 1 foot below the termination cap.
	Canada	12 inches	
I	US	3 feet	Clearance to a mechanical (powered) air supply inlet. NOTE: Termination in a covered alcove space (spaces open only on one side and with an overhang) are permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. 1. There must be 3 feet minimum between termination caps. 2. All mechanical air intakes within 10 feet of a termination cap must be a minimum of 3 feet below the termination cap. 3. All gravity air intakes within 3 feet of a termination cap must be a minimum of 1 foot below the termination cap.
	Canada	6 feet	
J*	US & Canada	7 feet	Clearance above paved sidewalk or a paved driveway located on public property. NOTE: On private property where termination is less than 7 feet above a sidewalk, driveway, deck, porch, veranda, or balcony, use of a listed cap shield is suggested. *a vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.
K	US & Canada	6 inches	Clearance from sides of electrical service. NOTE: Location of the vent termination must not interfere with access to the electrical service.
L	US & Canada	12 inches	Clearance above electrical service. NOTE: Location of the vent termination must not interfere with access to the electrical service.



Covered Alcove: spaces open only on one side and with an overhang

Horizontal Termination Clearances Continued: Covered Alcove Application			
Location	Country	Minimum Clearance	Description
COVERED ALCOVE APPLICATION	M	US & Canada	24 inches
			Clearance under non-vinyl veranda, porch, deck, balcony or overhang. NOTE: Termination in a covered alcove space is permitted with the dimensions specified. 1. There must be 3 feet minimum between termination caps. 2. All mechanical air intakes within 10 feet of a termination cap must be a minimum of 3 feet below the termination cap. 3. All gravity air intakes within 3 feet of a termination cap must be a minimum of 1 foot below the termination cap.
	N	US & Canada	42 inches
			Clearance under vinyl veranda, porch, deck, balcony or overhang. NOTE: Termination in a covered alcove space is permitted with the dimensions specified. 1. There must be 3 feet minimum between termination caps. 2. All mechanical air intakes within 10 feet of a termination cap must be a minimum of 3 feet below the termination cap. 3. All gravity air intakes within 3 feet of a termination cap must be a minimum of 1 foot below the termination cap.
	P	US & Canada	6 inches
			Non-vinyl sidewalls.
	Q	US & Canada	12 inches
			Vinyl sidewalls.
	P	US & Canada	8 feet
	Q	US & Canada	Alcove height.
	R	US & Canada	Alcove width (dependent on number of caps in the space).
	R	US & Canada	Alcove depth (dependent on number of caps in the space).

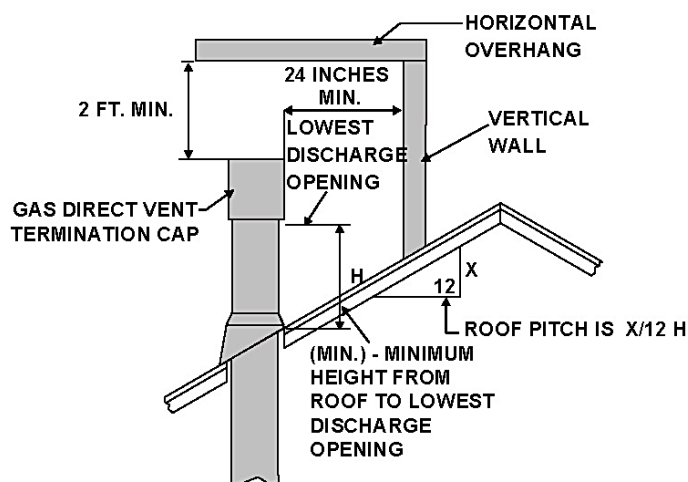
# Vent Caps	Q_{MINIMUM}	R_{MAXIMUM}
1 vent cap	3 feet	$2 \times Q_{\text{ACTUAL}}$
2 vent caps	6 feet	$1 \times Q_{\text{ACTUAL}}$
3 vent caps	9 feet	$\frac{2}{3} \times Q_{\text{ACTUAL}}$
4 vent caps	12 feet	$\frac{1}{2} \times Q_{\text{ACTUAL}}$
$Q_{\text{MIN}} = \# \text{ vent caps} \times 3$		$R_{\text{MAX}} = (\frac{2}{\# \text{ vent caps}}) \times Q_{\text{ACTUAL}}$

! HORIZONTAL TERMINATION CAP CLERANCES - NOTES:

- If exterior walls are finished with vinyl siding, it is **required** that a vinyl protector kit be installed.
- Vent system termination is not permitted in screened porches.
- Vent system termination is permitted in porch areas with two or more sides open. You must follow all side walls, overhang and ground clearances as stated.
- Termination caps may be hot. Consider their proximity to doors or other traffic areas.

Vertical Termination Clearance Diagram

Minimum Height From Roof To Lowest Discharge Opening

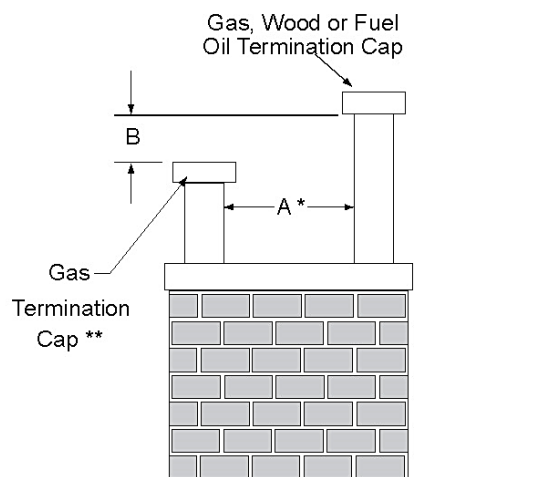


Roof Pitch	H (Min.) Ft.
Flat to 6/12.....	1.0*
Over 6/12 to 7/12.....	1.25*
Over 7/12 to 8/12.....	1.5*
Over 8/12 to 9/12.....	2.0*
Over 9/12 to 10/12.....	2.5*
Over 10/12 to 11/12.....	3.25
Over 11/12 to 12/12.....	4.0
Over 12/12 to 14/12.....	5.0
Over 14/12 to 16/12.....	6.0
Over 16/12 to 18/12.....	7.0
Over 18/12 to 20/12.....	7.5
Over 20/12 to 21/12.....	8.0

*H min. may vary depending on regional snowfall. Refer to local codes.

Staggered Termination Caps

A	B
6 in. (minimum) up to 24 in.	18 in. minimum
24 in. and over	0 in. minimum



* If using decorative cap cover(s), this distance may need to be increased. Refer to the installation instructions supplied with the decorative cap cover.

** In a staggered installation with both gas and wood or fuel oil terminations, the wood or fuel oil termination cap must be higher than the gas termination cap.

Notes:

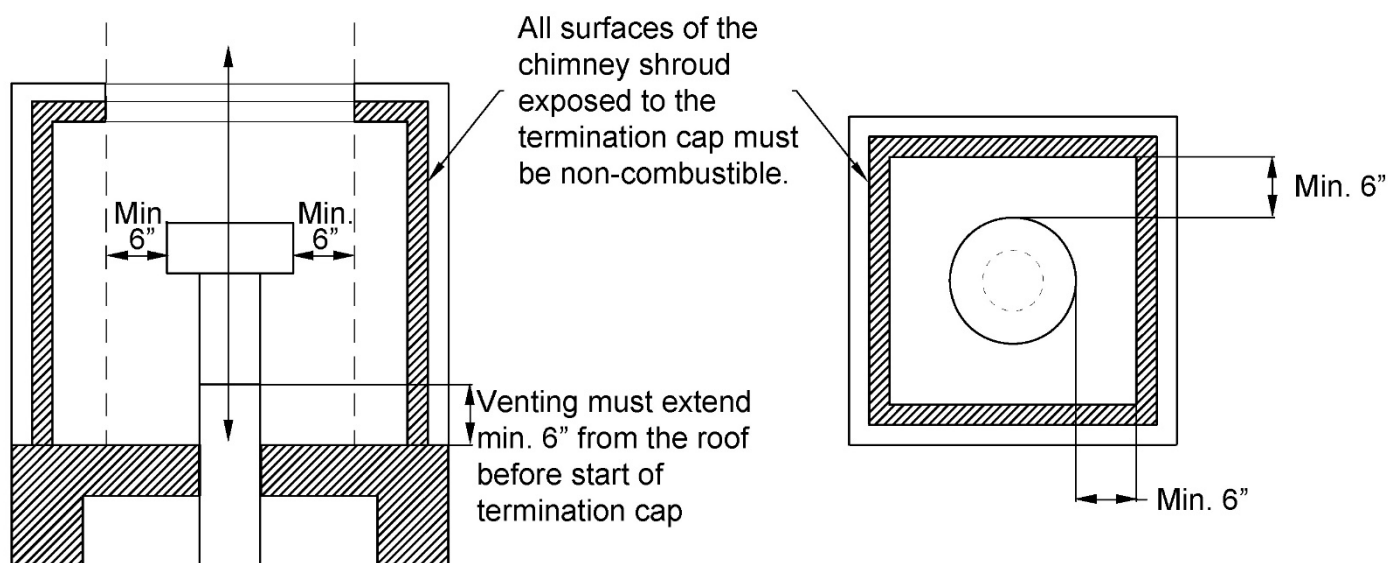
1. Maintain a minimum of 2 feet clearance between edge of vertical termination and perpendicular wall.
2. If terminating near window, keep minimum of 2 feet clearance between window and vent termination.
3. All mechanical air intakes (such as an Enervex power vent) within 10 feet of a termination cap must be a minimum of 3 feet below the termination cap.
4. All gravity air intakes within 3 feet of a termination cap must be a minimum of 1 foot below the termination cap.

NOTE: This chart does not apply to a chimney shroud application. See the "Chimney Shroud" section on the next page for more information.

→ Chimney Shroud

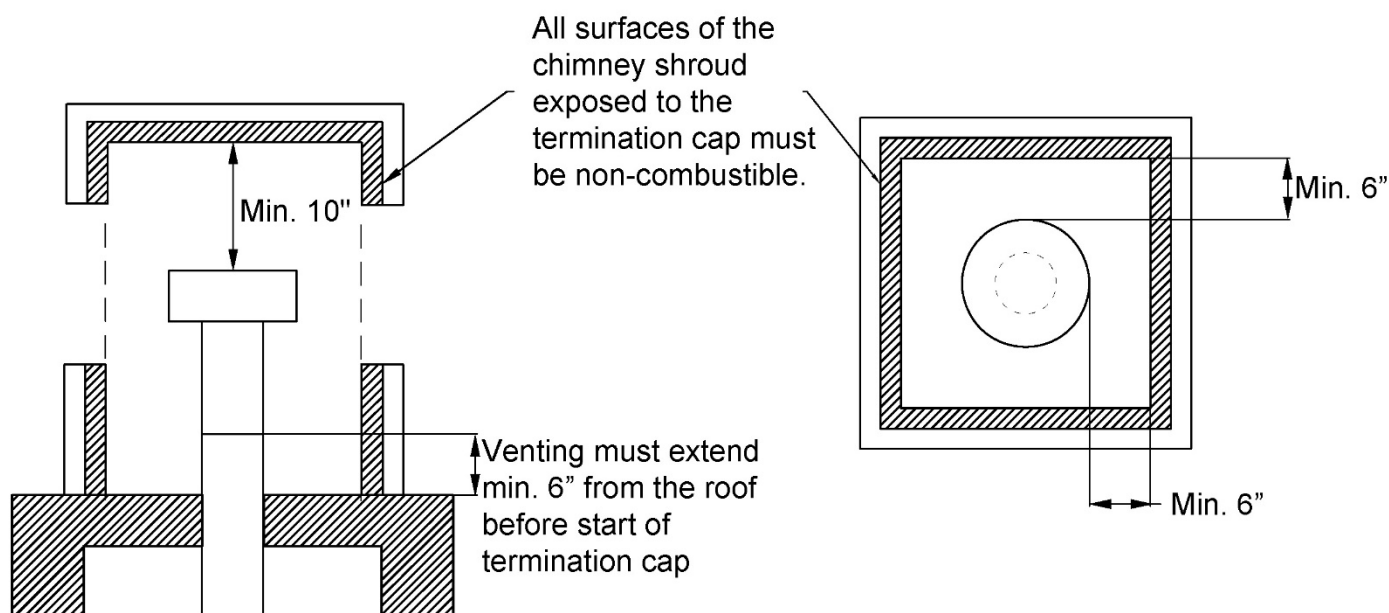
→ Top Open

Keep a minimum **6-inch** clearance around the diameter of the cap's side edge and extending above and below the cap.



→ Sides Open

Keep a minimum **6-inch** clearance around the diameter of the cap's side edge, and a minimum **10-inch** clearance above the top of the cap. For openings in the shroud, make sure to allow for enough air flow space to release the exhaust gases and allow the vent to operate properly.



Vent Maintenance

Regular inspection of the vent system by a qualified service technician is recommended every six months. The following maintenance routing is recommended:

- Inspect for excessive condensation, e.g., water droplets forming in the inner lining, and subsequently dripping from the joints. This can cause corrosion in the system.
- Check for corrosion in areas exposed to the elements. Components with rust spots or holes must be immediately replaced.
- Ensure that there is no foreign material in the vents. Survey by removing the cap and shining a light down the vent.
- If possible, check all vent joints to make sure nothing has been disturbed or loosened.

Co-Axial to Co-Linear Conversion

This section explains how the fireplace can be inserted into an existing solid fuel burning fireplace chimney by converting the co-axial venting to co-linear.



IMPORTANT NOTES:

- The fireplace must be vented vertically to the outside and must use one of the approved co-linear flexible ducting systems or a co-axial flexible ducting system.
- Air intake (as applicable) and heat release is still required per installation guidelines (even when venting through a chimney). All other building requirements still apply.
- Restrictor use is not required when using co-linear venting.



WARNINGS:


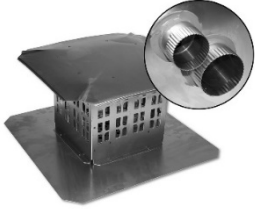
- If the vent system of this appliance is disconnected for any reason, the vent and air intake systems must be properly reassembled and resealed before this appliance is put into use.
- Proper installation of the vent system, as required in this manual, is vital to the performance of this appliance. Oversights or failure to conform to all installation requirements will void the applicable warranty.
- This appliance must be properly connected to a venting system in accordance with the Ortal's installation instructions. Operation of this appliance when not connected to a properly installed and maintained venting system can result in carbon monoxide (CO) poisoning and possibly death.
- Co-linear flexible aluminum venting must be professionally inspected periodically for corrosion and damage and replaced when necessary. If the installation does not allow for future inspection or replacement of the flexible aluminum venting, then stainless steel vent liners should be used.
- Co-linear portion of vent system may only be installed within a solid-fuel burning fireplace and chimney.
- The appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.

The plan to install a gas fireplace inside an existing solid fuel burning fireplace chimney must include inspection and cleaning of the fireplace cavity and the entire chimney system. The chimney top, especially masonry chimneys and wood framed chimney tops must be inspected, and the top surface must be repaired or replaced, if necessary. Unlined chimney flues are the most vulnerable to mortar corrosion and damage. These flues must be inspected, and repair must be done before dropping the flex vent liner for this Insert

If you encounter a badly deteriorated or completely damaged firebox, do not proceed. These damaged structures must be reviewed by structural Engineers and Local Building Code officials must approve the repair work prior to this Insert being installed in such a damaged cavity.

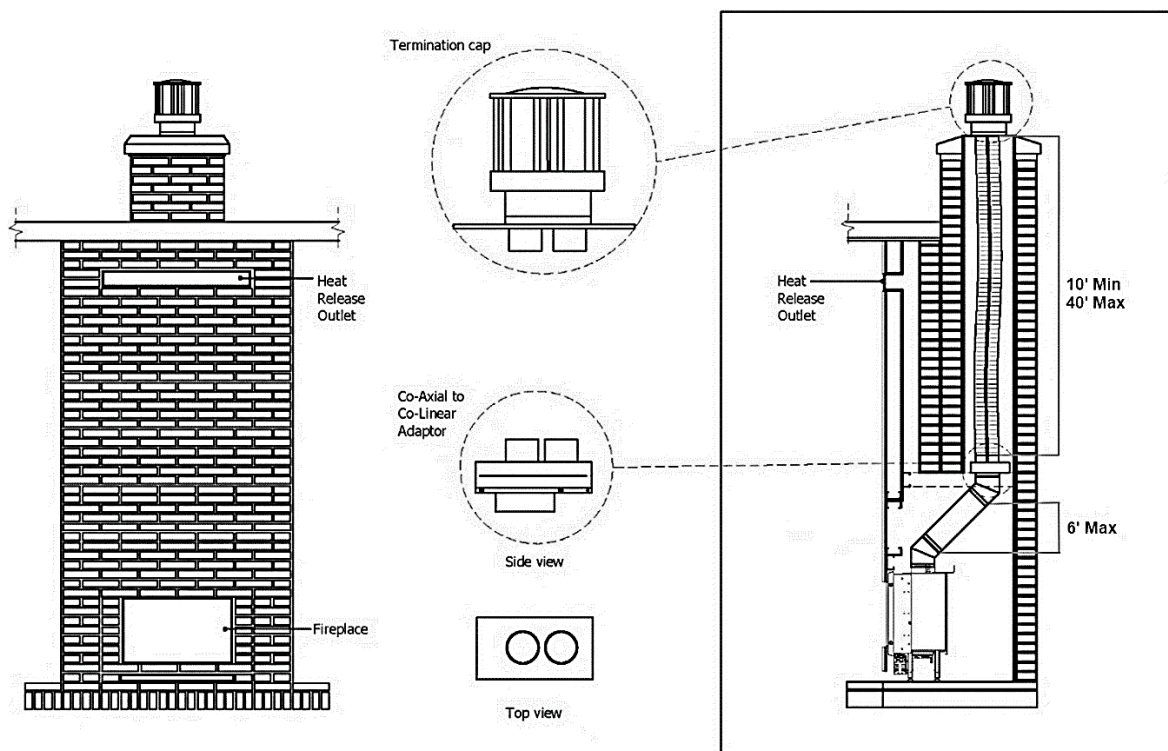
Series	Vent Size	Adapter (BDM or equivalent*)	Split Pipe Size	Termination Cap (BDM or equivalent*)
Clear 75x65	4"x6"	4"x6" to 3"x3" (DVR6-A33)	3"x3"	3"x3" (PV3-VCS33B)
Clear 75	4"x6"	4"x6" to 3"x3" (DVR6-A33)	3"x3"	3"x3" (PV3-VCS33B)
Clear 110	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Clear 110H	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Wilderness 44	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Clear 130	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Clear 130H	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Wilderness 51	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Traditional 90	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)
Traditional 110	5"x8"	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)

*BDM component part numbers are offered as a suggestion. Components from the following companies may also be used: Duravent, Olympia, ICC, and Selkirk.

Example of Co-axial to Co-linear Appliance Adapters (BDM)	Example of Co-linear Terminal (BDM)
	

Vent Configuration

- **Minimum Vertical Rise:** 10 feet (see diagram below)
- **Maximum Vertical Rise:** 40 feet (see diagram below)
- **Offsets:** Two 45° offsets may be used directly on the fireplace with up to a 6-foot section between them. The minimum vertical rise starts above them (see diagram below). No other offsets are permitted in the vent configuration. Offsets are not required to have.



Gas

The fireplaces are approved for use with natural gas (NG) or propane (LP) only. No other fuel types are permitted.

Gas Pressures

Fireplace Series	Burner Size	Burner Type	Gas Type	Inlet Pressures (Inch W.C.)		Manifold Pressure (Inch W.C.)	Heat Input (BTU/hr.)		Orifice(s)
				Min	Max		Min	Max	
40H70	30	Single	Natural Gas	5.0	10.0	3.2	10,419	23,670	650
			Propane	11.0	13.0	10.9	12,841	21,073	220
60x80 75 75x65	45	Single	Natural Gas	5.0	10.0	4.7	16,147	29,100	650
			Propane	11.0	13.0	9.5	15,627	28,118	320
Curve	45	Standard Double	Natural Gas	7.0	11.0	4.7	18,327	33,029	380 Front 380 Back
			Propane	11.0	13.0	10.7	17,796	28,500	160 Front 160 Back
TR 90 TR 110	45	Decorative Double	Natural Gas	5.0	10.0	5.2	9,000	55,000	650 Front 800 Rear
		Standard Double	Propane	11.0	13.0	10.0	17,265	53,238	160 Front 220 Rear
110 120 130	100	Single	Natural Gas	5.0	10.0	5.6	22,798	37,167	1200
			Propane	11.0	13.0	10.0	25,113	35,316	380
Wild. 44 Wild. 51 Wild. 60	Driftwood Firelog Set		Natural Gas	7.0	11.0	4.7	15,686	32,163	320-160-320 Front 380 Rear
			Propane	11.0	13.0	4.7	21,400	31,400	90-60-90 Front 180 Rear
150 170	135	Single	Natural Gas	5.0	10.0	3.5	23,312	43,715	1400
			Propane	11.0	13.0	9.5	34,008	49,704	500
200	160	Single	Natural Gas	5.0	10.0	4.5	27,467	51,277	1400
			Propane	11.0	13.0	10.0	24,329	51,011	500
250	180	Single	Natural Gas	5.0	10.0	4.7	21,700	52,700	1400
			Propane	11.0	13.0	9.0	42,640	57,045	650



WILDERNESS SERIES NOTE: It can take up to 20 minutes for the flames to turn yellow.

High Altitude Requirements

For elevations above 2,000 feet, fireplace shall be de-rated 4% for each 1,000 feet above sea level.

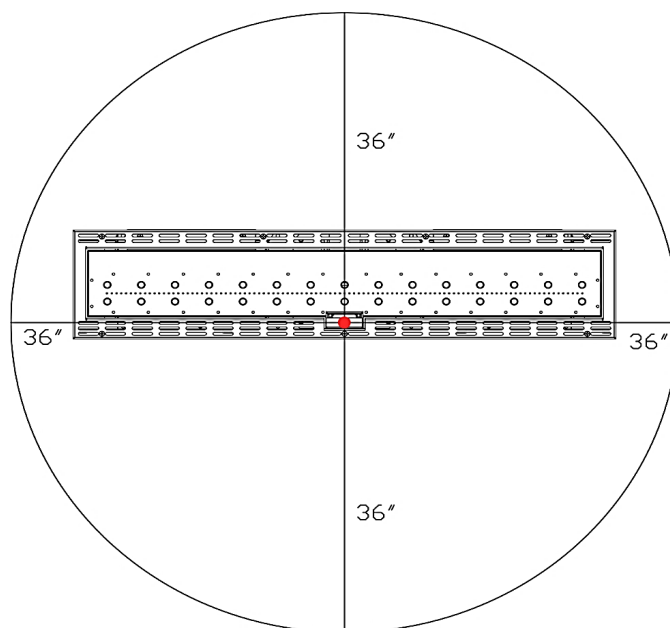
Routing the Gas Line

Correctly size and route the gas supply line from the supply regulator to the area where the access panel is located (or to the burner area if no access panel is available), as per the requirements outlined in the latest edition of the National Fuel Gas Code, NFPA 54 (USA) or CAN/CSA-B1491 (Canada).

The gas and electrical components are attached to the pilot on a flexible gas line and can be kept directly under the fireplace or moved to the side or back of the fireplace within 36 inches of the pilot (located at the center front of the burner). Gas line should be routed to the access panel area (see "Access Panel" section for details). If no access panel is planned, gas line should be routed to the most accessible area within the 36-inch radius (as shown in diagram below).

A gas shut-off valve and a 12" gas flex connector are provided with every fireplace. The location of the gas shut-off valve is dependent on local codes and requirements. Check with your authority having jurisdiction for more information.

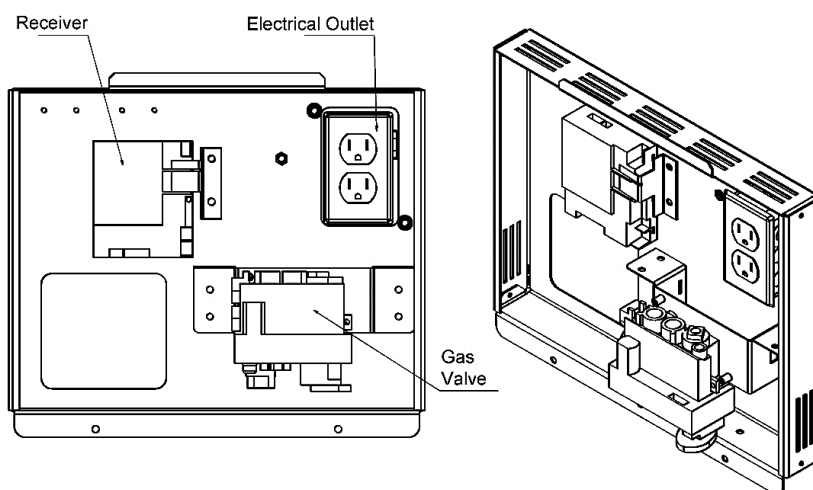
WARNING: The main gas valve must be installed to allow complete disconnection of the fireplace from the gas supply piping system for servicing purposes.



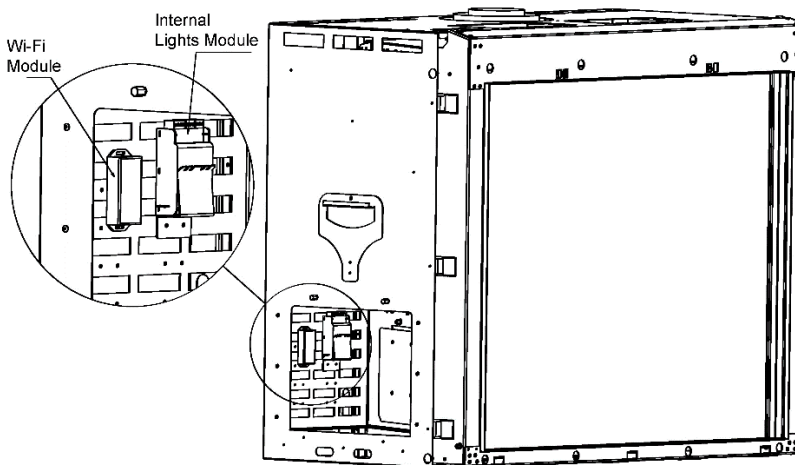
→ Routing the Gas Line for Traditional Series

The gas and electrical components on a Traditional series fireplace are located in a control box on the **left** side of the fireplace.

This control box houses the gas valve, a single gang outlet, and the electrical receiver. Route the gas line through cut out in the upper left side of the control box according to local codes and requirements. Check with your authority having jurisdiction for more information.



→ The Wi-Fi (optional feature) and Internal Lights Modules are located just behind the access panel inside the fireplace (see "Access Panel" section for details on the access panel).

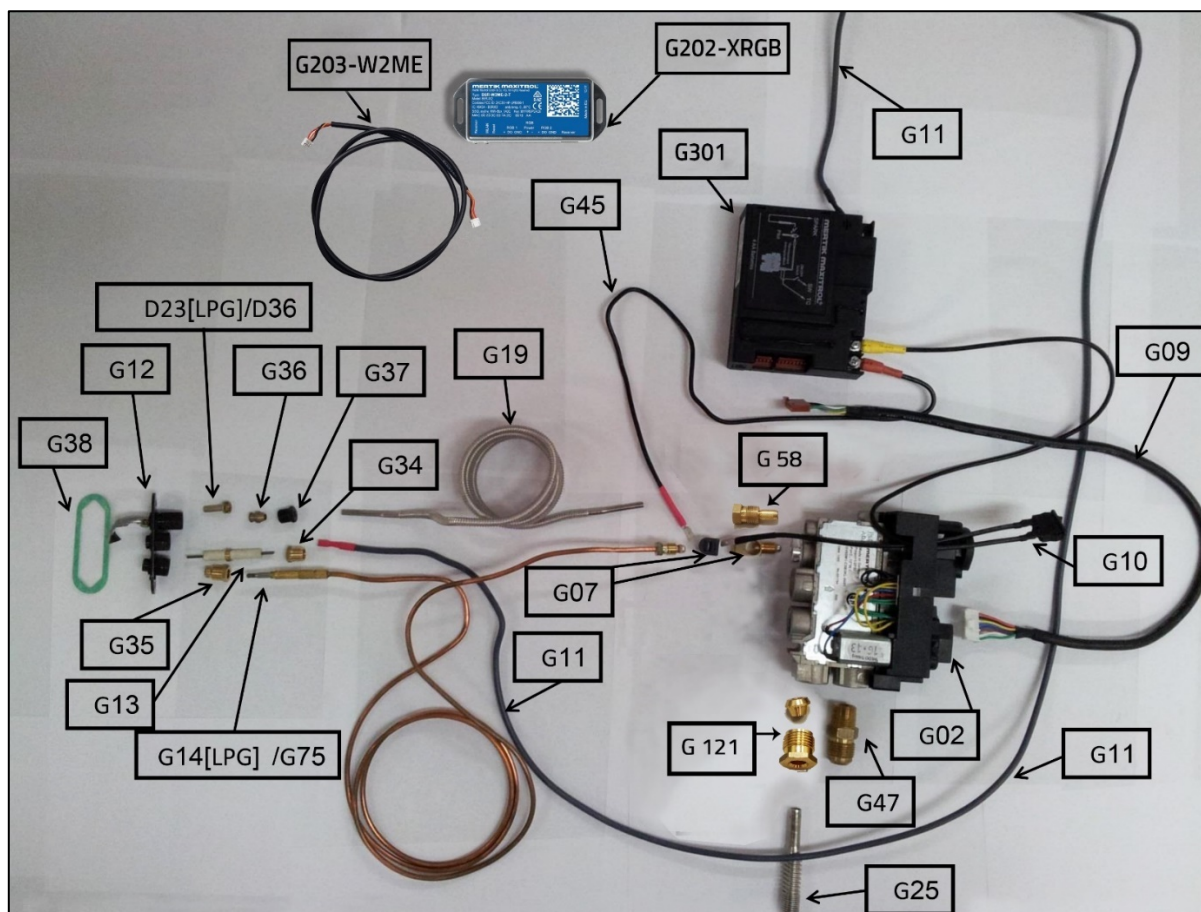


Gas Conversion

Gas conversion (NG to LP or LP to NG) can be done in the field. Gas conversion must be performed only by technicians who have specific authorization by Ortal to change these components. The conversion kit must be supplied by Ortal. Using parts from other manufacturers or having an unauthorized party performing the conversion will void your fireplace's warranty. Conversion instructions are supplied with the conversion kit.

Gas and Electrical Components

Assemblies and components are listed and described in the tables following the figure.



Part Number	Description
D23	Orifice LPG
D36	Orifice NG
G02	Mertik Gas Valve
G301	Symax Receiver
G202-XRGB	Symax Wi-Fi Box
G203-W2ME	Symax Wi-Fi Box Cable
G07	Thermocouple Block
G09	Wire Harness for Receiver and Gas Valve
G10	Switch w. cables 180/500 mm
G11	Spark Wire
G12	Pilot Base
G75	Thermocouple NG
G14	Thermocouple LPG

Part Number	Description
G13	Electrode Target Type
G121	Main Burner Gas Fitting
G25	Burner Gas Tube
G19	Pilot Gas Tube
G34	Spark Plug Connector
G35	Thermocouple Connector
G36	OLIVE D.4 Pilot gas tube compression ring valve
G37	Pilot gas tube fitting burner side
G38	Pilot Assembly Gasket
G45	Red Cable
G58	Connection fitting 4mm One-piece
G47	Fitting for main line inlet to gas valve GV60

The manufacturer of Ortal's gas and electrical components is Mertik Maxitrol. For information on these components, please visit the manufacturer's website: www.mertikmaxitrol.com

Electrical



WARNING: Disconnect the power supply before servicing any electrical components.

Electrical Requirements

A duplex receptacle with two outlets (not included) must be installed in the location where the gas and electrical components will be placed, which must be to the side or back of the fireplace within **36 inches** of the pilot (see diagram in "Routing the Gas Line" section). Electrical work should be performed by a qualified licensed electrician, per local code.

Outlet Type	Power Requirements
1 Duplex Receptacle (2 outlets)	120V, 15 amp, 60Hz



WARNING: Use of an AC Adapter other than the one provided with the fireplace (manufactured by Mertik Maxitrol) may render the system inoperable.



NOTE: Any device that functions using the same radio frequency as the handset will be affected when remote-controlled handset is in use.

→ Power Outage

Fireplaces with a screen heat barrier and no other optional features (lights, power vent, heat control system, Wi-Fi) may be used with 4 AA batteries in the receiver in addition to the AC Adapter. If the batteries are used instead of the AC Adapter, the fireplace can operate in the event of a power outage to the building. Batteries must be replaced annually.


Fireplaces with double glass heat barrier, power vent, or a heat control system may not be used with batteries.

Pairing the Remote and Receiver

To set up the remote-control device to operate the fireplace, follow the following guidelines to pair the remote and receiver unit on the same radio frequency.

1. Press and hold the receiver's reset button until you hear two beeps. The first beep is short, and the second beep is long. After the second beep, release the reset button.



2. Within the subsequent 20 seconds, press the following button depending on the mode of operation:
 - **10-Button Handset:** Press the  button. "CONN" and a running number from 1 to 8 will appear on the handset display confirming that the synchronization and data exchange are in process.
 - **Wall Switch:** Use the 10-button handset to synch with the receiver. Once the remote and receiver are paired, the wall switch will function normally.
 - **myFire App:** Use the 10-button handset to synch with the receiver. Once the remote and receiver are paired, the App will function normally.
3. You will hear two short beeps confirming the connection.



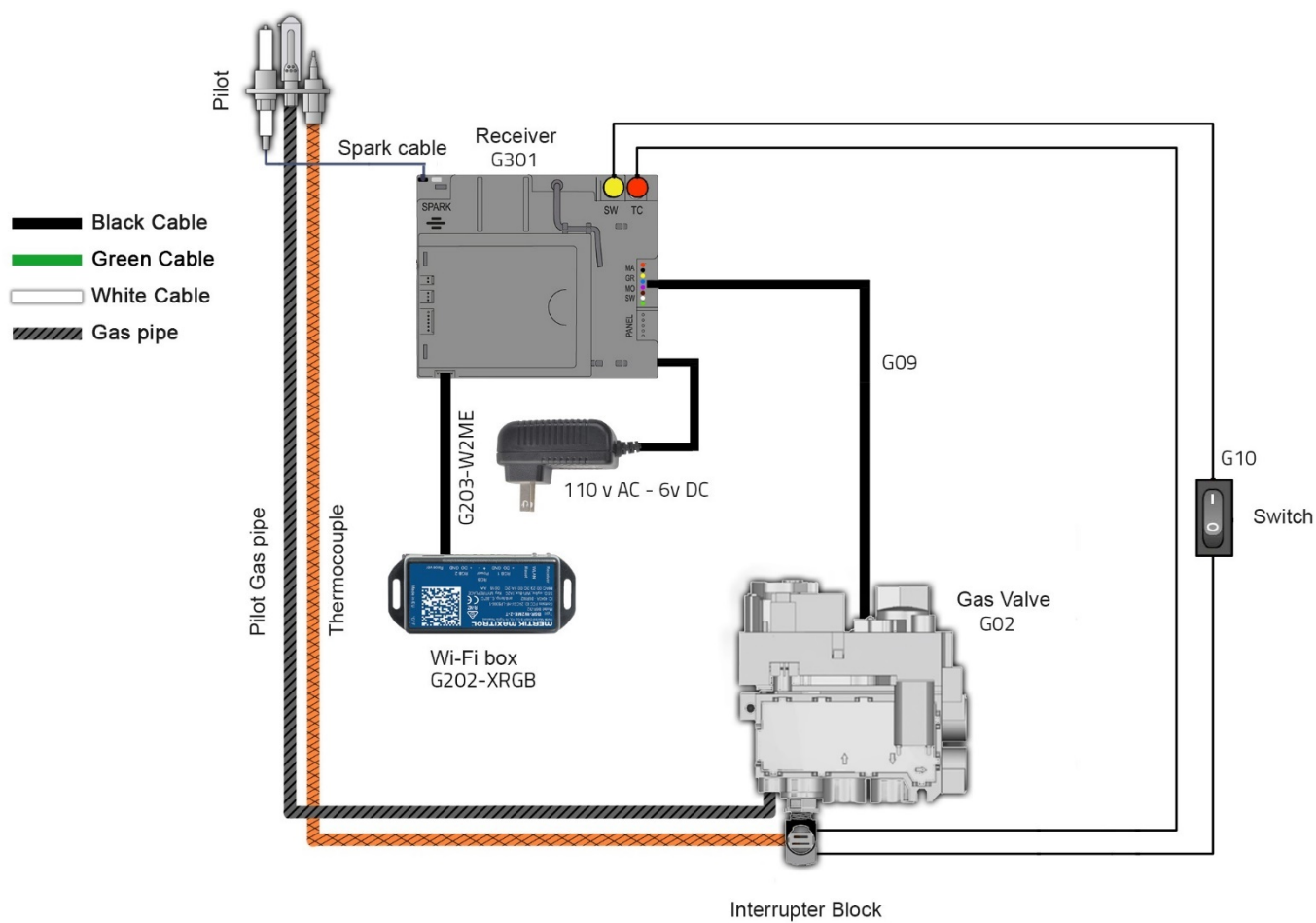
NOTES:

- **IMPORTANT:** For safety/communication purposes, 10-button handset must be located within 26 feet of the receiver.
- If you hear one long beep, this indicates the connection has failed or the wiring is incorrect.
- The connection between remote and receiver only needs to be made once and is not required after changing the batteries in the remote.

→ Wiring Diagrams

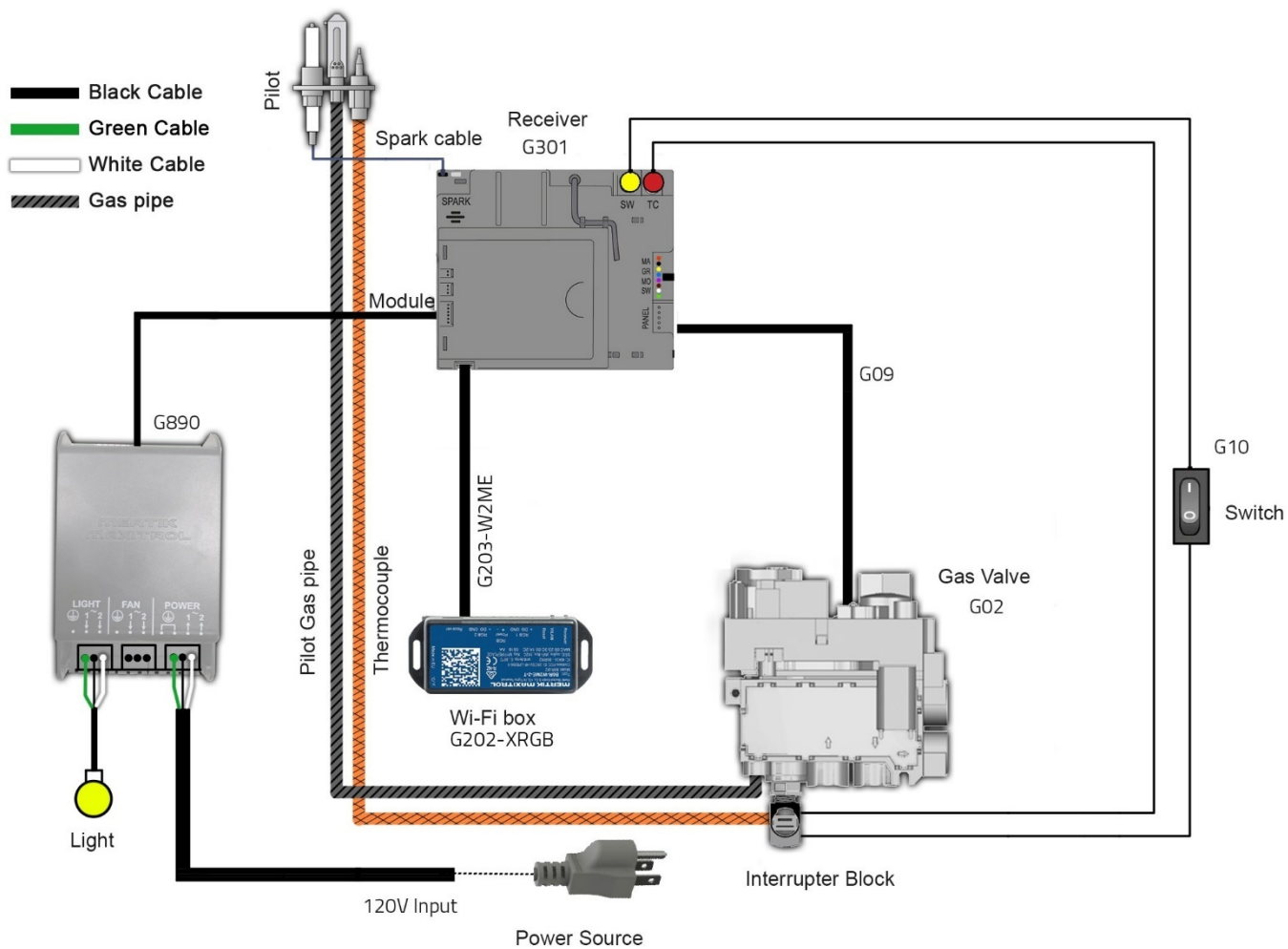
The following diagrams show the electrical wiring required for different feature combinations.

Wiring Diagram: Screen Fireplace



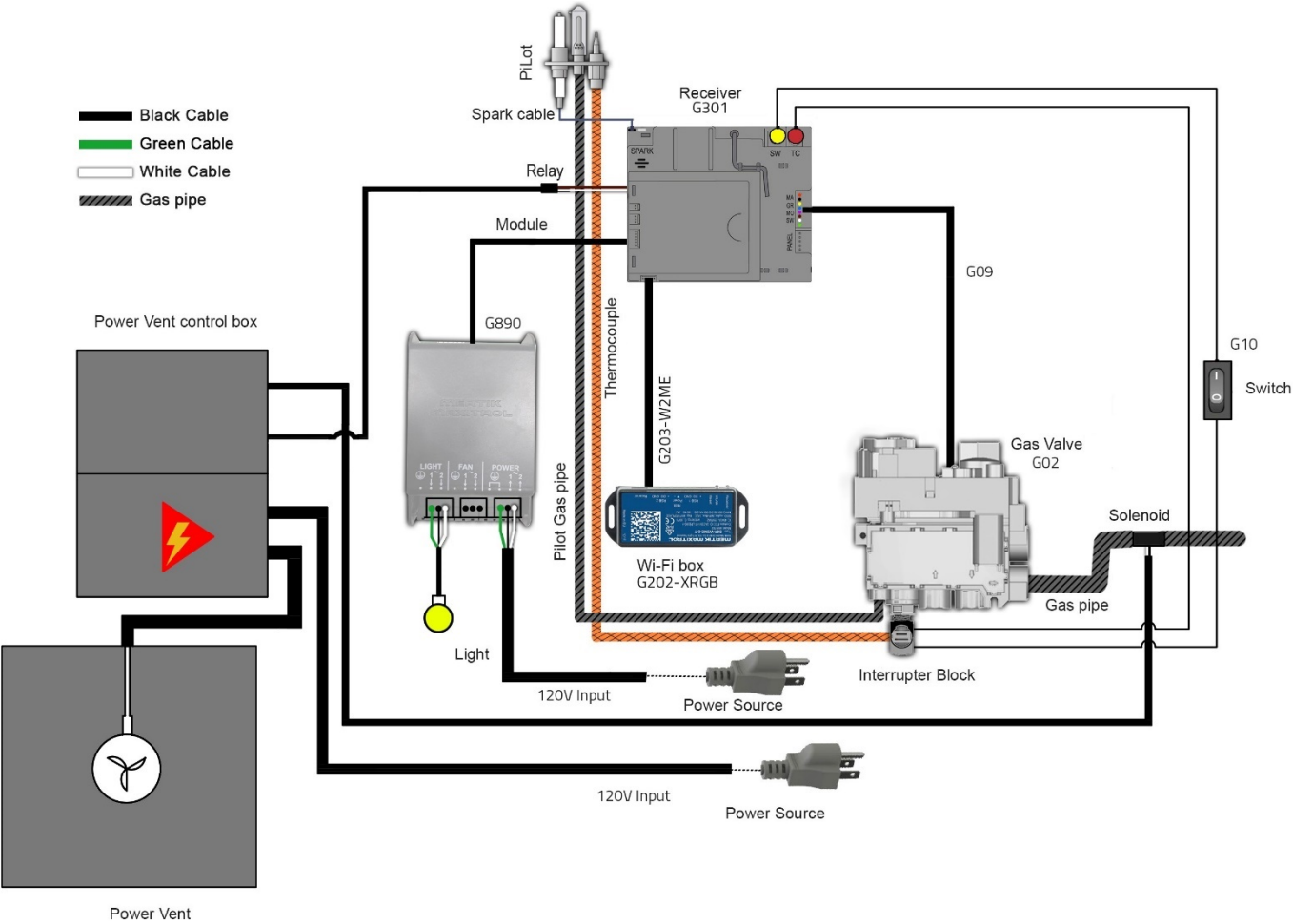


Wiring Diagram: Screen Fireplace with Interior Lighting

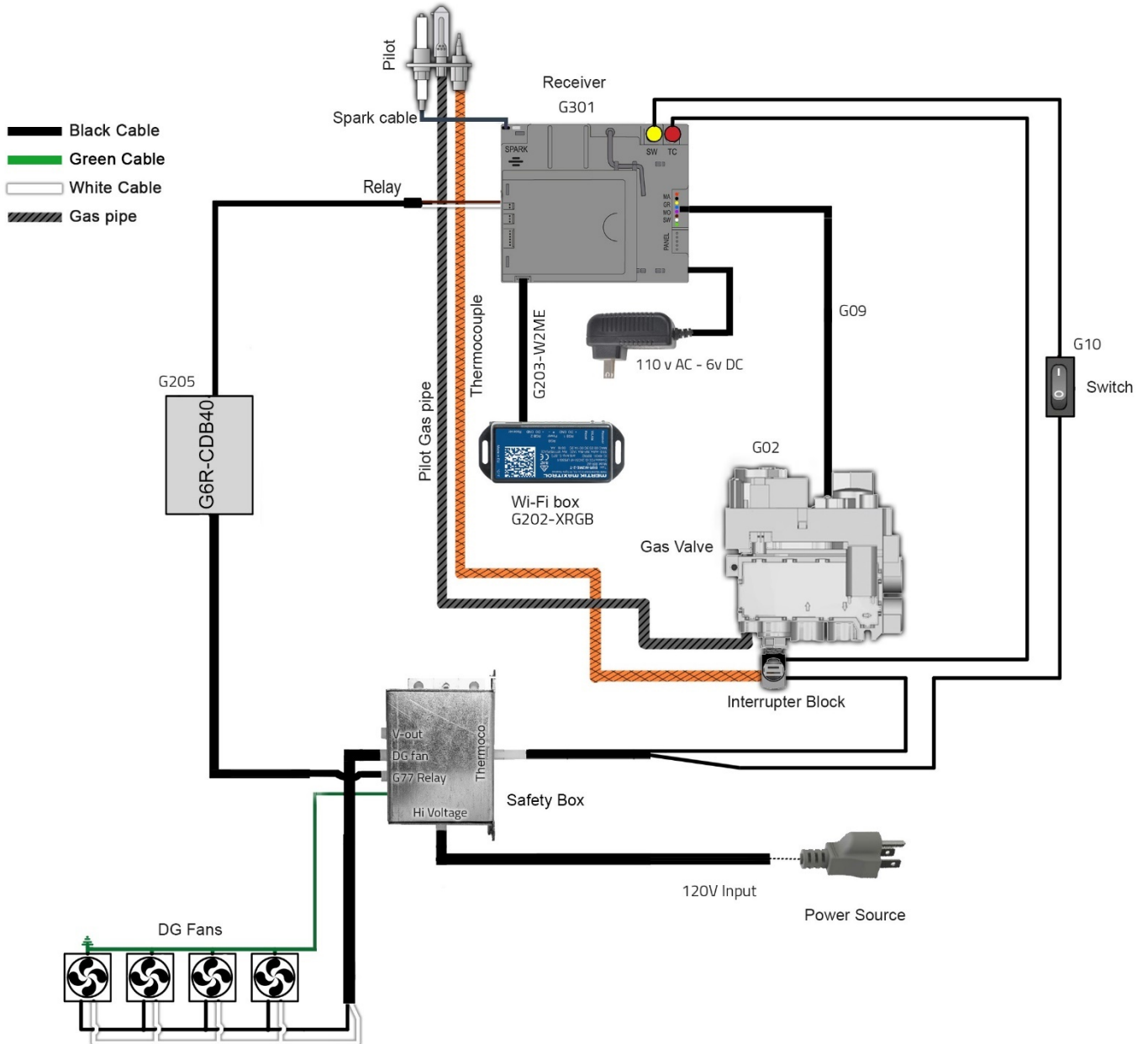




Wiring Diagram: Screen Fireplace with Interior Lighting and Ortal Power Vent

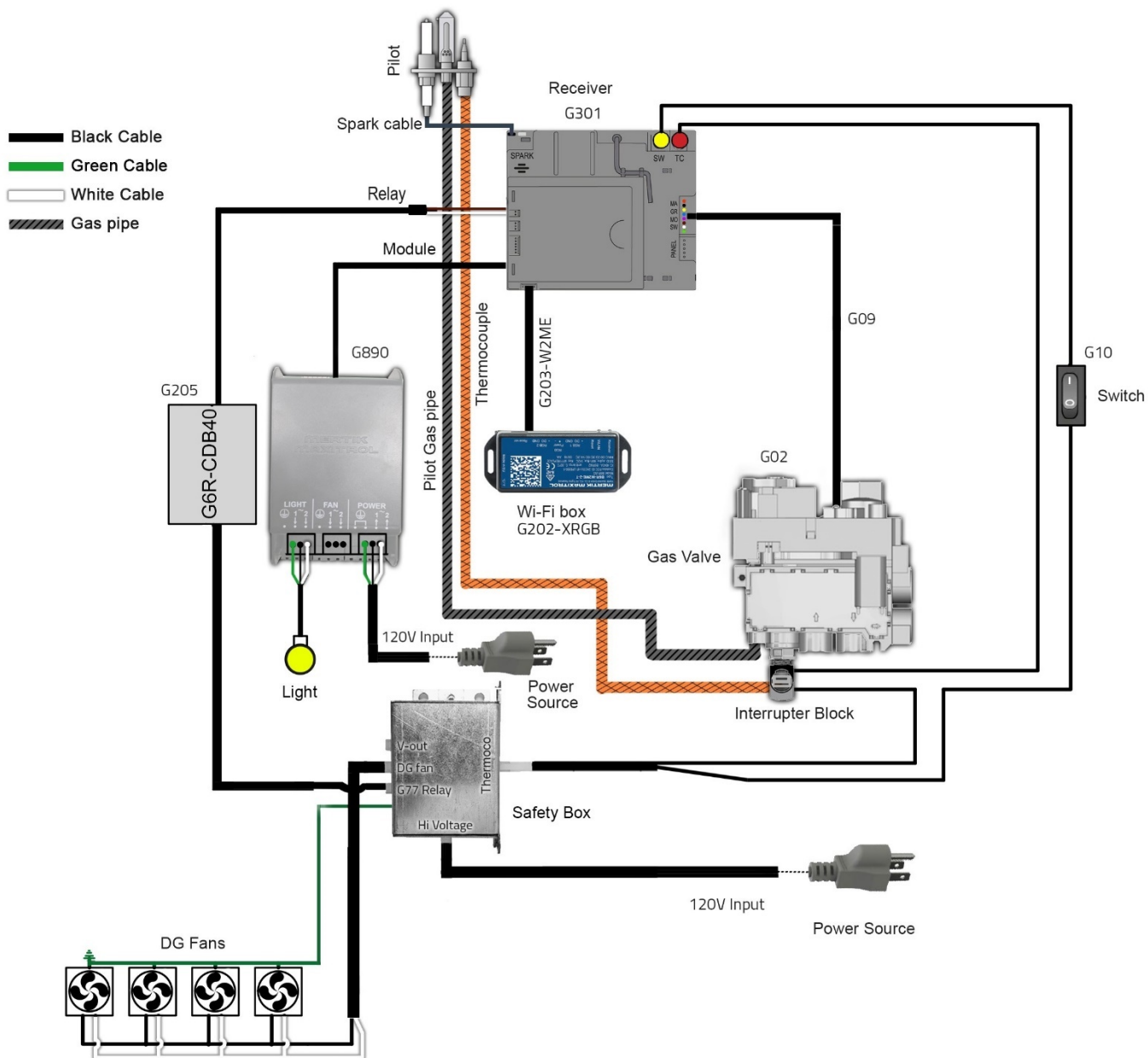


Wiring Diagram: Double Glass Fireplace



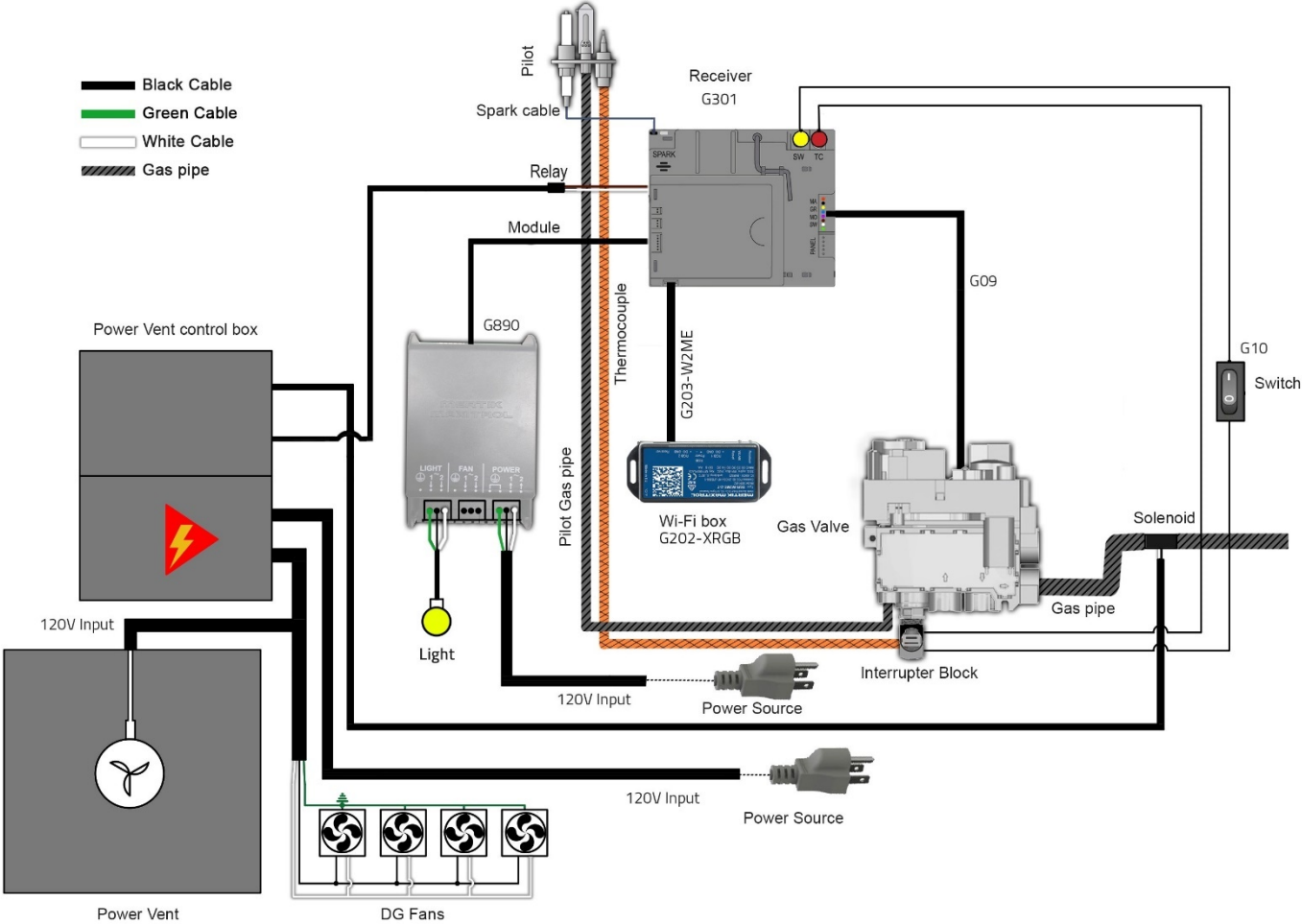


Wiring Diagram: Double Glass Fireplace with Interior Lighting



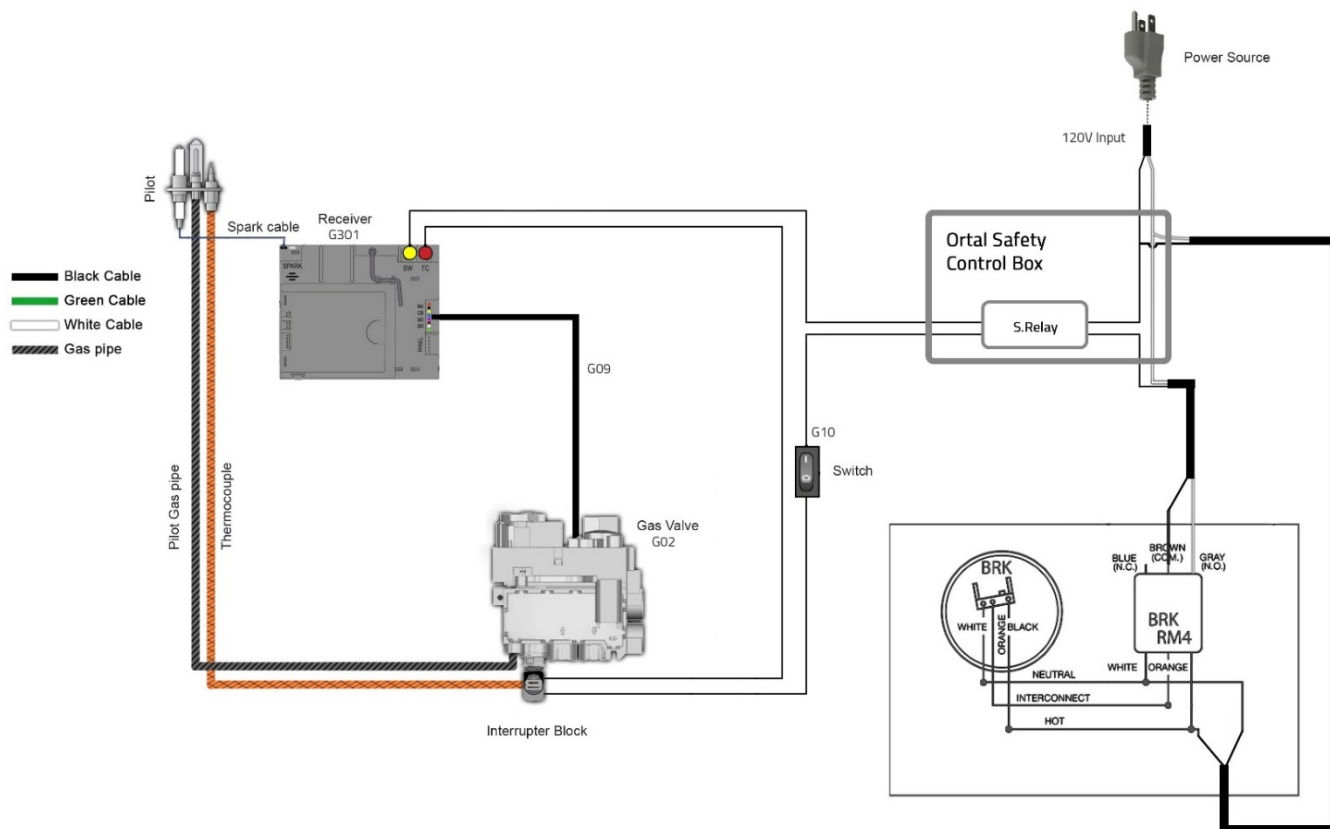


Wiring Diagram: Double Glass Fireplace with Interior Lighting and Ortal Power Vent

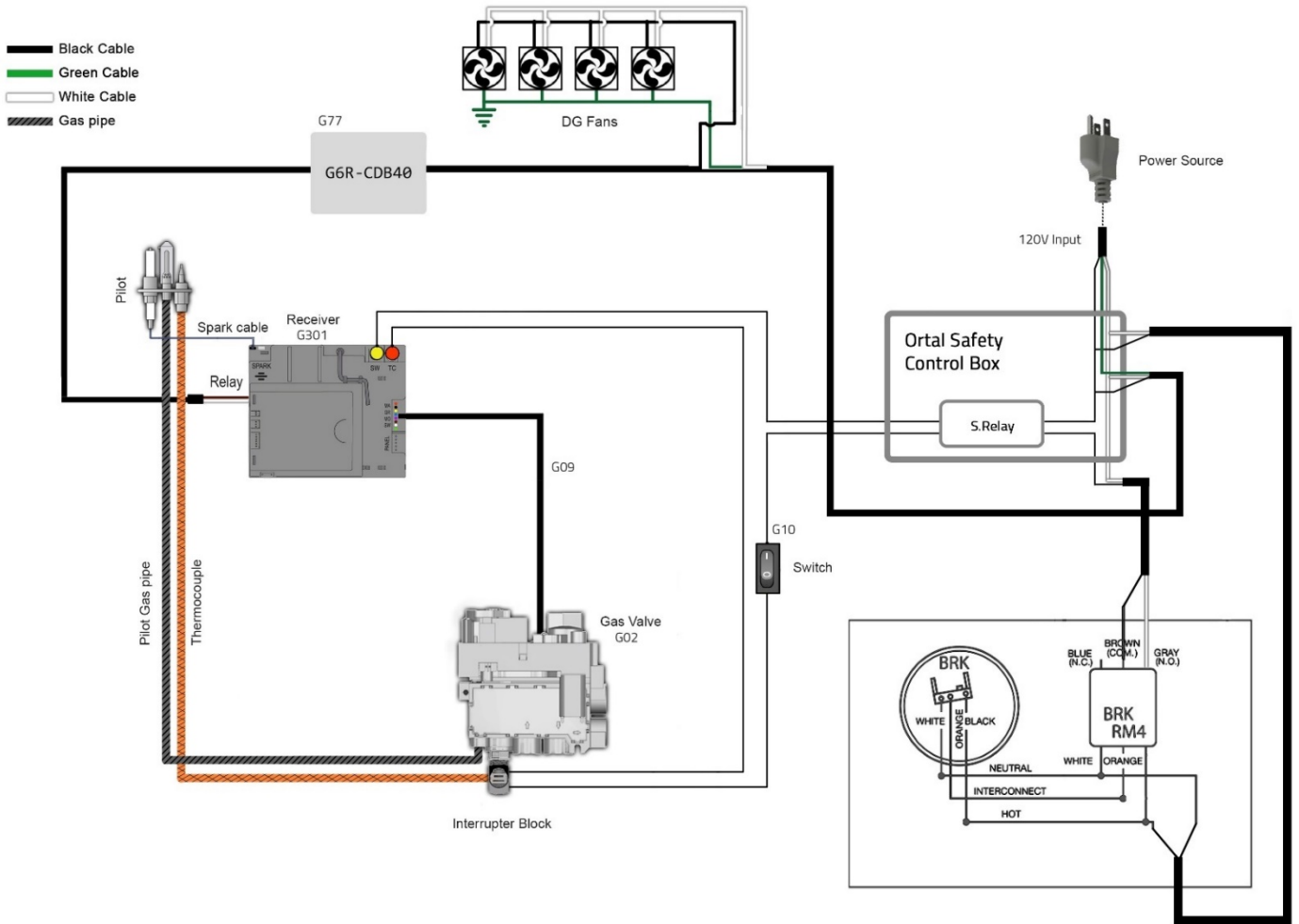


→ Carbon Monoxide Detector Wiring Diagrams

CO Kit Wiring Diagram: Screen Fireplace



CO Kit Wiring Diagram: Double Glass Fireplace



Home Automation Wiring Diagram

Use the following wiring diagram to connect fireplace control a hardwired home automation system.

Contacts Options/Operation

Ignition: Close contact 1 and 3 simultaneously for 1 second. Fireplace automatically goes to high after ignition.

Up Flame: Close contact 1. The contact needs to be closed for 12 seconds to turn the motor from end-stop to end-stop.

Down Flame: Close contact 3. The contact needs to be closed for 12 seconds to turn the motor from end-stop to end-stop.

Off: Close contacts 1, 2, and 3 simultaneously for 1 second.

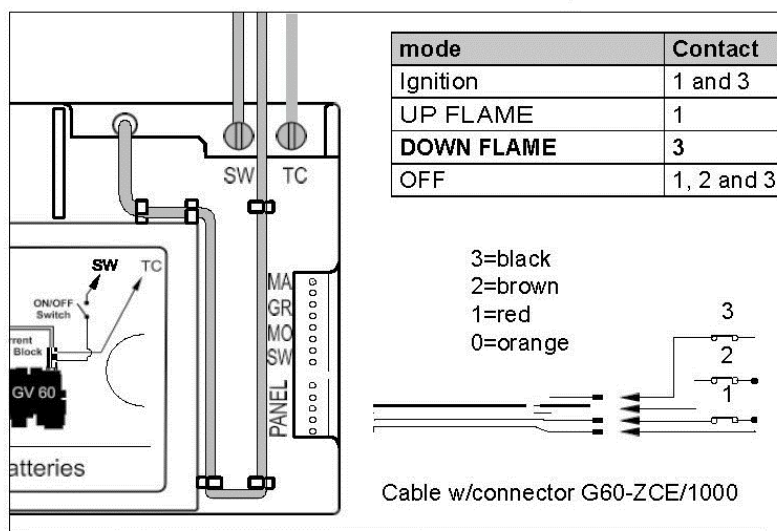


Figure 1: Wiring diagram and the operation sequence

Mode of Operation: The external source provides ON and OFF operation only. The Timer/Thermostat handset provides all other functions.

NOTICE: The Timer/Thermostat handset in Thermostatic Model controls the room temperature even if the fire is turned on by the external source. If the handset is in Manual Mode, the fire will go to High Fire in the next cycle of external operation.

NOTE: This wiring diagram is for hardwired home automation systems only and will not connect the fireplace to a wireless system.

Interior Design Media

Ortal offers interior media options such as stones, glass, logs and embers that can be provided with the fireplace. This section provides guidelines for safe placement of media. It is crucial that the placement guidelines outlined below are followed as a large portion of flame quality issues are caused by improper media setup.

NOTE: This section does not apply to Wilderness series fireplaces. Please see separate model-specific Log Placement Guide for details. This will be included with the Wilderness fireplace log set.

WARNING: Only media provided by Ortal is permitted for use in the fireplace.

WARNINGS: INSTALLING AND HANDLING MEDIA

- DO NOT** install the interior design media until fireplace installation is complete, the gas line is connected and tested for leaks, and initial burner operation has been inspected and approved.
- Media materials get very hot and will remain hot more than an hour after gas supply is turned off. Handle media only when materials are cool.
- If media is not installed according to the installation instructions, flame impingement and improper combustion may occur and result in soot and/or excessive production of carbon monoxide (CO). Carbon monoxide is a toxic, colorless, and odorless gas.

WARNING: The fireplace is **NOT** designed to burn wood. Any attempt to do so could cause irreparable damage to the fireplace and may result in property damage, personal injury and/or loss of life.

Media Placement Guidelines

When installing media, adhere to the following general guidelines:

- Keep the media back from the pilot hood so at least one burner port is open. Crowding around the pilot hood may hinder lighting and could result in potential damage to the fireplace and surrounding area or personal injury.



- Do not use the hood to support media. This could cause overheating of the thermocouple.
- Keep the media away from the edges and the glass.
- Do not overfill the media tray. Keep 20% of the tray open to allow for air flow.

Glass Media Placement

- When placing glass media, put only a single layer, and do not pack down. Once the media is placed, go back and move the glass back slightly to open the ports:



Stone Media Placement

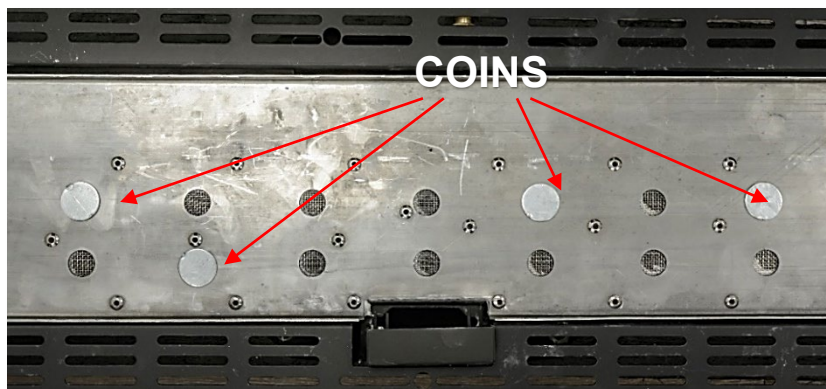
- When placing stone media, use the space left by the round shape to leave the ports open.



Log Media Placement

NOTE: This section does not apply to Wilderness series fireplaces. Please see separate model-specific Log Placement Guide for details. This will be included with the Wilderness fireplace log set.

- Place the logs carefully to block as few ports as possible. If a log is placed over a port, block the port with a “coin” to keep the flame from creating soot on the media or to manipulate the look of the flame.



- Block as few ports as possible, and no more than 30% of total ports. Do **NOT** block ports that are next to one another.
- When combining both logs and glass, it is recommended to place the logs (and coins if needed) first, and then to spread the glass according to the instructions given above.



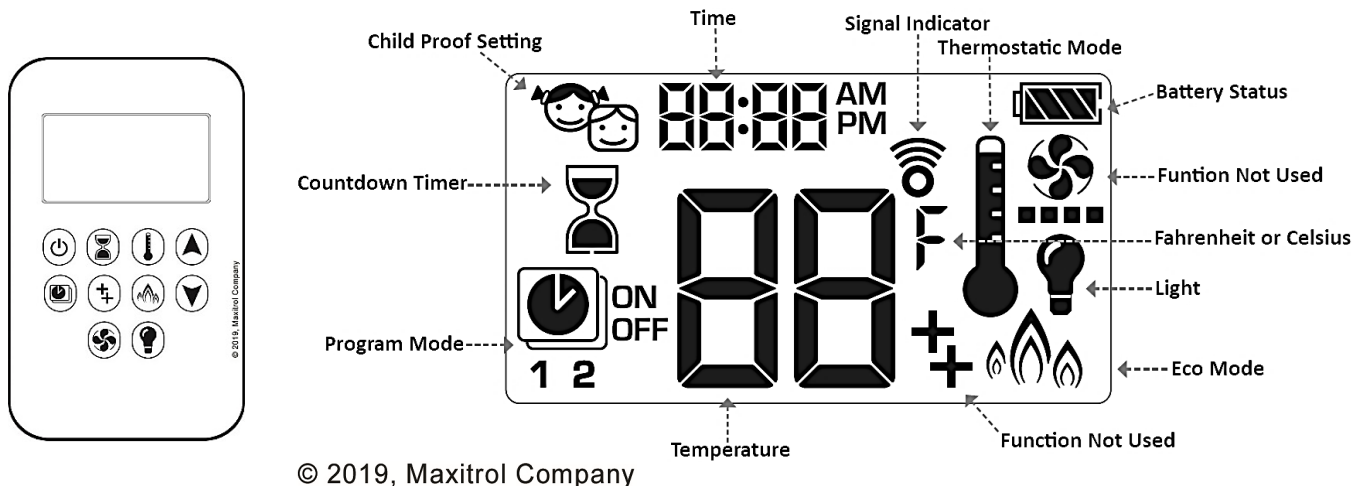
Operation

WARNING – Read these instructions carefully before lighting the fireplace.

IMPORTANT NOTES:

- Wiring of valve and receiver must be completed before starting ignition. Failure to do so could damage the electronics.
- If operating the fireplace without an AC adapter, battery replacement is recommended at the beginning of each heating season.
- Fireplaces with double glass, power vent, and/or interior lighting features must operate using the AC Adapter and therefore will not operate during a power failure.
- Only the Mertik Maxitrol AC Adapter (or one pre-approved by Mertik Maxitrol) is permitted for use with the fireplace. Use of other adapter brands can render the system inoperable. The handsets, receivers, wall switches are not interchangeable with other electronics.
- Batteries must be kept within their recommended temperature limits (32°F to 131°F).

10-Button Remote Control Handset



Control Option	Radio Frequency	Power Supply	
10-Button Handset	918.0 MHz (U.S. & Canada)	2 x 1.5V AAA batteries (quality alkaline recommended)	Replace batteries after 2 years or when low battery indicator appears on handset display
IMPORTANT: For safety/communication purposes, 10-button handset must be located within 26 feet of the receiver.			

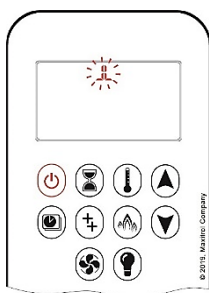
NOTE: Any device that functions using the same radio frequency as the handset will be affected when handset is in use.


Operating Instructions

Instructions for operating the 10-Button Handset are shown below. For more in-depth instructions, please refer to the "Homeowner's Fireplace Operation Manual" or "Remote Operation Instructions".

NOTE: Some options on the remote may not be available for all fireplaces.

Turning the Fireplace On

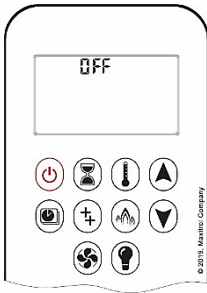



- Press the  button until you hear continuous beeping, and a blinking series of lines confirms the start sequence has begun; release buttons.
- Main gas flows once pilot ignition is confirmed.
- The system automatically goes into Manual Mode after main burner ignition.

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

NOTE: If the Timer function has been set and the fireplace is manually turned on, the Timer function will need to be reset.

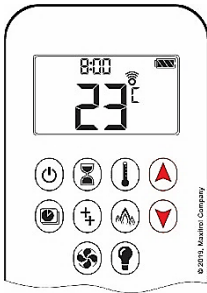
Turning the Fireplace Off





1. Press the  button to turn the fireplace off.

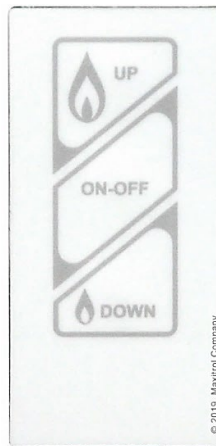
NOTE: The fireplace may be turned on again after the OFF icon stops flashing.

Flame Height Adjustment



1. To increase flame height, press and hold the  button to desired flame height.
2. To decrease flame height, or to set fireplace to pilot flame only, press and hold the  button.

Wall Switch



Control Option	Radio Frequency	Power Supply
Wall Switch	N/A	N/A

IMPORTANT: For safety/communication purposes, the 10-button handset must be located within 26 feet of the receiver.

Operating Instructions

Turning the Fireplace On/Off

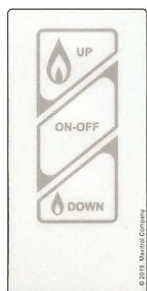


ON/OFF

ON: Press and hold the **ON-OFF** button until two short beeps confirms the start sequence has begun; release button.

OFF: Press the **ON-OFF** button.

Flame Height Adjustment



Flame Up

Flame Down

INCREASE: To increase flame height, press and hold (up flame) button.

DECREASE: To decrease flame height, press and hold (down flame) button.

Holding the (down flame) button long enough sets the fireplace to pilot flame (Standby Mode).

myFire App



MyFire.

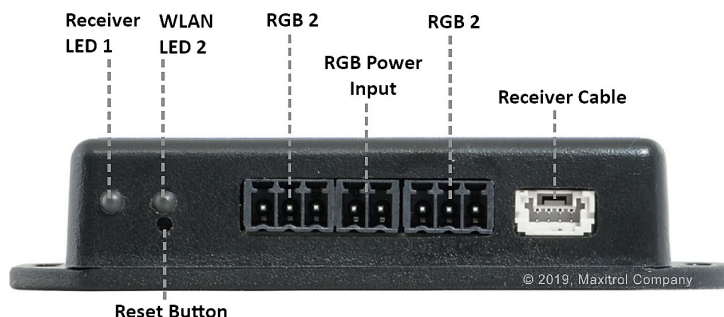
Mertik Maxitrol GmbH & Co. KG

IMPORTANT: For safety/communication purposes, the 10-button handset must be located within 26 feet of the receiver.

- NOTES:**
- For detailed App setup and operating instructions, refer to the "Homeowners Operation and Maintenance Guide" www.myfireapp.com.
 - The myFire Wi-Fi box is required for myFire operation.

myFire Wi-Fi Box

The myFire Wi-Fi router box provides the Wi-Fi connection that allows the myFire App to operate the fireplace.



Part	Radio Frequency	Power Supply	Wireless Communication
myFire Wi-Fi Box	2.4 GHz	Connects to Receiver	WPA2 authentication AES 256-bit encryption security Compatible with IEEE 802.11 b/g/n

Fireplace Maintenance

General Maintenance

All servicing, maintenance, interior cleaning and handling of the fireplace, parts and glass must be performed by an authorized Ortal dealer service technician only.

Servicing

- Turn off the gas and electricity **BEFORE** servicing the fireplace.
- It is recommended that a routine inspection is performed at the beginning of each heating season.
- When removing glass from multisided fireplaces, only one side of glass can be removed at a time. Glass must be re-installed before removing glass from a different side.

Burner and Vent Inspections

- Periodic checks should be made of the burner for correct position and condition. Visually check the flame of the burner, making sure that the flames are steady.
- The vent system must be inspected before use. Annual inspection must be scheduled to ensure the flow of combustion and ventilation air.

Submerged Parts

- Do not use the fireplace if any part has been under water, or if you suspect that it may have been under water. The Ortal dealer service technician must inspect and, if necessary, replace any parts of the control system and any gas controls which have been under water.

Handling the Glass

Inner glass panel is 5mm ceramic glass. Exterior double glass panel is 3/16" tempered glass. Tempered glass can be sourced locally if replacement becomes necessary. Ceramic glass must be provided by Ortal.

- When removing glass from multisided fireplaces, only one side of glass can be removed at a time. Glass must be re-installed before removing glass from a different side.
- **NEVER** operate the fireplace without the glass properly secured in place.
- The glass must be removed **ONLY** by an authorized Ortal dealer service technician.
- The Ortal dealer service technician should **ONLY** remove the glass with the suction cup supplied by the manufacturer. Lower the glass to rest in a safe place to prevent damage to the glass edges. A soft surface, like a moving blanket, is recommended.

Cleaning the Fireplace

- Only an Ortal dealer service technician can open the fireplace to clean interior surfaces.
- **ALWAYS** turn off the gas valve before cleaning.
- Do **NOT** clean when hot. Make sure fireplace has had time to cool prior to cleaning any surface or component, interior or exterior.
- Keep the fireplace clean by brushing and/or vacuuming at least once a year. This can only be performed by an Ortal dealer service technician.
- When removing glass from multisided fireplaces, only one side of glass can be removed at a time. Glass must be re-installed before removing glass from a different side.
- Clean the glass when it starts to look cloudy. Use a damp cloth for cleaning the fireplace and the door.
- Verify correct operation after servicing.

Maintenance Frequency and Equipment Checklist

- Under normal circumstances, the factory recommendation is to have the fireplace serviced at least once a year. Fireplaces meeting the following conditions should have more frequent service:
 - Fireplaces installed in commercial/public spaces should be serviced every 3 months.
 - Fireplaces installed in climates near the ocean or in other settings where corrosion buildup is more likely should be serviced every 6 months.
- Thermocouple Maintenance:
 - The thermocouple should be replaced annually or as needed in all commercial installations, and in any residential fireplace where the fireplace is operated for an average of 10 hours or more per day.
 - For all other installations, the thermocouple should be replaced every three years or as needed.

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