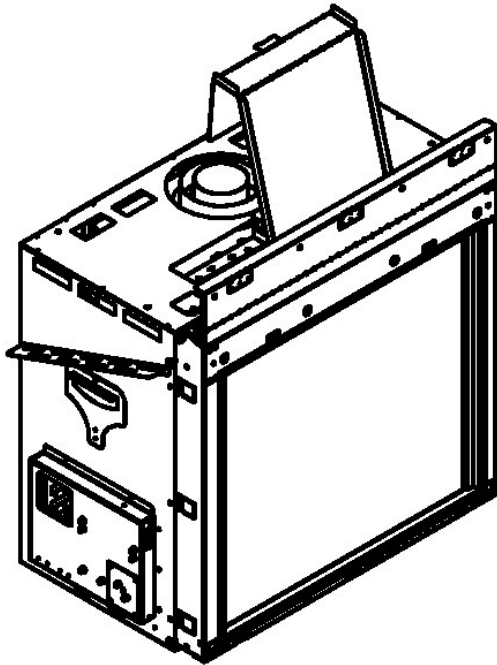


ORTAL®

Installation and Operation Manual Ortal Traditional Series



Ortal Traditional Series:

Ortal Traditional 90

Ortal Traditional 110

**Manufacturer Update
Serial Number 29731 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 your building.
 - Leave the building immediately.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

! 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: 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; Or you have any doubt about safe operation of the fireplace, 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 an 8-inch glass-handling suction cup.



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



WARNING: CALIFORNIA PROP 65

These products and the fuels used to operate these products (liquid propane or natural gas), and the products of combustion of such fuels, can expose you to chemicals including benzene, carbon monoxide, and ceramic fibers, which are known to the state of California to cause cancer and/or reproductive harm. For more information, visit www.p65warnings.ca.gov.

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Product Information

Models

Series	Models	Burner	Certification Standard	Available Gas Types	Venting
Traditional	TR 90 TR 110	45 Decorative Burner* (Double)	US: ANSI Z21.50 - 2019 Canada: CSA 2.22 - 2019	Natural Gas or Propane	Type: Direct Vent Size: 5"x8" (co-axial)

*Burner comes automatically in "Grate" design for traditional HD Logs or Birch Logs media placement. "Flat" design is available upon request for stone, branch/log, or glass media placement.

NOTES:

- For more information on Power Venting, please refer to the Power Vent System Installation and Operation Manual.
- 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 "Error! Reference source not found. Venting Requirements" section.

Certification

Ortal Traditional series 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 Listing:

US: ANSI Z21.50 – 2019: Vented Decorative Gas Appliances
Canada: CSA 2.22 – 2019: Vented Decorative Gas Appliances



FIREPLACES Vented (Gas)
CLASS 2915 01: FIREPLACES Vented (Gas)
CLASS 2915 81: FIREPLACES Vented (Gas) – Certified to U.S. Standards

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. 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:

- Consult the authority having jurisdiction to determine the need for a permit prior to starting the installation.
- 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.

Rating Label



The fireplace rating label is found on a metal plate separate 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.

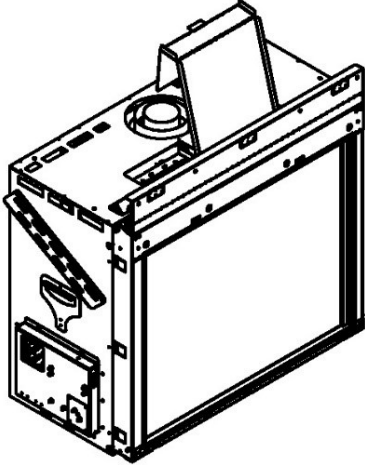
OWNERS:

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.

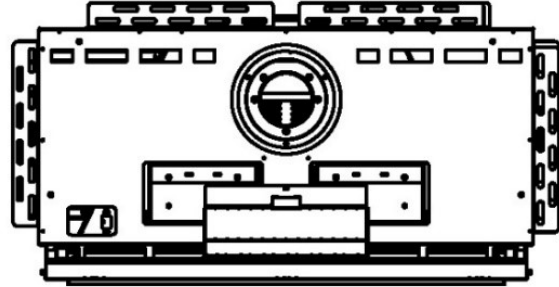
ORTAL®		 	
Manufacturer/Fabricant Ortal Ltd. 14 Haharash St. Hod Hasharon, 4524087 Israel Tel: 011-972-9-7402828 Fax: 011-972-9-7402687		For use only with vent, glass and interior design media certified and approved for use with the appliance. Not for use with solid fuel. For use with barriers certified 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.	
Serial No.:	<input type="text"/>	Approved By: Homologué Par:	CSA No.: 70186009
Tested to: ANSI Z21.50/ CSA 2.22-2016 - Vented Decorative Gas Appliances Examiné à: ANSI Z21.50/CSA 2.22-2016 - Appareils à Gaz Décoratifs 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: Traditional With 45D Burner			
<input type="checkbox"/> Traditional 90 RS/LS/TS <input type="checkbox"/> Traditional 110 RS/LS/TS <input type="checkbox"/> Clear 75x85 H Tunnel <input type="checkbox"/> Standalone 75x85 Curve/Tunnel			
Fuel Type/Type de combustible:		<input type="checkbox"/> NG/GN	
Max Input / Débit max. (BTU/HR):		Double Orifice	
Min Input / Débit min. (BTU/HR):		55,000	
Orifice Size / Taille de l'orifice:		9,000	
Gas Inlet Pressure (W.C.) inches:		800R+650F	
Pression d'entrée de gaz (CE) pouces:		7.0	
Gas manifold Pressure (W.C.) inches:		5.2	
Pression d'alimentation (CE) pouces:			
Clearances to Combustibles (with included standoffs): Espacement par rapport aux matériaux inflammables (avec entretoises inclus):		Sides: Côtés:	0°
		Back: Arrière:	0°
		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'espacement et des instructions figurant dans le manuel ORTAL.			
SKU: M209-TR-NG-DECO			

Zero-Clearance Stand-Offs

The fireplace has zero-clearance stand-offs fastened to the body of the fireplace as shown in the figures below. Stand-offs must be fully extended upon installation.



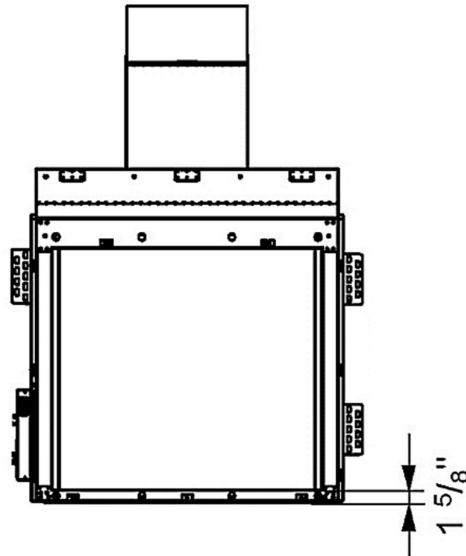
Zero-Clearance Stand-Offs (Isometric View)



Zero-Clearance Stand-Offs (Top View)

Fireplace Legs

The Traditional series fireplace does not come with legs and can sit directly on the chase floor/platform. The distance from the bottom of the firebox to the bottom of the viewing area is $1 \frac{5}{8}$ ".



! NOTE: The surface under the fireplace is not required to be non-combustible. See "Chase Floor/Platform" section for details.

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 requirements (review “Heat Release Requirements” sections).
- Adequate space for servicing.
- 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.
- Gas and electric specs and location.
- Vent configuration.
- Finishing details.



NOTE: Provide the contractor with a 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 as applicable)
 - Platform
 - Gas and electric
 - Heat release
- Clear a path free of any possible obstruction to carry in the fireplace.
- Uncrate the fireplace and set in place.
- Make sure all zero-clearance metal stand-offs on the outside of the fireplace are fully extended.
- Secure the fireplace to the framing by attaching the nailing flanges to the framing. See “Securing the Fireplace” section below.
- Remove all zip ties.
- 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.

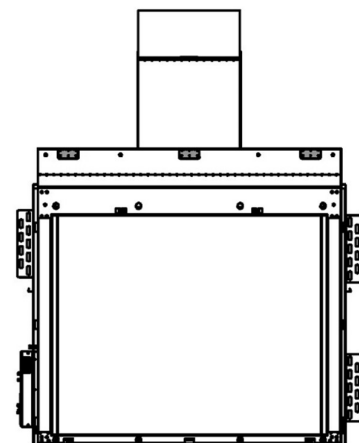
Securing the Fireplace

The fireplace has nailing flanges attached to the face of the fireplace (see figure to right). The nailing flanges are to be attached into the framing upon installation. It is crucial to the finishing that the fireplace is stable, level, and plumb.

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 $\frac{1}{2}$ ". DO NOT use silicone to seal the sections. If sealing is required by the vent manufacturer or local code, use Mil-Pac sealant.



Nailing Flanges

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.
- Remove the safety barrier and glass and clean the inside of the fireplace.
- Install the interior design media on the burner as specified in “Interior Design Media” section.
- Confirm the media placement is set up per specification.
- 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).

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” film
- An unusual smell

Both the film 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 film will remain)
- Checking the interior media setup
- Checking for gas leaks
- Performing an overall check to make sure that everything 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 is 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 Traditional Series installation. This list is not exhaustive and does not supplement thorough review of the installation manual.

- ☑ **Fireplace Location:** Ensure the location allows for min. 40" clearance from viewing area to furniture and other combustibles. Make sure a clear path is established to allow the fireplace to be safely transported to installation location.
- ☑ **Venting:** Confirm vent size (5"x8"), vent clearance (1" on sides and bottom, 3" on top), vent configuration, and termination location.
- ☑ **Height from Floor:** The fireplace has no legs, allowing the firebox to sit directly on the floor. The distance between the bottom of the firebox and the bottom of the viewing area is 1 5/8". If desired viewing area location on the wall is higher than 1 5/8", a platform can be built for the fireplace to stand on.
- ☑ **Chase Floor/Platform:** The fireplace can stand on the chase floor or a platform. Floor or platform must be able to bear the weight of the fireplace. It can be constructed out of wood, concrete, metal, or any other solid materials (not required to be non-combustible).
- ☑ **Chase Construction:** No materials can be attached directly to the fireplace (exception: 5/8" Type X Drywall). Drywall may be fastened to front zero-clearance stand-off only. Chase interior must be large enough to accommodate fireplace with all metal stand-offs fully extended. The area of the chase interior must be min. 124 square inches at any given point within the chase.
- ☑ **Framing:** Adhere to minimum framing dimensions (or greater). For recessed fireplaces, do not exceed 12" max. front overhang depth limit. No material is permitted to extend past the 1/2" metal lip surrounding the fireplace viewing area.
- ☑ **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 *top front framing stand-off only*, with 1" self-tapping drywall screws 16".
- ☑ **TV/Artwork:** TV/Art must be min. 12" above top of fireplace viewing area.
- ☑ **Gas Supply Line and Power Location:** Gas and electrical components are located in the compartment on the left side of the fireplace. A single gang 120V outlet is provided in this compartment. Route gas line and electrical connections to this compartment. Locate gas line with manual shut off according to local code.
- ☑ **Access Panel:** Not required. Gas and electrical components are only accessible through the built-in access panel inside the firebox on the left wall. Exception: An access panel or some other form of clear access to the chase is only required if the fireplace is power-vented.
- ☑ **Heat Release:** *Crucial for Cool Wall Technology.* Must start within 6" (max.) from the chase's ceiling. Min. horizontal heat release size is 124 sq.in. of net free air space (vertical heat release min is 160 sq. in.). Height of the heat release must not exceed 1/3 of the width.
- ☑ **Finishing:** For finishes flush to the fireplace, no clearances are required. For finishes where the fireplace is recessed to the finish, maintain 1/8" from the finish to the front face of the fireplace.

Framing

Fireplace chase may be framed with either combustible (typically wood studs) or non-combustible framing (typically metal studs). Any framing within $10\frac{7}{16}$ " from the top of the fireplace glass (viewing area) must be non-combustible. Any framing after that point may be 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 $\frac{5}{8}$ " Type X drywall or its equivalent. **$\frac{5}{8}$ " Type X drywall may be fastened to the top framing stand-offs only, with 1-inch self-tapping drywall screws 16 inches on center.**

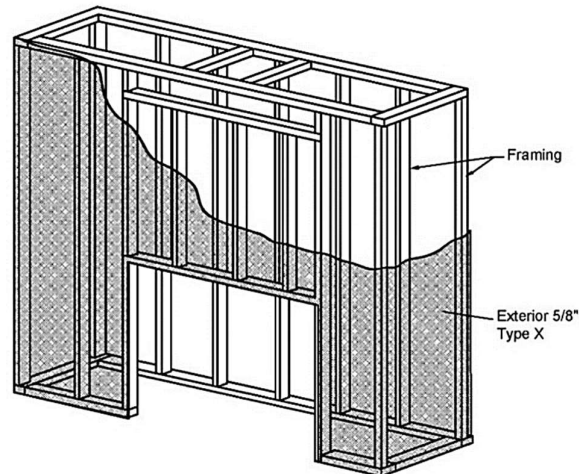
No material is permitted to extend past the metal drywall lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

See next page for "Framing Dimensions" section.

$\frac{5}{8}$ " Type X Drywall Requirements

Exterior of framing must be covered with $\frac{5}{8}$ " Type X Drywall (or equivalent). Chase interior does not require a layer of $\frac{5}{8}$ " Type X Drywall (or equivalent). This applies to both combustible and non-combustible framing.

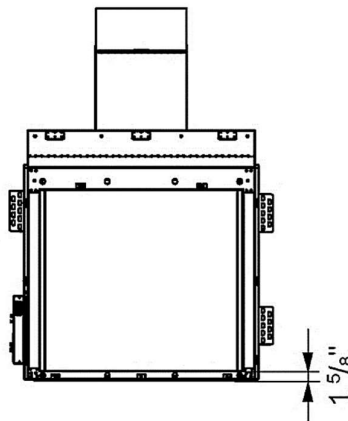
NOTE: $\frac{5}{8}$ " Type X Drywall is not required on the exterior portion of an insulated outside-facing wall.



Chase Floor/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.

The distance from the bottom of the fireplace opening to the floor is $1\frac{5}{8}$ ".



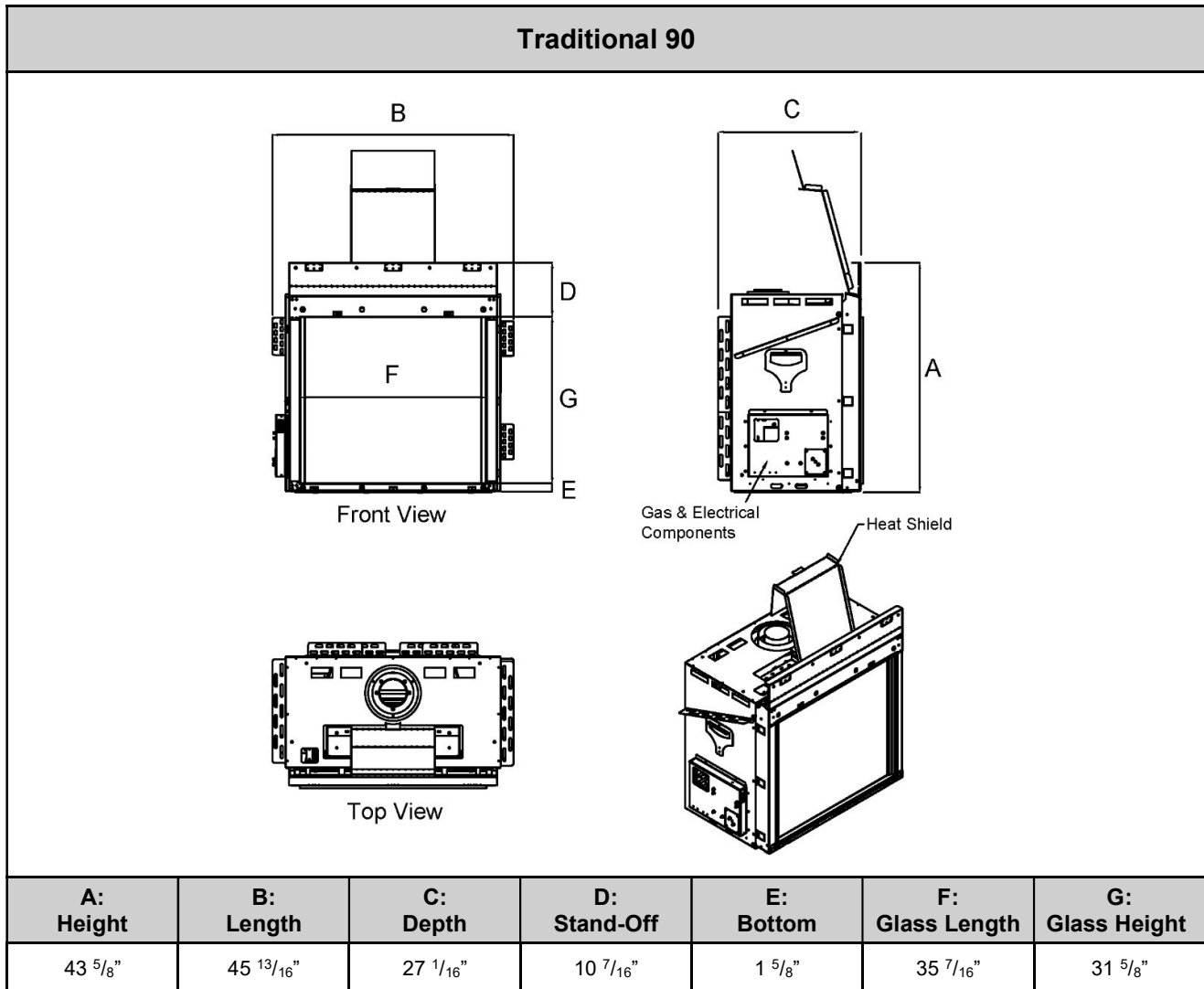
Raised Platform Option: To raise the fireplace higher than $1\frac{5}{8}$ ", build a platform for the fireplace to stand on. Platform must be stable and able to bear the full weight of the fireplace. Platform can be constructed out of wood, concrete, metal, or any other solid materials. Platform material is not required to be non-combustible.

Hearth Extension

A hearth extension is not required. Any hearth extension used is for appearance only and does not have to conform to a standard hearth extension installation requirement.

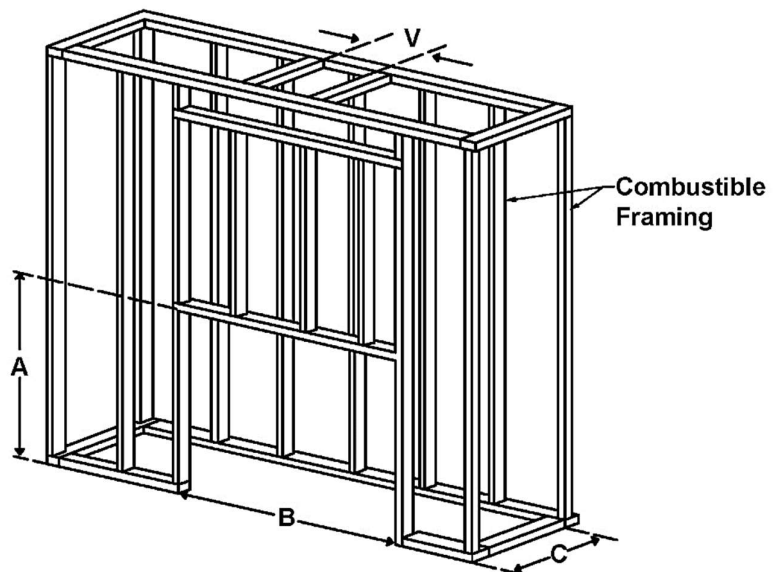
Framing Dimensions

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. **Framing dimensions are the same for combustible and non-combustible framing.**

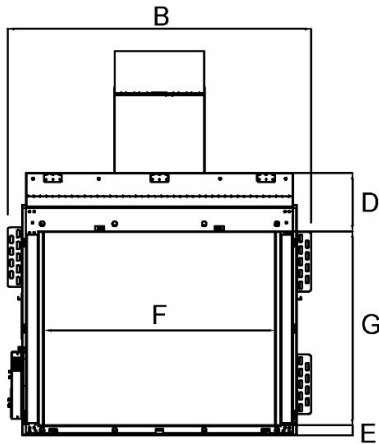


No material is permitted to extend past the 5/8" metal drywall lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

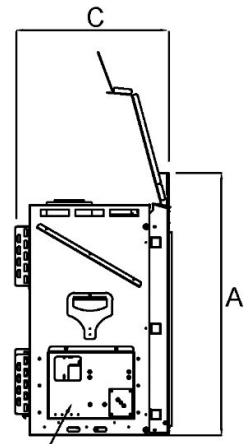
Framing	
A: Height	43 5/8"
B: Length	45 13/16"
C: Depth	27 1/16"
V: Firestop	Refer to pipe manufacturer's firestop dimensions



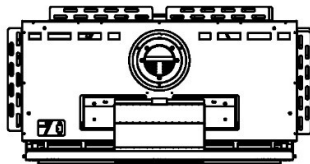
Traditional 110



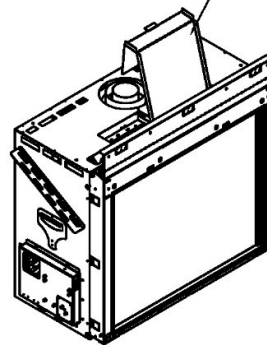
Front View



Gas & Electrical Components
Heat Shield



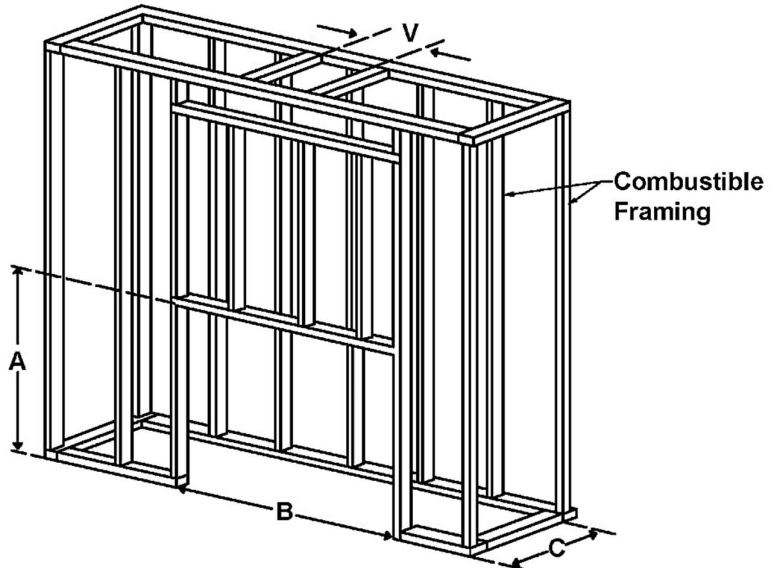
Top View



A: Height	B: Length	C: Depth	D: Stand-Off	E: Bottom	F: Glass Length	G: Glass Height
46 1/8"	53 5/16"	27 1/16"	10 7/16"	1 5/8"	42 11/16"	34 1/8"

No material is permitted to extend past the 5/8" deep metal drywall lip surrounding the fireplace viewing area. This area must be unobstructed to allow the heat barrier and inside glass panel to be removable.

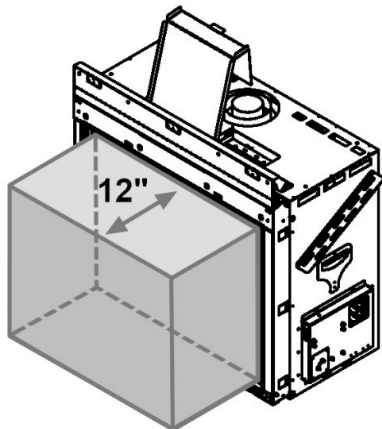
Framing	
A: Height	46 1/8"
B: Length	53 5/16"
C: Depth	27 1/16"
V: Firestop	Refer to pipe manufacturer's firestop dimensions



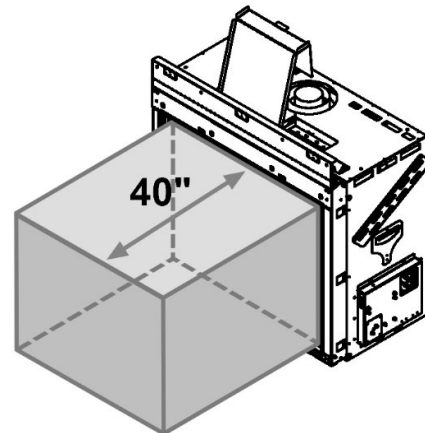
General Clearances

Viewing Area Clearance Zone

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.



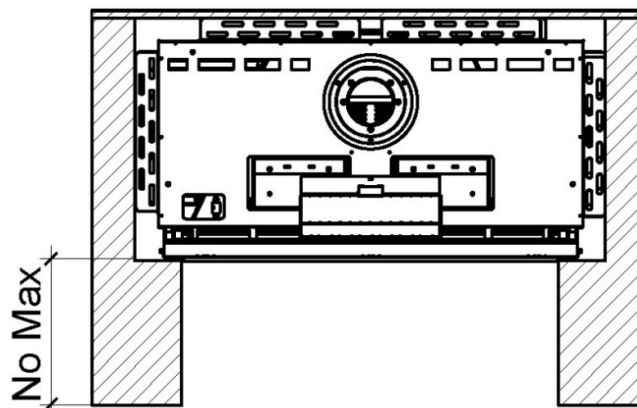
Combustible Materials must be minimum **40 inches** from fireplace viewing area.

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.

Clearance to a Side Wall/Mantle Legs

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



 = Building Material

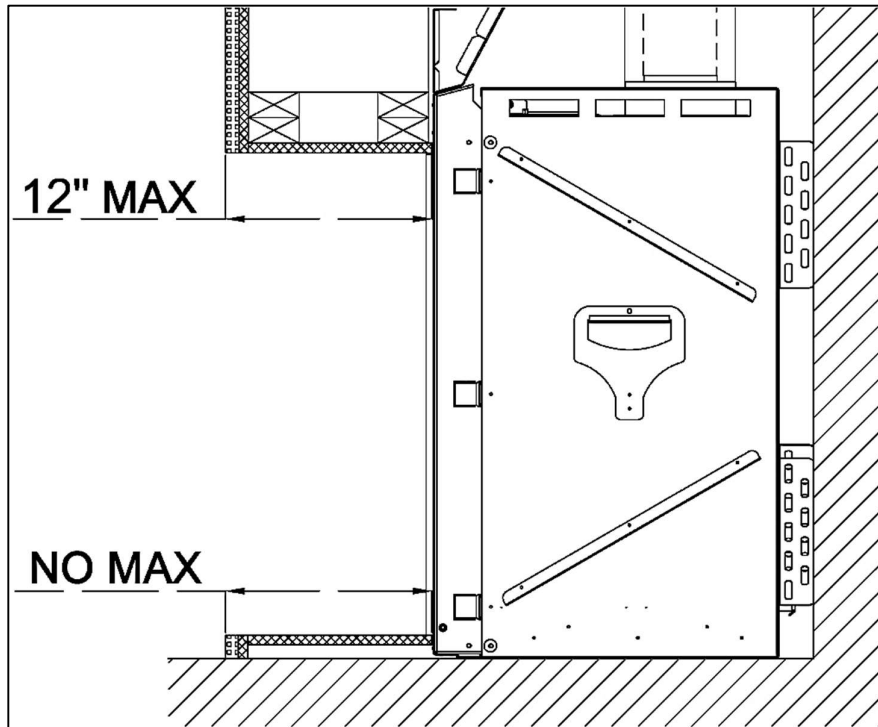
The temperature on the side wall can get as high as 150°F above ambient temperature. While the fireplace certification allows for this temperature variance, building and finish materials will have their own limitations. Consult the material manufacturer to ensure the material can safely withstand this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

Maximum Overhang/Mantle Depth

Overhang depth of a recessed fireplace (aka mantle) must not exceed **12 inches**. Overhang depth/mantle is measured from the edge of the fireplace lip to the out-most part of the wall (including finish material). Overhang framing and finish materials may be either non-combustible or combustible.

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.



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. 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.
- The heat release cannot be vented outdoors as this would expose the fireplace to outdoor elements.
- Minimum heat release size requirement depends on heat release orientation:

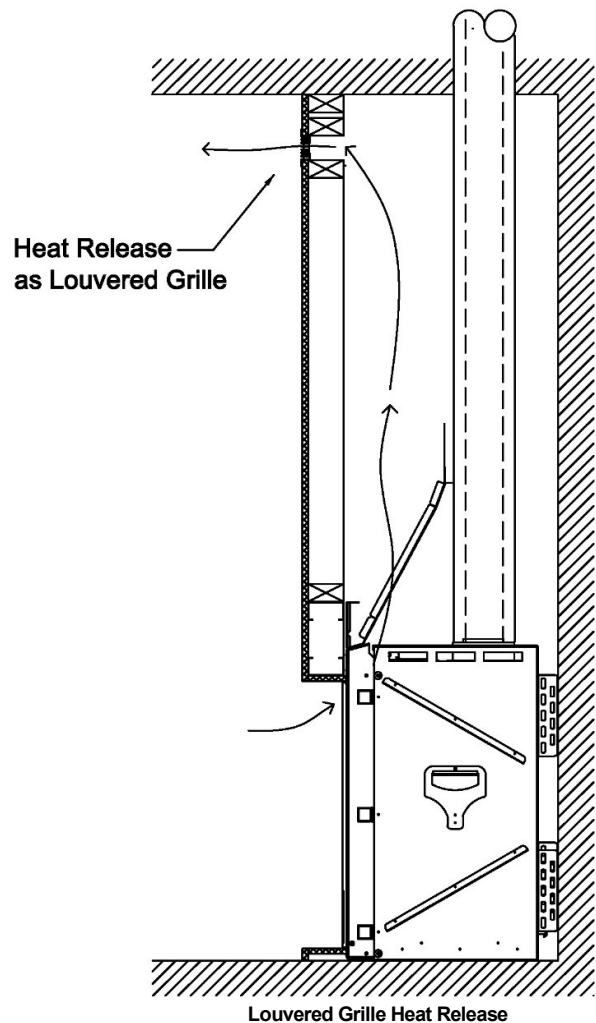
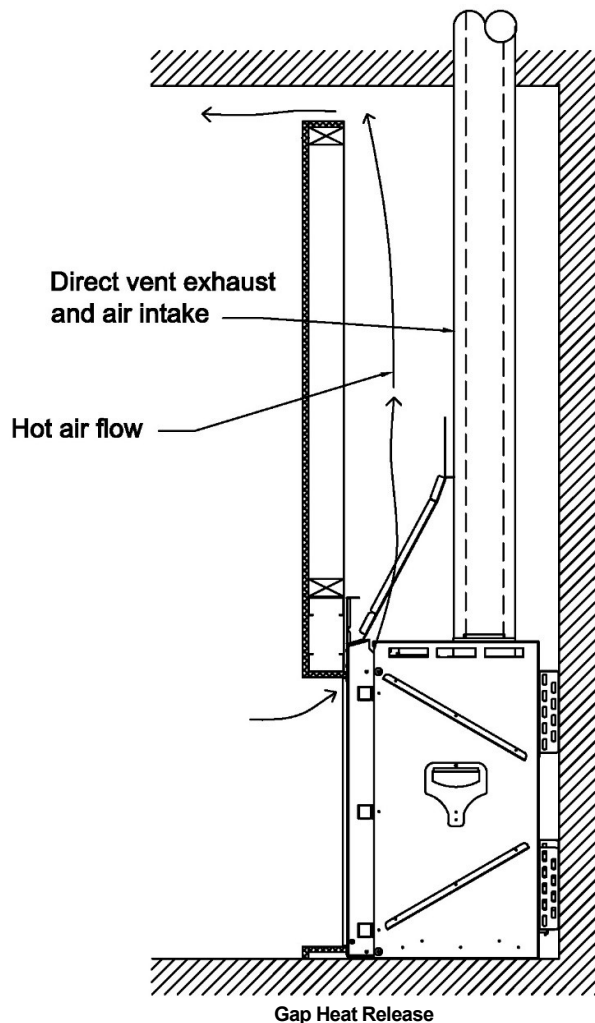
Horizontal Heat Release	Vertical Heat Release
Minimum 124 sq. in. of net free air space	Minimum 160 sq. in. of net free air space

- For horizontal heat releases, the height of the heat release must not exceed 1/3 of the width. The heat release must be 2/3 wider than it is tall.
- The heat release can be in the form of (but not limited to) a louvered ventilation grille, gap, or 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 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 or to an unconditioned space.

NOTE: An angled heat release is not permitted.

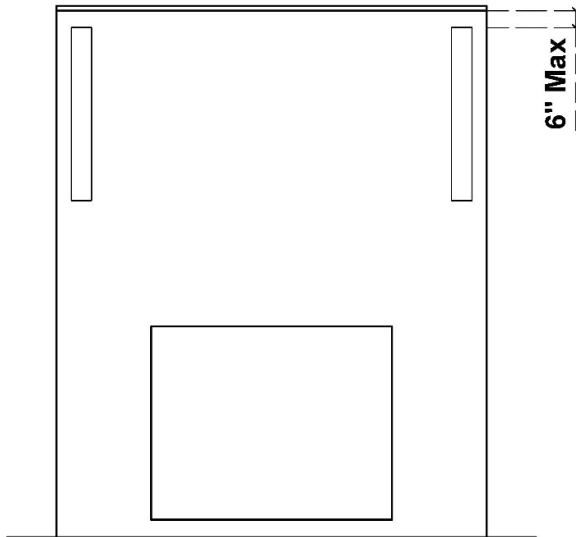
The following diagrams are examples of potential heat release options. These drawings serve as illustrative purposes only.

Horizontal Heat Release



Vertical Heat Release: Split Front

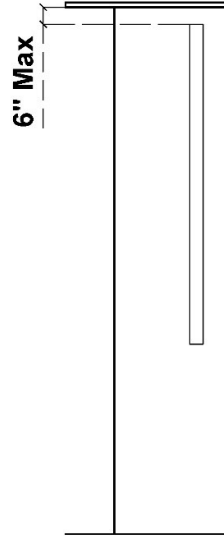
The heat release is oriented vertically and split between the two sides of the chase.



Split Front Vertical Heat Release

Vertical Heat Release: Full Side

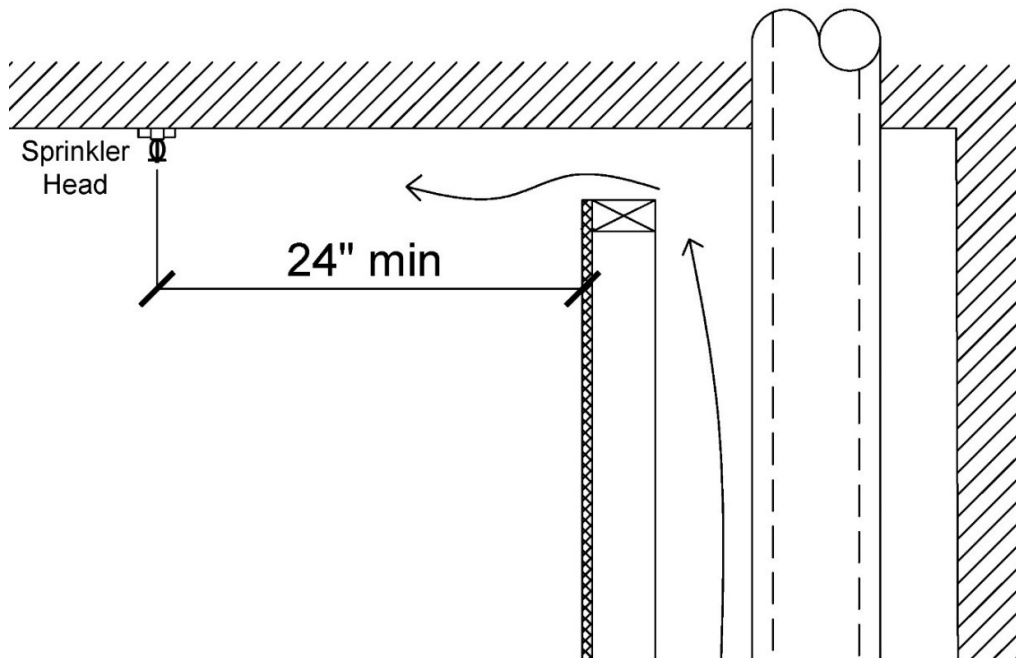
The heat release is oriented vertically. Entire heat release is on one side of the fireplace chase.



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 **24 inches** (linear length) from every point of the heat release opening.



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.

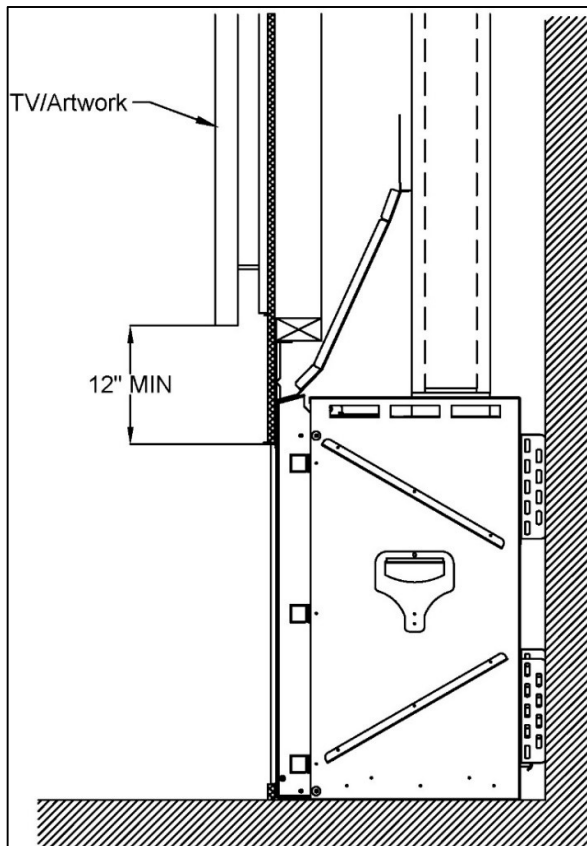
Maintain the following general requirements to mount a TV or artwork above the fireplace and prevent heat damage:

- Mount the TV or artwork a minimum of 12 inches above the top of the fireplace viewing area.
- Wires inside the chase are not permitted to cross over the fireplace. Wires must be installed against a wall.


The decision to install a television above an Ortal 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 Ortal 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 Ortal fireplace. These drawings illustrate ways of reducing the amount of heat impact to the area surrounding the fireplace.

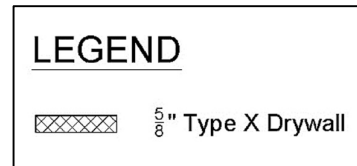
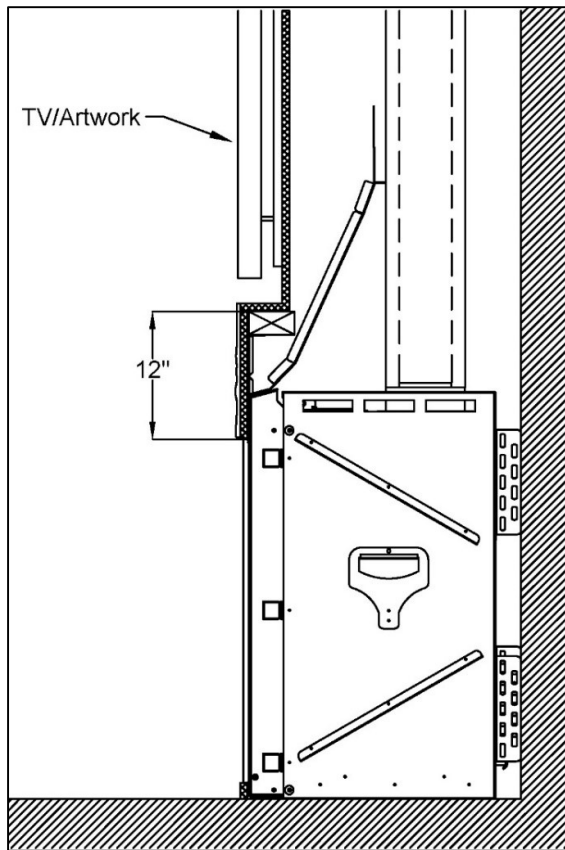
Flush Mounted TV/Artwork



LEGEND

 5/8" Type X Drywall

Recessed TV/Artwork

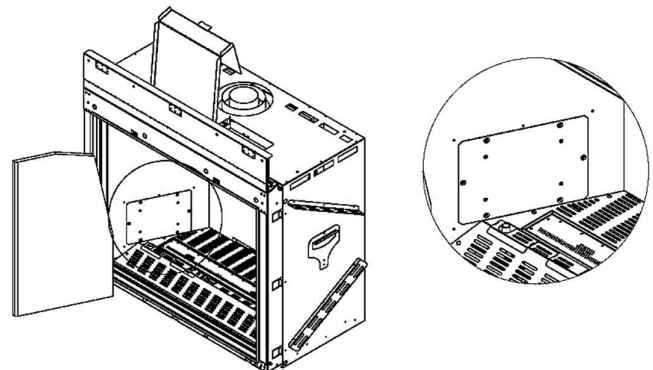


Access Panel

It is unnecessary to provide an access panel in the fireplace chase (see note below for exception).

Components are accessed through the fireplace via a built-in access panel on the inner left side of the fireplace.

NOTE: An access panel, or some other form of clear access, is **required** for power vented fireplaces. For servicing purposes, the power vent control box (located at the fireplace) must be easily accessible in a way that does not require removal of the fireplace glass.

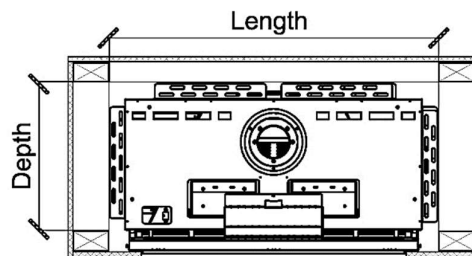


Built-in Access Panel

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 be **minimum 124 sq. in.** in size at any given point. To determine if your chase meets this requirement, use the following equation at the narrowest part of the chase.

$$\text{Chase Area} = (\text{Chase Length} \times \text{Chase Depth}) - (50.27\text{in}^2)$$



Fireplace Chase (Top View)

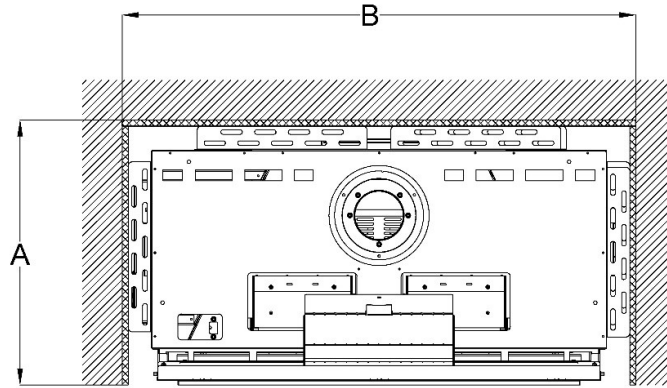
If the heat release is split into 25/75 portions due to an oversized ledge, the chase only needs to be the size of 75% of the heat release because 25% of the heat is already being released at the ledge (see "Ledge Detail" section below for details).

Recessed Ledge Detail

A ledge over the top of a fireplace that is less than 24 inches 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 **220 sq.in.**, the heat release must be divided up between the ledge and the chase ceiling: 25% at the ledge and 75% at the chase ceiling.

Ledge Size: $A \times B \leq 220 \text{ sq. in.}$

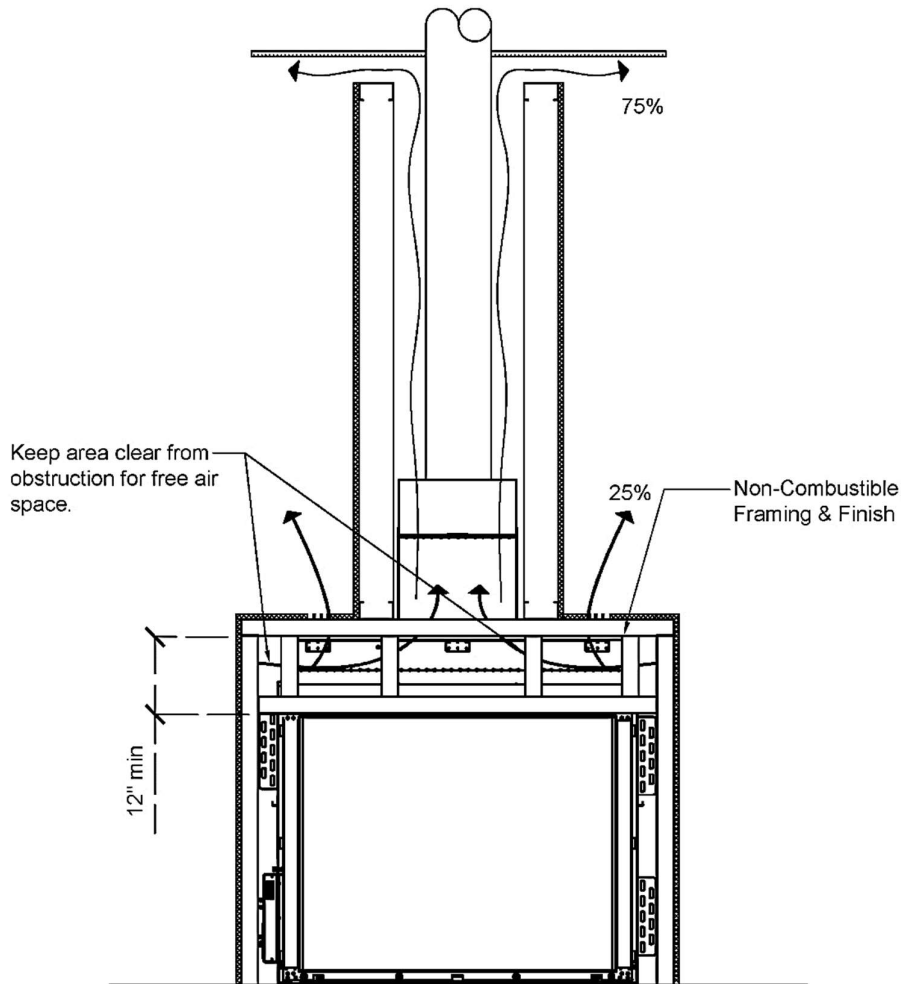


A = ledge depth, B= ledge length (Top View)

Oversized Ledge

If ledge surface area exceeds 220 square inches, the heat release must be divided between the ledge and the chase ceiling: 25% at the ledge and 75% at the chase ceiling.

! NOTE: Chase area minimum requirements must be met throughout the entire fireplace chase. See "Chase Area Minimum" section above for details.

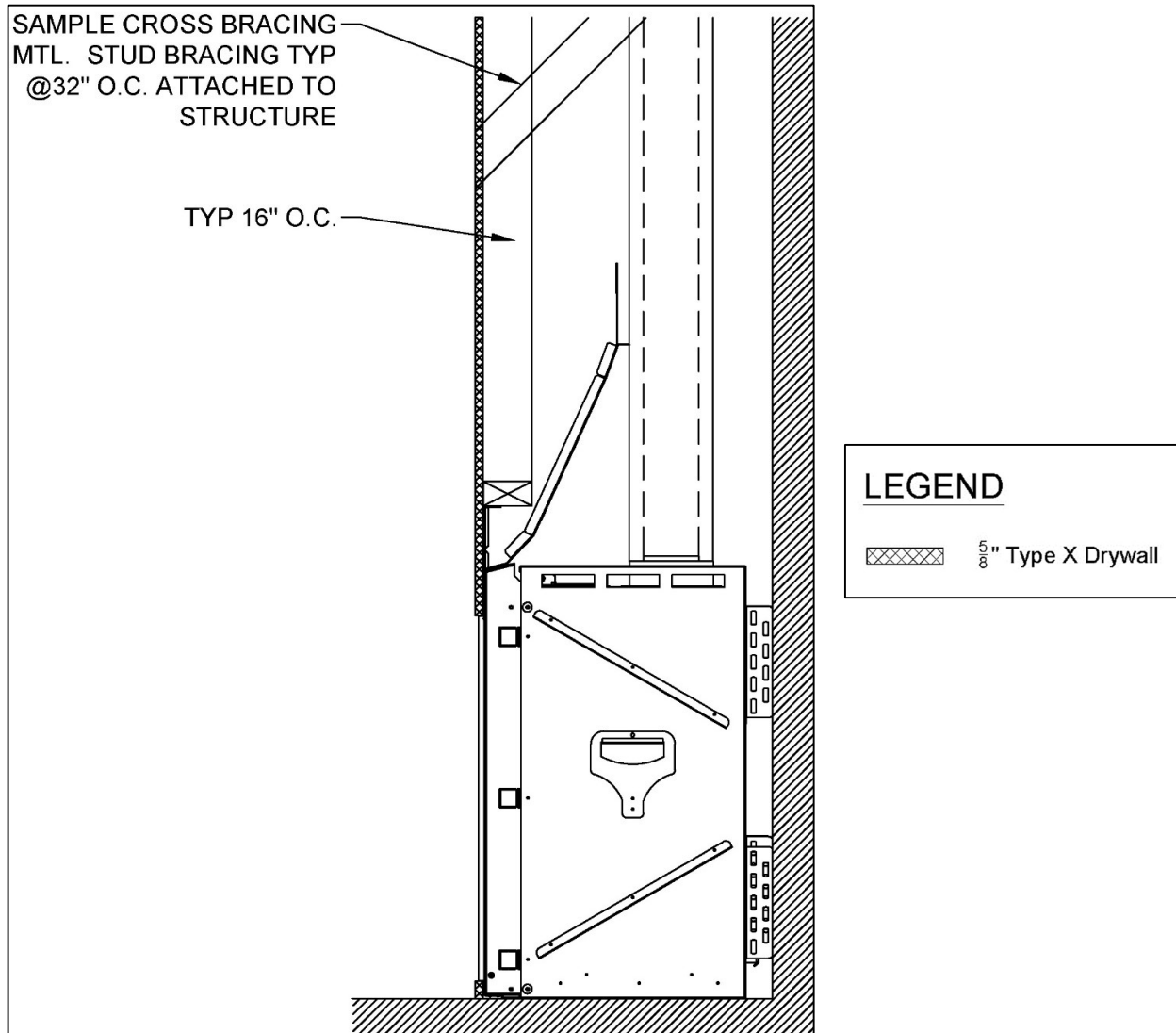


Oversized Ledge Detail

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 Ortol website.



Step-by-Step Chase Construction

The following checklist is a simplified overview of typical chase construction for an Ortal Traditional Series 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.
- ☑ 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).
- ☑ Run gas and electric to the gas/electrical compartment on the left side of the fireplace.

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 $\frac{5}{8}$ " Type X Drywall (or equivalent).



NOTE: $\frac{5}{8}$ " 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 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 40 inches of clearance directly in front of the fireplace viewing area.

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.

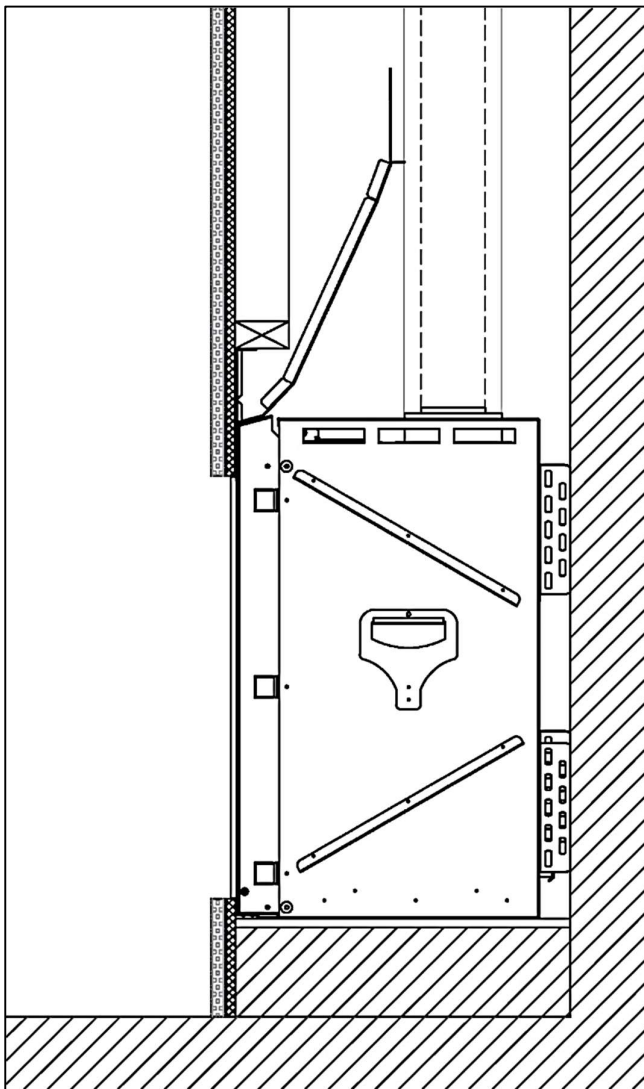


WARNING: Wood finish or floor/hearth extension may dry out, crack, warp or become discolored over time. Consult with floor manufacturer for required clearances to a heat source.



Flush Installation

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

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.



LEGEND

-  5/8" Type X Drywall
-  Combustible Finish

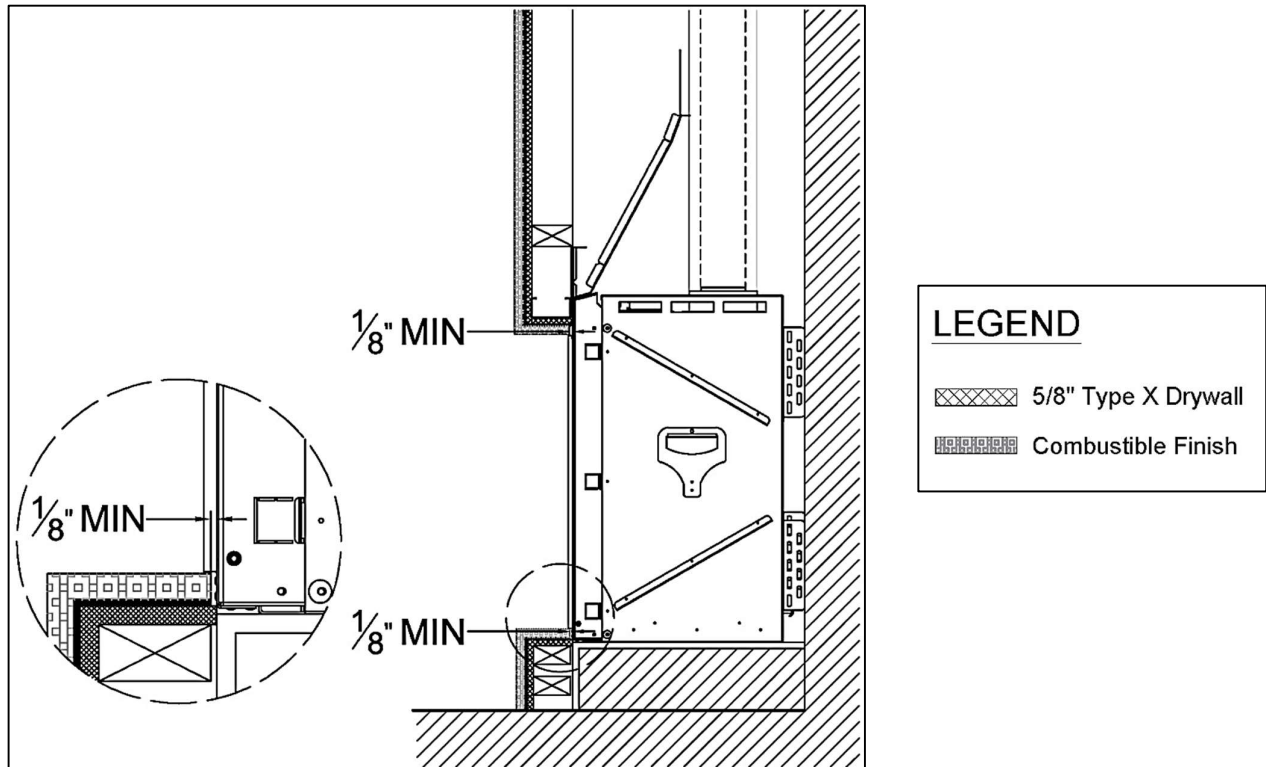


NOTE: A fireplace with a screen heat barrier and platform are shown for illustrative purposes only. These features are not a required part of the finish detail.

Recessed Installation

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

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.



NOTE: A fireplace with a screen heat barrier and platform are shown for illustrative purposes only. These features are *not* a required part of the finish detail.

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
Traditional	Direct Vent	5x8 co-axial direct vent pipe (5" interior, 8" exterior)	Olympia: Ventis DuraVent: Direct Vent Pro ICC: EXCELDirect BDM: Pro-Form Direct Vent System Selkirk: Direct-Temp System
	Enervex Power Vent*		
	Ortal Power Vent*	3x5 co-axial direct vent pipe (3" interior, 5" exterior)	DuraVent: CVS line

Power Vent: a fan-assisted direct vent system that boosts airflow for vent configurations with too much constriction. Review "Vent Configurations" section to determine if your fireplace needs a power vent.

 **NOTE:** See the Ortal Power Vent Manual for more details on power venting.

 **TERMINATION CAP NOTE:** Low Profile Termination Cap and Sconce Termination Cap can negatively impact flame appearance and are not recommended for use with the fireplace.

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


Vent Configurations

The following sections provide information for calculating vent configuration distances and elbows. For vent configurations that cannot conform to these guidelines, consider Ortal's Power Vent System, or contact Ortal for assistance. Power Vent information can be found in the Power Vent Installation Manual.

Please consider the following guidelines when determining vent configuration:

Elbows

- **Maximum Elbows:** Up to four 90° elbows can be used in the vent configuration. Two 45° elbows = one 90° elbow.
 - **45° Vertical Offset Exception:** Two 45° elbows in the vertical plane with a diagonal run in between is equal to **0 elbows**. They are not counted with other elbows in the vent configuration. This offset exception is applicable immediately on the top of the fireplace and anywhere else within the vent configuration.
The diagonal run between the two 45° elbows must be included when calculating vertical and horizontal distances.
 - **45° Horizontal Offset:** Two 45° elbows that begin and end in the horizontal plane, with a diagonal run in between, is equal to **one 90° elbow**. Additionally, **3 feet** must be reduced from the total allowable horizontal run.
The diagonal run between the two 45° elbows must be included when calculating vertical and horizontal distances
- **Exceeding two 90° Elbows:** For more than two 90° elbows, the minimum total vertical rise is **6 feet**.
- **Flat 90° Elbows:** For every flat 90° elbow (a 90° elbow that stays in the horizontal plane), **6 feet** must be reduced from the total allowable horizontal run. Up to two flat elbows are allowed.
 - Example: If max allowable horizontal run is 24 feet and 1 flat elbow is added, max run is reduced to 18 feet.
- **3rd 90° Elbow in the Vertical Plane:** The 3rd elbow in the vertical plane reduces **3 feet** from total allowable horizontal run. Do not include flat elbows when determining which 90° elbow in your configuration is 3rd in the vertical plane.

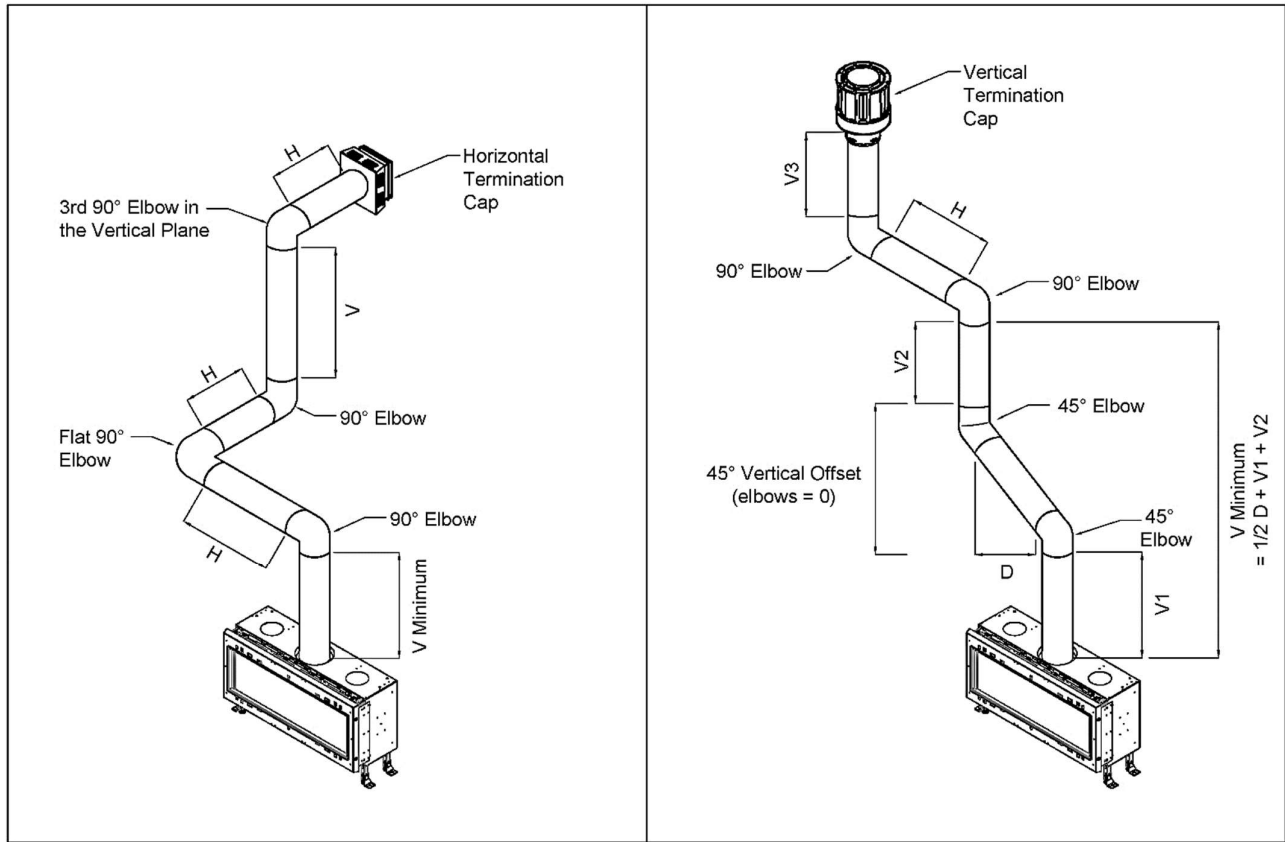
 **Exception:** If the 3rd 90° elbow in the vertical plane turns the vent direction from horizontal to vertical, the total allowable horizontal run does not require a 3-foot reduction.

Diagonal Runs

- **Calculating Diagonal Runs (D):** Diagonal (45°) vent runs have an equal combination of vertical and horizontal aspects. To include diagonal portions of your desired vent configuration when determining overall vent limitations, divide the diagonal distance in half. Add this value to the total vertical rise and total horizontal run distances in your vent configuration. Include these values when utilizing the Vent Configuration Tables below.
 - Example: 6 feet diagonal run = 3 feet vertical rise & 3 feet horizontal run

Other

- **V Minimum:** This is the minimum amount of vertical rise required before the first *completely* horizontal (not diagonal) run.
- Any vent configuration that does not meet these parameters requires Ortal's review and approval.



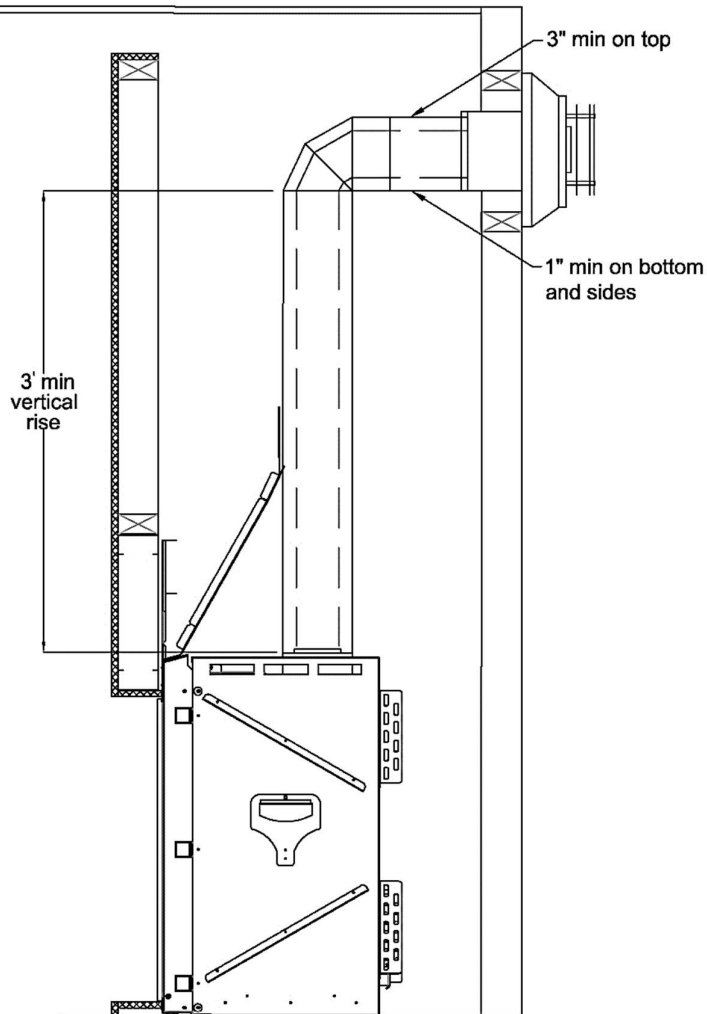
! TERMINATION CAP NOTE: Low Profile Termination Cap and Sconce Termination Cap can negatively impact flame appearance and are not recommended for use with the fireplace.

Allowable Maximum Horizontal Runs	
Traditional 90-110 Series Fireplaces	
V minimum = 3 feet	
Vertical (V)	Max Horizontal (H)
3 ft	9 ft
6 ft	18 ft
9 ft	30 ft
12 ft	30 ft
15 ft	30 ft
18 ft	30 ft
21 ft	27 ft
24 ft	24 ft
27 ft	21 ft
30 ft	21 ft
33 ft	15 ft
36 ft	15 ft
39 ft	5 ft
42 ft	0 ft
45 ft	0 ft

! CHART NOTE: Do not include the space elbows take up when calculating your vertical and horizontal distances.

Clearances

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

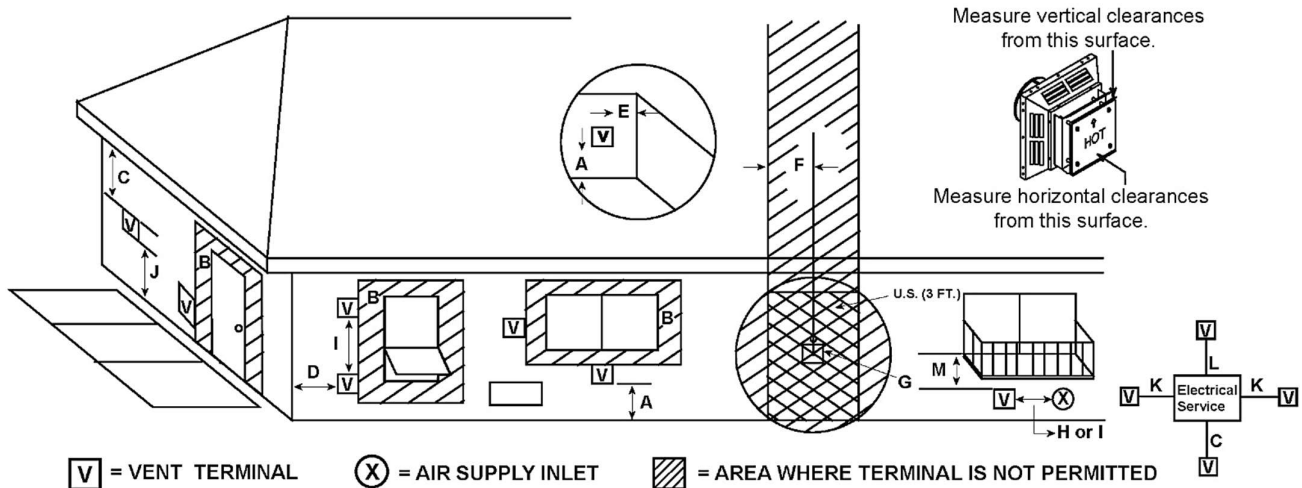


Vent Clearances	
Sides: 1"	Applies to entire circumference when venting is oriented vertically. Clearance is to any material.
*Top: 3"	Applies to venting oriented horizontally or at an angle. Clearance is to any material.
Bottom: 1"	

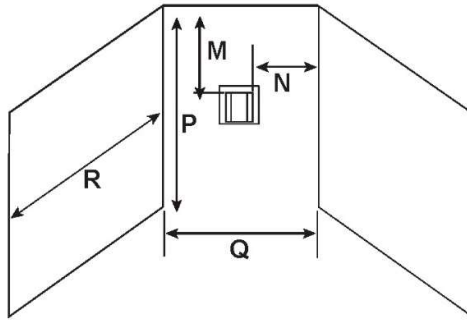
***Exception:** Wall thimble top clearance to any material is 1".

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. NOTE: Zero clearance to an inoperable 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	16 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	6 inches	Non-vinyl sidewalls.
			12 inches	Vinyl sidewalls.
	P	US & Canada	8 feet	Alcove height.
	Q	US & Canada	See table below.	Alcove width (dependent on number of caps in the space).
R	US & Canada	See table below.	Alcove depth (dependent on number of caps in the space).	

# Vent Caps	Q _{MINIMUM}	R _{MAXIMUM}
1 vent cap	3 feet	2 x Q _{ACTUAL}
2 vent caps	6 feet	1 x Q _{ACTUAL}
3 vent caps	9 feet	² / ₃ x Q _{ACTUAL}
4 vent caps	12 feet	¹ / ₂ x Q _{ACTUAL}
Q_{MIN} = # vent caps x 3		R_{MAX} = (²/_{# vent caps}) x Q_{ACTUAL}

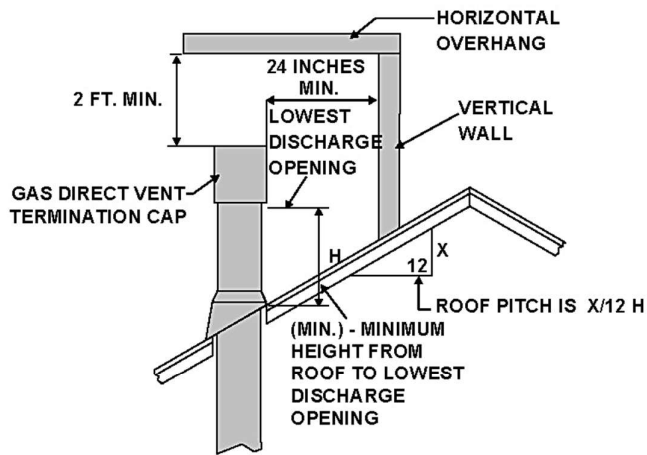
! HORIZONTAL TERMINATION CAP CLEARANCES - NOTES:

- 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.

! TERMINATION CAP NOTE: A Sconce Termination Cap can negatively impact flame appearance and is not recommended for use with the fireplace.

Vertical Termination Clearance Diagram

Minimum Height From Roof To Lowest Discharge Opening

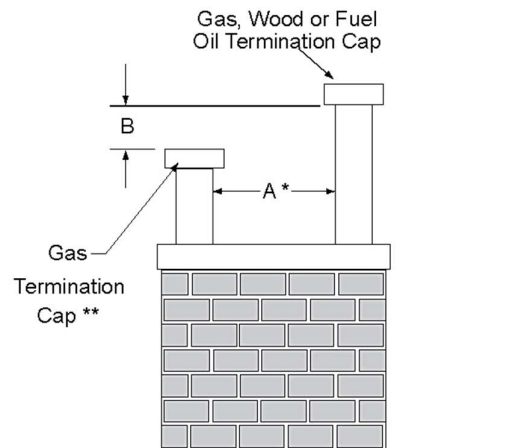


Roof Pitch	H (Min.) Ft.
Flat to 6/12.....	1.0*
Over 6/12 to 7/12.....	1.25*
Over 7/12 to 8/12.....	1.5*
Over 8/12 to 9/12.....	2.0*
Over 9/12 to 10/12.....	2.5*
Over 10/12 to 11/12.....	3.25
Over 11/12 to 12/12.....	4.0
Over 12/12 to 14/12.....	5.0
Over 14/12 to 16/12.....	6.0
Over 16/12 to 18/12.....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

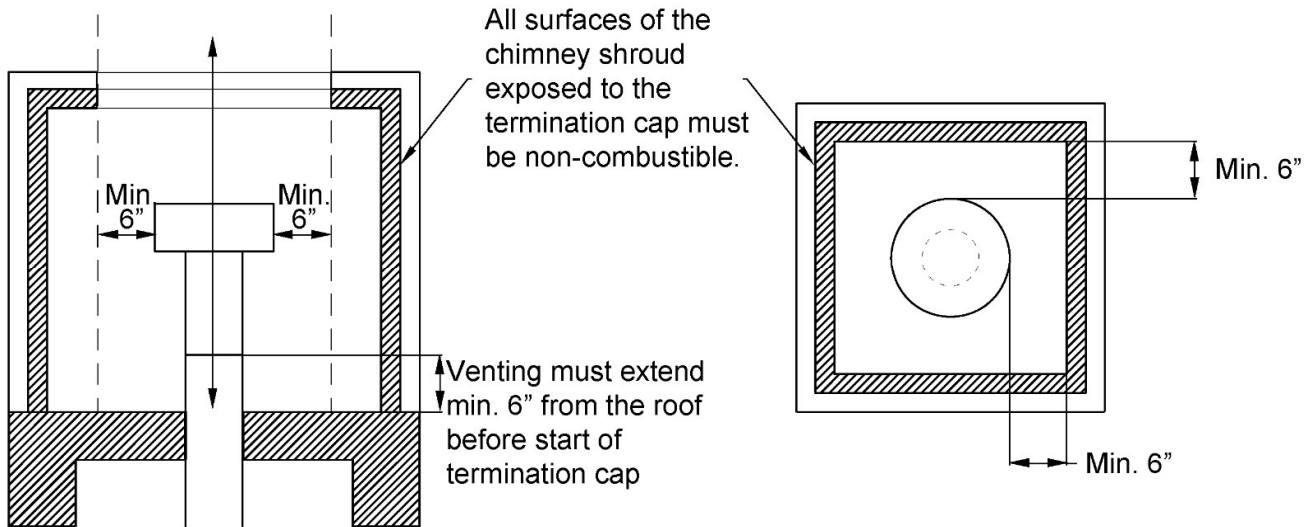
NOTE: This chart does not apply to a chimney shroud application. See the “Chimney Shroud” section on the next page for more information.

TERMINATION CAP NOTE: A Low Profile Termination Cap can negatively impact flame appearance and is not recommended for use with the fireplace.

Chimney Shroud

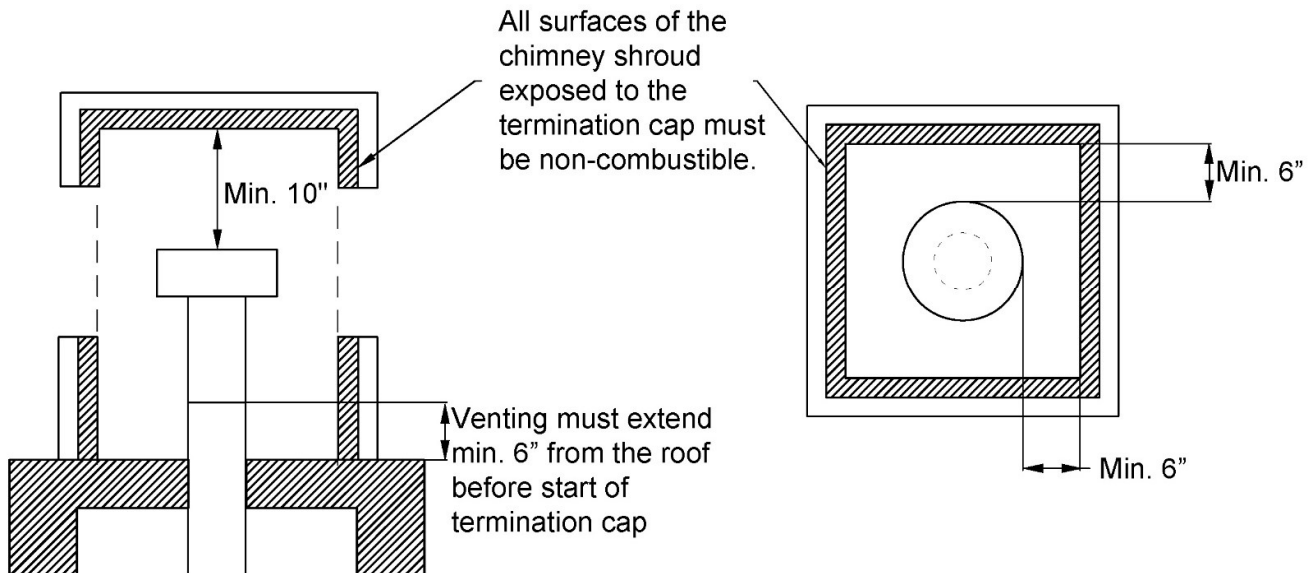
Top Open

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.



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 $\frac{1}{2}$ ". 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.

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.
- 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.

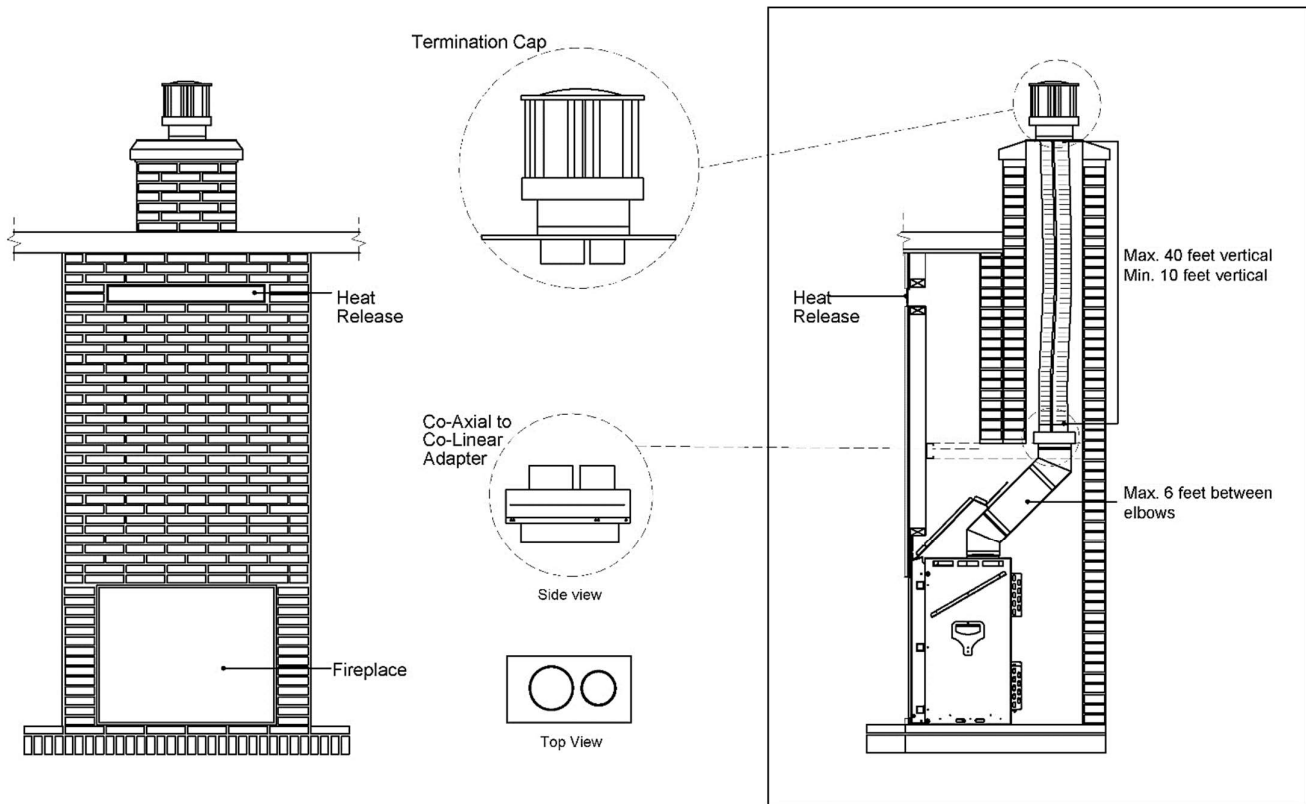
Series	Vent Size	Adapter (BDM or equivalent*)	Split Pipe Size	Termination Cap (BDM or equivalent*)
Traditional Series	5x8	5"x8" to 4"x3" (DVR8-A34)	4"x3"	4"x3" (PV3-VCS34B)

*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.

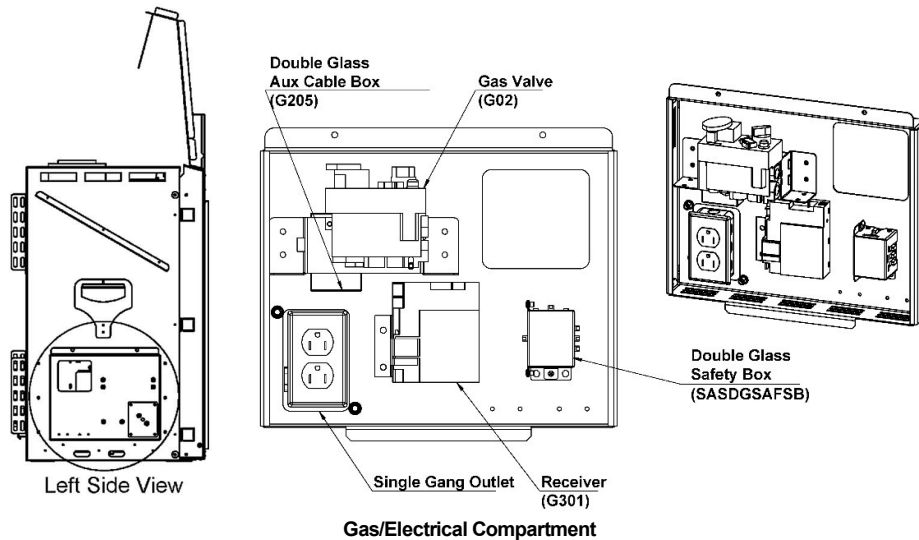
Gas Pressures

Fireplaces	Burner Size	Burner Type	Gas Type	Inlet Pressure		Manifold Pressure	Heat Input (BTU/hr.)		Orifice Size
				Min	Max		Min	Max	
Traditional 90-110	45	Decorative Double	Natural Gas	5.0	10.0	5.2	9,000	55,000	650 Front 800 Rear
			Propane	11.0	13.0	10.0	17,265	53,238	160 Front 220 Rear

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

Routing the Gas Line

The gas and electrical components are located in the gas/electrical compartment on the left side on the outside of the fireplace. This compartment houses the gas valve, a single-gang outlet, and the electrical receiver. Correctly size and route the gas supply line from the supply regulator to the top left opening of this compartment, as per the requirements outlined in the latest edition of the National Fuel Gas Code, NFPA 54 (USA) or CAN/CSA-B1491 (Canada).



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.

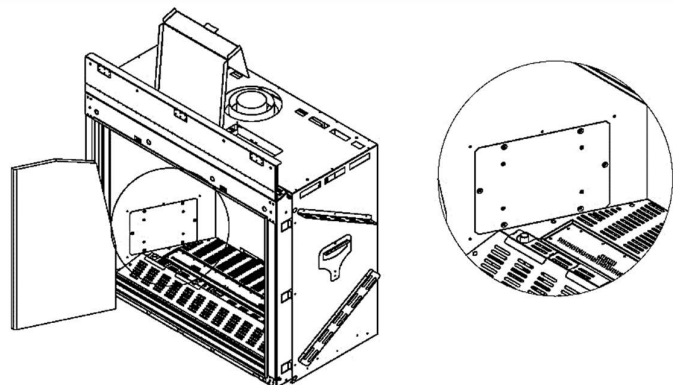
WARNING: The main gas valve must be installed to allow complete disconnection of the fireplace from the gas supply piping system for servicing purposes.

Access Panel

It is unnecessary to provide an access panel in the fireplace chase (see note below for exception).

Components are accessed through the fireplace via a built-in access panel on the inner left side of the fireplace.

NOTE: An access panel, or some other form of clear access, is required for power vented fireplaces. For servicing purposes, the power vent control box (located at the fireplace) must be easily accessible in a way that does not require removal of the fireplace glass.



Built-in Access Panel

Gas Conversion

For Ortal Traditional series fireplaces, gas conversion (NG to LP or LP to NG) can be done in the field. Gas conversion must only be performed by a technician who has 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 perform the conversion will void your fireplace's warranty. Conversion instructions are supplied with the conversion kit.

Ortal Traditional 90-110 NG to LP Conversion Kit: **GCNLTRDH-O**

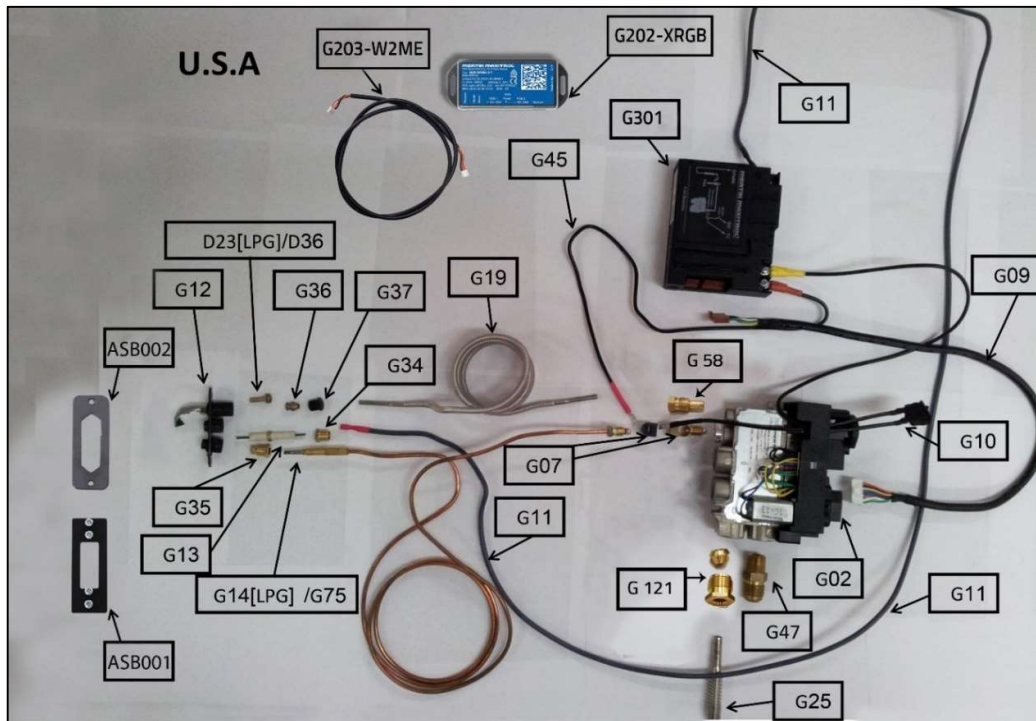
Ortal Traditional 90-110 LP to NG Conversion Kit: **GCLNTRDH-O**

High Altitude Requirements

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

Gas and Electrical Components

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



Part Number	Description
ASB001	Pilot Bracket
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
ASB002	Pilot Gasket
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



WARNINGS:

- Electrical work should be performed by a qualified licensed electrician, per local code.
- Disconnect the power supply before servicing any electrical components.
- Use of an AC Adapter other than the one provided with the fireplace (manufactured by Mertik Maxitrol) may render the system inoperable.

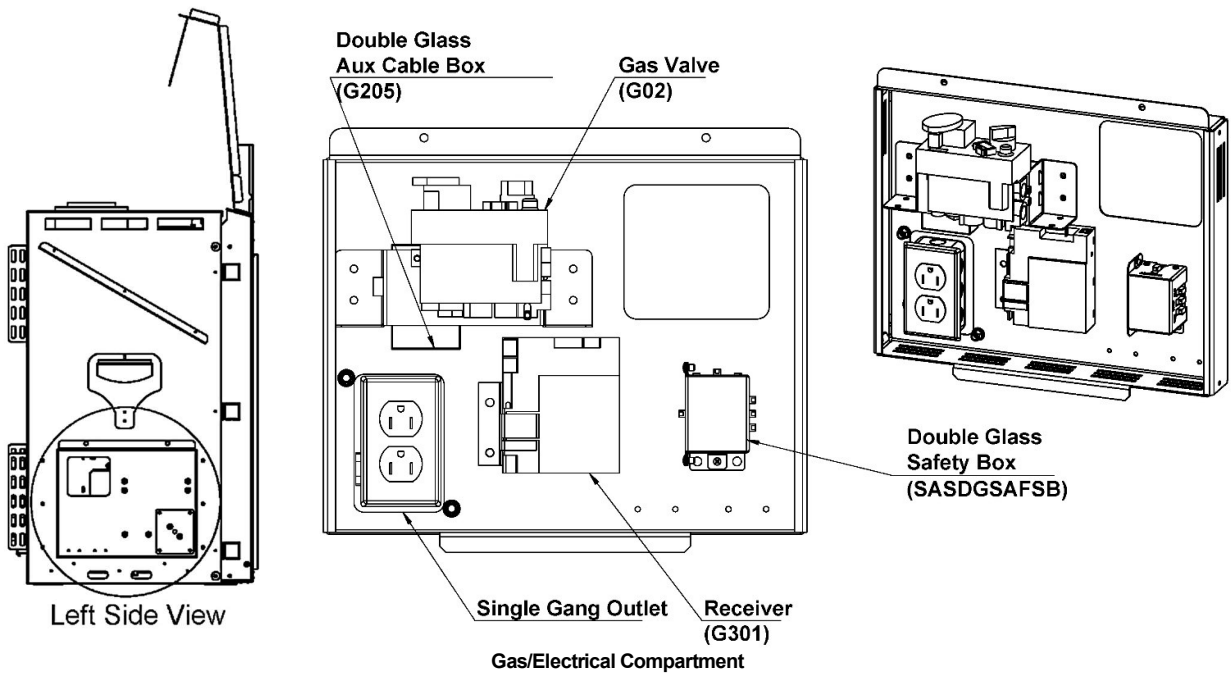


NOTE: Any device that functions using the same radio frequency as the handset will be affected when remote-controlled handset is in use.

Electrical Requirements

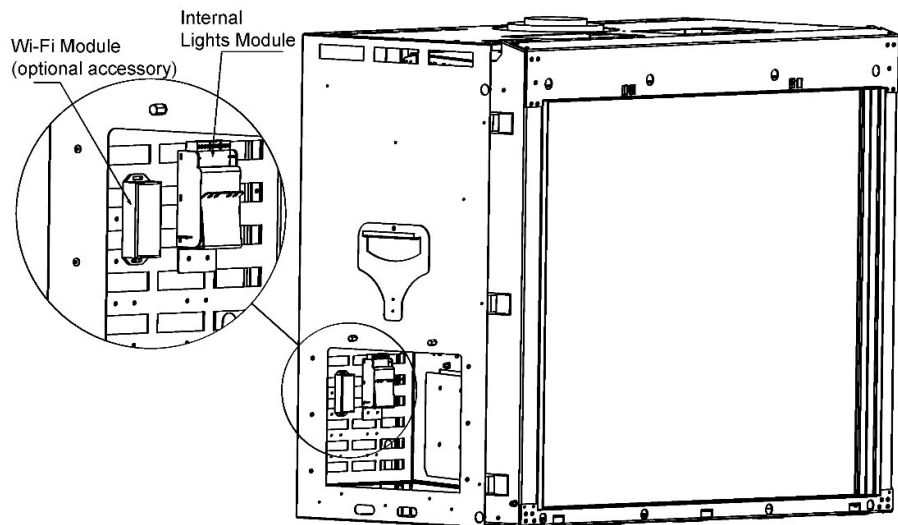
The fireplace is supplied with a 120V AC Adapter to connect the fireplace electrical receiver unit to a single gang outlet (120V, 15 amp, 60Hz). AC Adapter is required for operation.

The electrical components are located in the gas/electrical compartment on the left side on the outside of the fireplace. This compartment houses a single-gang outlet and the electrical receiver. AC Adapter must be connected to the electrical receiver and plugged in to the outlet.



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

Wi-Fi is an optional accessory and does not come standard with the fireplace.





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.
 - **Puck Handset:** Press and hold the  button approximately 4 seconds.
 - **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.

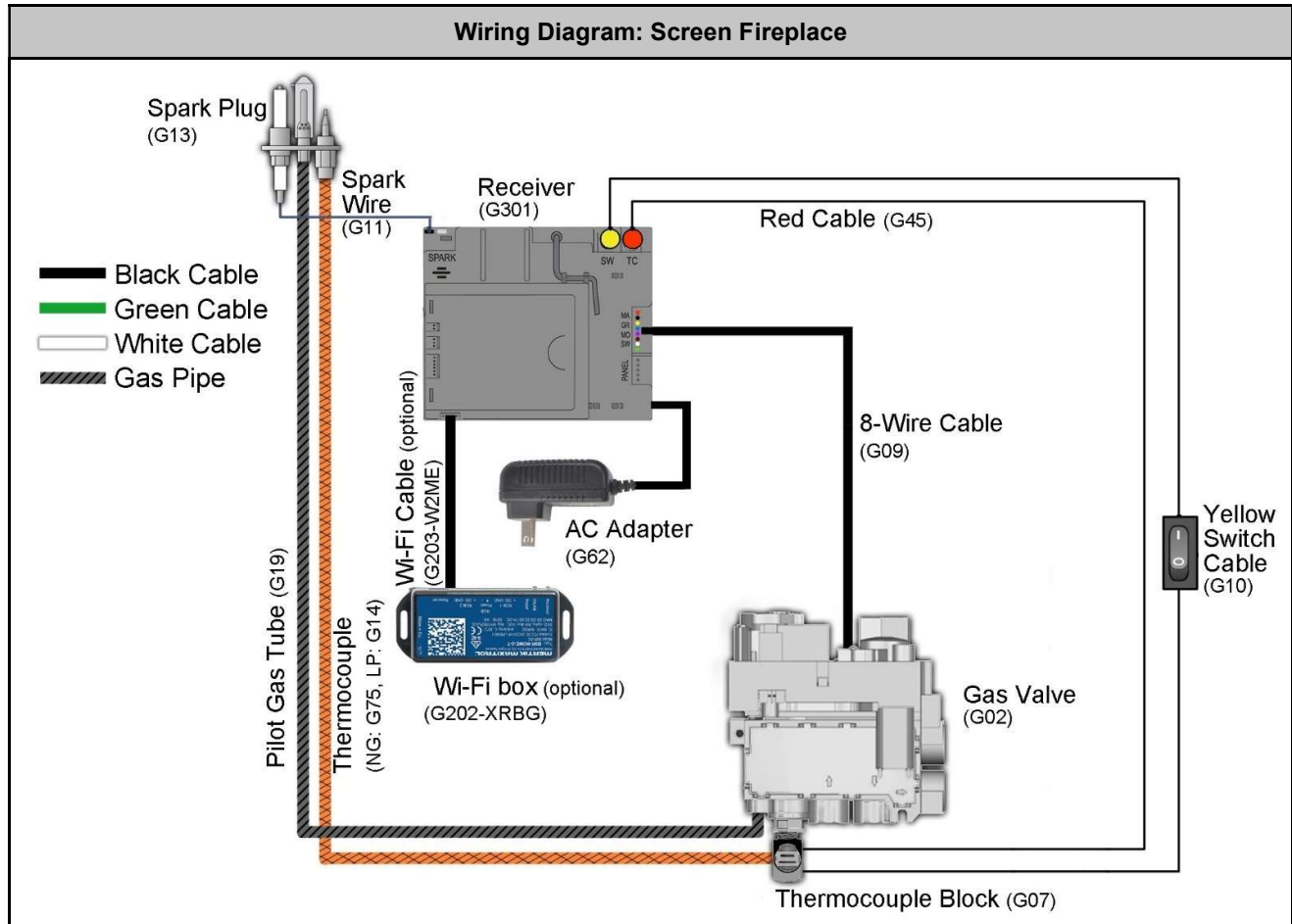


NOTES:

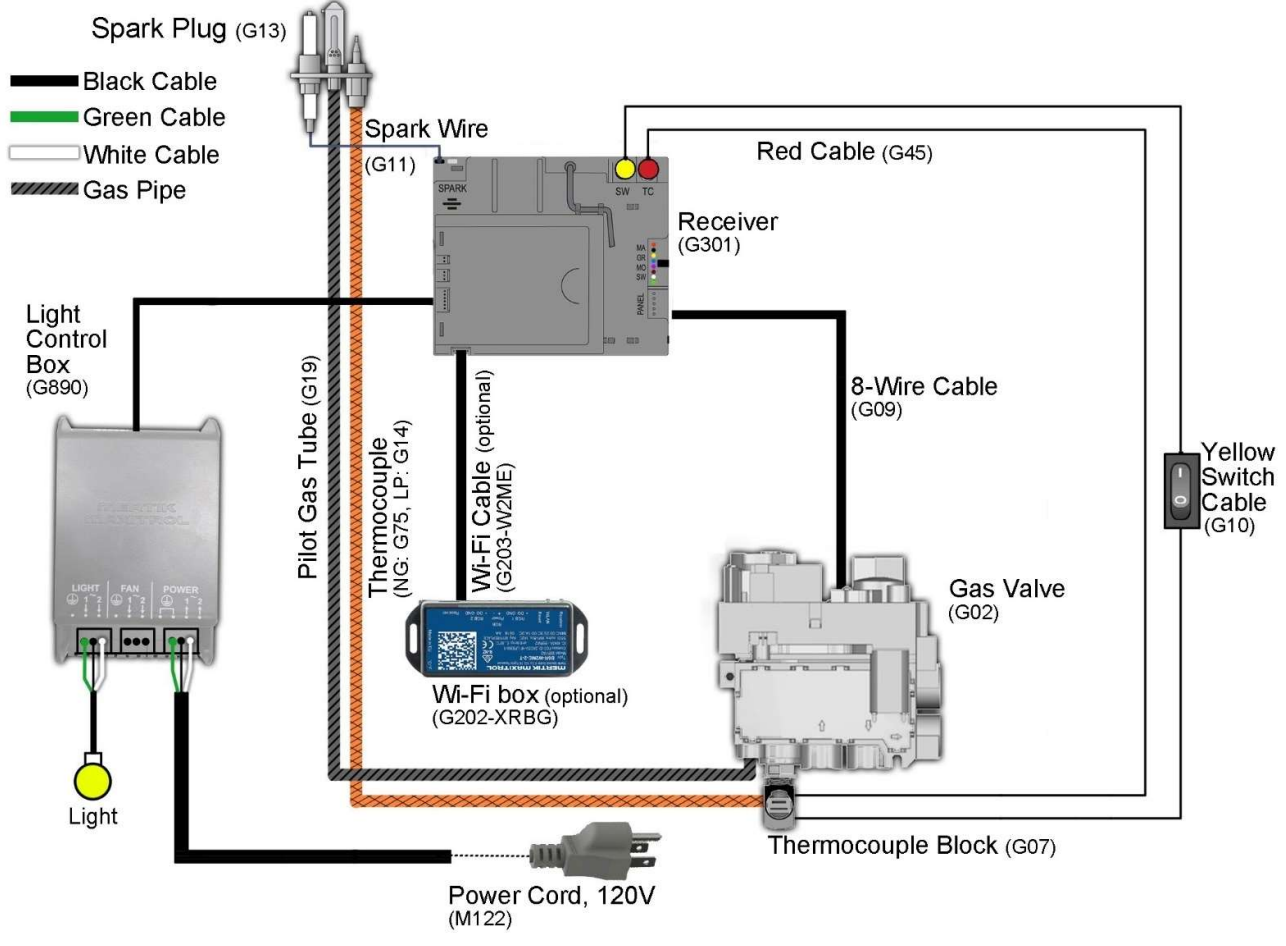
- If you hear one long beep, this indicates the connection has failed or the wiring is incorrect.
- The connection between remote and receiver only needs to be made once and is not required after changing the batteries in the remote.

Wiring Diagrams

The following diagrams show the electrical wiring required for different feature combinations. For wiring diagrams involving power vents, please consult applicable power vent manual.



Wiring Diagram: Screen Fireplace with Interior Lighting



Home Automation Wiring Diagram

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

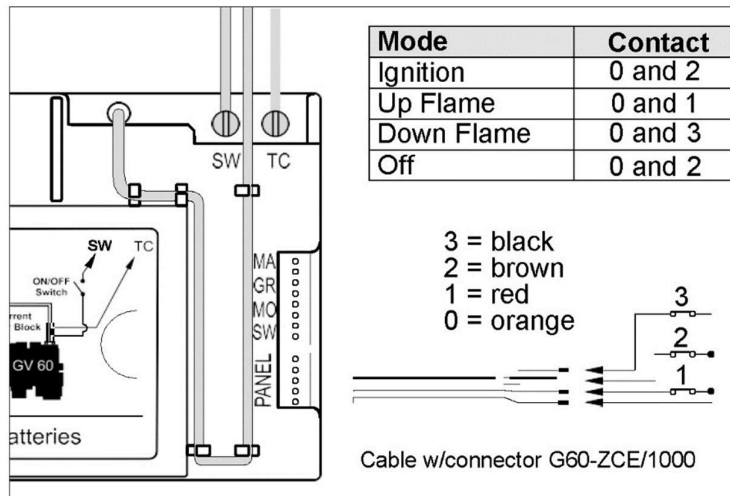
Contacts Options/Operation

Ignition: Close contacts 0 (orange) and 2 (brown) simultaneously for 1 second. Fireplace automatically goes to high after ignition.

Up Flame: Close contacts 0 (orange) and 1 (red) simultaneously. The contact needs to be closed for 12 seconds to turn the motor from end-stop to end-stop.

Down Flame: Close contacts 0 (orange) and 3 (black) simultaneously. The contact needs to be closed for 12 seconds to turn the motor from end-stop to end-stop.

Off: Close contacts 0 (orange) and 3 (black) simultaneously for 1 second.



Wiring Diagram and 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 smart home systems only and will not connect the fireplace to a wireless system.

Media Placement Guidelines for Grate Burner

HD Log Placement

The High Definition (HD) Logs media set is designed and recommended for use in the Ortal Traditional series fireplace. They may be used in other fireplace models but is not recommended for aesthetic reasons. **The HD Logs may not be used in any Wilderness series fireplaces.**

HD Logs set and setup are the same for both NG and LP burners.

HD Logs set SKU: **MYIHDCLS**

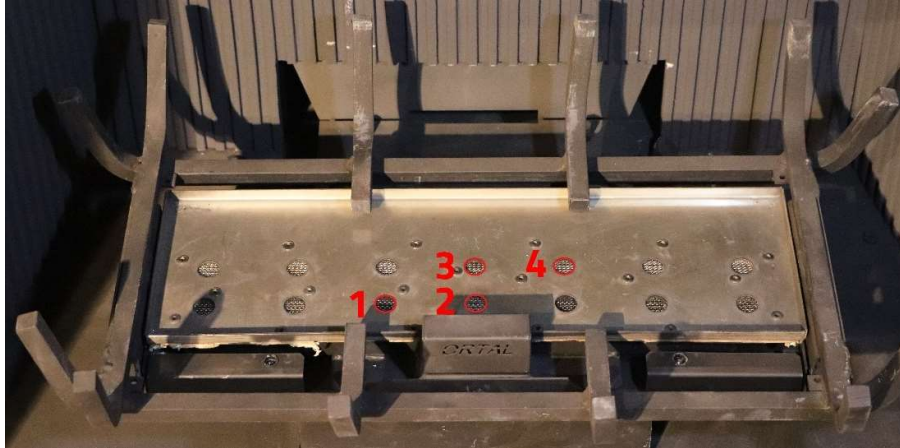
The following items are supplied in the HD Logs media set:



Items supplied in HD Logs media set

Burner Coins

Place burner coins on each of the following four burner ports.



Arrange HD Logs as shown in the following steps.

⚠ WARNING: For safety and optimal fireplace function, keep 1 inch around the pilot (behind pilot hood) completely clear of any media or debris.

STEP 1



STEP 2



STEP 3



STEP 4



STEP 5



STEP 6



STEP 7

Turn on fireplace to confirm proper flame height and operation.



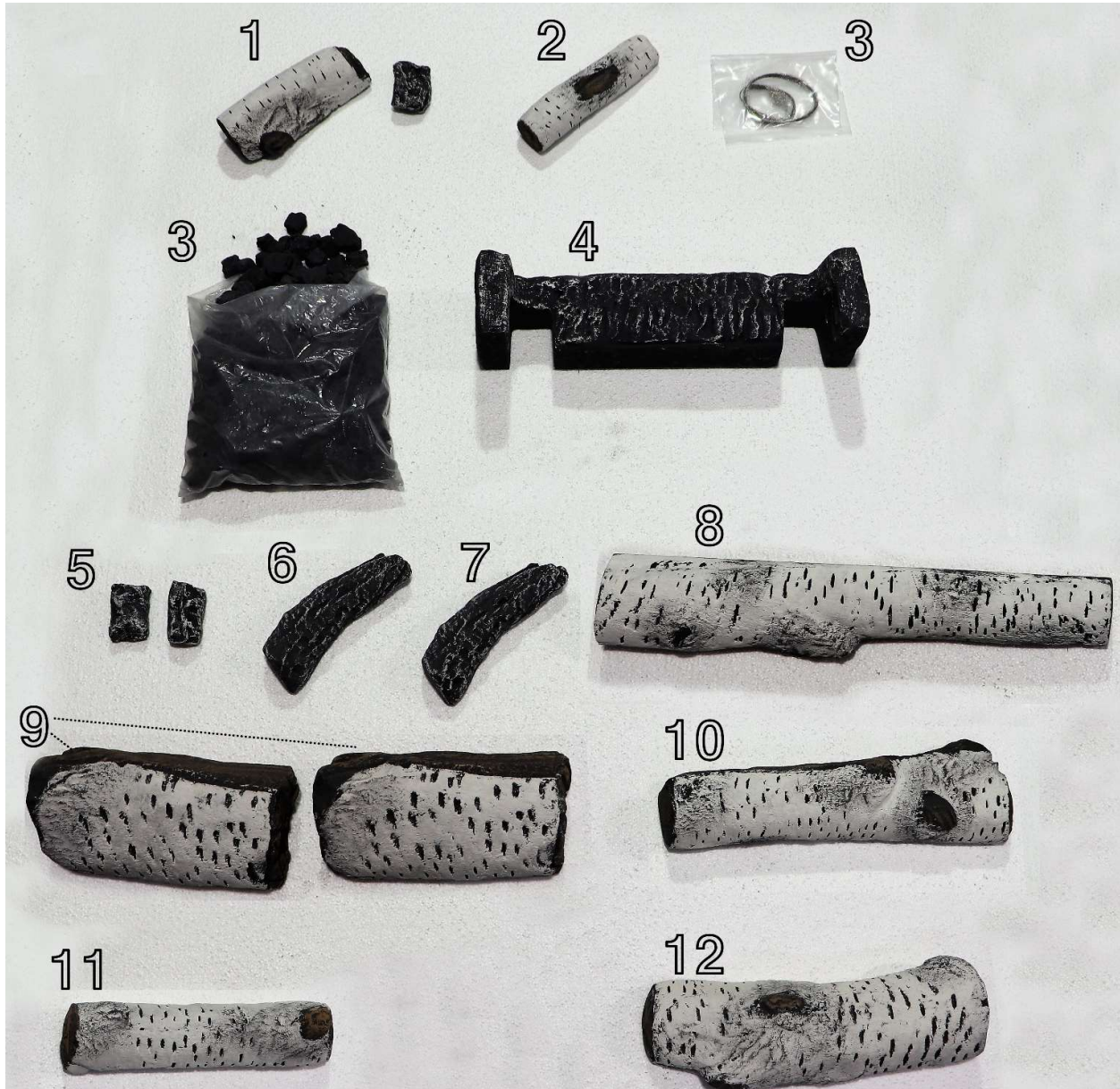
Birch Log Placement

The Birch Logs media set is designed and recommended for use in the Ortol Traditional series fireplace. They may be used in other fireplace models but is not recommended for aesthetic reasons. **The Birch Logs may not be used in any Wilderness series fireplaces.**

Birch Logs set and setup are the same for both NG and LP burners.

Birch Logs set SKU: **MYIBIRCH**

The following items are supplied in the Birch Logs media set:



Items supplied in Birch Logs media set

Burner Coins

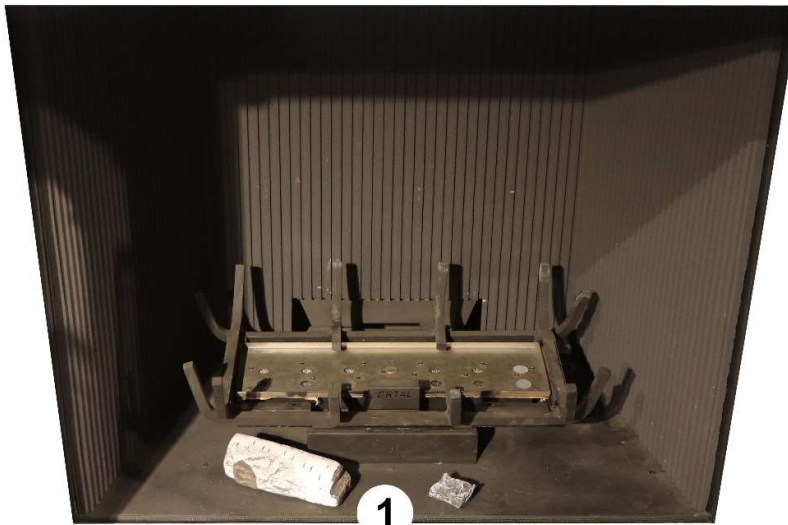
Place burner coins on each of the following four burner ports.



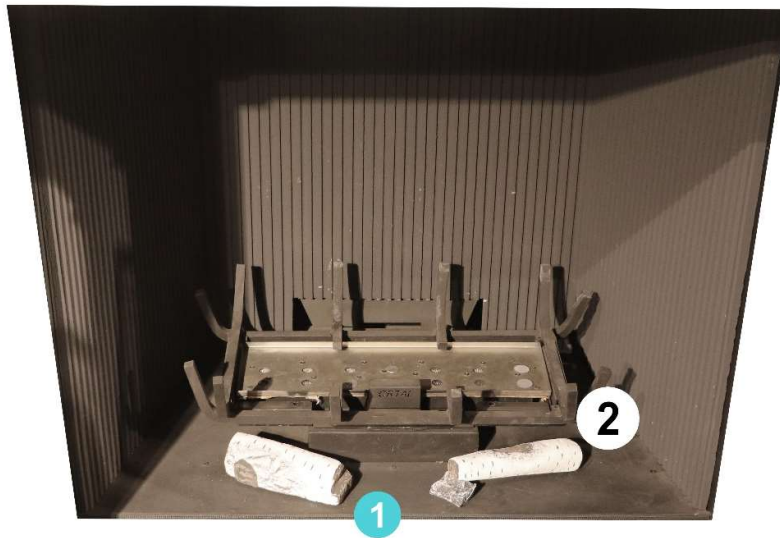
Arrange Birch logs as shown in the following steps.

! **WARNING:** For safety and optimal fireplace function, keep 1 inch around the pilot (behind pilot hood) completely clear of any media or debris.

STEP 1

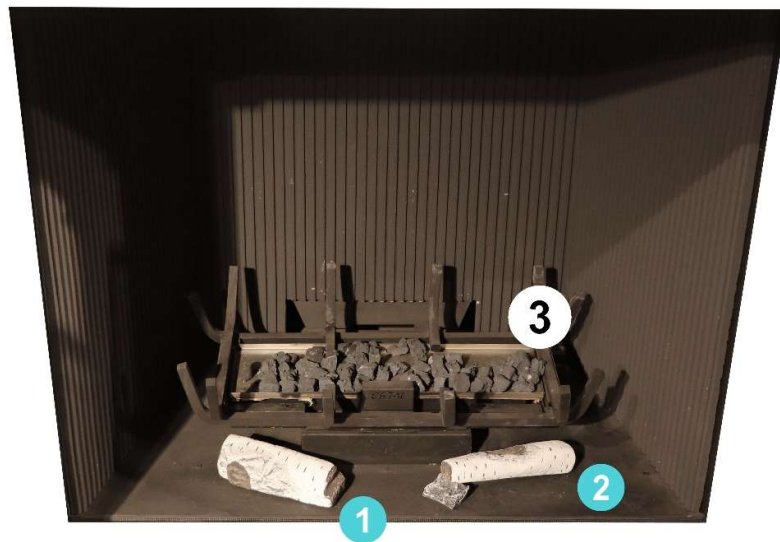


STEP 2

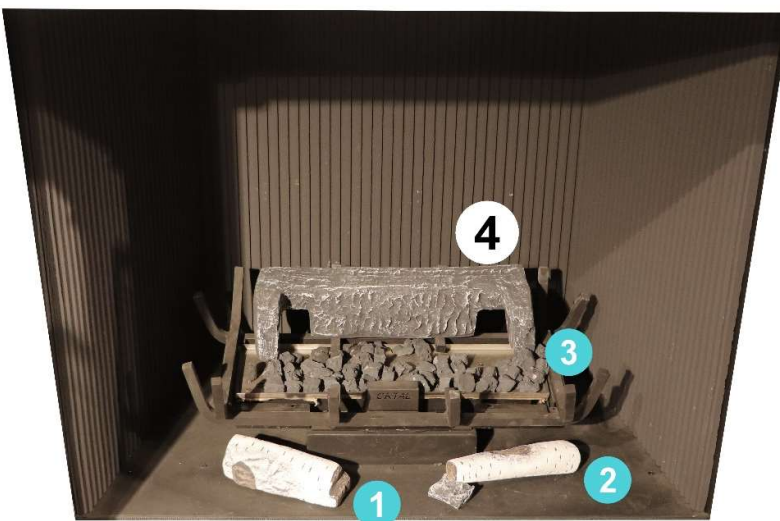


STEP 3

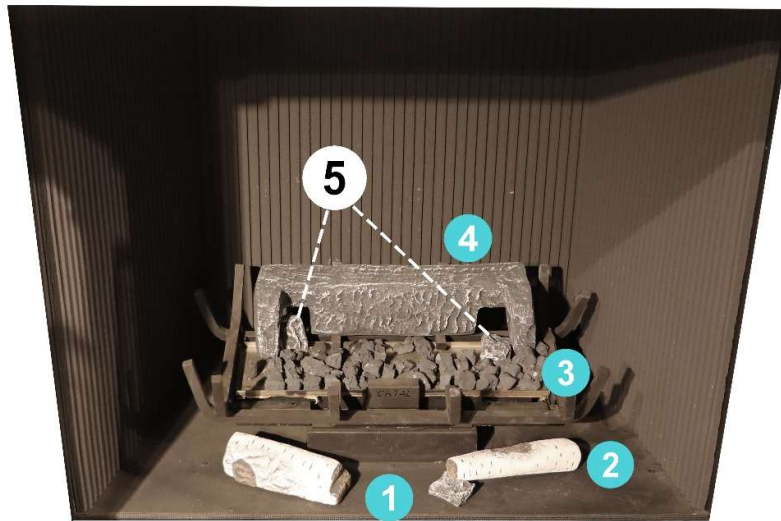
Add charcoals to burner. For safety and optimal fireplace function, keep 1 inch around the pilot (behind pilot hood) completely clear of any media or debris.



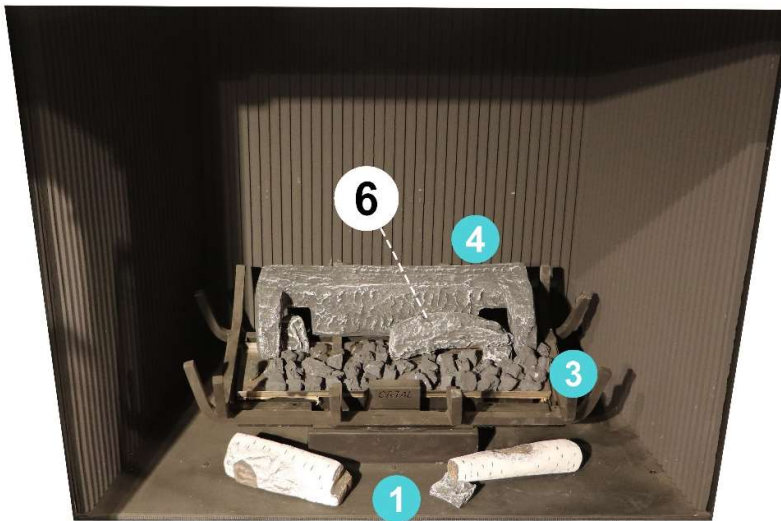
STEP 4



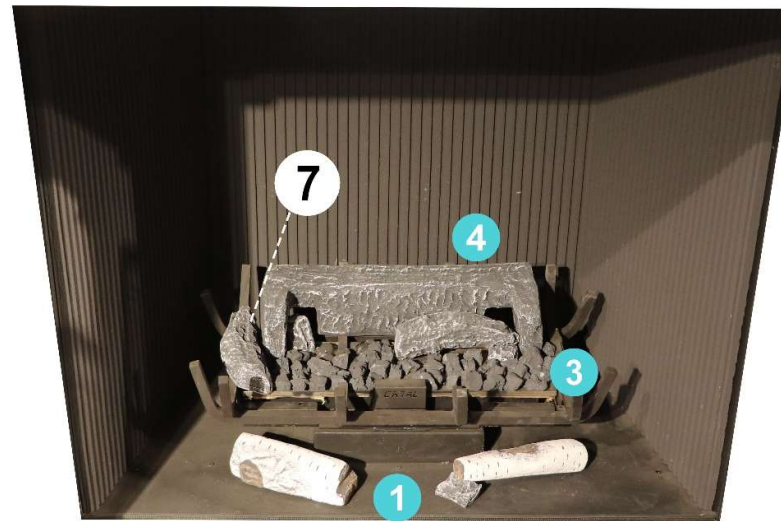
STEP 5



STEP 6



STEP 7



STEP 8



STEP 9



STEP 10



STEP 11



STEP 12



Media Placement Guidelines for Flat Burner

When installing media in the traditional decorative flat burner, 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:



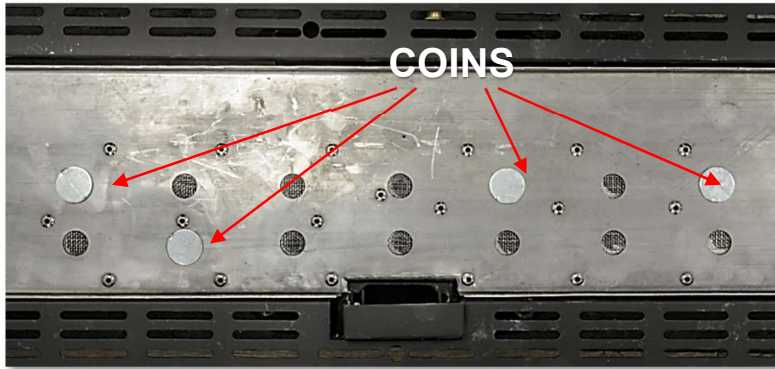
Stone Media Placement

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



Log Media Placement

- 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.

Four operation options are available for use with the fireplace:

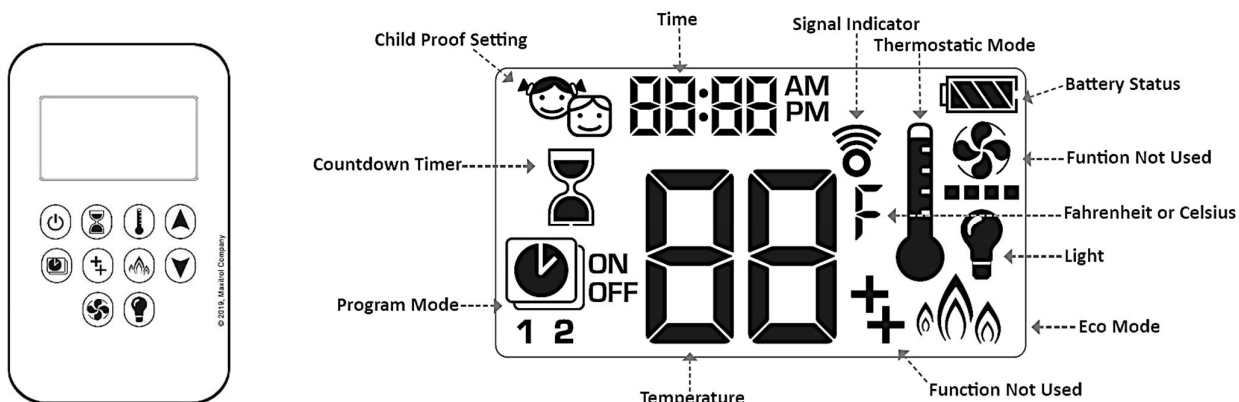
- 10-Button Remote Control Handset (default option, always included with the fireplace)
- Puck Handset (optional accessory)
- Wall Switch (optional accessory)
- MyFire Application (optional accessory)

IMPORTANT: The 10-Button remote control handset is always included with the fireplace regardless of which operation option is chosen. **DO NOT DISCARD.** The 10-Button remote must be kept within 26 feet of the fireplace at all times.

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 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 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



© 2019, Maxitrol Company

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.

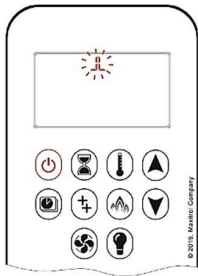
NOTE: Any device that functions using the same radio frequency as the handset will be affected when handset is in use.


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




1. Press the  button until you hear continuous beeping, and a blinking series of lines confirms the start sequence has begun; release buttons.
2. Main gas flows once pilot ignition is confirmed.
3. 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.

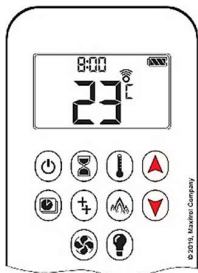
Turning the Fireplace Off





1. Press the  button to turn the fireplace off.

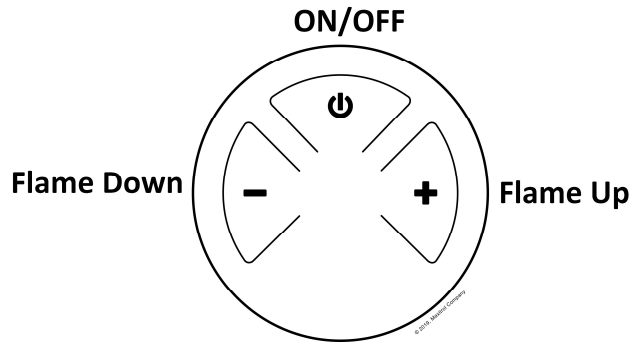
NOTE: The fireplace may be turned on again after the OFF icon stops flashing.

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.

Puck Handset



Control Option	Radio Frequency	Power Supply	
Puck 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

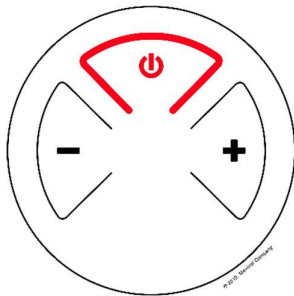
IMPORTANT: For safety/communication purposes, Puck handset must be located within 26 feet of the receiver.

! 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 Puck Handset are shown below.


Turning the Fireplace On/Off



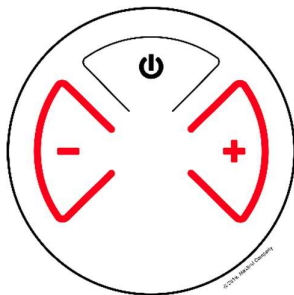
ON:

- Firmly press and hold the  button until two short beeps confirms the start sequence has begun; release button.

OFF:

- Firmly press the  button.

Increase/Decrease Flame Height



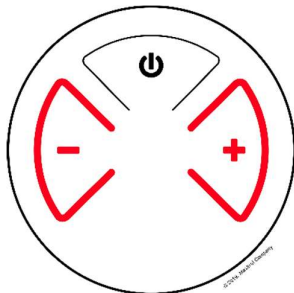
INCREASE:

- To increase flame height, press and hold **+** button.

DECREASE:

- To decrease flame height, press and hold **-** button.
- Holding the **-** button long enough sets the fireplace to pilot flame (Standby Mode).

Designated Flame Settings



DESIGNATED LOW FLAME SETTING

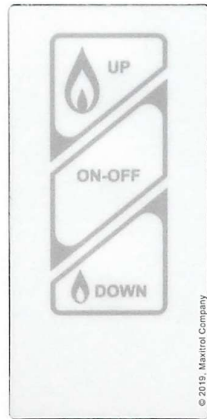
- To go to designated low flame setting, double-click **-** button.

! NOTE: Flame goes to High Flame before going to Low Flame.

DESIGNATED HIGH FLAME SETTING

- To go to designated high flame setting, double-click **+** button.

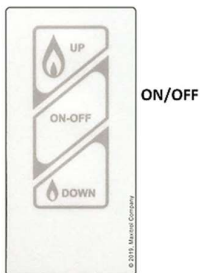
Wall Switch



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

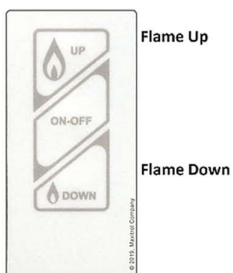
Turning the Fireplace On/Off





ON: 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



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

The MyFire app requires the Wi-Fi kit to operate with the fireplace. The Wi-Fi kit does not automatically come with the fireplace and must be ordered.



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

To download the MyFire app, search “MyFire” at the Apple App Store or Google Play.

Operating Instructions

For setup and operating instructions of the MyFire app, see the Homeowner’s Fireplace Operation Manual, or visit the Ortel website or www.myfireapp.com.

MyFire Wi-Fi Box

The MyFire Wi-Fi router box provides the Wi-Fi connection that allows the MyFire App to operate the fireplace. This part is included with the optional Wi-Fi kit. Wi-Fi kit does not automatically come with the fireplace and must be ordered.



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. Ceramic glass must be provided by Ortal if replacement becomes necessary.

- 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.
- Only an Ortal certified installer is authorized to remove the glass. Glass must be removed using an 8-inch glass-handling suction cup. Lower the glass to rest in a safe place to prevent damage to the glass edges.

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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Ortal USA
8421 Canoga Ave Canoga Park, CA 91304
T: (818) 238-7000 | F: (818) 678-0541
info@ortalheat.com | www.ortalheat.com