

ORTAL

YOUR LIFE. YOUR FIRE.

Installation and Operation Manual Heat Control System®



Safety Information and Warnings



WARNING: REVIEW ALL WARNINGS

Be sure to review all safety warnings and installation guidelines contained in this manual and the applicable Ortal fireplace installation manual. Before installing Heat Control System, read and understand all instructions. Consider installation location, venting pathway, clearances, structural requirements, framing and finish materials, and local codes. ALL warnings and instructions apply to all products manufactured and distributed by Ortal.



IMPORTANT NOTE: LOCAL CODE

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



WARNING: FOR USE WITH ORTAL-MANUFACTURED FIREPLACES ONLY

The Heat Control System is authorized for use with Ortal manufactured fireplaces only. Do not attempt to use with a different manufacturer's product.



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



WARNING: HEAT BARRIER

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



WARNING: FIREPLACE TEMPERATURE

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



WARNING: GLASS HANDLING

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



WARNING: INSTALLATION AND OPERATION

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



WARNING: LOCAL CODES

Local codes and building requirements take precedence over all requirements stated in this manual. Consult the local authority having jurisdiction to ensure all local codes and requirements are followed.

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Product Information

The Heat Control System is an optional feature that directs the convective heat generated inside the fireplace chase to an indoor or outdoor location (see figure 1 below).



Figure 1: Heat Control System Heat Direction (Top View)

The system can be turned on or off independently of the fireplace. When on, a proprietary fan extracts heat from the chase via two heat collector boxes and ducts it to the chosen location (see figure 2 below).

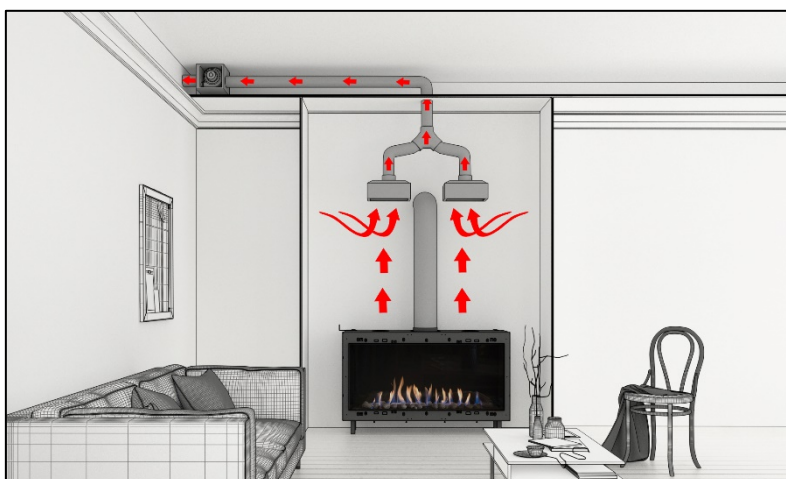


Figure 2: Heat Control System is On

When the system is off, the heat is directed into the room via the heat release (see figure 3 below).

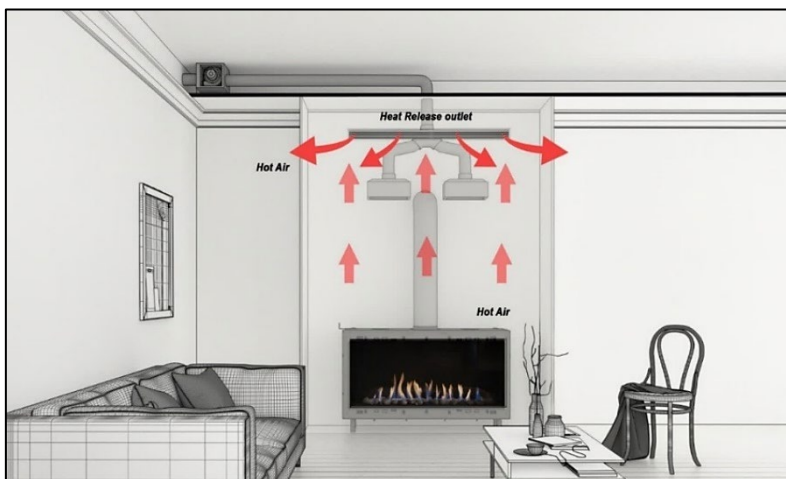


Figure 3: Heat Control System is Off

This feature is optional and is not required for the use and operation of any Ortal manufactured fireplace. It is approved for all installations that are approved for Ortal manufactured fireplaces (single family homes, multi-family homes, commercial settings, etc.).

Compatible Models

The Heat Control System is approved for use with the fireplace models in the following table.

Fireplace Family	Models
Front Facing (F)	Ortal: 75 F, 75x65 F, 110 F, 110H F, 130 F, 130H F, 150 F, 150H F, 170 F, 170H F, 200 F, 200H F, 250 F, 250H F
	Lyric: 90 F, 90H F, 110 F, 140 F
	Wilderness: 25H F, 31, 44 F, 44H F, 51 F, 51H F, 60 F, 60H F
Traditional (TR)	Ortal: TR 90, TR 110
	Wilderness: TR 36, TR 42
Tunnel (TN) See Through (Includes Ortal Indoor/Outdoor)	Ortal: 75x65 TN, 110 TN, 110H TN, 130 TN, 130H TN, 150 TN, 150H TN, 170 TN, 170H TN, 200 TN, 200H TN, 250 TN, 250H TN
	Lyric: See Through 110
Corner (RS/LS)	Ortal: 75 RS/LS, 110 RS/LS, 110H RS/LS, 130 RS/LS, 130H RS/LS, 150 RS/LS, 150H RS/LS, 170 RS/LS, 170H RS/LS, 200 RS/LS, 200H RS/LS, 250 RS/LS, 250H RS/LS
	Lyric: 90 RS/LS, 110 RS/LS
	Wilderness: 25H RS/LS, 44 RS/LS, 44H RS/LS, 51 RS/LS, 51H RS/LS, 60 RS/LS, 60H RS/LS
Three Side (TS)	Ortal: 75 TS, 110 TS, 110H TS, 130 TS, 130H TS, 150 TS, 150H TS, 170 TS, 170H TS, 200 TS, 200H TS, 250 TS, 250H TS
	Lyric: 90 TS, 110 TS
	Wilderness: 25H TS, 44 TS, 44H TS, 51 TS, 51H TS, 60 TS, 60H TS
Space Creator (SC) Peninsula	Ortal: SC 75, SC 120, SC 150, SC 200
	Lyric: Peninsula 120
*Built-In Island *Built-In Curve	Ortal: Island 130, 75x65 Curve, 75x65 Curve TN *Units that are framed into a wall only (without a hood)

NOTE: The Heat Control System cannot be used with Ortal 40H70 models, 60x80 models, stand-alone Curves and Island, or wall-mounted Stand Alone fireplaces.

This system designed for use with Ortal manufactured fireplaces **only**. It is not permitted for use with fireplaces made by other manufacturers or for any purpose not designated in this manual. The requirements outlined in this manual must be used in conjunction with the fireplace's corresponding installation manual.

Fan Options

Two fan options are available for the Heat Control System: the Standard Fan and the Premium Fan. The following table shows recommended fan option for each fireplace series.

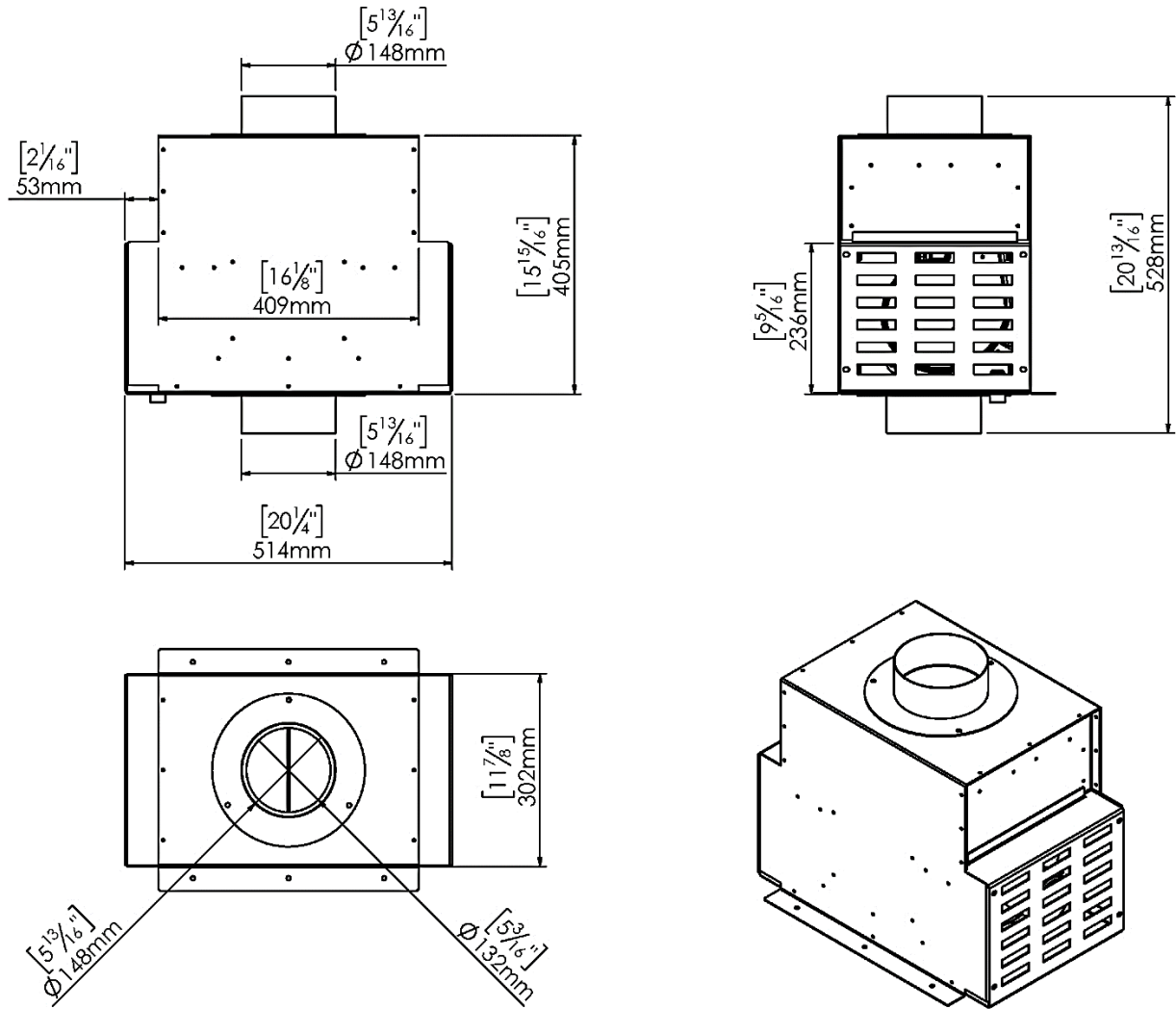
Fireplace Series	Standard Fan	Premium Fan
	Max Flow Rate = 196 CFM Noise Level = 56 dba	Max Flow Rate = 1175 CFM Noise Level = 62 dba
Ortal 75 Lyric 90 Wilderness 25-36	✓	✓
Ortal 90-130 Lyric 110-140 Wilderness 42-51	✓	✓
Ortal 150-170 Wilderness 60		✓
Ortal 200-250		✓

Standard Fan

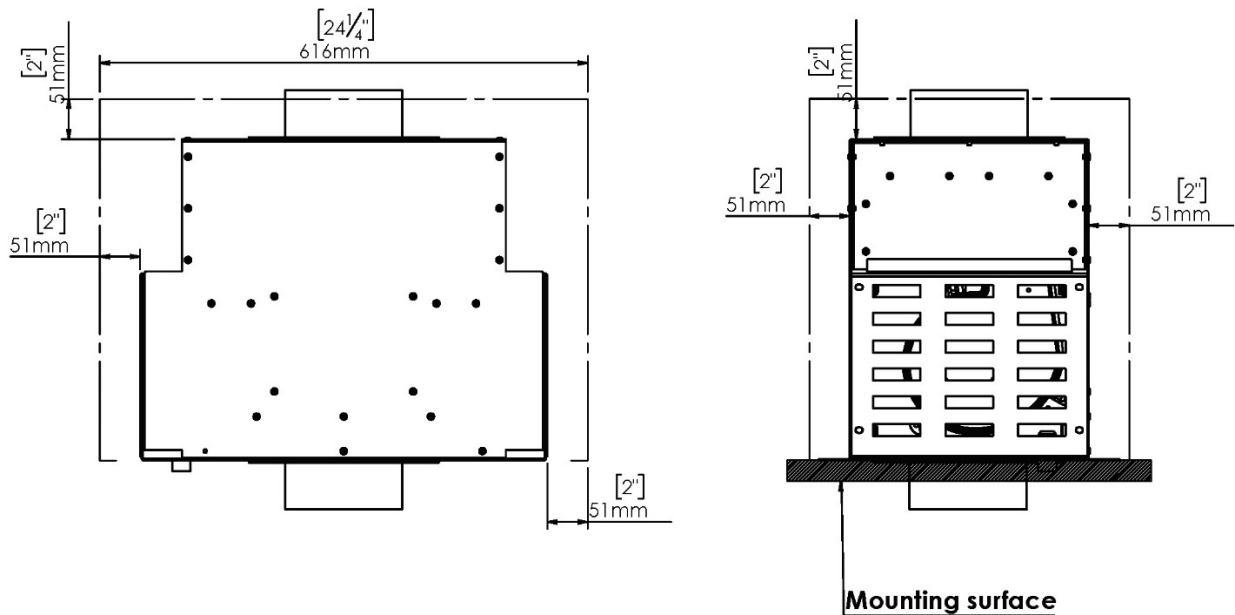
Max Flow Rate = 196 CFM

Noise Level = 56 dba (at 1 meter from fan)

Dimensions



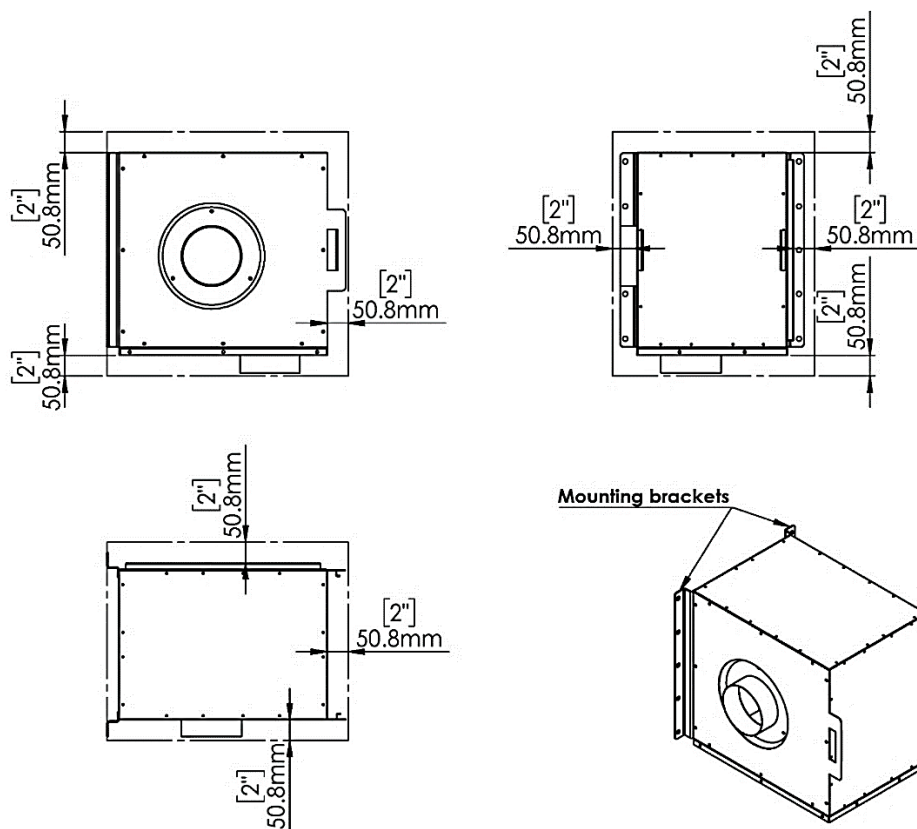
Clearances



NOTE: 2-inch clearance is to any building material. No additional air space is required beyond the 2-inch clearance.

Max Flow Rate = 1175 CFM
Noise Level = 62 dba (at 1 meter from fan)

Clearances



NOTE: 2-inch clearance is to any building material. No additional air space is required beyond the 2-inch clearance.

Installation

The following sections describe installation procedures for the Heat Control System. Review all clearance and venting requirements, pre-installation considerations, and local code before beginning installation. Ensure all materials, system components, and tools necessary are present, and in good condition at the time of installation. Refer to framing, heat release, and air intake requirements as detailed in applicable fireplace installation manual.

Prior to Installation

Be aware of the following installation requirements prior to installation.

- The Heat Control Fan:
 - Must be installed min. 3 feet away from the fireplace.
 - Must be installed in an accessible space for servicing.
 - For optimal efficiency, recommended fan location is within 30 feet of the fireplace.
- Optimal duct length is 90 feet or less. Total duct length must not exceed 120 feet.
- The Heat Control System must be installed in an interior space and can terminate either to an interior or exterior space.

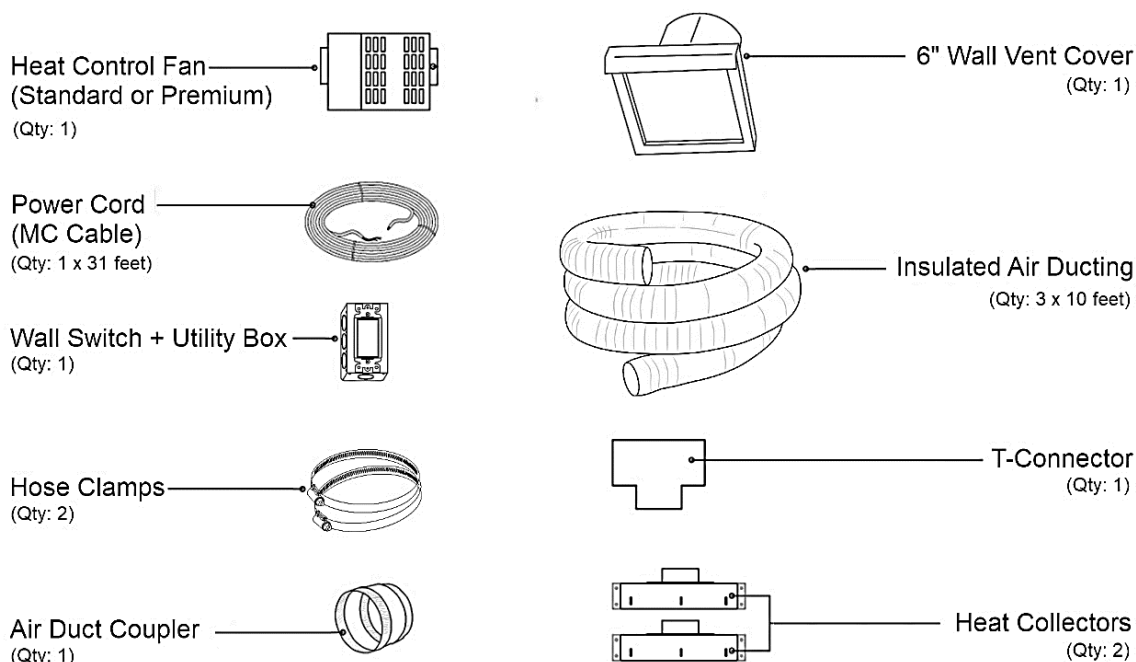
NOTES:

- The system is designed to remove heat from the chase and has no impact on radiant heat released from the fireplace glass.
- Depending on local code, make-up air may need to be supplied to the house. Check with local authority having jurisdiction.
- This system is installed independently of the fireplace. Ensure the fireplace and venting components are installed per the applicable fireplace installation manual.

WARNING: Electrical connections must be completed by a certified electrician and in accordance with local building codes.

System Components

The following supplied components are used in the installation procedure.



NOTE: The Air Duct Coupler is only necessary for duct-to-duct connections and will depend on the specific requirements of the project.

Installation Procedure

NOTE: Installation of the Heat Control Components is not required to occur in the order presented below.

1. Position and secure the **Heat Control Fan** by following installation instructions on page 10 for a Standard Fan or page 11 for a Premium Fan. Maintain stated clearances and as required per local building codes.
2. Attach the **Power Cord (MC Cable)** to the **Heat Control Fan** by pushing the cable end into the connector fitting embedded in the upper left corner of the **Heat Control Fan** (marked in the image below). Pull the **Power Cord (MC Cable)** through the fitting until it clicks into place.

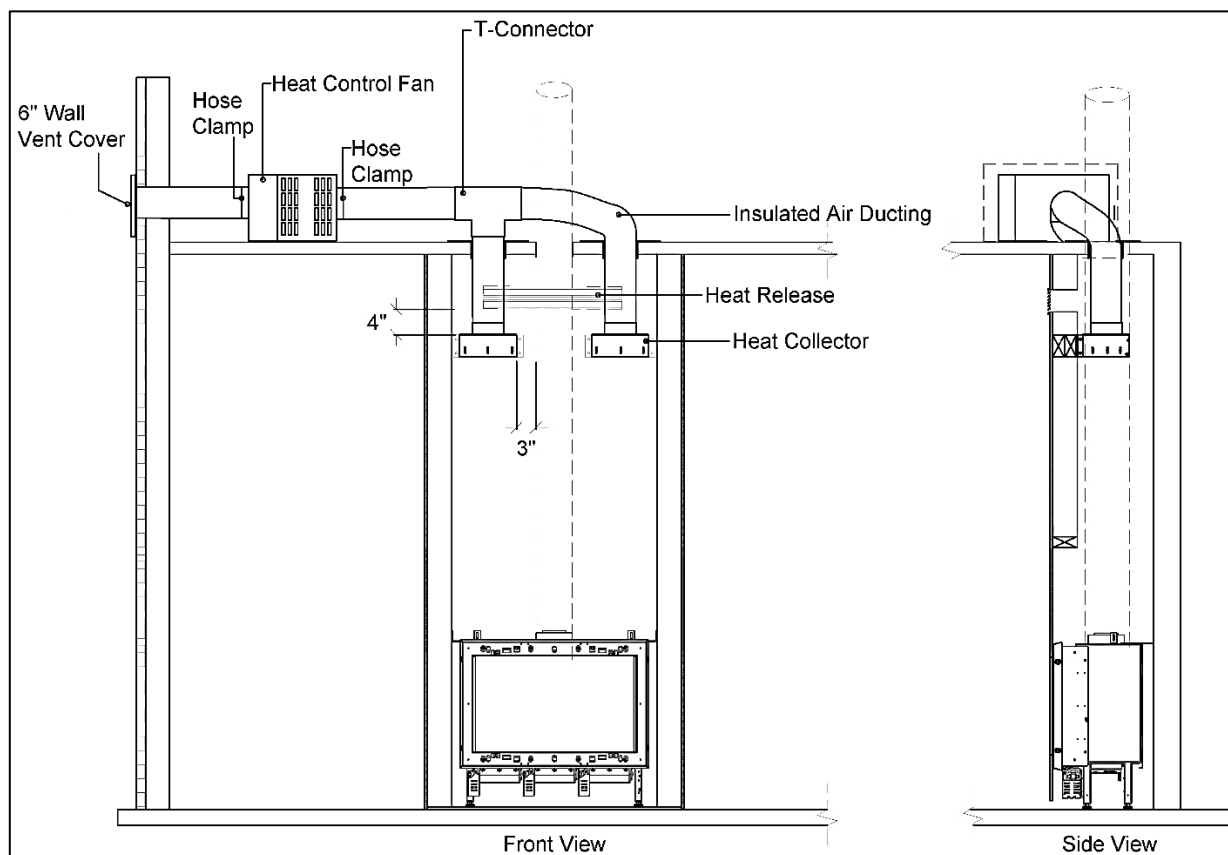
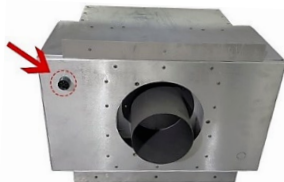


Figure 4: General System Installation

Refer to the figure 4 above for steps 3-9.

3. Run the **Insulated Air Ducting** as shown in figure above and according to local codes. (**Insulated Air Ducting** may need to be cut down or combined together to fit specific project requirements.)
4. Position and connect **T-Connector** to **Insulated Air Ducting** using a minimum of 3 self-tapping screws per connection.
5. Connect **Insulated Air Ducting** to the **Heat Control Fan** using one **Hose Clamp** per connection.
6. Position and secure **Heat Collector Boxes** to the front wall inside the fireplace chase using a minimum of 4 screws per box.
7. Connect **Insulated Air Ducting** to each **Heat Collector Box** using a minimum of 3 self-tapping screws per connection.
8. *Optional:* Secure any duct-to-duct connection using supplied **Air Duct Coupler**. Use a minimum of 3 self-tapping screws per connection.
9. Connect and secure desired termination cap at the termination point. Seal according to local code requirements. The supplied **6" Wall Vent Cover** is used for outdoor termination, and a Heat Register (not supplied) is recommended for indoor termination (see "Duct Termination" section on page 16 for details).
10. Connect the **Power Cord (MC Cable)** from the **Heat Control Fan** to the **Wall Switch**.

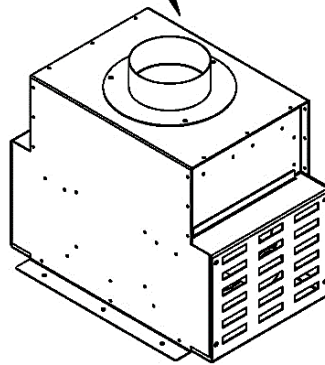
WARNING: Electrical connections must be completed by a certified electrician and in accordance with local building codes.

Standard Fan

The following parts are required for the installation of the Standard Fan.

Standard Fan
Qty: 1, Included

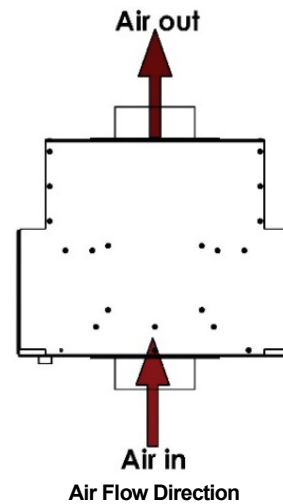
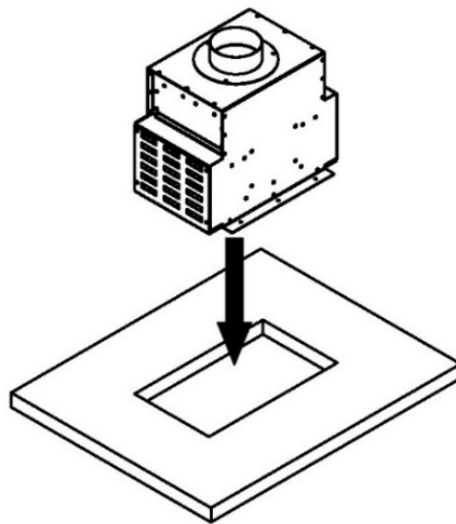
M6X16 Screw
Qty: 6, Not Included



Step 1

Connect the mounting brackets to the fan. The brackets can be attached on either the wide or narrow side of the fan.

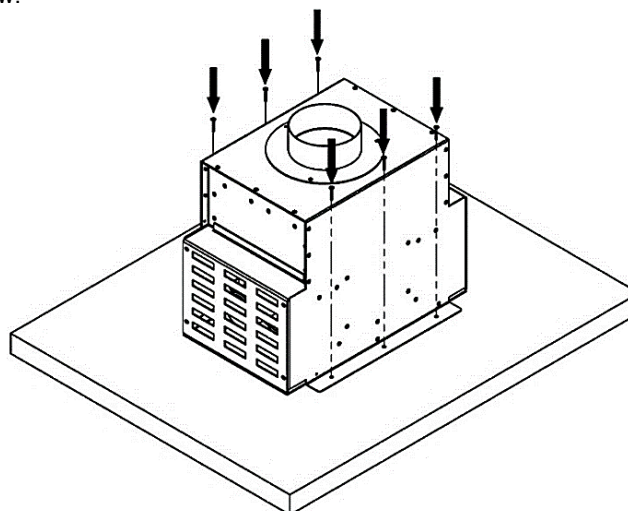
- a. Place the fan on a flat concrete/wood surface or wood studs. Position it according to air flow direction.



NOTE: Fan can be installed oriented horizontally or vertically.

Step 2

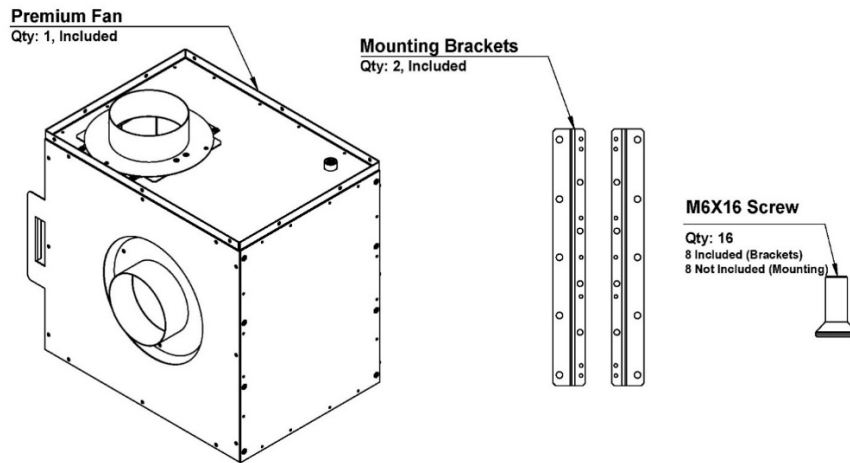
Attach the fan to a mounting area via the mounting brackets. Securely fasten fan to the surface with 6 screws in provided holes (3 on each side), as shown in figure below.



Premium Fan

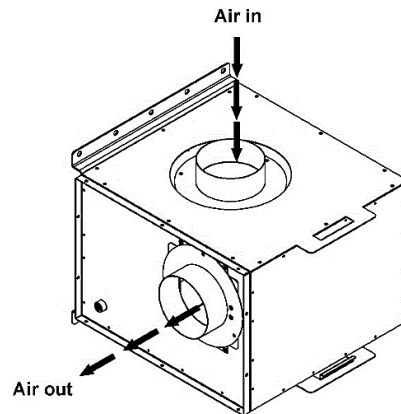
The following parts are required for the installation of the Premium Fan.

NOTE: Installation of the fan requires ten 10mm diameter screws (or equivalent) that are not provided with the Heat Control System kit.



Premium Fan Airflow Direction

Take note of the airflow direction of the fan's inlet and outlet pipe connections when determining installation location. The duct connections are set 90° to each other. The air inlet connection is on the wide side of the fan, and the air outlet is on the narrow side.

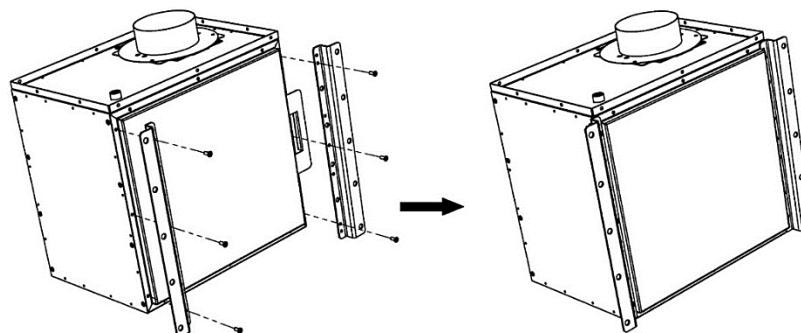


Step 1

Connect the mounting brackets to the fan. The brackets can be attached on either the wide (option 1) or narrow (option 2) side of the fan.

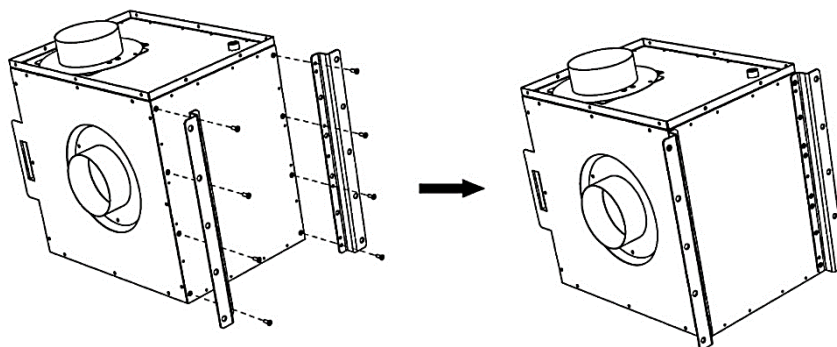
Wide Orientation

Attach brackets to the wide side. Use **six** M6X16 screws (provided with the fan) to attach brackets as shown in figure below.



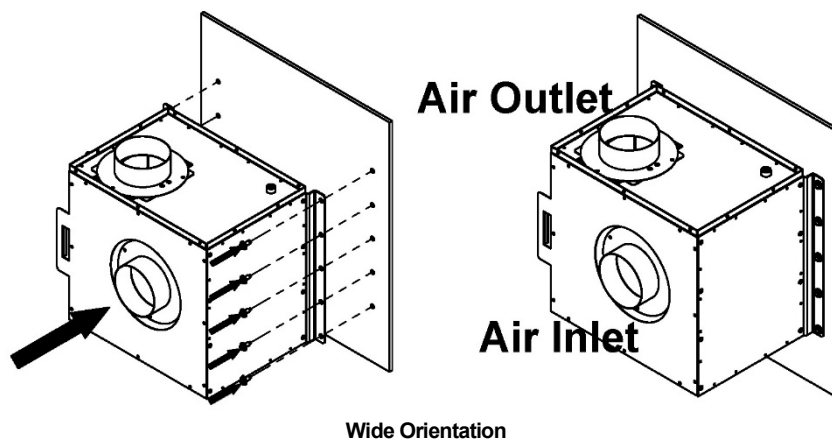
Narrow Orientation

Attach brackets to the narrow side. Use **eight** M6X16 screws (provided with the fan) to attach brackets as shown in figure below.

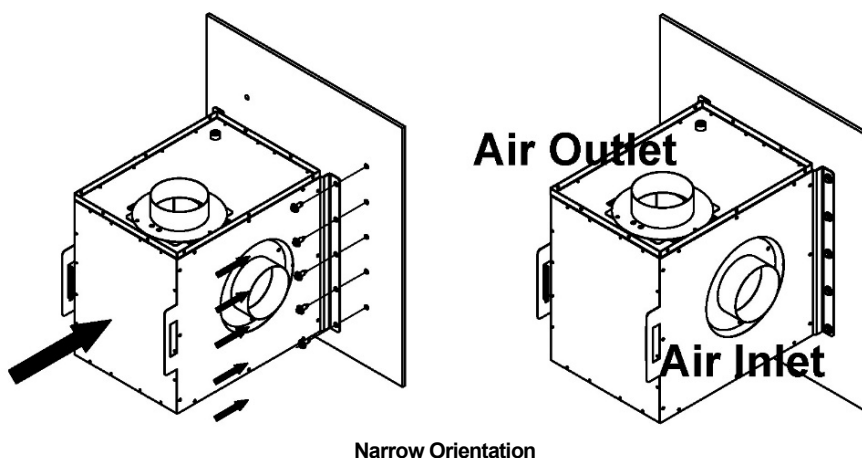


Step 2

Affix the fan to a mounting area via the mounting brackets. Mounting area must be constructed to support the weight of the fan (52 lbs/23.5 kg). Installation requires ten screws with 10mm diameter (not included).



Wide Orientation



Narrow Orientation

System Setup

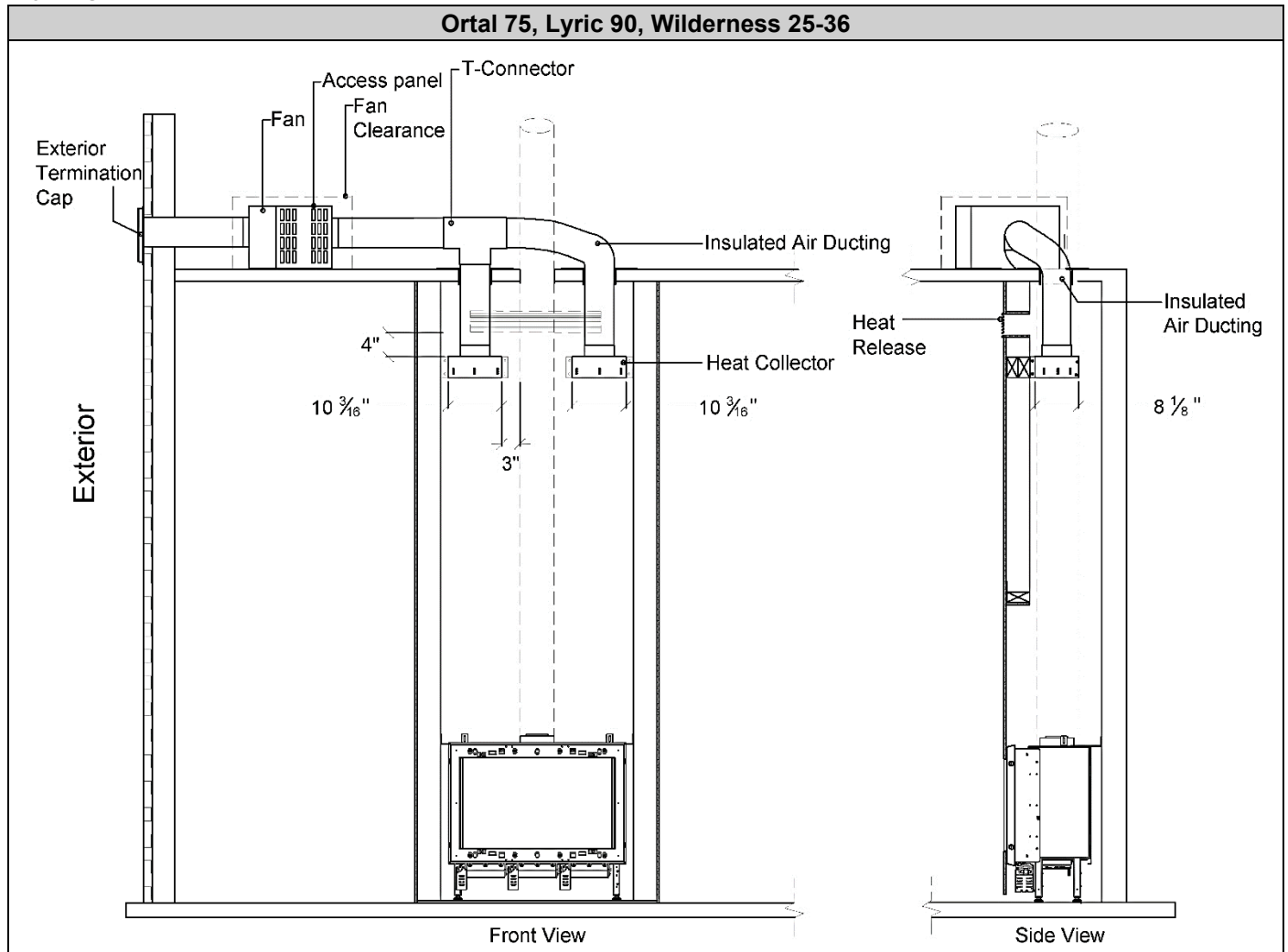
Figures below shows Heat Control System setup with the fireplace. Location of the heat control system components vary depending on the fireplace series. The heat is shown in these diagrams being ducted outside, but the requirements are the same for heat being ducted to another interior room.

Follow these recommendations(*) to achieve optimal heat removal results:

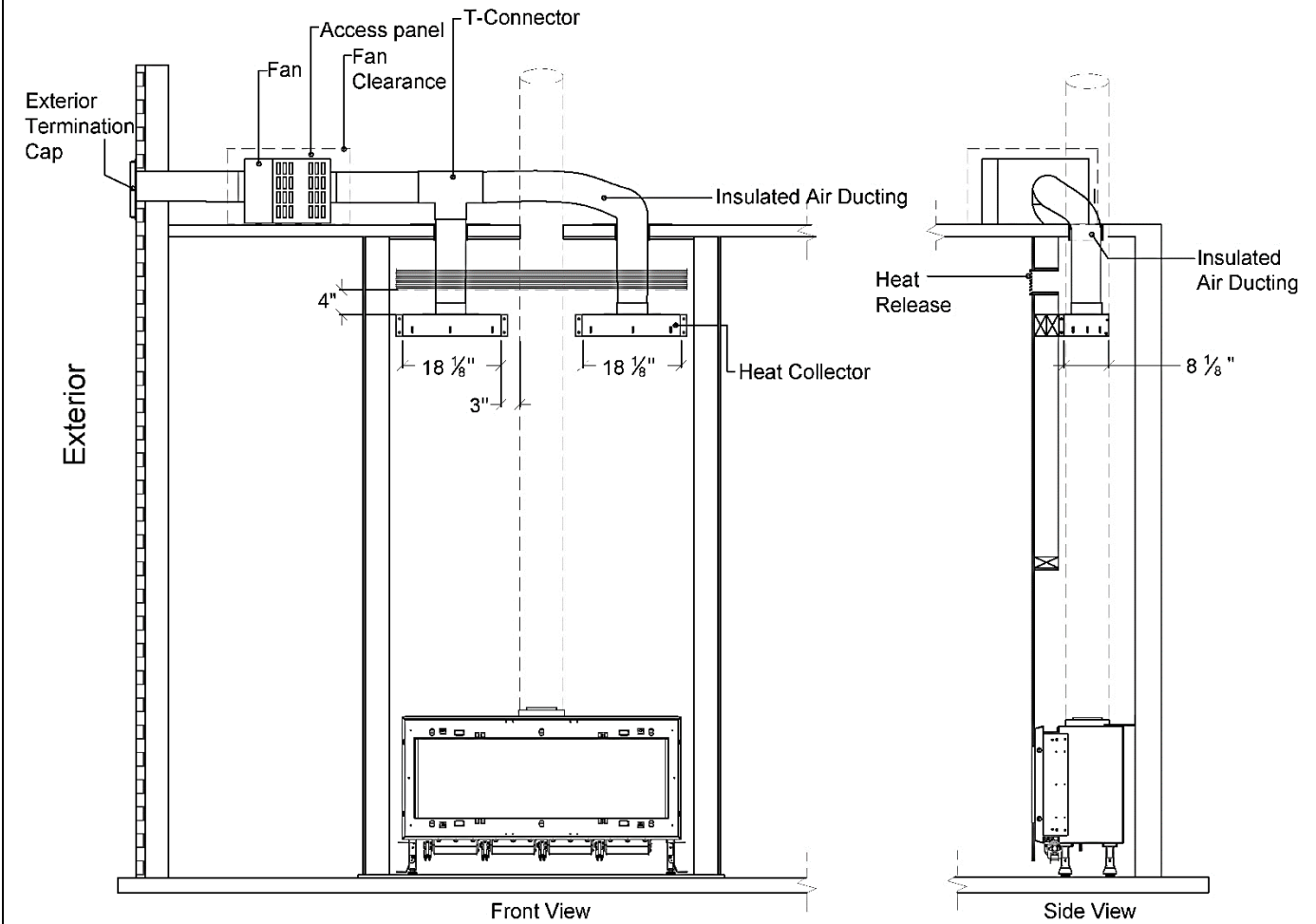
- Follow the "System Setup" guidelines as shown the the proceeding diagrams (by fireplace series). Please note that the distances in these diagrams are exact measurements and are not maximums or minimums. For example, the top of the heat collectors should be located exactly 4 inches below the bottom of the heat release.
- Frame the fireplace chase to the minimum framing values as stated in the applicable Ortal fireplace installation manual.

(*) **NOTE:** The bullet-pointed statements above are recommendations and are not required to follow. However, varying from these recommendations may impact efficiency of the Heat Control System.

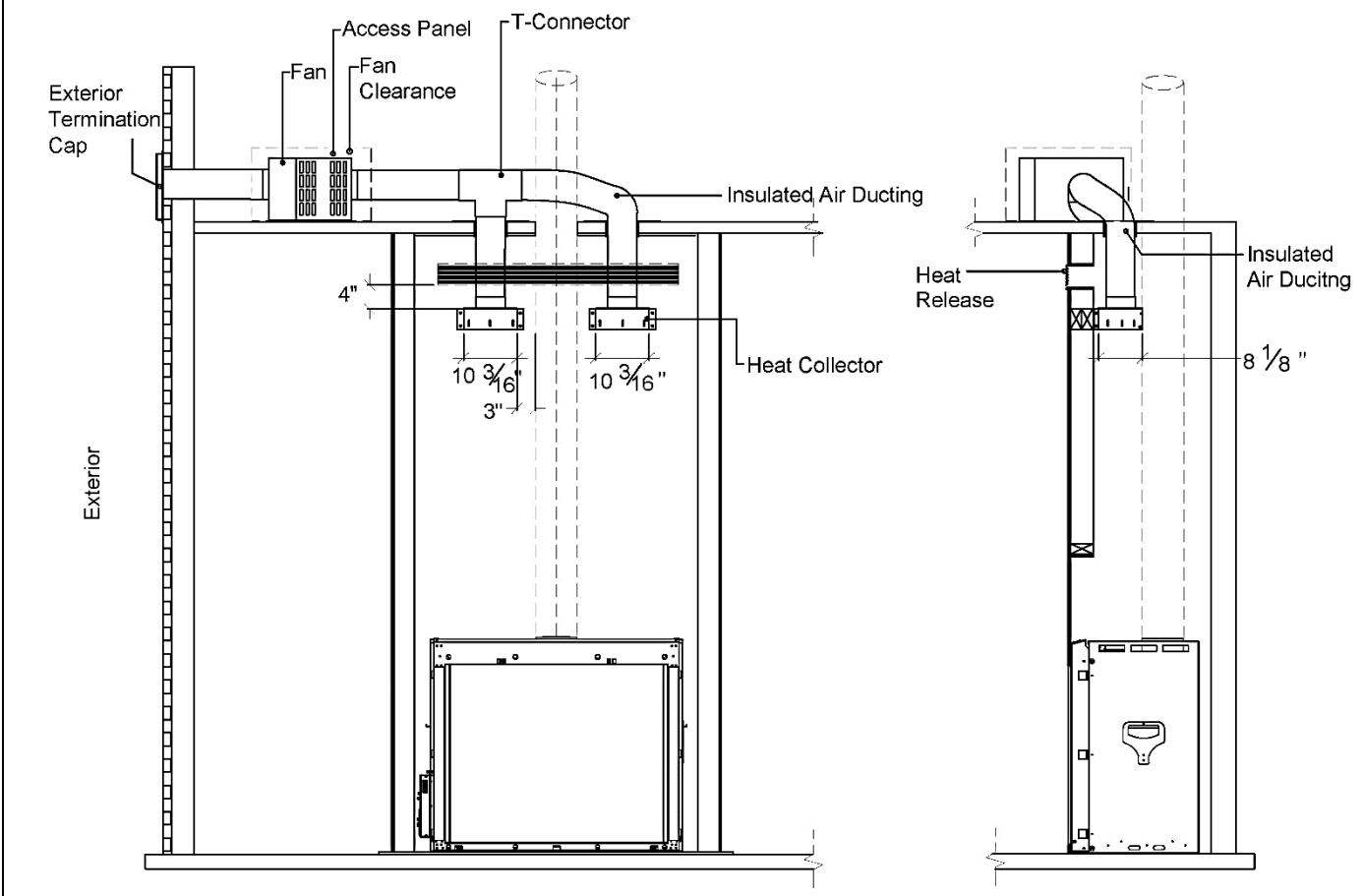
WARNING: To prevent heat buildup within the chase, heat release opening must not be blocked or obscured by anything.



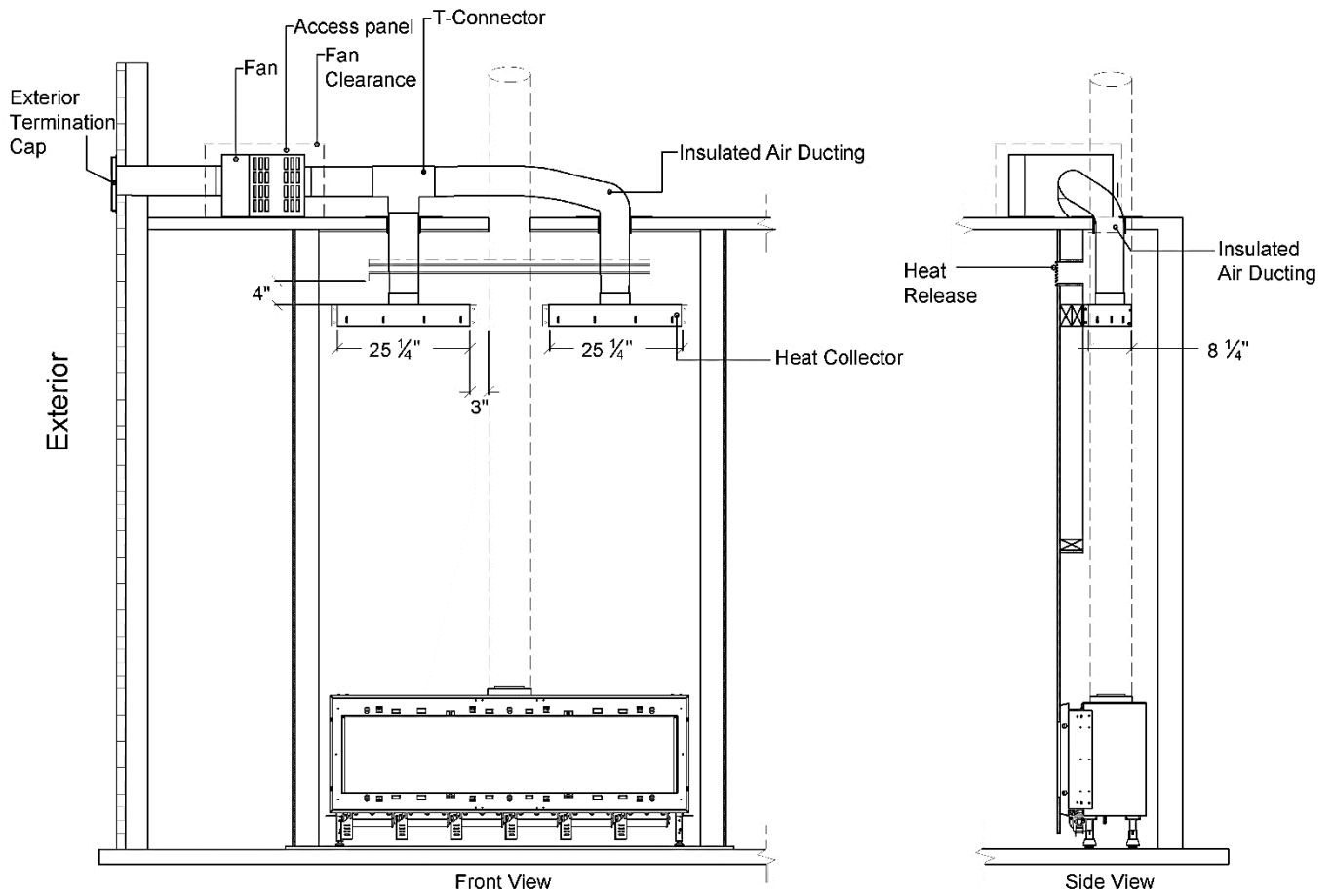
Ortal 110-130, Lyric 110-140, Wilderness 42-51



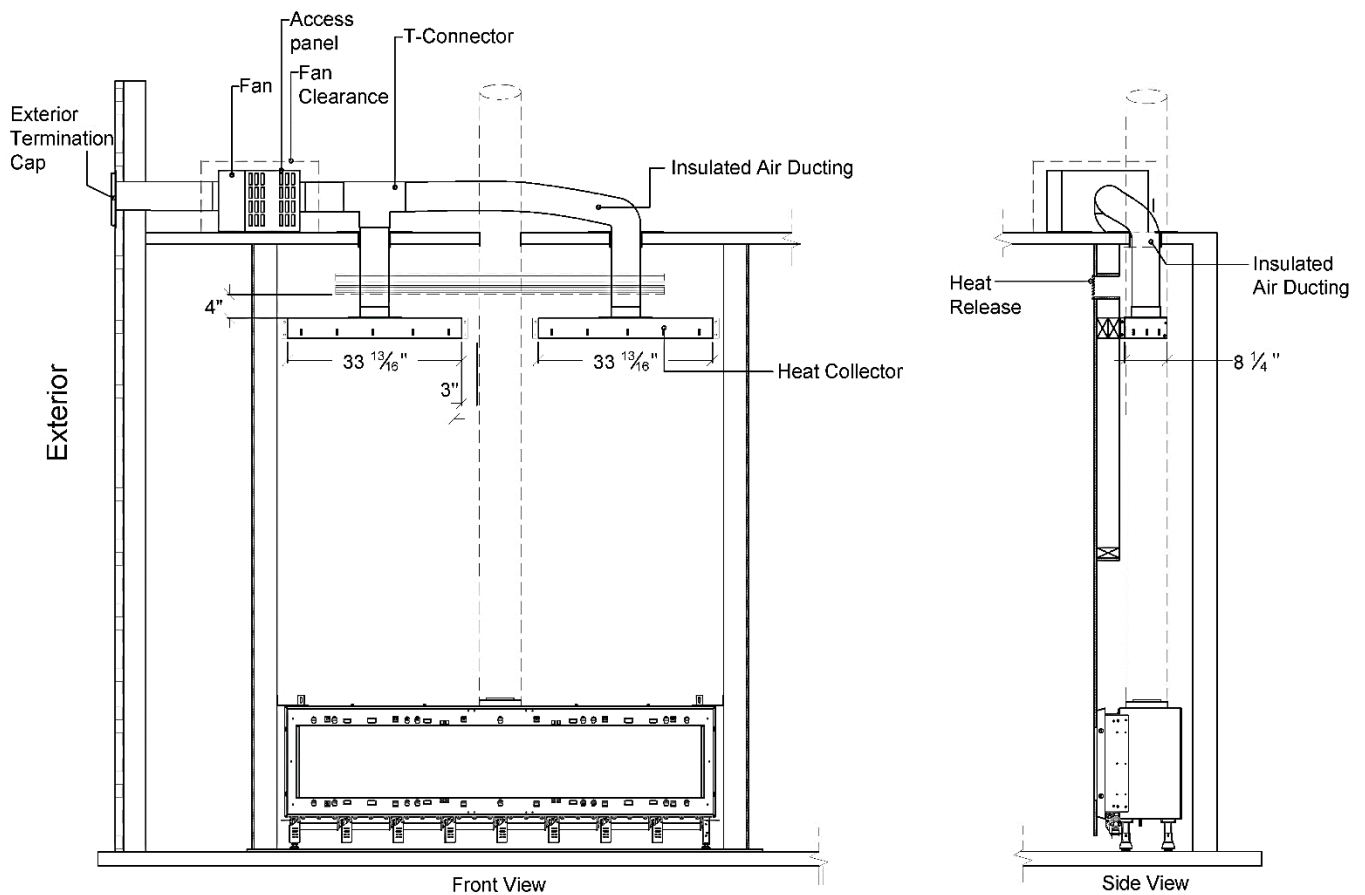
Ortal Traditional 90-110



Ortal 150-170, Wilderness 60



Ortal 200-250



Air Ducting

The Heat Control System is designed to move heat out of the fireplace chase using flexible air duct. 30 feet of duct is included in the Heat Control System kit supplied by Ortal. Additional duct must be sourced elsewhere by the consumer.

Duct Requirements

Type: Must be an A610 insulated, flexible duct that is 6 inches in diameter.

Routing: Duct must **not** be routed in sharp curves (less than 90°). Optimal duct length is 90 feet or less. Total duct length must not exceed 120 feet.

Clearances: No clearance requirements.

Duct Termination

Exterior Horizontal End Cap: A 6-inch round horizontal termination cap with screen and damper is supplied by Ortal with the kit.

Interior End Cap: An interior end cap is not supplied by Ortal and must be sourced by the consumer. A standard heat register is recommended. Register must allow for minimum 28 square inches of net free air space.

Clearances: No clearance requirements. Check with local code for approved components and clearances (if any).

Electrical



WARNINGS:

- Electrical connections should be completed by a certified electrician, and in accordance with local building codes.
- Disconnect the power supply before servicing any electrical components.

Electrical Requirements

The Heat Control System is powered by 120V AC through the connection to the fireplace's electrical system. No additional electrical supply is required. No additional outlets are required. For further information on electrical requirements specific to the fireplace, please refer to the fireplace's corresponding installation manual.

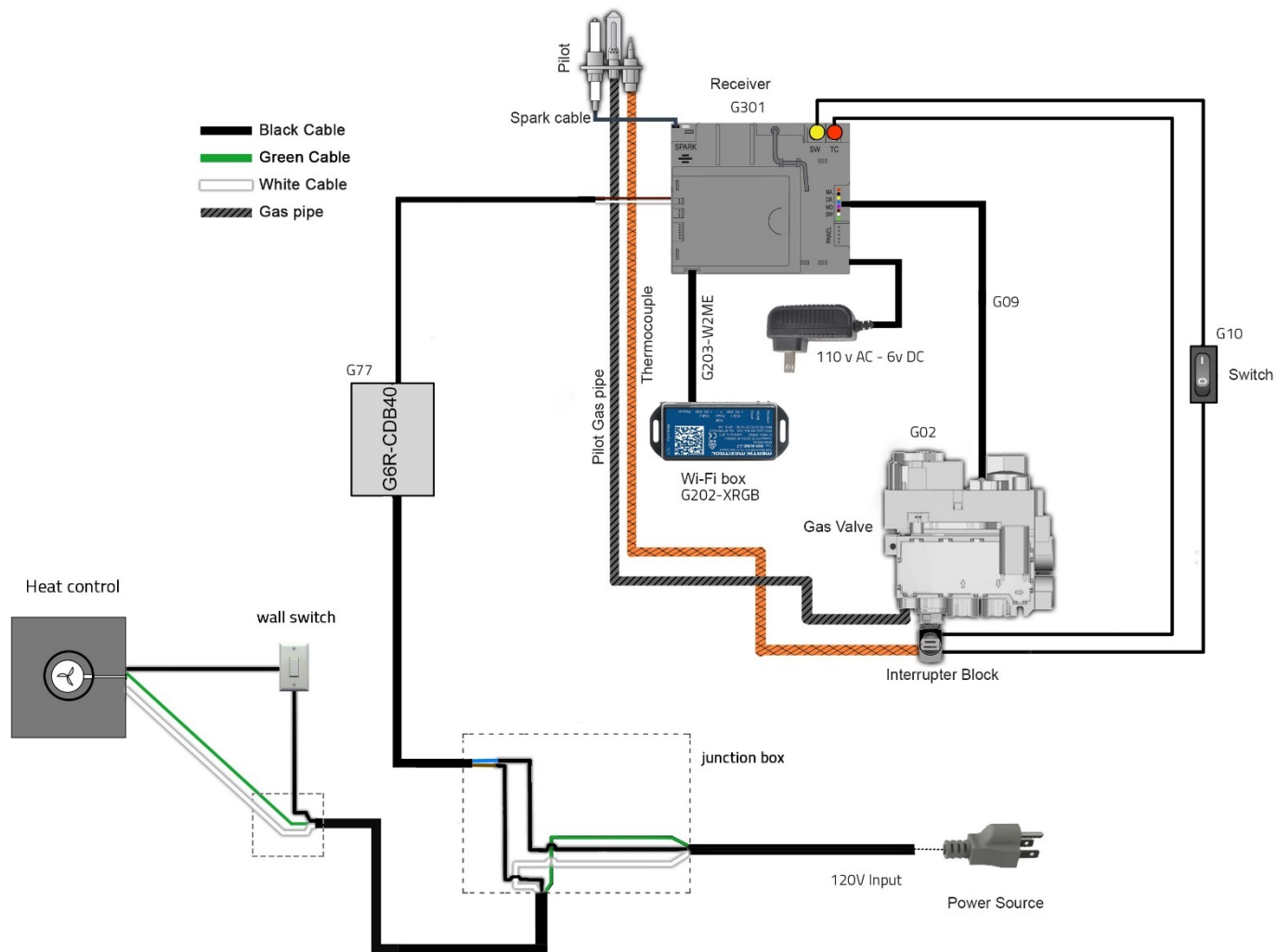
Wiring Diagrams

The following diagrams show wiring requirements for Ortal manufactured fireplaces with the Heat Control System in conjunction with other features.

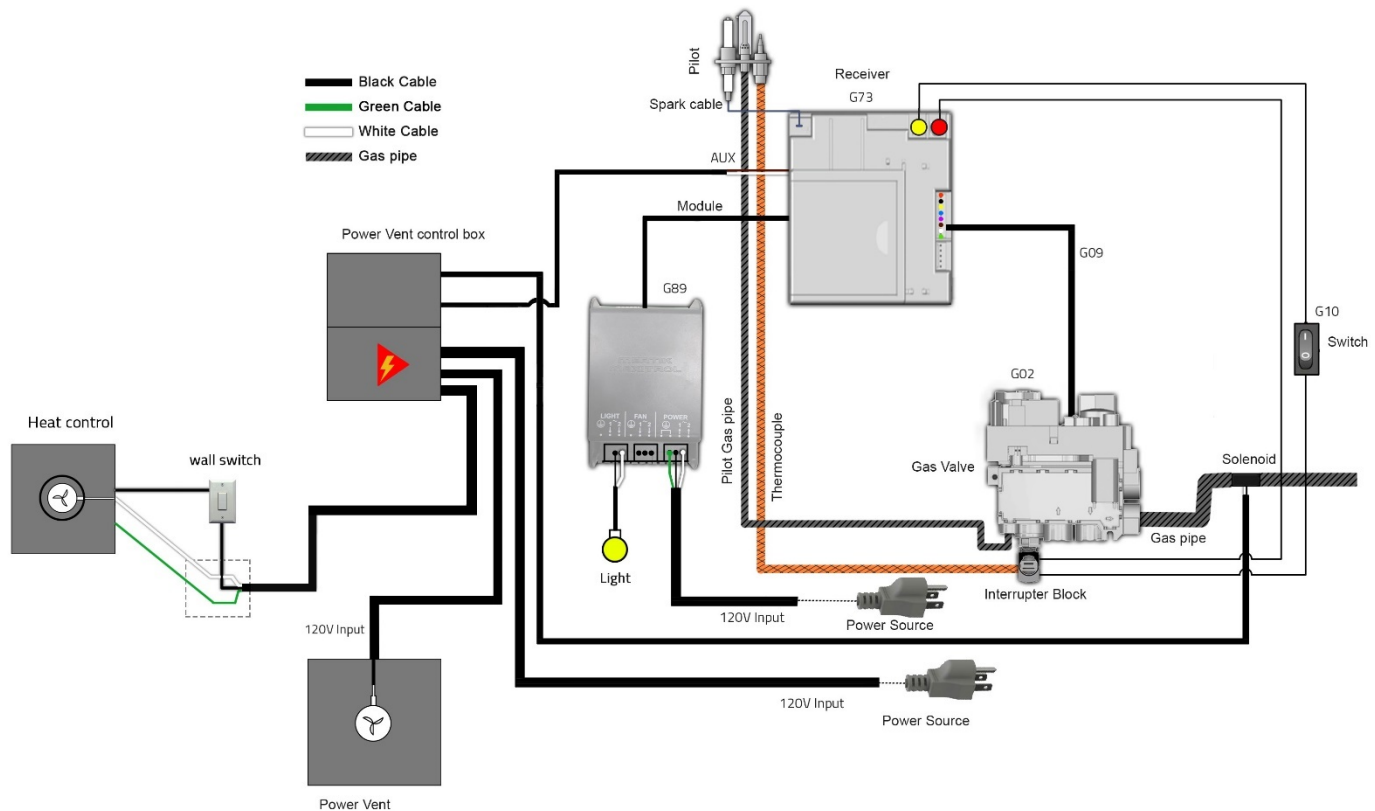


WARNING: Electrical connections should be completed by a certified electrician, and in accordance with local building codes.

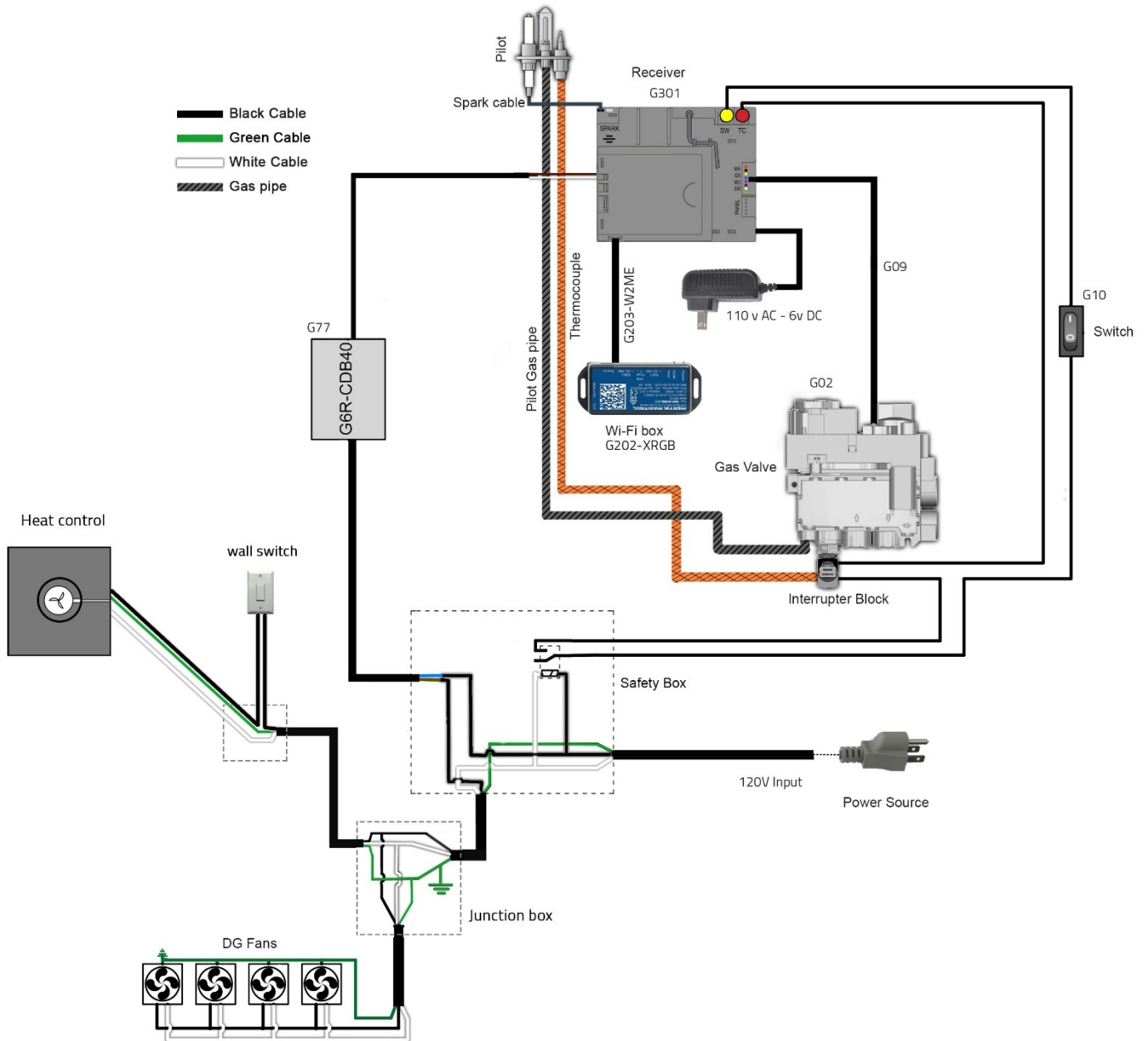
Wiring Diagram: Screen Fireplace



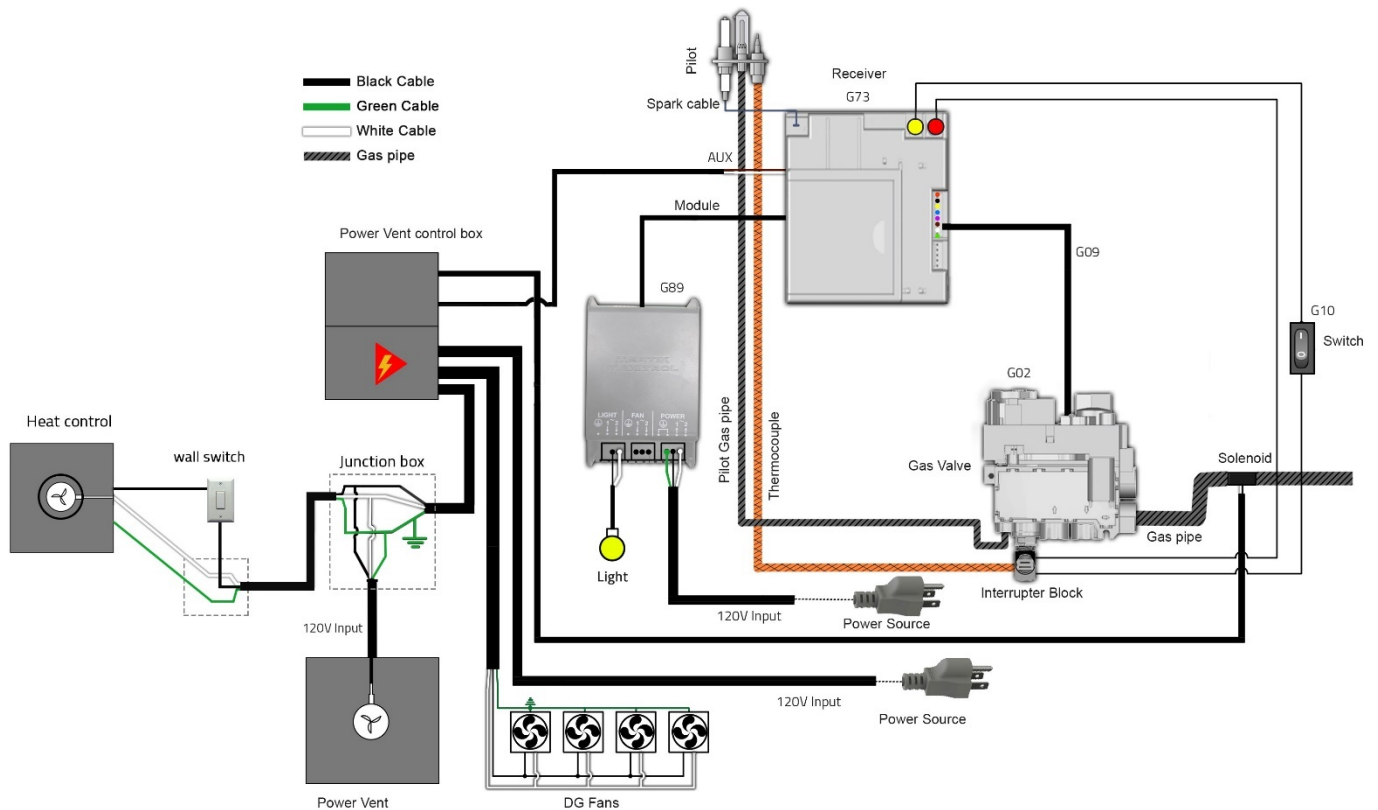
Wiring Diagram: Screen Fireplace with Interior Lighting and Ortal Power Vent



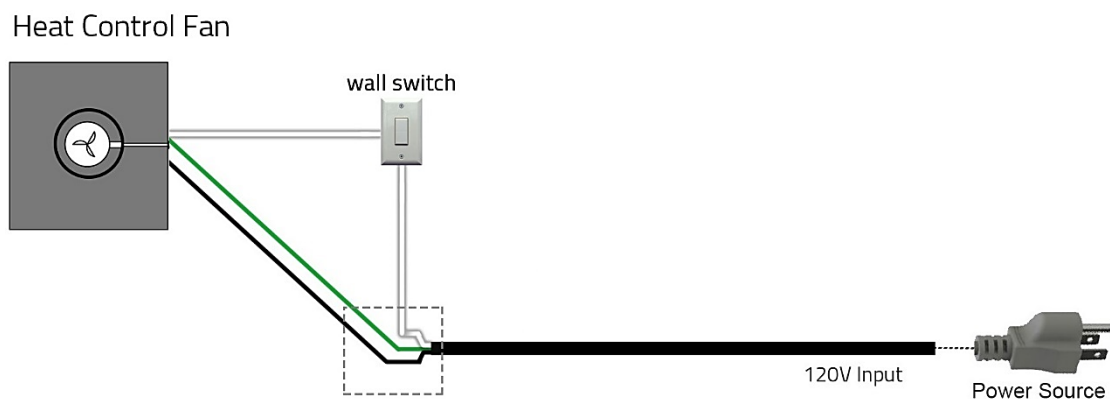
Wiring Diagram: Double Glass Fireplace



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



Wiring Diagram: Not Connected to Fireplace



NOTE: When the Heat Control System is wired separately from the fireplace, the system must be operated independently from the fireplace. The system has to be turned on and off for every use.

Operation

The Heat Control System is designed to operate in sync with the Ortal fireplace.

To operate the fireplace and Heat Control System together, ensure the Heat Control System wall switch is in the "on" position. Turn the fireplace on. The system will turn on and off with the fireplace. The wall switch should remain in the "on" position to keep the system's connection to the fireplace open.

To operate the fireplace *without* the Heat Control System, put the Heat Control System wall switch in the "off" position. The system will not respond when the fireplace is being operated.

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