

P900850-00

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

In the Commonwealth of Massachusetts:

- Installation must be performed by a licensed plumber or gas fitter;
- See Table of Contents for location of additional Commonwealth of Massachusetts requirements.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

FOR YOUR SAFETY: Do not store or use gasoline or other flammables or liquids in the vicinity of this or any other appliance.

FOR YOUR SAFETY: What to do if you smell gas:

- **DO NOT** light any appliance.
- **DO NOT** touch any electrical switches.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow your gas suppliers instructions.
- If your gas supplier cannot be reached, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.



Report No. F14-168

INSTALLATION AND OPERATION INSTRUCTIONS

UNIVERSAL VENT-FREE FIREBOX

32" x 24", 36" x 24", & 42" x 24" Universal Vent-Free Fireboxes
P/N 900850-00 REV. B 09/2017

MODELS

<i>ORION32ZB6</i>	<i>ORION32ZP2</i>	<i>ORION36ZB6</i>
<i>ORION36ZP2</i>	<i>ORION42ZB6</i>	<i>ORION42ZP2</i>

FOR USE ONLY WITH A LISTED GAS-FIRED UNVENTED DECORATIVE ROOM HEATER NOT TO EXCEED 40,000 BTU/H.

DO NOT BUILD A WOOD FIRE.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. REFER TO THIS MANUAL. FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

Carefully review the instructions supplied with the decorative type unvented room heater for the minimum fireplace size requirement.

DO NOT INSTALL AN APPLIANCE IN THIS FIREBOX UNLESS THIS FIREBOX MEETS THE MINIMUM DIMENSIONS REQUIRED FOR THE INSTALLATIONS.

THIS IS A VENT-FREE GAS-FIRED HEATER ENCLOSURE. IT USES AIR (OXYGEN) FROM THE ROOM IN WHICH IT IS INSTALLED. PROVISIONS FOR ADEQUATE COMBUSTION AND VENTILATION AIR MUST BE PROVIDED. REFER TO COMBUSTION AND VENTILATION AIR SECTION, PAGE 4.

Due to high temperatures, the appliance should be located out of traffic and away from furniture or draperies.

Do not place clothing or other materials on or near this appliance.

IMPORTANT: READ AND UNDERSTAND THESE INSTRUCTIONS COMPLETELY BEFORE INSTALLING YOUR VENT-FREE ROOM HEATERS.

IMPORTANT SAFETY INFORMATION

INSTALLER: PLEASE LEAVE THESE INSTRUCTIONS WITH THE OWNER.

OWNER: PLEASE RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.



WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.



IMPORTANT

The fireplace screens on the appliance must be closed prior to operating the fireplace.

WARNING

These built-in vent-free fireboxes have only been tested and approved for use with ANSI Z21.11.2 Vent-free gas logs.

WARNING

Do not attempt to burn solid wood fuels, other gas log sets or any other combustible materials in this vent-free firebox.

WARNING

Any change to this Vent-Free room heater can be dangerous. Improper installation or use of this heater can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

WARNING

Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.

WARNING

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the Vent-Free Gas Heater serviced as it may not be operating correctly.

WARNINGS

- Due to high temperatures, the firebox should be located out of traffic and away from furniture and draperies.
- Do not place clothing or other flammable material on or near the heater.
- Any safety screen or guard removed for servicing the firebox must be replaced and/or closed prior to operating the heater.
- Installation and repair should be done by a qualified service person. The heater 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. It is important that control compartments, burners and circulating air passageways of the heater be kept clean.
- Allow the heater to cool before servicing. Always shut off any electricity or gas to the heater while performing service work.
- Do not install the firebox in a sleeping room or bathroom.
- The appliance and its individual shut-off valve must be disconnected from the gas supply piping system while performing any tests of the gas supply piping system at test pressures equal to or less than 1/2 psig.

WARNING

- The heater must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.
- Keep heater area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.
- Ensure that the heater is clean when operating. Excessive dust accumulation on the burner and logs will increase the amount of carbon monoxide formation and could lead to carbon monoxide poisoning and death.

IMPORTANT

Before starting your firebox installation, read these installation instructions carefully to be sure you understand them completely and in entirety. Failure to follow these instructions could cause a heater malfunction resulting in serious injury and/or property damage.

WARNING

Do not install in the vicinity where gasoline or other flammable liquids may be stored. The Vent-Free firebox must be kept clear and free from these combustible materials.

WARNING

Maintain minimum clearances.

CONGRATULATIONS!

In selecting this **Astria**® Vent-Free Gas Firebox you have chosen the finest and most dependable fireplace to be found anywhere. A beautiful, prestigious, alternative to a wood burning fireplace. Welcome to a family of **Astria** Fireplace Owners.

Please read and carefully follow all of the instructions found in this manual. Please pay special attention to the safety instructions provided in this manual. The Homeowner's Care and Operation Instructions included here will assure that you have many years of dependable and enjoyable service from your **Astria** product.

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This installation manual will help you obtain a safe, efficient, dependable installation for your appliance and vent system.

PLEASE READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE BEGINNING YOUR INSTALLATION.

Packaging List

Vent-Free Gas Firebox
Hood
Installation and Operation Instructions



GENERAL INFORMATION

These Vent-Free firebox enclosures are designed to accept all ANSI Z21.11.2 approved Decorative Type Vent-Free Gas Log Room Heaters. **For the appropriate Vent-Free Gas Log Room Heater model, refer to Page 16 (see Vent-Free Gas Log Sets).** Refer to the installation instructions provided with the log sets for detailed instructions.

This installation manual along with the vent-free gas log installation manual will enable you to obtain a safe, efficient and dependable installation of your room heater system.

Do not alter or modify the firebox or its components under any circumstances. Any modification or alteration of the firebox system, including but not limited to the firebox and accessories, may void the warranty, listings and approvals of this system and could result in an unsafe and potentially dangerous installation.

These Built-In Vent-Free Fireboxes have been tested and approved as Ventless Firebox Enclosures for Gas-Fired Unvented Decorative Room Heaters to ANSI Z21.91.

Burn-in Period

During the first few times of operation of this appliance there will be some odor due to the curing of the paint and burning off of lubricants used in the manufacturing process. We recommend that you open windows and ventilate the house during the initial burns. The paint emits non-toxic odors during this process.

Depending on your use, the burn-in period may take a few hours or a few days.

KEEP YOUR HOUSE WELL VENTILATED DURING THE BURN-IN PERIOD. THE ODOR AND HAZE EMITTED DURING THE BURN-IN PERIOD CAN BE QUITE NOTICEABLE AND MAY SET OFF A SMOKE DETECTOR.

If an optional blower is installed, Do not turn it on during the Burn-In period.

Misc. Codes / Standards

The Installation must conform to local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 - latest edition.

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 - latest edition.

Check the packaging list to be sure that you have all the necessary parts in usable condition. Also check for concealed damage.

Tools and Building Supplies Normally Required

Tools Should Include:

- Phillips screwdriver
- Hammer
- Saw and/or sabersaw
- Level
- Measuring tape
- Electric drill and bits
- Pliers
- Square
- Piping complying with local codes
- Pipe wrench
- Tee joint
- Pipe compound

Building Supplies Should Include:

- Framing materials
- Wall finishing materials
- Caulking materials (*noncombustible*)
- Fireplace surround materials (*noncombustible*)
- Insulation (*for packing around gas-line penetration holes*)

Codes

Adhere to all local codes or in their absence the latest edition of The National Fuel Gas Code ANSI Z223.1 or NFPA 54 - latest edition which can be obtained from The American National Standards Institute, Inc. (25 West 43rd Street, 4th floor New York, NY 10036) or National Fire Protection Association, Inc. (1 Batterymarch Park Quincy, MA 02169-7471).

COMBUSTION AND VENTILATION AIR

Heaters installed in these appliances shall not be installed in a confined space. Heaters installed in these appliances may be located in unusually tight construction provided the space is unconfined, or if confined, is provided with two permanent openings communicating directly with an additional room(s) of sufficient volume so that the combined volume of all connected spaces meets the criteria for an unconfined space, (National Fuel Gas Code ANSI Z223.1/NFPA 54 - latest edition, Section on Air for Combustion and Ventilation). Generally 50 ft³ per 1,000 BTU input of all operating appliances in the space.

The National Fuel Gas Code defines a confined space as a space whose volume is less than 50 ft³ per 1,000 BTU/Hr (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 ft³ per 1,000 BTU/Hr (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

Unusually tight construction is defined as construction where:

- Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm or less with openings gasketed or sealed, and
- Weather stripping has been added on operable windows and doors, and
- Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

Use the following equations to determine if you have a confined or unconfined space.

- Determine the volume of space — ft³.

Length x Width x Height = _____ ft³
(Include adjoining rooms with doorless passageways or ventilation grills between rooms).

Example: 24' (L) x 16' (W) x 8' (H) = 3072 ft³

- Divide the volume of space by 50 ft³ to determine the maximum BTU/Hr the space can support.

(volume of space – ft³) / 50 ft³ = (Maximum BTU/Hr the space can support)

Example: 3072 ft³ / 50 ft³ = 61.44
or 61,440 BTU/Hr the space can support.

- Add the BTU/Hr of all the fuel burning appliances in the space.

Vent-Free heater	_____	BTU/Hr
Gas appliance #1*	_____	BTU/Hr
Gas appliance #2	+ _____	BTU/Hr
Total =	_____	BTU/Hr

Example:

Vent-free heater	26,000	BTU/Hr
Gas appliance #1 (water heater)	40,000	BTU/Hr
Total =	66,000	BTU/Hr

* Do not include direct-vent gas appliances. Direct-vent is sealed combustion and draws combustion air from the outdoors.

- Compare the maximum BTU/Hr the space can support with the actual amount of BTU/Hr used.

_____	BTU/Hr
_____	(max. the space can support)
_____	BTU/Hr
_____	(actual amount of BTU/Hr used)

Example:

61,440	BTU/Hr
	(max. the space can support)
66,000	BTU/Hr
	(actual amount of BTU/Hr used)

The space in the above example is a confined space because the actual BTU/Hr used is more than the maximum BTU/Hr the space can support. You must provide additional fresh air.

WARNING

If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code, or applicable local codes.

Your options are:

- Rework equations adding the space of adjoining room(s). If the extra volume provides an unconfined space, then remove door or add ventilation grills between rooms. Refer to National Fuel Gas Code, ANSI Z223.1 - latest edition, Section on Air for Combustion and Ventilation.
- Vent room directly to the outdoors. Refer to National Fuel Gas Code, ANSI Z223.1 - latest edition, Section on Air for Combustion and Ventilation.
- Install a lower BTU/Hr heater, such as a 21,000 BTU/Hr, to make the area an unconfined space.

If the actual BTU/Hr used is less than the maximum BTU/Hr the space can support, then the space is an unconfined space. You will need no additional fresh air ventilation for an unconfined space.

This appliance shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code, or applicable local codes.

Maintain adequate clearances around air openings.

Maintain adequate clearances for accessibility for purposes of servicing and proper operation.

COLD CLIMATE INSULATION

For cold climate installations, seal all cracks around the appliance with noncombustible material and wherever cold air could enter the room. It is especially important to insulate outside cavities between studs and under floor on which the appliance rests, if floor is above ground level. Gas line holes and other openings should be caulked with high temperature caulk or stuffed with unfaced fiberglass insulation. If the fireplace is being installed on a cement slab, in cold climates, a sheet of plywood or other raised platform can be placed underneath to prevent conducting cold up into the room. It also helps to sheetrock inside surfaces and tape for maximum air tightness and caulk firestops.

NOTE: The following requirements reference various Massachusetts and national codes not contained in this document.

Requirements for the Commonwealth of Massachusetts

These appliances are approved for installation in the US state of Massachusetts if the following additional requirements are met:

- Un-vented Room Heaters shall be installed in accordance with 527 CMR 30.
- Installation and repair must be done by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.
- The flexible gas line connector used shall not exceed 36 inches (92 centimeters) in length.
- The individual manual shut-off must be a T-handle type valve.
- Unvented appliances may NOT be installed in bedrooms or bathrooms.
- A working smoke detector must be installed in the area where vent-free appliances are installed.

Seller of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

LOCATION OF FIREBOX

Carefully select the best location for installation of your built-in Vent-Free firebox. The following factors should be taken into consideration:

- Clearance to side wall, ceiling, woodwork and windows.
- Location must not be affected by drafts caused by kitchen exhaust fans, return air registers for forced air furnaces/air conditioners, windows or doors.
- Installation must provide adequate ventilation and combustion air.
- Do not install this firebox in a sleeping room or bathroom.
- Location should be out of high traffic areas and away from furniture and draperies due to heat from firebox.
- Never obstruct the front opening of the Vent-Free firebox or restrict the flow of combustion and ventilation air.
- Minimize modifications to existing construction. See **Figure 1** for location suggestions.

CAUTION

Do not install in the vicinity where gasoline or other flammable liquids may be stored. The Vent-Free firebox must be kept clear and free from these combustible materials.

WARNING

Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this appliance.

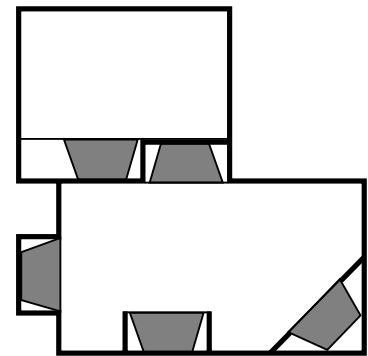
WARNING

Do not install these built-in Vent-Free fireboxes in sleeping quarters, or in recreational vehicles.

WARNINGS

Do not install these appliances:

- Where curtains, furniture, clothing or other flammable objects are less than 42" from the front of the Vent-Free room heater.
- In high traffic areas.
- In windy or drafty areas.



Not to Scale

Figure 1

Clearances

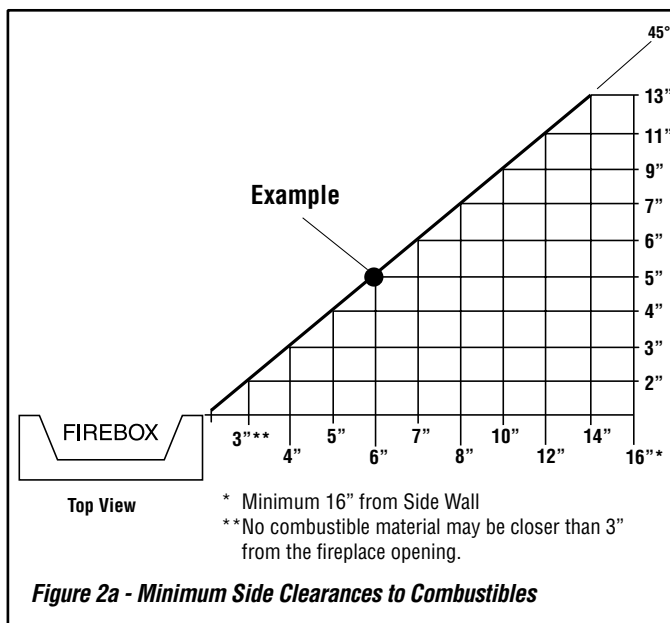
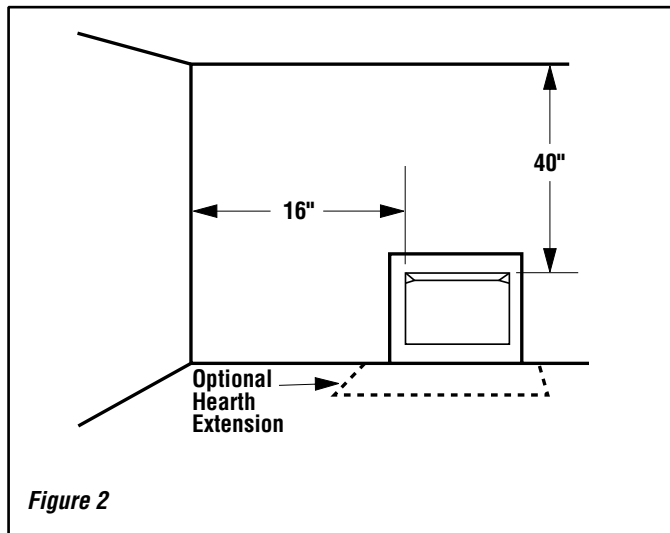
Ensure the minimum clearances shown in **Figures 2 through 4** are maintained. Left and right clearances are determined when facing the front of the firebox.

Follow these instructions carefully to ensure safe installation. Failure to follow these requirements may create a fire hazard.

Combustible Side Clearances:

Clearances from the side of the firebox opening to any combustible material (e.g. side wall, mantel leg, bookshelf, etc.), must comply with the requirements shown in **Figures 2 and 2a**.

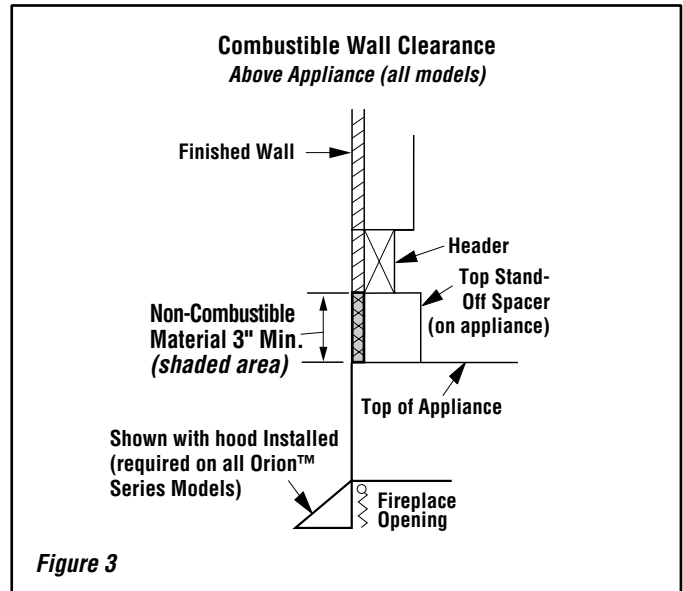
Example: If the mantel leg, bookshelf or other combustible material protrudes 5" from the plane of the wall where the firebox is installed, the combustible material must be a minimum of 6" from the side of the firebox opening (see **Figure 2a**).



Ceiling clearance: The ceiling must be at least 40" from the top of the firebox opening (**Figure 2**).

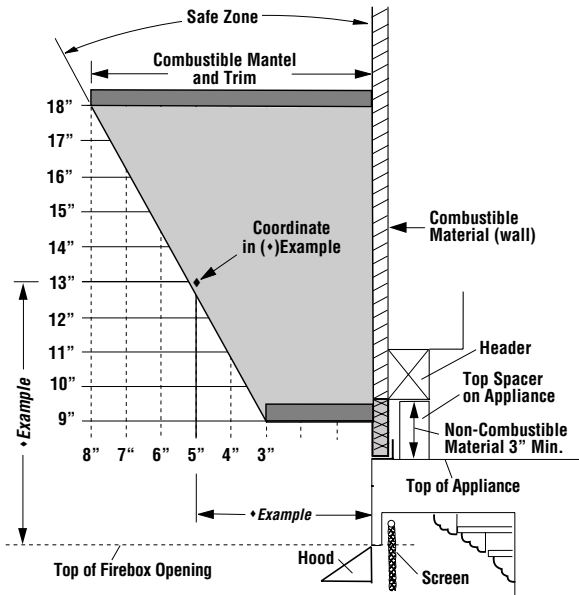
Noncombustible material: Noncombustible materials, such as slate and marble, must be at least 1/2" thick and may be used without restriction above the firebox opening, to the sides or as a hearth extension, so long as they do not obstruct vent openings for heat circulating models.

RECOMMENDATION: Use high temperature finish material for the mantels.



Combustible Mantel and Trim Clearance

Orion Models WITH Hood Installed
Hood is required on all installations for these models.



♦ **EXAMPLE:** If you choose to install a mantel that projects 5", you will need to install it so that the bottom of the mantel and trim is approximately 13" or more above Firebox opening (see coordinate in shaded area above).

Figure 4

Noncombustible material (minimum requirements) with wood mantel or other combustible projections: To install the firebox with a wood mantel, shelf or other combustible projection above firebox opening. Refer to **Figure 4**.

Minimum clearance requirements include any projections such as shelves, window sills, mantels, etc. above the appliance.

WARNING

The hood must be in place to be in compliance with the clearances specified in Figure 4. Do not remove or replace hood, only use hood supplied for these fireboxes (see Page 17). Do not use any hood which may be provided with the decorative type Vent-Free room heater.

If your mantel profile is unsafe, you may either:

- Raise the mantel to an acceptable height, or
- Remove the mantel.

Floor clearance: These fireplaces may sit directly on a combustible surface. The appliance should be mounted on a fully supported base extending the full width and depth of the unit. The appliance may be located on or near conventional construction materials. However,

if installed on combustible materials, such as carpeting, vinyl tile, etc., a metal or wood barrier covering the entire bottom surface must be used.

ASSEMBLY STEPS

NOTES:

- Illustrations shown in this manual reflect “typical” installations with nominal dimensions and are for design and framing reference only. Actual installations may vary due to individual design preferences. However, always maintain minimum clearances to combustible materials and do not violate any specific installation requirements. Refer to the Framing Specifications **Figures on Page 11**.
- The following steps represent the normal sequence of installation. Each installation is unique, however, and might require a different sequence.

Step 1. Position firebox prior to framing or into prepared framing.

Step 2. Field wire the main power supply to the appliance if a blower kit is to be installed (at the time of installation or a later date).

An optional junction box kit and blower kit is required (see **Page 16** for ordering information). Follow the installation and wiring instructions on **Pages 12 through 14**). Electrical connections should only be performed by an experienced, licensed/certified tradesman.

Step 3. Plumb gas line. (Gas connections should only be performed by an experienced, licensed/certified tradesman).

Step 4. Install decorative type Vent-Free room heater per the instructions provided with the Vent-Free room heater.

Step 5. Complete finish wall material, surround and optional hearth extension to your individual taste.

INSTALLATION

Gas Line Installation

CAUTION

Plumbing connections should only be performed by a qualified, licensed plumber. Main gas supply must be off when plumbing gas line to fireplace or performing service.

Consult all local codes.

Properly size and route the gas supply line from the supply regulator to the area where the appliance is to be installed per requirements outlined in the National Fuel Gas Code, NFPA 54 - latest edition (USA) or B149 - latest edition (Canada). Never use galvanized or plastic pipe. Gas lines must be routed, constructed and made of materials that are in strict accordance with local codes and regulations. We recommend that a qualified individual such as a plumber or gas fitter be hired to correctly size and route the gas supply line to the appliance. Installing a gas supply line from the fuel supply to the appliance involves numerous considerations of materials, protection, sizing, locations, controls, pressure, sediment, and more. Certainly no one unfamiliar and unqualified should attempt sizing or installing gas piping.

Remove the gas line access cover plate on either the left or right side of the fireplace (see **Figure 6** showing locations).

Install 1/2" min. to 1-1/2" max. inside diameter approved gas line through the firebox wall for connection to the Vent-Free room heater inside the firebox. Connect the gas line before the firebox is enclosed in the finished wall. Gas line holes and other openings should be caulked with high temperature caulk or stuffed with unfaced fiberglass insulation.

Ensure that a sediment trap is installed in the existing gas line, if not, install a sediment trap upstream of the heater to prevent moisture and contaminants from passing through trap to the heater controls and burners. Failure to do so could prevent the heater from operating reliably.

An external regulator must be used on all propane (L.P.G.) heaters, in addition to the regulator fitted to the heater, to reduce the supply tank pressure to 13" W.C. (maximum). Any copper tubing used to supply propane (L.P.G.) from the tank must be internally tinned.

WARNING

Check Gas Type: The gas supply must be the same as stated on the heater's rating plate. If the gas supply is different, DO NOT INSTALL the heater. Contact your dealer for the correct model.

IMPORTANT

Hold heater regulator with a wrench to prevent movement when connecting to inlet piping.

WARNING

Connecting directly to an unregulated propane (L.P.G.) tank can cause an explosion.

IMPORTANT

Pack unfaced fiberglass insulation material (not provided) around the gas line access hole on appliance and all exterior gas line penetration holes.

TEST ALL CONNECTIONS FOR GAS LEAKS (FACTORY AND FIELD)

Test all gas joints from the gas meter to the gas heater regulator for leaks using a gas leak test solution (also referred to as bubble leak solution).

NOTE: Using a soapy water solution as a leak detection solution is not recommended because the soap residue that is left on the pipes/fittings can result in a false-positive leak detection reading if a gas leak sniffer is used. Soap residue can also result in corrosion over time.

DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS.

Leak Test Procedure:

Turn on gas supply and test for gas leaks using a gas leak test solution.

- A. Light the appliance (refer to the lighting instructions label provided with gas logs).
- B. Brush all joints and connections with the gas leak detection solution. If bubbles are formed, or gas odor is detected, turn the gas control knob (off/pilot/on) to the "OFF" position. Either tighten or refasten the leaking connection, then retest as described above.
- C. When the gas lines are tested and found to be leak free, rinse off the leak testing solution from gas line fittings.

Firebox Framing

Construct firebox framing following **Figures 7 through 9** and **Table 1** on **Page 11** for your specific installation requirements. Refer to **Figure 6** on **Page 10** for firebox dimensions.

The firebox may be installed directly on a combustible floor or raised on a platform of an appropriate height. When the appliance is installed directly on carpeting, vinyl tile or other combustible material, other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance. Be sure firebox rests on a solid continuous floor or platform with appropriate framing for support and so that no cold air can enter room from under the firebox.

CAUTION

Do not block the heat-circulating air inlets and outlets on these fireboxes. Doing so may create a potential fire hazard.

The firebox may be positioned and then the framing built around it, or the framing may be constructed and the firebox positioned into the opening.

Usually, no special floor support is needed for the firebox, however, to be certain:

1. Estimate the total weight of the firebox system and surround materials such as marble, brick, stone, etc., to be installed (see *Product Reference Table* on **Page 10** for appliance weight).
2. Measure the square footage of the floor space to be occupied by the system and surrounds.

3. Note the floor construction, i.e. 2" x 6", 2" x 8" or 2" x 10", single or double joists, type and thickness of floor boards.

4. Use this information and consult your local building code to determine if you need additional support.

If you plan to raise the firebox, build the platform assembly then position firebox on top. Secure the platform to the floor to prevent possible shifting.

Firebox Installation

Step 1. Frame these appliances as illustrated in **Figures 7 through 9**. All framing details must allow for a minimum clearance to combustible framing members as shown in **Figures 2 through 4**. Also refer to appliance specifications on **Page 10**. Headers may be in direct contact with the appliance top spacers but must not be supported by them or notched to fit around them. All construction above the appliance must be self supporting, **DO NOT USE THE APPLIANCE FOR STRUCTURAL SUPPORT**.

NOTE: The framed depth from a framed wall, must always be measured from a finished surface. If a wall covering such as drywall is to be attached to the rear wall, then the depth must be measured from the drywall surface. It is important that this dimension be exact.

Step 2. Level the firebox by checking the top edge of the firebox. Shim if necessary.

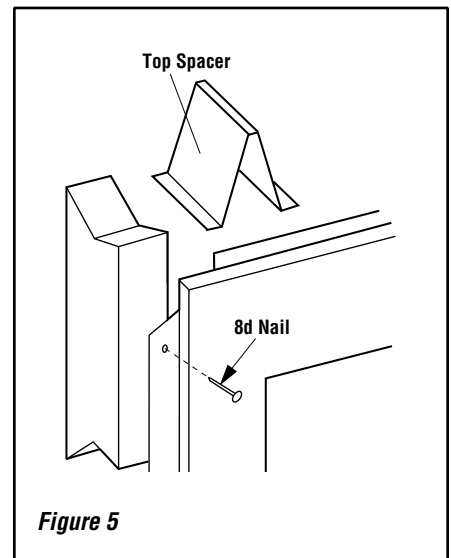
Step 3. Fireplace should be secured to side framing members using the full length nailing tabs at the top and bottom of the fireplace front face. Use 8d nails (see **Figure 5**).

NOTE: The nailing flange and the area directly behind the nailing flange is exempt from the clearances described on the firebox clearance label.

Step 4. To safely operate the heater with consideration of the mantel clearances the hood must be installed.

IMPORTANT

Under no circumstances shall the firebox top spacers be removed or modified (see **Figure 5). The header may be in direct contact with the top spacers but must not be supported by them, notched or altered to fit around them.**



SPECIFICATIONS

Fireplace Dimensions

Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	*Q
ORION32ZB6 ORION32ZP2	33 (839)	24 (610)	37-3/4 (956)	37-1/4 (947)	19-1/2 (496)	20 (508)	3 (77)	7-3/8 (188)	15-7/8 (404)	7-1/2 (191)	12 (305)	1-3/8 (35)	5-1/2 (140)	30-3/8 (772)	29-5/8 (753)
ORION36ZB6 ORION36ZP2	36 (915)	24 (610)	41-3/4 (1061)	37-1/4 (947)	23-1/2 (597)	20 (508)	3 (77)	7-3/8 (188)	15-7/8 (404)	7-1/2 (191)	12 (305)	1-3/8 (35)	5-1/2 (140)	30-3/8 (772)	29-5/8 (753)
ORION42ZB6 ORION42ZP2	42 (1067)	24 (610)	47-3/4 (1213)	37-1/4 (947)	29-1/2 (749)	20 (508)	3 (77)	7-3/8 (188)	15-7/8 (404)	7-1/2 (191)	12 (305)	1-3/8 (35)	5-1/2 (140)	30-3/8 (772)	29-5/8 (753)

Product Reference Information

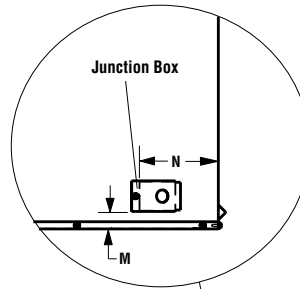
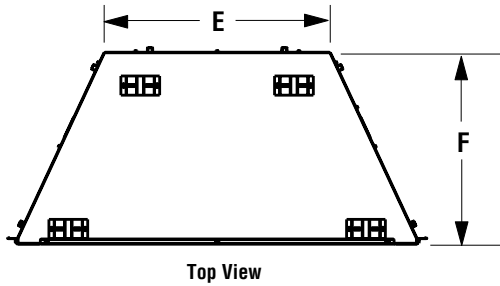
Cat. No.	Model	Ship. Weight (lbs)	Shipping Volume
F3316	Orion32ZB6	115 lbs	20 Cu. Ft
F3313	Orion32ZP2	140 lbs	20 Cu. Ft
F3317	Orion36ZB6	125 lbs	20 Cu. Ft
F3314	Orion36ZP2	150 lbs	20 Cu. Ft
F3318	Orion42ZB6	135 lbs	24 Cu. Ft
F3315	Orion42ZP2	160 lbs	24 Cu. Ft

Interior Firebox Dimensions**

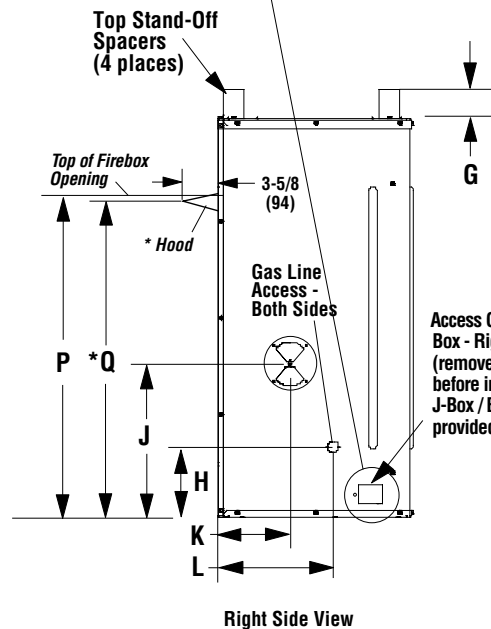
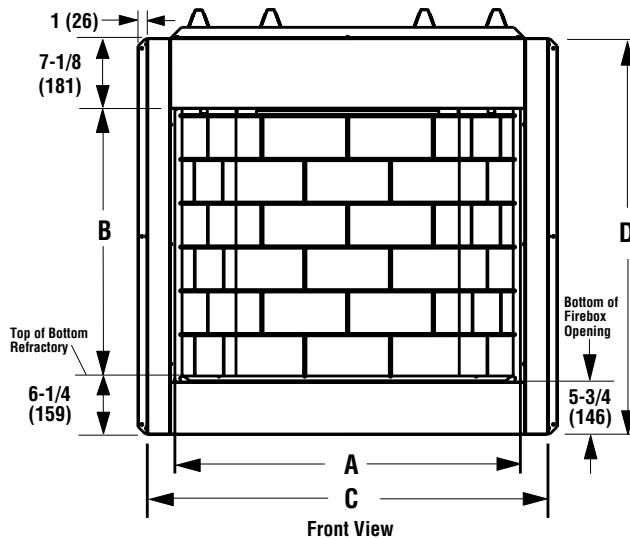
Firebox Model	32"	36"	42"
Front Width	31 (788)	35 (889)	41 (1042)
Rear Width	19-1/4 (489)	23-1/4 (591)	29-1/4 (743)
Depth	17-3/8 (441)	17-3/8 (441)	17-3/8 (441)
Height	24 (610)	24 (610)	24 (610)

**Dimensions are to assist you in selecting a log set that is a compatible size.

Inches (millimeters)



* A hood comes standard and is required for all Orion™ Series models. The factory-supplied hood must be installed on the firebox for safe operation in all installations.



Access Opening for Junction Box - Right Side Only (remove the knock-out before installing J-Box). J-Box / Electrical Kit is not provided with appliance.

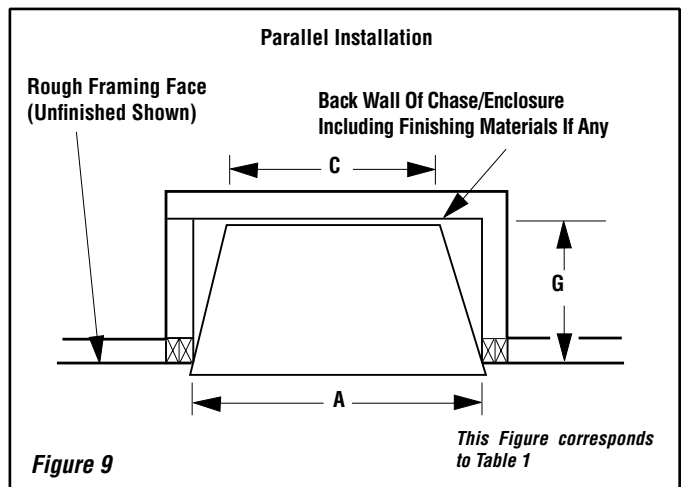
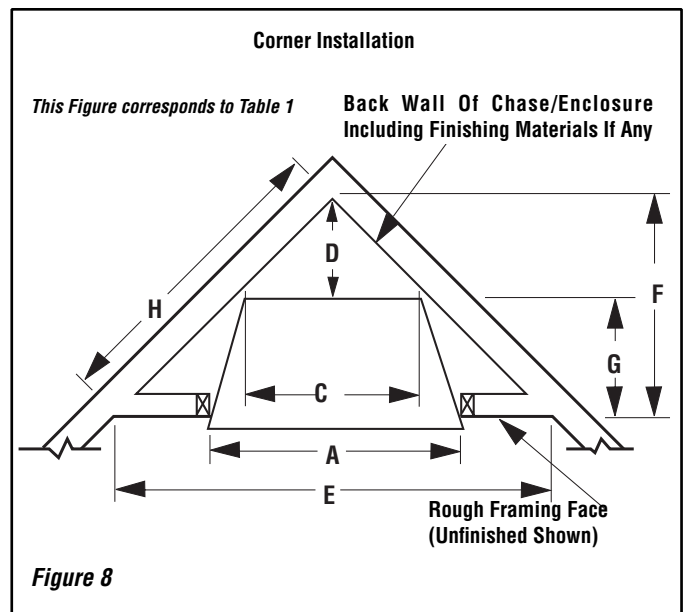
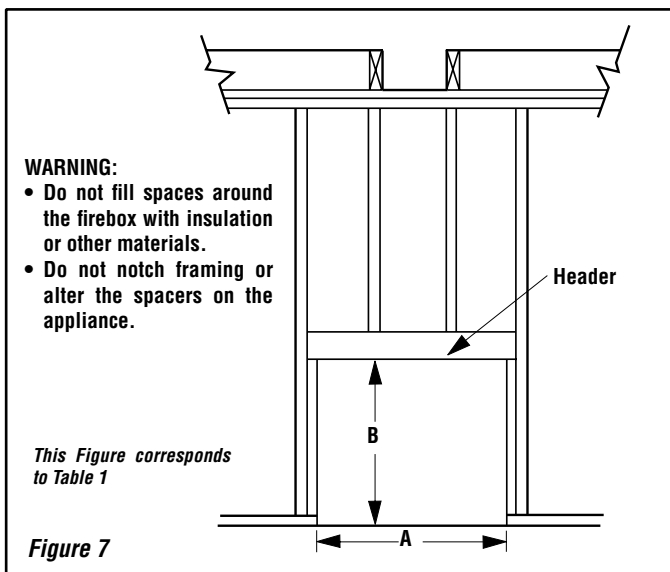
Figure 6

FRAMING SPECIFICATIONS

Framing Dimensions			
Opening	ORION32ZB6 ORION32ZP2	ORION36ZB6 ORION36ZP2	ORION42ZB6 ORION42ZP2
A	38-1/4 (972)	42-1/4 (1073)	48-1/4 (1226)
B	40-1/4 (1022)	40-1/4 (1022)	40-1/4 (1022)
C	19-5/8 (499)	23-5/8 (600)	29-5/8 (753)
D	10-1/4 (260)	12-1/4 (311)	15-1/4 (387)
E	59-3/4 (1518)	63-3/4 (1619)	69-3/4 (1772)
F	29-7/8 (759)	31-7/8 (810)	34-7/8 (886)
G *	20-1/2 (521)	20-1/2 (521)	20-1/2 (521)
H	42-1/4 (1073)	45 (1143)	49-3/8 (1254)

Table 1 - This Table corresponds to Figures 7, 8 and 9

* Back wall of chase/enclosure including finishing materials, if any.



Hood Kit Installation

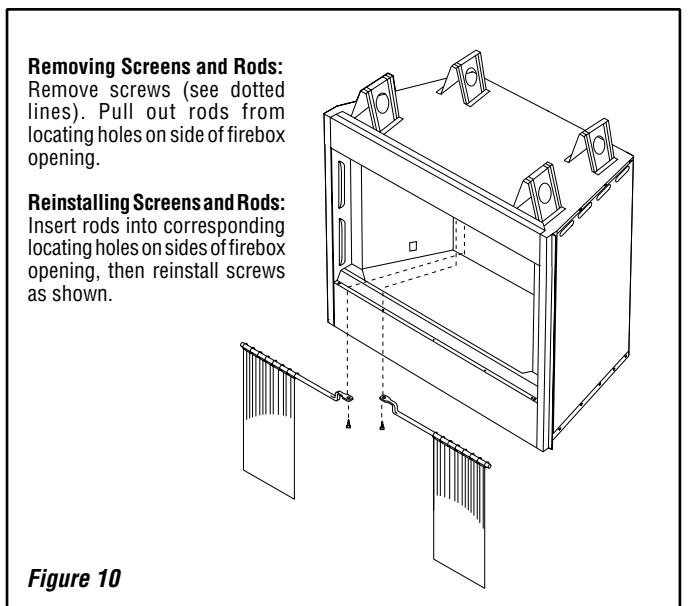
The firebox canopy (hood) shall not be modified or replaced with a canopy that may be provided with the unvented decorative room heater.

NOTE: A hood comes standard and is required. The factory-supplied hood must be installed on the firebox for safe operation in all installations. See Figure 11.

These hood kits are design to be fitted to the face of the appliance directly above the firebox opening. In addition to providing an aesthetically pleasing appearance to your appliance, the hood reduces heat effects to decorative mantels and finish materials located directly above the fireplace and reduces the Mantel / Trim clearances (see Figure 4 on Page 7).

Please read this entire manual and understood thoroughly before proceeding with the installation of these kits.

- Step 1.** Using a 5/16" nut driver or socket, remove the screen and rod assemblies as shown in Figure 10.
- Step 2.** Align the hood with the holes in the side frames as shown in Figure 11. Install three screws as shown in Figure 11. Make sure hood is level and secure.
- Step 3.** Reinstall screen and rod assemblies (see Figure 10).



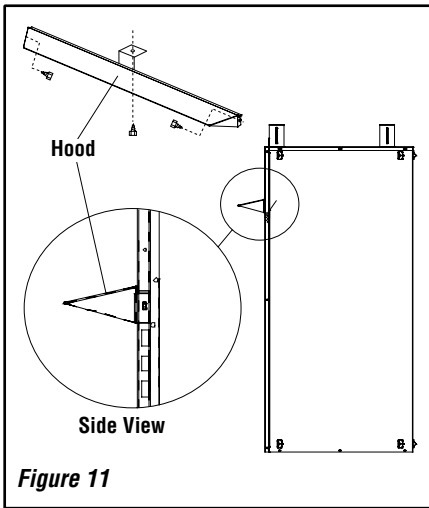


Figure 11

OPTIONAL EQUIPMENT

Blower Kits

The *FBK-100 Blower Kits* are used when a wall-mounted ON/OFF blower switch is desired, and the *FBK-200 Blower Kits* are used when a wall-mounted variable speed blower control (rheostat) is desired. A *Junction Box / Electrical Kit* is also required to install these kits (purchased separately - see **Page 16**).

The blower is installed beneath the firebox. Room air is drawn in through the side slots of the fireplace, heated as it passes across the firebox, and discharged through the upper area of the firebox opening.

The installation instructions for installing these blower kits are on **Pages 12 through 14**. Also see the installation instructions provided with the blower kits (Form # 750028M). For electrical requirements, refer to **Figures 12, 13 and 14**.

If the blower kit is to be installed at the time of installation or at a later date, the main power supply must be installed at the time of installation. **This will require that the electrical connections must be made BEFORE the firebox is framed and enclosed in the finished walls.** Route a 3-wire, 120 VAC, 60 Hz, 1 ph power supply and connect to electrical receptacle wires and wall switch or rheostat.

! IMPORTANT

The **Ground Lead** must be connected to the green screw (located on the junction box). Failure to do this could result in an electrical short or shock injury.

The appliance must be electrically grounded in accordance with local codes or, in the absence of local codes, the national electrical code, ANSI/NFPA 70-(latest edition). (In Canada, the current CSA C22.1 Canadian Electrical Code).

! CAUTION

Electrical connections should only be performed by a qualified, licensed electrician. Main power must be off when connecting to main electrical power supply or performing service.

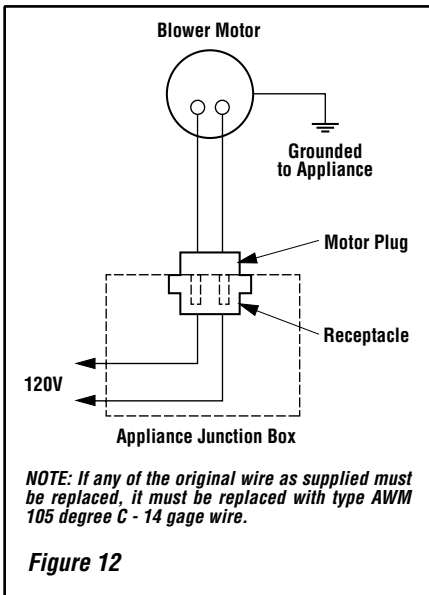


Figure 12

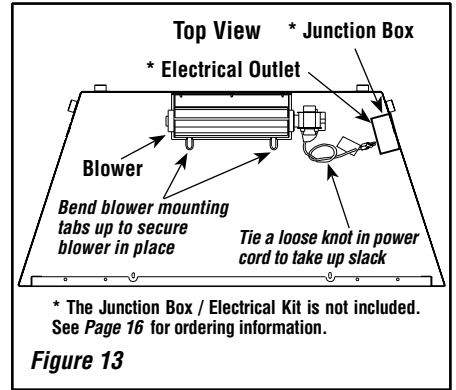


Figure 13

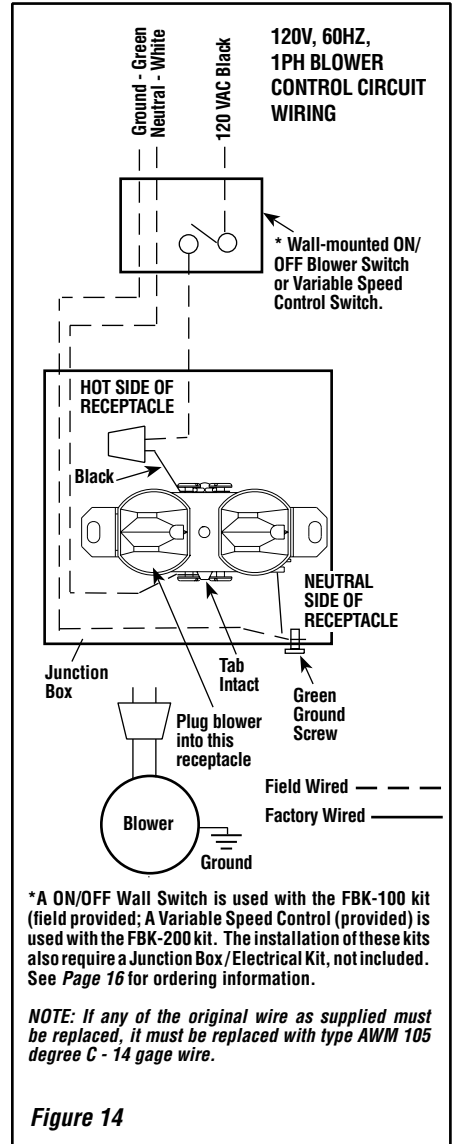


Figure 14

**Installation Instructions -
FBK-100 or FBK-200 Blower Kits and JBK Junction Box Kit**

⚠ IMPORTANT

All electrical wiring must be performed by licensed Electricians. Electrical wiring must comply with the National Electrical Code ANSI/ NFPA 70 - latest edition

Step 1. Follow the instructions below for the model you are installing:

Using a screwdriver remove the screw from the blower access panel as shown in **Figure 15**. Slide the panel to the right until the flange clears the opening. Remove the panel and set aside.

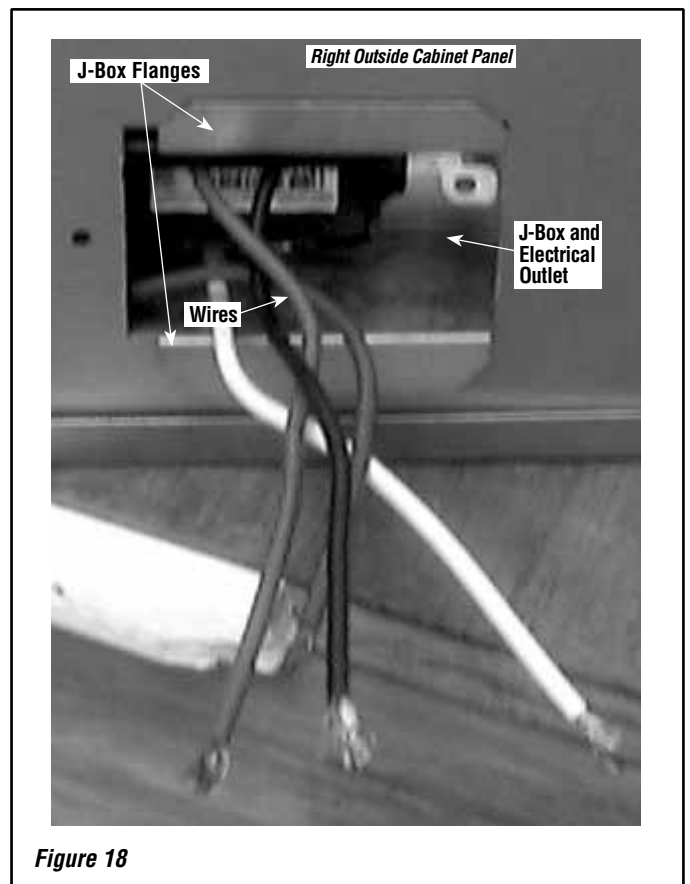
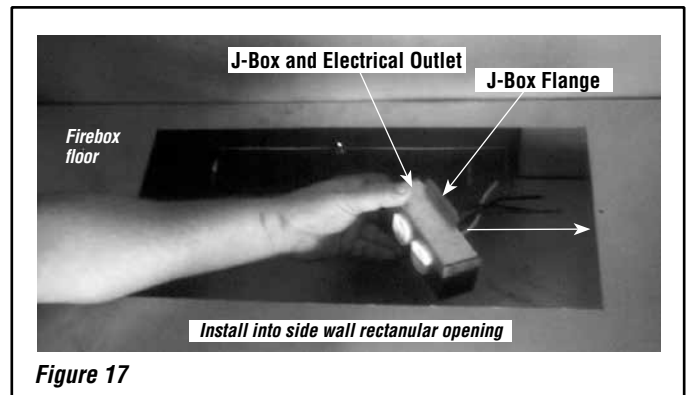
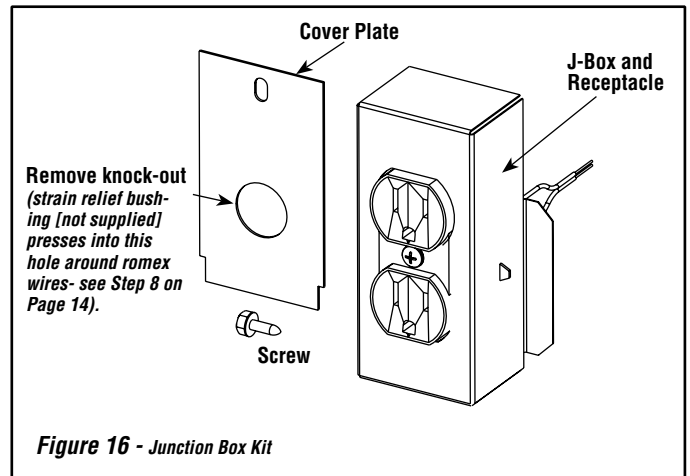
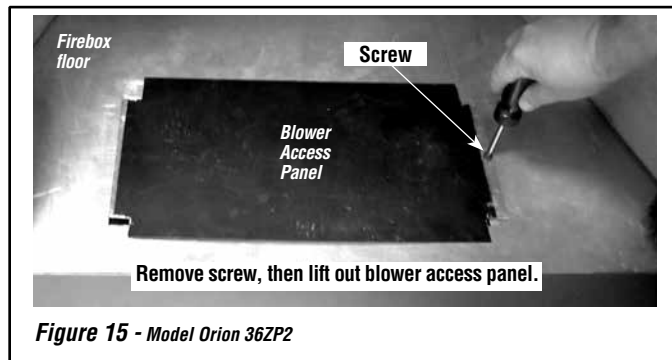
Step 2. Remove the rectangular knock-out (for J-Box) on the right side of unit (see **Figure 6** for location). Install the Junction Box and Electrical outlet below the firebox floor into the rectangular opening on the right side cabinet panel where you removed the knock-out (see **Figures 17 and 18**). The Junction Box / Electrical Kit is sold separately (see **Page 16** for ordering information).

- Squeeze the J-Box flanges together to fit into the opening shown in **Figures 17 and 18**.
- Wires will need to be passed through the hole shown in **Figure 16**.
- An approved strain relief bushing (not supplied with the kit), is required to restrain the wires (see **Figure 16**).

Step 3. Loosely tie a knot in the power cord to take up slack (see **Figure 19**).

Step 4. Locate the tabs shown in **Figure 20**. Position the blower assembly so that the tabs (located on the cabinet base) are seated in the notches of the blower bracket. Bend the tabs over to secure the blower assembly (see **Figure 21**).

Step 5. Plug power cord into the electrical outlet as illustrated in **Figure 13**.



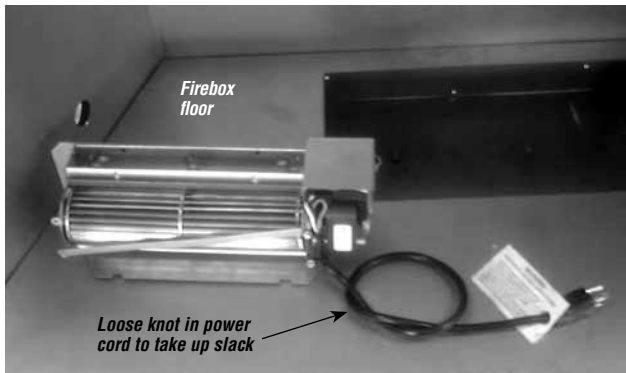


Figure 19

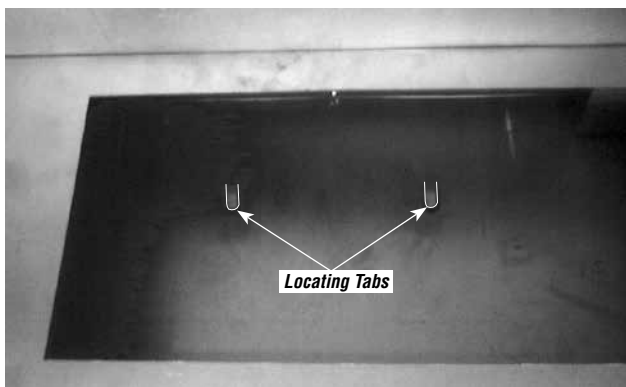


Figure 20

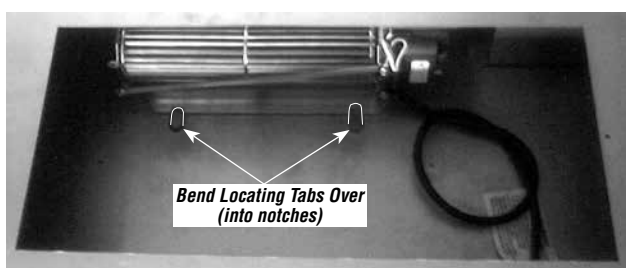


Figure 21

Step 6. Route a 3-wire, 120 VAC, 60 Hz, 1 ph power supply to the right side of appliance.

Step 7. Locate the J-Box cover (provided in J-Box Kit). Remove the round knock-out (see **Figure 16**).

Step 8. Ensure that power supply wires are NOT "live" before making these connections). Install J-Box Cover Plate as follows:

Feed the * Romex wires (or other equivalent plastic insulated wire - Refer ANSI/NFPA 70 - National Electrical Code - Latest Edition) through the J-Box Cover rectangular opening, then connect to the J-box wires. The strain relief bushing (not supplied) should be pressed into the knock-out on J-box cover around the Romex (this will provide protection to the wires and prevents strain against connections from J-box). See Wiring Diagram - **Figure 14**. Install the cover plate over J-Box opening on appliance as shown in **Figure 22**.

NOTE: Wire connections should be positioned inside of the appliance.

* Romex is a plastic insulated wire from power supply - sometimes called non-metallic sheath.

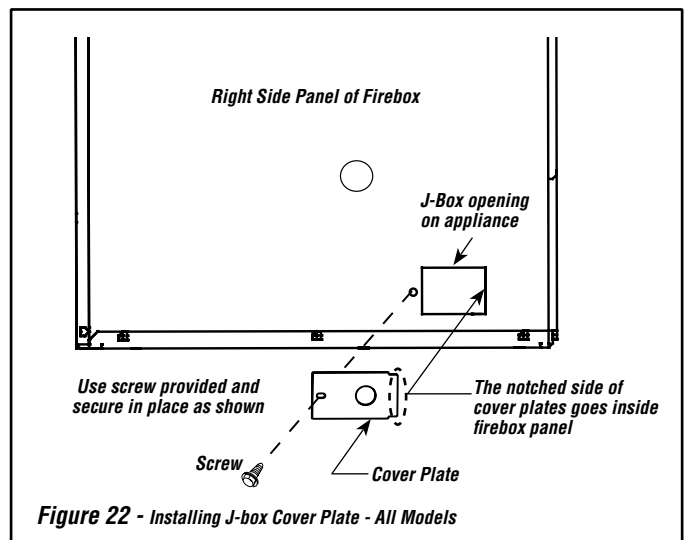



Figure 22 - Installing J-box Cover Plate - All Models

Step 9. Follow the instructions below for the kit you are installing:

 **FBK-100 Kits** - Install a locally sourced ON/OFF wall switch in a convenient location on a wall, near the fireplace.

 **FBK-200 Kits** - Install the kit-provided variable speed control (rheostat) in a convenient location on a wall, near the fireplace.

Step 10. Follow the instructions below for the model you are installing:

Reinstall the blower access panel that was removed on **Step 1** (see **Figure 15**).

FIREBOX FINISHES

There are a wide variety of “finished looks” for your built-in Vent-Free firebox from formal wall decor with elaborate mantels to rustic wood paneling or warm brick facings.

Only noncombustible materials like marble, stone, tile, brick, etc. may overlap the black front facing. Seal all joints between the black facing

and wall surrounds to prevent air intrusion. Use noncombustible caulking material only to seal the black metal facing to the surround material on the finished wall. See **Figures 3 and 23**.

Raised Hearth Extension

A hearth extension may be used but is not required for these appliances. A raised hearth extension may be used as shown in **Figure 23**.

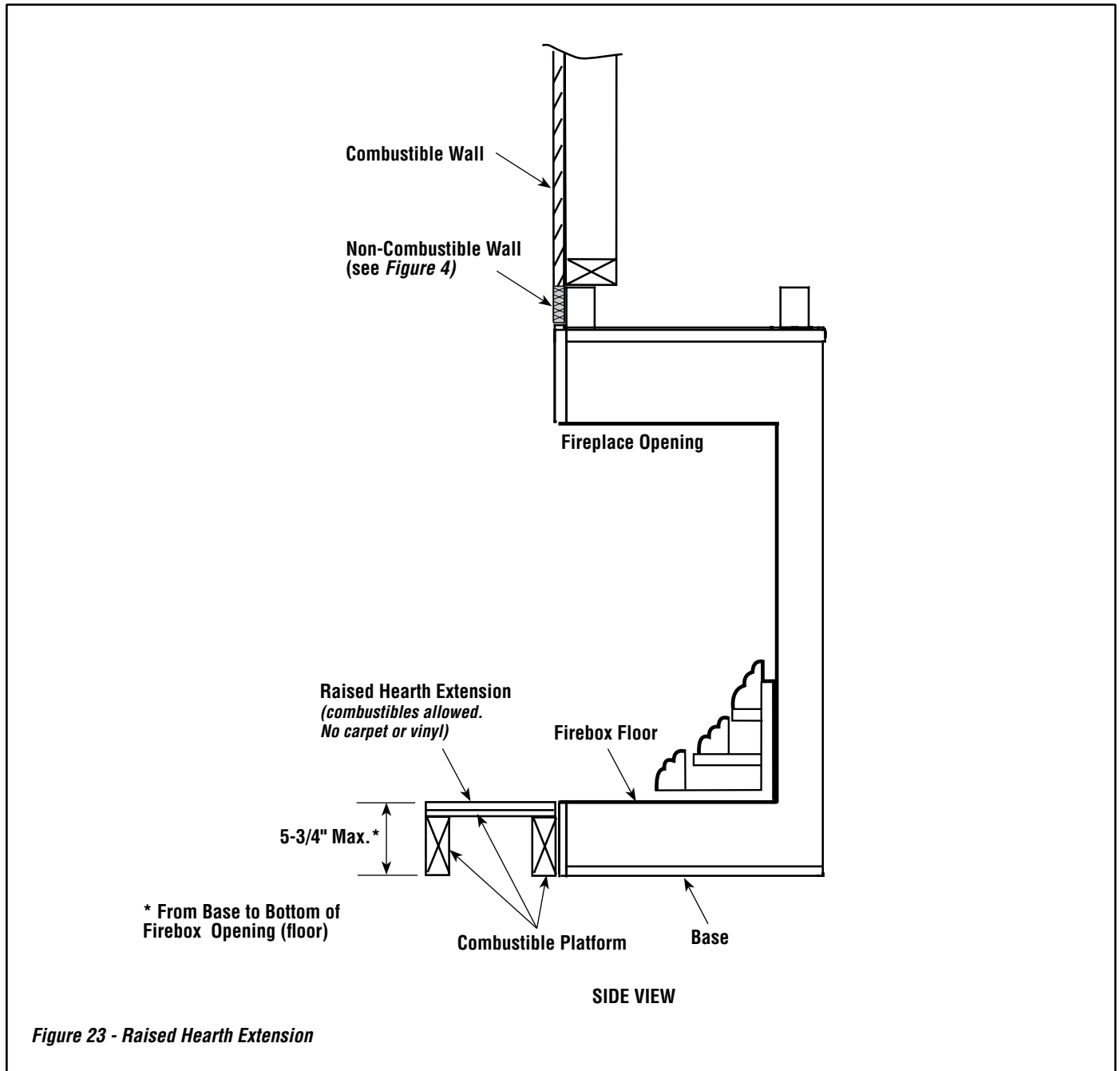
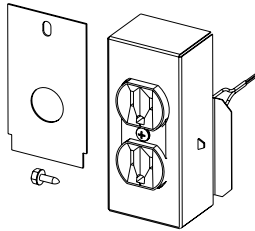


Figure 23 - Raised Hearth Extension

APPROVED ACCESSORIES AND COMPONENTS

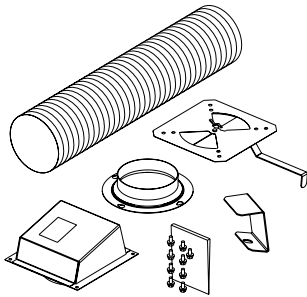


Junction Box / Receptacle Kit		
Cat. No.	Model No.	Description
H1958	JBK	Junction Box / Electrical Kit

(ref. Form #750203M)

Junction Box / Receptacle Kit

The Junction Box (J-Box) Kit is designed to be used when an optional FBK-100 or FBK-200 Blower Kit is to be installed.



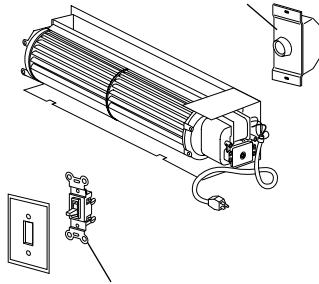
Outside Air Gate & Duct Kit		
Cat. No.	Model No.	Description
H3991	OAK-UVFRC	Outside Air Gate & Duct Kit

(ref. Form #750206M)

Outside Air Gate and Duct Kit

These kits have an air gate assembly, 4" diameter duct and a termination hood. The air gate allows adjustment of the amount of outside air delivered to the fire for combustion. Only one kit, located on the right side of the fireplace, is required.

The variable speed control rheostat is included with FBK-200 models only



An locally sourced ON/OFF wall switch can be used with the FBK-100 models

* The installation of these kits also require a **Junction Box / Receptacle Kit**, not included. See ordering information on this page.

* Forced Air Blower Kits		
Cat. No.	Model No.	Description
80L84	FBK-100	Blower, Standard (single speed)
80L85	FBK-200	Blower, Variable Speed (w/wall-mounted switch)

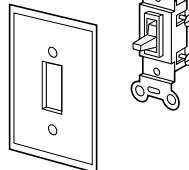
(ref. Form # 750028M)

Blower Kit

The FBK-100 blower provides for a constant velocity forced air circulation feature for your appliance. The FBK-200 assembly with variable speed wall switch provides a forced air circulation feature for your appliance.

ON/OFF Wall Switch Kit

The ON/OFF wall switch kit may be used to control the blower operation, if FBK-100 blower kit is installed. Install the ON/OFF wall switch in a convenient location near the fireplace.



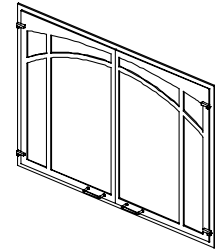
White Wall Switch Kit		
Cat. No.	Model No.	Description
85L87	FWSK	ON/OFF Wall Switch Kit



Touch-Up Paint Kit		
Cat. No.	Model No.	Description
F1882	SCTPSAB	Black touch-up paint, powder coat (for firebox face and hood)

Touch-Up Paint Kit

Repair of minor scratches and discoloration of the appliance black painted surfaces may be accomplished with the touch-up paint kit.



Decorative Arch Screen Panel Kit

This attractive screen door is easy to install and enhances the appearance of the appliance.

Decorative Screen Door Panel Kits		
Cat. No.	Model	Where Used
F3361	ASD3224-TI	Orion32ZB6, Orion32ZP2
H1959	ASD3624-TI	Orion36ZB6, Orion36ZP2
F3362	ASD4224-TI	Orion42ZB6, Orion42ZP2

For more information on available log sets for this and other Astria® products, visit Astria.us.com.

REPLACEMENT PARTS

An exploded view of the firebox with numbered parts and a replacement parts list can be found on the page. Normally, all parts should be ordered through your distributor or dealer. Parts will be shipped at prevailing prices at time of order.

NEVER USE SUBSTITUTE MATERIALS. USE OF NON-APPROVED PARTS CAN RESULT IN POOR PERFORMANCE AND SAFETY HAZARDS.

When ordering repair parts, always give the following information:

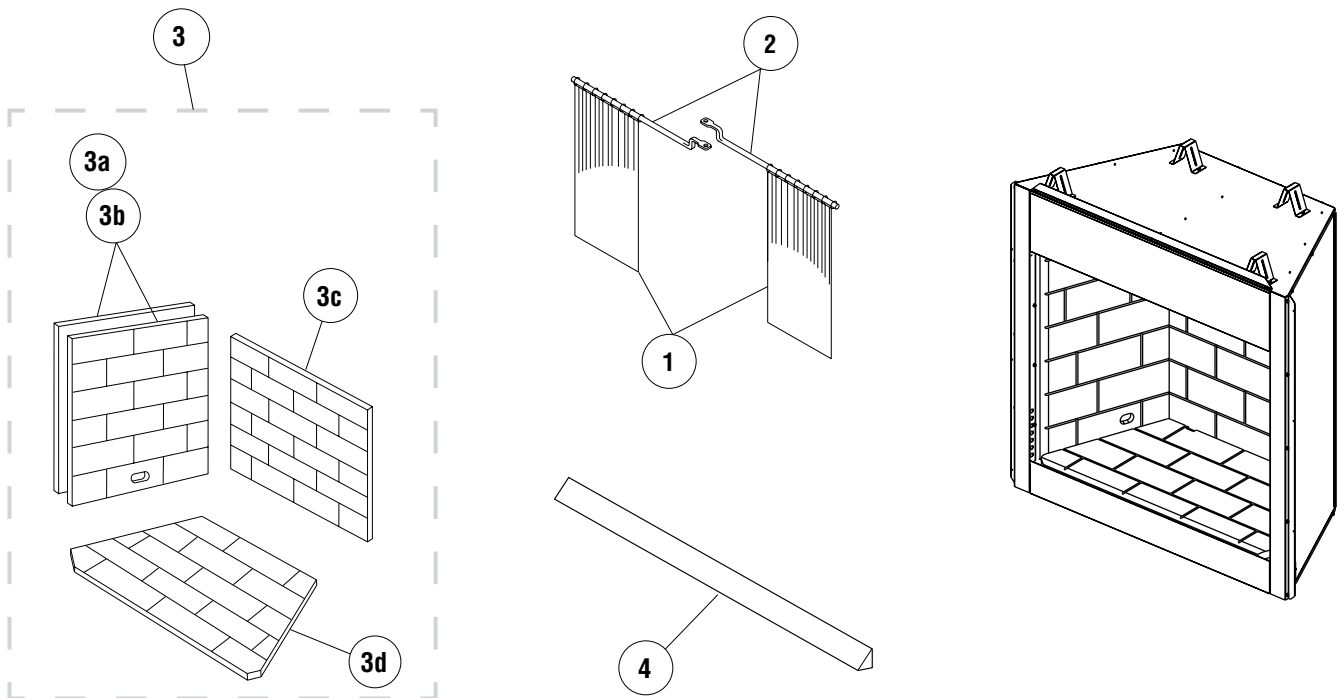
1. The *model number of the firebox.
2. The *serial number of the firebox.
3. The part number.
4. The description of the part.
5. The quantity required.
6. The installation date of the firebox.

*** NOTE:** The model and serial number can be found on the rating label located on the bottom left front corner of the appliance.

If you encounter any problems or have any questions concerning the installation of a Vent-Free heater in this system, please contact your distributor or dealer or visit our website at IHP.us.com for referral information.

WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.



No.	Description	Orion32ZP2 Cat# F3313		Orion36ZP2 Cat# F3314		Orion42ZP2 Cat# F3315		Orion32ZB6 Cat# F3316		Orion36ZB6 Cat# F3317		Orion42ZB6 Cat# F3318	
		Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.	Cat. No.	Qty.
1	Firescreen	F3523	2	F3524	2	F3525	2	F3375	2	H2325	2	H2699	2
2	Rod, Screen	F3376	2	H3919	2	H2700	2	F3376	2	H3919	2	H2700	2
--	Fiber Panel Set, 3 pc.	--	--	--	--	--	--	F3383	1	F3384	1	F3385	1
3	Refractory Panel Set, 4 pc.	F3377	1	F3379	1	F3382	1	--	--	--	--	--	--
3a	Refractory Panel, Left (order set)	--	--	--	--	--	--	--	--	--	--	--	--
3b	Refractory Panel, Right (order set)	--	--	--	--	--	--	--	--	--	--	--	--
3c	Refractory Panel, Rear (order set)	--	--	--	--	--	--	--	--	--	--	--	--
3d	Refractory Panel, Bottom (order set)	--	--	--	--	--	--	--	--	--	--	--	--
4	Hood	F3381	1	H1989	1	H1990	1	F3381	1	H1989	1	H1990	1

Innovative Hearth Products Astria® Brand Gas Fireplace Limited Lifetime Warranty

THE WARRANTY

Innovative Hearth Products ("IHP") Limited Lifetime Warranty warrants your Astria® brand gas fireplace ("Product") to be free from defects in materials and workmanship at the time of manufacture. The product body, firebox and barrier carry the Limited Lifetime Warranty. Ceramic glass carries the Limited Lifetime Warranty against thermal breakage only. After installation, if covered components manufactured by IHP are found to be defective in materials or workmanship during the Limited Lifetime Warranty period and while the Product remains at the site of the original installation, IHP will, at its option, repair or replace the covered components. If repair or replacement is not commercially practical, IHP will, at its option, refund the purchase price or wholesale price of the IHP product, whichever is applicable. IHP will also pay IHP prevailing labor rates, as determined in its sole discretion, incurred in repairing or replacing such components for up to five years. THERE ARE EXCLUSIONS AND LIMITATIONS to this Limited Lifetime Warranty as described herein.

COVERAGE COMMENCEMENT DATE

Warranty coverage begins on the date of purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the Product by an independent IHP dealer/distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from IHP, regardless of the installation or occupancy date.

EXCLUSIONS AND LIMITATIONS

This Limited Lifetime Warranty applies only if the Product is installed in the United States or Canada and only if operated and maintained in accordance with the printed instructions accompanying the Product and in compliance with all applicable installation and building codes and good trade practices.

This warranty is non-transferable and extends to the original owner only. The Product must be purchased through a listed supplier of IHP and proof of purchase must be provided. The product body, firebox and barrier carry the Limited Lifetime Warranty from the date of installation. Vent components, trim components and paint are excluded from this Limited Lifetime Warranty. The following do not carry the Limited Lifetime Warranty but are warranted as follows:

Burner – Repair or replacement for five years from the date of installation

Gas components & electrical components – Repair or replacement for one year from the date of installation

Gaskets – Repair or replacement for one year from the date of installation

Gold & nickel plating – Replacement for two years from date of installation. Excludes tarnishing

Labor coverage – Prevailing IHP labor rates apply for the warranty period of the component

Light bulbs & batteries – Replacement for 90 days from the date of installation

Logs – Replacement for five years from the date of installation against thermal breakage only

Optional blowers & remote controls – Repair or replacement for one year from the date of installation

Optional glass doors & optional glass accessories – Repair or replacement for 90 days from the date of installation

Optional surrounds – Stone/Natural Materials: Replacement for one year against cracking or breakage due to thermal stress. Other Materials: Replacement for one year. Excludes surface and hairline cracks and scratches or slight color changes that do not affect the operation or safety of the unit

Tempered Glass -Replacement for one year from the date of installation

Parts not otherwise listed carry a 90 day warranty from the date of installation.

Whenever practicable, IHP will provide replacement parts, if available, for a period of 10 years from the last date of manufacture of the Product.

IHP will not be responsible for: (a) damages caused by normal wear and tear, accident, riot, fire, flood or acts of God; (b) damages caused by abuse, negligence, misuse, or unauthorized alteration or repair of the Product affecting its stability or performance (The Product must be subjected to normal use. The Product is designed to burn either natural or propane gas only. Burning conventional fuels such as wood, coal or any other solid fuel will cause damage to the Product, will produce excessive temperatures and could result in a fire hazard.); (c) damages caused by failing to provide proper maintenance and service in accordance with the instructions provided with the Product; (d) damages, repairs or inefficiency resulting from faulty installation or application of the Product.

IHP is not responsible for inadequate fireplace system draft caused by air conditioning and heating systems, mechanical ventilation systems, or general construction conditions which may generate negative pressure in the room in which the appliance is installed. Additionally IHP assumes no responsibility for drafting conditions caused by venting configurations, adjoining trees or buildings, adverse wind conditions or unusual environmental factors and conditions that affect the operation of the unit.

This Limited Lifetime Warranty covers only parts and labor as provided herein. In no case shall IHP be responsible for materials, components or construction, which are not manufactured or supplied by IHP or for the labor necessary to install, repair or remove such materials, components or construction. Additional utility bills incurred due to any malfunction or defect in equipment are not covered by this warranty. All replacement or repair components will be shipped F.O.B. from the nearest stocking IHP factory.

LIMITATION ON LIABILITY

It is expressly agreed and understood that IHP's sole obligation and the purchaser's exclusive remedy under this warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified herein.

In no event shall IHP be liable for any incidental or consequential damages caused by defects in the Product, whether such damage occurs or is discovered before or after repair or replacement, and whether such damage is caused by IHP's negligence. IHP has not made and does not make any representation or warranty of fitness for a particular use or purpose, and there is no implied condition of fitness for a particular use or purpose.

IHP makes no expressed warranties except as stated in this Limited Lifetime Warranty. The duration of any implied warranty is limited to the duration of this expressed warranty.

No one is authorized to change this Limited Lifetime Warranty or to create for IHP any other obligation or liability in connection with the Product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. The provisions of this Limited Lifetime Warranty are in addition to and not a modification of or subtraction from any statutory warranties and other rights and remedies provided by law.

INVESTIGATION OF CLAIMS AGAINST WARRANTY

IHP reserves the right to investigate any and all claims against this Limited Lifetime Warranty and to decide, in its sole discretion, upon the method of settlement.

To receive the benefits and advantages described in this Limited Lifetime Warranty, the appliance must be installed and repaired by a licensed contractor approved by IHP.

Contact IHP at the address provided herein to obtain a listing of approved dealers/distributors. **IHP shall in no event be responsible for any warranty work done by a contractor that is not approved without first obtaining IHP's prior written consent.**

HOW TO REGISTER A CLAIM AGAINST WARRANTY

In order for any claim under this warranty to be valid, you must contact the IHP dealer/distributor from which you purchased the product. If you cannot locate the dealer/distributor, then you must notify IHP in writing. IHP must be notified of the claimed defect in writing within 90 days of the date of failure. Notices should be directed to the IHP Warranty Department at 1508 Elm Hill Pike, Suite 108, Nashville, TN 37210 or visit our website at WWW.ASTRIA.US.COM.

IHP reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and the discontinuance of colors, styles and products. Consult your local distributor for fireplace code information.



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