

INSTALLER / CONSUMER SAFETY INFORMATION

Please read this manual before installing and using appliance.

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.

—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.
- 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.

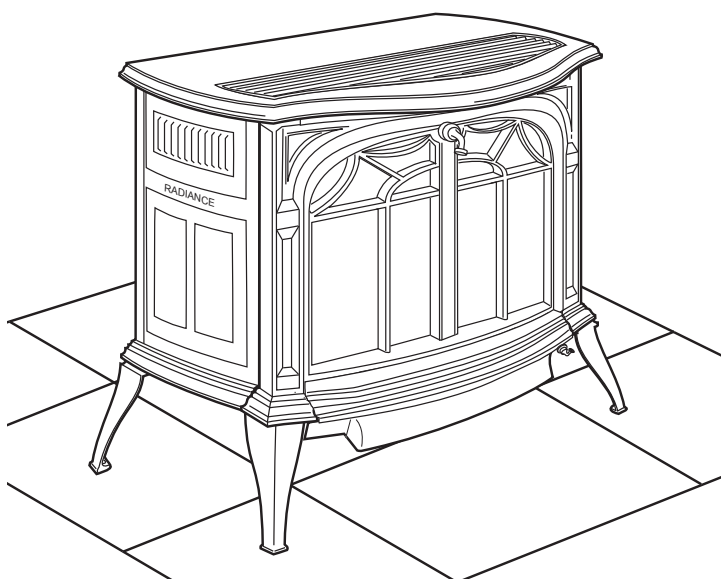
This is an unvented gas-fired heater. It uses air (Oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to Page 7.



Radiance®

Vent Free Gas Heater

Models: 0003380, 0003381



Homeowner's Installation and Operating Manual



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

Table Of Contents

PLEASE READ THE INSTALLATION & OPERATING INSTRUCTIONS BEFORE USING APPLIANCE.

Thank you and congratulations on your purchase of a Vermont Castings stove.

IMPORTANT: Read all instructions and warnings carefully before starting installation. Failure to follow these instructions may result in a possible fire hazard and will void the warranty.

Installation and Operating Instructions	3
Stove Dimensions	4
Clearance Requirements.....	5
Hearth Requirements	5
Gas Specifications.....	6
Gas Inlet and Manifold Pressures	6
High Elevations	6
Odor During Operation	6
Vent Free Features.....	7
Fresh Air Requirements.....	7
Assembly Procedures	
Tools Required/Hardware Bag Contents	8
Unpacking the Radiance	8
Remove the Front, Screen and Logs	8
Assemble Legs.....	9
Install Optional Fan	9
Install ON/OFF Switch.....	11
Thermostat Connection (Optional)	11
Glass & Catalyst Installation.....	12
Connect the Gas Supply Line.....	13
Install Log Set.....	13
Complete the Installation	14
Operation	
Your First Fire	15
Pilot and Burner Inspection	15
Flame & Temperature Adjustment	15
Flame Characteristics.....	15
Lighting Instructions	16
Troubleshooting.....	17
Maintenance	
Firebox Cleaning and Inspection.....	19
Cleaning Procedure.....	19
Glass Replacement	19
Care of Cast Iron	19
Catalytic Combustor	20
Replacement Parts	21
Optional Accessories	23
Warranty	27

Proposition 65 Warning: Fuels used in gas, woodburning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.
California Health & Safety Code Sec. 25249.6

Installation & Operating Instructions

In order to ensure safe and effective installation, this unit must be installed only by a qualified agency, individual, firm, corporation or company that is experienced in the installation, repair and servicing of this type of appliance and is familiar with the building codes and installation techniques appropriate in your area. Contact your hearth products dealer or local gas supplier for the name of a qualified service person.

In the Commonwealth of Massachusetts, all gas fittings and installation of this heater shall only be done by a licensed gas fitter or licensed plumber.

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this heater. Improper use of this heater can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon monoxide poisoning. Failure to follow instructions may result in property damage, bodily injury or loss of life. This manual contains important user information. Keep this manual with the heater after installation is complete.

FOR SAFE INSTALLATION AND OPERATION, PLEASE NOTE THE FOLLOWING:

1. Use only Natural Gas with RUVSODRN. Use only Propane with RUVSODRP. Do not use any other fuels.
2. Install only in accordance with the National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest edition. (Exception: Do not derate this appliance for altitude. This appliance has been tested and listed for use in altitudes up to 10,000 feet.)
3. Use only the installation instructions provided by the manufacturer for this appliance. Installation and repair should be done by a qualified installer, preferably NFI or WETT (Canada) certified. The appliance 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 imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.
4. **WARNING:** Any change to this heater or its controls can be dangerous. **DO NOT** make modifications to any heater or associated parts.
5. **DO NOT** install this heater in a bedroom or bathroom.
6. Due to high surface temperatures, **DO NOT** install this heater
 - in a recreational vehicle,
 - where curtains, furniture, clothing or other flammable objects are less than 36 inches from the front, top or sides of the heater,
 - in high traffic areas,
 - in windy or drafty areas.
7. **DO NOT** place clothing or other flammable material on or near the appliance.

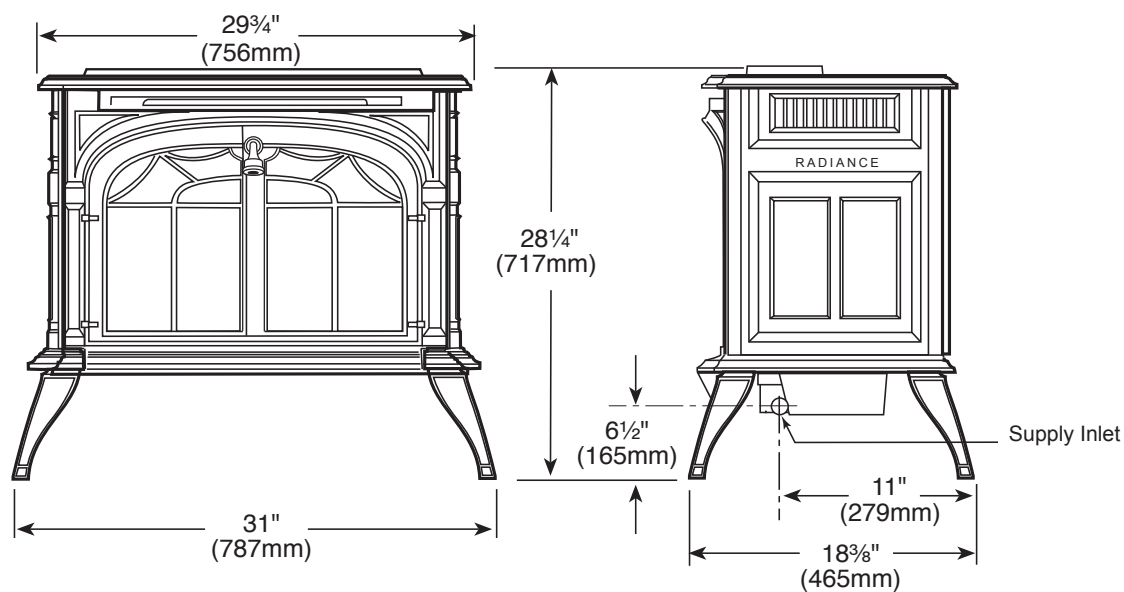
CARBON MONOXIDE POISONING MAY LEAD TO DEATH!

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the heater may not be working properly. Get fresh air at once! Have the heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

8. **DO NOT** obstruct the top grille at all. Doing so will cause high levels of carbon monoxide that will lead to death.
9. This heater needs fresh, outside air ventilation to operate properly. Refer to the Fresh Air Requirements on Page 7.
10. This heater 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.
10. If heater shuts off, heater may not have enough fresh air ventilation. Provide more fresh air. If heater keeps shutting off, refer to Troubleshooting.
11. **DO NOT** operate this heater
 - where flammable liquids or vapors are used or stored
 - under dusty conditions.
12. The heater becomes very hot when operating. Alert children and adults to stay away from hot surfaces to avoid burns or clothing ignition. The heater will remain hot for a time after shutdown. Allow surface to cool before touching.
13. Carefully supervise young children when they are in the room with the heater.
14. Do not use the heater if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
15. **DO NOT** operate the heater if any log is broken or damaged.
16. Turn heater off and let cool before servicing. Only a qualified service person should service and repair heater.
17. **DO NOT** operate this appliance with the safety screen removed. If the safety screen is removed from the appliance for service or cleaning, it must be replaced before operating the heater.

NOTE: If any of the original wire as supplied with the appliance must be replaced, it must be replaced with a wire of at least 105° F temperature rating.

Radiance Vent Free Gas Heater Dimensions



Drawing Not to Scale

4555

Fig. 1 Radiance Vent Free dimensions.

Clearance Requirements

Minimum Clearances to Combustible Materials

Maintain clearance, (empty space), between combustible materials and the heater as specified below.

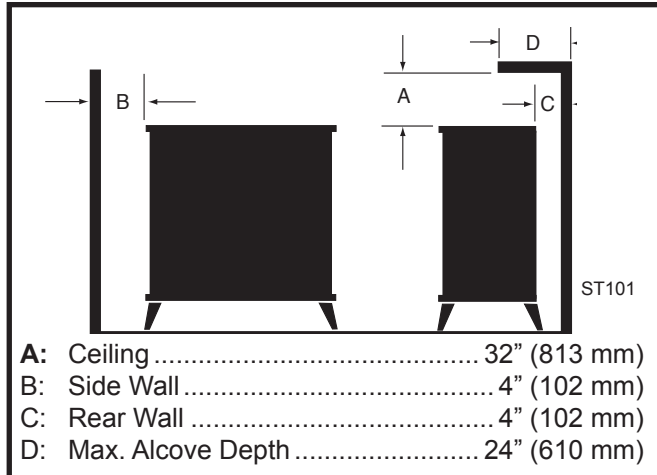


Fig. 2 Minimum wall clearances.

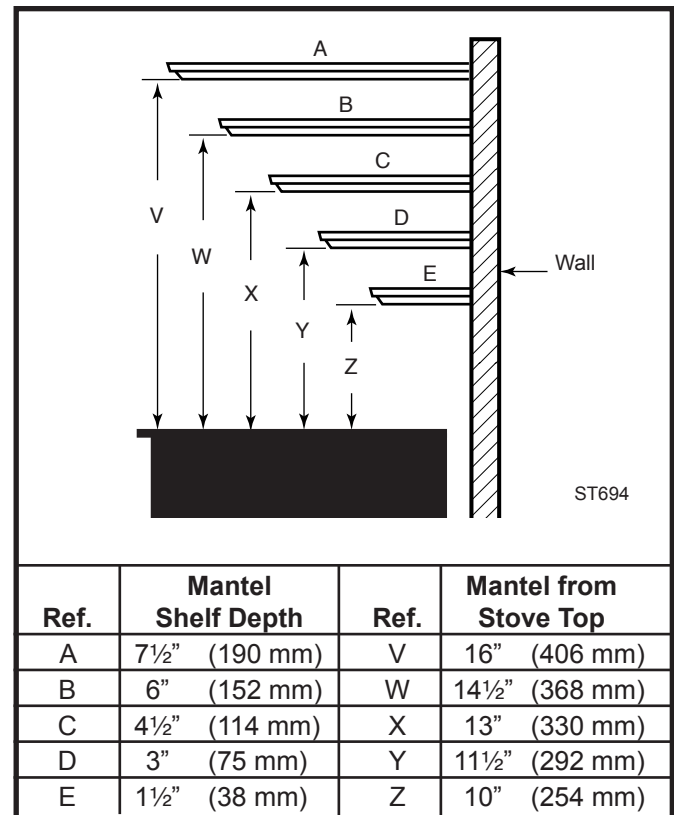


Fig. 3 Minimum mantel clearance.

Hearth Requirements

The Radiance Unvented heater must be installed on rigid flooring. If the appliance is installed on any combustible surface other than wood flooring, such as carpet or tile, a metal or wood panel must be installed to extend the full length and width of the unit. There are no other hearth or floor protection requirements.

WARNING

- Do not install this heater in a bathroom or bedroom.
- Installation of this heater must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54.
- This heater creates warm air currents. These currents move heat to wall surfaces next to the heater. Installing the heater next to vinyl or cloth wall coverings or operating the heater where impurities in the air such as tobacco smoke exist, may discolor walls.
- Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.

Gas Specifications

Model	Fuel	Gas Control	Max. Input BTU/h	Min. Input BTU/h	Air Shutter Setting
3380	Nat.	Millivolt	35,000	26,000	Fully Closed
3381	Prop	Millivolt	35,000	26,000	1" Open
RGODCFK Catalyst Kit					No air shutter (remove)

Firebox weight / shipping 175 lbs.

Gas Inlet and Manifold Pressures

	Natural	LP (Propane)
Inlet Minimum	5.5" w.c.	11" w.c.
Inlet Maximum	14" w.c.	14" w.c.
Manifold Pressure	3.5" w.c.	10" w.c. (MP) 11" w.c. (RP)

Radiance Vent-Free**Certified to:****ANSI Z21.11.2 (Latest Edition)****Unvented Heaters**

The installation of your Radiance stove must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1/NFPA 54 - latest edition. (EXCEPTION: Do not derate this appliance for altitude up to 4,500 feet (1,370 m). Maintain the manifold pressure at 3.5" w.c. for Natural Gas and 11.0" w.c. for LP Gas.

This appliance may be installed in an aftermarket* manufactured (mobile) home, where not prohibited by state or local codes.

This appliance is to be used only with the type of gas specified on the rating plate which is attached to the rear panel. This appliance is not convertible for use with other gases.

*Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.

High Elevations

Input ratings are shown in BTU per hour and are certified without deration from elevations up to 4,500 feet (1,370 m) above sea level.

Nuisance outages may occur at altitudes above 4,500 feet (1,370 m) if dirt, dust, lint and/or cobwebs are allowed to accumulate on burner and/or ODS pilot. Monthly inspection and cleaning is recommended for altitudes above 4,500 feet (1,370 m)

For elevations above 4,500 feet (1,370 m), installations must be in accordance with the current ANSI Z223.1/NFPA 54 and/or local codes having jurisdiction.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

Odor During Operation

Neither natural gas nor propane gas give off an odor when burned. The nature of a vent free combustion system, however, is such that odors may occasionally be produced during heater operation when impurities exist in the immediate area. Cleaning solutions, paint, solvents, cigarette smoke, candles, adhesives, new carpet or textiles, etc., all can create fumes. These fumes may mix with combustion air and can create odor. Such odors will disappear over time, however the condition can be alleviated by opening a window or otherwise providing additional ventilation to the area.

Vent Free Features

The Radiance Vent Free stove, is an unvented gas heating appliance tested and listed to the ANSI standard Z21.11.2 Latest Edition. This appliance is specifically configured to burn either Natural Gas or Propane fuel, as indicated on the metal rating plate attached to the rear shroud. The Radiance Vent Free is not fuel convertible.

The stove is shipped fully assembled with the exception of the log set. The log set is assembled during installation.

The stove is equipped with an SIT control valve that allows thermostatic control, on/off switch or a remote switch (not supplied).

The stove model incorporates variable regulators that allow you to adjust burner heat output between HIGH, (35,000 Btu), and LOW, (26,000 Btu). See the Operation Section for details.

A push button Piezo ignitor is used to light the standing pilot. The pilot incorporates an Oxygen Depletion System (ODS/pilot) which will shut off gas flow to the burner in the event that sufficient fresh air becomes unavailable for continued safe operation.

Fresh Air Requirements for Combustion and Ventilation

WARNING

This heater must have fresh air for proper operation. If not, poor fuel combustion could result. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Modern construction standards have resulted in homes that are highly energy-efficient and that allow little heat loss. Your home needs to breathe, however, and all fuel-burning appliances within it require fresh air in order to function properly and safely. Exhaust fans, clothes dryers, fireplaces, and other fuel burning appliances all use the air inside the building. If the available fresh air is insufficient to meet the demands of these appliances, problems can result.

The Radiance Unvented heater has specific fresh air requirements. **You must determine that these fresh air requirements will be met within the space where the appliance will be installed.** The following information will help you insure that adequate fresh air is available for the heater to function properly.

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.

Assembly Procedures

Read these instructions thoroughly before starting the assembly. Follow procedures in the order given. Inspect the stove for damage before starting the assembly. Do not install this stove if any damage is evident. Contact your dealer immediately.

The Radiance is shipped on its back, mounted to a wooden pallet. It is fully assembled, although packing materials must be removed from the firebox and the Log Set installed. Connection to the gas supply must be performed only by a qualified gas technician who should also verify that adequate ventilation is available to support proper burner function.

Installation of optional accessories, such as the Fan, Glass/Catalyst, or thermostat, is most easily accomplished before the gas supply connection is made.

Tools Required

- Stub-handled Phillips screwdriver
- Standard Phillips screwdriver
- Standard flat-blade screwdriver
- Tape measure
- work gloves
- knife
- needlenose pliers

Hardware Bag Contents

- Porcelain Handle (Front Door)
- Control Door Handle & Screw
- (2) Bags of Lava Rock
- (6) 10 x 1/2" Screws
- Bracket, Wire Switch
- Registration Card & Manual
- (4) CS, Hex Hd 3/8-16 x 1 Gr 2-Z
- (4) Washer, Fl 3/8-Z

Unpacking the Radiance

Caution: Enamelled castings can chip easily! Handle enamelled castings carefully to avoid damage.

1. Cut the shipping straps.
2. Unpack the top grate and screen from the carton, and set them aside.

Remove the Front, Screen and Logs

Remove the Front panel, the Screen panel, the Log Set and hardware bag from the firebox before positioning the stove.

1. Remove the accessory package from the top of the stove. The manual, hardware package, and lava rocks are packed on top of the firebox. Set these aside.
2. Remove the Front Plate. Grasp one side and the bottom, and lift the front plate as a unit (the control door attaches to the stove front). Swing the bottom edge out and away from the stove body, (Fig. 4)
3. Remove the screen frame. (Fig. 5)
4. Remove the Log Set. Lift out the package and any packing material from the burner tray and firebox. Unpack the log set and inspect each piece for damage. **DO NOT INSTALL DAMAGED LOGS.** Set the logs aside out of the way.

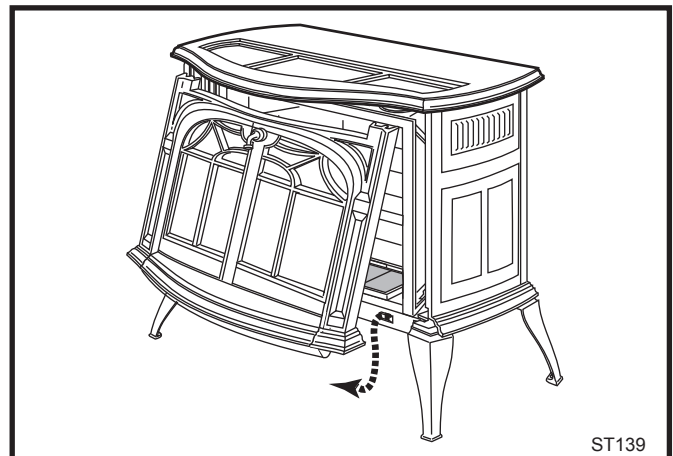


Fig. 4 Remove the front plate.

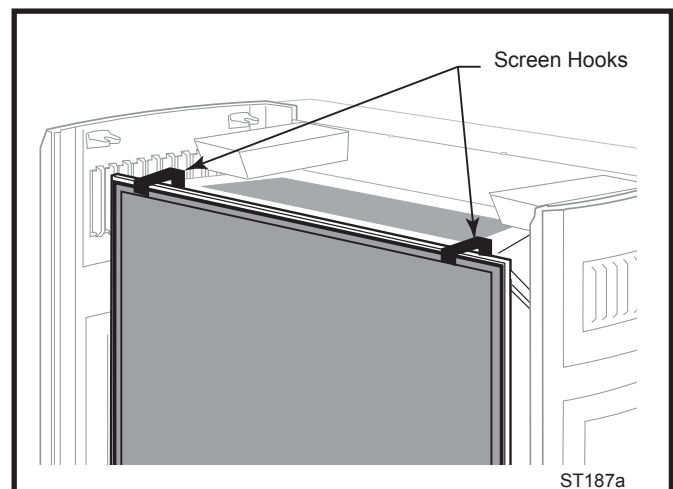


Fig. 5 Lift screen from firebox.

Assemble the Legs

- Slide stove to the rear of the pallet just far enough to access rear leg holes. Make sure the stove does not tip over backwards. (Fig. 6)

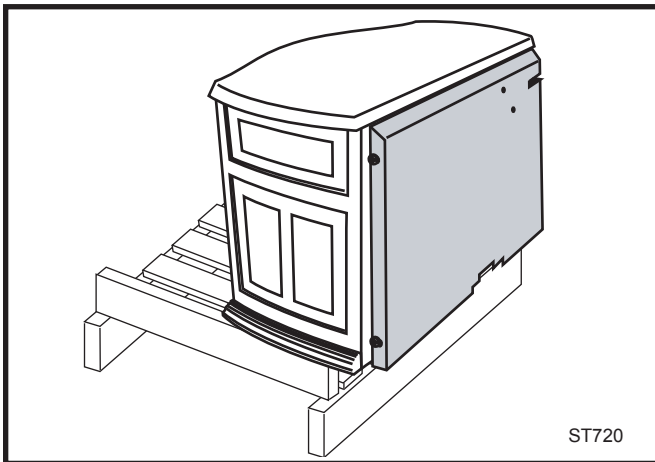


Fig. 6 Slide stove back just far enough to access rear leg holes.

- Attach the rear legs using 3/8" hex head bolts and flat washer supplied. Tighten with a 9/16" wrench or socket. Remove and discard the large slot-head screws using the flat-blade screwdriver.
- Carefully tip the stove onto its rear legs. Adjust the pallet to allow access to one of the front leg holes. Be sure to leave the pallet under the stove to prevent the stove from falling fully forward. (Fig. 7)

CAUTION: To prevent valve tubing from being crushed or damaged, make sure to rest valve on wooden pallet.

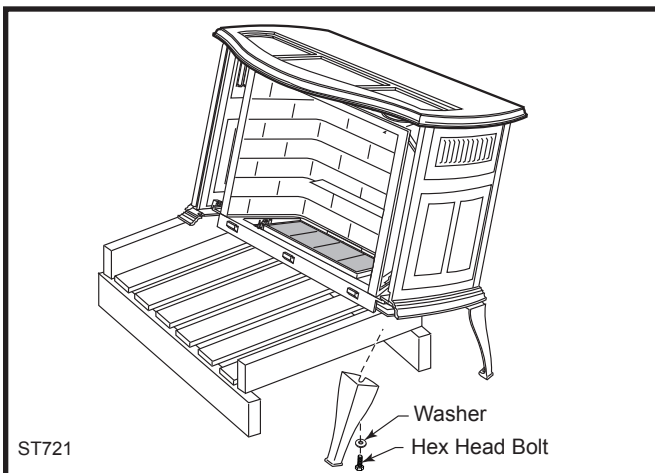


Fig. 7 Carefully tip stove onto back legs. Leave pallet under stove to keep stove from falling fully forward.

- Have your assistant attach one leg using the hardware described.
- Move the pallet to allow access to the other front leg hole. Attach remaining leg.

- Remove pallet and allow stove to gently rest on all four legs.
- Adjust leg levelers to compensate for irregularities in the hearth.

Install Optional Fan

It is easiest to install the optional fan kit #2767/FK26, before the stove is moved to its final location or connected to the gas line.

The fan consists of a blower assembly and a rheostat switch that are connected by a wire harness. The blower attaches to a bracket at the bottom of the rear shroud. The rheostat installs at the bottom of the stove on the left of the valve.

The fan kit includes a 'snapstat', a temperature-sensing switch which will be mounted to the blower duct just below the top plate of the stove. The snapstat automatically turns the fan on or off at approximately 109° F.

The rheostat provides a range of fan speed settings from OFF (which overrides the snapstat function) to high.

Kit Contents

- Fan assembly with rheostat and snapstat
- wire tie • control knob • retaining collar

CAUTION: Sheet metal edges can be sharp. Be sure to wear protective gloves.

- Loosen the four phillips head screws which secure the rear shroud to the stove sides. (Fig. 8)
- Carefully pull the shroud assembly away from the rear of the stove.
- With the rear shroud assembly in the upright position, set the bottom of the shroud on a padded surface to prevent scratching the surface. Unfasten the four phillips head screws which attach the outer shroud to the inner duct assembly.

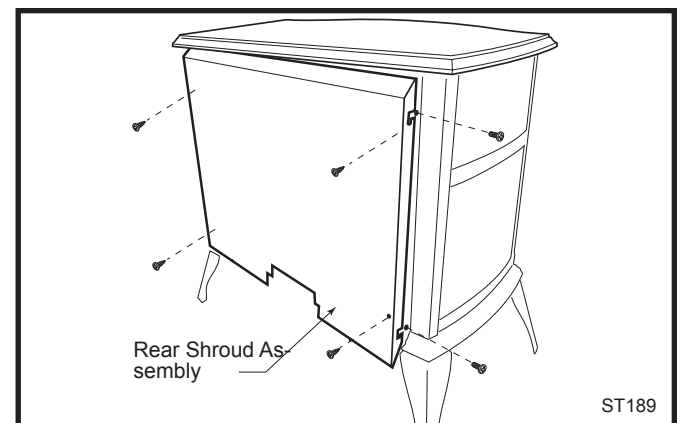


Fig. 8 Loosen four phillips screws holding rear shroud assembly and remove. Remove four phillips screws holding rear shroud to inner duct assembly. Remove rear shroud.

4. Attach the fan assembly to the fan bracket provided in the log box. Use #10 sheet metal screws provided with fan kit. Do not remove finger guard screws. (Fig. 9)

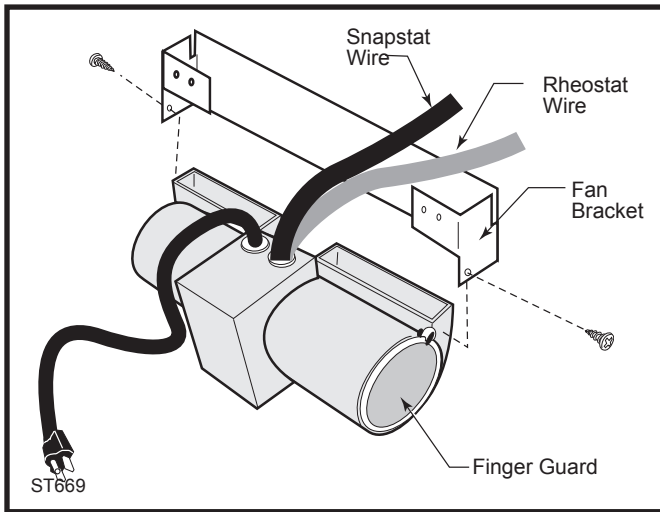


Fig. 9 Attach the fan assembly to the fan bracket.

5. Connect snapstat leads. Disconnect the snapstat module from the leads inside the snapstat bracket. (Fig. 10) Bend open the snapstat bracket. Use needlenose pliers to remove the black plastic grommet from the bracket. Discard the bracket. Insert the grommet and wires into the large hole at the bottom right corner of the inner shroud. Feed the snapstat wire leads through the grommet into the stove interior. Connect the two wires to the two snapstat extension leads attached to the inner shroud.

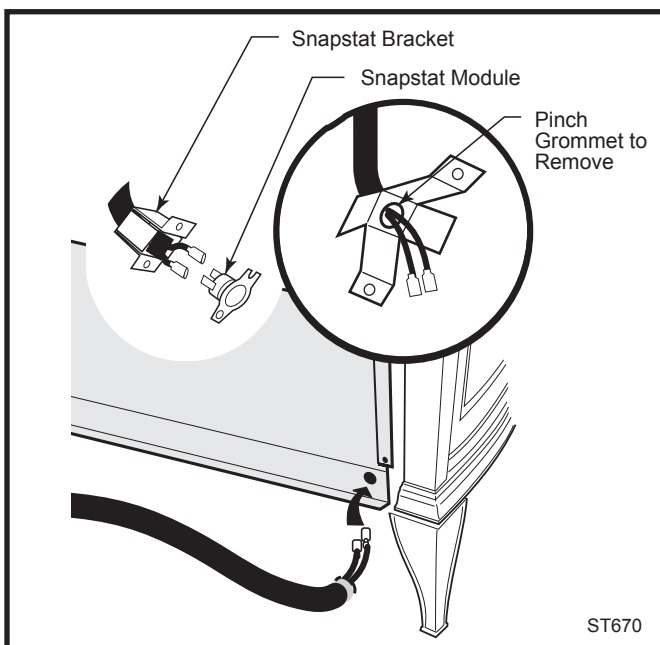


Fig. 10 Remove the snapstat and grommet from the bracket and insert the grommet into the inner shroud.

6. Position the fan assembly so the ducts slide between the inner and outer shroud. The inner shroud should engage with the two slots in the ends of the bracket so that bracket and shroud are interlocked. (Fig. 11) Secure the bracket with the four sheet metal screws provided in the finish bag.

7. Route the rheostat wire assembly to the right between the inner and outer shroud. Run the wire through the slots at the bottom right corner of the inner shroud.

8. Refasten the outer shroud to the inner duct assembly.

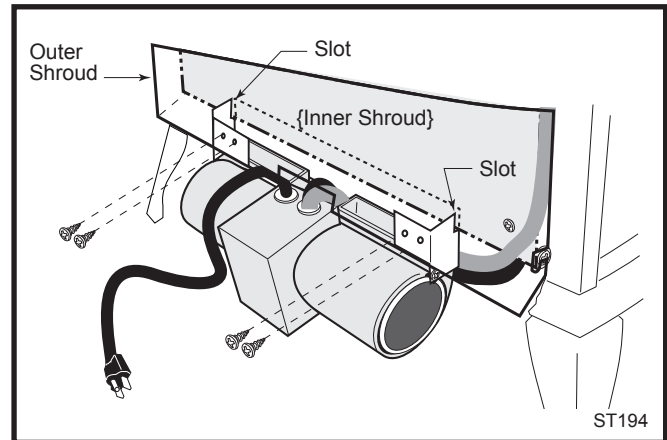


Fig. 11 Position the fan to engage the inner shroud with the fan bracket slots and secure with sheet metal screws.

9. Install the snapstat by loosening the front screw on the inner side of the duct (Fig. 12) slide the snapstat under the head of the screw and tighten. Connect the leads to the snapstat. Make sure the snapstat assembly is mounted straight front to back.

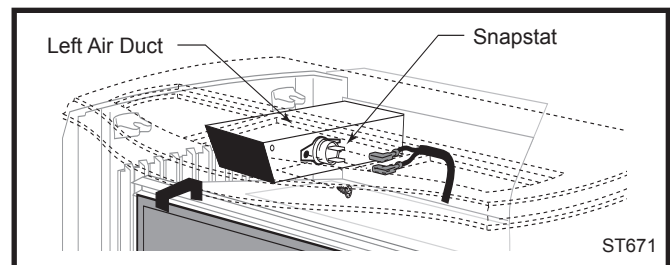


Fig. 12 Install the snapstat and connect the extension wire terminals. View is with top removed, however, access is available through the rear when installing fan before gas line connection.

10. Slide shroud assembly over the sides and fasten the four screws loosened earlier.

11. The rheostat control switch attaches to the left side of the valve bracket at the front of the stove. (Fig. 13)

- Remove retaining nut from shaft of rheostat. (if pre-installed)
- Insert the rheostat through the hole in the back of the left side of the valve bracket, aligning the locator pin with the smaller hole in that bracket.

- Thread the retaining nut onto the shaft of the rheostat, tightening with a wrench. Do not over-tighten.
- Attach the control knob to the rheostat shaft.
- Use the wire tie to secure the fan and rheostat wire harnesses together.

12. Plug the power cord into a standard grounded 110 volt household outlet. If the fan control knob is not turned to the OFF position, the fan will turn on when the temperature at the snapstat reaches approximately 109° F.

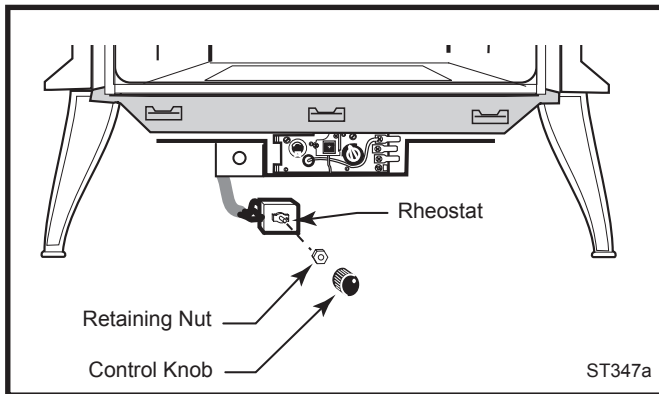


Fig. 13 Attach rheostat to control panel. Valve may look different.

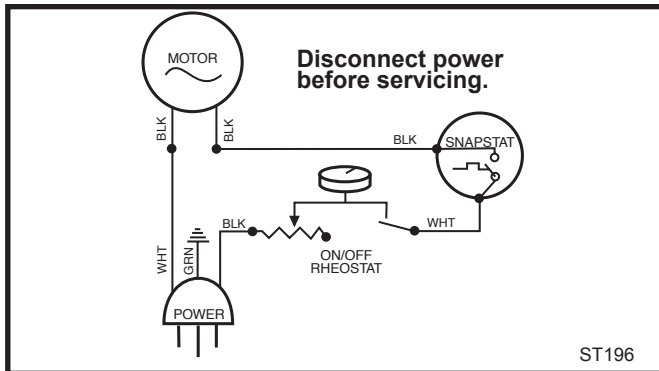


Fig. 14 #2767 / FK26 Fan Wiring Diagram

WARNING

The optional fan kit is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong outlet. Do not cut or remove the grounding prong from this plug.

NOTE: If you are installing the fan kit after the stove is in its final location, follow same steps mentioned previously with the exception of disengaging only the right side of the outer shroud.

Install ON/OFF Switch

The switch assembly parts are found in the parts bag.

1. Attach switch assembly to left rear side of stove shroud using two screws and existing holes in shroud. (Fig. 15)
2. Run wires down back of stove, under bottom of rear shroud to valve.
3. Attach wires to valve terminals. (Fig. 16)

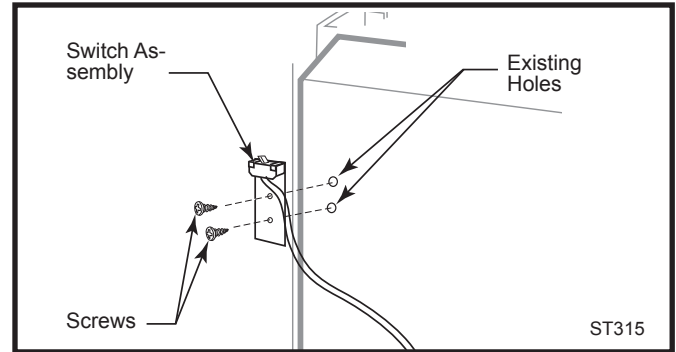


Fig. 15 Attach switch assembly to rear shroud.

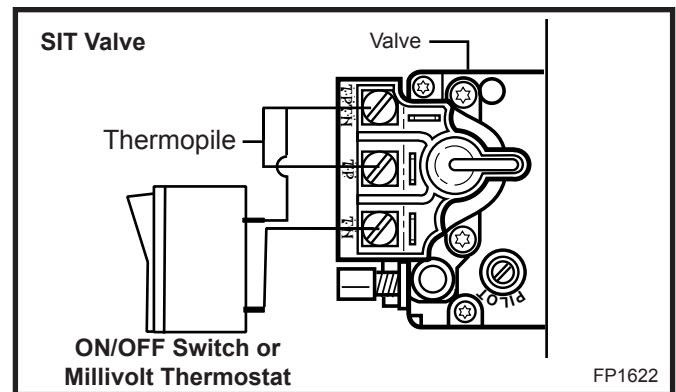


Fig. 16 Install wiring to switch before connecting to valve.

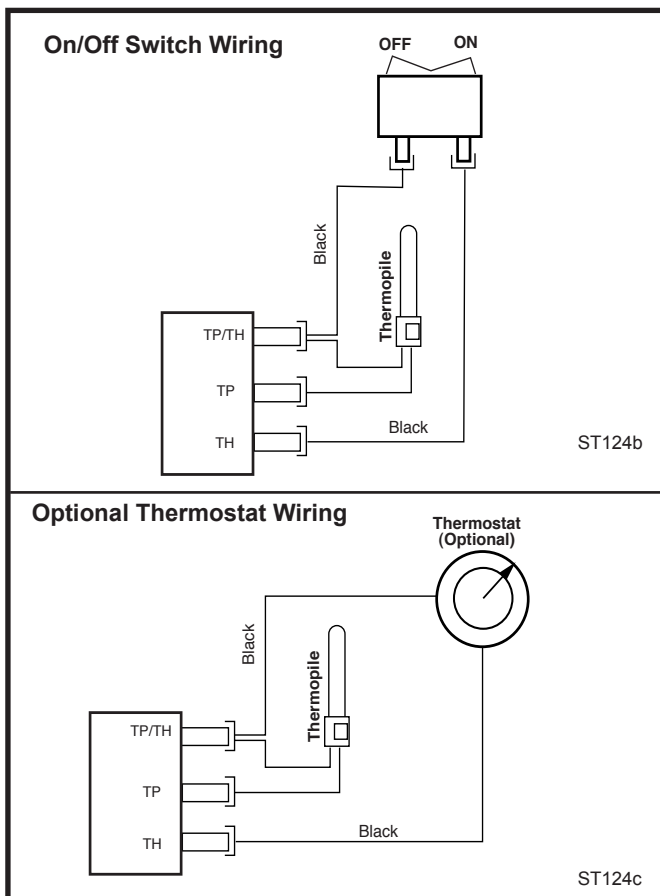
Thermostat Connection (Optional)

Use only a thermostat rated for 500 - 750 millivolts. Do not use low voltage (24V) thermostats.

Check the table below for the appropriate gauge thermostat wire to use for the length of lead required in your installation.

Thermostat Wire / Gauge	Maximum Run
18	40 feet
20	25 feet
22	16 feet

1. Install the wall thermostat in the desired location and run the wires to the stove location. Terminate these leads with 1/4" female connectors.
2. Connect the thermostat wires to the valve. (Fig. 16)



Glass & Catalyst Installation

CAUTION: Air shutter must be removed when installing glass and catalyst for proper operation.

1. Remove left and right log bracket assembly by unfastening the two screws which hold the burner in place. Loosen the screw on the rear log bracket and remove the bracket.
2. Hold the burner at the right hand side and lift to clear the right burner leg. Then pull to the right to clear the injectors on the left hand side.
3. Turn burner upside down and remove air shutter. Discard air shutter. (Fig. 17)

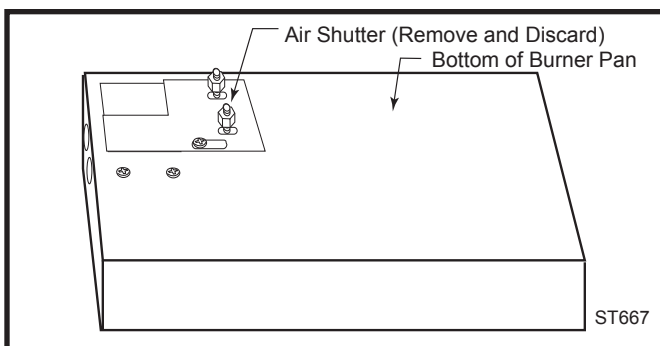


Fig. 17 Remove air shutter and discard.

4. Replace burner. Slide the burner in at an angle with left side lower than the right side. Slide the left side onto the injectors, making sure the burner leg remains at a 90° angle to the base. (Fig. 18) Lower the right hand side down in to place. Make sure the burner is as far left as possible and the injector shoulders are inside the burner.

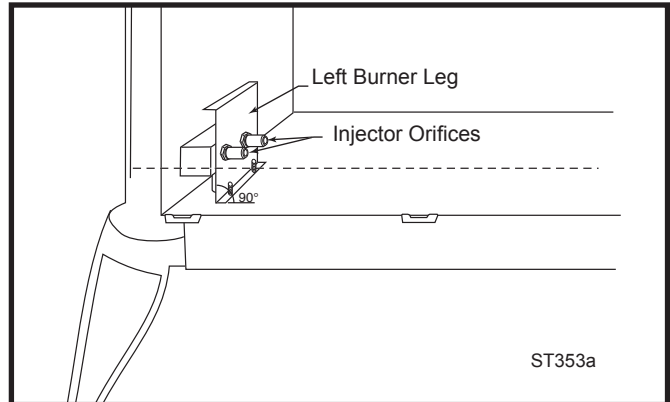


Fig. 18 Be sure injector orifices remain at 90° to the base.

5. Replace left and right log bracket assembly, tighten rear log bracket, and replace logs.
6. Latches provided in catalyst kit must be installed on top of firebox. Use two phillips screws to secure in place. (Fig. 19)

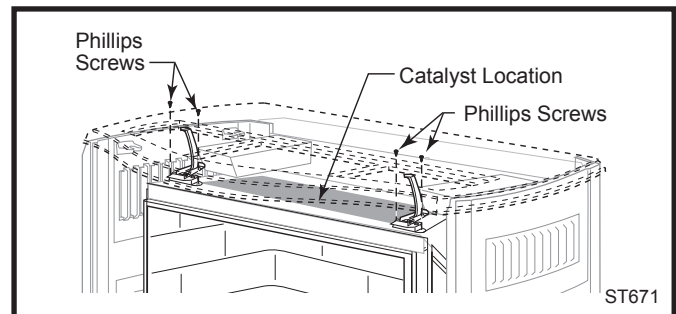


Fig. 19 Attach glass latches.

7. Slide catalyst between top plate and firebox. Allow catalyst to "fall" into hole on top of firebox. Secure with two screws as shown in Figure 20.

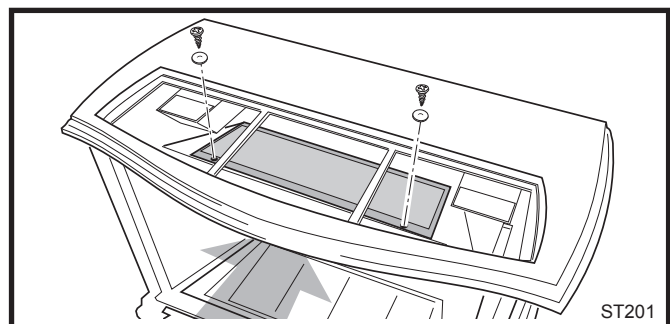


Fig. 20 Install catalytic combustor.

8. Install glass frame assembly by resting the bottom edge of the frame on support brackets below the front opening of the firebox. Swing the top edge of the assembly toward the firebox, and center it. Fasten by closing the latches over the top left and right edges of the frame. (Fig. 21)

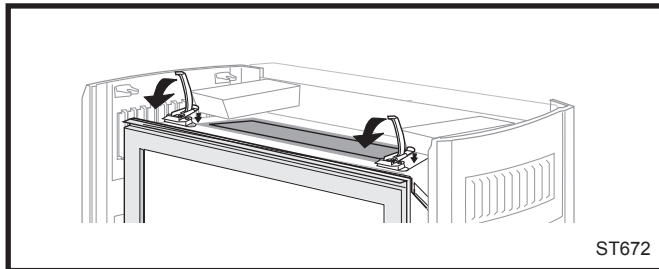


Fig. 21 Set glass frame in place and secure latches.

Connect the Gas Supply Line

Check the Rating Plate attached by a steel cable to the firebox, to confirm that you have the appropriate firebox for the type of fuel to be used.

This appliance should only be connected by a qualified gas technician. Test to confirm manifold pressures as specified below.

The Radiance Heater and its individual shutoff valve must be disconnected from the gas supply piping during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).

The Radiance Heater must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressure equal to or less than 1/2 psig.

There must be a gas shutoff between the stove and the supply.

In order to connect Natural Gas, use a fitting with 3/8" NPT nipple on the valve side and 1/2" natural gas supply line with an input of 35,000 BTUs at a manifold pressure of 3.5" and minimum inlet supply for adjustment of 5.5" w.c.

In order to connect Propane, use a fitting with 3/8" NPT nipple on the valve side and 1/2" propane gas supply line with an input of 35,000 BTUs at a manifold pressure of 11.0" and minimum inlet supply for adjustment of 11.0" w.c.

Gas connection should be made in accordance with current National Fuel Gas Code, ANSI Z223.1. Since some municipalities have additional local codes, be sure to consult you local authority.

Connect the gas supply and test for leaks. Use a 50/50 solution of liquid soap and water to test for leaks at gas fittings and joints. **NEVER test with an open flame.** Light the pilot according to the directions on page 16, before going to the next step.

CAUTION



This appliance should only be connected by a qualified gas technician. Test to confirm manifold pressures as specified below.

The Radiance Heater and its individual shutoff valve must be disconnected from the gas supply piping during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).

The Radiance Heater must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressure equal to or less than 1/2 psig.

There must be a gas shutoff between the stove and the supply.

In order to connect Natural Gas, use a fitting with 3/8" NPT on the valve side and 1/2" natural gas supply line with an input of 35,000 Btus at a manifold pressure of 3.5" between minimum inlet supply of 5.5" w.c. and maximum of 14.0" w.c.

In order to connect Propane, use a fitting with 3/8" NPT on the valve side and 1/2" propane gas supply line with an input of 35,000 Btus at a manifold pressure of 11.0" between a minimum inlet supply of 11.0" w.c. and maximum of 14.0" w.c.

Install Log Set

1. Remove the logs from their packaging, and inspect each piece for damage. **DO NOT INSTALL DAMAGED LOGS.**
2. Install the rear left log by placing it on the sheet metal shelf at the back of the firebox. (Fig. 22) The log should touch the back wall of the firebox. Slide the log to the left until the left side lines up with the left bracket. (Fig. 22) When the log is in place the left front corner of the log should rest on the decorative grate.
3. Install the rear right log by placing it on the sheet metal shelf at the back toward the right. Make sure the right side of the log lines up with the right bracket. (Fig. 22) **NOTE:** When the right and left rear logs are in place, they should touch the back of the firebox and each other.
4. Install the right log by engaging hole on the bottom with pin on the right rear log. (Fig. 22) Set the bottom of the log on the bracket and bring forward to come in contact with decorative grate on right.

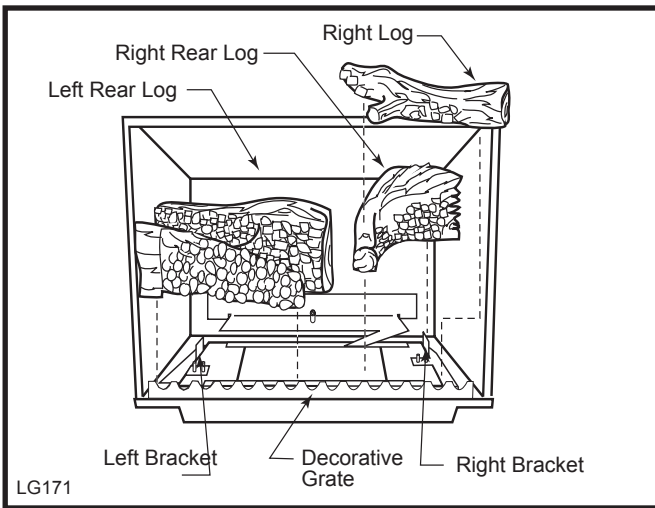


Fig. 22 Install the left and right rear logs and the right log.

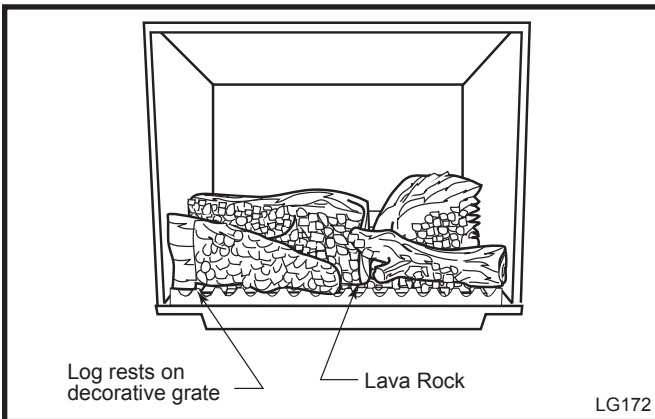


Fig. 23 Completed log installation.

- Loosely sprinkle the lava rocks directly on top of the burner just behind decorative grate. (Fig. 24) Use the lava rock to cover brackets on the burner. Do not place lava rocks toward back of burner. The lava rock is shipped inside the bag assembly.

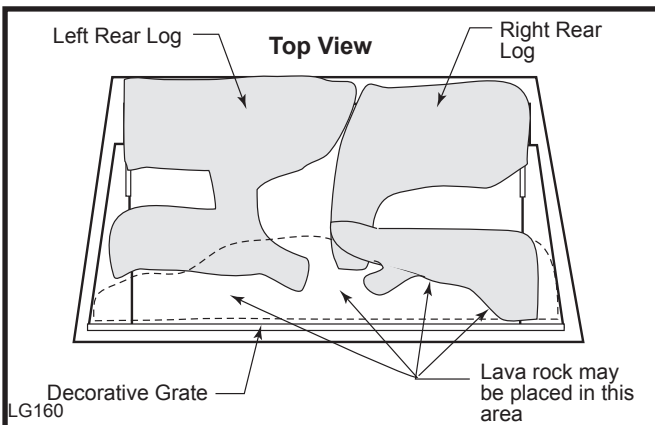


Fig. 24 Lava rock placement.

Complete the Installation

- Replace the screen frame by sliding the hooks over the top front edge of the firebox and resting the bottom on the support brackets. If the catalyst has been installed, place the glass front on the stove by resting the bottom edge of the frame on support brackets below the front opening of the firebox. Swing the top edge of the assembly toward the firebox, and center it. Fasten it by closing the latches over the top left and right edges of the frame.
- Replace the stove front by grasping it by the left and right edges. Lift it so that tabs on the back side of the top corners engage notches at the top forward corners of the stove sides. Then gently swing the bottom of the front panel to a vertical position, and lower it till prongs on its bottom left and right corners engage with notches cast into the tops of the forward legs. (Fig. 25) Test that the front is installed securely by grasping two of panel's vertical bars, and pulling the panel toward yourself. When the panel is in place properly you should not be able to pull the bottom of the front toward yourself without also lifting it.
- Attach the wooden handle to the control door using the #8-32 x 2" screw from the parts bag. (Fig. 26)
- Set the screen and the cast-iron grate into the recess in the stove top.

This completes the installation and assembly of the Radiance.

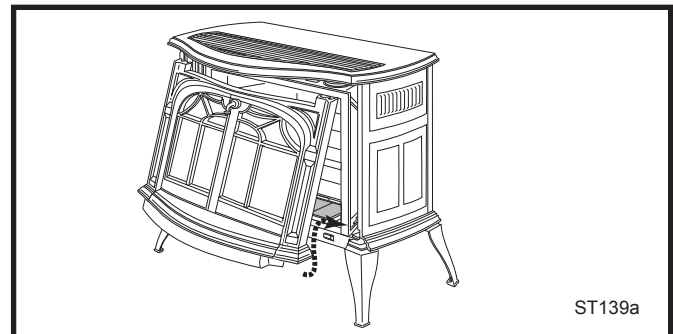


Fig. 25 Replace the front panel.

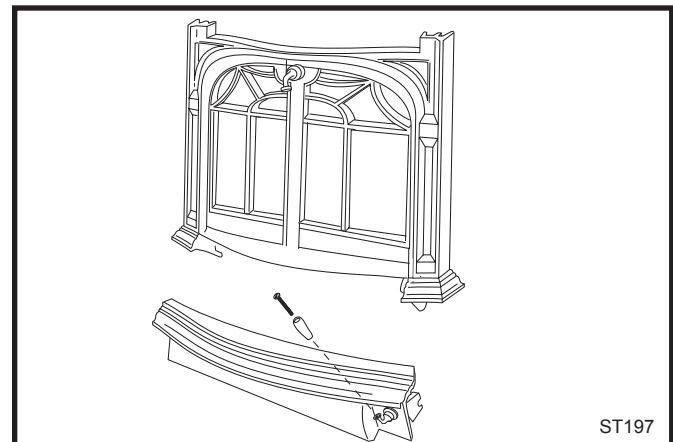


Fig. 26 Attach the handle to the control door.

Operation

The Radiance is shipped with the operable door front plate. The stove may be operated with the doors either open or closed. To open the front doors, insert the handle provided into the door latch stub and turn it to the right and up. (Fig. 27) When not in use, the handle may be stored in the handle holder on the right side of the rear shroud. (Fig. 28)

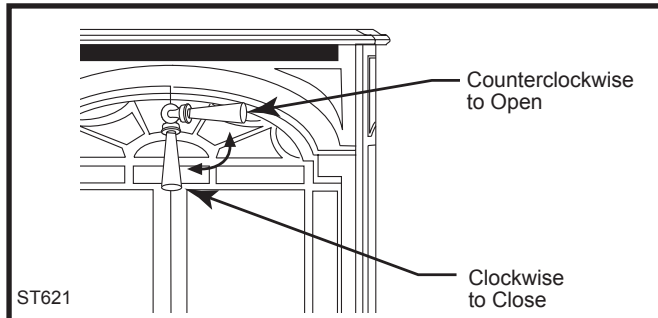


Fig. 27 To open the front doors, turn handle counterclockwise.

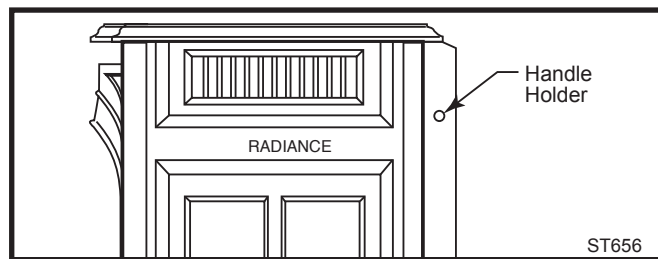


Fig. 28 When not in use, store handle in the handle holder.

Your First Fire

Read these instructions carefully and familiarize yourself with the burner controls shown on Page 17. Locate the pilot assembly, Figure 29. Follow the lighting instructions on Page 16 exactly.

During the first fire, it is not unusual to smell some odor associated with new logs, paint and metal being heated. Odors should dissipate within the first eight to ten hours, however, you can open a window to provide fresh air to alleviate the condition.

Pilot and Burner Inspection

Each time you light your heater check that the pilot flame and burner flame patterns are as shown in Figure 31 and Figure 32. If flame patterns are incorrect, turn the heater off. Contact your dealer or a qualified gas technician for assistance. Do not operate the heater until the pilot flame is correct.

Flame & Temperature Adjustment

For units equipped with HI/LO valves, the flame adjustment is accomplished by rotating the HI/LO adjustment knob located near the center of the gas valve. (Fig. 30)

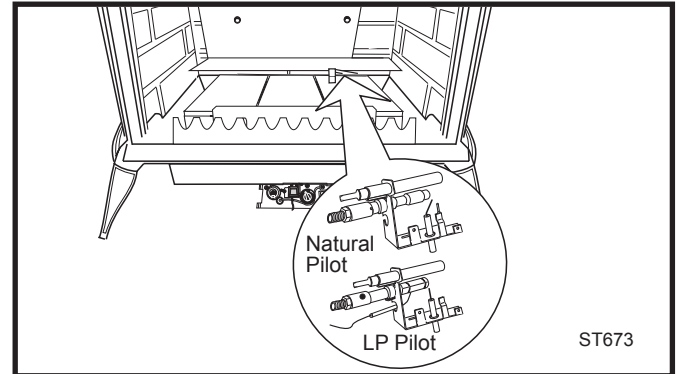


Fig. 29 Pilot assembly location.



Fig. 30 Flame adjustment knob for SIT valve.

Flame Characteristics

It is important to periodically perform a visual check of the pilot and burner flames. Compare them to the illustration below. (Fig. 31, 32) If the flame patterns appear abnormal, contact a qualified service provider for service and adjustment.

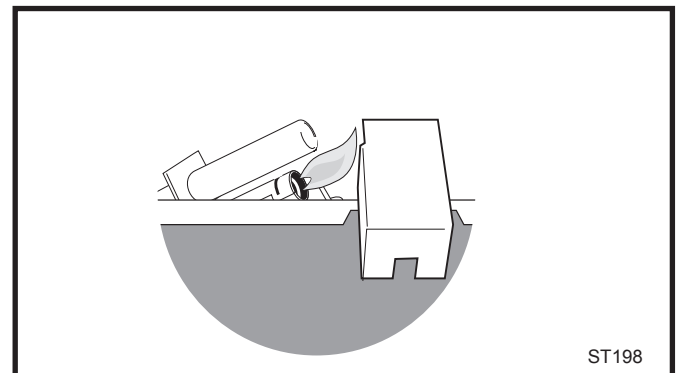


Fig. 31 Correct pilot flame appearance. OP pilot.

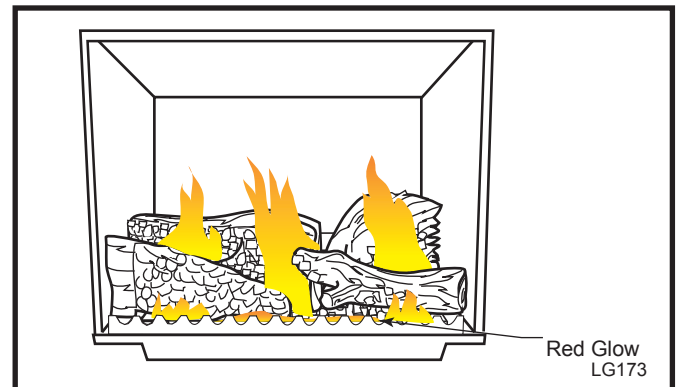


Fig. 32 Correct burner flame pattern.

Lighting and Operating Instructions

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

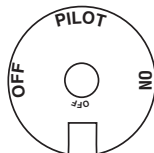
- A. This heater has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the heater area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any fireplace
 - Do not touch any electric switch
 - Do not use any phone in your building
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it, call a qualified service technician. Applying force or any attempted repair may result in a fire or explosion.
- D. Do not use this fireplace 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.

Lighting Instructions

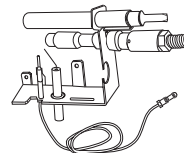
1. **STOP!** Read the safety information above.
2. Turn off all electrical power to the fireplace.
3. Turn the On/Off switch to "OFF" position or set thermostat to lowest level.
4. Open control access panel.
5. Push in gas control knob slightly and turn clockwise  to "OFF".



SIT NOVA

6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you do not smell gas, go to the next step.
7. Remove glass door before lighting pilot. (See Glass Frame Removal section).
8. Visibly locate pilot by the main burner.
9. Turn knob on gas control counterclockwise  to "PILOT".

10. Push the control knob all the way in and hold. Immediately light the pilot by repeatedly depressing the piezo spark ignitor until a flame appears. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 8.



- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
 - If after several tries, the pilot will not stay lit, turn the gas control knob to "OFF" and call your service technician or gas supplier.
11. Replace glass door.
 12. Turn gas control knob to "ON" position.
 13. Turn the On/Off switch to "ON" position or set thermostat to desired setting.
 14. Turn on all electrical power to the fireplace.

To Turn Off Gas To Heater

1. Turn the On/Off switch to Off position or set the thermostat to lowest setting.
2. Turn off all electric power to the fireplace if service is to be performed.
3. Open control access panel.
4. Push in gas control knob slightly and turn clockwise  to "OFF". Do not force.
5. Close control access panel.

Troubleshooting

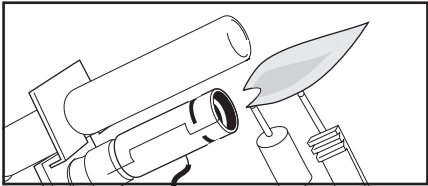
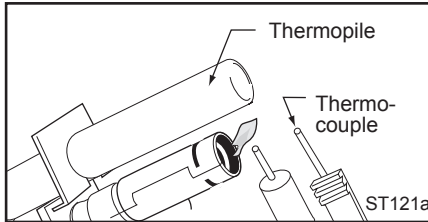
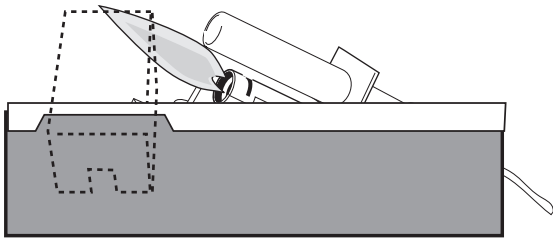
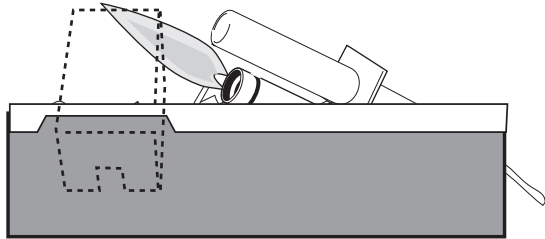
Follow these procedures in the order presented.

WARNING

TURN OFF HEATER AND ALLOW TO COOL COMPLETELY BEFORE SERVICING.

CONDITION	POSSIBLE CAUSE	SOLUTION
No spark at pilot when Ignitor is operated.	1. Ignition Electrode is disconnected from ignition wire, broken or incorrectly positioned. 2. Ignitor wire is broken. 3. Bad Piezo Ignitor.	1. Inspect and re-connect, replace or repair as necessary. 2. Replace wire. 3. Replace Piezo Ignitor.
The Ignitor Electrode sparks, but Pilot does not light.	1. Gas supply is turned off or supply line shut-off valve is closed. 2. Control Knob is not in PILOT position. 3. Control Knob not pressed in while in PILOT position. 4. Air present in gas lines. 5. Inlet supply pressure is not within correct settings. 6. Other conditions that should be identified only by a qualified gas technician.	1. Turn on gas supply or open supply line shut-off valve. 2. Turn Control Knob to PILOT. 3. Press Control Knob in while in the PILOT position. 4. Continue holding in Control Knob and repeat ignition procedure until air is bled from the lines. 5. Call local gas supplier. Adjust inlet supply pressure to specification: NG; 5.5" w.c.-14.0"w.c. LP; 11.0" w.c.-14.0"w.c. 6. Call qualified gas technician.

Troubleshooting cont'd.

CONDITION	POSSIBLE CAUSE	SOLUTION
Pilot lights but flame goes out when Control Knob is released.  Pilot flame is lifting.  Pilot flame is weak - does not touch Thermocouple.	- Control Knob not fully depressed or held in long enough. - Gas supply line shut-off valve is not fully open. - Thermocouple connection is loose at the Control Valve. - Pilot flame does not touch the Thermocouple. This can be caused by: A) Incorrect gas pressure, and/or B) other conditions that should be identified only by a qualified service technician. - Thermocouple is damaged. - Control Valve is damaged.	- Depress Control Knob fully and hold in for a full 30 seconds. - Fully open gas supply line shut-off valve. - Inspect and tighten securely. A) Call local gas supplier. Adjust inlet supply pressure to specification: NG; 5.5" w.c.-14.0"w.c. LP; 11.0" w.c.-14.0"w.c. B) Call local gas service technician. - Call local gas service technician. - Call local gas service technician.
 Correct LP Pilot Flame.  Correct NG Pilot Flame.		
Pilot lights but Main Burner does not.	- Gas supply line shut-off valve is not fully open. - Foreign material is blocking Burner ports. - Main Burner orifice is clogged. - Thermostat or remote switch not activated. - Bad Thermopile.	- Fully open gas supply line shut-off valve. - Inspect and clear debris away from Burner ports. - Call local gas service technician. - Set thermostat to higher temperature or check remote switch. - Call local gas service technician.
Main Burner shuts off and Pilot flame goes out while in operation.	- Insufficient fresh air. - Incorrect inlet supply pressure.	- Determine that adequate ventilation exists to provide sufficient fresh air. Open a window or provide additional ventilation. (See Fresh Air Requirements, Pages 7-8) - Call local gas supplier. Adjust inlet supply pressure to specification: NG; 5.5" w.c.-14.0"w.c. LP; 11.0" w.c.-14.0"w.c.

Maintenance

The following procedures will help ensure that your heater continues to perform safely and efficiently.

Firebox Cleaning and Inspection

Cleanliness is critical to correct operation of the heater. The log set, burner, valve controls and air circulation areas must all be kept free of dust and unobstructed by debris. Inspect these areas before each use and clean whenever accumulation is evident. Follow the simple procedure outlined below.

Frequent cleaning may be necessary in living environments subject to excessive carpet lint or pet hair. For example, if you live with a dog that sheds continuously, you will need to inspect the burner area frequently and clean it as often as the accumulation requires. **In extreme conditions, it may be necessary to clean the burner and log set monthly or bi-weekly.**

This appliance should be inspected and thoroughly cleaned annually by a qualified gas technician.

Cleaning Procedure

1. Turn the burner OFF and let the heater cool completely before cleaning.
2. Lift the Front plate up and then swing the bottom out to disengage it from the heater shell. (Page 8, Fig. 4)
3. Remove the screen by lifting up and away from the unit. Or, if so equipped, remove the glass panel by releasing the two upper retainer latches. Lift the panel up and off of the firebox frame. (Fig. 33)
4. Carefully inspect the log set for damage. Contact your local dealer if any damage is evident. **DO NOT OPERATE THE HEATER WITH A DAMAGED OR LOOSE LOG SET.**

Use a soft-bristled brush vacuum cleaner attachment to remove dust or debris from the log set, pilot and burner. Use care as the log set is fragile.

5. Inspect the catalytic combustor at the top of the firebox. Replace the combustor if any damage or deterioration is evident.
6. Replace the screen or glass panel and the front plate. **DO NOT OPERATE THE HEATER WITH THE SCREEN / GLASS PANEL OR FRONT PLATE REMOVED.**

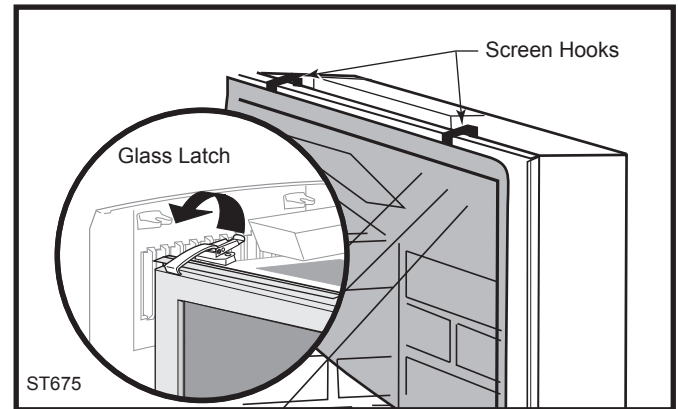


Fig. 33 Remove the screen or glass panel.

Glass Replacement

If so equipped, do not operate this appliance with the glass panel cracked, broken, or removed. Replace damaged glass only with MHSC ceramic glass panel Part No. 1601290. Follow the Cleaning Procedure instructions regarding parts removal.

Care of Cast Iron

An occasional dusting with a dry rag will help keep the painted surfaces looking new. Use high-temperature stove paints, available through your local dealer, to touch-up areas as needed. Clean areas to be painted with a wire brush and be sure to cover the log set, burner and valve assembly. Apply the paint sparingly; two light coats of paint will give better results than a single heavy coat.

Porcelain enamel surfaces should be cleaned with a soft, damp cloth. Do not use abrasive cleaning agents. If necessary, use only a cleaning agent formulated specifically for use on porcelain enamel surfaces.

WARNING

Turn the burner Pilot OFF before applying paint. NEVER paint pilot or around pilot area.

WARNING

Dust and debris accumulation can result in poor performance. Inspect the Valve compartment, burner parts and log set frequently and Clean these parts monthly or as often as accumulation warrants.

Catalytic Combustor

The combustor should be cleaned annually to ensure optimal performance. Follow the procedure below.

Remove the Combustor Module

1. Be sure the heater is **COLD**.
2. Remove the front plate, top grille and screen. (Fig. 34)
3. Use the phillips screwdriver to remove the two sheet metal screws that secure the combustor to the top of the firebox. (Fig. 35) Use a flat screwdriver to lift the unit up and out through the front of the stove.

Clean the Combustor Module

1. Clean the outer surface of the filter with the brush attachment of your vacuum sweeper to remove loose dirt.
2. Submerge the filter in a mild soapy water solution. Rinse thoroughly with **distilled water**.
3. Replace in heater when dry.

Replace the Combustor Module

1. Slide the combustor through the front opening of the stove and insert it into the housing on top of the firebox. Secure with the two sheet metal screws.
2. Replace the glass panel and front.

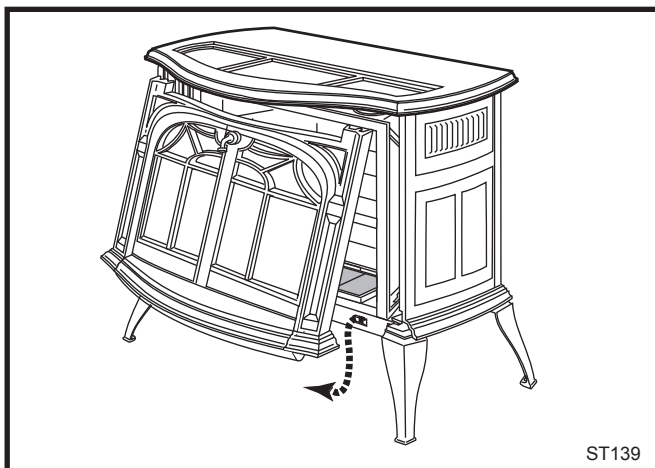


Fig. 34 Remove the front plate and top grille/screen.

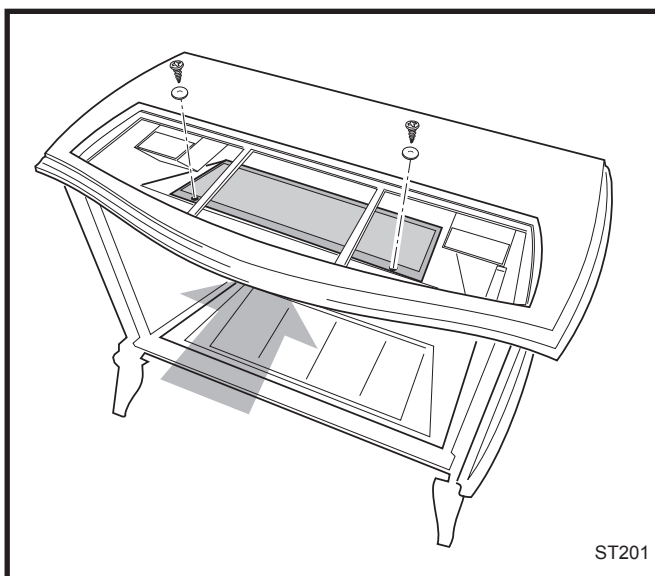
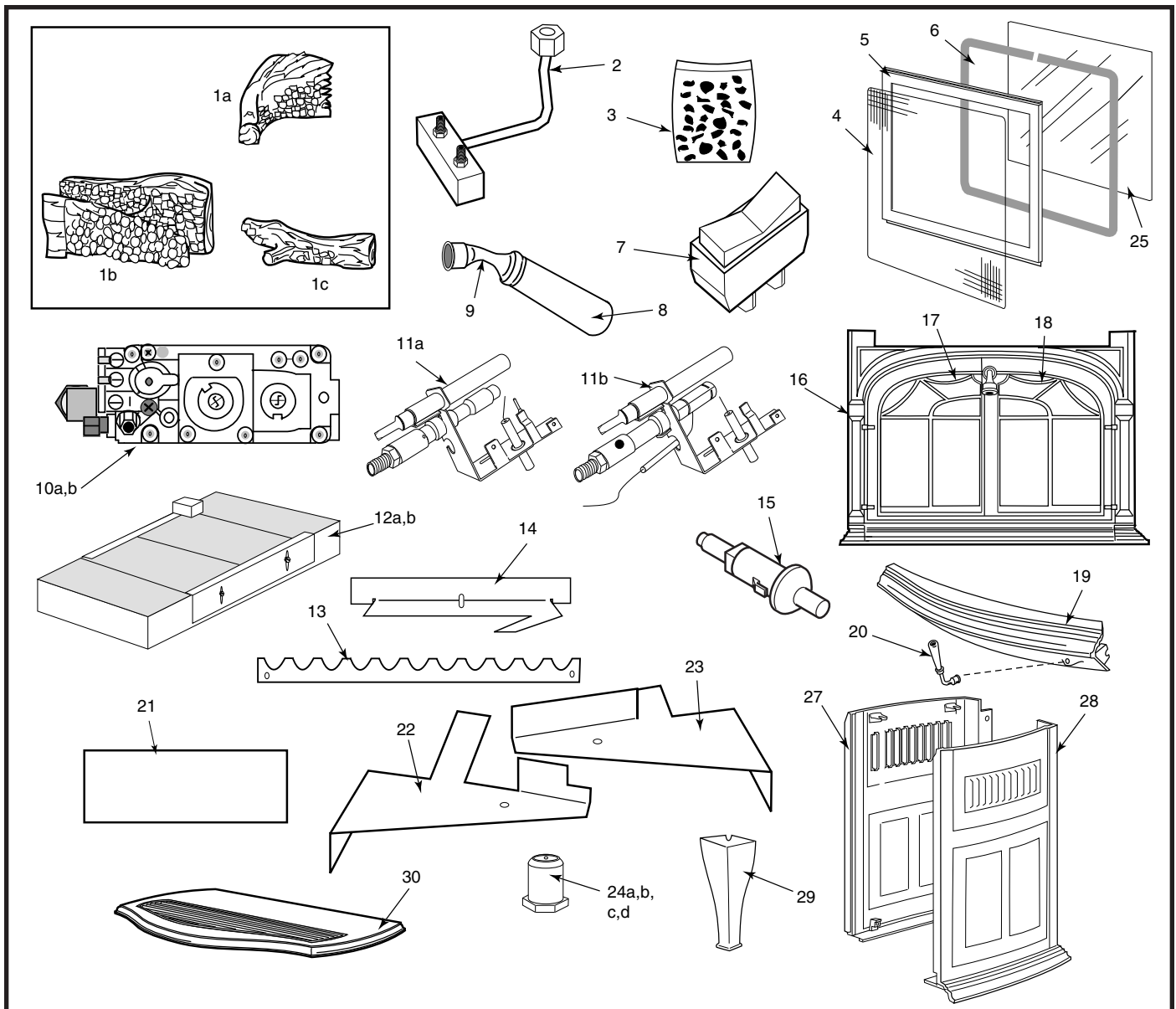


Fig. 35 Remove the catalytic combustor module.



MHSC reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, without notice.

Radiance Vent Free Gas Heater

Models: 3380, 3381

Ref.	Description	Part No.
1.	Gas Logset	20004561
1a.	Right Rear Log	20004562
1b.	Left Rear Log	20004563
1c.	Right Log	20004564
2.	Manifold Assembly	20003739
3.	Lava Rocks	57897
4.	Screen	20004554
5.	Frame, Glass	1409112
6.	Gasket, Glass Med, Knit	1203702
7.	Trim ON/OFF Switch	30000874

Radiance Vent Free Gas Heater

Models: 3380, 3381 (continued)

Ref.	Description	Part No.
8.	Handle Package, Ceramic w/Screw	30004175K
9.	Damper Steel Handle/Screw	30002720
10a.	Valve SIT - Nat.	14D0467
10b.	Valve SIT - LP	14D0468
11a.	Oxygenerator, NG OP #8204	55464
11b.	Oxygenerator, LP OP #8404	55465
12a.	Burner Housing Assy. - Nat.	20004492
12b.	Burner Housing Assy. - LP	20004552
13.	Grate Decorative Burner	20003536
14.	Back Log Support Bracket	20004553
15.	Ignitor Piezo	14D0503
16.	Front II - Black	30001376
17.	Door Left - Black	30001378
18.	Door Right - Black	30001377
19.	Door Control	30001413
20.	Control Door Handle Assy.	30002730
21.	Gasket, Base Pan/Firebox	20004286
22.	Bracket, Log Right	20002166
23.	Bracket, Log Left	20004708
24a.	Orifice Hood #57 (0.043") - Front - LP	20004587
24b.	Orifice Hood #52 (.0635") - Front - NG	30000331
24c.	Orifice Hood #54 (.055") - Rear - LP	20000130
24d.	Orifice Hood #40 (.098") - Rear - NG	20004263
25.	Glass, GFP Firebox (Comes with RGODCFK)	1601290
26.	Catalyst, RUV (not shown) (Comes with RGODCFK)	30000506
27.	Left End - Black	30001751
28.	Right End - Black	30001752
29.	Leg - Black	30001753
30.	Top - Black	1301186
31.	Glass Frame Assembly (glass, gasket, frame) RGODCFK	5003075

Optional Accessories

Fan Kits

FK26 Fan

The FK26 fan helps distribute heated air from within the firebox out into the room. The fan is controlled by a snapstat that turns power on and off as the firebox temperature rises above and falls below a preset temperature. A rheostat provides for variable fan speeds.

Specifications

115 Volt / 60Hz / .75 Amps

Maintenance

The fan itself does not require regular maintenance, however, periodic cleaning of the fan and the surrounding area is required.

Installation

Refer to Page 9 for installation instructions.

Remote Controls

The remote control allows you to turn the heater on or off from anywhere in the room. Refer to Page 12 for wiring diagrams.

Model	Functions Controlled
RCB,RCMT	ON/OFF
RCBE,WMTD	
RCST,RCSTE,RCT, WWTD,RCSTEB, RCSITE,RCSIT	ON/OFF and Temperature
WT	Wall mounted thermostat control

Screen Kit

An optional screen, R40SK, is available for use with the operable doors to allow the doors to be left in the open position.

Warming Shelf

Warming shelves add versatility to your stove; they can be used to keep foods warm at mealtime.

Model Color

1560 Classic Black

The shelf installation is done in three stages. First you attach the shelf loosely to the stove, leaving the screws loose enough to allow final adjustments. Then, you position the shelf and adjust the brackets so the shelf fits correctly. Finally, you tighten the screws.

Refer to the instructions included with each warming shelf for complete installation procedures.

Glass & Catalyst Kit

The Glass & Catalyst, RGODCFK, may be added to the stove to enhance stove performance. Refer to Page 12 for installation instructions.

LIMITED LIFETIME WARRANTY

PRODUCT COVERED BY THIS WARRANTY

All Vermont Castings gas stoves, gas inserts, and gas fireplaces, and all Majestic brand gas fireplaces equipped with an Insta-Flame Ceramic Burner, or standard steel tube burner.

BASIC WARRANTY

MHSC (hereinafter referred to collectively as the Company) warrants that your new Vermont Castings or Majestic Gas Fireplace/Stove is free from manufacturing and material defects for a period of one year from the date of purchase, subject to the following conditions and limitations.

EXTENDED LIFETIME WARRANTY

The heat exchanger, where applicable, and combustion chamber of every Vermont Castings or Majestic gas product is warranted for life against through wall perforation. All appliances equipped with an Insta-Flame Ceramic Burner have limited lifetime coverage on the ceramic burner plaque. Warrantees are made to the original owner subject to proof of purchase and the conditions and limitations listed on this Warranty Document

COMPONENT WARRANTY

CAST IRON: All external and internal cast iron parts are warranted for a period of three years.

Note: On porcelain enamel finished external parts and accessories The Company offers no Warranty on chipping of enamel surfaces. Inspect all product prior to accepting it for any damage to the enamel.

The salt air environment of coastal areas or a high humidity environment can be corrosive to the porcelain enamel finish. These conditions can cause rusting of the cast iron beneath the porcelain enamel finish, which will cause the finish to flake off.

Dye lot variations with replacement parts and/or accessories can occur and are not covered by warranty.

GLASS DOORS: Glass doors are covered for a period of one year. Glass doors are not warranted for breakage due to misuse or accident. Glass doors are not covered for discoloration or burned in stains due to environmental issues, or improper cleaning and maintenance.

BRASS PLATED PARTS AND ACCESSORIES: Brass parts should be cleaned with Lemon oil only. Brass cleaners cannot be used. Mortar mix and masonry cleaners may corrode the brass finish. The Company will not be responsible for, nor will it warrant any brass parts which are damaged by external chemicals or down draft conditions.

GAS VALVES: Gas valves are covered for a period of one year

ELECTRONIC AND MECHANICAL COMPONENTS: Electronic and mechanical components of the burner assembly are covered for one year. All steel tube burners are warranted for one year.

ACCESSORIES: Unless otherwise noted all components and MHSC supplied accessories are covered for a period of one year.

CONDITIONS AND LIMITATIONS

- This new Vermont Castings or Majestic product must be installed or serviced by a qualified installer, preferably NFI or WETT (Canada) certified, as prescribed by the local jurisdiction. It must be installed and operated at all times in accordance with the Installation and Operating instructions furnished with the product. Any alteration, willful abuse, accident, or misuse of the product shall nullify this warranty.
- This warranty is non-transferable, and is made to the original owner, provided that the purchase was made through an authorized supplier of the Company.
- The customer must pay for any Authorized Dealer in-home travel fees or service charges for in-home repair work. It is the dealers option whether the repair work will be done in the customer's home or in the dealer's shop.
- If upon inspection, the damage is found to be the fault of the manufacturer, repairs will be authorized at no charge to the customer parts and/or labor.
- Any part and/or component replaced under the provisions of this

warranty is covered for six months or the remainder of the original warranty, whichever is longest.

- This warranty is limited to the repair of or replacement of part(s) found to be defective in material or workmanship, provided that such part(s) have been subjected to normal conditions of use and service, after said defect is confirmed by the Company's inspection.
- The company may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of the defective part(s)
- Any installation, labor, construction, transportation, or other related costs/expenses arising from defective part(s), repair, replacement, or otherwise of same, will not be covered by this warranty, nor shall the Company assume responsibility for same. Further, the Company will not be responsible for any incidental, indirect, or consequential damages except as provided by law.
- SOME STATES DO NOT ALLOW FOR THE EXCLUSION OR LIMITATIONS OF INCIDENTAL AND CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOUR CIRCUMSTANCES. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- All other warranties-expressed or implied- with respect to the product, its components and accessories, or any obligations/liabilities on the part of the Company are hereby expressly excluded.
- The Company neither assumes, nor authorizes any third party to assume on its behalf, any other liabilities with respect to the sale of this Vermont Castings or Majestic product
- The warranties as outlined within this document do not apply to chimney components or other non MHSC accessories used in conjunction with the installation of this product..
- Damage to the unit while in transit is not covered by this warranty but is subject to claim against the common carrier. Contact the dealer from whom you purchased your fireplace/stove (do not operate the appliance as this might negate the ability to process the claim with the carrier).
- The Company will not be responsible for:
 - a) Down drafts or spillage caused by environmental conditions such as near-by trees, buildings, roof tops, hills, or mountains.
 - b) Inadequate ventilation or negative air pressure caused by mechanical systems such as furnaces, fans, clothes dryers, etc.
- This warranty is void if:
 - a) The fireplace has been operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals.
 - b) The fireplace has been subjected to prolonged periods of dampness or condensation
 - c) Any damages to the fireplace, combustion chamber, heat exchanger or other components due to water, or weather damage, which is the result of but not limited to, improper chimney/venting installation.
 - d) Any alteration, willful abuse, accident, or misuse of the product has occurred.

IF WARRANTY SERVICE IS NEEDED...

- 1) Contact your supplier. Make sure you have your warranty, your sales receipt, and the model/serial number of your MHSC product.
- 2) DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

MHSC

149 Cleveland Drive • Paris, Kentucky 40361
www.mhsc.com