

# Stratton Fireplace

## Homeowner's Installation and Operating Manual

**SAFETY NOTICE: IF THIS APPLIANCE IS NOT PROPERLY INSTALLED, OPERATED AND MAINTAINED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH. CONTACT LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.**



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We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).

 **Wood Energy Technical Training**  
[www.wettinc.ca](http://www.wettinc.ca)

**Do Not Discard This Manual: Retain for Future Use**

## Introduction

Thank you for purchasing a Vermont Castings, Stratton fireplace. This fireplace is carefully engineered to include the latest in wood combustion principles and modern foundry technology.

You can count on years of comfortable heating and pleasurable fire viewing if you operate and maintain the Stratton according to the directions in this owner's guide.

The Stratton is listed by Underwriter's Laboratories, and is in compliance with the standards set forth by the Federal Environmental Protection Agency, 40 CFR Part 60.532(b), as stated on the permanent label attached to each appliance.

This manual describes the installation and operation of the Stratton fireplace. This heater meets the US Environmental Protection Agency's emission limits for wood heaters sold after July 1, 1990. Under specific test conditions this heater has been shown to deliver heat at a rate ranging from 10,000 to 27,550 BTU/hr.

For more complete details on the Stratton performance and specifications, please refer to Page 4.

The Stratton is designed, tested and listed for burning wood. Do not burn other fuels.

We recommend that you hire a professional installer certified by Wood Energy Technical Training (WETT) to install your Stratton, or to advise you on the installation should you attempt to install it yourself.

Please read the appropriate sections of this manual before you install and use your Stratton. For information on operation and maintenance of the Stratton, refer to Pages 18 and 22.

The Stratton fireplace can use 100% outside air with the optional AKMST Outside Air Kit installed.

Failure to follow these instructions may result in property damage, bodily injury or even death.

### Save These Instructions for Future Reference

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**Proposition 65 Warning:** Fuels used in gas, wood-burning 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

## Safety Information

### Please Read This Manual Before Installing and Using Fireplace

**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.

#### Description

The Stratton fireplace is a clean burning, non-catalytic, EPA certified solid fuel, wood burning, heat circulating fireplace.

#### Precautions

MHSC fireplaces and component parts have been tested to operate safely when installed in accordance with instructions provided in this manual. Carefully read and understand all instructions before beginning installation.

If you notice any damage to fireplace or component parts, immediately report damage to your MHSC dealer.

Only use MHSC components or the warranty will be voided and a fire hazard may be created.

MHSC warranty will be voided by and MHSC disclaims any responsibility for the following actions:

- **Installation of any damaged fireplace or chimney component;**
- **Modification of fireplace, chimney assembly or any component parts thereof;** (except for chase flashings as detailed in MHSC Chimney Top installation instructions).
- **Installation other than as instructed by MHSC; or**
- **Installation and/or use of any component part not manufactured or approved by MHSC in combination or assembly with a MHSC fireplace system, notwithstanding any independent testing laboratory or other third party approval of such component parts or accessory.**

**Any such action may possibly cause a fire hazard.**

Consult local building codes to ensure that you are in compliance **before** installing the fireplace.

This fireplace and chimney system must be vented outdoors.

**Do not obstruct or modify air inlets/outlets in any manner.**

**Do not install combustible materials on any of the black fireplace surround.**

**Burn only solid wood fuel.**

**The Stratton is intended for operation only with the door fully closed.**

**Do not install any products not specified for use with this fireplace.**

**This fireplace is not approved for installation in mobile homes.**

**NOTE: Hairline cracks in the wall and hearth bricks are not a safety issue and do not need to be replaced.**

#### Drafts

The fireplace should not be located in areas with excessive drafts (ie: areas with frequently opened doors and central heating air inlets/outlets) that disturb the normal flow of air into the fire.

#### Brick Template

**WARNING:** The Stratton is shipped with a brick template in place to be used as a guide to finish brick or other noncombustible materials to its edge. This brick template **MUST BE** removed and replaced with an optional trim kit before burning the fireplace.

**Stratton  
Listed**

**UL 127 / ULC-S610  
Standard for Factory Built Fireplaces**

# Specifications

## Stratton

EPA Emissions Rating .....3.0 g/hr  
 Range of heat output\*..... 10,100 - 27,550 BTU/hr  
 Maximum heat output\*\* .....40,000 BTU/hr  
 Area heated\*\*\* ..... up to 1,500 sq. ft.  
 Size of wood splits..... 18"-20" (460 - 508 mm)  
 Fuel Capacity..... 30lbs. (13.5kg)  
 Loading.....Front  
 Flue size ..... 8" (203 mm)  
 Fireplace weight ..... 390 lbs. (177 kg)  
 Primary Air Control ..... Manual  
 Glass panel..... High-temperature ceramic  
 Flue exit position..... Top  
 Blower rating.....150 cfm. (115V, 60Hz)

\*Under specific test conditions used during EPA emissions standard testing.

\*\*This value can vary depending on how the unit is operated, and the type and moisture content of the fuel used. Figure shown is based on maximum fuel consumption obtained under laboratory conditions and on average efficiencies.

\*\*\*These values are based on operation in building-code conforming homes under typical winter climate conditions. If your home is of nonstandard construction (e.g. unusually well insulated, not insulated, built under ground, etc.) or if you live in a more severe or more temperate climate, these figures may not apply. Since so many variables affect performance, consult your Vermont Castings' Authorized Dealer to determine realistic expectations for your home.

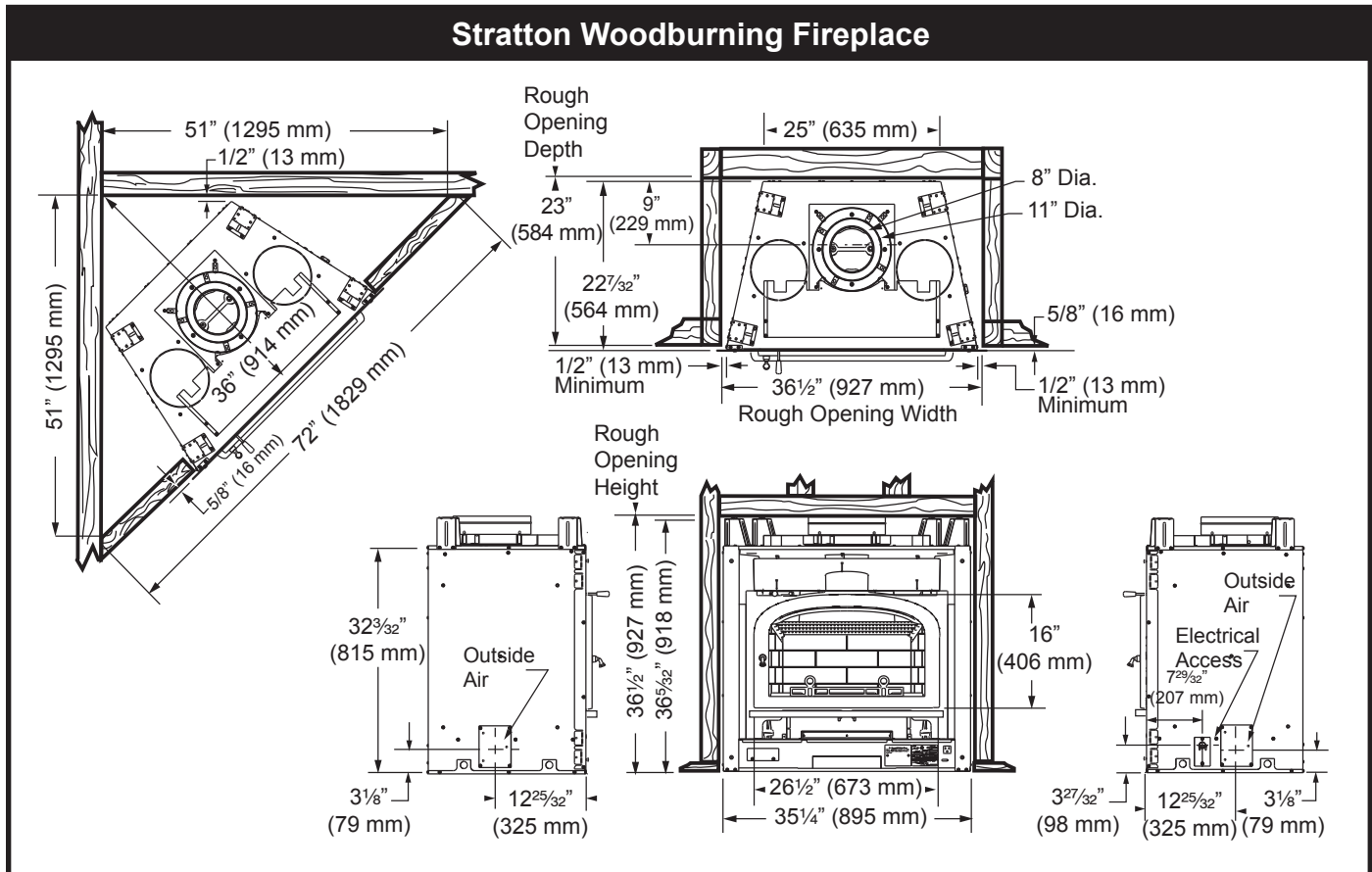


Fig. 1 Stratton specifications and framing.

Gravity vent ducting may be installed on top of the fireplace to supply additional heat to the room the fireplace is in or an adjacent room.

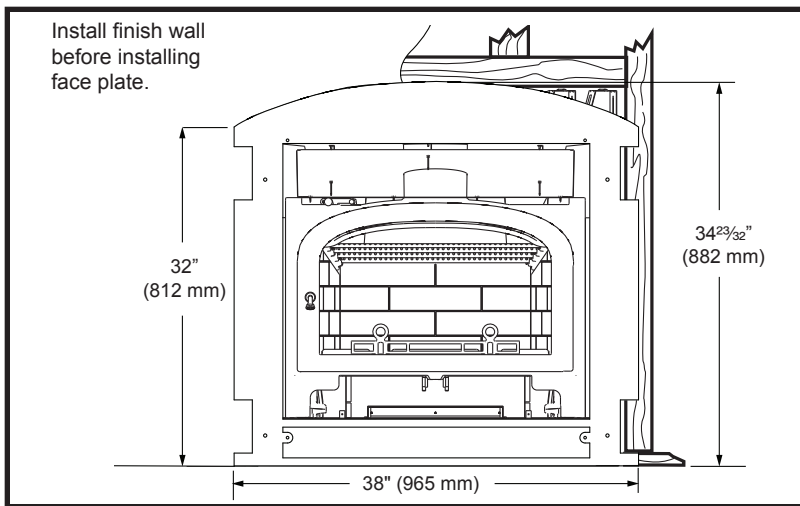


Fig. 2 Stratton with brick template in place.

### Chase Installation

Insulation methods shown are optional for cold climate, not a requirement for unit operation.

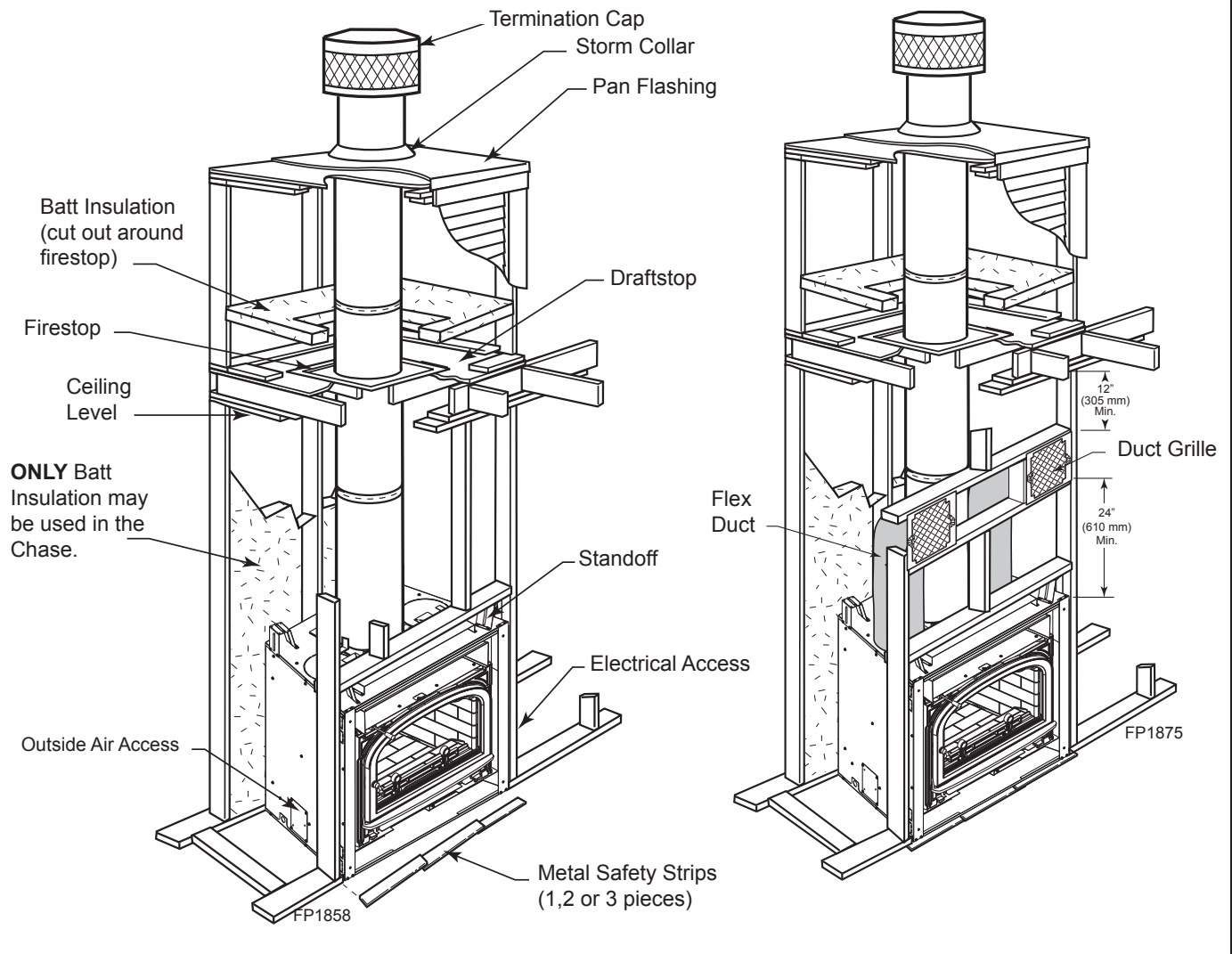
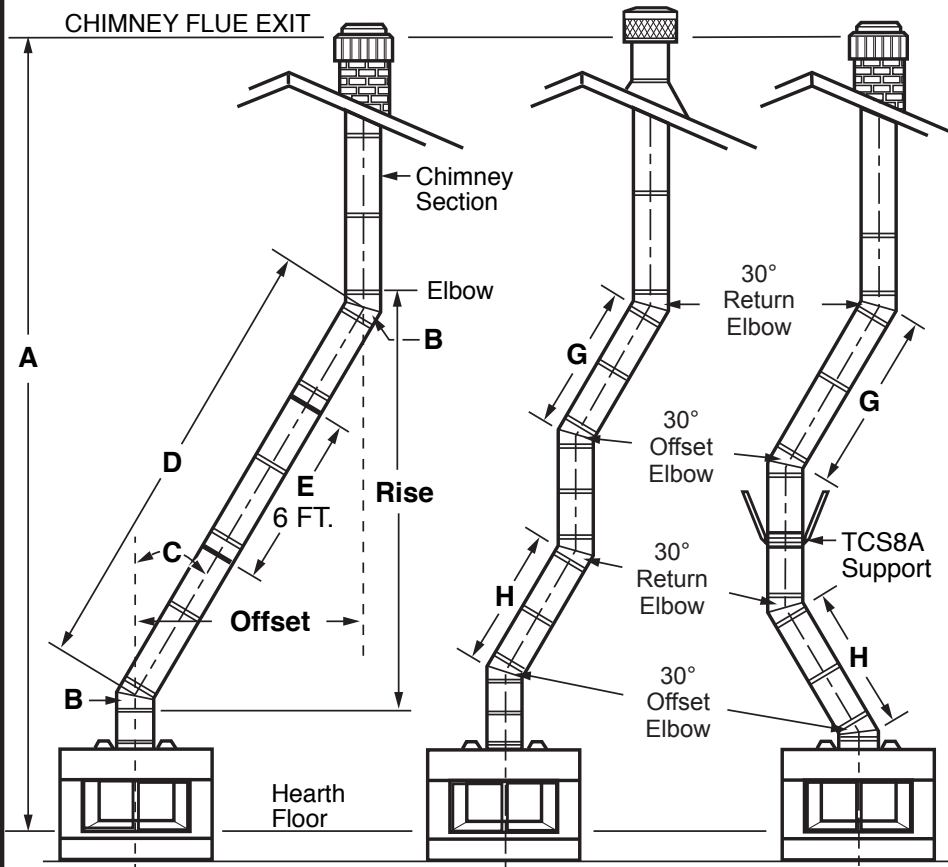


Fig. 3 Fireplace and chase parts identification.

# Chimney Requirements - Offset Installations



**Notes:** G + H cannot exceed 20 feet.  
 Air Space Clearances: "SK" Series (2-wall) = 1 1/2" Min. to Combustibles  
 "S" Series (3-wall) = 2" Min. to Combustibles

## Illustration Key

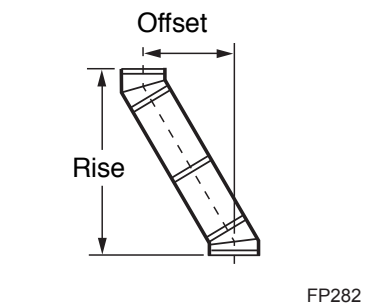
The following safety rules apply to offset installations (letters correspond with illustration above):

- A.** Height of the chimney is measured from the hearth to the chimney exit.
- B.** Do not use more than 4 elbows per chimney.  
Attach the straps of the return (top) elbow to a structural framing member.  
The offset (first) elbow of any pair does not have straps.

- C.** The chimney cannot be more than 30° (45° in Canada) from the vertical plane in any installation\*.
- D.** The maximum length of the angled run of the **total** chimney system is 20 feet. (G plus H cannot exceed 20 feet.)
- E.** A chimney support (Model SKCS8) is required every 6 feet of angled run of chimney. Chimney supports are required for every 30 feet and 60 feet (SK8 pipe) or 20 feet and 40 feet (3-wall pipe) of vertical chimney height above the hearth.

Determine the offset distance of your chimney arrangement from the centerline of the fireplace to the centerline of the chimney where it is to pass through the first ceiling.

**NOTE:** This offset distance may not be your full offset distance. See Examples 2 and 3.



FP282  
**30° Elbow Offsets**

1'	1 1/2'	3'	4'	Chimney Support	Offset	Rise
0	0	0	0	0	3"	11"
1	0	0	0	0	8 1/4"	20"
0	1	0	0	0	11 1/4"	25 1/4"
2	0	0	0	0	13 1/2"	29 1/4"
1	1	0	0	0	16 1/2"	34 1/4"
0	0	1	0	0	20 1/4"	40 3/4"
2	1	0	0	0	21 3/4"	43 1/2"
0	0	0	1	0	26 1/4"	51 1/4"
0	1	1	0	0	28 1/2"	55 1/4"
1	0	0	1	0	31 1/2"	60 1/4"
0	1	0	1	0	34 1/2"	65 1/2"
0	0	2	0	0	37 1/2"	70 3/4"
1	1	0	1	1	41 1/2"	77 3/4"
0	0	1	1	1	45"	83 3/4"
0	1	2	0	1	47 1/4"	87 1/2"
0	0	0	2	1	51"	94"
0	1	1	1	1	53 1/4"	98"
0	0	3	0	1	56 1/4"	103 1/4"
0	1	0	2	1	59 1/4"	108 1/2"
0	0	2	1	1	62 1/4"	113 1/2"
0	1	3	0	1	64 1/2"	117 1/2"
0	0	1	2	1	68 1/4"	124"
0	1	2	1	1	70 1/2"	128"
0	0	0	3	1	74 1/4"	134 1/2"
0	1	1	2	2	78"	140 3/4"
0	0	3	1	2	81"	146"
0	1	0	3	2	84"	151 1/4"
0	0	2	2	2	87"	156 1/2"
0	1	3	1	2	89 1/4"	160 1/4"
0	0	1	3	2	93"	166 3/4"
0	1	2	2	2	95 1/4"	170 3/4"
0	0	0	4	2	99 1/4"	177 3/4"
0	1	1	3	2	101 1/4"	181 3/4"
0	0	3	2	2	104 1/4"	186 1/4"
0	1	0	4	2	107 1/4"	191 1/2"
0	0	2	3	2	110 1/4"	196 3/4"
0	1	3	2	3	114"	203 1/4"
0	0	1	4	3	117 3/4"	209 3/4"
0	1	2	3	3	120"	213 1/2"
0	0	0	5	3	123 3/4"	220"

Fig. 4 Chimney system requirements.

## Planning Information

Planning an installation is very important to ensure safety and to save time and money. An installer must predetermine where a fireplace will be set and plan how the chimney system will be run.

Also, when planning your installation, consider finishing materials you will be using for hearth and walls.

### What to consider:

1. The fireplace bottom must be flush with the top of the material used for the hearth.
2. If you are using a thick stone or brick, you may want to consider mounting the firebox further out to achieve the amount of inset from the stone face to the unit face.
3. Be sure to follow all safety guidelines described in this manual when choosing the materials for construction.

### Mounting the Fireplace





The fireplace is shipped with lifting handles attached to each side with steel straps. **NOTE:** The lifting straps are intended for lifting the fireplace from the skid and final positioning. The fireplace should remain on the skid until final positioning. After the fireplace is in position, the lifting handle and straps may be removed or left in place.

A fireplace may only be mounted on the following surfaces:

1. A flat combustible surface.
2. A raised wooden platform.
3. A concrete block or other solid object placed beneath each of the four (4) corners of the fireplace.

The fireplace **must** be spaced 1/2" (13 mm) from a combustible back wall and 1/2" (13 mm) from a combustible side wall or support. (Page 15, Fig. 22)

### Planning the Chimney Run

	DOUBLE WALL	TOTAL LENGTH (L <sub>T</sub> )	INSTALLED LENGTH (L <sub>I</sub> )
	SK81	11½"	10½"
	SK818	17½"	16½"
	SK83	35½"	34½"
	SK84	47½"	46½"

FP288a

**Fig. 5** Installed lengths of chimney sections.

Determine how the chimney will be run, the length of the run and the chimney components required to complete the job. (Fig. 5) **Never** install a chimney below the minimum heights specified in this manual.

In planning a chimney system, it is important to know:

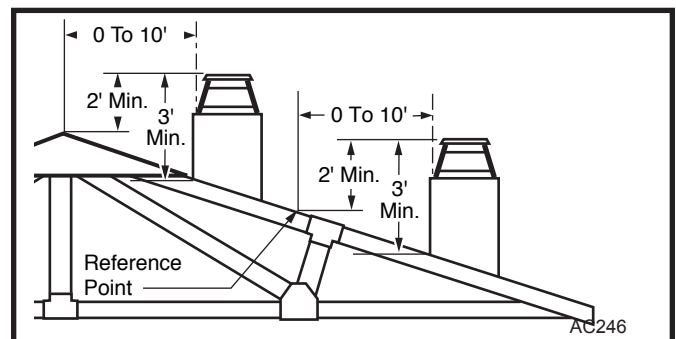
1. The height of a chimney is measured from the hearth to the exit point on the termination.
2. A chimney cannot be offset more than 30° from a vertical plane.
3. A chimney may run straight up or it may be necessary to offset it to avoid obstructions.
4. The maximum length of an angled run (total chimney system) is 20 feet.
5. No more than 2 offsets (4 total 30° elbows in U.S./or 2 total 45° elbows in Canada) per fireplace may be used.
6. A guy wire stabilizer is required for chimneys extending more than 6' (1.8 m) above a roof line.

### The Ten Foot Rule

The majority of U.S. building codes specify a minimum chimney height above the roof top. The "Ten Foot Rule" is a fire safety rule rather than a rule to ensure proper draft. To ensure proper draft, it is recommended that you always meet or exceed the "Ten Foot Rule," especially when installing a termination on a high pitch roof. (Fig. 6)

The key points of the "Ten Foot Rule" are:

1. If the horizontal distance from the chimney to the peak of the roof is 10' (3 m) or less, the top of the chimney must be at least 2' (610 mm) above the peak of the roof, but never less than 3' (914 mm) in height above the highest point where it passes through the roof.
2. If a horizontal distance from the chimney to the peak of the roof is more than 10' (3 m), a chimney height reference point is established that is on the surface of the roof a distance of 10' (3 m) from the chimney in a horizontal plane. The top of the chimney must be at least 2' (610 mm) above the reference point, but never less than 3' (914 mm) in height above the highest point where it passes through the roof.



**Fig. 6** Ten Foot Rule illustration.

## Chimney Supports

The SK chimney system can be supported by the fireplace for vertical chimney heights up to 30' (9 m) above the hearth. Chimney supports are required if the vertical height exceeds 30' (9 m). Locate chimney supports at ceiling holes or other structural framing at 30' (9 m) intervals. Spacing between chimney supports **must not** exceed 30' (9 m). Use Chimney Support Model SKCS8. **(NOTE: The SKCS8 cannot be mounted directly to the fireplace.)** Support provided by elbow straps fulfills the support requirement only if they are spaced as previously described. (A chimney support is 2½" (64 mm) long when installed.)

Angled chimney runs require a support every 6' (1.8 m) in addition to the elbow straps. Chimney supports are used for this function. (Fig. 7)

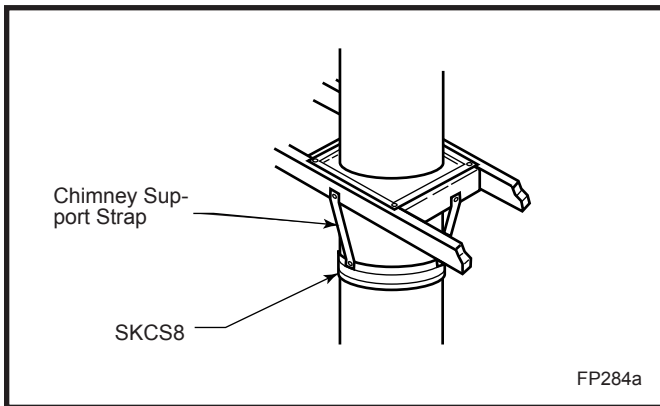


Fig. 7 Chimney support installation.

## Chase Installation

A chase is a vertical box-like structure which encloses the fireplace and/or chimney. A chase is typically built on the outside of the house with the fireplace opening cut into the outer wall of a room. (Page 5, Fig. 2)

If you need help in determining fireplace location or how the chimney system should be run, contact your Vermont Castings dealer for assistance.

## Installation

### Insulating Fireplace Enclosure for Cold Climates

If you live in a cold climate, it is not required but **highly recommended** that you insulate the fireplace enclosure to reduce cold air penetration as much as possible.

Insulate the base of the fireplace with a noncombustible insulation rated for a minimum of 300° F. Insulating is **very important** for an outside wall installation over a concrete slab. If the fireplace is installed on a platform, insulation should be placed on top of the platform **before** the fireplace is set in place. (Fig. 8)

When a fireplace is installed in a chase or on an outside wall, the enclosure should be treated like any outside wall in a home. Insulation should be installed on the inside wall as well as the outside wall(s). In a chase, it is also a good idea to install a firestop at the first ceiling level above the fireplace and enclose the chase with the sheeting material. Insulation may then be installed above sheeting material to assure the space around the fireplace is well sealed. (Fig. 3)

When installing the chimney, **DO NOT** caulk between the outer pipe of the chimney and the firestops. It is vital that some air be allowed to flow through this very thin gap.

To minimize air infiltration from the chase to the home, seal all joints between the finished wall and the fireplace sheet metal. Use only noncombustible materials, such as rock wool, plaster or mortar to seal these joints.

**CAUTION: When installing a fireplace in an insulated enclosure, be sure all required air spaces are maintained. (Page 15, Fig. 22)**

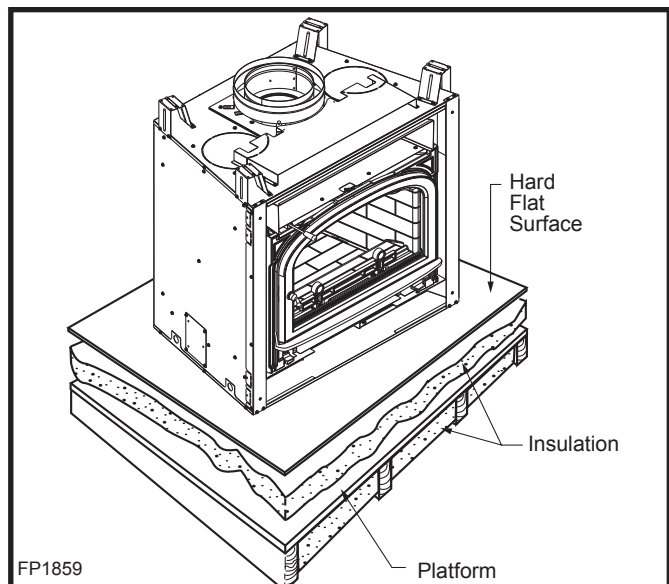


Fig. 8 Insulating between platform and fireplace.



## Framing

Framing can be constructed before or after the fireplace is set in place, however, most installers build the frame before setting the fireplace.

Frame the fireplace opening with 2 x 4 lumber or heavier materials. Refer to framing dimensions shown in Figure 1.

**NOTE:** Framing should be positioned to accommodate wall covering and fireplace facing material.

## Install Electrical Wire

This fireplace is wired for the optional FK26STRAT fan kit. The fan requires 120VAC, 60 Hz power which may be connected to the right side of the fireplace using the romex pigtail provided with the unit. This power must be completed **before** the fireplace is secured and finish material applied. The romex pigtail should be connected to house power inside a junction box which includes wall switch or rheostat.

1. Attach the white wire from house power to the white wire of the romex pigtail and secure with a wire nut.
2. Attach the black wire from the house power to the black wire of the romex pigtail and secure with a wire nut.
3. Attach the ground wire from house power to the ground wire of the romex pigtail and secure with a wire nut. (Fig. 9)

**IMPORTANT:** The wire nuts must be tight.

**NOTE:** Check local building codes to determine if a junction box is required at the romex pigtail/house wire connection. Also read junction box and speed control (SCVS) installation instructions.

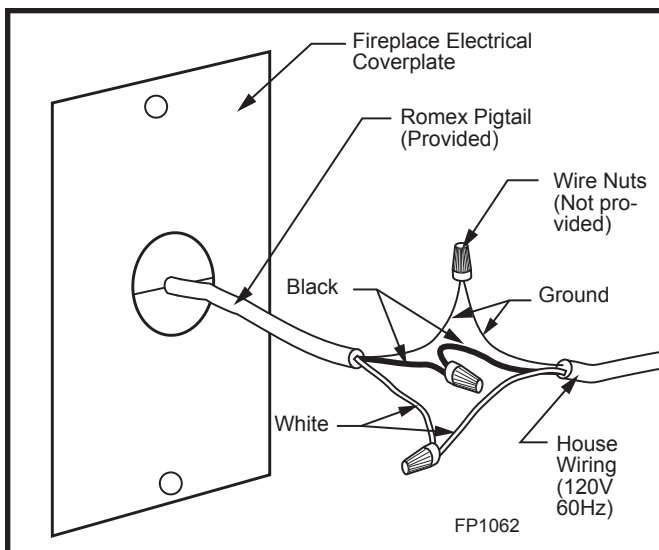


Fig. 9 Wiring diagram.

## Chimney Set-Up

Since you have already planned the chimney run, you should know exactly how the installation is to be accomplished - the amount of pipe required, the number of elbows, if any, and type of termination to be used.

**CAUTION:** Report to your dealer any parts damaged in shipment, specifically check the end connection of chimney sections and elbows.

**NOTE:** Fireplaces may use MHSC Model SK8, or Model S (three wall) chimney systems. The Stratton Series Fireplace will accept the SK8 chimney system as shipped; but a TWABR adapter collar is required when using the Model S (triple wall) chimney system. The installation procedure described in this manual applies **only** to the SK8 system. Either chimney system may be used, but the systems **may not** be mixed. The fireplace must be modified to install the TWABR adapter. (Fig. 10)

## Straight-Up Chimney Installation

To mark the centerline of the flue, put the fireplace in final position and measure out from the wall: 9½" (241 mm). Mark a spot on the ceiling directly above the fireplace. Draw a line parallel to the back wall through this mark. (Fig. 10)

Using a plumb bob positioned directly over center point of fireplace flue collar, mark the ceiling to establish the chimney center point. (Fig. 10)

## Offset Installation

In order to clear an obstruction, it may be necessary to offset the chimney from vertical. This is accomplished by using the elbows. Use the 30° *Offset Elbow* table on Page 6 to determine proper offset and parts required.

Each offset requires two (2) elbows. The second elbow is equipped with support straps. It is very important to install the second elbow in each offset as close to the ceiling or support as possible so the elbow straps can be secured to framing members and help support the weight of the chimney.

Determine offset distance of the chimney arrangement from the centerline of the fireplace to the centerline of the chimney where it is to pass through the ceiling.

Locate the center point of the chimney on the ceiling as though a straight up chimney arrangement is to be used. Measure your offset dimension from the straight up chimney center point on the ceiling.

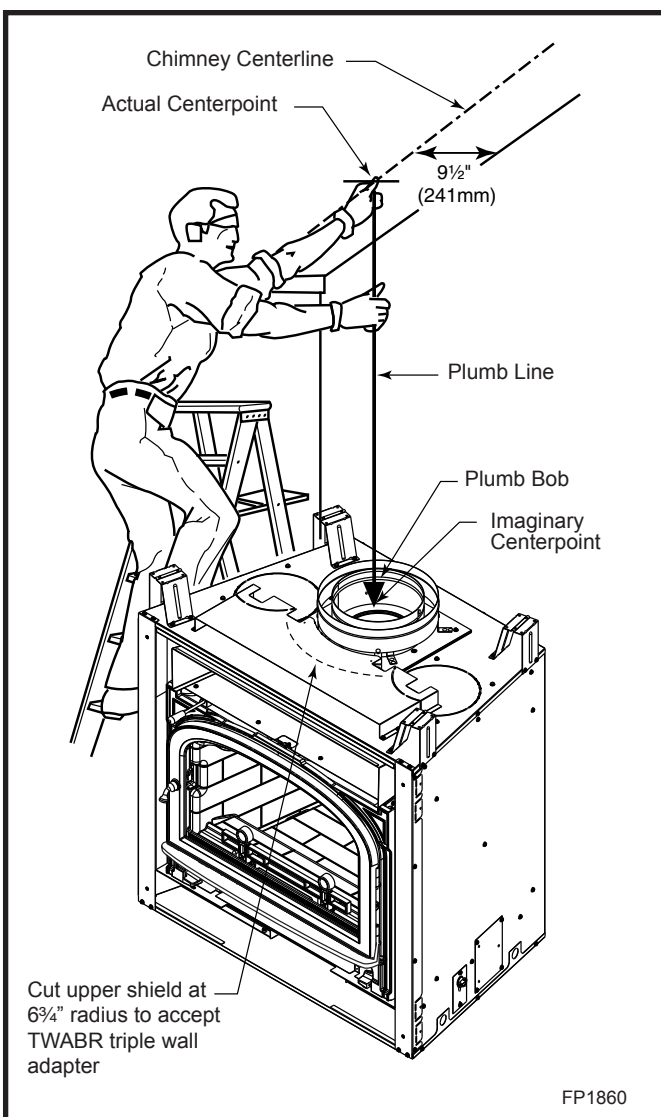


Fig. 10 Locate centerline of chimney with plumb line.

### Ceiling Chimney Hole/ Possible Obstructions

The size of the hole in the ceiling will vary with the angle at which the chimney passes through the ceiling. Drive a nail into the ceiling at the previously marked chimney center point. Go to the floor above and locate the chimney center and ensure existing ceiling joists and other possible obstructions, such as wiring, plumbing etc., are not in the path of the planned chimney. If necessary, re-position the chimney and/or fireplace to avoid obstructions.

### Cutting the Hole

Cover the fireplace collar opening and cut the proper sized chimney hole in the ceiling.

### Framing the Ceiling Hole

Frame the ceiling chimney hole as shown in Figure 12. It is good practice to use framing lumber that is the same size as the ceiling joists; this is a requirement at attic level.

The following table gives firestop spacer model numbers:

Size of Chimney	Angle of Chimney at Ceiling	
	Vertical	30°
8" Flue "SK" Series	SKFS2A 14½" x 14½" (368 mm x 368 mm)	SKFS6A 14½" x 25½" (368 mm x 648 mm)
8" Flue "S" Series 3-Wall	FS2A 17½" x 17½" (445 mm x 445 mm)	FS6A 17⅞" x 29⅝" (454 mm x 753 mm)

Fig. 11 Ceiling chimney hole sizes necessary for installing firestop spacer.

The **inside dimension** of the frame **must be** the same as the hole size selected from Figure 11 in order to provide the required 1½" (38 mm) air space between the outside diameter of the chimney and the edges of the framed ceiling hole.

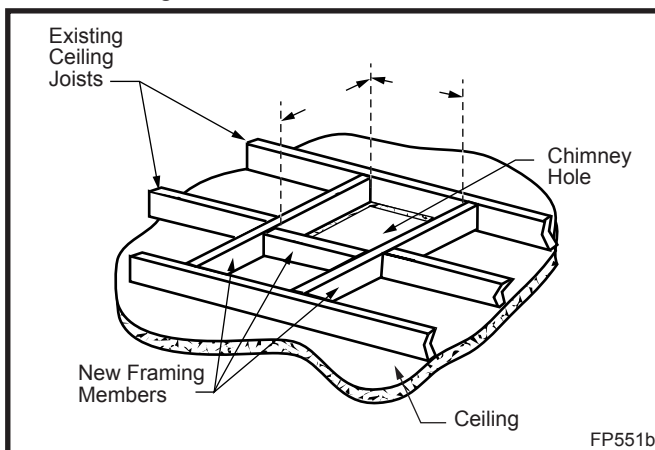


Fig. 12 Typical frame for ceiling chimney hole.

### Positioning, Safety Strips, Securing the Fireplace

Slide the fireplace into position.

Safety strips are used to ensure that a combustible surface in front of the fireplace is protected at the gap between the fireplace and the required noncombustible hearth extension.

When the finished extended hearth is added, the top of the finished hearth must be flush with the bottom of the fireplace. "Z" shaped metal safety strips have been supplied with the fireplace and are required for most installations. The safety strips provided have a 1" offset. For applications with a greater offset, "Z" shaped strips will have to be fabricated of metal. Overlap safety strips

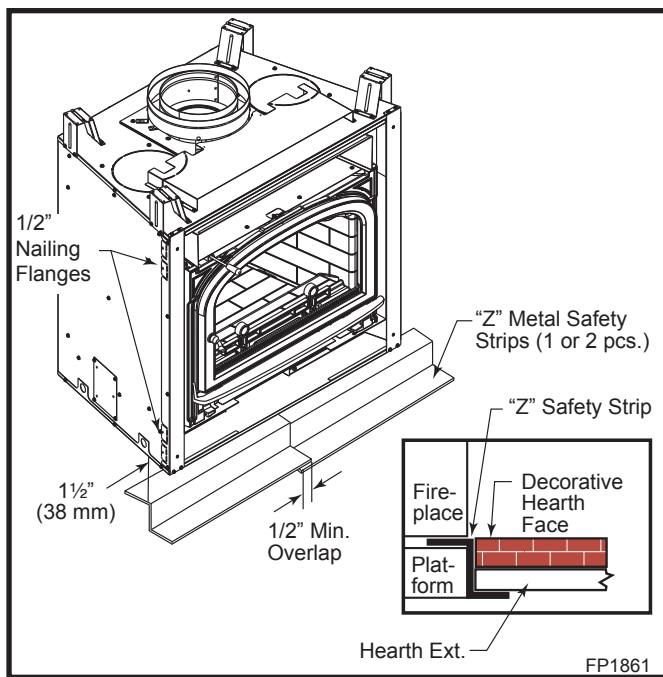


Fig. 13 Safety strip installation.

at least 1/2" to provide a positive joint. The safety strips must also extend at least 1 1/2" (38 mm) beyond the sides of the fireplace. (Fig. 13)

**NOTE:** Safety strips are not required over noncombustible floors where all supports at the base of the fireplace are noncombustible.

### Nailing Flanges

1. This unit is shipped with four (4) nailing flanges pre-mounted on either side of the fireplace to accommodate two (2) different drywall thicknesses. The 1/2" drywall flanges are shown in Figure 13 while the top and bottom flanges are for 5/8" drywall.
2. Bend the desired flanges out 90° on both sides of the fireplace. Slide the fireplace into the framed opening until the flanges contact the front surfaces of the framing. Level the unit and secure firmly in place.

**WARNING:** Risk of fire may occur if a 1/2" minimum spacing is not maintained between the fireplace and framing members.

### Installing Outside Air Kit

An outside air kit may be installed on the Stratton. The AK-MST allows for 100% of required combustion air to come from a source outside of the house. If desired, or if local codes mandate the use of an air kit, then an AK-MST is required to complete the installation (from air kit to the outdoors). If the outside air kit is to be used, the AK-MST MUST be installed BEFORE the fireplace is enclosed. **Also, the internal outside air cover plate must be closed by moving to the up position as**

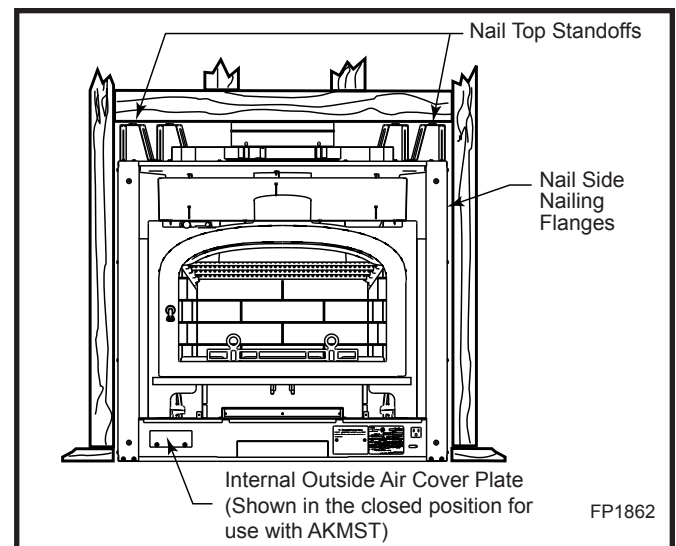


Fig. 14 Fasten fireplace in position.

shown in Figure 14. This will prevent cold air from entering the home.

**NOTE:** Four (4) inch Class 1 air duct, material or metal duct (not supplied) may be used with AK-MST. (For installation in New York State, only aluminum, non-combustible flexible or type "O" metal ducting is permitted.)

### Installation Precautions

The duct termination should be located so it is exposed to an out-of-doors opening of at least 100 square inches. If the duct termination must be located in a crawl space or basement, be sure the termination area has 100 square inches of ventilation opening to outside air.

The duct termination must be located so it does not compete for air flow with exhaust fans, gas vent hoods or other air consuming devices or appliances. It must not be blocked by rafters, insulation materials or other obstructions. The less restrictive the air supply, the better the AK-MST will perform.

It is a good practice to protect your hands and eyes during installation by wearing work gloves and safety glasses.

**CAUTION:** Do not install the air kit termination into a garage or other area that could contain flammable liquids or fumes, or into an attic space.

### Installation Instructions

Determine the location of the fireplace as described in the fireplace Installation Manual. Then plan location of the duct termination and the route of the duct run between the fireplace and the duct termination.

The duct run must be limited to a maximum distance of 40 feet (12 m) from the fireplace pipe collar to duct termination. This will provide the least restriction to air flow. No more than four (4) 90° elbows may be used.

The duct run may be horizontal, vertical, inclined or any combination of these. Vertical duct runs must be at least three (3) feet below the fireplace chimney flue exit. (Fig. 15) You are now ready to install the AK-MST Outside Air Kit.

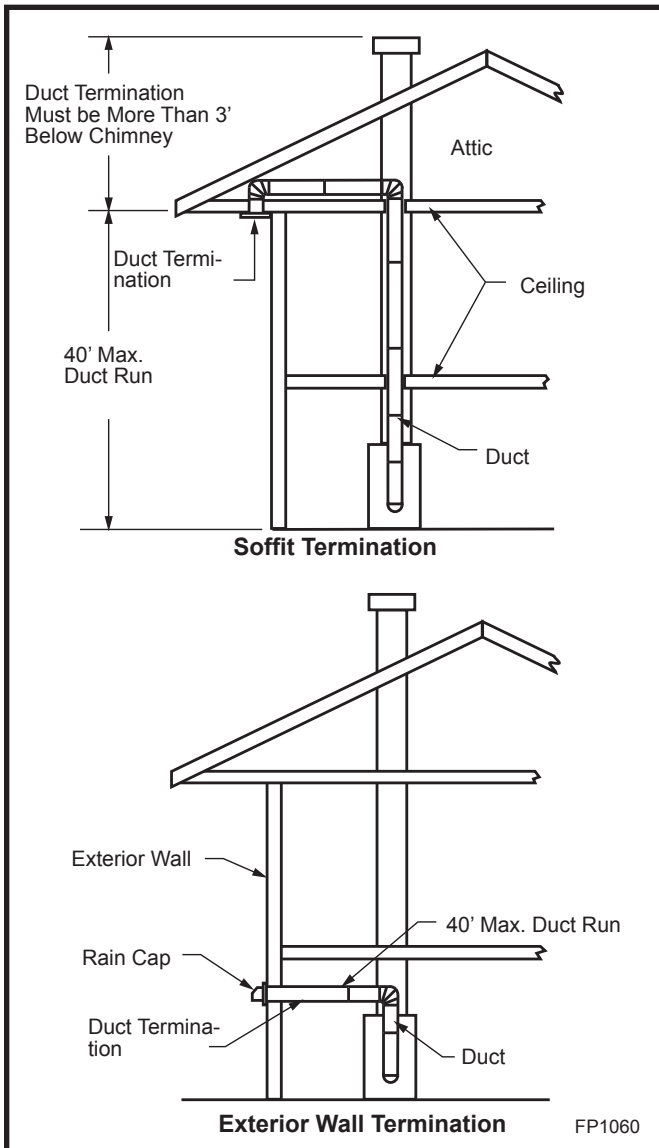


Fig. 15 Typical installations.

1. Remove the outside air cover plate located at the center of the right or left (either may be used) side of the fireplace. Discard the outside air cover plate. Use care not to rub against the sharp edges of this opening to avoid cuts.
2. Use the screws removed from the cover plate to attach the inlet collar to the side near the bottom of the fireplace. (Fig. 16) Slide the duct over the collar and attach the duct to the collar using the plastic tie straps or three (3) screws (screws not provided). Continue to assemble duct sections using three (3) screws at each joint until you have installed sufficient duct to reach the duct termination location.

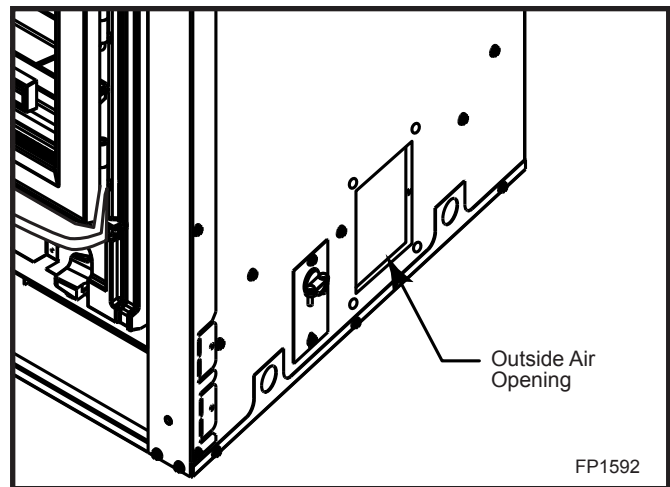


Fig. 16 Attach the inlet collar.

3. At the termination end, install the duct termination. This should be installed from the outside of the home. Cut a hole in the desired location approximately 4½" in diameter, caulk around the hole, and slide the termination through the opening from outside the home. The termination/rain cap should be caulked around its perimeter to assure a tight seal. The rain cap opening should be positioned downward. (Fig. 17)

The AK-MST Outside Air Kit is now installed and ready for use.

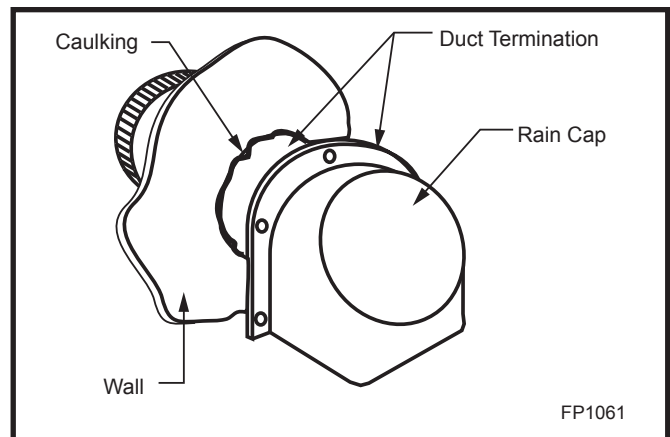


Fig. 17 Caulk and secure the duct termination/rain cap in place.

### Installing the Chimney System

Start by attaching the first chimney section to the collar on top of the fireplace.

Install the pipe as pictured in Figure 18. When you get a good lock, you will clearly hear the pipe snap together. Once sections are snap-locked in place, it is extremely difficult to get them apart. **Make sure the**

pipe is firmly snapped and locked together as each pipe section is mounted.

When installing elbows, only the outer pipe will snap-lock. Middle pipes simply slide into position. Be sure to always attach straps on the upper elbow to a structural framing member. (Fig. 19)

Continue installing the pipe as required until pipe is installed through the ceiling. At this point, you must install a firestop spacer.

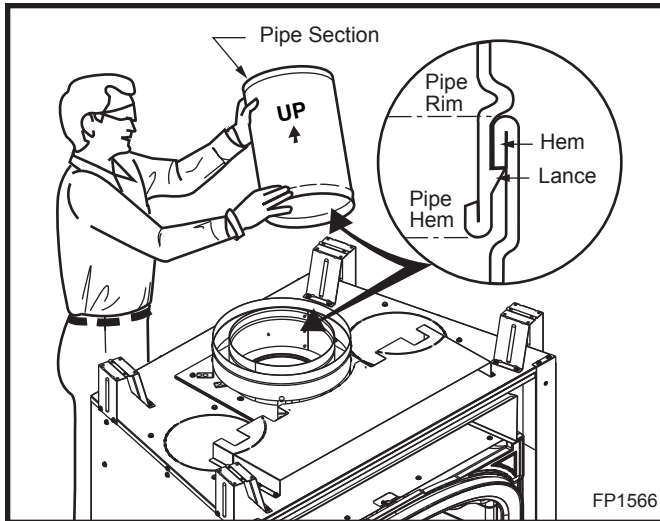


Fig. 18 Install pipe, listening for the snap-lock to fasten.

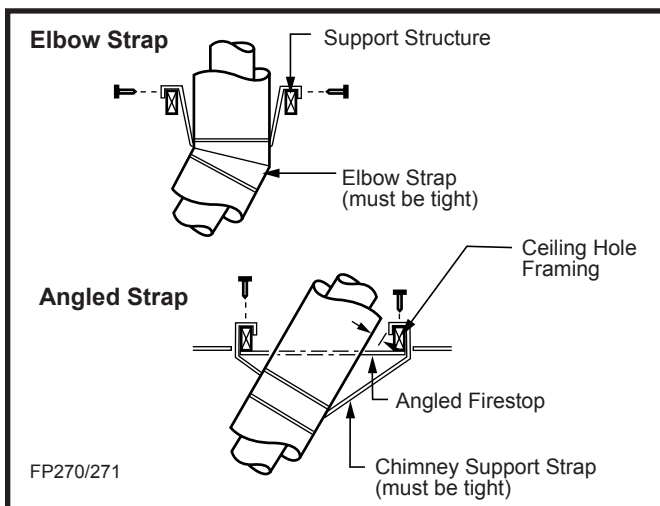


Fig. 19 Attach straps to a structural framing member.

### Installing the Firestop Spacer in the Ceiling Hole

A firestop spacer is used to keep pipe spaced properly and is required for safety.

Nail the firestop spacer (at each corner) to the framing members of the ceiling hole. **NOTE:** A firestop spacer is not required at the roof.

Hole sizes listed in Figure 11 for angled firestop spacers provide minimum required air space to chimney pipe for ceiling thickness up to 8" (203 mm). When the

30004508

combined thickness of ceiling material, ceiling joists and flooring material exceeds 8" (203 mm), adjustments must be made in framing to assure that minimum air spaces to the chimney are maintained.

### Proper Firestop Spacer Installation

Figure 20 shows different installation procedures for both an area that *is* an attic and an area that *is not* an attic.

If the area above the ceiling **is not** an attic, position the firestop spacer on the ceiling side and the angled portion extending up into the hole.

If the area above the ceiling **is** an attic, position the firestop spacer on the top of the framed hole and the angled portion extending down into the hole.

Firestop spacers are not available for, nor are they required on vertical walls.

**DO NOT** put any sealant around the area where the outer pipe slides through the firestop spacer. If you seal this area, **it may cause a fire hazard.**

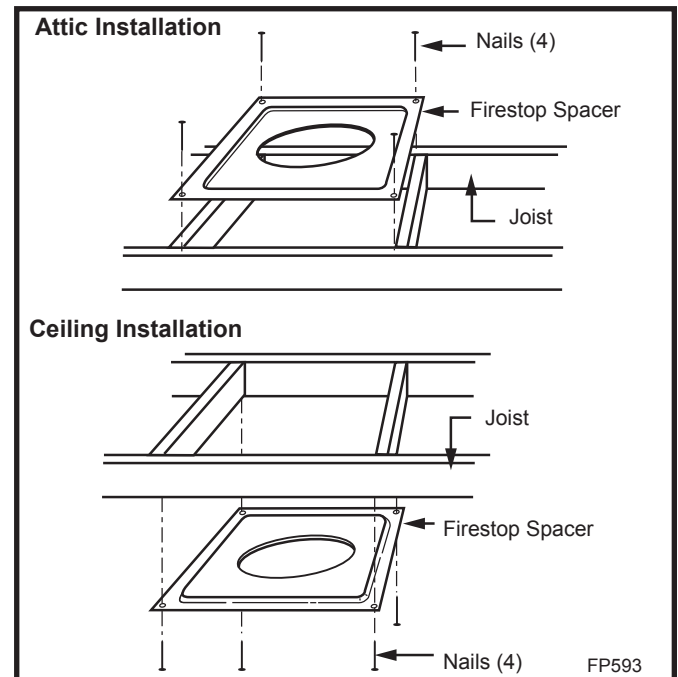


Fig. 20 Firestop spacer installations.

### Canadian Requirements for Insulation Shield

In Canada, an attic insulation shield is required to prevent attic insulation from contacting the chimney section. Framing dimensions for the chimney hole should measure 14½" x 14½" (368 x 368 mm). An attic shield **MUST** be installed on top of attic joists (above the floor level). (Fig. 21)

**CAUTION:** In the U.S., it is a good idea, although not always required, to install an attic insulation shield when blown-in insulation is to be used in the attic.

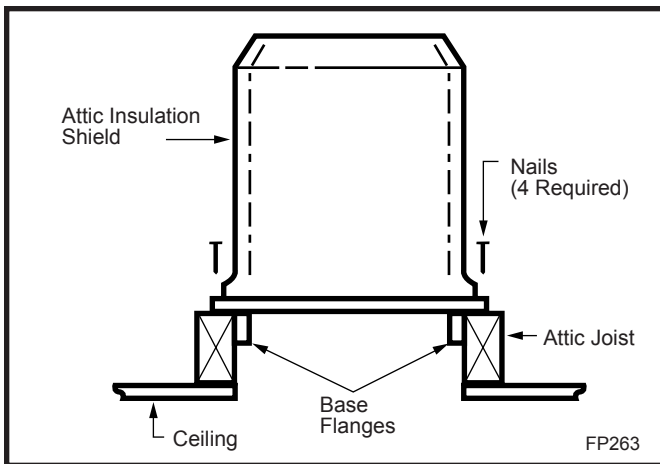


Fig. 21 Attic shield installation (Canadian requirement).

Blown-in insulation should always be at least 1½" (38 mm) from the chimney pipe.

### Continue Installing Pipe to Complete Run

Continue attaching pipe sections to complete the system up to the next level. Always be sure the pipe is firmly snap locked in place before proceeding to the next pipe section.

### Chimney Supports

If chimney supports are required, they are installed in the same manner as elbows. Nail chimney support straps to adjacent structural framing, as shown in Figure 19. Bend straps as necessary and make sure they are secure so they will support the weight of the chimney. A chimney support is 2½" (64 mm) long when installed. Consider this dimension when determining how many straight chimney sections are needed.

**NOTE:** Chimney supports are generally used in long runs in a chase installation.

### Additional Ceilings

If you encounter additional ceilings, repeat the steps outlined for the first ceiling installation. See the firestop illustration in Figure 20.

### Penetrating the Roof

Run pipe to the roofline. Since the chimney system must be vented to the out-of-doors, you **must** use an approved MHSC termination.

If a chase is used, refer to the installation manual provided with the termination cap.

### Locate Chimney Centerpoint on Roof

Use the same procedure detailed to locate the center point of the flue system.

Drive a nail up through the roof at the center point. This will indicate the center point on the outside of the roof surface.

### Cut and Frame Roof Hole

The size of the roof hole varies with the type of chimney termination to be used. Refer to installation instructions provided with the chimney termination to correctly size the roof hole.

There must be a 1½" (38 mm) air space between outermost portion of chimney sections and any adjacent combustible surfaces. (Combustible surfaces include burnable materials such as: ceiling members, joists, flooring, combustible insulation and roof structures.)

**WARNING:** Do not pack required air spaces with insulation or other materials.

Mark an outline of the roof hole using the nail as a centerpoint. **NOTE:** Hole dimensions given in the chimney top installation instructions are **horizontal** dimensions; therefore, the hole size must be marked on the roof accordingly.

Cover the opening of the installed chimney so debris cannot get into the system.

Cut and frame the hole. It is good practice to use framing lumber that is the same size as the rafters. Install the frame securely because the chimney top and flashing anchored to the frame must be able to withstand heavy winds.

### Install Remainder of Chimney Sections

Since you have preplanned the height of your termination according to the *Ten Foot Rule*, continue to install pipe to the predetermined height.

Check the chimney top installation instructions for details on how high above the roof top the chimney sections (all pipes) should extend.

### Install Top Housing or Termination

Follow the installation instructions provided with the chimney termination you have selected.

### Installing Chimney in a Chase

Refer to Page 5, Figure 3 for an illustration of a typical chase installation.

**CAUTION:** Use of firestop spacers and construction of a chase may vary with type of building. These instructions are not a substitute for local building codes. You **must** check your local building codes to determine specific requirements for your city or state. **NOTE:** Other building materials may be required in addition to MHSC Firestop Spacers.

## Installing Gravity Vent

A gravity vent may be installed to supply additional heat to the room the fireplace is in or to adjacent rooms. Figures 22, 23 and 24 show the necessary components for gravity vent ductwork. These parts must be fabricated or supplied by your fireplace dealer.

**CAUTION:** Two (2) flex ducts must be installed.

**NOTES:**

- 1" (25 mm) minimum air space must be maintained around the flex ducts.
- If the flex ducts are going to be stretched beyond their shipped length, cut the insulation in the middle and use half at the unit end and the other half at the duct outlet end.
- The flex ducts may also be vented to adjacent rooms.

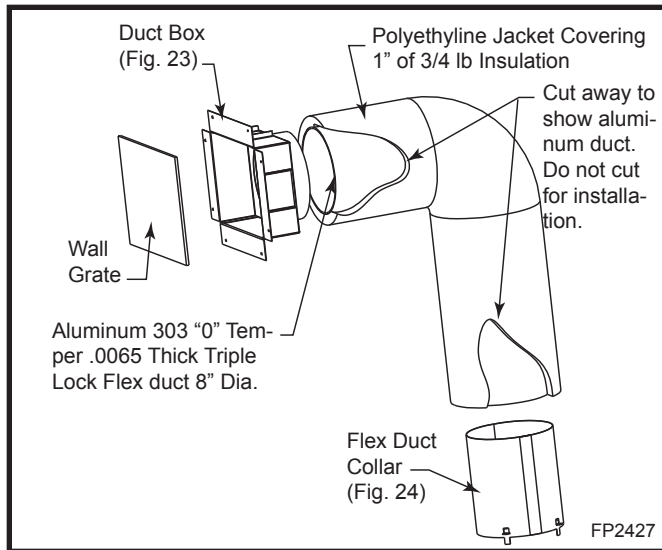


Fig. 22 Gravity vent components.

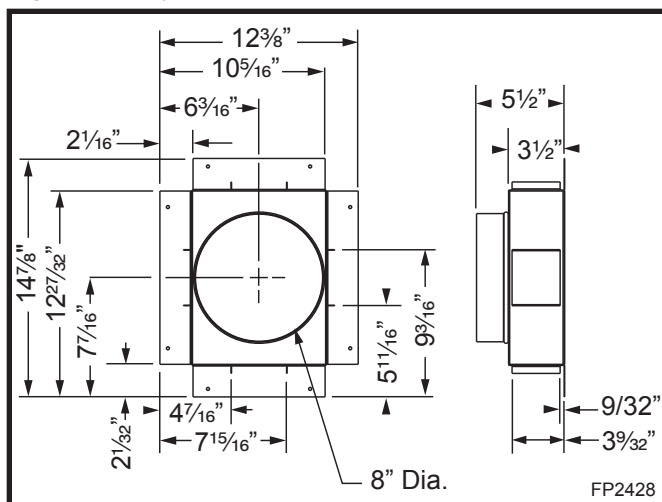


Fig. 23 Duct box dimensions

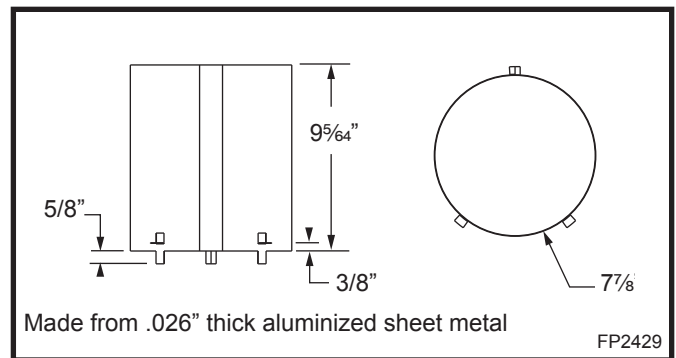


Fig. 24 Flex duct collar dimensions.

## Installation Instructions

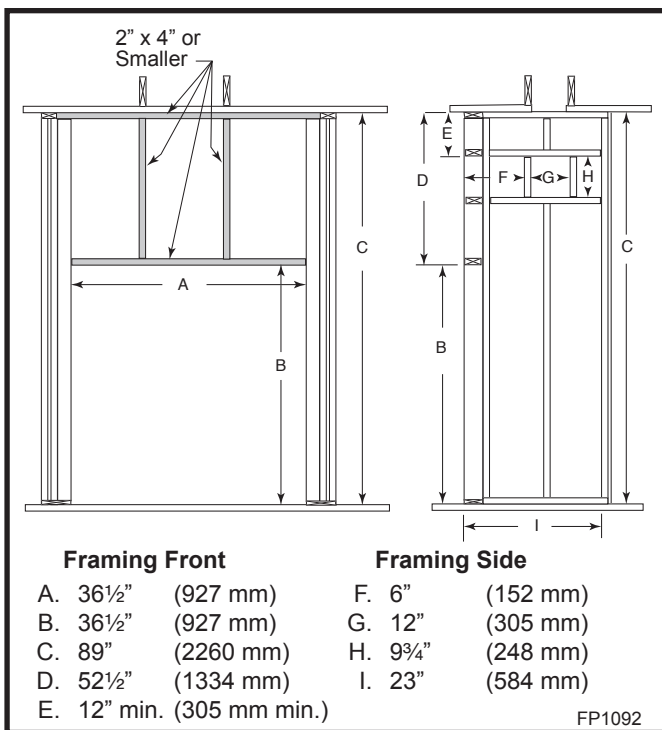
1. Remove knockout from outer top of fireplace.
2. Remove the circular cutout from the white insulation under the outer top.
3. Remove the two (2) screws holding each of the cover plates onto the top heat shield below the white insulation. Remove the cover plates.
4. Insert the flex pipe collar down through the hole in the outer top, tab end first.
5. Reach down through the flex pipe collar and bend the three (3) tabs to hold the collar in place above the top heat shield.
6. Select the flex duct location. The flex ducts can vent through the side of the chase, through its front, or one each through both the side and the front. Either or both flex ducts may also be vented into a room behind, beside or above the room in which the fireplace is installed. The flex ducts must be installed at least 12" (305 mm) from the ceiling and no lower than 24" (610 mm) above the top of the fireplace. Figures 25 and 26 show construction dimensions for some of the common flex duct placements.
7. Install the flex duct. Before installing the flex duct box assemblies, you may wish to paint the inner surfaces with high temperature stove paint to reduce the glare from reflected light.

Install the two duct box assemblies in their framed openings. (Fig. 27)

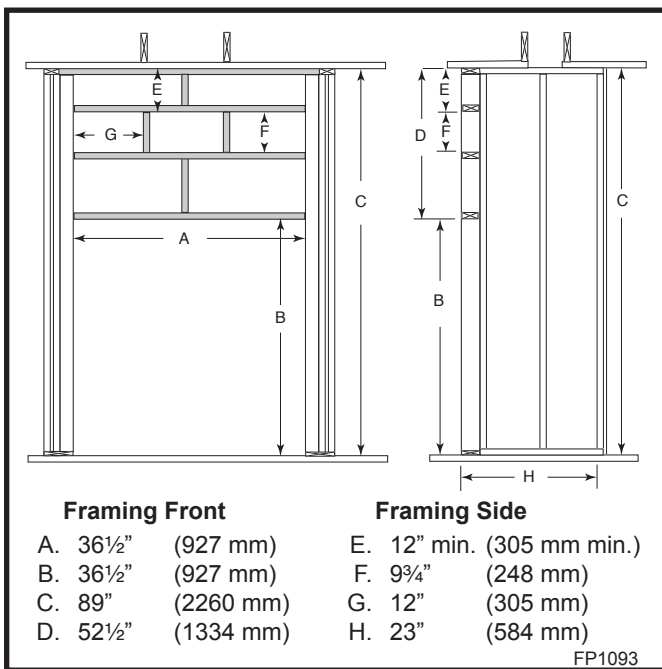
If desired, paint the inner surface of each flex duct for about 6" (152 mm) to eliminate reflected glare; attach this end to the flange of the duct box assembly.

Cut the tubing a few inches too long with a serrated kitchen knife - it can be compressed during installation. The flex duct must fit onto both collars of the duct box assemblies and the full length of the 2" (51 mm)-all the way around the collars.

Secure each end of the flex ducting to the appropriate collar with sheet metal screws provided. Holes for the screws must be drilled first around the perimeter through both the flex duct tubing and the flange with an 1/8" (3 mm) bit. Space the holes as evenly as possible around the collar.



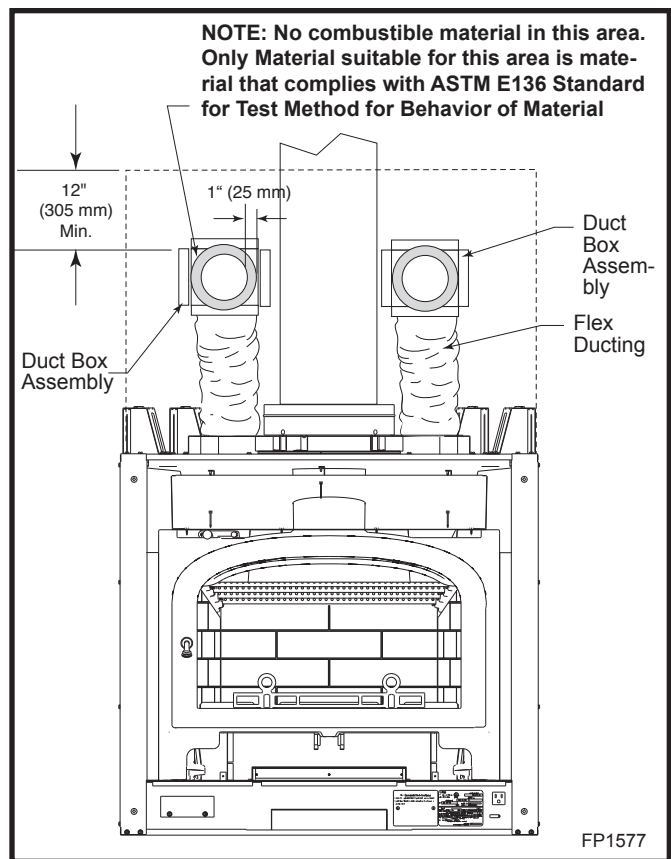
**Fig. 25** Suggested dimensions and framing for side-venting the air ducts of the chase.



**Fig. 26** Suggested framing and dimensions for venting the air ducts through the chase front.

Use metal tape to seal around the connection of the flex duct to the duct box assembly and the flex duct to the flex pipe collar.

8. Install vent cast grilles. Position the cast grilles over the duct box openings, and mark for the four (4) screw holes in each. Using a 5/32" (4 mm) bit, drill through the drywall and duct box assembly collars.



**Fig. 27** In addition to installation on the front, duct box assemblies may be mounted on the sides of the chase or vented into adjacent rooms, but in no case below 24" from the top of the fireplace. **NOTE:** Both ducts must be installed.

Install the duct grilles with the Phillips flat head black oxide screws.

### Finishing

**CAUTION:** All joints between the finished wall and the fireplace sheet metal must be sealed with non-combustible material before installing the steel face plate. This prevents cold air leakage into the room. (Fig. 28, 29)

**NOTE:** No material may cover the front face.

### Finish Wall

Finish the wall with a material of your choice. **Do not install a combustible mantel shelf less than 12" (305 mm) above the firebox grille opening. Do not install a mantel face plate less than 6" (159 mm) from top of grille opening. (Fig. 30)** If a combustible material is used below a flat mantel shelf, consult your local building codes for the required minimum clearance from the top of the fireplace opening to the bottom of the mantel shelf.

All joints (top, bottom and sides) where wall or decorative facing material meets fireplace surround must be completely sealed with a noncombustible material.



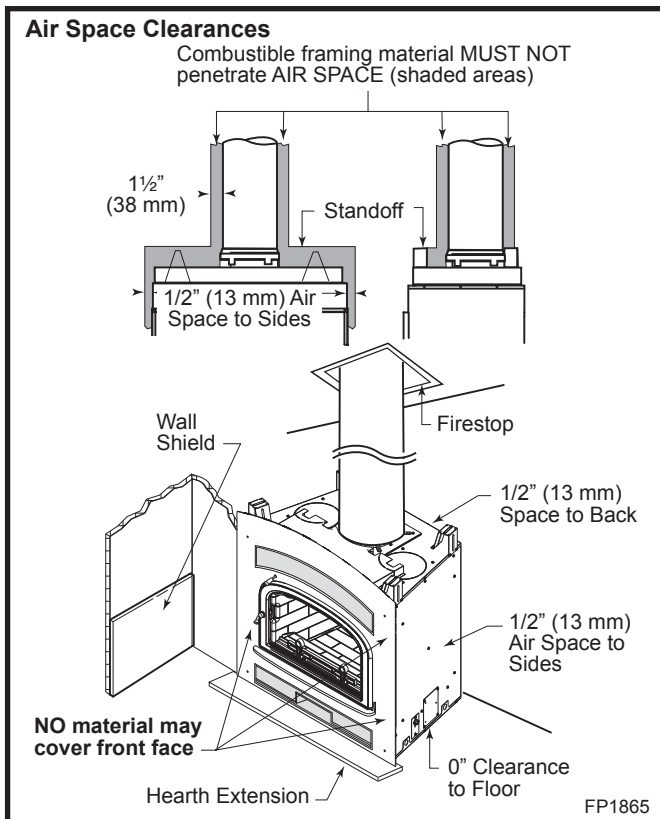


Fig. 28 Minimum clearances to combustibles.

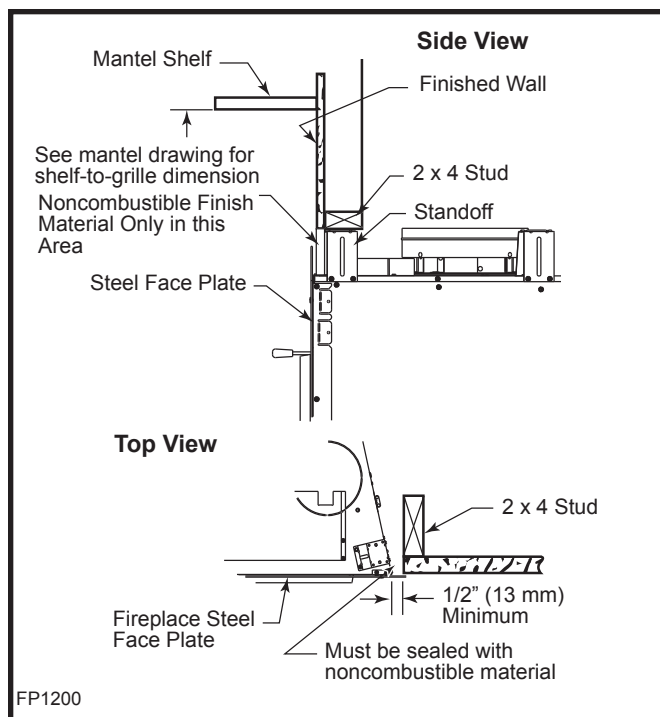


Fig. 29 Finish materials placement.

(Figures 29 and 33) Suitable materials include rock wool, plaster, cement mortar, cement board, etc.

**NOTE:** No side wall protection is required for fireplaces installed at 45° to two (2) side walls (corner installation). The front face may not be covered by any material, but a noncombustible material may be trimmed along the top, left and right sides of the front face. The brick template is shipped with the unit and is a 1/4" (6 mm) larger than the front face to help with this installation. Also, up to 7/8" (22 mm) of noncombustible material may cover the sheet metal surround of the fireplace and be behind the front face. Be aware that doing this will change the amount the door protrudes from the face.

**Mantels**

The height that a combustible mantel is fitted above the fireplace is dependent on the depth of the mantel. This also applies to the distance between the mantel leg (if fitted) and the fireplace.

For the correct mounting heights and widths, refer to Figures 30 and 31. When using paint or lacquer to finish the mantel, such paint or lacquer must be heat resistant to prevent discoloration.

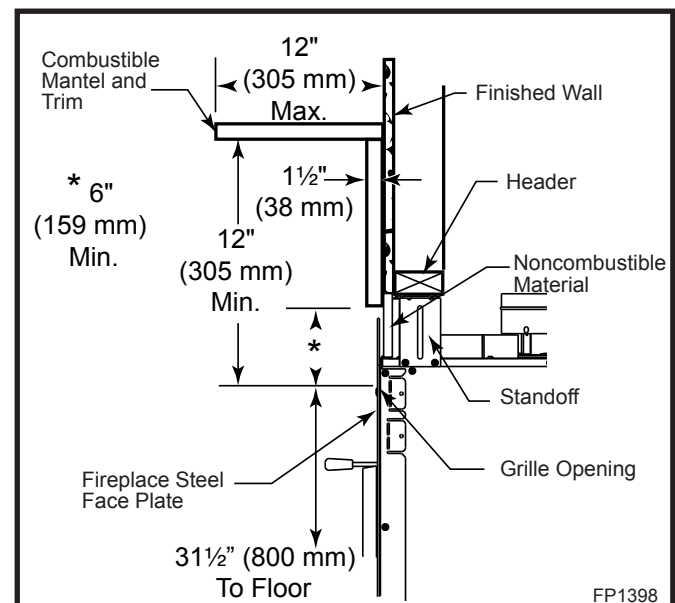


Fig. 30 Combustible mantel minimum opening.

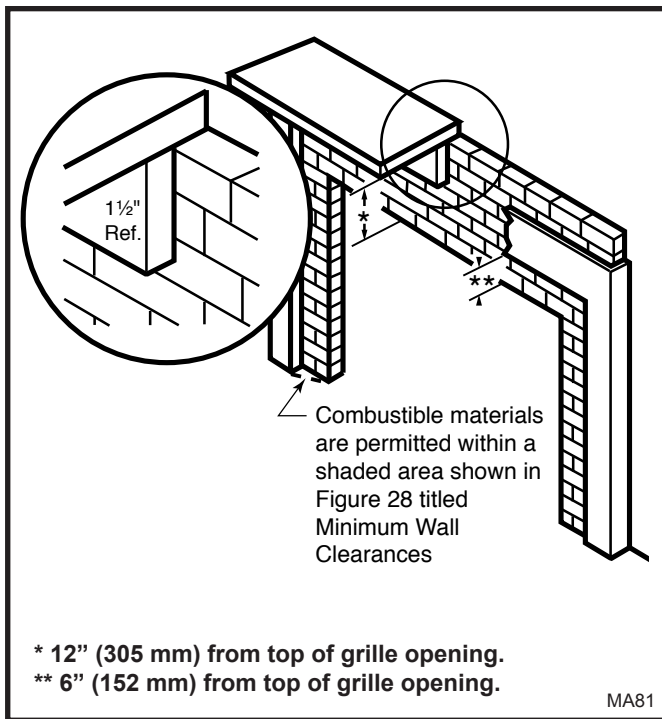


Fig. 31 Combustible mantel clearances.

### Side Wall Protection

Adjacent combustible side walls that are within minimum dimensions shown in Figure 34 of the fireplace opening must be protected with MHSC Wall Shield Model SP40 or a specifically built wall shield shown in Figure 28.

The special wall shield design shown in Figure 28 is an alternate method of adding protection to side walls and can be used in place of the SP40 with the same wall clearances specified for the SP40. **Rt must be at least 1.85.**

#### Examples of wall shield insulation:

1. Manville - CERAFORM 126, K=.27, 1/2 inches thick
2. EH2416, K = .458, 1 inch thick required.

COMMON MATERIALS AND FACTORS			
MATERIAL	K*	R	MINIMUM THICKNESS
EH2416 (CFM Corporation)	0.458	1.09	1.0 in.**
Common Brick	5.0	0.10	10.92 in.**
R Value is for 1/2 inch. * Units of K = BTU/SQ FT/HR/?F/IN ** Thickness of Listed Material			

FP533ADD

Fig. 32 Hearth extension material factors.

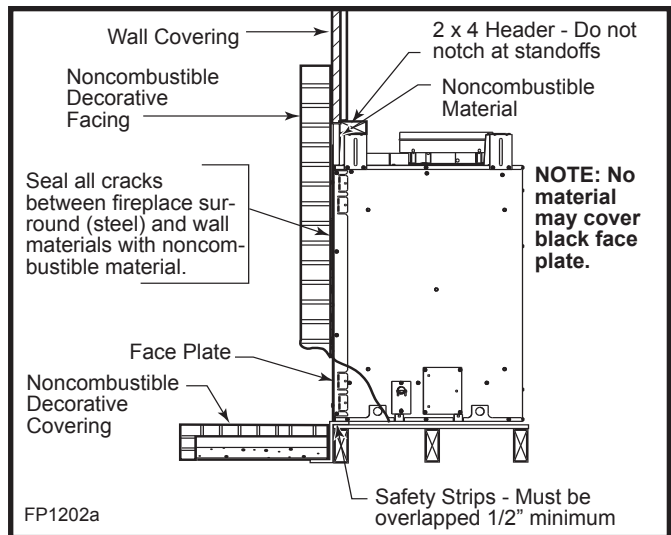


Fig. 33 Sealing gaps.

### Hearth Installation

A hearth extension is required to protect a combustible floor in front of the fireplace. Refer to Figure 34 for minimum dimensions and mounting detail.

**NOTE: Hearth Extension must not cover the air inlet opening of a fireplace. The front face must be able to be removed for servicing.**

The hearth extension described in Figure 34 must be a durable noncombustible material with a minimum (total) **Rt value of 2.18**; see Figure 32 for examples. The overall height (above a combustible floor), depth and width must be as indicated, with the extension centered to the fireplace opening.

The top of insulation must be covered with a non-combustible decorative covering or a piece of .018" minimum thickness sheet metal to protect hearth extension material. (Fig. 34)

Secure the hearth extension to the floor to prevent shifting. Use trim molding or other similar means at the three (3) outer edges. Seal the crack between the fireplace hearth and hearth extension with a noncombustible material. (Figs. 33 and 34)

**WARNING: Hearth extension must be installed in accordance with Figure 33. Top of hearth extension must be level with bottom of fireplace.**

Alternate noncombustible materials may be used providing the (total) thermal resistance (Rt value) of the alternate material employed is greater than or equal to  $R = 2.18$ . Thermal resistance (R) or thermal conductivity (K), may be obtained from manufacturer of the material. Factors are related by the formula  $K = 1/R$ . (Fig. 32)

T = given thickness

R = thermal resistance for a given thickness (T)

K = thermal conductivity

Noncombustible material with a lower R value may be used provided the thickness of the material is sufficient to maintain an equivalent (total) thermal resistance (Rt).

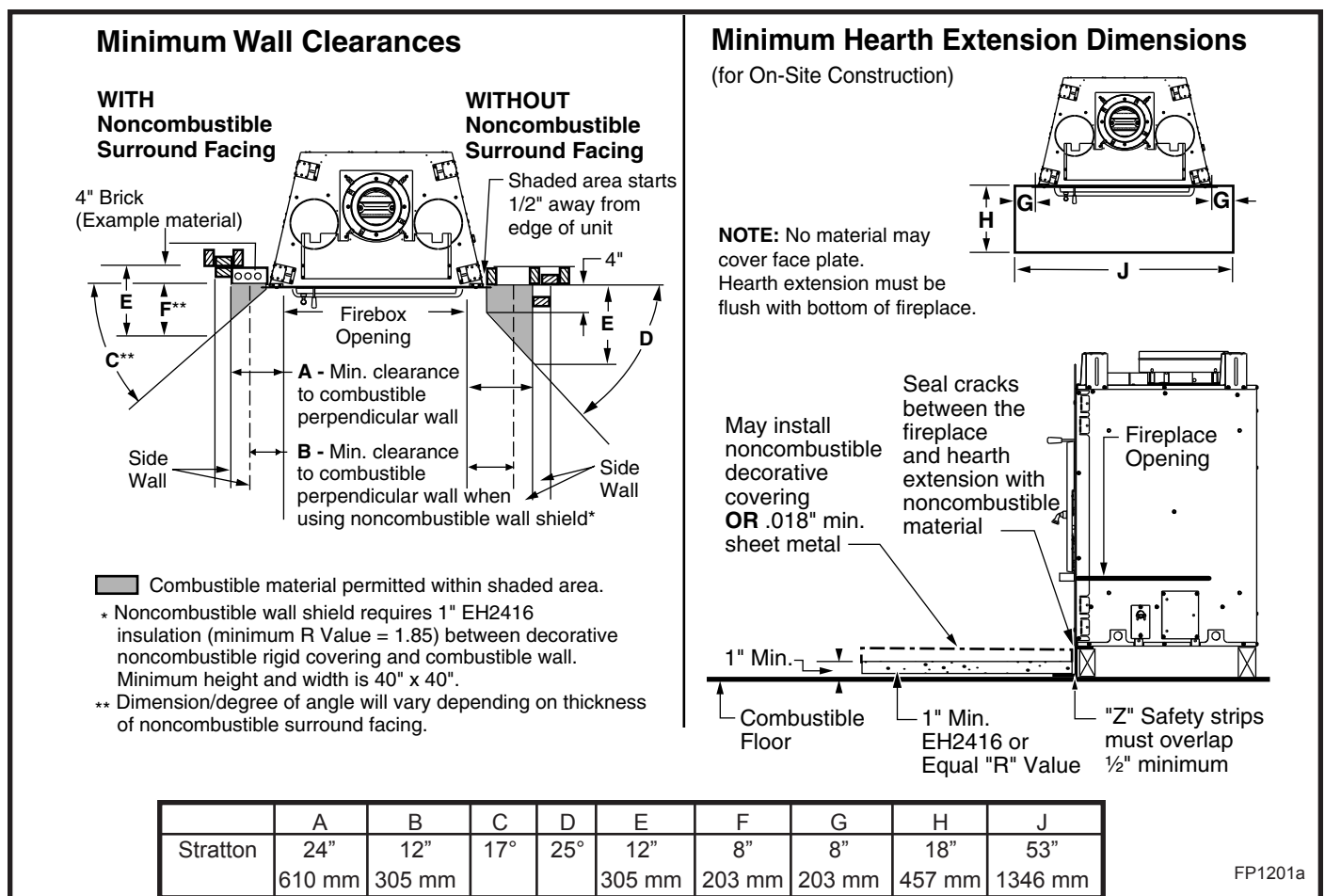
**Example of Determining Hearth Extension Equivalents**

To determine the thickness required for any **new** material:

$$\text{NEW required thickness} = \frac{\text{K of new material (per inch)} \times \text{thickness of listed material}}{\text{K of listed material (per inch)}}$$

**Example for Common Brick**

T (new) = 5.0/0.458 x 1.0 in. = **11.0 in.** (new required thickness).



**Fig. 34** Combustible side wall protection and hearth extension dimensions.

## Operation

### Attach Handles

The fallaway handle is used to open and close the front door. Remove after each use so the handle will not get hot. Keep in convenient location for each use. (Fig. 35)

After the steel face plate has been installed, twist the wooden primary air control knob onto the shaft. Tighten carefully until snug. Do not overtighten. Wood handle could crack. (Fig. 35)

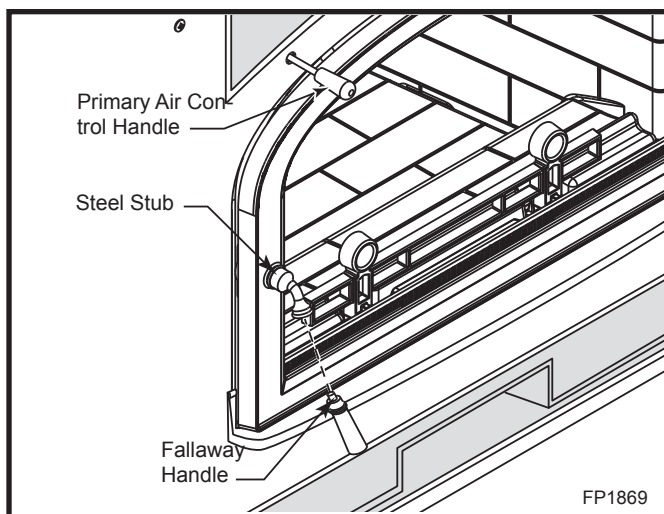


Fig. 35 Fallaway handle and air control handle.

### Ashlip Installation

1. Remove ashlip from firebox. Remove wrapping.
2. Align clevis on ashlip with threaded holes in bosses located beneath the Stratton door. Orient ashlip with clevis pointing down. (Fig. 36)
3. Install ashlip to firebox using a Phillips screwdriver and hardware provided.

### Stratton Controls

Two controls regulate the performance of the Stratton fireplace: A primary air control supplies oxygen for the fire and an optional variable-speed fan control, or rheostat may be used to regulate the warm air flow into the room.

### Primary Air Control

A single air control regulates the amount of heat the fire will produce and how long it will burn.

The **primary air control** is located in the upper left corner of the unit. (Fig. 35) It is the primary source of air for starting, maintaining, and reviving the fire.

Generally, more air entering the fireplace makes the fire burn hotter and faster, while less air prolongs the burn.

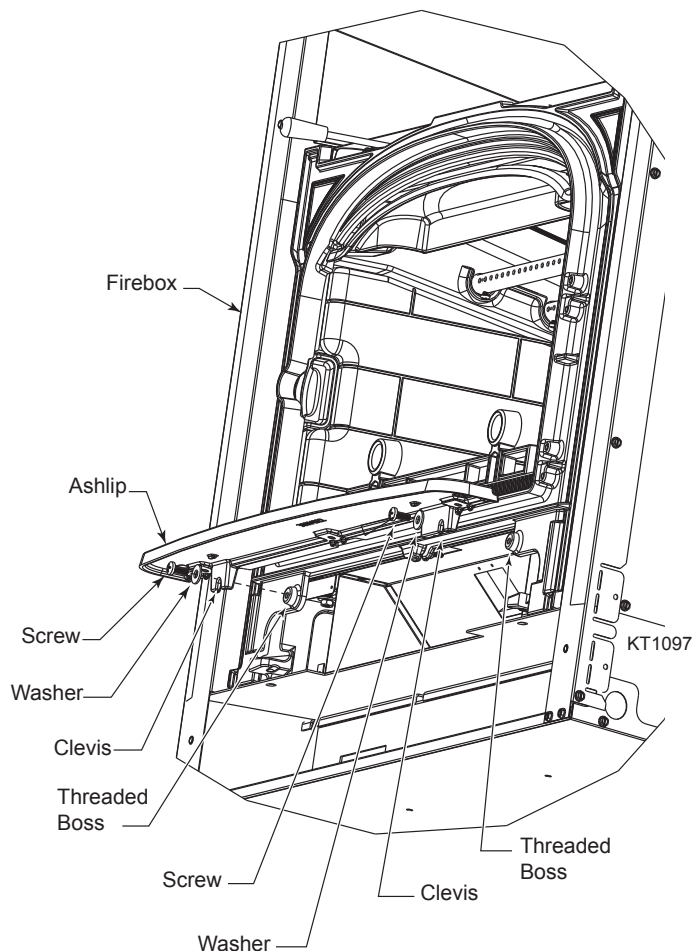


Fig. 36 Install ashlip.

The air supply is open to the maximum when the control lever is pushed in, and closed when pulled out. To vary the burn rate, adjust the control to the desired position in between these extremes; opening the primary air control makes the unit burn hotter. Closing the control slows the unit down. You may adjust to any position you desire.

### Glass Doors

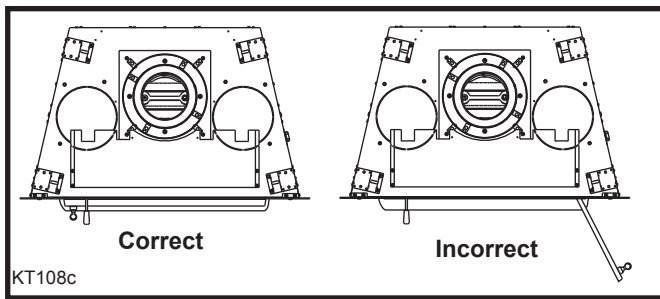
The Stratton is intended only for use with the door fully closed. (Fig. 37)

### Burn Only High-Quality Wood

The Stratton is designed to burn natural wood only; do not burn other fuels.

You will enjoy the best results when burning wood that has been adequately air-dried. Avoid burning "green" wood that has not been properly seasoned.

The best hardwood fuels include oak, maple, beech, ash, and hickory that has been split, stacked, and air-dried outside under cover for at least one year.



**Fig. 37** Correct door position during operation.

For areas that do not have a supply of hardwood, commonly burned softwoods include tamarack, yellow pine, white pine, Eastern red cedar, fir, and redwood. These too should be properly dried. Your Stratton will accept wood up to 20" (508 mm) in the front and 18" (457 mm) in the back. Longer wood pieces work better than short ones.

Wood should be stored under cover to maintain dryness, and should be dried at least one year for optimum heating and fire-viewing performance. Even for short-term storage, however, keep wood a safe distance from the heater and keep it out of areas around the heater used for refueling and ash removal.

### Use the Air Control Settings that Work Best for You

No single air control setting will fit every situation. Each installation will differ depending on the quality of the fuel, the amount of heat desired, and how long you wish the fire to burn.

The control setting also depends on your particular installation's "draft," or the force that moves air from the fireplace up through the chimney. Draft is affected by such things as the length, type, and location of the chimney, local geography, nearby obstructions, and other factors.

Too much draft may cause excessive temperatures in the fireplace. On the other hand, too little draft can cause backpuffing into the room and/or the "plugging" of the chimney.

How do you know if your draft is excessively high or low? Symptoms of too much draft include an uncontrollable burn or glowing internal parts of the Stratton. A sign of inadequate draft is smoke leaking into the room through the fireplace or chimney connector joints, low heat, and dirty glass.

In some newer homes that are well-insulated and weather-tight, poor draft may result from insufficient air in the house. In such instances, an open window near the fireplace on the windward side of the house will provide the fresh air needed.

Another option for getting more combustion air to the fireplace is to duct air directly from the outside to the fireplace. In fact, in some areas provisions for outside combustion air are required in all new construction.

Your Stratton is designed to incorporate outside air for combustion. Directions for installing the optional AK-MST outside air duct are included with the kit and beginning on Page 11 of this instruction.

When first using the fireplace, keep track of the settings of the air controls. You will quickly find that a specific setting will give you a fixed amount of heat. It may take a week or two to determine the amount of heat and the length of burn you should expect from various settings.

Most installations do not require a large amount of combustion air, especially if adequate draft is available. **Do not for any reason attempt to increase the firing of your heater by altering the air control adjustment range outlined in these directions.**

### Starting and Maintaining a Wood Fire

**Burn solid wood fuel only in the Stratton, and burn it directly on the hearth. Do not elevate the fuel. Do not burn coal or other fuels.**

Minimize thermal stress by allowing the plates to adjust gradually during an initial break-in fire by following Steps 1-3 below.

**WARNING: Operate your Stratton only with the door fully closed. If the door is left partially open, gas and flame may be drawn out of the fireplace opening, creating risks of both fire and smoke.**

Follow these guidelines as you start and maintain the fire, and remove the ashes. Prior to starting a fire with a cold fireplace, it is recommended to clear the lower primary air holes located under the front brick. To do this, remove the andiron and lift out the front refractory brick. Sweep any ash accumulation out of the three (3) air slots. Keeping these slots clear of ash will ensure better performance.

1. Open the primary air control fully.
2. Lay some crumpled newspapers in the bottom. Place on the paper six or eight pieces of dry, finely-split kindling. On the kindling lay two or three larger sticks of split dry wood approximately 1-2" (25-50 mm).
3. Light the newspaper and close the door. Gradually build up the fire by adding a few 3-5" (76 -127 mm) diameter splits.

If this is your initial break-in fire, let the fire burn brightly, but not to excess. Control the fire's intensity by adjusting the air control lever. After an hour or so stop adding wood so that the fire dies out gradually.

For ongoing operation after the initial break-in, continue to add a few sticks at a time of a progressively larger size. Be sure to keep the fuel load behind the front grate bar at all times. Continue until you have a live ember bed at least 3-4" (76 - 102 mm) deep. This may take an hour or longer, particularly when the Stratton is vented to an exterior chimney or when the system is very cold.

You'll soon find that the insert is **HOT WHILE IN OPERATION! KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.**

**NOTE:** Some chimneys need to be "primed," or warmed up, before they will draw sufficiently to start a fire. To correct this situation, roll up a couple pieces of newspaper, place them on top of the kindling and toward the back of the stove, light them, and close the doors. This should heat the chimney enough to initiate a draft.

Once the draft is established, open the front door and light the rest of the fuel from the bottom. Do not light the main bed of fuel until the chimney begins drawing, and repeat the procedure as often as necessary if the initial attempt is unsuccessful.

- Once a good ember bed of at least 3-4" (76 - 102 mm) has formed, add the desired amount of wood and close the primary air control to a medium-low setting. The fire volume will diminish immediately, but the Stratton will continue to heat up. Maintain control of the fire using the primary air control, and remember: reduce the setting for less heat, increase the setting for more heat. Refer to the air control settings chart on Page 18 for recommended settings at different burn rates.

**CAUTION:** When loading the Stratton, open the door slowly to prevent flame from rolling out of the front of the unit.

Do not over-fire this heater.

Overfiring may cause a house fire, or can result in permanent damage to the fireplace. If an exterior part of the Stratton glows, you are overfiring.

### Reloading and Reviving a Wood Fire

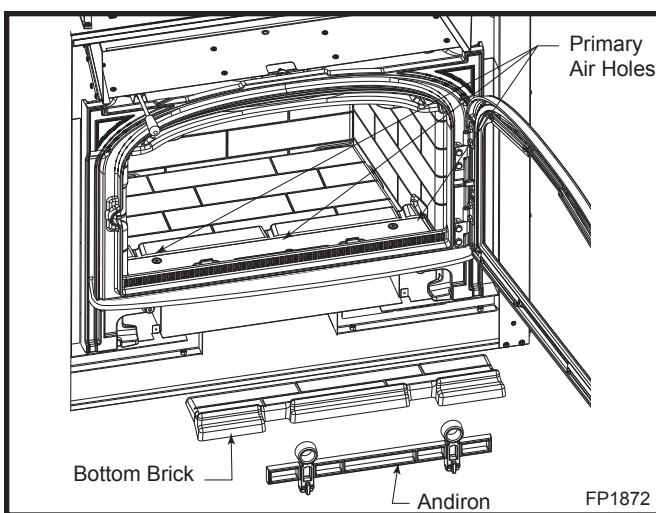
Set the air control on "High," and wait at least fifteen seconds for the draft to increase. Turn the convection blower off. Open the door slowly.

**IMPORTANT:** While the stove is hot, toss and sift the coals with each stove loading. This loosens and helps burn coals that become buried in the ash. Push coals away from the three bottom air jets. Creating this "void" helps maintain a reliable fire.

**Check the ash level, and remove excess ash. Three (3) primary air holes located under the front brick provide air to the coal bed. (Fig. 38) These holes should be cleared of ash for proper performance.**

Add the fuel, smaller pieces first. If it is necessary to use wood smaller than the 18" (460 mm) optimum size, be sure to fill the firebox as completely as possible by loading the wood pieces alternately on the left and right. Split wood will fill the firebox more completely and reduce the frequency of reloading. If possible, stack wood diagonally to maximize air spaces between fired pieces.

If you have an ember bed of at least 2-3" (51 - 76 mm), the air setting may not need to be adjusted. If the ember bed is less than 2-3" (51 - 76 mm), you may have to leave the air setting on high for a few minutes until flames appear.



**Fig. 38** Keep primary air holes free of ash for proper performance.

Finally, adjust the air control and optional fan speed for your desired heat level.

**NOTE:** If the charcoal bed is relatively thick and your fuel is well-seasoned, it is possible to add fresh fuel (smaller pieces first), close the door, and reset the air control immediately.

### Special Tactics for Cold-Climate Heating

The Stratton is capable of producing up to 40,000 BTU/hour and heating an area of up to 1,500 sq. ft. However, many factors affect heating performance and can influence the extent to which the Stratton Medium Insert can heat a given area.

A well-insulated home, located in a moderate climate and with the Stratton located centrally in an open floor plan, will be easier to heat than a drafty home in the far north in which a Stratton is installed on an exterior wall at the end of a long house.

Different results may be experienced even in the same installation if you switch from burning good, dry wood to

wood that is partially rotted or inadequately seasoned.

To compensate for these factors in cold climates, it may be necessary to operate the for longer periods of time with the air control set to a higher level more of the time.

### **Remove and Store Ash Safely**

Check the ash level before reloading the stove, remove ashes if necessary. Turn off the fan before shoveling the ash into your ash container.

Remove ash regularly, typically every one to three days. The frequency will vary depending on how you operate your Stratton; more wood is consumed at higher heat output settings, and ash will accumulate faster.

Ash should be removed frequently and placed outdoors in a metal container with a tight-fitting lid. The closed container of ash should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ash is disposed of by burial in soil or otherwise locally dispersed, it should be retained in the closed container until all cinders have thoroughly cooled. Wood ash may be used as a garden fertilizer.

**CAUTION:** Never use your household or shop vacuum cleaner to remove ash from the fireplace; always remove and dispose of the ash properly.

## Maintenance

### Keep your Stratton Fireplace Looking New and Working Its Best

#### Care of the Cast Iron Surface

An occasional dusting with a dry rag will keep your Stratton fireplace looking new.

If the paint needs retouching, first allow the surface to cool completely. Wire-brush areas needing to be painted. Touch-up with high temperature fireplace paint available from your local dealer. Apply the paint sparingly. Two light coats are better than one heavy one.

#### Cleaning the Glass

The Stratton glass system requires a minimum amount of cleaning. Most carbon deposits that accumulate will burn off during hot fires.

Ash residue that accumulates on the glass should be removed periodically to prevent etching. To clean the glass, follow this procedure:

- Be sure the glass is completely cool.
- Cleaning with water will work in most cases. Use a glass cleaner especially made for this purpose only if deposits are especially heavy. (If heavy deposits are a frequent occurrence, however, evaluate your operating techniques.)
- Rinse the glass thoroughly.
- Dry the glass completely.

#### Adjust the Door Latch Periodically

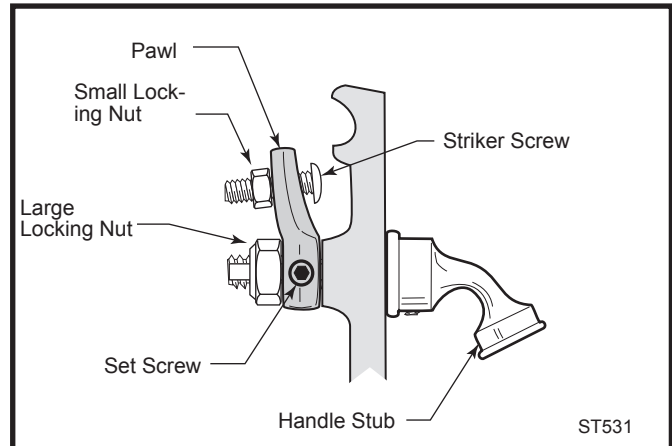
The front door of the fireplace should close securely to prevent accidental opening and should close tightly to prevent air from leaking into the fire chamber. The door handles will be positioned vertically when the door is closed.

Over a period of time, the gasket around the door will compress and the latch may need adjustment. To adjust the handle, follow this procedure (Fig. 39):

1. Loosen the small lock nut with a wrench.
2. Extend the striker screw one turn by turning it with an Allen wrench.
3. Retighten the lock nut, while at the same time holding the striker screw with the Allen wrench to prevent its turning.

Test the door seal. Close the door on a dollar bill and attempt to pull it free. If the bill is freed with little resistance, the gasket isn't snug enough at that spot. Continue to make small adjustments until the setting is right.

If additional adjusting of the latch does not enable the door to seal sufficiently in one area, try "adjusting" the



**Fig. 39** Turn the striker screw to tighten or loosen the door latch.

gasket in that area. Pack more cement or a smaller diameter gasket into the channel beneath the gasket so that the main gasket is raised and makes contact with the door frame. This procedure should solve the problem. If the gasket needs replacing, follow the directions beginning on Page 24.

#### IMPORTANT NOTES

- Do not operate the Stratton if the glass is damaged or broken.
- Do not abuse glass by striking with any object or by slamming the door.
- Replace glass only with MHSC high temperature ceramic glass, available from your Vermont Castings' authorized dealer.

#### ! WARNING



**HOT GLASS WILL CAUSE BURNS.**  
**DO NOT TOUCH GLASS UNTIL COOLED.**  
**NEVER ALLOW CHILDREN TO TOUCH GLASS.**

#### Removing and Replacing Door Glass

Follow this procedure to replace glass.

- Open the door and loosen the four retaining clip screws that hold the glass to the door. Swing the clips out of the way. Tilt the glass away from the door frame and lift up. (Fig. 40) Wear gloves and use caution when handling broken glass.



- Examine the gasket that seals the glass to the door frame. If necessary, replace this with gasket obtained from your local Vermont Castings' authorized dealer. Directions for replacing gaskets are given below.
- Check the channel at the bottom of the door frame, and clear away debris if necessary.
- Carefully place the new glass in the door frame.
- Secure the clips, being careful not to over-tighten. Be sure the glass is firmly seated against the gasket. Close the door gently to confirm the clips have been properly positioned. It is possible for the glass to be damaged if the clips have been installed incorrectly and the door is closed with force.

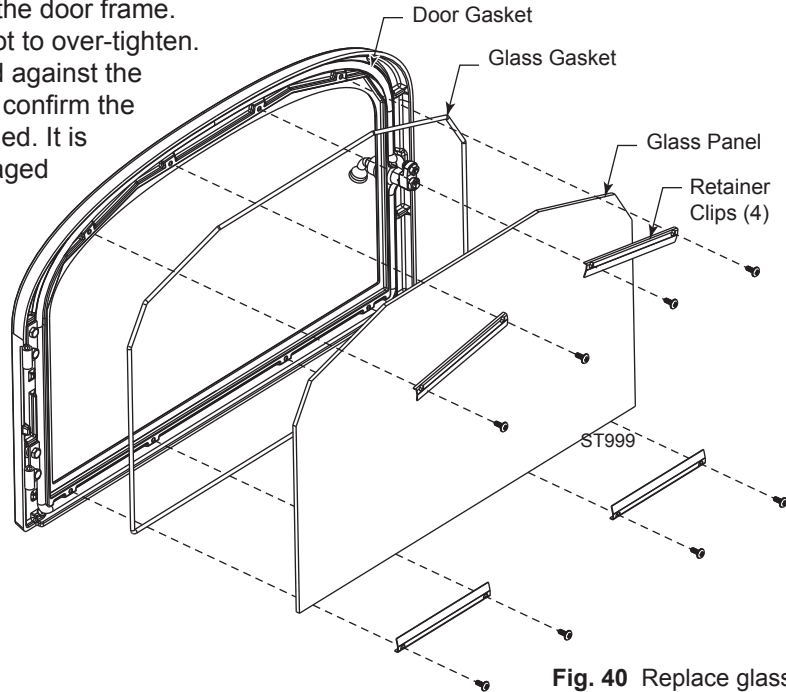


Fig. 40 Replace glass.

### How to Replace Gaskets

Your Stratton uses rope-type fiberglass gaskets to make a tight seal between some parts. With use, particularly on those parts that move, gaskets can become brittle and compressed and can begin to lose their effectiveness. These will need periodic replacement.

All of the gaskets used are made of fiberglass. The three sizes of replaceable gasket are listed below, along with their application.

#### Replaceable Stratton Fiberglass Gaskets

Gasket Size .....	And The Parts It Seals
3/8" (1203564).....	Door to the front - 5.6'
3/8" (30002422).....	Firebox parts
3/16" (1203556).....	Glass to the door - 5.2'

To change a gasket, wait until the fire is out and the stove has cooled. Wear protective eyewear and a dust mask. The procedure is the same for all gaskets.

1. Remove the existing fiberglass gasket by grasping an end and pulling firmly.
2. Use a wire brush or the tip of a screwdriver to clean the channel of any remaining cement, silicone or bits of gasket.

3. Apply a thin bead of high temperature silicone to the newly-cleaned groove. A 1/8" - 3/16" bead is sufficient.
4. Place a new gasket into the groove. Wait until you have placed all but a couple inches from the end before you trim the end to an exact fit.

### Replacing the Door Gaskets

Remove the door by lifting it straight up off its hinge pins. Lay it face down on a padded surface.

Follow steps 1-4 as described above.

## The Chimney System

### A Clean Chimney System is Safer and Works Better

Although the non-catalytic combustion system in your Stratton can reduce creosote formation dramatically, it is not a substitute for regular inspection and cleaning of the chimney and chimney connector.

### Learn to Recognize — And Avoid — Creosote

Your Stratton has been designed to minimize creosote build-up. Regular chimney inspection and maintenance, however, must still be performed. For safety, good stove performance, and to protect your chimney and chimney connector, inspect your chimney and chimney connector on a regular schedule. Clean the system if necessary. Failure to keep the chimney and connector system clean can result in a serious chimney fire.

When wood is burned slowly, it produces tar, organic vapors and moisture which combine to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire within the flue system that can damage the chimney and overheat adjacent combustible material. If a significant layer of creosote has accumulated —1/8" (3 mm) or more — it should be removed to reduce the risk of a chimney fire.

If you do experience a chimney fire, act promptly to:

- Close the primary air control lever (pulled out fully).
- Get everyone out of the house.
- Call the Fire Department from a nearby house.

You should inspect the system every two months during the heating season as part of a regular maintenance schedule. To inspect the chimney, let the Stratton cool completely. Then, using a strong light, sight up through the flue collar into the chimney flue. The fiber baffle will need to be removed gently to view inside the connector pipe.

If it is necessary to remove the firechamber to inspect or clean the chimney, this is how to do it:

- Let the Stratton cool.
- Disconnect the fan power cord (if used).
- You may wish to lighten the firebox by removing the load door and andiron.
- Retract the two levelling screws until they bear no weight.
- Remove the front air tube and fiber baffle.
- Disconnect the flue collar or vent connector from the top of the stove.

- Slide the firechamber forward until you have access to the fireplace opening.
- Inspect the flue.

You can now inspect the smoke shelf area of the fireplace and the chimney. Before replacing the Stratton, this area should be inspected for signs of deterioration and cleaned thoroughly with a chimney brush.

Clean the chimney using a specially designed brush the same size and shape as the flue liner. Flexible fiberglass rods are used to run the brush up and down the liner, causing any deposits to fall to the bottom of the chimney where they can be removed through the clean-out door.

The chimney connector should be cleaned by disconnecting the sections, taking them outside, and removing any deposits with a stiff wire brush.

Reinstall the connector sections after cleaning, being sure to secure the individual sections with sheet metal screws.

If you can't do the chimney inspection yourself, contact your local Vermont Castings' Authorized Dealer, or engage a professional chimney sweep to perform the inspection and cleaning of the chimney.

Reverse the procedure to re-install the firechamber.

## Fireplace System Maintenance Schedule

### Fireplace:

Daily:

- Ash should be removed before the level reaches the top edge of the front brick. Check each time you re-load, or at least once a day.
- Keep the area around the fireplace clear of any combustible material.

Yearly Spring Cleaning:

- Remove ash from the firebox and replace with a moisture-absorbing material (such as kitty litter) to keep the interior of the stove dry.
- Touch up painted surfaces with black paint.

### Flex Connection:

Two Months:

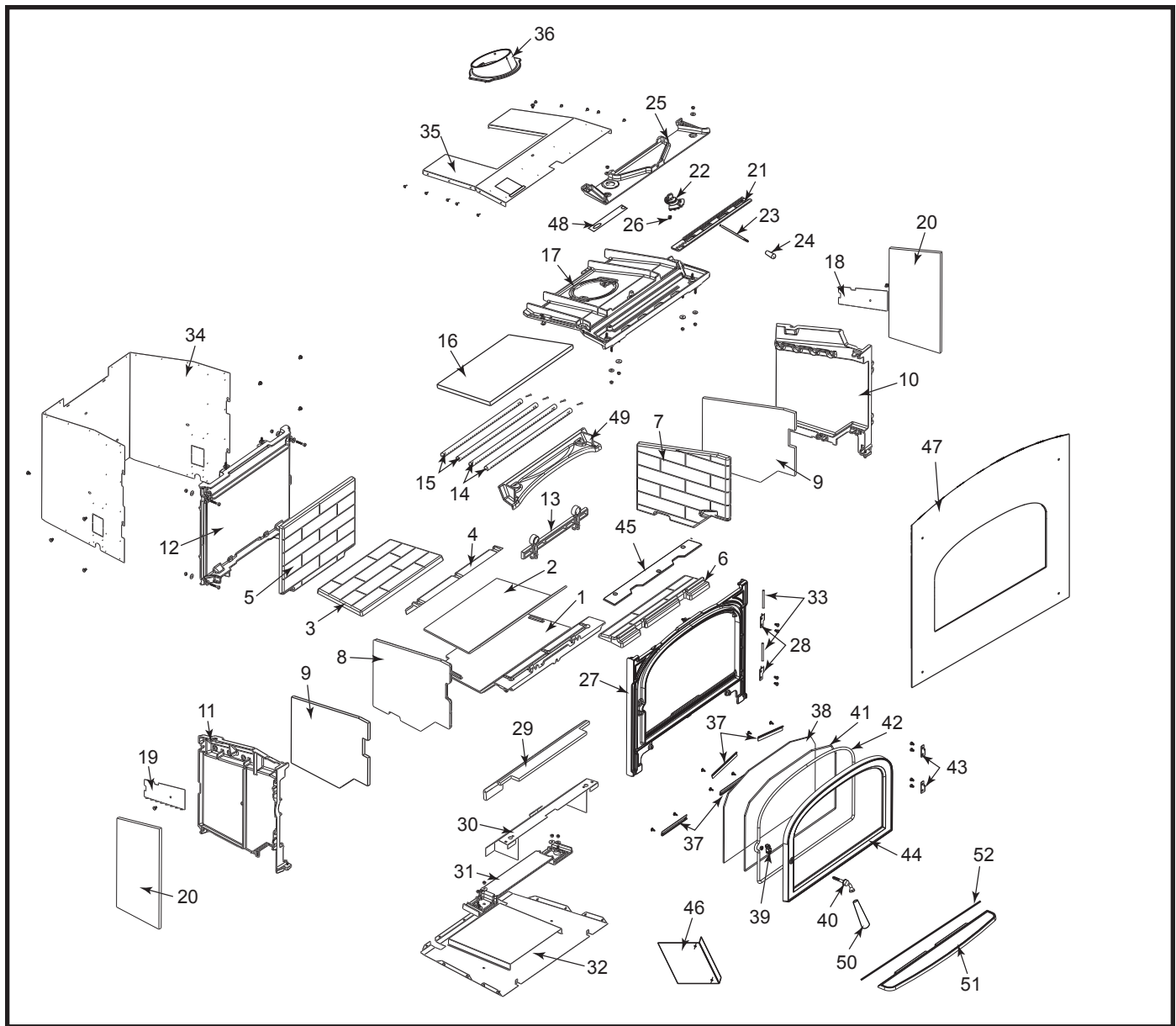
- Inspect the chimney and flue connection. Clean the system if necessary.

Yearly Spring Cleaning:

- Inspect the chimney for signs of deterioration. Replace damaged sections of prefabricated chimney. Your local Vermont Castings' dealer or a chimney sweep can help determine when replacement is necessary.
- Thoroughly clean the chimney.

## Chimney Components

Component	Description	Model Number
<b>U.S.</b>		
Round Top Termination	Top used to terminate chimney at roof. (Flashing not included.)	RLTSK8
Round Top Termination - Extended	Top used to terminate chimney at chase. (Flashing not included.)	RLTSK8L
Flashing	Metal finishing required around Contemporary Termination to prevent rain leakage.	8-6-12 with 8" flue: 0-6/12 pitch 8-12-12 with 8" flue: 6/12-12/12 pitch
Square Termination - Housing	Top housing of simulated brick pattern available in red, tan or white. Appropriate adapter required. Flashing included.	S20B (R,T,W) Must include PLTSK8 or SLTSK8
Adapter Kit	Unites Square Termination with chimney pipe (required).	CF8CA
Housing Extensions	Extends Square Termination on steep pitched roofs.	202036
Square Chase Termination	Housing used to terminate chimney through a chase top. Appropriate adapter required. (Flashing not included.)	CT100
Adapter Kit	Unites Square Chase Termination with chimney pipe (required).	CTSK
Chase Top Housing	Low profile pyramid-style chimney cap used to terminate chimney through a chase. Includes adapter. (Flashing not included.)	PTLSK8
Chase Top Housing	Square chimney cap used to terminate chimney through a chase. Terra Cotta Masonry. Includes adapter. (Flashing not included.)	SLTSK8
SK8 Chimney Sections	Pipe used to build 8" (SK8) flue systems.	SK81 (1' Long) SK818 (1½' Long) SK83 (3' Long) SK84 (4' Long)
SK8 Chimney Elbows	Elbow used to create an offset in an 8" chimney system. Only 30° elbows available. Packaged 2 per carton (offset and return).	SK830-2
Firestop	Required at each floor level of chimney installation. (Plus attic on multi-story installation.)	SKFS2A — (8" straight flue) SKFS6A — (8" 30° inclined flue)
Chimney Support	Used to support chimney for each of: 30' vertical height and 6' of angled chimney run.	SKCS8
Attic Insulation Shield	used to prevent insulation from coming in contact with the chimney system.	AIS-SK (SK8) FS2100-HT (CF11)
<b>Canada</b>		
Chimney Collar Enclosure	Installs on the "over the chimney collar" of the fireplace; provides outside air to assist in cooling the chimney system.	CCE6
Attic Insulation Shield	Used to prevent insulation from coming in contact with the chimney system.	AIS-SK
SK8 Chimney Sections	Used to build chimney systems exposed above roof.	SK818CAN (1½' Long) SK84CAN (4' Long)
45° Chimney Elbows	Provides 45° offset and return. For Canadian installations only. For use with SK8 chimney only. (Maximum use of 2, or 1 pair.)	SK845/2



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

# Stratton Fireplace

Ref.	Description	Part Number
1.	Bottom	30004306
2.	Insulation, Bottom Low	30004335
3.	Brick, Bottom Low	30004327
4.	Brick, Bottom Slanted	30004328
5.	Brick, Back	30004326
6.	Brick, Bottom Up	30004329
7.	Brick, Right End	30004330
8.	Brick, Left End	30004331
9.	Insulation, End Int. (2)	30004334
10.	End, Right	30004308
11.	End, Left	30004309

## Stratton Fireplace (continued)

Ref.	Description	Part Number
12.	Back	30004307
13.	Andiron	30004321
14.	Tube A, Secondary Air Tube (2)	30004377
15.	Tube B, Secondary Air Tube (2)	30004378
16.	Baffle	30004332
17.	Top	30004310
18.	Right Side Heat Shield, Air Panel	30004501
19.	Left Side Heat Shield, Air Panel	30004500
20.	Insulation, End Ext. (2)	30004333
21.	Air Plate	30004315
22.	Pinion	30004320
23.	Handle Wire, Primary Air Shaft	30004505
24.	Primary Air Shaft Handle	1600663
25.	Cover, Top	30004316
26.	Spring, Friction	1201846
27.	Front	30004722
28.	Front Hinge Lower (2)	30004506
29.	Insulation Bottom Heat Shield	30004402
30.	Bottom Heat Shield	30004393
31.	Base	30004313
32.	Bottom Assembly	30004797
33.	Hinge Pin (2)	30004732
34.	Shroud, Outer	30004392
35.	Shroud, Top	30004614
36.	Flue Collar	30004317
37.	Clip - Glass (4)	30001715
38.	Glass Ceramic, 0.190" thick, uncoated	30004325
39.	Pawl Assembly 3/4" Short Adjustable	30002362
40.	Front Steel Handle/Shaft	30002717
41.	Gasket Fiberglass 3/16	1203556
42.	Gasket Fiberglass 3/8	1203589
43.	Door Hinge Upper (2)	30004507
44.	Door	30004312
45.	Cover Plate, Bottom Air	30004419
46.	Air Block Off Plate (2)	30004694
47.	Brick Template	30004785
48.	Primary Air Bar	30004503
49.	Air Wash	30004314
50.	Front Door Handle	1600664
51.	Ashlip	30004322
52.	Gasket, ashlip (2.2 ft.)	1203556

## Optional Accessories

### Fan Kit

#### FK26STRAT Fan

The FK26STRAT fan helps distribute heated air from within the firebox out into the room. The fan is controlled by a remote switch (installed in a junction box during fireplace installation) that turns power on and off. An optional rheostat may be used 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

1. With the decorative face and iron ash lip removed place fan assembly at the front of the unit below the door, Attach using two (2) Philips screws provided. (Fig. 40)

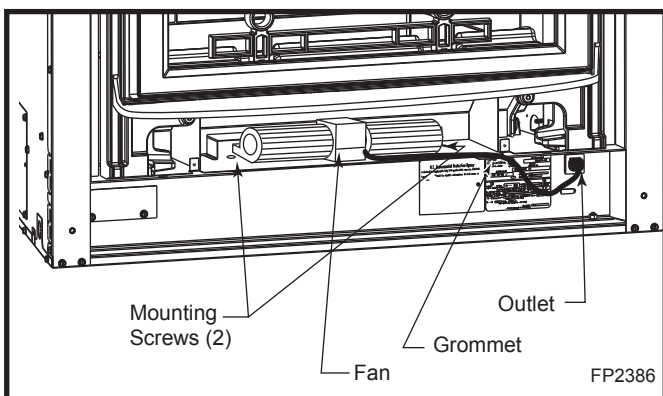


Fig. 40 FK26STRAT fan placement.

2. If the receptacle box was connected when the unit was installed, the fan lead can be directly plugged into the outlet. Refer to Page 9, "Installing the Electrical Wire". Run the power cord to the right and press the rubber grommet into the slot as indicated in Figure 40.



The fireplace, when installed must be electrically connected and grounded in accordance with local codes, with the current CSA C22.1 Canadian Electrical Code or for US installations, follow local codes and the National Electrical Code, ANSI/NFPA No. 70.



Any electrical rewiring of this fan must be completed by a qualified electrician.

Turn off all power before hook up.

### Variable Speed Control

#### Model SCVS

The variable speed control provides for speed adjustment of fan air flow.

### Outside Air Termination Kit

#### Model AK-MST

the outside air termination kit provides an access point for outside air to enter the home or chase.

### Hearth Extension Kit

#### Model EH2416

The hearth extension kit provides for hearth extension floor protection.

### Trim Kits

A decorative steel face plate with brick ledge for masonry applications (if needed) is available to enhance the look of your Stratton fireplace. Installation instructions are included with the kit.

NOTE: The following trim kit MUST BE used to complete your installation.

Model	Description
STRATCIRCB	Façade Stratton Circa

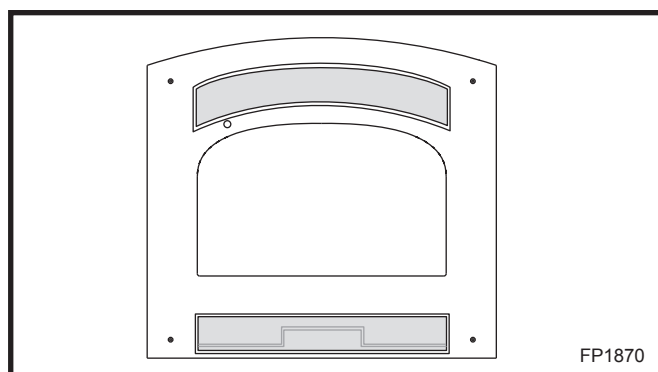


Fig. 41 Front face.

### Adapter Collar

#### Model TWABR

When using the Model S (triple wall) chimney system, the adapter collar is required. The TWABR converts the fireplace to a 3-wall system.

# LIMITED LIFETIME Warranty

For Vermont Castings

Stratton Non-Catalytic Woodburning Fireplace

## **Limited Lifetime Warranty**

MHSC warrants that all refractory brick and material used in this product will be warranted against deterioration not resulting from physical damage or overloading of the wood fireplace for the lifetime of this product.

## **Limited 3 Year Warranty**

All cast iron parts are warranted for a period of three years against breakage, cracking or burn-through.

## **Limited 1 Year Warranty**

The following parts of the woodburning fireplace are warranted to be free of defects in material and workmanship for a period of one year from the date you receive it: The handles, glass door panels, door gasketing and porcelain finish. Any of these items found to be defective will be repaired or replaced at no charge, upon the return of the part with postage prepaid to a Vermont Castings Authorized Dealer.

Any parts repaired or replaced during the limited warranty period will be warranted under the terms of the limited warranty for a period not to exceed the remaining term of the original limited warranty or six (6) months, whichever is longer.

## **Exclusions & Limitations**

1. This warranty is non-transferable.
2. This warranty does not cover misuse of the fireplace. Misuse includes overfiring, which will result if the fireplace is used in such a manner as to cause one or more of the plates to glow red. Overfiring can be identified later by warped plates and areas where the paint pigments has burned off. Overfiring in enamel components is identified by bubbling, cracking, chipping and discoloration of the porcelain enamel finish. MHSC offers no warranty on chipping of enamel surfaces. Inspect your woodburning component prior to accepting it for any damage to the enamel.
3. This warranty does not cover misuse of the fireplace as described in the Owners Guide, nor does it cover a fireplace which has been modified unless authorized by a MHSC representative in writing. This warranty does not cover damage to the fireplace caused by burning salt saturated wood, chemically treated wood, or any fuel not recommended in the Owners Guide.
4. This warranty does not cover a fireplace repaired by someone other than a Vermont Castings Authorized Dealer.
5. Damage to the unit while in transit is not covered by this warranty but is subject to a claim against the

common carrier. Contact Vermont Castings Authorized Dealer from whom you purchased your fireplace or MHSC if the purchase was direct. (Do not operate the fireplace as this may negate the ability to process the claim with the carrier).

6. Claims are not valid where the installation does not conform to local building and fire codes or, in their absence, to the recommendations in our Owners Guide.
7. 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 porcelain enamel finish to flake off. This warranty does not cover damage caused by a salt air or high-humidity environment.
8. MHSC shall have no obligation to enhance or update any unit once manufactured.

IN NO EVENT SHALL MHSC BE LIABLE FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES. ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. THIS WARRANTY SUPERCEDES ALL OTHER ORAL OR WRITTEN WARRANTIES.

Some states do not allow 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 you. This warranty gives you specific rights and you may have other rights, which vary from state to state.

## **How to Obtain Service**

If a defect is noted within the warranty period, the customer should contact a Vermont Castings Authorized Dealer or MHSC if the purchase was direct with the following information:

1. Name, address, and telephone number of the purchaser
2. Date of Purchase.
3. Serial number from the label on the back
4. Nature of the defect or damage.
5. Any relevant information or circumstances, e.g., installation, mode of operation when defect was noted.

A warranty claim will then start in process. MHSC reserves the right to withhold final approval of a warranty claim pending a visual inspection of the defect by authorized representatives.

**MHSC**

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800-668-5323 • [www.mhsc.com](http://www.mhsc.com)