

# HEAT-N-GLO

**No one builds a better fire**

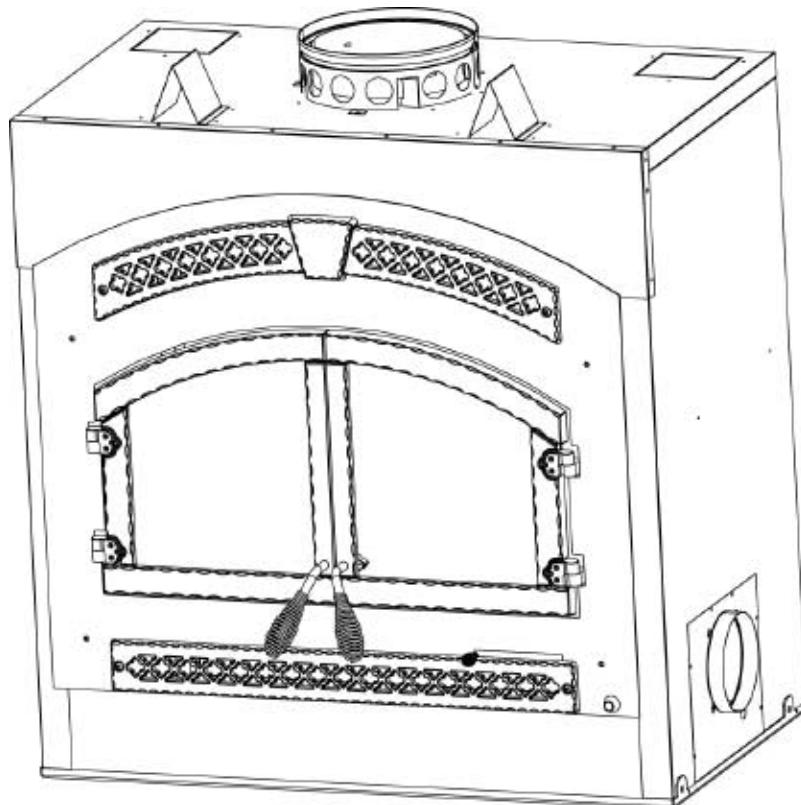
Tested and  
Listed by **OTL** Beaverton  
C Oregon USA  
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Division, HON INDUSTRIES  
www.heatnglo.com

## **NORTH STAR EPA CERTIFIED WOODBURNING FIREPLACE**

**INSTALLATION & OPERATING INSTRUCTIONS**

**SAVE THESE INSTRUCTIONS**



### **WARNING!**

**Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage, bodily injury or even death. Please read entire manual before you install and use your fireplace.**

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**SAFETY PRECAUTIONS**

1. Please read these installation instructions completely before beginning installation procedures. Failure to follow them could cause a fireplace malfunction resulting in serious injury and/or property damage.
2. Contact local building or fire officials or authorized authority about restrictions, installation inspection and permit requirements in your area. The fireplace installation must comply with all local, regional, state and national codes and regulations.
3. An adequate supply of replacement combustion air from outside the house must be available to the fire for the fireplace to operate properly.  
  
 In the event of negative pressure in the home when running several appliances simultaneously caused by an unusually tightly sealed home, the combustion air kit supplied with your fireplace may not provide all the air required to support combustion. Hearth & Home Technologies is not responsible for any smoking or related problems that may result from the lack of adequate combustion air. It is the responsibility of the builder/contractor to ensure that adequate combustion air has been provided for the fireplace.
4. This fireplace must be installed with the HTI SL Series Chimney System.  
  
 The chimney system must always terminate outside the building. Be sure to follow all chimney specifications given in these installation instructions.
5. **NEVER** leave children unattended when there is a fire burning in the fireplace.
6. This woodburning fireplace is built for solid wood fuel only. **NEVER** use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids in this fireplace. Keep any flammable liquids a safe distance from the fireplace while it is in use.
7. **DO NOT** use chimney cleaners or flame colorants in your fireplace.
8. While servicing this fireplace, always shut off any electricity to the fireplace. This will prevent possible electric shock. Also, make sure the fireplace is completely cooled before

servicing.

9. To ensure a safe fireplace system and to prevent the build up of soot and creosote, inspect and clean the fireplace and chimney prior to use and periodically during the burning season. See page 27 for cleaning instructions.
10. **DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.** Do not burn treated wood, or wood with salt (driftwood, etc.) Burning materials other than wood (including charcoal) under adverse conditions may generate carbon monoxide in the home, resulting in illness or possible death.
11. Do not connect this unit to a chimney flue already serving another appliance.
12. Comply with all minimum clearances to combustibles as shown in this manual for this appliance.
13. Build fire on brick firebox floor. Do not use grates, andirons or other methods to support fuel.
14. For further information refer to NFPA 211 (US) or CAN/CSA-B365 (Canada).

**WARNING!**

**HOT WHILE IN OPERATION AND WHEN COOLING DOWN, DO NOT TOUCH. SEVERE BURNS MAY RESULT. KEEP CHILDREN AWAY. KEEP COMBUSTIBLE MATERIALS AND LIQUIDS HAVING FLAMMABLE VAPORS AWAY. A SAFETY BARRIER SHOULD BE INSTALLED IF CHILDREN ARE PRESENT.**

**WARNING!**

**Do not operate without fully assembling all components.**

**WARNING!**

**Do not store wood within fireplace installation clearances or within the space required for re-fueling and ash removal.**

**WARNING!**

**Burning wet unseasoned wood can cause excessive creosote accumulation. When ignited it can cause a chimney fire that may result in a serious house fire.**

**CAUTION:**

**Do not expose the fireplace to the elements (i.e. rain, etc.) and keep the fireplace dry at all times. Wet insulation will produce an odor when the fireplace is used.**

## A. LISTINGS AND CODE APPROVALS

This fireplace system has been tested and listed in accordance with UL127 and ULC-S610-M87 standards, and has been listed by OMNI Test Laboratories, Inc., for installation and operation in the United States and Canada as described in this manual. The North Star Fireplace is approved for mobile home installations when not installed in a sleeping room and when an outside combustion air inlet is provided. The structural integrity of the mobile home floor, ceiling, and walls must be maintained. The fireplace must be properly grounded to the frame of the mobile home. Outside Air must be installed in a mobile home installation.

This fireplace has been tested and listed for use with the SL-300 Series chimney and fireplace components listed on page 7.

Check with your local building code agency before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections. Be sure local building codes do not supersede UL specifications and always obtain a building permit so that insurance protection benefits cannot be unexpectedly cancelled.

If you need assistance during installation, please contact your local dealer. For the number of your nearest Heat-N-Glo dealer, please call 1-888-427-3973.

Heat-N-Glo® is a registered trademark of Hearth & Home Technologies, Division of HON INDUSTRIES.

### WARNING!

This fireplace and its components are designed to be installed and operated as a system. Any alteration to or substitution for items in this system, unless allowed by these installation instructions, will void the OMNI Test Laboratories, Inc., listing and may void the product warranty. It may also create a hazardous installation. Read through these instructions thoroughly before starting your installation and follow them carefully throughout your project.

## B. DESCRIPTION OF THE FIREPLACE SYSTEM

1. **The fireplace system consists of the following:**
  - a. Fireplace
  - b. Firebrick
  - c. Chimney Termination Cap
  - d. Chimney System
  - e. Hearth Extension
  - f. Outside Air
2. **Required Components Include:**
  - a. Chimney Air Kit
3. **Optional Components Include:**
  - a. Fire Screen
  - b. Lintel Bar
  - c. Heat Zone Kit

**NOTE:** Illustrations used throughout these instructions reflect "typical installations" and are for design purposes only. Actual installation may vary slightly due to individual design preferences. However, minimum clearances must be maintained at all times.

The illustrations and diagrams used throughout these installation instructions are not drawn to scale.

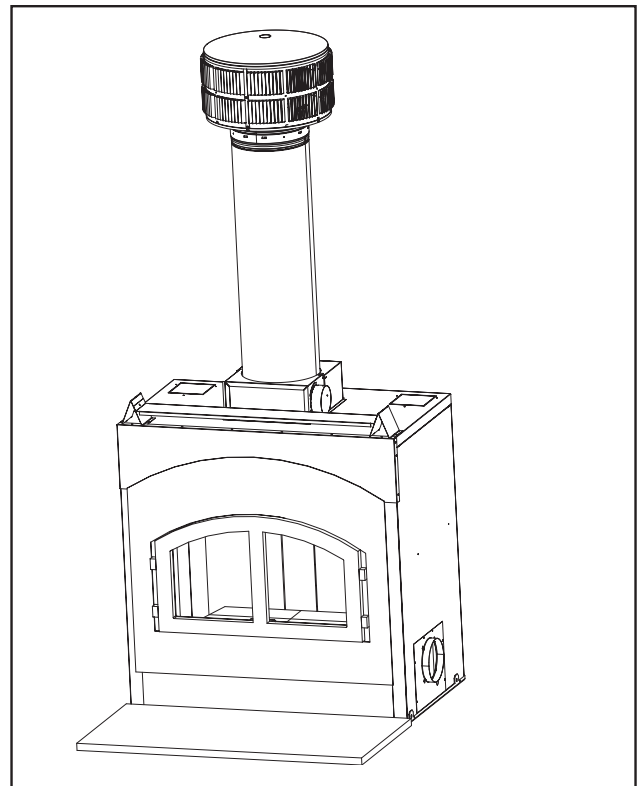
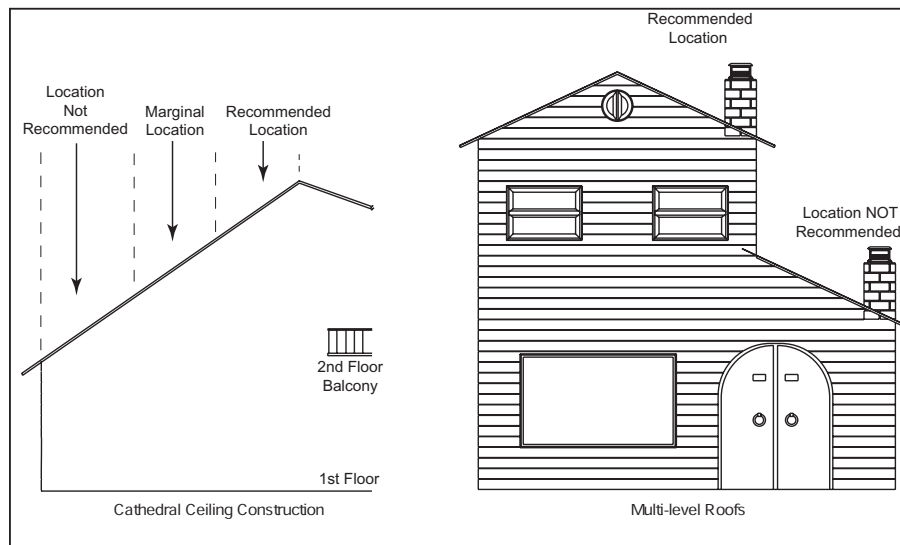


Figure 3A - Typical Fireplace System

## INSTALLATION AND DRAFT CONSIDERATIONS

The North Star Fireplace requires a minimum flue draft of -0.10 inches of water column on High, and -0.04 inches of water column on Low, as measured with a draft meter. Most dealers have draft meters available to measure your flue draft if you suspect a problem.

If the fire is difficult to start, and smoke spills out of the door, or you find it hard to establish and maintain a moderately high burn rate, then the flue draft is too low and corrective measures must be taken.

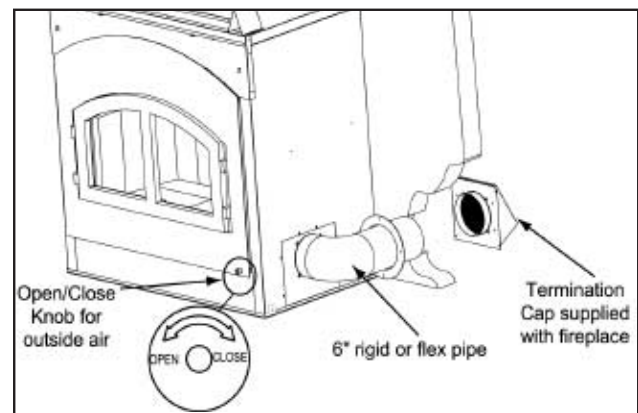


## OUTSIDE AIR KIT INSTALLATION

*The outside air kit is installed on the right hand side of the fireplace.*

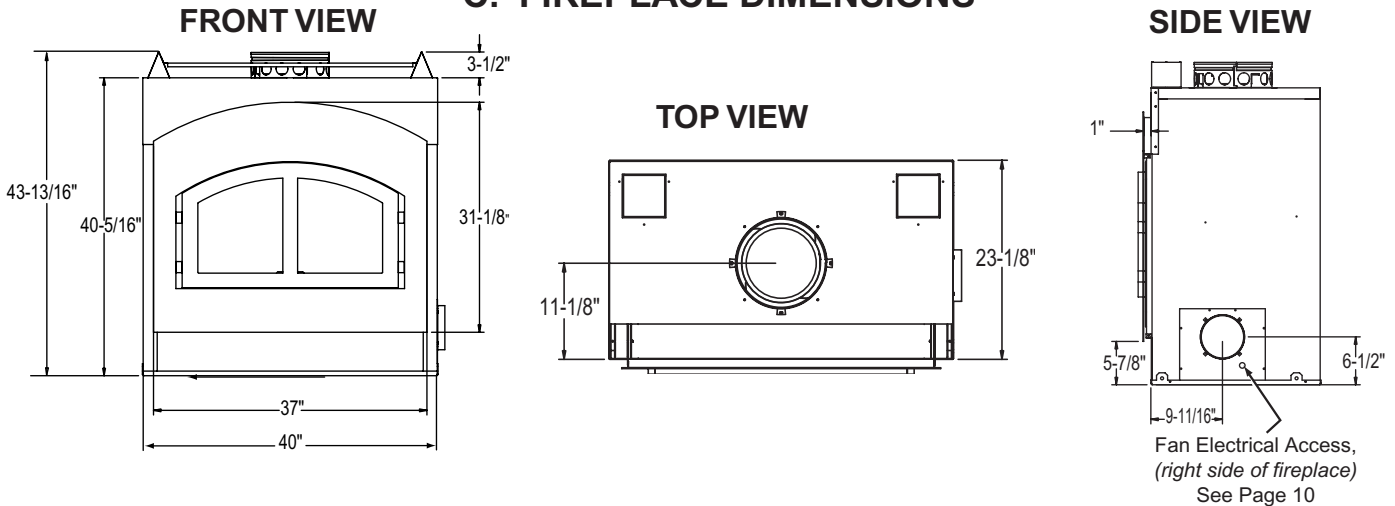
1. Cut a 6" hole in outside wall to accommodate outside air piping.
2. Use 6" metal flex or rigid piping (*not supplied*) to directly connect outside air to fireplace intake. Secure with hose clamp.
3. Use the supplied termination cap with a rodent screen.
4. Seal between the wall and the pipe with silicone to prevent moisture penetration.

**NOTE:** A control knob allows you control of the outside air inlet. Use of outside air for combustion is required to conserve heated air within the structure and to provide make up air to keep the fireplace venting properly.



**IMPORTANT!! OUTSIDE AIR MUST BE IN OPEN POSITION TO OPERATE FIREPLACE PROPERLY**

**C. FIREPLACE DIMENSIONS**



**MINIMUM CLEARANCES TO COMBUSTIBLES**

**WITHIN ENCLOSURE AREA:**

|                         |           |
|-------------------------|-----------|
| Appliance to backwall   | 1" (25mm) |
| Appliance to sidewall   | 1" (25mm) |
| Duct boots to framing   | 0" (0mm)  |
| Top standoffs to header | 0" (0mm)  |

**MANTEL**

|                               |              |
|-------------------------------|--------------|
| Mantel from base of fireplace | 60" (1524mm) |
| Maximum mantel width          | 12" (305mm)  |

**EXPOSED SURFACES**

|                                 |             |
|---------------------------------|-------------|
| Faceplate to sidewall           | 16" (406mm) |
| Heat Zone air grills to ceiling | 12" (305mm) |

**CHIMNEY SECTIONS**

Chimney sections at any level require a 2" (51mm) minimum air space clearance between the framing and chimney section.

**HEARTH EXTENSION / FLOOR PROTECTION**

**1. Fireplace and Hearth Extension are flush on the floor:**

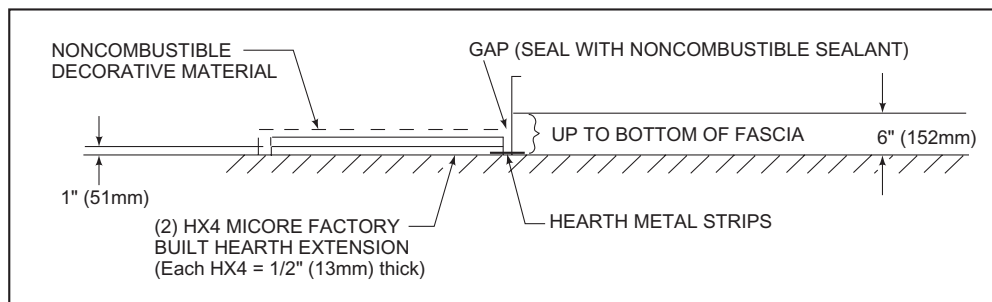
Combustible flooring 20" (508mm) in front of and 8" (203mm) to either side of the fuel opening; must be insulated with non-combustible floor protection with a minimum thickness of 1" (25mm) and ("k" value = 0.43).

**2. Fireplace is flush on the floor and Hearth Extension is raised to the bottom of the fascia:**

Raised hearth must be constructed of non-combustible materials such as cement block or equivalent material. Decorative combustible flooring on the raised hearth must be 20" (508mm) in front of and 8" (203mm) to either side of the fuel opening must be insulated with non-combustible floor protection with a minimum thickness of 1-1/2" (38mm) and ("k" value = 0.43).

**3. Fireplace is recessed in the floor to the bottom of the fascia:**

Combustible flooring 30" (762mm) in front of and 8" (203mm) to either side of the fuel opening ;must be insulated with non-combustible floor protection with a minimum thickness of 1" (25mm) and ("k" value = 0.43).

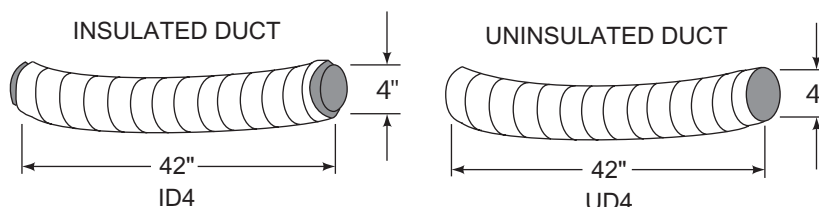


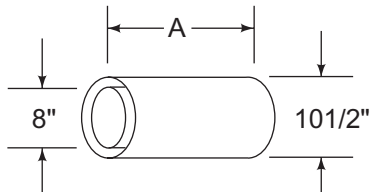
**Figure 5A - Factory Built Hearth Extension**

## D. CHIMNEY COMPONENTS

The following pictures show the SL-300 Series chimney and fireplace components which may be safely used with this fireplace.

| <u>Catalog No.</u> | <u>Description</u>                  |
|--------------------|-------------------------------------|
| CAK4A              | Chimney Air Kit                     |
| ID4                | Insulated Duct/Outside Air          |
| UD4                | Uninsulated Duct/Outside Air        |
| SL306              | Chimney Section - 6" long           |
| SL312              | Chimney Section - 12" long          |
| SL318              | Chimney Section - 18" long          |
| SL324              | Chimney Section - 24" long          |
| SL336              | Chimney Section - 36" long          |
| SL348              | Chimney Section - 48" long          |
| SL3                | Chimney Stabilizer                  |
| SL315              | Chimney Offset/Return - 15°         |
| SL330              | Chimney Offset/Return - 30°         |
| FS338              | Firestop - Straight                 |
| FS339              | Firestop - 15°                      |
| FS340              | Firestop - 30°                      |
| AS8                | Straight Attic Insulation Shield    |
| JB877              | Chimney Joint Band                  |
| CB876              | Chimney Bracket                     |
| RF370              | Roof Flashing - Flat to 6/12 Pitch  |
| RF371              | Roof Flashing - 6/12 to 12/12 Pitch |
| TR344              | Round Termination Cap               |
| TR342              | Round Telescoping Termination Cap   |
| ST375              | Square Termination Cap              |
| TS345              | Square Termination Cap              |
| CT35               | Chase Top                           |
| MH842              | Mobile Home Thimble                 |
| MH841              | Mobile Home Thimble Extension, 20"  |
| HX4                | MICORE Hearth Extension, 20" wide   |
| Mesh-HHT           | Fire Screen                         |
| HHT-Template       | Metal Face Template                 |
| HeatZone-Wood      | Heat Zone Kit                       |
| LintelBar-HHT      | Lintel Bar                          |

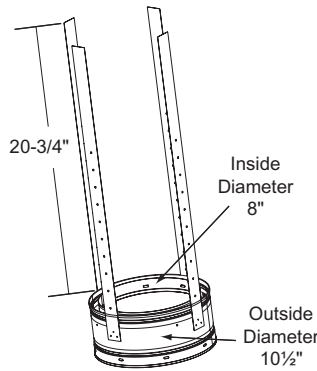




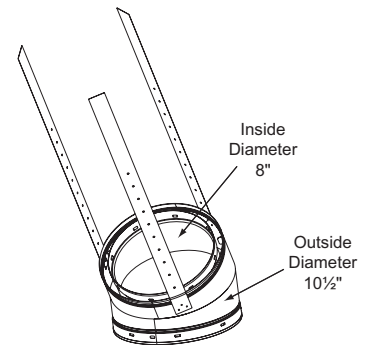
**Chimney Sections**

| Catalog No. | A   | B       |
|-------------|-----|---------|
| SL306       | 6"  | 4-3/4"  |
| SL312       | 12" | 10-3/4" |
| SL318       | 18" | 16-3/4" |
| SL324       | 24" | 22-3/4" |
| SL336       | 36" | 34-3/4" |
| SL348       | 48" | 46-3/4" |

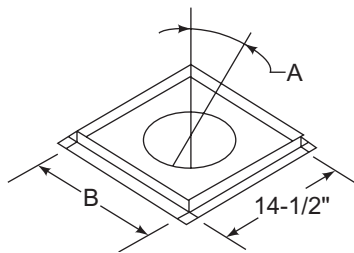
A = Actual Length  
B = Effective length (length of chimney part after it has been snapped to another)



**SL3 - Chimney Stabilizer**

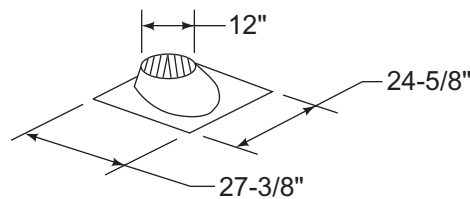


**SL315-330 - Offset/Return**

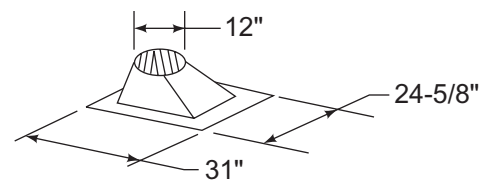


**Firestop Spacer**

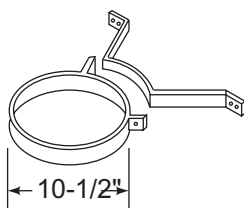
| Catalog No. | A   | B       |
|-------------|-----|---------|
| FS338       | 0°  | 14-1/2" |
| FS339       | 15° | 18-3/8" |
| FS340       | 30° | 16-3/4" |



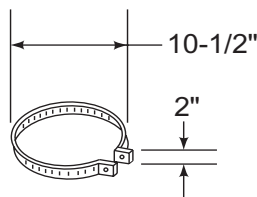
**RF370 - Roof Flashing**  
Flat to 6/12 Pitch



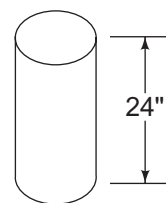
**RF371 - Roof Flashing**  
6/12 to 12/12 Pitch



**CB876**  
Chimney Bracket

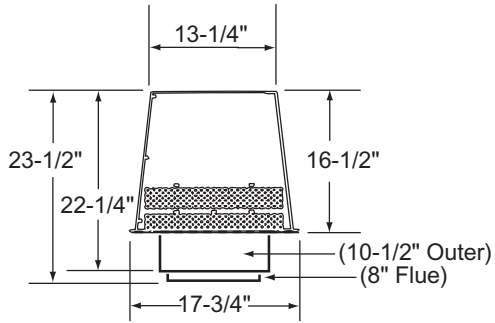


**JB877**  
Joint Band

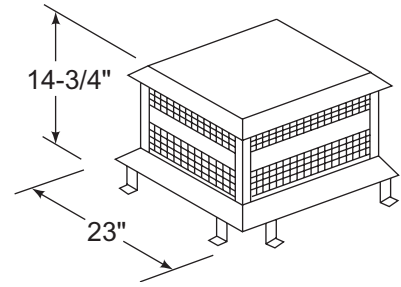


**AS8**  
Straight Attic  
Insulation Shield

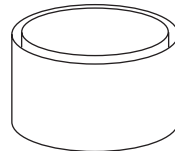




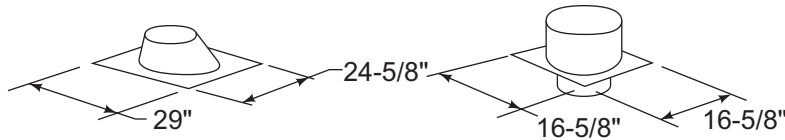
**TS345/TS345P  
Square Termination Cap**



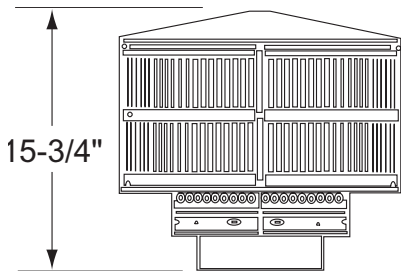
**ST375  
Square Termination Cap**



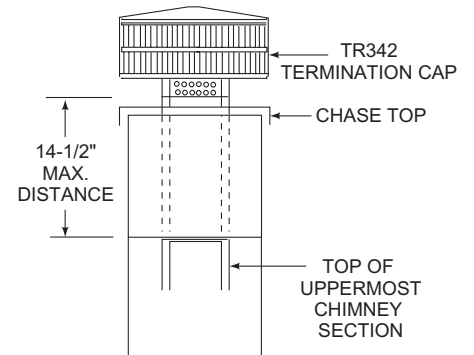
**MH841  
Mobile Home Thimble  
Extension 20"**



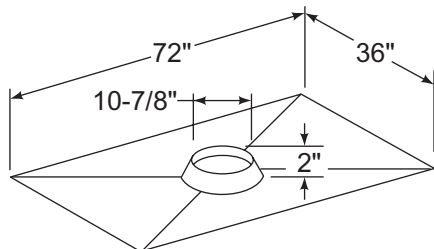
**MH842  
Mobile Home Thimble**



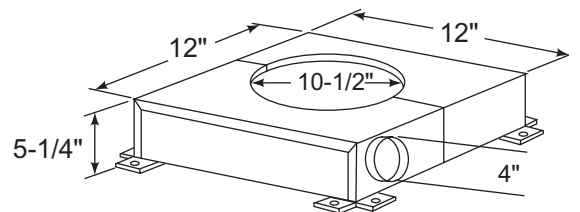
**TR344  
Round Termination Cap**



**TR342  
Round Telescoping  
Termination Cap**



**CT35  
Chase Top**



**CAK4A  
Chimney Air Kit**



## E. PRE-INSTALLATION PREPARATION

### 1. Fireplace Locations and Space Requirements

Several options are available to you when choosing a location for your fireplace. This fireplace may be used as a room divider, installed along a wall, across a corner or used in an exterior chase. See Figure 9A.

Locating the fireplace in a basement, near frequently opened doors, central heat outlets or returns, or other locations of considerable air movement can affect the performance and cause intermittent smoke spillage from the front of the fireplace when no outside air is used. Outside air is required for combustion. (see page 21). The North Star Fireplace comes equipped with an outside air inlet to feed combustion air from outside the home, along with an outside air termination cap. Consideration should be given to these factors before deciding on a location.

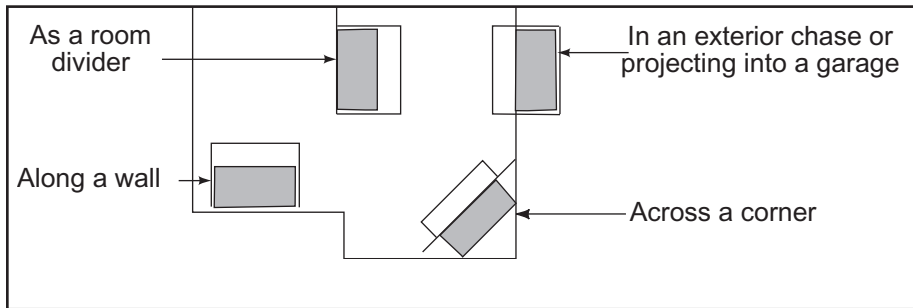


Figure 9A - Fireplace Locations

**CLEARANCES!**

A minimum 1" air clearance must be maintained at the back and sides of the fireplace assembly.

Chimney sections at any level require a 2" minimum air space clearance between the framing and chimney section.

Figures 9B and 9C show two typical installations for the outside air kit. Allowances must be made for 90° bends. Less space is required when ducting goes directly outside without forming elbows.

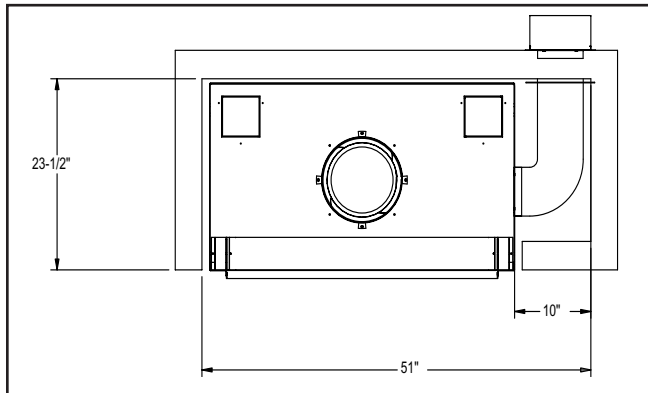


Figure 9B  
Installation Along a Wall or an Exterior Chase

These are rough framing dimensions only.

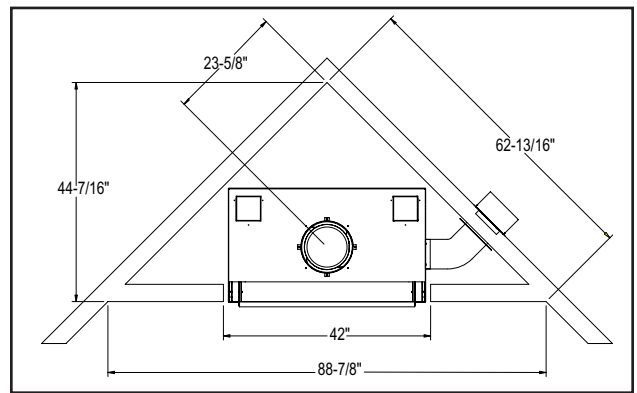


Figure 9C  
Corner Installation

**WARNING!** Do not draw outside air from garage spaces. Exhaust products of gasoline engines are hazardous. Do not install outside air ducts such that the air may be drawn from attic spaces, basements or above the roofing where other heating appliances or fans and chimneys exhaust or utilize air. These precautions will reduce the possibility of fireplace smoking or air flow reversal. The outside air inlet must remain clear of leaves, debris ice and/or snow. It must be unrestricted while unit is in use to prevent room air starvation which can cause smoke spillage and an inability to maintain a fire. Smoke spillage can also set off smoke alarms.

**WARNING!** To prevent contact with sagging or loose insulation, the fireplace must not be installed against vapor barriers or exposed insulation. Localized overheating could occur and a fire could result.

## 2. Framing the Fireplace

The North Star Fireplace will fit the framed opening width of 43-7/8" tall. The finished cavity depth must be no less than 24". Framing must extend straight up all the way to the ceiling.

Figure 10A shows a typical framing (using 2 x 4 lumber) of the fireplace, assuming combustible materials are used. All required clearances to combustibles around the fireplace must be adhered to. Any framing across the top of the fireplace must be above the level of the top standoffs.

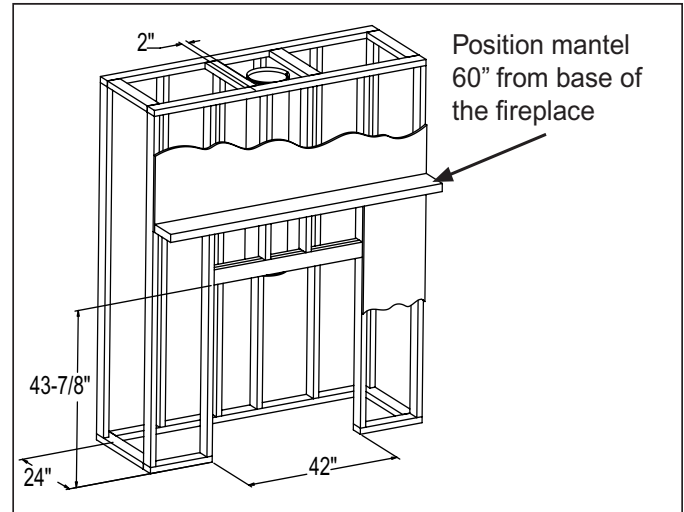


Figure 10A- Framing the Fireplace

### CLEARANCES!

A minimum 1" air clearance must be maintained at the back and sides of the fireplace assembly.

Chimney sections at any level require a 2" minimum air space clearance between the framing and chimney section.

### WARNING!

Do not apply combustible finishing materials over any part of the front of this fireplace or a structure fire may result. The metal fireplace face may only be covered with noncombustible materials such as ceramic tile, brick, or stone. Do not cover or block any cooling air slots.

## 3. Electrical Access and Wiring Diagram

**NOTE:** The manual override switch, rheostat speed control and cover plate are supplied. You will need to supply: 14-3 wire with ground; 14-2 wire with ground; standard wall mount junction box; wire nuts.

1. Remove outside air cover plate on the bottom right side of the fireplace.
2. Thread the 14-3 with ground wire through the opening with the strain relief on the cover plate.
3. Match colors to wire harness, (red to red, white to white, etc) and secure with wire nuts.

**NOTE: Wiring for blowers must be done before framed enclosure is completed. If using a Heat Zone kit, it also must be installed before enclosure is complete.**

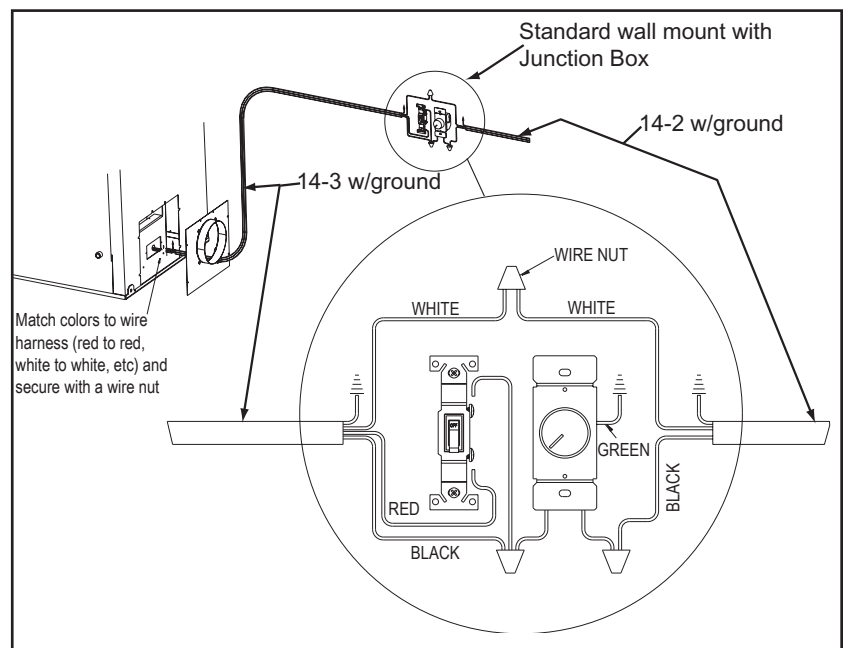


Figure 10B- Fan Wiring Diagram

## F. CHIMNEY REQUIREMENTS

When planning your fireplace location, the chimney construction and necessary clearances must be considered. The fireplace system and chimney components have been tested to provide flexibility in construction. The following figures are the minimum distances from the base of the fireplace.

|  |          |   |        |
|--|----------|---|--------|
| 1. Min overall straight height                     | 13 ft.   | 5. Maximum distance between chimney stabilizers                     | 35 ft. |
| 2. Min height with offset/return                   | 14.5 ft. | 6. Double offset/return minimum height                              | 20 ft. |
| 3. Max height                                      | 50 ft.   | 7. Maximum unsupported chimney length between the offset and return | 6 ft.  |
| 4. Max chimney length between an offset and return | 12 ft.   | 8. Maximum straight unsupported chimney height above the fireplace  | 35 ft. |

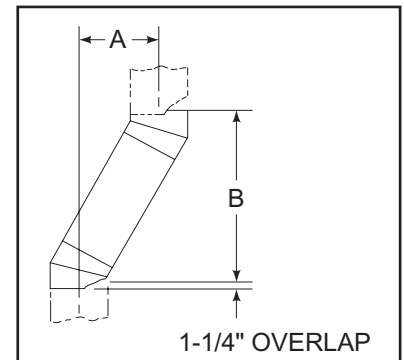
**1. Using Offsets and Returns**

- a. To bypass any overhead obstructions, the chimney may be offset using a 15° or a 30° offset/return. Perform the following steps to determine the correct chimney component combination for your particular installation.
- b. An offset and return may be attached together or a chimney section(s) may be used between an offset and return.
  - 1) Measure how far the chimney needs to be shifted to enable it to avoid the overhead obstacle. See Figure 11A, dimension “A” to determine chimney sections required to achieve the needed shift.
  - 2) After determining the offset dimension, refer to Table 1 and find the “A” dimension closest to **but not less than** the distance of shift needed for your installation.
  - 3) The “B” dimension that coincides with the “A” dimension represents the required vertical clearance that is needed to complete the offset and return.
  - 4) Read across the chart and find the number of chimney sections required and the model number of those particular chimney parts.
  - 5) Whenever the chimney penetrates a floor/ceiling, a firestop spacer must be installed.
  - 6) The effective height of the fireplace assembly is measured from the base of fireplace to top of starter collar.

**WARNING!**  
Do not combine offsets to create an offset greater than 30° from vertical. This may create a fire hazard since the natural draft may be restricted.

**Table 1 Offset Chart\***

| 15°     |          | 30°     |         | SL306 | SL312 | SL318 | SL324 | SL336 | SL348 |
|---------|----------|---------|---------|-------|-------|-------|-------|-------|-------|
| A       | B        | A       | B       |       |       |       |       |       |       |
| 1-5/8"  | 13-3/8"  | 3-7/8"  | 14-1/2" | -     | -     | -     | -     | -     | --    |
| 2-7/8"  | 17-3/4"  | 6-1/4"  | 18-5/8" | 1     | -     | -     | -     | -     | --    |
| -       | -        | 8-5/8"  | 22-3/4" | 2     | -     | -     | -     | -     | --    |
| 4-1/2"  | 23-5/8"  | 9-1/4"  | 23-3/4" | -     | 1     | -     | -     | -     | --    |
| -       | -        | 11-5/8" | 27-7/8" | 1     | 1     | -     | -     | -     | --    |
| 6"      | 29-3/8"  | 12-1/4" | 29"     | -     | -     | 1     | -     | -     | --    |
| 7-1/4"  | 34"      | 14-5/8" | 33"     | -     | 2     | -     | -     | -     | --    |
| -       | -        | 15-1/4" | 34-1/8" | -     | -     | 2     | 1     | -     | --    |
| -       | -        | 17-5/8" | 38-1/4" | 1     | -     | -     | 1     | -     | -     |
| -       | -        | 20-5/8" | 43-1/2" | -     | -     | -     | -     | -     | --    |
| 10-5/8" | 46-3/4"  | 21-1/4" | 44-5/8" | -     | -     | -     | -     | 1     | -     |
| 11-7/8" | 51-3/8"  | 23-5/8" | 48-3/8" | 1     | -     | -     | -     | 1     | -     |
| -       | -        | 26-5/8" | 53-7/8" | -     | -     | -     | 2     | -     | -     |
| 13-3/4" | 58-3/8"  | 27-1/4" | 55-3/4" | -     | -     | -     | -     | -     | -     |
| 15"     | 63"      | 29-5/8" | 59"     | 1     | -     | -     | -     | -     | 1     |
| 16-1/2" | 68-3/4"  | 32-5/8" | 64-1/4" | -     | 1     | -     | -     | -     | 1     |
| 18"     | 74-5/8"  | 35-5/8" | 69-1/2" | -     | -     | 1     | -     | -     | 1     |
| -       | -        | 38-5/8" | 74-5/8" | -     | -     | -     | 1     | -     | 1     |
| -       | -        | 41"     | 78-3/4" | 1     | -     | -     | 1     | -     | 1     |
| 22-3/4" | 91-7/8"  | 44-5/8" | 85"     | -     | -     | -     | -     | 1     | 1     |
| 24"     | 96-1/2"  | 47"     | 89-1/8" | 1     | -     | -     | -     | 1     | 1     |
| 25"     | 103-1/2" | 50-5/8" | 95-1/2" | -     | -     | -     | -     | -     | 2     |



**Figure 11A - Chimney Offset/Return**

**Example:** Your “A” dimension from Figure 11A is 14-1/2”. Using Table 1 the dimension closest to, but not less than 14-1/2” is 14-5/8” using a 30° offset/return. It is then determined from the table that you would need 33” (Dimension “B”) between the offset and return. The chimney components that best fit your application are two SL312s.

**\*Proper assembly of air cooled chimney parts result in an overlap at chimney joints of 1-1/4”. Effective length is built into this chart.**

## 2. Chimney Height Requirements (above roof line)

- a. Major building codes specify a minimum chimney height above the roof top. These specifications are summarized in what is known as the **Ten Foot Rule**. This rule states:

If the horizontal distance from the side of the chimney to the peak of the roof is 10 feet or less, the top of the chimney must be at least 2 feet above the peak of the roof, but never less than 3 feet in overall height above the highest point where it passes through the roof.

If the horizontal distance from the side of the chimney to the peak of the roof is more than 10 feet, a chimney height reference point is established on the surface of the roof a distance of 10 feet from the side of the chimney in a horizontal plane. The top of the chimney must be at least 2 feet above this reference point, but never less than 3 feet in height above the highest point where it passes through the roof. See Figure 12A.

- b. These chimney heights are necessary in the interest of safety but do not ensure smoke-free operation. Trees, buildings, adjoining roof lines, adverse wind conditions, etc. may create a need for a taller chimney should smoking occur.

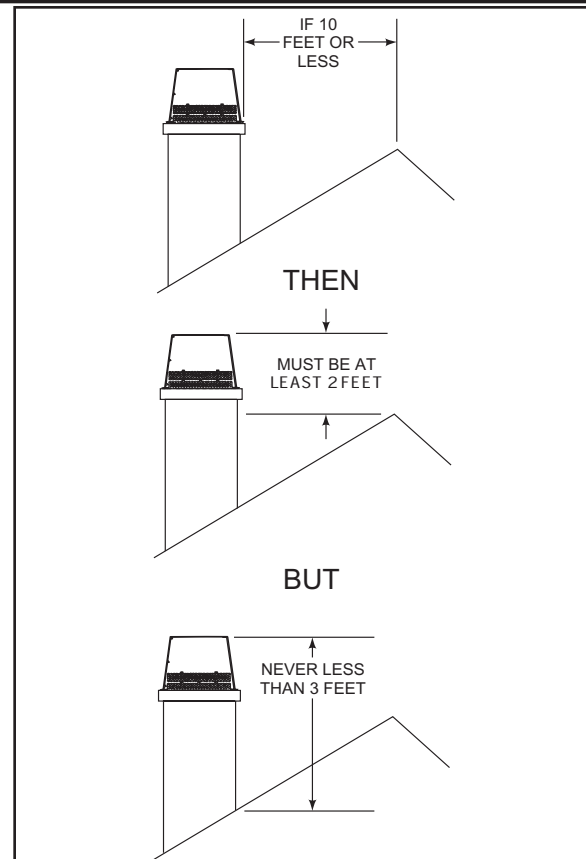


Figure 12A- Chimney Height

## 3. Number of Sections Required

To determine the chimney components needed to complete your particular installation, follow the steps below:

- Determine the total vertical height of the fireplace installation. This dimension is measured from the base of the fireplace assembly to the point where the smoke exits the termination cap.
- Subtract the effective height of the fireplace assembly from the overall height of the fireplace installation (measured from the base of the fireplace to the bottom of the termination cap).
- Refer to Table 2 to determine what components must be selected to complete the fireplace installation.
- Determine the number of firestop spacers, stabilizers, roof flashing, etc. required to complete the fireplace installation.

Table 2

HEIGHT OF CHIMNEY COMPONENTS

| Chimney Stabilizer |         |
|--------------------|---------|
| SL3                | 4-3/4"  |
| Firestop Spacers   |         |
| FS338              | 0"      |
| FS339              | 0"      |
| FS340              | 0"      |
| Offsets/Returns    |         |
| SL315              | 13-3/8" |
| SL330              | 14-1/2" |
| Roof Flashing      |         |
| RF370              | 0       |
| RF371              | 0       |
| Chimney Sections*  |         |
| SL306              | 4-3/4"  |
| SL312              | 10-3/4" |
| SL318              | 16-3/4" |
| SL324              | 22-3/4" |
| SL336              | 34-3/4" |
| SL348              | 46-3/4" |

\*Dimensions reflect effective height.

## G. INSTALLATION OF FIREPLACE

### WARNING!

Before starting, do the following:

1. Wear gloves and safety glasses for protection.
2. Keep hand tools in good condition. Sharpen cutting edges and make sure tool handles are secure.
3. Always maintain the minimum air space required to the enclosure to prevent fire.

### 1. Positioning the Fireplace

This fireplace may be placed on either a combustible or noncombustible continuous flat surface, depending on the type of installation. Follow the instructions for framing on pages 9-10 and Hearth Extension/Floor Protection Requirements under Minimum Clearances to Combustibles on page 5. Slide the fireplace into position. **Be sure to provide the minimum 1" air clearance at the sides and back of the fireplace assembly.**

### 2. Placing the Protective Metal Hearth Strips

Included with your fireplace you will find two metal hearth strips measuring approximately 23" x 4". These strips are used to provide added protection where the fireplace and the hearth extension meet.

Slide each metal strip 2" under the front edge of the fireplace. The individual pieces must overlap each other by 1" minimum in the middle of the fireplace to provide continuous coverage of the floor. See Figure 13A. These metal strips should extend from the front and sides of the fireplace opening by 2".

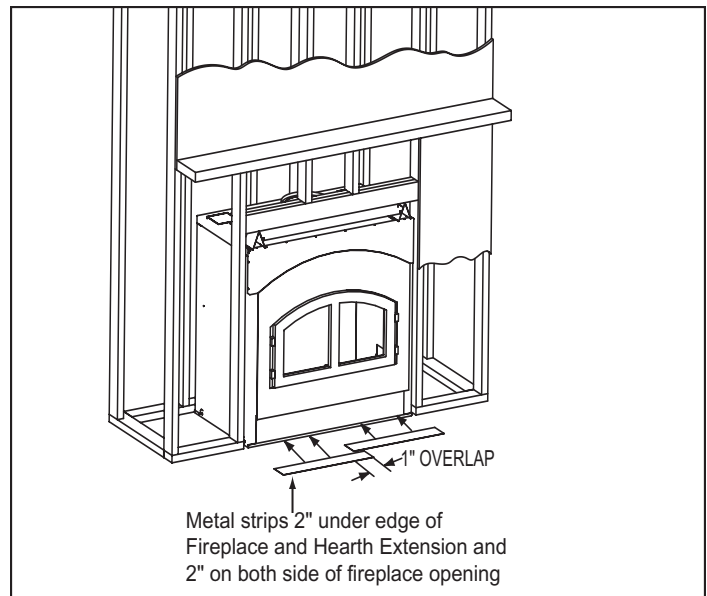


Figure 13A - Positioning the Metal Strips

### 3. Leveling the Fireplace

Level the fireplace side-to-side and front-to-back. Shim with noncombustible material, such as sheet metal, as necessary. Secure the fireplace (using the pallet mounting brackets located on either side of the fireplace) to the floor.

### 4. Assembling Chimney Sections

Attach either a straight chimney section or an offset to the top of the fireplace (depending on your installation requirement). Chimney sections are locked together by pushing downward until the top section meets the stop bead on the lower section.

The inner flue is placed to the inside of the flue section below it. The outer casing is placed outside the outer casing of the chimney section below it. See Figure 13B.

**NOTE: Chimney Air Kit, Part CAK4A is required. Follow instructions supplied with the kit.**

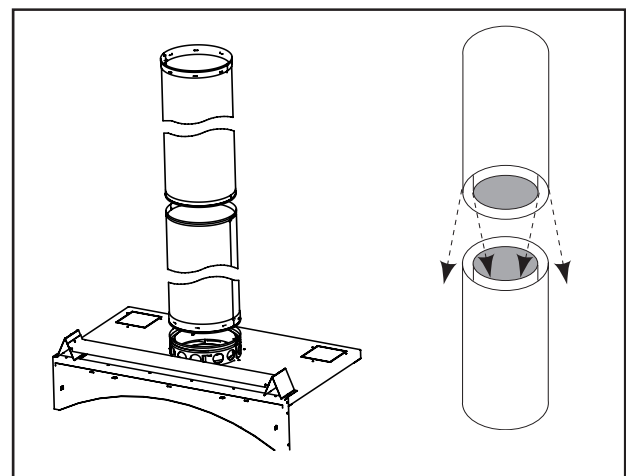


Figure 13B - Assembling Chimney Sections

### WARNING!

Carefully follow the instructions for assembly of the pipe and other parts needed to install this fireplace system. Failure to do so may result in a fire, especially if combustibles are too close to the fireplace or chimney and air spaces are blocked, preventing the free movement of cooling air.

### CAUTION:

Inner flue and outer liner sections cannot be disassembled once locked together. Plan ahead to ensure the proper installation height is achieved with the selected chimney components.

## 5. Installing Firestop Spacers

Mark and cut out an opening in the ceiling for the firestop spacer being utilized (14-1/2" x 14-1/2" for an FS338, 14-1/2" x 18-3/8" for an FS339 and 14-1/2" x 23" for an FS340). Frame the opening with the same dimension lumber used in the ceiling joists.

Install the firestop spacer.

These firestop spacers are designed to provide the minimum 2" air space required around the chimney. In all situations, the firestop spacers are to be nailed to the ceiling joists from the bottom or fireplace side, **EXCEPT** when the space above is an insulated ceiling or attic space. In this situation, the firestop spacer **must** be nailed from the top side to prevent loose insulation from falling into the required 2" air space around the chimney. See Figure 14A.

### CAUTION:

Firestop spacers must be used whenever the chimney penetrates a ceiling/floor area.

## 6. Attic Insulation Shield

An insulation shield should be installed when there is a possibility of insulation coming into contact with the factory built chimney system. The insulation shield is installed by positioning it over the vertical chimney section where it penetrates a firestop spacer. The firestop spacer will support the insulation shield. See Figure 14B.

## 7. Double-checking the Chimney Assembly

Continue assembling the chimney sections up through the firestop spacers as needed. While doing so, be aware of the height and unsupported chimney length limitations that are given on page 10 under "Chimney Requirements".

Check each section by pulling up slightly from the top to ensure proper engagement before installing the succeeding sections. If they have been connected correctly, they will not disengage when tested.

**NOTE: Wiring for blowers must be done before framed enclosure is completed. If using a Heat Zone kit, it also must be installed before enclosure is complete.**

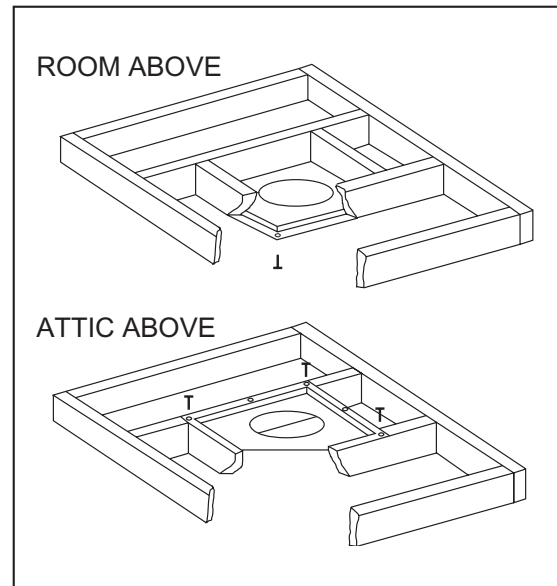


Figure 14A  
Installing the Firestop Spacer

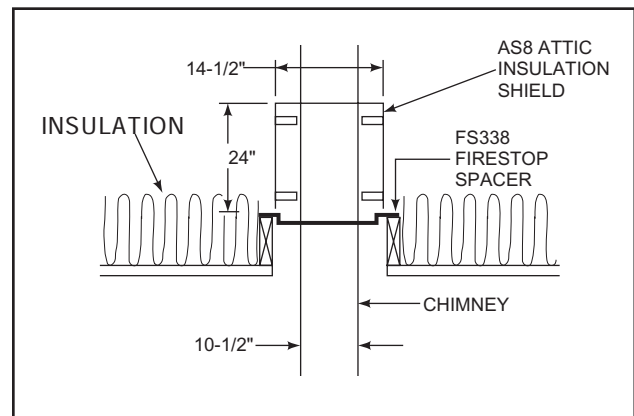


Figure 14B  
Installing an Attic Insulation Shield



## 8. Mobile home installation

You must use the outside air termination cap supplied with your North Star Fireplace for installation in a mobile home. If you use an alternative material it must be designed to prevent material from dropping into the area beneath the mobile home, and to prevent rodents from entering from the outside.

1. An outside air inlet must be provided for combustion and must remain clear of leaves, debris, ice and/or snow. It must be unrestricted while unit is in use to prevent room air starvation which can cause smoke spillage and an inability to maintain a fire. Smoke spillage can also set off smoke alarms.
2. The fireplace is to be secured to the mobile home structure. Use same holes that attached the fireplace to the pallet to secure it to the floor use 1/4" x 2" lag bolts or equivalent.
3. Unit must be grounded with #8 solid copper grounding wire or equivalent and terminated at each end with N.E.C. approved grounding device.
4. Refer to Minimum Clearances to Combustibles on page 5 and chimney components on pages 6-8.
5. Floor protections requirements on page 17 must be followed precisely.
6. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the exterior of the structure.
7. Follow the chimney and chimney connector manufacturer's instructions when installing the flue system for use in a mobile home.

**NOTE:** Top sections of chimney must be removable to allow maximum clearance of 13.5' (411cm) from ground level for transportation purposes.

8. Burn wood only. Other types of fuels may generate poisonous gases (e.g., carbon monoxide).

**WARNING!**

**NEVER DRAW COMBUSTION AIR FROM A WALL, FLOOR OR CEILING CAVITY OR FROM ANY ENCLOSED SPACE SUCH AS AN ATTIC OR GARAGE.**

**WARNING!**

**DO NOT INSTALL IN SLEEPING ROOM.**

**CAUTION:**

The structural integrity of the mobile home floor, wall and ceiling/roof must be maintained. (i.e., Do not cut through floor joist, wall stud, ceiling truss, etc.)

## 9. SL-300 Series MH842 Ceiling/Roof Thimble

1. Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Lay out, cut and frame a 14-1/2" square opening (measured on the horizontal) through the ceiling and roof structure. See Chapter 25 of the *Uniform Building Code for Framing Details*.
2. The thimble must extend completely through the roof structure shielding combustible materials. Five location holes have been provided to allow for a variety of ceiling/roof thicknesses. The MH841 Thimble Extension is required when the ceiling/roof thickness exceeds 12-1/2". The extension should overlap the thimble one inch.
3. To attach the extension to the thimble, drill 1/8" holes through the outer shield of the thimble using the predrilled holes in the extension as guides. Attach the extension to the thimble using the screws provided with the extension.
4. Install the thimble assembly and nail it securely to the framing members.
5. Center the flashing over the chimney and nail it to the roof using the *Stormguard* nails provided. Keep gaps between the flashing plate and the roof to a minimum.
6. Caulk the flashing plate and roof junction as well as the vertical seam on the flashing. All nail heads must be caulked with a roofing sealant.
7. Finish assembling the chimney storm collar and termination cap following the installation instructions provided with them.

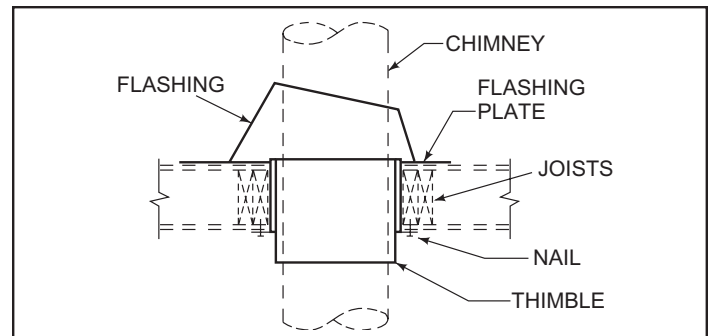


Figure 15A - Installing an MH842, Configuration 1

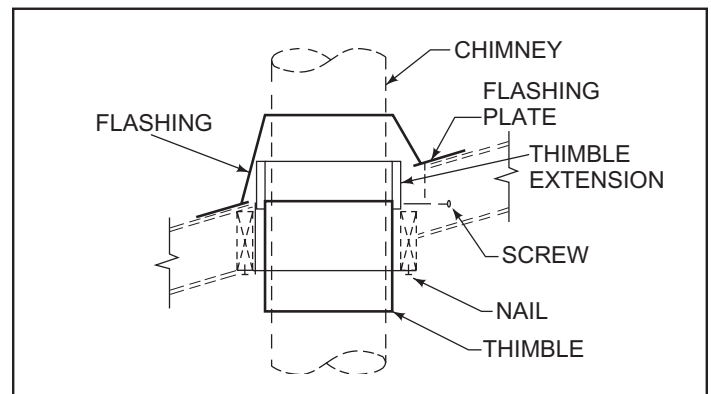


Figure 15A - Installing an MH842, Configuration 2



### 9. SL-300 MH842 Ceiling/Roof Thimble (Cont'd)

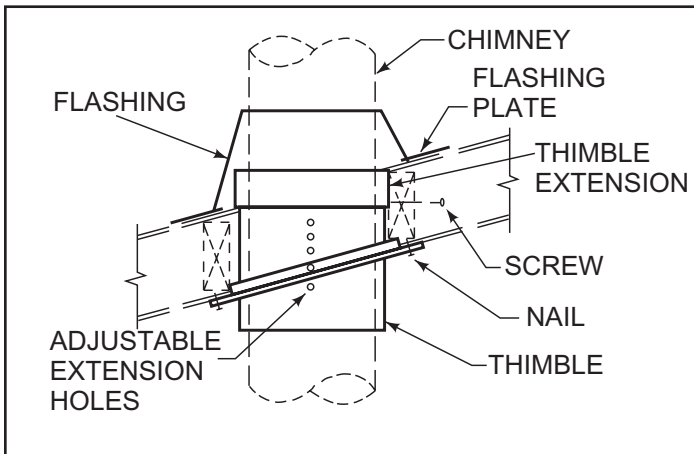


Figure 16A - Installing an MH842 Configuration 3

### 10 Securing the Chimney System

When offsets and returns are joined to straight pipe sections, they must be locked into position with the screws provided (outer only), using the predrilled holes. To prevent gravity from pulling the chimney sections apart, the returns and the chimney stabilizers have straps for securing these parts to joists or rafters. See Figure 16B.

**NOTE:** You must provide support for the pipe during construction and check to be sure inadvertent loading has not dislodged the chimney section from the fireplace or at any chimney joint.

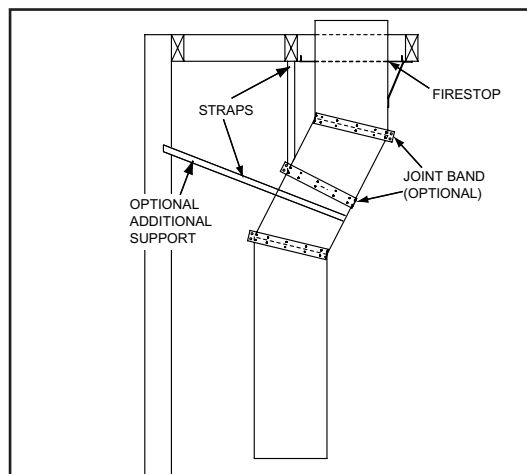


Figure 16B - Offset/Return with Stabilizer

**WARNING!**

*Maintain a minimum of 2" air clearance to all parts of the chimney system at all times! Failure to maintain this 2" air clearance will cause a structure fire.*

### 11. Marking the Exit Point of the Roof

Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Drive a nail up through the roof to mark the center. See Figure 16C.

### 12. Cutting out the Hole in the Roof

Measure to either side of the nail 7-1/4" and mark the 14-1/2" x 14-1/2" opening required. This is measured on the horizontal; actual length may be larger depending on the pitch of the roof. Cut out and frame the opening. See Chapter 25 of the *Uniform Building Code for Roof Framing Details*.

Be sure to maintain a 2" minimum air space between the chimney section and the roof.

### 13. Assembling the Chimney Sections Through the Roof

Continue to add chimney sections through the roof opening, maintaining at least a 2" air space.

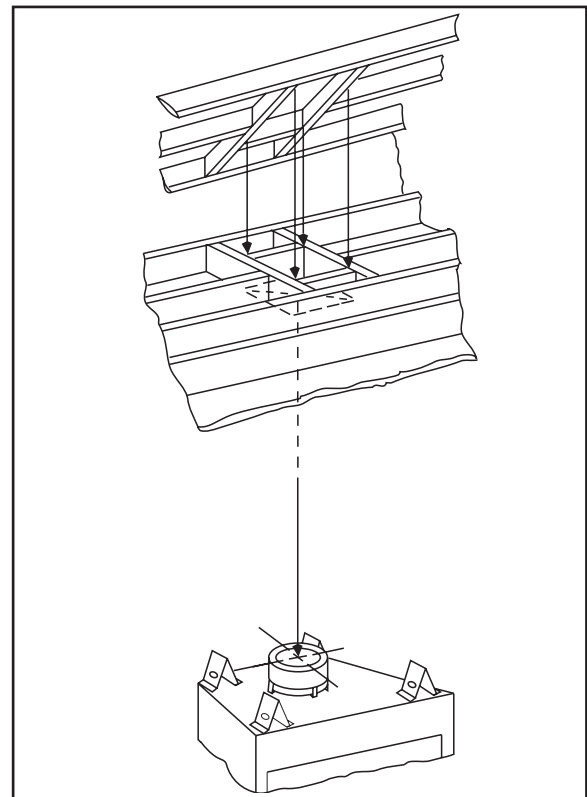


Figure 16C - Ceiling/Attic Construction

**WARNING!**

When chimney sections exceeding six feet in length are installed between an offset and return, structural support must be provided to reduce off-center loading and prevent chimney sections from separating at the chimney joints.

### 14. Installing the Roof Flashing

If a roof flashing is to be used, install the roof flashing appropriate to the roof pitch and install a round termination cap following the instructions shipped with the cap.

For chase installations you can use a round termination cap (TR344), a round telescoping termination cap (TR342) or a square termination cap (ST375). A chase installation must use a chase top. Chase tops are available from your dealer. See page 19 for building a chase.

### 15. Completion of the Enclosure

Complete the fireplace enclosure, allowing space for outside air ducts. Electrical wiring should not come in contact with the fireplace. **A minimum clearance of 1" must be maintained between the fireplace sides and back and the enclosure.** See pages 9-10 for framing details.

### 16. Hearth Extension

A hearth extension must be installed with all fireplaces to protect the combustible floor in front of the fireplace from both radiant heat and sparks.

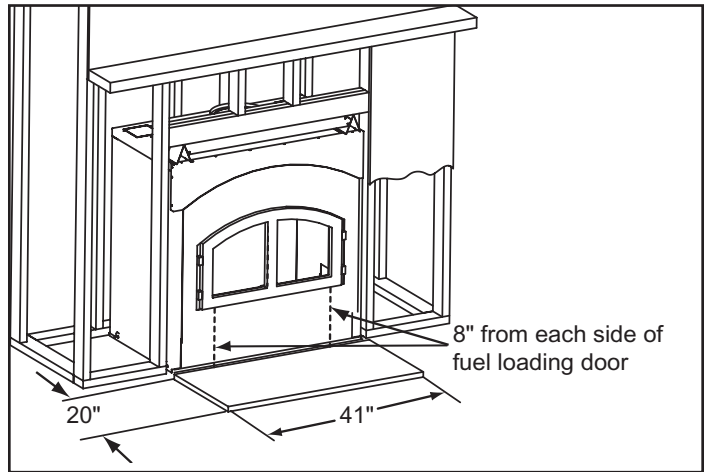
The construction of, and materials used for a hearth extension are shown in Figures 17A and 17B. A hearth extension of this construction may be covered with any noncombustible decorative material and may have a maximum thickness as per the illustration. Seal gaps between the hearth extension and the front of the fireplace with a bead of noncombustible sealant.

**CLEARANCES!**

**A minimum 1" air clearance must be maintained at the back and sides of the fireplace assembly.**

**Chimney sections at any level require a 2" minimum air space clearance between the framing and chimney section.**

**NOTE:** Use only a noncombustible material to finish the face of the fireplace below the level of the front standoffs. A noncombustible material such as USG MICORE CV230 Mineral Fiber Board, or USG DUROCK Cement Board is recommended for this purpose.



**Figure 17A-Field Construction Hearth Extensions**

#### 1. Hearth Extension & Floor Protection flush on the floor.

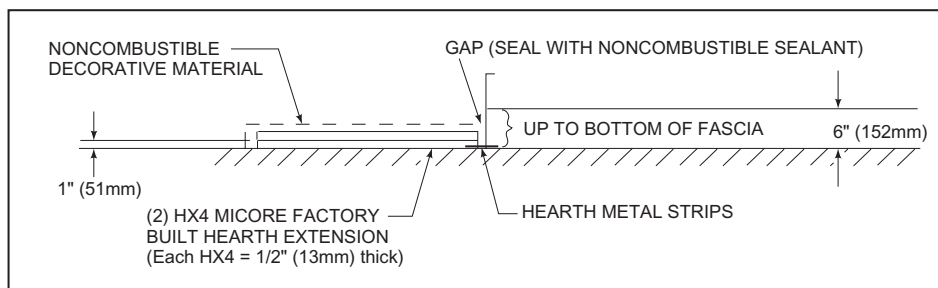
Combustible flooring 20" in front of and 8" to either side of the fuel opening; must be insulated with non-combustible floor protection with a minimum thickness of 1" ("k" value = 0.43). Use Alternate Material Worksheet on page 18 to determine the "k" value of the alternative material..

#### 2. Fireplace is flush on the floor and Hearth Extension is raised to the bottom of the fascia:

Raised hearth must be constructed of non-combustible materials such as cement block or equivalent material. Decorative combustible flooring on the raised hearth must be 20" (508mm) in front of and 8" (203mm) to either side of the fuel opening must be insulated with non-combustible floor protection with a minimum thickness of 1-1/2" (38mm) and ("k" value = 0.43).

#### 3. Fireplace is recessed in the floor to the bottom of the fascia:

Combustible flooring 30" (762mm) in front of and 8" (203mm) to either side of the fuel opening; must be insulated with non-combustible floor protection with a minimum thickness of 1" (25mm) and ("k" value = 0.43).



**Figure 17B - Factory Built Hearth Extension**

## 17. Alternate materials worksheet

How to determine if alternate floor protection materials are acceptable:

All floor protection must be non-combustible (i.e., metals, brick, stone, mineral fiber boards, etc.). Any organic materials (i.e., plastics, wood paper products, etc.) are combustible and must not be used. The floor protection specified includes some form of thermal designation such as R-value (thermal resistance) or k-factor (thermal conductivity).

### PROCEDURE:

1. Convert specification to R-value:

|   |   |
|---|---|
| R-value given - no conversion needed.   | K-factor is given with a required thickness (T) in inches: $R = \frac{1}{K \times 12} \times T$ |
| k-factor is given with a required thickness (T) in inches: $R = \frac{1}{k} \times T$ | r-factor is given with a required thickness (T) in inches: $R = r \times T$                     |

2. Determine the R-value of the proposed alternate floor protector.

i. Use the formula in step (1) to convert values not expressed as "R".

ii. For multiple layers, add R-values of each layer to determine overall R-value.

3. If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

**EXAMPLE:** The specified floor protector should be 3/4 inch thick material with a k-factor of 0.84. The proposed alternate is 4" brick with an r-factor of 0.2 over 1/8" mineral board with a k-factor of 0.29.

Step (a): Use formula above to convert specification to R-value.  $R = \frac{1}{k} \times T = \frac{1}{.84} \times 0.75 = 0.893$

Step (b): Calculate R of proposed system. 4" brick of  $r = 0.2$ , therefore:  $R_{\text{brick}} = 0.2 \times 4 = 0.431$   
1/8" mineral board of  $k = 0.29$ , therefore:  $R_{\text{mineral board}} = \frac{1}{0.29} \times 0.125 = 0.431$

$$R_{\text{total}} = R_{\text{brick}} + R_{\text{mineral board}} = 0.8 + 0.431 = 1.231$$

Step (c): Compare proposed system  $R_{\text{total}}$  of 1.231 to specified R of 0.893. Since proposed system  $R_{\text{total}}$  is greater than required, the system is acceptable.

**DEFINITIONS**  $= \frac{(\text{ft}^2)(\text{hr})(^\circ\text{F})}{\text{Btu}}$   $k = \frac{\text{Btu}(\text{in})}{\text{ft}^2(\text{hr})(^\circ\text{F})} = K \times 12$   $K = \frac{\text{Btu}(\text{ft})}{\text{ft}^2(\text{hr})(^\circ\text{F})}$   $r = \frac{(\text{ft}^2)(\text{hr})(^\circ\text{F})}{(\text{Btu})(\text{in})} = \frac{1}{k}$

## 18. Position the Hearth Extension

Position and secure the hearth extension over the protective metal strips that have been placed partially under the fireplace front. These strips should be protruding approximately 2" from under the fireplace front and 2" on both sides of the fireplace opening. See Figure 13A on page 13. **Seal the crack between the hearth extension and fireplace with a bead of noncombustible sealant.** See Figure 18A. Apply a noncombustible finishing material of your choice to the hearth extension.

**NOTE: SEE PAGE 5 "CLEARANCES TO COMBUSTIBLES, HEARTH EXTENSIONS / FLOOR PROTECTION" FOR CLEARANCES REQUIRED FOR DIFFERENT HEARTH EXTENSION INSTALLATIONS. THE CLEARANCES MUST BE STRICTLY ADHERED TO.**

### WARNING!

Hearth extensions are to be installed only as illustrated to prevent high temperatures from occurring on concealed combustible materials. Hearth sealing strips prevent burning or hot particles from inadvertently falling directly on combustible surfaces in the event the building should settle and disturb the original construction.

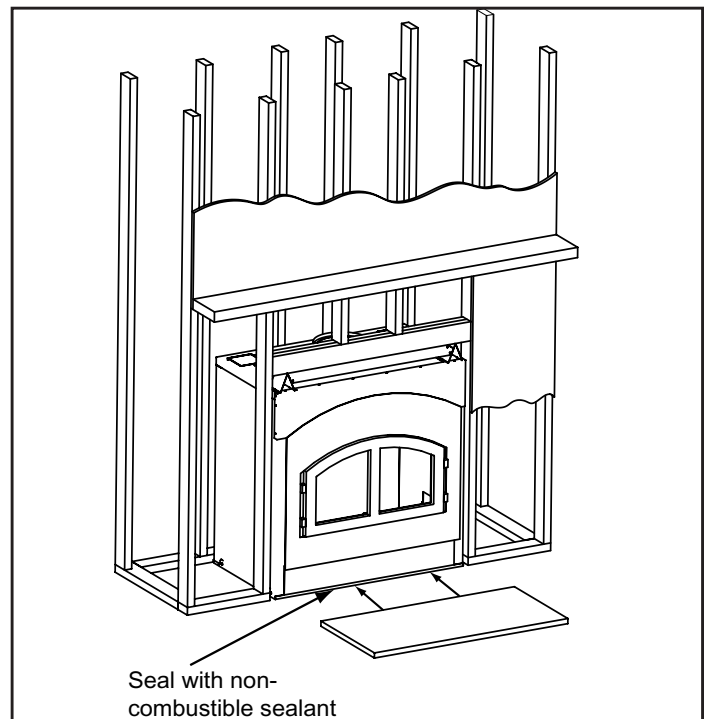


Figure 18A - Position the Hearth Extension

## 19. Finishing Material

**Do not install combustible materials over the front of the fireplace! This poses a safety hazard and may start a fire.** You may only use noncombustible material over the front of the fireplace.

### a. Combustible Material

Material which is made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame proofed or not, plastered or unplastered.

### b. Noncombustible Material

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.

### c. Noncombustible Sealant Material

Sealants which will not ignite and burn; General Electric RTV103 Black (or equivalent), Rutland, Inc. Fireplace Mortar #63 (or equivalent).

After completing the framing and applying the facing material (dry wall) over the framing, a 1/2" wide (maximum) bead of noncombustible sealant must be used to close off any gaps at the top and sides between the fireplace and facing to prevent cold air leaks.

Only noncombustible materials may be used to cover the metal fireplace front.

### d. Cardboard OR Metal Template

A cardboard template of the front is printed on the outside of the shipping box. It measures 1/8" bigger all the way around than the actual front. Cut out the template for use in your installation.

A metal template is also available for more durable continued use remaining accurate over time. The part number for this metal template is HHT-Template.

## 21. Mantel

A combustible mantel may be positioned no lower than 60" from base of the fireplace. The combustible mantel may have a maximum depth of 12". Combustible trim pieces that project no more than 1-1/2" from the face of the fireplace can be placed no closer than 6" from the side of the fireplace decorative front. Combustible trim must not cover the metal surfaces of the fireplace. This mantel clearance is in accordance with **Section 7-3.3.3 of ANSI/NFPA211**.

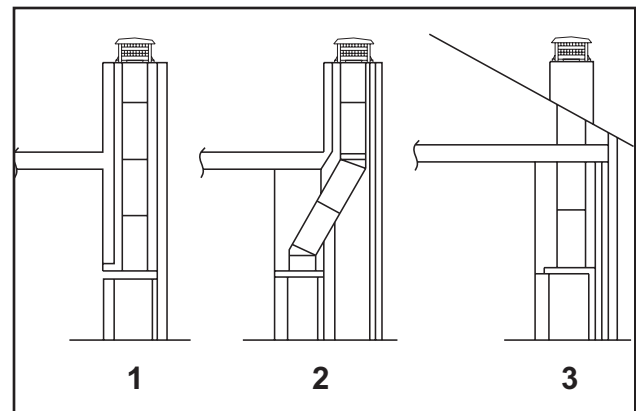
## H. CONSTRUCTING A CHASE

A chase is a vertical boxlike enclosure built around the chimney and fireplace. A chase may be constructed for the fireplace and chimney or for the chimney only. It is most commonly constructed on an outside wall.

In cold climates, it is recommended that the chase floor be insulated using batt type insulation between the floor joists.

Three examples of chase applications are shown in Figure 19A.

1. Fireplace and chimney enclosed in an exterior chase.
2. Chimney offset through exterior wall and enclosed in chase.
3. Chase constructed on roof.



**Figure 19A - Chase Constructions**

### 1. Materials

- a. The chase is constructed using framing materials much the same as the walls in your home. A variety of siding materials may be used including brick, stone, veneer brick, or standard siding materials.
- b. In constructing the chase, several factors must be considered:
  - 1) Maintain a 2" air space around the chimney.
  - 2) The chase top must be constructed of noncombustible material.
  - 3) In cold climates, a firestop spacer should be installed in an insulated false ceiling at the 8' level above the fireplace assembly. This reduces heat loss through the chase.
  - 4) In cold climates, the walls of the chase should be insulated to the level of the false ceiling as shown in Figure 20A on page 20. This will help reduce heat loss from the home around the fireplace.

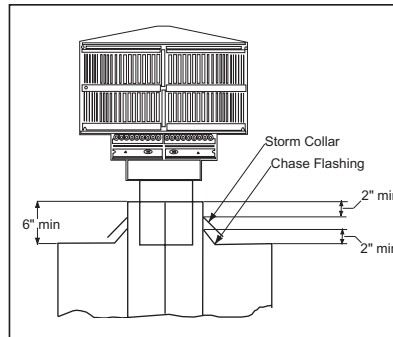
**NEED NEW DRAWING**

**2. Chase Top**

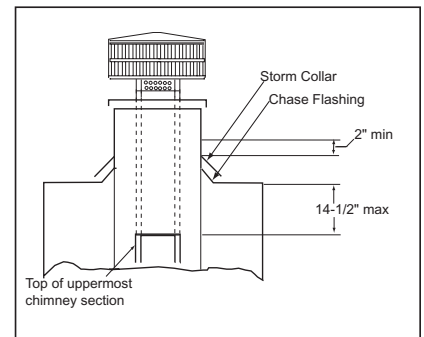
Construct a chase of desired materials maintaining a minimum 2" air space around the chimney.

**3. Termination Cap**

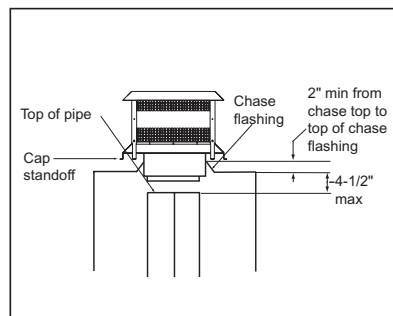
- a. Install the chimney sections up through the chase enclosure. When using a TR344 round termination cap, the uppermost top section of pipe must extend 6" above the top of the chase collar to allow installation of the storm collar and termination cap. See Figure 20B.
- b. For installations utilizing a TR342 telescoping round termination cap, the uppermost chimney section must be below the top of the chase top, but not more than 14-1/2" below the top of the chase top flashing collar. See Figure 20C.
- c. For installations utilizing an ST375 square termination cap the last chimney section must not be more than 4-1/2" below the chase top. See Figure 20D.
- d. For installation utilizing a TS345/TS345P Square Termination Cap, the uppermost chimney section must not be more than 3" below the chase top. See Figure 20E.
- e. Attach the chase top (CT35) to the top of the chase.
- f. Install the termination cap, following the instructions provided with it.



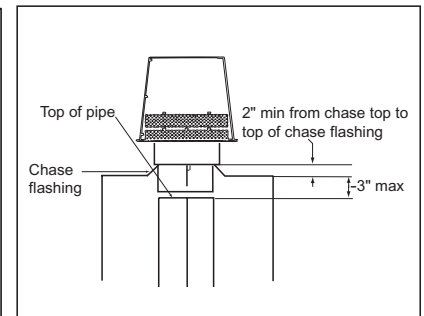
**Figure 20B - Installing a TR344 Round Termination Cap**



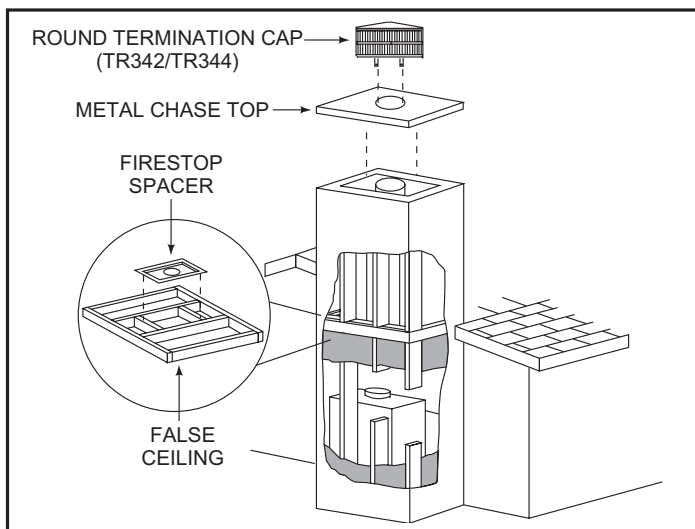
**Figure 20C - Installing a TR342 Round Telescoping Termination Cap**



**Figure 20D - Installing an ST375 Square Termination Cap**



**Figure 20E - Installing a TS345/TS345P Square Termination Cap**



**Figure 20A - Chase Assembly**

**WARNING!**  
Never install a single wall slip section or smoke-pipe in a chase structure. The higher temperature of this single wall pipe may radiate sufficient heat to combustible chase materials to cause a fire.

**WARNING!**  
Detailed instructions for installation of the chase top, storm collar and termination cap are packaged with these parts. To avoid danger of fire, all instructions must be strictly followed, including the provision of air space clearance between chimney system and enclosure. To protect against the effects of corrosion on those parts exposed to the weather, we recommend that the chase top be painted with a rust-resistant paint.



## I. OPERATING INSTRUCTIONS

### IMPORTANT! PLEASE READ BEFORE USING FIREPLACE

**NOTE:** Save and pass this instruction manual to subsequent home owners. The information provided is intended to notify and warn them about making unsafe future modifications such as the addition of shelves or the use of unauthorized parts and repairs.

#### 1. General Information

In recent years there has been an increasing concern about air quality. Much of the blame for poor air quality has been placed on the burning of wood for home heating. These fireplaces, like any other appliances, must be properly operated in order to ensure that they perform the way they are designed to perform.

Fireplaces, as well as other woodburning appliances, have been used safely for many years. It has been our experience that most problems are caused by improper installation and operation of the fireplace. Make certain that installation and operation of the fireplace system is in accordance with these instructions.

It is recommended that an annual inspection be performed on the fireplace system to determine if the flue system needs to be cleaned, or as in the case of any appliance, if minor repairs are required to maintain the system in top operating condition before the heating season begins.

This factory-built fireplace is intended for use with solid fuel (firewood).

#### 2. Outside Air

A source of air (oxygen) is required in order for combustion to take place. Whatever air is consumed by the fire must be replaced through cracks around windows, under doors, etc. Most newly constructed houses or existing homes fitted with tightly sealed doors and windows are relatively air tight. The North Star Fireplace comes equipped with an outside air intake to feed combustion air from outside the home, along with an outside air termination cap. The 6" solid/flex pipe is not supplied.

Outside air is required to minimize the effects of negative pressure within the structure. It is recommended to utilize the shortest duct run to optimize the performance of the Outside Air Kit. The outside air inlet thimble should be positioned above the ground level, and must remain clear of leaves, debris, ice and/or snow. If you live in an area that experiences deep snow levels, this must be taken into consideration when determining the height placement above ground level. It must be unrestricted while unit is in use to prevent room air starvation which can cause smoke spillage and an inability to maintain a fire. Smoke spillage can also set off smoke alarms.

This fireplace will operate correctly only if adequate ventilation is provided to allow proper draft to the fireplace system. Hearth & Home Technologies assumes no responsibility for the improper performance of the fireplace system caused by inadequate draft due to environmental conditions, down drafts, tight sealing construction of the structure, or mechanical exhausting devices which create a negative air pressure within the structure where the fireplace is located.

**WARNING!**

**THIS FIREPLACE HAS NOT BEEN TESTED WITH ANY VENTED OR UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL A VENTED OR UNVENTED GAS LOG SET INTO FIREPLACE.**

**WARNING!**

**ALWAYS OPERATE THIS APPLIANCE WITH THE DOOR CLOSED AND LATCHED EXCEPT DURING START-UP AND RE-FUELING OR WHEN USING THE FIRESCREEN.**

**WARNING!**

**DO NOT LEAVE THE FIRE UNATTENDED WHEN THE DOOR IS UNLATCHED OR WHEN USING THE FIRESCREEN. UNSTABLE FIREWOOD COULD FALL OUT OF THE FIRE-BOX CREATING A FIRE HAZARD TO YOUR HOME.**

**IMPORTANT!**

**OUTSIDE AIR MUST BE IN OPEN POSITION TO OPERATE FIREPLACE PROPERLY.**

### 3. Burning Process

Fire requires three things to burn: fuel, air and heat. So, if heat is robbed from the fireplace during the drying stage, the new load of wood has reduced the chances for a good clean burn. For this reason, it is always best to burn dry, seasoned firewood. We do not advise burning unseasoned wood, however if it happens, you must open the Slide Air Control and burn the fireplace at a high burn setting for a longer time to start it burning.

#### Kindling or 1st stage:

It helps to know a little about the actual process of burning in order to understand what goes on inside a fireplace. The first stage of burning is called the kindling stage. In this stage, the wood is heated to a temperature high enough to evaporate the moisture which is present in all wood. The wood will reach the boiling point of water (212°F) and will not get any hotter until the water is evaporated. This process takes heat from the coals and tends to cool the fireplace.

#### 2nd stage:

The next stage of burning, the secondary stage, is the period when the wood gives off flammable gases which burn above the fuel with bright flames. During this stage of burning it is very important that the flames be maintained and not allowed to go out. This will ensure the cleanest possible fire. If you are adjusting your fireplace for a low burn rate, you should close down the air to the point where you can still maintain some flame. If the flames tend to go out, the fireplace is set too low for your burning conditions.

#### Final stage:

The final stage of burning is the charcoal stage. This occurs when the flammable gases have been mostly burned and only charcoal remains. This is a naturally clean portion of the burn. The coals burn with hot blue flames.

It is very important to reload your fireplace while enough lively hot coals remain in order to provide the amount of heat needed to dry and rekindle the next load of wood. It is best to open the air control for a short while **before reloading**. This livens up the coalbed. Open door slowly so that ash or smoke does not exit fireplace through opening. You should also break up any large chunks and distribute the coals so that the new wood is laid evenly on hot coals.

#### CAUTION:

Fireplace operation does require air. Do not take air from other fuel burning appliances which can result in improper venting (smoking) or air dilution. Always provide adequate makeup air.

### 4. Air Control

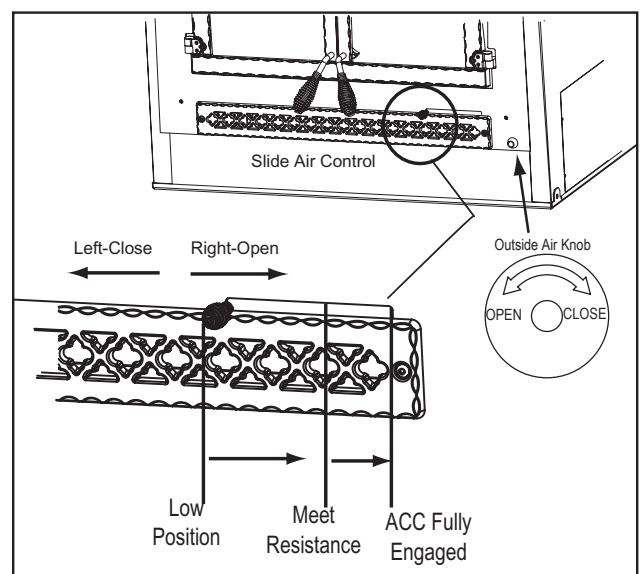
The air enters at the upper front of the firebox, near the top of the glass door. This preheated air supplies the necessary fresh oxygen to mix with the unburned gases. This air is regulated by the Slide Air Control. For more air - slide the control to the right, for less air - slide the control to the left.

### 5. Automatic Combustion Control

Typically, when you build a fire, you need to open the controls to give the fire more air so the wood will get going. You then have to go back to the unit and shut it down so it doesn't overfire and burn up your wood too quickly.

With the Automatic Combustion Control system, you can set the fireplace to high (all the way to the right), start your fire, and then move the Slide Air Control to their desired burn level. The fireplace will automatically go to that level after the fire is fully established. This allows for less interaction with the fire by the homeowner and more efficient use of fuel while maintaining the desired heat output.

**IMPORTANT!** As you move the control rod to the right, about three-fourths of the way you will feel some resistance. You must move past that resistance approximately 3/4" to fully engage the Automatic Combustion Control (ACC) system





## 6. Burning Guidelines

For maximum operating efficiency with the lowest emissions, follow these operating procedures:

1. Regardless of desired heat output, when loading the fireplace, burn your fireplace with the Slide Air Control wide open (fully to the right) for a minimum of 5 to 15 minutes.
2. Regulate burn rate (heat output) by using the Slide Air Control. See page 22.
3. Heat output settings: Following 5 to 15 minutes of burning with the control wide open (**see #1 above**):

| <u>BTU / Hr</u> | <u>*Slide Control</u>   |
|-----------------|-------------------------|
| Below 10,000    | Slide LEFT to Stop      |
| 10,000 - 15,000 | Stop to 1/8" -1/2" open |
| 15,000 - 30,000 | 1/2" - 1-1/2" open      |
| Maximum Heat    | Fully open              |

*\*These are approximate settings, and will vary with type of wood or chimney draft.*

**NOTE: BURN DRY, WELL-SEASONED WOOD.**

## 7. Fan Operating Instructions

*Instructions with override switch in manual position.*

1. **Initial (cold) startup:** Leave fan off until your fireplace is hot and a good coal bed is established, approximately 30 minutes after fuel is lit.
2. **High Burn Setting:** The fan may be left on throughout the burn.
3. **Medium or Medium High Burn Setting:** The fan should be left off until a good burn is established, then turned on a medium or high rate.
4. **Low Burn Setting:** The fan tends to cool the fireplace. Leave fan off until the burn is well established; then, if you wish, turn the fan on at a low rate.

**NOTE:** The Fan is equipped with a snap disc that will turn the blower on and off depending on the temperature of the fireplace. If the fan is not coming on at the desired time, flip the override switch to manual and operate the fan as described above.

The override switch and the fan speed control are hard wired at time of installation and installed in a standard wall mount with junction box on the wall.

## 8. Heat Zone Operating Instructions

The Heat-Zone accessory kit conveys warm air from the fireplace through air duct(s) to remote locations in the same room or other rooms of the building. One or two Heat-Zone kits can be installed on the fireplace. Follow the instructions that is supplied with the kit. Installation of this kit **MUST** be performed by a qualified service technician. If any parts are missing or damaged, contact your local Dealer before starting installation. **DO NOT** install a damaged kit.

The Heat-Zone kit is carefully engineered and must be installed only as specified. If you modify it or any of its components, you will void the warranty and you may possibly cause a fire hazard. Installation must be done according to applicable local, state, provincial, and/or national codes.

## 9. Operation of Fireplace with Optional Fire Screen Instructions

**CAUTION:**

**THE FIRESCREEN MAY BECOME EXTREMELY HOT WHILE IN USE. ALWAYS WEAR GLOVES TO PREVENT INJURY.**

Always wear gloves when installing or removing the screen as the screen may become extremely hot while in use. Use both hands to stabilize the screen. Ensure that the screen is fully attached. Be careful not to stack wood close to the front or too high that logs could roll out the front. Start with a small fire and adjust your heat to desired setting. If smoke spillage occurs, put on gloves and then remove the screen and close the doors. Refer to Flue Draft Troubleshooting on page 4.

**CAUTION:**

**NEVER LEAVE THE FIRE UNATTENDED WHILE USING THE FIRESCREEN. NEVER LEAVE CHILDREN UNATTENDED WHEN THERE IS A FIRE BURNING IN THE FIREPLACE.**

**CAUTION:**

**ALL wiring should be done by a qualified electrician and shall be in compliance with local codes and with the National Electric Code ANSI/NF No. 70-current (in the United States), or with the current CSC22.1 Canadian Electric Code (inCanada).**

## 10. Starting A Fire

Before lighting your first fire in the fireplace, make certain that the baffle and ceramic blanket are correctly positioned. It should be resting against the rear channel. **Also refer to care and cleaning of gold plated surfaces on page 28 before lighting your first fire.**

There are many ways to build a fire. The basic principle is to light easily-ignitable tinder or paper, which ignites the fast burning kindling, which in turn ignites the slow-burning firewood. Here is one method that works well:

1. Place several wads of crushed paper on the firebox floor. Heating the flue with slightly crumpled newspaper before adding kindling keeps smoke to a minimum.
2. Lay small dry sticks of kindling on top of the paper.
3. Fully open the Slide Air Control by moving it completely to the right.
4. Make sure that no matches or other combustibles are in the immediate area of the fireplace. Be sure the room is adequately ventilated and the flue unobstructed.
5. Light the paper in the fireplace. **NEVER light or rekindle fireplace with kerosene, gasoline, or charcoal lighter fluid; the results can be fatal.**
6. Once the kindling is burning quickly, add several full-length logs 3" or 4" in diameter. Be careful not to smother the fire. Stack the pieces of wood carefully: near enough to keep each other hot, but far enough away from each other to allow adequate air flow between them.
7. When ready to reload the fireplace, add more logs. Large logs burn slowly, holding a fire longer. Small logs burn fast and hot, giving quick heat.
8. Adjust the Slide Air Control; the more you close down the Control, (sliding left) the lower and slower the fire will burn. The more you open the Air Control, (sliding right) the more heat will be produced and the faster the wood will burn..

As long as there are hot coals, repeating steps 7 and 8 will maintain a continuous fire throughout the season.

**NOTE:** The special high temperature paint that your fireplace is finished with will cure as your fireplace heats. You will notice an odor and perhaps see some vapor rise from the fireplace surface; this is normal. We recommend that you open a window until the odor dissipates and paint is cured.

**NOTE:** Fireplace should be run full open for a minimum of 15 minutes a day to keep air passages clean.

## 11. Burn Rates

**HIGH:** Open (slide right) Slide Air Control fully. It is important to do this when reloading the fireplace. Failure to do this could result in excessive emissions (smoke).

**MEDIUM HIGH BURN RATE:** After a wood load has been burning on high for 5 to 15 minutes, close the Slide Air Control to 1/2" - 1-1/2" distance open. (Move the handle to left to stop and then to right for the proper setting).

**MEDIUM:** After a wood load has been burning on high for 5 to 15 minutes (longer for very large pieces or wet wood), slide Slide Air Control left to 1/8" - 1/2" distance open. (Move the handle to left to stop and then to right for the proper setting).

**LOW:** After a wood load has been burning on high for 5 to 15 minutes (longer for very large pieces or wet wood), gradually slide the Air Control left to close down the air, making sure to maintain flames in the fireplace. It is very important to maintain flames in your fireplace during the first few hours of a low burn, to avoid excessive air pollution.

## 12. Opacity

This is the measure of how cleanly your fireplace is burning. Opacity is measured in percent; 100% opacity is when an object is totally obscured by the smoke column from a chimney, and 0% opacity means that no smoke column can be seen. As you become familiar with your fireplace, you should periodically check the opacity. This will allow you to know how to burn your fireplace as nearly smoke-free as possible (goal of 0% opacity).

### CAUTION:

**Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this fireplace. Keep all such liquids well away from the fireplace.**

### WARNING!

**Do not store fuel within the clearances to combustibles, or in the space required for refueling and ash removal. See maintenance instructions, "Clear Space Near the Fireplace".**

### WARNING!

**Burning wet, unseasoned wood can cause excessive creosote accumulation. When ignited it can cause a chimney fire that may result in a serious house fire.**

## 13. Wood Fuel

### **Hardwood vs. Softwood**

Your fireplace's performance depends a great deal on the quality of the firewood you use. Contrary to popular belief, one species of wood varies very little to the other in terms of energy content. All seasoned wood, regardless of species, contains about 8,000 BTU's per pound. The important factor is that hardwoods have a greater density than softwoods. therefore, a piece of hardwood will contain about 60% more BTU's than an equal size piece of softwood. Since firewood is commonly sold by the cord (128 cu. ft) a volume measurement, a cord of seasoned oak (hardwood) would contain about 60% more potential energy than a cord of seasoned pine (softwood).

There are many definitions of hardwood and softwood. Although not true in every case, one of the most reliable is to classify them as coniferous or deciduous. Softwoods are considered coniferous. These are trees with needle-like leaves that stay green all year and carry their seeds exposed in a cone. Examples of softwood trees are Douglas fir, pine, spruce and cedar. Softwoods, being more porous, require less time to dry, burn faster and are easier to ignite than hardwoods. Deciduous trees are broadleaf trees that lose their leaves in the fall. Their seeds are usually found within a protective pod or enclosure. Hardwoods fall into this category. Some examples of deciduous trees are oak, maple, apple, and birch. However, it should be noted that there are some deciduous trees that are definitely not considered hardwoods such as poplar, aspen and alder. Hardwoods require more time to season, burn slower and are usually harder to ignite than softwoods. Obviously, you will use the type of wood that is most readily available in your area. However, if at all possible the best arrangement is to have a mix of softwood and hardwood. This way you can use the softwood for starting the fire giving off quick heat to bring the appliance up to operating temperature. Then add the hardwood for slow, even heat and longer burn time.

### **Moisture content**

Regardless of which species of wood you burn, the single most important factor that affects the way your fireplace operates is the amount of moisture in the wood. The majority of the problems fireplace owners experience are caused by trying to burn wet, unseasoned wood. Freshly cut wood can be as much water as it is wood, having a moisture content of around 50%. Imagine a wooden bucket that weighs about 8 pounds.

Fill it with a gallon of water, put it in the firebox and try to burn it. This sounds ridiculous but that is exactly what you are doing if you burn unseasoned wood. Dead wood lying on the forest floor should be considered wet, and requires full seasoning time. Standing dead wood can be considered to be about two-thirds seasoned.

The problems with burning wet, unseasoned wood are two fold. First, you will receive less heat output from wet wood because it requires energy in the form of heat to evaporate the water trapped inside. This is wasted energy that should be used for heating your home. Secondly, this moisture evaporates in the form of steam which has a cooling effect in your firebox and chimney system. When combined with tar and other organic vapors from burning wood it will form creosote which condenses in the relatively cool firebox and chimney. See the maintenance section of this manual for more information regarding creosote formation and need for removal.

Even dry wood contains at least 15% moisture by weight, and should be burned hot enough to keep the chimney hot for as long as it takes to dry the wood out - about one hour. To tell if wood is dry enough to burn, check the ends of the logs. If there are cracks radiating in all directions from the center, it is dry. If your wood sizzles in the fire, even though the surface is dry, it may not be fully cured.

### **Seasoning**

Seasoned firewood is nothing more than wood that is cut to size, split and air dried to a moisture content of around 20%. The time it takes to season wood varies from around nine months for soft woods to as long as eighteen months for hardwoods. The key to seasoning wood is to be sure it has been split, exposing the wet interior and increasing the surface area of each piece. A tree that was cut down a year ago and not split is likely to have almost as high a moisture content now as it did when it was cut.

### **Storing Wood**

Splitting wood before it is stored reduces drying time. The following guideline will ensure properly seasoned wood:

- a. Stack the wood to allow air to circulate freely around and through the woodpile.
- b. Elevate the woodpile off the ground to allow air circulation underneath.
- c. The smaller the pieces, the faster the drying process. Any piece over six inches in diameter should be split.
- c. Wood should be stacked so that both ends of each piece are exposed to air, since more drying occurs through the cut ends than the sides. This is true even with wood that has been split.
- d. Store wood under cover, such as in a shed, or covered with a tarp, plastic, tar paper, sheets of scrap plywood, etc., as uncovered wood can absorb water from rain or snow, delaying the seasoning process. Avoid covering the sides and ends completely. Doing so may trap moisture from the ground and impede air circulation.

- Availability of combustion air.
- Heat generated from the fire.
- Diameter and height of the flue system.

These three factors work together as a system to create the flue draft. Increasing or decreasing any one of them will affect the other two and thus change the amount of draft in the entire system.

If the fire is hard to start and smoke spills out of the fireplace, or you find it difficult to establish and maintain a moderately high burn rate, then the flue draft is too low and corrective measures must be taken.

Be sure you have air available for combustion and that your firewood is dry and well seasoned. Build your fires properly and according to the instructions given in operating instructions, "Starting a Fire". Be sure your flue system is installed correctly and that it is the proper diameter and height. Check for the following:

- All chimney sections are properly installed.
- The chimney is clean and free of creosote or soot buildup.
- Make sure overhanging trees and branches are cut back within ten feet of the top of the chimney.
- Ensure the chimney cap is clean and free of any buildup of soot or creosote.

If you still suspect you have a low draft problem it may be necessary to increase the volume of air in your flue system. Since the diameter of your flue system is matched with the size of the flue collar and should not be changed, then the height of the system must be increased. Add chimney sections a little at a time until the draft improves.

In some cases, regardless of what you do, it can still be difficult to establish the proper flue draft. This is especially evident when using an exterior factory-built chimney or exterior masonry chimney. Try placing several sheets of crumpled paper on top of your kindling as close to the flue outlet of the fireplace as possible. Light this paper first then the paper under the kindling. The heat generated from the rapidly burning paper on top of the kindling should help get the draft established.

Still other factors can affect how well your flue system performs. Neighboring structures, high winds, tall trees, even hillsides can affect air currents around the chimney. Well designed chimney caps are available that can help. Your fireplace dealer is the local expert in your area. He can usually make suggestions or discover problems that can be easily corrected allowing your fireplace to operate correctly as it has been designed, providing safe and economical heat for your home.

## **14. Draft Problems**

**NOTE:** When first lighting your fireplace, it may be necessary to pre-warm the flue to establish a draft. This is done by holding a rolled up piece of burning newspaper under the flue for a few moments. This will help reduce smoke spillage during start-up.

This fireplace will operate correctly only if adequate ventilation is provided to allow proper draft to the fireplace system. Hearth & Home Technologies assumes no responsibility for the improper performance of the fireplace system caused by inadequate draft due to environmental conditions, windy conditions, down drafts, tight sealing construction of the structure, or mechanical exhausting devices which will create a negative air pressure within the structure where the fireplace is located.

Flue draft is measured as negative pressure in the chimney. The amount of negative pressure determines how strong the draft is. The draft is important because it draws the combustion air into the fireplace and pulls the smoke out of the chimney.

There are three basic criteria essential in establishing and maintaining flue draft:



## J. MAINTENANCE INSTRUCTIONS

### 1. Creosote and Soot

- a. **Formation and need for removal:** When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a newly-started or a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote creates an extremely hot fire which may damage the chimney or even destroy the home. The chimney connector and chimney should be inspected once every two months during the heating season to determine if a creosote or soot buildup has occurred. If creosote or soot has accumulated, it should be removed to reduce the risk of a chimney fire.
- b. **Inspection:** Inspect the system at the fireplace connection and at the chimney top. Cooler surfaces tend to build creosote deposits quicker, so it is important to check the chimney from the top as well as from the bottom.
- c. **Removal:** The creosote or soot should be removed with a brush specifically designed for the type of chimney in use. A chimney sweep can perform this service. It is also recommended that before each heating season the entire system be professionally inspected, and cleaned and repaired if necessary.

### 2. Chimney Cleaning

If you do detect a buildup of creosote, contact a qualified chimney sweep or clean it yourself. To do this, perform the following steps:

- a. Remove the first manifold tube and baffle. If you do not remove the baffle, residue can pile up on top of the baffle, and the fireplace will not work properly.
- b. Keep doors shut to prevent dirt and soot from entering the room.
- c. Remove the termination cap or housing top.
- d. Clean with a stiff nylon brush attached to a pole OR tie a small burlap bag filled with straw and several small stones or sand. Work up and down the flue until the flue is clean.
- e. Replace the termination cap or housing top.
- f. Reinstall baffle and manifold tube after cleaning.

### 3. Disposal of Ashes

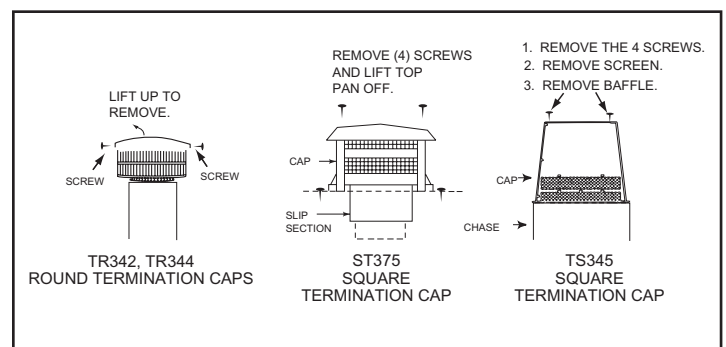
Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all embers have thoroughly cooled.

### 4. Clear Space Near the Fireplace

Combustible materials must not be stored on the hearth extension. Room furnishings such as drapes, curtains, chairs, or other combustibles must be at least four feet from the open front of the fireplace.

### 5. Overfiring:

**Do not overfire.** Using flammable liquids or too much wood, burning trash in the stove, or allowing too much air into the fireplace, may result in overfiring. If the fireplace glows red or even worse, white, the fireplace is overfired. This condition may ignite creosote in the chimney, which can be dangerous, possibly causing a house fire. If you overfire, immediately close the air controls and door, if open, to reduce the air supply to the fire. **Overfiring will void the fireplace warranty.**



**Figure 27A**  
**Chimney & Termination Cap Cleaning**

#### **WARNING!**

**A chimney fire can permanently damage your chimney system. This damage can only be repaired by replacing the damaged component parts. Chimney fires are not covered by the Limited Lifetime Warranty.**

## 6. Care and Cleaning of Glass

Your fireplace is equipped with ceramic super heat-resistant glass, which can only be broken by impact or misuse. Do not slam doors or impact the glass. When closing doors, make sure that logs do not protrude against the glass. Clean glass with a nonabrasive glass cleaner, such as Windex. Abrasive cleaners may scratch and cause glass to crack. Inspect glass regularly. If you find a crack or break, immediately put the fire out and return the door to your dealer for replacement of glass before further use.

**IMPORTANT!**  
**REMOVE ALL LABELS FROM GLASS BEFORE LIGHTING THE FIRST FIRE IN YOUR FIREPLACE.**

**IMPORTANT!**  
**Replace with 5mm ceramic glass only**

## 7. Care and Cleaning of Plated Surfaces

Clean 24 karat gold-plated surfaces with vinegar or a glass cleaner before lighting your first fire.

**CAUTION:**  
**Do not use polishes with abrasives as it will scratch the surface.**

**WARNING!**  
**When the appliance is equipped with a 24 karat gold-plated door, you must clean all the fingerprints and oils from the gold surface before firing the appliance for the first time. Use a glass cleaner or vinegar and towel to remove the oils. If not cleaned properly before lighting your first fire, the oils can cause permanent markings on the gold plating. After the gold plating is cured, the oils will not affect the finish and little maintenance is required: just wipe clean as needed.**

## 8. Glass Replacement

1. Ensure that the fire is out and the appliance is cool to the touch.
2. Protect a table or counter top with padding or towels.
3. Remove door with broken glass from the appliance by lifting door up and off of the hinges.
4. Lay door face down on a table or counter making sure handle and handle attachment knob hang over the edge of the table top so door lays flat, on a soft surface.
5. Remove the screws from each glass tab (5 on each door) using a #2 Phillips Head screwdriver. **HINT:** Soak screws in penetrating oil for easy removal.
6. Remove the glass.
7. Use only 5mm ceramic Glass, Part GLA-480.
8. Position the glass with edges evenly overlapping the opening in the front door.
9. Replace the glass tabs. Be careful not to cross thread the screws.
10. Tighten each tab just a few turns until each is secured. Then continue to tighten each tab alternately, a few turns at a time, until the glass panel is tightened snugly, but not over tightened.
11. Replace the door on the appliance.
12. After the first burn, recheck the tightness of the screws.

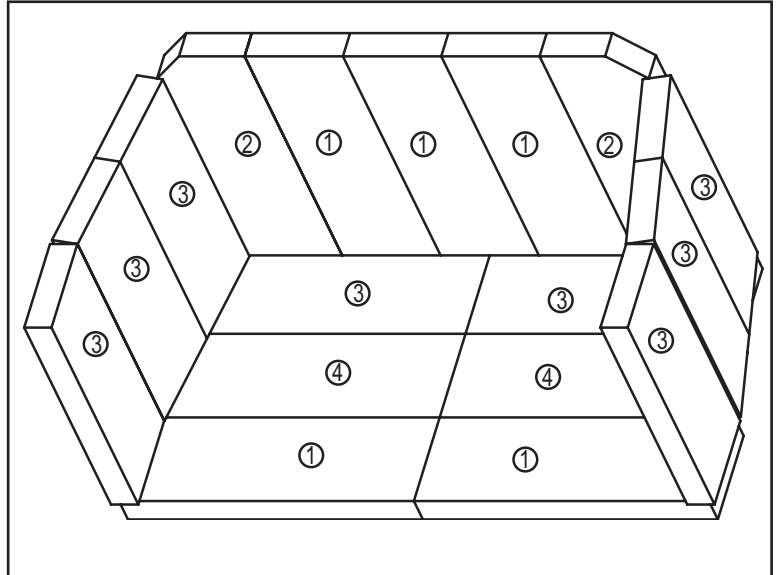
## 9. Firebrick Replacement

The firebox of your fireplace is lined with high quality firebrick, which has exceptional insulating properties. There is no need to use a grate; simply build a fire on the firebox floor. Do not operate the fireplace without firebrick.

**IMPORTANT:** The bricks are very similar in size. Be certain you have the proper brick in the correct location. Measure the brick size for accuracy.

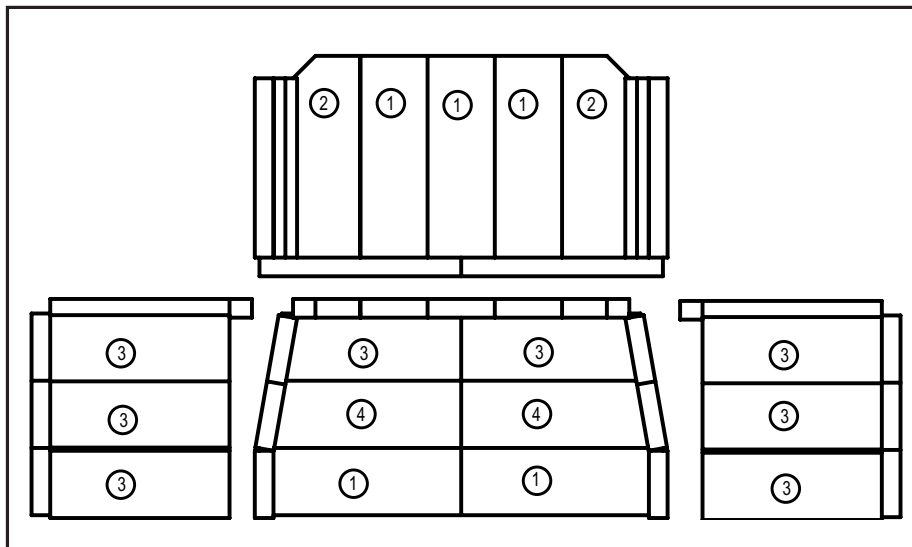
**After the coals are completely cooled, remove all old brick and ash from unit and vacuum out firebox.**

1. Remove new brick set from box and lay out to diagram as shown in Figure 29B.
2. Lay bottom bricks in unit.
3. Install rear bricks on the top of the bottom bricks. Slide top of bricks under clip on back of firebox wall and push bottom of brick back.
4. Install side bricks. Slide top of brick under clips on side of firebox and push the bottom of the brick until it is flush with the side of the unit.



**Figure 29A-Brick Pattern**

**Use Part SRV28111 when ordering individual brick. Provide brick dimension or copy this page, mark the desired brick and take it to your authorized dealer.**



**Figure 29B-Brick Pattern**

| <u>Nbr</u> | <u>Brick Size</u>                           | <u>Qty in Set</u> |
|------------|---|-------------------|
| 1          | 13-1/2" x 4-1/2" x 1-1/4"                   | 5                 |
| 2          | 13-1/2" x 4-1/2" x 1-1/4" w/ 1-1/2" chamfer | 2                 |
| 3          | 12 x 4-1/2" x 1-1/4"                        | 8                 |
| 4          | 12-1/2" x 4-1/2" x 1-1/4"                   | 2                 |



## 10. Fan Replacement

### Fan Cord Location

The North Star Fireplace comes standard equipped with two fans, installed at the factory with electric access on the right side of fireplace (as you face it).

### Fan Replacement Instructions

#### **Power must be OFF prior to servicing!**

The fan assembly may be accessed before or after the fireplace has been installed.

#### Before Fireplace Installation:

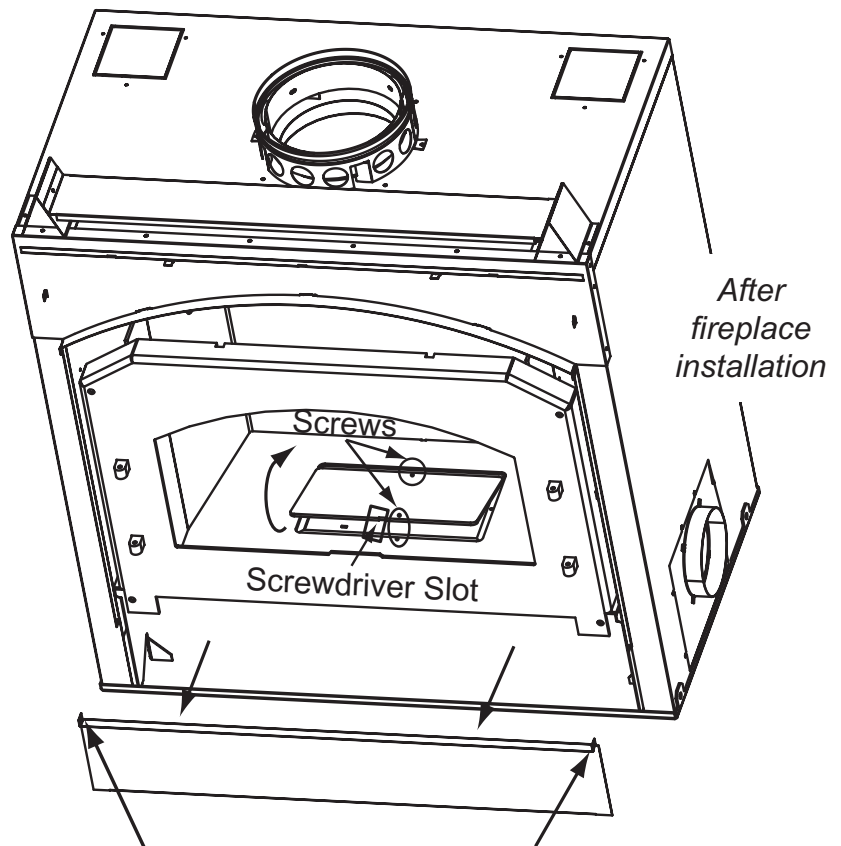
1. Remove the 2 screws located at the outside edge of the bottom panel as show in Figure 30A.
2. Pull panel forward and remove from fireplace.

#### After Fireplace Installation:

1. Remove the firebrick from the bottom of the fireplace.
2. Remove the 2 screws from the access panel in the firebox floor.
3. Pry up the access panel using the screwdrive slot and completely remove the panel.

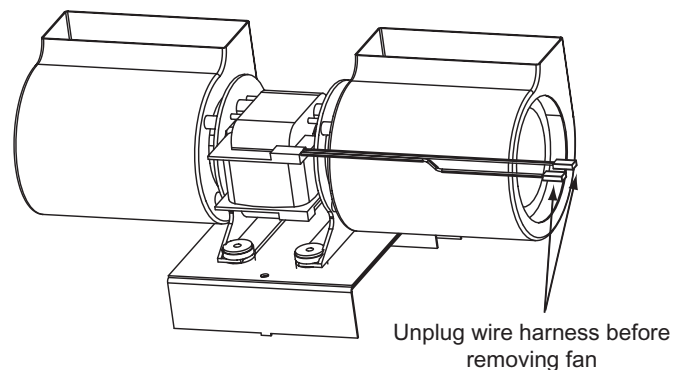
#### Removing the Fan Assembly

1. Unplug the wire harness.
2. Lift fan off of studs and remove. Repeat for second fan if necessary. See Figure 30B.
3. Inspect the gasket and ensure it is in good condition.
4. Replace with new fan.
5. Reinstall bottom panel or firebox access panel in reverse order as descibed above.



Remove 2 screws and pull panel forward  
(Before fireplace installation)

**Figure 30-A Accessing Fan Motor**



**Figure 30B-Fan Motor**

## 11. Baffle Removal & Installation

**NOTE:** The baffle in the North Star Fireplace is 2700° Fiber Board. Removing hardware exposed to combustion processes can be frustrating. If your reason for removing the baffle is simply to clean the chimney, you have alternatives which will save time and effort. Call a qualified chimney sweep or an authorized Heat-n-Glo dealer for details.

1. Remove all ash from firebox, and extinguish all hot embers before disposal into a metal container.
2. Remove ceramic blanket from above the baffle.
3. With a 3/16" Allen wrench, remove the front manifold tube retainer bolt on the air channel under the end of the front tube. **NOTE:** Soak the bolt with penetrating oil for at least 15 minutes before trying to remove it. See Figure 31A below.
4. To remove manifold tube, slide the tube to one side until one end is out of its hole. Then, while lifting that end of the fiber board baffle, pull tube up over the air channel and out of hole at the other end. It is necessary to remove the first tube in order to remove the baffle.
5. Slide fiber board baffle forward to front of fireplace and straight out through door. See Figure 31B below.
6. To install the fiber board baffle, repeat steps 2 through 4 in reverse. Be sure the fiber board baffle and ceramic blanket are pushed back fully and blanket is down and flat.



**Figure 31A-Removing Manifold Tube**



**Figure 31B-Removing Baffle**  
shown without ceramic blanket

## 12. Door & Door Gasket

Periodically check the door gasket for proper seal. As the gasket compresses or "seats" during use, it may become necessary to adjust or tighten the door latch.

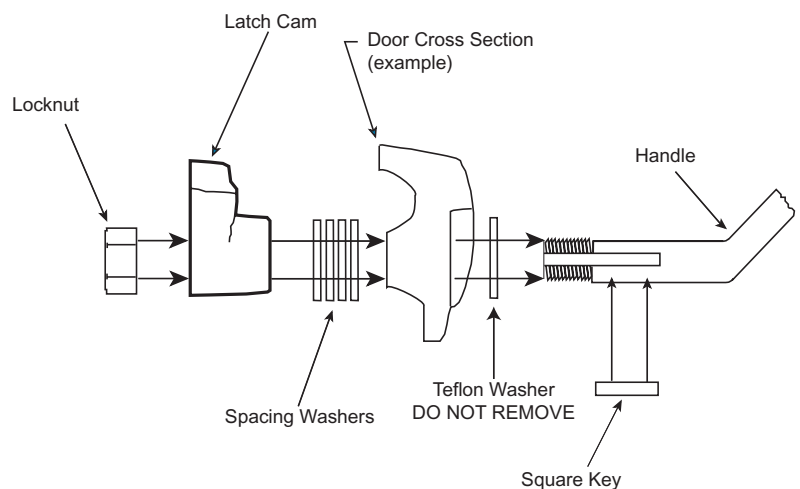
### To Adjust or Tighten Door Latch

Remove spacing washers shown in Figure 31C. At least one spacing washer must be left in place.

OR

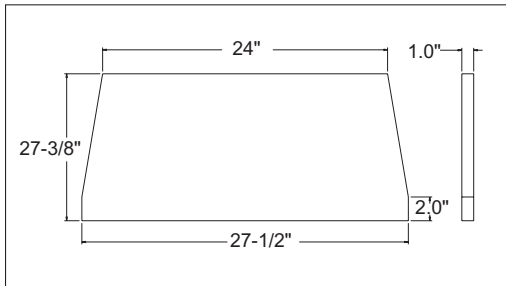
Replace the gasket material. Wear or damage to the gasket material can cause air leakage into the firebox resulting in overfiring and loss of efficiency.

A replacement gasket, Part 834-1460 is available from your dealer.

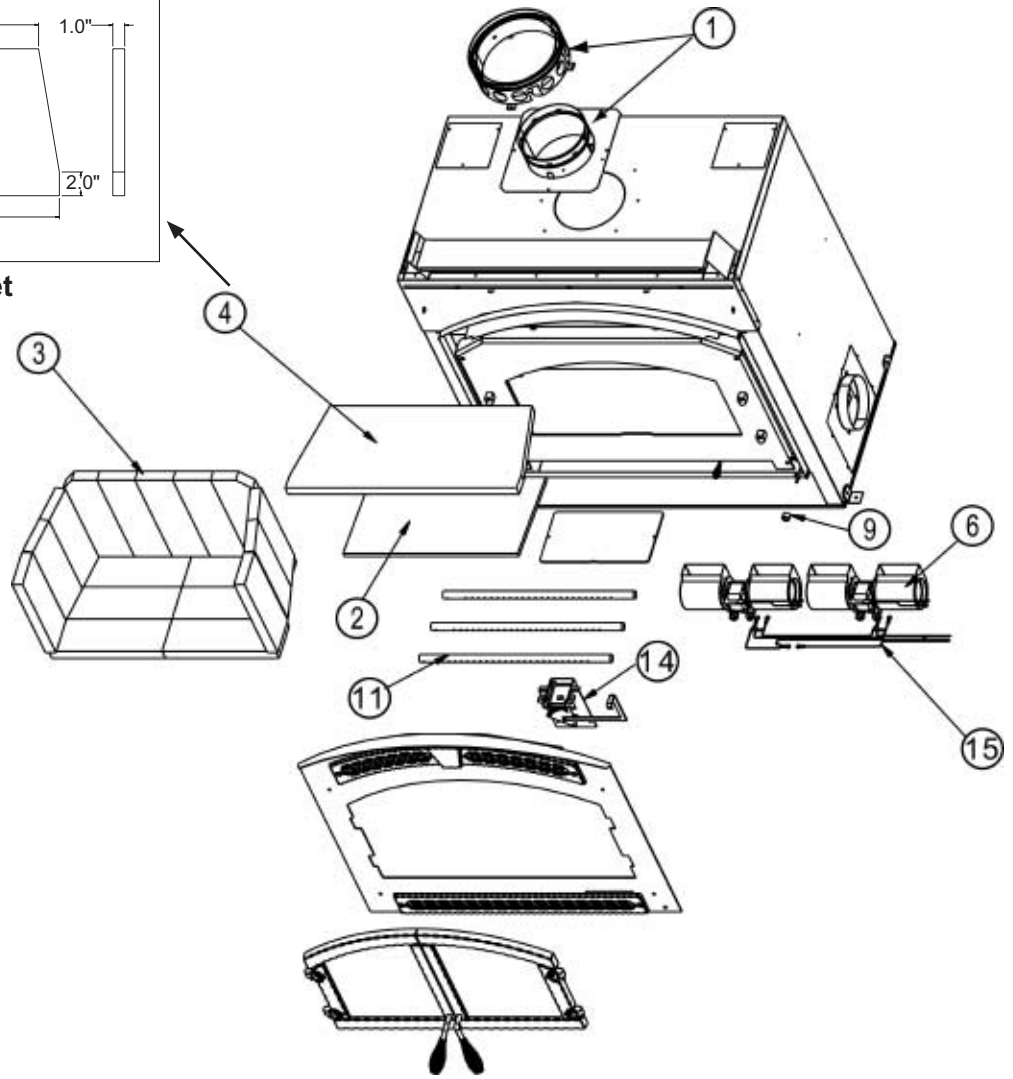


**Figure 31C-Door Handle Assembly**

**EXPLODED VIEW**

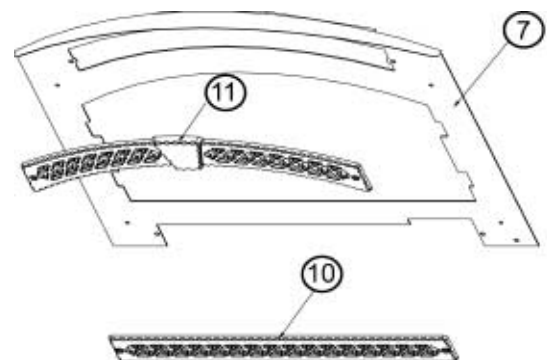
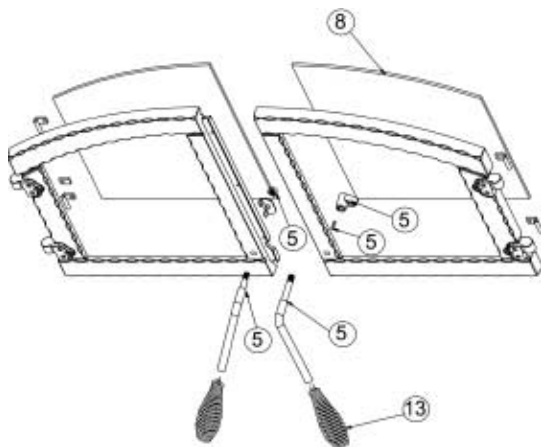


**Ceramic Blanket**



**Door Assembly**

**Fascia Assembly**



Part number list on following page.

## Service Parts List

## North Star EPA Certified Fireplace

**IMPORTANT:** THIS IS DATED INFORMATION. The most current information is located on your dealers VIP site. When ordering, supply serial and model numbers to ensure correct service parts.

| ITEM | DESCRIPTION  | SERIAL # | PART NUMBER |
|------|--|----------|-------------|
|      | Brick, Individual  |          | SRV28111    |
|      | Gasketing , Glass  |          | 834-1460    |
|      | Gasketing, Door <i>(door requires 8 feet)</i>  |          | 834-4170    |
|      | Manual-Bag Assembly, <i>(includes Owner's Manual, (2) Spring Handles-1/2", (1) Spring Handle-1/4", Paint, Fan Switches &amp; Cover Plate, Warranty Card)</i> |          | SRV480-1140 |
|      | Snap Disc, F300-40   |          | SRV480-0980 |
|      | Speed Control  |          | SRV480-1250 |
|      | Spring Handle, 1/4"  |          | 832-0630    |
|      | Washers, 1/4" FW SAE <i>(one under each door hinge pin)</i>  |          | 28758       |
| 1    | 8" Starter Section   |          | SL1         |
| 2    | Baffle, Fiberboard   |          | SRV480-0510 |
| 3    | Brick, Set   |          | BRICK-480   |
| 4    | Ceramic Blanket, 1", cut to fit <i>(see drawing on page 32)</i>  |          | 832-3400    |
| 5    | Door Handle Assembly, <i>(includes 2 door handles, securing bracket, lock nut, latch cam key and cam latch)</i>  |          | HANDLES-480 |
| 6    | Fan Replacement  |          | 812-4900    |
| 7    | Fascia   |          | FASCIA-NS   |
| 8    | Glass Assembly for Doors, 2 piece, w/gasketing   |          | GLA-480     |
| 9    | Knob, Black,Outside Air  |          | 844-2640    |
| 10   | Louver, Bottom, Cast, Black  |          | SRV480-7090 |
| 10   | Louver, Bottom, Cast, Gold   |          | SRV480-7070 |
| 11   | Louver, Top, Cast, Black   |          | SRV480-7100 |
| 11   | Louver, Top, Cast, Gold  |          | SRV480-7080 |
| 12   | Manifold Tube, Set of 3  |          | TUBES-480   |
| 13   | Spring Handle, 1/2" for Doors  |          | 832-0620    |
| 14   | Timer  |          | SRV480-0790 |
| 15   | Wiring Harness   |          | SRV480-0990 |

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**No one builds a better fire**



#### **LIMITED LIFETIME WARRANTY**

The Hearth & Home Technologies limited Lifetime Warranty guarantees that the following components will work as designed for the lifetime of the stove or Hearth & Home Technologies will repair or replace them. These items include but are not limited to steel and cast iron components, all gas burners, gas logs, combustion chambers, heat exchanger systems, stainless steel firebox components, plating, doors, glass damaged by thermal breakage, steel baffle supports, steel and ceramic baffles and manifold tubes. Labor is for the first five years.

#### **THREE YEAR WARRANTY**

Our EZ Clean firepots are covered under Hearth & Home Technologies three-year warranty program. Labor is for 3 years.

#### **TWO YEAR WARRANTY**

All electrical components such as but not limited to blowers, wiring, vacuum switches, speed controls, control boxes, thermodisc switches, pilot assembly, gas valves, thermostats and remotes are covered under Hearth & Home Technologies two-year warranty program.

#### **ONE YEAR WARRANTY**

Porcelain finishes are warranted against manufacturer defects for one year. Labor to repair or replace these parts is covered for one year, reimbursed per our warranty service fee schedule.

#### **CONDITIONS**

This warranty is non-transferable and is made to the original retail purchaser only provided that the purchase was made through an authorized dealer of Hearth & Home Technologies It must be installed and operated at all times in accordance with the Installation and Operating Instructions furnished with this product, as well as any applicable local and national codes. Any alteration, willful abuse, accident, or misuse of the product shall nullify this warranty.

Labor to repair or replace items covered under the limited Lifetime Warranty will be covered for the first five years per our warranty service fee reimbursement schedule. Parts covered under the limited Lifetime Warranty will be covered for the lifetime of the appliance up to a maximum of ten (10) years after Hearth & Home Technologies discontinues the model and two (2) years for optional accessories. Adjustments, regular maintenance, cleaning and temporary repairs do not qualify for a service call fee and will not be covered. The replacement of consumer replaceable items and installation of upgraded component parts do not qualify for a service call fee, and will not be covered.

This limited Lifetime Warranty does not extend to or include surface finish on the appliance, door gasketing, glass gasketing, firebrick, kaowool or other ceramic insulating materials. It does not cover installation or operational-related problems such as overfiring, use of corrosive driftwood, downdrafts or spillage caused by environmental conditions, nearby trees, buildings, hilltops, mountains, inadequate venting or ventilation, excessive offsets, or negative air pressures caused by mechanical systems such as furnaces, fans, clothes dryers, etc.

Any installation, construction, transportation, or other related costs or expenses arising from defective part(s), repair, replacement, etc., will not be covered by this warranty, nor will Hearth & Home Technologies assume responsibility for them. Further, Hearth & Home Technologies will not be responsible for any incidental, indirect, or consequential damages, except as results in damage to the interior or exterior of the building in which this appliance is installed. This limited Lifetime Warranty does not apply to the venting components, hearth components or other accessories used in conjunction with the installation of this product not manufactured by Hearth & Home Technologies

This warranty is void if the stove has been overfired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals, the stove is subjected to prolonged periods of dampness or condensation, or there is any damage to the stove or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation. Hearth & Home Technologies may, at its discretion, fully discharge all obligations with respect to this warranty by either repairing or replacing the unit, or refunding the wholesale price of the defective part(s).

This limited Lifetime Warranty is effective on all appliances sold after May 1, 2002 and supersedes any and all warranties currently in existence.

*Policy 250-8620 Rev C*





No one builds a better fire

***ATTENTION INSTALLER:***

***PLEASE RETURN  
THESE INSTRUCTIONS  
TO THE HOME OWNER  
WHEN INSTALLATION  
IS COMPLETE.***



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