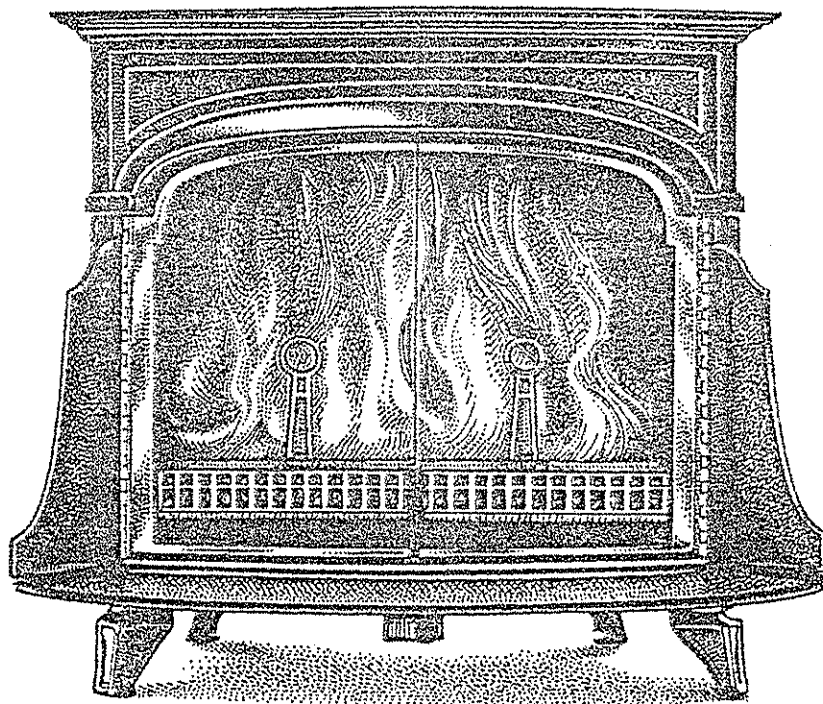


DauntlessTM

Model No. 1240

Owner's Manual

For use in North America



VERMONT CASTINGS, INC.

SAFETY NOTICE: IF THIS DAUNTLESS IS NOT PROPERLY INSTALLED, OPERATED AND MAINTAINED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW ALL INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS. CONTACT LOCAL BUILDING OFFICIALS OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

Thank you for choosing a Vermont Castings' Dauntless.

The design of your new fireplace is rooted deep in American fireplace tradition: The Dauntless is an updated interpretation of an open cast iron stove originally designed by Benjamin Franklin in 1742. He called it the Pennsylvania Fireplace.

The Dauntless continues the heritage of American craftsmanship, but enjoys the influence of modern combustion engineering and foundry technology. If treated properly and operated according to the guidelines in this manual, it will provide years of pleasure.

The Dauntless has been tested and is listed by Warnock Hersey International of Middleton, Wisconsin. The test standards are ANSI/UL737 and ANSI/UL1482 for the United States, and ULC S627 and CAN/CSA-B366.2 for Canada. The Dauntless is listed for burning wood. Do not burn other fuels. The Dauntless is not listed for installation in mobile homes.

In addition to directions on installation and operation, this manual includes directions on maintenance and assembly.

We recommend that you hire a professional solid fuel fireplace installer to install your fireplace, or to advise you on the installation should you attempt to install it yourself.

Please read this entire manual before you install and use your new stove. Failure to follow instructions may result in property damage, bodily injury, or even death.

Save these instructions.

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Operation

The Dauntless Controls and What They Do

A manually-regulated air control provides a continuous "air wash" that helps keep the glass doors clean. The air control is located on the top right corner of the Dauntless, above the latticework panel, and opens when pushed to the rear. An operating tool for both the air control and the damper is included with the Dauntless.

An internal damper prevents room air from escaping up the chimney when the Dauntless is not in use. To open the damper, locate the handle in the upper left corner of the firebox and push it up and in. To close the damper, pull the handle toward you and down.

The damper of your Dauntless should be open any time you have a fire.

Ceramic glass doors provide an unobstructed view of the fire and may be folded back out of view into the sides for open-fire viewing with the screen. A knob located under the ash lip activates the door opener with the touch of the toe of your shoe.

The design of the glass doors includes a factory-calibrated gap of .070 inch (seventy thousandths of an inch) that ensures clean and efficient burning.

DO NOT ATTEMPT TO CHANGE THE FACTORY SETTING OF THIS GAP.

In addition to these controls, other Dauntless features have been designed for convenient operation.

Double side and rear cast iron plates allow installation at reduced clearances and promote the natural convection of heated air.

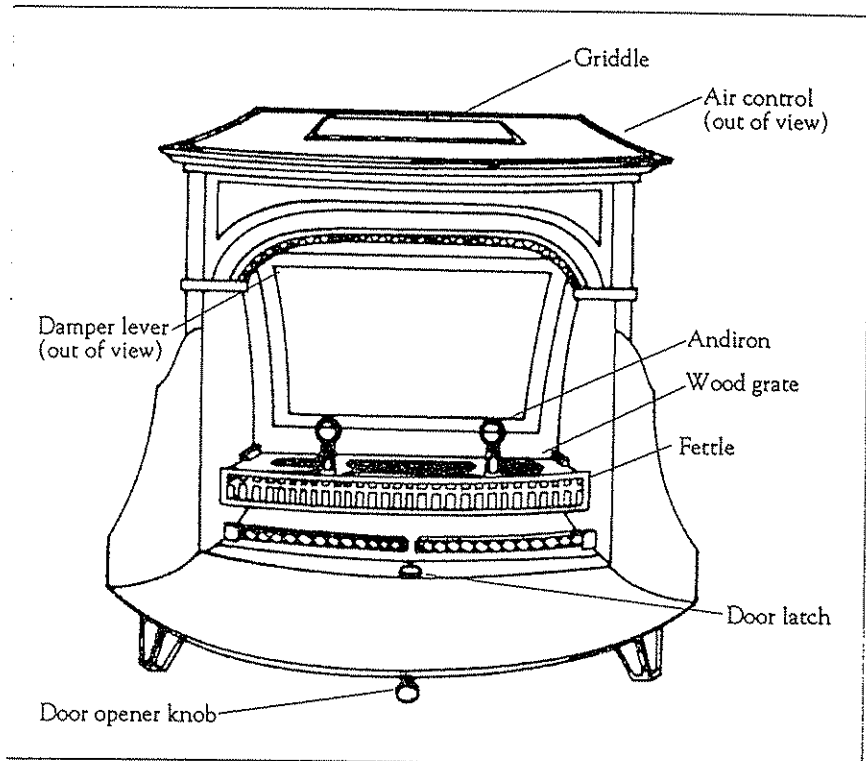
A cast iron fettle shields the doors across the entire length of the firebox and is removable for easier firebox cleaning.

A polished, cookware-quality cast iron griddle on rear-exit models provides a handy place to place a tea kettle or to warm foods.

Burn Only High-Quality Wood

The Dauntless is designed to burn natural wood only; do not burn fuels other than those for which it was designed.

You'll enjoy the best results when burning wood that has been adequately air-dried. Avoid burning "green"



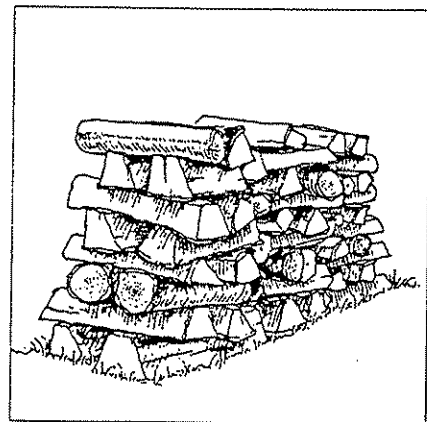
The Dauntless is designed with controls that are conveniently located and easy to use.

wood that has not been properly seasoned.

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

For areas that do not have a supply of hardwood,

commonly burned softwoods include tamarack, yellow pine, white pine, Eastern red cedar, fir, and redwood. These too should be properly dried. Your Dauntless will accept wood up to 16" (410 mm).



The best wood has been well seasoned.

Wood should be stored under cover to maintain dryness. Even for short-term storage, however, keep wood a safe distance from the heater and keep it out of the areas around the heater used for refueling and ash removal.

Starting and Maintaining a Wood Fire

Wood is loaded into the Dauntless directly through its front opening.

BURN SOLID WOOD FUEL ONLY IN THE DAUNTLESS, AND BURN IT DIRECTLY ON THE GRATE. DO NOT ELEVATE THE FUEL. DO NOT BURN COAL OR OTHER FUELS.

Cast iron must be treated with respect. It is extremely strong, but can be broken with a sharp blow or from the thermal shock created by rapid and extreme temperature changes.

The cast plates expand and contract with changes in temperature. When you first begin using your Dauntless, minimize thermal stress by allowing the plates to adjust gradually during three or four initial break-fires according to the directions below.

Always be certain that the damper is open when starting or adding wood to a fire, and always use the firescreen when you have a fire going.

Step 1. Open the glass doors by pushing on the knob under the ash lip. Open the damper by reaching into the upper left of the firebox and pushing up and in on the damper handle.

Step 2. Lay some crumpled newspapers in the fireplace. Place six or eight pieces of dry kindling split to a finger-width size on the paper, and on the kindling lay two or three larger sticks of split dry wood approximately 1-2" (25-50 mm).

DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA, OR ENGINE OIL. Also, never use gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire. Keep all such liquids well away from the Dauntless while it is in use.

Step 3. Light the newspaper and either close the doors or put the screen in place. Open the air control by pushing it to the rear. Within 10-15 minutes the fire should be well-established.

If this is a break-in fire, let the fire go out and allow the fireplace to cool before restarting.

If your Dauntless already has been broken in, gradually build the fire by adding a few sticks at a time of a progressively larger size. Continue the build-up until

you have a live coal bed about 2" (50 mm) thick.

NOTE: Some chimneys need to be "primed," or warmed up, before they will draw sufficiently to start a fire. To correct this situation, roll up a couple pieces of newspaper, place them on top of the kindling and toward the back of the firebox, light them, and put the screen in place. This should heat the chimney enough to initiate a draft. Once the draft is established, light the rest of the fuel from the bottom. Do not light the main bed of fuel until the chimney begins drawing, and repeat the procedure as often as necessary if the initial attempt is unsuccessful.

Refuel While the Coals are Still Hot

To ensure that your fire will respond quickly to newly-added wood, refuel while there are plenty of hot coals left. Place two or three logs or splits on the grate and close the doors. After giving the fire a few minutes to build momentum, adjust the air supply so that a continuous stream of air keeps the glass clean.

Avoid Overfiring

Overfiring could damage the Dauntless and may void the warranty. In addition to warping, cracking of plates, and discoloration, overfiring can cause a hazardous condition. If a part of the Dauntless or the chimney connector glows, you are overfiring.

You can avoid overfiring your Dauntless by following these simple rules:

- Don't add too much wood or build too large a fire. Once the fire is established, three medium-sized logs 4-6" (100-150 mm) in diameter should sustain it. Adding a larger quantity of wood will risk overfiring.
- Avoid adding a large quantity of finely-split wood to the fire. Wood of this size can ignite and burn rapidly and lead to overfiring as well.

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

Remove and Store Ash Safely

Remove and dispose of ash daily, and more often if necessary. The more wood you burn, the faster ash will accumulate.

Check the ash level before reloading, and clean out ash before it reaches the grate. Always keep the ash lip and area in front of the andirons clear of ash, live coal, and bits of wood. A build-up of ash could interfere with the proper fit of the fire screen or the glass doors.

Ash may contain hot embers and must be treated with extreme care.

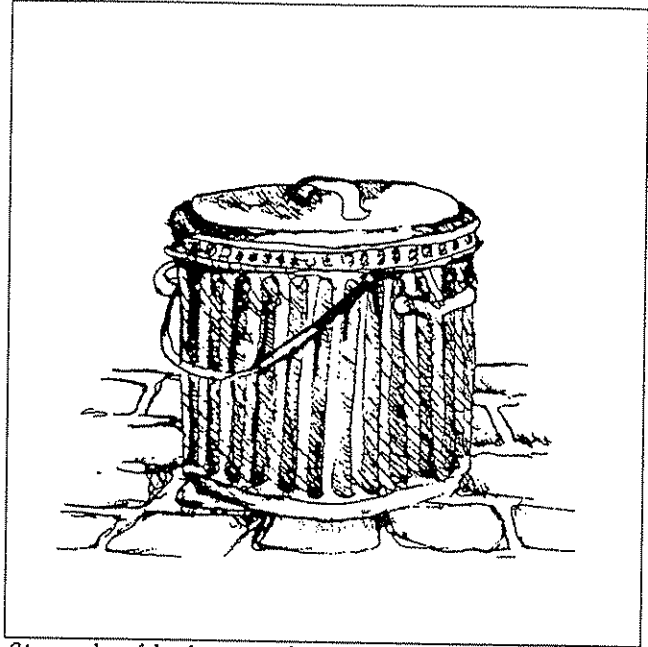
Always Dispose of Ash in a Safe Manner

Ash should be removed frequently and placed outdoors in a metal container with a tight-fitting lid. The closed container of ash should be placed on a floor of noncom-

bustible construction or on the ground, well away from all combustible materials, pending final disposal. If the ash is disposed of by burial in soil or otherwise locally dispersed, it should be retained in the closed container until all cinders have thoroughly cooled. Wood ash may be used as a garden fertilizer.

Store ash safely, in a metal container with a tight-fitting lid.

CAUTION: Never use a vacuum cleaner to remove ash from the fireplace; always remove and dispose of the ashes properly.



Store ash safely, in a metal container with a tight-fitting lid.

Maintenance

Care of the Cast Iron Surface

An occasional dusting with a dry rag will keep the painted cast iron of your Dauntless looking new.

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

Cleaning a Porcelain Enamel Surface

Never use abrasives or harsh chemical cleaners on porcelain enamel. It may scratch the enamel and expose the cast iron to stains or rust marks. To remove spills or stains from porcelain enamel, use **ONLY** a kitchen appliance cleaner and polish that is formulated especially for enamel surfaces.

Make sure that the fire is out and that the fireplace has cooled completely before cleaning. Apply cleaner sparingly with a soft rag and buff away all traces of it.

Cleaning the Glass Doors

Dauntless glass doors are not ordinary window glass but a high temperature ceramic material. The glass has been designed and safety tested to withstand high temperatures and thermal shock. It may be etched permanently, however, if it is scratched. **NEVER USE ABRASIVES, ASH, OR HARSH CHEMICAL CLEANERS TO CLEAN YOUR DAUNTLESS GLASS.** Under normal operation, the glass should remain clean. However, the ash residue that accumulates on the glass surface should be removed regularly. To clean the glass, follow this procedure:

- Be sure the glass is completely cool.
- Clean the glass with water or a cleaner made especially for this purpose. Do not use abrasive cleaners.
- Rinse the glass thoroughly.
- Dry the glass completely.

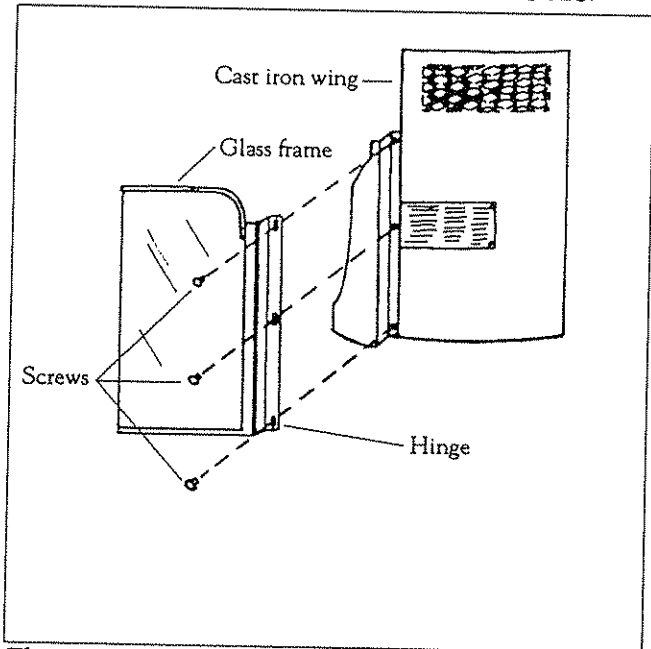
If you do experience an objectionable carbon build-up, let the fireplace and glass cool completely. Then, wash the glass with warm water and a soft rag. Rinse and dry thoroughly.

For stubborn deposits, ceramic glass cleaners are available (check with your local Vermont Castings' Authorized Dealer). If using one of these cleaners, do not allow it to touch any brass ornaments on your fireplace. These cleaners can stain brass.

Replace Damaged Door Glass Immediately

DO NOT OPERATE THE DAUNTLESS WITH BROKEN OR CRACKED GLASS.

If your Dauntless glass doors become damaged, replace **ONLY** with Vermont Castings' High Temperature Ceramic Glass supplied by your local Vermont Castings' Authorized Dealer. **DO NOT USE SUBSTITUTES.**



Three screws secure the glass door to the iron wing.

- After the fire is out and the Dauntless is no longer hot, open the glass door and swing the cast iron wing away from the stove.
- Detach the glass by removing the three screws that hold the door hinge to the iron wing.
- Position the hinge of the replacement glass panel and insert the three screws finger-tight.
- Adjust the door as needed, then securely tighten the three screws.

Use caution when handling a cassette that contains broken glass.

Gaskets should be Replaced as Needed

Rope-type fiberglass gaskets provide a seal around the doors and around the griddle opening of the Dauntless.

With use, gaskets may become brittle and compressed and will need periodic replacement. Replace only with Vermont Castings' brand gaskets.

The sizes of the gaskets used are listed below, along with their application.

Gasket Size...	...And The Parts It Seals
1/2"	The door to the front (#1)
1/2"	The door to the front edge of the grate (#2)
3/16"	The cassette glass seal to the door (#3)

Should you need to replace a gasket, wait until the fire is out and the stove has cooled. Be sure to follow the standard safety procedure for working with dusty materials: wear safety goggles and a dust mask. The procedure for replacing gaskets is the same, regardless of the gasket location. Four easily-accomplished steps are involved:

Step 1. Remove the existing gasket by grasping an end and pulling firmly.

Step 2. Use a wire brush or the tip of a screwdriver to clean the channel of any remaining cement or bits of gasket.

Step 3. Apply a thin bead of stove cement to the newly-cleaned groove.

Step 4. Pack a new gasket into the groove. Wait until you have placed all but a couple inches from the end before you trim the end to an exact fit.

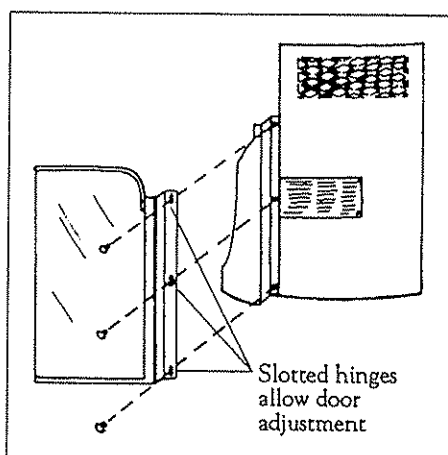
Door and Latch Adjustment

Door latches and hinges may loosen with use. If your doors loosen or will not open or close properly, check the following:

Glass Frame Hinges

The hinge-mounting holes in the cast iron wings are slotted to allow a vertical adjustment of 1/2". Loosen the three Phillips truss head screws that fasten the glass frame to the wings.

Slide the frame up or down as

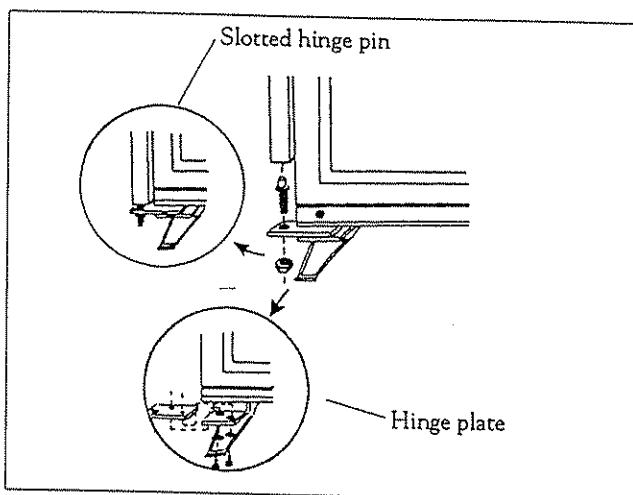


The glass frame hinges can be adjusted vertically up to 1/2" (13 mm).

needed. Retighten the screws, and repeat the procedure for the opposite side.

Cast Iron Wing Hinges and Hinge Plate

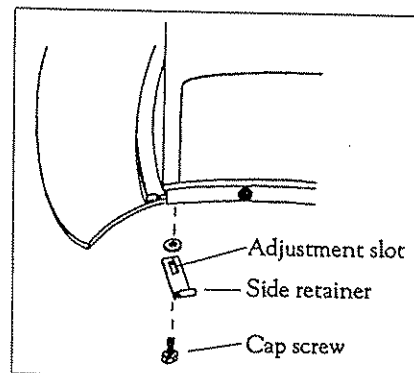
The wings can be adjusted vertically by turning the slotted hinge pin, located at the rear of the wings, from underneath the wing. Loosen the jam nut and turn the slotted pin as needed. Retighten the jam nut. Depth, lateral, and oblique adjustments can be made by loosening the two 1/4-20 hex head screws on the slotted hinge plates at the bottom rear of the Dauntless.



Adjust the cast wings vertically by turning a slotted hinge pin, located at the rear underside of the wings.

Side Retainers

The side retainers, attached to the underside of the bottom plate with 1/4-20 hex head cap screws, are slotted for easy adjustment.



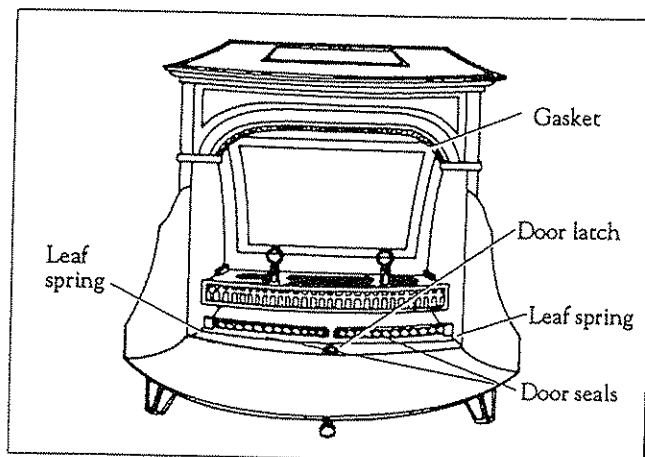
The side retainers also are slotted for easy adjustment.

Front Door Opener

If the doors do not spring open when the activator is tripped, check for ash or wood chips that may be blocking the latch hole in the bottom plate behind the ash lip. Clear any debris from the area in front of the door seals.

The leaf springs at the right and left corners of the seals must be clear and in good condition. They can be adjusted or replaced by loosening the Phillips head machine screws securing the cast iron door seals to the firebox bottom plate. Slide the springs in or out as needed. Check the condition of the gaskets in the door seals and at the top of the firebox opening. If they are loose or frayed, they should be replaced.

The door opener itself is not adjustable. If it has been



Debris in the latch hole is the most common cause of the doors not opening properly.

damaged, consult your Vermont Castings' Authorized Dealer for assistance.

A Clean Chimney System is Safer and Works Better

Learn to Recognize — and to Avoid — Creosote

When you first begin using the fireplace, check daily for creosote — a substance that can look like either thick tar or black, crisp flakes. Experience will show how often you need to clean to be safe. The frequency may even vary during the year. In the colder months when the hottest fires producing the least creosote are burned, you may need to clean only every couple of months. During the warmer months when creosote is more likely to result from cooler-burning fires, weekly cleaning may be necessary.

At the very least, the chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a buildup of creosote. If a significant layer of 1/8" (3 mm) or more of creosote has accumulated, it should be removed to reduce the risk of a chimney fire. Failure to keep the chimney and connector system clean can result in a serious chimney fire.

The conditions for a chimney fire develop like this: 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 slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire within the flue system that can damage the chimney and overheat adjacent combustible material.

To reduce the amount of creosote that may form, remember to provide adequate air for combustion and to strive for small, intense fires rather than large, smoldering ones.

You can never be too safe. Contact your local fire authority for information on what to do in the event of a chimney fire, and have a clearly understood plan on how to handle one.

Inspect the Chimney and Chimney Connector Twice Monthly and Clean If Necessary

Let the fireplace cool completely before you inspect the chimney. Then, using a strong light, sight up through the flue collar into the chimney flue. If it is not possible to inspect the flue system in this fashion, the fireplace must be disconnected to provide adequate viewing.

Clean the chimney using a specially designed chimney cleaning brush, the same size and shape as the flue liner, attached to flexible fiberglass rods designed for this purpose. Run the brush up and down the liner so that any deposits fall to the bottom of the chimney where they can be removed through the clean-out door.

The chimney connector should be cleaned by disconnecting the sections, taking them outside, and removing any deposits with a stiff wire brush. Re-install the connector sections after cleaning, being sure to secure the individual sections with three sheet metal screws per section.

If you are unable to inspect and/or clean the chimney system yourself, contact your local Vermont Castings' dealer or hire a qualified chimney sweep in your area to do the work.

Dauntless Maintenance Schedule

Daily

- Ashes should be removed before they reach the grate. Check at least once a day.
- Keep the area around the fireplace clear of any combustible material.

Every Two Weeks

- Inspect the chimney and chimney connector. Pay particular attention to the horizontal runs of chimney connector, and the elbows. Clean the system if necessary.

Every two months

- Check leg bolts and heat shield screws; tighten if necessary.

Annually

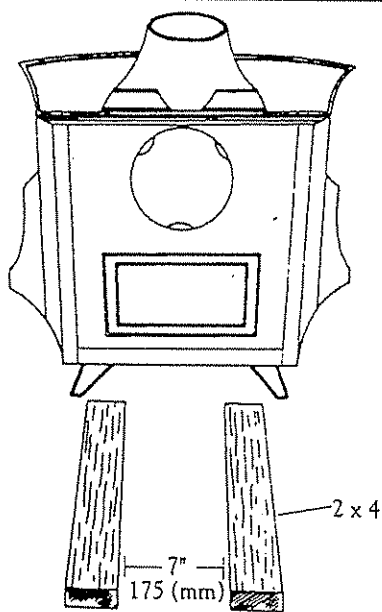
- Disassemble the chimney connector and take it outdoors for inspection and cleaning. Replace weak sections of connector.
- Inspect the chimney for signs of deterioration. Repairs to a masonry chimney should be made by a professional mason. Replace damaged sections of prefabricated chimney. Your local Vermont Castings' dealer or a chimney sweep can help determine when replacement is necessary.
- Thoroughly clean the chimney.
- Remove ash from the fire box and replace with a moisture-absorbing material (such as Kitty Litter) to keep the interior of the fireplace dry.
- Touch up the black paint.



Assembly

If you have already received delivery of your Dauntless, you are aware that it is very heavy. To avoid personal injury and possible damage to the fireplace or your home, do not try to tip or move it yourself. At least two people should be enlisted to help set it up and move it into position.

The first two steps below require that you tip the Dauntless onto its back. Before you do, place two 2 x 4 inch wooden supports on the floor, perpendicular to the back of the Dauntless and about 7" (175 mm) apart. Check to be sure the griddle and flue collar are securely attached. With assistance, gently tip the Dauntless onto the supports.



Wooden supports will protect both the floor and the Dauntless when it is tipped back to mount the legs and bottom heat shield.

Set-Up Instructions

- Step 1. Attach the legs. Follow the instructions packed with the legs
- Step 2. Attach the bottom heat shield. Directions for this procedure are packed with the heat shield.
- Step 3. Reach through the rear flue exit and remove the piece of wood that was inserted at the factory to hold the damper open during shipment.

Step 4. Remove the cardboard wedges that were inserted in the top and bottom of the wings to protect them during shipment.

Step 5. Be sure that the wood grate/ash fettle is properly seated. It should fit between the two rear grate bosses, and rest on the front bosses that are cast into the right and left sides of the firebox.

Step 6. Confirm that your chimney connector and chimney thimble are the proper size. For rear-exiting installations, the Dauntless requires an 8" (200 mm) diameter chimney connector of at least 24 gauge thickness. For top-exiting installations, an optional kit is available to reduce the required chimney connector size to 6" (150 mm).

Do not reduce the diameter of the rear-exiting connector; a smaller connector may adversely effect chimney draft and cause smoke to spill into the living area.

If vented into a masonry chimney, the thimble must be 8" (200 mm) diameter as well.

WARNING: DO NOT USE DOUBLE-WALL CHIMNEY CONNECTORS WITH THE DAUNTLESS UNLESS THEY HAVE BEEN TESTED AND LISTED SPECIFICALLY FOR USE WITH THIS APPLIANCE. USE OF DOUBLE-WALL CHIMNEY CONNECTORS WHICH HAVE NOT BEEN TESTED AND LISTED FOR USE WITH THE DAUNTLESS MAY RESULT IN TEMPERATURES EXCEEDING THE LIMITS ESTABLISHED BY THE TEST STANDARD ANSI/UL-737. A POTENTIAL HAZARD MAY RESULT, INCLUDING A HOUSE FIRE.

Step 7. Attach the chimney connector following the directions on page 10.

Installation

All Fireplace Installations must be Safe and Legal.

SAFETY NOTICE: IF YOUR DAUNTLESS IS NOT PROPERLY INSTALLED, OPERATED AND MAINTAINED, A HOUSE FIRE MAY RESULT. FOR SAFETY, FOLLOW ALL INSTALLATION, OPERATION AND MAINTENANCE DIRECTIONS. CONTACT LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

Before you begin an installation, review your plans to see that:

- Both the Dauntless and its chimney connector will satisfy all clearance requirements.
- The floor protector is large enough and is adequately constructed to meet all requirements.
- You have all necessary permits from local authorities.

Your local building official is the final authority for approving your installation as safe and determining that it meets local and state codes.

The metal label permanently attached to the back of every Vermont Castings' Dauntless indicates that it has been tested to current UL and ULC standards, and gives the name of the testing laboratory. Clearance and installation information is also printed on the label. Local authorities generally will accept the label as evidence that, when the Dauntless is installed according to the information on the label and in this manual, the installation meets codes and can be approved.

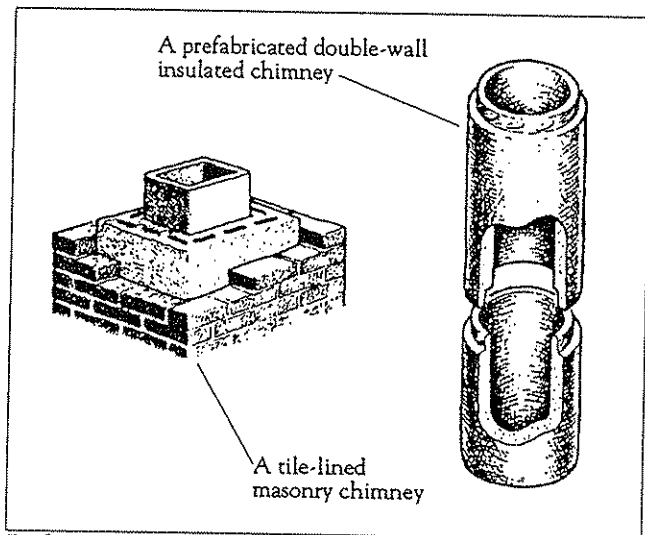
Codes vary in different areas, however. Before starting the installation, review your plans with the local building authority. Your local dealer can provide any additional information needed.

For any unresolved questions about installation, refer to the National Fire Protection Association's publication *ANSI/NFPA 211-1988 Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*. In Canada, the equivalent publication is *CAN/CSA-B365, Installation Code for Solid Fuel Burning Appliances and Equipment*. These standards are the bases for many national codes. They are nationally recognized and are accepted by most local authorities. Your local dealer or your local building official may have a copy of these regulations.

IMPORTANT: FAILURE TO FOLLOW THESE INSTALLATION INSTRUCTIONS MAY RESULT IN A DANGEROUS SITUATION, INCLUDING A CHIMNEY OR HOUSE FIRE. FOLLOW ALL INSTRUCTIONS EXACTLY, AND DO NOT ALLOW MAKESHIFT COMPROMISES TO ENDANGER PROPERTY AND PERSONAL SAFETY.

What Kind of Chimney to Use

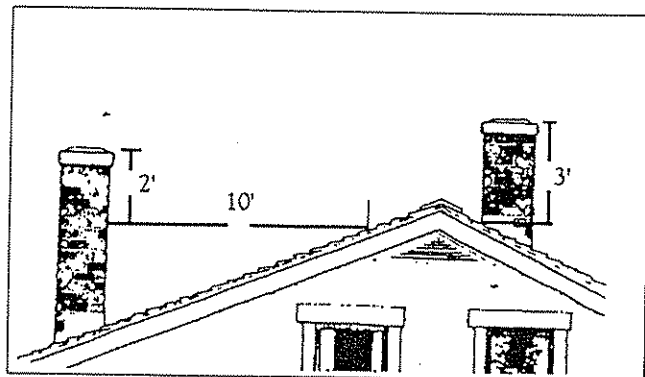
Your Dauntless must be connected to a code-approved masonry chimney with a flue liner, a relined masonry chimney that meets local codes, or to a prefabricated chimney complying with the requirements for Type HT chimneys in the Standard for Chimneys, Factory-Built, Residential Type and Building Heating Appliance, UL 103.



Both masonry chimneys and approved prefabricated metal chimneys must meet local codes.

If you use an existing masonry chimney, it must be inspected to ensure safe condition before the fireplace is installed. Your local professional chimney sweep, building inspector, or fire department official will be able either to make the inspection or to direct you to someone who can.

The chimney must extend at least 3' (910 mm) above the highest point where it passes through a roof, and at least 2' (610 mm) higher than any portion of a building within 10' (3 m).



The 2-3-10 rule of chimneys.

For proper draft and good performance, any chimney used with a Dauntless should extend at least 16' (5 m) above the flue collar of the stove.

Masonry Chimneys

An inspection of the chimney must confirm that it has a lining. Do not use an unlined chimney. The chimney should also be examined for cracks, loose mortar, other signs of deterioration, and blockage. Repair any defects before the chimney is used with your fireplace.

Unused openings in an existing masonry chimney must be sealed with masonry to the thickness of the chimney wall, and the chimney liner should be repaired. Openings sealed with pie plates or wallpaper are a hazard and should be sealed with mortar or refractory cement. In the event of a chimney fire, flames and smoke may be forced out of these unused thimbles.

The chimney should be thoroughly cleaned before use.

A newly-built masonry chimney must conform to the standards of your local building code or, in the absence of a local code, to a recognized national code. Masonry chimneys must be lined, either with code-approved masonry or pre-cast refractory tiles, stainless steel pipe, or a code-approved, "poured-in-place" liner. The chimney's clean-out door must seal tightly.

Prefabricated Chimneys

A prefabricated metal chimney must be one tested and listed for use with solid-fuel burning appliances to the High-Temperature (H.T.) Chimney Standard UL-103-1985 (2100° F.) for the United States, and High Temperature (650 C.) Standard ULC S-629 for Canada. Prefabricated chimneys may be either 6" (150 mm) or 8" (200 mm) diameter for top-exiting Dauntless, and must be 8" (200 mm) for rear-exiting Dauntless.

DO NOT CONNECT THE DAUNTLESS TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

Chimney Size

Vent the Dauntless into a masonry chimney with a nominal flue size of 8" x 8" (200 x 200 mm), or 8" x 12" (200 x 300 mm). Round masonry liners must be 6" (150 mm) diameter for top-exiting Dauntless and 8" (200 mm) for rear-exiting Dauntless.

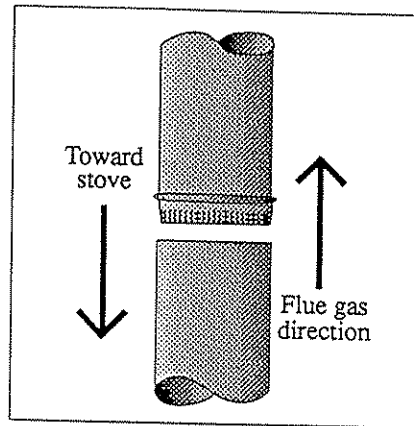
Chimneys with liners larger than 8" x 12" (200 x 300 mm) may experience rapid cooling of smoke and reduction in draft, especially if they are located outside the home.

These large chimneys may need to be insulated or have their flues relined for proper fireplace performance.

Accessories to help make the connection between stainless steel chimney liners and your Dauntless are available from your local dealer.

Guidelines for Installing the Chimney Connector

Chimney connector is the single-wall pipe that connects the fireplace to the chimney. The chimney itself is a



Assemble the chimney connector so that the crimped end points toward the stove.

masonry or prefabricated structure that encloses the flue. Chimney connectors are used only to make the connection from the fireplace to the chimney.

Do not pass the chimney connector through a combustible wall or ceiling, or through an attic, a closet, or any similar concealed space. If passage through a combustible wall is unavoidable, follow the recommendations in the following section on Wall Pass-Throughs. The chimney connector should be made of 24 gauge or heavier steel, and must be 6" (150 mm) diameter for a top-exiting Dauntless and 8" (200 mm) for a rear-exiting Dauntless.

Install the chimney connector not less than 18" (460 mm) from the ceiling. Keep it as short and direct as possible, with no more than two 90 degree turns. Slope horizontal runs of connectors upward 1/4" per foot (6 mm per metre) going from the fireplace toward the chimney. The recommended maximum length of a horizontal run is 3 feet (1 metre), and the total length of chimney connector should be no longer than 8 feet (2.5 metres).

In cathedral ceiling installations, extend the prefabricated chimney downward to within 8 feet (2.5 metres) of the fireplace. The whole chimney connector should be exposed and accessible for inspection and cleaning.

Do not use galvanized chimney connector; it cannot withstand the high temperatures that can be reached by smoke and exhaust gases, and may release toxic fumes under high heat.

Attaching the Chimney Connector to a Rear-Exit Dauntless

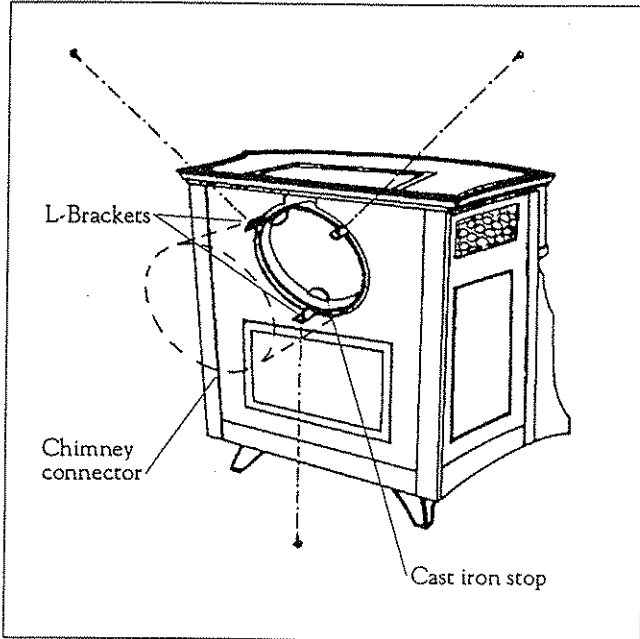
Safety Note: Always wear gloves and safety goggles when drilling, cutting or joining sections of chimney connector.

You'll need an electric drill with a 5/32" drill bit, a Phillips screwdriver, and a soft pencil or piece of chalk. Three L-brackets and the screws to attach them are provided.

1. Insert the crimped end of the first piece of chimney connector into the flue collar exit until it firmly meets the iron stops.
2. Holding the chimney connector in place, slip the short end of the L-brackets between the inner and outer plates of the fireplace back.
3. Hold the long end of the L-bracket firmly against the side of the chimney connector and mark the hole. Rotate the connector one-third of its diameter and mark again; repeat the rotation and marking one additional time so that you have three marks spaced equally around the connector.

4. Remove the connector and place it on a level, protected surface. Wearing protective eyewear and heavy work gloves, drill three holes in the locations you have just marked.

5. Place the chimney connector back in the flue collar and fasten the L-brackets to the connector—one bracket at two o'clock, one at six o'clock, and one at ten o'clock.



Fasten a rear-exiting chimney connector to the Dauntless securely with three sheet metal screws.

Attaching the Chimney Connector to a Top-Exit Dauntless

1. Assemble the chimney connector beginning at the flue collar of the Dauntless. Using the holes in the flue collar as guides, drill 1/8" (3 mm) lead holes in the bottom of the first section of the connector.

2. Secure it to the flue collar with three #10 x 1/2" sheet metal screws. Use an appropriate length of thin gasket to seal any gap that is left.

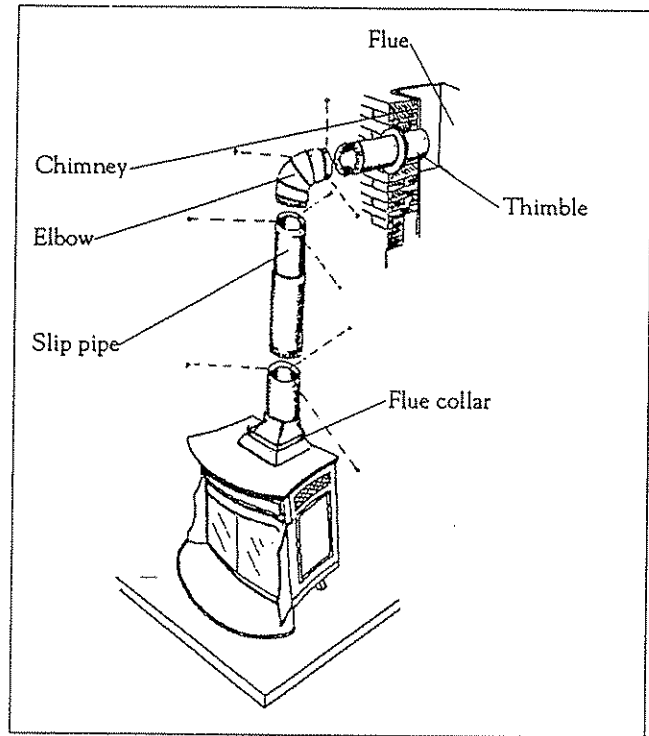
3. Align the seams of the individual sections, and keep the crimped ends pointing down toward the Dauntless.

4. Secure each joint between sections of chimney connectors, including telescoping joints, with at least three sheet metal screws. The pre-drilled holes in the top of each section of Vermont Castings' pipe serve as guides when you drill 1/8" (3 mm) pilot holes in the bottom of the next section.

5. Secure the chimney connector to the chimney. Instructions for different installations follow.

Securing the Connector to a Prefabricated Chimney

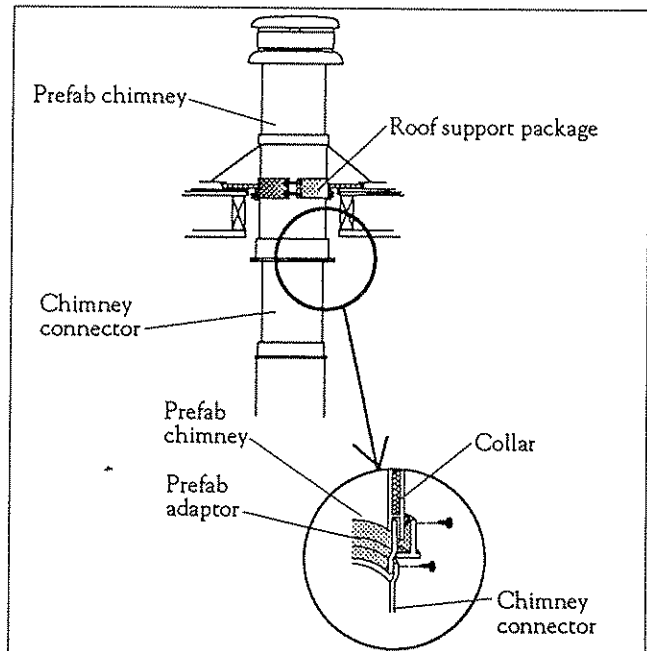
Follow the installation instructions of the chimney manufacturer exactly as you install the chimney. The manufacturer of the chimney will supply the accessories to



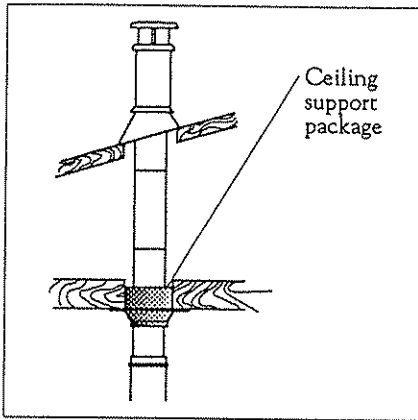
Typical components for installing the chimney connector to a lined masonry chimney.

support the chimney, either from the roof of the house, at the ceiling of the room where the fireplace is installed, or from an exterior wall.

Special adaptors are available from your local dealer to make the connection between the prefabricated chimney and the chimney connector. The top of such adaptors attaches directly to the chimney or to the chimney's



Special support pieces are available from the manufacturers of prefabricated metal chimneys, including the roof support shown here and special pieces to join the prefabricated chimney to the chimney connector.



Another way to support a prefabricated metal chimney is from the ceiling.

ceiling support package, the bottom to the chimney connector.

These adaptors are designed so the top end will fit outside the inner wall of the chimney, and the bottom end will fit inside the first section of chimney connector. When assembled in this way, any soot or creosote falling from the inner walls of the chimney will stay inside the chimney connector.

Securing the Connector to a Masonry Chimney

Both freestanding masonry chimneys and fireplace masonry chimneys may be used for installation of your Dauntless.

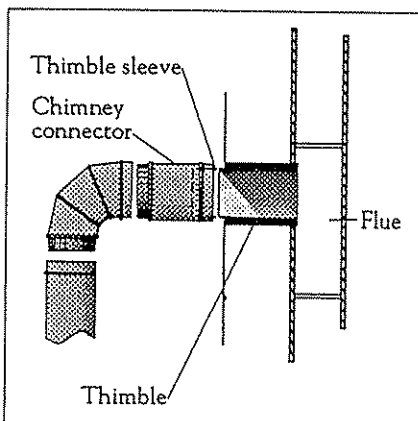
Freestanding Installations

If the chimney connector must pass through a combustible wall to reach the chimney, follow the recommendations in the Wall Pass-Through section that follows.

The opening through the chimney wall to the flue (the "breach") must be lined with either a ceramic or metal cylinder, called the "thimble", which is securely cemented in place. Most chimney breeches incorporate thimbles, but check to be sure the fit is snug and the joint between thimble and chimney wall firmly cemented.

A special piece called the "thimble sleeve," slightly smaller in diameter than standard connector and most thimbles will facilitate the removal of the chimney connector system for inspection and cleaning. Thimble sleeves should be available from your local dealer.

To install a thimble sleeve, slide it into the breach until it is flush with the inner flue wall. Don't extend it



A thimble, made of either ceramic or metal, must be cemented in place securely.

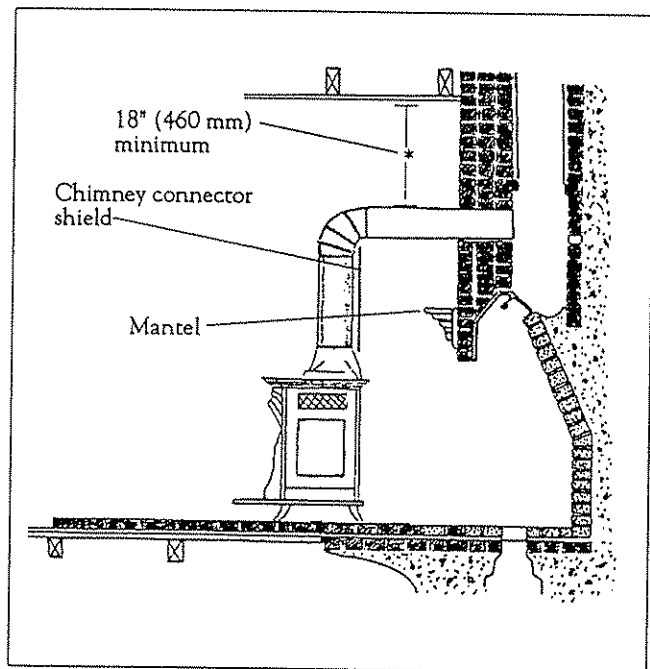
into the actual flue passage, as this could interfere with the draft.

The thimble sleeve should protrude 1-2" (25-50 mm) into the room. Use furnace cement and thin gasketing to seal the sleeve in place in the thimble. Secure the chimney connector to the outer end of the sleeve with sheet metal screws.

Above a Masonry Fireplace

As illustrated above, the chimney connector in this installation rises from the Dauntless, turns ninety degrees, and enters a thimble in the masonry chimney.

The chimney liner should extend at least to the point at which the chimney connector enters the chimney. The fireplace damper must be closed and sealed to prevent room air from being drawn up the flue. However, it must be possible to re-open the damper to inspect or clean the chimney.



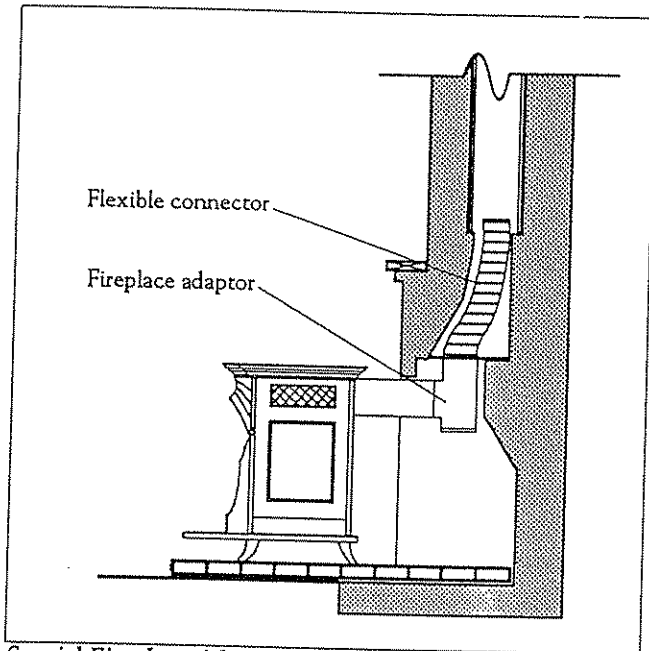
Special protective shields are required if the clearance between the chimney connector and either the mantel or the ceiling is inadequate.

Follow all the guidelines for installing a chimney connector into a freestanding masonry chimney, and observe proper clearances to a combustible mantel or fireplace trim. These clearances are given on page xx.

The horizontal section of a chimney connector must observe a clearance of at least 18" (460 mm) from the ceiling. With appropriate shielding (see page 18), this clearance may be reduced to as little as 6" (150 mm).

Through a Fireplace

If the height of your fireplace opening is at least 27 inches (690 mm), you may install your Dauntless through the opening using a "positive connection" kit available from your local dealer. These kits ensure a tight fit between the stove flue collar and the chimney flue.



Special Fireplace Adaptor Kits to simplify fireplace installations are available from your local dealer.

Fireplace installations, whether connected to the flue above or through the fireplace opening, have special clearance requirements to adjacent trim and the mantel as well as special floor protection requirements. You'll find this information on page 16.

Wall Pass-Throughs

Whenever possible, design your installation so the connector does not pass through a combustible wall. If you are considering a wall pass-through for your installation, consult your building inspector about specific requirements in your area before you begin. Also check with the chimney connector manufacturer for any specific requirements.

Accessories are available for use as wall pass-throughs. If using one of these, make sure it has been tested and listed for use as a wall pass-through.

In the United States, the National Fire Protection Association (NFPA) has established guidelines for passing chimney connectors through combustible walls. Many building code inspectors follow these guidelines when approving installations.

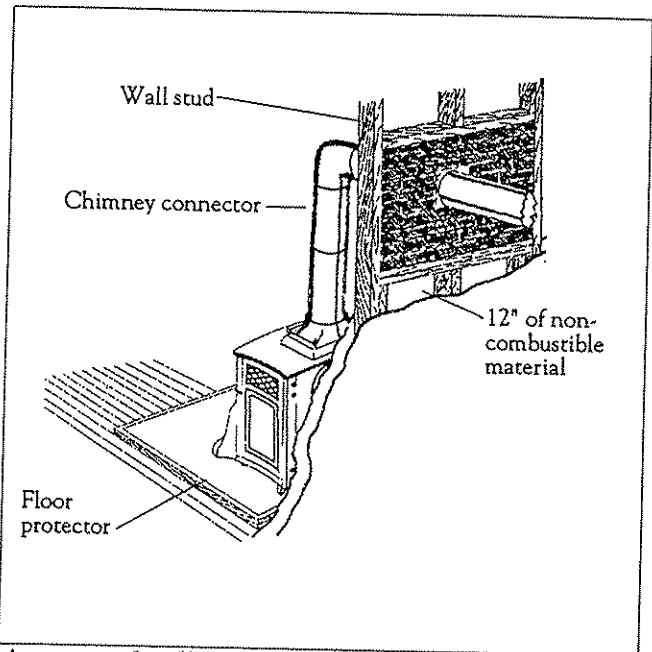
The illustration below shows one NFPA-recommended method. All combustible material in the wall is cut away a sufficient distance from the single-wall connector to provide the required 12" (300 mm) clearance for the connector. Any material used to close up the opening must be non-combustible.

Three other methods are also approved by the NFPA. These are:

- Using a section of 8" (200 mm) solid insulated, factory-built chimney with 9" (230 mm) clearance to combustibles.
- Placing a chimney connector pipe inside a venti-

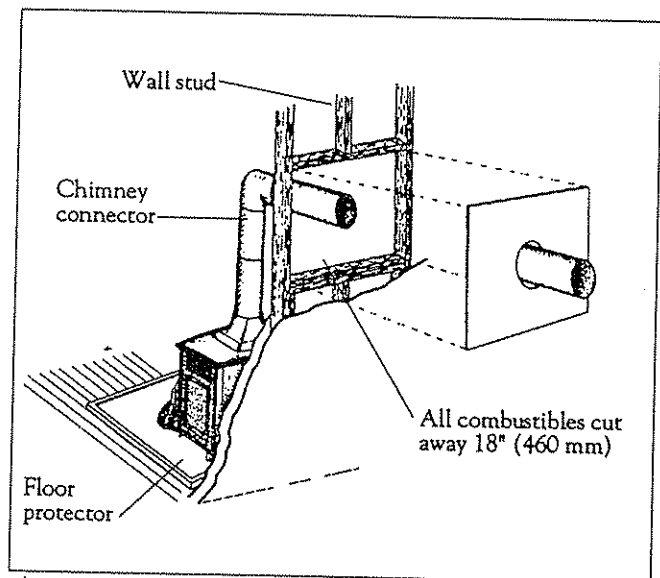
lated thimble, which is then separated from combustibles by 6" (150 mm) of fiberglass insulating material.

- Placing a chimney connector pipe inside a section of 8" (200 mm) diameter, solid-insulated, factory-built chimney, with two inches of air space between the chimney section and combustibles.



An approved wall pass-through for the United States.

In Canada, The Canadian Standards Association has established different guidelines. The illustration below shows one method in which all combustible material in the wall is cut away to provide the required 18" (460 mm) clearance for the connector. The resulting space must remain empty. A flush-mounted sheet metal cover may be used on one side only. If covers must be used on both



An approved wall pass-through for Canada using flush-mounted sheet metal.

sides, each cover must be mounted on non-combustible spacers at least 1" (25 mm) clear of the wall. Your Vermont Castings' dealer or your local building inspector can provide details of other approved methods of passing a chimney connector through a combustible wall. In Canada, this type of installation must conform to CAN/CSA-B365, Installation Code for Solid Fuel Burning Appliances and Equipment.

NOTE: DO NOT VENT YOUR VERMONT-CASTINGS' FIREPLACE INTO A FACTORY-BUILT (ZERO-CLEARANCE) FIREPLACE. THESE APPLIANCES AND THEIR CHIMNEYS ARE SPECIFICALLY DESIGNED AS A UNIT FOR USE AS FIREPLACES. IT MAY VOID THE LISTING OR BE HAZARDOUS TO ADAPT THEM FOR ANY OTHER USE.

DO NOT CONNECT A DAUNTLESS TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

Floor Protection

Freestanding Installations

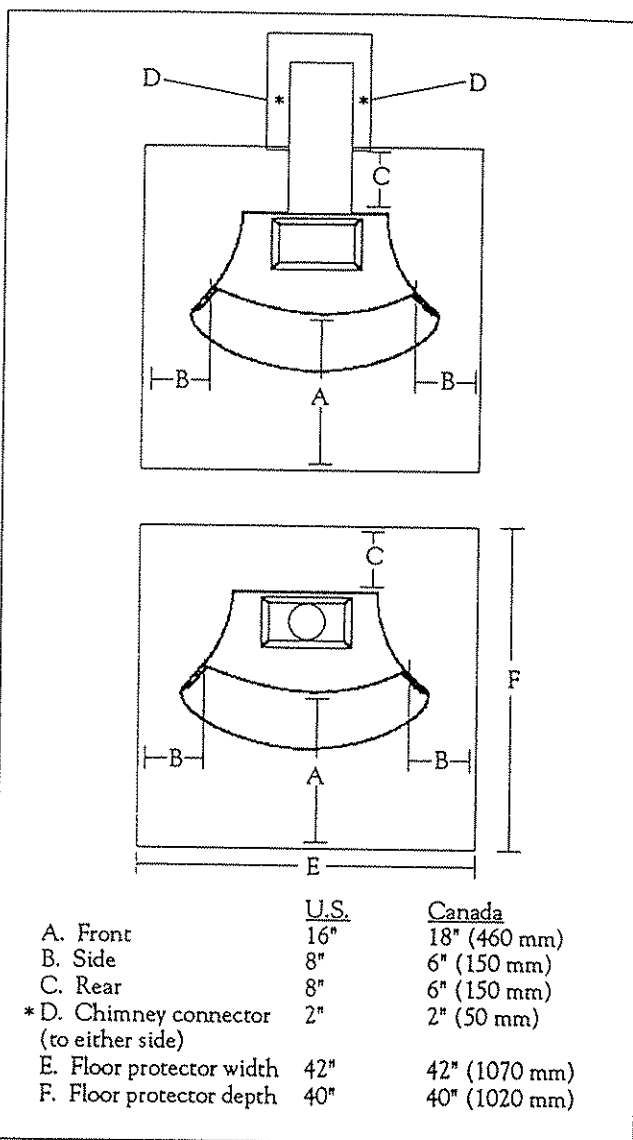
Heat radiates from the bottom of the Dauntless, and the floor beneath must be protected. A Vermont Castings' Bottom Heat Shield, part #0271, provides heat protection. A Floor Protector provides spark and ember protection.

For U.S. installations, with the optional Vermont Castings' bottom heat shield attached, a non-combustible floor protector such as 1/4" (6 mm) non-asbestos mineral board or equivalent, or 24 gauge sheet metal is required. The floor protector is required under the fireplace and must extend 16" (410 mm) from the front opening, 8" (200 mm) from the sides (measured from the edges of the front opening) and 8" (200 mm) from the rear (measured from the top plate). It must also extend under the chimney connector and 2" (50 mm) to either side. When these guidelines are observed, the resulting floor protector will be at least 42" wide by 40" deep. It may be covered with a non-combustible decorative material if desired.

Without the optional Vermont Castings' Bottom Heat Shield, the only acceptable installations are those on completely non-combustible floors, such as unpainted concrete over earth.

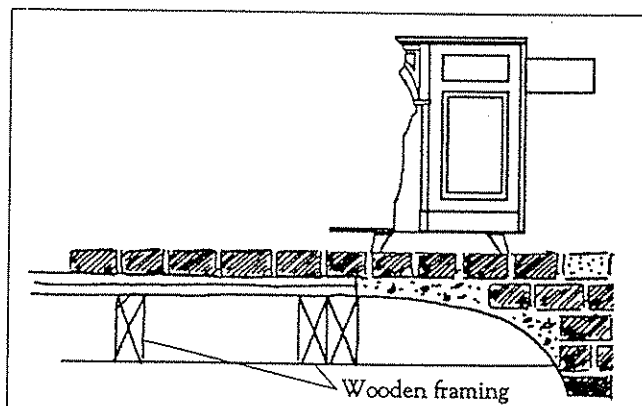
In Canada, operate only with the Vermont Castings' Bottom Heat Shield in place. When installed on a combustible floor, a non-combustible floor protector is required under the heater. The floor protector must extend 18" (460 mm) from the front opening, 6" (150 mm) from the sides (measured from the edges of the front opening) and 6" (150 mm) from the rear (measured from the top plate). These specifications dictate a floor protector that is at least 42" (1070 mm) wide by 40" (1020 mm) deep. It must also extend under the chimney connector and 2" (50 mm) to either side. The floor protector may be covered with a non-combustible decorative material if desired.

Do not obstruct the space under the fireplace.



Fireplace Hearths

The brick or concrete hearth in front of most fireplace openings usually is supported by heavy wooden framing.



Combustible supporting timbers may lie beneath fireplace hearths; such situations require additional floor protection.

Since neither brick nor concrete is a good insulator, heat radiated from the Dauntless bottom will pass through the hearth to the wooden support.

Such fireplace hearths must be protected like any other combustible floor according to the guidelines above. When the bottom heat shield is used, the existing fireplace hearth may provide adequate spark and falling ember protection. In order to do so, however, it must meet the hearth dimensions detailed previously.

If the hearth is not big enough, a floor protector will have to be used.

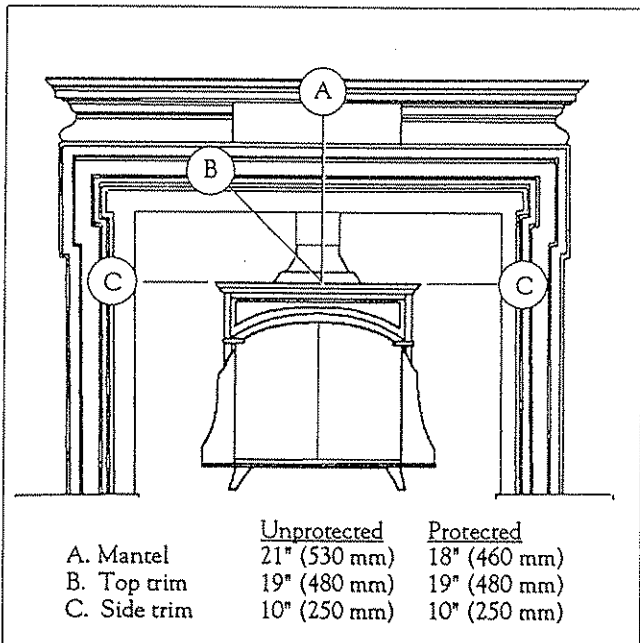
Installation in a Masonry Fireplace

The Dauntless may be fitted into a masonry fireplace built to code as well as installed freestanding. Consult your local Vermont Castings' Dealer about the suitability of your fireplace and chimney system.

When planning a fireplace installation, sufficient clearance and hearth size must be available to prevent the glass doors and cast iron wings from touching any combustible part of the fireplace or room furnishings to the front or on the sides of the glass doors. More detailed information on this subject follows in the Clearance Section.

Special Clearance Requirements for Fireplace Installations

A Dauntless installed in a fireplace must observe required clearances to the fireplace mantel and surrounding fireplace trim. If the top trim ("B" in illustration below) protrudes 2" (50 mm) or more from the face of the

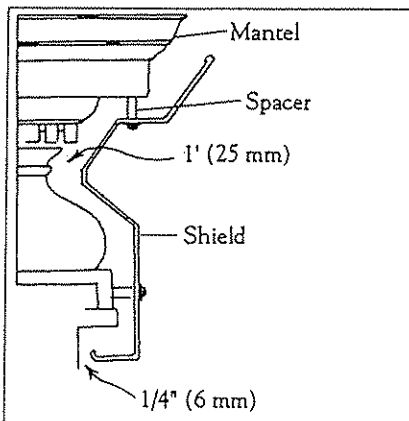


Maintain safe clearances to the surrounding combustible trim in fireplace installations.

fireplace within 19" (480 mm), the trim must be shielded. If the side trim ("C" in illustration) protrudes more than 2" (50 mm) or more from the face of the fireplace within 10" (250 mm) from the side of the heater, it must also be

shielded. The minimum clearance from the top of a Dauntless to an unprotected mantel ("A") is 21" (530 mm).

Mantel and trim shields for Dauntless installations must be at least 36" (910 mm) long and must be spaced out 1" (25 mm) from the combustible surface on non-combustible spacers.

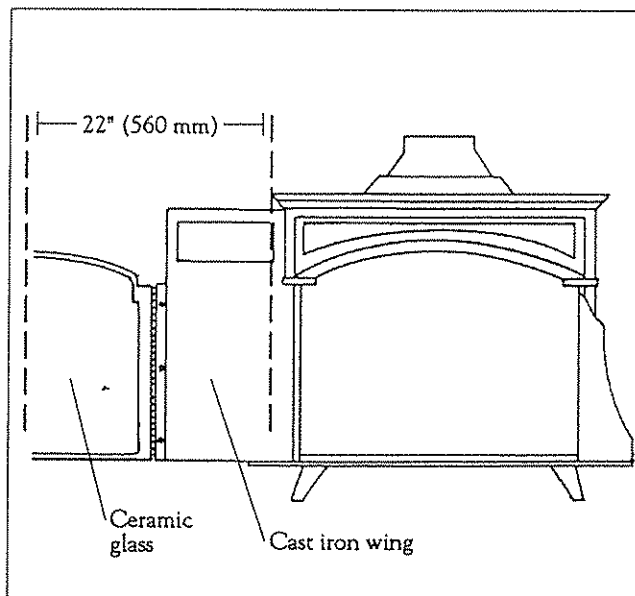


A custom-formed shield such as this will protect the mantel; similar shields can protect surrounding trim.

An additional consideration in fireplace installations is the clearance from the fireplace side trim to the movable cast iron wings and ceramic glass doors of the Dauntless. The wings and windows extend a full 22" (560 mm) to the sides. While the doors do not have to be fully extended in order to fold them into the wings, the spring-loaded door opener could cause the doors to swing out (or accidentally be pushed) to their fullest extension.

Since the doors will be hot while the Dauntless is in operation, any combustible fireplace side trim within the 22" (560 mm) range of the doors' arc would be exposed to possible burns or scorching.

In addition, do not place fireplace tools, a woodbox, or furnishings within range of the doors' arc.



Fireplaces must be large enough to provide adequate clearance even when the glass and cast iron wings are extended.

Unless the fireplace is big enough or unless the cast iron wings and glass will not be used, installation of the Dauntless into smaller fireplaces may be impractical.

Alcove Installations

Because alcoves have restricted air flow and retain heat, special constriction requirements and special clearances apply to alcove installations. Consult your Vermont Castings Authorized Dealer for information and specifications *before* beginning an alcove installation.

Keep the Fireplace a Safe Distance from Surrounding Materials

Both a fireplace and its chimney connector radiate heat in all directions when operating. A safe installation requires that adequate *clearance* be maintained between the fireplace and nearby combustible materials to ensure that such materials do not overheat.

Clearance is the distance between either your fireplace or chimney connector, and nearby walls, floors, the ceiling, and any other fixed combustible surface. Keep furnishings and other combustible materials away from the fireplace as well. In general, a distance of 48" (1220 mm) must be maintained between the fireplace and moveable combustible items such as drying clothes, furniture, newspapers, firewood, etc. Keeping those clearance areas empty assures that nearby surfaces and objects will not overheat.

Safe Ways to Reduce Clearances

Your fireplace has special clearance requirements that have been established after careful research, and testing to UL and ULC standards.

Clearance requirements have been established to meet every installation possibility, and they involve the combination of four basic variables:

- When a *listed heat shield* is mounted on the fireplace.
- When *no listed heat shield* is mounted on the fireplace.
- When a *heat shield* is mounted on the wall.
- When *no heat shield* is mounted on the wall.

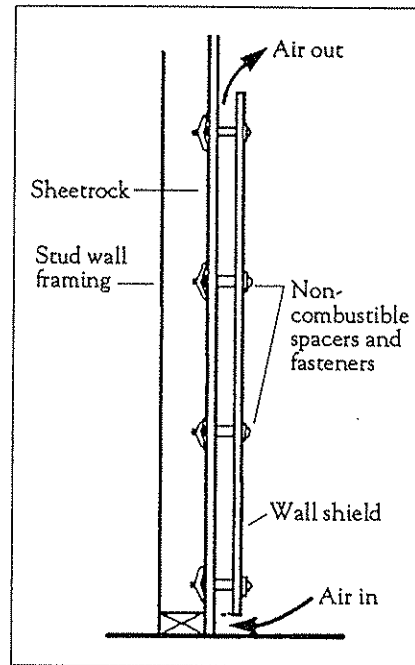
In general, the greatest clearance is required when you are placing a fireplace with no heat shield near a wall with no heat shield. The least clearance is required when both the fireplace and the wall have heat shields. Reducing a fireplace clearance may require a listed heat shield on the chimney connector as well.

Clearances may be reduced only by means approved by the regulatory authority, and in accordance with the clearances listed in this manual. The charts and sample installations that follow list all the clearances required for the various installation configurations of the Dauntless.

Wall Shields

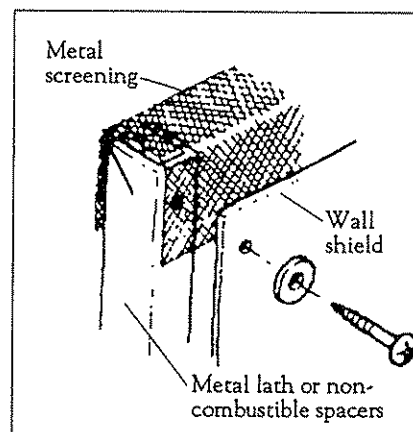
Wall shields should be constructed of 24 gauge or heavier sheet metal, or another non-combustible material such as 1/2" (13 mm) insulation board or common brick "laid on flat" (3-1/2" side down), or 7/16" Durock® cement board covered by a decorative material.

Shields must be spaced out from the combustible surface 1" (25 mm) on non-combustible spacers. The spacers should not be directly behind the Dauntless or the chimney connector.



Wall shields must be spaced out from the combustible surface 1" (25 mm) on non-combustible spacers.

Air must be able to flow between the wall and the shield. At least 50% of the bottom 1" (25 mm) of the shield should be open and the shield must be open at the top.



Metal screening placed over the top of a wall shield will prevent small objects from falling behind it.

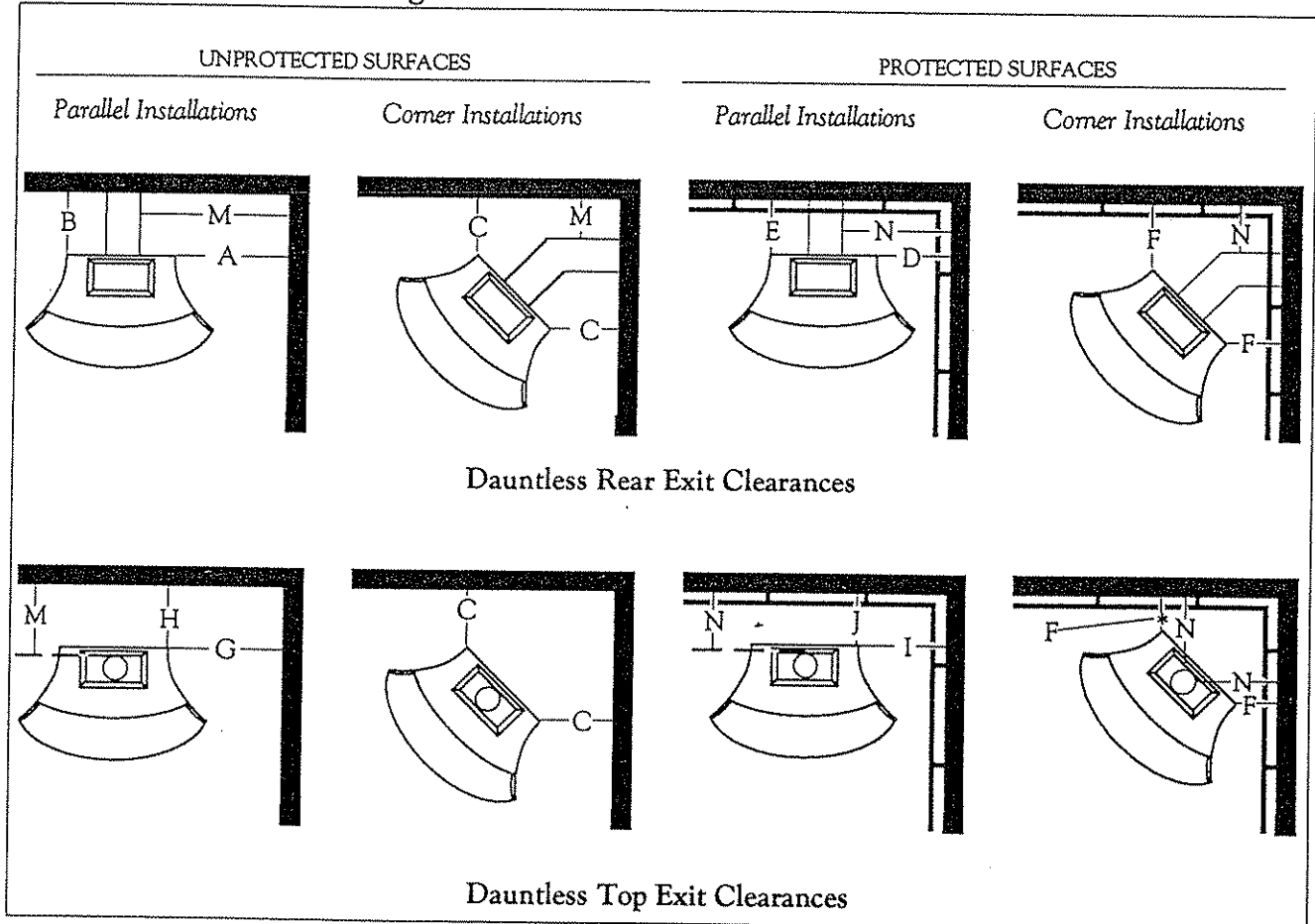
Clearance

Dauntless Clearance Chart

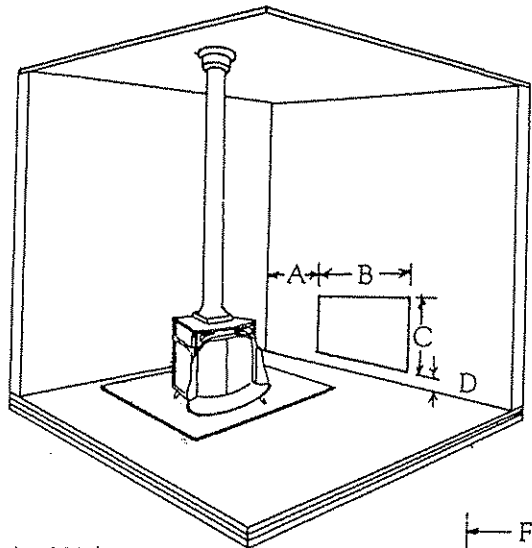
	UNPROTECTED SURFACES			PROTECTED SURFACES ³		
	Parallel Installations		Corners	Parallel Installations		Corner
	Side	Rear	Corner	Side	Rear	Corner
Dauntless Clearance¹						
Rear Exit	[A] 22" (560 mm)	[B] 11" (280 mm)	[C] 22" (560 mm)	[D] 15" (380 mm)	[E] 4" (100 mm)	[F] 15" (380 mm)
Top exit	[G] 22" (560 mm)	[H] 17" (430 mm)	[C] 22" (560 mm)	[I] 15" (380 mm)	[J] 6" (150 mm)	[F] 15" (380 mm)
Chimney Connector Clearance^{2,3}	All Installations			All Installations		
	[M] 18" (460 mm)			[N] 6" (150 mm) ³		
Front Clearance to Combustibles	All Installations					
	48" (1220 mm)					

- 1—Do not use double-wall chimney connectors with the Dauntless, unless they have been tested and listed specifically for use with this appliance.
- 2—See page xx for special side wall shields required.
- 3—Chimney connector clearances may only be reduced by means of wall shields.

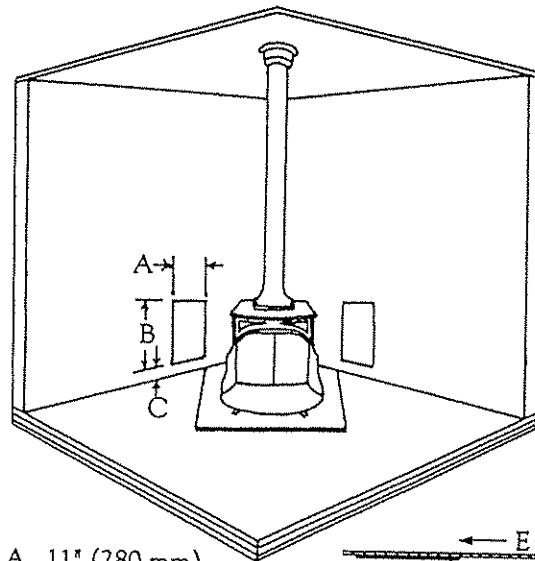
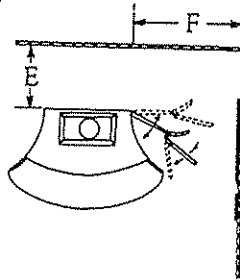
Dauntless Clearance Diagrams



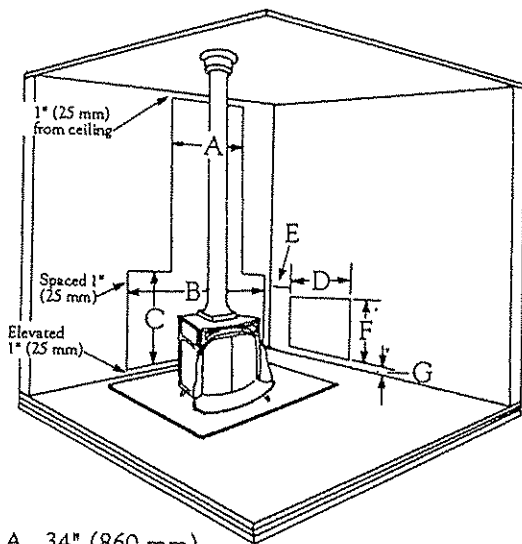
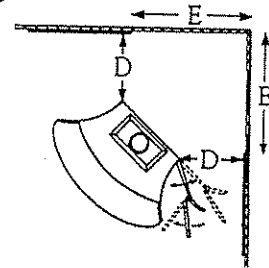
Wall Shield Requirements for Some Common Dauntless Installations



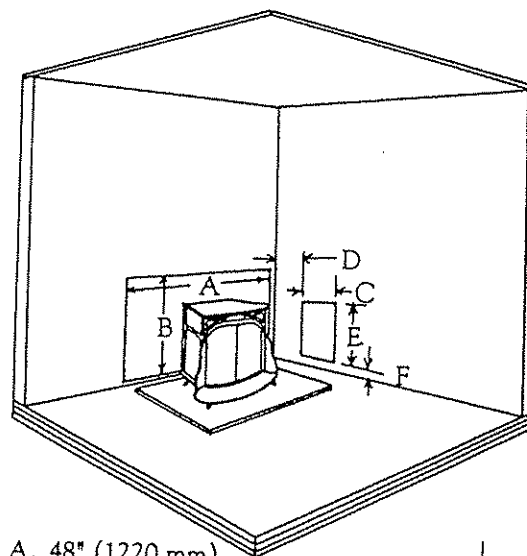
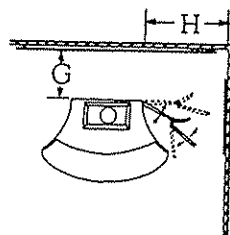
- A. 20" (510 mm)
- B. 26" (660 mm)
- C. 18" (460 mm)
- D. 5" (130 mm)
- E. 17" (430 mm)
- F. 15-22" (380-560 mm)



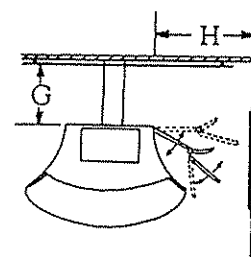
- A. 11" (280 mm)
- B. 18" (460 mm)
- C. 5" (130 mm)
- D. 15" (380 mm)
- E. 36" (910 mm)



- A. 34" (860 mm)
- B. 48" (1200 mm)
- C. 39" (990 mm)
- D. 26" (660 mm)
- E. 11" (280 mm)
- F. 18" (460 mm)
- G. 5" (130 mm)
- H. 15-22" (380-560 mm)



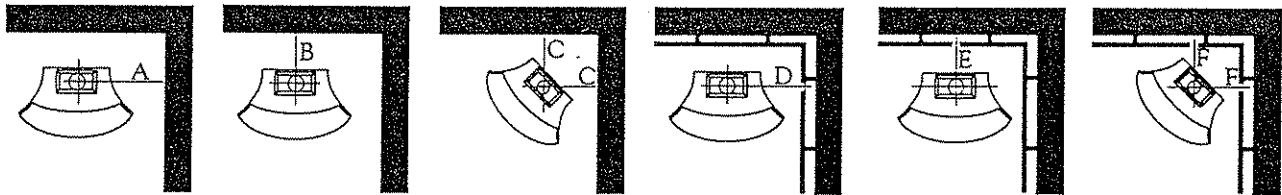
- A. 48" (1220 mm)
- B. 39" (990 mm)
- C. 11" (280 mm)
- D. 9" (230 mm)
- E. 18" (460 mm)
- F. 5" (130 mm)
- G. 4" (100 mm)
- H. 15" (380 mm)



Distance from the Center of the Flue Collar to the Wall in Top-Exit Installations

The information on this page is helpful in planning stove placement for top-exiting installations, particularly those installations with chimneys that pass through the ceiling. However, this is not a clearance chart. For clearance information, refer to the clearance chart on page 18.

Unprotected Surfaces			Protected Surfaces		
Parallel Installations		Corners	Parallel Installations		Corners
Side (A)	Rear (B)	Corner (C)	Side (D)	Rear (E)	Corner (F)
(A) 33-1/4" (850 mm)	(B) 21-1/4" (540 mm)	(C) 33" (840 mm)	(D) 26-1/4" (670 mm)	(E) 10-1/4" (260 mm)	(F) 26" (670 mm)

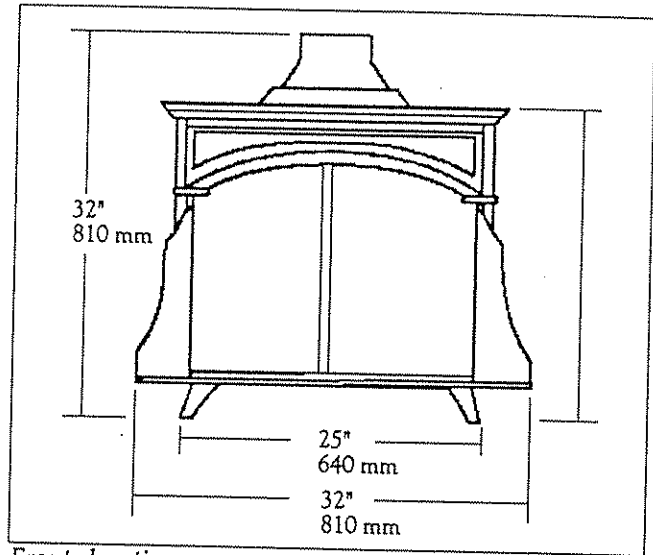


*To locate the center of the flue collar for corner installations, add 11" (280 mm) to the clearance distance from stove connector to wall. Mark off the resulting distance from the corner along both walls. Next, measure the same distance from these two points out from the walls. These last two measurements will meet at a point representing the center of the flue collar. Refer to the diagrams above.

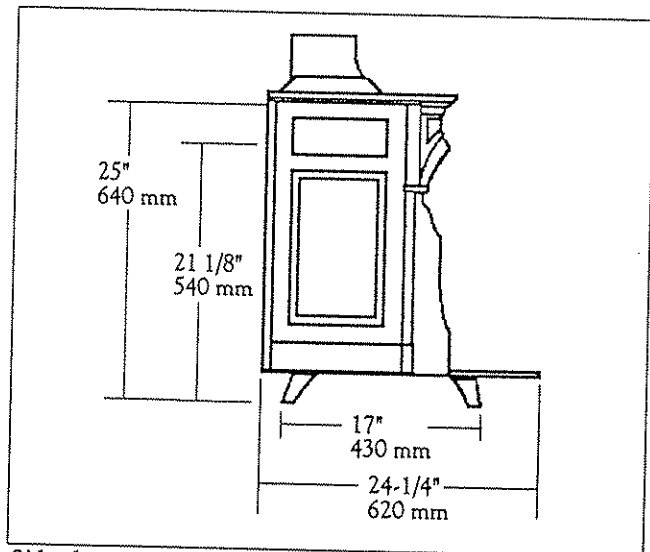
Specifications

Dauntless Model 1240

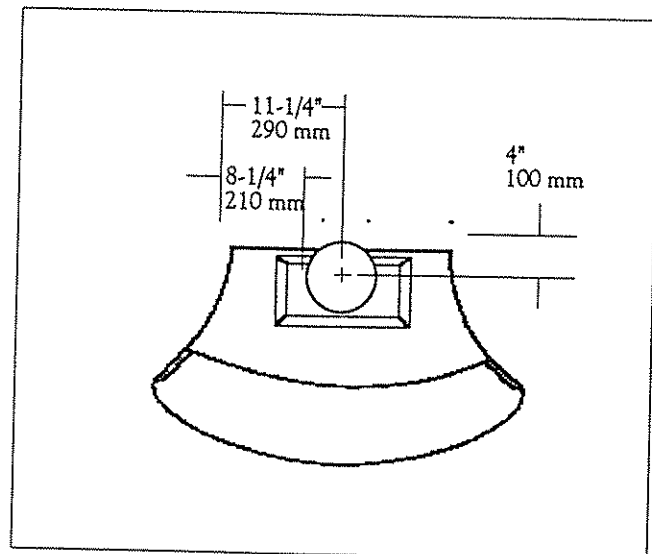
Fuel	Wood only
Maximum log length	16" (410 mm)
Height	
Back vent	26-3/4" (680 mm)
Top vent	32" (810 mm)
Width	
Leg to leg	25" (640 mm)
Including ash lip	32" (810 mm)
Depth	
Leg to leg	17" (430 mm)
Overall	24-1/4" (620 mm)
Weight	290 lbs. (638 kg)
Flue	
Rear	8" round (200 mm)
Top	6" round (150 mm)



Front elevation



Side elevation



Plan view

Vermont Castings Warranty

Limited Three Year Warranty

Vermont Castings' warrants that this Dauntless will be free of defects in material and workmanship for a period of three years from the date you receive it, except that the damper, the air control assembly, the door opener, glass door panels, cement and gasketing shall be warranted as described below.

Vermont Castings, Inc. will repair or replace, at its option, any part found to be defective when the Dauntless is returned with shipping charges prepaid to a Vermont Castings' Authorized Dealer. The customer must pay for any Authorized Dealer in-home travel fees, service charges, or transportation costs for returning the fireplace to the Authorized Dealer. If upon inspection the damage is found to be the fault of the manufacturer, repairs will be authorized at no charge to the customer for parts and/or labor.

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

Limited One Year Warranty

The following parts of the Dauntless Fireplace are warranted to be free of defects in material and workmanship for a period of one year from the date you receive it. These parts are the air control assembly, the door opener, glass door panels, cement, and gasketing. Any of these items found to be defective will be replaced at no charge, upon the return of said part to a Vermont Castings' Authorized Dealer with postage prepaid.

Exclusions and Limitations

1. This warranty is transferable; however, proof of original purchase if required.

2. This warranty does not cover misuse. Misuse includes overfiring which will result if the fireplace is used in such a manner as to cause one or more of the plates to glow red. Overfiring can later be identified by warped plates and areas where the paint pigment has been burned off. Overfiring in enamel fireplaces is identified by bubbling, cracking, chipping and discoloration of the porcelain enamel finish. Vermont Castings offers no warranty on chipping of enamel surfaces. Inspect your fireplace prior to accepting it for any damage to the enamel.

3. This warranty does not cover misuse of the Dauntless Fireplace as described in the Owner's Guide, nor does it cover a Dauntless that has been modified unless authorized by a Vermont Castings' representative in writing. This warranty does not cover damage to the fireplace caused from a salt environment or from burning any fuel not recommended in the Owner's Guide.

4. This warranty does not cover a stove repaired by someone other than a Vermont Castings' Authorized Dealer.

5. Damage to the unit while in transit is not covered by this warranty but is subject to claim against the common carrier. Contact the Vermont Castings' Authorized Dealer from whom you purchased your Dauntless. (Do not operate the Dauntless as this may negate the ability to process the claim with the carrier.)

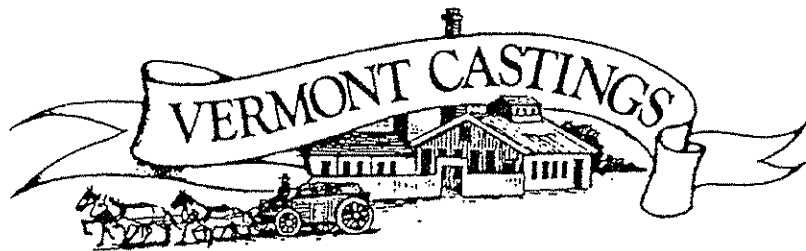
6. Claims are not valid where the installation does not conform to local building and fire codes or, in their absence, to the recommendations in the Owner's Guide.

How to Obtain Service

If a defect is noted within the warranty period, the customer should contact a Vermont Castings' Authorized Dealer with the following information:

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

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



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