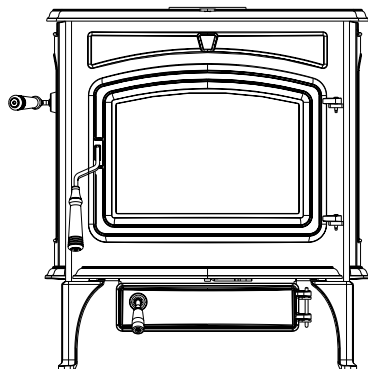


Jøtul F 50 TL Rangeley  
Wood Stove



## Jøtul F 50 TL Rangeley

### Installation and Operating Instructions for the U.S. and Canada

- The Jøtul F 50 TL is listed to burn solid wood only. Do not burn any other fuels.
- Read this entire manual before you install and use this appliance.
- Save these instructions for future reference and make them available to anyone using or servicing the fireplace insert.
- This wood heater requires periodic inspection and repair for proper operation. See this manual for specific maintenance information. It is against federal regulations to operate this wood heater in a manner inconsistent with the operating instructions in this owner's manual.

# Installation and Operation Instructions for USA/Canada

**Safety Notice:** If this solid fuel room heater is not properly installed, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area. Save these instructions for future reference.



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



www.nficertified.org

## Table of Contents

- Standards / Codes** ..... 3
- Accessories** ..... 3
- Safety Notices** ..... 4
- 1.0 Installation**
- 1.1 Assembly Before Installation ..... 5
- 1.2 Flue Collar Installation ..... 6
- 1.3 Flue Collar Heat Shield ..... 6
- 1.4 Bottom Heat Shield Installation ..... 6
- 1.5 Leg Leveller Installation ..... 6
- 1.6 Chimney Connector ..... 6
- 2.0 Chimney Requirements**
- 2.1 Masonry Chimneys ..... 7
- 2.2 Prefabricated Chimneys ..... 8
- 2.3 Chimney Height ..... 8
- 2.4 Wall Pass-Throughs ..... 8
- 3.0 Connecting to the Chimney**
- 3.1 Masonry Chimneys ..... 9
- 3.2 Hearthmount into a Masonry Fireplace ..... 9
- 3.3 Prefabricated Chimneys ..... 10
- 3.4 Mobile Home Requirements ..... 10
- 4.0 Clearances to Combustibles**
- 4.1 Floor Protection ..... 11
- 4.2 Clearances to Walls and Ceilings ..... 11
- 4.3 Using Shields to Reduce Clearances ..... 11
- 4.4 Alcove Installation ..... 12
- 4.5 Fireplace Clearances, Mantel and Trim ..... 12
- 4.6 Clearance Diagrams ..... 13
- 5.0 Operation**
- 5.1 Combustion Efficiency ..... 14
- 5.2 CO Emissions ..... 14
- 5.3 Wood Fuel and Performance ..... 14
- 5.4 F 50 TL Rangeley Functionality ..... 15
- 5.5 Air Control ..... 15
- 5.6 Top Loading ..... 15
- 5.7 Controlling the Fire ..... 16
- 5.8 Break-in Procedure ..... 16
- 5.9 Starting and Maintaining a Fire ..... 16
- 5-10 Adding Fuel ..... 17
- 5.11 Open Door Fire-viewing ..... 17
- 5.12 Creosote Formation ..... 17
- 5.13 Ash Removal ..... 17
- 6.0 Maintenance**
- 6.1 Glass Care ..... 18
- 6.2 General Care ..... 18
- 6.3 Glass Removal or Replacement ..... 18
- 6.4 Gaskets ..... 19
- 6.5 Gasket Replacement ..... 19
- 6.6 Chimney System ..... 19
- 7.0 Appendix**
- 7.1 Blower Installation ..... 20
- 7.2 Outside Air Kit Installation ..... 22
- 7.3 Mobile Home Floor Bracket ..... 23
- 8.0 Illustrated Part List** ..... 24
- 9.0 Warranty Statement** ..... 26

## Standards

The Jøtul F 50 TL Rangeley wood stove has been tested and listed to:

U.S: ANSI/UL 1482-2011 and ANSI/UL 737-2011

Canada: CAN/ULC-S627-00 and ULC-S628-93

Certified Safety Tests conducted and listed by:

ITS, Intertek Testing Services  
Middleton, WI

Manufactured by:  
Jøtul North America  
55 Hutcherson Drive  
Gorham, Maine 04038-2644

### **WARNING !**

**THIS WOOD HEATER HAS A MANUFACTURER-SET MINIMUM LOW BURN RATE THAT MUST NOT BE ALTERED. IT IS AGAINST FEDERAL REGULATIONS TO ALTER THIS SETTING OR OTHERWISE OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN THIS MANUAL.**

**This heater meets the 2015 U.S. Environmental Protection Agency's emission limits for wood heaters manufactured after May 15, 2015. This appliance may not be sold after May 15, 2020.**

## Jøtul F 50 TL Accessories

### **Spark Screen #157232**

Enjoy the warmth of open door fire-viewing with use of this custom fit spark screen.

### **Stove-Top Thermometer #5002**

We recommend the use of a magnetic stove-top thermometer to monitor the surface temperature of the stove.

The optimum surface temperature range for the most efficient performance is between 400° F - 700° F (205° C - 316° C).

### **Outside Air Kit #157320**

This kit includes a plenum assembly which attaches to the stove bottom. It permits connection of duct work from an outside source directly to the air intake of the stove. A direct outside air connection is required for mobile home installations.

### **Mobile Home Floor Bracket Kit #157321**

This kit includes two brackets used to fulfill the mobile home requirement that the stove be secured directly to the floor.

### **Blower Kit #156431**

This kit includes components for mounting a thermostatically controlled 120 cfm blower to the back of the stove to enhance heat convection into the living area.

## Check Building Codes

When installing, operating and maintaining your Jøtul F 50 TL Rangeley woodstove, follow the guidelines presented in these instructions, and make them available to anyone using or servicing the stove.

Your city, town, county or province may require a building permit to install a solid fuel burning appliance.

**In the U.S.**, the National Fire Protection Association's Code, NFPA 211, *Standards for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*, or similar regulations, may apply to the installation of a solid fuel burning appliance in your area.

**In Canada**, the guideline is established by the CSA Standard, CAN/CSA-B365-M93, *Installation Code for Solid-Fuel-Burning Appliances and Equipment*.

Always consult your local building inspector or authority having jurisdiction to determine what regulations apply in your area. Your local officials have final authority in determining if a proposed installation is acceptable. Any requirement by the local authority having jurisdiction that is not specifically addressed in this manual, defaults to NFPA 211, and local codes in the U.S. or in Canada, CAN/CSA-B365-M and local codes.

The Jøtul F 50 TL Rangeley is approved for use in mobile homes. Install in accordance with 24 CFR, Part 3280 (HUD).

## Safety Notices

- BURN SOLID, NATURAL WOOD FUEL ONLY. DO NOT BURN ANY OTHER FUEL.
- DO NOT USE CHEMICALS OR FLUIDS TO START A FIRE. DO NOT BURN GARBAGE OR FLAMABLE FUELS.
- DO NOT USE A GRATE OR ELEVATE THE FIRE. BUILD THE FIRE DIRECTLY ON THE HEARTH.
- IF THIS ROOM HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTRUCTIONS IN THIS MANUAL. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR LOSS OF LIFE.
- CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.
- ANY EXISTING CHIMNEY SYSTEM MUST BE INSPECTED BEFORE INSTALLATION OF THIS APPLIANCE.
- DO NOT CONNECT THIS STOVE TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- EXTREMELY HOT WHILE IN OPERATION! KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY. CONTACT WILL CAUSE SKIN BURNS. USE A CHILD GUARD SCREEN TO PREVENT ACCIDENTAL CONTACT BY SMALL CHILDREN.
- INSTALL SMOKE DETECTORS IN THE LIVING AREA AND BEDROOMS OF YOUR HOME. TEST THEM REGULARLY AND INSTALL FRESH BATTERIES TWICE ANNUALLY.  
WHEN INSTALLED IN THE SAME ROOM AS THE STOVE, A SMOKE OR CARBON MONOXIDE DETECTOR SHOULD BE LOCATED AS FAR FROM THE STOVE AS POSSIBLE TO PREVENT THE ALARM SOUNDING WHEN ADDING FUEL.
- Jøtul strongly recommends that this stove be installed by a professional solid fuel technician, or that you consult one if you do the work yourself. Also, consult your insurance company regarding any other specific requirements.

### PLEASE NOTE:

**IT IS NORMAL FOR SMOKE AND ODOR TO OCCUR DURING THE INITIAL STAGES OF OPERATION, DEPENDING UPON TEMPERATURES GENERATED OVER TIME. THIS "CURING" CONDITION CAN BE ALLEVIATED BY PROMOTING FRESH AIR CIRCULATION WITHIN THE IMMEDIATE VICINITY OF THE APPLIANCE.**

### Installation Tools Required, but not limited to:

- Measuring Tape
- Phillips screwdriver
- 10 mm open-end or socket wrench
- Work Gloves
- Safety Glasses
- 4 mm hex key

## Jøtul F 50 TL Combustion Specifications

Heat Output Range: <sup>1</sup>	11,700 to 32,900 BTU/hr.	
Max. Heat Output:	83,000 BTU/hr.	
Combustion Efficiency: <sup>2</sup>	HHV	LHV
	71.91%	77.76%
CO Emissions: <sup>3</sup>	125.40 g/hr	
Pariculate Emissions: <sup>4</sup>	2.8 g/hr	
Fuel:	Up to 20" Logs	

See Sect. 5.0 of this manual for important information regarding the safe, proper, and most efficient operation of your stove.

- <sup>1</sup> *Heat Output Range* results are determined during specific emissions tests established by the EPA. The *Maximum Heat Output* value is representative of a more frequent re-fueling cycle than specified in the EPA High Heat Output test method.
- <sup>2</sup> *High Heat Value and Low Heat Value* are obtained per CSA B415.1-10 test method. HHV calculation encompasses all products of combustion, including H<sub>2</sub>O condensation. LHV calculation includes H<sub>2</sub>O in its vapor state. Simply put, HHV assumes all the water component is in a liquid state (condensed) at the end of combustion and that heat recovered from condensation can be put to use.
- <sup>3</sup> *Carbon Monoxide Emissions* rate results from Test Method CSA B415.1-10.
- <sup>4</sup> *Particulate Emissions* rate is obtained using EPA Test Method 28-5H.

# 1.0 Installation

## 1.1 Unpack the Stove

Inspect the stove for damage. Contact your dealer immediately if any damage is found. Do not install the stove if any damage is evident. Contact your dealer.

### Contents:

- Top Load Door Tool
- Baffle Handle Assembly
- Bottom Heat Shield
- Flue Collar Heat Shield
- Stove Gloves
- #8 x 12 sheet metal screws, 4 - for Flue Collar Heat Shield
- M6 hex nuts, 4 - for Bottom Heat Shield
- M8 x 40 mm Leg Leveller Screws, 2

**NOTE: The integral Rear Shroud acts as a heat shield. There is no accessory rear heat shield.**

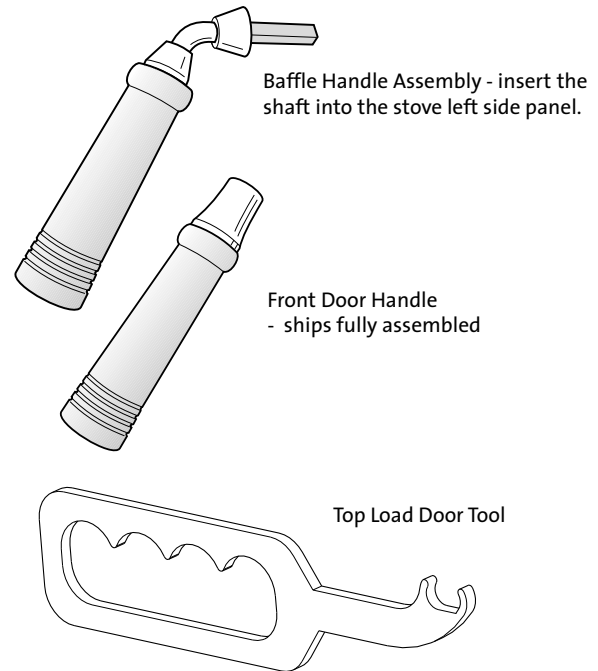
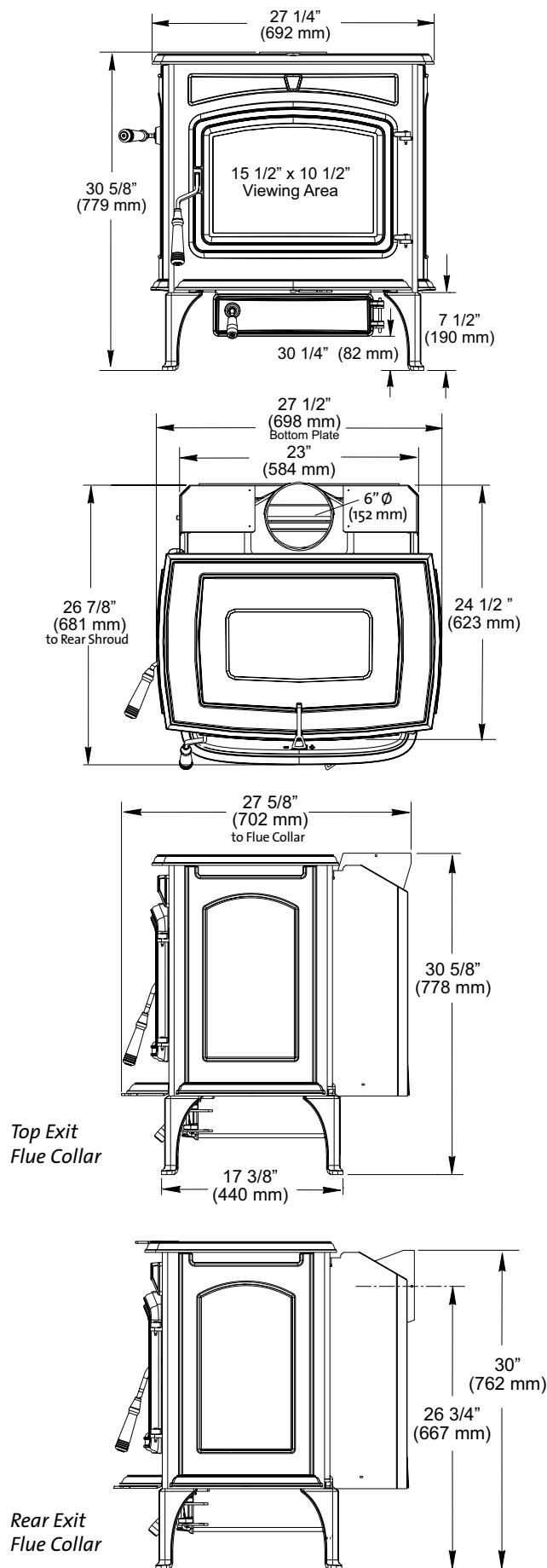


Figure 1. Actuation handles. See operation instructions in Section 5.7 and Fig. 18 on page 15.

## 1.2 Flue Collar Orientation

The Flue Collar is oriented in the Top Exit position. To change orientation to Rear Exit:

1. Twist and remove the perforated cut-out section from the top edge of the rear shroud.
2. Use a 10 mm open end wrench or socket wrench to remove the two M6 x 12 bolts that attach the flue collar to the stove. Orient the flue collar to the rear and use the same bolts to re-attach it to the stove.

## 1.3 Flue Collar Heat Shield

Not applicable for rear exit configuration.

1. Unfold the heat shield as shown in fig.2. Secure it to the rear stove shroud using the four #8 x 12 sheet metal screws from the Miscellaneous Hardware Kit.

## 1.4 Bottom Heat Shield Installation

The bottom heat shield must be installed unless the stove hearth is composed of poured concrete on earth or unless an Outside Air Kit is installed.

1. Unfold *only* the rear panel of the bottom heat shield and place it under the stove as shown in fig. 3.
2. Unfold the side panels.
3. Use the four M6 nuts from the Miscellaneous Hardware Kit to attach the heat shield to the stove bottom as shown in fig. 4.

## 1.5 Leg Levellers

Two leg leveller screws are included in the hardware bag. **Install the screws in the appropriate legs BEFORE locating the stove in the final position.** See fig. 28, page 23.

## 1.6 Chimney Connector

Use 6" single wall or listed 6" double-wall stovepipe to connect the stove to the chimney. Single wall stovepipe must be black steel or stainless steel and have a minimum thickness of 24 gauge. Do not use aluminum or galvanized steel pipe for chimney connection - these materials are not suitable for use with solid fuel. Attach the flue collar to the chimney connection using 2 self-drilling screws found in the miscellaneous kit.

Follow these guidelines:

- Do not use chimney connector as a chimney. It is intended only as a connection device.
- Each connector section must be oriented with the male (crimped) end pointing toward the stove. See fig. 5.
- Secure all connector joints with three sheet metal screws.
- For the best performance, the chimney connector should be as short and direct as possible, including no more than two 90° elbows.

Figure 2. Flue Collar heat shield attachment.

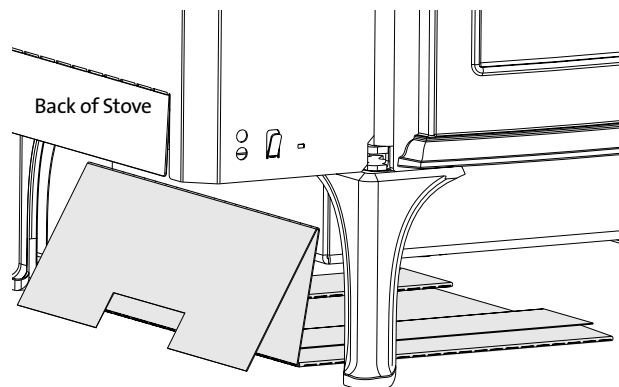
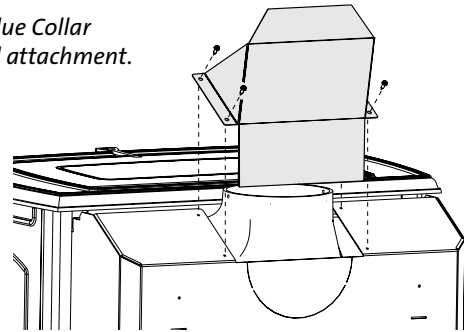


Figure 3. Locate the bottom heat shield under the stove as shown **before unfolding the side panels.**

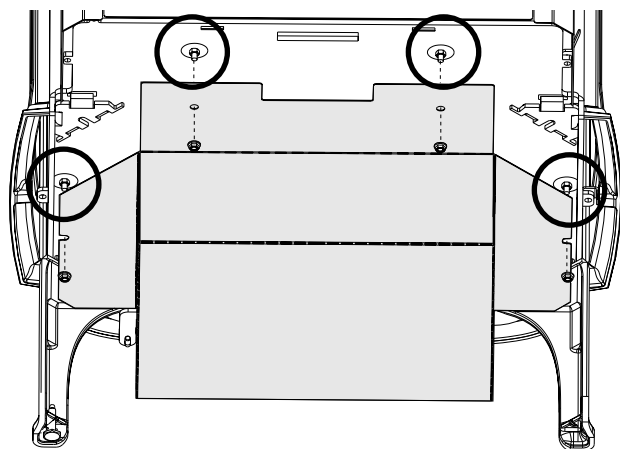
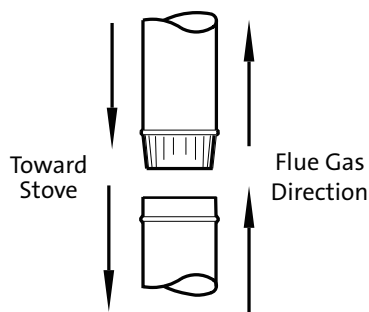


Figure 4. Bottom heat shield attachment points.

Figure 5.  
Chimney connector  
orientation.



- **The maximum vertical run of single wall stovepipe should not exceed 10 ft. (305 cm).**
- **The maximum horizontal run should not exceed 3 ft. (92 cm) with a 1/4" rise per foot.** Under no circumstance should horizontal pipe be allowed to slant down toward the chimney.
- No part of the chimney connector may pass through an attic or roof space, closet or other concealed space, or through a floor or ceiling. All sections of the chimney connectors must be accessible for cleaning. Where passage through a wall or partition of combustible construction is desired, the installation must conform with NFPA 211 or CAN/CSA-B365, and is also addressed in this manual.
- **Do not connect this stove to a chimney flue serving another appliance.**

## 2.0 Chimney Requirements

There are two types of approved chimneys:

1. A code-approved masonry chimney with a ceramic tile or listed steel flue liner.
2. A prefabricated chimney complying with the requirements for Type HT (2100°F) chimneys per UL 103 or ULC S629.

The chimney size should not be less than the cross-sectional area of the flue collar, and not more than three times greater than the cross-sectional area of the flue collar. If the chimney flue is outdoors, its cross-sectional area may not exceed two times greater than the stove flue collar. See also Sect. 3.2.

When selecting a chimney type and the location for the chimney in the house, keep this in mind: **It is the chimney that makes the stove work - not the stove that makes the chimney work.** This is because a chimney actually creates a suction, called "draft" which pulls air through the stove.

Several factors affect draft: chimney height, cross-sectional area (size), and temperature of the chimney, as well as the proximity of surrounding trees or buildings.

A short exterior masonry chimney will give the poorest performance because it will be difficult to warm the flue and sustain the temperatures necessary to maintain draft strength. In extremely cold climates, it may be necessary to reline the chimney or extend the height to help establish draft.

A tall, interior masonry chimney is easier to keep warm and will perform the best under a variety of weather and environmental conditions.

The following guidelines give the necessary chimney requirements based on the national code (ANSI-NFPA 211 for the US. And CSA CAN-B365 for Canada). However, many local codes differ from the national code to take into account climate, altitude, or other factors. Your local building inspector is the final approving authority. Consult them prior to installation.

**Do not connect the stove to any air distribution duct or system.**

### 2.1 Masonry Chimneys

Follow these guidelines when installing the Jøtul F 50 TL into a masonry fireplace:

- The masonry chimney must have a fireclay liner or equivalent, with a minimum thickness of 5/8" (14 mm) and must be installed with refractory mortar. There must be at least 1/2" (12.7 mm) air space between the flue liner and chimney wall.
- The fireclay flue liner must have a nominal size of 8" X 8" (20 cm x 20 cm), and should not be larger than 8" X 12" (20 cm x 30 cm). A round fireclay liner must have a minimum inside diameter of 6" (15 cm) and maximum inside diameter of 8" (20 cm). A larger chimney should be relined with an appropriate code approved liner.
- Brick or modular block must be a minimum of 4" (10 cm) nominal thickness. Stone construction must be at least 12" (30 cm) thick.
- A newly-built chimney must conform to local codes, or, in their absence, must comply with national regulations.
- An existing chimney must be inspected by a professional, licensed chimney sweep, fire official, or code officer to ensure that the chimney is in proper working order. Any repairs must be completed before installing the stove.
- No other appliance may be vented into the same flue.
- An airtight clean-out door should be located at the base of the chimney.

## 2.2 Prefabricated Chimneys

A prefabricated metal chimney must be tested and listed for use with solid fuel burning appliances. High Temperature (HT) Chimney Standard UL 103 for the U.S. and High Temperature Standard ULC S-629 for Canada.

The manufacturer’s installation instructions must be followed precisely. Always maintain the proper clearance to combustibles as established by the pipe manufacturer. This clearance is usually a minimum of 2”, although it may vary by manufacturer or for certain chimney components.

## 2.3 Chimney Height

A minimum chimney height of 15 feet (4.57 m) is required. The chimney must be at least 3 feet (92 cm) higher than the highest point where it passes through the roof and at least 2 feet (61 cm) higher than the highest part of the roof or structure that is within 10 feet (3.05 m) of the chimney, measured horizontally. Fig. 7.

Chimneys shorter than 14 feet (4.27 m) may not provide adequate draft. Inadequate draft can result in smoke spillage when loading the stove, or when the door is open. Poor draft can also cause back puffing (ignition of gas build-up inside the firebox) and sluggish performance. The minimum height does not, in itself, guarantee proper chimney performance. Optimum draft force should be in the .05 - .10 in. w.c. range measured by a Magnahelic gauge. Draft at .07 w.c. is ideal.

Excessive chimney height can promote over-strong draft resulting in high stove temperatures and short burn times. Excessive draft can be corrected by installing a butterfly damper. Your Jøtul dealer is an expert resource to consult regarding draft issues or other performance-related questions.

## 2.4 Wall Pass-Throughs

Note: In addition to the methods described here, any listed, prefabricated wall pass-through components available from chimney manufacturers may be used.

### In the U.S.

The National Fire Protection Association’s publication, NFPA 211, *Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances* permits four methods for passing through a combustible wall. Before proceeding with any method be sure to consult with your local building officials to discuss any local code requirements.

Figure 7. Chimney Height Requirement.

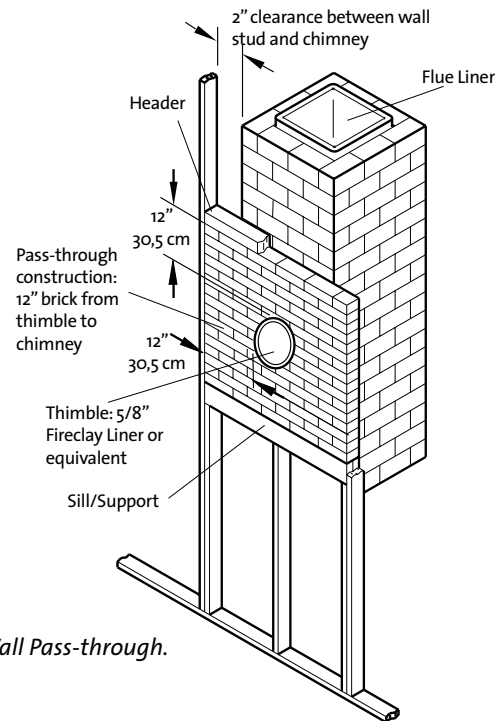
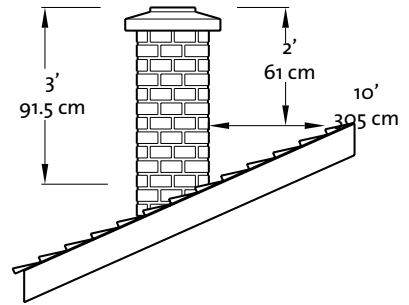


Figure 8. Masonry Wall Pass-through.

### Common Method:

See fig. 8. Remove all combustible materials from the pass-through area ( around the chimney connector), a minimum 12” (30.5 cm). A 6” (15.2 cm) diameter connector will require a 31” x 31” (78.7 x 78.7 cm) square opening.

The opening must be filled with at least 12” (30.5 cm) of brick around a fireclay liner. The liner must be ASTM C35 or equivalent, having a minimum wall thickness of 5/8” (16 mm).

The Pass-through must be at least 18” (45.7 cm) from combustible ceiling materials.

It will be necessary to cut wall studs, install headers, and construct a sill frame to maintain the proper dimensions and to support the weight of the brick.

The bricks must be solid brick with a minimum of 3 inches thick (nominal 4”/ 102 mm).



Refractory mortar must be used at the junction of the chimney and the pass-through liner. The pass-through liner must not penetrate the chimney liner beyond the inner surface of the chimney liner. Use extreme care when constructing the hole in the chimney liner as the tiles can shatter easily.

### In Canada

The installation must conform to CAN/CSA-B365, Installation Code for Solid Fuel Burning Appliances and Equipment. Before proceeding be sure to consult your local building inspector.

#### Common Method:

This method requires the removal of all combustible materials from at least 18" (45.7 cm) around the chimney connector's proposed location. A 6" round liner requires a minimum opening 43" x 43" (109.2 x 109.2) square.

Locate the pass-through at least 18" from combustible ceiling materials.

The space that is cleared of combustible materials must remain empty. Sheet metal panels can be used to cover the area. However, when using a panel on both sides of the wall, each cover must be installed on noncombustible spacers at least 1" from the wall. If one panel of sheet metal is to be used it may be installed flush to the wall.

See section 5.3.1 and 5.3.2 of CAN/CSA - B365-M91. Consult your local building inspector, authorized Jøtul Dealer, NFPA 211 in the U.S. or CAN/CSA-B635 in Canada for other approved wall pass-through methods.

## 3.0 Connecting to the Chimney

### 3.1 Masonry Chimney

When installing a Jøtul F 50 TL into a masonry chimney through a "thimble" (the opening through the chimney wall to the flue), the thimble must consist of ceramic tile or steel and be securely cemented in place.

The chimney connector/stove pipe must slide completely inside the thimble to the inner surface or the flue liner. It may be necessary to make use of a thimble sleeve (a pipe with a slightly smaller diameter than standard stove pipe). See **fig. 9**.

The connector pipe or thimble sleeve must not protrude into the flue liner or otherwise restrict draft.

Use refractory cement to seal the seam between the chimney connector, sleeve, and thimble.

**Do not connect this stove to a chimney flue servicing another appliance of any kind.**

### 3.2 Hearthmount into a Masonry Fireplace

The Jøtul F 50 TL may be installed into a masonry fireplace with a minimum opening height of 30 1/2" (77.5 cm). NOTE: There is no short leg option. DO NOT ALTER OR REMOVE THE LEGS.

Building code requires that the fireplace damper plate be removed or securely fixed in the open position. A connector pipe must then extend from the stove's flue exit through the damper area of the fireplace and into the chimney tile liner. See **fig. 10**. In any case, we recommend that a full liner be installed through any masonry chimney to ensure good performance.

The cross-sectional area of the flue of a chimney with no walls exposed to the outside below the roofline may be no more than three times the cross-sectional area of the stove flue collar.

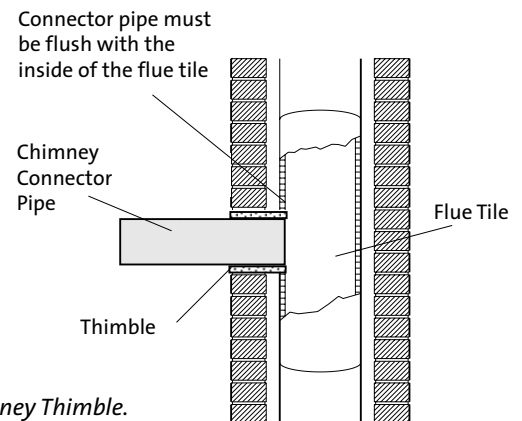


Figure 9. Masonry Chimney Thimble.

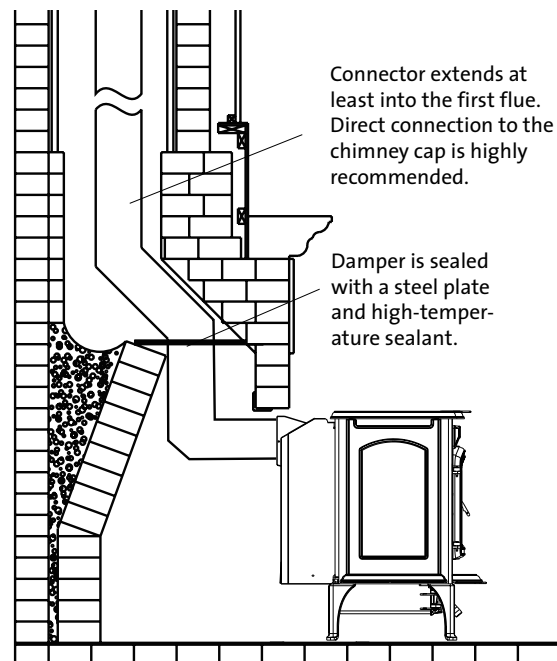


Figure 10. Hearthmount Installation.

The cross-sectional area of the flue of a chimney with one or more walls exposed to the outside below the roofline may be no more than two times the cross-sectional area of the stove flue collar.

If the chimney liner is too large to accommodate the stove, an approved relining system must be installed to resize the flue.

A new sheet metal damper block-off plate must be installed around the connector pipe at the damper frame and sealed with the proper sealant (usually High-Temp Silicone).

### 3.3 Prefabricated Chimneys

When connecting the Jøtul F 50 TL to a prefabricated metal chimney always follow the pipe manufacturer's instructions and be sure to use the all components that are required. This usually includes a "smoke pipe adapter" that is secured to the bottom section of the metal chimney and allows the chimney pipe to be secured to it with two sheet metal screws. See fig. 11.

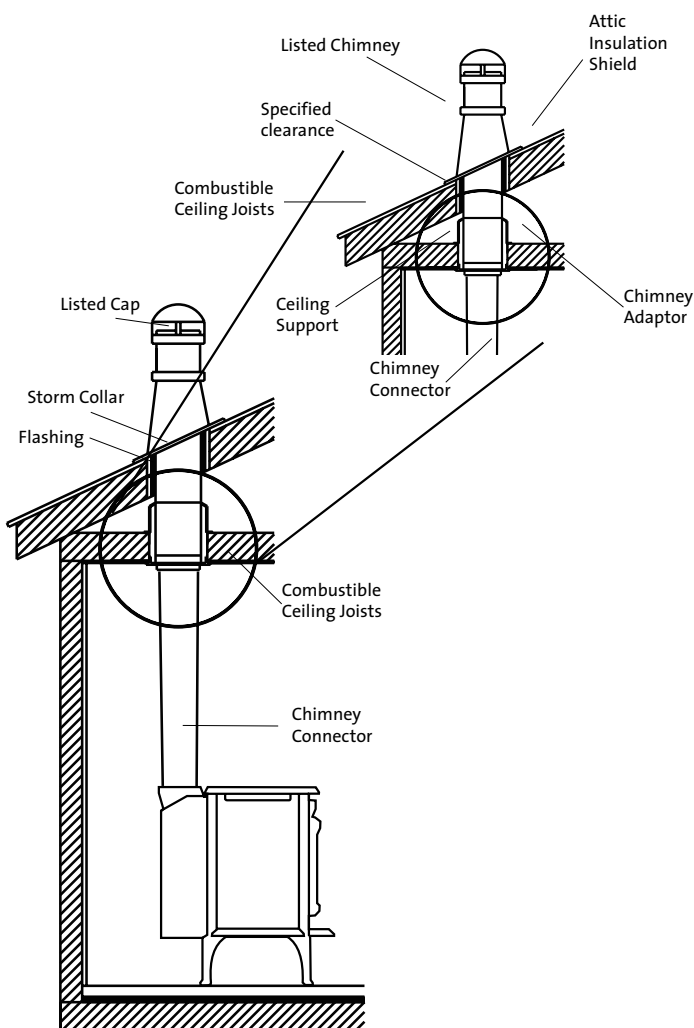


Figure 11. Prefabricated Listed Type HT Chimney.

### 3.4 Mobile Home Installation

The Jøtul F 50 TL is approved for installation in manufactured mobile homes provided the following requirements are met:

1. All chimney components, including chimney sections, supports, spark arrestor, etc., shall comply with the Standard for Factory-built Chimneys for Residential Type and Building Heating Appliances, UL 103 and/or CAN/ULC-S629 Standard for 650°C Factory-built Chimneys.
2. The chimney shall be attached directly to the stove and extend at least 3 ft. (0.9m) above the roof. Termination must be at least 2 ft. (0.6m) above the highest elevation of any part of the mobile home within 10 ft. (3m).
3. In order to allow for transportation of the mobile home, the chimney termination shall be readily removed at or below an elevation of 13.5 ft. (4.1 m) above ground level and reinstalled without use of special tools or instructions.
4. A spark arrestor must be installed at the termination. The net free area of the arrester above the chimney outlet must not be less than four times the net area of the chimney outlet, and the vertical height of the arrester must not be less than one-half the diameter of the chimney flue. Openings shall not permit the passage of a sphere having a diameter larger than 1/2" (12.7 mm), and shall permit the passage of a sphere having a diameter of 3/8" (9.6 mm).
5. Direct connection of the stove to an outside air source is required. Use Outside Air Kit 157320. Do not substitute any other connection method or device. See Appendix, Section 7.o. Duct termination must not be installed at a level that is higher than the air inlet located at the bottom of the stove.
6. The stove must be secured to the mobile home floor. Use Floor Bracket Kit 157321.
7. When the chimney exits the mobile home at a location other than through the roof, and exits at a point 7 ft. (2.1 m) or less above the ground level, a guard or other method of enclosing the chimney, must be provided at the point of exit for a height up to 7 ft. Openings of this chimney guard shall not permit penetration of a 3/4 in. (19.1 mm) diameter rod, or contact with the chimney by a 1/2 inch (12.7 mm) diameter rod inserted through the opening a distance of 4 inches (102 mm).
8. Provision must be made for electrical grounding of the chimney, chimney connector, and stove in accordance with local building codes.

**WARNING:** Do not install this appliance in a sleeping room.

**CAUTION:** The structural integrity of the mobile home floor, walls, and ceiling/roof must be maintained.

## 4.0 Clearance to Combustibles

### 4.1 Floor Protection

The Jøtul F 50 TL includes a bottom heat shield which must be installed unless the stove is on a concrete floor poured on earth.

The Jøtul F 50 TL requires one of the following forms of hearth protection if not installed directly on concrete poured on earth:

- 1) Any UL, ULC, or Warnock Hersey Listed Type 1 hearth board.
- 2) Any noncombustible material.

**In the U.S.** floor protection must extend continuously forward from the **door opening** at least 16 in. and 8 in. from the sides of the **door opening**. Protection must also extend 2 in. under the chimney connector. This will result in a minimum floor protector 33" wide x 40 3/4" deep. See fig 12.

**In Canada,** floor protection must extend continuously 18" from the front of the stove and 8 in. (460mm) from the sides and rear. It must also extend 2 in. (51 mm) under the chimney connector. This results in a floor protector 43 1/2 in. x 50 1/2 in. (110.5 cm. x 128.2 cm.) See **fig.12-a**.

### 4.2 Clearances to Walls and Ceilings

The clearances listed and diagramed in this manual have been tested to UL and ULC standards and are the minimum clearances to combustible materials specifically established for the Jøtul F 50 TL.

A combustible surface is anything that can burn (i.e. sheet rock, wall paper, wood, fabrics etc.). These surfaces are not limited to those that are visible and also include materials that are behind noncombustible materials.

If you are not sure of the combustible nature of a material, consult your local fire officials.

Remember: "Fire Resistant" materials are considered combustible; they are difficult to ignite, but will burn. Also "Fire-rated" sheet rock is also considered combustible.

Contact your local building officials about restrictions and installation requirements in your area.

See pages 12-13 for clearance requirements and diagrams.

### 4.3 Using Shields to Reduce Clearances

**Double Wall Connector:** Listed double wall pipe is an acceptable alternative to connector pipe heat shields.

**Wall-Mounted Protection:** When reducing clearances through the use of wall-mounted protection:

**In the U.S. refer to NFPA 211, Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances,** for acceptable materials, proper sizing and construction guidelines.

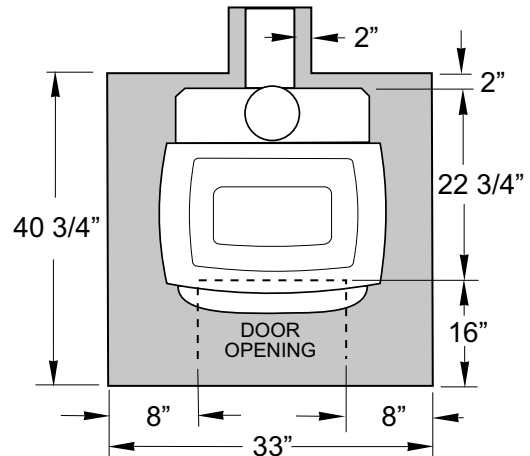


Figure 12. Floor Protection minimum dimensions, U.S.

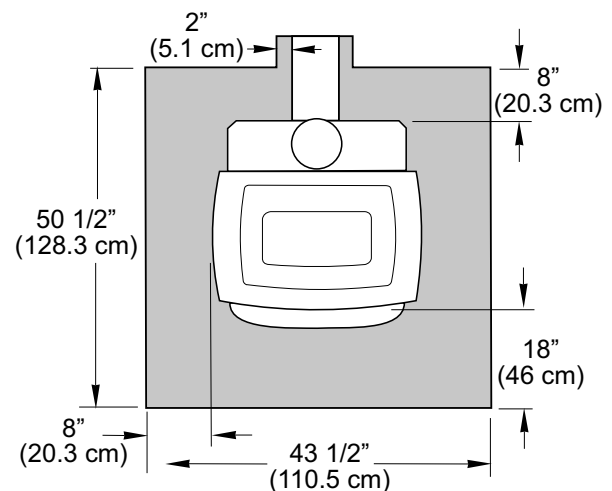


Figure 12- a. Floor Protection minimum dimensions, Canada.

**In Canada, refer to CAN/CSA-B365, Installation Code for Solid-Fuel Burning Appliances and Equipment,** also for acceptable materials, proper sizing and construction guidelines.

**Notice:** Many manufacturers have developed woodstove accessories that permit clearance reduction. Use only those accessories that have been tested by an independent laboratory and carry the laboratory's testing mark. Be sure to follow all of the manufacturer's instructions.

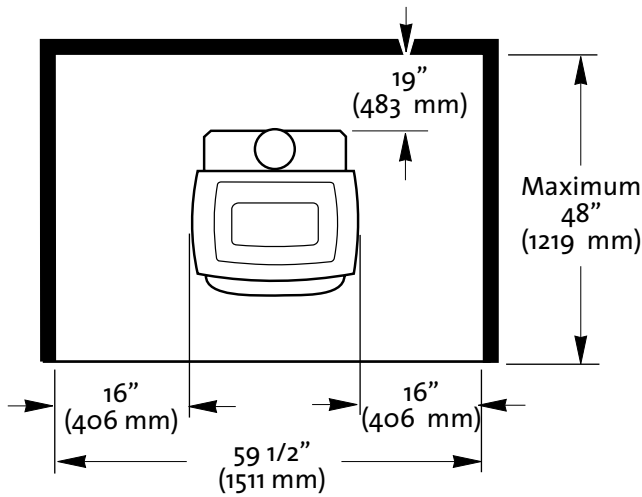


Figure 13. Alcove with Unprotected Walls.

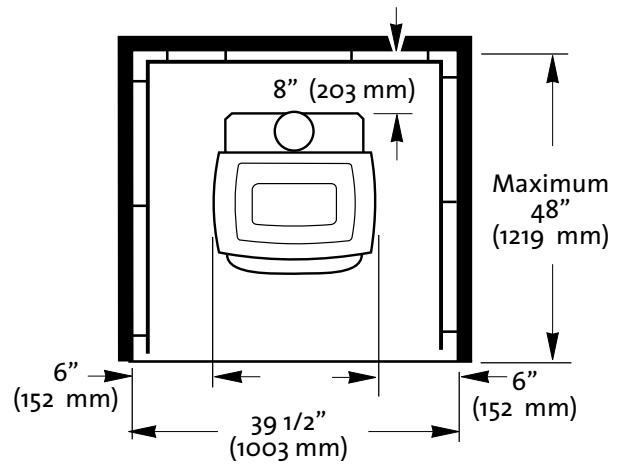
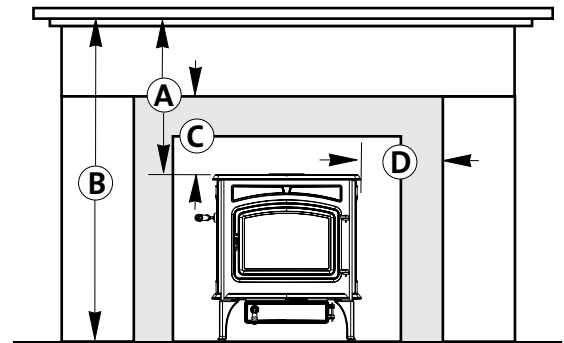


Figure 14. Alcove with Wall Protection.

### 4.4 Alcove Installation

The Jøtul F 50 TL can be installed in an alcove as diagrammed in figs. 13.-14.

1. The stove must be installed only with double-wall chimney connector.
2. Wall and ceiling protection, if used, must extend over the entire area.
3. Alcove floor protection must consist of a UL/ULC or WHI listed hearth pad or a non combustible material.
4. Minimum Alcove Ceiling Height:  
 Unprotected Surface - 72" (183 cm)  
 Protected Surface - 59" (150 cm)



- A: Unit to Mantel (12 in. deep)- 35 in. / 89 cm
- B: Floor to Mantel- 66 in. / 168 cm
- C: Stove to 1 in. Top Trim - 31 in. / 79 cm
- D: Stove to 1 in. Side Trim - 14 in. / 36 cm

Figure 15. Hearthmount Clearances.

### 4.5 Clearances to Fireplace Mantels and Surrounding Trim

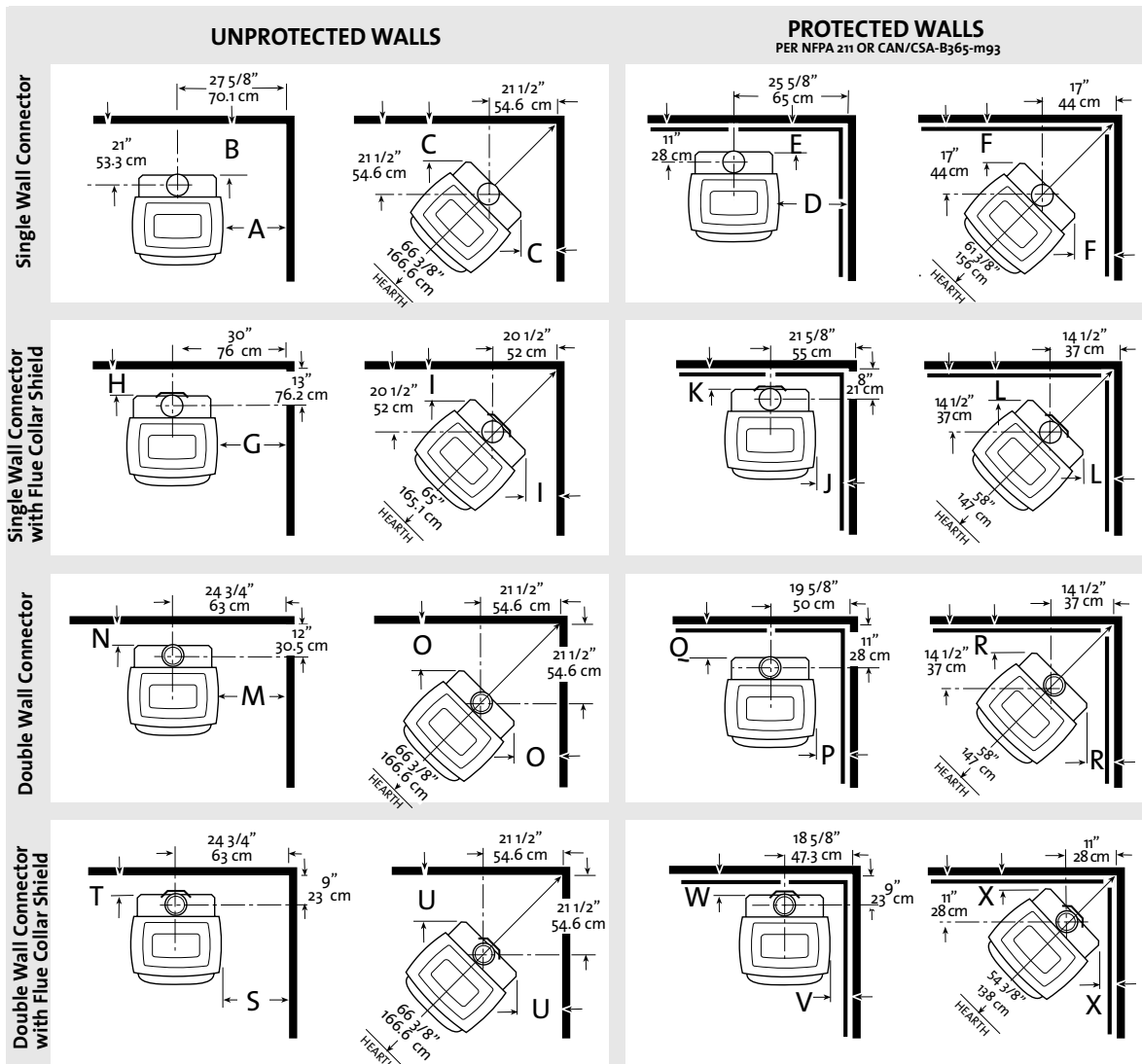
See the Clearance Chart on page 13 for approved clearances to combustible materials that may be part of fireplace construction.

Mantel and Trim clearances may be reduced by 50% with use of shielding constructed in accordance with NFPA 211 specifications.

### 4.6 Jøtul F 50 TL Rangeley Clearance Specifications

	UNPROTECTED WALLS			PROTECTED WALLS PER NFPA211 OR CAN/CSA -B365-M93		
	SIDE	REAR	CORNER	SIDE	REAR	CORNER
Single Wall Connector	A 14" / 356 mm	B 18" / 457 mm	C 12" / 305 mm	D 12" / 305 mm	E 8" / 203 mm	F 7.5" / 191 mm
Single Wall Connector w/ Flue Collar Heat Shield	G 16" / 406 mm	H 10" / 254 mm	I 11" / 280 mm	J 8" / 203 mm	K 5" / 127 mm	L 5" / 127 mm
Double Wall Connector	M 14" / 356 mm	N 9" / 229 mm	O 12" / 305 mm	P 6" / 152 mm	Q 8" / 203 mm	R 5" / 127 mm
Double Wall Connector w/ Flue Collar Heat Shield	S 14" / 356 mm	T 6" / 152 mm	U 12" / 305 mm	V 5" / 127 mm	W 6" / 152 mm	X 2.5" / 64 mm
Alcove w/ Double-Wall Connector	A 16" / 406 mm	B 19" / 483 mm	N/A	D 6" / 152 mm	E 8" / 203 mm	N/A

Figure 16. Clearance Diagrams. All specifications applicable to both top and rear exit configurations.



## 5.0 Operation

Please read the following section before building the first fire in your new Jøtul F 50 TL Rangeley.

### 5.1 Combustion Efficiency

The Jøtul F 50 TL has an EPA tested High Heating Value (HHV) efficiency rate of 71.91. There are, however, many variables that will affect stove performance outside of the controlled laboratory environment.

Operator habits, fuel quality, moisture content, home installation characteristics, climactic and environmental conditions can all have a significant impact on overall efficiency. Poorly seasoned wood having a higher than optimum moisture content will reduce the amount of heat transferred to the home as a result of the energy expended to evaporate fuel moisture. Operational action, such as not building a robust kindling fire to readily ignite the larger fuel pieces, can result in an inefficient smoldering fire. Additionally, most modern wood heaters' optimum performance and efficiency are at the medium to medium-low burn rates.

The location of the stove can have a significant effect on heating efficiency, primarily in regards to distribution of the heat. For example, a wood heater centrally located in the residence in an open living area will likely provide better circulation of heat than will a stove located in a room adjacent to the larger living area.

### 5.2 Minimize Carbon Monoxide Emissions

Testing the F 50 TL to CSA B414.1-10 measured carbon monoxide emissions at 125.40 g/hr.

Most all means of combustion produce some level of CO, including wood fires. Proper operation techniques, as outlined in this manual, will help ensure minimum emission output. Maintaining a well-established fire and avoiding operation that produces a smoldering, smoky fire, will greatly reduce CO levels.

We highly recommend that a smoke and CO monitor (detector) be installed in the same room as the stove. The monitor, however, should be located as far away as possible from the stove to avoid alert soundings when adding fuel to the fire.

### 5.3 Wood Fuel and Performance

The F 50 TL is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air-dried, seasoned hardwoods, as opposed to softwoods, green or freshly cut hardwoods. Wood that has been air-dried for a period of 12 to 24 months will provide the cleanest, most efficient heat. Wood seasoned more than 2 years will burn too quickly to take advantage of the stove's low end efficiency strength.

#### WARNING

**ALWAYS WEAR STOVE GLOVES WHILE TENDING THE FIRE. NEVER ALLOW THE FIRE TO REST DIRECTLY ON THE GLASS. KEEP THE LOGS SPACED AT LEAST ONE INCH FROM THE GLASS TO ALLOW FOR PROPER AIR FLOW WITHIN THE STOVE. AVOID STRIKING THE GLASS WITH LOGS.**

**OPERATE THIS STOVE ONLY WITH THE FRONT DOOR AND ASH DOOR FULLY CLOSED. OPERATION WITH THE DOOR PARTIALLY OPEN MAY RESULT IN OVER-FIRING. IF THE DOOR IS LEFT PARTIALLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE STOVE CREATING SAFETY RISKS FROM BOTH FIRE AND SMOKE.**

A seasoned log will have check marks (cracks) on the ends and be lighter than an unseasoned log which will show little or no check marks.

We recommend using a moisture meter to determine the moisture content of your wood. For purposes of home heating, your fuel should have a moisture content between 12 - 20%. Wood with higher moisture content will burn, however, very inefficiently. Most of its heat value will be lost driving water out of the wood. Worse, that moisture will condense as creosote in the relatively cool chimney flue, increasing the potential for a chimney fire. *Use of unseasoned wood defeats the purpose of any modern wood-burning stove.*

#### BURN UNTREATED WOOD ONLY. DO NOT BURN:

- Coal;
  - Garbage;
  - Synthetic fuel or logs;
  - Material containing rubber, including tires;
  - Material containing plastics;
  - Waste petroleum products, asphalt products, paints, paint thinners or solvents;
  - Materials containing asbestos;
  - Construction or demolition debris;
  - Railroad ties or pressure-treated wood;
  - Manure or animal remains;
  - Lawn clippings or yard waste;
  - Salt water driftwood or other previously salt-water saturated materials;
  - Unseasoned wood;
  - Colored paper, or
  - Paper products, cardboard, plywood, or particle board.
- (The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, saw dust, wax or similar substances for the purpose of starting a fire.)*

• **Burning of any of the materials listed above can result in the release of toxic fumes, cause smoke, or render the heater ineffective and cause smoke**

• **NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN-UP" THE FIRE. ALWAYS KEEP SUCH LIQUIDS AWAY FROM THE HEATER AT ALL TIMES.**

NOTE: Avoid letting logs rest directly on the glass panel. The logs should be spaced off of the glass enough to allow for proper air flow within the firebox.

### 5.4 F 50 TL Rangeley Functionality

When used with dry wood and a well-drafting chimney system, modern non-catalytic wood stoves burn fuel efficiently by the precise control and delivery of primary and secondary air to the fire.

**Primary Air** is drawn into a front inlet in the stove bottom and directed through a regulator shutter under the front door before entering the lower fire chamber. Additional primary air is directed to the top of the front door to act as an air wash which may prevent extreme soot build-up on the glass panel. The amount of primary air available to the fire determines the intensity of heat output and rate of fuel combustion; the greater the amount of air, the greater the heat output, the faster the wood burns. The primary air setting also determines the effectiveness of the air wash over the glass; the higher the setting, the cleaner the glass.

Additional air is separately directed into the top of the fire chamber to support combustion of exhaust gasses before passing out of the stove. This unregulated **Secondary Air** enters through an inlet in the rear of the stove bottom and is heated as it passes through the rear of the stove into a two-tiered manifold at the top of the firechamber. Additional secondary air is directed through a stainless steel tube built into the baffle plate hinge.

Volatile gases, released unburned from the fuel bed, rise to the baffle where they are turbulently mixed with the hot, fresh oxygen. Secondary combustion then occurs before the gases pass into the heat exchange chamber. See fig. 16.

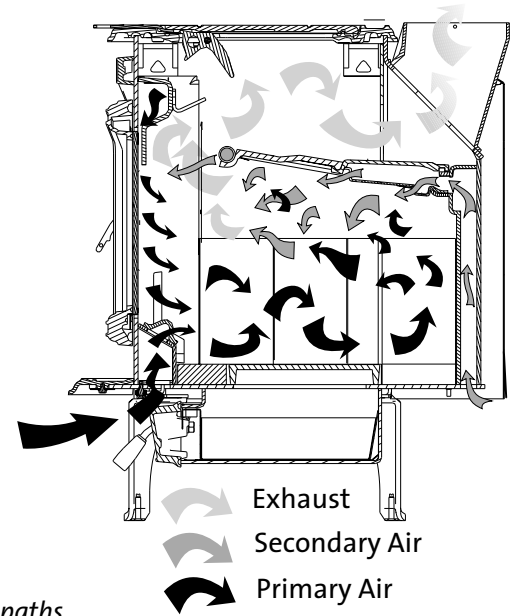


Figure 16. Combustion air paths

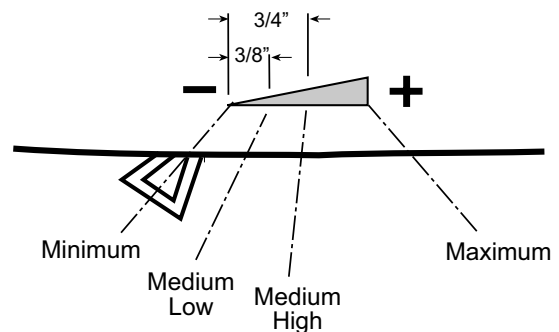


Figure 17. Air Control Settings

### 5.5 Air Control / Blower Settings

Use the following guide for best performance. See fig. 17.

Burn Rate	Air Control Setting	Blower Speed
Min. Low	Min. Open	Low / On at 30 min.
Med. Low	3/8" Open	Low / On at 30 min.
Med. High	3/4" Open	Low / On at 30 min.
High	Max. Open	High / On

### 5.6 Top Loading

You will want to take advantage of the convenience of adding logs to a burning fire through the top of your stove. To open and close the top load door, use the hooked end of the supplied Load Door tool to safely engage the door handle.

**NOTE: The hinged heat exchanger baffle must be open in order to add wood to the fire through the top of the stove.** The baffle handle can be attached in any of four positions, however, we recommend that you orient it to mimic the orientation of the baffle itself; i.e. when the side handle is in a horizontal position, the baffle is also in a horizontal position - Closed. Swing the handle down into a vertical position to open the baffle. See fig. 18 and section 5.7 for more details.

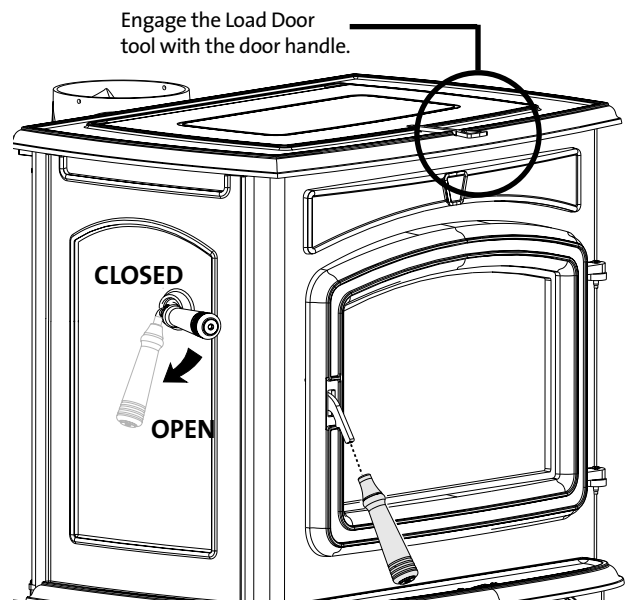


Figure 18. Baffle and door handle orientation.

## 5.7 Controlling the Fire

Combustion intensity is controlled by the position of an air shutter located under the front door. You adjust its position using the handle located under the ash lip. Slide the handle to the left to decrease air to the fire. Sliding it to the right increases air delivery and consequently, fire intensity. See fig. 17. The shutter regulates and directs primary air to the front of the burn chamber. Push it to the right to allow maximum air to support combustion. It should be fully open when first starting or rekindling a fire, or when greater heat output is desired.

## 5.8 Break-In Procedure

Although your Jøtul F 50 TL Rangeley is constructed of welded, 1/4" steel plate, it also incorporates cast iron components. This material requires the stove to be "broken-in" gradually so that heat expansion does not occur too quickly and cause damage. The following steps describe the proper break-in procedure for your stove. Use a magnetic stove-top thermometer to monitor stove temperature, placed directly on the cook plate.

Set the Primary Air Shutter fully open, all the way to the right.

1. Light a small fire of newspaper and kindling at the front of the stove. Gradually add small pieces of wood, but only allow the stove to reach a maximum surface temperature of 200°F (93° C). Continue burning at this low rate for approximately 1 hour.
2. Allow the stove to cool to room temperature.
3. Light a second fire, allowing the stove to reach a maximum temperature of 300°F (149°C) for 1 hour.
4. Cool the stove to room temperature.
5. Light a third fire and gradually allow the stove to reach a surface temperature of 400°F (204°C)
6. Cool the stove to room temperature. This completes the "break-in" procedure.

**Note:** If the temperature exceeds the limit during any break-in fire, move the Air Shutter all the way to the left to shut off the air supply completely. It is normal that the stovetop temperature will continue to climb until the fuel burns down somewhat. Once the fire is out and the stove has cooled to room temperature, continue the break-in procedure. Never attempt to reduce the temperature by removing burning logs from the fire.

**Break-in Odors:** It is normal for a newly-painted stove to emit odor and smoke during the first few fires, and these may set off smoke alarms. This condition is caused by curing of the high temperature paint and will diminish with each subsequent fire. It is advisable to open windows or doors to provide plenty of fresh air and cross-ventilation during the break-in period.

## 5.9 Starting and Maintaining a Fire

Burn only solid wood directly on the bottom grate of the stove. Do not elevate the fire in any way.

**WARNING: DO NOT OPERATE THIS STOVE WITH THE ASH DOOR OPEN. DOING SO MAY CAUSE DAMAGE AND WILL VOID YOUR WARRANTY.**

We recommend use of a magnetic stovetop thermometer to monitor the surface temperature of the stove. Locate the thermometer directly on one of the rear corners of the Griddle/Load Door. The optimum surface temperature range for most efficient combustion is between 400° and 700° (204°C -371°C). Chimney draft should be in the .05 - 1.0 w.c. range.

### Top-Down Kindling Method (*post Break-in Procedure*)

An alternative to the traditional "teepee" fire starter, the Top-Down method minimizes start-up smoke and more quickly establishes draft through the chimney.

1. Place the **Primary Air Shutter** in the full open position (to the right). Place two, 3-4 inch thick logs in the stove bottom and bridge them with several 1-2 inch thick kindling splits. Top that with several smaller kindling pieces and place crumpled paper on top of those.
2. Light the paper and close the door. As it burns, the smaller kindling will fall and ignite the larger pieces. Allow the chimney to warm and establish a strong draft. Use a stove glove and gradually build the fire by adding larger logs.
3. Once the stove has reached a surface temperature range of between 400° and 700°, (204°C -371°C), adjust the primary air control lever as appropriate to generate the desired heat output and burn time.

With time and experience, you will soon become acquainted with the operating characteristics of your particular installation and achieve the results you want.

You can also monitor stove performance through the window. Peak combustion efficiency occurs when exhaust gas is burned at the baffle in the top of the firebox. This is apparent as rolling yellow-orange flames appearing at the secondary air ports in the underside of the baffle plate and forward tube. At this stage, little or no smoke will be visible exiting the chimney.

### WARNING:

**NEVER OVER-FIRE THE STOVE. IF ANY PART OF THE STOVE OR CHIMNEY GLOWS, YOU ARE OVER-FIRING. A HOUSE FIRE OR SERIOUS DAMAGE TO THE STOVE OR CHIMNEY COULD RESULT. IF THIS CONDITION OCCURS, IMMEDIATELY CLOSE THE AIR CONTROL.**



## 5.10 Adding Fuel

Follow this procedure when reloading the stove while it is still hot and a bed of hot embers remains:

- Always wear gloves when tending to the stove.
- Adjust the Primary Air Shutter Lever to the fully open position and open the baffle plate. Wait a few seconds to re-establish strong draft before opening the load door. This will allow fresh air to flush the firebox and prevent smoke escaping when either the front or top door is opened.

- Open the Baffle and Top Door,  
Or,  
Open the Front Door.

**DO NOT LOAD THROUGH THE TOP WHEN THE FRONT DOOR IS OPEN.**

- Use a stove tool or poker to evenly distribute coals and embers around the firebox.
- Load the fuel, usually with smaller logs first.
- Close the Front Door, being sure to latch the door tightly.  
Or,  
Close the Baffle and then the Top Load Door.
- Wait 5 – 10 minutes before setting the air controls for the desired heat output and burn time.  
(If you have at least a 2” thick ember bed when reloading, it may be possible to close the door and immediately adjust the air control setting).
- Set the Air Shutter on the door for the desired heat output.

## 5.11 Open Door Fire-viewing

**Warning: This stove should be operated with the door either fully open with optional Spark Screen in place or with the door fully closed.** If the door is left partly open, there is risk of overfiring. Also, gas and flame may be drawn out of the fireplace stove opening, creating risks from both fire and smoke.

Be aware that, when operating with the door open, there exists the possibility of carbon monoxide generation by charcoal. Good draft is essential to minimize the potential for CO to be introduced into the living space. Be sure adequate fresh air and ventilation are available to the stove when using the spark screen.

---

## 5.12 Creosote Formation and the Need for Removal

When wood is burned slowly, it produces tar and other vapors that combine with moisture to form creosote. Creosote vapors condense in the relatively cool chimney flue, and creosote residue accumulates on the flue lining. When ignited, this creosote fuels an extremely hot fire.

The chimney connector and chimney flue should be inspected at least twice monthly during the heating season to determine if creosote buildup has occurred. If creosote has accumulated, it should be removed to reduce the chance of a chimney fire.

In the event that creosote ignites in the flue, the resulting fire is often accompanied by a roaring noise and crackling sound as flakes of burning creosote break loose. If you suspect you are having a chimney fire, immediately close the air controls and make sure the door is closed securely. Call the fire department and have everyone leave the house.

Do not attempt to extinguish the fire. Opening the door will only supply additional oxygen and intensify the fire. When the fire in the flue has subsided, resist the temptation to open the door to check on the fire. The fire may have suffocated, but could re-ignite with a supply of fresh air. After a chimney fire, do not use the stove until the chimney connector and flue have been cleaned and inspected to ensure no damage has been sustained.

See Section 6.6 of this manual regarding chimney cleaning.

---

## 5.13 Ash Removal

Ashes will drop through the bottom grate into the internal ash pan during normal operation. Empty the ash pan periodically, depending on how frequently the stove is used. Avoid letting the ash accumulation to spill over the pan and into the pan housing.

Always wear safety gloves when handling the ashes.

**Ashes should only be placed in a metal container equipped with a tight sealing lid.** The container 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 kept in the closed container until all cinders have thoroughly cooled.

## 6.0 Maintenance

### 6.1 Door Latch Adjustment

Over time, as the door gasket becomes compressed, it may be necessary to adjust the door latch in order to maintain the integrity of the door seal. To check the seal of the front door, close and latch the door on a dollar bill and slowly try to pull the bill free. You should feel resistance as you pull. If it can be easily removed, the seal is too loose. Follow this procedure to tighten the latch mechanism.

#### Tools Required:

- 4 mm hex key

1. Remove the two socket head screws and latch keeper from the stove. See fig. 19.
2. Remove one of the shim plates from the latch cavity and re-install the latch keeper. Retain the shim plate(s) removed for future use.
3. Test the seal integrity using the dollar bill.

### 6.2 Glass Care

#### Cleaning

On occasion it will be necessary to clean the carbon deposits and fly ash off of the glass. If these deposits are allowed to remain on the glass for an extended period of time, the surface may become etched and cloudy. Any creosote that might develop on the glass will burn off during the next hot fire.

#### Follow this glass cleaning procedure:

1. Glass must be completely cool.
2. Only use a cleaner that is specifically designed for this purpose. The use of abrasives will damage the glass and ultimately leave the glass frosted. **DO NOT USE AMMONIA-BASED GLASS CLEANERS.**
3. Rinse and dry glass completely before burning the stove. Polish with a piece of newspaper.

**Caution!** Always operate the door slowly and carefully to avoid cracking or breaking the glass. Never use the door to push wood into the firebox. If the glass becomes cracked or broken follow the replacement procedure below.

**NEVER OPERATE THIS STOVE WITH CRACKED OR BROKEN GLASS.**

**NOTE:** Replace glass only with Jøtul ceramic glass panel PN 224158 specifically designed for the Jøtul F 50 TL. Do not use substitutes. Replacement glass is available from your local Jøtul dealer.

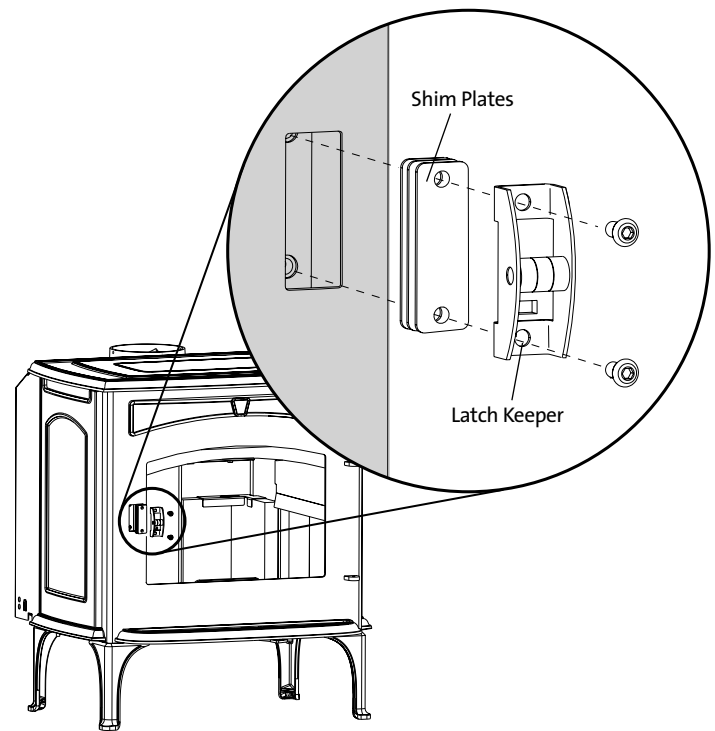


Figure 19. Latch adjustment.

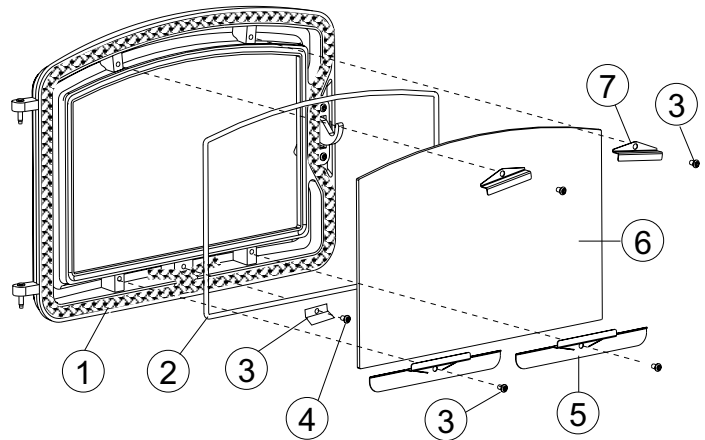
### 6.3 General Care

As with your car, regular maintenance will assure good performance and prolong the life of your stove. The following procedures do not take long and are generally inexpensive. When done consistently, they will increase the life of your stove and in turn, provide years of enjoyment.

- Regularly empty the stove of all soot and ashes. Only use a vacuum for this job if the vacuum is specifically designed to handle ashes. **CAUTION: Ashes can contain live embers. Be certain the ash bed contains no live embers before using a vacuum.**
- Inspect the stove: Using a strong light inspect the stove inside and out for cracks or leaks.
- Replace any broken bricks. See fig. 29, page 24. **DO NOT OPERATE THE STOVE WITH BROKEN OR MISSING BRICKS.**

## 6.4 Gasket Replacement

1. Use pliers and a putty knife to remove the old gasket and adhesive from the door.
2. Thoroughly clean the channel with a wire brush.
3. Apply a small bead of cement to the channel.
4. Gently press the new gasket into the cement to seat it in the channel. Wrap the two ends around and secure with the gasket clamp as shown in fig. 20. Close and latch the door and then reopen. Wipe away any excess cement that may have squeezed out from around the gasket.



## 6.5 Glass Removal or Replacement

See fig. 20.

1. Place the door face down on a protected surface.
2. First just loosen each glass clip screw and then remove the clips.
3. Lift the glass panel out of the door. Use pliers and a putty knife to remove the old glass gasket. Replace with PN 200024, .025 dia. LD2 gasket. Apply a small bead of cement in the channel and gently press the gasket into place.
4. Replace the glass and glass clips. Tighten the clips gradually, avoiding placing uneven pressure on the glass.

Description	Part Number
1. Door Gasket	223858
2. Glass Gasket	200024
3. Gasket Clamp	224257
4. Screw, M6x10 Button Hd.	117978
5. Lower Glass Clip Asy.	157357
6. Glass Panel	224158
7. Upper Glass Clip Asy.	157352

Figure 20. Glass and Gasket Replacement

## 6.6 Chimney System

The Jøtul F 50 TL is designed to burn cleanly and efficiently when used according to the guidelines in this manual. In order to maintain proper performance, you should inspect the chimney and chimney connector at the beginning of each heating season and then every eight weeks during the heating season. Clean the chimney whenever creosote and fly ash accumulation exceeds 1/4 inch in any part of the system. If the stove. Also, use a shop vacuum to remove any debris that may have accumulated on the stove baffle.

Chimney brushes are available from your local Jøtul dealer or hardware supply store. Your dealer can also refer you to a reputable, professional chimney sweep who will have all the equipment to ensure a complete and proper job.

**WARNING: FAILURE TO KEEP THE CHIMNEY CONNECTOR AND FLUE FREE OF CREOSOTE BUILD-UP CAN RESULT IN A CHIMNEY FIRE.**

## 6.7 Replacing Firebricks

**DO NOT OPERATE THE STOVE WITH BROKEN OR MISSING BRICKS.**

See fig. 29, page 24 and the parts listing on page 25 for the configuration and part number of any firebricks that require replacement. Order through your local Jøtul Authorized Dealer.

## 7.0 Appendix

### 7.1 Optional Blower 156431

#### Tools Required

- 10 mm wrench or socket driver
- pliers
- 1/4" socket driver or flat head screwdriver
- 4 mm hex key
- work gloves

#### CAUTION:

Avoid injury- always wear work gloves when handling sheet metal parts. Read through these instructions to familiarize yourself with these parts before beginning the installation.

- 115 VAC, 60 HTZ, Max. 40 Watts
- This blower must be electrically grounded in accordance with local codes or, in the absence of local codes, with the current ANSI/NFPA 70, National Electrical Code or CSA C22.1-Canadian Electrical Code.
- This unit is supplied with a three-prong (grounding) plug for protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. **DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THE PLUG.**
- Do not connect to power supply until all electrical connections have been made.
- Always disconnect the power supply when performing any service.

#### Installation

Install the blower kit before moving the stove into its final position. If the stove is already installed, you may need to pull it out to install this blower.

For Freestanding stove installations, where access to the back of the stove is unrestricted, the Control Box may be mounted to either corner of the rear shroud.

For Alcove or Hearthmount installations into fireplaces, the Switch Box must be mounted under the stove, attached to the side of the bottom heat shield. Determine the location most appropriate to your needs and follow the installation steps outlined below.

#### 1. Remove the Rear Shroud:

Use the 4 mm hex key to remove the socket head screws and nuts at the bottom of each side of the Rear Shroud. See fig. 22, A.

Loosen the two hex nuts at the upper rear of the stove and lift the shroud up off of the stove. See fig. 22, B. Keep all shroud fasteners for reassembly.

#### 2. Attach the Air Deflector: See figs. 21 and 22 /#3.

Use pliers to bend the deflector tabs at the perforation lines as shown. Attach the deflector to the interior side of the rear shroud using two #8 X 12 sheet metal screws from the exterior side.

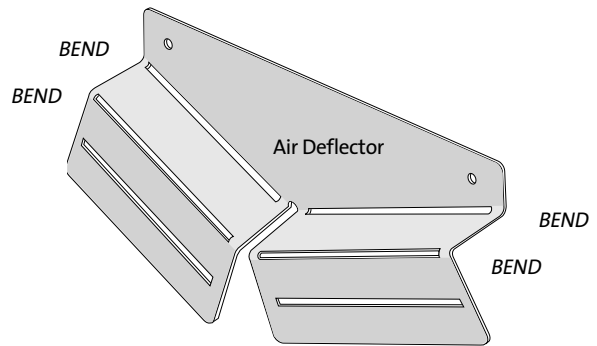


Figure 21. Air Deflector orientation.

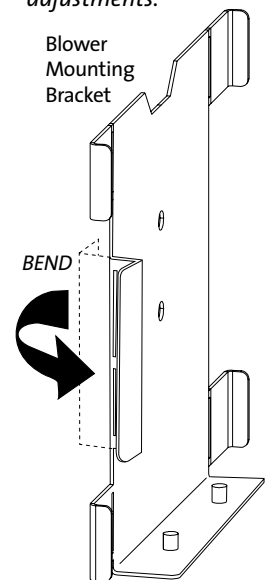
#### 3. Attach the Blower Mounting Bracket.

Use pliers to bend back the long, vertical flange to allow the bracket to fit flush against the back of the stove. (Fig. 22 and 23 /#2) to the two center studs on the back of the stove, oriented as shown. Secure with two M6 flange nuts.

#### 4. Attach the Blower to the Mounting Bracket using the two wing nuts (Fig. 23 /#9).

5. Attach the Snapstat Bracket to the lower stud on the back of the stove, oriented as shown in fig. 23 /#7. Slide the small Snapstat (#6, marked F110-20) all the way into the bracket slot between the stove and the bracket. Connect either snapstat lead to either snapstat terminal.

Figure 22. Blower Bracket adjustments.



#### 6. Install the Control Box, fig. 23 /#4:

The control box may be mounted to the side of the stove closest to the nearest electrical outlet.

#### Freestanding Installation-

Attach the control box to either side of the rear shroud using a 1/4" socket driver and one #8 x 12 sheet metal screw as shown in fig. 23.

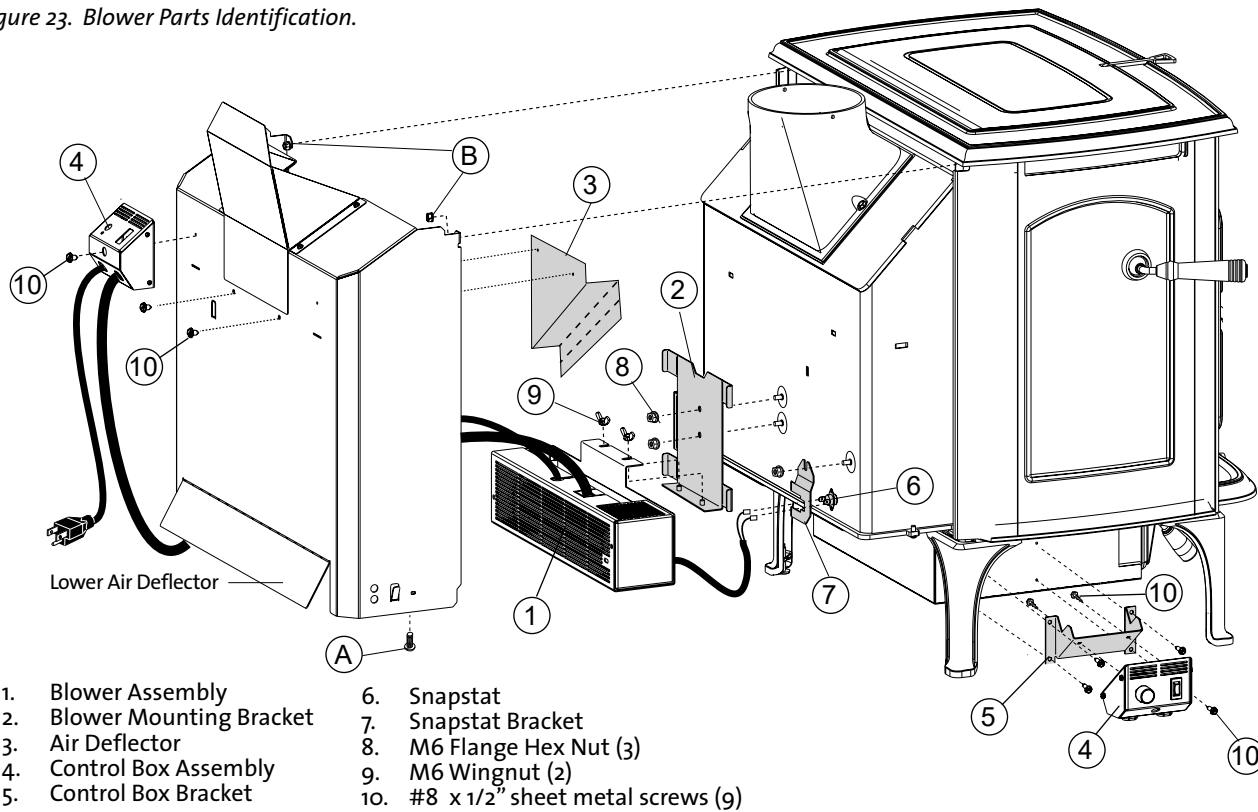
#### Alcove or Hearthmount Installation -

Attach the Control Box Mounting Bracket (#5) to the back of the Control Box using two #8 x 12 sheet metal screws.

Attach the Mounting Bracket/Control Box assembly to the side of the Bottom Heat Shield using four #8 x 12 sheet metal screws.

7. Bend back the Lower Air Deflector panel on the rear shroud. Reinstall the shroud by reversing the procedure in Step 1. Engage the shroud with the upper hex nuts on the back of the stove and then reinstall the socket head screws at the bottom of each side.

Figure 23. Blower Parts Identification.



8. Route the power cord to the nearest electrical outlet.

**Operation**

The blower is controlled by the heat-activated snapstat that will only function when the control switch is set in AUTO. After the fire is established, the snapstat will react to the heat and activate the blower. Fan speed may be manually adjusted with the rheostat knob. The blower will shut off automatically as the stove cools down. If automatic blower circulation is not desired, place the blower control switch in the MANUAL position.

**Maintenance**

**DISCONNECT POWER FROM THE BLOWER BEFORE SERVICING.**

Regular cleaning will help ensure you obtain maximum life from the blower. Use a vacuum with a soft brush attachment to clean the blower fans and motor housing at least monthly, or more frequently if there are pets in the home. Keep the area under the stove free of dust and debris.

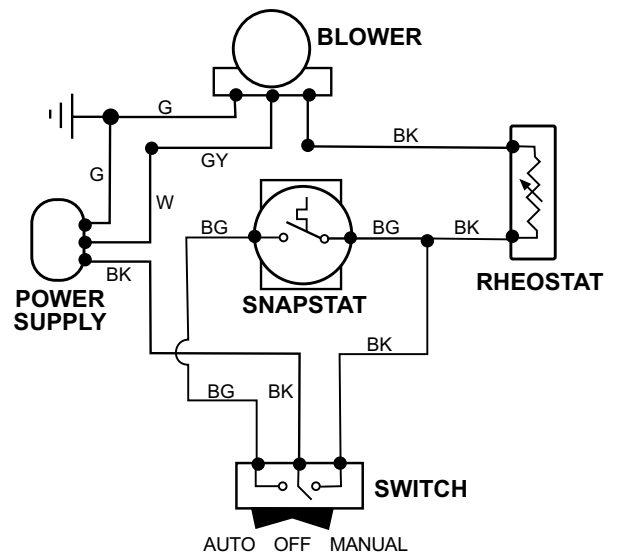


Figure 24. Blower wiring diagram.

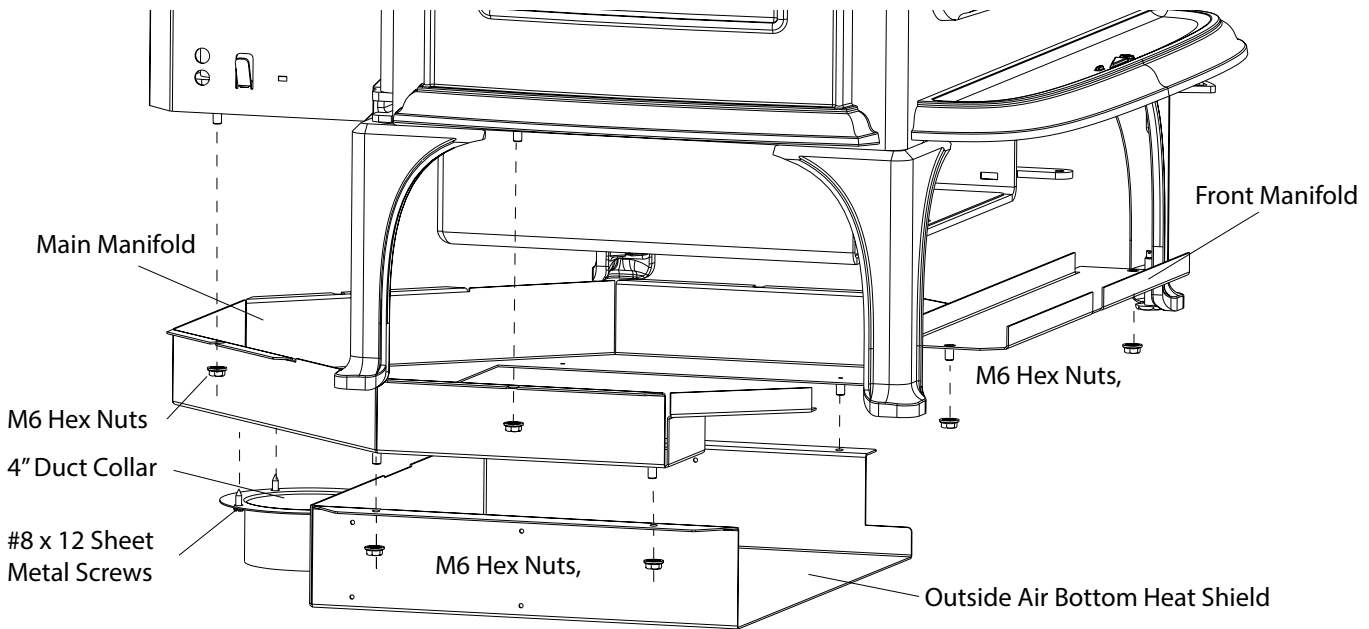


Figure 25. Outside Air Kit parts identification and orientation.

## 7.2 Outside Air Kit 157320

### Contents:

- Front Manifold
- Main Manifold
- Outside Air Bottom Heat Shield
- 4" Duct Collar
- M6 Hex Nuts, (6)
- #8 x 12 mm Sheet Metal Screws, (4)

### Tools Required:

- 10 mm socket driver or wrench
- safety glasses
- 1/4" socket driver or spade screwdriver
- work gloves

You will need to acquire the following additional components available at any hardware supplier:

- Exterior Air Inlet Cover
- 4" Duct
- Rodent Screen
- 4" Duct Clamps, 2

The exterior air inlet should not be installed at a level higher than the stove bottom.

1. Assembly will be easier with the Ash Door removed. Release the cotter pin to remove the hinge pin.
2. Attach the Duct Collar to the Main Manifold using four #8 x 12 mm sheet metal screws.
3. Remove the four nuts from the studs protruding from the stove bottom.

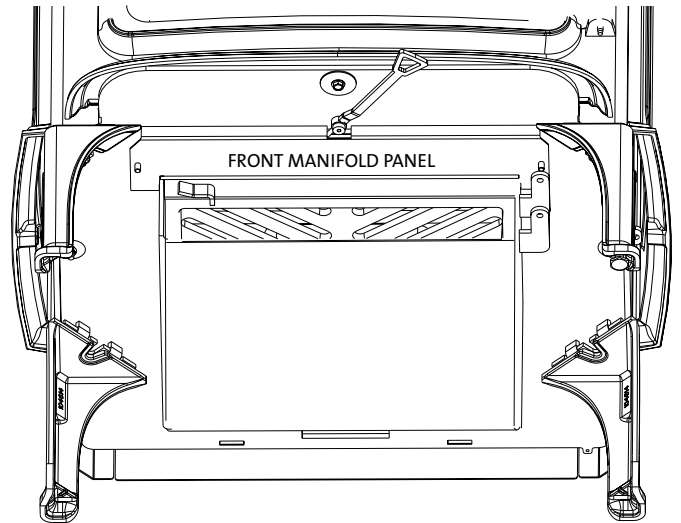


Figure 26. Front Manifold placement.

4. Orient the Front Manifold Panel as shown in figs. 25 and 26. Set it in place above the ash housing between the front legs of the stove.
5. Attach the Main Manifold to the four studs on the stove bottom and the two studs on the Front Manifold using the hex head nuts provided.
6. Attach the Outside Air Bottom Heat Shield to the studs on the bottom of the Main Manifold using four hex head nuts provided.
7. Connect the outside air duct, (not provided) to the collar using a duct clamp.

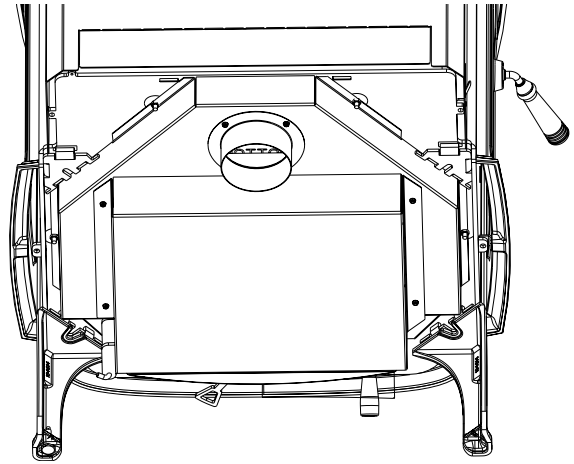


Figure 27. Final Assembly.

### 7.3 Mobile Home Floor Bracket Kit 157321

Contents: Floor Brackets, (2)

Fastener Required: 3/8" dia. Lag Screws, (2)

1. Determine the final location of the stove and use the levelling screws to plumb and level the stove.
2. Mount the floor brackets over levelling bolts at rear and front locations at opposite corners and secure each to the floor using a 3/8" dia. lag screw of appropriate length, (not supplied).

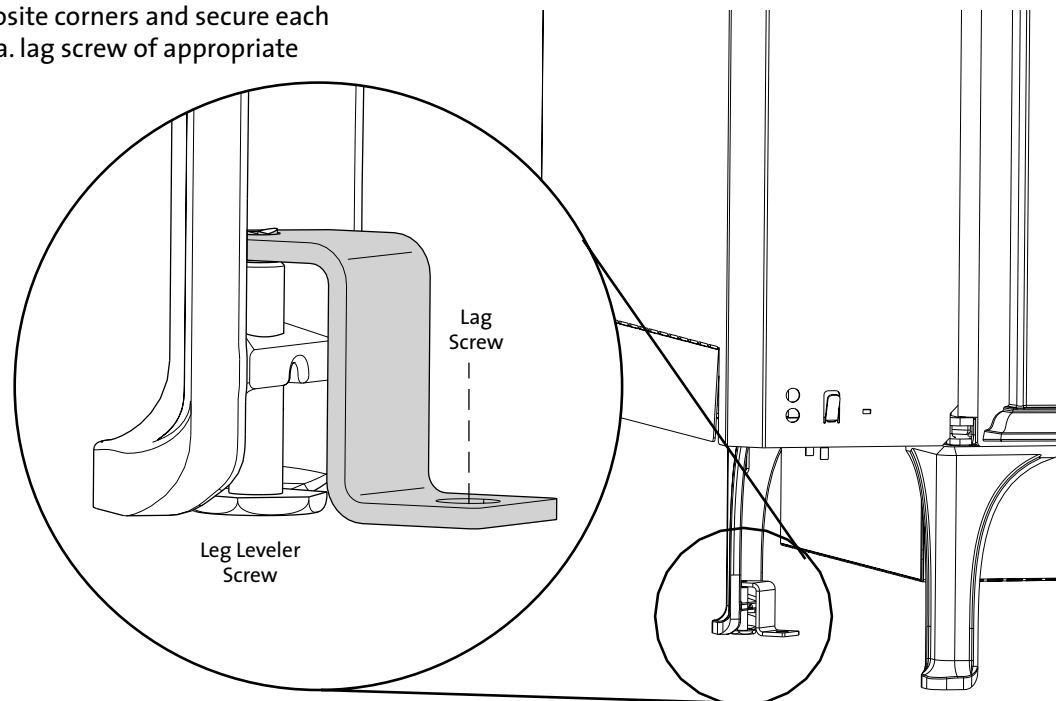


Figure 28. Floor Bracket Detail

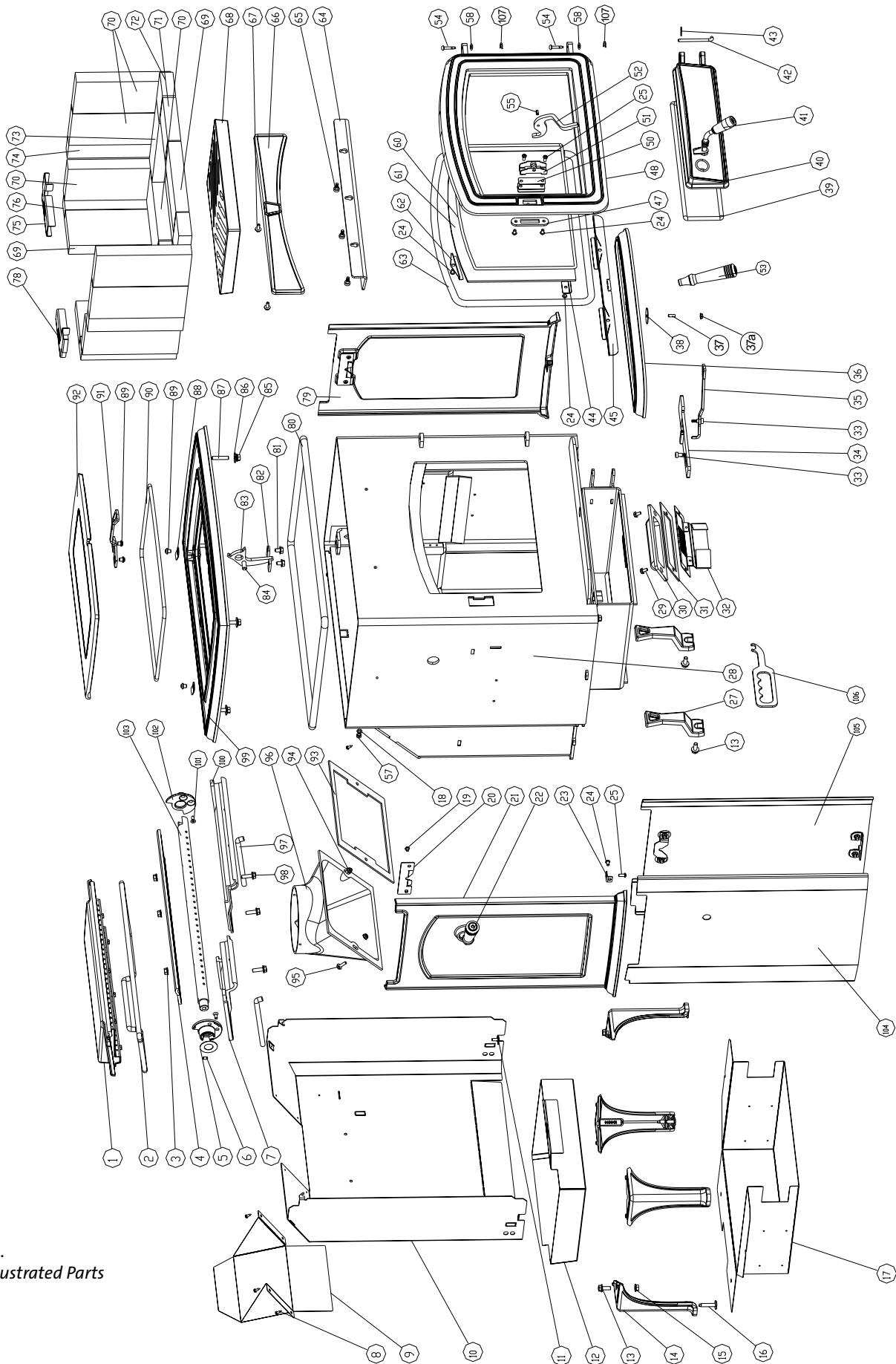


Figure 29.  
F 50 TL Illustrated Parts



## 8.0 Jøtul 50 TL Rangeley Part List

No.	Description	Part Number
1.	Air Baffle Manifold Assembly	157345
2.	Gasket, LD2, .500 Ø Fiberglass Rope, SS Jacket	223828
3.	Nut, M8, Serrated Flange	117881
4.	Upper Union Plate,	104609
5.	Tube Spacer, TL Stoves	224129
6.	Screw, Soc Set, cup pt, M6 X 10, Black	04-11720
7.	Baffle Plate, Left, Cast Iron - 50 TL	104606
8.	Screw, HWH SMA 8 x 1/2 SL Blk Oxide	117917
9.	Heat Shield, Flue Collar, 50 TL, MB	22422692
10.	Rear Shroud, 50 TL, MB	22421992
11.	Screw, Button Head Socket, M6 X 14, Blk	118215
12.	Ash Pan, 50 TL	224114
13.	Bolt, M8 x 20, hex Serr. Flange Hd Black	117875
14.	Leg, Cast Iron, MB	157346
15.	Nut, M8, Serrated Flange, DIN 6923 St 8.8	117881
16.	Leveling Screw, M8 x 40 mm (2)	118047
17.	Heat Shield, Bottom, 50 TL, MB	22422892
18.	Washer, Flat M6 -.062 DIN 125A Plain	117947
19.	Screw, Button Head Socket, M6 X 6, Blk	118170
20.	Bracket, Top, Cast Convection Panel, 50 TL	226582
21.	Convection Panel, Left, Cast Iron - MB	157355
22.	Baffle Handle	157263
23.	Bracket, Bottom, Cast Convection Panel,	224468
24.	Screw, Button Hd Socket M6 x 10 Blk	117978
25.	Screw, Button Head Socket, M6 X 16, Blk	118201
27.	Andiron, Cast Iron	10461292
28.	Firebox Weldment, 50 TL	22338892
29.	Bolt, Hex Head Serr Flange M6 x 12 Blk	117130
30.	Inspection Cover, Cast Iron, MB	157347
31.	Gasket, Inspection Cover	224355
32.	Primary Air Deflector	224367
33.	Screw, Shoulder, M6x10 Thd, 8mmØx10mm Shld, Hex	117982
34.	Air Valve Weldment, 50 TL	223729
35.	Air Valve Handle Ass'y, Nickel Plated	157391
36.	Ashlip, Cast Iron - 50 TL, MB	157348
37.	Set Screw, M6 x 16	118031
37.a	Nut, M6 - Serrated Flange	117968
38.	Washer, Fender .250 x 1.500 dia.	118029
39.	Gasket, .360 LD2	100038
40.	Ashdoor w/Gasket, Top Load Stoves, MB	157349
41.	Ashdoor Handle Assembly, Top Load Stoves	157350
42.	Hinge Pin, Ash Door, Nickel Plated	224268
43.	Hairpin Cotter, 1/16 x 1 1/8" Stainless Steel	118091
44.	Gasket Retainer, Front Door	224268
45.	Glass Clip w/Gasket, Bottom, Steel Stoves	157357
47.	Retainer, Front Door Latch	224159
48.	Door, Front, w/Gasket, Cast Iron , MB	157351
50.	Latch Shim	224734
51.	Front Door Catch	224733
52.	Offset Latch, Front Door, Nickel Plated	157459
53.	Front Door Tool, Nickel Plate	157262
53a.	Receiver	224359
53b.	Wooden Handle	128064
53c.	M6 Rod	126835
53d.	Nut Housing	224358

No.	Description	Part Number
54.	Hinge Pin - Grooved, Nickel Plate	225098
55.	Slotted Spring Pin, 5mm Ø x 20mm, Plain Steel	118240
57.	Nut, Lock M6 DIN 980v Stover Zinc	118016
58.	Washer, Hinge M6 - 12mm OD x 6mm ID x 0.5mm Zinc	117588
60.	Gasket, LD 250 Fiberglass Rope	200024
61.	Glass, Ceramic, Door, 50 TL	224158
62.	Glass Clip w/Gasket, Top, Steel Stoves	157352
63.	Gasket, MD, .625 Ø Fiberglass Rope	223858
64.	Exhaust Deflector	224325
65.	Screw, Shoulder, M6 Thd, 8mmØx6mm Shldr, Plain	118244
66.	Eyebrow, Cast Iron, MB	157353
67.	Bolt, Hex Head Serr Flange M6x16 8.8 Blk	99625
68.	Grate Plate, Cast Iron - 50 TL	104605
70.	Brick, Refractory, 4.25" x 9" x 1.25"	129082
71.	Brick, Refractory, 5.5" x 3" x 1.25"	224259
72.	Brick, Refractory, 4" x 3" x 1.25"	224175
73.	Brick, Refractory, 8.5" x 3" x 1.25"	221752
74.	Brick, Refractory, 9" x 1.88" x 1.25"	220390
75.	Brick Retainer, Right	224113
78.	Brick Retainer, Left	224112
79.	Convection Panel, Right, Cast Iron, MB	10461592
80.	Gasket, MD, .625 Ø Fiberglass Rope	223858
81.	Bolt, Hex Head M8 x 12 Blk	99115
82.	Side Clip (aka Hang Tab)	128401
83.	Linkage Lever, TL Stoves	225390
84.	Dowel Pin, 3/8" x 2"	224157
85.	Nut, M8, Serrated Flange, DIN 6923 St8.8	117881
86.	SWasher, Fender 8mm Zinc	117949
87.	Set Screw, M8 x 40, Hex Socket, Steel, Black, DIN 916	118245
88.	Hinge Tab, Load Door, TL Stoves	22417692
89.	Screw, Button Head Socket, M8 X 8 Blk	118241
90.	Gasket, LD2, .375 Ø Fiberglass Rope, SS Jacket, SPL	224276
91.	Handle, Load Door, TL Stoves, Nickel Plated	224729
92.	Door, Top Load, Cast Iron -50 TL	157398
93.	Gasket, Flue Collar	224350
94.	Nut, M6 Serrated Flange plain	117968
95.	Bolt, Hex Head, Serr Flange M6x20 Blk	117117
96.	Smoke outlet, MB	10332692
97.	Gasket, LD2, .500 Ø Fiberglass Rope, SS Jacket, SPL	223828
98.	Bolt, M8 x 25, Hex Serrated Flange Hd, SS	118242
99.	Top Plate, TL Stoves, MB	157356
100.	Baffle Plate, Right, 50 TL	104607
101.	Screw, Flat Head Phillips M6 X 12 M/S Blk	117976
102.	Tube Bushing, Machined	157285
103.	Replacement Air Tube Weldment	157358
104.	Steel Convection Panel, Left, 50 TL, MB	22422192
105.	Steel Convection Panel, Right, 50 TL, MB	22422092
106.	Load Door Tool, TL Stoves, MB	22426592
107.	Hinge Pin Retainer Clip	118261

**Only use replacement parts provided through your authorized Jøtul dealer.**

## 9.0 Jøtul F 50 TL Rangeley Warranty

This warranty policy applies to wood-burning products identified by Jøtul trade names, as set forth below.

### A. LIMITED LIFETIME WARRANTY, parts only:

Jøtul North America Inc. (JØTUL) warrants, to the original retail purchaser, that those baffle and air manifold components of the Jøtul or Scan Stove or Fireplace Insert specified above will be free of defects in material and workmanship for the life of the product. This warranty is subject to the terms, exclusions and limitations set forth below.

### B. LIMITED FIVE YEAR WARRANTY - Cast Iron and Steel Components:

JØTUL warrants, to the original retail purchaser, that those components of the Jøtul or Scan Stove or Fireplace Insert specified above will be free of defects in material and workmanship for a period of five (5) years from the date of purchase. This warranty is subject to the terms, exclusions and limitations set forth below.

### C. LIMITED TWO YEAR WARRANTY - Enamel Finish:

JØTUL warrants, to the original retail purchaser, the enamel finish on cast iron components of the Jøtul Stove or Fireplace Insert specified above against peeling or fading for a period of two (2) years from the date of purchase. This warranty is subject to the terms, exclusions and limitations set forth below.

### D. LIMITED ONE YEAR WARRANTY - Electrical Components (blowers, thermostatic switches):

JØTUL warrants, to the original retail purchaser, that those components of the Jøtul or Scan Stove or Fireplace Insert specified above will be free of defects in material and workmanship for a period of one (1) year from the date of purchase. This warranty is subject to the terms, exclusions, and limitations set forth below:

JØTUL will repair or replace at its option, any of the above components determined by JØTUL to be covered by this warranty. You must, at your own expense, arrange to deliver or ship the component to an authorized Jøtul dealer and arrange for pickup or delivery of the component after repairs have been made. If, upon inspection, JØTUL determines that the component is covered by this warranty, the repair or replacement will be made as set forth above. This warranty is not transferable and is extended only to, and is solely for the benefit of, the original retail purchaser of the Jøtul Stove or Fireplace Insert. This paragraph sets forth the sole remedy available under this warranty in the event of any defect in the Jøtul Stove or Fireplace Insert.

The warranty period for any replaced component will be the remaining unexpired portion of the warranty period for the original component. Please retain your dated sales receipt in your records as proof of purchase.

### EXCLUSIONS AND LIMITATIONS

NOTICE: This warranty is void if installation or service is performed by someone other than an authorized installer or service agency, or if installation is not in conformance with the installation and operating instructions contained in this owners manual or local and/or national fire and building regulations. A listing of local authorized installers, service agencies and gas suppliers can be obtained from the National Fireplace Institute at <http://www.nficertified.org/>.

This warranty does not cover the following:

- 1) Repair or replacement of parts that are subject to normal wear and tear during the warranty period or to parts that may require replacement in connection with normal maintenance. These parts include paint, gaskets, burn plates, firebricks, fire grates, ceramic insulation blankets or glass (glass is only warranted against thermal breakage).
- 2) Damage due to incorrect installations not in conformance with the installation instructions contained in this owners manual or local and/or national fire and building regulations.
- 3) Damage, including damage to enamel surfaces, caused by improper operation, over-firing, and/or misuse. Improper operation, such as burning

the stove with the ash door open, can damage the stove. Over-firing occurs when any part of the stove glows red. Over-firing can also be identified by warped plates, rust-colored cast iron, paint pigment that has turned dusty white, or bubbling, cracking and discoloration of the enamel finish. Misuse includes, without limitation, use that is not in conformance with the operating instructions contained in this owners manual.

- 4) Damage due to, or repair of, rust. Use of stove-top steamers may cause rust.
- 5) Damage due to service performed by an installer or service agency, unless otherwise agreed to in writing by JØTUL.
- 6) Damage caused by unauthorized modification, use or repair.
- 7) Costs incurred by travel time and/or loss of service.
- 8) Labor or other costs associated with the repair of components beyond the warranty period.
- 9) Damage incurred while the Jøtul Stove or Fireplace Insert is in transit.

IN NO EVENT SHALL JØTUL, ITS PARENT COMPANY, SHAREHOLDERS, AFFILIATES, OFFICERS, EMPLOYEES, AGENTS OR REPRESENTATIVES BE LIABLE OR RESPONSIBLE TO YOU FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SIMILAR DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR DAMAGES TO A STRUCTURE OR ITS CONTENTS, ARISING UNDER ANY THEORY OF LAW WHATSOEVER. ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WRITTEN WARRANTY. EXCEPT AS EXPRESSLY SET FORTH HEREIN, JØTUL MAKES NO ORAL, WRITTEN OR OTHER WARRANTY WITH RESPECT TO JØTUL OR SCAN STOVES OR FIREPLACES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on the length of implied warranties. Therefore, the above exclusions or limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

JØTUL reserves the right to discontinue, modify or change the materials used to produce the Jøtul Stove or Fireplace. JØTUL shall have the right to replace any defective component with substitute components determined by JØTUL to be of substantially equal quality and price.

The dollar value of JØTULS liability for breach of this warranty shall be limited exclusively to the cost of furnishing a replacement component. JØTUL shall not in any event be liable for the cost of labor expended by others in connection with any defective component. Any costs or expenses beyond those expressly assumed by JØTUL under the terms of this warranty shall be the sole responsibility of the owner(s) of the Jøtul Stove or Fireplace Insert.

No dealer, distributor, or other person is authorized to modify, augment, or extend this limited warranty on behalf of JØTUL. NO MODIFICATION OR CHANGE TO THIS WARRANTY WILL BE EFFECTIVE UNLESS IT IS MADE IN A WRITTEN DOCUMENT MANUALLY SIGNED BY AN AUTHORIZED OFFICER OF JØTUL.

An authorized installer may have been provided with certain information related particularly to the Jøtul Stove or Fireplace Insert; however, no authorized installer or other person who may service the appliance is an agent of JØTUL. No inference should be made that JØTUL has tested, certified, or otherwise pronounced any person as qualified to install or service the appliance. JØTUL shall not be liable or otherwise responsible for any error or omission by a person installing or servicing a Jøtul Stove or Fireplace Insert.

If you believe your Jøtul or Fireplace Insert is defective, you should contact your nearest authorized Jøtul dealer, who will process a warranty claim. IN ORDER TO QUALIFY FOR WARRANTY COVERAGE, JØTUL MUST RECEIVE NOTICE OF A POSSIBLE DEFECT WITHIN SIXTY (60) DAYS OF THE DATE THE DEFECT IS FIRST DISCOVERED, OR REASONABLY COULD HAVE BEEN DISCOVERED.

This warranty is given by Jøtul North America, Inc.,  
55 Hutcherson Drive, Gorham, Maine 04038 USA

*This page is intentionally blank.*

139262\_Rev\_5  
Jan. 2020

*Jøtul pursues a policy of continuous product development. Products supplied may therefore differ in specification, colour and type of accessories from those illustrated and described in this manual.*



**Jøtul North America Inc.**

P.O. Box 1157  
55 Hutcherson Drive  
Gorham, Maine 04038  
USA

**Jøtul AS**

P.O. Box 1411  
N-1602 Fredrikstad,  
Norway

[www.jotul.us](http://www.jotul.us)