

NOVA INSERT OWNER'S MANUAL



Safety Notice: Please save these instructions for future reference. Please check our website for the most up to date version of this manual. Please read this entire manual before you install and use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death. Contact local building or fire officials about restrictions and installation inspection requirements in your area. Do not install Nova in a mobile home!

Manufactured by:
MF Fire, Inc.
3031 Washington Blvd STE G,
Baltimore, MD, USA



Report Number F20-590

Table of Contents

Table of Contents	1
Safety Precautions	3
Installation	3
Operation	4
Maintenance	5
Features and Specifications	6
Configurations	6
Dimensions	7
Heating Specifications	7
Emissions and Efficiency	8
Safety Listings	8
Label	8
Stove Installation	9
Planning the Installation	9
Stove Placement Requirements	10
Fireplace Requirements	11
Minimum Clearance Requirements	13
Floor Protection Requirements	13
Chimney Liner Requirements	14
Chimney Requirements	15
Chimney Termination Requirements	15
Installing the Bypass Handle	16
Place the bypass handle onto the rod in this position, lining up the set screw holes. Tighten set screw.	17
Configuring the Optional Top or Rear Vent	18
Attaching the Insert Trim Kit	20
Installing the Ceramic Fiberboard and Fire Brick	40
Catalytic Combustor	42
Ash Retainer	45
Initial Curing	45

Operation	46
Bypass	46
Starting a Fire	46
Controlling the Burn	48
Reloading	48
Wood Selection	48
Ordinary Operating Sounds	48
Regular Maintenance and Troubleshooting	49
Glass	49
Disposal of Ashes	49
Door Gaskets	49
Catalytic Combustor	50
Monthly Maintenance	51
Creosote – Formation and Need for Removal	51
Gasket	51
Annual Maintenance	51
Exterior Paint	52
Glass	52
Fireplace Insert, Fireplace, and Chimney Inspection	53
Catalytic Combustor Replacement	54
Appendix A: Lifetime Limited Warranty	55

Safety Precautions

Installation

Nova Insert must be properly installed to prevent house fires. Please strictly adhere to the installation instructions.

Nova Insert must be connected to a listed high temperature chimney or approved masonry chimney with liner.

We recommend you use smoke and CO detectors.

Do not connect this unit to a chimney flue serving another appliance.

Contact your local building officials to obtain information on any local wood stove installation requirements.

Carefully route all power cords through to avoid contact with hot stove surfaces.

Do not connect to or use Nova Insert in conjunction with any air distribution ductwork unless specifically approved for such installations.

Operation

Nova Insert is hot while in operation. Keep children, clothing and furniture away as contact may cause skin burns.

Do not touch Nova Insert while hot. Young children should be supervised around Nova Insert.

Keep all flammable objects (fabrics, paper, wood, etc.) at least 1 yd (1 m) from the front of the Nova Insert.

Nova Insert has been designed for the burning of cordwood only. Do not attempt to burn any other type of fuel in Nova Insert.

Do not burn garbage or flammable fluids such as gasoline, naphtha or engine oil.

Do not use chemicals or fluids to start the fire.

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

The viewing door of Nova Insert must be shut and latched during operation.

Do not use additional grates, andirons, or other means for supporting the fuel.

Never obstruct airflow through the inlet vents or exhaust vents.

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.

Never over-fire Nova Insert, as it could lead to a house fire. If the unit or chimney connector glows, you have over-fired the unit.

Maintenance

Allow Nova to cool before conducting any maintenance.

Never attempt to modify or repair the appliance beyond instructions given in this manual.

Empty the ash regularly and dispose of it in a metal container with a tight lid.

Inspect the chimney connector at least twice monthly.

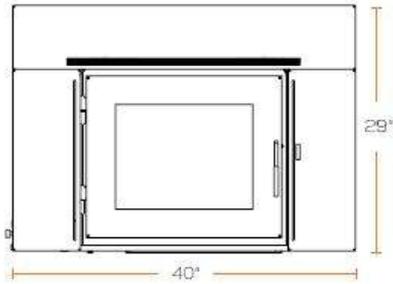
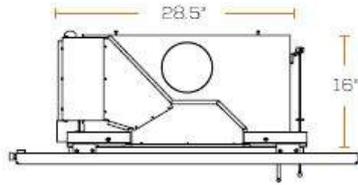
Features and Specifications

Configurations

Nova Insert is available with a trim kit of size 29" x 40"

Additionally, Nova Insert can be used in either a rear vent or a top vent configuration, to best fit your home and preferences. While Nova Insert is typically configured as a top vent to accommodate small fireplace depths, in cases of extremely short fireboxes the rear vent configuration may be preferable.

Dimensions



NOVA INSERT

Surround height	29"
Surround width	40"
Minimum fireplace width	30"
Minimum fireplace height	25"
Minimum fireplace depth	16"
Back to center top flue collar	4.25"

Heating Specifications

Nova Insert is equipped with a 1.7 ft.³ firebox and accepts logs up to 18" in length.

Nova Insert has a 1,500 sq. ft. (175 m²) approximate maximum heating capacity. Heating capacity will vary depending on the home's floor plan, degree of insulation, and the outside temperature.

Nova Insert has a 23,000 BTU per hour (7 kW) EPA certified heat release rate, with actual heat release rates ranging from 9,000 to 50,000 BTU per hour (2.5 to 15 kW) depending on user loading and reloading.

Emissions and Efficiency

U.S. Environmental Protection Agency certified to comply with 2020 particulate emission standards for single burn rate heaters. This single burn rate wood heater is not approved for use with a flue damper. Certified average emissions rate of 1.9 g/hr and a maximum tested efficiency of 79%, tested to EPA Method 28R and ASTM E2515-11.

Safety Listings

Nova Insert is available for sale in the United States and Canada has been listed with PFS-TECO and is tested and compliant in accordance with UL 1482 – 2011(R2015), ULC-S627-00 (R2016), and ULC S628-93 (R2016)

Label

Nova Insert comes with a metal certification label on a chain affixed to the bottom back of the stove. This label is in english and french.

Stove Installation

Safety Notice: Please read this entire manual before you install and use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death. Contact local building or fire officials about restrictions and installation inspection requirements in your area. Do not install Nova Insert in a mobile home!

Planning the Installation

Proper care and attention to service helps to protect you from unnecessary fires and carbon monoxide poisonings. To get the best service and wood stove installation for your Nova Insert wood stove, we recommend Installers or Chimney Sweeps certified by the National Fireplace Institute (NFI) or the Chimney Safety Institute of America (CSIA).

To locate one of the more than 2,000 active NFI or CSIA Certified installers across North America, please use the installer locator on our website: <https://mffire.com/installers/>

Check with your local building officials and your home insurance company before installation. When this room heater is improperly installed, a house fire may result. To reduce the risk of fire, follow the installation instructions. Contact local building or fire officials about restrictions and installation inspection requirements in your area. If there are any major dents or other damage to your stove, please report to MF Fire prior to installation.

Stove Placement Requirements

Nova Insert must be placed in a room with a source of fresh air.

Nova Insert must be placed so that no combustibles are within, or can swing within 36" (914mm) of the front of the stove (drapes, doors, etc.).

Caution: Avoid makeshift compromises during stove placement or installation. Failure to follow instructions may result in property damage, bodily injury, or even death.

Fireplace Requirements

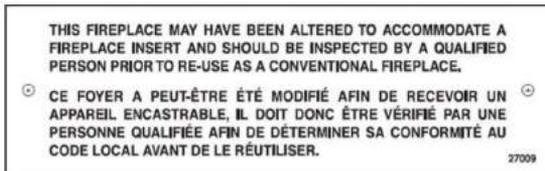
Nova Insert is intended for use in conjunction with a masonry fireplace provided all installation instructions are followed.

The minimum fireplace opening to which Nova Insert may be inserted is 25" high, 30" wide, and 16" deep. The hearth must extend 18" in front of Nova Insert and 16" on either side, i.e. 54.5" wide.

Do not remove any bricks and mortar from the existing fireplace in a way that may damage the structural integrity of the fireplace or chimney. Such removal could present a safety hazard resulting in structural damage, injury, or loss of life.

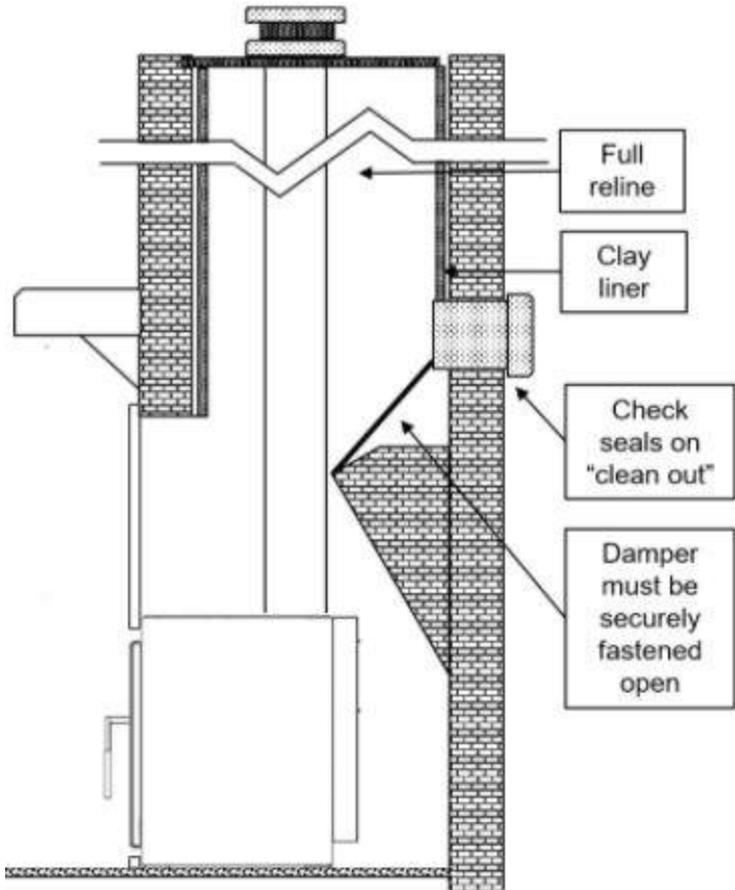
Exception: Masonry or steel, including the damper plate, may be removed from the smoke shelf and adjacent damper frame if necessary to accommodate a chimney liner, provided that their removal will not weaken the structure of the fireplace and chimney, and will not reduce protection for combustible materials to less than that required by the National Building Code.

The provided metal tag must be attached using screws or nails to the fireplace, in a location readily visible should the fireplace insert be removed, if the fireplace has been modified to accommodate a fireplace insert.



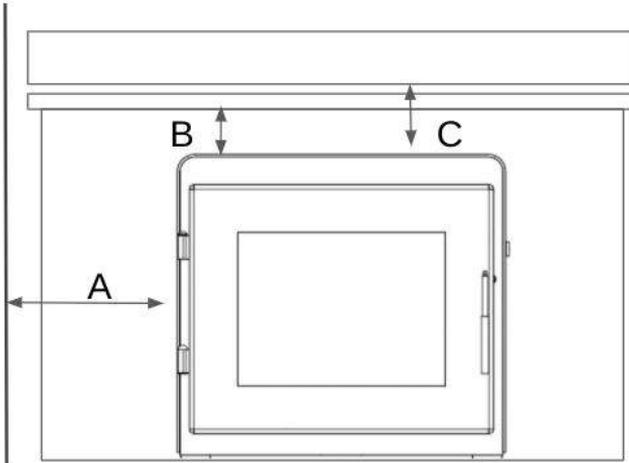
The entire fireplace must be clean, undamaged, and meet all local building codes. This installation requires a full reline. The liner must be a stainless steel chimney connector or flexible vent pipe. Follow the liner manufacturer's instructions for installation and support.

Any existing fireplace dampers must be locked in the open position. It is necessary to permanently seal any opening between the masonry of the fireplace and facing masonry.



Minimum Clearance Requirements

The minimum clearance requirements for the Nova Insert are listed in the table below. Clearances may be reduced following methods in NFPA 211, listed wall shields, pipe shields, or other means approved by local building or fire officials.



A	Sidewall to unit	20" (508 mm)
B	Top of unit to $\frac{3}{4}$ " trim	8" (203 mm)
C	Top of unit to 8" mantle	11" (279 mm)

Do not store fuel or place combustible material within the required clearances surrounding the fireplace insert.

Floor Protection Requirements

Nova Insert must be installed on a non-combustible hearth surface.

Chimney Liner Requirements

This fireplace insert must be installed with a continuous chimney liner of 6" diameter extending from the fireplace insert to the top of the chimney. The chimney liner must conform to the Class 3 requirements of CAN/ULC-S635, Standard for Lining Systems for Existing Masonry or Factory-Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.

The chimney liner must be installed with the crimped end pointing downwards. This prevents creosote or condensation from leaking to the exterior of the pipe.

The chimney liner must be fastened to the stove following instructions provided in this manual and each adjoining section and kept clean.

Chimney Requirements

Do not connect Nova Insert to a chimney flue serving any other appliance or use in conjunction with any air distribution ductwork, unless specifically approved.

This room heater must be connected to a code approved masonry chimney with a flue liner.

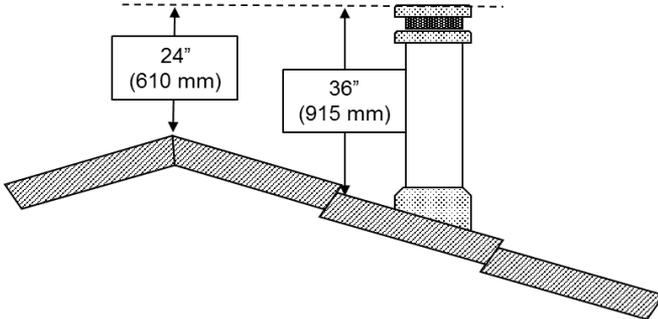
Chimney may not be less than 15' (4.5 m) or more than 33' (10 m).

Chimney Termination Requirements

The chimney must have an approved cap (to prevent water from entering).

The chimney must not be located where it could become plugged by snow or other material.

The chimney must terminate at least 3' (914 mm) above the roof and at least 2' (610 mm) above any portion of the roof within 10' (3 m).



Installing the Bypass Handle

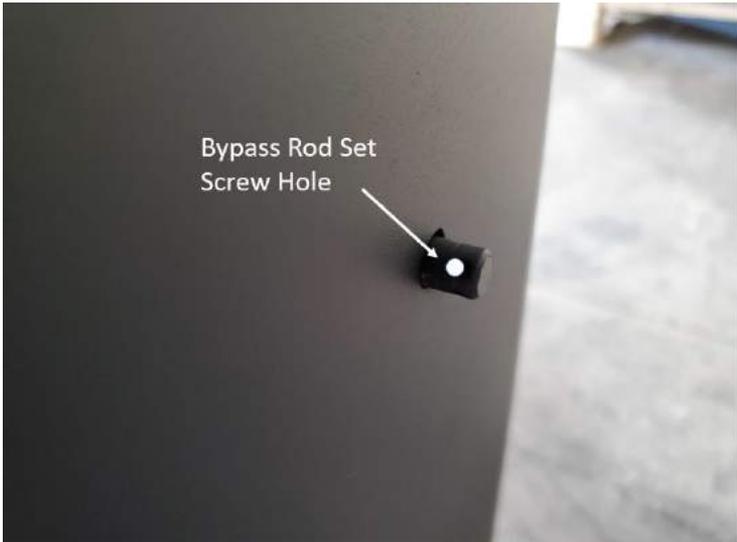
Nova Insert comes with the bypass handle detached for safety during transport.

Step 1: Remove the set screw from the bypass handle.

Step 2: Reach through the top vent of the stove and rotate the bypass plate to the open position with your hand. To install the bypass handle simply slide the handle over the bypass rod on the back of the right side of the stove such that the handle is pointed towards the rear of the stove, with the bent portion of the handle angled away from the stove as shown below. Note: There will be a second, unused set screw hole in both the rod and handle.



Step 3: Rotate the bypass handle on the bypass rod until the set screw holes are aligned with the holes in the bypass handle, insert the set screw in the front-most hole, and tighten screw into the hole. Tighten the set screw, wiggle the handle, tighten the set screw, wiggle the handle, etc. until the handle is tight and there is no wiggle.



Rotate the bypass plate such that the forward-most set screw hole is in this position.



Place the bypass handle onto the rod in this position, lining up the set screw holes. Tighten set screw.

Configuring the Optional Top or Rear Vent

Nova Insert can be configured as either a top venting or a rear venting stove. Nova Insert will arrive in the top vent configuration. To switch to the rear vent configuration, the following procedure may be followed.

Step 1: Remove the rear blocker plate collar, secured with 4 bolts and 1 washer each, and access panel, secured with 6 bolts and no washers, from the back of the stove as shown below.



Step 2: Next, reach inside the back of the stove and remove the spacer plate and the flue collar, secured with 4 bolts and 2 washers each, located on the inside top of the stove.



Step 3: The blocker plate that was removed from the rear of the stove can then be inserted over the opening at the top of the stove, the spacer plate placed below, and the entire assembly secured to the top of the stove with bolts as shown below. Before tightening bolts, be sure that no gaps exist between the blocker plate and the top of the stove whereby smoke may escape. If necessary, gasket cement can be placed between the plate and the top of the stove.



Step 4: Replace the access plate and install the flue collar, as shown below.



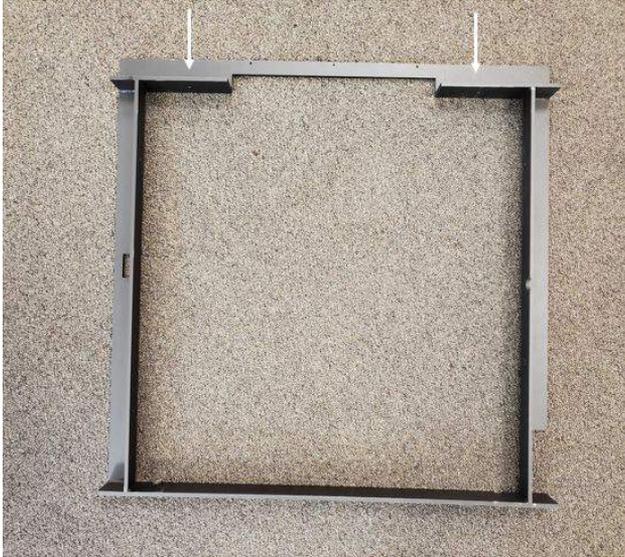
Attaching the Insert Trim Kit

To ease installation, Nova Insert should have the Insert Trim Kit attached and be installed in the masonry hearth before the installation of ceramic fiberboard, firebrick, and the catalytic combustor inside the stove. Details on the installation of the ceramic fiberboard, firebrick, and catalytic combustor follow in subsequent sections.

Step 1: To begin assembling Nova Insert, unpack all included equipment and lay on a soft surface like a carpet or drop cloth. The door may be removed to lower weight and for ease of installation, but take care not to lose the door hinge washers.



Step 2: Nova Insert comes with a square frame that will be affixed to the stove body with 2 set screws. Before attaching the frame, pre set the set screws in the 2 holes on the top of the frame, as indicated by the arrows below.



Square Frame and Set Screws. The flat side of the frame goes on the bottom with slots facing the front.



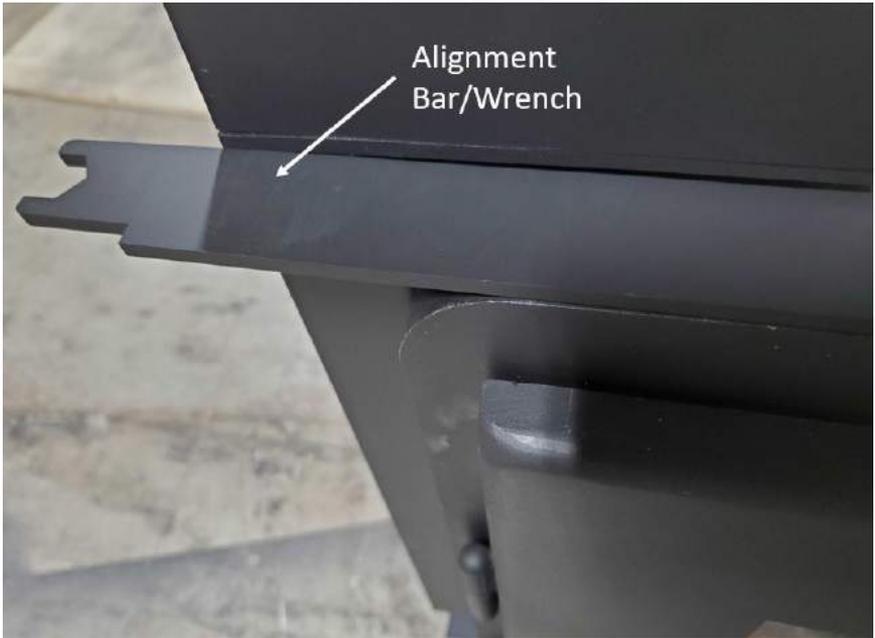
Pre-set set the 2 screws into the frame top for easy installation.

Step 3: To attach the square frame to the outside of Nova Insert, first rock the stove body mostly or all the way onto its back, and then slide the frame over the front of the stove. If not already installed, leveling bolts may be inserted into the four bolt holes on the leg pads on the bottom of the stove.

Tilt the stove back normal side up and align the front of the frame approximately so it is approximately 1.5" from the front of the stove on all sides. This is most easily done by placing the 1.5" alignment bar/wrench flat on the top and then each side of the frame, and moving the frame until the side of the bar is parallel with the front of the stove, as shown below. Tighten the 2 set screws on top of the stove with a socket or adjustable wrench to hold the frame in place on the stove. The frame will be used to support other components and should be tight.



Attach leveling bolts to bolt holes on the legs of the stove.



Align frame to front of stove on all three sides with alignment bar/wrench and tighten set screws with an adjustable or socket wrench.



Stove body, turned back upright, with the frame attached

Step 4: Next, attach the blower duct assembly. First, place the top front blower duct on the top of the stove, and attach to the back of the top of the frame through the three pre-drilled holes with included machine screws. You may need to loosen or remove one of the frame set-screws to fit the blower duct flange.



Attach the top front blower duct to the frame with 3 machine screws

Second, attach the top middle blower duct by sliding over the top front blower duct piece, and securing through the three pre-drilled holes with self-drilling screws.



Attach the top middle blower duct to the top front piece

Next, attach the top rear blower duct piece to the top middle piece by sliding under the top middle piece and securing with three self-drilling screws through pre-drilled holes.



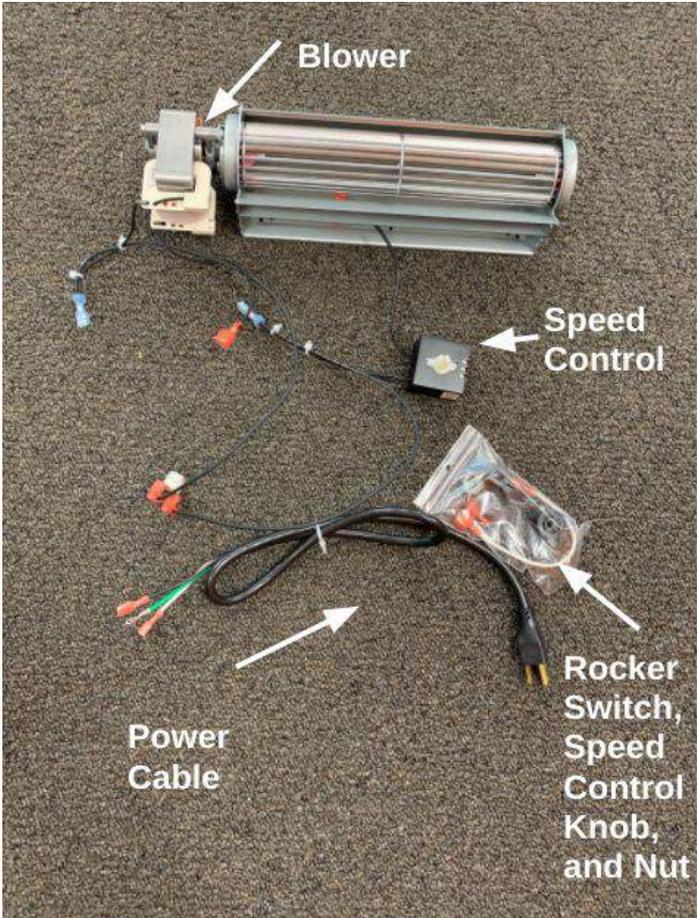
Attach top rear blower duct to top middle blower duct piece

Lastly, attach the side blower duct piece to the top rear with five self-drilling screws through the five pre-drilled holes, three on the side of the stove, and one each on the front and the back.



Attach the side blower duct piece to the top rear piece

Step 5: Attach the blower assembly to the stove next, first by securing the blower to the blower mounting piece, and then attaching to the blower duct assembly.



Blower electrical parts

Attach the blower to the blower mounting plate so that the motor assembly is inside of the square frame. Roll the assembly onto it's back and secure with four self-drilling screws through pre-drilled holes, as shown.



Affix blower to blower mounting bracket

Slide blower mounting bracket into the side blower duct piece as shown below, and secure with two self-drilling screws on the two pre-drilled holes on the front side of the stove.



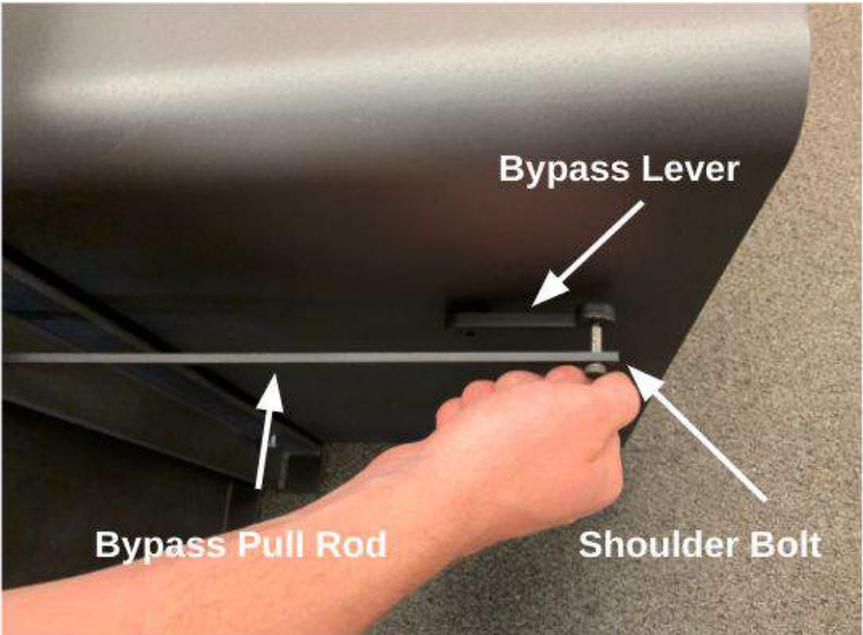
Slide blower assembly into side blower duct piece

Attach the snap disk to the snap disk slot on the frame and secure with machine screws.



Step 6: Attach the bypass rod assembly by sliding the rod through the slot on the frame to the right of the door, and attaching to the bypass lever with included shoulder bolt.

Remove the T-bar handle and set-nut from the rod prior to sliding it through. This will be re-attached later.



Attach the bypass pull rod to the bypass lever with the shoulder bolt

Step 7: Move the Nova Insert into the masonry hearth, being sure to follow all instructions included regarding clearance to combustibles, non-combustible hearth, and chimney and chimney connector. Insert chimney liner into flue collar and secure with screws. This connection must comply with all listed chimney liner guidance.

Step 8: Place the Nova Insert catalytic combustor thermometer on top of the stove so that the probe tip rests on the top of the stove pressed up to the back inside of the blower duct assembly. The probe should be approximately centered on the front of the stove and visible through the surround when hung, as pictured below.

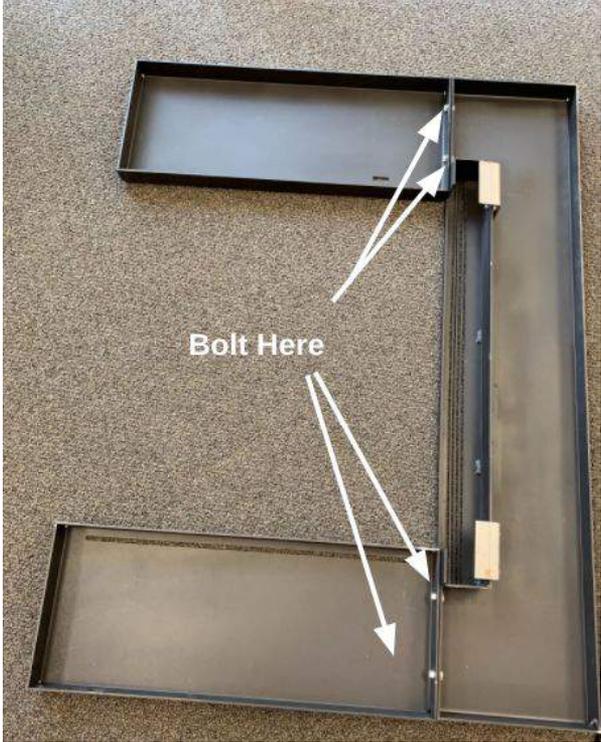


Step 9: Assemble the three sided surround. First, lay the top surround piece face down on a soft surface. Then, attach the surround hangers to the top panel as shown below. Each surround hanger is attached with two bolts with each bolt having a nut and four washers each. The washers go between the surround hanger and the surround as pictured below.



Attach surround hangers to the top surround above the louvers, with hooks facing the bottom of the piece, and washer located as shown.

Next, secure each side panel to the top panel with included bolts and nuts. Be sure the panels are flush and even with one another.



Side surround panels attached to top surround

Step 10: Bring the surround near the front of the stove, and attach the various electronic components.

First, thread the power cord through the bottom opening of the right side of the surround. Secure the power cord to the surround using the included strain relief. To instal strain relief, press around the power cable several inches from the end, and pull power cable and strain relief into the bottom opening of the surround while squeezing strain relief around the cable with pliers.



Next, attach the speed controller to the middle slot by pushing the speed control box up to the inside of the surround with the spindle protruding through the hole. Tighten to the surround with the included speed control nut, and press the dial onto the spindle.



Slide the rocker switch in through the top hole of the surround.



Attach the appropriately labeled quick disconnects from the rocker switch and the power cord to the similarly labeled quick disconnects on the blower (e.g. 'A' to 'A', 'B' to 'B') as shown below. The two 'A' connections go from the rocker switch to the blower/speed control assembly and the two 'B' connections from the power cord to the blower speed control assembly. The order of the connections is not important.



Lastly, attach the ground ring terminal using a self tapping screw to the blower bracket, as shown below.



A final view of the controls sticking out of the side of the surround can be seen below.



Step 11: Hang the surround on the frame of the stove by aligning the surround so the side panels fit tightly on the outside of the stove body and hanging the surround hooks on the top of the frame, as pictured. Take extra care that the bypass rod slides through the small slot on the right side panel.



Surround hooks hanging the surround on the frame.

Step 12: Finally, push the entire assembly back into the masonry hearth until the surround is flush with the masonry. The stove may be leveled with the included alignment bar/wrench by reaching under the stove and rotating the leveling bolts. Once leveled, the bottom trim piece and T-bar bypass handle may now be installed, as shown below.



Insert the bottom trim piece under the stove, so it rests on the masonry and is flush with the other trim pieces.



Thread the first the tightening nut and then T-bar bypass handle onto the bypass pull rod and tighten by rotating against each other.

When completed the Nova Insert should resemble the following image.



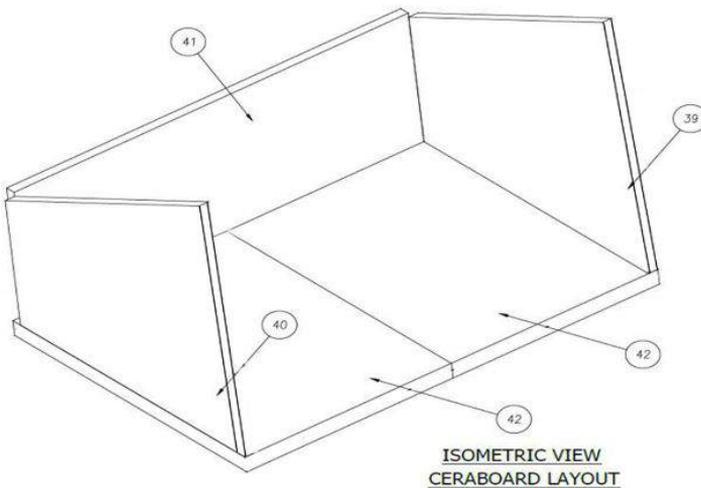
Installing the Ceramic Fiberboard and Fire Brick

Nova Insert comes equipped with a two part insulation strategy to maintain clean, efficient fires and a long lasting coal bed. The ceramic fiberboard maintains efficient and long lasting heat while the firebricks provide a durable platform for your fire and maintain smooth even heating.

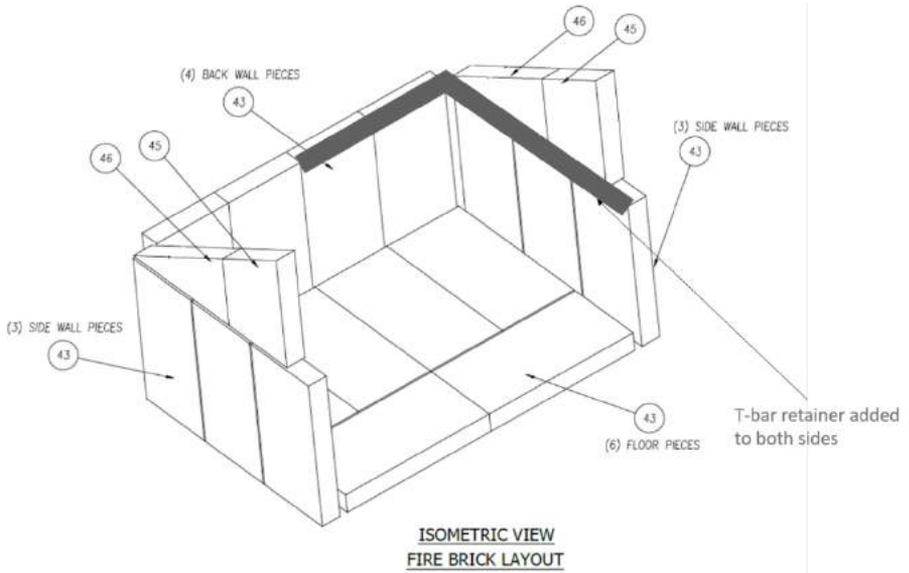
The fiberboard and bricks must be installed before the first fire and should be installed following the procedure below. Gloves and safety glasses should be worn during installation.

Step 1: Unpack the bricks and ceramic fiberboard that accompany your Nova Insert, and ensure all pieces are present. The ceramic fiberboard and bricks received with your stove may not have the corresponding numbers in steps below.

Step 2: Insert ceramic fiberboard as shown below. First, the two bottom boards (42) are installed. Next the rear wall is installed (41). Then the sidewalls (39 and 40) are installed. Gentle pressure may be needed to press the boards into place. Some small bending and cracking is not unusual or a problem.



Step 3: Next, install the fire bricks. The first bricks to be installed should be the four rear wall bricks and then the three bricks on the left and right side wall. A small gap may exist in between the corner of the bricks as shown in the diagram. Next, install the six bricks on the floor of Nova Insert. Lastly, the partial bricks that make up the second row of bricks on the side of the stove should be installed. To hold this row of bricks in place, the two T-bar retainers need to be inserted to both sides of the stove.



Occasionally due to small variations in components and materials, it is normal for the bricks and fiberboard to have differing degrees of fit in any stove, but the specific fit and tolerance will not change or impact your stove performance. This includes slight gaps or a tight fit. In the event some bricks or fiberboard appear too tight, some adjustment or manual force may be needed to install these pieces. Both bricks and fiberboard can be cut to adjust fit as needed. Slight gaps will be filled with ash from your first few fires.

Catalytic Combustor

The Nova Insert catalytic combustor is a long rectangular piece with a honeycomb like structure. **Note: the catalytic combustor may already be installed on your Nova.**

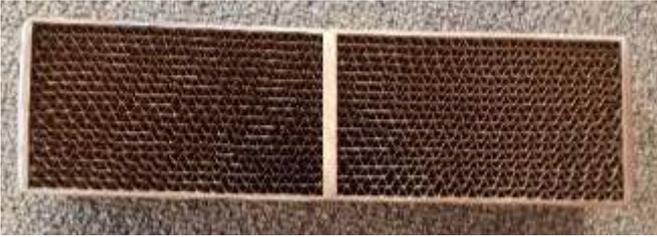
It can easily be installed as a final step prior to using your stove. Nova may not be operated without the catalytic combustor properly installed. To prevent improper operation, Nova has a special catalytic combustor door that stops airflow if the catalytic combustor is improperly installed.

To install the catalytic combustor follow the steps below.

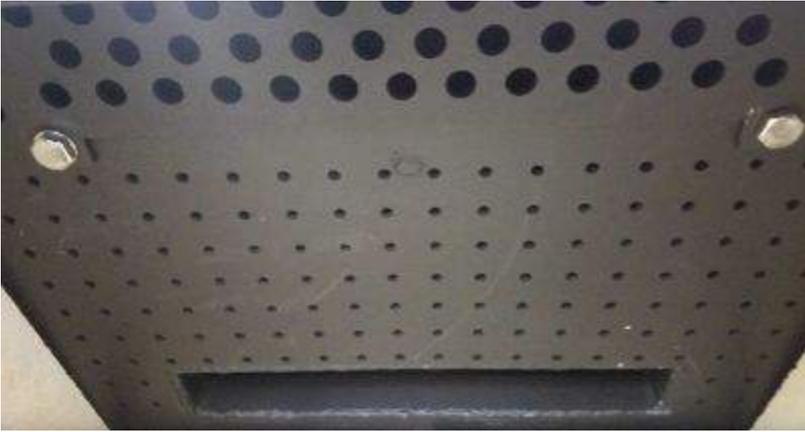
NOTE: If your flame shield is not pre-installed and is located within the firebox packaging, your stove does not use bolts for keeping the flame shield in place. Instead, your flame shield is set “up and over” the top baffle opening with the tabs facing at the downward angle. shown below. If your flame shield is pre-installed, proceed to Step 1 below.



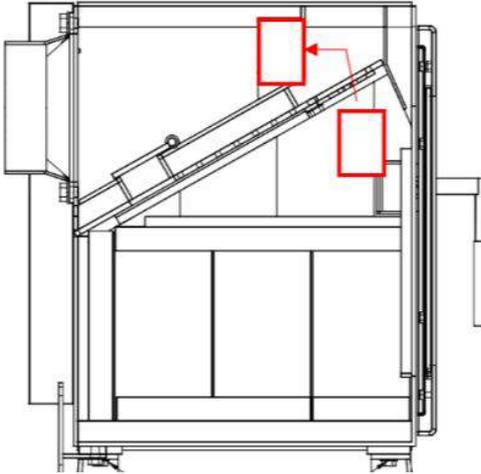
Step 1: Remove the packaging surrounding the catalytic combustor.



Step 2: Unscrew the two bolts holding in the flame shield, the thick piece of metal located on the inside top of the stove at the front most portion of the baffle. Set the flame shield to the side.



Step 3: Slide the catalytic combustor through the rectangular opening. The mesh sides should be facing the front and rear of the stove as shown in the diagram below.



Step 4: Slide the catalytic combustor into the holding box, pushing back the combustor door, and sliding the combustor back as far as it can go in the holding box. The combustor may be a snug fit, which is normal.

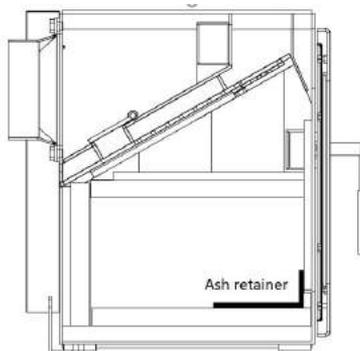
Step 5: Insert the 'U' shaped retaining peg in the front of the catalytic combustor. The combustor retaining peg may be in the top of the stove in front of the combustor.

Caution: Without this retaining peg the catalytic combustor may fall forward, preventing the stove from operating as intended.

Step 6: Reinstall the flame shield

Ash Retainer

Your Nova Insert comes standard with a removable ash retainer to extend the number of burns between emptying the ash. The 6" leg L-shaped ash retainer is placed directly on the brick on the firebox floor, and flush with the front inside of the stove, as shown below.



Initial Curing

During the first burn of your wood stove, the paint on the stove may off-gas as part of its final curing process. This is to be expected. Open windows and ventilation means are recommended. Please refer to the Exterior Paint section for additional details.

Operation

Nova Insert is built to be simple and easy to use. It just works. We designed Nova Insert with no dampers to play with and so there is no need to try over and over again to light a fire. Just build a fire, sit back and enjoy.

Bypass

Nova Insert is equipped with a bypass lever for the catalytic combustor. The bypass handle is located on the right side of the stove and should be operated with the included T-bar handle, which protrudes through the surround of the stove.

The bypass should always be used in conjunction with the front-loading door. Prior to opening the stove door, the bypass should be rotated forward to the open position (by pulling the T-bar handle forward until it catches on the surround). The door may then be opened. To minimize smoke spillage when reloading, open the door slowly, cracking it for several seconds before fully opening. After reloading your stove the door may be closed and then the bypass rotated to the closed position (by pushing the T-bar handle back to its original resting position). By operating the two in conjunction with one another you may minimize smoke spillage and maximize the efficiency of your stove.

Starting a Fire

We strongly recommend a top- down fire for burning in Nova Insert. In the top-down fire method, larger pieces of wood are first placed on the floor of the wood stove fire box, with smaller pieces of wood, kindling, and newspaper on top. Take a match or lighter to the newspaper, and the fire will burn slowly into the kindling and to the larger logs underneath. It may take a few tries to build a fire with the top-down fire in order to get it just right, but the result is a cleaner, easier, and by far the best way to build a fire in a wood stove.

Step 1: Establish draft

If starting from a cold start it is important to establish draft in your chimney before filling the stove with wood. Chimney's draft when they are hotter than the air outside the chimney. Particularly on warm mornings in the spring or the fall, the chimney can be colder than the

outside air. In this situation, air will flow down your chimney, through your stove, and into the room.

To remedy this, simply open the bypass and ignite a few pieces of newspaper up near the bypass opening until the flames are noticeably drawn (or sucked in) towards the bypass opening in the rear of the stove.

Step 2: Build the base

Set larger logs on the floor of your wood stove firebox.

In beginning to build a fire, it is necessary to begin with a solid foundation of wood. The pieces should be at least 3 – 5 inches in diameter.

Step 3: Build the fire ladder

Set a 2nd layer of medium logs atop the larger logs in a crisscross fashion. It is best to choose medium logs which are approximately 50%-75% of the size of the larger logs. Then, place a third layer of small logs atop the medium logs in a crisscross fashion. The small wood pieces should be approximately 1-2 inches in diameter.

The fire initial fire you build will catch the smallest logs and these in turn will catch the medium logs which will in turn catch the largest logs.

Step 4: Place the kindling

Set fine kindling on top of small logs. Typically, we place wood splits, heavy duty cardboard, or both.

Step 5: Prepare the ignition material

We like using knots of newspaper as our ignition material. To make a newspaper knot, tear a sheet of newspaper, twist it together to create a rope-like piece, and tie into a knot. Place three or four knots above the kindling evenly throughout the width of the fire box.

Step 6. Light the fire

Be sure the bypass is still open (see Bypass section) and then ignite the newspaper. Leave the door open just a crack, being sure to monitor the fire at all times when the door is open. Ignite the newspaper knots. This can be done quickly with a long match or stick lighter.

Controlling the Burn

Your Nova Insert has only one burn mode – perfect. If you would like more or less heat out of your Nova Insert, simply load more or less wood into your stove.

Reloading

When reloading, if there is a large coal bed (glowing red coals, covering the entire bottom, at least an inch deep), there is no need to use kindling or newspaper. To reload, open the bypass, wait 10-15 seconds for the exhaust gases to re-stabilize, and slowly open the front door. Fill the firebox chamber with logs, taking care not to stack the logs too close or touching the front door glass. Then simply shut the door and walk away. Close the bypass when the provided thermometer reads “ENGAGE CATALYST”.

Wood Selection

Use ONLY untreated wood in your Nova Insert. The use of any other fuel may result in unsafe burning conditions that could cause damage to.

When choosing wood, you should use non-resinous, seasoned hardwoods if possible. Examples of appropriate hardwoods are oak, ash, and maple. Seasoned wood is wood with between 15-20% moisture content. To test the moisture content, split a piece of wood and use your wood moisture meter on the interior center of the wood. Store this wood in a dry place and remote from your Nova Insert.

Why does dry wood matter? It burns much more efficiently, increasing heat output from the stove and reducing creosote buildup in the chimney. Refer to our website blog posts for additional information regarding non-resinous, seasoned hardwoods.

Ordinary Operating Sounds

During the typical operation of your Nova, the wood stove will make occasional creaking noises. This is completely normal and is likely caused by the heating and cooling of the stove.

Regular Maintenance and Troubleshooting

Wood stoves, even those as clean as Nova Insert, must be cleaned frequently because soot, ash, and creosote may accumulate.

Establish a routine for the fuel, wood burner and firing technique. Check daily for creosote build-up until experience shows how often you need to clean to be safe. Be aware that the hotter the fire the less creosote is deposited, and weekly cleaning may be necessary in mild weather even though monthly cleaning may be enough in the coldest months. Contact your local municipal or provincial fire authority for information on how to handle a chimney fire. Have a clearly understood plan to handle a chimney fire.

Glass

Caution: Do not clean the glass while hot. Glass could shatter causing burns and permanent damage.

The glass will accumulate some soot through the course of regular burning. More soot will accumulate during slow burns than during hotter burns. Sooting is worse with unseasoned or resinous woods. To clean the glass, the unit should be allowed to cool. Use a soft cloth and a non-ammonia, non-abrasive cleaner. There are many options for wood stove glass cleaner, including on the MF Fire website.

Sooting may also be a result of a loose door or glass seal. If there is smoke leakage around the edges of the glass, the glass seal may be improved by tightening the various bolts and nuts securing the glass to the door. Tighten with hand tools only. Machine tightening may result in glass breakage. Do not over tighten.

Disposal of Ashes

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

Door Gaskets

Inspect all gaskets and door seals before each use. Nova Insert should be operated with the front door tightly shut.

Catalytic Combustor

This wood heater contains a catalytic combustor to help achieve a clean burn. It is important to periodically monitor the operation of the catalytic combustor to ensure it is properly functioning, and not clogged. A clogged or otherwise non-functioning combustor will result in poor performance, smoke leakage, a loss of heating efficiency, and an increase in creosote and emissions.

Your catalytic combustor should be visually inspected at least monthly to check its condition. Do not attempt to inspect the catalytic combustor unless the stove is cool and not currently in use. To inspect the catalytic combustor simply open the door of your wood heater and remove the bolts holding the flame shield in place. If there is some ash on the catalytic combustor, use a soft bristled brush or vacuum to clean off the ash.

A properly functioning catalytic combustor maintains temperatures in excess of 600 °F. Following cleaning, if the catalytic combustor does not function, it may need to be replaced. For replacement instructions refer to the Catalytic Combustor Troubleshooting and Replacement section of this owner's manual.

Monthly Maintenance

Creosote – Formation and Need for Removal

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney and chimney connector should be inspected at least once every two months during the heating season to determine if a creosote buildup has occurred. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.

The use of unseasoned (wet, green) and/or resinous wood will increase the formation of creosote.

If you are not confident in performing a creosote inspection, contact a local chimney sweep to perform an inspection. Excess creosote buildup may cause a chimney fire that may result in property damage, injury, or death.

Gasket

There is a gasketing located on the front door, and on the front door glass. The gasket in these areas should be visually inspected for any signs of deterioration or smoke leakage into the room. If the gasket is deteriorating, contact MF Fire for a replacement gasket.

Annual Maintenance

Exterior Paint

To fix areas on the exterior of the stove that have been scratched or scraped, simply use aerosol stove paint. Color match paint can be ordered directly from MF Fire. Contact us at support@mffire.com and tell us the color you need, and we will ship it right out to you.

Paint should only ever be applied while the stove is cool. Allow the paint at least one hour to cool. After applying the paint, the newly painted area may appear darker than original until it is cured. When using the stove next, the curing process may give off some fumes.

Glass

In the event of broken door glass, a new pane of glass must be installed before usage may continue. **Do not operate with broken glass!**

To prevent broken glass, avoid striking the glass, slamming the door shut, or building the fire too close to the glass.

To replace broken glass, carefully open the front door while the stove is cool. Remove large shards with gloves and dispose of appropriately. Then carefully unscrew the interior door frame, taking care to keep all screws.

Replace the glass with official MF Fire replacement glass. Do not use unauthorized substitute materials. Contact MF Fire at support@mffire.com if replacement glass is needed.

When replacing glass, ensure the glass is properly surrounded by graphene impregnated wood stove gasket, and centered over the window opening.

Fireplace Insert, Fireplace, and Chimney Inspection

In order to inspect the fireplace insert and fireplace Nova Insert may need to be removed from the fireplace. To remove the insert, follow these instructions:

1. Pull insert assembly forward 2 to 3 inches to access trim kit bolts
2. Unbolt trim kit from square support frame
3. Remove the screws connecting the chimney liner to the unit
4. Pull the unit forward as necessary.

The masonry fireplace and chimney should be inspected periodically, to confirm that they are free from cracks, loose mortar, creosote deposits, blockage, or other signs of deterioration. If evidence of deterioration is noted, the fireplace or chimney should be upgraded and cleaned prior to re-installation.

Catalytic Combustor Replacement

If you suspect that your catalytic combustor is not working, the catalytic combustor should be removed and inspected to identify the source of the problem.

CAUTION: DO NOT OPERATE THE NOVA INSERT WOOD HEATER WITH CATALYTIC COMBUSTOR REMOVED!

To access the catalytic combustor follow the instructions in the catalytic combustor installation section of this manual.

If any cracking or peeling is observed, the catalytic combustor must be immediately replaced. Please contact MF Fire for a replacement catalytic combustor (Part Number: NOVA-CAT) at support@mffire.com.

Safety Notice: Burn untreated wood only. Burning materials such as treated wood, metal foil, coal, plastic, garbage, sulphur, or oil may damage the catalytic combustor. Excessive smoking indicates the combustor has failed and requires replacement.

Appendix A: Lifetime Limited Warranty

To register your Nova Insert, go to mffire.com/myproduct to fill out your name, product type, serial number and installation pictures. Please provide numerous pictures of your new beautiful installation. All portions of the stove are subject to the warranty, excluding paint, gasket, glass, fasteners, catalytic combustor, and room blower fan. The room blower fan is subject to a 1-year limited warranty and the catalytic combustor is subject to a 5-year limited warranty also subject to sections A. and B. below. Mileage and service charges, if necessary, are not covered by this warranty.

A. If warranty service is needed

1. If you discover a problem that you believe is covered by this warranty, you must report it to the place of purchase WITHIN 30 DAYS, indicating model name and serial number.
2. MF Fire has the option of either repairing or replacing the defective component.
3. Any appliance or part thereof that is repaired or replaced during the limited warranty period will be warranted under the terms of the original limited warranty for a period not to exceed the remaining term of the original limited warranty.

B. Conditions and Exclusions

1. This device must be installed, operated, and maintained at all times in accordance with the instructions in the Owner's Manual. Any alteration, willful abuse, accident, neglect, or misuse of the product shall nullify this warranty.
2. This warranty only applies to the initial owner and residence as registered. A Nova Insert that has been resold or relocated is not covered under warranty.
3. Discoloration and minor expansion, contraction, or movement of certain parts and potential resulting noise, is normal and not a defect and, therefore, not covered under warranty.
4. This warranty does not cover misuse of the stove. Misuse includes over-firing or use of any fuel not recommended by the manual. Misuse of Nova Insert can cause serious damage and will void the warranty.
5. Damage to the appliance while it is in transit is not covered by this warranty, but is subject to a claim against the carrier.
6. The warranty, as outlined within this document, does not apply to the chimney components or other accessories used in conjunction with the installation or use of the stove.

7. MF Fire is not responsible for inadequate performance caused by environmental conditions.
8. Exclusions to this lifetime limited warranty include: injury, loss of use, damage, failure to function due to accident, negligence, misuse, improper installation, alteration or adjustment of the manufacturer's settings of components, lack of proper and regular maintenance, damage incurred while the appliance is in transit, alteration, or act of God.
9. Damage to surfaces caused by fingerprints, scratches, melted items, or other external sources left on the surfaces from the use of abrasive cleaners is not covered in this warranty.
10. Damage to the surfaces from over-firing is not covered in this warranty.
11. MF Fire is free of liability for any damages caused by the appliance, as well as inconvenience expenses and materials. Incidental or consequential damages are not covered by this warranty.
12. This warranty does not cover any loss or damage incurred by the use or removal of any component or apparatus to or from the Nova Insert.
13. Any statement or representation of products and their performance contained in MF Fire advertising, packaging literature, or printed material is not part of this limited lifetime warranty.
14. MF Fire will not cover the cost of the removal or re-installation of hearths, facing, mantels, venting or other components.
15. This lifetime warranty is the only warranty supplied by MF Fire, the manufacturer of the appliance. All other warranties, whether express or implied, are hereby expressly disclaimed and purchaser's recourse is expressly limited to the warranties set forth herein.