



OWNERS MANUAL

Models # 30-30, 36-42, 48-54

(REVISED FEBRUARY 19, 2020)

Note: In an effort to provide our customers with the best product and experience available, Northern Stoker reserves the right to update and modify the contents of this Owners Manual and Furnaces at anytime as deemed necessary.

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Introduction
Models: 30-30, 36-42, 48-54

Hello Customer,

Congratulations! You have purchased a Northern Stoker Outdoor Furnace. We have fulfilled our commitment to you. We have built an efficient, super heavy duty, attractive furnace. It is now your job to ensure that it works as it was intended to work.

When you purchased your Northern Stoker, you took control of your home comfort level and heating costs.

However, in taking control of your heating and home comfort, you have assumed some new responsibilities.

1. To yourself: To keep a supply of proper fuel in storage for your furnace. This would be split, dry firewood.
2. To yourself: Your neighbours and the environment. Do not burn green, wet wood, or other products, such as garbage, as you will create clouds of smelly, noxious emissions, which may affect those close to you.
3. To Northern Stoker: If you put the proper fuel in your furnace, it will perform as we have said it would. Also, with split dry firewood, you will burn 30-50% less fuel. This would represent a very high return on your labour.

Your Northern Stoker will give you the best results if you burn the best possible fuel, which is Dry Wood. If you cut your own fuel, wood over 5" (127 mm) in diameter should be split. Remember unsplit wood is wet wood.

Also, the length of the firewood will affect your cost and quality of the burn in your unit. It costs less to cut 1 piece of 48" (1219 mm) wood than 3 pieces at 16" (406 mm). If you have a Northern Stoker 48-54, it was designed to burn 48" (1219 mm) wood. Long wood allows you to completely fill the burn chamber, allowing for maximum burn time and maximum efficiency.

The bottom line is:

Wood, cut to the proper length, split, allowed to dry properly and stored in a dry location, will give you the most satisfaction and the best financial return on your purchase.

PLEASE SAVE THESE INSTRUCTIONS
READ THE ENTIRE MANUAL PRIOR TO INSTALLING AND OPERATING YOUR NORTHERN STOKER

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Safety

IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE INSTALLATION

PRE-INSTALLATION PRECAUTIONS:

CAUTION: Read and follow these directions carefully. Retain this manual for as long as you own your Northern Stoker.

CAUTION: The Northern Stoker is designed for outdoor use. We do not recommend installing in a building.

CAUTION: All installation and operations must follow PROVINCIAL and LOCAL CODES for wiring, plumbing, and firing of this unit. These CODES may differ from this manual. Installation should be performed by a **Qualified Installer**.

CAUTION: Load wood carefully to avoid injury to hands and fingers that may come into contact with stove opening. Always wear leather gloves when refueling a Northern Stoker.

CAUTION: Circulator pumps must run continuously whenever the Northern Stoker is being used even in the summer.

CAUTION: All covers or guards must be in place at all times, except for maintenance or service.

CAUTION: Burn Dry Wood Only.

CAUTION: Do not store fuel or other combustible material within marked installation clearances.

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

CAUTION: Cut split seasoned wood (below 25% moisture) is the recommended fuel.

CAUTION: Keep door closed while burning unless to load. See Refueling Instructions and follow as directed.

CAUTION: Seals must be maintained and kept in good condition.

CAUTION: Only responsible adults should operate your furnace.

CAUTION: Hot surfaces – Keep Children Away. Do not touch during operation.

CAUTION: To prevent unauthorized persons from opening the combustion chamber fuel loading door as well as the control house doors, always keep them locked.

CAUTION: Never allow children to play near or tamper with your furnace. Always keep the area around, and in front of fuel loading door clean and free from combustible materials.

CAUTION: It is important to regularly clean the flue pipes and chimney and is especially important to thoroughly clean at the end of the heating season to minimize corrosion during the summer months caused by accumulated ash.

CAUTION: While maintaining clearance of 8' (2438 mm) from each side 8' (2438 mm) front & back from combustibles, keep the non-combustible concrete pad the stoker is sitting on swept clean of chips, saw dust or any other combustible materials.

CAUTION: Manufacturer recommends a minimum 30 ft. (9.144 m) clearance from buildings or fire hazards. Keep grass cut around the furnace area. If placed near a fire hazard area an approved spark arrester should be used.

CAUTION: Warning: Risk of Fire. Always keep the area around, and in front of fuel door clean and free of all combustible materials.

CAUTION: All models operate at atmospheric pressure. **DO NOT obstruct, block, or plug in any way the overflow vent pipe which is located directly on top of the furnace at the back going into the expansion tank.**

CAUTION: Keep the Control House doors closed to keep the control house above freezing temperature.

CAUTION: Do not use chemicals for fluids to start the fire.

CAUTION: In the event of a chimney fire or "runaway fire" be sure fans are off, water pumps are running, loading door and rear clean out doors are closed tight, check to ensure dampers are closed tight, check water level is ok. Once fire is under control it is ok to operate stove in normal operating mode. Be sure to find the source of the runaway fire. Causes can be burning fuel other than wood, doors left open, seals around door need replacing or damper stuck open. Correct any of these conditions.

CAUTION: This is an auxiliary cost saving heat source, not your primary heat source. It should be installed so the primary heat source will maintain an above freezing temperature to the area being heated & the Northern Stoker Furnace in the event of auxiliary failure.



Furnace Installation

LOCATION:

It is important to consider the prevailing wind directions in the heating season. The Northern Stoker should be placed so that the smoke exiting the unit will not create problems for you or your neighbours. Consult your Northern Stoker Dealer for suggestions where to locate the unit.

PAD TO SUPPORT YOUR NORTHERN STOKER:

First, remove the top soil, build a form, and fill it with concrete. The pad should be 5" – 6" (127 – 152 mm) thick and have some wire mesh or rebar in it. It should be at least 16" (400 mm) in front and 8" (200 mm) on either side of the fuel loading and ash removal doors. Consult your Northern Stoker Dealer for the local code requirements in your area.

CAUTION! Check before you dig!

Telephone Lines – Hydro Lines – Gas Lines – Water Lines – Sewer Lines – Drainage Tiles

LIFTING TECHNIQUES

CAUTION! Lift between the legs from the side or from the lift hook on the top only! Do NOT lift from under the "control house" at the rear of the furnace. Ensure that the lifting device is rated for weight of the furnace and can safely lift and maneuver the Northern Stoker into position.

TRENCH FOR INSULATED WATER LINES AND ELECTRICAL WIRE:

The trench should be approximately 3' (914 mm) deep and 18" (457 mm) wide. It can be dug with a shovel or a backhoe. Place all the dirt to one side of the trench to allow room for working on the other side. Rake the bottom of the trench so it is smooth, no large bumps or sharp stones.

WATER LINES:

Water line to use: 1" (25 mm) water line with a minimum rating of 100 psi (689.5 kPa) at 180°F / 82°C rating.

Water line insulation: Must be rated for at least R-8. Cover the insulated pipes with 3" (76 mm) of clean sand to avoid stone punctures. Contact your Northern Stoker dealer for approved water line insulation.

Burying tip: When burying your water lines in a low lying and wet area, be sure to insulate and install inside PVC piping.

Burying tip: When burying your water lines, be sure to label the water lines at each end for ease of installation.

Burying tip: If installing the water lines underneath a driveway, they should be buried approximately 4'-5' (1219 – 1524 mm) below grade. If lines travel through a low or wet area, they should be insulated and installed in a water tight piping.

Burying Tip: It is easiest to hook up your Northern Stoker when it is mounted on a concrete pad before the trench is dug. If this is not possible, be sure to leave adequate pipe above the pad to complete the hook-up.

Installation Tip: Be sure to install a furnace fill valve inside your home in the cold water return line preferably close to domestic water supply. This will aid when filling water into your system (see page 4).

**** Warning**:** It is recommended to have water tested BEFORE filling the furnace.

WIRING:

The electrical wire used must be rated for underground and at least 12 AWG copper, two wire plus a ground (12/2). Place the electrical wire in the bottom of the trench and cover with 3" (76 mm) of sand along with the water lines from the Northern Stoker. The electrical wire must maintain a minimum 24" (610 mm) depth. As with any buried electrical wires you must install a "Caution Buried Electrical Cable Below" tape over top of the wire. **Always follow the applicable local Provincial and Municipal laws, regulations and codes.**

CHIMNEY SPECIFICATIONS:

MODEL 30-30

Oliver Macleod – H.T. 6103

6" (152 mm) I.D.

8" (203 mm) O.D.

24" (610 mm) Long

Tested to ULC – S610

MODELS 36-42, 48-54

Oliver Macleod – H.T. 6103

8" (203 mm) I.D.

10" (254 mm) O.D.

24" (610 mm) Long

Tested to ULC – S610

Use only a chimney suitable for solid fuel. Do not connect to a chimney flue serving another appliance. Place only on non combustible flooring with adequate support.

Maintain the following clearances to combustibles:

Sides – 8' (2438 mm) Front – 8' (2438 mm) Back – 8' (2438 mm)



Filling System with Water and Bleeding of Air, Water Treatment

FILLING SYSTEM WITH WATER AND BLEEDING OF AIR:

1. Connect a washing machine hose or garden hose to the furnace fill valve in the cold water return line located inside your house and then to the nearest water supply.
2. Be sure that the valves being used are open on the furnace and close any that are not in use. Start filling with water.
3. As the furnace is being filled, water and treatment can also be added through the 3/4" ball valve drain located at bottom of furnace under the fan door. Do not forget to add water treatment **before** the furnace is full.

Note: It is very important to bleed the water lines of air so not to damage the circulator pump.

4. Continue filling system until water starts to exit the vent pipe on the furnace and fills the expansion tank approximately 1/2 full. As the system circulates the air will bleed from the system, lowering the water level. Top up as required. You have now completed filling the system with water and bleeding the air out of your system. Remove the fill hose between the water supply and the furnace.

Note: Always ensure and check the system water level on a weekly basis. If the water is low, be sure to follow steps 1 through 4 to maintain an excellent working furnace. To make sure there is no air trapped in the line between the furnace and the expansion tank, add water until you see the water level in the expansion tank rise. It is recommended that you do this weekly when the water is at the maximum set temperature to be sure that all the air is out of the system.

WATER TREATMENT:

It is important to add approved Northern Stoker Water Treatment fluid to the furnace's water system. The Northern Stoker Water Treatment fluid prolongs the life of the equipment by helping to prevent rust buildup, metal corrosion and scaling. There are various ways and various system setups to add your Northern Stoker Water Treatment fluid. Please contact your Northern Stoker Dealer for the best way to do so as per your system design. Model 30-30 requires approximately 1 gallon (3.78 L), 36-42 approximately 1 gallon (3.78 L) and model 48-54 approximately 2 gallons (7.56 L) of Northern Stoker Water Treatment for the furnace and lines.

Note: Water Treatment must be added on an ANNUAL basis to ensure longevity of equipment.

Note: Do NOT leave the furnace empty of water or without Northern Stoker Water Treatment as this will cause oxidization of the metal components in the furnace and can critically damage the components.

Please contact your Northern Stoker Dealer for Northern Stoker Water Treatment and if needed, a water treatment test.

**** Warning **: It is recommended to have water tested BEFORE filling the furnace.**



Connecting to an Existing Boiler

EXISTING BOILER SYSTEM:

There are a number of ways to connect a Northern Stoker to an existing Hot Water System. Each depends on the design of what is currently in place. **It is strongly advised to have a certified technician to do this type of install.**

If you choose to do this yourself, observe the following guidelines:

The add-on boiler shall:

- i. be installed without interfering with the normal delivery of heated water from the original boiler,
- ii. be installed without affecting the operation of the electrical and mechanical safety controls of the original boiler,
- iii. provide for a changeover for one fuel to the other without requiring manual adjustment of any controls or components other than the thermostats.
- iv. have provisions for preventing, or adequate water capacity within the boiler to prevent damage from loss of circulation due to electrical power failure.
- v. be installed without changing the function of the controls or rewiring the original boiler. A wiring interconnection is permitted. The electrical system of both boilers shall be powered from a single branch circuit without exception.

1. OPERATE THE (GAS, OIL, ELECTRIC) BOILER PERIODICALLY TO ENSURE THAT IT WILL OPERATE SATISFACTORILY WHEN NEEDED.

2. DO NOT RELOCATE OR BYPASS ANY OF THE SAFETY CONTROLS IN THE ORIGINAL (GAS, OIL, ELECTRIC) BOILER INSTALLATION.
3. CAUTION: THIS EQUIPMENT MAY ONLY BE INSTALLED BY QUALIFIED PERSONNEL.
4. DISCONNECT ELECTRIC POWER TO BOTH BOILERS BEFORE SERVICING
5. CAUTION: MAINTAIN COMBUSTION AIR SUPPLY TO BOTH BOILERS. AIR STARVATION IS DANGEROUS. PROVIDE A FRESH AIR OPENING AT LEAST 2,000 MM² (3 IN ²).
6. THE OPERATION OF THE GAS BOILER MUST BE VERIFIED FOR ACCEPTABLE OPERATION BEFORE AND AFTER INSTALLATION OF THE ADD ON APPLICA NCE BY A GAS FITTER WHO IS RECOGNIZED BY THE REGULATORY AUTHORITY.

The installation should comply with requirements of **CAN/USA-B365**, and changes to the installation should comply with **CSA B139** (for oil fired), **C22.1** (for electric), or **CAN/CGA-B149. 1** or **CAN/CGA-B149.2** (for gas fired).

Note: Once again, we stress that this is a job for a certified technician.

CIRCULATOR PUMP:

Important! The circulator must always be on, even in the off season (24 hours per month). In the event of a power failure, connect the furnace to a backup generator. Contact your Northern Stoker dealer if unit has failed and is in need of repair or replacement. If you hear a hissing sound from the pump, air has entered the system and can damage the pump.



Add-on Options

NORTHERN STOKER OPTIONS:

Now that you have a Northern Stoker, there are additional options available to maximize your investment, minimize your household energy consumption and be environmentally conscious by using a renewable energy source. The following is a list of options available to add-on to the Northern Stoker heating system.

Note: If you are interested in any of these options please contact your Northern Stoker Dealer for information, sales and installation.

Domestic Hot Water

You can supplement your current hot water tank by installing a water to water heat exchanger that can preheat the water before it enters the Hot Water system of your household. This can reduce the energy consumed by conventional hot water tanks (oil, gas and electric).

Hot Water Boiler and In-Floor Radiant Heating

There are many residences that contain a Hot Water Boiler system as a primary source of heat for their homes. The Northern Stoker can be connected to the existing system and thereby reduce the energy consumed by conventional Hot Water Boiler systems (oil, gas and electric). This is accomplished by the installation of a water to water heat exchanger.

Forced Air Furnaces

Forced air furnaces are the most common type of primary heat systems in residences today. With the addition of a water to air heat exchanger installed into the plenum of the forced air furnace, the Northern Stoker can provide an excellent source of heat for your home. Not only does this setup reduce your energy consumption of conventional fuels (oil, gas and electric), but it provides the home owner with an additional heating system as a backup. This gives our customers peace of mind knowing their family members are safer and their investments (the home) are better protected.

Pool and Hot Tub Heaters

If you would like to heat your pool, you know that keeping the water heated is certainly an additional household cost that you wish could reduce. Now with the Northern stoker you can have installed a water to water heat exchanger unit that supplements the existing heating system (oil, gas and electric).

Note: All of the above options should be installed by qualified dealers and contractors.



Starting a Fire

By following these instructions, you will be able to start a fire in your Northern Stoker without using chemicals and/or any unnecessary risk to you or your furnace.

**CAUTION! Never use Gas, Oil, Naptha, Diesel Fuel, Tires or any other inappropriate combustibles to start a fire.
Do Not Burn Garbage, Burn Dry Wood Only.**

1. Take a look around your Northern Stoker to be sure there is no fuel (dry wood) or other combustibles, within 8' (2438 mm) of it, before starting a fire. Do not store fuel or other combustible material within marked installation clearances.
2. Before starting, be sure you have removed the rain cap from the chimney.
3. Be sure the water level is at required level. circulating pumps are **ON**, electronic control system is plugged in and selector "SYSTEM" is **ON**.
4. Turn "**OFF**" combustion chamber fan at switch on the side (upper right side toggle switch on structure.) of the Northern Stoker.
5. Place some dry paper, birch bark, dry leaves, shavings or cardboard on the grate within the combustion chamber. On top of this, put some fine split wood, such as pine or cedar kindling.
6. Then place a few pieces of wood on top of your kindling. Now you are ready to strike a match and start a fire.

CAUTION! DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

BURN WOOD ONLY!

WARNING: RISK OF FIRE!

Do not operate with fuel loading or ash removal doors open.

Do not store fuel or other combustible material within marked installation clearances.

Inspect and clean flues and chimney regularly

7. When you have started the fire, close the door.

CAUTION! NEVER LEAVE AN OPEN DOOR.

Do not operate with fuel loading or ash removal doors open.

8. It is time to turn **ON** the combustion chamber blower fan. (upper right side toggle switch on structure.) The fan must be on to provide proper combustion air. Press the ON/OFF/RESET button on the control panel.
9. You have a fire started and the combustion chamber blower fan is **ON**. It is time to go get more fuel from the dry storage building (Suggestion: use a wheel barrow) in preparation to increase your fire.
10. When you need to add this additional fuel, turn "**OFF**" the combustion chamber blower fan, follow instructions on page 8 for Refueling the Northern Stoker. Wait a minimum of one minute or until smoke clears from the chimney. Open the door slowly, keeping the door between you and the fire opening. You can see the base fire and add the necessary fuel. You may, also, notice some moisture in the fire drum, do not be alarmed, it is condensation and will only happen on a cold start.
11. When you have added the fuel to the fire, close and securely latch the door. **NEVER LEAVE AN OPEN DOOR.** Turn "**ON**" the combustion chamber blower fan.
12. Now you have successfully started the first fire in your new Northern Stoker.

Notes: Establish a routine for dry storage of fuel, care of the stoker & firing techniques. Check daily for creosote build up until experience shows how often cleaning is necessary. Remove creosote when evident, especially check the chimney flue, chimney connector and chimney. Inspect & clean flues and chimney regularly.

Approved Fuel: Dry split wood



Refueling

REFUELING THE NORTHERN STOKER:

CAUTION! NEVER ALLOW CHILDREN OR UNTRAINED PERSONS TO OPERATE YOUR NORTHERN STOKER

When your Northern Stoker requires more fuel, we have developed a guide line, which must be followed for the safety of you, the owner/operator, and the long life of your Northern Stoker.

1. If you go to your Northern Stoker and it is burning (in a full fire combustion cycle) turn “OFF” the combustion chamber blower fan (Upper right side toggle switch on structure).
2. Allow the fire to cool for a minimum of 1 minute.
3. Open the loading door to the first step on the safety latch, allowing some air into the fire box. Also, this may allow some smoke and hot gases out of the fire box. When the smoke has cleared, it is safe to open the loading door, by moving the handle to the second notch of the safety latch. As you open the loading door, slowly step backwards, keeping the fire door between you and the loading door opening. If there should be a rush of smoke and hot gasses from the combustion chamber, the loading door will help deflect and shield you. Now you can see the fire and remaining fuel. Use the poker or ash hoe to level or move the fuel to a flat fire bed. Now close the loading door.

**CAUTION! NEVER LEAVE AN OPEN DOOR!
Do not operate with fuel loading or ash removal doors open.**

4. Now you know how much room there is in the burn chamber for fresh fuel. Bring the required amount of fuel from the covered storage area to the furnace, ready to be put in. (Suggestion: use a wheel barrow)
5. Open the loading fire door following the procedure in step 3, and put the new fuel into your Northern Stoker. When placing the fuel in your furnace, it should be placed in the firebox combustion chamber, and not in the loading door frame area. Wood can be loaded to the top of the opening, but must be in the firebox combustion chamber. Never force wood into the unit by striking it, or pushing it with the door. Do this as quickly as possible, then close and securely latch the loading door. The fire loading door must never be open for more than (2) minutes. The loading door being left open for long periods of time may compromise the operation of your furnace and your safety. **NEVER LEAVE AN OPEN DOOR.**
If for any reason you step away from your furnace, the fire loading door must always be closed and securely latched. **NEVER LEAVE AN OPEN DOOR.**
6. Now the furnace is full of fuel, there is no need to open the fire loading door for 8-12 hours. This time frame depends on your heat requirements and the type of fuel used.
7. Whenever you open the fire loading door, you must always follow all the steps #1 through #3 to ensure the safety of you and your furnace.
8. Before you leave the Northern Stoker, be sure to turn the combustion chamber fan “ON”.

CAUTION! BURN WOOD ONLY! WARNING: RISK OF FIRE! Do not operate with fuel loading or ash removal doors open. Do not store fuel or other combustible material within marked installation clearances. Inspect and clean flues and chimney regularly. Approved Fuel: Dry split wood



Cleaning your Northern Stoker

When you purchased your Northern Stoker, you bought a heavy duty, high output very efficient furnace. In order for the furnace to work properly, it must be fired with the proper fuel. Dry Wood! If the wood you burn is too high in moisture, excessive amounts of creosote will accumulate and cause problems.

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 will make an extremely hot fire. When burning wood, the chimney connector and chimney 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.

DISPOSAL OF ASHES: - Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from the 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.

1. When you go to your furnace in the morning, and the fuel is very low (a bed of coals), this is the time to look at the combustion chamber walls. If there is a light layer of soot, fly ash and/or creosote, use a scraper for this job and scrape down the combustion chamber.

**CAUTION! NEVER LEAVE AN OPEN DOOR.
Do not operate with fuel loading or ash removal doors open.**

2. Go to the control house and open the heat exchanger doors, pull out the ash tray directly below and turn the top auger first in the direction indicated by the arrows and then bottom auger. This will clean the heat exchanger tubes and deposit the fly ash back into the combustion chamber. Every two (2) weeks or there about, it is advisable to remove the augers and clean the augers with a wire brush, then scrape the heat exchanger tubes with a scraper. Whenever doing this, wear safety glasses and leather gloves.
3. After a few days of continuous burning, ash will begin to accumulate in the combustion chamber. This ash is removed by way of the fire loading door and a shovel. When removing ash, try to remove as little charcoal and live embers as possible. The ash should be placed in a metal container, with a metal lid that is tight fitting. The closed container of ashes should be placed on a non-combustible surface, 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. This can take two (2) or (3) days to cool.
4. At some point in time, you may notice that the fire has become lazy or not as hot and robust as it was compared to the first firing. This may be due to ash build up under the combustion grate. Some ash may have gone down the air holes and accumulated there. By opening the combustion chamber blower air injection door in the control house, the ash can easily be removed with a scraper and pan. As required, the entire grate can be removed for complete ash removal. This should be done when there are no hot embers present. Follow directions outlined in paragraph section 3 on this page.
5. When cleaning ashes this is a good time to check the condition of the doors, latches & hinges. It is also necessary to maintain seals in good condition. If door seal is not soft & pliable it should be replaced, contact your Northern Stoker Dealer for a new door seal. (This is a consumable product.)



Control Panel

The Northern Stoker has an easy and accurate control system. Our system monitors and controls the temperature of the water and thereby giving you an efficient and comfortable heat source. Simply plug your furnace into a 15A circuit!

The following will describe the layout and function of the control panel on the Northern Stoker.



LOW WATER
ALARM LIGHT

INTERIOR LIGHT

SET

ON-OFF
RESET





TEMPERATURE
DOWN

TEMPERATURE
UP




Control Panel Operating Instructions

THE ON/OFF FUNCTION:

-  TO TURN THE CONTROL PANEL ON, OFF & RESET (BOTTOM RIGHT)
- TEMPERATURE DISPLAYED ON SCREEN IS CURRENT FURNACE TEMPERATURE
- PUSH THE SET BUTTON ONCE TO SEE WHAT THE FURNACE TEMPERATURE IS SET FOR
- TO CHANGE THE FURNACE TEMPERATURE SETTING PRESS & HOLD THE SET BUTTON FOR APPROXIMATELY 3 SECONDS UNTIL THE DISPLAYED TEMPERATURE FLASHES, THEN PRESS  UP OR  DOWN TO DESIRED SETTING
- THE PANEL COMES PRESET WITH A MINIMUM TEMPERATURE SETTING OF 150 F (65 C) AND A MAX 185 F (85 C)
- PRESS & HOLD THE  DOWN BUTTON FOR APPROXIMATELY 3 SECONDS TO CHANGE FROM FAHRENHEIT TO CELSIUS OR CELSIUS TO FAHRENHEIT.
- IF CA IS FLASHING THE FAN WILL BE OFF & THE TEMPERATURE WILL BE BELOW 120 F (48 C)

THE FAN IS PROGRAMMED TO SHUT OFF IF THE FURNACE WATER TEMPERATURE GOES BELOW 120 F (48 C)

THIS WILL HAPPEN WHEN THE FURNACE IS LOW ON FUEL (WOOD) & SHUTS DOWN TO PRESERVE THE COALS.

RAKE AROUND THE BED OF COALS,
RELOAD WITH WOOD AND PRESS  TO RESET (START FAN) AGAIN



**Maintenance Schedule
and Approved Fuels**

IMPORTANT! This maintenance schedule is recommended however, depending on the usage, seasonal climate and fuels used, you the owner may need to step up the frequency of the routines listed here to ensure a properly functioning Northern Stoker.

DAILY (DURING THE HEATING SEASON):

ROUTINE
Each morning, refuel the fire in the Northern Stoker.
Turn OFF combustion chamber blower fan when refueling!
Once refueled, turn ON combustion chamber blower fan (Toggle Switch on upper right corner of structure). Press the “ START ” button (C) on Electronic Control System.
Clear any flammable debris 8’ (2438 mm) around the front, back and sides.
Check that the Circulator Pump is functioning

WEEKLY (DURING THE HEATING SEASON):

ROUTINE
Ash removal and clean out augers.
Observe light layer of soot, fly ash or creosote on the combustion chamber walls, chimney flue, chimney connector or chimney and remove.
Top up with water to ensure there is not an air lock.

MONTHLY (DURING THE HEATING SEASON):

ROUTINE
Inspect and top up the system water level. Check for any leakage around fittings.

ANNUALLY (USUALLY SPRING SHUTDOWN):

ROUTINE
Place a chimney cap over the chimney to keep rain out, inspect silicone caulking, door hardware and gaskets.



<p><i>Maintenance Schedule and Approved Fuels</i></p>
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Continued from ... ANNUALLY (USUALLY SPRING SHUTDOWN):

ROUTINE
<p>Completely clean out combustion chamber of ash and moisture. Note: Ash and moisture combine to accelerate corrosion of metal components.</p>
<p>Suggestion: Have your furnace water tested.</p>
<p>Suggestion: For forced air furnaces – Have your HVAC technician or Northern Stoker Dealer clean and check the water to air heat exchanger in the plenum of your forced air furnace.</p>

APPROVED FUEL	NON-APPROVED FUELS
Dry split wood (up to 25% moisture content)	Fire starter fluids of any kind.
	Gas, Diesel Fuel, Oil, Tires
	Naphtha

YOUR INVESTMENT:

You have invested your hard earned money and like any piece of equipment, maintenance and proper operation is critical to ensure a fully functional furnace, longevity and peace of mind. If maintaining the Northern Stoker is not possible to do so from physical limitations or you simply would like a Professional Technician to look after your equipment, please contact your Northern Stoker Dealer for maintenance services and they would gladly assist you with your maintenance needs.



Troubleshooting Guide

TROUBLESHOOTING GUIDE:

ISSUE	ACTION
FURNACE – NO HEAT	Check fire. Refuel as needed. Press the “ON/OFF” button on Control Panel.
	Check Circulator Pump. Check to see if pump is functioning. If the circulator pump is not, then disconnect from power and inspect. If circulator pump has failed contact your Northern Stoker Dealer.
	Check control panel for CA. Scenario: if the temperature reads 122° F (50°C) and you are loading cold wood into the firebox, the temperature can decrease by 3°F. This will trip the low temperature alarm (<120°F) and shut the fan off. The operator must wait and press the “ON/OFF” button to restart.
	Check that combustion chamber blower fan toggle switch is ON . Press the “ON/OFF” button on Control System.
	Check that the combustion chamber blower fan and damper are functioning.
	Check chimney for blockage. If blocked, remove debris.
	If the Northern Stoker is attached to existing primary heat source (Example: Fan Forced Furnace), make sure that existing primary heat source is operating correctly.
	If the temperature reading is inaccurate, check that the temperature probe has a loose connection, come out of the drywell or has failed. Contact your Northern Stoker dealer for service and repair.
FURNACE – BOIL OVER CONDITION	Check the combustion chamber loading door that it is not open. Close if it is. Check that the air damper is closing properly between fan and furnace.
Note: If the furnace has boiled over, check the water level and fill if needed. Low water will introduce air into the water system and can damage the circulator pump.	
	Check door gaskets and seals, they need to be tight fitting and not allow air into combustion chamber. If gaskets and seals are worn or hard, contact your Northern Stoker Dealer to replace them.
	Check ambient temperature. If outside temperature is too warm, lower your set temperature. Make sure the circulator pumps are on. By circulating and mixing the return water, it will aid in balancing the temperature of the furnace.

IMPORTANT! Contact your Northern Stoker Dealer if none of these troubleshooting methods corrects the issue.



Specifications

MODEL 30-30	
DOOR OPENING	17 3/4" (450.9 mm) W x 17 3/4" (450.9 mm) H
FIREBOX (BURN CHAMBER)	30" (762 mm) DIAMETER x 30" (762 mm) L, 3/8" (9.5 mm) THICK STEEL
WATER JACKET INSULATION	R-38 ROOF AND UPPER WALL INSULATION, R-24 LOWER WALL, CONTROL HOUSE AND FLOOR
WEIGHT AND OUTSIDE DIMENSIONS (EMPTY)	2360 lbs (1070.5 kg), 72 1/8" (1832 mm)L x 52 1/4" (1327 mm) W x 99" (2515 mm) H
WATER CAPACITY	APPROX 104 IMP. GALLONS (472.8 L)
ELECTRICAL RATING	120V, 60HZ, 15A
HEAT OUTPUT	APPROXIMATELY 3,000 sq ft (278.7 m ²) OF WELL INSULATED BUILDING
FUEL TYPES	DRY SPLIT WOOD
CORROSION INHIBITOR WATER ADDITIVE	NORTHERN STOKER WATER TREATMENT FLUID (REQUIRES APPROX. 1 GALLON (3.78 L) FOR FURNACE AND LINES)
MODEL 36-42	
DOOR OPENING	21 3/4" (552 mm) W x 21 3/4" (552 mm) H
FIREBOX (BURN CHAMBER)	36" (914 mm) DIAMETER x 42" (1067 mm) L, 3/8" (9.5 mm) THICK STEEL
WATER JACKET INSULATION	R-38 ROOF AND UPPER WALL INSULATION, R-24 LOWER WALL, CONTROL HOUSE AND FLOOR
WEIGHT AND OUTSIDE DIMENSIONS (EMPTY)	3175 lbs (1440 kg), 84" (2134 mm)L x 56 11/16" (1440 mm) W x 105 5/8" (2383 mm) H
WATER CAPACITY	167 IMP. GALLONS (758 L)
ELECTRICAL RATING	120V, 60HZ, 15A
HEAT OUTPUT	APPROXIMATELY 6,000 SQ FT (557.4 m ²) OF WELL INSULATED BUILDING
FUEL TYPES	DRY SPLIT WOOD
CORROSION INHIBITOR WATER ADDITIVE	NORTHERN STOKER WATER TREATMENT FLUID (REQUIRES APPROX. 1 GALLON (3.78 L) FOR FURNACE AND LINES)
MODEL 48-54	
DOOR OPENING	30 1/2" (775 mm) W x 30 1/2" (775 mm)H
FIREBOX (BURN CHAMBER)	48" (1219 mm) DIAMETER x 54" (1372 mm) L, 3/8" (9.5 mm) THICK STEEL
WATER JACKET INSULATION	R-38 ROOF AND UPPER WALL INSULATION, R-24 LOWER WALL, CONTROL HOUSE AND FLOOR
WEIGHT AND OUTSIDE DIMENSIONS (EMPTY)	4420 lbs (2005 kg), 96" (2438 mm) L x 69 1/4" (1759 mm) W x 114 5/8" (2911 mm) H
WATER CAPACITY	308 IMP. GALLONS (1400 L)
ELECTRICAL RATING	120V, 60HZ, 15A
HEAT OUTPUT	APPROXIMATELY 11,000 SQ FT (1021.9 m ²) OF WELL INSULATED BUILDING
FUEL TYPES	DRY SPLIT WOOD
CORROSION INHIBITOR WATER ADDITIVE	NORTHERN STOKER WATER TREATMENT FLUID (REQUIRES APPROX. 2 GALLONS (7.56 L) FOR FURNACE AND LINES)



**UL and CSA
Certification**



Intertek

Control# 4007135

Conforms to UL 2523, Certified to CAN/CSA B366.1

Electrical Rating: 120 V, 60 HZ, 15 AMPS, 1 Φ

Certified As An Add On Model Date September 2012

INSTALLATION: Use only chimney suitable for solid fuel. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE. Place only on non-combustible flooring with adequate support. Maintain the following minimum clearances to combustibles: Sides – 8 Ft. (2.44 m), Front – 8 Ft. (2.44 m), Back – 8 Ft. (2.44 m)

CAUTION: This equipment may only be installed by qualified personnel.

OPERATION: Refer to owner’s manual supplied with this appliance. Burn Wood Only. Load fuel carefully.

DO NOT ALTER THE FUEL FEEDING EQUIPMENT IN ANY WAY. Burn Wood Only

DANGER – Risk of Fire Or Explosion: Do not use chemical fluids to start the fire. Do not burn garbage, gasoline, naphtha, engine oil, or the other inappropriate materials. Do not store fuel within the above minimum clearances. Do not operate with fuel door, ash removal door, or clean-out doors open. Turn off electrical power before servicing.

CAUTION – Hot Surfaces: Keep children away. Do not touch during operation.

The heat exchanger, flue pipe, and chimney must be cleaned regularly to remove accumulated creosote and ash. Ensure that the heat exchanger tubes, burn chamber and chimney are cleaned at the end of the heating season to minimize corrosion during the summer months. The appliance, flue pipe, and chimney must be in good condition.

This unit may be connected to an existing boiler system. Follow instructions in owner’s manual.

OPERATE THE (OIL, GAS, ELECTRIC) BOILER PERIODICALLY TO ENSURE IT WILL OPERATE SATISFACTORILY WHEN NEEDED.

DO NOT RELOCATE OR BYPASS ANY OF THE SAFETY CONTROLS IN THE ORIGINAL BOILER INSTALLATION.

CAUTION: THIS EQUIPMENT MAY ONLY BE INSTALLED BY QUALIFIED PERSONNEL.

DISCONNECT ELECTRIC POWER TO BOTH BOILERS BEFORE SERVICING.

CAUTION: MAINTAIN COMBUSTION AIR SUPPLY TO BOTH BOILERS. AIR STARVATION IS DANGEROUS. PROVIDE A FRESH AIR OPENING AT LEAST 3 in² (2,000 mm²).

In the event of a power failure the system will resume normal function when power is restored. Depending on the duration of power outage the furnace may need to be cleaned & the fire relit. This unit can also be run by a portable generator providing 120V, 60 Hz, 15 Amps. Unplug from power source & plug into generator. Fans & circulating pumps will be operating normally; follow your normal refueling instructions to check status of fire. Reconnect to normal power supply when power has resumed.

In the event of a chimney fire or “run-away fire” – be sure fans are off, circulating pumps are running, loading door, rear clean out doors are closed tight, check dampers are closed tight, check water level is ok.

When fire is in control it is ok to operate stove in normal operating mode. Be sure to find the source of the run-away fire causes can be burning fuel other than wood, doors left open, seals around door need replacing or damper stuck open. Correct any of these conditions.

For Outdoor Installation Only.

Manufactured by Northern Metalworks, 4 Thompson Road, PO Box 550, Sunderland, ON, L0C 1H0

Date of Manufacture: Month _____, Year _____



<i>Notes</i>



Warranty

WARRANTY:

TEN YEAR LIMITED WARRANTY ON BURN CHAMBER & WATER JACKET

THE OWNER OF THE NORTHERN STOKER FURNACE MUST REGISTER THE FURNACE WITH THE DEALER AND MANUFACTURER TO RECEIVE WARRANTY COVERAGE AS OUTLINED HERE.

ALL WARRANTY CLAIMS WILL BE ASSESSED BY THE DEALER. FINAL DECISION WILL BE DETERMINED BY THE MANUFACTURER.

YEAR #1 – 100% COVERAGE IF THERE IS A LEAK IN THE STOVE – INTERNAL OR EXTERNAL – STOVE WILL BE REPLACED.

WARRANTY ON LEAKS EXCLUDES FITTINGS AND CONNECTIONS.

PERCENTAGE COVERED BY WARRANTY AFTER YEAR #1

YEAR #2 – 80 %, **YEAR #3** – 70%, **YEAR #4** - 60%, **YEAR #5** – 50%, **YEAR #6** – 40%,

YEAR #7 – 30%, **YEAR #8** – 20%, **YEAR #9** – 10%

AFTER THE DAY OF THE TENTH ANNIVERSARY OF THE INITIAL PURCHASE THE MANUFACTURER PROVIDES NO WARRANTY, FULL CUSTOMER SERVICE WILL BE PROVIDED TO SERVE THE CUSTOMER WITH ANY MAINTENANCE REQUIRED AT THE CUSTOMERS COST.

QUOTES FOR ALL SERVICE WORK WILL BE PROVIDED & AGREED ON BEFORE ANY WORK STARTS.

WARRANTY IS TO THE ORIGINAL OWNER ONLY UNLESS RESOLD BY A NORTHERN STOKER DEALER – WARRANTY WILL BE DETERMINED AT TIME OF RESALE.

WARRANTY WILL NOT COVER:

- DAMAGE DUE TO FREEZING OR OVERHEATING (OVER BOILING).
- NEGLIGENCE, SUCH AS ABUSE & ASH CORROSION, THE FURNACE MUST BE THOROUGHLY CLEANED THROUGHOUT THE HEATING SEASON AND AT THE END OF THE HEATING SEASON.
- DAMAGE DUE TO USE OF NON-APPROVED FUELS.
- DAMAGE DUE TO CIRCULATOR PUMP NOT FUNCTIONING DUE TO POWER FAILURE.
- DAMAGES INCURRED TO PROPERTY BY DISTRIBUTORS, DEALERS AND SUB-TRADES.
- DAMAGE CAUSED BY CORROSIVE WATER.

WATER TREATMENT PURCHASED FROM A NORTHERN STOKER DEALER MUST BE ADDED TO HELP WITH CORROSION & LUBRICATION OF PUMPS.

SERVICE CALLS FOR MATTERS THAT ARE NOT COVERED BY THIS WARRANTY WILL BE CHARGED AS A SERVICE CALL BY THE DEALER.

ALL LOADING & UNLOADING IS AT THE COST OF THE CUSTOMER.

ONE YEAR WARRANTY ON ALL PARTS OTHER THAN THE BURN CHAMBER & WATER JACKET. PURCHASED PARTS SUCH AS ELECTRICAL, FANS, PUMPS, SOLENOIDS, AND STAINLESS CHIMNEY ARE COVERED BY MANUFACTURER'S WARRANTY THROUGH YOUR NORTHERN STOKER DEALER. GRATING & AUGERS ARE COVERED BY A ONE (1) YEAR 100% WARRANTY BY NORTHERN STOKER FOR MANUFACTURED DEFECTS. WARPING OF THE GRATE FROM HEAT IS NORMAL AND EXPECTED AND IS NOT COVERED BY THE WARRANTY. WEAR PARTS SUCH AS, LOADING DOORS, AUGER CLEAN OUT DOORS, LOWER BLOWER DOOR, LATCHES AND LOCKS ARE COVERED BY A ONE YEAR WARRANTY. DOOR ROPE AND DAMPER SPRINGS ARE CONSIDERED CONSUMABLE PRODUCTS AND ARE NOT COVERED BY WARRANTY.

A SERVICE CONTRACT PURCHASED FROM YOUR DEALER IS RECOMMENDED TO KEEP YOUR FURNACE MAINTAINED FOR LONGER LIFE & PROPER OPERATION.

IT IS RECOMMENDED THAT THE OWNER OF THE NORTHERN STOKER HAVE AN ANNUAL WATER TEST COMPLETED. IF THERE IS A WARRANTY CLAIM, THE DISTRIBUTOR/DEALER AND OR THE MANUFACTURER CAN REQUEST A WATER TEST OF THE NORTHERN STOKER FURNACE WATER. IF DENIED ACCESS TO A WATER TEST FOR WARRANTY PURPOSES THE DEALER/DISTRIBUTOR AND OR THE MANUFACTURER HAVE THE OPTION TO VOID THE WARRANTY AND NOT EXTEND COVERAGE.

DEALER'S COPY

OWNER'S WARRANTY REGISTRATION

(Fill out and send to your Dealer for complete warranty coverage as soon as furnace is installed)

PURCHASING INFORMATION

DATE OF PURCHASE: _____	MODEL NUMBER: _____
INSTALLED DATE: _____	SERIAL NUMBER: _____
TODAY'S DATE: _____	DEALERS NAME: _____

OWNER'S INFORMATION

NAME: _____	PHONE NUMBER 1: (____)_____
_____	PHONE NUMBER 2: (____)_____
ADDRESS: _____	FAX: (____)_____
_____	EMAIL: _____
_____	_____
_____	_____

INSTALLATION INFORMATION

INSTALLED BY: DEALER CUSTOMER

INSTALLED FOR: HOUSE COMMERCIAL AGRICULTURAL GARAGE SHOP GREENHOUSE
 OTHER _____

FURNACE AND ACCESSORIES RECEIVED IN GOOD ORDER YES NO

INSTALLATION COMPLETED IN PROFESSIONAL MANNER YES NO

INSTALLER EXPLAINED FURNACE OPERATION AND ACCESSORY PRODUCTS YES NO

INSTALLED WITH BIOMASS STOKER ADD-ON: YES NO

MANUFACTURED BY: **NORTHERN STOKER**
4 THOMPSON ROAD, PO BOX 550, SUNDERLAND, ONTARIO, CANADA, L0C 1H0
P:705-357-3999, F:705-357-3388, www.northernstoker.ca

CUSTOMER SIGNATURE: _____

CUSTOMER (PRINT) NAME: _____

DEALER SIGNATURE: _____ DEALER (PRINT) NAME: _____



Warranty

WARRANTY:

TEN YEAR LIMITED WARRANTY ON BURN CHAMBER & WATER JACKET

THE OWNER OF THE NORTHERN STOKER FURNACE MUST REGISTER THE FURNACE WITH THE DEALER AND MANUFACTURER TO RECEIVE WARRANTY COVERAGE AS OUTLINED HERE.

ALL WARRANTY CLAIMS WILL BE ASSESSED BY THE DEALER. FINAL DECISION WILL BE DETERMINED BY THE MANUFACTURER.

YEAR #1 – 100% COVERAGE IF THERE IS A LEAK IN THE STOVE – INTERNAL OR EXTERNAL – STOVE WILL BE REPLACED.

WARRANTY ON LEAKS EXCLUDES FITTINGS AND CONNECTIONS.

PERCENTAGE COVERED BY WARRANTY AFTER YEAR #1

YEAR #2 – 80 %, YEAR #3 – 70%, YEAR #4 - 60%, YEAR #5 – 50%, YEAR #6 – 40%,

YEAR #7 – 30%, YEAR #8 – 20%, YEAR #9 – 10%

AFTER THE DAY OF THE TENTH ANNIVERSARY OF THE INITIAL PURCHASE THE MANUFACTURER PROVIDES NO WARRANTY, FULL CUSTOMER SERVICE WILL BE PROVIDED TO SERVE THE CUSTOMER WITH ANY MAINTENANCE REQUIRED AT THE CUSTOMERS COST.

QUOTES FOR ALL SERVICE WORK WILL BE PROVIDED & AGREED ON BEFORE ANY WORK STARTS.

WARRANTY IS TO THE ORIGINAL OWNER ONLY UNLESS RESOLD BY A NORTHERN STOKER DEALER – WARRANTY WILL BE DETERMINED AT TIME OF RESALE.

WARRANTY WILL NOT COVER:

- DAMAGE DUE TO FREEZING OR OVERHEATING (OVER BOILING).
- NEGLIGENCE, SUCH AS ABUSE & ASH CORROSION, THE FURNACE MUST BE THOROUGHLY CLEANED THROUGHOUT THE HEATING SEASON AND AT THE END OF THE HEATING SEASON.
- DAMAGE DUE TO USE OF NON-APPROVED FUELS.
- DAMAGE DUE TO CIRCULATOR PUMP NOT FUNCTIONING DUE TO POWER FAILURE.
- DAMAGES INCURRED TO PROPERTY BY DISTRIBUTORS, DEALERS AND SUB-TRADES.
- DAMAGE CAUSED BY CORROSIVE WATER.

WATER TREATMENT PURCHASED FROM A NORTHERN STOKER DEALER MUST BE ADDED TO HELP WITH CORROSION & LUBRICATION OF PUMPS.

SERVICE CALLS FOR MATTERS THAT ARE NOT COVERED BY THIS WARRANTY WILL BE CHARGED AS A SERVICE CALL BY THE DEALER.

ALL LOADING & UNLOADING IS AT THE COST OF THE CUSTOMER.

ONE YEAR WARRANTY ON ALL PARTS OTHER THAN THE BURN CHAMBER & WATER JACKET. PURCHASED PARTS SUCH AS ELECTRICAL, FANS, PUMPS, SOLENOIDS, AND STAINLESS CHIMNEY ARE COVERED BY MANUFACTURER'S WARRANTY THROUGH YOUR NORTHERN STOKER DEALER. GRATING & AUGERS ARE COVERED BY A ONE (1) YEAR 100% WARRANTY BY NORTHERN STOKER FOR MANUFACTURED DEFECTS. WARPING OF THE GRATE FROM HEAT IS NORMAL AND EXPECTED AND IS NOT COVERED BY THE WARRANTY. WEAR PARTS SUCH AS, LOADING DOORS, AUGER CLEAN OUT DOORS, LOWER BLOWER DOOR, LATCHES AND LOCKS ARE COVERED BY A ONE YEAR WARRANTY. DOOR ROPE AND DAMPER SPRINGS ARE CONSIDERED CONSUMABLE PRODUCTS AND ARE NOT COVERED BY WARRANTY.

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MANUFACTURER'S COPY

OWNER'S WARRANTY REGISTRATION

(Fill out and send to the Manufacturer for complete warranty coverage as soon as furnace is installed)

PURCHASING INFORMATION

DATE OF PURCHASE: _____	MODEL NUMBER: _____
INSTALLED DATE: _____	SERIAL NUMBER: _____
TODAY'S DATE: _____	DEALERS NAME: _____

OWNER'S INFORMATION

NAME: _____	PHONE NUMBER 1: (____) _____
_____	PHONE NUMBER 2: (____) _____
ADDRESS: _____	FAX: (____) _____
_____	EMAIL: _____
_____	_____
_____	_____

INSTALLATION INFORMATION

INSTALLED BY: <input type="checkbox"/> DEALER <input type="checkbox"/> CUSTOMER
INSTALLED FOR: <input type="checkbox"/> HOUSE <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> AGRICULTURAL <input type="checkbox"/> GARAGE <input type="checkbox"/> SHOP <input type="checkbox"/> GREENHOUSE
<input type="checkbox"/> OTHER _____
FURNACE AND ACCESSORIES RECEIVED IN GOOD ORDER <input type="checkbox"/> YES <input type="checkbox"/> NO
INSTALLATION COMPLETED IN PROFESSIONAL MANOR <input type="checkbox"/> YES <input type="checkbox"/> NO
INSTALLER EXPLAINED FURNACE OPERATION AND ACCESSORY PRODUCTS <input type="checkbox"/> YES <input type="checkbox"/> NO

INSTALLED WITH BIOMASS STOKER ADD-ON: <input type="checkbox"/> YES <input type="checkbox"/> NO
--

MANUFACTURED BY: NORTHERN STOKER 4 THOMPSON ROAD, PO BOX 550, SUNDERLAND, ONTARIO, CANADA, L0C 1H0 P:705-357-3999, F:705-357-3388, www.northernstoker.ca	
CUSTOMER SIGNATURE: _____	
CUSTOMER (PRINT) NAME: _____	
DEALER SIGNATURE: _____	DEALER (PRINT) NAME: _____



Warranty

WARRANTY:

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- DAMAGE DUE TO CIRCULATOR PUMP NOT FUNCTIONING DUE TO POWER FAILURE.
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