INSTALLATION, SERVICE INSTRUCTIONS, PARTS LIST, AND LIMITED WARRANTY FOR . . .

"SCANDIA"™
Airtight Wood Stoves

Franklin Cast Products, Inc.

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Congradulations on your purchase of a SCANDIA wood stove. The information in this booklet will help you enjoy your stove for many years. Please be sure to read this booklet carefully and to follow all state and local building codes. Be sure to protect your five year warranty by reading carefully and following all provisions including the sending in of your registration card.

Important: Read all installation and operating instructions carefully before installing and using your stove. Always refer to your local building inspector or department for any specific requirements they might have. BE SURE TO FOLLOW MANUFACTURERS RECOMMENDED CLEARANCES FROM COMBUSTIBLES.

GENERAL INFORMATION: Airtight Stoves

Airtight stoves are designed to produce high yield heat while using a minimal amount of fuel. In many cases they are burned around the clock with wood being added as necessary. Usually only two-three times per 24-hours period.

Doors are always gasketed or precision ground to eliminate unwanted draft air. Seams are always cemented inside and out to insure the firebox of being leakproof. Castings are thicker than traditional styled woodburning stoves to withstand the higher, more constant temperatures. Cast iron side baffles or firebrick line the sides to give added protection, retain heat, and aid in combustion circulation. Top smoke baffles create a secondary burn chamber. This creates an "S" type flow of hot gases and exhaust smoke.

Every home differs, the performance you receive from your Scandia stove is relative to many contributing factors: How you vent the stove, direction of chimney, type of wood burned, moisture content of wood, draft, room layout, flue pipe sizes, house insulation, location of wood stove, etc.

Vent Outlets:

Each stove in the Scandia series uses a vent collar size designed for the optimum operation of that particular stove. If you find it necessary to use a size other than that of the flue collar, remember: ALWAYS INCREASE PIPE SIZES. If your outlet is 7" adapt to an 8" pipe; DO NOT go down to a 6". Increasing flue pipe size will cause greater draft through your stove. You may have to readjust your damper to close more in order to maintain heat; also, increasing pipe size cools faster, creating more creosote build-up. ALWAYS HAVE INSTALLATIONS INSPECTED BY LOCAL BUILDING INSPECTOR. KEEP CHIMNEY AND PIPES CLEAR AND FREE OF **CREOSOTE** BUILD-UP AND OTHER BLOCKAGES. Use low heat appliance chimney as defined in Section 914 of the Uniform Mechanical Code.

On Scandia models with interchangeable vents, it is best to use a small amount of stove cement around the vent plates if you have changed them from the way they came on the stove. Although the plates are gasketed, a small amount of stove cement will insure no leaks after you have decided on your venting arrangement.

Back venting will give greater efficiency than top venting on models designed for this change. However, back venting will create greater heat from the stove pipe and may require a pipe adaptor or shield. Check individual instructions for each stove.

The finish on your Scandia wood stove is a high temperature flat finish that will turn charcoal gray after a few burnings. Many stove polishes are available to restore a deeper color if desired. For repainting or when touch-up can is empty, use any good stove polish or flat black, high temperature paint. DeRusto, Rustoleum, Thurmolux, etc.

WHEN CONNECTING SINGLE WALL VENT PIPE INTO STOVE, INSTALL THE CRIMPED END INSIDE THE COLLAR. IF IT DOES NOT FIT HAVE YOUR DEALER CRIMP IT A BIT MORE. THIS WILL ALLOW CREOSOTE TO RUN BACK INTO THE STOVE WITHOUT DRIPPING OUT. Stove cement and four sheet metal screws should be used at each pipe joint to assure the pipe stays connected. Avoid using any more elbows than necessary; they provide excellent places for creosote to build up and ignite. A stove-pipe damper should be installed in your pipe to allow you more control over your draft. IF YOUR STOVE DOES NOT COME WITH A FACTORY SUPPLIED DAMPER, THEN ONE SHOULD BE INSTALLED, THE SAME SIZE AS YOUR SMOKE PIPE. This damper provides you with better control of your draft. (ie: 6 inch pipe – 6 inch stove pipe damper). Use only listed low heat appliance chimney pipe. Always check with local building codes for proper installation. Be sure your stove pipe is connected with a minimum 1" per running foot uppitch from the stove to the chimney.

We recommend on all cast iron woodstoves that your first few fires be small ones to season the cast iron. Ideally, they should be burned outdoors as there will be some oils that initially burn off from the paint and castings causing a bit of blue colored smoke and acid odor. The larger stoves all require longer break in or seasoning periods.

Creosote is the main cause of chimney fires, stoves do not cause creosote; wood does. ALWAYS USE WELL SEASONED HARDWOOD. Do not use artifical logs. Airtight stoves will create the largest deposits of creosote because of their slow burn efficiency. The slower you burn your fire, the more creosote you will create. WE RECOMMEND THAT YOU BUILD A VERY HOT FIRE AND LET IT BURN WITH DAMPERS AND DRAFT CONTROL WHEELS WIDE OPEN FOR ¾ HOUR PER DAY. This will burn off small creosote deposits before they become dangerous. Many companies market chemicals to burn with your wood that help eliminate build up, such as noniodized salt, but they will not clean out existing deposits. There is no substitute for proper installation and frequent checks and cleaning of your pipes and chimney to prevent creosote fires. HAVE YOUR CHIMNEY INSPECTED AT LEAST TWICE A YEAR.

Draft

Always be sure your intake draft wheels or dials are clear of obstructions. A fire cannot burn without air. Proper chimneys, flue pipes and damper settings all play an important role. Experiment with your new Scandia until you have found the ideal settings for all your needs. Stoves need an adequate supply of air to support combustion. If your home is tightly constructed, highly insulated or you have exhaust fans, it may be

necessary to crack a window to allow sufficient air into the home.

Type of Wood:

Always burn good, well seasoned hardwood for best results. Green, unseasoned wood and soft woods do not provide good heat, do not burn well, and create tremendous quantities of creosote. See chart on wood types on page 14.

How to Build Your Fire

Spread a 1" layer of sand on the bottom of your stove. This will protect the grate and also aid in heat retention for more efficient operation.

Open the damper completely (handle in line with pipe fully open. Handle across pipe-closed). Open the draft control completely.

Place several crumpled pieces of paper on the bottom and cover with a few small pieces of kindling wood. Light another piece of crumpled paper and hold high inside the stove near the flue. This will warm the flue and start the chimney drawing. Now light the paper, and as the kindling catches, add more and heavier wood until the fire is well established. Be careful not to add so much wood as to smother the fire.

The Scandia models #100, 110, 150, 180, 190, 400, 500, 600 and 700 feature front to rear burning. This insures that all the wood will not burn at one time.

The Scandia models 200, 250, 300, and 1000 can be burned in the same manner, but allows you to stand up the logs or lay them across the stove. The Scandia models 315 and 308, because of their advanced technology burn wood from left to right (in-the-airtight-position) according to how the primary & secondary air intakes are adjusted.

As the fire increases and burns well, you must close the draft control and pipe damper to reduce the rate of burning. This will insure maximum heating and continuous burning on minimum amounts of fuel.

When the wood has completely burned and only glowing coals remain, rake the coals to the front of the stove and place more fuel on the coals. At the same time open the draft control completely until the new logs start to burn well. At this point, you can turn down the draft control and allow the fire to burn slowly.

NOTE: Always open the pipe damper completely and wait a few minutes for the chimney draft to draw before opening the stove doors for reloading of the firebox.

Building Codes and Approvals

ALWAYS FOLLOW THE MANUFACTURERS RECOMMENDED INSTRUCTIONS FOR CLEARANCES FROM COMBUSTIBLE SURFACES. Some states have specific building code regulations involving the installation of a wood stove. Always check with local building officials for the required installation clearances.

Scandia airtights have been tested to safety standards. Read the label and instruction struction page for your model for proper clearances from combustible surfaces. We recommend that any stove be set on a non-combustible surface floor mat.

Hearth Mats are available through your dealer. NEVER SET STOVE ON COMBUSTIBLE SURFACES. We recommend that the stove be placed on a non combustible floor mat or hearth. This non combustible surface should extend a minimum of 8" beyond the sides and rear of the stove and 18" beyond any door or front of the stove. Some stoves require bottom heat shields to conform to national codes, even with heat shields you should always use a floor mat. A non-combustible floor is considered to be cement, brick, concrete. If you plan to construct a floor area,be sure to allow a space of gravel or asbestos between any brick or masonry and the wall or floor you install to eliminate heat transfer. Stoves may be placed as close as 18" away from non-combustible walls that have been protected by non-combustible material or panels installed with a minimum one inch air gap between them and the combustible surface. ALWAYS GET BUILDING INSPECTOR APPROVAL ON ANY INSTALLATIONS.

Note: Some models come equipped with a spark screen. When burning these models with the door(s) open, the spark screen should be installed to prevent sparks or cinders from falling into the room.

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 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.

SPECIAL NOTE: CAUTION! Do not store or use flammable liquids, especially gasoline or kerosene, in the vicinity of the room heater.

If your stove comes with a wooden handle attachment be sure to store in close proximity to the stove, but not in a place where it will get hot. Before installing a stove into an existing chimney check with local building officials as to specific requirements.

For further information on using your heater safely, obtain a copy of the National Fire Protection Association publication "Using Coal and Wood Stoves Safely", NFPA No. HS-10-1980. The address of the NFPA is 470 Atlantic Avenue, Boston, MA 02210.

If you have any questions regarding the installation or the availability of heat shields, stainless steel pipe, pipe shields, pipe shield elbows, local reflectors, or wooden handles, please contact your local dealer or

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Attn. Customer Service

HEAT SHIELDS AND PIPE SHIELDS:

On some models, certain heat restrictive shields are necessary to safely install you wood stove on or near combustible materials.

In order to conform to model building code standards in some states, these shields are necessary before a building inspector will approve your installation.

HHS Series: This represents a "Hearth Heat Shield"; it attaches to the bottom of the stove and reduces heat generated to the floor. See order form for models requiring heat shield.

PHSE Series: Designates an elbow pipe shield. On some models, when venting from the back with an elbow, it is necessary to insulate the elbow section of the pipe. The shield is another elbow one inch larger than the venting elbow that is spaced by placing 4 screws through the shield elbow on either end, to create equal spacing of ½ inch all around. If your stove requires six inch vent elbow, use a 7" elbow as a shield or our shield. Also, a stainless steel regular elbow can be substituted; in that case, no shield is required.

PHS Series: Designates a pipe heat shield. A pipe heat shield is required on some models when using a straight pipe vent arrangement (usually top venting). It is nothing more than a 1' length of pipe with the diameter one inch larger than the vent pipe spaced ½" unilateral by putting 4 screws through the pipe shield on either end to space it from the vent pipe. Note: a 1' section of stainless steel pipe in regular vent pipe size may be used without the need of a pipe shield.

All of these shields may not be readily available through your dealer. If not, use the order form on the back page of this book and we will ship the required piece directly to you. Please allow seven working days from receipt of order for delivery.

Chimney Fires:
Combustion of creosote deposits are likely to occur during a very hot fire. A very intense fire results, creating a roaring noise and producing flames and sparks from the top of the chimney. Chimney fires weaken the masonry in the chimney, can create fires on the roof and are not a safe way to remove creosote from a system.

Follow these steps if you have a chimney fire:
a. Call the Fire Department immediately.
b. Close all openings and draft controls on the stove.
c. If the fire is still burning vigorously, squirt a fire extinguisher or throw baking soda onto the fire in the stove. The chemical travels up the chimney and often extinguishes the flame.

One method suggested to reduce creosote build-up is to deliberately have a hot fire for 45-60 minutes each day. This hot fire tends to burn off the creosote in very small amounts each day, thus eliminating the build-up problems.

Even with the most conscientious cleaning habits, the owner of the wood stove still faces some danger of a creosote fire. Formation of creosote is a natural process resulting from the burning of wood. Although a properly installed woodburning stove and properly constructed chimney can withstand an occasional chimney fire, everything possible should be done to reduce the possibility of such fires. If one does occur the stove and chimney should be thoroughly inspected before it is used again (chimney and connectors may need to be disassembled).

Chimney Inspection:

Stove pipes and chimney flues should be inspected frequently for creosote build-up, especially during the first wood burning season. One method for checking stove pipes is to tap on the pipe with a metal object. The sound will change from a metal ping to a dull thud as materials build up inside the pipe. The chimney may be inspected from the roof or, in some cases, a mirror can be used to look up through the chimney flue. If you use an air-tight stove, check the stove pipes once a month.

WOOD STOVE INSTALLATION CHECKLIST

Permit

A building permit is required for the installation of any solid fuel burning appliance. The building permit and installation inspection are limited to the stove installation and not to the stove construction.

Stove

A) Type/radiant _____ circulating _____
B) Manufacturer _____ test label _____
Name/Model No. _____ Collar size _____
Dimensions/Height _____ Length _____ Width _____

Chimney

A) New _____ Existing _____
B) Size (flue area) _____
C) Other appliances attached to flue (Number and flue size) _____
D) Metal (Manufacturer–name and type) _____
E) Masonry/Lined
Unlined _____ Flue liner _____
(type & manufacturer)
F) Height (refer to diagrams) _____ cap _____

CHIMNEY HEIGHT

HEARTH

Hearth (min. 1hr. fire resistance)
A) Materials _____
B) Sub-floor construction _____
C) Minimum dimensions (refer to diagram)

Clearances and Wall Protection (see stove installation clearances chart)

A) Type of wall protection provided _____
B) Clearances (refer to diagrams)

FIREPLACE

CORNER

WALL/CENTER

SUGGESTED PROCEDURE FOR INSTALLATION OF WOOD BURNING STOVES

Twenty causes of chimney troubles and their cures.

Problem	*Examination*	*Correction*
1. Pipe extension not of same area as chimney opening, and extension below opening of cap. Chimney below gable of roof.	1. This is ascertained by measurement.	1. Pipe to be extended and opening to be same as chimney opening. Extend chimney above gable of roof.
2. Chimney opening smaller than inside dimension.	2. Determined by actual observation. Ascertained by measurement.	2. Widen opening to same dimension as chimney area.
3. Obstructions in chimney.	3. Found by lowering weight on a line.	3. Use weight to break and dislodge.
4. Projection into the chimney.	4. Lower a weight or light on extension cord.	4. Must be handled by brick contractor.
5. Break in Chimney linings.	5. Build smudge fire blocking off other chimney opening, watching for smoke escape.	5. Must be handled by competent brick contractor.
6. Collection of soot at narrow space in the opening.	6. Lower light on long extension cord.	6. Clean out with weighted brush or bag of loose gravel on end of line.
7. Two or more openings into same chimney.	7. This is found by inspection from basement.	7. The least important opening must be closed using some other chimney flue.
8. Smoke pipe projects into flue but beyond surface of the wall.	8. Measurement of the pipe from within or observation of pipe by means of lowered light.	8. Length of pipe must be reduced to allow end of pipe to be flush with wall.
9. Air leak at base of clean-out door.	9. Build small fire, watching for smoke or flame through the cracks.	9. Cement up all cracks around the base.
10. Failure to extend the length of flue partition down to floor level.	10. This is found by inspection.	10. Extend partition to floor level.
11. Broken clay tiles.	11. Can be found by light and mirror reflecting condition of walls.	11. All breaks should be patched with cement.
12. Clay lining fails to come below opening of smoke pipe.	12. Found by observation through flue opening into chimney.	12. Clay tiling should be extended below flue opening.
13. Partial projection of smoke pipe into flue area.	13. Found by measurement after pipe is withdrawn or by sight from chimney opening using light on a cord.	13. Projection must be eliminated.
14. Loose seated pipe in flue opening.	14. Air leaks can be determined by smoke test or examination of chimney while fire burns below location.	14. Leaks should be eliminated by cementing all pipe openings.
15. Smoke pipe enters chimney in declining position.	15. This is observed by measurement.	15. Connect the pipe in an ascending manner.
16. Second flue opening below that for smoke pipe.	16. This is found by observation from within basement.	16. Change to allow only one opening in each chimney.
17. Accumulation of soot in narrow cross sectional area of pipe.	17. Examine pipe from cleanout opening.	17. Remove soot.
18. Hand damper in a full closed position.	18. If handle is not at the true position of plate remove section of pipe to ascertain position.	18. Allow sufficient opening of plate for needed escape of gases.
19. Clean-out opening on pipe leaks air.	19. Flames visible when furnace is under fire.	19. Tighten or cement to eliminate leak.
20. Clean-out pan not tightly seated in base of chimney.	20. This air leak can be determined by watching action of small fire built in bottom of chimney shaft.	20. Cement to eliminate all leaks.

QUALITY CHARACTERISTICS OF COMMONLY BURNED WOODS

Species	Easy to Split	Ease of Starting	Heavy Smoke	Sparks	Coaling Qualities
Apple	no	poor	no	few	excellent
Ash	yes	fair	no	few	good
Beech	no	poor	no	few	good
Birch (white)	yes	good	no	moderate	good
Cherry	yes	poor	no	few	excellent
Cedar	yes	excellent	yes	many	poor
Elm	no	fair	medium	very few	good
Hemlock	yes	good	medium	many	poor
Hickory	yes	fair	no	moderate	excellent
Locusts (black)	no	poor	no	very few	excellent
Maple (sugar)	yes	poor	no	few	excellent
Oak (red)	yes	poor	no	few	excellent
Pine (white)	yes	excellent	medium	moderate	poor
Spruce (Norway)	no	good	yes	moderate	poor
Willow	yes	fair	no	few	poor

Northeast Regional Agricultural Engineering Service, 1977, NE-191

PFS LISTED

SCANDIA 100

How to install legs and heat shield.

Install the legs by laying the stove on its side and attaching each leg using the four bolts and nuts provided. DO NOT OVERTIGHTEN BOLTS.

Underneath your stove there are four protruding bolts. Place one heat shield bracket on each of these bolts and attach with a second nut. Now install the heat shield to the heat shield brackets using the screws and nuts provided. After completion stand the stove on its legs.

The side liners hang with the angled lip facing the inside of the stove. There are three cast knobs on both inner sides of the stove. This allows the side baffles to be placed either toward the front or back depending on where you want the greater amount of heat to be generated. More heat will radiate from the area the baffle does not cover. ALWAYS USE THE SIDE BAFFLES. They are essential to create proper internal circulation and protect stove sides.

The inner smoke baffle fits above the side baffles, lines facing downward. The angled lip should face toward the front of the stove aiming upward.

The Scandia 100 has a three-way interchangeable venting flue, for back or either side. To change vent collar, loosen nuts holding collar in place, choose which side you wish to vent from and remove back top side plate (the one with the log cabin design) by removing nuts from the inside. Switch the vent collar from the back to the side and tighten bolts. Use the side plate to cover the back and bolt in. (DO NOT OVERTIGHTEN BOLTS). It is a good idea to seal these parts with some asbestos furnace cement if a venting change has been made.

The door handle for your stove is packed inside during shipping. Attach it to the front door using the screw and nut provided. Latch the door and check for a tight fit. It may be necessary to adjust the door catch (part #8A) by bending it toward the stove to insure an airtight seal.

Check all seams for any cracks in stove cement. If there are any, use the tube of cement supplied. It is advised to check all seams every 3 months of use, as cement can deteriorate from constant expansion and contraction of the iron.

In order to adhere to safety standards for installation, you must allow proper clearances from COMBUSTIBLE surfaces; that the Scandia 100 has been tested and approved for. The following are MINIMUM CLEARANCES FROM COMBUSTIBLE MATERIALS.

	REAR OR SIDE VENT
SIDES	36"
BACK	24"
CHIMNEY CONNECTOR	18" MINIMUM
CHIMNEY CONNECTOR SIZE	6"

A 3/8" asbestos millboard hearthmat or equivalent should be used beneath the stove, that extends a minimum of 8" from the sides and back and 18" from the front where the wood is loaded and projecting 2" to either side of the chimney connector. (NEVER PLACE STOVE ON A WOODEN FLOOR OR RUG OR OTHER COMBUSTIBLE SURFACE). A heat shield (HHS-100) must be attached to the bottom of the 100. This reduces the temperature at the base of the stove.

Note: The stove is not approved without the heat shield. In any case, we do not recommend use of any stove without a non-combustible floor mat or placed on a non-combustible surface.

BEFORE BURNING, REREAD GENERAL INFORMATION ON PAGES 4-14.

SCANDIA AIRTIGHT STOVE

PART LIST

NO.	REQ.	DISC.	NO.	REQ.	DISC.
1.	1	BOTTOM PLATE	11.	2	FRAME OF REAR
2.	2	LOWER SIDE PLATE	12.	1	UPPER PLATE LEFT
3.	1	LOWER BACK PLATE	13.	1	UPPER PLATE RIGHT
4.	1	FRAME OF FRONT DOOR	14.	1	UPPER FRONT PLATE
5.	1	FRONT DOOR	15.	1	UPPER BACK FRAME
6.	1	AIR CONDITION PLATE	16.	1	CHIMNEY CONNECTION
7.	1	AIR CONTROLLER	17.	1	BAFFLE
8.	1	DOOR HANDLE	18.	1	TOP PLATE
8A.	1	DOOR CATCH	19.	4	LEG
9.	1	MIDDLE PLATE	20.	1	HEARTH HEAT SHIELD
10.	2	HEAT RESISTANCE PLATE	21.	4	HEARTH HEAT SHIELD BRKTS

SCANDIA 100

PFS LISTED
SCANDIA 150

HOW TO INSTALL HEAT SHIELD AND LEGS.

Place stove upside down. Place one of the heat shield brackets on each leg bolt and attach the legs. DO NOT TIGHTEN. Attach the heat shield to these brackets and tighten all bolts until firm. DO NOT OVERTIGHTEN BOLTS.

The inner side baffles have two square holes cut in them. The larger square hole fits on the center tab on the inside of the side plates. You may place the baffles either forward or rear on the wall depending upon where you wish more heat. More heat will be generated where the baffle does not cover.

The top smoke baffle rests on the side liners, placed so that the indented curved end fits between the two pins on the inner back wall and the flue opening.

Check draft wheel on the door to be sure it is tight, yet turns freely. Always use a listed low heat appliance chimney when installing your stove.

The door handle for your stove is packed inside during shipping. Attach it to the front door using the screw and nut provided. Latch the door and check for a tight fit. It may be necessary to adjust the door catch (Part 13) by bending it toward the stove to insure an airtight seal.

In order to adhere to safety standards for installation, you must allow proper clearances from combustible surfaces that the Scandia 150 has been tested and approved for. The following are MINIMUM CLEARANCES FROM COMBUSTIBLE MATERIALS:

SIDES	24"
BACK	26"
CHIMNEY CONNECTOR	18" MINIMUM
CHIMNEY CONNECTOR SIZE	6"

A 3/8" asbestos millboard hearthmat or equivalent should be used beneath the stove, that extends a minimum of 8" from the sides and back and 18" from the front where wood is loaded and projecting 2" to either side of the chimney connector. (NEVER PLACE STOVE ON AN UNPROTECTED FLOOR OR RUG).

NOTE: This stove is not approved unless the hearth heat shield (HHS-150) is attached to the bottom of the stove. (Fig. 1)

When rear venting with an elbow it is required, to meet applicable standards, that you use a 6" stainless steel elbow which extends I foot up from the top of the flue. (fig 2)

The flue outlet on this stove is oval, so squeeze the pipe so the crimped end fits inside the flue outlet.

If a stainless steel pipe elbow is not available you may use a 7" elbow shield which extends I foot up from the top of the flue. This pipe shield elbow is secured in place by using 4-1" #10 sheet metal screws (FIG 3) on each end to achieve uniform spacing. ALWAYS USE A LISTED LOW HEAT APPLIANCE CHIMNEY WHEN INSTALLING YOUR STOVE.

In any case we do not recommend the use of any stove without a NON combustible floor mat or placed on a NON COMBUSTIBLE surface. We also recommend that you always check with your local building department or inspector for specific recommendations they may have regarding the installation of wood burning stoves.

BEFORE BURNING REREAD GENERAL INSTRUCTIONS ON PGS 4-14.

SSPE-150 6" STAINLESS STEEL PIPE ELBOW EXTENDING 1 FOOT UP FROM TOP OF FLUE

FIG (2)

FIG (3)

PHSE-150 7" ELBOW PIPE SHIELD. SECURED WITH (4) 1" x #10 SHEET METAL SCREWS AT TOP AND BOTTOM. EXTENDING ONE FOOT UP FROM TOP OF FLUE

PART LIST

NO.	REQ.	DISC.
1.	1	TOP REFLECTOR PLATE
2.	1	BAFFLE
3.	1	BACK PLATE
4.	1	TOP PLATE
5.	2	SIDE BAFFLE PLATES
6.	2	SIDE PLATES
7.	4	LEGS
8.	1	FRAME OF FRONT DOOR
9.	1	AIR-PRE HEAT CHAMBER
10.	1	FRONT DOOR
11.	1	DRAFT CONTROL
12.	1	DOOR HANDLE
13.	1	DOOR LATCH
14.	1	BOTTOM PLATE
15.	1	HEARTH HEAT SHIELD (HHS-150)
16.	4	HEARTH HEAT SHIELD BRKTS.

FIG 1

PFS LISTED
SCANDIA 180

ASSEMBLY INSTRUCTIONS

Place stove upside down. Install legs using four bolts and four washers provided. Attach the front hearth using the bolt and large square washer provided. DO NOT OVERTIGHTEN BOLTS.

The inner side baffles have two square holes cut in them. The larger square hole fits on the center tab on the inside of the side plates. You may place the baffles either forward or rear on the wall depending upon where you wish more heat. More heat will be generated where the baffle does not cover.

The Scandia 180 can be top or rear vented. Choose the venting arrangement most suitable to your installation and attach the flue outlet and flue cover according. It is a good idea to place some furnace cement on these pieces before attaching to insure a tight fit.

The door handle for your stove is packed inside during shipment. Attach it to the front door using the screw provided. Latch the door and check for a tight fit. It may be necessary to adjust the door catch (Part #10) by bending it toward the front of the stove to insure an airtight seal.

Check draft wheel on the door to be sure it is tight, yet turns freely. Always use a listed low heat appliance chimney when installing your stove.

In order to adhere to safety standards for installation, you must allow proper clearances from COMBUSTIBLE surfaces that the Scandia 180 has been tested and approved for. The following are MINIMUM CLEARANCES FROM COMBUSTIBLE MATERIALS:

	REAR VENTING	TOP VENTING
SIDES	24"	26"
BACK	26"	24"
CHIMNEY CONNECTOR	18" MINIMUM	18" MINIMUM
CHIMNEY CONNECTOR SIZE	6"	6"

A 3/8" asbestos millboard hearthmat or equivalent should be used beneath the stove, that extends a minimum of 8" from the sides and back and 18" from the front where the wood is loaded and projecting 2" to either side of the chimney connector. (NEVER PLACE STOVE ON AN UNPROTECTED FLOOR OR RUG).

OPERATION

Place approx. 1" of sand in the bottom of stove.

Due to the fact that the Scandia 180 is built of cast iron, it needs to be "broken in". For the first few fires, build them small and let the heater warm up gradually. Even after the break-in period, never build a roaring fire in a cold heater, but allow it to warm up gradually. FAILURE TO FOLLOW THIS PROCEDURE CAN DAMAGE THE HEATER AND VOID THE WARRANTY.

Place a piece of crumpled newspaper on top of the baffle and light. This will warm the flue. Place some newspaper and kindling on the bottom of the stove and light. Add more fuel as the fire progresses until the desired size is reached.

Open the draft wheel or the door completely and close the door. The rate of burn can be controled using the draft wheel and the pipe damper. As the fire goes out, rake the hot coals forward and add more fuel, using the coals to ignite the new fuel.

BE SURE TO OPEN ALL DAMPERS BEFORE OPENING THE DOOR TO ADD MORE FUEL.

BEFORE BURNING REREAD GENERAL INSTRUCTIONS ON PAGES 4-14.

PARTS LIST

NO.	REQ.	DISC.
1	1	BOTTOM
2	2	SIDE PLATE
3	1	BACK PLATE
4	1	TOP PLATE
5	1	FRONT FRAME
6	1	AIR CONTROLLER
7	1	FRONT DOOR
8	1	DRAFT WHEEL
9	1	DOOR HANDLE
10	1	DOOR CATCH
11	1	FLUE COVER
12	1	FLUE OUTLET
13	2	HEAT RESISTANCE PLATES
14	1	BAFFLE
15	4	LEGS
16	1	FRONT HEARTH

PFS LISTED
SCANDIA 200

Lay stove on its back or side. Remove the two wooden blocks that protect the door track mechanism on the bottom of the stove and attach legs. DO NOT OVERTIGHTEN BOLTS. NEVER SET STOVE UPRIGHT WITHOUT LEGS ATTACHED UNLESS TRACK PROTECTORS ARE IN PLACE.

The firebrick is already in place. Top smoke baffle should be in place. If it has jarred loose, reinstall by removing top vent cover. Hold baffle straight up in stove with smaller notched ends facing downwards. Angle the baffle so the bottom portion rests on the supports at the top of the fire brick. The top of the baffle will rest on the cast notches on the upper sides of the unit. You may have to work with the baffle a bit to fit it in but the piece will drop into place when angled correctly.

The door is designed to swing under the stove when using it as a fireplace. Lift up on the handle to unlock, pull downward on the door, keeping the door on a slightly downward angle, slide it under the stove.

(CAUTION: Door will be very hot if the stove has been in operation. Wear a heat resistant glove whenever opening or closing door when stove has been burning for any length of time.)

NOTE: Door tracks and rollers can come out of adjustment from shipping, handling, and extended use. Before installing stove, try the door mechanism; it should work smoothly. If the door sticks, binds, or is very hard to slide, adjust track mechanism in the following manner:

Close and latch door, lay stove on side or back, determine what adjustment is necessary i.e. – if door is very stiff, widen tracks, if door is too loose or angles when it goes in, bring the tracks closer together). Generally, only one track needs to be moved at one time; loosen the two bolts that hold the track to the base and adjust accordingly. BE SURE NOT TO OVERTIGHTEN THE BOLTS.

Initially the doors can operate tighter than when they are broken in; slight lubrication with graphite can be helpful. Heat will cause this to disseminate quickly so lubricate often.

The Scandia 200 can vent top or back. Attach flue outlet and flue cover accordingly. It is advisable to line the plate and flue collar with stove seam cement when you tighten them down to insure no air leaks.

The 200 will burn more efficiently vented from the back as it will utilize the smoke baffle to better advantage. Always use a listed low heat appliance chimney when installing your stove.

In order to adhere to safety standards for installation, you must allow proper clearances from combustible surfaces that the Scandia 200 has been tested and approved for. The following are MINIMUM CLEARANCES FROM COMBUSTIBLE MATERIALS:

SIDES	36"
BACK	36"
CHIMNEY CONNECTOR	18" MINIMUM
CHIMNEY CONNECTOR SIZE	8"

A 3/8" asbestos millboard hearthmat or equivalent should be used beneath the stove, that extends a minimum of 8" from the sides and back and 18" from the front where the wood is loaded and projecting 2" to either side of the chimney connector. (NEVER PLACE STOVE ON AN UNPROTECTED FLOOR OR RUG). A heat shield (HHS-200) must be attached to the bottom of the 200. This reduces the temperature at the base of the stove.

HOW TO INSTALL HEAT SHIELD

Attach the (L) shaped brackets to your heat shield with the bolts provided. Place the heat shield underneath the stove so that each bracket fits on the inside of each stove leg. Line up the brackets with the holes in the legs and secure the heat shield in place (Refer to Fig B).

NOTE:

This stove is not approved without the use of the hearth heat shield. In any case, we do not recommend the use of any stove without a NON COMBUSTIBLE floor mat or placed on a NON COMBUSTIBLE surface. We also recommend that you always check with your local building department or inspector for specific recommendations they may have regarding the installation of wood burning stoves.

BEFORE BURNING REREAD GENERAL INSTRUCTIONS ON PGS 4-14.

PART LIST

NO.	REQ.	DISC.	NO.	REQ.	DISC.
1.	1	BOTTOM PLATE	14.	1	HANDLE
2.	1	RIGHT SIDE PLATE	15.	3	LEGS
3.	1	LEFT SIDE PLATE	16.	1	DAMPER CONTROLLER
4.	1	BACK PLATE	17.	1	AIR CONTROLLER
5.	1	FRONT FRAME OF DOOR	18.	1	HEARTH RAIL
6.	1	FRONT TOP PLATE	19.	1	AIR CONTROLLER
7.	1	DOOR	20.	1	DOOR MECHANISM
8.	1	BOTTOM CENTRAL PLATE	21.	3	SLIDING SYSTEM
9.	1	TOP PLATE	22.	1	HEARTH HEAT SHIELD
10.	1	CHIMNEY CONNECTION	23.	3	HEAT SHIELD BRKTS
11.	1	DAMPER	24.	1	LOCAL REFLECTOR
12.	1	BAFFLE	25.	1	SCREEN
13.	1	FLUE COVER			

FIG B

PFS LISTED

SCANDIA 250

Lay stove on its back or side. Remove the two wooden blocks that protect the door track mechanism on the bottom of the stove. Attach legs using bolts supplied. DO NOT OVERTIGHTEN BOLTS. NEVER SET STOVE UPRIGHT WITHOUT LEGS ON UNLESS TRACK PROTECTORS ARE IN PLACE.

Firebrick is already in place. Top smoke baffle should be in place. If it has jarred loose, reinstall by removing top vent cover Hold baffles straight up in stove with smaller notched ends facing downwards. Angle the baffle so the bottom portion rests on the supports at the top of the fire brick. The top of the baffle will rest on the cast notches on the upper sides of the unit. You may have to work with the baffle a bit to fit it in but the piece will drop into place when angled correctly.

The door handle is packed inside during shipment. Attach it to the door using the pin provided being sure to have the latch in the upright position.

The door is designed to swing under the stove when using it as a fireplace. Turn the handle counterclockwise to unlock, pull downward on the door, keeping the door on a slightly downward angle, slide it under the stove.

(CAUTION: Door will be very hot if the stove has been in operation. Wear a heat resistant glove whenever opening or closing door when stove has been burning for any length of time.)

NOTE: Door tracks and rollers can come out of adjustment from shipping, handling, and extended use. Before installing stove, try the door mechanism; it should work smoothly. If the door sticks, binds, or is very hard to slide, adjust track mechanism in the following manner:

Close and latch door, lay stove on side or back, determine what adjustment is necessary (i.e. — if door is very stiff, widen tracks, if door is too loose or angles when it goes in, bring the tracks closer together). Generally, only one track needs to be moved at one time; loosen the two bolts that hold the track to the base and adjust accordingly. BE SURE NOT TO OVERTIGHTEN THE BOLTS.

Initially the doors can operate tighter than when they are broken in; slight lubrication with graphite can be helpful. Heat will cause this to disseminate quickly so lubricate often.

The Scandia 250 can vent top or back. Attach the flue outlet and flue cover accordingly. It is advisable to line the plate and flue collar with stove seam cement when you tighten them down to insure no air leaks.

The 250 will burn more efficiently vented from the back as it will utilize the smoke baffle to better advantage.

In order to adhere to safety standards for installation, you must allow proper clearances from COMBUSTIBLE surfaces; that the Scandia 250 has been tested and approved for. The following are MINIMUM CLEARANCES FROM COMBUSTIBLE MATERIALS.

SIDES	36"
BACK	28"
CHIMNEY CONNECTOR	18" MINIMUM
CHIMNEY CONNECTOR SIZE	8"

A 3/8' asbestos millboard hearthmat or equivalent should be used beneath the stove, that extends a minimum of 8" from the sides and back and 18" from the front where the wood is loaded and projecting 2" to either side of the chimney connector. (NEVER PLACE STOVE ON AN UNPROTECTED FLOOR OR RUG).

In order to meet applicable standards the following requirements must be followed:

The hearth heat shield must be secured to the bottom of the stove. (Fig 1) of parts list. This reduces the temperature at the base of the stove.

When venting the stove either top or rear it is required for approvals, that you use either 8" stainless steel pipe sections or 9" pipe heat shields. Please refer to parts list. Figures (2,3,4,5.). If you use the stainless steel pipe, you do not need to use the pipe heat shields.

How to install heat shield. HHS-250

Assemble the (L) shaped brackets to your heat shield with the bolts provided. Place the heat shield underneath the stove so that each bracket fits on the inside of each stove leg. Line up the brackets with the holes in the legs and secure the heat shield in place. (Fig 1)

BEFORE BURNING, REREAD GENERAL INSTRUCTIONS ON PAGES 4-14.

PART LIST

NO.	REQ.	DISC.
1.	1	BOTTOM PLATE
2.	1	RIGHT SIDE PLATE
3.	1	LEFT SIDE PLATE
4.	1	BACK PLATE
5.	1	FRONT PLATE
6.	1	DOOR
7.	1	TOP PLATE
8.	1	BAFFLE
9.	1	DRAFT WHEEL
10.	3	LEGS
11.	1	HANDLE
12.	1	LOCAL REFLECTOR
13.	1	FLUE COVER
14.	1	DAMPER CONTROL
15.	1	DAMPER
16.	1	DOOR MECHANISM
17.	2	DOOR TRACKS
18.	1	AIR PREHEAT CHAMBER
19.	1	CHIMNEY CONNECTION
20.	3	HEAT SHIELD BRKTS
21.	1	HEARTH HEAT SHIELD-HHS-250

(FIG 1)

PFS LISTED
SCANDIA 300

The firebrick and top smoke baffle are already in place; should the baffle have jarred loose, reinsert following the same technique outlined for models 200 and 250.

Install the legs by placing stove on its back or side and bolt legs to bottom of stove. DO NOT OVERTIGHTEN LEG BOLTS. If you experience any broken fire brick, it can be recemented with firebrick refactory cement.

The Scandia 300 vents from the rear or the top. To install vent collar, loosen the bolt that holds the clip and remove the other bolt. A little stove seam cement around the lip of the vent collar and cover plate will insure no air leaks when you have decided on which way to vent your stove. Reinstall the flue and flue cover being careful to put the square clip on the proper location. The model 300 will burn more efficiently if vented from the rear as it will utilize the smoke baffle to better advantage. Always use a listed low heat appliance chimney pipe.

The draft system on the 300 is very precise as it is integrated through the door handle. With the handle locked all the way down. (Horizantal position facing left as you look at the stove), the unit will achieve its greatest burn times. As the handle is gradually turned clockwise, it allows the door seams to open and more draft air is allowed into to the firebox. For average burning, we have found by setting the handle at the 11 o'clock position and using three logs of seasoned oak, we experienced 6-8 hours burn time with very adequate heat.

CAUTION: Doors will be very hot if the stove has been in operation. Use a heat resistant glove or the wooden handle provided with your stove, whenever opening the door or adjusting the handle to protect against any chance of burns from contact with hot surfaces.

To use the stove as a fireplace, open doors or remove them from the hinges and put sparkguard in place. Clip goes upward and the bottom of sparkguard rests behind the door handle pin on the base of the stove. Be sure log retainer is in place to guard against a falling log.

In order to adhere to safety standards for installation, you must allow proper clearances from COMBUSTIBLE surfaces; that the Scandia 300 has been tested and approved for. The following are MINIMUM CLEARANCES FROM COMBUSTIBLE MATERIALS.

SIDES	36"
BACK	24"
CHIMNEY CONNECTOR	18" MINIMUM
CHIMNEY CONNECTOR SIZE	8"

A 3/8" asbestos millboard hearthmat or equivalent should be used beneath the stove, that extends a minimum of 8" from the sides and back and 18" from the front where the wood is loaded and projecting 2" to either side of the chimney connector. (NEVER PLACE STOVE ON AN UNPROTECTED FLOOR OR RUG). IN ANY CASE we do not recommend the use of any stove without a non combustible floor mat or placed on a non combustible surface. We also recommend that you always check with your local building department or inspector for specific recommendations they may have regarding the installation of wood burning stoves.

In order to meet applicable standards the following requirements must be followed:

When venting the stove either top or rear it is required for approvals, that you use either 8" stainless steel pipe sections or 9" pipe heat shields. Please refer to figures (1, 2, 3, 4)

If you use the stainless steel pipe, you do not need to use the pipe heat shields.

BEFORE BURNING, REREAD GENERAL INSTRUCTIONS ON PAGES 4-14.

FIG (1) AND (2) FOR REAR VENTING WITH AN ELBOW.

FIG (1)

FIG (2)

FIG (3) AND (4) FOR TOP VENTING

FIG (3)

FIG (4)

PART LIST

NO.	REQ.	DISC.
1.	1	BOTTOM PLATE
2.	1	LEFT SIDE PLATE
3.	1	RIGHT SIDE PLATE
4.	1	RIGHT BACK PLATE
5.	1	LEFT BACK PLATE
6.	1	UPPER BACK PLATE
7.	1	FRONT PLATE
8.	1	TOP PLATE
9.	1	DOOR FRAME
10.	1	BOOT
11.	1	LEFT DOOR
12.	1	RIGHT DOOR
13.	1	FLUE COVER
14.	1	DAMPER CONTROLLER
15.	1	DAMPER
16.	1	BAFFLE
17.	1	HANDLE
18.	1	FRONT RAIL
19.	3	LEGS
20.	1	WOOD HANDLE SLEEVE