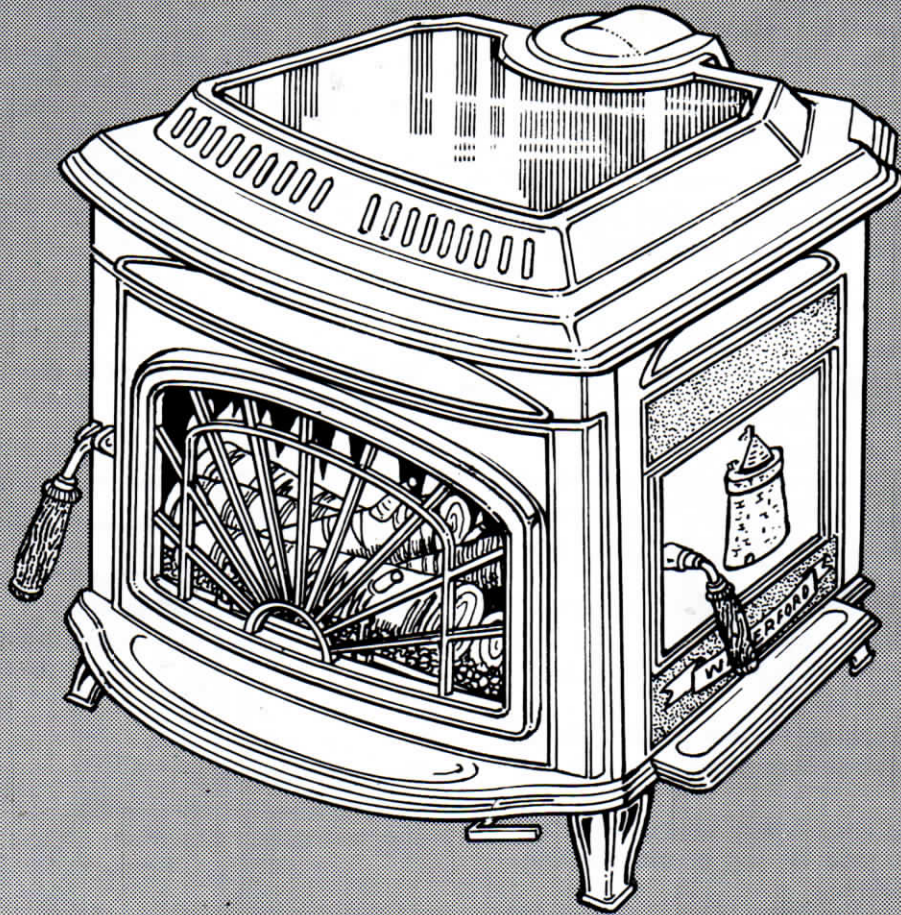


WATERFORD

Trinity

WOODBURNING STOVE



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.

If this stove is not properly installed, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

The stove must be connected to a UL/ULC listed high temperature residential type H.T. and building heat appliance chimney or an approved masonry chimney with flue liner.

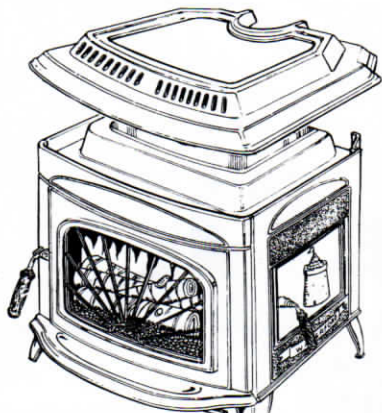
WATERFORD TRINITY WOODBURNING STOVE INSTALLATION & OPERATING INSTRUCTIONS

GENERAL

When installing, operating and maintaining your Waterford Trinity Stove respect basic standards of fire safety. Read these instructions carefully before commencing the installation. Failure to do so may result in damage to persons and property. Consult your local Municipal office and your insurance representative to determine what regulations are in force. Save these instructions for future reference.

PRE-INSTALLATION ASSEMBLY

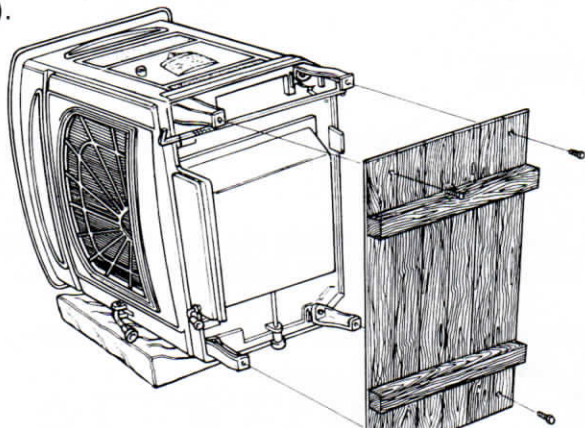
- After removing the stove from its packing, open the ashpit door (item 13 in exploded view) and remove the contents.
- Open the firedoor (item 8) and remove the contents of the firebox, leaving the bricks in place.
- Remove the ashlip (item 12) from the rear of the stove if you have not already done so. Remove the loose fitting hob (item 3) and place on a non-abrasive surface.



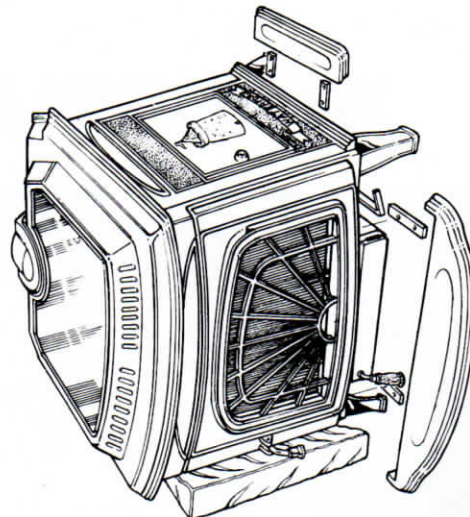
- Place the plastic packing on the ground at the left hand side of the stove.

NOTE: As the stove is very heavy take care when laying the stove on its side on top of the packing.

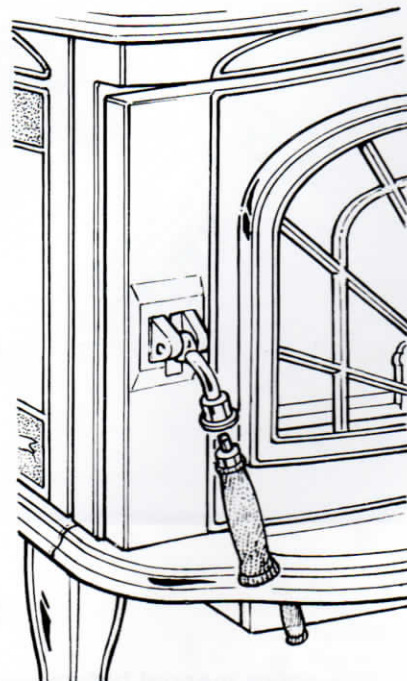
- Remove the wooden pallet by taking out the 4 retaining screws from the base of the legs (item 2).



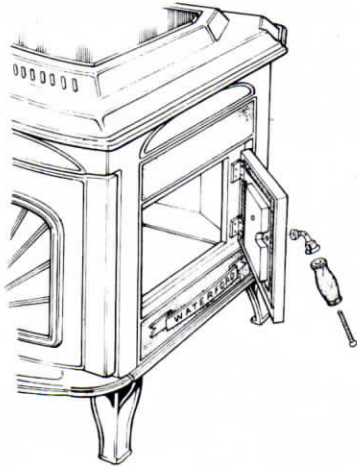
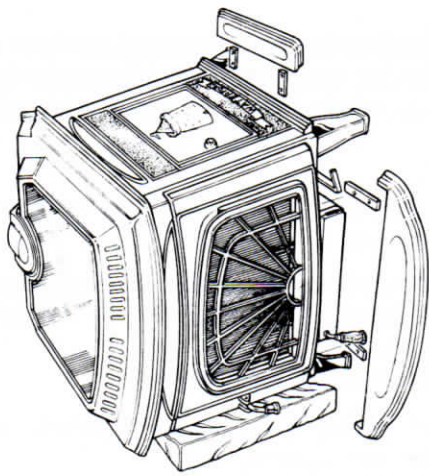
- Fit the front ashlip (item 12) using two of the ashlip brackets (item 35) and screw together using four $\frac{1}{4}$ " x $\frac{1}{2}$ " hex head bolts provided. Stand the stove upright taking care not to strain the back leg bolts.



- Fit the wooden handle (item 28) to the fuelling door (item 8).



- If the side fuelling door (item 27) is to be used, fit the side ash lip (item 24) using two ashlip brackets (item 35) and screw together using four $\frac{1}{4}$ " x $\frac{1}{2}$ " hex head bolts provided. Take out the chrome locking bolt and fit door latch (item 73), the door latch spigot (item 40), and the wooden handle (item 28) provided.

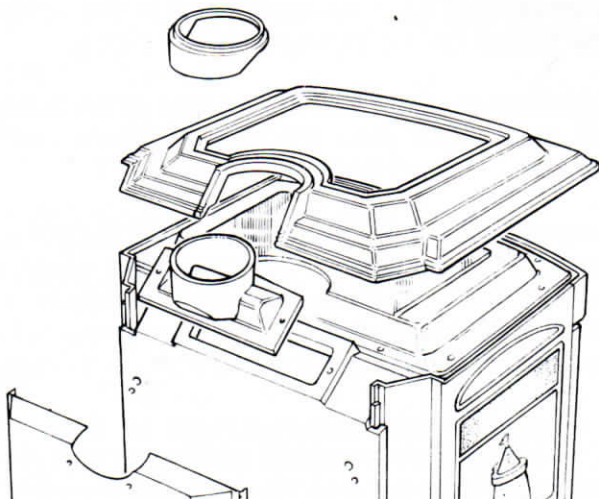


This stove can be connected to either a top or rear exit by simply reversing the orientation of the flue spigot (item 5) on the flue spigot flange.

For either the top or the rear exit option place the ceramic gasket onto the flue spigot flange — located at the top of the back plate (item 31).

TOP FLUE EXIT

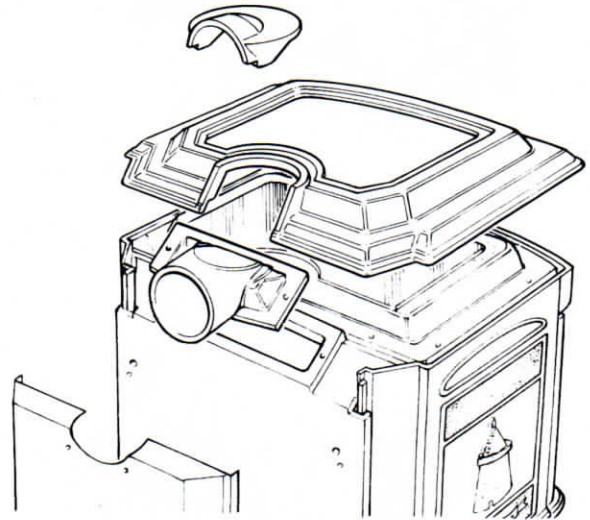
Screw the top outlet hob filler piece (item 6) onto the hob (item 3), screw top outer blanking plate (item 29) onto the heat shield (item 30) using the two 1/4" x 3/4" C/S screws provided



REAR FLUE EXIT

Screw the rear outlet hob filler piece (item 57) to the hob (item 3) using the two screws.

Screw the rear outlet heat shield blanking plate (item 58) to the heat shield (item 30) using the two 1/4" x 3/4" C/S screws provided.



BLOWER

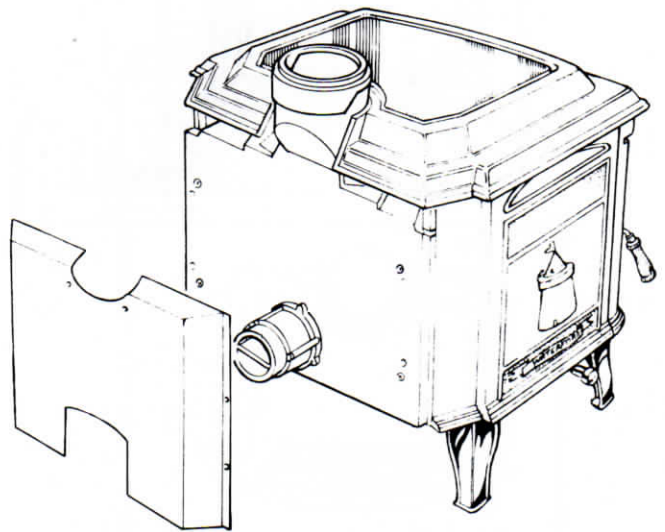
The Listed Waterford Trinity Optional Blower comes assembled, wired, and ready for use.

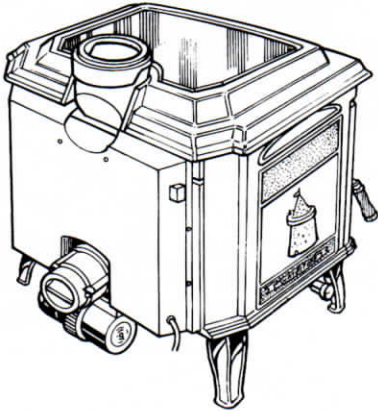
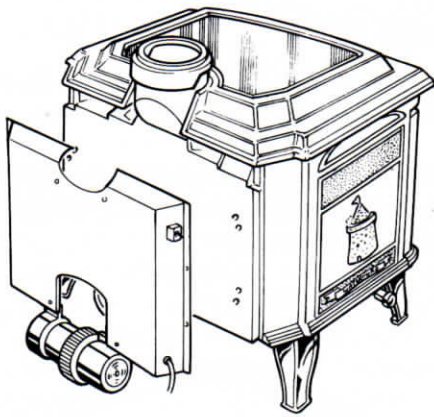
To fit the Listed Waterford Trinity Optional Blower take off rear heat shield (item 30) and fit listed blower assembly (item 74) as per illustrations below.

This unit must be connected to a grounded, standard 110 volt, 60 Hz electrical outlet. Never route the power cord under or in front of the unit.

Do not, under any circumstances, cut or remove the grounding prong from the power cord.

Do not use an adaptor plug.





If the side fuelling door is to be used the floor protector must extend at least 18" from the right hand side of the stove when looking from the front.

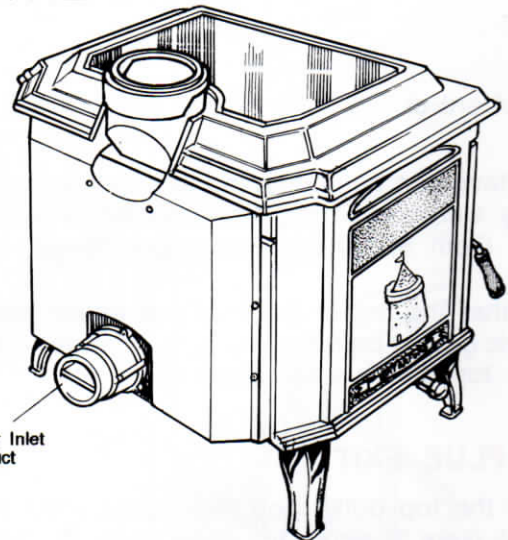
LOCATION

There are several conditions to be considered when selecting a location for your Trinity Wood Stove.

- (a) Distance from a safe chimney.
- (b) Position in the area to be heated — central locations are usually best.
- (c) Allowance for proper clearances to combustibles.
- (d) Obstruction in the ceiling, upper floor or roof, for example, ducting plumbing, electrical fittings and wiring, overhead fixed furnishings etc.

WARNING

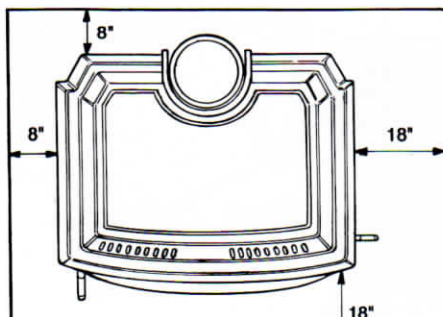
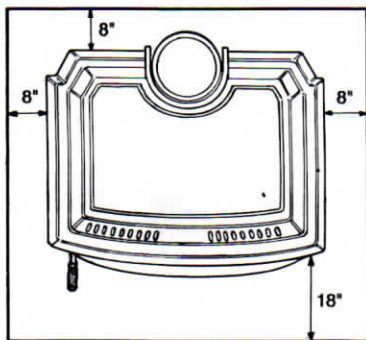
DO NOT OBSTRUCT FREE AIR SUPPLY TO THE AIR INLET DUCT LOCATED AT THE BACK OF THE STOVE.



Air Inlet Duct

FLOOR PROTECTION

When installing this heater on a combustible floor, a floor protector, consisting of a layer of non-combustible material at least $\frac{3}{8}$ " thick or $\frac{1}{4}$ " thick covered with $\frac{1}{8}$ " sheet metal is required to cover the area under the heater and to extend to at least 18" at the front and 8" to the sides. This will provide protection from sparks and embers which may fall out from the door when stoking or fuelling.



OUTSIDE AIR CONNECTION

This stove may be connected direct to the outside of the house for its combustion air supply.

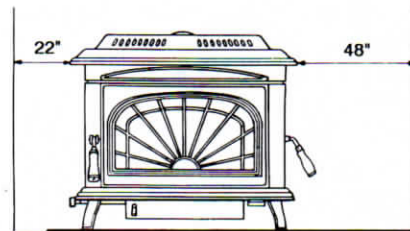
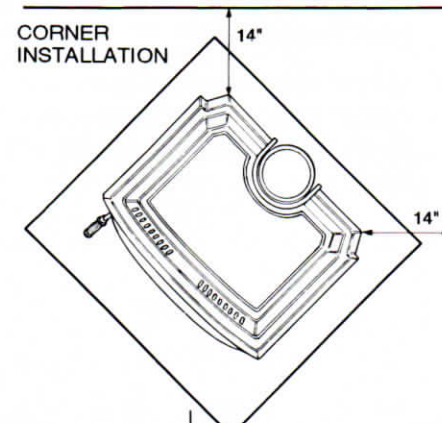
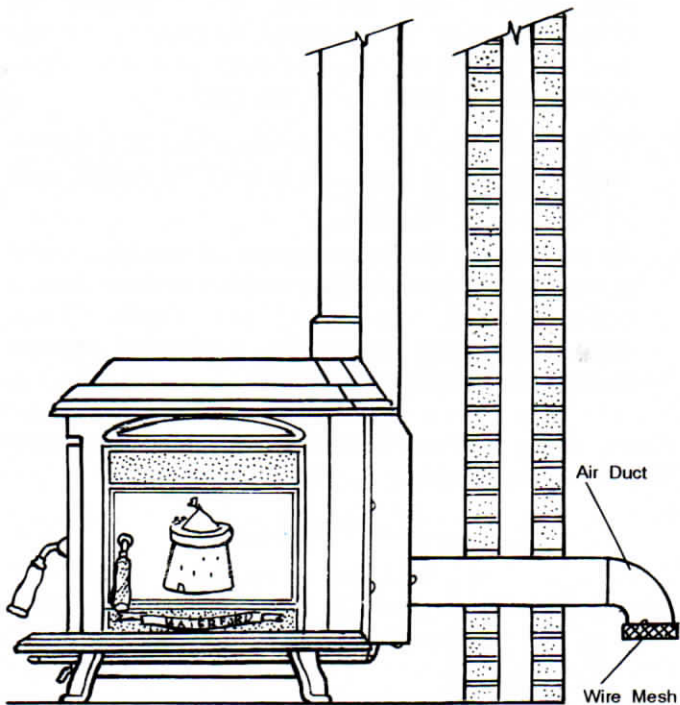
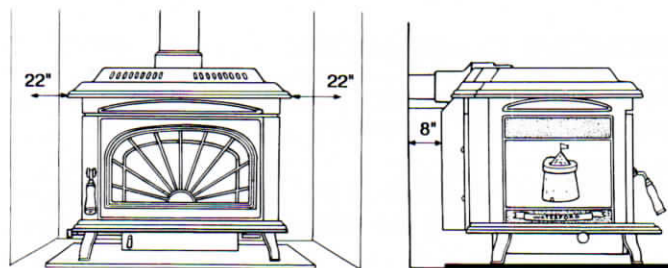
The primary air inlet (item 55) located at the bottom of the back panel (item 31) may be connected to outside air.

To connect this stove to an outside air supply use either 4" rigid or flexible stainless steel pipes or non-combustible corrosion-resistant materials not more than 38" in length and having no sharp bends or corners other than the down turn at the terminus.

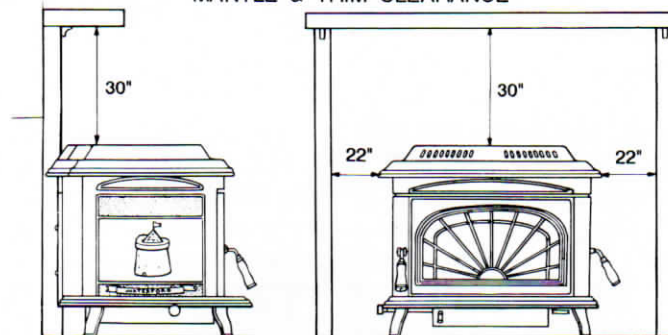
The outside air inlet terminus must be fitted with a $\frac{1}{4}$ " x $\frac{1}{4}$ " corrosion-resistant wire mesh to prevent leaves, and rodents entering from the outside.

Air inlets traversing cavity walls should include a continuous duct across the cavity. The duct should be installed in such a manner as not to impair the weather resistance of the cavity.

Joints between air vents and outside walls should be sealed to prevent ingress of moisture.

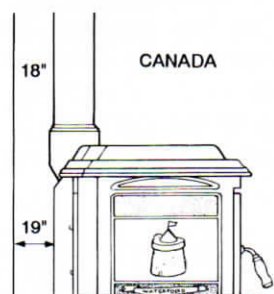
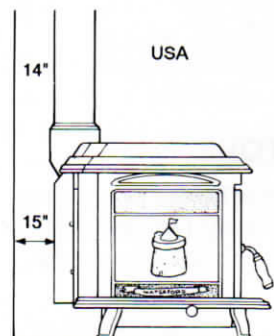


MANTLE & TRIM CLEARANCE

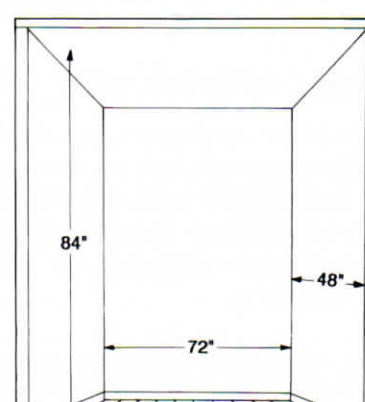


MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

- From the front of stove 48"
- From the side of stove 22"
- From corner installation 14"
- From back of stove 8"
horizontal installation only
- If the side door is to be used the right hand side clearances when looking from the front of the stove must be increased to 48"
- Mantle clearance 30"
- Side trim, which extends less than 2" from the face of the fireplace 22"
- Vertical Single Wall Flue Pipe (USA) 14"
- Vertical Single Wall Flue Pipe (Canada) 18"
- USA from back of stove 15"
- Canada from back of stove 19"



COMBUSTIBLE ALCOVE

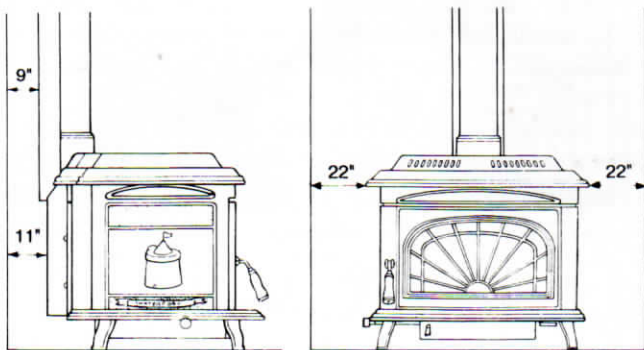
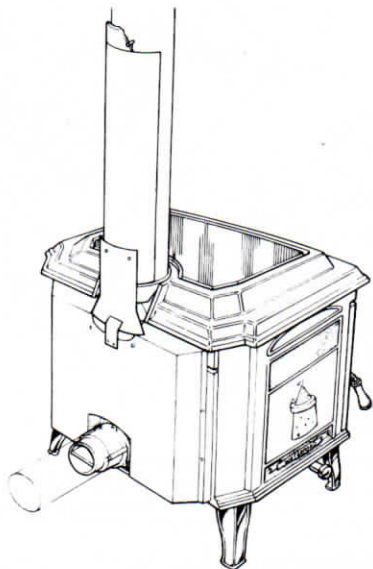


This stove has been tested in a combustibile alcove measuring 84" high x 72" wide x 48" deep.

REDUCED CLEARANCES

Under certain conditions the minimum clearances may be reduced by means of:

- The use of listed pipe shields, installed in accordance with the manufacturers instructions.
- Shields constructed in accordance with NFPA211 (USA), Can3-B365 installation code for solid fuel fired appliances.
- When listed pipe shields are used — top exit option only — the clearances may be reduced to 9" from the pipe shield and 11" from stove back.



DOUBLE WALL CONNECTORS

Double wall chimney connectors may be substituted for the shielded pipe provided it is UL/ULC listed for a 9" clearance or less.

WALL PROTECTORS

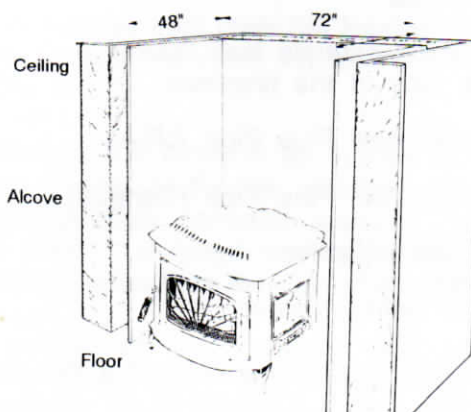
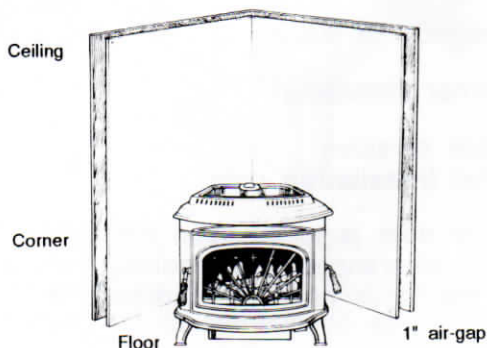
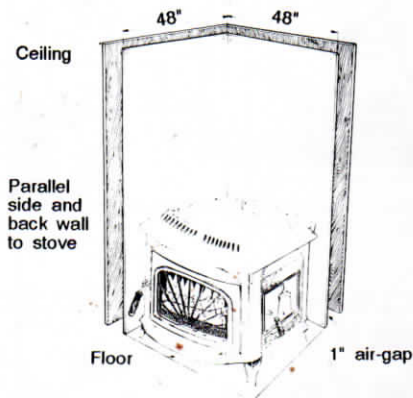
Materials and products listed for the purpose of reducing clearance to combustibles shall be installed in accordance with the conditions of the listing and the clearances may be reduced by the percentage reduction as stated in the wall shield manufacturer's instructions.

For clearance reduction systems using an air space between the combustible wall and the wall protector

adequate air circulation shall be provided by one of the following methods.

- Adequate air circulation may be provided by leaving all edges of the air protector open with at least a 1" air gap.
- If the wall protector is mounted on a single flat wall, away from corners, an adequate air circulation may be provided by leaving bottom and top edges or only the side and top edges open with at least a 1" air gap.
- Wall protectors that cover two walls in a corner shall be open at the bottom and top edges with at least a 1" air gap.
- All clearances shall be measured from the outer surface of the combustible material to the nearest point on the surface of the Trinity Stove disregarding any intervening protection applied to the combustible material.

When using a manufactured wall shield system observe local building codes and by-laws.



CHIMNEY

The Waterford Trinity is a radiant room heater and must be connected to a chimney of the proper size and type capable of providing an adequate continuous draught or 0.06 wg minimum. It is best to connect to a chimney of the same size as the stove spigot. Connection to a large size may result in somewhat less draught. Do not connect to a chimney serving another appliance.

Minimum chimney height is 15 feet from floor on which stove is installed. An existing masonry chimney should be inspected and, if necessary, repaired by a competent mason or relined using an approved relining system. The stove must be connected to a chimney with a minimum continuous draught of 0.06wg. Poor draught conditions will result in poor performance.

Note: Connection to type "B" gas vents approved for connection to a certain gas burning appliance will only result in a fire.

CHIMNEY TYPES: USA ONLY

The stove must be connected to a UL Listed residential type HT and Building Heating Appliance Chimney installed in accordance with the manufacturer's instructions or a masonry chimney constructed in accordance with NFPA 211 Chimney Vents and Solid Fuel Burning Appliances.

CHIMNEY TYPES: CANADA ONLY

The stove must be connected to an Underwriters Laboratories of Canada Labelled factory built 650°C chimney, installed in accordance with the manufacturer's instructions or in a lined masonry chimney acceptable to the authority having jurisdiction.

CHIMNEY CONNECTOR

The chimney connector is a smoke pipe used to connect the Waterford Trinity Stove to the chimney described above. The chimney connector must be made of Corrosion Resistant Steel, 24 gauge or heavier (black or blued or equivalently treated steel). Be sure to fasten the chimney connectors together and also to the flue outlet of the stove through the two holes provided, use at least two screws for each joint. Be sure that the joints are tight and fully secured.

CHIMNEY CONNECTOR USA ONLY

Connectors should maintain a pitch or rise of at least 1/4" to the foot from the stove to the chimney. It should be installed so as to avoid sharp turns or other construction features that would create

excessive resistance to the flow of flue gases. It should be securely supported with joints fastened with sheet-metal screws, rivets or other approved means. The entire length of a connector should be readily accessible for inspection, cleaning and replacement.

The connector may pass through walls or partitions constructed of combustible materials provided the connector is either listed for wall pass-through or is routed through a device listed for wall pass-through and is installed in accordance with the conditions of the listing. Any unexposed metal that is used as part of a wall pass-through system and is exposed to flue gases shall be constructed of stainless steel or other equivalent material that will resist corrosion, softening, or cracking from flue gas at temperatures up to 982°C.

CONNECTING TO MASONRY CHIMNEY

The connector to a masonry chimney must extend through the wall to the inner face or liner but not beyond, and must be firmly cemented to masonry.

The connector may pass through walls or partitions constructed of combustible material to a masonry chimney provided the connector system selected is installed in accordance with the proper clearances and conditions.

THIMBLES

Thimbles for chimneys or vent connector should be fire clay (ASTM c 315, Specifications for Clay Flue Linings), galvanised steel of minimum thickness of 24 gauge, or material equivalent durability. Thimbles should be installed without damage to the liner. The thimble should extend through the wall to, but not beyond, the inner face of the liner and should be firmly cemented to masonry.

Thimbles should be located to provide adequate pitch or rise of chimney or vent connectors and, where the ceiling above the appliance is constructed of combustible material, the location of the thimble should provide minimum clearance required for the connector as specified in section under "Minimum Clearances to Combustibles".

Insulation material used as part of wall pass-through system should be of non-combustible material and should have a thermal conductivity of 1.0 Btu.in./ft.F (4.88kg.cal/hr.m.C) or less. All clearances and thicknesses are minimums; larger clearances and thicknesses are acceptable. Any material used to close up an opening for the connector should be of non-combustible material. A connector to a masonry chimney, except for system 2 (under heading "Chimney Connector Systems, Thimbles and

Clearances”), shall extend to piece through the wall pass-through system and the chimney wall to the inner face of the flue liner, but not beyond.

CHIMNEY CONNECTOR SYSTEMS, THIMBLES, AND CLEARANCES FROM COMBUSTIBLE WALLS

1. Minimum 3 1/2" thick brick masonry wall framed into combustible wall with a min. of 12" brick separation from clay liner to combustibles, Fire Clay Liner (ASTM C315 or equivalent) min. 5/8" wall thickness, should run from outer surface of chimney flue liner and should be firmly cemented in place.
2. Solid insulated listed factory-built chimney length of the same inside diameter as the chimney connector and having 1" or more of insulation with a min. 9" air space between the outer wall of the chimney length and combustibles. The inner end of the chimney length shall be flush with the inside of the masonry chimney flue and shall be sealed to the flue and to the brick masonry penetration with non-water-soluble refractory cement. Supports should be securely fastened to wall surfaces on all sides. Fasteners between supports and the chimney length shall not penetrate the chimney liner.

3. Sheet steel chimney connector, min. 24 gauge in thickness, with a ventilated thimble, min. 24 gauge in thickness, having two 1" air channels, separated from combustibles by a min. of 6" of glass fibre insulation. Opening should be covered and thimble supported with a sheet steel support, min. 24 gauge in thickness. Supports should be securely fastened to wall surfaces on all sides and should be sized to fit and hold chimney section. Fasteners used to secure chimney sections should not penetrate chimney flue liner.

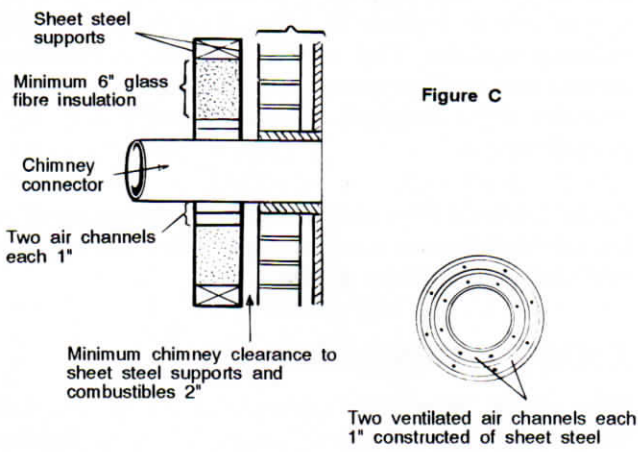


Figure C

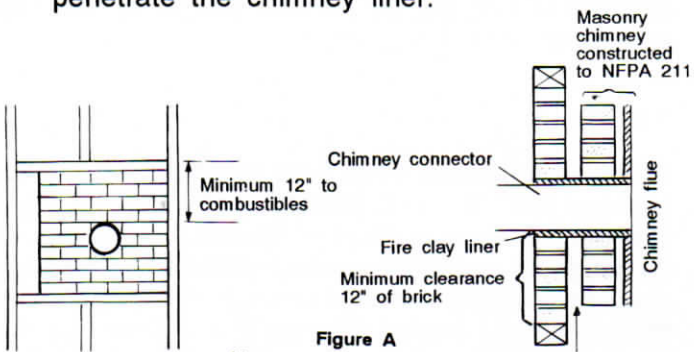


Figure A

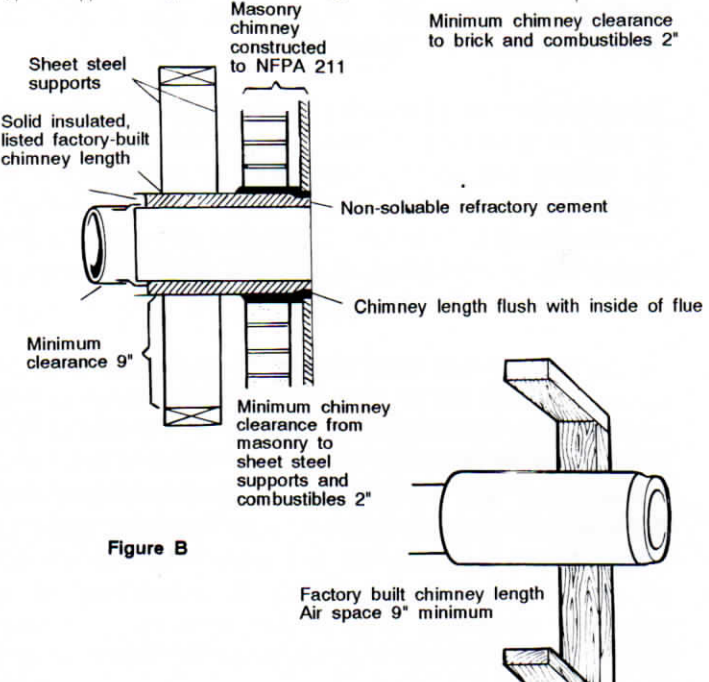


Figure B

4. Solid insulated listed factory-built chimney length with an inside diameter 2" larger than the chimney connector and having 1" or more of insulation, serving as a pass-through for a single wall sheet steel chimney connector of min. 24 gauge thickness, with a min. 2" air space between the outer wall of chimney section and combustibles. Minimum length of chimney section shall be 12". Chimney section concentric with and spaced 1" away from connector by means of sheet steel support plates on both ends of chimney section. Opening shall be covered and chimney section supported on both sides with sheet steel supports of min. 24 gauge thickness.

Supports should be securely fastened to wall surfaces on all sides and shall be sized to fit and hold chimney section. Fasteners used to secure chimney sections should not penetrate chimney flue liner.

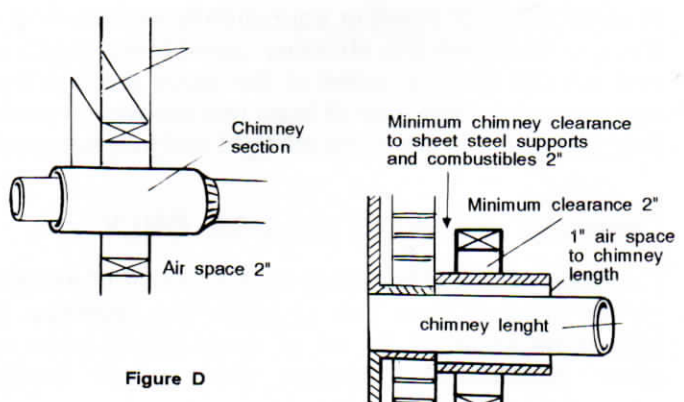


Figure D

MASONRY FIRE PLACE

The stove may be installed on the hearth extension of a masonry fireplace. In Canada a continuous liner must be provided from the flue collar of the stove to the top of the chimney. In the USA a continuous chimney flue is required. A minimum clearance of 30" is required to combustible mantle and a minimum clearance of 22" to side trim, which extends less than 2" from the face of the fireplace. (See section under "Minimum Clearances to Combustibles").

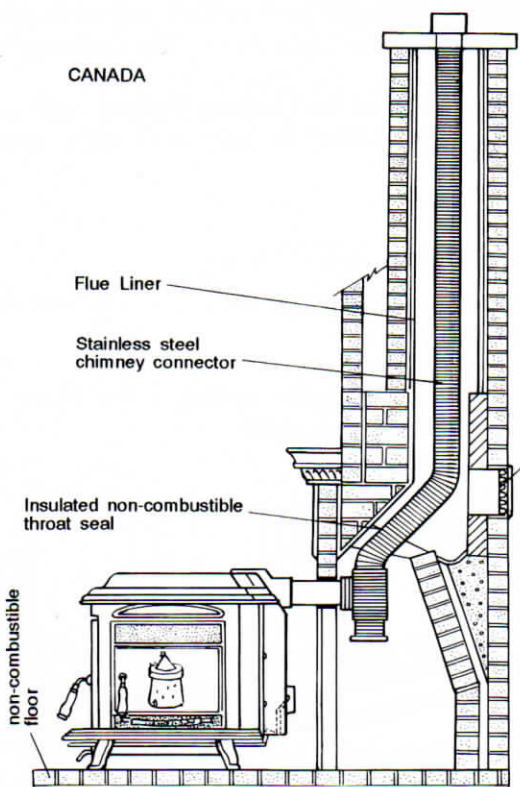
Before installation, the entire fireplace system should be inspected for condition and code compliance prior to connecting to the fireplace chimney. Older fireplaces and chimneys may not have been constructed to current day codes.

The fireplace and chimney should be in, or brought up to, acceptable conditions and proper clearances should be met before connecting to the fireplace chimney.

The size of the flue must be considered. If the fireplace chimney is too large, reline the chimney using an approved relining system.

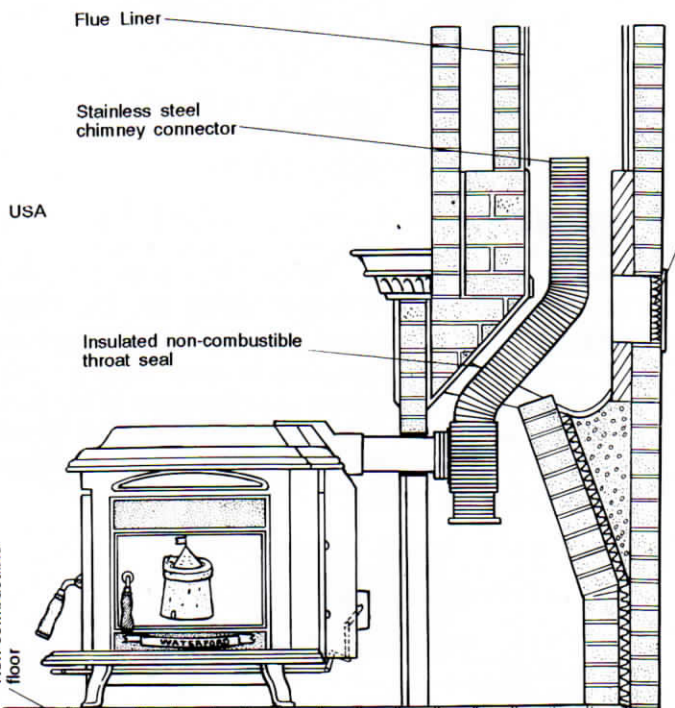
Connection to a masonry chimney may be done by breaching into the chimney from the front of the fireplace, no less than 8" above the bottom of the first flue tile, by installing a stainless steel or other listed chimney connector from the fireplace damper and smoke chamber, terminating at the first flue tile, or by installing a stainless steel or other listed relining system from the flue outlet up the entire length of the chimney, where necessary.

In Canada when connecting to a masonry fire place the steel chimney connector must terminate at the top of the masonry chimney or flue liner.



BURN WOOD ONLY. DO NOT BURN COAL, SYNTHETIC LOGS OR OTHER FUELS.

Burn directly on hearth do not use a grate or elevate fire. "Never use gasoline", gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquid to start or "freshen up" a fire in this heater. Keep all such liquids well away from the heater while it is in use. Operate stove only with fuelling door and ashpit door closed. This heater is hot whilst in operation. Keep children, clothing and furniture a safe distance away.



LIGHTING

- Replace ashpan (item 37), close ashpit door (item 13), and make sure the ash dump sliding door (item 42) is closed by pushing in ash dump lever (item 54) located at the bottom of the left side panel when looking from the front of stove.
- Open fire door (item 8) and open the primary air duct (item 55) by pulling the primary air control lever (item 66) located at the right corner under the ashlip (item 12) all the way towards the front.
- Cover hearth with crumpled pieces of paper. Lay dry pieces of kindling approximately $\frac{1}{2}$ " x $\frac{1}{2}$ " x 20" long on top of the paper towards the back of the firebox. Ignite and close the firedoor (item

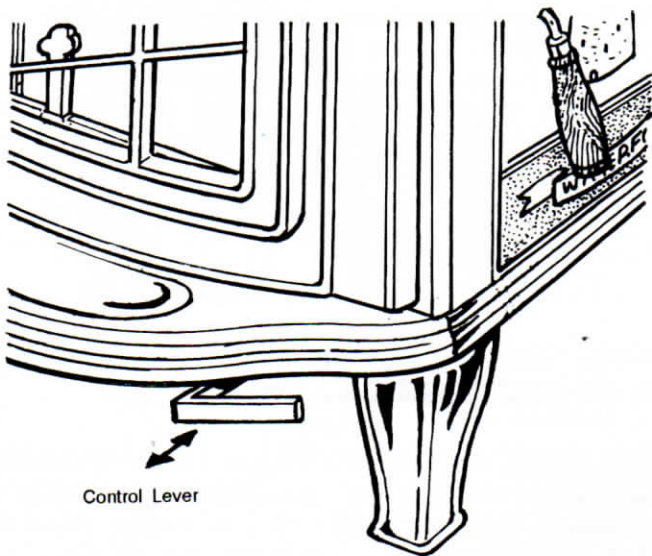
8). When the kindling has ignited, open the firedoor (item 8) and add larger pieces of dry wood. Close the firedoor (item 8). When a hot bed of coals is established add the normal fuel of well seasoned split logs approximately 20" long. Once the logs are well lighted, adjust the primary air control lever (item 66) to the required output.

Refuelling — Open the firedoor (item 8) and carefully level the embers and re-load with logs, close the firedoor.

PRIMARY AIR SETTINGS

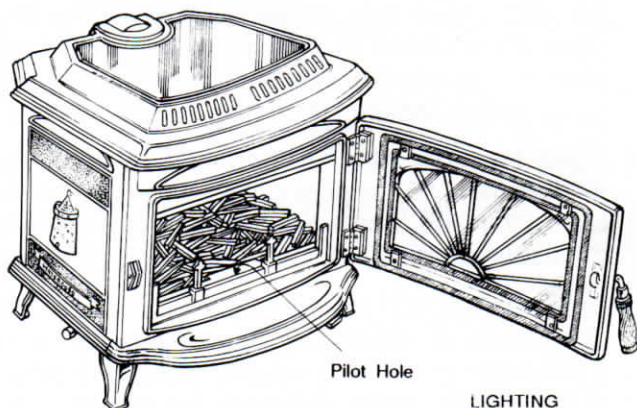
MAXIMUM — Pull control lever (item 66) all the way towards the front.

LOW (MIN) — Push the control lever (item 66) all the way towards the back.



IMPORTANT

Never allow a build-up of deposits in or over pilot hole in front of combustion chamber. Always keep clear of ash, coals, and fuel. Check when lighting re-fuelling or de-ashing.



LOW OR OVERNIGHT BURN

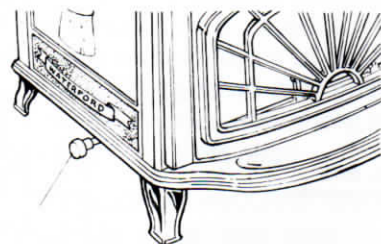
NOTE: The duration of low or overnight burn is affected by:

Draught conditions: Excessive draught reduces burn time. Quality of fuel load. If the stove and flue temperature at the start of a low or overnight burn are too high it will result in reducing burn time.

1. Allow the fire bed to cool down.
2. Re-load using full length wood (preferably unsplit).
3. Do not pack the fuel load as high as the secondary air tubes (items 47).
4. An air space is necessary between the fuel load and secondary air tubes (item 47) to avoid impingement of the secondary air on the top of the fuel load resulting in speeding up the burn rate.
5. Adjust the primary air control lever (item 66) to the minimum setting by pushing it all the way towards the back.

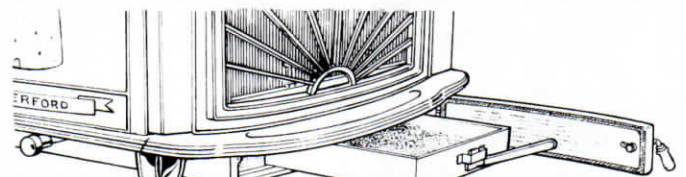
DE-ASHING

When the ash build-up becomes excessive in the fire chamber (3½" (88mm) deep or so) it must be removed by allowing the fire to burn out. When the fire has burned out, open the firedoor (item 8). Pull open the ashpit shutter (item 54). The control knob (item 45) for this is on the left hand side of the stove. Rake the ash into the ashpan (item 37) through the grating (item 46) in the centre of the hearth. Push closed the ashpit shutter (item 54) and dispose of the ashes by removing the ashpan (item 37) from the stove.



DISPOSAL OF ASHES

Remove ash carefully. Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed 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.



Replace the empty ashpan (item 37) in the stove, close the ashpit door (item 13) and re-light the fire.

CREOSOTE (Formation and the need for removal)

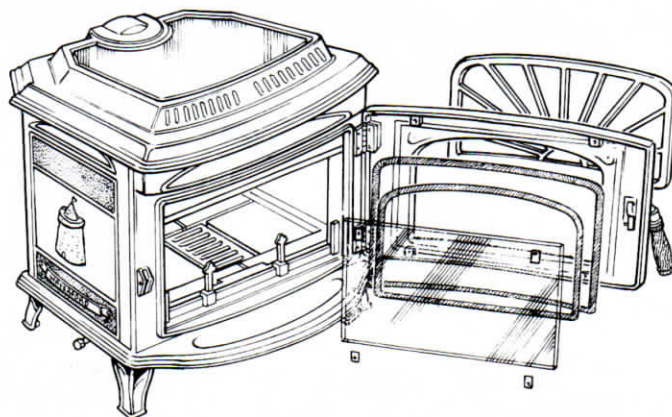
When wood is burned slowly, it produces tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow burning fire. As a result creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire. The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote build-up has occurred. If creosote has accumulated it should be removed to reduce the risk of chimney fire.

Inspect the chimney connector frequently. Tap the connector with your finger when the pipe is cool. If you hear a dull echo, the pipe may need cleaning. Disassemble the chimney connector and clean the sections. Replace corroded pipe sections. The fitting of a slip-joint in the stove makes the dismantling easy for cleaning and inspection of chimney and stove.

When inspecting a masonry chimney, start at the cleanout door, normally found in the basement, at the base of the chimney, or on the outside. If your chimney does not have a clean-out door it must be inspected and cleaned by removing stove from chimney.

GLASS REPLACEMENT

- (a) Open the fire door (item 8) fully.
- (b) Remove the four corner screws and clips (items 70) and carefully remove the broken glass.
- (c) Clean the glass recess in the door.
- (d) Attach adhesive thermal tape to the perimeter of the replacement glass.
- (e) Place the thermal taped side of the glass into the fire door recess and replace the four corner clips (items 70) and screws.
- (f) Tighten screws.
- (g) Replace glass only with ceramic glass $\frac{3}{16}$ " (5mm) thick.



GLASS CLEANING

The glass will clean itself when there is sufficient heat generated by the burning fuel. If a build-up of creosote occurs on the glass due to poor draught conditions, poor quality fuel or very low burning for long periods of time, it is best to clean the glass manually when glass is thoroughly cooled.

FIRE SAFETY

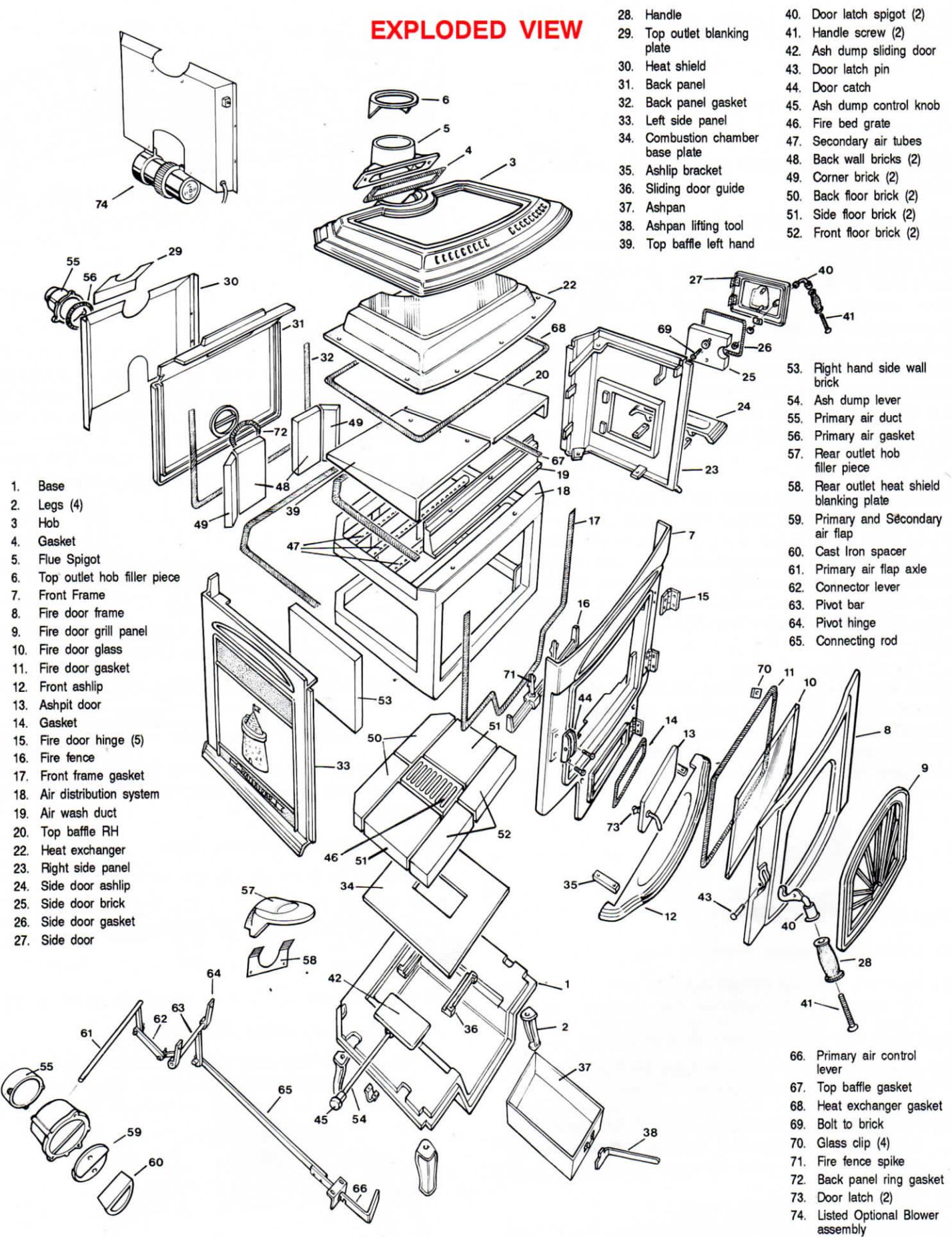
To provide reasonable fire safety the following should be given serious consideration.

- (1) Do not overfire the stove. If the stove or chimney connector glows, you are overfiring.
- (2) Overfiring will also damage painted or enamel finishes on the stove.
- (3) The installation of fire detectors.
- (4) A conveniently located class "A" fire extinguisher to contend with small fires resulting from burning embers.
- (5) A practical evacuation plan.
- (6) A plan to deal with a chimney fire as follows:

IN THE EVENT OF A CHIMNEY FIRE

- (a) Notify the fire department.
- (b) Prepare occupants for immediate evacuation.
- (c) Close all openings into the stove.
- (d) While awaiting the fire department watch for ignition to adjacent combustibles from overheated stove pipe or from hot embers or sparks from the chimney.

EXPLODED VIEW



- 1. Base
- 2. Legs (4)
- 3. Hob
- 4. Gasket
- 5. Flue Spigot
- 6. Top outlet hob filler piece
- 7. Front Frame
- 8. Fire door frame
- 9. Fire door grill panel
- 10. Fire door glass
- 11. Fire door gasket
- 12. Front ashlip
- 13. Ashpit door
- 14. Gasket
- 15. Fire door hinge (5)
- 16. Fire fence
- 17. Front frame gasket
- 18. Air distribution system
- 19. Air wash duct
- 20. Top baffle RH
- 22. Heat exchanger
- 23. Right side panel
- 24. Side door ashlip
- 25. Side door brick
- 26. Side door gasket
- 27. Side door

- 28. Handle
- 29. Top outlet blanking plate
- 30. Heat shield
- 31. Back panel
- 32. Back panel gasket
- 33. Left side panel
- 34. Combustion chamber base plate
- 35. Ashlip bracket
- 36. Sliding door guide
- 37. Ashpan
- 38. Ashpan lifting tool
- 39. Top baffle left hand
- 40. Door latch spigot (2)
- 41. Handle screw (2)
- 42. Ash dump sliding door
- 43. Door latch pin
- 44. Door catch
- 45. Ash dump control knob
- 46. Fire bed grate
- 47. Secondary air tubes
- 48. Back wall bricks (2)
- 49. Corner brick (2)
- 50. Back floor brick (2)
- 51. Side floor brick (2)
- 52. Front floor brick (2)

- 53. Right hand side wall brick
- 54. Ash dump lever
- 55. Primary air duct
- 56. Primary air gasket
- 57. Rear outlet hob filler piece
- 58. Rear outlet heat shield blanking plate
- 59. Primary and Secondary air flap
- 60. Cast Iron spacer
- 61. Primary air flap axle
- 62. Connector lever
- 63. Pivot bar
- 64. Pivot hinge
- 65. Connecting rod

- 66. Primary air control lever
- 67. Top baffle gasket
- 68. Heat exchanger gasket
- 69. Bolt to brick
- 70. Glass clip (4)
- 71. Fire fence spike
- 72. Back panel ring gasket
- 73. Door latch (2)
- 74. Listed Optional Blower assembly