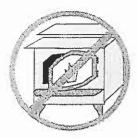
Introduction

We welcome you as a new owner of an Avalon 1190 wood-burning appliance. In purchasing an Avalon 1190 you have joined the growing ranks of concerned individuals whose selection of an energy system reflects both a concern for the environment and aesthetics. The Avalon 1190 is one of the finest appliances the world over. This manual will explain the installation, operation, and maintenance of this appliance. Please familiarize yourself with the Owner's Manual before operating your appliance and save the manual for future reference. Included are helpful hints and suggestions which will make the installation and operation of your new appliance an easier and more enjoyable experience. We offer our continual support and guidance to help you achieve the maximum benefit and enjoyment from your appliance.

Plant M Control Salor M	Whenhamager anager and Bell	President Technical Di Production M Customer Se Sales Manage	Shipping Manager Canes	
<u>Important</u>	<u>Information</u>			
serial number as y	190 appliance has the ours. The serial numblabel on the back of the	oer is	Mail your Warranty Card Today, and Save Your Bill of Sale.	
This serial number will be needed in case you require service of any type. Model: AVALON 1190 Serial Number:		se you	To receive full warranty coverage, you will need to show evidence of the date you purchased your appliance. Do not mail your Bill of Sale to us.	
Purchase Date:			We arraged that you much you D.W. Co. I	
Purchased From:			We suggest that you attach your Bill of Sale to this page so that you will have all the information you need in one place should the need for service or information occur.	



- The viewing door must be closed and latched during operation.
- Never block free airflow through the air vents on this appliance.



flammable liquids must never be used to start the fire or "Freshen Up" the fire. Do not store or use gasoline or other flammable liquids in the vicinity of this appliance.



This appliance is designed and approved for the burning of cord wood only. Do not attempt to burn any other type of fuel other than cord wood in this appliance, it will void all warranties and safety listings.



Ashes must be disposed in a metal container with a tight lid and placed on a non-combustible surface well away from the home or structure.



 Do not touch the appliance while it is hot and educate all children of the danger of a hightemperature appliance.
 Young children should be supervised when they are in the same room as the appliance.



Keep furniture, drapes, curtains, wood, paper, and other combustibles a minimum of 36" away from the appliance.



 This appliance must be properly installed to prevent the possibility of a house fire. The instructions must be strictly adhered to. Do not use makeshift methods or compromise in the installation.



 Contact your local building officials to obtain a permit and information on any installation restrictions or inspection requirements in your area. Notify your insurance company of this appliance as well.



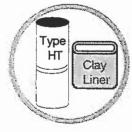
Inspect the chimney connector and chimney at least twice monthly and clean if necessary.

Creosote may build up and cause a house fire.

Do not connect this

appliance to any chimney

serving another appliance.



 This appliance must be connected to a listed high temperature (HT) residential type chimney or an approved masonry chimney with a standard clay tile, or stainless steel liner.



when installed in a mobile home, this appliance must be bolted to the floor, have outside air, and not be installed in the bedroom (Per H.U.D. requirements). Check with local building officials.



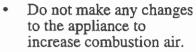
Do not place clothing or other flammable items on or near this appliance.



 Never try to repair or replace any part of this appliance unless instructions are given in this manual. All other work must be done by a trained technician.



 Do not make any changes or modifications to an existing masonry fireplace or chimney to install this appliance.





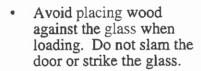
 Allow the appliance to cool before carrying out any maintenance or cleaning.



 Overfiring the appliance may cause a house fire. If a unit or chimney connector glows, you are overfiring.



 Maintain the door and glass seal and keep them in good condition.





Do not use a grate or other device to elevate the fire off of the firebox floor. Burn the fire directly on the bricks.



Do not throw this manual away. This manual has important operating and maintenance instructions that you will need at a later time. Always follow the instructions in this manual.



• Travis Industries, Inc. grants no warranty, implied or stated, for the installation or maintenance of your appliance, and assumes no responsibility of any consequential damage(s).

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Installation Options:

- Freestanding
- Freestanding in an Alcove
- · Freestanding in a Mobile Home
- Insert into a Masonry Fireplace

Features:

- EPA Phase II Approved
- 3.1 Cubic Foot Firebox Volume
- Single, Push/Pull Operating Control
- Accepts Logs Up to 24" Long
- Long Burn Time Up to 12 Hours
- 1/4" Steel Plate Construction
- Heavy Duty Refractory Firebrick
- Optional High-Tech Blower

Heating Specifications:

Approximate Maximum Heating Capacity (in square feet)* 1,5

1,500 to 2,500

Maximum BTU's per Hour (Cord Wood Calculation)

74,300

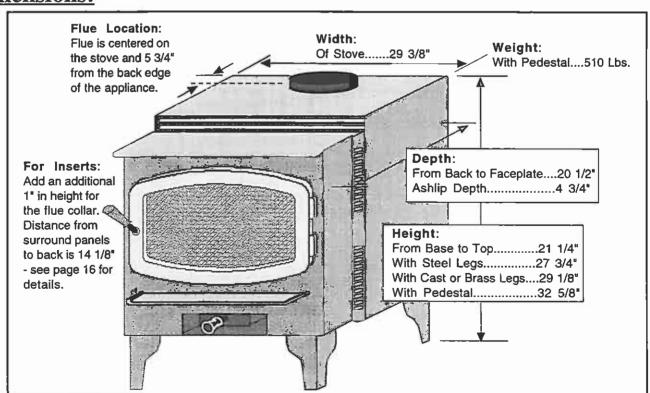
Overall Efficiency (Oregon Method)

70%

Maximum Burn Time (Hours)

12

Dimensions:



Emissions: 2.6 Grams Per Hour (EPA Phase II Approved) – Tests conducted by E.E.S.P.C. Lab.

^{*} Heating capacity will vary depending on the home's floor plan, degree of insulation, and the outside temperature. It is also affected by the quality and moisture level of the fuel.

SAFETY NOTICE:

If this appliance 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.

• Check with local building officials for any permits required for installation of this stove and notify your insurance company before proceeding with installation.

PLANNING THE INSTALLATION

HINT: We suggest that you have an authorized Travis Industries dealer install your stove. If you install the stove yourself, your authorized dealer should review your plans for installation

This stove is approved for connection to either a factory-built chimney or existing masonry or zero-clearance fireplace. Depending upon your installation concerns, a wide range of installation options are yours to provide the most desirable installation. The sections that follow detail the requirements that must be met for a safe installation. To further help installation, the six most common types of installations are explained in the section "Stove Installation Considerations". Prior to installing your stove make a detailed plan with dimensions to double-check them against all of the requirements listed.

PREPARATION FOR INSTALLATION

- Check for damage to the exterior of the stove (dents should be reported, scratches can be fixed by applying touch up paint).
- Check the interior of the firebox (cracked firebrick should be replaced, displaced baffle components should be replaced).

HINT: The stove can be lightened by removing the firebricks and baffle. - see "Firebrick Removal and Replacement Instructions" on pages 30 and 31.

STOVE INSTALLATION CONSIDERATIONS

The table below details the six most common types of installations and the considerations for each type. Alternative methods of installation are available if they comply with local building codes.

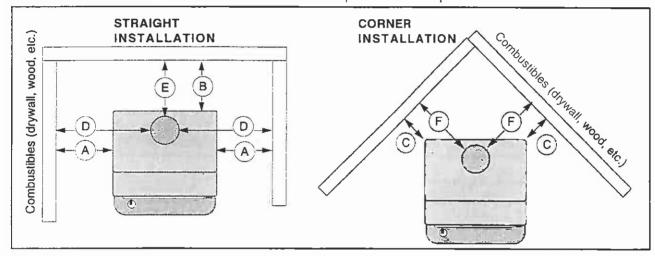
Installation Type	Considerations	
Standard Ceiling with a Factory Built Chimney	Requires floor and roof penetration	
(Page 12)	Provides best draft	
Cathedral Ceiling with a Factory Built Chimney	Cathedral style chimney support required	
(Page 12)	Provides best draft	
Exterior Factory Built Chimney	Uses two elbows to route chimney outside	
(Page 13)	Exterior chimney is hidden from the room	
	Elbows reduce draft	
	Optional exterior chase reduces cold air blockage	
Hearth Stove Positive Connection	Utilizes existing masonry or zero clearance (metal) chimney	
(Page 13)	Provides good draft due to full reline	
	Easier to clean than direct or horizontal hearth stove	
Hearth Stove Direct Connection	Utilizes existing masonry or zero clearance (metal) chimney	
(Page 14)	Requires construction of a "block-off plate" - Page 18	
	Draft reduced due to elbows & chimney cross section	
Hearth Stove Horizontal Connection (Page 14)	 Utilizes existing masonry chimney (not approved for z.c. fireplaces) 	
(, 45, 1, 1)	Draft is good because of vertical section above stove	

STOVE PLACEMENT REQUIREMENTS

HINT: REDUCING CLEARANCES - Clearances may be reduced by methods specified in NFPA 211, listed wall shields, pipe shields, or other means approved by local building or fire officials.

- Stove must be placed so that no combustibles are within, or can swing within (e.g. drapes, doors), 36" of the front of the stove
- If the stove is placed in a location where the ceiling height is less than 7', it must follow the requirements in the section "Alcove Installation Requirements"
- Must maintain the following clearances to combustibles (drywall, furniture, etc.):

Minimum Clearance		Singlewall	Reduced
(See the illustration below)		Connector	Clearance*
Α	Sidewall to stove	16"	16"
В	Backwall to stove	15"	10"
С	Cornerwall to stove	9 1/2"	7 1/2"
D	Connector to sidewall	27 3/4"	27 1/4"
Ε	Connector to backwall	17 3/4"	12 1/4"
F	Connector to cornerwall	21"	18 1/2"



- Reduced clearance installations require one of the chimney systems listed below:
 - DURAVENT model DVL with DURA-PLUS chimney
 SECURITY model DP with SECURITY model ASHT or \$2100 chimney
 - · Metalfab model DW connector with TG chimney

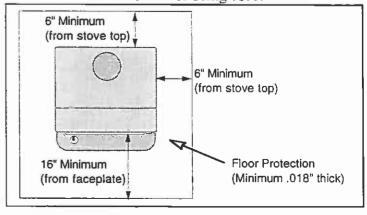
AMERI-TEC model DCC with model HS chimney
 Standard Masonry Chimney with any one of the above listed connectors
 I.C.C. Excel 103HT Chimney with Ultrablack HP Double-Wall connector

NOTE: Standard residential installations with reduced clearance connector may use the clearance determined by the manufacturer of the connector for the connector to wall clearance or the clearance listed in this manual. Offsets must be used to maintain the stove to wall clearance.

NOTE: Some reduced clearance connectors may not connect directly to the flue collar. Make sure to order an appliance adapter for the brand of connector being used.

FLOOR PROTECTION REQUIREMENTS

- Must be non-combustible and at least .018" thick (26 gauge)
- Must extend 6" to the side and rear of the appliance
- Must extend 16" from the front (measure from the faceplate)
- Minimum 42 1/2" deep by 41 3/8" wide



OPTIONAL EQUIPMENT REQUIREMENTS (See "Optional Equipment" on page 38)

Must be installed with either the optional legs or pedestal

FACTORY BUILT CHIMNEY REQUIREMENTS

- · Chimney connector must be a minimum 24 MSG black or 26 MSG blued steel
- Use 6" diameter type HT chimney from one manufacturer (do not mix brands). Chimney must be used from the first floor or wall penetration to the chimney cap.
- · Chimney connector and chimney must be fastened to the stove and each adjoining section
- · Follow the chimney manufacturer's clearances and requirements
- Use the chimney manufacturer's fire stops, attic guards, roof supports, and flashings when passing through a ceiling (or thimble when passing through a combustible wall)
- Minimum height of 15 feet

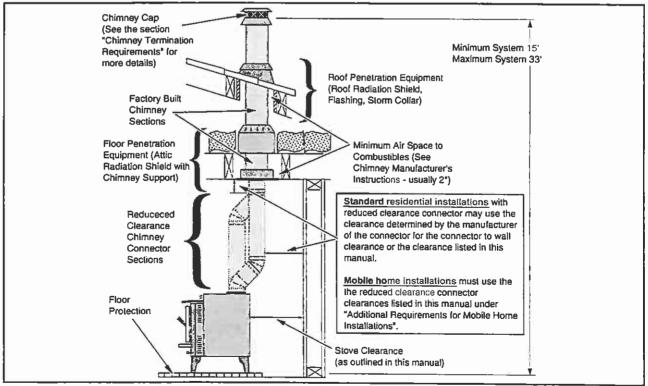
NOTE: External factors may adversely affect draft (see "Drafting Performance" below). In these cases additional chimney height may be required to boost draft.

- Maximum height of 33 feet
- No more than 180° of elbows (two 90° elbows, or two 45° & one 90° elbow, etc.)

NOTE: Additional elbows may be allowed if draft is sufficient. Whenever elbows are used the draft is adversely affected. Additional chimney height may be required to boost draft.

CHIMNEY CONNECTOR REQUIREMENTS

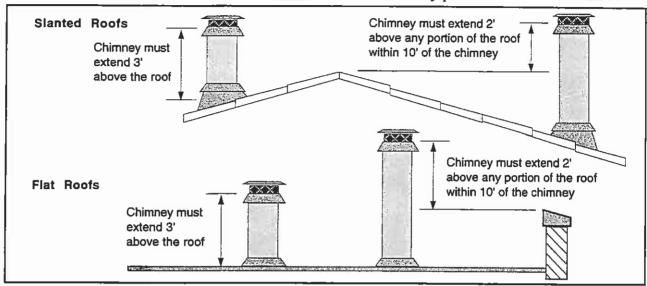
- Standard residential installations may use single-wall connector (Mobile-Homes may not)
- Standard residential installations with reduced clearance connector may use the clearance determined by the manufacturer of the connector for the connector to wall clearance or the clearance listed in this manual. Offsets must be used to maintain the stove to wall clearance. Mobile homes must use the clearances listed in this manual under "Additional Requirements for Mobile Home Installations".



Drafting Performance This appliance relies upon natural draft to operate. External forces, such as wind, barometric pressure, topography, or factors of the home (negative pressure from exhaust fans, chimneys, air infiltration, etc.), may adversely affect draft. Travis Industries can not be responsible for external forces leading to less than optimal performance.

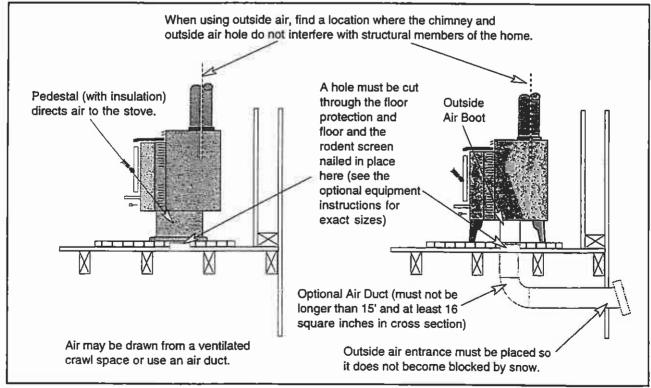
CHIMNEY TERMINATION REQUIREMENTS

- Must have an approved cap (to prevent water from entering)
- Must not be located where it will become plugged by snow or other material
- Must terminate at least 3' above the roof and at least 2' above any portion of the roof within 10'



OUTSIDE AIR REQUIREMENTS

- Required for mobile homes & in certain localities (check with building officials)
- Must not be drawn from an enclosed space (garage, unventilated crawl space)
- Requires the optional pedestal or outside air boot with legs (installation instructions are in the optional equipment section at the rear of this manual)



HINT: When using outside air find a location where the chimney and outside air inlet avoid the structural members (i.e.: floor joists and roof beams) of the home.

ALCOVE INSTALLATION REQUIREMENTS

Whenever the stove is placed in a location where the ceiling height is less than 7' tall, it is considered an alcove installation. Because of the reduced height, the special installation requirements listed below must be met.

Chimney connector and chimney must be one of the following types:

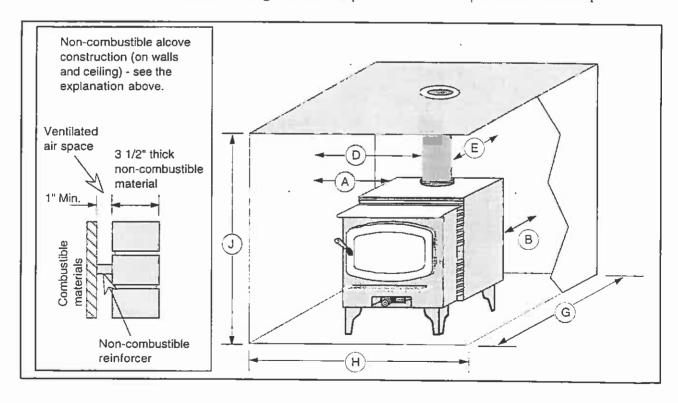
DURAVENT model DVL with DURA-PLUS chimney
 SECURITY model DP with SECURITY model ASHT or \$2100 chimney

 AMERI-TEC model DCC with model HS chimney
 Standard Masonry Chimney with any one of the above listed connectors
 LC.C. Excel 103HT Chimney with Ultrablack HP Double-Wall connector Metallah model DW connector with TG chimney

NOTE: Reduced clearance connectors can not connect directly to the flue collar. Make sure to order an appliance adapter for the brand of connector being used.

Alcoves are classified as combustible or non-combustible. Non-combustible alcoves must have walls and a ceiling that are 3 1/2" thick of a non-combustible material (brick, stone, or concrete). This non-combustible material must be spaced and ventilated at least 1" off of all combustible materials (walls, ceiling, etc.) to allow air to move around the non-combustible walls and ceiling. All other alcoves are considered combustible. The clearances below must be met:

Minimum Clearance		Combustible	Non-Combustible
(See the illustration below)		Alcove	Alcove
Α	Sidewall to stove	16"	6"
В	Backwall to stove	10"	2"
D	Connector to sidewall	27 1/4"	17 1/4"
Ε	Connector to backwall	12 1/4"	4 1/4"
G	Maximum depth of alcove	48"	48"
Н	Minimum width of alcove	61 3/8"	41 3/8"
J	Minimum height of alcove	84"	6" above stove top



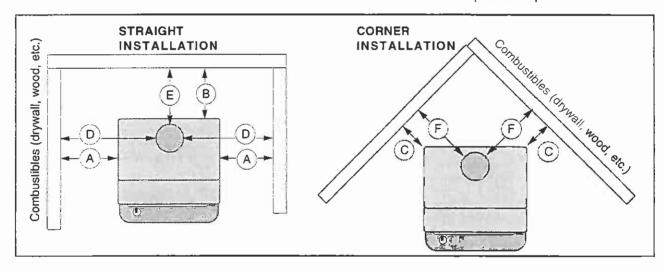
ADDITIONAL REQUIREMENTS FOR MOBILE HOME INSTALLATIONS

- Outside air must be installed see "Outside Air Requirements" on page 9
- The appliance must be bolted to the floor (The optional pedestal provides the equipment needed to do this - see "Pedestal Installation" on page 38)
- The appliance must be grounded to the chassis of the mobile home (some states do not require this – check with local building officials)
- The appliance must not be located in the bedroom of a mobile home (some states do not require this - check with local building officials)
- Chimney connector and chimney must be one of the following types:

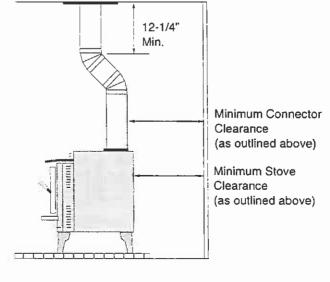
 - DURAVENT model DVL with DURA-PLUS chimney
 SECURITY model DP with SECURITY model ASHT or \$2100 chimney
 Metalfab model DW connector with TG chimney

- · AMERI-TEC model DCC with model HS chimney
- Standard Masonry Chimney with any one of the above listed connectors
 LC.C. Excel 103HT Chimney with Ultrablack. HP Double-Wall connector
- **NOTE**: Some reduced clearance connectors may not connect directly to the flue collar. Make sure to order an appliance adapter for the brand of connector being used.

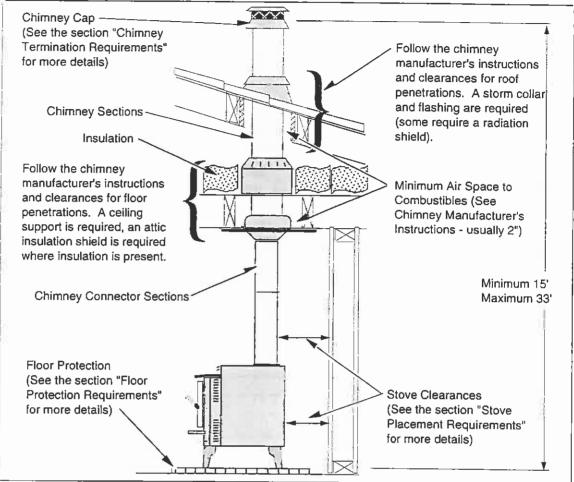
Minimum Clearance (See the illustration below)		
Α	Sidewall to stove	16"
В	Backwall to stove	10"
С	Cornerwall to stove	7 1/2"
D	Connector to sidewall	27 1/4"
Ε	Connector to backwall	12 1/4"
F	Connector to cornerwall	18 1/2"



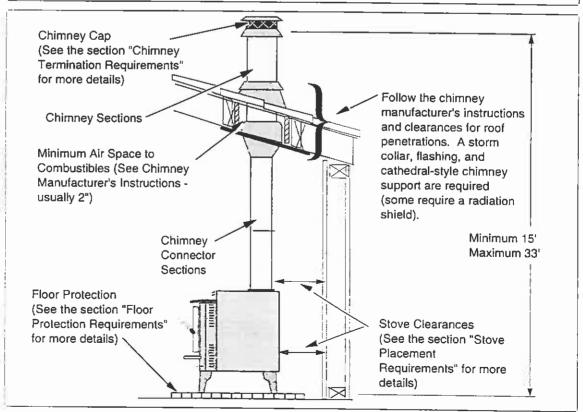
If using offsets, use the connector clearance listed above, not the connector manufacturer's clearance.



STANDARD CEILING WITH A FACTORY BUILT CHIMNEY



CATHEDRAL CEILING WITH A FACTORY BUILT CHIMNEY



EXTERIOR ACTORY BUILT CHIMNEY

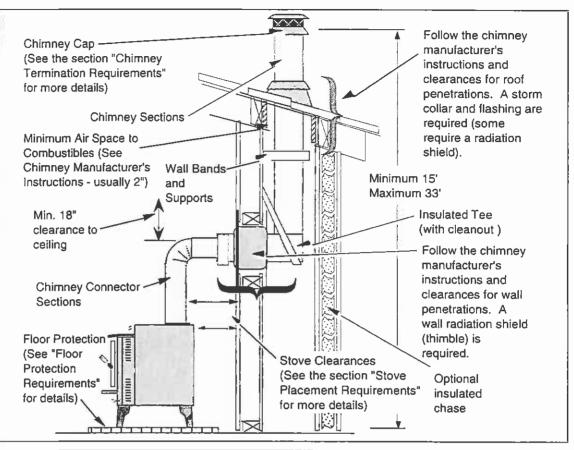
NOTE:

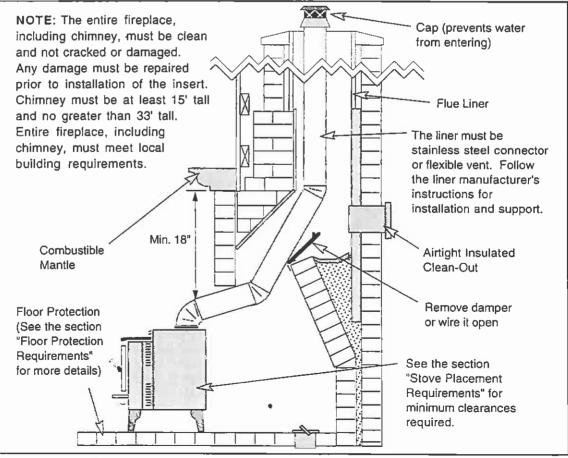
Exterior chimneys are subject to greater moisture and creosote accumulation due to the lower temperatures. An insulated chase will reduce these accumulations (the proper clearances to the chimney must be maintained).

HEARTH STOVE POSITIVE CONNECTION

NOTE:

Most factorybuilt chimney manufacturers make stainless steel chimney liners, either flexible or rigid. This provides a wide variety of installation options. Make sure to follow the manufacturer's instructions for installation and support.

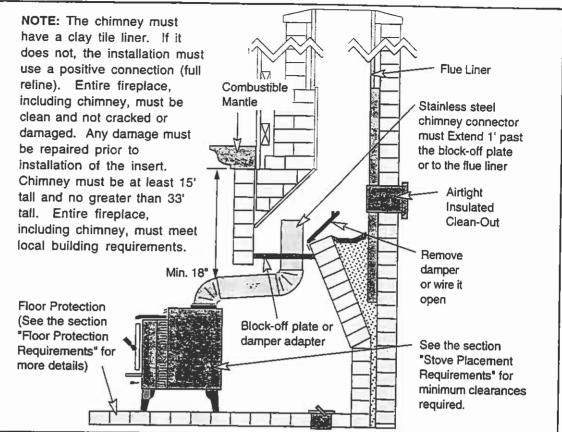




HEARTH STOVE DIRECT CONNECTION

NOTE:

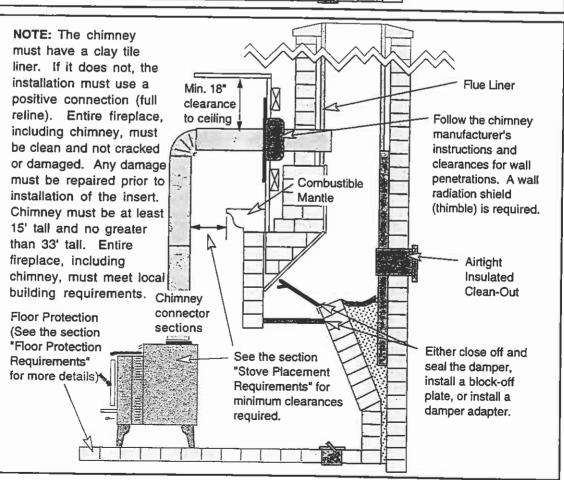
Direct connections require installation of an airtight block-off plate or damper adapter (see the section "Block-off Plate Installation" on page 18).



HEARTH STOVE HORIZONTAL CONNECTION

NOTE:

This type of installation requires a wall radiation shield (thimble). Either close off and seal the damper, install a blockoff plate or install a damper adapter (see the section "Block-off Plate Installation" on page 18).



SAFETY NOTICE:

If this appliance 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.

• Check with local building officials for any permits required for installation of this stove and notify your insurance company before proceeding with installation.

PLANNING THE INSTALLATION

HINT: We suggest that you have an authorized Travis Industries dealer install your insert. If you install the insert yourself, your authorized dealer should review your plans for installation.

This insert is approved for installation into an existing masonry fireplace. Depending upon your installation concerns, several options are yours to provide the most desirable installation. The sections that follow detail the requirements that must be met for a safe installation. To further help installation, the most common types of installations are explained in the section "Insert Installation Considerations". Prior to installing your insert make a detailed plan with dimensions to double-check them against all of the requirements listed.

PREPARATION FOR INSTALLATION

- Check for damage to the exterior of the insert (dents should be reported, scratches can be fixed by applying touch up paint).
- Check the interior of the firebox (cracked firebrick should be replaced, displaced baffle components should be replaced).

HINT: The insert can be lightened by removing the firebricks and baffle. - see "Firebrick and Baffle Inspection and Cleaning" on pages 31 - 33.

INSERT INSTALLATION CONSIDERATIONS

The table below details the most common types of installations and the considerations for each type of installation. Alternative methods of installation are available if they comply with local building codes.

Installation Type	Considerations	
Insert with Positive Flue (Full Reline)	Utilizes existing masonry fireplaces Provides best draft	
(Page 19)	Easiest to clean	
Insert with Direct Connect Flue (Page 19)	 Utilizes existing masonry fireplaces Provides good draft Requires fireplace block-off plate - see page 18 	
Insert with Face Seal Connection (Page 20)	 Utilizes masonry fireplaces with a cross section of 28" to 144" Provides okay draft Easiest to install 	
	Requires the optional surround panels and insulation (see "Surround Panels" on page 42	

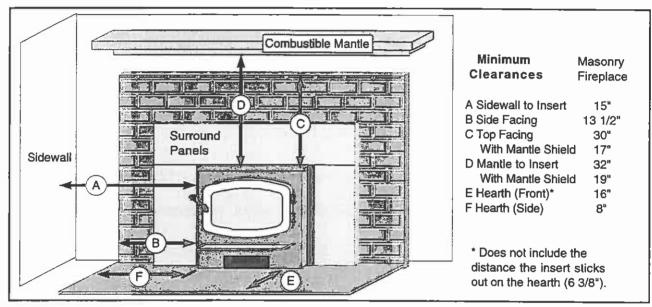
OPTIONAL EQUIPMENT REQUIREMENTS (See the back of this manual for installation instructions)

Must be installed with the surround panels

PAGE 16 INSERT INSTALLATION (CONT.)

INSERT PLACEMENT REQUIREMENTS (See the illustration below)

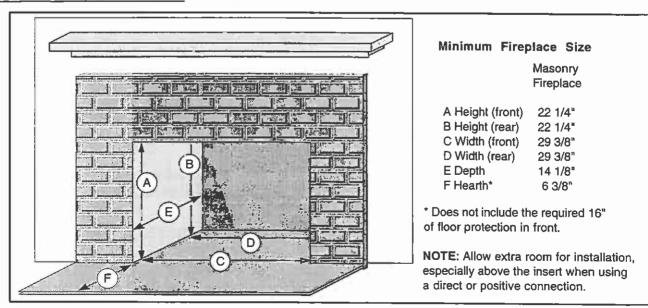
- The insert must be placed so that no combustibles are within, or can swing within (e.g. drapes, doors), 36" of the front of the insert
- Insert and hearth must be installed on a level, secure floor
- Sidewalls must maintain 15" to the insert
- Non-combustible side facing must extend 13 1/2"
- Non-combustible top facing must extend 30" above insert, 17" with a mantle shield
- Mantle must be a minimum 32" above insert, 19" with a mantle shield
- Hearth must extend 16" in front of the faceplate
- · Hearth must extend 8" from the sides of the insert



HEARTH REQUIREMENTS (See the illustration above)

- Must extend 16" in front of the insert and 8" on both sides (total of 22 3/8" deep by 45 3/8" wide)
- Must be non-combustible and at least .018" thick (26 gage)

INSERT SIZE REQUIREMENTS



PAGE 17

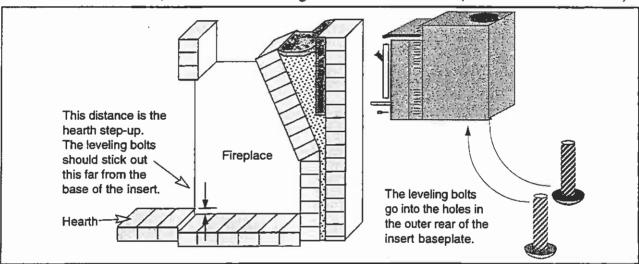
MASONRY FIREPLACE REQUIREMENTS

Whenever this insert is installed in conjunction with a masonry fireplace, the following requirements must be met:

- Chimney must have a clay tile liner. If it does not, the installation must use a positive connection (full reline)
- Entire fireplace, including chimney, must be clean and not cracked or damaged. Any damage must be repaired prior to installation of the insert
- Chimney must be at least 15' tall and no greater than 33' tall
- · Entire fireplace, including chimney, must meet local building requirements

LEVELING BOLT INSTALLATION

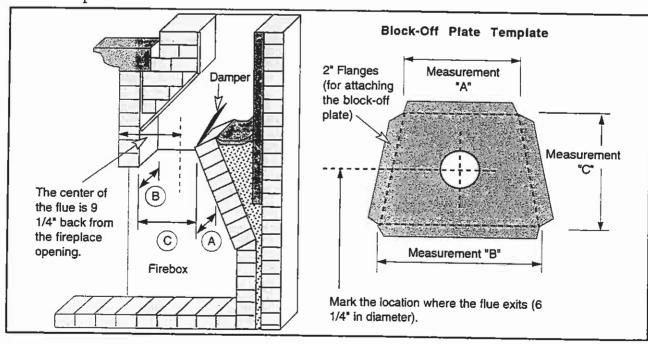
Inside the accessory pack are a pair of leveling bolts used to level the insert if the fireplace has a stepped-up hearth. To install, raise the rear of the insert up and insert the leveling bolts into the holes in the rear corners of the insert. Screw the bolts down until they extend the same height as the hearth steps up. After the insert is installed, fine-tune the leveling bolts to level the insert (see the illustration below).



BLOCK-OFF PLATE INSTALLATION

Whenever this appliance is installed as a direct connection a block-off plate or other non-combustible seal-off device (e.g. damper adapter) will need to be installed. This device is used to seal the chimney, insuring no smoke enters the home and providing the chimney system with a seal to provide greater draft. The directions below detail the steps for construction and installation of a block-off plate.

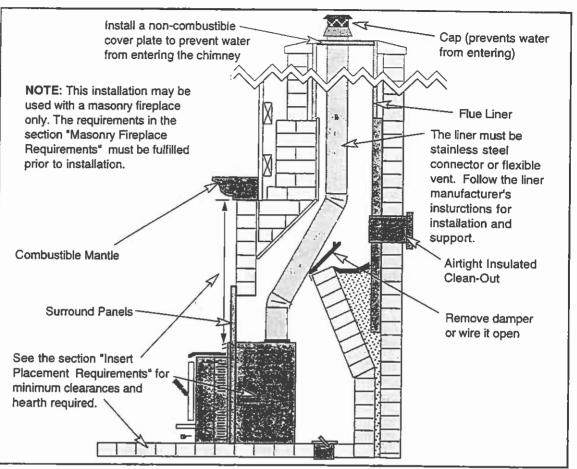
- 1. Determine a location for the block-off plate at the top of the firebox below the damper area (make it high enough to allow installation of the connection pipe). The location should be level and in an area where it can be mounted easily. Measure the width at the rear ("A") and front ("B") of the firebox at the height where the block-off plate will be installed (see the illustration below). Then measure the depth of the location where the block-off plate will be installed ("C").
- 2. Make a cardboard template of the measurements, but add a 2" flange to each side. This flange will be used to mount the block-off plate to the inside of the firebox. Bend the flanges downwards on the template and place it inside the fireplace. If the template fits correctly in its planned location, go to the next step. If it does not, make a new template with the appropriate corrections until it fits correctly.
- 3. With the template in place, mark the location that is centered in the fireplace where the flue will exit. This location approximates the center of the flue when the insert is in place (a slight offset may occur based upon insert and block-off plate placement). Remove the template and cut a 6 1/4" diameter hole centered on this mark.
- 4. Make the block-off plate of 24 gage or thicker steel to match the template. Drill two holes in each flange for mounting the plate.
- 5. Mount the block-off plate using the appropriate screws. Masonry screws must be used for mounting a block-off plate in a masonry fireplace.
- 6. Insulate the block-off plate using high-temperature fiberglass insulation (Kaowool® or equivalent) and furnace cement (allow the cement to dry for at least 24 hours before burning).
- 7. After placing the appliance and installing the pipe through the block-off plate, use high-temperature fiberglass insulation and furnace cement to seal any cracks between the pipe and block-off plate.



INSERT WITH POSITIVE CONNECTION

NOTE:

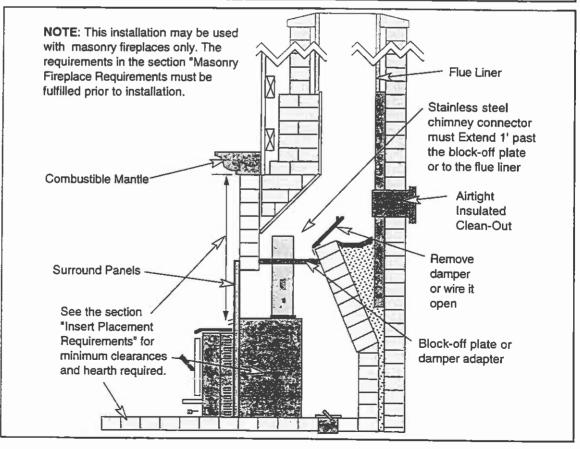
Most factorybuilt chimney manufacturers make stainless steel chimney liners, either flexible or rigid. This provides a wide variety of installation options. Make sure to follow the manufacturer's instructions for installation and support.



INSERT WITH DIRECT CONNECTION

NOTE:

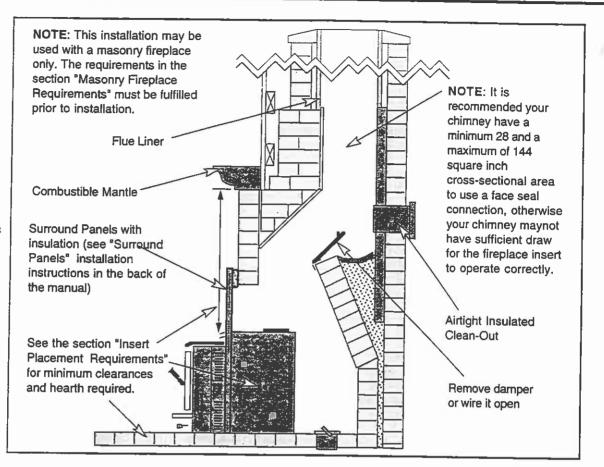
Direct connections require installation of an airtight block-off plate or damper adapter (see the section "Block-off Plate Construction" for details on constructing and installing a block-off plate).



INSERT WITH FACE SEAL CONNECTION

NOTE:

Face seal connections require installation of the surround panels and insulation (see the section "Surround **Panels** Installation" on page 42).



SAFETY NOTICE:

If this appliance is improperly operated, a house fire may result. For your safety, read the directions below and the <u>Safety Precautions listed on pages 2 and 3</u> prior to operating this appliance.

- If you have any questions regarding the operation of this appliance, contact your dealer.
- ! Building a fire in disregard of the information provided in this section can cause permanent damage to your appliance and void your warranty.
- ! Never use gasoline, lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start of "freshen up" a fire in this appliance. Keep these liquids well away from the appliance.
- ! Keep furnishings and other combustible materials away from the appliance.

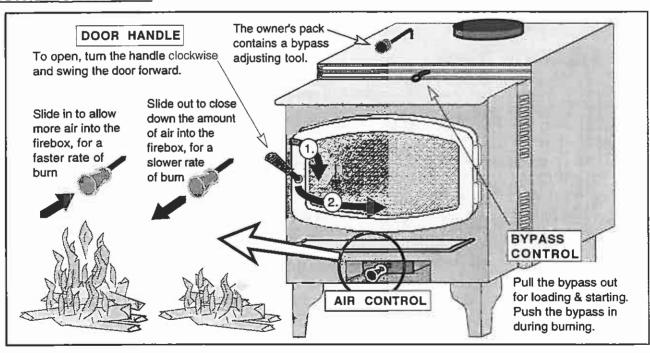
PAINT CURING

The paint on this stove cures under heat. Start a small fire and burn at a low rate for the first fire. You will notice furnes and smoke from the paint curing and oil burning off the steel. This is normal. We recommend you open windows to vent the room.

ASH REMOVAL

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, away from all combustible materials, pending final disposal. Ashes should be retained in the closed container until all cinders have thoroughly cooled.

LOCATION OF CONTROLS



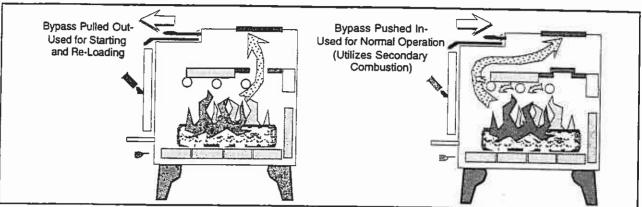
- Do not open the door when the air control is closed. This may result in a sudden flash of flames as the fire ignites with oxygen. However, this appliance has been designed to reduce this possibility.
- The controls become hot during operation use a glove or other device if necessary.
- Open the door for refueling only, do not operate with the door open or removed.

Approximate Air Control Settings:	Overnight Burn	Fully out to 9/32" open
	Medium Burn	9/32" open to 5/16" open
	Medium High Burn	5/16" open to 7/16" open
	High Burn	7/16" open to pushed fully in

PAGE 22 OPERATING YOUR APPLIANCE (CONTINUED)

Bypass Control

The bypass control is located above the appliance and is operated by pushing or pulling the control in or out. When the control is completely pulled out, the bypass allows the smoke to go directly up the flue, creating more draft for starting the appliance or for reloading. When it is pushed in, the smoke must go around the baffle which utilizes secondary combustion and makes the appliance more efficient (see the illustration below).



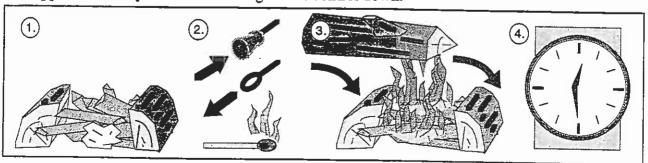
LEARNING TO BURN YOUR APPLIANCE

Using a wood-burning appliance takes some getting used to. Once you become accustomed to operating your appliance, you will be able to start a hot fire quickly, adjust the heat output precisely, and obtain overnight burns easier. Experienced wood burners may not need the information below, but may be able to re-affirm their skills by reading the following. The better you understand your appliance, the more rewarding you will find it.

How to Start a Hot Fire Quickly

Your wood-burning appliance acts much like an engine - before it will work at its best, it needs to reach a high temperature. The most common mistake in starting a fire is to use too little kindling, closing the bypass too soon, or turning the air control down too early. For good results, YOU MUST OBTAIN AN INTENSE FIRE BEFORE CLOSING THE AIR CONTROL DOWN. The steps below detail one method for starting a fire.

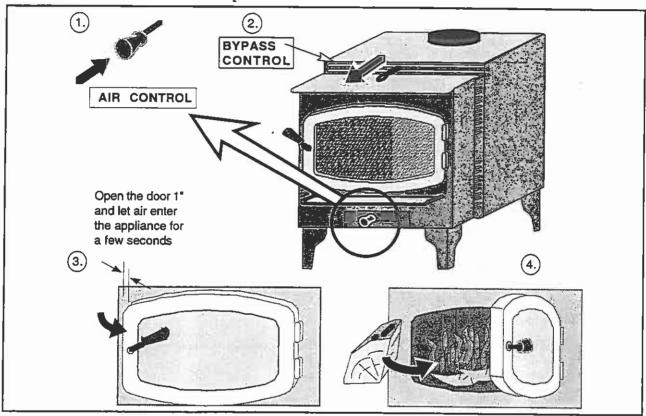
- 1. Pile several pieces of kindling on top of newspaper or a fire starter in the center of the firebox (it is better to have too much kindling than not enough). Place two medium sized pieces of wood on either side of kindling laying front to back.
- 2. Make sure the air control is fully open (push all the way in) and the bypass opened (pull all the way out). Start the newspaper or fire starter. Note: you may want to crack the door during starting to allow for more air.
- 3. Allow the kindling to start and burn. Then place another medium size piece of wood on top of the burning kindling so that it straddles the two medium pieces and close the door. This arrangement takes advantage of the air inlet located in the center under the door to feed the fire with adequate oxygen. You may notice the flames burning from the front to the back.
- 4. Let the fire burn at least 15 minutes before closing the bypass. Wait at least 30 minutes or until the appliance is fully hot before closing the air control down.



How to Reload Your Appliance

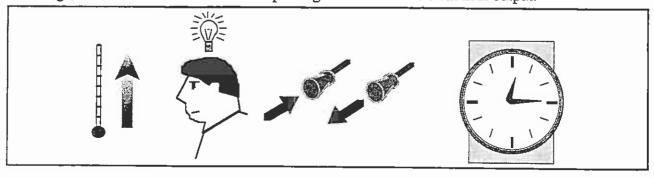
When reloading your appliance, you can avoid smoke entering the room by following the steps below:

- 1. Push the air control all the way in so the fire starts to burn quickly, helping draft.
- 2. Pull the bypass out all the way and wait 30 seconds to establish a strong draft.
- 3. Open the door one inch and let air enter the appliance for a few seconds.
- 4. Carefully place the new wood on top of the existing fire. Close the door and shut the bypass by pushing it all the way in. Let the fire burn on high for at least 20 minutes before turning it down this will reduce creosote build-up.



How to Adjust the Heat Output Precisely

One complaint from wood-burning appliance owners is controlling the heat output to obtain a consistent room temperature. The reason for this is the inherent lag time between adjusting the air control and the change in heat output. Simply put, if you turn a hot appliance down now, it will continue to put off high amounts of heat for an additional 15 minutes. To obtain consistent room temperature, think ahead. When the room is starting to warm, and is almost up to the right temperature, turn the appliance down. If you utilize an optional blower, turn it on and off to increase or decrease room temperature. If you find the appliance must be turned down often, burn smaller, more intense fires instead. Although this means more reloadings, it will reduce creosote build-up and give a more consistent heat output.

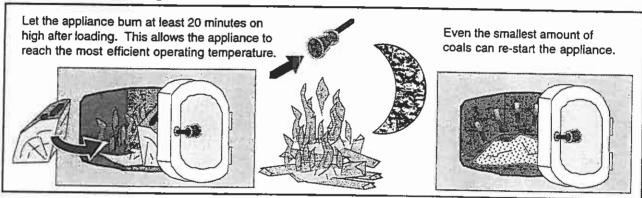


PAGE 24 OPERATING YOUR APPLIANCE (CONTINUED)

How to Obtain an Overnight Burn

An overnight burn of 12 hours may be obtained with a small amount of coals left over in the morning if the right steps are taken.

- 1. Establish a hot fire.
- 2. Fill the appliance with large pieces of wood, preferably hardwoods like oak or maple.
- 3. Let the wood burn on high for 20 to 30 minutes to allow the new pieces of wood to catch fire and burn off any moisture.
- 4. Pull the air control out to a low setting. HINT: You want an air control position that is the farthest in, yet still allows coals to be left in the morning. Experiment using air control positions that are farther and farther in until a suitable position is found.
- 5. In the morning, break down the coals and lay kindling and small pieces of wood on top of the coals to re-establish the fire. NOTE: Even the smallest amount of coals can start a new fire easily because of all the heat energy stored in the firebrick. If there are no coals left, yet the appliance is hot, you will find starting a new fire will be much easier and the appliance will start giving off heat much quicker than if started cold.



Good Burning Habits

Increased efficiency, reduced emissions, and less creosote are the rewards of good burning habits.. The items below list good habits to establish with your new appliance.

- · Get the appliance hot before turning it down
- Use smaller pieces of wood during start-up and high burns to increase temperature
- Use larger pieces of wood for overnight or sustained burns
- Stack the wood tightly together to establish a longer burn
- Leave a bed of ashes (1/2" deep) to allow for longer burns
- Be considerate of neighbors & the environment: burn dry wood only
- Burn small, intense fires instead of large, slow burning fires when possible
- Learn your appliance's operating characteristics to obtain optimum performance

NOTE: A stove thermometer gives you a good indication of how hot your appliance is burning when placed directly on top of the appliance. Low burn is approximately 300 degrees F., medium burn 500 to 600 degrees F., and high burn 700 to 800 degrees F.

