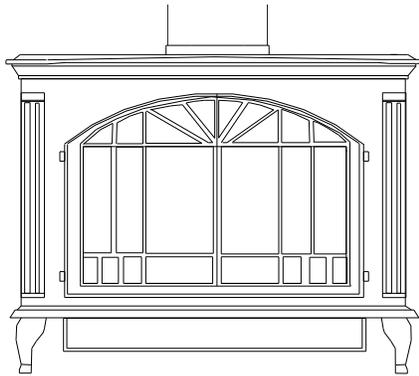


CAST STOVE AND DIRECT-VENT

NATURAL OR L.P. (LIQUID PROPANE) FREESTANDING GAS STOVE HEATER
OWNER'S OPERATION AND INSTALLATION MANUAL



MODEL: CDVB200



Effective: October 10, 2006

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

WARNING: The Direct-Vent (CDV) burner system provided in this package must be installed only into the approved cast iron stove body Townsend II provided by New Buck Corporation.

() Indicates Color Suffix Designation)*

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

This Burner System (Direct Vent) has been tested and approved for use with the following Vent Pipe manufacturers: "Use only Simpson-Dura-Vent or AmeriVent GS venting components or kits, these types have been tested and approved specifically for this stove and burner system."

INSTALLER: Leave this manual with the appliance.

CONSUMER: Retain this manual for future reference.

WARNING: This appliance may be installed in an aftermarket, permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate.

This appliance is not convertible for use with other gases.

* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.

NEW BUCK CORPORATION
P.O. BOX 69
8000 HWY. 226 SOUTH
SPRUCE PINE N.C. 28777

WARNING: Only New Buck Corporation approved blower assembly may be used with the CDV installed into the Townsend II.

TABLE OF CONTENTS

SAFETY INFORMATION	1
PRODUCT IDENTIFICATION.....	2
PRE-INSTALLATION PREPARATION.....	3
INSTALLATION / CLEARANCES	3
STOVE CAVITY AND BURNER SYSTEM (DIRECT VENT) ASSEMBLY	4
VENTING.....	7-14
CONNECTING TO GAS SUPPLY.....	15-17
POSITIONING OF LOGS	20
INSTALLING OPTIONAL REMOTE CONTROL KIT/OPTIONAL WALL THERMOSTAT.....	18
LIGHTING INSTRUCTIONS	21-22
OPTIONAL REMOTE CONTROL OPERATIONS.....	23
ROOM AIR BLOWER SYSTEM OPERATIONS.....	23
CLEANING.....	25
TROUBLE SHOOTING.....	26-28
ACCESSORIES	24
REPLACEMENT PARTS.....	29-34
WIRING DIAGRAM.....	30-31
WARRANTY	35
OWNER REGISTRATION CARD	36

IDENTIFICATION NUMBERS AND DESCRIPTIONS FOR CAST STOVE SERIES

TOWNSEND II CAST UNIT

<u>ID#</u>	<u>DESCRIPTION</u>
CVF200A	ALMOND
CVF200B	BLACK
CVF200BP	CAST (BLACK PAINT)
CVF200G	GREEN
CVF200GP	CAST (GREEN PAINT)
CVF200R	RED

BURNER SYSTEMS (DIRECT VENT) FOR TOWNSEND II ONLY:

<u>ID#</u>	<u>DESCRIPTION</u>
CDV200LP	LIQUID PROPANE
CDV200NAT	NATURAL

SAFETY INFORMATION WARNINGS

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this cast stove and burner system. Improper use of this cast stove and burner system can cause serious injury or death from burns, fire, explosions, electrical shock, and carbon monoxide poisoning.

DANGER: Carbon monoxide poisoning may lead to death!

This cast stove with burner system is a vented product. This cast stove with burner system will not produce any gas leakage into your home if properly installed. This cast stove with burner system must be properly installed by a qualified service person. The glass door must be properly seated and sealed. If this unit is not properly installed by a qualified service person with glass door properly seated and sealed, gas leakage can occur.

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have any of these signs, the cast stove with burner system may not have been installed properly. **Get fresh air at once!** Have cast stove and burner system inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under influence of alcohol, and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this cast stove and burner system.

WARNING: Any change to this stove or burner system or its controls can be dangerous.

WARNING:

- A. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- B. Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.
- C. Young children should be carefully supervised when they are in the same room as the appliance.
- D. Clothing or other flammable material should not be placed on or near the appliance.
- E. Any safety screen or guard removed for servicing an appliance must be replaced prior to operating the appliance.
- F. Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etcetera. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.
- G. **Only the door design with this appliance shall be used.**

CAUTION:

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.
2. For propane/LP burner system, do not place propane/LP supply tank (s) inside any structure. Locate propane/LP supply tank (s) outdoors. To prevent performance problems, do not use propane/LP fuel tanks of less than 100 lbs. capacity.
3. **If you smell gas**
 - Shut off gas supply
 - Do not try to light any appliance
 - Do not touch any electrical switch; do not use any phone in your building
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
 - If you can not contact your gas supplier, call the fire department
4. **Never install the stove in a recreational vehicle**
5. Do not modify the burner or stove under any circumstances. Any parts removed for servicing must be replaced prior to operating stove or burner system.
6. Turn burner system off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair the stove or burner system.
7. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. See *Cleaning and Maintenance*, page 25.
8. Do not use this stove to cook food or burn paper or other objects.
9. This appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANS/NFPA 70, or the Canadian Electrical Code, CSA C22.1.*
10. Do not install stove directly on carpeting, vinyl tile, or any combustible material other than wood. The stove **must set** on a metal or wood panel extending the full width and depth of the stove.
11. Do not operate burner system if any log is broken.
12. Do not use a blower insert, heat exchanger insert, or other accessory not approved for use with this stove.
13. "Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water."

PRODUCT IDENTIFICATION

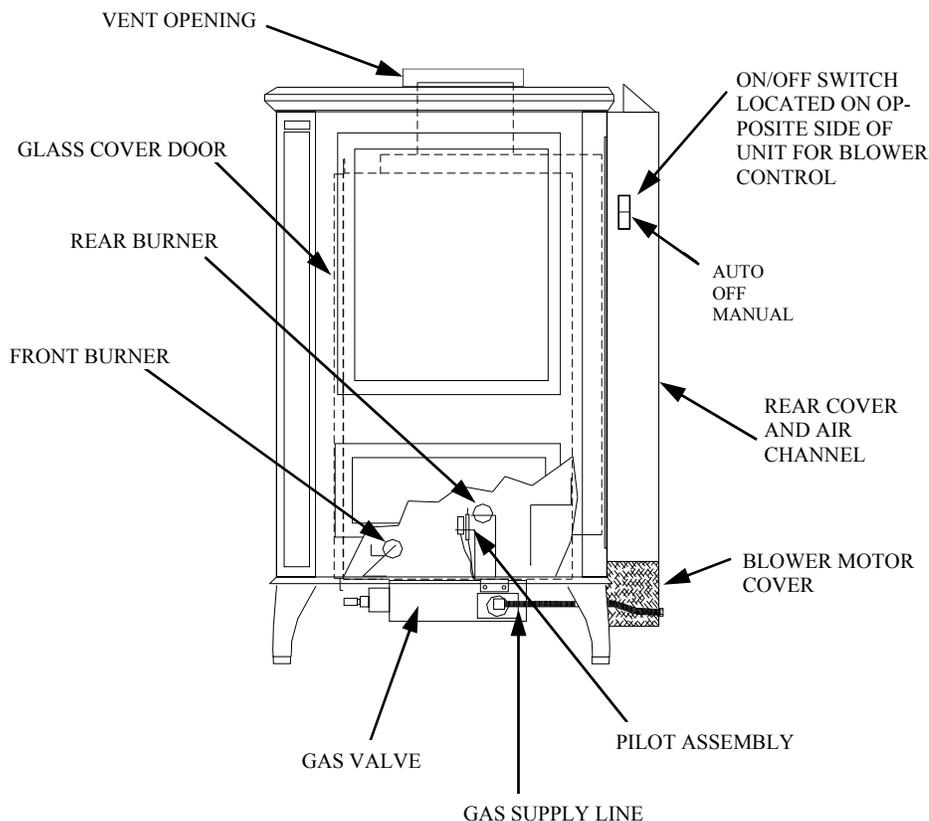
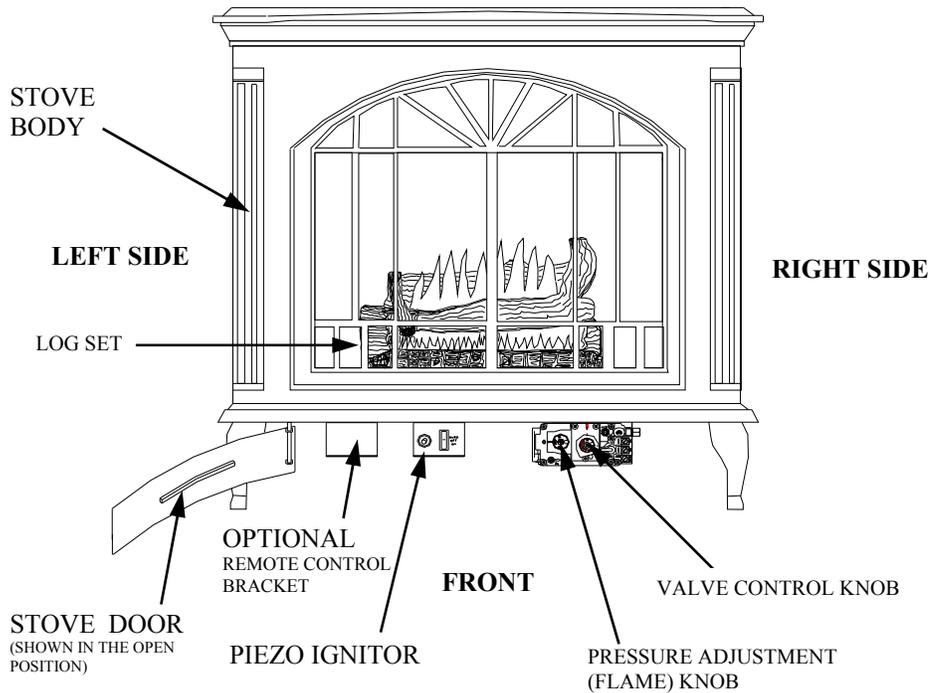


FIGURE 1– TYPICAL STOVE CABINET MODEL

LOCAL CODES

The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1.

NOTE:For a direct vent gas fireplace heater for an OME manufactured home (USA only) or mobile home installation, “This appliance must be installed in accordance with the Standard CAN/CSA Z240 MH, Mobile Housing, in Canada, or with the Manufactured Home Construction and safety standard, Title 24 CFR, Part 3280, in the United States, or when such a standard is not applicable, ANSI/NCSBCS A225.1/NFPA, Manufactured Home Installation Standard.

A direct vent gas appliance for manufactured Home (USA only) or mobile home OEM Installation or recreational vehicle installation shall be marked with a Class IIIC marking either “for OEM installation in a manufactured home (USA only) or mobile home only, “for installation in a recreational vehicle only, “ or “for OEM installation in a manufactured home (USA only) or mobile home or recreational vehicle only”.

PRODUCT FEATURES

OPERATION

This cast iron stove with burner system is clean burning and vents easily through outside walls or vertically using outside air for combustion. Heat is generated by realistic flames. When used without the blower accessory, the stove with burner system requires no electricity making it ideal for emergency backup heat.

PIEZO IGNITOR

This burner system has a piezo ignitor. This system requires no matches, batteries, or other sources to light burner system.

GLOSSARY OF TERMS

Chase - A boxlike enclosure to protect venting from the elements when the venting run is on the outside of a structure.

Mastic - A pliable sealant for use around the vent terminal.

Snorkel Termination - A box that raises the horizontal termination above ground level clearances.

Vent Terminal - Mounted on an outside wall or roof to separate the inlet and outlet of the vent system and protect it from weather.

Vinyl Siding Standoff - A metal box that separates the vent cap from vinyl siding.

Wall Thimble/Firestop - A metal plate used to secure the vent pipe when it passes through a wall or ceiling.

PRE-INSTALLATION PREPARATION

WARNING: A qualified installer or service person must install stove and burner system. Follow all local codes.

LOCATION AND SPACE REQUIREMENTS

Determine the safest and most efficient location for your *Buck Stove* cast iron stove. Make sure that rafters and wall studs are not in the way of the venting system. Choose a location where the heat output is not affected by drafts, air conditioning ducts, windows, or doors. Figure 2 shows some common locations. Read all venting information in this manual. Be aware of all restrictions and precautions before deciding the exact location for your stove.

When deciding the location of your stove, follow these rules:

1. Do not connect this stove and burner system to a chimney flue serving a separate solid-fuel burning fireplace or appliance.
2. Due to high temperatures, do not locate this stove in high traffic areas or near furniture or draperies.
3. Proper clearances must be maintained, see Figures 3 and 4.
4. This stove is a freestanding unit designed to set directly on the floor. If your stove is to be installed directly on carpeting, vinyl tile, or any combustible material other than wood, it **must be** installed on a metal or wood panel extending the full width and depth of the stove. See Figure 5.

Note: Installation shall make Provision for Adequate Combustion and Ventilation Air

NOTE: Adequate accessibility clearances for servicing and proper operation.

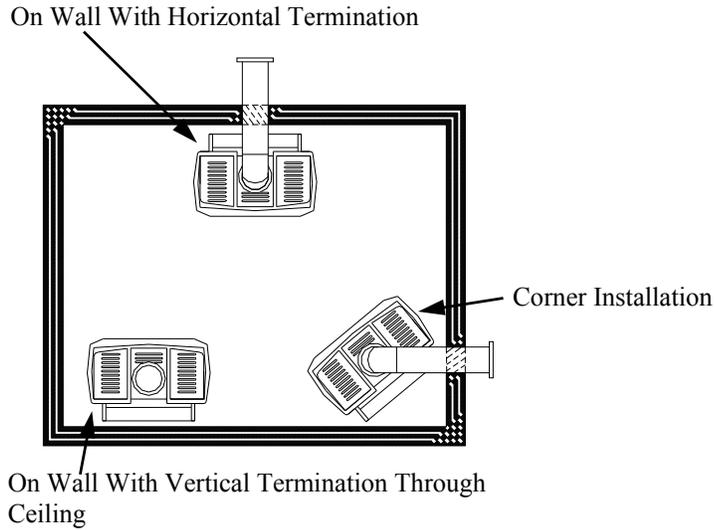


Figure 2– Common Stove Locations

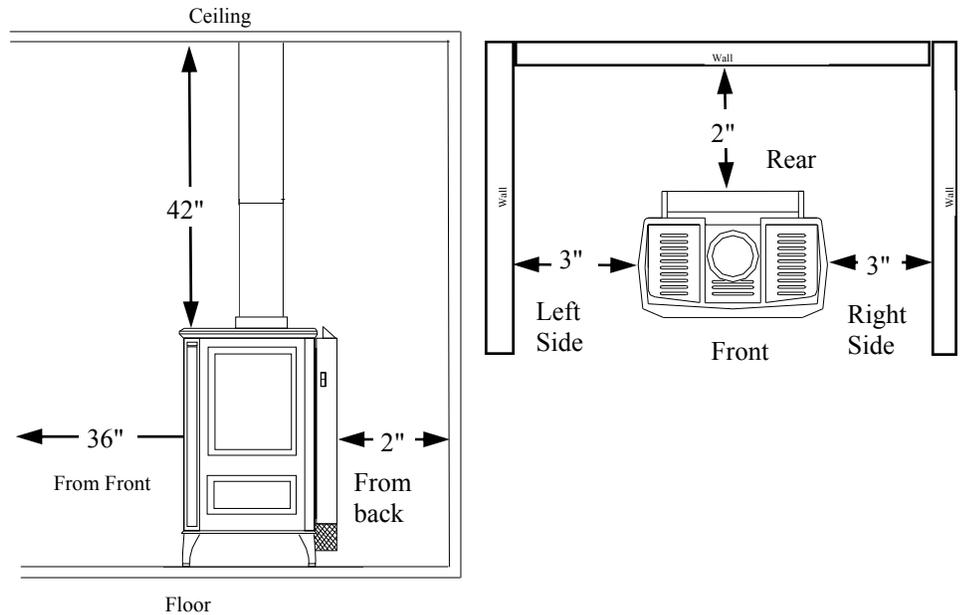


Figure 3– Minimum Clearances for Standard Installation

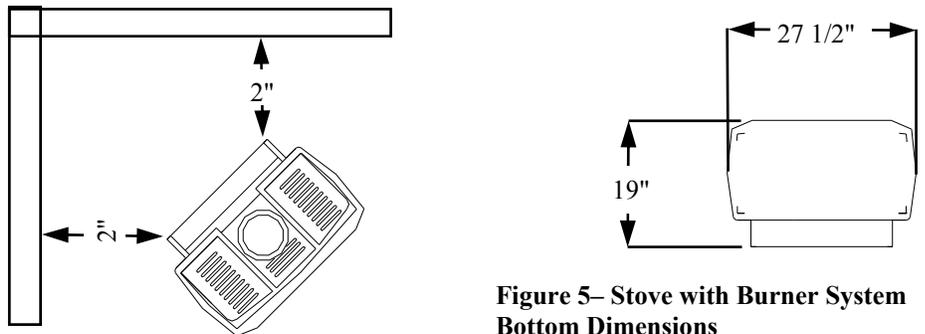


Figure 5– Stove with Burner System Bottom Dimensions

Figure 4– Minimum Clearance for Corner Installation

CAST IRON STOVE AND DIRECT-VENT BURNER SYSTEM ASSEMBLY

STOVE BODY ASSEMBLY

1. Lift off corrugated box enclosing stove body crating.
2. Remove all screws fastening the wood frame enclosure. Spread wood frame open and lift away from plastic-bagged stove body. The bottom pieces of pallet wood will remain bolted to the stove body.
3. Remove plastic bag from stove body.
4. Remove back panel from stove (see Figure 6). Use an adjustable wrench or a 10 mm socket. Remove six (6) bolts and washers. Keep bolts and washers to attach rear cover.
5. Remove all contents from inside stove cavity. Contents include:
 - (1) - Stove bottom (If included)
 - (4) - Legs with leg leveler bolts
 - (1) - Bottom door
 - (3) - Top grates
 - (2) - Brackets
 - (1) - Hardware kit bag with fasteners
6. Carefully lay stove body on back to attach bottom components to stove body (see Figure 7). Rest stove on drop cloth or blanket to avoid scratching stove edges.
7. Remove remaining pallet wood attached to bottom of stove body (see Figure 7). Use an adjustable wrench to remove bolts.
8. Fasten each leg to stove with four (4) M8 x 1.25 - 20 mm bolts. Use a flat washer and lock washer with each bolt. Tighten bolts into threaded holes on stove body (see Figure 8 and Figure 9). Return stove to upright position.

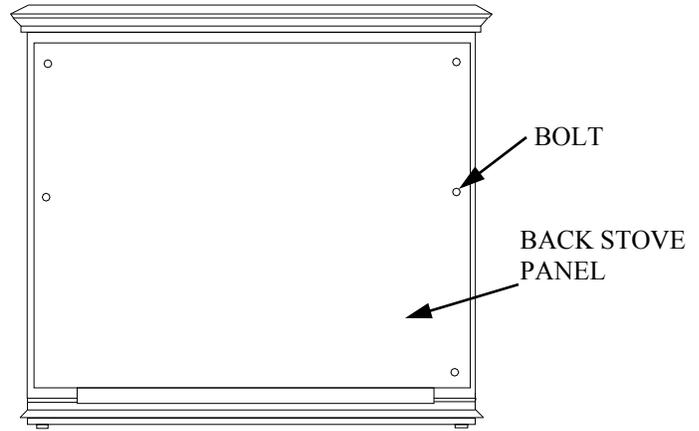


FIGURE 6 - REMOVING BACK PANEL

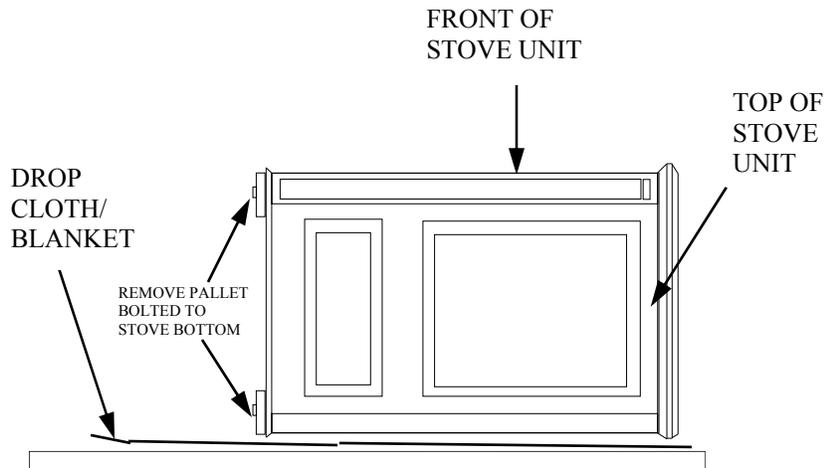


FIGURE 7 - LAYING DOWN STOVE ON SIDE

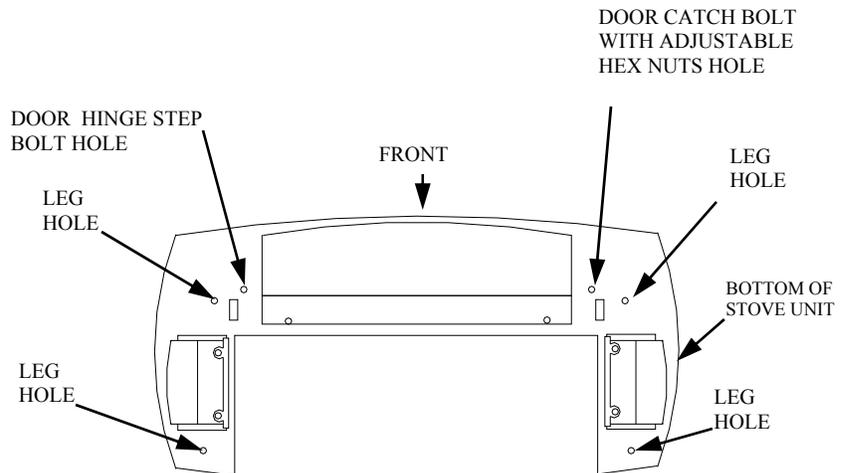


FIGURE 8 - LOCATING THREADED HOLES FOR STOVE BOTTOM, LEGS

Continued

9. Attach stove door by inserting step bolt through door hinge pivot hole and into threaded hole in stove body (see Figure 8 and Figure 10). Use an adjustable wrench or a 12mm socket to fasten step bolt. Tighten step bolt until snug. Make sure door moves freely.

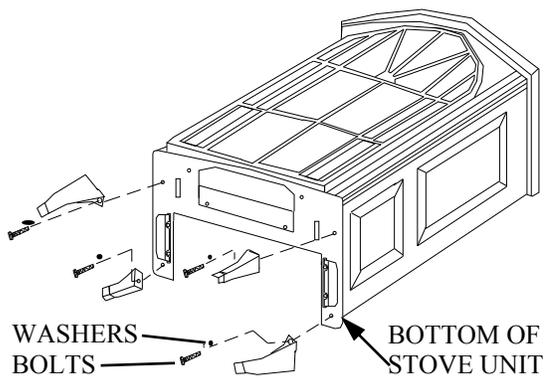


Figure 9– Attaching Stove Legs

10. Install door catch bolt (M8 x 1.25-55mm with two M8 hex nuts) into threaded hole on stove body (see Figures 8 and 10). Use an adjustable wrench or a 12mm socket. The catch bolt has two hex nuts attached to it (see Figure 11). The top nut is a bolt stop and the bottom nut is for door leveling adjustment.
11. Check general catch bolt alignment with door claw. Make final adjustment and door leveling after stove is in normal standing position.
12. Carefully lift stove back up on its four attached legs.
13. Remove 2 bolts from the bottom of the stove and discard. Remove the bolt located in the front top center of the stove to remove the front panel assembly. (see figure 12) **(NOTE: When removing the front panel assembly be prepared to hold the front panel assembly before removing the last bolt.)**
14. If there is a metal plate located across the inside front of the stove it must be removed. Remove the 4 screws that secure the plate to the stove and discard the plate.

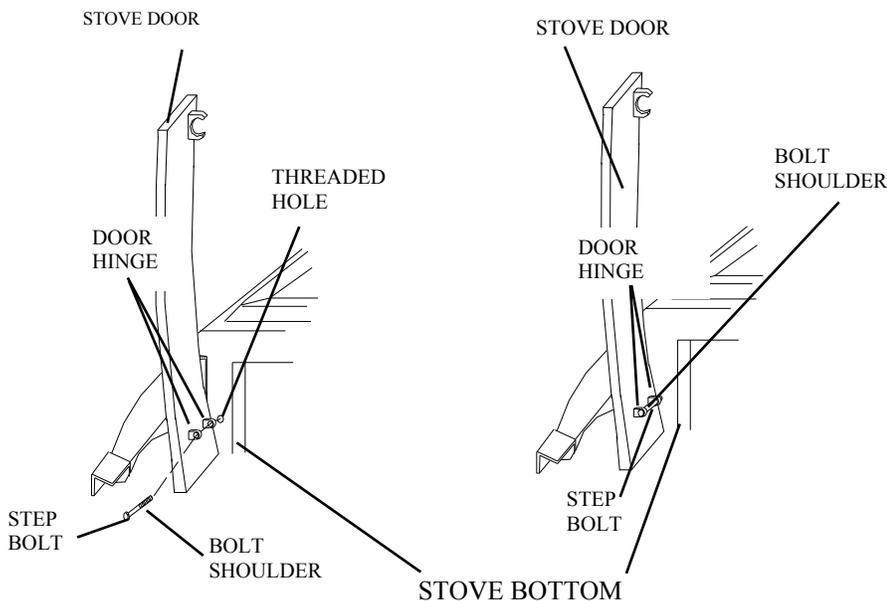


Figure 10-Attaching Lower Stove Door Panel

NOTE: IF YOUR CASTING HAS A DROP BOTTOM– DO NOT INSTALL – DISCARD THE BOTTOM.

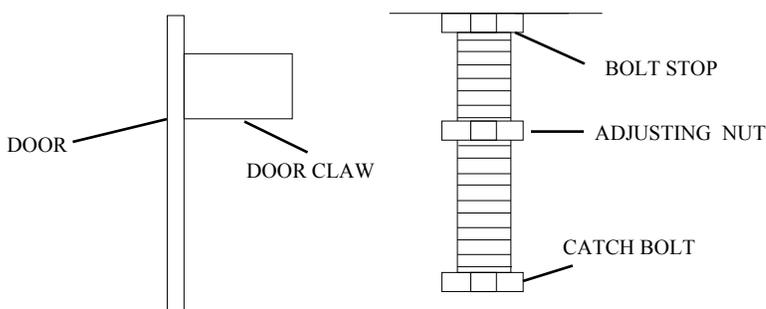


FIGURE 11 - CATCH BOLT AND DOOR CLAW ORIENTATION

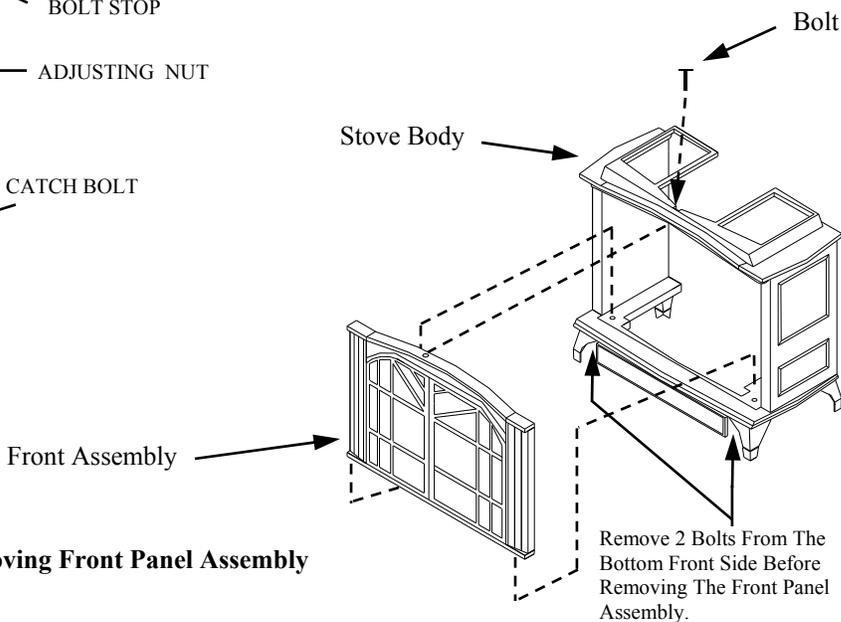


Figure 12– Removing Front Panel Assembly

Continued

INSTALLING DIRECT-VENT BURNER SYSTEM INTO STOVE BODY

1. Carefully remove the burner system (fire box) from the shipping box.
2. Carefully lift the burner system and place it into the stove body from the rear of the stove (see figure 13).
3. Slide the burner system to the front of the stove body (see figures 13 and 14).
4. Place the vent gasket on the outside of the burner system box over the vent hole and align the holes(see figure 15).
5. Place the 7" vent collar over the gasket and align the holes(see figure 15).
6. Next remove the blower system from the shipping box .
7. Find the on/off/auto switch and wires attached to the burner system. You will need to unplug the wires from the switch and place the switch in the slot provided on the side of the blower system (see figure 16 and figures 43,44 on pages 30,31) .
8. Next push the wires through the 5/8" round hole located in the bottom of the blower system and reconnect the wires to the switch using the labels on the wires to insure the wires are reconnected to the correct terminals (see wiring diagram pages 30,31 figures 43,44)(see figure 16).
9. Secure the blower system to the rear of the cast stove body with the 4 10mm bolts provided with the stove (see figure 16).

“CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.”
“Verify proper operation after servicing.”

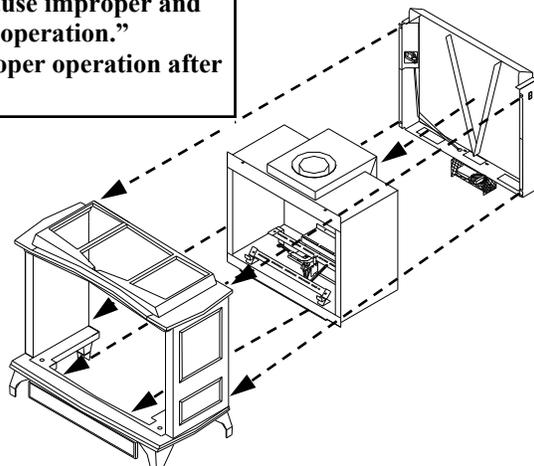


Figure 14– Installing Burner System and Blower System.

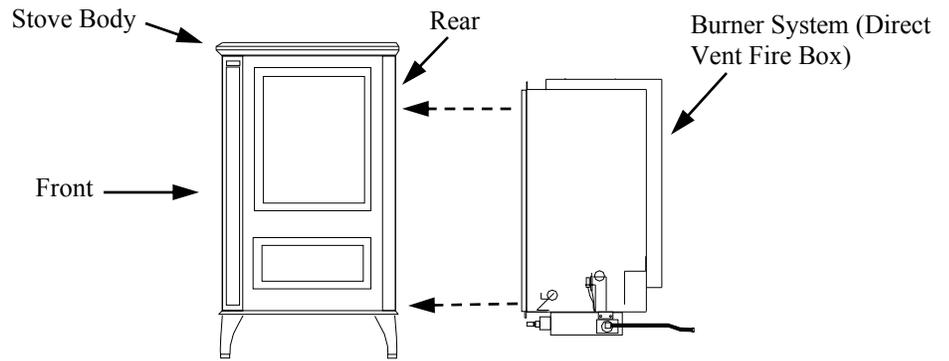


Figure 13-Installing Burner System into Cast Stove body.

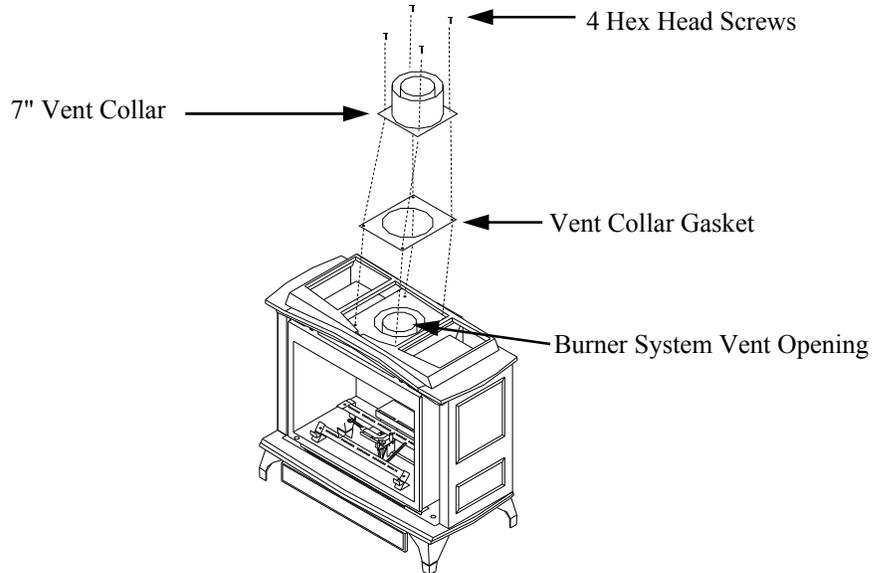


Figure 15– Installing Vent Collar

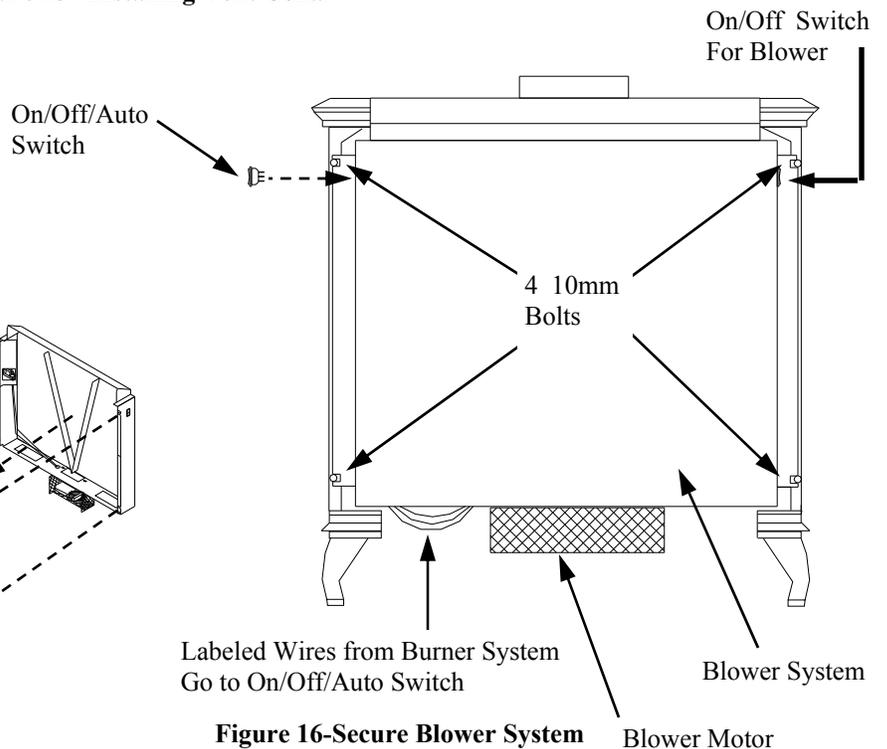


Figure 16-Secure Blower System

WARNING: Never touch the blower wheel while in operation.

GENERAL VENTING

These models are approved for use with Simpson Dura-Vent or AmeriVent 6 5/8" direct-vent pipe components and terminations as well as rigid Buck Stove vent components.

Your stove with burner system is approved to be vented either through the side wall, or vertically using the following guidelines:

- Only use Simpson Dura-Vent or AmeriVent GS venting components or kits specifically approved for this stove and burner system.
- Minimum clearance between vent pipes and combustible materials is 1" (25 mm), except where stated otherwise.
- Do not recess venting termination into a wall or siding.
- If your house is covered with vinyl siding, you will need to use a vinyl siding standoff (see Figure 23, page 11).
- Install horizontal venting with a 1/4" rise for every 12" of run toward the termination.
- You may paint the vent termination with 450°F (232°C) heat-resistant paint to coordinate with the exterior finish.
- There must not be any obstruction such as bushes, garden sheds, fences, decks, or utility buildings within 24" from the front of the termination cap.
- Do not locate termination cap where excessive snow or ice build up may occur. Be sure to clear vent termination area after snow falls to prevent accidental blockage of venting system. When using snow blowers, do not direct snow towards vent termination area.
- You must maintain minimum wall and ceiling clearances shown in Figures 3 and 4, page 3.

LOCATION OF VENT TERMINATION

When locating vent termination, it is important to observe the minimum clearances shown in Figure 17, page 8.

*Check with local codes or with the current *CAN/CGA B149[.1 or .2] Installation Codes* for Canada or the USA. Installations follow the current *National Fuel Gas Code, ANS Z223.1*, also known as NFPA 54.

EXTERIOR VENT LOCATIONS and RESTRICTIONS

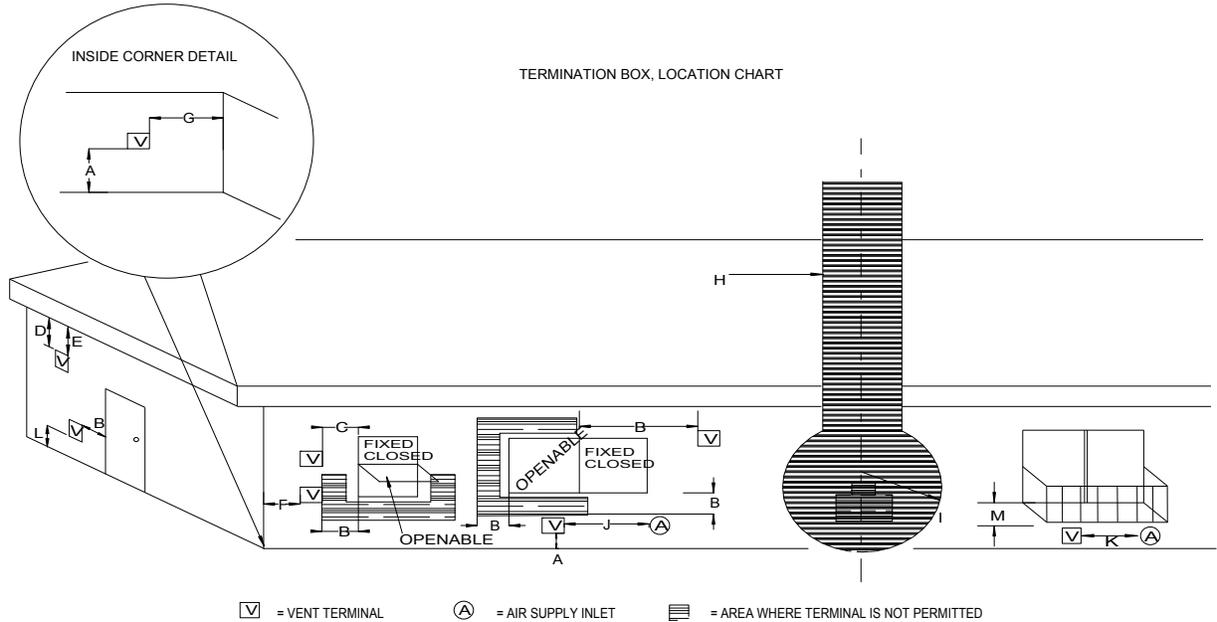


Figure 17– Minimum Clearances for Vent Terminations

A. Clearance above grade, veranda, porch, deck, or balcony (*12 inches (30cm) minimum)

B. Clearance to window or door that may be opened (*12 inches (30cm) minimum.)

C. Clearance to permanently closed window (minimum 12 inches (30 cm)) recommended to prevent condensation on window.

D. Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 24 inches (60cm) from the center-line of the terminal (18 inches (46cm) minimum.)

E. Clearance to unvented soffit (12 inches (30cm) minimum.)

F. Clearance to outside corner - 6 inches (15 cm)

G. Clearance to inside corner - 12 inches (30 cm)

H. *Not to be installed above a meter regulator assembly within 3 feet (90 cm) horizontally from the centerline of the regulator.

I. Clearance to service regulator vent outlet (*6 feet (1.8 m) minimum.)

J. Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance (*12 inches (30 cm) minimum.)

K. Clearance to a mechanical air supply inlet (*6 feet (1.8 m) minimum.)

L. Clearance above paved sidewalk or a paved driveway located on public property (*7 feet (2.1m) minimum).

M. Clearance under veranda, porch, deck, or balcony, (*12 inches (30 cm) minimum).

A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

As specified in “M” above, only permitted if verandas, porches, decks, or balconies is fully open a minimum of two sides beneath the floor.

*As specified in CGA B1:19 Installation Codes (1991). NOTE: Local codes or regulations may require different clearances.

VENTING INSTALLATION

WARNING: Read all instructions completely and thoroughly before attempting installation. Failure to do so could result in serious injury, property damage or loss of life. Operation of improperly installed and maintained venting system could result in serious injury, property damage or loss of life.

WARNING: For direct vent designs, proper reassembly and resealing of the vent-air intake system. (see figure 20) Seal all vent connections. Seal only the outer pipe connections with high temperature silicone (600°F/316°C). Before joining elbows and pipes, apply a bead of high temperature silicone sealant (GERTV 106/Locktite RTV81585) to the male end of the elbow or pipe. High temperature silicone must be used to re-seal any connections after maintenance to venting system.

NOTICE: Failure to follow these instructions will void the warranty.

INSTALLATION PRECAUTIONS

Consult local building codes before beginning the installation. The installer must make sure to select the proper vent system for installation. Before installing vent kit, the installer must read this stove and burner system manual and vent kit instructions.

Only a qualified installer/service person should install venting system. The installer must follow these safety rules:

- Wear gloves and safety glasses for protection
- Use extreme caution when using ladders or when on roof tops
- Be aware of electrical wiring locations in walls and ceilings

The following actions will void the warranty on your venting system:

- Installation of any damaged venting component
- Unauthorized modification of the venting system
- Installation of any component part not manufactured or approved by Buck Stove
- Installation other than as instructed by these instructions

WARNING: This stove with burner system and vent assembly must be vented directly to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance. Each gas appliance must use a separate vent system. Do not use common vent systems.

WARNING: Horizontal sections of this vent system require a minimum clearance of 2" from the top of the pipe and 1" minimum to the sides and bottom. Vertical sections of this system require a minimum of 1" clearance to combustible materials on all sides of the pipe.

INSTALLATION PLANNING

There are two basic types of direct-vent installation:

- Horizontal Termination
- Vertical Termination

It is important to select the proper length of vent pipe for the type of termination you choose. It is also important to note the wall thickness.

For Horizontal Termination: Select the amount of vertical rise desired. The horizontal run of venting must have ¼" rise for every 12" of run towards the termination.

You may use one 90° elbow in this vent

WARNING: Never run the vent pipe downward as this may cause excessive temperatures which could cause a fire.

configuration. See *Horizontal Termination Configurations* on page 15.

For Vertical Termination: Measure the distance from the burner system flue outlet to the ceiling. Add the ceiling thickness, the vertical rise in an attic or second story, and allow for sufficient vent height above the roofline. You may use one 90° elbow in this vent configuration.

Note: When using Simpson Duravent pipe, you must order the vertical restrictor (shown in Figures 38 through 41 on pages 18 and 19) separately.

Note: You may use two 45° elbows in place of a 90° elbow. You must follow rise to run ratios when using 45° elbows.

For two-story applications, firestops are required at each floor level. If an offset is needed in the attic, additional pipe and elbows will be required.

You may use a chase with a vent termination with exposed pipe on the exterior of the house. See *Installing Vent System in a Chase*, below.

It is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust. Certain limitations apply to vent configurations and must be strictly followed.

Installing Vent System in a Chase

A chase is a vertical boxlike structure built to enclose venting that runs along the outside of a building. A chase is required for such venting.

NOTICE: Treatment of firestops and construction of the chase may vary from building type to building type. These instructions are not substitutes for the requirements of local building codes. You must follow all local building codes.

Note: When installing in a chase, you should insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Minimum clearance between vent pipes and combustible materials such as insulation is 1".

Continued

INSTALLATION FOR HORIZONTAL TERMINATION

1. Determine the route your horizontal venting will take. **Note:** The location of the horizontal vent termination on the exterior wall must meet all local and national building codes and must not be easily blocked or obstructed.

WARNING: Do not recess vent terminal into a wall or siding.

Snorkel terminations are available for terminations requiring a vertical rise on the exterior of the building (see Figures 18 and 19). Snorkel kit is also available at your dealers. Follow the same installation procedures used for standard horizontal terminations. If installing the snorkel termination below grade (basement applications), you must provide proper drainage to prevent water from entering the snorkel termination (see Figure 19). Do not back fill around the snorkel termination.

2. Rigid vent pipes and fittings have special twist-lock connections. Assemble the desired combination of pipe and elbows to the appliance adaptor with pipe seams oriented towards the wall or floor.

Twist-lock Procedure: The female ends of the pipes and fittings have three locking lugs (indentations). These lugs will slide straight into matching slots on the male ends of adjacent pipes and fittings. (All connections must be sealed with high temperature silicone sealant as specified in the second warning statement on page 9). Push the pipe sections together and twist one section clockwise approximately one-quarter turn until the sections are fully locked. See Figure 20, on following page. **Note:** Horizontal runs of vent must be supported every three feet. Use wall straps for this purpose.

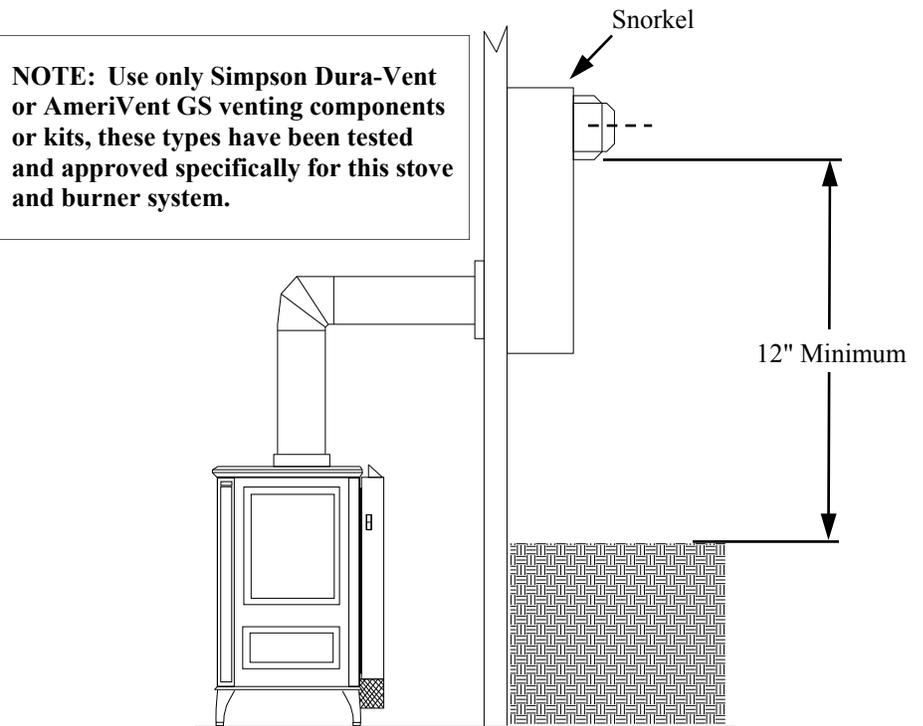


Figure 18– Snorkel Termination

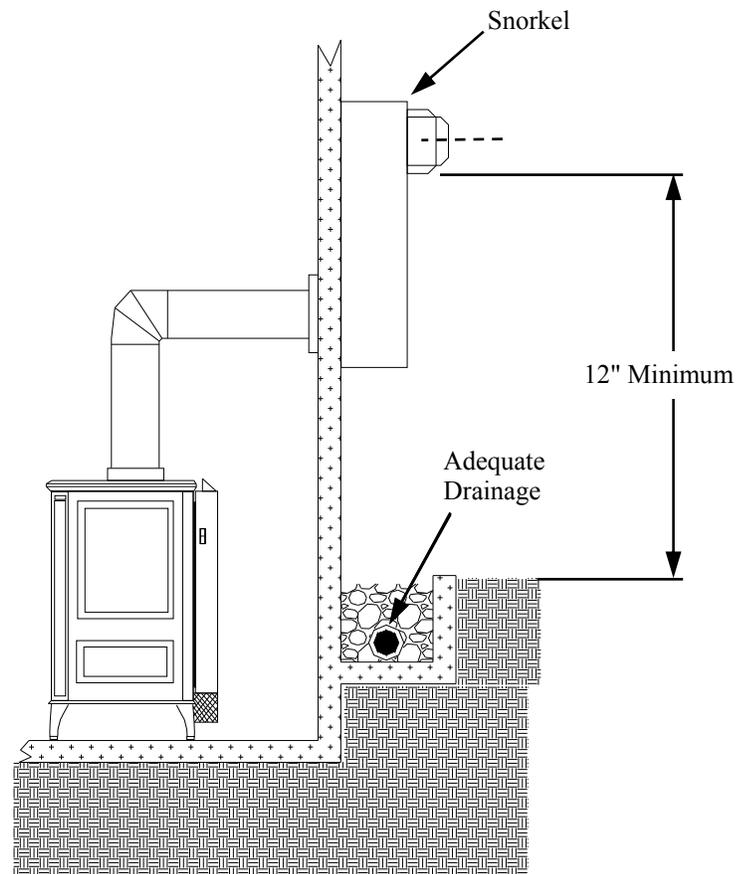


Figure 19– Snorkel Termination with Drainage Pipe

Continued

3. Attach vent pipe assembly to the burner system. Set stove in front of its permanent location to ensure minimum clearances. Mark the wall for a 10" square hole (for noncombustible material such as masonry block or concrete, a 7 1/2" diameter hole is acceptable). See Figure 21. The center of the hole should line up with the center line of the horizontal rigid vent pipe. Cut a 10" x 10" (254mm x 254mm) square hole through combustible exterior wall (7 1/2" [190mm] diameter hole if noncombustible). Frame as necessary.

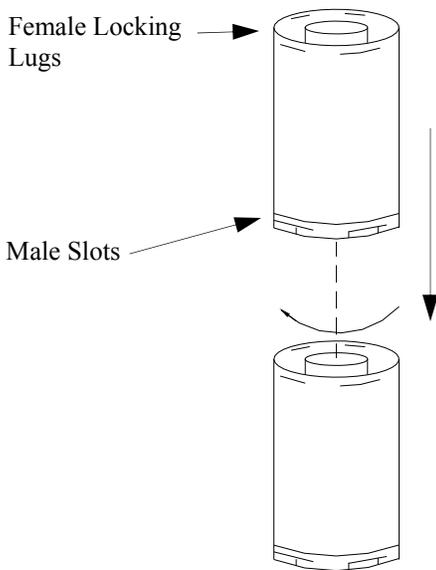


Figure 20— Rigid Vent Pipe Connections

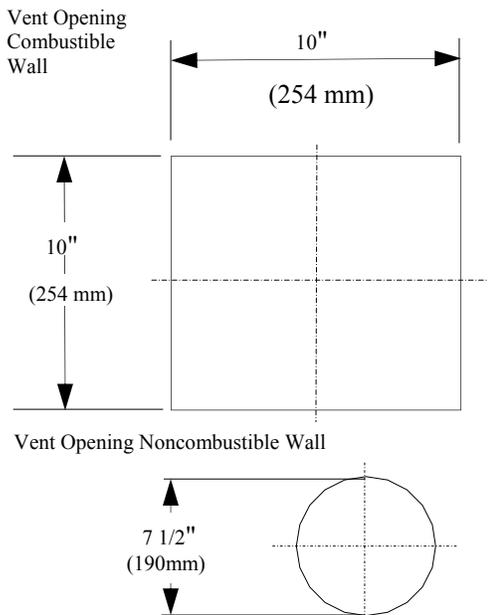


Figure 21— Vent Opening Requirements

4. Apply a bead of non-hardening mastic around the outside edge of the vent cap. Position the vent cap in the center of the 7 1/2" or 10" hole on the exterior wall with the "up" on the vent cap facing up. Ensure proper clearance of 1" to combustibles is maintained. Attach the vent cap with four wood screws supplied (see Figure 22). **Note:** Replace the wood screws with appropriate fasteners for stucco, brick, concrete, or other types of siding.

WARNING: Do not recess vent termination into any wall. This will cause a fire hazard.

For vinyl siding, stucco, or wood exterior use vinyl siding standoffs between vent cap and exterior wall. The vinyl siding standoff prevents excessive heat from melting the vinyl siding material. Bolt the vent cap to the standoff. Apply non-hardening mastic around outside edge of the standoff instead of the vent cap assembly. Use wood screws provided to attach the standoff. See Figure 23.

5. Slide the wall thimble over the vent pipe before connecting the horizontal run to the vent cap (see Figure 24).

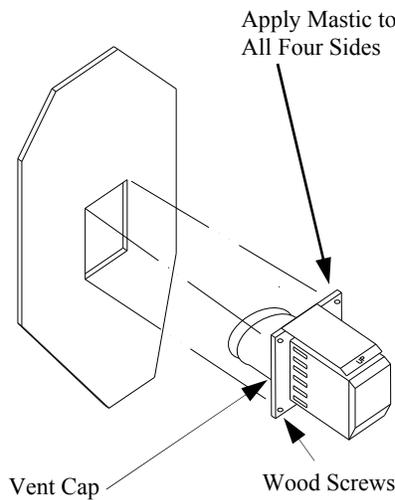


Figure 22— Installing Horizontal Vent Cap

6. Carefully move the stove with vent assembly attached toward the wall and insert the vent pipe into the horizontal termination. The pipe overlap should be a minimum of 1 1/4". Apply silicone to the outer pipe connection. Fasten all vent connections with screws provided.
7. Slide the wall thimble against the interior wall surface and attach with screws provided (see Figure 24).

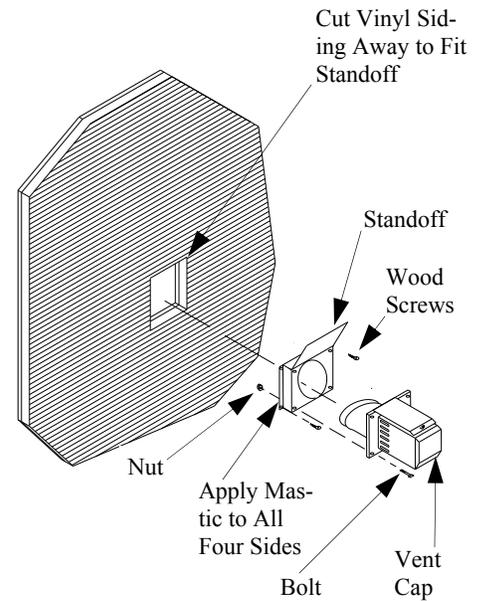


Figure 23— Installing Vinyl Siding Standoff

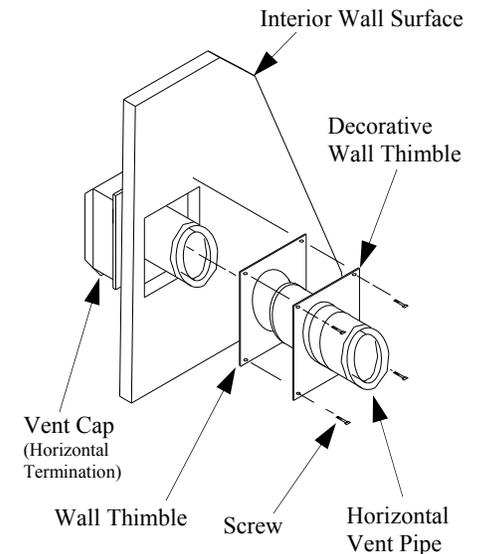


Figure 24— Connecting Vent Cap with Horizontal Vent Pipe

NOTE: Use only Simpson Dura-Vent or AmeriVent GS venting components or kits, these types have been tested and approved specifically for this stove and burner system.

NOTE:

Direct-Vent (Balanced Flue) appliances are sensitive to vent configurations. Although this appliance may operate in some installations that fall outside this vent requirement chart, we cannot ensure its performance.

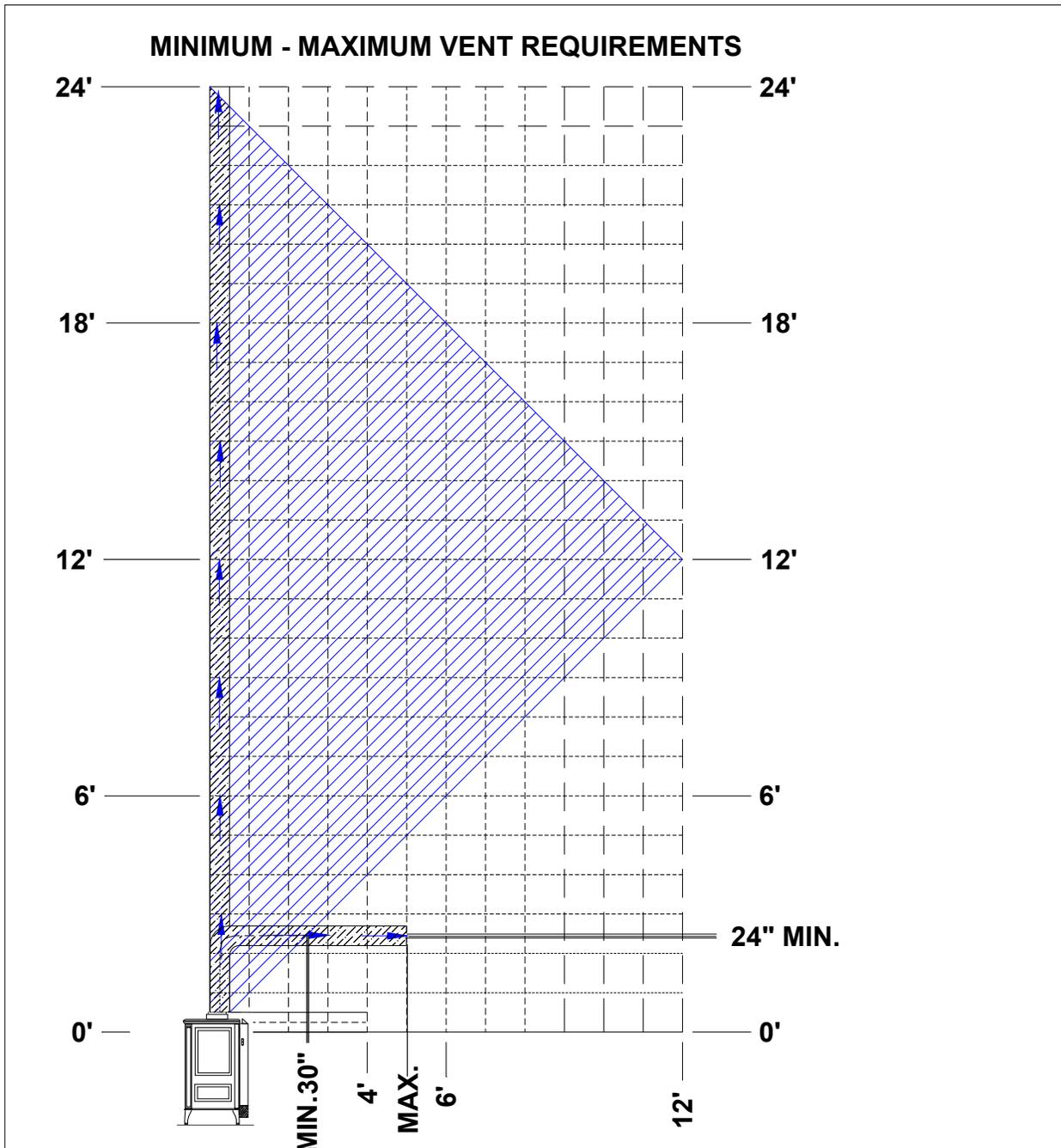


Figure 25– Vent Requirements

NOTE: Use only Simpson Dura-Vent or AmeriVent GS venting components or kits, these types have been tested and approved specifically for this stove and burner system.

INSTALLATION FOR VERTICAL TERMINATION

NOTICE: Use rigid pipe only. Flex venting is not to be used with a vertical termination.

1. Determine the route your vertical venting will take. If ceiling joists, roof rafters, or other framing will obstruct the venting system, consider an offset (see Figure 26) to avoid cutting load bearing members. **Note:** Pay special attention to these installation instructions for required clearances (air space) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, etc. Do not pack air spaces with insulation. Also note maximum vertical rise of the venting system and any maximum horizontal offset limitations. Offsets must fall within the parameters shown in Figure 17 .
2. Set the stove in desired location. Drop a plumb line down from the ceiling to the position of the burner system exit flue. Mark the center point where the vent will penetrate the ceiling. Drill a small locating hole at this point.
Drop a plumb line from the inside of the roof to the locating hole in the ceiling. Mark the center point where the vent will penetrate the roof. Drill a small locating hole at this point.

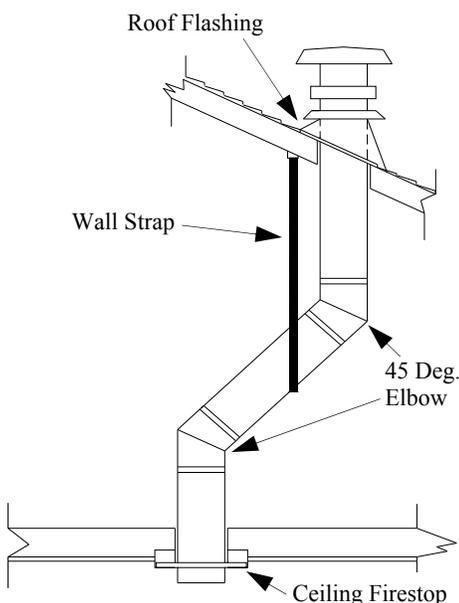
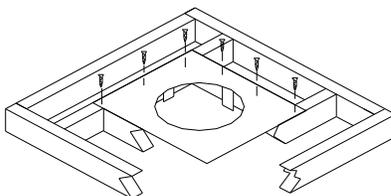


Figure 26-Offset with Wall Strap and 45 deg Elbows

Flat Ceiling Installation

1. Cut a 10" square hole in the ceiling using the locating hole as a center point. The opening should be framed to 10" x 10"(254mm x 254mm) inside dimensions, as shown in Figure 27 using framing lumber the same size as the ceiling joists. If the area above the ceiling is an insulated ceiling or a room, nail firestop from the top side. This prevents loose insulation from falling into the required clearance space. Otherwise, install firestop below the framed hole. The firestop should be installed with no less than three nails per side (see Figure 27).
2. Assemble the desired lengths of pipe and elbows necessary to reach from the burner system flue up through the firestop. All connections must be sealed with high temperature silicone sealant as specified. Be sure all pipe and elbow connections are fully twist-locked (see Figure 20, page 11).

If area above is not a room, install firestop above framed hole.



If area above is a room, install firestop below framed hole.

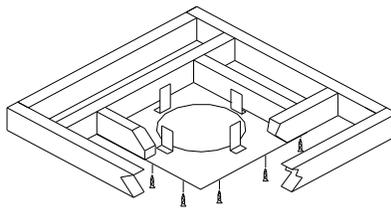


Figure 27- Installing Firestop

3. Cut a hole in the roof using the locating hole as a center point. (Cover any exposed open vent pipes before cutting hole in roof.) The 10" x 10" hole must be measured on the horizontal; actual length may be larger depending on the pitch of the roof. There must be a 1" clearance from the vent pipe to combustible materials. Frame the opening as shown in Figure 21.
4. Connect a section of pipe and extend up through the hole. **Note:** If an offset is needed to avoid obstructions, you must support the vent pipe every 3 feet. Use wall straps for this purpose (see Figure 26). Whenever possible, use 45° elbows instead of 90° elbows. The 45° elbow offers less restriction to the flow of the flue gases and intake air.
5. Place the flashing over the pipe section(s) extending through the roof. Secure the base of the flashing to the roof and framing with roofing nails. Be sure roofing material overlaps the top edge of the flashing as shown in Figure 26. There must be a 1" clearance from the vent pipe to combustible materials.
6. Continue to add pipe sections until the height of the vent cap meets the minimum building code requirements described in Figure 17 . **Note:** You must increase vent height for steep roof pitches. Nearby trees, adjoining rooflines, steep pitched roofs, and other similar factors may cause poor draft or down-drafting in high winds. Increasing the vent height may solve this problem.
7. Twist-lock the vent cap onto the last section of vent pipe and seal outer pipe connection with high temperature silicone sealant as specified .

Note: If the vent pipe passes through any occupied areas above the first floor, including storage spaces and closets, you must enclose pipe. You may frame and sheetrock the enclosure with standard construction material. Make sure and meet the minimum allowable clearances to combustibles. Do not fill any of the required air spaces with insulation.

NOTE: Use only Simpson Dura-Vent or AmeriVent GS venting components or kits, these types have been tested and approved specifically for this stove and burner system.

Continued

Cathedral Ceiling Installation

1. Remove shingles or other roof covering as necessary to cut the rectangular hole for the support box. Mark the outline of the cathedral ceiling support box on the roof sheathing using the locating hole as a center point.
2. Cut the hole $\frac{1}{8}$ " larger than the support box (see Figure 28).
3. Lower the support box through the hole in the roof until the bottom of the box extends at least 2" below the ceiling (see Figure 28). Align the support box vertically and horizontally using a level. Temporarily tack the support box in place through the inside walls and into the roof sheathing.
4. Using tin snips, cut the support box from the top corners down to the roofline and fold the resulting flaps over the roof sheathing (see Figure 29). Apply a bead of non-hardening mastic around the top edges of the support box to make a seal between the box and the roof. Nail in place with roofing nails. Remove any combustible material that might be inside the support box.
5. Complete the cathedral ceiling installation by following the same procedures outlined in steps 2 through 7 for *Flat Ceiling Installation*, page 13.

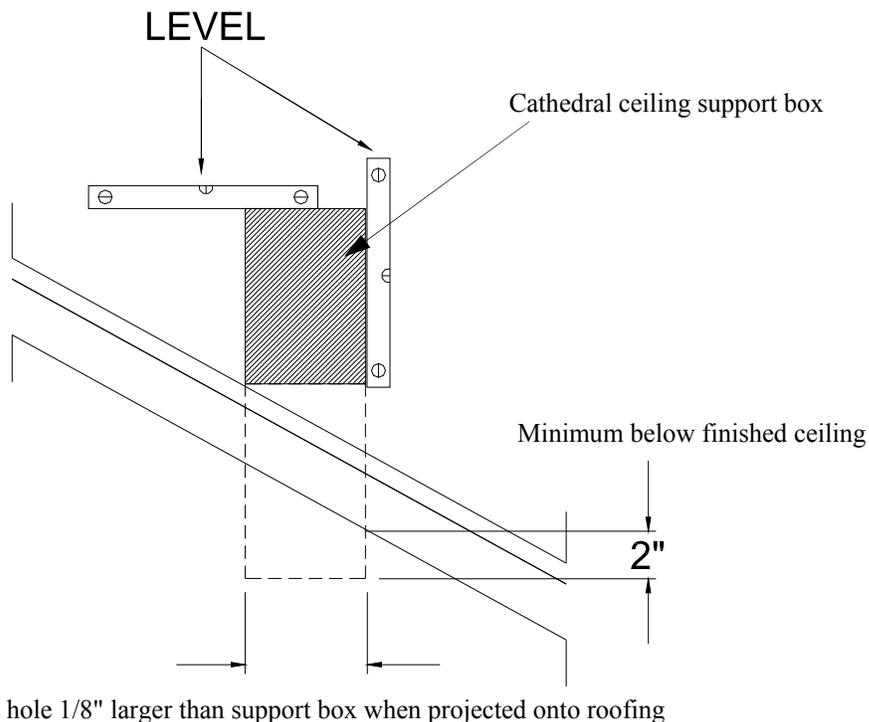


Figure 28– Cathedral Ceiling Support Box Installation

High Altitude Installation

Your Buck Stove cast iron stove and direct-vent burner system has been CSA/AGA tested and approved for elevations from 0-4500 feet.

When installing this stove at an elevation above 2000 feet (in the USA), you may need to decrease the input rating by changing the existing burner orifice to a smaller size. Reduce input 4% for each 1000 feet above sea level. Check with your local gas company for proper orifice size identification.

When installing this stove at an elevation above 4500 feet (in Canada), check with local authorities.

Consult your local gas company to help determine the proper orifice for your location.

For assistance with any high altitude installation contact New Buck Corporation Customer Service Department at 1-828-765-6144.

NOTE: “After unit has been initially installed, verify proper vent connection to unit and vent terminal.”

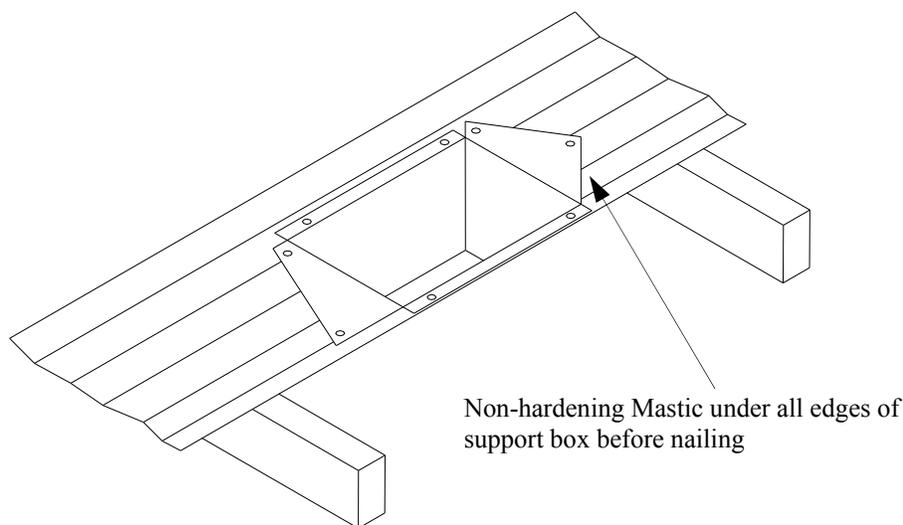


Figure 29– Installed Cathedral Ceiling Support Box

STOVE AND DIRECT-VENT BURNER SYSTEM INSTALLATION

CHECK GAS TYPE

Use proper gas type for the burner system you are installing. If you have conflicting gas types, do not install burner system. See dealer where you purchased the stove and burner system for proper burner system according to your gas type.

INSTALLING GAS PIPING TO STOVE/BURNER SYSTEM LOCATION

Warning: A qualified installer or service person must connect burner system to gas supply. Follow all local codes.

CAUTION: For propane/LP units, never connect burner system directly to the propane/LP supply. This burner system requires an external regulator (not supplied). Install the external regulator between the burner system and propane/LP supply.

Installation Items Needed

Before installing stove and burner system, make sure you have the items listed below.

- External regulator (supplied by installer)
- Piping (check local codes)
- Sealant (resistant to propane/LP gas)
- Equipment shutoff valve *
- Test gauge connection *
- Sediment trap
- Tee joint
- Pipe wrench
- Approved flexible gas line with gas connection (if allowed by local codes) (not provided)

* An CSA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA design-certified equipment shutoff valve from your dealer.

For propane/LP connections only, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 14 inches of water. If you do not reduce incoming gas pressure, burner system regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 30. Pointing the vent down protects it from freezing rain or sleet.

CAUTION: Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to burner system. If pipe is too small, undue loss of pressure will occur.

Installation must include an equipment shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from burner system (see Figure 31).

IMPORTANT: Install main gas valve (equipment shutoff valve) in an accessible location. The main gas valve is for turning on or shutting off the gas to the appliance.

Check your building codes for any special requirements for locating equipment shutoff valve to stoves.

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged burner system valves.

We recommend that you install a

CAUTION: Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

sediment trap/drip leg in supply line as shown in Figure 31. Locate sediment trap/drip leg where it is within reach for cleaning. Install in piping system between fuel supply and burner system. Locate sediment trap/drip leg where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into burner system gas controls. If sediment trap/drip leg is not installed or is installed wrong, burner system may not run properly.

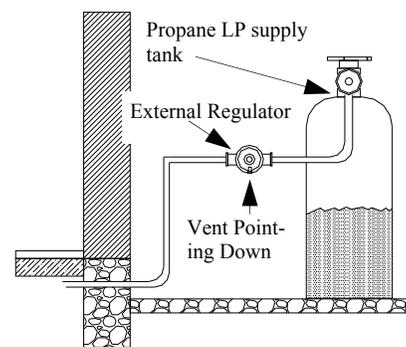


Figure 30– External Regulator with Vent Pointing Down (LP Only)

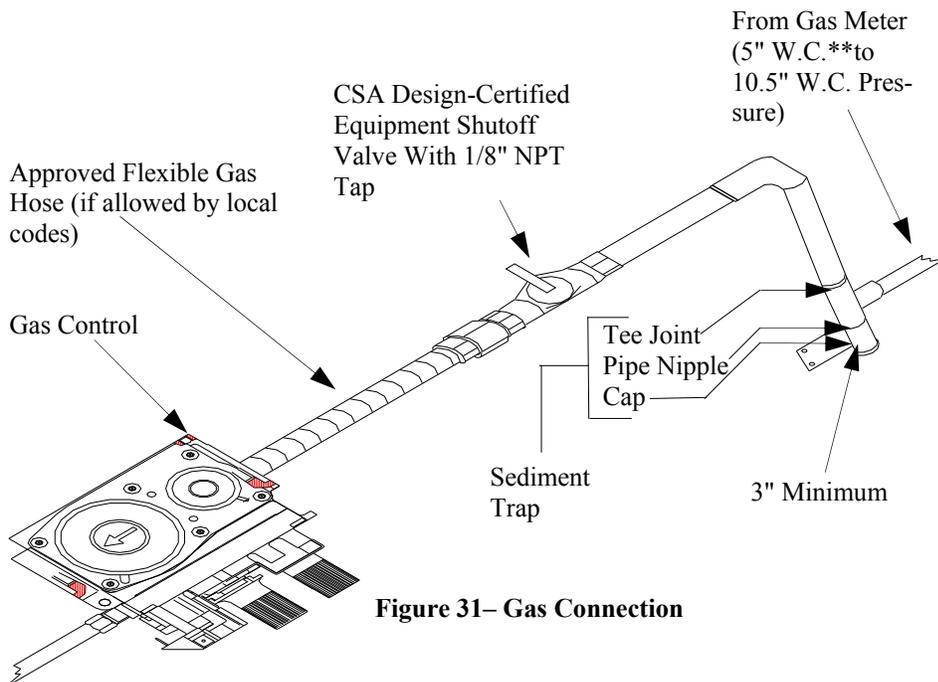


Figure 31– Gas Connection

Continued

CONNECTING STOVE/ BURNER SYSTEM TO GAS SUPPLY

Installation Items Needed

- 5/16" hex socket wrench or nut-driver
 - Sealant (resistant to propane/LP gas, not provided)
1. Open lower door panel.
 2. Route flexible gas line (provided by installer) from equipment shutoff valve to burner system. Route flexible gas supply line through slot in stove bottom and attach to valve.
 3. Check all gas connections for leaks. See *Checking Gas Connections*.

CHECKING GAS CONNECTIONS

Warning: Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

WARNING: Never use an open flame to check for a leak. Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.

NOTE: The minimum inlet gas supply pressure for the purpose of input adjustment.

NOTE: The maximum inlet gas supply pressure.

	LP	NATURAL
PRESSURE:	10.0" W.C.	3.5" W.C.
*MIN. INLET	11.0" W.C.	5" W.C.
MAX. INLET	14.0" W.C.	10.5" W.C.

Pressure Testing Gas Supply Piping System

Note: The appliance and its appliance main valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi. (3.5 kPa).

The appliance must be isolated from the gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi. (3.5 kPa).

Test Pressures In Excess of 1/2 PSIG (3.5 kPa)

1. Disconnect appliance with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping systems. Pressures in excess of 1/2 psig (3.5 kPa) will damage burner system gas regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas burner system or opening main gas valve located on or near gas meter for natural gas burner system, or using compressed air.
4. Check all joints of gas supply piping system. Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.
5. Reconnect burner system and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

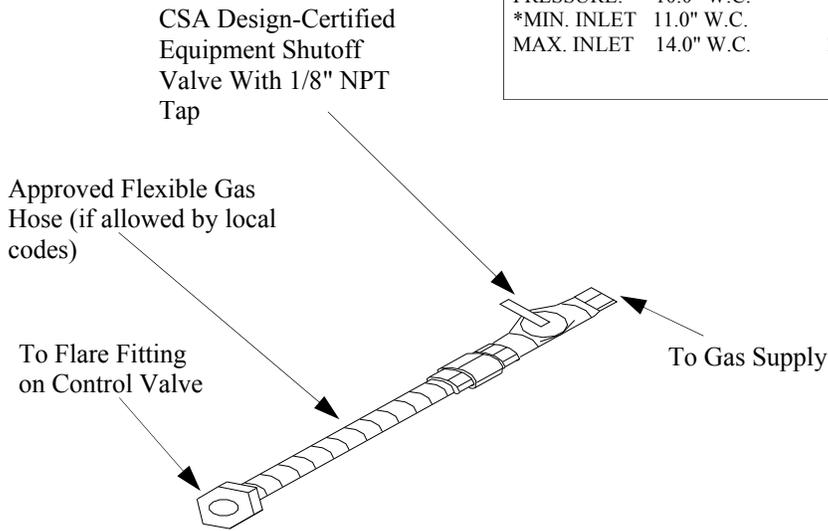


Figure 32– Flexible Gas Line

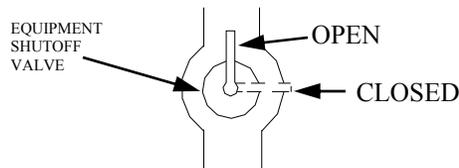


FIGURE 33 - EQUIPMENT SHUT-OFF VALVE

Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)

1. Close equipment shutoff valve (see Figure 33).
2. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas burner system or opening main gas valve located on or near gas meter for natural gas burner system, or using compressed air.
3. Check all joints from propane/LP supply tank or gas meter to equipment shutoff valve (see Figure 34, page 17 for propane/LP or Figure 35, page 17 for natural). Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.

Continued

Pressure Testing Burner System Gas Connections

1. Open equipment shutoff valve (see Figure 33 page 16).
2. Open propane/LP supply tank valve for propane/LP burner system or main gas valve located on or near gas meter for natural gas burner system.
3. Make sure control knob of burner system is in the OFF position.
4. Check all joints from equipment shutoff valve to thermostat gas valve (see Figure 34 for propane/LP or Figure 35 for natural). Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.
5. Light burner system (see *Operating Stove with Burner System*, pages 21 through 22). Check all other internal joints for leaks.

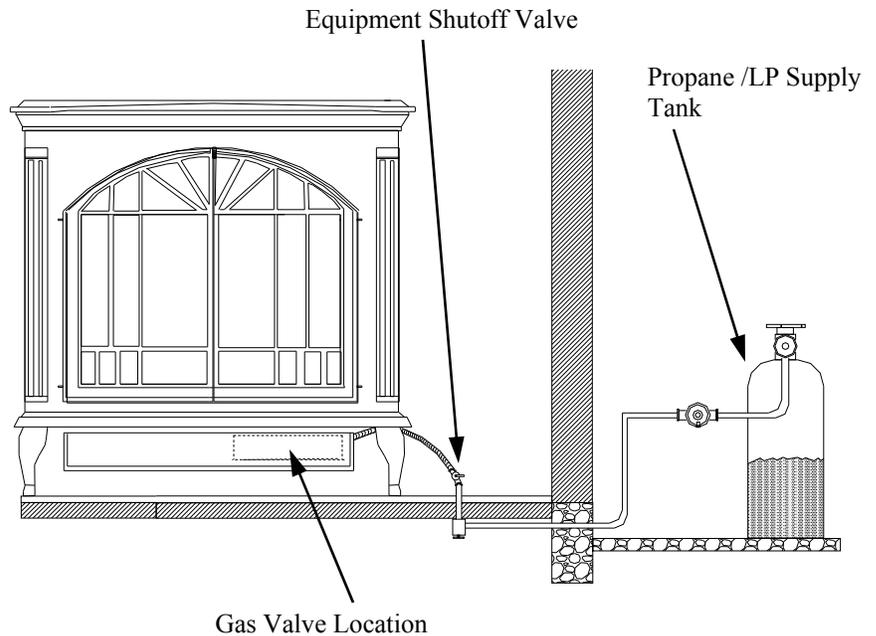


Figure 34– Checking Gas Joints for Propane/LP Gas Burner System

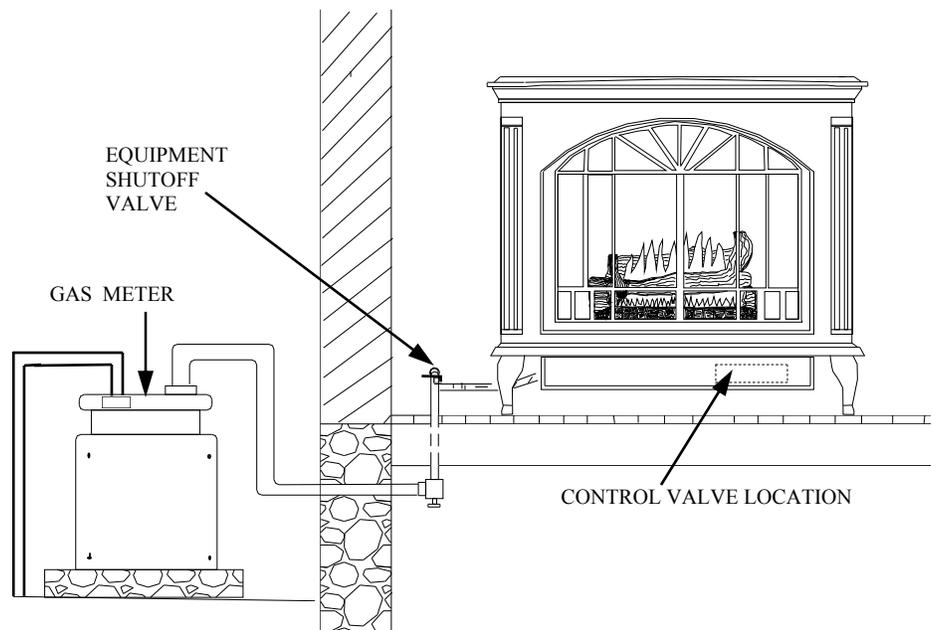


Figure 35– Checking Gas Joints for Natural Gas Burner System

Continued

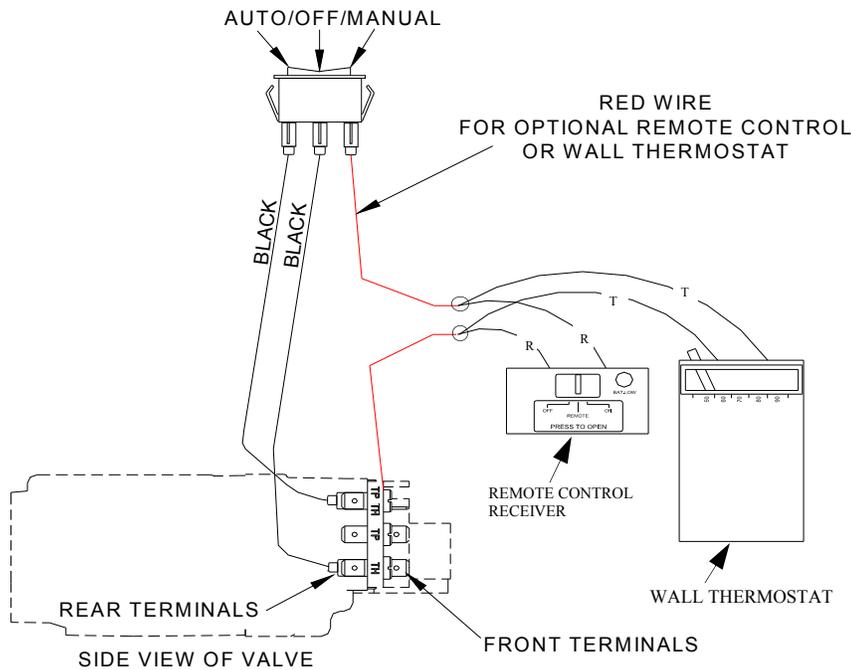
INSTALLING OPTIONAL RECEIVER AND HAND- HELD REMOTE CONTROL KIT PART# FDC-504 AND/OR WALL THERMOSTAT PART# PE 400142 ACCESSORIES

1. First locate the red wire connected to the control valve and the on /off/auto switch.
2. Cut the red wire.
3. Next connect one of the wires from the remote receiver and/or the wall thermostat to one end of the cut red wire and secure them together with a wire nut (not provided) (see Figure 36).
4. Take the remaining end of the cut red wire and connect the remaining wire from the remote receiver and/or the wall thermostat and secure them together with a wire nut (not provided) (see Figure 36).

NOTE: Only cut the RED wire. If any other wire is used the unit will not operate properly.

* The remote control receiver will Velcro into the bracket provided on the front of the burner system beside the control valve.

WARNING: Installation must be done by a qualified installer familiar with low voltage wiring procedures.



REMOVING/REPLACING GLASS DOOR

You must remove glass door to install logs. To remove glass door, you must first remove the front panel assembly on stove body if it has been previously installed. If the front panel assembly is not in place, proceed to step 2.

WARNING: "Do not operate appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person."

1. Remove 2 bolts from bottom of stove (if still in place) and one from the top of stove to remove front panel (see Figure 37).
2. Remove the 1/4-20 bolts from the 2 tabs at the top of the glass door while holding door securely keeping it from falling forward (see Figure 38).
3. Grasp door by both sides and ease it upward off of the lower bracket (see Figure 38).
4. To replace glass door, follow the above instructions in reverse and see page 19.

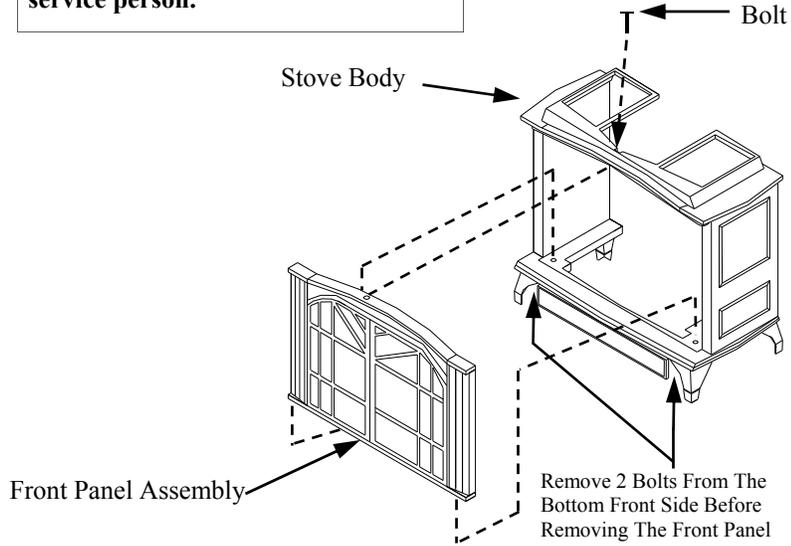


Figure 37- Removing Front Panel from Stove

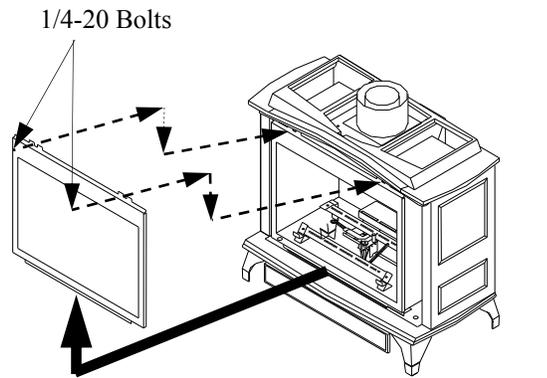


Figure 38- Removing Glass Cover Door from Burner System

WARNING: Do not connect this thermostat to a power source. Electrical shock and/or fire hazard will occur.

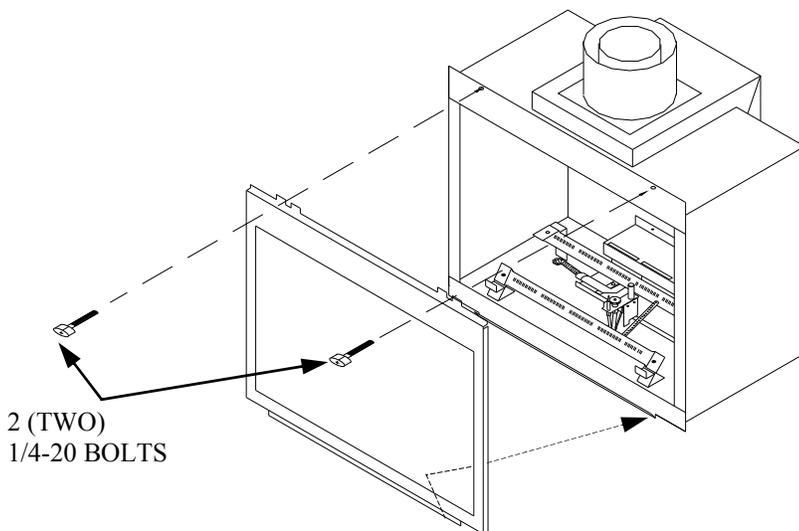
Figure 36-Installing Remote Receiver/Wall Thermostat

MOUNTING OF GLASS COVER DOOR

(2) Push the top of the Front Glass Cover Door inward aligning the two notches in the Glass Cover Door with the two holes at the top of the Burner System (CDV Firebox), then secure the Glass Cover Door to the Burner System with the two 1/4-20 Bolts provided.

Replace the entire cover door assembly if glass becomes defective with part # PGCDV081.

(1) Place the bottom tab of the Front Glass Cover Door into the lip on the bottom of the front of the Burner System (CDV Firebox).



WARNING: “Do not operate appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.”

Glass Care: This appliance has a large cover door bolted to the front area of the firebox. This cover door must be in place at all times when the appliance is in operation. For the most visual performance with your appliance it is good to maintain a clean glass on the cover door. To clean the glass first make sure the glass is cool, NOTE: (not hot), trying to clean the glass when it is hot can cause personal injury, or damage your cleaning device and the glass. With the glass at room temperature and the door attached to the appliance, spray the glass with household glass cleaner and wipe clean with a lint-free towel. NOTE: Do not use abrasive cleaners.

“WARNING: Do not abuse the glass cover door such as striking or slamming shut. The glass can break and cause personal injury.”

CAUTION: If the glass in your appliance becomes broken or cracked, remove the glass with caution. Wear safety glasses, gloves, shoes and other protective clothing as needed. See your dealer or the manufacturer for replacement glass or cover door.

WARNING: Do not substitute any parts or materials.

Continued

INSTALLING LOGS

WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this burner system may result in property damage or personal injury.

WARNING: “Do not operate appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.”

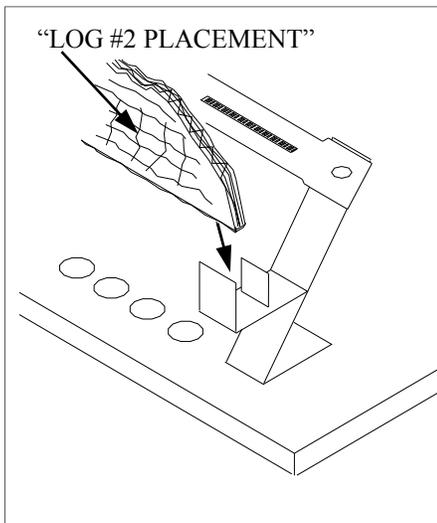
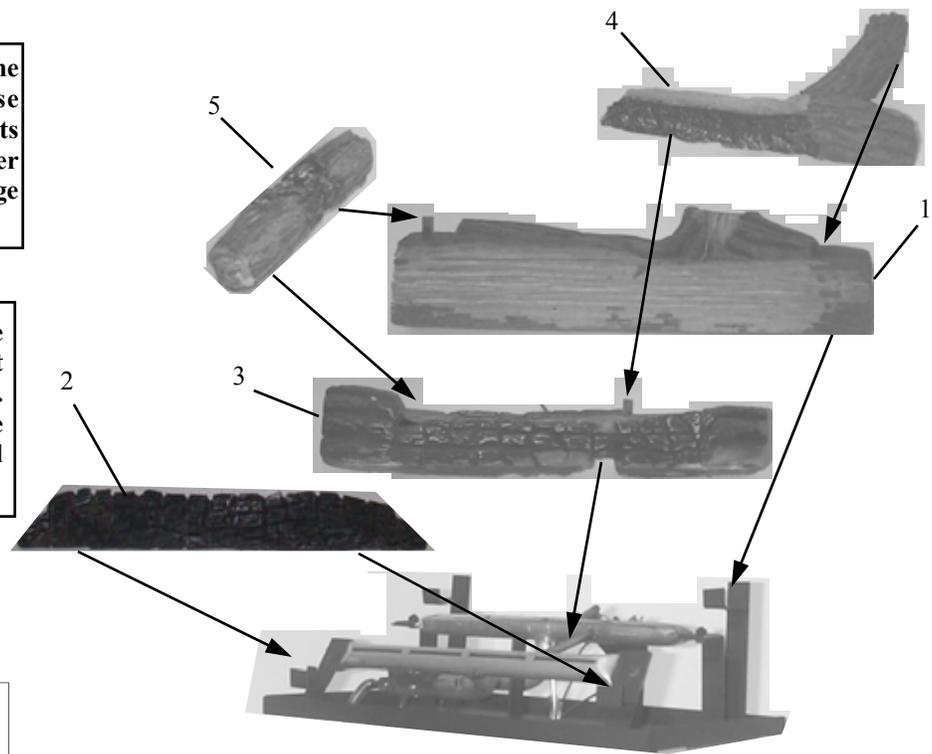
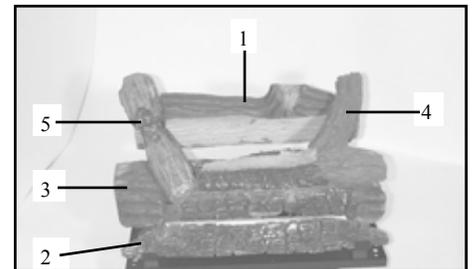


FIGURE 39



**WARNING: POSITIONING LOGS IS VERY CRITICAL (SEE FIGURE 39).
LOG PLACEMENT FOR LOG SET**

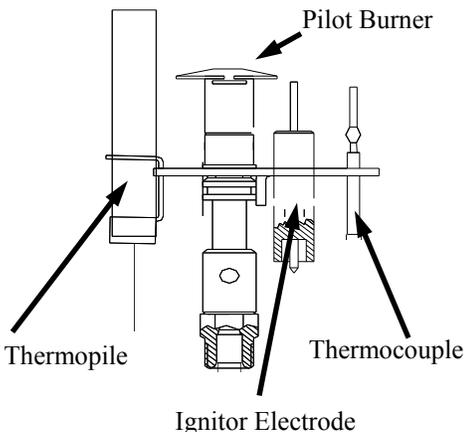
- 1) Place rear log (flat faced) #1 on rear log support. The log has alignment notches on each corner.
- 2) Place ember strip (wrapped in cardboard box) #2 on front log supports. Center from side to side.
- 3) Next place middle log (with ember burn out) #3 over front burner tube. The two ends are notched out on bottom to ensure proper fitting over ends of burner.
- 4) Right top log is a “y” shaped log #4. The round stem lays in the notched out space on the right corner of rear log. There is a pin on the middle log, and a hole on the flattened end of the top left log. Place hole over pin.
- 5) Place the end of the #5 log with the hole over the pin on the left side (corner) of the #1 log , and the other end of the #5 log lays on the flat surface of the left side of the #3 log .

OPERATING STOVE WITH BURNER SYSTEM

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.



LIGHTING INSTRUCTIONS

1. Stop! Read the safety information in column one.
2. "Set the thermostat to lowest."
3. "Turn off all electric power to the appliance."
4. Open access cover door.
5. Turn control knob clockwise  to the "OFF" position.

NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly.

6. "Wait five (5) minutes" to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information label. If you don't smell gas, go to the next step.
7. Pilot is located between the front and rear burner.
8. Turn control knob counter clockwise  to the "Pilot" position.
9. Press in control knob. With control knob pressed in, immediately push and release ignitor button. This will light the pilot.

NOTE: *If the control knob does not pop up when released, "Stop" and immediately call your service technician or gas supplier.

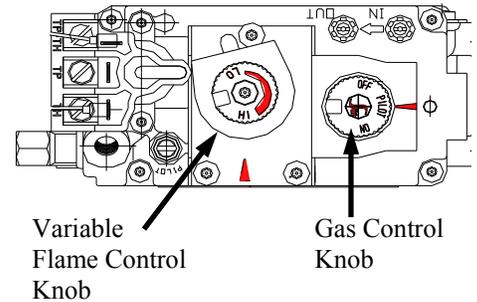
*If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier."

10. Continue to hold the control knob pressed in for one (1) minute after the pilot is lit. Release the control knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 thru 10.
11. Turn control knob counter clockwise  to "ON" position.
12. Close access cover door.
13. Turn on all electric power to the appliance.
14. If using unit without wall thermostat place (AUTO/OFF/MANUAL) switch in the "MANUAL" position. If using wall thermostat place (AUTO/OFF/MANUAL) switch in the "AUTO" position, and place wall thermostat to a setting higher than room temperature.

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting (if used).
2. Turn off all electric power to the appliance if service is to be performed.
3. Open access cover door.
4. Push in gas control knob slightly and turn clockwise  to "OFF". Do not force.
5. Close access cover door.

Sit Millivolt Valve



PIEZO IGNITOR BUTTON LOCATED TO THE LEFT, BESIDE THE SIDE OF THE GAS VALVE

Figure 40- Gas Valve & PIEZO IGNITOR

MANUAL LIGHTING PROCEDURE

1. Remove glass door (see *Removing/Replacing Glass Door*, page 18).
2. Follow steps 1 through 8 under *Lighting Instructions*.
3. Depress gas control knob and light pilot with match.
4. Keep gas control knob pressed in for one (1) minute after lighting pilot. After one (1) minute, release gas control knob. Now follow steps 10 through 14, column 2.
5. Replace glass door (see *Removing/Replacing Glass Door*, page 18).

OPERATING HEATER

Continued

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury, or loss of life. Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

IMPROPER: Always operate the appliance at the completely “ON” or the completely “OFF” positions. Never use the heater at a setting between these positions as this can result in improper combustion .

OPERATING HEATER

Continued

PILOT FLAME PATTERN (MILLIVOLT)

Figure 41 shows a correct pilot flame pattern. Figure 42 shows an incorrect pilot flame pattern. The incorrect pilot flame is not heating the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the heater will shut down.

If pilot flame pattern is incorrect, as shown in Figure 42:

- Turn heater off (see *To turn Off Gas to Appliance*, page 21)
- See *Troubleshooting*, pages 26 through 28.

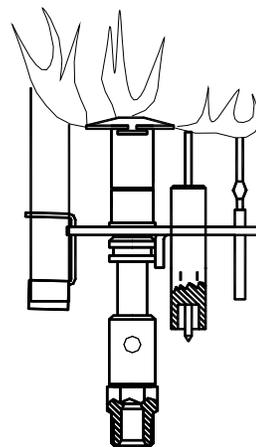


Figure 41– Correct flame pattern

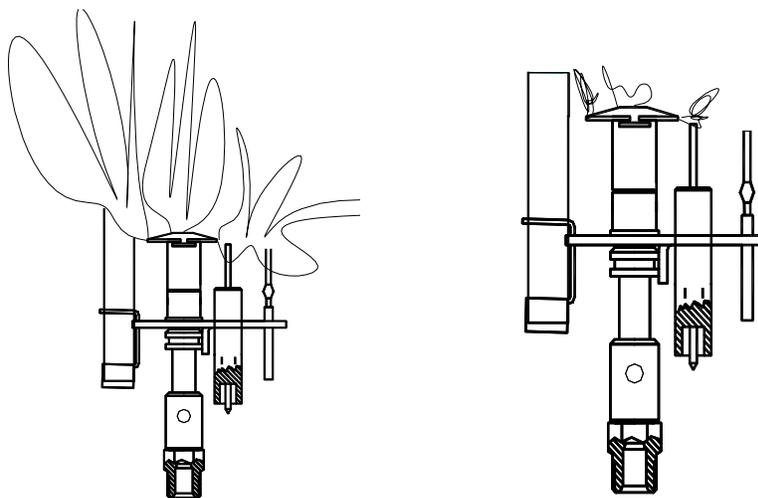


Figure 42– Incorrect flame patterns

Continued

OPTIONAL REMOTE OPERATION

Note: All remote control accessories must be purchased separately (See *Accessories* on page 24). Follow instructions included with the remote control.

Thermostat Control Operation

The thermostat control setting on the remote control unit can be set to any comfort level. The burners will turn on and off automatically to maintain the comfort level you select. The ideal comfort setting will vary by household depending upon the amount of space to be heated, the output of the central heating system, etc.

1. After lighting, let pilot flame burn

NOTICE: You must light the pilot before using the hand-held remote control unit. See *Lighting Instructions*, page 21 & 22.

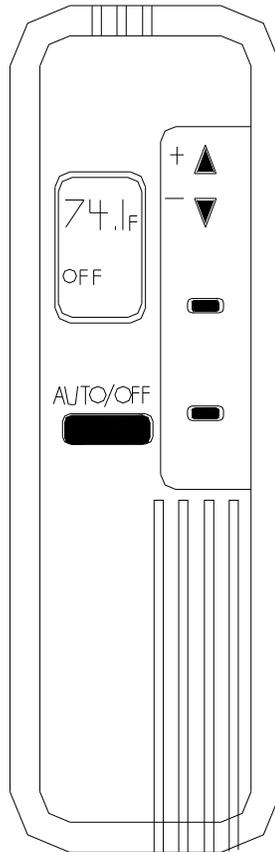
for about one minute. Turn gas control knob on the control valve to “ON” position. Turn variable control knob anywhere between HI and LO.

2. Position the auto/off/manual switch located on the right rear of the stove in the auto position.

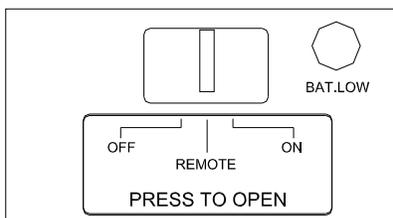
NOTE: See instructions provided with the remote control system you have received.

ROOM AIR BLOWER SYSTEM OPERATION

To turn on the blower system you must position the on/off switch located on the left rear of the stove to the **On** position. The blower system has a thermostat located inside the air channel which turns on the blower motor after the burner system has reached the proper temperature. If you have positioned the **ON/OFF** switch to the **ON** position it may take sometime before the thermostat is activated and the blower begins to blow air.



TYPICAL HAND-HELD REMOTE-CONTROL



TYPICAL REMOTE-CONTROL RECEIVER

ACCESSORIES

Purchase these heater accessories from your local dealer. If they can not supply these accessories, call our Parts Department at 1-828-765-6144 for referral information. You can also write to the address listed on the back page of this manual.

RECEIVER AND HAND-HELD REMOTE CONTROL KIT PART# PO FDC-504

For remote-ready models. Allows the gas log heater to be turned on and off by using a hand-held remote control.

WALL THERMOSTAT PART# PE 400142

The desired comfort setting can be selected on the wall thermostat and the log heater will automatically cycle from pilot to the heat setting selected.

SERVICE HINTS

When Gas Pressure Is Too Low

- Pilot will not stay lit
- Burners will have delayed ignition
- Heater will not produce specified heat

When Gas Quality Is Bad

- Pilot will not stay lit
- Burners will produce flames and soot
- Heater will backfire when lit

You may feel your gas pressure is too low or gas quality is bad. If so, contact your local gas supplier.

REPLACEMENT PARTS

NOTE: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

SERVICING

Repair and replacement work should only be performed by a qualified service technician.

Always shut off the gas supply and make sure heater is cool before beginning any service operation. Check for gas leaks after servicing.

REPAIR PARTS

A parts list with exploded view follows. Always include correct name, part number, and model number of the heater when ordering service parts. Please contact your local dealer or distributor when ordering. If one is not available, you may contact.

New Buck Corporation
8000 Highway 226 South
Spruce Pine, NC 28777

CLEANING AND MAINTENANCE

WARNING: Turn off burner system and let cool before cleaning.

CAUTION: You must keep control areas, burners, and circulating air passageways of burner system and stove clean. Inspect these areas of burner system and stove before each use. Have burner system and stove inspected yearly by a qualified service person. Burner system and stove may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.

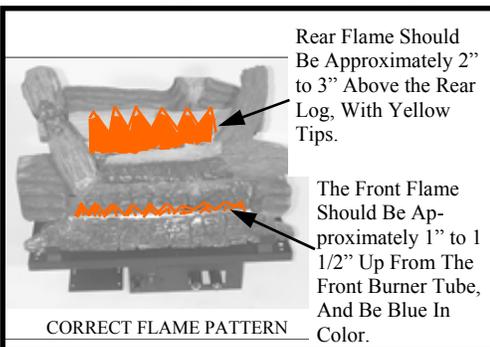
GLASS DOOR

Glass must be cleaned periodically. During

WARNING: Handle glass door panel with care. Do not strike, slam, or otherwise abuse glass. Do not operate burner system with the glass door removed, cracked, or broken.

Warning: Do not use abrasive cleaners as this may damage glass. Use a nonabrasive household glass cleaner to clean glass. Do not clean glass when hot.

start-up it is normal for condensation to form on the inside of the glass causing lint, dust, and other airborne particles to cling to the glass surface. During initial start-up a slight film may form on the glass due to paint curing. The glass should be cleaned several times with a non-ammonia, nonabrasive household cleaner and warm water after the first two weeks of operation. Thereafter, clean the glass two or three times during each heating season, depending on the usage and circumstances present. Refer to *Removing/Replacing Glass Door* on page 18 & 19 of this manual when removing glass door for cleaning.



CAUTION: The appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.

NOTE: The flow of combustion and ventilation air must not be obstructed.

WARNING: Only parts supplied by the manufacturer should be used when replacing broken or damaged glass door panel (see *Replacement Parts*, page 29). This glass door panel is a complete unit. No substitute materials may be used.

CAUTION: Wear gloves and safety glasses while handling or removing broken glass. Do not remove if glass is hot. Keep children and pets away from glass.

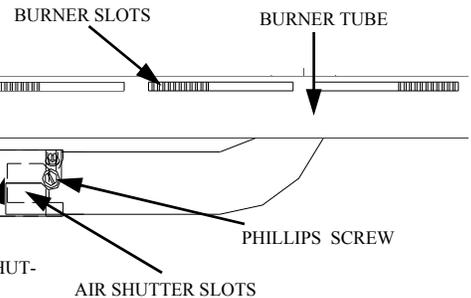
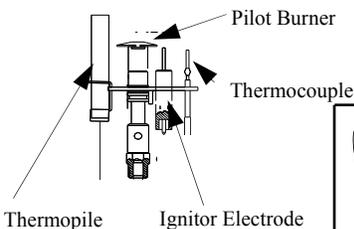
WARNING: Do not operate burner system with the glass door removed, cracked, or broken.

If glass has been broken, carefully remove glass door (See *Removing/Replacing Glass Door*, page 18 & 19). Vacuum all glass pieces with a shop vac. Use only the ceramic glass door replacement intended for this burner system (see *Replacement Parts*, page 29 for detail on ordering). No substitutions may be made. See *Removing/Replacing Glass Door*, page 18 & 19 for instructions for replacing glass door.

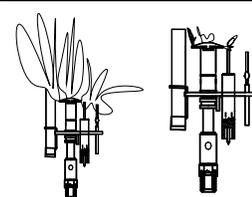
PILOT AND BURNERS

Periodic visual check of pilot and burner flames

- Burner and controls should be cleaned with compressed air to remove dust, dirt, or lint.
- Use a vacuum cleaner or small, soft bristled brush to remove excess dust, dirt, or lint.

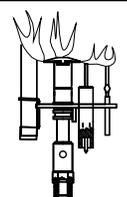


BURNER/ AIR SHUTTER



Incorrect flame patterns

Flame should engulf the tip end of the Thermopile and the Thermocouple, and should be constant. The flame should be Blue in color. And 3/4" to 1" in height.



Correct flame pattern

LOGS

- If you remove logs for cleaning, refer to *Installing Logs*, page 20 to properly replace logs.
- Use a vacuum cleaner to remove any carbon buildup on logs.
- Replace logs if broken. See *Replacement Parts* on page 29.

VENTING SYSTEM

Periodic examination of venting systems by a qualified agency.

1. Check areas of venting system that are exposed to the weather for corrosion (rust spots or streaks and, in extreme cases, holes). Have these items replaced immediately by a qualified service person.
2. Remove the vent cap and shine a flashlight into the vent. Remove any foreign material.
3. Check for evidence of excessive condensation. Continuous condensation can cause corrosion of caps, pipes, and fittings and can be caused by having excessive lateral runs, too many elbows, or exterior portions of the system being exposed to cold weather.
4. Inspect joints to verify that no pipe section or fitting has been disturbed and loosened. Check mechanical supports such as wall straps for rigidity.

NOTE: For direct vent design, proper reassembly and resealing of the vent-air intake system. (see Page 9, also Figure 20, on page 11)

TROUBLESHOOTING

Note: All troubleshooting items are listed in order of operation.

WARNING: Turn off burner system and let cool before servicing. Only a qualified service person should service and repair burner system or stove.

CAUTION: Never use a wire, needle, or similar object to clean pilot. This can damage pilot unit.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at pilot	<ol style="list-style-type: none"> Ignitor electrode not connected to ignitor cable Ignitor cable pinched or wet Piezo ignitor nut is loose Broken ignitor cable Bad piezo ignitor Ignitor electrode broken Ignitor electrode positioned wrong 	<ol style="list-style-type: none"> Reconnect ignitor cable Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry Tighten nut holding piezo ignitor. Nut is located behind the mounting bracket Replace ignitor cable Replace piezo ignitor Replace pilot assembly Replace pilot assembly
When ignitor button is pressed, there is spark at pilot but no ignition	<ol style="list-style-type: none"> Gas supply turned off or equipment shutoff valve closed Gas control knob not in PILOT position Gas control knob not pressed in while in PILOT position Air in gas lines when installed Depleted gas supply (propane/LP models only) Pilot is clogged Gas regulator setting is not correct 	<ol style="list-style-type: none"> Turn on gas supply or open equipment shutoff valve Turn gas control knob to PILOT position Press in gas control knob while in PILOT position Continue holding down gas control knob. Repeat igniting operation until air is removed Contact local propane/LP gas company Clean pilot (see <i>Cleaning and Maintenance</i>, page 25 or replace pilot assembly) Replace gas control
Pilot lights but flame goes out when control knob is released	<ol style="list-style-type: none"> Gas control knob not fully pressed in Gas control knob not pressed in long enough Equipment shutoff valve not fully open Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: <ol style="list-style-type: none"> Low gas pressure Dirty or partially clogged pilot Thermocouple connection loose at control valve Thermocouple damaged Control valve damaged 	<ol style="list-style-type: none"> Press in gas control knob fully After pilot lights, keep gas control knob pressed in 30 seconds Fully open equipment shutoff valve <ol style="list-style-type: none"> Contact local gas company Clean pilot (see <i>Cleaning and Maintenance</i>, page 25) or replace pilot assembly Hand tighten until snug, then tighten 1/4 turn more Replace thermocouple Replace control valve

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Burner does not light after pilot is lit	<ol style="list-style-type: none"> 1. Burner orifice clogged 2. Inlet gas pressure is too low 3. Thermopile leads disconnected or improperly connected 4. Thermopile is defective 	<ol style="list-style-type: none"> 1. Clean burner (see <i>Cleaning and Maintenance</i>, page 25) or replace burner orifice 2. Contact local propane/LP or natural gas company 3. Reconnect leads (see <i>Wiring Diagram</i>, page 30) 4. Replace thermopile
Delayed ignition burner	<ol style="list-style-type: none"> 1. Manifold pressure is too low 2. Burner porting or orifice clogged 	<ol style="list-style-type: none"> 1. Contact local propane/LP or natural gas company 2. Clean burner (see <i>Cleaning and Maintenance</i>, page 25) or replace burner orifice
Burner backfiring during combustion	<ol style="list-style-type: none"> 1. Burner orifice is clogged or damaged 2. Damaged burner 3. Gas regulator defective 	<ol style="list-style-type: none"> 1. Clean burner (see <i>Cleaning and Maintenance</i>, page 25) or replace burner orifice 2. Replace damaged burner 3. Replace gas control
Slight smoke or odor during initial operation	<ol style="list-style-type: none"> 1. Residues from manufacturing processes and logs curing 	<ol style="list-style-type: none"> 1. Problem will stop after a few hours of operation
Burner system produces a whistling noise when burner is lit	<ol style="list-style-type: none"> 1. Turning gas control knob to HI position when burner is cold 2. Air in gas line 3. Dirty or partially clogged burner orifice 	<ol style="list-style-type: none"> 1. Turn gas control knob to LO position and let warm up for a minute 2. Operate burner until air is removed from line. Have gas line checked by local propane/LP or natural gas company 3. Clean burner (see <i>Cleaning and Maintenance</i>, page 25) or replace burner orifice
Glass soots	<ol style="list-style-type: none"> 1. Flame impingement on logs 2. Debris around burner air mixer 	<ol style="list-style-type: none"> 1. Adjust the log set so that the flame does not excessively impinge on it 2. Inspect the opening at the base of the burner to see that it is NOT packed with any type of material
Burner system produces a clicking/ticking noise just after burners are lit or shut off	<ol style="list-style-type: none"> 1. Metal expanding while heating or contracting while cooling 	<ol style="list-style-type: none"> 1. This is common. If noise is excessive, contact qualified service person.
Remote does not function	<ol style="list-style-type: none"> 1. Battery is not installed or battery power is low 	<ol style="list-style-type: none"> 1. Replace 9-volt batteries in receiver and remote control

TROUBLESHOOTING

Continued

WARNING: If you smell gas

- **Shut off gas supply.**
- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

IMPORTANT: Operating burner system where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will dissipate over time.

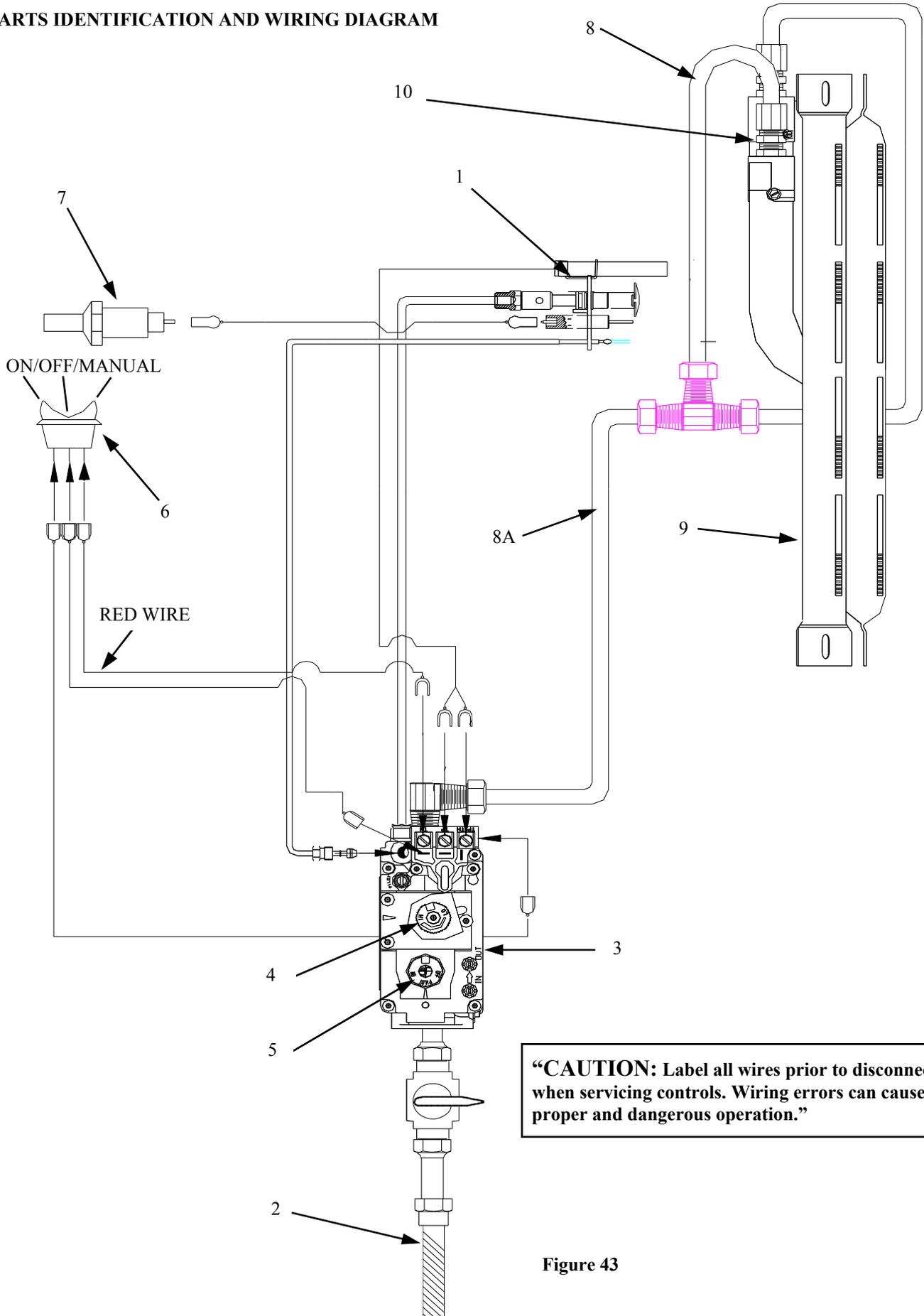
OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Burner system produces unwanted odors	1. Gas leak. See Warning statement above	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , pages 15 thru 17)
Burner system shuts off in use	1. High or gusting winds 2. Low line pressure 3. Pilot is partially clogged 4. Inner vent pipe leaking exhaust gasses into system 5. Glass too loose and air tight gasket leaks in corners after usage 6. Bad thermopile or thermocouple 7. Improper vent cap installation	1. Burner system has been tested for up to 40 mph winds. However, extreme conditions may occur. See <i>Lighting Instructions</i> on page 21-22 2. Contact local propane/LP or natural gas company 3. Clean pilot (see <i>Cleaning and Maintenance</i> , page 25) 4. Locate and correct all leaks (see <i>Checking Gas Connections</i> , pages 15 thru 17) 5. Tighten glass 6. Replace faulty component 7. Check for proper installation and freedom from debris or blockage
Gas odor even when control knob is in OFF position	1. Gas leak. See Warning statement above 2. Control valve defective	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , pages 15 thru 17) 2. Replace control valve
Gas odor during combustion	1. Gas leak. See Warning statement above	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , pages 15 thru 17)
Dark residue on logs or inside of burner system	1. Improper log placement 2. Air holes at burner inlet blocked 3. Burner flame holes blocked	1. Properly locate logs (see <i>Installing Logs</i> , page 20) 2. Clean out air holes at burner inlets. Periodically repeat as needed 3. Remove blockage or replace burner

PARTS LIST
FOR CDV200LP L/P LIQUID PROPANE AND CDV200NAT NATURAL GAS
BURNER SYSTEMS (DIRECT VENT FIREBOX)

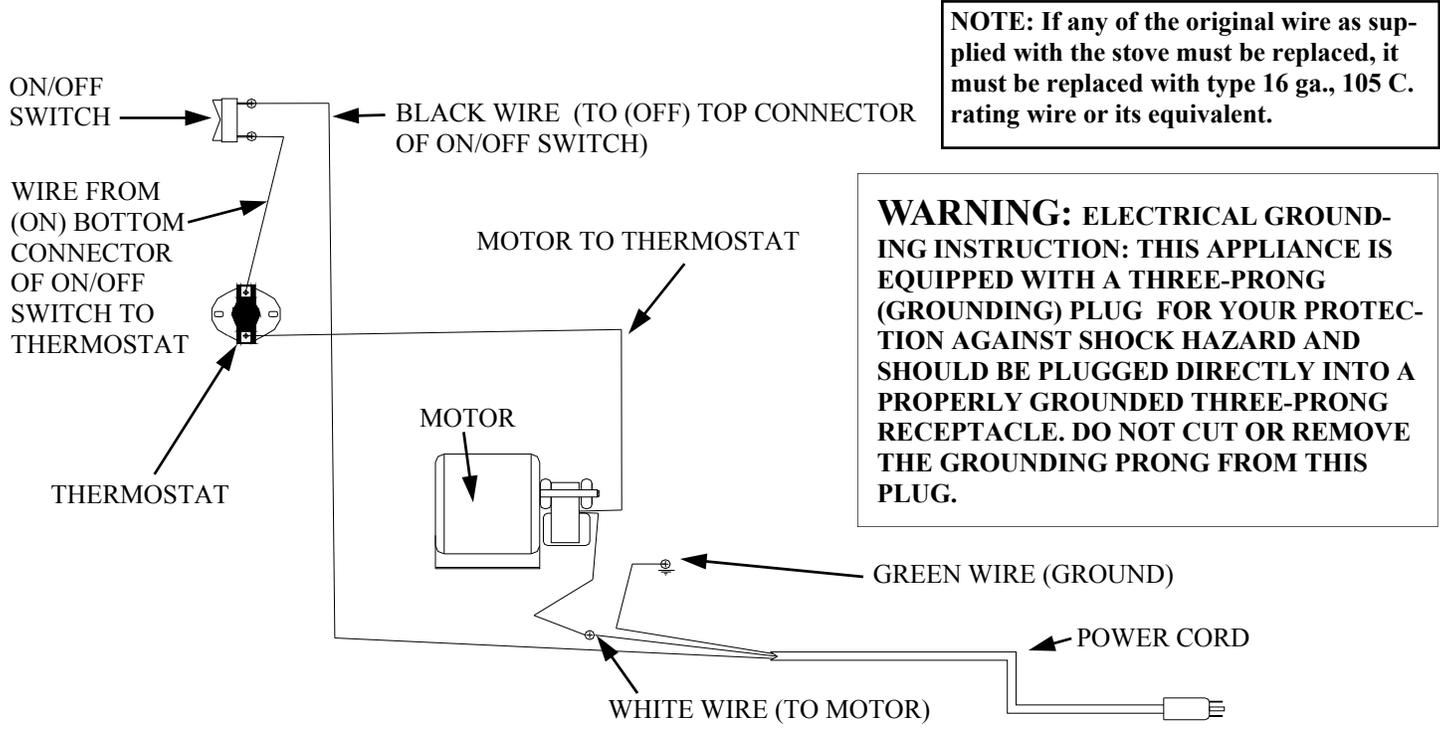
KEY #	PART #	DESCRIPTION #
1	PE 199616	PILOT ASSEMBLY NATURAL GAS
	PE 199615	PILOT ASSEMBLY L.P.
2	PO 10-2121-12	FLEXIBLE SUPPLY LINE
3	PE 820633	(SIT) MILLIVOLT VALVE NATURAL GAS
	PE 820634	(SIT) MILLIVOLT VALVE L.P.
4	PE 916188	ON/OFF KNOB EXTENSION
5	PE 916189	HI/LO KNOB EXTENSION
6	PE RC211RB	AUTO/OFF/MANUAL
7	PE 124461	PIEZO STRIKER
8	POT6-06	6" MANIFOLD SUPPLY LINE
8A	POT6-12	12" MANIFOLD SUPPLY LINE
9	PO H- BURN001	18" H-BURNER
10	PO 62MVORF	L.P. FRONT ORIFICE CDV200LP (ONLY)
	PO 55MVORF	L.P. REAR ORIFICE CDV200LP (ONLY)
	PO 53MVORF	NAT. FRONT ORIFICE CDV200NAT (ONLY)
	PO 44MVORF	NAT. REAR ORIFICE CDV200NAT (ONLY)
11	PERA911VB	ON/OFF SWITCH
12	PE A2-40-01	1/2 PINT MOTOR
13	PE 400132	THERMOSTAT
14	PE 400240	POWER CORD
15	PE 400320	STRAIN RELIEF
16	PGCDV081	GLASS DOOR COVER

Refer to pages 30 and 31 .

PARTS IDENTIFICATION AND WIRING DIAGRAM

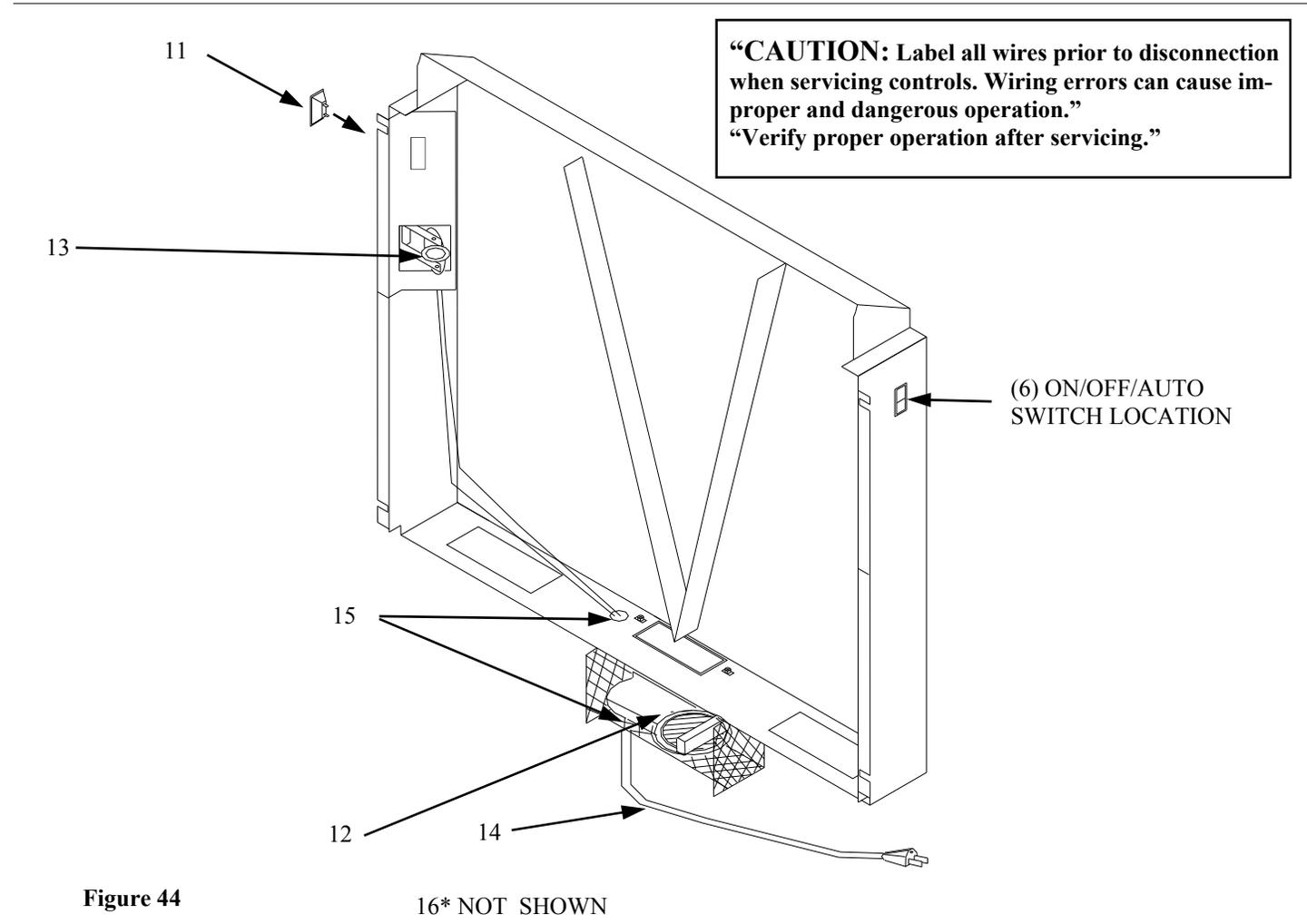


PARTS IDENTIFICATION AND WIRING DIAGRAM



NOTE: If any of the original wire as supplied with the stove must be replaced, it must be replaced with type 16 ga., 105 C. rating wire or its equivalent.

WARNING: ELECTRICAL GROUNDING INSTRUCTION: THIS APPLIANCE IS EQUIPPED WITH A THREE-PRONG (GROUNDING) PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG.

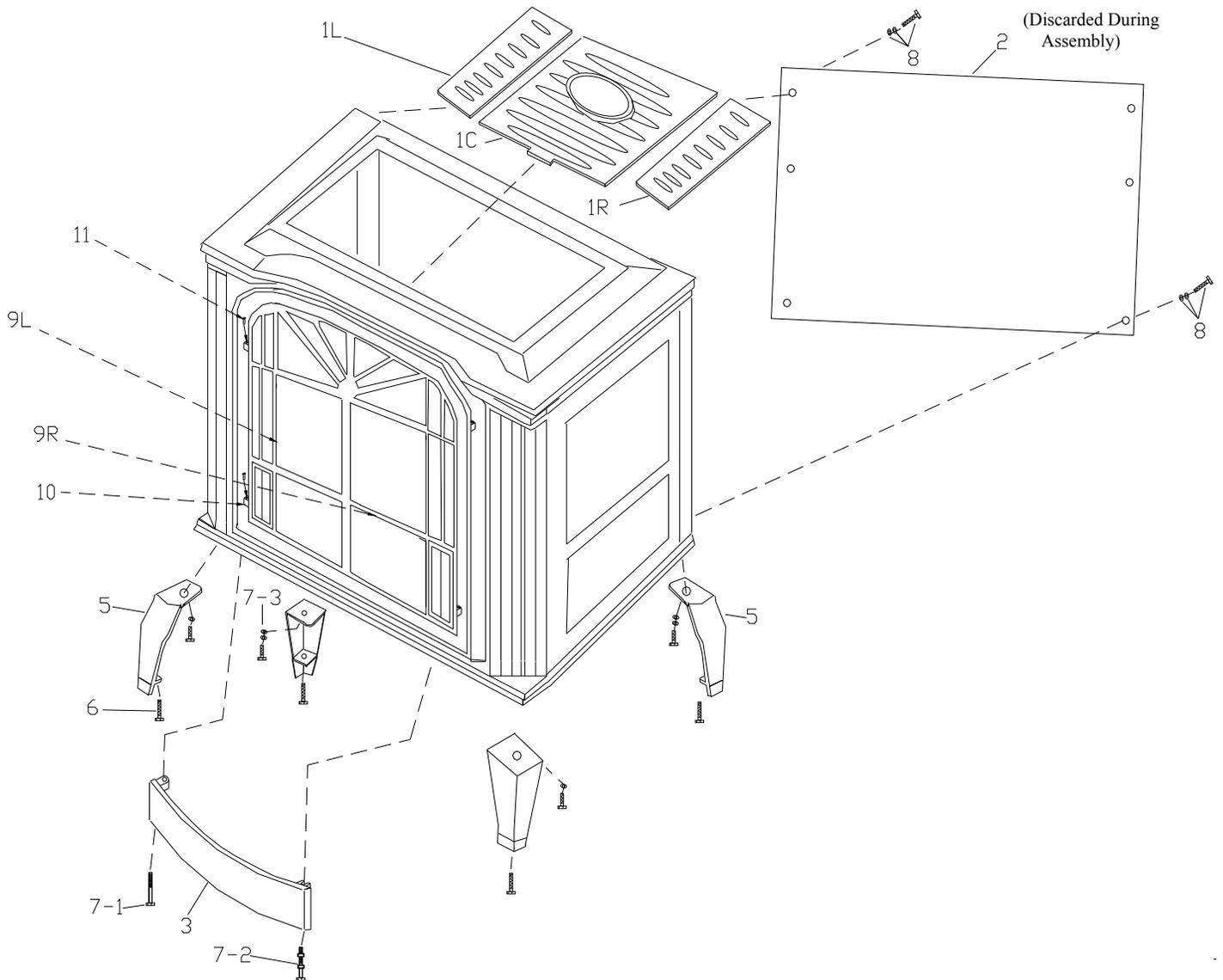


“CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.”
“Verify proper operation after servicing.”

Figure 44

16* NOT SHOWN

PARTS BREAKDOWN FOR CAST STOVE SERIES TOWNSEND II



SEE PAGE 33 FOR PARTS DESCRIPTION AND PART NUMBERS.

PARTS LIST

TOWNSEND II

(* INDICATES COLOR SUFFIX DESIGNATION)

KEY QTY.NO.	PART NO.	DESCRIPTION	
1C	104171-02	Top Grate with Screen (Center) (Black Only)	1
1L	104171-03	Top Grate with Screen (Left) (Black Only)	1
1R	104171-04	Top Grate with Screen (Right) (Black Only)	1
2	104172-02	Stove Back Panel (Black Only) (Optional on some models)	1
3	104173-09	Bottom Door (Metallic Green)	1
	104173-10	Bottom Door (Metallic Black)	1
	104173-11	Bottom Door (Porcelain Enamel Black)	1
	104173-13	Bottom Door (Porcelain Enamel Almond)	1
	104173-14	Bottom Door (Porcelain Enamel Green)	1
	104173-15	Bottom Door (Porcelain Enamel Red)	1
(4)	104174-04	Stove Dropped Bottom (Not Used)	—
5	104175-09	One Leg (Metallic Green) (4 Total Per Stove)	1
	104175-10	One Leg (Metallic Black) (4 Total Per Stove)	1
	104175-11	One Leg (Porcelain Enamel Black) (4 Total Per Stove)	1
	104175-13	One Leg (Porcelain Enamel Almond) (4 Total Per Stove)	1
	104175-14	One Leg (Porcelain Enamel Green) (4 Total Per Stove)	1
	104175-15	One Leg (Porcelain Enamel Red) (4 Total Per Stove)	1
6	104176-01	Leg Leveler bolt M8 x 1.25-55mm Long (4 Total Per Stove)	1
7	104177-02	Hardware	1
7-1	*	Door Hinge Step Bolt With Shoulder (1 Per Unit)	1
7-2	*	Door Catch Bolt M8 x 1.25-55mm Long With Two M8 Hex Nuts (1 Per Unit)	1
7-3	*	Bottom Floor Bolts M6 x 1-25mm Long with Flat Washer and Lock Washer (4 per unit) (Optional on some models)	—
7-4	*	Leg Bolts M6 x 1.25mm Long With Flat Washer And Lock Washer (4 Per Unit)	1
8	104178-01	Back Panel Bolts M6 x 1.20mm Long With Flat Washer And Lock Washer (6 Installed Per Unit)	1
9L	104179-09	Double Door (Left) (Metallic Green)	1
9L	104179-10	Double Door (Left) (Metallic Black)	1
9L	104179-11	Double Door (Left) (Porcelain Enamel Black)	1
9L	104179-13	Double Door (Left) (Porcelain Enamel Almond)	1
9L	104179-14	Double Door (Left) (Porcelain Enamel Green)	1
9L	104179-15	Double Door (Left) (Porcelain Enamel Red)	1
9L	104180-09	Double Door (Right) (Metallic Green)	1
9R	104180-10	Double Door (Right) (Metallic Black)	1
9R	104180-11	Double Door (Right) (Porcelain Enamel Black)	1
9R	104180-13	Double Door (Right) (Porcelain Enamel Almond)	1
9R	104180-14	Double Door (Right) (Porcelain Enamel Green)	1
9R	104180-15	Double Door (Right) (Porcelain Enamel Red)	1
10	104181-01	Double Door Hinge (2 Per Side/4 Per Unit)	1
11	104181-02	Double Door Hinge Pins (2 Per Side/4 Per Unit)	1

**PARTS AVAILABLE-NOT SHOWN
TOWNSEND II**

PART NO.	DESCRIPTION	QTY.
104108-05	Touch-up Spray Paint 12 oz. Can (Metallic Green)	1
104108-09	Touch-up Spray Paint 12 oz. Can (Metallic Black)	1
104107-04	Touch-up Spray Paint with Brush (Porcelain Enamel Black)	1
104107-06	Touch-up Spray Paint with Brush (Porcelain Enamel Almond)	1
104107-07	Touch-up Spray Paint with Brush (Porcelain Enamel Green)	1
104107-08	Touch-up Spray Paint with Brush (Porcelain Enamel Red)	1
106057-03	Back Panel Extension, Left (Included)	1
106057-04	Back Panel Extension, Right (Included)	1

WARRANTY
LIMITED FOUR YEAR WARRANTY
FOR THE BUCK STOVE AND RELATED PRODUCTS

PLEASE READ THIS WARRANTY CAREFULLY

This warranty covers your new heating unit, so long as it is owned by the original purchaser, including optional and standard accessories purchased at the same time, subject to terms, limitations, and conditions herein set out. To make a claim under this warranty the Bill of Sale or Cancelled check must be presented.

This warranty will not cover any damage and/or failure caused by abuse or improper installation of the products covered.

WARRANTY

For a four (4) year period from the date of purchase, as long as the heater is owned by the original purchaser, NBC will repair or replace, at its option, any part defective in materials or workmanship, with the exception of: optional and standard accessories, glass, gaskets and all parts not permanently attached to the heating unit. Parts not permanently attached to the heating unit are defined as those items designed to be removed from the stove, including those removable with common hand tools. The cost of parts only are included. The customer pays any labor or transportation charges required.

Electrical motors, wiring, switches, gas components and all parts not permanently attached are warranted for one (1) year from date of purchase. Customer pays any transportation charges.

PROCEDURE

Should you feel that your heater is defective, you should contact any NBC dealer for the name of your nearest authorized heater service representative, who will instruct you on the proper procedure.

CONDITIONS AND EXCLUSIONS

- (A) Replacement of parts may be in the form of new or fully reconditioned parts, at NBC's option.
- (B) There are no other warranties express or implied including warranties of Merchantability, Fitness for Purpose, or Otherwise except those warranties expressly stated herein.
- (C) NBC is not liable for indirect, incidental, or consequential damages in connection with the use of the product including any cost or expense of providing substitute equipment or service during periods of malfunction or non-use.

Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

(D) All warranty repairs under this warranty must be performed by an authorized Buck Stove service representative. Repairs or attempted repairs by anyone other than an authorized service representative are not covered under this warranty. In addition, these unauthorized repairs may result in additional malfunctions, the correction of which is not covered by warranty.

OTHER RIGHTS

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.