

Westley-820/821

FREESTANDING GAS FIREPLACE

OWNER'S MANUAL





WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

CERTIFIED TO/CERTIFIÉ AUX: ANSI Z21.88 / CSA2.33 / CSA 2.17

SAFETY PRECAUTIONS



WARNING:

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- 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.
 - Leave the building immeadiately.
 - Immeadiately 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.

INSTALLER:

Leave this manual with the appliance.

CONSUMER:

Retain this manual for future reference.

This appliance may be installed in an after-market permanently located, manufactured (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, unless a certified kit is used.

Only doors certified with the appliance shall be used

Massachusetts installations (Warning): This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts. Other Massachusetts code requirements: Flexible connector must not be longer than 36in., a shut off valve must be installed; only direct vent sealed combustion products are approved for bedrooms/bathrooms. A carbon monoxide detector is required in all rooms containing gas fired direct vent appliances. The fireplace damper must be removed or welded in the open position prior to installation of a fireplace insert.

SAFETY PRECAUTIONS

FOR SAFE INSTALLATION AND OPERATION OF YOUR "ENVIRO" HEATER, PLEASE CAREFULLY READ THE FOLLOWING INFORMATION:

- All ENVIRO gas-fired appliances must be installed in accordance with their instructions. Carefully read all the instructions in this manual first. Consult the building authority having jurisdiction to determine the need for a permit prior to commencing the installation.
- **NOTE**: Failure to follow these instructions could cause a malfunction of the fireplace, which could result in death, serious bodily injury, and/or property damage.
- Failure to follow these instructions may also void your fire insurance and/or warranty.

GENERAL

- Installation and repair should be done by a qualified service person. The appliance should be inspected before the first use and, at least, annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative the control compartments, burners and circulating air passageways of the appliance be kept clean.
- Due to high temperatures, the appliance should be located out of high traffic areas and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burn or clothing ignition.

- Young children should be carefully supervised when in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is required if there are at risk individuals in the house. To restrict access to a fireplace or stove install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces. Any safety screen, guard, or barrier removed for servicing an appliance must be replaced prior to operating the appliance.
- Clothing or other flammable materials should not be placed on or near the appliance.

• A barrier designed to reduce the risk of burns from the hot veiwing glass is provided with this appliance and shall be installed for the protection of children and other at-risk individuals. If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance

FOR YOUR SAFETY

- Installation and service must be performed by a qualified installer, service agency or gas supplier.
- This installation must conform to 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.
- To prevent injury, do not allow anyone who is unfamiliar with the stove to operate it.
- To prevent injury, if the pilot or pilot and burners have gone out on their own, open the glass door and wait 5 minutes to air out before attempting to relight the stove.
- Always keep the area around these appliances clear of combustible material, gasoline and other flammable liquids and vapours.
- These appliances should not be used as a drying rack for clothing or for hanging Christmas stockings/decorations.
- Due to the paint curing on the stove, a faint odor and slight smoking will likely be noticed when the stove is first used. Open a window until the smoking stops.

Always connect this gas stove to a vent system and vent to the outside of the building envelope. Never vent to another room or inside the building. Make sure the specified vent pipe is used, properly sized and of adequate height to provide sufficient draft. Inspect the venting system annually for blockage and signs of deterioration.

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

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

- Never use solid fuels such as wood, paper, cardboard, coal, or any flammable liquids, etc., in this appliance.
- 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 or any gas control which has been under water.
- Do not abuse the glass by striking it or slamming the door shut.
- If the Westley unit is pulled out of its installation, and the vent-air intake system is disconnected for any reason, ensure that the vent-air intake pipes are reconnected and re-sealed in accordance to the instructions noted in Initial Installation Direct Vent





HOT GLASS WILL CAUSE BURNS

DO NOT TOUCH GLASS UNTIL COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed for the protection of children and other at-risk individuals.

TABLE OF CONTENTS

Safety Precautions	2
Table of Contents	4
Codes And Approvals	5
Specifications	6
Dimensions	6
Rating Label Location	
Operating Instructions	
Lighting Instructions	
Pilot Light	
Air Shutter	
Burner Lighting	
Blower Speed	
Normal Sounds During Operation	
Maintenance and Service.	
Routine Maintenance	
Cleaning Decorative Surfaces	
Cleaning the Glass	
Cleaning the Firebox	
Replacing the Glass	
Flashout Guard	
Cast Door Removal	
Glass Door Removal	
Burner Removal	
Fuel Conversion	
Initial Installation	
Preparation for Installation	
Clearance to Combustibles	
Direct Vent	
Venting Clearances	
Approved Venting Parts	
Vent Termination Restrictions	
Exhaust Restrictor Setting	
Horizontal Termination - Minimum Vent.	
Allowable Vent Configurations	
Horizontal Termination	
Vertical Termination	
B-Vent Drafthood Adaptor (50-3667)	
Gas Line Connection and Testing	
Electrical Requirements	
Secondary Installation	
Log Set Installation	
Safety Screen Replacement	
Trouble Shooting	
Parts List	
Notes	
Warranty	
Installation Data Sheet	46

CODES AND APPROVALS

DIRECT VENT ONLY: This type is identified by the suffix DV. This appliance draws all of its air for combustion from outside the dwelling, through a specially designed vent pipe system.

This appliance has been tested and approved for installations from 0 feet to 4500 feet (1372 m) above sea level.

- In the USA: The appliance may be installed at higher altitudes. Please refer to your American Gas Association guidelines which state: the sea level rated input of Gas Designed Appliances installed at elevations above 2000 (610 m) feet is to be reduced 4% for each 1000 feet (305 m) above sea level. Refer also to local authorities or codes which have jurisdiction in your area regarding the de-rate guidelines.
- In Canada: When the appliance is installed at elevations above 4500 feet (1372 m), the certified high altitude rating shall be reduced at the rate of 4% for each additional 1000 feet (305 m).
 - This appliance has been tested by INTERTEK and found to comply with the established VENTED GAS FIREPLACE HEATER standards in CANADA and the USA as follows:

VENTED GAS FIREPLACE HEATER

TESTED AND LISTED TO: ANSI Z21.88 / CSA 2.33 VENTED GAS FIREPLACE HEATERS

CSA 2.17 GAS FIRED APPLIANCES FOR HIGH ALTITUDES

CSA P.4.1 TESTING METHOD FOR MEASURING ANNUAL FIREPLACE EFFICIENCY

This ENVIRO Westley Fireplace:

- Has been certified for use with either natural or propane gases. (See rating label.)
- Is not for use with solid fuels.
- Is approved for bedroom or bed sitting room. (IN CANADA: must be installed with a listed wall thermostat. IN USA: see current ANSI Z223.1 for installation instructions.)
- Must be installed in accordance with local codes. If none exist, use current installation code CAN/CGA B149.1 in Canada or ANSI Z223.1/NFPA 54 in the USA.
- Must be properly connected to an approved venting system and not connected to a chimney flue serving a separate solid-fuel burning appliance.

IMPORTANT NOTICE (Regarding first fire up): When the unit is turned on for the first time, it should be turned onto high without the fan on for the first 4 hours. This will cure the paint, logs, gasket material and other products used in the manufacturing process. It is advisable to open a window or door, as the unit will start to smoke and can irritate some people. After the unit has gone through the first burn, turn the unit off including the pilot, let the unit get cold then remove the glass door and clean it with a good gas fireplace glass cleaner, available at your local ENVIRO dealer.



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

DIMENSIONS:

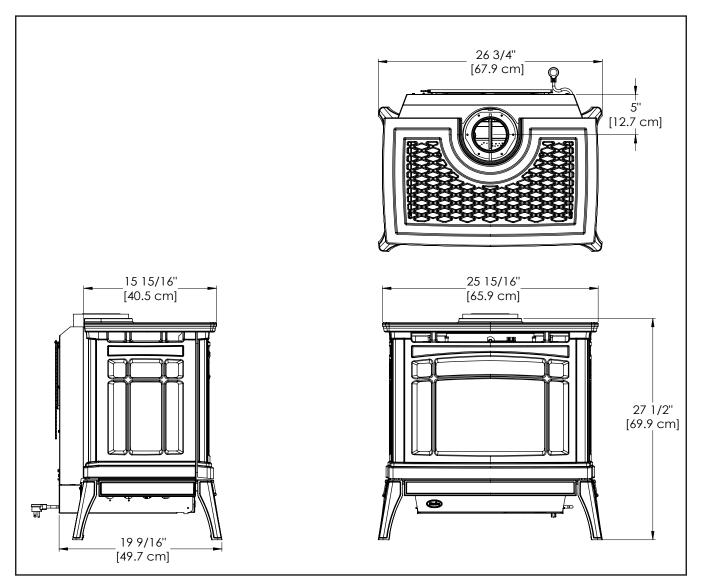


Figure 1. Westley Dimensions

RATING LABEL & LIGHTING INSTRUCTIONS LOCATION:

The rating label and lighting instructions are located on a plate hanging on the back of of the unit.

For Your Safety, Read Safety Precautions And **Lighting Instructions Before Operating**

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY OF LOSS OF LIFE.

LIGHTING AND TURNING OFF INSTRUCTIONS:

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:

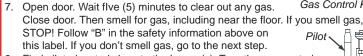
Do not try to light any appliance. Do not touch any electrical switch; do not use any phone in your building. Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

If you cannot reach your gas supplier, call the fire department.

- 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.
- 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 above on this label.
- 2. Set the thermostat to the lowest setting.
- 3. This appliance is equipped with an on-demand pilot that shuts off after 7 consecutive days of main burner inactivity.
- 4. Turn off all electric power to this appliance.
- Open the front control panel for valve knob access
- 6. Turn off the gas control knob clockwise to the "OFF" position.



8. Find pilot - located close to the burner(s). Turn the gas control knob counter-clockwise
to "PILOT". Push the gas control in fully and hold, keep knob depressed for about 60 seconds after the pilot is lit or until an audible "BEEP" is heard. Release knob. If pilot goes out, repeat steps 4 through 5. WARNING: This gas valve has a lockout device, which will not allow the pilot burner to be relit until the thermocouple has cooled.

-If the 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 clockwise to "OFF" and call your service technician or gas supplier.

- 9. Turn the gas control knob counter clockwise to the "ON" position. Flip the burner switch to "ON" then turn the "HI/LOW" knob to the desired setting.
- 10. Close the front control panel.
- 11. Turn on all electric power to the appliance.
- 12. Set thermostat to desired setting.

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to the lowest setting.

- 4. Turn the gas control knob clockwise to the "OFF" position.
- 2. Turn off all electric power to the appliance if service is to be performed. 5. Close the front control panel.

Open the front control panel and flip burner switch to "OFF"

C-16294

Figure 2. Lighting Instruction Label

PILOT LIGHT:

- 1. Turn off the gas to the fireplace. If not recently done, remove the glass and let the unit air out for at least five (5) minutes to clear out any gas. Turn on gas to the heater.
- 2. Start the pilot by pressing in the gas control knob (Figure 5) and turning it to PILOT. While pushing the gas control knob in, press the piezo ignitor several times until the pilot light starts. Hold the control knob down: Westley-820 Models Hold for approximately 30 seconds. Westley-821 Models Hold until an audible "BEEP" is emitted from the valve (up to 1 minute).

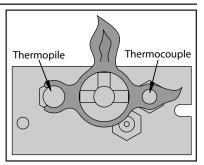


Figure 3. Pilot Flame

3. Release the control knob and check that the pilot has fully engulfed the thermocouple assembly (see Figure 3).

Westley-821 Model Note: The pilot will automatically self-extinguish after 7 consecutive days of continuous operation without any main burner activity. Should this occur the pilot can simply be re-lit by turning the control knob to OFF then following steps 2 & 3 above.

AIR SHUTTER:

Behind the valve access door is the air shutter adjustment lever on the right hand side of the venturi box (see Figure 4) above the control panel. The air shutter allow the amount of air coming into the fireplace to be adjusted in order to accommodate different climates and venting arrangements. Start the pilot and then the burner. Make sure the pilot flame is burning normally and none of the burner ports are plugged. Let the fireplace burn for roughly fifteen minutes and then examine the flames, compare the flames to Figure 47 on page 35.

The ideal flame will be blue at the base and light orange above. The flames should be of medium height. If the flames look like this, no venturi adjustment is needed. If the flames are fairly short and mostly blue, the fireplace is getting too much air. Therefore, the air shutter should be closed (pushed in) slightly until the correct flames

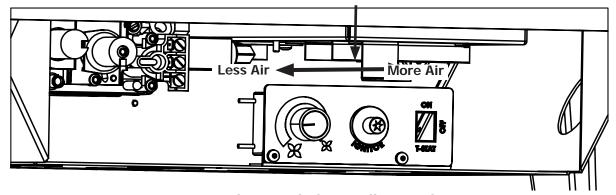


Figure 4. Air shutter adjustment lever.

are achieved. Flames that are very orange, with tall, dark, stringy tips, are not getting enough air. Open (pull out) the venturi until the flames clean up. If the shut is opened, or closed all the way, and the correct flames cannot be attained, turn off the gas and contact the dealer.

Warning: Incorrect shutter adjustment may lead to improper combustion, which is a safety hazard. Contact the dealer if there is any concern about the venturi adjustment.

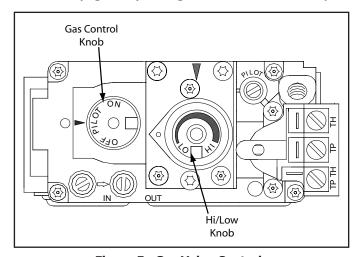
REMOTE CONTROLS:

This fireplace can use an optional remote control or wall thermostat. If either of these are to be used to control the fireplace for the majority of the time, leave the burner switch (Figure 7) in the remote/thermostat position. Consult the instructions included with the remote/wall thermostat for operation guidelines.

For Your Safety, Read Safety Precautions And Lighting Instructions Before Operating

BURNER LIGHTING:

The gas valve and control panel (Figures 5 & 6) are located behind the valve access door at the front of the stove (Figure 4). To light the burner correctly follow the steps below:



Piezo Ignitor

ON

T-STAT

Fan Control

Figure 5. Gas Valve Controls

Figure 6. Control Panel

- A) Make sure the pilot is lit (see PILOT LIGHT section) .
- B) Turn gas control knob COUNTER CLOCKWISE to ON.
- C) Flip the burner switch, located at the top right rear of the Westley to ON (see Figure 7)
- D) Turn the HI/LO knob to the desired flame height.

NOTE: Check that all burner holes are lit.

TO TURN GAS FIREPLACE OFF:

Flip switch to OFF to turn off burners only.

If the fireplace is to be turned off for the season, or for servicing, turn the gas shut off valve to OFF located at the bottom right on the backside of the Westley. DO NOT FORCE IT. If the unit is going to be serviced, turn off the electrical power to the unit as well.

NOTE: When the unit is turned on for the first time, it should be turned onto high, with the fan OFF, for the first two to four hours. This will cure the paint, logs, gasket material, and other products used in the manufacturing process. It is advised that a door or window be opened as the unit will start to smoke, which can irritate some people. After the unit has gone through the first burn,

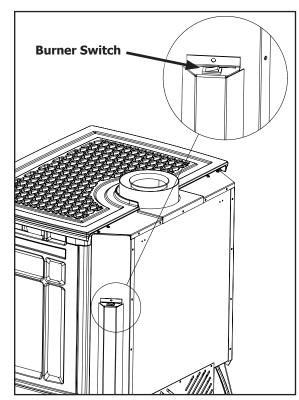


Figure 7. Burner Switch

turn the unit OFF, including the pilot, and let the unit get completely cold. Then remove the glass and clean it with a good gas fireplace glass cleaner, available at your local Enviro dealer. See "MAINTENANCE AND SERVICE; GLASS DOOR REMOVAL" and "MAINTENANCE AND SERVICE; CLEANING THE GLASS."

BLOWER SPEED:

The blower will come on only when the fireplace is up to temperature (approximately 15 minutes). The speed of the fan can be changed by turning the fan control knob. The blower will continue to operate automatically after the unit has been shut off (approximately 25 minutes). To turn the blower off, turn the knob COUNTER CLOCKWISE until it "clicks" off (Figure 6).

It is advisable not to operate the blower below 1/3 speed as it puts a strain on the windings of the blower and running the blower at lower speeds could also cause premature fan failure.

NORMAL SOUNDS DURING OPERATION:

Table 1: Normal Sounds

Component	Sound & Reason
Firebox	Creaking when heating up or cooling down.
Burner	Pop or poof when turned off; this is more common with LP units.
Pilot Flame	Quiet whisper while the pilot flame in on.
Blower / Fan	Air movement that increase and decreases with the speed of the blower. The blower is pushing the heat from the fireplace into the room.
Gas Control Valve	Dull click when turning on or off, this is the valve opening and closing.

MAINTENANCE AND SERVICE

ROUTINE MAINTENANCE:

At least once a year, run through the following procedures to ensure the system is clean and working properly. Check the burner to see if all the ports are clear and clean. Check the pilot to make sure it is not blocked by anything. The pilot flame should be blue with little or no yellow on the tips.

Warning: Clearances must be sufficient to allow access for maintenance and service

Warning: Failure to position the parts in accordance with this manual, or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

The venting system must be periodically examined; it is recommended the examination is done by a qualified agency.

CLEANING DECORATIVE SURFACES:

Painted, powder coated, or porcelain enameled surfaces should be wiped with a damp cloth periodically. Never clean the face when it is hot. Do not use other cleaners as they may leave a residue, which can become permanently etched into the surface.

CLEANING THE GLASS:

When the fireplace has cooled, remove the face of the fireplace along with the glass. See MAINTENANCE AND SERVICE - GLASS DOOR REMOVAL. Check the gasket material on the back of the glass, making sure that it is attached and intact.

During a cold start up, condensation will sometimes form on the glass. This is a normal condition with all fireplaces. However, this condensation can allow dust and lint to cling to the glass surface. Initial paint curing of the appliance can leave a slight film behind the glass, a temporary problem. The glass will need cleaning about two weeks after installation. **Use a mild glass cleaner and a soft cloth**. **Abrasive cleaners will damage the glass and painted surfaces.** Depending on the amount of use, the glass should require cleaning no more than two or three times a season. **Do not clean the glass when it is hot**.

CLEANING THE FIREBOX:

Remove the logs carefully, as they are very fragile. Carefully clean any dust off the logs and remove any lint from the burner and pilot. At this time, inspect the ceramic burner for cracking. If a problem is suspected, contact the dealer. Check the logs for deterioration or large amounts of soot; a small amount on the bottom side of the logs is normal. Replace the logs as shown in the Secondary Installation - Log Set Installation section. If any logs are damaged, contact your nearest ENVIRO dealer.

REPLACING THE GLASS:

The glass in the fireplace is a high temperature ceramic. If the glass is damaged in any way, a factory replacement is required (see PARTS LIST). Wear gloves when handling damaged glass door assembly to prevent personal injury. Do not operate with the glass front removed, cracked or broken. Removal and replacement of the glass from the door **must** be done by a licensed or qualified service person. **The glass must be purchased from an ENVIRO dealer. No substitute materials are allowed.** Remove the door (see page 12). The replacement glass will come with a new gasket installed. Remove any silicone remnants from the door. Apply high temperature silicone to the two vertical faces of the door and install the new piece of glass with gasket (be sure to maintain edge clearances). Apply even pressure to the glass to allow the silicone to adhere to the gasket material.

FLASHOUT GUARD:

This unit is equipped with a flashout guard that automatically stands up to serve as protection if a delayed ignition were ever to occur. The flashout guard should always be in the down position (Figure 8) during regular operation of the stove. If the guard is for some reason left in the up position (Figure 9) it will effect the volume of convective air discharging from the front of the stove and must be reset to the down position.

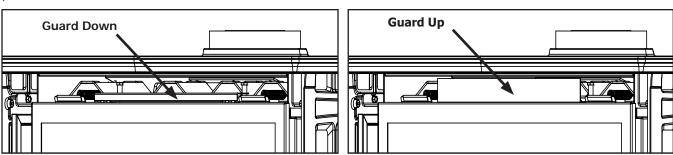


Figure 8: Flashout Guard Down (Default)

Figure 9: Flashout Guard Up

CAST DOOR REMOVAL:

The cast door on the Westley needs to be removed whenever access to the firebox is required. First the Westley must be turned off and allowed to fully cool. Next, remove the Cast Top as shown in Figure 10 by simply lifting up. Lay the cast top down on a towel or blanket to prevent scratching of the finish. The cast door, with safety screen attached, can now be removed by lifting up to unhook it from the cast sides. Lay the door face down on a towel or blanket to prevent scratching of the finish. To re-install the cast door simply reverse the procedure.

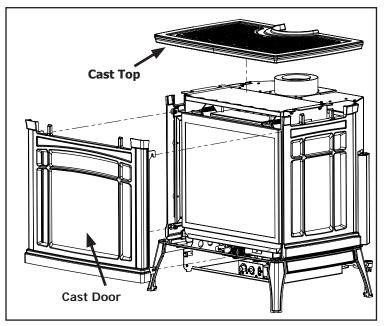


Figure 10. Cast Door Removal

GLASS DOOR REMOVAL:

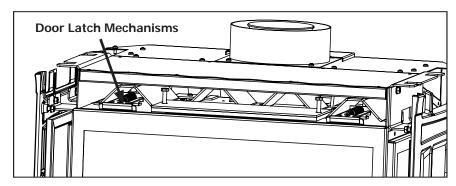


Figure 11. Top latches for glass door (cast top and door removed)

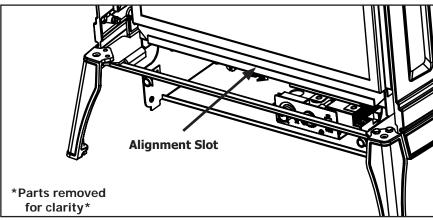


Figure 12. Bottom Alignment Slot for glass door.

In order to install the log set, and for regular cleaning, the glass door must be removed. The cast front must first be removed, as outlined in the section above, before accessing the door latches. There are two (2) door latch mechanisms on top the glass door as shown in Figure 11. Each latch can be pulled straight out and up by hand. When the top latches are unhooked, the door can be lifted up out of the alignment slot at the bottom of the firebox, shown in Figure 12.

To replace the glass door, simply reverse the above procedure.

Warning: Do not touch or attempt to remove the glass door if the fireplace is not completely cold.

WARNING: Never operate the fireplace with the glass door removed.

BURNER REMOVAL:

The burner may need to be removed for a few reasons, including cleaning under the burner, converting the unit to a different gas type, or to replace the burner altogether. **Proceed only when the unit has completely cooled down.** Refer to Figure 13 and the outlined steps below.

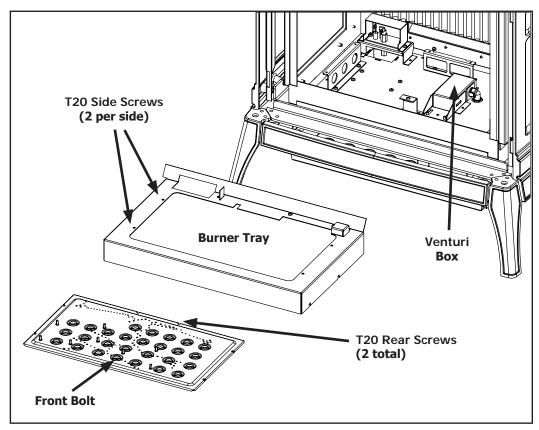


Figure 13. Burner Removal

- 1. Remove the cast top, cast front and glass door as outlined in the two previous sections
- 2. Remove the log set in the reverse procedure as shown in SECONDARY INSTALLATION LOG SET INSTALLATION
- 3. Unscrew the four (4) side screws retaining the burner tray using a **T20 screwdriver** and remove the burner tray by first lifting it up over the pilot shield and then out of the firebox.
- 4. Unscrew the two (2) rear burner screws using a **T20** screwdriver.
- 5. Unsrew the front burner bolt, located in the middle of the front row of burner holes, using a **5/32**" **Allen head** screwdriver or wrench.
- 6. Slide the burner to the left to disengage it from the venturi box then lift it up and out of the firebox.

With the burner removed it is recommended to inspect for any loose fasteners or signs of leakage. **Note**, some burner warpage is normal after prolonged use. Now is also a good time to vacuum out any loose burner media or debris from the firebox. To re-install the burner follow steps 1-6 in reverse.

When re-installing the burner be sure to properly engage it with the venturi box prior to installing any fasteners. **Note**, the front burner bolt only needs to be hand tight, **DO NOT** cinch down or use a drill when re-installing.

FUEL CONVERSION:

TO BE INSTALLED BY A QUALIFIED SERVICE AGENCY ONLY

Please read and understand these instructions before installing.

Warning: This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper or complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

Kit Parts List for all Westley models:

- 1 Orifice (NG: #38) or (LP: #52) 1- Steel Air Deflector (**LP kits only**)
- 1 Pilot Orifice (LP supplied with unit) 1 Installation instruction sheet

1 - Conversion label

Carefully inspect all parts supplied with this conversion kit. If any parts have been damaged or are missing, contact your dealer, distributor or courier company to have them replaced before starting this installation

Conversion Kit Installation:

- 1. Turn control knob on the gas valve to the "OFF" position and shut the gas supply off at the shut-off valve upstream of the unit. CAUTION: The gas supply must be shut off prior to disconnecting the electrical power and before proceeding with the conversion. Allow the valve and unit to cool down to room temperature.
- 2. Remove the glass door as shown in the MAINTENANCE AND SERVICE GLASS DOOR REMOVAL.
- 3. Carefully remove the log set.
- 4. Remove the burner as shown in the MAINTENANCE AND SERVICE BURNER REMOVAL.
- 5. Convert the pilot orifice:
 - a) Using a 7/16" wrench, loosen the pilot head counter clockwise and remove
 - b) Remove the existing orifice and replace with the one supplied in the kit (Figure 14)
 - c) Re-install the pilot head and tighten until it is back in the proper position (Figure 15)
- 6. Convert the burner orifice:
 - a) Remove the main burner orifices with a 1/2" deep socket
 - b) Put a bead of pipe-thread sealant into the orifice mount. DO NOT OVER-**TIGHTEN**
 - c) Install the new orifice.



Figure 14: Pilot Orifice



Figure 15: Proper **Pilot Position**

- 7. Convert the SIT gas valve:
- a) Remove the black protection cap from the HI/LO knob by hand shown in Figure 16.
- b) Insert a 5/32" or 4 mm Allen wrench into the hexagonal key-way of the screw (see Figure 17), rotate it counter-clockwise until it is free and extract it.
- c) Check that the screw is clean and if necessary remove dirt.
- d) Flip the screw (refer to Figure 18).
- e) Using the Allen wrench as shown in Figure 17, rotate the screw clockwise until a torque of 9 inch lbs. **WARNING!** Do not over tighten the screw. It is recommended that you grip the wrench by the short side.
- f) Verify that if the conversion is from NG to LPG, the screw must be re-assembled with the red o-ring visible (refer to Figure 19). If the conversion is from LPG to NG, the red o-ring of the screw must be not visible.
- g) Re-attach the black protection cap that was removed in step a (Figure 16).

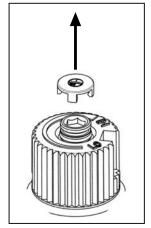


Figure 16: Removing valve cap.

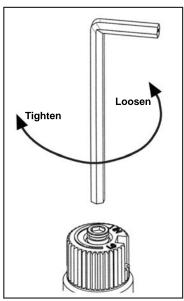


Figure 17: Removing valve screw.

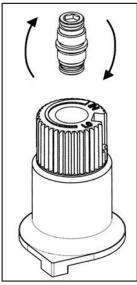


Figure 18: Flip valve screw.

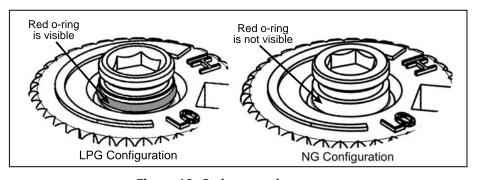


Figure 19: O-ring on valve screw.

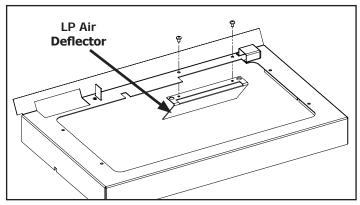


Figure 20. LP Air Deflector Installation

- 8. **LP Conversions Only**: Install the supplied steel air deflector onto the burner tray as shown below (Figure 20) using a T20 screwdriver.
- Reinstall the burner, tray, log set, and glass door. Also refer to SECONDARY INSTALLATION

 LOG SET INSTALLATION in your Owner's Manual. When re-installing the burner, ensure that the burner to pilot hood and shield relationship is similar to what is shown in Figure 21.
- 10. Reconnect the main gas line if it was disconnected and open the shut-off valve at the gas line to the unit.
- 11. Reconnect the electrical power to the unit.
- 12. Use a small brush to apply a warm soapy water solution to all gas connections (use a half dish soap and half warm water). If a gas leak is present, bubbling will occur. Gas leaks can be repaired by using an approved pipe thread sealant or approved Teflon tape. NEVER USE AN OPEN FLAME WHEN TESTING FOR LEAKS.



Figure 21: Pilot assembly beside the burner.

- 13. Relight the pilot and confirm the flame properly covers both the thermocouple and thermopile (see Figure 3, page 8). Should the pilot require adjustment, turn the adjustment screw (page 34) clockwise to decrease or counterclockwise to increase until the correct flame is achieved.
- 14. Relight the main burner in both the "HI" and "LO" positions to verify proper burner ignition, operation and proper flame appearance (page 38). Confirm the inlet and manifold pressures are within the acceptable ranges as directed in section Intial Intallation Gas Line Connection and Testing. If the Westley has been installed at an altitude higher than 2000ft (610m) it is required to de-rate the unit accordingly:
 - In the USA: The appliance may be installed at higher altitudes. Please refer to your American Gas Association guidelines which state: the sea level rated input of Gas Designed Appliances installed at elevations above 2000 (610 m) feet is to be reduced 4% for each 1000 feet (305 m) above sea level. Refer also to local authorities or codes which have jurisdiction in your area regarding the derate guidelines.
 - **In Canada**: When the appliance is installed at elevations above 4500 feet (1372 m), the certified high altitude rating shall be reduced at the rate of 4% for each additional 1000 feet (305 m).
- 15. MAKE SURE that the conversion label is installed on or close to the rating label to signify that the unit has been converted to a different fuel type.

QUALIFIED INSTALLERS ONLY

INTRODUCTION:

This section of the owner's manual is for the use of qualified technicians only. Fireplace placement, hearths, and venting terminations will be covered, as well as the gas and electrical systems. There are several installation safety guidelines that must be adhered to. Please carefully read the safety precautions at the front of this manual.

PREPARATION FOR INSTALLATION:

- Remove the packaging from the appliance, and check to make sure there is no damage. If damage is found, please report it to both the carrier and your dealer as soon as possible.
- Before beginning, carefully check the glass door and the log set
- Locate a position where the flue system of the stove can be properly installed without damaging the integrity of the building; e.g. cutting a wall or ceiling joist.
- Check stove and flue system clearance requirements.
- Locate the stove where it can be accessed by a gas supply line.
- Locate the stove in a large and open room that is centrally located in the house. This will optimize heat circulation and comfort.
- As the Westley is equipped with a convection fan, ensure that an electrical outlet is within 6 ft (1.8 m) of the stove.
- The flow of combustion and ventilation air must not be obstructed.

CLEARANCE TO COMBUSTIBLES:

Warning: Clearances must be sufficient to allow access for maintenance and service.

A. Sidewall to unit 10.25" (26.0 cm)

B. Backwall to unit 5.0" (12.7 cm)

C. Corner to unit 5.0" (12.7 cm)

D. Ceiling to unit 35" (88.9 cm)

E. Floor (hard wood & linoleum) 0"

Note: When installing on a carpeted surface a hearth pad must be used (not supplied).

MINIMUM ALCOVE DIMENSIONS:

Width 46.5" (118.1 cm)
Height 62" (157.5 cm)
Depth (Max.) 48" (121.9 cm)

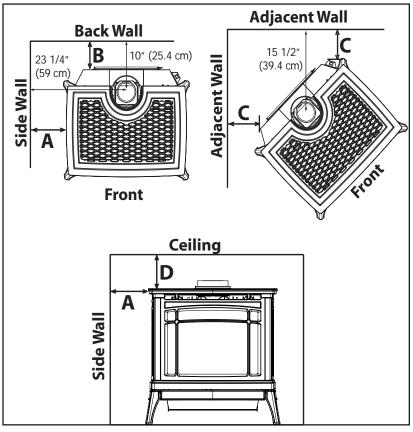


Figure 22. Clearance to Combustibles

QUALIFIED INSTALLERS ONLY

DIRECT VENT:

WARNING: This appliance has been designed to draw room air for proper heat circulation from the bottom of the unit, and out the top front. Blocking or modifying these openings in any way can create hazardous situations.

The vent length for the Westley must be between 36'' (91 cm) and 44ft (13.4 m). This model is vented with co-axial 4" intake, 6.5/8" exhaust aluminum or stainless steel approved rigid vent leading into a vertical or horizontal termination cap. The flue collar of this model will fit inside of a standard $4'' \times 6.5/8$ " vent and must be either correctly interlocked or fastened, with three screws directly to the vent.

Check periodically that the vents are unrestricted. Also ensure that all direct vent pipes have been properly sealed and installed after routine inspection or cleaning. The air intake and exhaust pipes must be installed in the correct location on top of the Westley.

VENTING CLEARANCES:

A 1" (25 mm) clearance to combustibles must be maintained around any vertical vent pipe. Around a horizontal vent pipe, the clearance to combustibles should be 2" (51 mm) above and $1\frac{1}{2}$ " (38 mm) on the sides and bottom. When combustible materials are directly above a 90° elbow, 3" (76 mm) of clearance are necessary.

Table 2. Vent Pipe Minimum Clearances.

		Vertical Pipe to the Side Walls	Horizontal Pipe to the Sides & Bottom	Above an Elbow Above the Unit	Above an Elbow Not Above the Unit	Above Horizontal Vent Pipe	Wall Frame 8" (203mm) or less
	Hard	1"	1½″	3″	3″	2"	10"x10"
١	Pipe	(25.4 mm)	(38.1 mm)	(76.2 mm)	(76.2 mm)	(51 mm)	(25x25cm)

A 10" (254 mm) x 10" (254 mm) frame (see Figure 23) will assure the proper support and spacing for the vent pipe as it passes through the wall. Installations in Canada require that a wall thimble be used for passing through walls and ceilings. All sealing and vapour barriers must comply with local building codes.

The configuration of the venting pipes depends on the locations of walls, ceilings, and studs. However, the pipes cannot be of arbitrary length and arrangement. Because the length of the vertical and horizontal sections dramatically affects the burning efficiency of the fireplace, certain guidelines have been set in INITIAL INSTALLATION - ALLOWABLE VENT CONFIGURATIONS. Venting terminals can not be recessed into a wall or siding.

WARNING: This gas appliance must not be connected to a chimney flue serving a separate solid-burning appliances.

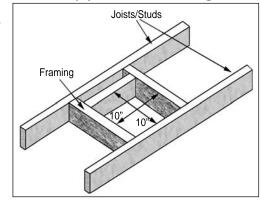


Figure 23. Vent Framing For Wall or Ceiling.

APPROVED VENTING PARTS:

The Westley fireplace has been tested and certified for use with the venting systems shown in Tables 3 & 4. Refer to the table below for part numbers of commonly used parts for both venting systems. For more venting parts please visit the respective manufacturers' website.

Table 3: Approved Vent Manufacturers

Manufacturer	Trade Name	Nominal Sizes	
ICC	EXCELDirect		
M&G DuraVent	DirectVent Pro	A" v 6 E 10"	
Selkirk	Direct-Temp	4" x 6 5/8"	
Amerivent	Direct Vent		

QUALIFIED INSTALLERS ONLY

WARNING: Do not mix parts from different vent manufacturers' systems.

EXCEPTION TO WARNING: This product has been evaluated by Intertek for using a DirectVent Pro starting collar in conjunction with other venting systems. Use of this system with the DirectVent Pro starting collar is deemed acceptable and does not affect the Intertek listing of the appliance.

Table 4: Vent part numbers (Must state if galvanized or black wanted, PART NUMBERS).

Direct Vent	Direct-Temp	DirectVent Pro	EXCELDirect	Description		
4D7 (7")	4DT-06	46DVA-06	DL6	6" Pipe Length		
><	4DT-09	46DVA-09	DL9	9" Pipe Length		
4D2	4DT-12	46DVA-12	DL1	12" Pipe Length		
	4DT-18	46DVA-18	><	18" Pipe Length		
	4DT-24	46DVA-24	DL2	24" Pipe Length		
4D3	4DT-36	46DVA-36	DL3	36" Pipe Length		pproved ermination Cap
4D4	4DT-48	46DVA-48	DL4	48" Pipe Length		op Adapter
		46DVA-60		60" Pipe Length		
4D26A	4DT-TL14	46DVA-24TA	DLA30	Adjustable Length		
4D45L	4DT-EL45	46DVA-E45	4DE45	45° elbow		
4D90L	4DT-EL90S	46DVA-E90	4DE90	90° elbow		_
4DHVS	4DT-VS	46DVA-VSS	VSS	Vinyl siding standoff/sheild		Existing Metal Chimney System
4DWT	4DT-WT	46DVA-WT	4WT	Wall thimble		4-inch aluminum flex
4DSC	4DT-SC	46DVA-SC	SC	Storm collar		pipe
4DFSP	4DT-FS	46DVA-WFS	4CS	Fire stop		
4DWS	4DT-WS	46DVA-WS	WS	Wall strap/ support/band	Conversion	
4DF	4DT-AF6	46DVA-F6	4FA	Flashing, standard roof pitch	Connector	Any black direct vent
4DF12	4DT-AF12	46DVA-F7	4FB	Flashing, steep (up to 12/12) roof		pipe plus an adjustable length
><		46DVA-FF	4F	Flat flashing		to make a proper
		46DVA-VCH	SVT	High wind vertical termination		connection
4DHCS	4DT-HC	46DVA-HC	НТ	High wind horizontal termination	4	
	4DT-HKA / 4DT-HKB	46DVA-KHC	4HTK	Horizontal termination kit	1	
	4DT-CCKA	46DVA-KCA	4CA6	Chimney Conversion Kit A	_	
4DRCKA	4DT-CCKB	46DVA-KCB	4CA7	Chimney Conversion Kit B	USA ONLY	
		46DVA-KCC	4CA8	Chimney Conversion Kit C		

QUALIFIED INSTALLERS ONLY

VENT TERMINATION RESTRICTIONS:

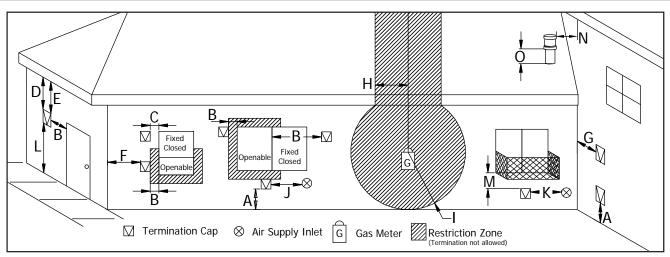


Figure 24. Vent Termination Restrictions, refer to Table 5.

Table 5: Vent termination clearances.

Letter	Canadian Installation 1	US Installation ²	Description
А	12 in (30 cm)		Clearance above grade, verandah, porch, deck, or balcony.
В	12 in (30 cm)	9 in (23 cm)	Clearance from window or door that may be opened.
С	12 in (:	30 cm)*	Clearance from permanently closed window (to prevent condensation).
D	24 in ((50 cm)*	Vertical clearance to ventilated soffit located above the terminal, within a horizontal distance of 2 ft (60 cm) from center line of terminal.
Е	14 in (3	35.5 cm)	Clearance to unventilated soffit.
F	12 in (3	30 cm)*	Clearance to outside corner.
G	12 in (30 cm)	Clearance to inside corner.
Н	3 ft (91 cm) within a height of 15 ft (4.5 m) above the meter/ regulator assembly	3 ft (91 cm) within a height of 15 ft (4.5 m) above the meter/ regulator assembly*	Clearance to each side of center line extended above meter/regulator assembly.
I	3 ft (91 cm)	3 ft (91 cm)*	Radial clearance around service regulator vent outlet.
J	12 in (30 cm)	9 in (23 cm)	Clearance to non-mechanical air supply inlet to building, or the combustion air inlet to any other appliance.
К	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally	Clearance to mechanical air supply inlet.
L	7 ft (2.13 m ^{) t}	7 ft (2.13 m) ^{*†}	Clearance above paved sidewalk or paved driveway located on public property.
М	14 in / 35.5 cm ⁺	14 in / 35.5 cm ⁺	Clearance under verandah, porch, deck, or balcony.
N	12 in (30 cm)*		Clearance horizontally to any surface (such as an exterior wall) for vertical terminations.
0	12 in (30 cm)	Clearance above roof line for vertical terminations.

¹ In accordance with the current CSA B149, Natural Gas and Propane Installation Code.

Clearances are in accordance with local installation codes and the requirements of the gas supplier.

² In accordance with the current ANSI Z223.1 NFPA 54, National Fuel Gas Code.

^{*} These numbers are only estimates.

^t A vent shall not terminate directly above a side walk or paved driveway that is located between two single family dwellings and it serves both dwellings.

⁺ Permitted only if verandah, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

QUALIFIED INSTALLERS ONLY

EXHAUST RESTRICTOR SETTING:

The Westley has an internal exhaust restrictor that can adjusted externally while the fireplace is in operation. Depending on the length of venting required for installation this may need to be adjusted. The restrictor is accessed from the front of the fireplace through the discharge opening as shown below (Figure 25). Using a 7/16" socket on a 12-14" long extension, rotate the restrictor COUNTER-CLOCKWISE until the required setting is inline with the finger catch. Refer to the following Allowable Venting Configuration graphs for the required restrictor setting. The proper setting is crucial for an efficient burn and best flame appearance.

It may be necessary to deviate from the recommended setting as different altitudes and climates can vary the operation of the fireplace. With propane (LP) fueled fireplaces, it is always a good idea ot offer slightly less restriction for higher altitudes to reduce the potential of sooting over an extended period.

Note: The restrictor is set in the fully open position (0) from the factory

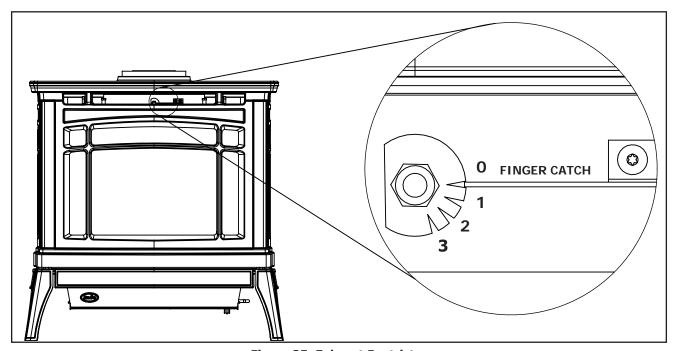


Figure 25: Exhaust Restrictor

QUALIFIED INSTALLERS ONLY

ALLOWABLE MINIMUM VENT LENGTH:

Refer to Table 6 and Figure 26 below for the minimum allowable venting setup for the Westley. Note, when installing at minimum vent length only the following horizontal terminations are approved for use:

Table 6: Approved Minimum Vent Terminations

Manufacturer	Part Number	
M&G DuraVent DirectVent Pro	46DVA-HC	
Mag Duravent Directivent Pro	46DVA-H2*	

^{*}Throttle set to the most open position

Note: When installing <u>above minimum allowable venting</u> any horizontal termination listed in Table 4 (page 19) is permitted for use.

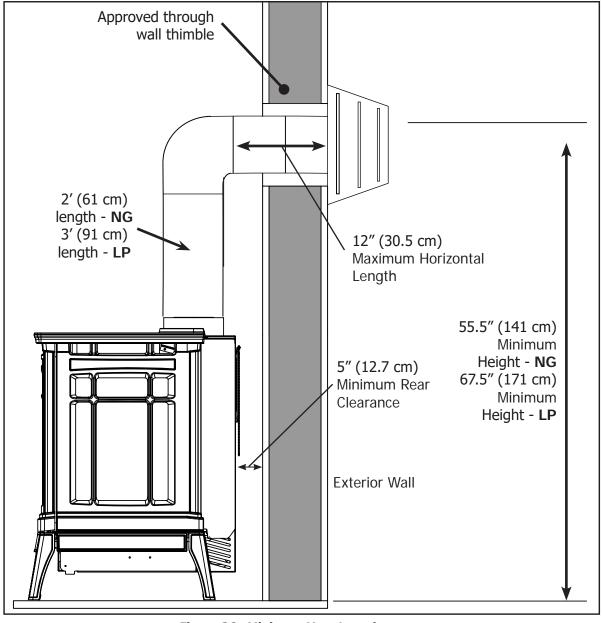


Figure 26. Minimum Vent Length

QUALIFIED INSTALLERS ONLY

ALLOWABLE VENT CONFIGURATIONS:

The following charts show the range of venting options available using either vertical or horizontal terminations in conjunction with 0 - 3 90° elbows in the vertical plane. Any planned layout that remains within the shaded areas is acceptable. Having the fewest number of elbows is ideal as they restrict air flow. The **total length of horizontal vent pipe can not exceed 24ft (7.3m)** and the **total vertical length can not exceed 40ft (12.2m)**. Any combination of rise and run can be used as long as it lays within the shaded areas of the following charts. A total of three (3) 90° elbows or six (6) 45° elbows can be used as shown in Figures 27 & 28. In addition to what is shown, if a 90° elbow is used in the horizontal plane, 3 ft (91.4cm) must be subtracted from the allowable horizontal run (for each 45° elbow, 1.5ft (45.7cm) must be subtracted).

Restrictor Setting: Find the point on the chart where your vent configuration will terminate. Remember to consider that elbows in the HORIZONTAL plane account for horizontal distance as stated above. Use the corresponding exhaust restrictor setting indicated on the chart. See the previous section of this manual for further restrictor details.

HORIZONTAL TERMINATION - 1 ELBOW:

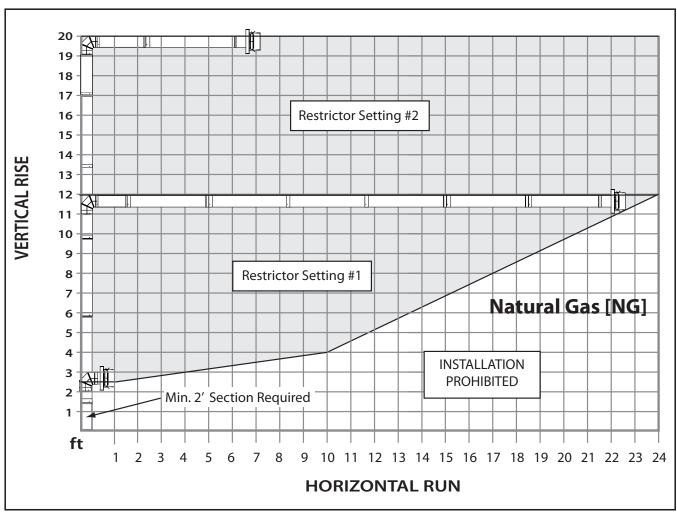


Figure 27: Horizontal Termination - 1 Elbow [NG]

QUALIFIED INSTALLERS ONLY

HORIZONTAL TERMINATION - 1 ELBOW:

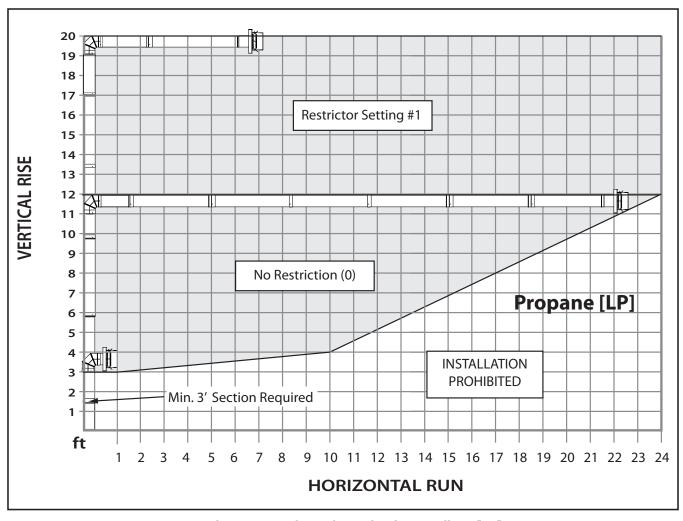
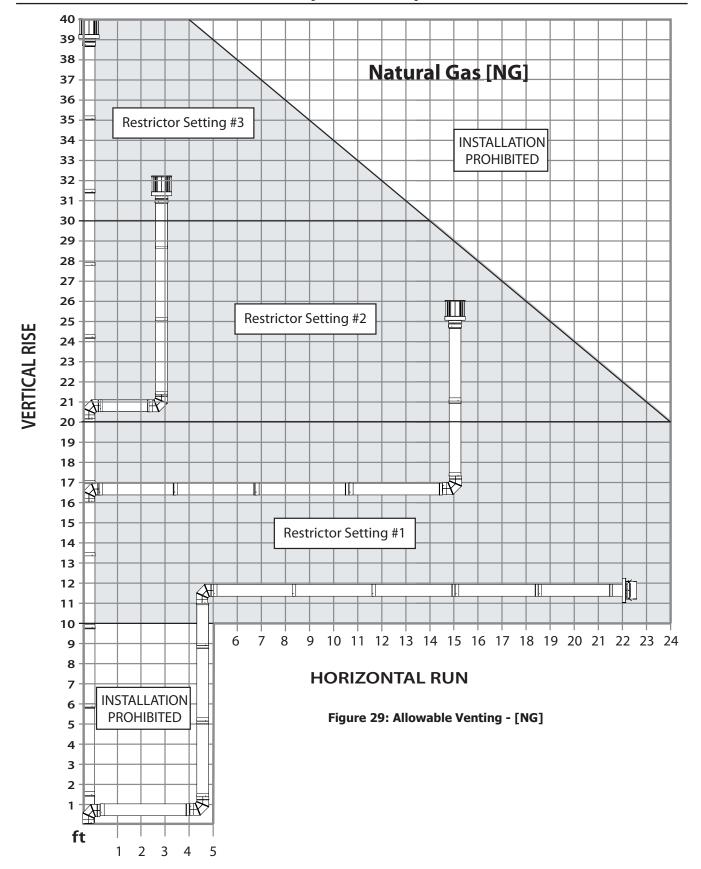


Figure 28: Horizontal Termination - 1 Elbow [LP]

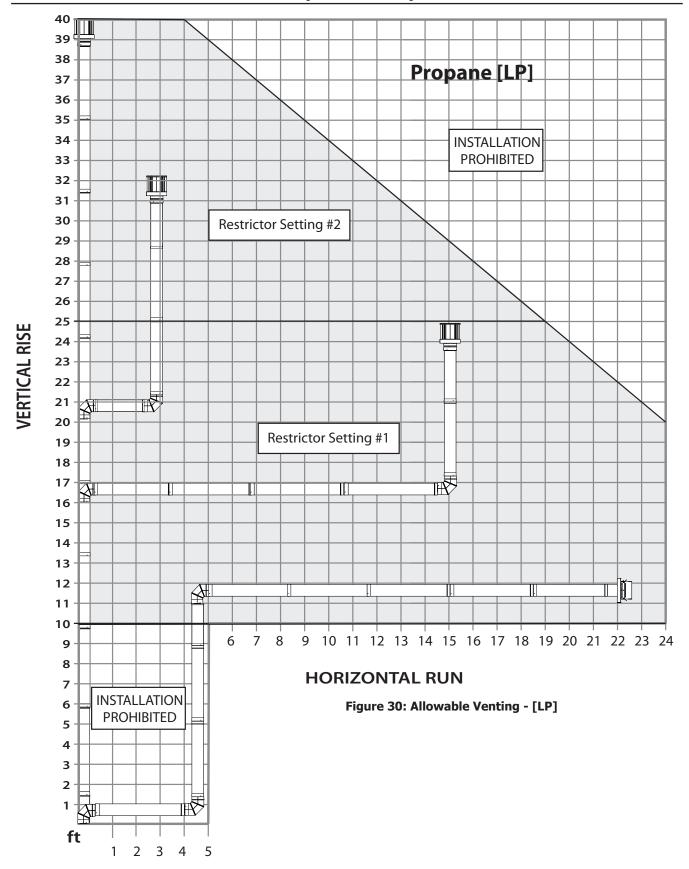
QUALIFIED INSTALLERS ONLY

HORIZONTAL & VERTICAL TERMINATIONS (0 - 3 ELBOWS):



QUALIFIED INSTALLERS ONLY

HORIZONTAL & VERTICAL TERMINATIONS (0 - 3 ELBOWS):



QUALIFIED INSTALLERS ONLY

HORIZONTAL TERMINATION:

NOTES:

- 1. Horizontal pipes must not be level. For every 12 inches (305 mm) of horizontal travel (away from the stove), there should be at least ¼ inch (6.4 mm) of vertical travel. Never allow the vent to run downward, as this could cause high temperatures or even present the possibility of a fire.
- 2. The exterior of the horizontal vent termination must not be blocked or obstructed.
- 3. If the vent termination is not being attached to wood, the four wood screws provided should be replaced with material appropriate fasteners.
- 4. For buildings with vinyl siding, a vinyl standoff should be installed between the vent cap and the exterior wall. Attach the vinyl siding standoff to the horizontal termination. Note that the termination bolts onto the flat portion of the standoff, providing an air space between the wall and the vent termination. The air gap prevents excessive heat from possibly melting the vinyl siding.
- 5. Horizontal pipes must be supported every 3 feet (914 mm). Plumber's all round strap will suffice.

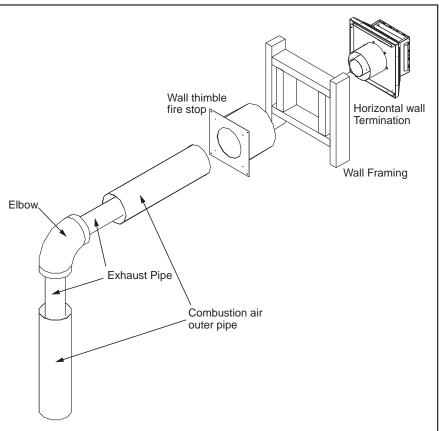


Figure 31. Horizontal Vent Termination

- 6. When running horizontal pipe, clearances to combustibles must be maintained 1½ inches (38 mm) sides, 1½ inches (38 mm) bottom, and 2 inches (51 mm) top.
- **Step 1.** Set the fireplace in the desired location. Check to determine if wall studs will be in the way when the venting system is attached. If this is the case, the location of the fireplace may have to be adjusted or the venting may have to be offset.
- **Step 2.** Direct vent pipe sections are designed with special twist-lock connections. Dry fit the desired combination of pipe and elbows to the appliance adaptor.
- **Step 3.** With the pipe in the correct position and attached to the fireplace, mark the wall for a 10 inches (25.4 cm) x 10 inches (25.4 cm) square hole (see Figure 23). The center of the hole should match the center line of the horizontal pipe. Cut and frame the hole in the exterior wall where the vent will be terminated. If the wall being penetrated is made of a non-combustible material (i.e. masonry or concrete) a 7 inches (17.8 cm) hole is acceptable.

QUALIFIED INSTALLERS ONLY

- **Step 4.** With the hole now framed, the wall thimble installed, and the pipe extending into the wall, proceed to the outside. Attach the termination to the pipe using RTV and Mil-Pac or Rutland No 78 Stove and Gasket Cement to seal joints. The vent pipe must extend into the vent cap at least 1½ inches (3.2 cm). Secure the connection between the vent cap and the pipe by attaching the two (2) sheet metal straps, which extend from the vent cap assembly to the outer wall of the vent pipe. Bend any remaining portion of the strap back towards the vent cap. Security Secure Vent uses a twist lock cap.
- **Step 5.** Position the horizontal vent termination in the center of the 10 inches (25.4 cm) square hole and attach to the exterior wall with the four screws provided. The arrow on the vent termination should be pointing up. Run a bead of non-hardening mastic around the edges of the vent cap, to make a seal with the wall. Ensure the proper clearances to combustibles have been maintained.

VERTICAL TERMINATION:

- **Step 1.** Check the instructions for required clearances (air spaces) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, or other nearby combustible surfaces. Do not pack air spaces with insulation.
- **Step 2.** Set the gas appliance in the desired location. Drop a plumb bob down from the ceiling to the position of the appliance flue exit, and mark the location where the vent will penetrate the ceiling. Drill a small hole at this point. Next, drop a plumb bob from the roof to the hole previously drilled in the ceiling, mark the spot where the vent will penetrate the roof. Determine if ceiling joists, roof rafters, or other framing will obstruct the venting system. You may wish to relocate the appliance, or to offset, to avoid cutting load bearing members.
- **Step 3.** To install the Round Support Box/Wall Thimble in a flat ceiling, cut a 10 inch (25.4 cm) square hole in the ceiling, centered in the hole drilled in Step 2. Frame the hole as shown in Figure 23.
- Step 4. Assemble the desired lengths of black pipe and elbows necessary to reach from the appliance adapter up through the Round Support Box. Insure that all pipe and elbow connections are in their fully twist-locked position.

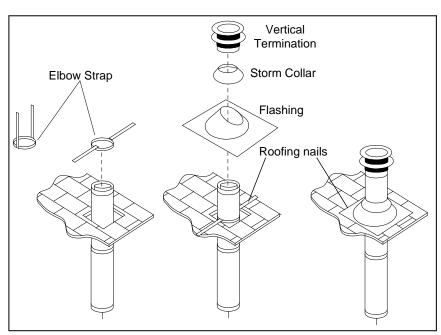


Figure 32. Vertical Vent Termination

QUALIFIED INSTALLERS ONLY

- **STEP 5**. Cut hole in the roof centered on the small hole placed in the roof from Step 2. The hole should be of sufficient size to meet minimum requirements for Clearance to Combustibles, as specified. Continue to assemble lengths of pipe and elbows necessary to reach from the ceiling support box up through the roof line. Galvanized pipe and elbows may be utilized in the attic, as well as above the roof line. The galvanized finish is desirable above the roof line, due to the higher corrosion resistance.
- **STEP 6.** Once the pipe sections have been joined, and run up through the hole in the roof, slip an elbow strap over the exposed sections, bend the support straps outwards, and push the elbow strap down to the roof level, as shown in Figure 32. Tighten the clamp around the pipe section. Use a level to make sure the pipe is truly vertical. With roofing nails, secure the support straps to the roof. Seal the nails holes heads with non-hardening mastic. Trim the excess length of the support straps that extend out beyond the edge of the flashing.
- **STEP 7.** Slip the flashing over the pipe section protruding through the roof. Secure the base of the flashing to the roof with roofing nails. Use a non-hardening sealant between the uphill edge of the flashing and the roof. Insure the roofing material overlaps the top edge of the flashing. Verify that you have at least the minimum clearance to combustibles at the roof line.
- **STEP 8.** Continue to add pipe sections until the height of the vent cap meets the minimum code requirements. Refer to Figure 33 and Table 7. Note that for steep roof pitches, the vent height must be increased. In high wind conditions, nearby trees, adjoining roof lines, steep pitched roofs, and other similar factors can result in poor draft, or down drafting. In these cases, increasing the vent height may solve the problem.
- **STEP 9.** Slip the storm collar over the pipe, and push it down to the top of the roof flashing as shown in Figure 33. Use the non-hardening sealant around the joint between the pipe and the storm collar.
- **STEP 10**. Twist-lock the vent cap.

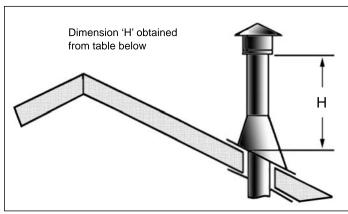


Figure 33: Height of Vertical Termination; Reference Table 7.

Table 7: Minimum 'H' for Figure 33.

Roof Pitch	Minimum	Height (H)
	Feet	Meters
Flat to 7/12	1	0.3
Over 7/12 to 8/12	1.5	0.46
Over 8/12 to 9/12	2	0.61
Over 9/12 to 10/12	2.5	0.76
Over 10/12 to 11/12	3.25	0.99
Over 11/12 to 12/12	4	1.22
Over 12/12 to 14/12	5	1.52
Over 14/12 to 16/12	6	1.83
Over 16/12 to 18/12	7	2.13
Over 18/12 to 20/12	7.5	2.29
Over 20/12 to 21/12	8	2.44

QUALIFIED INSTALLERS ONLY

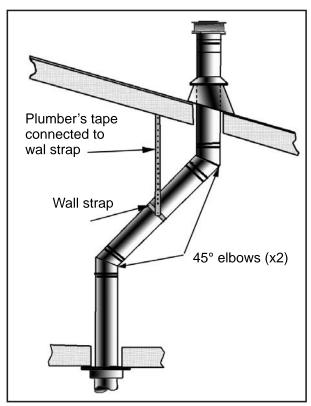


Figure 34: Use of Wall Straps.

closets and storage spaces, which the vertical vent passes through, must be enclosed. The enclosure may be framed and sheet-rocked with standard building materials. However consult the appliance manufactures installation instructions for the minimum allowable clearance between the outside of the vent pipe, and the combustible surfaces of the enclosure. Do not fill any required air spaces with insulation.

NOTES:

- (1) If an offset is necessary in the attic to avoid obstructions, it is important to support the vent pipe every 3 feet (914 mm), to avoid excessive stress on the elbows, and possible separation. Wall straps are available for this purpose (see Figure 34).
- (2) When ever possible, use 45° degree elbows instead of 90° degree elbows. The 45° degree elbow offers less restriction to the flow of flue gases and intake air.
- (3) For multi story installations; a ceiling firestop is required at the second floor, and any subsequent floors (see Figure 35). The opening should be framed to 10" (254 mm) x 10" (254 mm) inside dimensions, in the same manner as shown in Figure 23.
- (4) Any occupied areas above the first floor, including

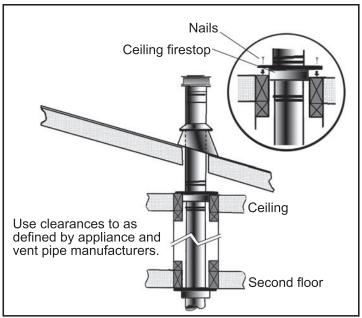


Figure 35: Multi-Story Vent Pipe Installation.

QUALIFIED INSTALLERS ONLY

B-VENT DRAFTHOOD ADAPTOR - 50-3667 & 50-4151:

This Drafthood Adaptor is a complete assembly and is ready to fit onto the Westley in a vertical vent application only. With the Drafthood Adaptor correctly installed and wired to the valve the Westley may be vented like a B-Vent Fireplace.

INSTALLATION:

WARNING: This Freestanding Drafthood Adaptor must be fitted by a qualified service technician.

- Remove the Drafthood Adaptor from the packaging. Ensure the unit and wire harness are undamaged. If there is damage contact your dealer, distributor, or courier company before starting this installation.
- **2.** Install the supplied restrictor collar onto the Drafthood Adaptor as instructed below (Figure 36).
- **3.** Install the adaptor so the wires exit to the rear of the fireplace. Slide the Drafthood Adaptor over the outlet pipe of the fireplace until the bottom of the adaptor collar stops on the top of the outlet. The Drafthood Adaptor must be safely secured to the vent flanges with either self-tapping screws and/or high temperature sealant.

WARNING: During the fitting of the Drafthood Adaptor, ensure that the wires are not pinched between the adaptor and the collar and/or flue outlet. Ensure that the opening of the Drafthood Adaptor is not blocked or obstructed.

- **4.** Being careful not to run any wiring tight across metal edges; connect them to the valve and "ON/OFF" switch (refer to Figure 37).
- **5**. Adjust the exhaust restrictor to setting #1.

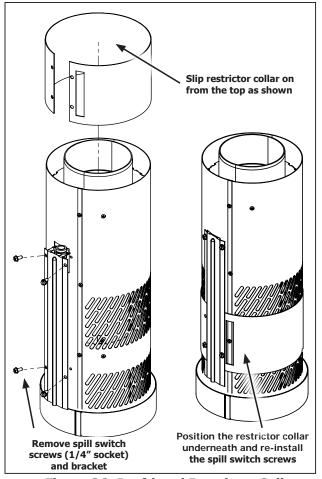


Figure 36: Drafthood Restrictor Collar

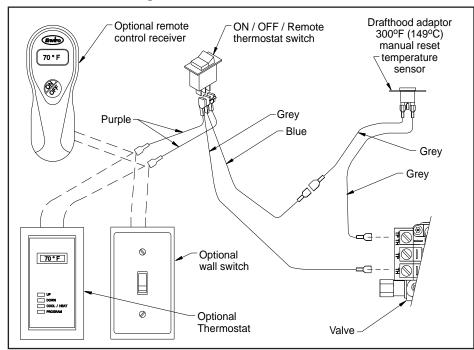


Figure 37: Wiring Diagram for Electrical Connection.

GENERAL VENTING INFORMATION:

Canadian Installations

The venting system must be installed in accordance with the current CSA B149.1 installation code and/or local codes having jurisdiction.

U.S.A. Installations

The venting system must be installed in accordance with the current National Fuel Gas Code, ANSI Z223.1/ NFPA 54, and/or local codes having jurisdiction. It is strongly recommended to install an approved chimney

liner in an existing brick chimney. This will maximize the potential draft of the chimney and lessen the effects of slow chimney start-up.

VENTING OF A FIREPLACE FITTED WITH THE DRAFTHOOD ADAPTOR:

Note: Please refer to the chimney manufacturer's installation instructions prior to commencing the installation. This unit may be vented to an existing masonry chimney, or where no masonry chimney is available, an approved "B-vent" chimney, or any other approved constructed chimney/vent system (see Figure 38). In either case, the fireplace must be connected to the chimney/vent using a 4" (10 cm) single wall flexible venting.

When an existing masonry chimney is utilized for the venting, it is required the drafthood be connected to an approved 4'' (10 cm) diameter flexible flue liner running the full height of the chimney. In many jurisdictions this flue liner may be mandatory. A minimum of 6'' (15 cm) must be maintained between the venting and any combustibles when using 4'' (10 cm) single wall flexible venting.

Venting Restrictions: The vent lengths below are measured from the floor to the top of the flex venting and cannot run in the horizontal dimension other than passing through a wall thimble into existing masonary.

Minimum: 10 ft (3.05m)Maximum: 30 ft (9.14m)

SPILLAGE TEST:

A spillage test must be performed prior to leaving the installed fireplace with the customer. Perform this test in the following manner:

- 1. Close all windows and doors in the room.
- 2. Start all exhaust fans in the house and the furnace blower.
- 3. Light the fireplace and set to maximum flame adjustment.
- 4. After a minimum of 10 minutes operation, test the chimney draft with a smoke match at the top row of the pattern to confirm that there is adequate draft or 'pull' at the openings around the body of the Drafthood Adaptor, as shown in Figure 39.

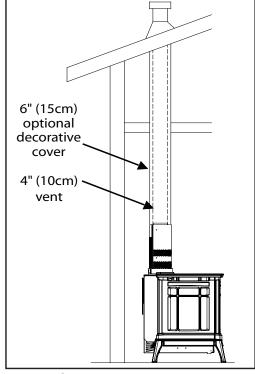


Figure 38: B-Vent Setup

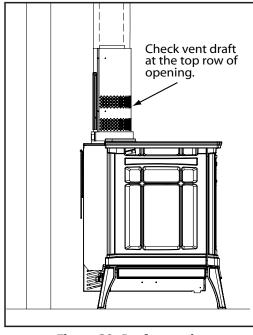


Figure 39: Draft test place.

AUTOMATIC SAFETY SHUT DOWN:

If the spill switch is activated and shuts off the fireplace the following procedure should be followed.

- Turn off all controls and let the fireplace cool down.
- Check for blockages or restrictions in the flue and venting components.
- Reset the spill switch then restart the fireplace and check for vent draft as described above.
- Operate the fireplace in a normal manner.
- If the fireplace shuts down again after a period of operation, turn off all controls and contact your service technician.

SPILL SWITCH REPLACEMENT:

Use the following instructions to replace the Safety Spill Switch.

- 1. Turn the unit off and allow it to cool.
- 2. Disconnect the spill switch wires from the valve (see Figures 37).
- 3. Remove the four mounting screws holding the spill switch bracket and remove the bracket (see Figure 40).
- 4. Remove and replace the spill switch with a 50-885 Spill Switch Assembly using a T-20 torx type driver.
- 5. Follow the reverse of the previous steps.

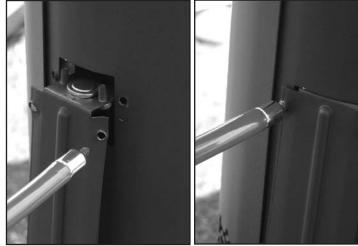


Figure 40: Spill switch installation.

OPTIONAL FINISHING:

In installations where the flue connector is running from the drafthood into a non-combustible chimney the following optional finishing technique can be used.

CAUTION: Installations where the flue connector or venting connects to, or passes through, combustible walls or ceilings, the inner vent components must be 'B-vent'. It is not allowable in these applications to use single wall inner vent components.

For decorative purposes a 6" (15 cm) single wall black stove pipe may be installed over the 4" (10 cm) single wall or 'B-Vent'.

Note: The use of these components is for aesthetic purposes only and does not effect the fact that the fireplace, when fitted with the Drafthood Adaptor, is a Natural Vent appliance and therefore draws air in through the Drafthood Adaptor intake ports. DRAFT RELIEF OPENINGS MUST NOT BE COVERED OR BLOCKED.

QUALIFIED INSTALLERS ONLY

GAS LINE CONNECTION AND TESTING:

WARNING: Only persons licensed to work with gas piping may make the necessary gas connections to this appliance.

GAS LINE CONNECTION

- This stove is equipped with a certified flexible pipe located on the left side of the unit terminating in a 3/8" female NPT fitting. Consult your local authorities codes or the CAN/CGA B 149 (1 or 2) installation code in Canada, or in the USA gas installations follow either local codes or the current edition of the National Fuel Gas Code ANSI Z223.1.
- The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

The appliance and its shutoff valves must be disconnected from the gas supply piping system during any pressure testing where the pressure exceeds $\frac{1}{2}$ PSIG (3.45 KPa) or damage will occur to the valve.

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.45 KPa).

Always check for gas leaks with a soap and water solution after completing the required pressure test.

Gas Control Knob Screw Screw All Justment Sc

Figure 41: Fully Labeled Gas Valve.

TO TEST VALVE PRESSURES

The pressure taps are located on the top right of the valve shown in Figure 41.

- Turn set screw 1 turn counter clockwise to loosen,
- Place 5/16" (8 mm) I.D. hose over pressure tap system.
- Check pressures using a manometer.
- When finished, release pressure, remove hose & tighten set screw.

Natural Gas Propane Main Orifice #38 #52 **Manifold Pressure** 3.6" W.C. (0.89 KPa) 10.0" W.C. (2.49 KPa) Min. Manifold Pressure 1.6" W.C. (0.40 KPa) 6.4" W.C. (1.59 KPa) **Max Supply Pressure** 7.0" W.C. (1.74 KPa) 11.0" W.C. (2.74 KPa) 4.5" W.C. (1.12 KPa) 10.4" W.C. (2.59 KPa) **Min. Supply Pressure** 29,000 BTU/hr (8.49 KW) 29,000 BTU/hr (8.49 KW) Max BTU/hr Input Min. BTU/hr Input 19,500 BTU/hr (5.71 KW) 24,000 BTU/hr (7.03 KW)

Table 8: Pressure and BTU Information.

NEVER USE AN OPEN FLAME FOR LEAK TESTING.

QUALIFIED INSTALLERS ONLY

ELECTRICAL REQUIREMENTS:

The fan will not operate if the appliance is cold. Once the unit is lit and the fan is set to the desired level, the fan will automatically turn on upon reaching operating temperature. The fan will automatically turn off after the appliance has cooled down.

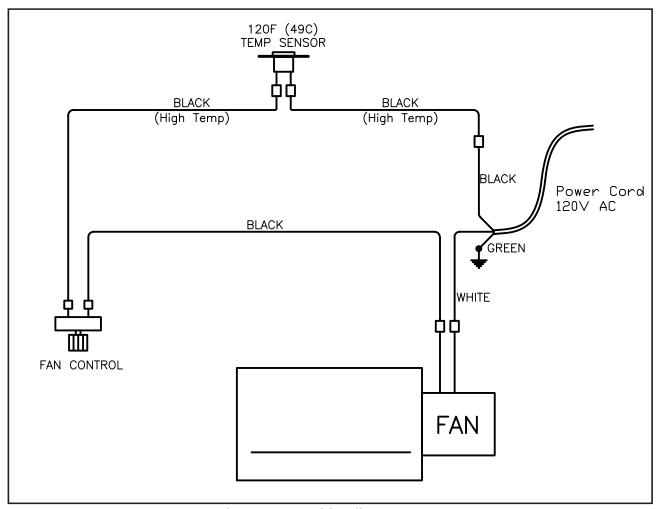


Figure 42: Fan wiring diagram.

The fireplace must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current CSA C22.1 Canadian Electrical Code Part 1, Safety Standards For Electrical Installations, or The National Electrical Code ANSI / NFPA 70 in the US.

WARNING: The electrical grounding instructions must be followed. The fan kit 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 outlet. DO NOT cut or remove the grounding prong from this plug.

CAUTION: When servicing controls, label all wires prior to disconnection. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

If any of the original wire as supplied with the appliance must be replaced, it must be replaced with 18 AWG wire with a temperature rating of 105°C

LOG SET INSTALLATION:

The placement of the logs is not arbitrary. If they are positioned incorrectly, the flames can be "pinched" and will not burn correctly. All of the logs either locate on burner pins or a notch, which make alignment easier. Using the pictures provided, carefully set the logs in place (see Figures 43 through 54).

NOTE: The logs are fragile and should be handled gently.



Figure 43. Log #8 Placement

Please ensure that there is no damage to the log set prior to installation.

To Install Log Set:

1. Place Log #8 on top of the pilot shield (left side) and the log rest (right side) at the rear of the firebox. Slide the log left until it contacts the finger stop next to the pilot shield (Figure 43).

Note: Ensure the metal air scoop is installed on the burner pan before proceeding with the log setup. See Figure 44 below.

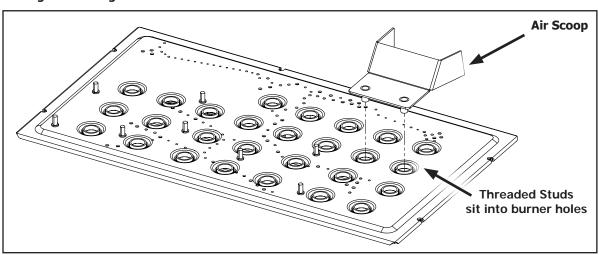


Figure 44. Air Scoop Installation

- 2. Place Log #5 on the left and Log #6 on the right in front of Log #8. Line up the bottom holes with the pins on the burner pan (Figure 45).
- 3. Place Log #3 in front of Log #5 on the left, and Log #2 in front of Log#6 on the right. Line up the bottom holes with the pins on the burner pan (Figure 46).
- 4. Next, place Log #1 in front of Log #3 on the left. Line up the bottom holes with the pins on the burner pan



Figure 45. Log #5 & #6 Placement

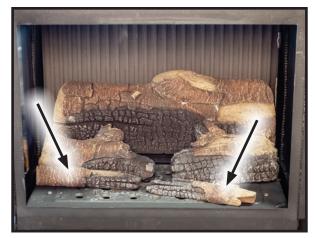


Figure 46. Log #2 & #3 Placement

5. Next, spread the supplied vermiculite around the **perimeter of the burner only**. The vermiculite is not intended for use on the burner pan. Place the provided coals on the burner pan in front of the air holes, but **do not block them** (figure 48). Using the supplied brush, evenly spread the ember wool and Embaglow on top of the burner pan as shown (Figure 49).



Figure 49. Burner Media



Figure 50. Log #6 Pin



Figure 47. Log #1 Placement

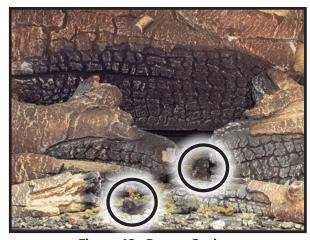


Figure 48. Burner Coals

- 6. Place Log #4 on the pin of Log #6 (Figure 50), with the bottom angled to the right side of the firebox (Figure 51).
- 7. Finally, align Log #7 with the pin on Log #8 (Figure 52) and rest the bottom at an angle on top of Log #1 (Figure 53).



Figure 51. Log #4 Placement



Figure 52. Log #8 Pin



Figure 53. Log #7 Placement

- 8. Re-install the firebox door, then the cast front and top.
- 9. Run the unit for 15 minutes then adjust the venturi as needed. Figure 54 depicts what the burn and flame appearance shoul look like when the log set is properly installed and venturi adjusted.

When re-lighting the fireplace for the first time since the log set has been installed/replaced, watch for ignition at ALL the burner ports. If a long delay is noticed, turn the appliance off and wait for it to cool down. Then remove the glass and make sure none of the burner ports are blocked.



Figure 54. Proper Burn and Flame

Maintenance: Once a year, the logs should be removed and checked for deterioration or large amounts of soot. A small amount on the bottom side of the logs is normal. Remove and replace the logs in the same manner described above.

If new logs are required, contact your nearest ENVIRO dealer.

Never operate the fireplace with the glass door removed.

A step-by-step video guide of the log set installation can also be viewed by scanning the QR code on the right or visiting www. enviro.om/mobile/westleylog.html



SAFETY SCREEN REPLACEMENT:

The Westley is supplied with safety screens already installed on the back of the cast front and sides. If a safety screen becomes damaged must it be replaced with either part number 50-3715 (front) or 50-371 (side) by following the steps below:



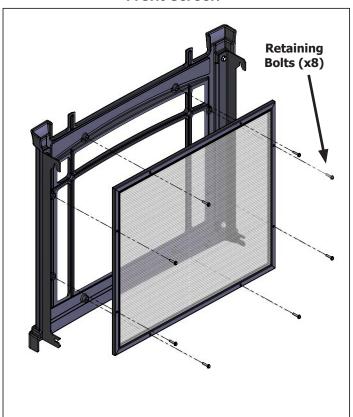
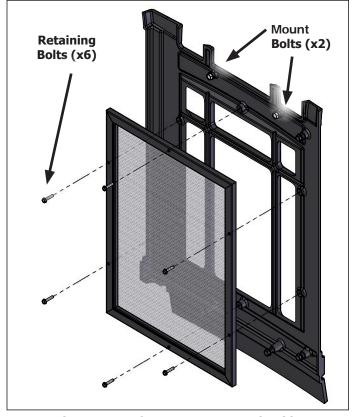


Figure 55. Safety Screen Removal - Front



Side Screen

Figure 56. Safety Screen Removal - Side

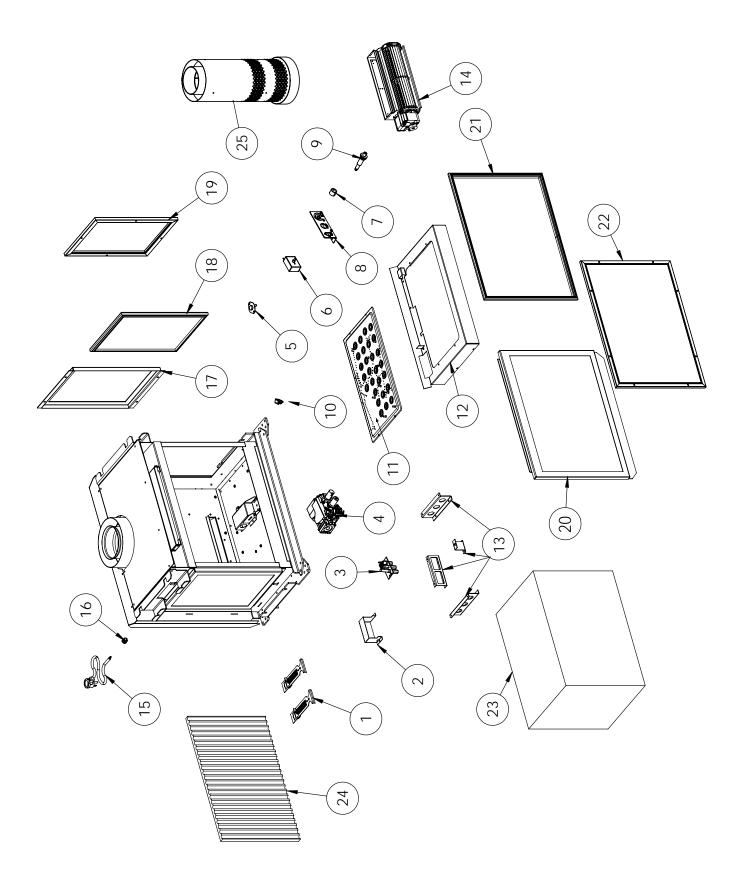
- **Step 1**: Turn off the Westley and allow it to fully cool down.
- **Step 2:** Remove the cast top by simply lifting up and lay it down on a blanket or other soft surface to prevent from scratching the finish.
- **Step 3:** Remove the cast door as directed in Maintenance and Service Cast Door Removal.
- **Step 4:** If replacing the side screen skip to step 5. If replacing the front screen remove the eight (8) retaining bolts (Figure 55) using a 1/4" socket and remove the damaged screen while noting the orientation. Install the new screen (50-3715) by simply re-installing the retaining bolts. Re-install the cast door and top to finish.
- **Step 5:** Remove the cast side (left or right) by loosening the two (2) top mount bolts (Figure 47) using a 3/8" wrench. Next, lift up to remove the cast side and lay it down on a soft surface.
- **Step 6:** Remove the six (6) retaining bolts (Figure 56) using a 1/4" socket and remove the damaged screen while noting the orientation. Install the new screen (50-3716) by simply re-installing the retaining bolts.
- **Step 7:** Re-install the cast side and tighten the two (2) top mount bolts. Re-install the cast door and top to finish.

TROUBLE SHOOTING

Problem	Possible Cause	Solution	
The main burner does not	The gas valve may not be on.	Check that the gas control knob is in the "ON" position.	
ignite when called for.	Thermostat is not calling for heat.	Adjust the thermostat several degrees above ambient temperature.	
	Problem with gas valve.	 Use a DC voltmeter to measure the voltage across the TPTH and TP terminals. Main operator voltage: Open circuit ≥ 325mV Closed circuit ≥ 100mV If voltage is not present, check the control circuit for proper operation. If proper control system voltage is present, replace the gas control. 	
Spark will not light the pilot after repeatedly pressing the spark ignitor.	Defective piezo ignitor.	 Check connections to ignitor. If ignitor connections are good but no spark, replace ignitor. 	
	Broken spark electrode.	Check for broken ceramic insulation, replace electrode if broken.	
	Misaligned spark electrode.	If spark is not arcing from electrode to pilot, loosen the screws on the pilot base adjust and tighten.	
Pilot will not remain lit.	7-Day Shutdown	The pilot has been in operation for 7 continuous days	
	(Westley-821 models only)	without main burner operation. Turn fireplace ON to reset pilot timer.	
	Problem with thermocouple circuit.	 Check for proper connection of the thermocouple to the rear of the valve. If loose, fully tighten. Check pilot for full flame impingement around thermocouple. If flame is too small, check gas pressure, adjust pilot rate screw, check pilot head for damage. Check thermocouple voltage at valve. It must be greater than 5 mV. If low, replace thermocouple. 	
	Air in gas line (pilot dies while knob is depressed).	Bleed line.Check gas line pressure.Contact dealer.	
Burners will not remain lit.	Problem with thermopile circuit.	 Check gas line pressure . Check for flame impingement on thermopile. If low, see "Pilot will not remain lit". Check thermopile for minimum of 300 mV when burner is switched on. Check wiring to thermostat for breaks. 	
Flame lifting	Leak in vent pipe	Check for leaks in vent connections.	
	Improper vent configuration	Check vent configuration with manual.	
	Terminal may be recirculating flue gases	Check to see if terminal is on correctly.May need to install high wind termination cap.Contact dealer.	
Glass fogs up		liance warms up the glass will clear. may get hazy during operation** Clean as needed.	
Blue Flames	Normal during start up: flames will yellow as the fireplace heats up.		
Flames are burning "dirty" or sooting	Flame impingement	Check log positioning. Increase primary air by opening the venturi shutter and/ or by opening the vent restrictor. See also "Burners will not remain lit."	
Remote control doesn't work	Problem with the remote	One or more of the batteries are dead. See remote control instructions.	
	Problem with fireplace	 The on/off switch is turned to OFF. The gas control valve is turned to PILOT or OFF. The pilot has gone out. 	

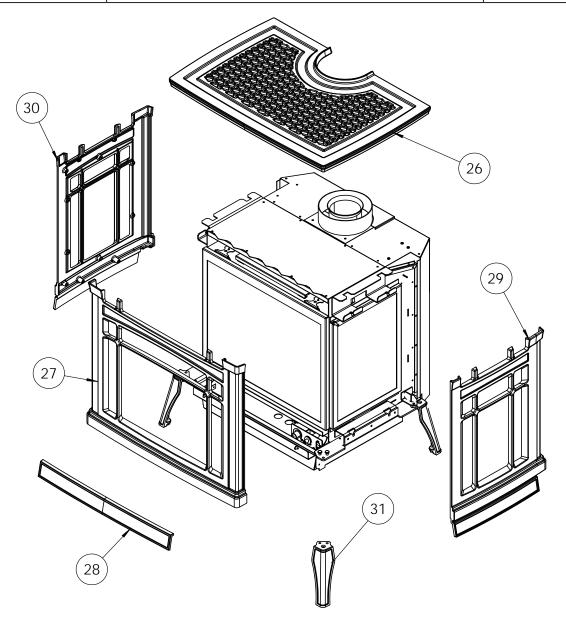
PARTS LIST

Reference Number	Part Description	Part Number
1	Door Latch Mechanism w/ Spring (set of 2)	50-1285
2	Pilot Shield	50-3514
3	Pilot Assembly (PSE-NA479)	50-4083
4 (821 Models)	S.I.T. 821 Nova Valve (7-Day) Convertible	50-3660
4 (820 Models)	S.I.T. 820 Nova Valve Convertible	50-1421
5	120 Ceramic Fan Temperature Sensor	EC-001
6	Fan Controller 115V w/ Knob & Decal	EF-045
7	Fan Controller Knob w/ Decal	EC-040
8	Control Panel & Decal	50-2989
9	S.I.T. Piezo Ignitor	EC-023
10	FPI Burner Switch	EC-026
11	Burner Pan Assembly	50-3729
12	Burner Tray Assembly	50-3730
13	Burner Mounts (set of 4)	50-3731
14	Convection Fan only	EC-069
15	Heyco Strain Relief	EC-044
16	Domestic Power Cord (115v)	EC-042
17	Side Door - Complete	50-3734
18	Side Door Glass w/ Gasket (9.63 x 13.21in)	50-3735
19	Replacement Safety Screen - Side	50-3716
20	Front Door Complete	50-3732
21	Front Door Glass w/ Gasket (19.06 x 14.21in)	50-3733
22	Replacement Safety Screen - Front	50-3715
23	Ceramic Log Set (8 pieces)	50-3728
24	Ceramic Fluted Liner (1 piece)	50-3736
25	B Vent Drafthood Adaptor	50-3667
-	Westley 820/821 Owners Manual	50-4127
-	12 oz. Can of Matallic Black Touch Up Paint	PAINT-12-MB



PARTS LIST

Reference Number	Part Description	Part Number
26	Cast Top - Painted	50-3717
-	Cast Top - Antique Bronze	50-3718
27	Cast Front - Painted	50-3719
-	Cast Front - Antique Bronze	50-3720
28	Cast Skirt - Painted	50-3721
-	Cast Skirt - Antique Bronze	50-3722
29	Cast Right Side - Painted	50-3723
-	Cast Right Side - Antique Bronze	50-3724
30	Cast Left Side - Painted	50-3725
-	Cast Left Side - Antique Bronze	50-3726
31	Cast Leg - Painted (1 piece)	50-3256
-	Cast Leg - Antique Bronze (1 Piece)	50-3727



Notes



ENVIRE Warranty for Enviro **Gas** Products

Sherwood Industries Ltd. ("Sherwood") hereby warrants, subject to the terms and conditions herein set forth, this product against defects in material and workmanship during the specified warranty period starting from the date of original purchase at retail. In the event of a defect of material or workmanship during the specified warranty period, Sherwood reserves the right to make repairs or to assess the replacement of a defective product at Sherwood's factory. The shipping costs are to be paid by the consumer. All warranties by Sherwood are set forth herein and no claim shall be made against Sherwood on any oral warranty or representation.

Conditions

- A completed warranty registration must be submitted to Sherwood within 90 days of original purchase via the online warranty registration page or via the mail-in warranty registration card provided. Have the installer fill in the installation data sheet in the back of the manual for warranty and future reference.
- This warranty applies only to the original owner in the original location from date of install.
- The unit must have been properly installed by a qualified technician or installer, and must meet all local and national building code requirements.
- The warranty does not cover removal and re-installation costs.
- Sherwood Industries Ltd. reserves the right to make changes without notice.
- Sherwood Industries Ltd. and its employees or representatives will not assume any damages, either directly or indirectly caused by improper usage, operation, installation, servicing or maintenance of this appliance.
- A proof of original purchase must be provided by you or the dealer including serial number.
- This warranty does not cover any discoloration of the safety screen mesh.

Exclusions

An expanded list of exclusions is available at www.enviro.com/help/warranty.html This warranty does not cover:

- Damage as a result of improper usage or abuse.
- Damage caused from over-firing due to incorrect setup or tampering.
- Damage caused by incorrect installation.

To the Dealer

- Provide name, address and telephone number of purchaser and date of purchase.
- Provide date of purchase. Name of installer and dealer. Serial number of the appliance. Nature of complaint, defects or malfunction, description and part # of any parts replaced.
- Pictures or return of damaged or defective product may be required.

To the Distributor

Sign and verify that work and information are correct.

Sherwood Industries Ltd.

6782 Oldfield Road, Victoria, BC. Canada V8M 2A3 Online warranty registration: www.enviro.com/warranty/

Category	One Year	Two Year	Limited Lifetime (7yr)
Parts 1,2 (unit serial number required)		✓	
Firebox Liner Panels ³		✓	
Firebox			✓
Heat Exchanger			✓
Burner			✓
Ceramic Logs ⁴			✓
Ceramic Glass 5	✓		
Pedestal / Legs (excluding finish)			✓
Door Assembly			✓
Surround Panels (excluding finish)			✓
Exterior Panels (excluding finish)			Up to 5 years
Electrical Components		✓	
Exterior Surface Finishing	✓		
Labour	✓		

- ¹ Whereas warranty has expired, replacement parts will be warrantied for 90 days from part purchase date. Labour not included. Unit serial number required.
- ² 50-173 Westport Fan Kit covered for up to 5 years from purchase date. Labour not included. Unit serial required.
- ³ Excluding damage to the finish caused by improper setup of the appliance, or color changes.
- ⁴ Log set and panels excludes wear and tear or breakage caused by cleaning or service.
- 4 Glass is covered for thermal breakage. Photos of box, inside of door, and unit serial # must be supplied for breakage due to shipping.
- ⁶ Exterior Surface finishing covers plating, enamel or paint and excludes colour changes, chipping, and fingerprints. Travel costs not included.

Jan 2018

INSTALLATION DATA SHEET

The following information must be recorded by the installer for warranty purposes and future reference.

NAME OF OWNER:	NAME OF DEALER:
ADDRESS:	ADDRESS:
PHONE:	PHONE:
MODEL:	NAME OF INSTALLER:
SERIAL NUMBER:	
DATE OF PURCHASE: (dd/mm/yyyy)	
DATE OF INSTALLATION:(dd/mm/yyyy)	ADDRESS:
☐ NATURAL GAS (NAT) ☐ PROPANE(LPG)	
INLET GAS PRESSURE:in wc	
MAIN BURNER ORIFICE:# DMS	PHONE:
PILOT ORIFICE #ORin diam.	
INSTALLER'S SIGNATURE:	

MANUFACTURED BY:
SHERWOOD INDUSTRIES LTD.
6782 OLDFIELD RD. SAANICHTON, BC, CANADA V8M 2A3
www.enviro.com
Summer 2021
C-16265