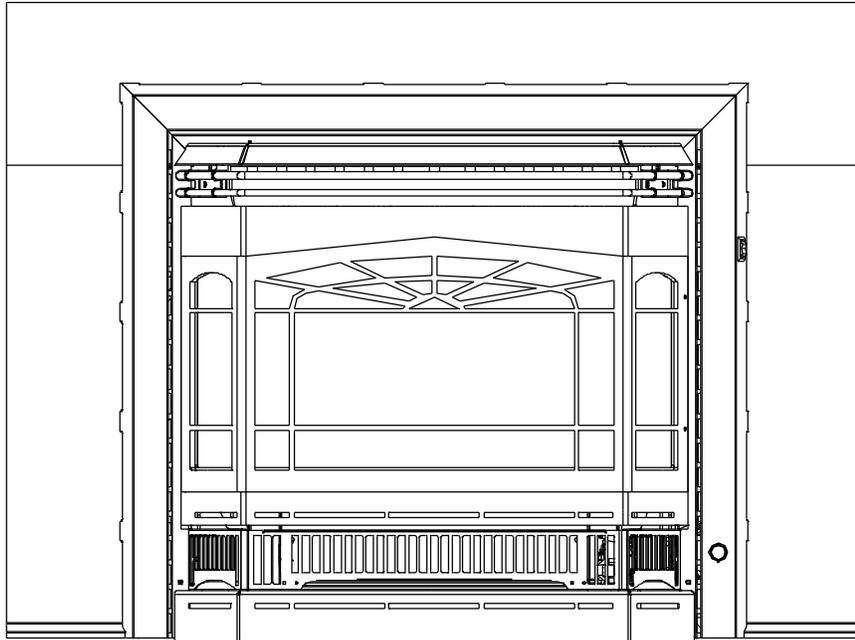


Installation & Operating Manual

The Harman Clarity 828i Gas Fireplace Insert



“Ce manuel est disponible en Français sur demande”

R5

SAFETY NOTICE

PLEASE READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW ROOM HEATER. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

FOR USE IN THE U.S. AND CANADA. SUITABLE FOR INSTALLATION IN MOBILE HOMES

IF THIS HARMAN STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW INSTALLATION DIRECTIONS.

CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

CONTACT YOUR LOCAL AUTHORITY (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) TO DETERMINE THE NEED FOR A PERMIT.

CETTE GUIDE D'UTILISATION EST DISPONIBLE EN FRANCAIS. CHEZ VOTRE CONCESSIONNAIRE DE HARMAN STOVE COMPANY.

SAVE THESE INSTRUCTIONS.

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

ADVERTISSEMENT: Quinconque ne respect pas à la lettre les instructions dans le présent manuel risque de déclencher un incendie ou une explosion entraînant des dommages matériels, des lésions corporelles ou la perte de vies humaines. Installation ou modification, consulter le manuel des usagers fourn avec ce générateur d'air chaud. Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.



Manufactured by:
Harman Stove Co.
352 Mountain House Road
Halifax, PA 17032

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Introduction

The Harman Clarity 828I Vented Gas Fireplace Insert is a listed gas-fired vented room heater tested by Intertek Testing Services/Warnock Hersey to ANSI standard Z21.88-2002, CSA2.33-M02, and CAN/CGA-2.17-M91.

The installation of the Clarity Fireplace Insert must conform with local codes, or in the absence of local codes, with National Fuel Gas Code, ANSI Z223.1 — latest edition (NFPA 54) and CAN1 B1-149.1 and .2 Gas Appliance Installation Code.

Installer l'appareil selon les codes ou règlements locaux, ou, en l'absence de tels règlements, selon les Codes d'installation CAN/CGA-B149.

The Clarity Fireplace Insert is not for use in mobile homes.

CAUTION: This appliance must be vented to the outside.

INSTALLATION AND REPAIR OF THE CLARITY FIREPLACE INSERT SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE 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 THAT CONTROL COMPARTMENTS, BURNERS, AND CIRCULATING AIR PASSAGEWAYS OF THE APPLIANCE BE KEPT CLEAN. ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING AN APPLIANCE MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.

S'ASSURER QUE LE BRÛLEUR ET LE COMPARTIMENT DES COMMANDES SONT PROPRES. VOIR LES INSTRUCTIONS D'INSTALLATION ET D'UTILISATION QUI ACCOMPAGNENT L'APPAREIL.

When operating your Harman Clarity Fireplace Insert, respect basic safety standards.

Read these instructions carefully before you attempt to operate the heater. Failure to do so may result in damage to property or personal injury and may void the product warranty.

Consult with your local building code agency and insurance representative before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections.

Observing required clearances to combustible materials, proper connection to an approved venting system, and the accessibility of the gas and electrical supply must all be considered when planning the installation of an Clarity Fireplace Insert.

Adequate clearances around air openings to the combustion chamber and provisions for adequate combustion and ventilation air must be provided.

Install the Clarity Fireplace Insert only in a listed solid-fuel burning factory-built fireplace or a masonry solid-fuel burning fireplace. The Fireplace Insert and vent should be enclosed when installed in, or when passing through, a living area where children may come in contact with it.

Installation

Due to high temperatures, the Clarity 828I Vented Gas Fireplace Insert should be located out of traffic 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 burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the Clarity 828I Fireplace Insert.

Clothing or other flammable materials should not be placed on or near the Clarity 828I.

Surveiller les enfants. Garder les vêtements, les meubles, l'essence ou autres liquides à vapeur inflammables loin de l'appareil.

CLEARANCES

The following clearances to combustibles must be observed:

Unit to sidewall or combustible trim 10" (254 mm)

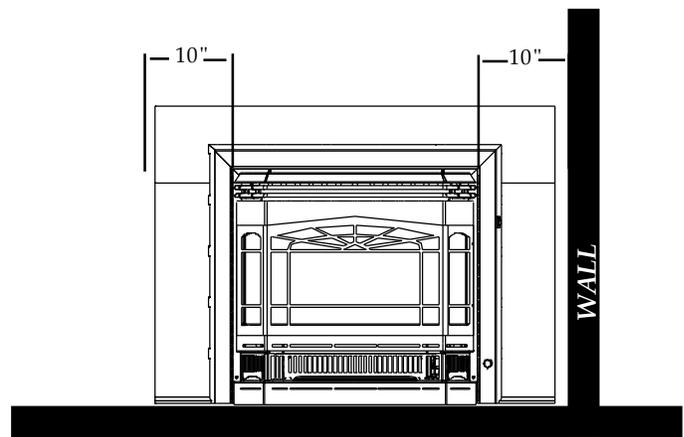
Unit to mantel and combustible trim, unprotected.. 12" (305 mm)

In addition to these clearances, adequate accessibility clearance for servicing and proper operation must be maintained.

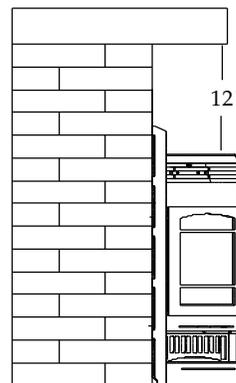
Do not in any way obstruct the combustion air inlets that are located on the front of the heater.

If the unit is to be installed on carpeting, vinyl, or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

PRELIMINARY STEPS TO PREPARE FOR THE INSTALLATION OF THE CLARITY FIREPLACE INSERT



Clearance from unit to sidewall or combustible trim



Clearance from top of unit to mantel and combustible trim, unprotected

Remove the chimney cap if one exists so that the flue may be cleaned and the venting installed.

Remove any existing hearth accessories such as glass doors, spark screens, andirons, and grates.

Clean the chimney thoroughly to remove ash, soot, and any obstructions, and then clean ash, soot, dust, and debris from the fireplace.

The damper must be locked open to allow the 4" venting to pass through. If it is necessary to modify the damper area to allow passage of the venting, the modifications should be allowed under local codes. Confirm any planned changes with local building officials.

VENTING

Use Only Approved Venting

The Clarity 828I Vented Gas Fireplace Insert is tested and listed for connection to a 4" (100 mm) listed Class B venting system.

If the unit is installed to vent through an approved masonry chimney or a factory-built chimney system, a listed lining system approved for use with gas-fired appliances must be used.

Observe local codes when venting the Clarity. If no local codes exist, follow the current edition of ANSI Z223.1 and CAN1- B149 installation codes.

Do not connect the venting to the flue of a chimney that serves a separate solid-fuel burning appliance.

The venting manufacturer's installation instructions must be followed exactly.

IMPORTANT: Because of the high efficiency and low flue gas temperatures of this appliance, it is important that it be connected to a well-sealed and efficient venting system which is capable of registering a negative pressure while the stove is in operation.

The most efficient venting systems are those that have a minimum number of bends and minimal horizontal runs.

The Clarity Fireplace Insert is equipped with a thermally activated vent safety switch which will shut down the main burner if the heater is not properly venting. The safety switch will automatically reset after the heater has cooled down.

The switch will continue to cycle off and on until the venting problem is corrected. If you are unable to correct the venting problem, seek expert advice from your Harman dealer or installer.

DO NOT DISCONNECT OR BYPASS THE VENT SAFETY SWITCH.

WARNING: Operation of this heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

The Clarity Fireplace Insert is equipped with its own integral draft hood so no additional draft hood is required. The heater should be installed so that the draft hood is in the same atmospheric pressure zone as the air inlets to the heater.

TEST FOR FLUE SPILLAGE

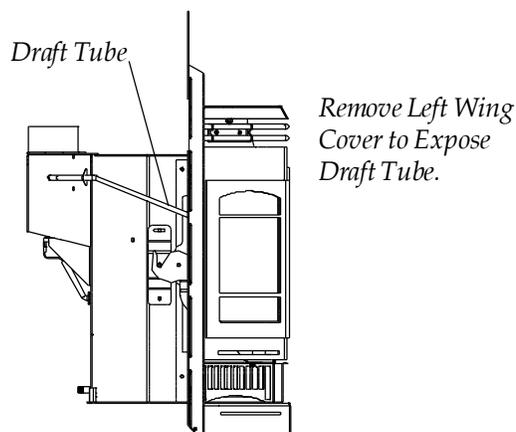
A spillage test should always be made at the completion of the installation, and at least annually thereafter.

1. Start all exhaust fans in the home and then close all doors and windows in the room containing the heater.

2. Light the heater and allow it to run for 5 minutes on the high output setting. The convection air blower should be turned off for the test.

3. Remove the left trim panel, which is held in place by a clip at the bottom and a magnet at the top, and place a source of smoke (such as a match, lighter, or a cigarette) in front of the flue spillage test tube.

The smoke should be drawn into the tube. If it is not, let the heater run for 5 more minutes and repeat the test.



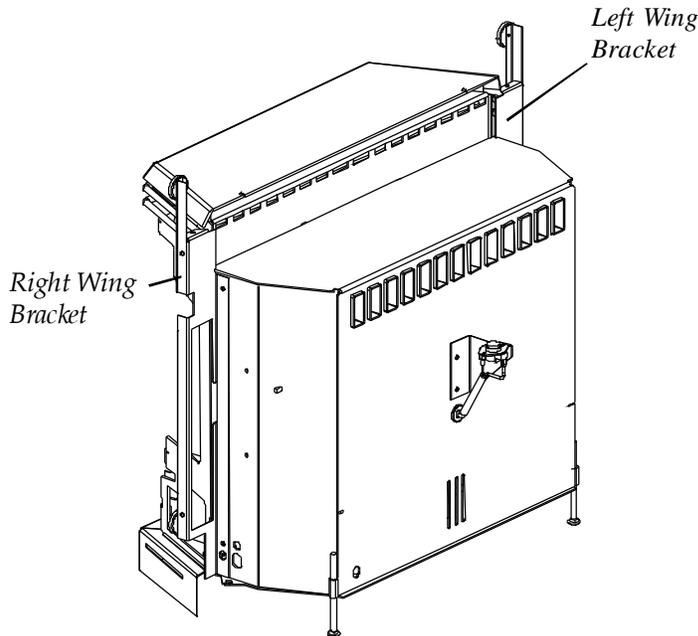
4. If the smoke is not drawn into the tube, turn off the heater and determine why there is no draft. If necessary, seek expert advice.

For sites with swirling or turbulent wind conditions, a wind cap may solve the problem.

CONNECTING THE CLARITY FIREPLACE

Assembly

The Clarity 828I Fireplace Insert comes with the log set packed inside the firebox. The three trim panels and two wing brackets are packed together in a separate carton. **NOTE: The wing brackets must go on before the door.**



A second shipping carton contains the wing panels. Two different size wing panel sets are available for the Clarity Insert: large (32-1/2" X 44"), and small (30" X 40"). The set that will work best with the fireplace opening should be used. The wing panels may be trimmed to fit inside the fireplace opening if a flush look is desired.

Before the unit is installed, all components should be unpacked. The cross log must be removed, the packing material taken out, and then re-installed.

The Clarity 828I is shipped from the factory equipped to burn either natural gas or propane. If the alternate fuel is to be used, the appropriate burner system module must be installed at this time as well. See the fuel conversion instructions in Appendix A on page 15.

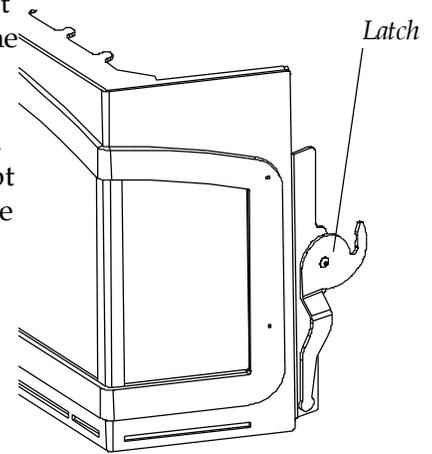
Removing the Glass door

NOTE: The glass door is heavy. Be prepared for its weight when lifting it to avoid damage during removal.

Locate latches on each side of the glass door. Then, grasp each latch handle and pull forward until the front is disengaged. Lift the glass door

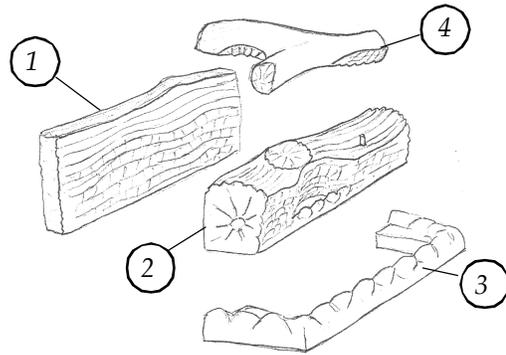
slightly and remove it from the stove. Set the glass door aside in a safe place where it will not be damaged.

WARNING: Do not abuse the glass on the Clarity Fireplace Insert front by striking, slamming, or similar trauma. Do not operate this Fireplace Insert with the glass panel removed, cracked or broken. Use only glass supplied by Harman and approved for use with this heater. Do not use substitute materials. Replacement of the panel should be done by a licensed or qualified service person.



Removing and Replacing logs

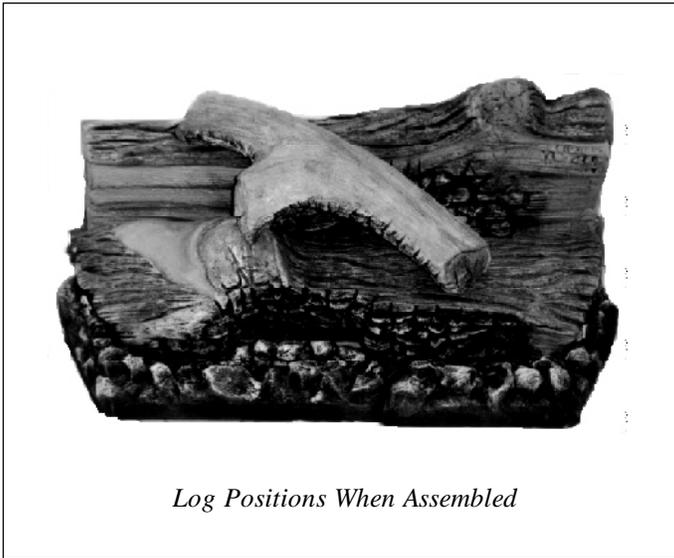
The log set consists of a back log (1), a center log that has a pilot-viewing port in the left end (2), ember strip (3), and a cross log that rests on top (4).



Remove the cross log, the center log, and the ember strips, in that order. To remove the rear log, first pull the fuel system module forward about an inch to create clearance, then lift the log out.

Re-install the logs in the same order that they were removed. Place the rear log in position first, centered and pushed snugly against the back wall, and slide the fuel system module back into position.

Re-install the ember strips so that they rest against the front of the firebox. Guide them toward you and to the outside until they fit snugly. Check the air slot in the inside of the ember strips to confirm that they do not obstruct it.



Log Positions When Assembled

Install the center log so that it goes all the way to the back and is centered. When properly positioned, there should be an even gap along the front of the center burner in the cavity in the log. A small portion of the log support frame will be revealed. The center log has a round viewing port in the left end through which the pilot can be observed.

Install the cross log, making sure that it is oriented with the forked end toward the left rear of the stove, and slip it over the front locator pin and position as shown below.

Re-install and Secure the Glass door

NOTE: The glass door is heavy. Lift it carefully to prevent damage. Center the glass on the opening and suspend it in place by placing the tab hooks over the top edge of the opening. Press the glass slightly against the stove to confirm that it seats properly, then press it firmly against the front while pushing the levers to the rear to engage them.

INSERT TO A GAS SUPPLY

Burn Only the Fuel for Which the Heater is Equipped

The Clarity Fireplace Insert will burn either natural gas or propane, but requires a dedicated burner system module for either fuel. The label on the burner system module indicates the fuel for which it is equipped.

Making The Connection

NATURAL

PROPANE

The gas inlet is located at the Insert. The inlet fitting is a 1/4" male pipe thread.

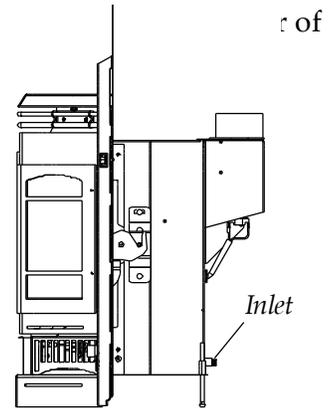
A separate gas shut-off valve and a 1/8" N.P.T. plugged tapping should be installed immediately upstream of the connection to the appliance.

The ClarityFireplace Insert must be disconnected from the gas supply piping during any pressure testing of that system at pressures in excess of 1/2 psig (3.5 kPa).

The Clarity gas control valve must be in the OFF position during any pressure testing of the gas supply system at pressures equal to or less than 1/2 psig (3.5 kPa).

WARNING: To avoid pipe compounds from entering into the gas train, apply compounds only to the male pipe threads and only to the first two threads.

CAUTION: TEST ALL JOINTS FOR LEAKS



BEFORE OPERATING

Gas Pressure Requirements

Correct gas pressure and the use of a properly sized gas supply line are essential for the safe and efficient performance of this appliance. Make sure that the plumber or gas supplier checks the gas supply line and gas pressure at installation.

NOTE: Improper gas pressure can affect heater performance, flame color, or cause pilot outage.

Natural Gas:

Maximum inlet pressure 7.0" w.c. (1.74 kPa)

Minimum inlet pressure 5.0" w.c. (1.25 kPa)

Gas manifold pressure 3.5" w.c. (0.87 kPa)

LPG Gas:

Maximum inlet pressure 13" w.c. (3.24 kPa)

Minimum inlet pressure 11" w.c. (2.74 kPa)

Gas manifold pressure 10" w.c. (2.49 kPa)

DO NOT USE THIS HEATER IF ANY PART HAS BEEN UNDER WATER OR EXPOSED TO MOISTURE CORROSION. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE HEATER AND REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.

NE PAS SE SERVIR DE CET APPAREIL S'IL A ÉTÉ PLONGÉ DANS L'EAU, COMPLÈTEMENT OU EN PARTIE. APPELER UN TECHNICIEN QUALIFIÉ POUR INSPECTER L'APPAREIL ET REMPLACER TOUTE PARTIE DU SYSTÈME DE CONTRÔLE ET TOUTE COMMANDE QUI ONT ÉTÉ PLONGÉS DANS L'EAU.

CONNECTING THE CORDSET

RECOMMENDED GAS PIPE DIAMETER				
Pipe Length (Feet)	Schedule 40 Pipe Inside Diameter		Tubing, Type L Outside Diameter	
	N.G.	L.P.	N.G.	L.P.
0-10	1/2" 1.3 cm	3/8" 1.0 cm	1/2" 1.3 cm	3/8" 1.0 cm
10-40	1/2" 1.3 cm	1/2" 1.3 cm	5/8" 1.6 cm	1/2" 1.3 cm
40-100	1/2" 1.3 cm	1/2" 1.3 cm	3/4" 1.6 cm	1/2" 1.3 cm
100-150	3/4" 2.0 cm	1/2" 1.3 cm	7/8" 2.3 cm	3/4" 2.0 cm

NOTE: NEVER USE PLASTIC PIPE. CHECK TO CONFIRM WHETHER YOUR LOCAL CODES ALLOW COPPER TUBING OR GALVANIZED PIPE.

The Clarity Fireplace Insert, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the current edition of the National Electrical Code, ANSI/NFPA 70 in the United States or the current Canadian Electrical Code CSA 22.1 in Canada.

This appliance is equipped with a three-prong (grounding) plug for 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 the plug.

NOTE: The convection fan requires a 120 VAC supply for operation, but the heater can be operated without the fan as in the case of a power outage.

Plug the 3-prong grounded electrical cord plug into the wall outlet.

CONNECTING THE OPTIONAL THERMOSTAT

If the optional thermostat is used, it must be plugged into the terminal strip located behind the right side air inlet grill. It can be accessed by first opening the control access door and then pulling up and forward on the air grill. The terminal block will then be visible.

When installing a millivolt control system, use only a special low resistance thermostat. Do not use a regular heating thermostat.

Be sure that all electrical connections are clean, free from corrosion, and tight. Inspect connections periodically to confirm that no corrosion has built up over time.

When properly installed and maintained, a millivolt control system should give many years of trouble-free service.

It is important to use wire of a gauge proper for the length of the wire:

RECOMMENDED WIRE GAUGES

Maximum Length	Wire Gauge
100'	14
60'	16
40'	18
25'	20
15'	22

INSTALLING THE INSERT

INTO THE FIREPLACE

The Clarity Fireplace Insert has an integrated draft hood, so a separate draft hood is not required.

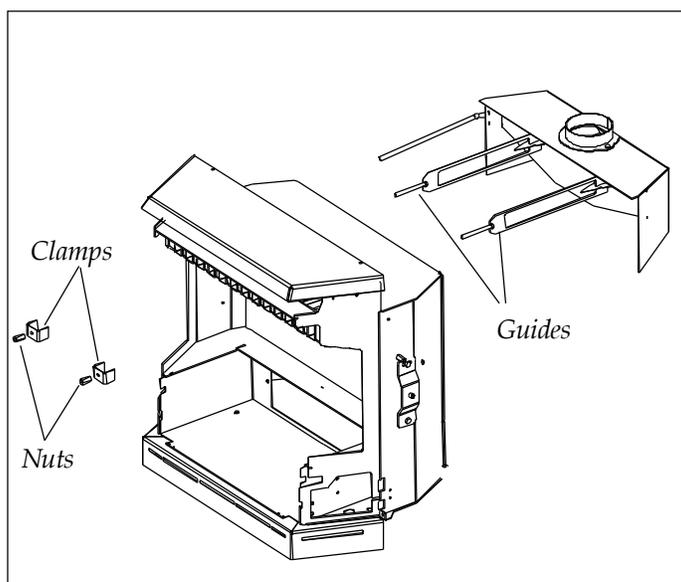
Some fireplace openings may be large enough to connect the draft hood to the venting *after* the unit has been moved to its final position. Some openings will be too small and will require that the draft hood first be connected to the venting, and then guided into position on the top of the insert as the unit is pushed back into the fireplace.

Particularly in installations with tight clearances, the procedure will be most easily accomplished if the trim and wing panels are installed as the last step.

Follow these steps:

1. Connect the Clarity Insert's detachable draft hood to the end of the venting by sliding it inside the venting, then secure it with three sheet metal screws.

2. Line up the two draft hood guides with the



fourth heat exchanger tube in on each side on the back of the stove as shown above.

3. With assistance, push the insert back into the fireplace, while at the same time pulling on the draft hood to coax it into position. Continue until both guides are far enough forward that the retainer clamps and nuts can be installed on the threaded guide bolts.

4. Tighten the nuts to secure the draft hood.

5. Adjust the rear levelling bolts until the unit is level.

6. Install the wing panels; they attach to brackets on each side of the Clarity. Install the side wing

panels first, using two 1/4-20 fasteners for each panel. Their mounting locations are near the top and bottom of the panel.

Install the top wing panel last using two 1/4-20 fasteners. The mounting holes are near the inside edge of the side wing panels.

Before tightening, make sure the outer edges of the top panel align with the edge of the side panels.

Brass edge trim is added as the last step of installing the wing panels.

7. Mount the side trim panel—each is held in place by two magnets.

Install the left side trim panel first by placing the bottom close to where it goes, then align the top and move it close to the insert body until it is held snugly by the two magnets.

The right side trim panel installs in the same fashion as the left, but the wiring (Two Amp Mate-N-Lok connectors) that serves the On-Off switch at the top of the panel and the blower speed control switch on the bottom must be connected first.

Move the right panel close enough to make the connection. Align the three wire male connector with the latch to the bottom. Push into the three wire female connector on the stove until it clicks. Do the same with the two wire connector with the latch turned to the top. Move panel into place while routing the switch wires into the opening of the wing bracket. Secure the panel.

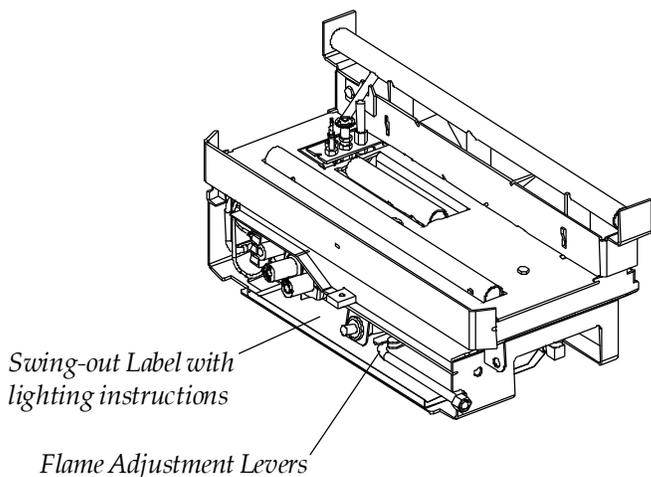
AIR SHUTTER ADJUSTMENT

The final step of the installation is to check the flame pattern, which should resemble the pattern illustrated in the right column.

The flames should be relatively well-defined and stable. They should be bright yellow with a blue base where attached to the burner ports, and should not look orange or sooty.

Start the fire according to the directions on page 11 and allow the heater to burn for approximately 15 minutes. The flames will increase in length and become more yellow in color as the unit heats up.

Three adjustment levers—one for each burner—are used to adjust the flames for a particular installation. They are accessible when the front control access door is opened. The levers may become hot to the touch after prolonged operation.



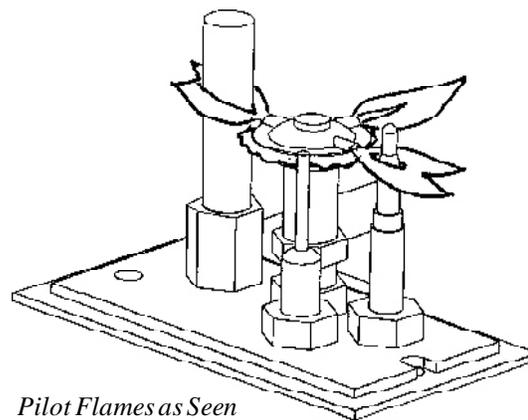
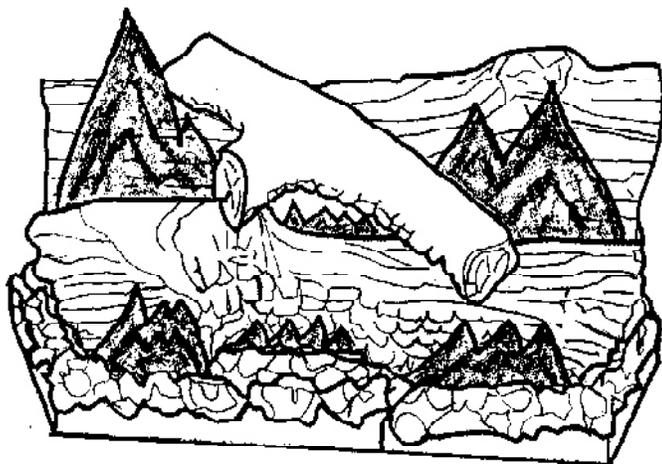
Use a glove to avoid contact if hot. For best results when fine-tuning the flame picture, initially leave the middle lever unchanged from its factory setting. Move the other two levers as needed to increase or decrease the brightness and length of the flame: moving left will increase the flame; moving right will decrease the flame.

MONITORING THE GAS FLAME

Periodically, the flames of the Clarity Fireplace Insert should be checked while it is in operation. The flames should be well-defined and stable. They should be bright yellow with a blue base where attached to the burner ports. The flames should not look orange or sooty. Portions of the logs will glow red when the flames are properly adjusted.

If you find the flames to be other than that described here, do not operate the heater. Consult a qualified service person or your Harman dealer for advice.

Operation



Pilot Flames as Seen Through Hole in Left End of Log

HOW TO LIGHT THE FIRE

1. STOP! Read the safety information on the lighting instructions label on the stove.
2. If using the optional thermostat, set thermostat to the lowest setting.
3. Turn off electric power to the appliance.
4. Turn the ON-OFF/THERMOSTAT switch to the OFF position.
5. Push in the gas control knob slightly and turn it clockwise to "OFF."

NOTE: The knob cannot be turned from "PILOT" to "OFF" unless it is pushed in slightly. Do not force it.

6. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information on the swing-out label. If you don't smell gas, go to the next step.
7. Set the High-Low Regulator to High by turning it fully counterclockwise.
8. Press in the gas control knob slightly and turn counterclockwise to "PILOT."
9. Find the pilot by looking through the round opening on the left end of the center log.
10. Push the control knob fully down and hold. Immediately push the red piezo ignitor button to light the pilot. It is normal to have to push the red button several times before the pilot ignites. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release the knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
 - 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 to "OFF" and call your service technician or gas supplier.
11. Turn the gas control knob counterclockwise to "ON."

12. Place the ON-OFF/THERMOSTAT switch in the ON position or in the THERMOSTAT position if the optional thermostat is used.

13. Turn on the electric power to the heater.

14. Set the optional thermostat to the desired room temperature.

15. Set the High-Low Regulator to desired setting: turn fully counterclockwise for High and fully clockwise for Low.

NOTE: An odor resulting from the initial heating of new materials in your heater is not unusual during the first fire, and in most cases will disappear after an hour or two.

HOW TO TURN OFF THE FIRE

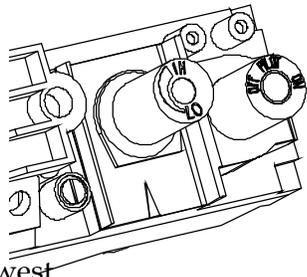
1. If using an optional thermostat, set thermostat to the lowest position.

2. Turn off the electric power to the appliance.

3. Turn the ON-OFF/THERMOSTAT switch to the OFF position.

4. Push in the gas control knob slightly and turn it clockwise to "OFF."

NOTE: The knob cannot be turned from "PILOT" to "OFF" unless it is pushed in slightly. Do not force it.



Maintenance

A qualified service person recommended by your Harman dealer should conduct an annual inspection and maintenance of your Clarity, its venting, and the installation to keep it running safely and efficiently. These procedures should be performed only by a qualified service person. The gas supply should be turned off whenever a maintenance procedure is performed.

Any access panels that are removed for servicing must be replaced prior to operating the Clarity 828I Vented Gas Fireplace Insert.

REMOVING THE GLASS DOOR AND TRIM PANELS

To gain access to the latches that secure the door, first remove the two side trim panels. Each is held

in place by a magnet at the bottom and a magnet at the top.

Remove the left side trim panel first by pulling the top slightly away from the unit, and then lifting.

The right side trim panel is removed in the same fashion as the left, but is tethered to the Insert by the wiring that serves the On-Off switch at the top and the blower speed control switch on the bottom.

Disengage the right side panel, then pull gently on it to create enough space so that you can reach the latch that holds the door. If more space is needed to gain access to the latches, reach inside and disconnect the wiring (Two Amp Mate-N-Lok connectors). The trim panel will then come away from the unit.

REPLACING THE GASKET

The Clarity has 5/8" diameter fiberglass gasket around the glass door. Should it ever need replacement, use only the proper replacement gasket that is available from your Harman dealer. To replace the gasket, follow this procedure.

1. Remove the front according to directions above.

2. Remove the existing gasket and clean its channel with a scraper or wire brush.

3. Lay a thin bead of high temperature silicone the entire length of the channel.

4. Place the gasket in the channel with sufficient pressure that it stays in place.

5. Trim the excess from the end of the gasket so that it butts snugly against the other end without leaving a gap. Seal the end joint with high temperature silicone.

6. Close the door and apply firm pressure to seat the gasket evenly throughout.

INSPECTING THE VENTING

An inspection of the venting system should be made during the annual service appointment to

confirm that there is no blockage and that the system is in good repair. Directions for conducting a flue spillage test may be found on page 6. The vent manufacturer's instructions may provide specific suggestions or details on vent inspection. Any sections that are taken apart for the inspection must be reassembled and sealed as required.

CLEANING THE GLASS

The glass may be cleaned with ordinary household glass cleaner and a soft cloth or paper towel.

WARNING: Never clean the glass when it is hot. Do not use abrasive cleaners on the glass.

CLEANING THE LOG SET AND FIREBOX

During the annual inspection and maintenance

CAUTION: If the door is opened or removed for servicing, it must be replaced and securely closed before operating the appliance. The glass must be securely fixed in the door when operating the appliance.

appointment, the service person should clean dust, lint, and any light accumulation from the logs and the firebox area. An extra-soft brush should be used on the logs as they are extremely fragile; a vacuum cleaner may be used on the firebox. If at any time the logs cannot be removed or installed without forcing, the cause must be found. The logs must never be forced. Follow this sequence:

1. Remove the side trim panels according to the directions on page 12.
2. Remove the glass door according to the directions on page 12.
3. Remove, clean, and re-install the log set, observing the directions on log handling and placement found on pages 7 and 8.

CONVECTION BLOWER SERVICE ACCESS

The blower is located behind a panel that can be accessed by first removing the fuel module. See page 15 for instructions. Remove the two fasteners securing the panel and pull the panel forward. The blower will come out with the panel. Disconnect the blower electrical connector to completely remove the blower from the unit.

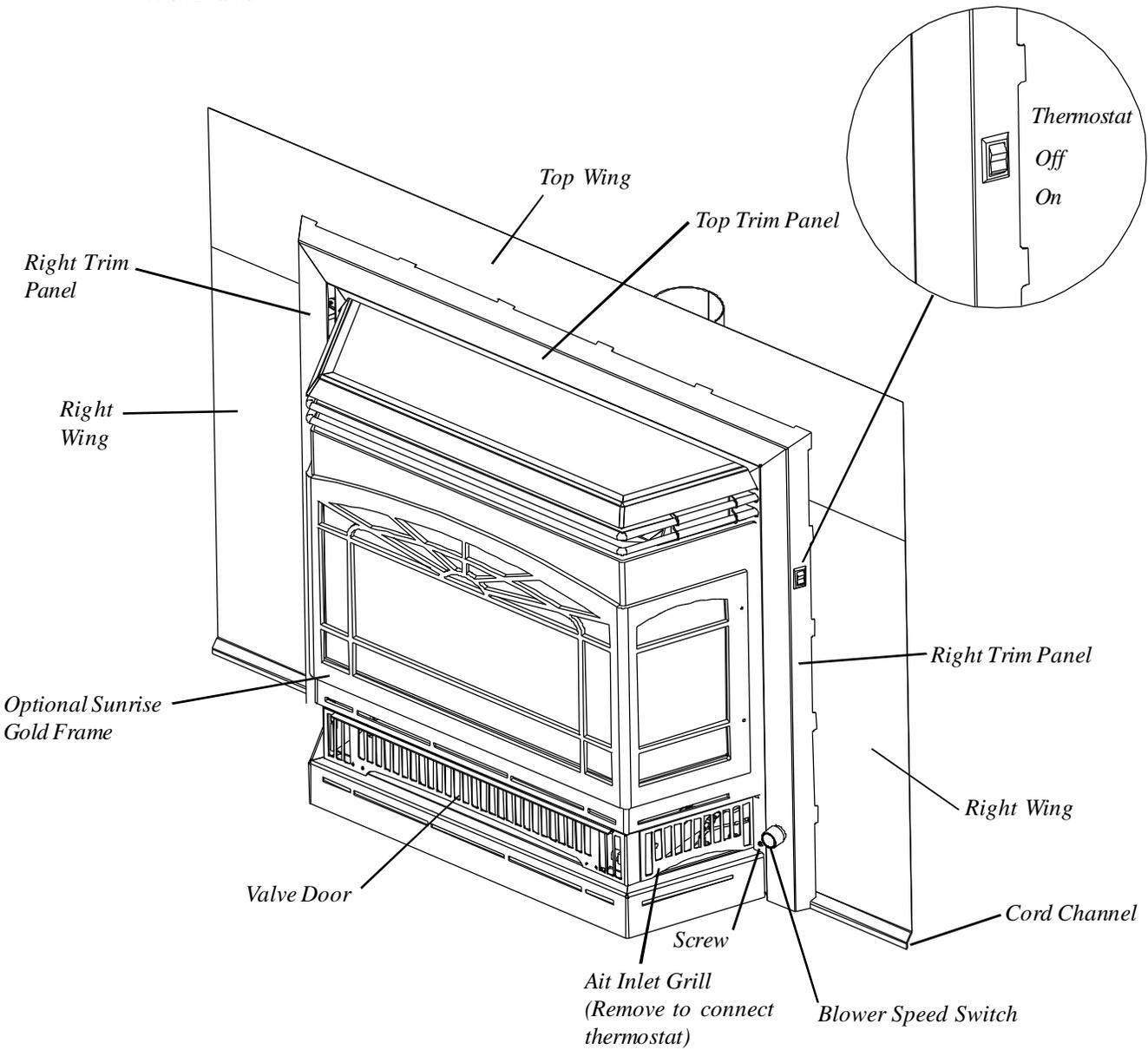


Arch Frame



Flame Adjusters

Valve



Thermostat
Off
On

Appendix A: Fuel Conversion

CONVERTING THE CLARITY FIREPLACE INSERT FROM ONE GAS TO ANOTHER IN THE FIELD

NOTE: THE CONVERSION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROVINCIAL OR LOCAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT EDITION OF THE NATIONAL FUEL GAS CODE, ANSI Z223.1 or the CAN/CGA-B149 INSTALLATION CODES.

CONVERSION KIT COMPONENTS

- Burner system module
- Conversion label

<input type="checkbox"/>	NATURAL
<input type="checkbox"/>	PROPANE

The Clarity Fireplace Insert is designed to burn either natural gas or propane, but requires a dedicated burner system module for either fuel. Conversion to the alternate fuel is a simple matter of replacing one burner system module with another. A label on the burner system module will specify for which fuel it is intended.

To accomplish the conversion procedure, follow these steps.

1. Remove the trim panels and the glass door according to the directions on page 12.
2. Disconnect the electrical connections and the gas line fitting from the module.
3. Remove the cross log, the front logs, and the two ember strips following the directions on page 7.
4. Pull the module out an inch or so so that there is enough room to remove the rear log.
5. Remove the Burner System Module

The module can be removed as an integrated unit by simply pulling the module forward.

6. Install the replacement module, re-install the logs, re-connect the wiring connections and gas line fitting, secure the glass door, and replace the trim panels.

After completing the fuel conversion, an installer fuel label—supplied with the burner system module—must be filled out by the installer and attached to the stove.

HARMAN CLARITY GAS FIREPLACE INSERT			
This appliance is equipped for <u>NATURAL GAS</u> fuel.			
Cet appareil a été converti au <u>GAZ NATUREL</u> .			
Injectors/Injecteur:	<i>Front</i>	<i>Center</i>	<i>Rear</i>
	<input type="text" value="DMS 47"/>	<input type="text" value="DMS 56"/>	<input type="text" value="DMS 44"/>
Input/Debit calorifique:		<input type="text" value="40,000"/>	
Manifold Pressure/ Pression a la tubulure d'alimentation:		<input type="text" value="3.5"/>	
Inlet Pressure / Pression D'Arrivée:	Min.	<input type="text" value="5.0"/>	
	Max.	<input type="text" value="7.0"/>	
Date module was installed:	<input type="text"/>		
By	<input type="text"/>		

The above label on the Clarity's burner system module indicates that the unit is equipped to burn natural gas. A similar label is used for Propane.

CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

SEE WIRING DIAGRAM ON PAGE 18

Appendix B: De-rating for High Altitude

For U.S. installations, the Clarity Fireplace Insert is approved for elevations up to 2000 feet using the factory-installed burner injectors. At elevations above 2000 feet, U.S. codes require a decrease in the input rating by changing the burner injectors to a smaller size. The chart below lists by part numbers the appropriate injectors for both LP and natural gas at various altitudes.

For Canadian installations, the Clarity Fireplace Insert is approved for elevations up to 1370 meters (4500 feet).

For high altitude installations above 1370 meters (4500 feet), consult the local gas distributor or the authority having jurisdiction for proper rating methods.

NOTE: The difference in altitude derating requirements for the U.S. and Canada is simply a result of differences in testing standards between the two countries.

If the installer must convert the unit to adjust for varying altitudes, an information sticker like the one below must be filled out and affixed to the appliance at the time of conversion.

THE CONVERSION SHALL BE CARRIED OUT

NATURAL GAS

Altitude	Front Injector	Harman Part No.	Center Injector	Harman Part No.	Rear Injector	Harman Part No.	Nominal Btu Input Rate
0-2000'	47	Standard	56	Standard	44	Standard	40,000
2000-3000'	47	3-40-25848	56	Standard	45	3-40-25840	38,400
3000-4000'	48	3-40-25849	56	Standard	45	3-40-25841	36,900
4000-5000'	49	3-40-25849	56	3-40-25857	46	3-40-25842	35,400
5000-6000'	49	3-40-25850	57	3-40-25857	47	3-40-25842	34,000
6000-7000'	50	3-40-25850	57	3-40-25857	47	3-40-25843	32,600
7000-8000'	50	3-40-25851	58	3-40-25858	48	3-40-25843	31,300
8000-9000'	51	3-40-25851	58	3-40-25858	48	3-40-25844	30,100

PROPANE

Altitude	Front Injector	Harman Part No.	Center Injector	Harman Part No.	Rear Injector	Harman Part No.	Nominal Btu Input Rate
0-2000'	57	Standard	71	Standard	55	Standard	40,000
2000-3000'	59	Standard	71	Standard	55	3-40-25854	36,900
3000-4000'	57	Standard	71	Standard	56	3-40-25854	36,900
4000-5000'	58	3-40-25857	71	Standard	56	3-40-25854	35,400
5000-6000'	59	3-40-25857	71	Standard	56	3-40-25855	32,600
6000-7000'	59	3-40-25857	71	Standard	57	3-40-25855	32,600
7000-8000'	60	3-40-25858	71	Standard	57	3-40-25856	30,100
8000-9000'	61	3-40-25858	71	Standard	58	3-40-25856	30,100

BY A MANUFACTURER'S AUTHORIZED REPRESENTATIVE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER, PROVINCIAL OR TERRITORIAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE REQUIREMENTS OF THE CAN/CGA-B141.1 OR CAN/CGA-B141.2 INSTALLATION CODES.

*LA CONVERSION DOIT ETRE EFFECTUÉE
CONFORMÉMENT AUX RÉGLEMENTATION
PROVINCIAUX EN CAUSE ET AUX
EXIGENCES DES CODES D'INSTALLATION
CAN/CGA-B149.*

Appendix C: Changing Orifices

To change the orifices, such as when derating for altitude, follow these steps.

1. Remove the side trim panels according to the directions on page 12 to gain access to the levers that secure the glass door, then remove the glass door according to the directions on page 7.
2. Disconnect the electrical connections and the gas line fitting from the fuel module.
3. Remove the cross log, the front logs, and the two ember strips following the directions on page 7.
4. Pull the module out an inch or so so that there is enough room to remove the rear log.
5. Remove the burner system module.
6. Pull the top tray forward so that it disengages; lift the front edge up, then remove it.
8. Remove the center burner.

9. Remove the front burner.

10. Remove the 1/4-20 fasteners and retainer clip that secure the rear burner, then remove the rear burner.

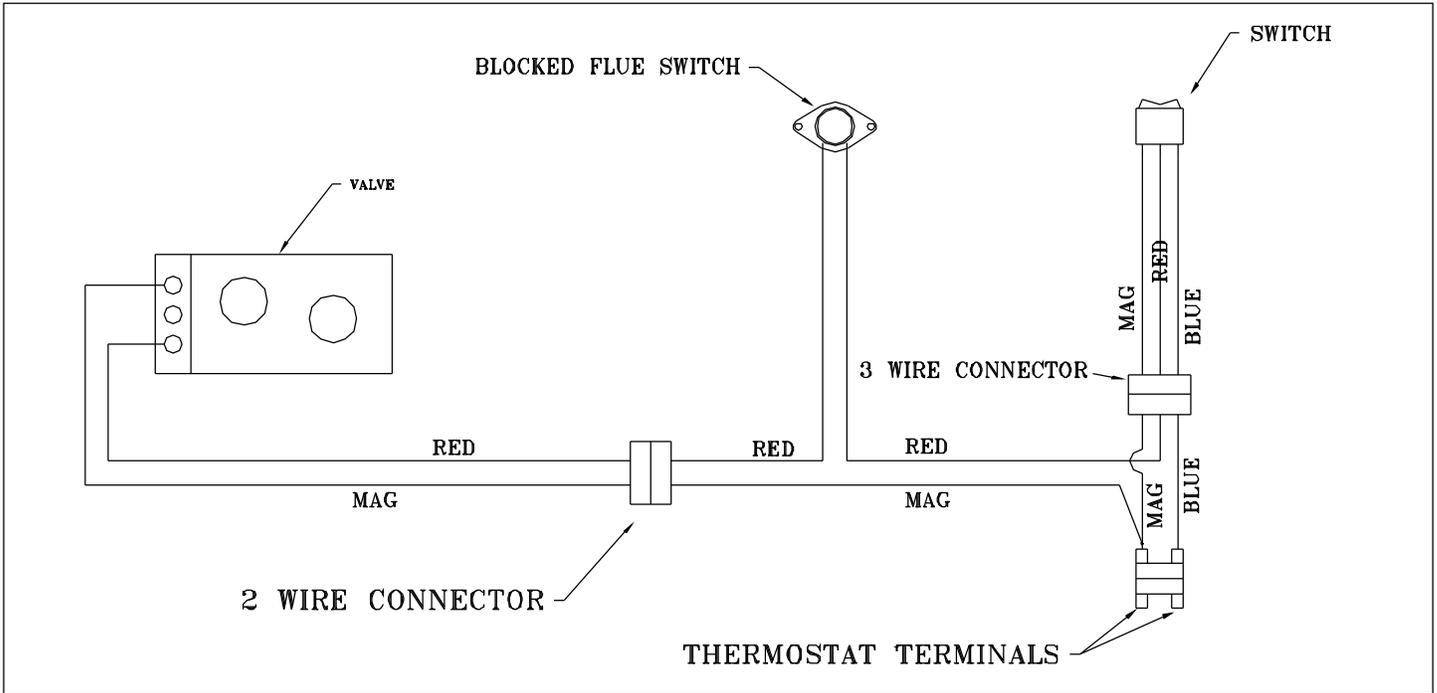
11. Lift the rear air deflector straight up, and rock it forward.

12. Remove the orifice compartment cover; (before it can be removed, it may be necessary to use pliers to straighten the tab that goes through the T-slot, which holds the cover in place. Pull the cover to the left and lift it out. The orifices will now be visible).

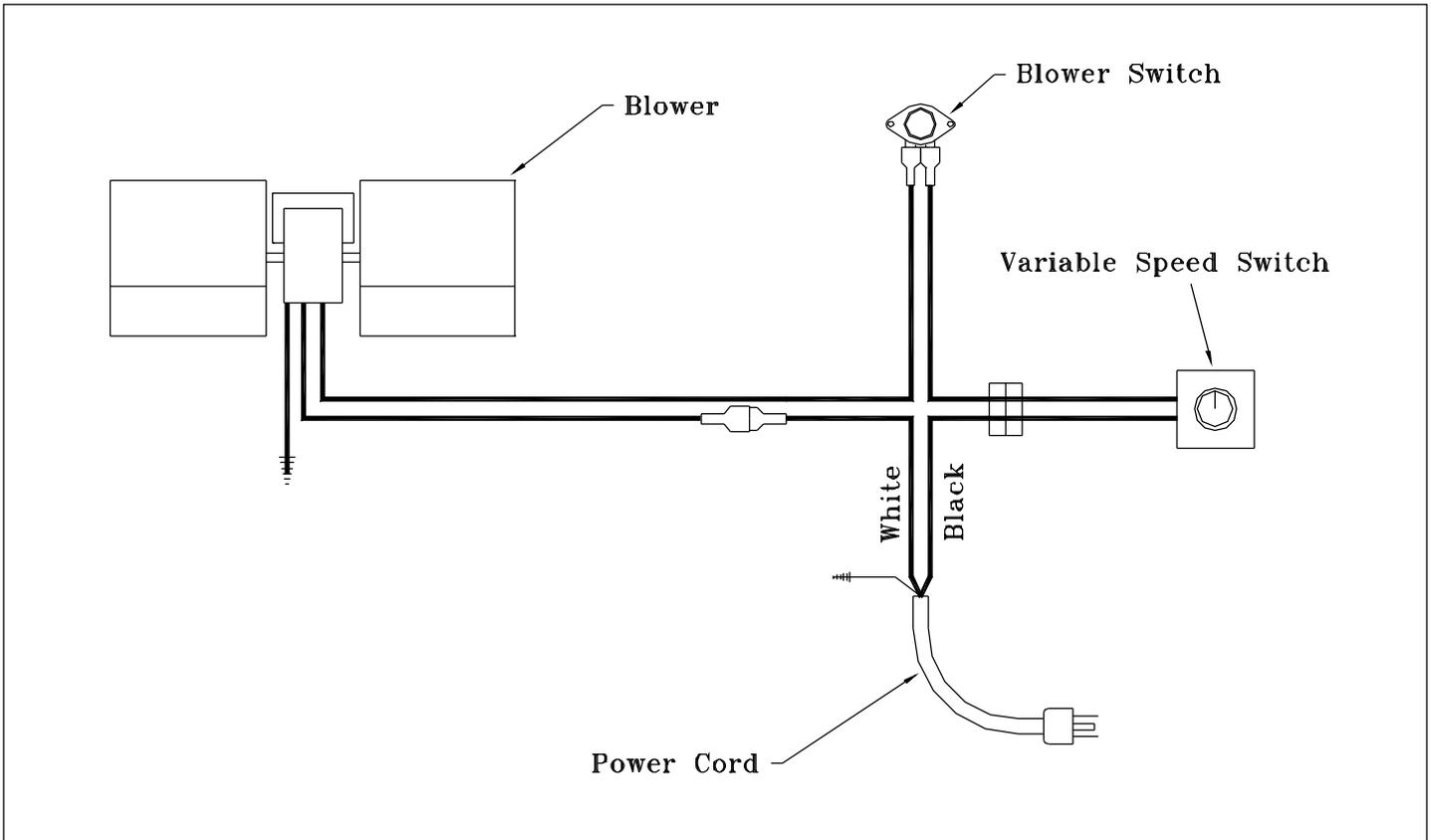
13. Lift the orifice compartment dividers straight up to remove them for better access. When you re-install the dividers, make sure they are seated all the way in to prevent air leakage from one compartment to another.

14. Re-install all components in the reverse order that they were removed.

Appendix D: Low Voltage Wiring Diagram



120 Volt Wiring Diagram



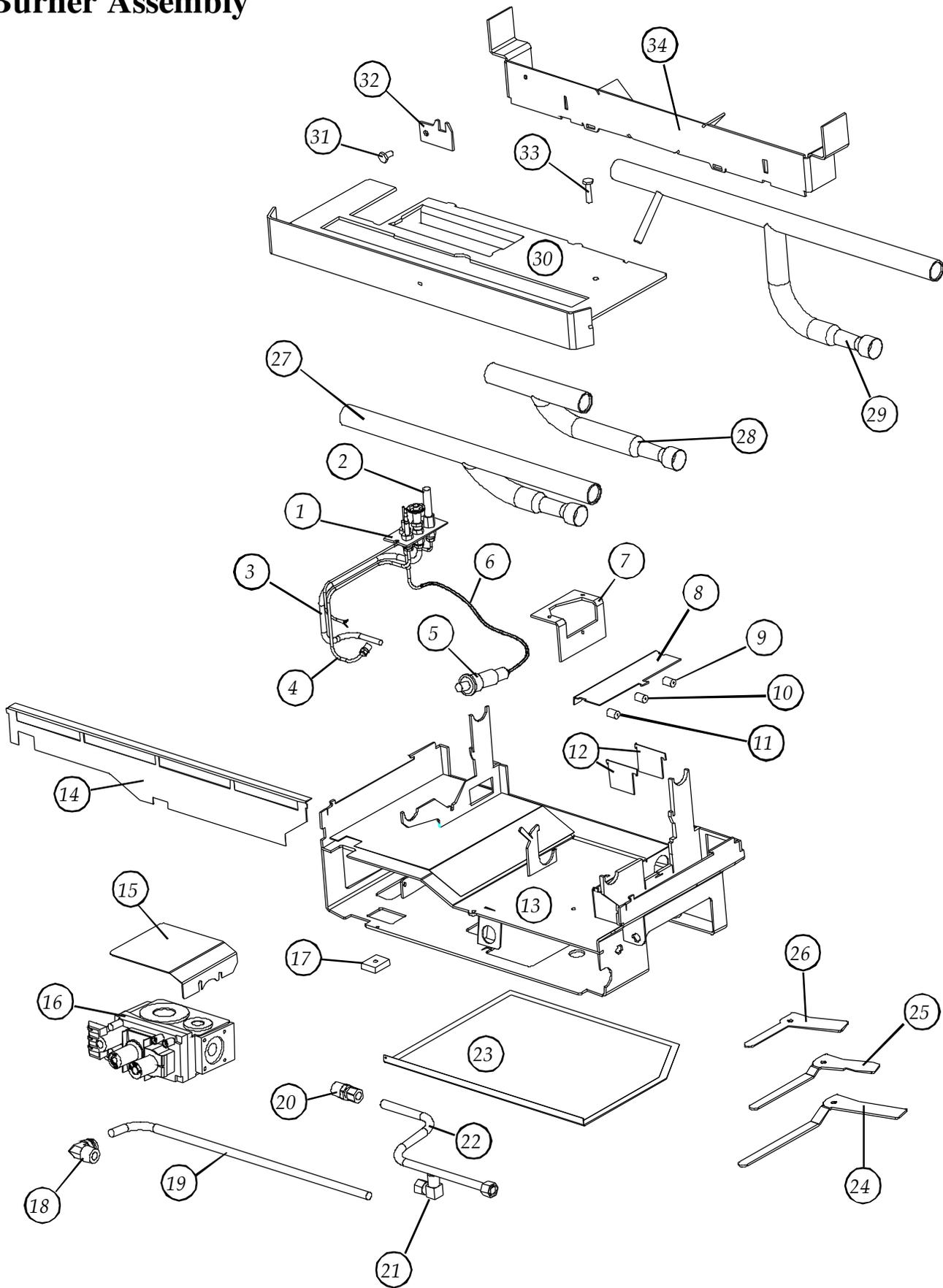
The Clarity Fireplace Insert, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the current edition of the National Electrical Code, ANSI/NFPA 70 in the United States or the current Canadian Electrical Code CSA 22.1 in Canada.

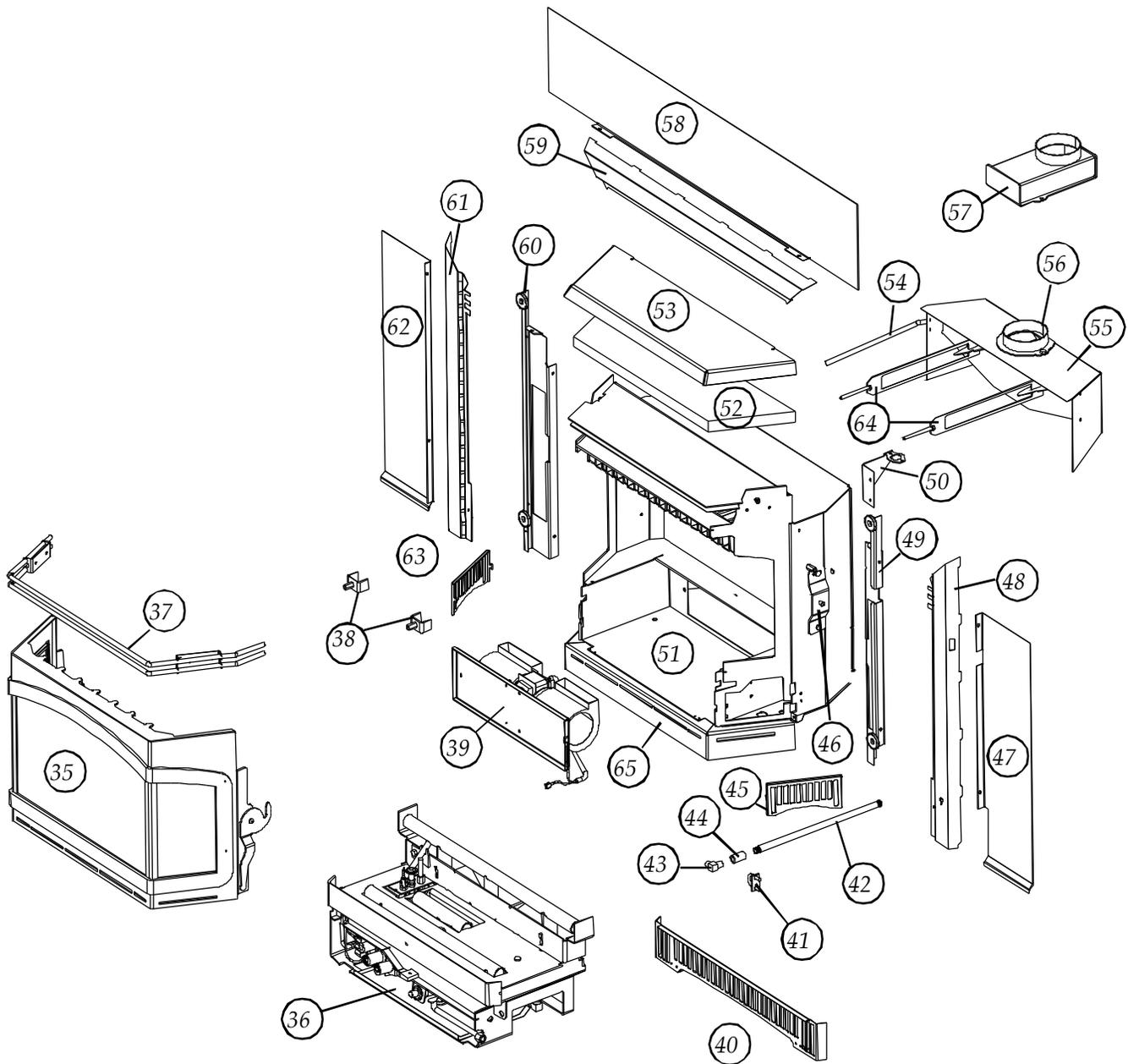
Parts List

The following replacement parts for your Harman Clarity Fireplace Insert are available from your Harman dealer.

1. Pilot NG	3-40-08229	36. Burner Module (NG)	1-10-08700
Pilot LP	3-40-08230	Burner Module (LP)	1-10-08800
2. Thermopile	3-20-08219	37. Gold Bars (2)	4-40-00141
3. Pilot Tube	2-00-446118	Bar Holders (Left)	2-00-446300-1
4. Thermocouple	3-40-08228	Bar Holder (Right)	2-00-446300-2
5. Piezo Ignitor	3-40-08220	38. Retainer Clips (2)	2-00-446322
6. Ignitor Cable	3-40-08231	39. Blower Assembly	1-10-08594
7. Pilot Bracket	2-00-446134	40. Valve Door	1-00-08592
8. Tube Box Top	2-00-446110	41. U Bolt	3-31-08568
9. Rear Orifice(NG) #44	3-40-25844	42. Pipe Nipple 13 1/2"	3-50-08570
Rear Orifice (LP) #55	3-40-25855	43. 1/4 pipe x 3/8 comp. L	3-31-08566
10. Center Orifice (NG) #56	3-40-57356	44. 1/4" Coupling	3-10-3001025
Center Orifice (LP) #71	3-40-57271	45. Air Inlet Grill	1-10-08593
11. Front Orifice (NG) #47	3-40-25847	46. Latch Plate (2)	2-00-446315
Front Orifice (LP) #57	3-40-25857	47. Right wing	2-00-446313
12. Divider Plates (2)	2-00-446108	48. Right Wing Cover	1-10-08593
13. Burner Weldment	1-10-08575	49. Right Wing Bracket	2-00-446306
14. Air Dam	2-00-446132	50. Flue Switch Bracket	2-00-446326
15. Valve Heat Shield	2-00-446135	51. Stove Body Weldment	1-89-08700
16. Valve (NG)	3-40-820628	52. Insulation	3-44-08562
Valve (LP)	3-40-82057	53. Stove Top	1-10-08595
17. Valve Door Magnet	3-31-08225	54. Draft Tube	2-00-446327
18. 3/8 pipe x 3/8 comp. L	3-31-08567	55. Draft Hood Weldment	1-10-08579
19. L Tube	2-00-08586	56. Vent Flange (std.)	1-10-08591
20. 3/8 pipe x 3/8 comp.	3-31-08284	57. Flue Adaptor (optional)	1-10-08601
21. 1/4 pipe x 3/8 comp. L	3-31-08566	58. Top Wing	2-00-446312
22. S Tube Flex	3-40-8618	59. Top Wing Cover	2-00-446308
23. Label		60. Left Wing Bracket	2-00-446307
24. Rear Air Adjuster	2-00-446113	61. Left Wing Cover	2-00-446309
25. Center Air Adjuster	2-00-446112	62. Left Wing	2-00-446311
26. Front Air Adjuster	2-00-446111	63. Side Cover	1-10-08593
27. Front Burner Tube	3-40-08224	64. Hood Retainer	1-10-08590
28. Center Burner Tube	3-40-08225	65. Base	2-00446323
29. Rear Burner Tube	3-40-08226		
30. Burner Plate	1-10-08577		
31. 1/4-20x5/8 Self Tap	3-30-1252006216		
32. Burner Retainer	2-00-4211		
33. 1/4-20x1 bolt	3-30-1252010013		
34. Air Deflector	1-10-08576		
35. Door (without frame)	1-10-08587		
Arch Frame	1-00-446303		
Sunrise Frame	1-00-446304		

Burner Assembly





Specifications

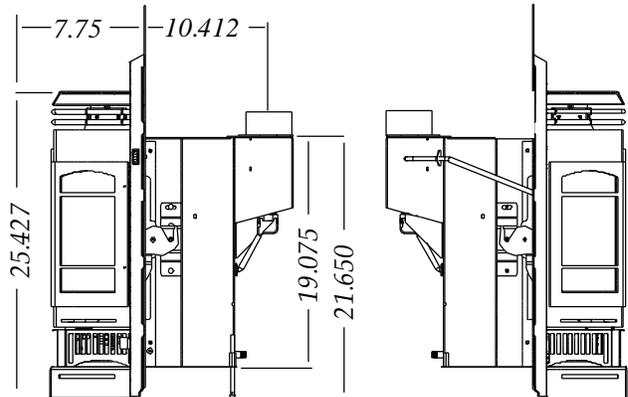
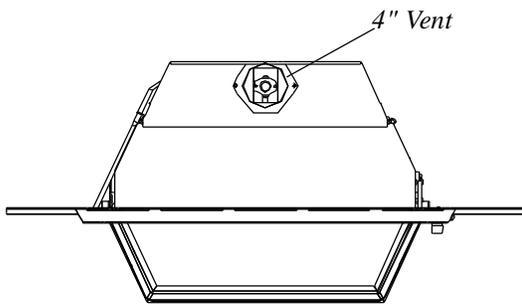
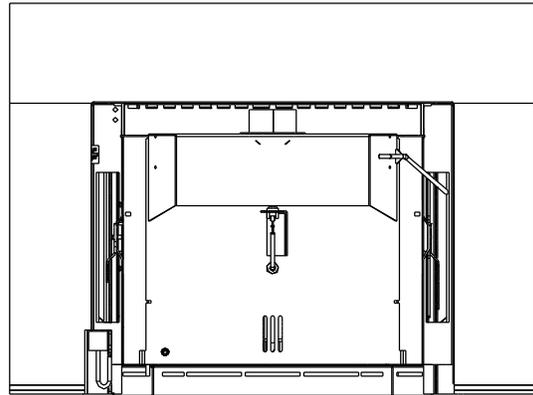
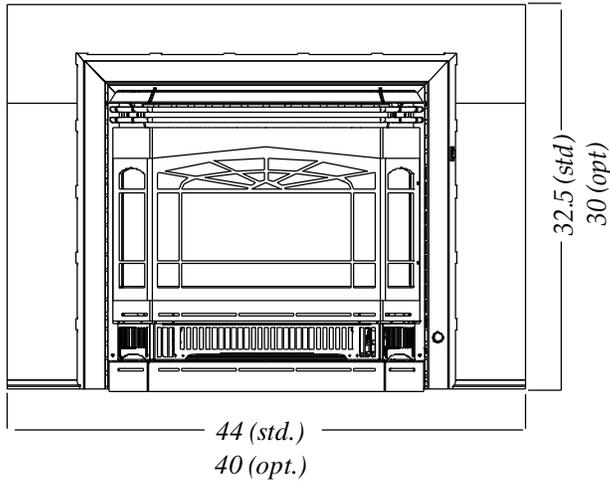
Tested to ANSI Z21.88-2002, CSA 2.33-M02, CAN/CGA 2.17-M91.

	NATURAL GAS	PROPANE
Input Rating (Btu/hr) (0-1370 m)	37,000	37,000
Min. Input Rating (Btu/hr) (0-1370 m)	25,000	27,500
Injector Sizes (DMS) (front/center/rear (0-1370 m)	47/56/44	57/71/55
Manifold Pressure (in w.c./kPa)	3.5/0.87	10.0/2.49
Minimum Manifold Pressure (in w.c./kPa)	1.7/0.42	5.9/1.47
Minimum Inlet Pressure (in w.c./kPa)	5.0/1.25	11.0/2.74
Maximum Output (Btu/hr) (0-1370 m)	27,600	28,400
AFUE (seasonal efficiency; minimum venting)	64.9%	67.0%
Steady State Efficiency (max. input, blower on High)	77.2%	78.6%

MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION

- Unit to side wall or combustible trim 10 in. (254 mm)
- Unit to mantel and combustible trim, unprotected 12 in. (305 mm)

Electrical Rating: 120 Volts, 60 Hz., 1.2 Amp



HARMAN GOLD WARRANTY (for corn stove)
6 YEAR TRANSFERABLE LIMITED
WARRANTY (Residential)
1 YEAR LIMITED WARRANTY (Commercial)



Harman Stove Company warrants its products to be free from defects in material or workmanship, in normal use and service, for a period of 6 years from the date of sales invoice and for mechanical and electrical failures, in normal use and service, for a period of 3 years from the date of sales invoice.

If defective in material or workmanship, during the warranty period, Harman Stove Company will, at its option, repair or replace the product as described below.

The warranty above constitutes the entire warranty with respect to Harman Stove Company products. HARMAN STOVE COMPANY MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING "ANY" WARRANTY OF MERCHANTABILITY, OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No employee, agent, dealer, or other person is authorized to give any warranty on behalf of Harman Stove Company. This warranty does not apply if the product has been altered in any way after leaving the factory. Harman Stove Company and its agents assume no liability for "resultant damages of any kind" arising from the use of its products. In addition, the manufacturer and its warranty administrator shall be held free and harmless from liability from damage to property related to the operation, proper or improper, of the equipment.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THESE WARRANTIES APPLY only if the device is installed and operated as recommended in the user's manual.

THESE WARRANTIES WILL NOT APPLY if abuse, accident, improper installation, negligence, or use beyond rated capacity causes damage.

HOW TO MAKE A CLAIM - Any claim under this warranty should be made to the dealer from whom this appliance was purchased. Then contact is made with manufacturer, giving the model and serial numbers, the date of purchase, your dealer's name and address, plus a simple explanation of the nature of the defect. Extra costs such as mileage and overtime are not covered. Nuisance calls are not covered by these warranties.

THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS - REPAIR AND/OR REPLACEMENT AT HARMAN STOVE COMPANY'S OPTION AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

WARRANTY EXCLUSIONS: Failure due, but not limited to, fire, lightning, acts of God, power failures and/or surges, rust, corrosion and venting problems are not covered. Damage and/or repairs including but not limited to; remote controls, filters, fuses, knobs, glass, ceramic brick panels, ceramic fiber afterburners, door packing, tile, ceramic log sets, paint, batteries or battery back-up and related duct work are not covered. Also excluded from this warranty are consumable or normal wear items including but not limited to; flame guides, grates, coal bars, afterburner hoods, fire brick, gaskets. Additional exclusions for corn stoves are burnpot housing weldment, burnpot grate weldment (pellet or corn), burnpot front plate (pellet or corn), burnpot front plate lock, corn auger extension, ceramic insert, and ceramic insert plate. Additional or unusual utility bills incurred due to any malfunction or defect in equipment and the labor cost of gaining access to or removal of a unit that requires special tools or equipment are not covered. Maintenance needed to keep the stove in "good operating condition" is not covered. This includes, but is not limited to, cleaning, adjustment of customer controls and customer education. Labor, materials, expenses and/or equipment needed to comply with law and/or regulations set forth by any governmental agencies are not covered.

This Warranty provides specific legal rights and the consumer may have other rights that vary from state to state.

In the event of change in ownership, the remaining portion of this warranty may be transferred to the new owner by sending the new owner information and a transfer fee of \$25.00 US to the Harman Stove Company.

PLEASE READ THE LITERATURE BY THE MANUFACTURER FOR THE VARIOUS ACCESSORY DEVICES. THE MANUFACTURER WARRANTS THESE ACCESSORY DEVICES, NOT HARMAN STOVE COMPANY OR THEIR WARRANTY ADMINISTRATOR. FURTHERMORE, THESE ACCESSORY DEVICES MUST BE INSTALLED AND USED ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER.

REMEDIES - The remedies set forth herein are exclusive and the liability of seller with respect to any contract or sale or anything done in connection therewith, whether in Contract, in tort, under any warranty, or otherwise, shall not, except as herein expressly provided, exceed the price of the equipment or part of which such liability is based.

CLARIFY - The above represents the complete warranty, which is given in connection with stoves, manufactured by Harman Stove Company. No other commitments, verbal or otherwise, shall apply except by a written addendum to this warranty.