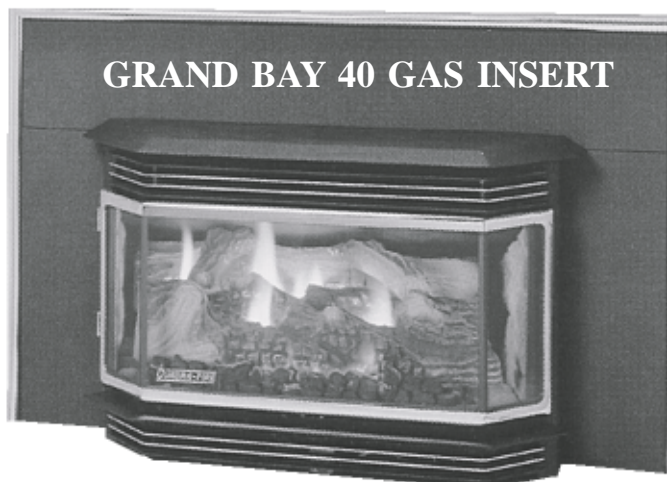


QUADRA-FIRE

North America's Best

CONGRATULATIONS!

You are now the proud owner of one of the finest gas inserts on the market - the QUADRA-FIRE GB40I



Tested and
Listed by  Beaverton
Oregon US/
OMNI-Test Laboratories, Inc.

This Manual contains instructions for
INSTALLATION, OPERATION, VENTING AND MAINTENANCE

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or death.

FOR YOUR SAFETY: 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

- Extinguish any open flame.
- Open windows.
- Do not try to light any appliance.
- Do not touch any electric switch.
- Do not use any telephone 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.

WARNING

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



SAVE THESE INSTRUCTIONS

401 N. Wynne Street
Colville, WA 99114

(Revised March 2000) Part #250-2641 #842-1270

www.aladdinhearth.com
aladdin@aladdinhearth.com

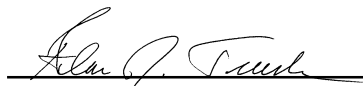
Welcome

Aladdin Hearth Products welcomes you to our tradition of excellence! In choosing a **Quadra-Fire** appliance, you have our assurance of commitment to quality, durability, and performance.

This commitment begins with our research of the market, including 'Voice of the Customer' contacts, ensuring we make products that will satisfy your needs. Our Research and Development facility then employs the world's most advanced technology to achieve the optimum operation of our stoves, inserts and fireplaces. And yet we are old-fashioned when it comes to craftsmanship. During manufacturing each unit is meticulously fabricated and gold surfaces are hand-finished for lasting beauty and enjoyment. Our pledge to quality is completed as each model undergoes a quality control inspection. Additionally, we feel it is important to offer you several finishing options and accessories to compliment your home's décor, individualize the use of your appliance, and provide financial options in acquiring a quality hearth appliance. Ask your **Quadra-Fire** Dealer for information on these options. From design, to fabrication, to shipping: Our guarantee of quality is more than a word, it's **Quadra-Fire** tradition, and we proudly back this tradition with a **Lifetime Warranty**.

Prior to installation, we ask you to take a few moments to read this manual. It has been our experience that your overall enjoyment of your new appliance will be greatly enhanced by becoming familiar with its' installation, operation and maintenance requirements. We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance. **Thank you** for choosing **Quadra-Fire**.

With warm regards,

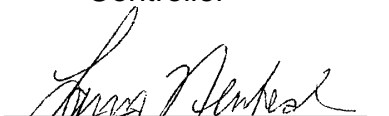

President


V.P. Research & Development

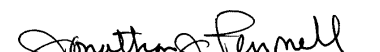

Controller



Operations Manager



V.P. Sales & Marketing



Western Sales Manager



Central Sales Manager

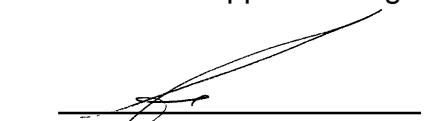

Eastern Sales Manager


Manufacturing Eng. Mgr.


Sr. Purchasing Agent


Technical Support Manager


Customer Support Manager


Human Resources Supervisor



GB40-I with gold-plated H-channel door

NOTES



MODEL PURCHASED

GB40-I

SERIAL NUMBER

DATE PURCHASED

DEALERSHIP WHERE PURCHASED:

DEALER PHONE NUMBER

ADDITIONAL INFORMATION :

ATTACH YOUR SALES RECEIPT AND WARRANTY STUB HERE:

NOTES

TABLE OF CONTENTS

Welcome	2
Notes	3
Safety Label	5
Safety Notices	6
Specifications	7
Gas Line Connection	7
Pressure Testing	7
Safety Listings	7
Dimensions	8
Minimum Fireplace Clearances	9
Clearances to Combustibles	10
High Altitude Operation	11
Installation	
Panel & Trim Installation	12
Brick Installation	13
Log Set Installation	14
Door Installation	15
Thermostat Installation	16
Blower Power Cord	17
Gas Connections	18
Vent Attachment to Flue Collar	19
Flue Clamp Instructions	20
Venting Requirements	
Terminations	21
Exhaust Spillage and Testing Procedure	23
Lighting Instructions	24
First Fire	25
Maintenance	
Cleaning and Inspection	26
Burner Tube Cleaning	26
Glass Cleaning	26
Glass Replacement	27
Schematics	28
Blower & Snap Disc Replacement	29
Conversion to Alternate Fuel	30
Troubleshooting	32
Zero Clearance Fireplace Kit	33
Offset Adapter Kit	33
Accessories & ServiceParts	34
Warranty	35
Warranty Card Insert	

SAFETY LABEL

(As found on chain in lower front grill.)



OMNI-Test Laboratories, Inc.

CAN 1-2.1-M86 / ANSI 21.11.1a-1993
Report #061-S-07-4GB40 -I NG ☐
GB40-I LP ☐
GAS-FIRED VENTED ROOM HEATER
SERIAL NO.

MANUFACTURED BY:

401 N. Wynne
Colville, WA 99114

	GB40-I (NG) For use with Natural Gas	GB40-I (NG) For use with Natural Gas	GB40-I (LP) For use with Propane	GB40-I (LP) For use with Propane
Altitude	0-2000'	2000-4500'	0-2000'	2000-4500'
Input High	46,000 BTUH	40,000 BTUH	40,000 BTUH	36,000 BTUH
Input Low	31,000 BTUH	29,000 BTUH	32,000 BTUH	25,000 BTUH
Output Blower off	33,600 BTUH	29,200 BTUH	30,000 BTUH	27,000 BTUH
Output Blower on	35,420 BTUH	31,000 BTUH	32,000 BTUH	28,440 BTUH
Manifold Pressure	3.5" WC	3.5" WC	10.0" WC	10.0" WC
Reduced Manifold Pressure	1.5" WC	1.5" WC	5.8" WC	5.8" WC
Min. Supply Pressure	4.5" WC	4.5" WC	11.0" WC	11.0" WC
Orifice Size (DMS)				
Front burner	#53	#54	#66	#67
Middle Burner	#52	#53	#63	#64
Rear Burner	#38	#37	#53	#54

ATTENTION

MANUFACTURED AS A:

GB40-I (NG) ☐GB40-I (LP) ☐

This appliance must be installed in accordance with local codes, if any; if not, follow current ANSI Z223.1/CAN 1-B149.
ELECTRICAL SUPPLY: 120 Volts, 1.2 Amps, 60 Hz.
Install and use only in accordance with manufacturer's installation and operating instructions.
For direct discharge without duct connections.
Not for use with solid fuel.
Keep burner and control compartment clean.
Due to high surface temperatures, keep children, clothing and furniture away.

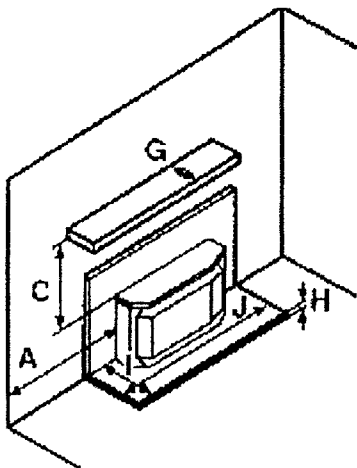
MINIMUM CLEARANCES TO COMBUSTIBLES

		FROM HEATER
SIDEWALL	A	10" (255mm)
MANTEL	C	12.5" (320mm)
MANTEL WIDTH	G	1" (25mm)
NOTE: FOR EVERY 1" (25mm) OF MANTEL WIDTH ADD 1" (25mm) TO CLEARANCE "C". EX: MANTEL WIDTH 6" (150mm) - CLEARANCE "C" MUST BE 17.5" (445mm)		

NON-COMBUSTIBLE HEARTH EXTENSION

HEARTH HEIGHT (H)	0" (0mm)	2" (51mm)	4" (100mm)
HEARTH DEPTH (I)	24" (610mm)	22" (560mm)	0" (0mm)
HEARTH WIDTH	J	30" (760mm)	

DO NOT REMOVE THIS LABEL



SAFETY

LABEL

SAFETY NOTICES

This appliance should only be installed by a qualified installer. It is approved for installation in a bedroom. Bedroom installation in Canada requires that the stove be connected to a thermostat. The appliance must be electrically grounded in accordance with local codes, or the latest edition of the National Electric Code. If no local codes exist, this appliance should be installed following the current codes:

CAN/CGA-B149.1	Natural Gas Installation Code
CSA-C22.1	Canadian Electrical Code
ANSI Z223.1	National Fuel Gas Code
ANSI NFPA-70	National Electrical Code

The control compartment, burner, and circulating air passageways **MUST** be kept clean and clear to allow for adequate combustion and proper operation. Provide adequate clearances around air openings and adequate accessibility clearance for service and operation. **NEVER** obstruct the openings of the appliance or the vent termination on the exterior of the building. **NEVER** vent the appliance to other rooms or buildings; this appliance must be vented **ONLY** to the outside, with a vertical termination. During installation, be sure to maintain minimum clearances to combustibles, as shown on page 9. Always contact your local building department or fire department prior to installing this appliance. If required, obtain a permit before installing, and have the completed installation inspected. Failure to do this could jeopardize your homeowner's insurance.

The area around the appliance **MUST** be kept free from combustible materials, gasoline and other flammable vapors and liquids.

This appliance is hot during operation, and should be located out of heavy traffic areas and away from furniture and draperies. Clothing or other flammable material should not be placed on or near the appliance. Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition. Children should not be left unsupervised in the room when this appliance is in operation.

If any part of this appliance has been under water, **DO NOT USE it!!** 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.

This appliance should **NOT** be modified under any circumstances. Any parts removed for servicing must be replaced before operating this appliance. Installation and repair should only be done by a qualified service technician. The appliance and its venting system should be inspected and cleaned annually by a qualified service technician. More frequent cleaning may be necessary due to excess lint and dust from carpeting, bedding material, etc. **Be sure to turn off gas valve and pilot before cleaning this appliance.**

Install at least one smoke detector on each floor of your home to ensure your safety. They should be located away from the gas appliance and close to the sleeping areas. Follow the smoke detector manufacturer's placement and installation instructions, and be sure to maintain regularly. Your local fire department may provide assistance in selecting smoke detectors, or contact the Consumer Product Safety Commission, Washington, D.C. 20207.

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

NOTICES

SAFETY

SPECIFICATIONS

Manifold pressure	3.5" WC	10.0" WC
Minimum inlet gas supply pressure	4.5" WC	11 0" WC
Maximum inlet gas supply pressure	7.0" WC	14.0" WC
BTU input rating (high)	46,000	40,000
BTU input rating (low)	31,000	32,000
Efficiency with blower (steady state)	77%	79%
Efficiency without blower (steady state)	73%	75%
A.F.U.E.	65%	66%

GAS LINE CONNECTION

Gas line connection can be made near the lower rear of the appliance (3/8" gas hookup). You must supply a shutoff valve installed in a visible location within 3' of the insert.

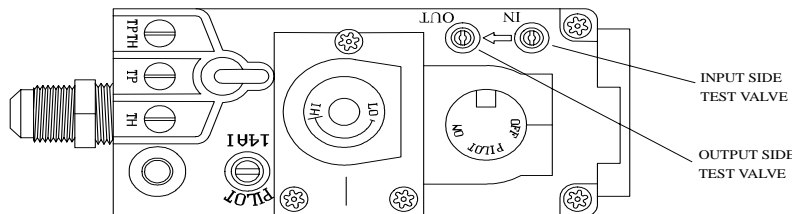
CAUTION

IN SOME AREAS, GAS LINE PRESSURE MAY BE MORE THAN 1/2 PSIG (14" WC). IF YOU BELIEVE THAT THIS MIGHT BE THE CASE IN YOUR LOCALITY, CONTACT YOUR GAS SUPPLIER OR LOCAL UTILITY COMPANY. LINE PRESSURE GREATER THAN 1/2 PSIG WILL DAMAGE THE APPLIANCE VALVE. YOU MUST INSTALL A REGULATOR UPSTREAM FROM THE APPLIANCE IF LINE PRESSURE IS GREATER THAN 1/2 PSIG.

PRESSURE TESTING

During any pressure testing of the gas supply piping system that exceeds test pressures of 1/2 PSIG, this appliance and its individual shutoff valve must be disconnected from the piping system. If test pressure is less than or equal to 1/2 PSIG, then this appliance must be isolated from the piping system by closing its individual shutoff valve. The gas valve is supplied with pressure test ports for checking input and output pressures. These are located just below the on/off knob and can be found inside the hinged lower access grill. The port on the left is for output pressure and the port on the right for input. Pressure can be checked by turning the captured screw counterclockwise two or three turns and then placing the manometer tubing over the test port. BE SURE TO CLOSE CAPTURED SCREWS AFTER TESTING BY TURNING THEM CLOCKWISE. DO NOT OVERTIGHTEN SCREWS.

NOTE: To make flame and heat output adjustments, turn the HI-LO knob located on the center of the valve (as seen below). Turn clockwise for a higher flame and counterclockwise for a lower flame.

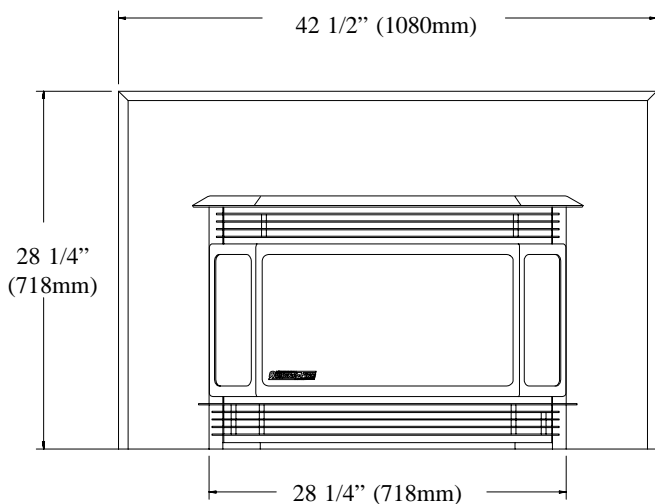
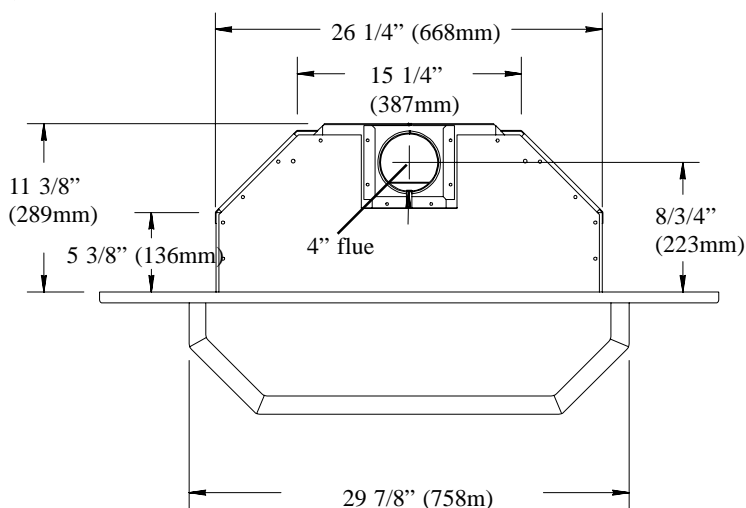
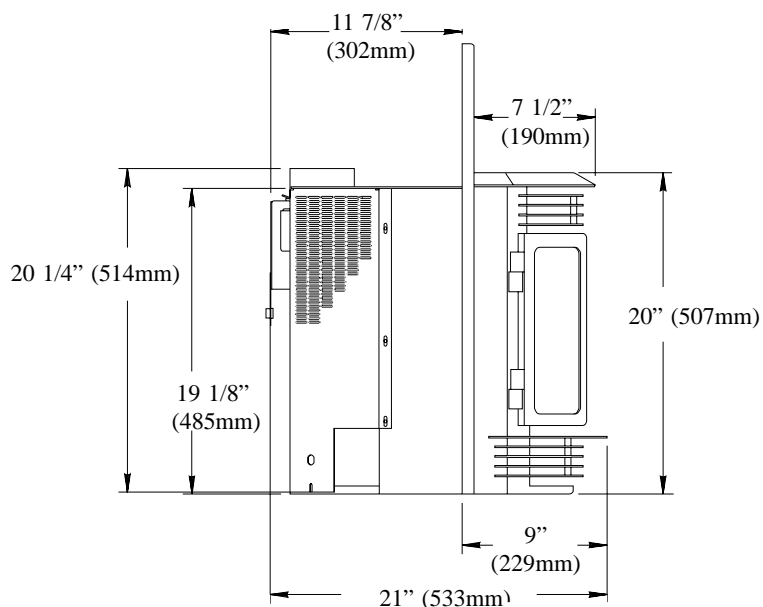


LISTINGS

The Quadra-Fire GB40-I is listed to ANSI Z21.11.1 and CAN1-2.1 by OMNI-Test Laboratories, Inc.

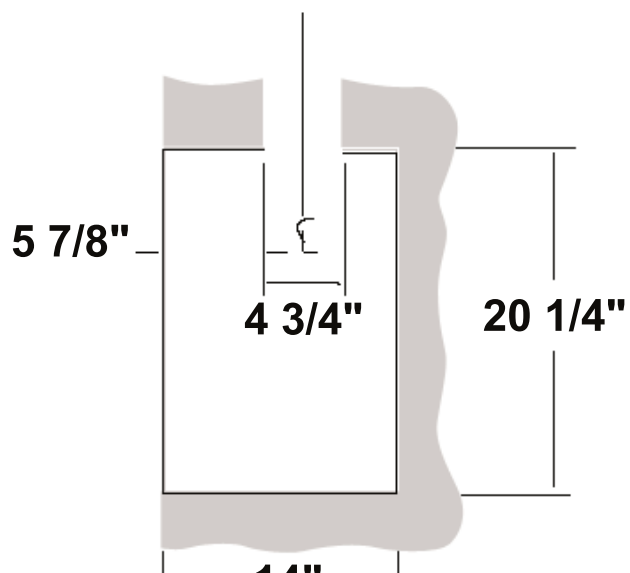
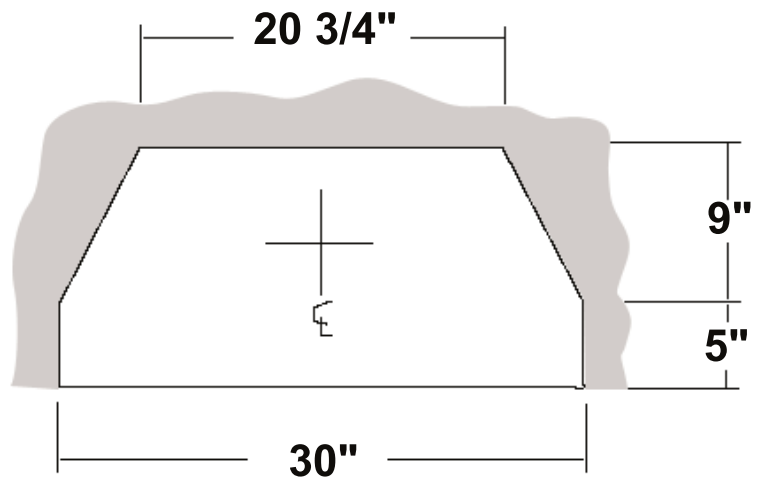
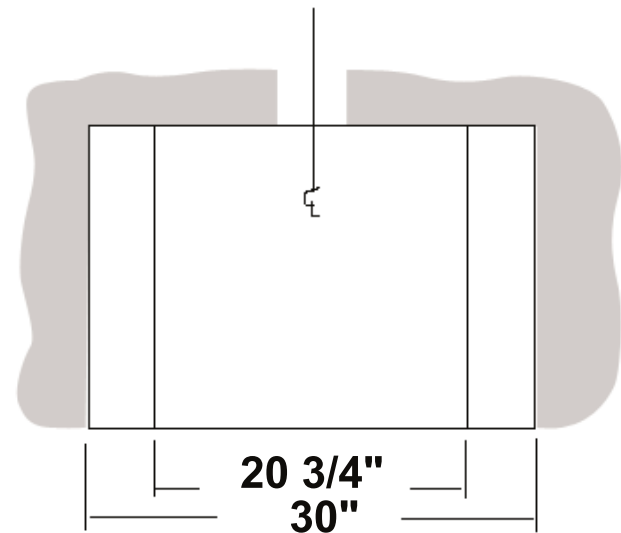
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DIMENSIONS



MINIMUM FIREPLACE CLEARANCES

The following diagrams show the minimum fireplace dimensions that are required for installation of the Quadra-Fire GB40-I gas fireplace insert.



CLEARANCES TO COMBUSTIBLES

Minimum clearances to combustible materials

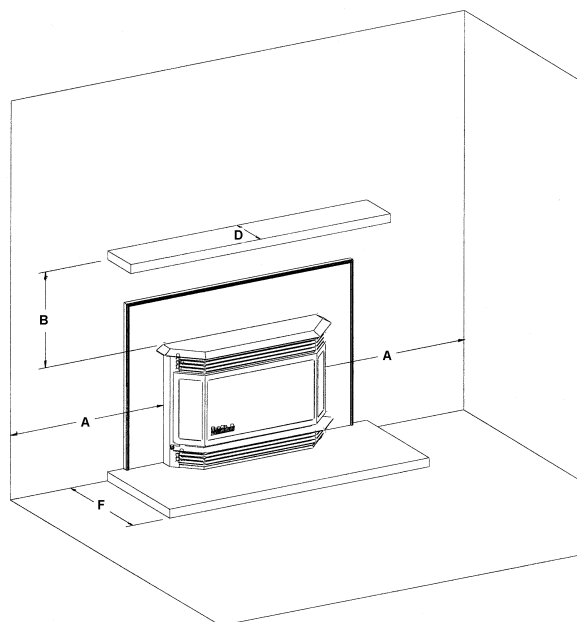
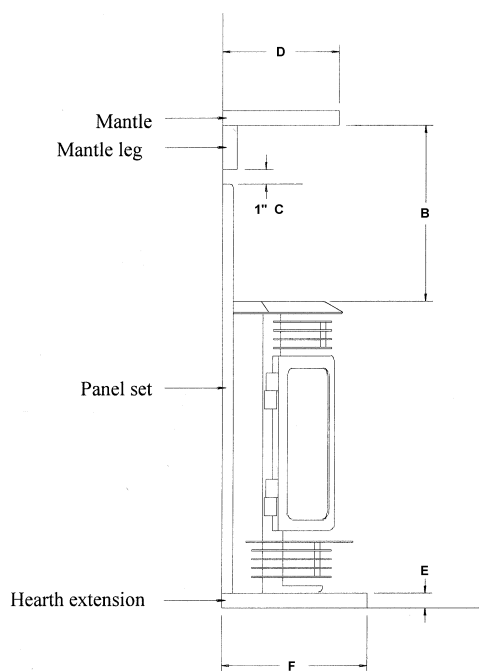
From HEATER TO:	SIDEWALL	A	10" (255mm)
From HEATER TO:	MANTEL	B	12.5" (320mm) *
From PANEL TOP TO:	MANTEL LEG	C	1" (25mm)
	MANTEL WIDTH	D	1" (25mm)

* NOTE: For every 1" (25mm) of MANTEL WIDTH, ADD 1" (25mm) to Clearance "C".

Example: Mantel Width is 6" (150mm) - Clearance "C" must be 17.5" (445mm).

HEARTH REQUIREMENTS: A minimum 3/8" (10mm) non-combustible material is required under the appliance. The depth of the hearth extension is variable depending on the height of the non-combustible hearth material. Follow the hearth extension clearance requirements noted below for compliance to this requirement:

Height (E)	3/8"(10mm)	1" (25mm)	2" (51mm)	3" (76mm)	4" (102mm)
Depth (F)	24" (610mm)	23" (585mm)	22" (560mm)	15" (380mm)	0" (0mm)



HIGH ALTITUDE OPERATION

For installations in the United States and at altitudes above 2000 feet, the appliance input shall be adjusted in accordance with local codes or, in the absence of any, follow the current ANSI Z223.1, National Fuel Gas Code. For installation in Canada for altitudes up to 4500 feet, for altitudes above 4500 feet, contact the authority having jurisdiction, or the manufacturer. Follow local codes or CAN 1 B-149.

NOTE: In the United States, input ratings of this unit are based on sea level operation, and shall not be changed for operation at elevations up to 2000 feet (600m). For operation at elevations above 2000 feet, this appliance shall be reduced at the rate of 4% for each 1000 feet above sea level.

Exception: As permitted by the authority having jurisdiction.

EQUIVALENT ORIFICE SIZES AT HIGH ALTITUDES (INCLUDES 4% INPUT REDUCTION FOR EACH 1000 FEET)

Orifice at sea level	2000	3000	4000	5000	6000	7000	8000	9000	10000
Natural Gas									
Front 53	54	54	54	54	54	54	55	55	55
Middle 52	52	53	53	53	53	53	54	54	54
Rear 38	39	40	41	41	42	42	43	43	44
Propane									
Front 66	67	67	68	68	68	69	69	69	70
Middle 63	64	64	65	65	65	66	66	67	68
Rear 53	54	54	54	54	54	54	55	55	55

HIGH

ALTITUDE

PANEL/TRIM INSTALLATION

NOTE: PANEL AND TRIM MUST BE INSTALLED BEFORE BRICK

1. Slide side panels in between panel clamp and back of insert, see Fig. A. Slide top panel over side panels and attach with screws provided. Tighten panel clamps by the bolts located in the firebox, see Fig. B.
2. Assemble trim set with the L brackets provided, see Fig. C. Slide trim over panel set. Connect trim wiring plug to the connector located on the right side of the insert body, see Fig. D. Insert brass trim screw to panels.
3. Plug wire ends into on/off switch and blower speed control switch as shown in Fig. E.

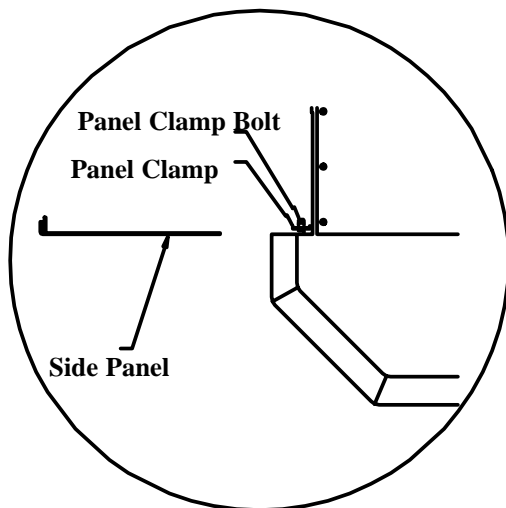


Fig. A

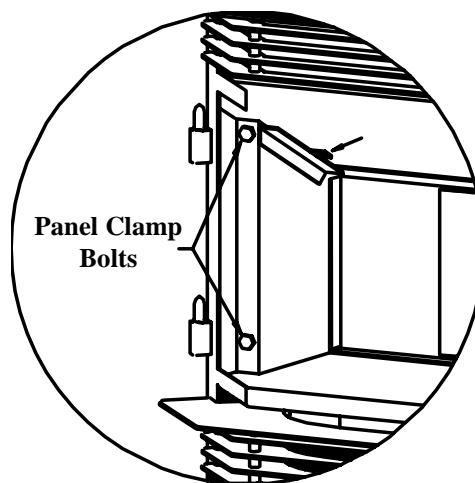


Fig. B

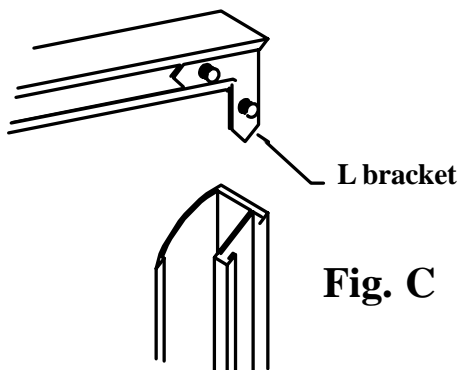


Fig. C

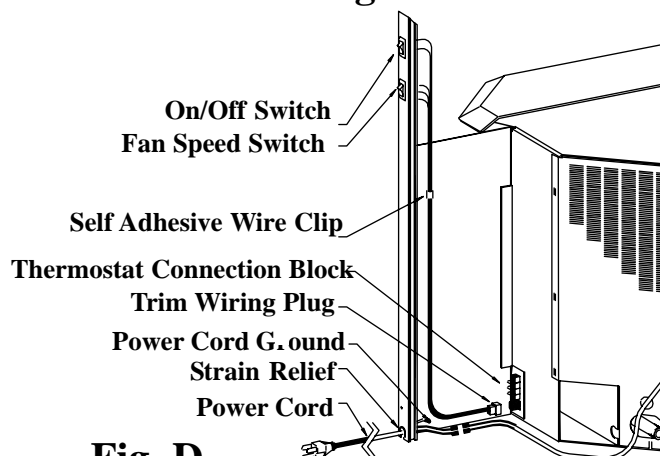


Fig. D

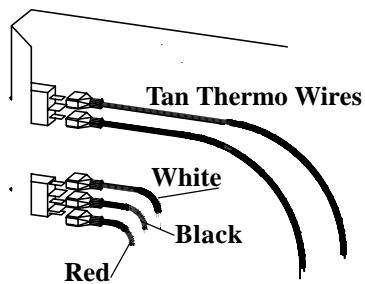


Fig. E

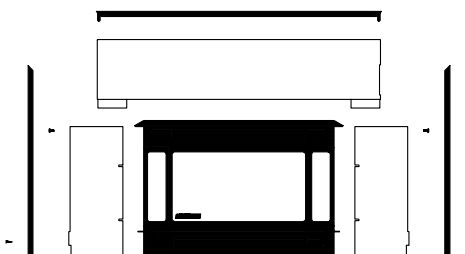


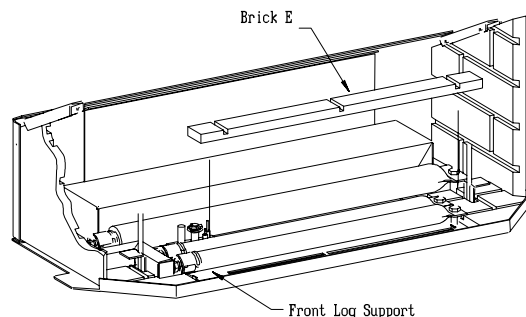
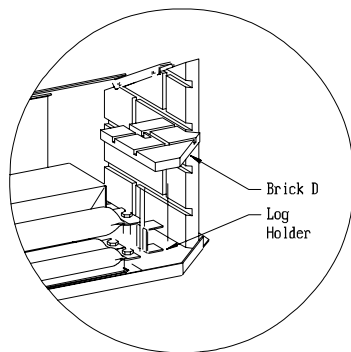
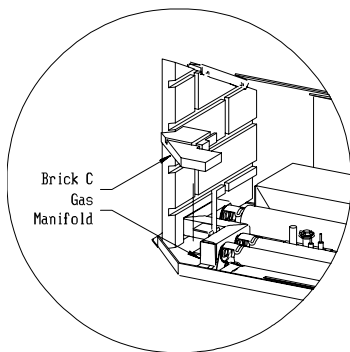
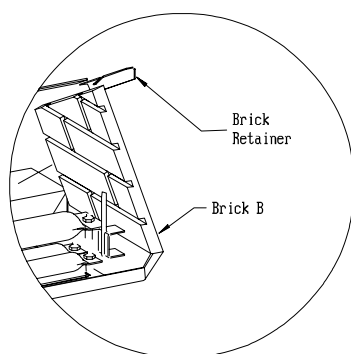
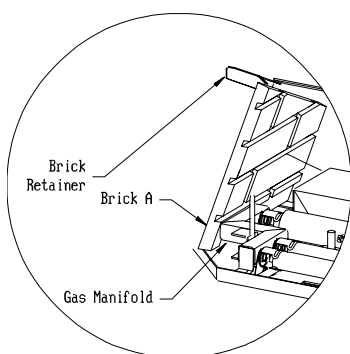
Fig. F

BRICK INSTALLATION

CAUTION: *Brick is extremely fragile, handle with care.*

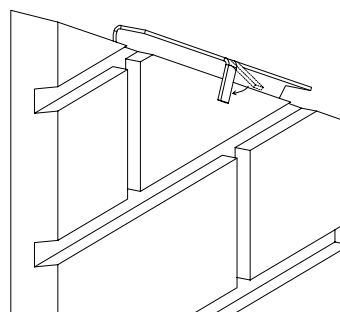
The brick in this unit is packed within the firebox to prevent breakage during shipping. To install the brick, follow the directions below:

1. Place brick A on the lower bottom left side of the firebox at an angle, and tip the top edge up until it slides into the slots on the top of the firebox and behind the manifold block. Bend brick retainer tab down.
2. Place brick B on the lower bottom right side of the firebox at an angle, and tip the top edge up until it slides into the slots on the top of the firebox. Bend brick retainer tab down.
3. Place brick C on the left side of the firebox floor in front of the manifold block.
4. Place brick D on the right side of the firebox floor so that the cutout slides around the log holder.
5. Slide brick E in front of the front burner tube so that the brick fits between the burner tube and the face of the insert. Brick must be moved toward face of insert, and **MUST NOT BLOCK** front burner tube air shutter.



BRICK RETAINER TAB

After left and right brick panels are installed, bend brick retainer tabs down (as shown below) to insure panels do not move from their correct locations.



INSTALLATION : BRICK

INSTALLING THE LOG SET

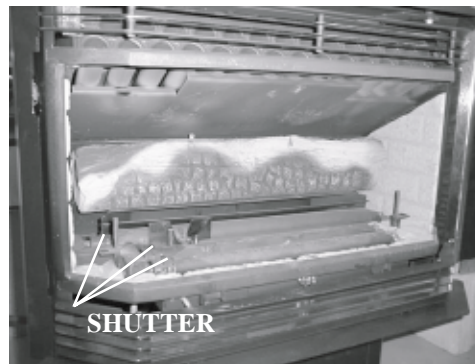
CORRECT LOG PLACEMENT IS IMPORTANT TO PREVENT SOOTING!

The vacuum-formed ceramic logs are extremely fragile. PLEASE HANDLE CAREFULLY. Small chips on the logs can be covered up using the touch-up paint supplied with the stove. This appliance has been supplied with external shutter adjustments. Loosen the 3 shutter locking screws at left side of burners. (If this appliance is a Direct Vent this is not necessary)

1. Install rear log (solid log) on log shelf ensuring that both log shelf and log are pressed firmly against back wall.
2. Install front log (log with openings) by positioning over centering pins and lowering. (Take care not to force and cause damage to molded holes in bottom of log.)
3. Place right twig on front and rear log using ceramic pins and placement holes in bottom of twig for alignment. (If ceramic pins are too close, tilt front log forward, do not make new holes in twigs.) Repeat step for left twig.
4. Place ember nuggets across front of burner.
5. Light appliance and let logs cure for 30 minutes. Adjust shutters to give good flame characteristics.
NOTE: If flame tips have dark yellow or black tips, shutters need to be opened.
6. After correct flame adjustment has been achieved, cool appliance, remove twigs and front log and tighten shutter adjustment screws.

IMPORTANT: If shutter adjustment screws are not tightened, expansion and contraction of burner can allow shutter to close and cause sooting.

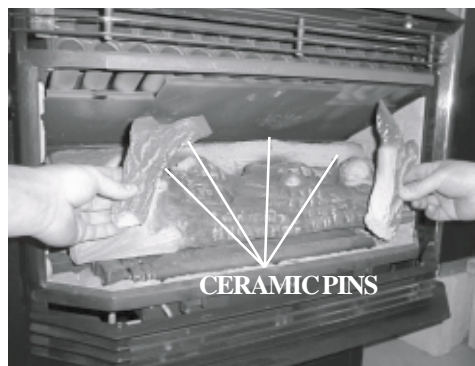
#1



#2



#3



#4



DOOR OPERATION INSTRUCTIONS

1. Verify that the proper door hook (part number 450-7490) is installed on the door. See Fig. A.
2. Install the door to check the latchbox adjustment. When closing the door, look between the door and the face of the stove at the latching arm. See Fig. B. Watch to see that the door hook is lifting up the latch, and when the door is fully closed that the latch returns to its original position. If the latch does not return, the latchbox is adjusted too tightly.
3. Open the door and place a sheet of paper between the door and the stove to check for door rope tension. Close the door and pull on the paper to feel the amount of pressure required to slide the paper out. Repeat this process at both sides of the door and at the center of the top and bottom of the door. If the paper does not have enough tension, the latchbox is adjusted too loosely.
4. To adjust the latchbox, open the door using the "T" handle allen wrench to press the "finger" of latch arm upward until door is released. See Fig. C. Using a 11/32" socket wrench (or 9mm) loosen the four, 8-32 mounting nuts, slide the latchbox forward if it is too tight, or towards the back if it is too loose, then secure with four, 8-32 nuts. Close the door and check for proper seal. Repeat process until a proper seal is obtained. When adjustment is complete, close and latch the door. Pull out on the door, to ensure the door is properly latched.
5. Repeat process until a proper seal is obtained.

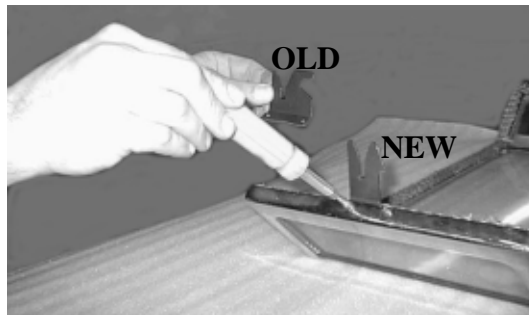


FIG. A



FIG. B



FIG. C

INSTALLATION : DOOR

THERMOSTAT INSTALLATION

If desired, a thermostat may be installed to regulate the Quadra-Fire GB40-I. It is important to use a thermostat designed for millivolt operation. Do not connect this appliance to a thermostat serving any other appliance.

OPTIONAL THERMOSTAT

Manual Thermostat

Part #823-3880

Anticipator setting 1.2

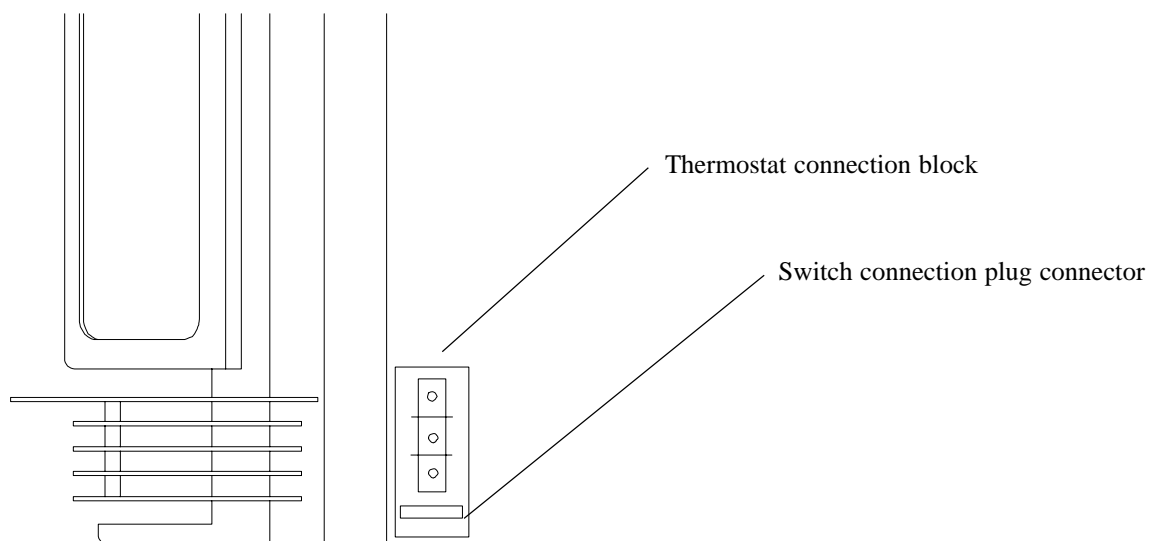
Electronic Setback Thermostat

Part #811-0520

Connect the thermostat wires to the two center screw terminals on the lower right side of the unit. When installed, it will be behind the panel trim set. Turn off the manual switch located on upper right corner of the panel trim set.

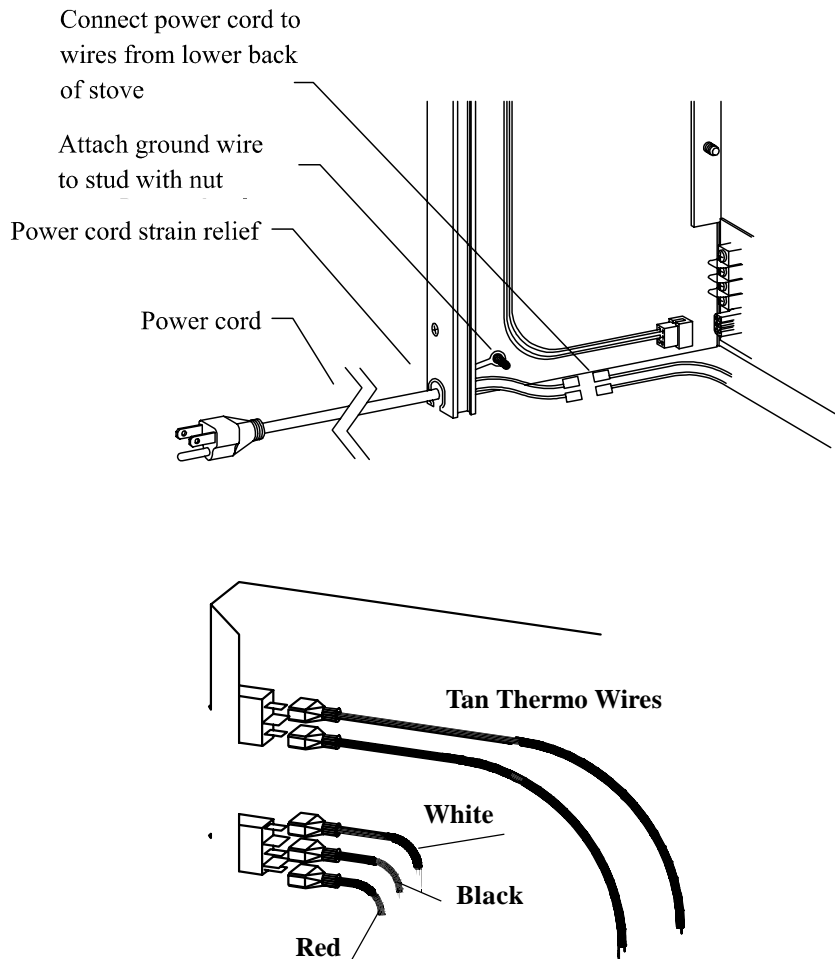
REMOTE CONTROL

A remote control or a wall switch may be wired to the thermostat terminals. Contact your Quadra-Fire dealer or service person for details (see page 29 for part number).



BLOWER POWER CORD

The blower cord can be routed from either side of the panel set to a three prong grounded outlet. To attach the power cord to the insert, locate the black and white wires at the rear of the insert. Attach them to the black and white wires on the power cord (black to black, white to white). The green wire on the power cord should be attached to the weld stud with nut (see diagram) on the panel as a ground. Be sure that the appliance is electrically grounded in accordance with local codes, with a current version of CSA C22 (in Canada), or in the absence of local codes, with the National Electric Code ANSI/NFPA 70-1987.



SPEED CONTROL/ROCKER SWITCH CONNECTION

The speed control wires are located at the right rear of the appliance. Attach the two tan thermo wires to the rocker switch; attach the white, black and red wires to the three prong blower switch as shown.

WARNING

Do not cut the grounding terminal off under any circumstances.
Do not route the power cord under the body of the appliance due to high temperatures.

INSTALLATION: BLOWER

INSTALLATION PROCEDURES

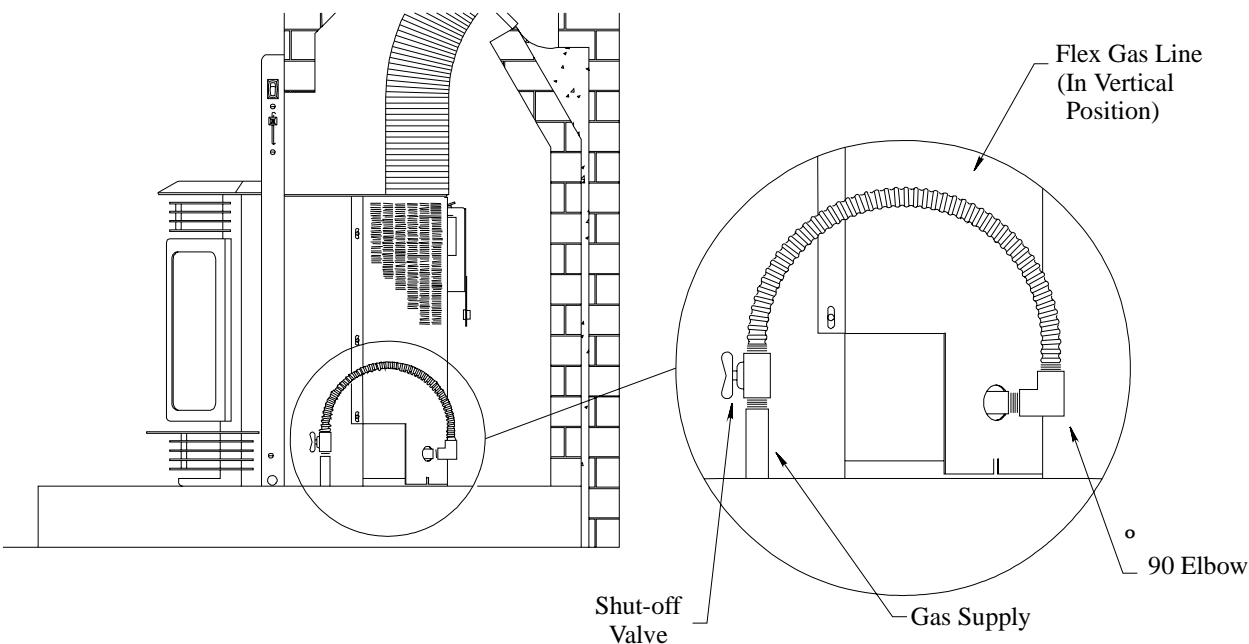
The following procedures show some of the basic installation applications. Remember that every installation is different, and the installer should adjust to insure that the appliance is installed properly in every application.

GAS CONNECTIONS

WARNING: BE SURE INSERT IS DESIGNED TO BURN THE TYPE OF GAS WHICH IS BEING SUPPLIED TO IT. BURNING ANY TYPE OF GAS THAT THE INSERT IS NOT DESIGNED TO BURN MAY CAUSE SERIOUS OR FATAL INJURY, OR STRUCTURAL DAMAGE TO BUILDING IN WHICH INSERT IS INSTALLED.

Before hooking up the insert to the gas supply, be sure that the appliance you are installing is designed for the type of gas being supplied to it. There is a serial number and listing label on the front grill area that will indicate which type of gas it is designed to utilize. The gas valve also has a label telling the type of fuel for which it is set up.

There is a 3/8" gas hookup located on the rear of the appliance. We recommend connecting the insert with an approved flex gas line, as shown below. If flex gas lines are not approved in your area, you can remove the burner tubes and the burner tray to access the valve, and use hard pipe to connect the appliance to the gas supply.



NOTE: In areas where a shutoff safety valve can be installed in a fireplace, the optional access door panel set must be used (see page 34 for part numbers).

VENT ATTACHMENT TO FLUE COLLAR

The GB40-I is equipped with a detachable flue collar. The draft hood is stationary to the insert. This allows you to make the connection in a very confined area. It can be reattached from the front of the unit as shown below.

A spill tube extension is included with the insert. It can be screwed onto the existing spill tube (accessed through the upper grill, under the top) to facilitate spill testing (see page 23) as well as positioning the insert (see below). It should be removed after the insert is installed.

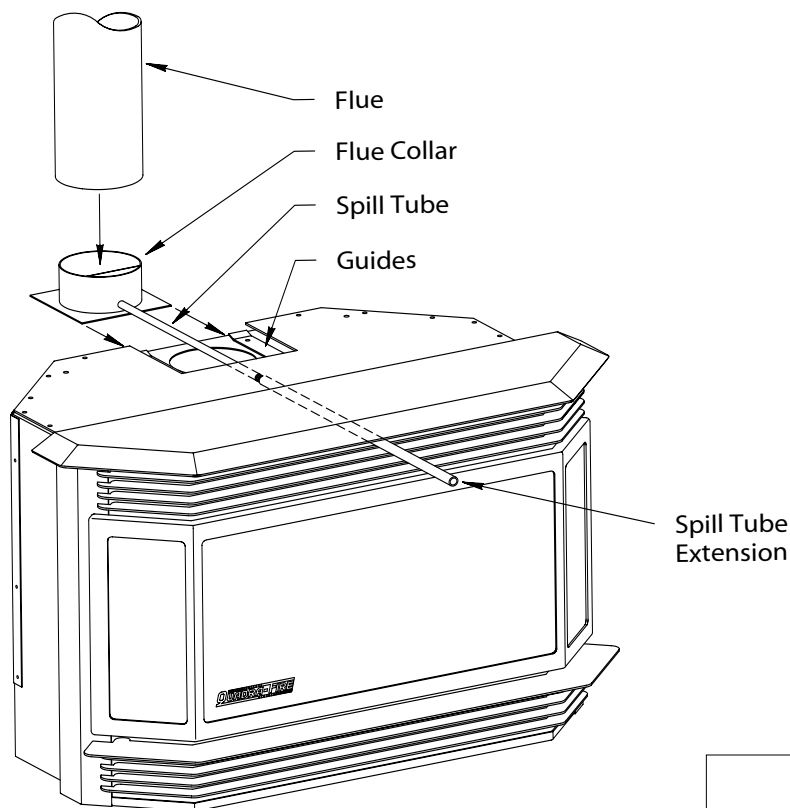


Fig. 1

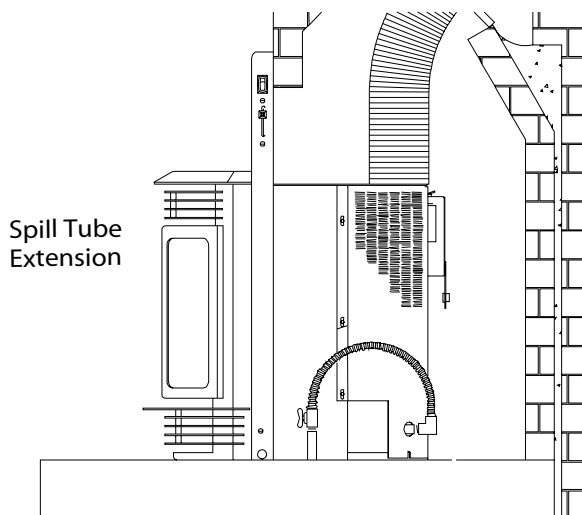


Fig. 2

After running the 4" liner down the existing flue, make sure that the damper plate is removed or welded in the open position (use only listed approved 4" liner). Pull the flue collar toward the back of the appliance; it will slide off. The spill tube will act as your handle when reattaching the flue collar to the unit. Securely attach the flue collar to the liner using set screws or hose clamps. When you are sliding the insert into position, guide the collar back into the original position. Adjust and level the insert.

NOTE: WHEN THE SHUTOFF VALVE IS INSTALLED IN THE FIREPLACE, THE OPTIONAL PANEL SET WITH ACCESS DOOR MUST BE INSTALLED.

INSTALLATION: VENT TO FLUE COLLAR

FLUE CLAMP INSTRUCTIONS

1. Before installing the insert, attach the spill tube extension. Pull tube towards front of stove then slightly to the right to unhook locking bracket (see Fig. 4).
2. Remove the flue collar assembly.
3. Refer to page 19 for installation instructions for insert.
4. After flue collar has been reattached to insert, pull spill tube and relock retaining bracket. Complete installation of insert.

NOTE: If flue clamp is not tightened around draft test tube, it will rattle when the blower is turned on.

WARNING

The retainer bracket is designed to secure the flue collar assembly to the insert. If retaining bracket is not reattached, the flue collar could slip during installation of insert, causing improper drafting and spillage.

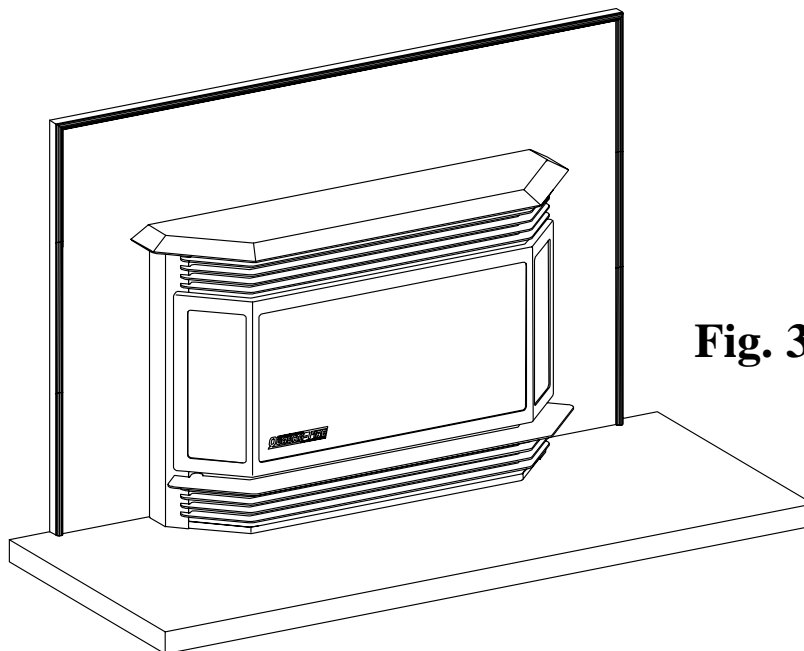


Fig. 3

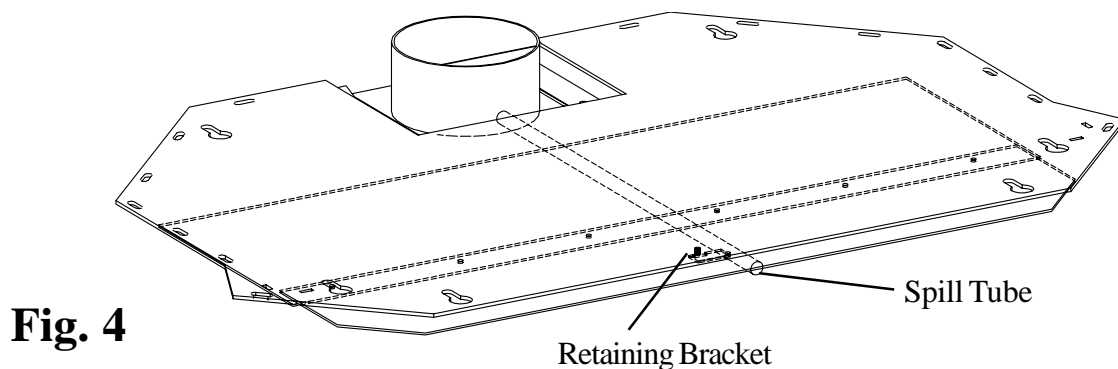


Fig. 4

VENT TERMINATIONS REQUIREMENTS

This unit is equipped with a thermal damper, which has been set at the factory. Do not remove or attempt to adjust.

The vent termination must be located where it cannot become restricted or blocked by foreign material (for example, snow and leaves). The vent termination must be above the roof and not below any eaves or overhangs.

The vent must terminate with an approved cap.

The ANSI 223.1, Section 7.6.2 requires a minimum height above the roof of 1 foot. On installations with roof pitch greater than 6/12, there must be at least 3 feet of chimney above the roof level, or 2 feet higher than any point within 10 feet measured horizontally.

NOTE: The installer must take into consideration other factors when determining vent termination height, such as negative pressure in the home, horizontal sections and offsets in flue system.

Use all required venting components when installing this appliance, and do not mix two or more manufacturers' products.

EXAMPLES:

1. When the vent passes through the ceiling or upper floor, use of a ceiling support or firestop is required.
2. Venting through a wall requires a wall thimble.
3. When vent passes through the roof a proper flashing, storm collar and vent cap are required.

VENTING REQUIREMENTS

PLEASE READ AND FOLLOW ALL VENTING REQUIREMENTS

The GB40-I must be installed to follow the CAN/CGA B149 (in Canada) or ANSI Z223.1 (in the U.S.A.) requirements, and any local codes or regulations of the authority having jurisdiction.

WARNING: This appliance must be installed in an area with an adequate amount of combustion and ventilation air for it to vent and operate properly. Be sure that provisions for adequate air are made at the time of installation.

THIS APPLIANCE MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE.

This appliance is designed to attach to either 4" diameter type B vent or double thickness aluminum flex liner, running the full length of an existing masonry chimney. It is designed to be installed into an existing masonry fireplace or a zero clearance fireplace kit (see page 29 for part number). If installed into a zero clearance fireplace, you must use B vent pipe. A minimum flue height of 12 feet is recommended. If B vent pipe is used, it must be supported by vent supports supplied by the vent manufacturer.

This appliance has a draft hood installed at the factory, so no external draft hood is required.

B-VENT CHIMNEY REQUIRES A 1" MINIMUM CLEARANCE TO COMBUSTIBLES.

When venting vertically on exterior of structure, use an insulated venting system or properly built chase structure to help insulate the vent system. This is recommended due to the low flue temperatures of this appliance. This also helps prevent the possibility of spillage and draft problems occurring.

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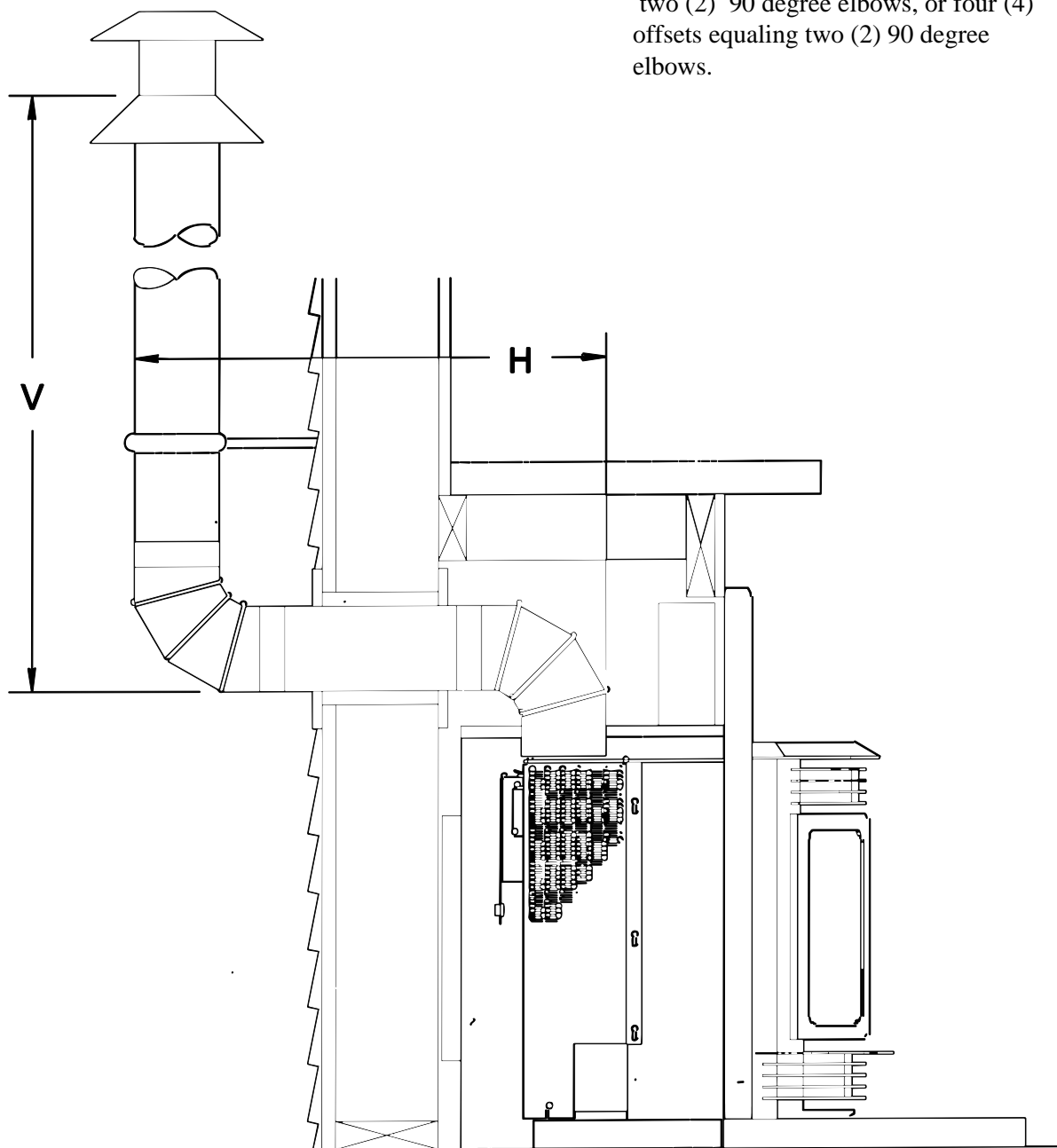
TERMINATIONS WITH HORIZONTAL SECTIONS

NOTE: Insert **MUST** be installed into an existing masonry fireplace or a zero clearance fireplace kit (see page 29 for part number).

The horizontal section must not exceed 50% of the vertical rise. Provide a 1/4" rise for each 12" horizontal run.

NOTE: Recommended maximum vertical not to exceed 35 feet.

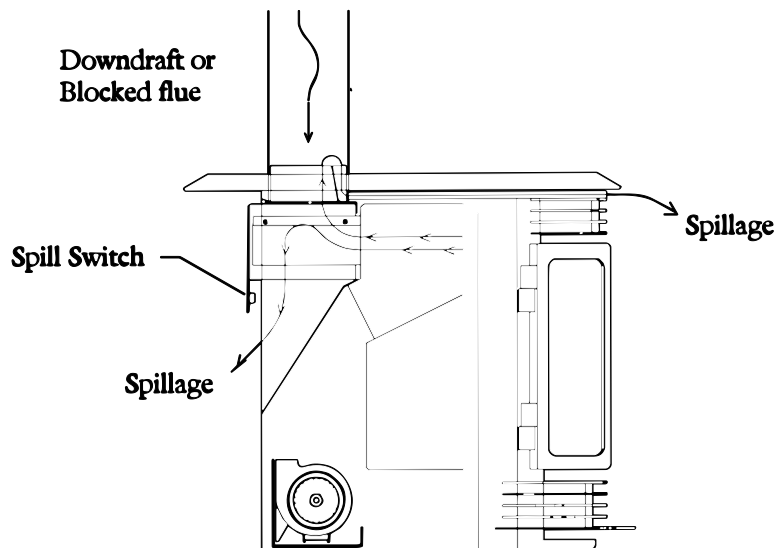
Recommended maximum offsets:
two (2) 90 degree elbows, or four (4) offsets equaling two (2) 90 degree elbows.



VENTING : TERMINATIONS

EXHAUST SPILLAGE AND TESTING PROCEDURE

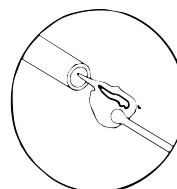
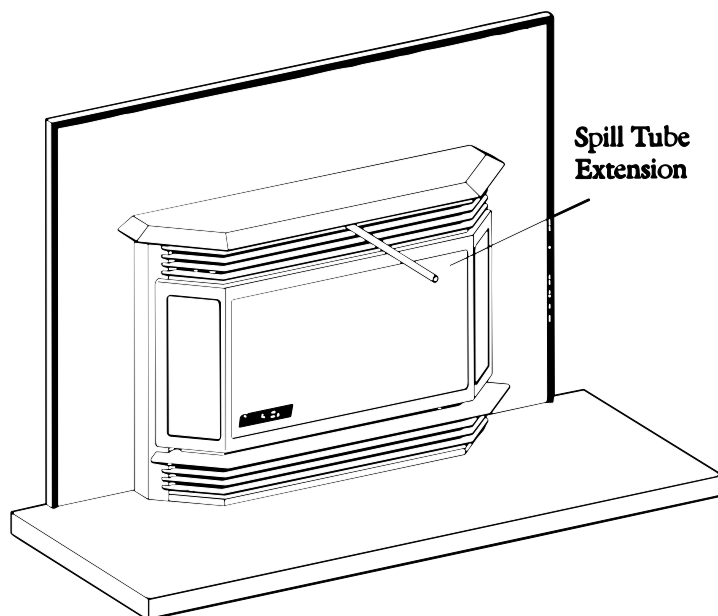
There is a spill switch located on the back of the insert below the draft hood, which is designed to shut down the insert due to a blocked flue or a severe down draft. The switch acts as a safety shutoff to prevent carbon monoxide or unburned gas from leaking into the room.



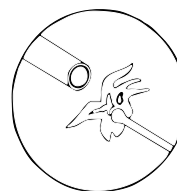
TO TEST FOR SPILLAGE:

1. Start all exhaust fans in the home, then close all doors and windows in the room.
2. Turn the appliance on and adjust to highest setting. Blower off.
3. **Wait five minutes**, then use a match or other device which creates smoke to test for a draft. Place the match in front of the spill tube extension (you may want to place a piece of scrap steel or aluminum foil) under the match to block the natural convection air supplied through the convection grill). The smoke should be drawn into the spill tube extension. If it is not, wait five minutes and try again. If there is still no draw, turn the unit off and check the venting for the cause. You may need to seek expert advice.

NOTE: For high wind areas, the use of a high wind cap is recommended.



Normal Draft



Downdraft or Blocked Flue

VENTING : EXHAUST SPILLAGE & TESTING

LIGHTING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE LIGHTING

- A. This appliance has a pilot that must be lit by hand using the piezo igniter. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
 - D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information prior to this section.
2. If using a thermostat, set the thermostat to the lowest setting. Pull down the grill on appliance front to expose the control panel, and turn the ON/OFF switch to OFF.
3. Turn off all electric power to the appliance.
4. Open stove door.
5. Push in gas control knob slightly and turn clockwise to "OFF".
NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
6. Wait five (5) minutes to clear out any gas. Then smell for gas including near the floor. If you smell gas, STOP! Follow "B" of the safety information in the section prior to this. If you don't smell gas, go to the next step.
7. Turn knob on gas control counterclockwise to "PILOT".
8. Push in control knob all the way and hold in. Immediately light the pilot by repeatedly depressing the piezo igniter until a flame appears.
NOTE: The pilot should be visible through the door glass in the lower left hand corner between the front and rear logs. As piezo igniter is depressed a blue spark can be seen. When lit, the flame will be visible.

Continue to hold the control knob in for about thirty (30) seconds after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 8.

- 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.
9. Close glass front.
 10. Turn gas control knob counterclockwise to "ON".
 11. If you are not using a thermostat, turn ON/OFF switch to ON. If you are using a thermostat, leave the switch in the OFF position and set thermostat to desired setting.

TO TURN OFF GAS TO APPLIANCE

1. If using a thermostat, set it to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Pull down grill on front of appliance to expose control panel.
4. Push in gas control knob slightly and turn clockwise to "OFF". Do not force.
5. Close grill.

FIRST FIRE

NOTE: Never operate this appliance with the door open.

NOTE: No electrical power supply is required for the gas control to operate. Standing pilot allows the valve to operate with manual switch or millivolt thermostat.

WARNING: When the appliance is equipped with a 24 karat gold-plated door, you must clean all the fingerprints and oils from the gold surface before firing the appliance for the first time. Use a glass cleaner, or vinegar and towel to insure that the oil is removed. If not cleaned properly before firing, the oils can cause permanent markings on the gold plating. After the gold plating is cured, the oils will not affect the finish and little maintenance is required; just wipe clean as needed.

Before burning the insert for the first time, please read this owner's manual completely to be familiar with the insert's features, controls, and cautions for operation.

Remove all labels from glass before burning the insert for the first time.

Plug power cord into a properly installed outlet for blower operation.

The blower system has an on/off thermo snap disc that will turn the blower on automatically when the proper temperature is reached, and will turn the blower off when it cools down in order not to blow cool air after shut down.

The rheostat to control the blower speed is located on the right side panel in the brass trim.

Manual on/off switch for control valve is located above the rheostat for blower on right side panel in the brass trim.

Follow the lighting instructions found either on page 24 of this manual or the metal labels on the chain located in the lower grill area by the gas control valve.

During your first fire in the appliance, you may notice an odor and steam coming from the insert. This is the high temperature paint finishing the curing process. Open the door and/or windows in the home or structure for ventilation.

We recommend that you initially cycle the insert on and off, heating the insert to curing stage for several minutes, and then turn it off to cool for five minutes. Then turn the insert back on, and burn until the steam and/or odor no longer appears.

If odor persists, turn the gas supply to the insert off, and call your local dealer or authorized service person to inspect the appliance.

WARNING: Extended use on high without the use of blowers can cause overheating conditions of the appliance, and result in tarnishing or discoloring of the gold plating on the door. It is recommended, when blowers are not in use, that you operate the insert at lower valve control settings or cycle the appliance on and off for short periods.

**FIRST
FIRE**

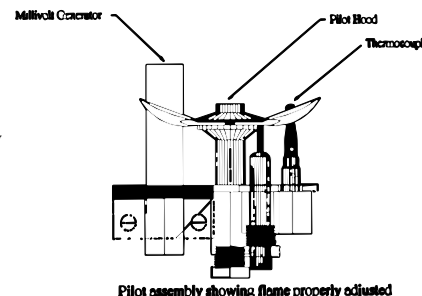
MAINTENANCE

CLEANING AND INSPECTION

At least once yearly, preferably before the heating season, have the insert and venting system cleaned and inspected by a qualified service person. This will insure proper and safe operation throughout the year.

CLEANING THE BURNER TUBES

1. Turn off pilot light.
2. Open door by first loosening the allen screw with the allen key supplied.
3. Remove logs and glowing charcoals.
4. Vacuum burner compartment, especially around orifice and primary air openings.
5. Relight pilot. Check to insure flames are touching millivolt generator (see diagram at right).
6. Reinstall logs. See page 12 for log installation instructions.
7. Close front door and lock it in place with the allen screw.
8. Recheck pilot and main burner to insure they are operating correctly.



GLASS CLEANING

WARNING: DO NOT CLEAN GLASS WHEN HOT.

1. Turn off pilot.
2. Open door by loosening the allen screw with allen key provided with the appliance.

WARNING: DO NOT USE ABRASIVE CLEANERS ON GLASS OR GOLD SURFACES.

3. Using regular glass cleaner, spray the glass surface and wipe with soft cloth or clean paper towel until surface is dry.
4. Close door and tighten allen screw to prevent opening of the door while in operation.
5. Relight pilot and check main burner's operation.

NOTE: If you observe a white film on the door glass, use a hard water deposit glass cleaner or contact your dealer.

NOTE: Do not use abrasive materials or chemical cleaners.

WARNING: Running the appliance on high for extended periods without the use of the blower can cause the appliance to overheat, resulting in tarnishing or discoloring of the gold plating on the door. We recommended that you operate the appliance at lower valve control settings, or cycle the appliance on and off for short periods when the blower is not in use.

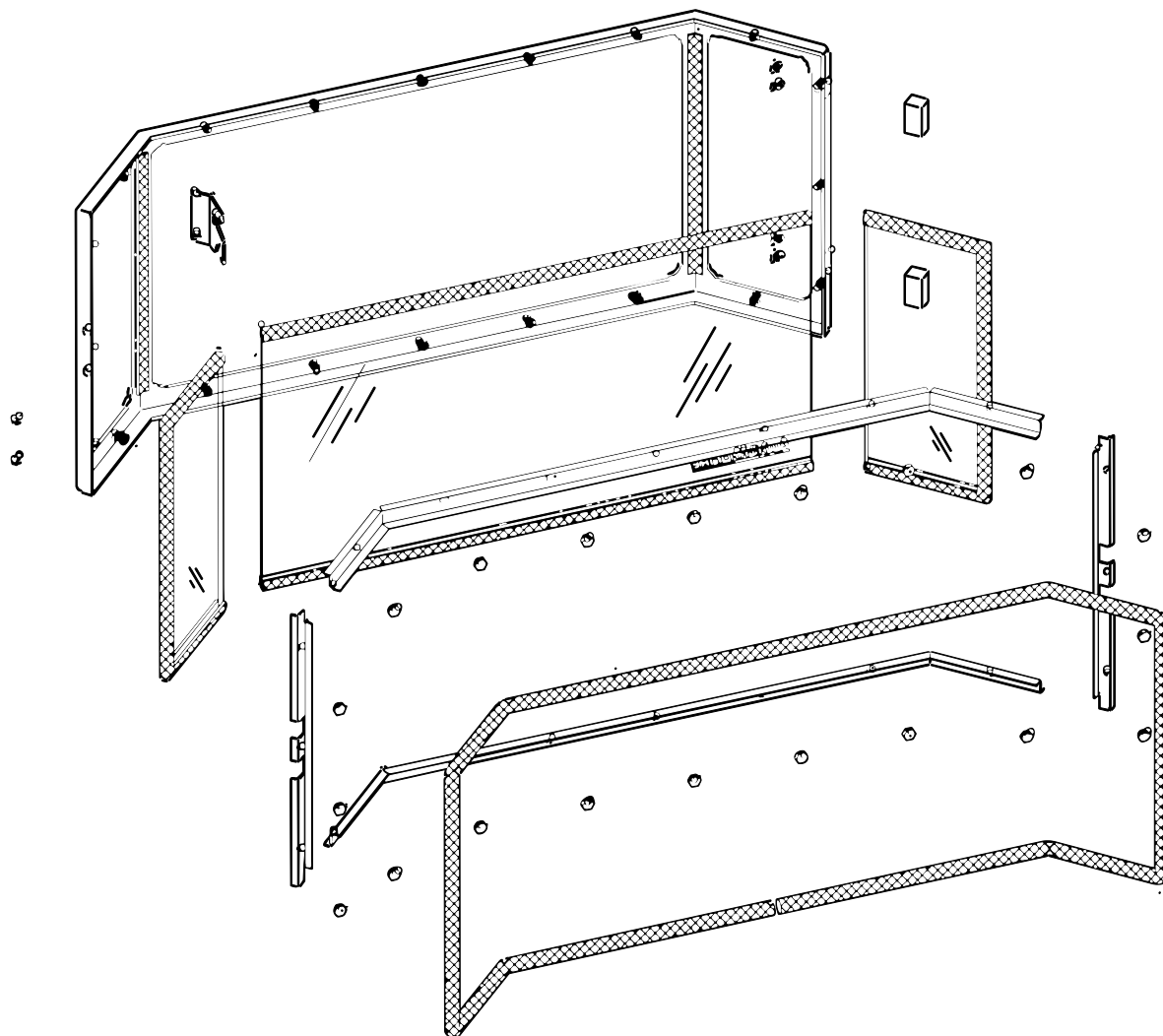
MAINTENANCE (cont.)

GLASS REPLACEMENT (posted doors only; full view doors must be returned to the manufacturer for glass replacement)

WARNING: USE ONLY MANUFACTURER-SUPPLIED REPLACEMENT PARTS
(PART NUMBER 842-1360 SIDE GLASS; 842-1280 CENTER GLASS).

1. Use the supplied Allen wrench to open front. Lift door off hinges and place on a soft surface.
2. Remove rope gasket from door frame.
3. With a 5/16" wrench, remove all nuts that hold glass retaining bars in place. Remove retaining bars.
4. Be very careful when lifting old glass out of the door frame.
5. Insert new glass and reinstall in reverse order. Be sure to use new door gasket (part number 842-1420, 5/8" x 96" rope).

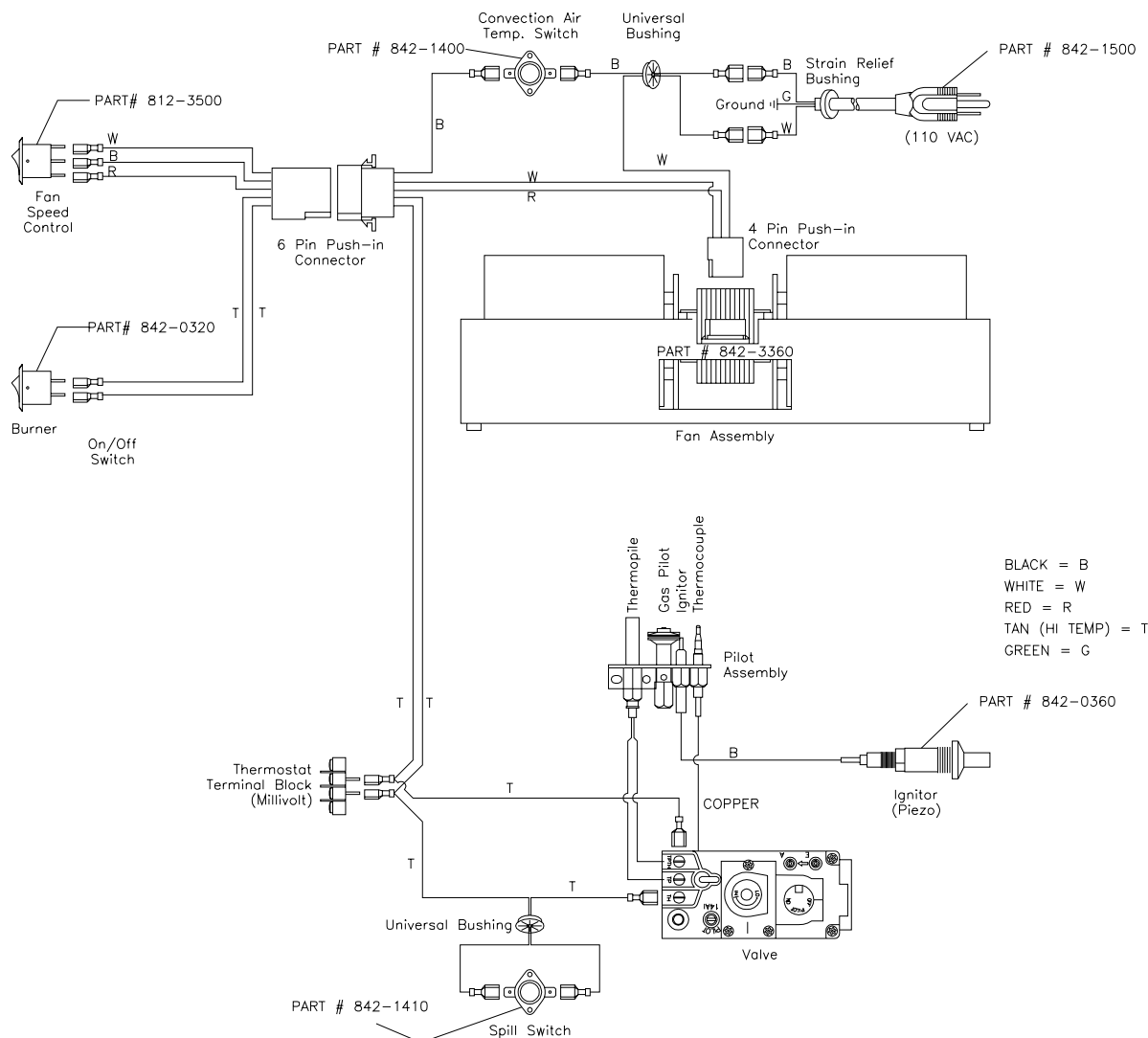
NOTE: Be sure to clean glass and gold door before lighting insert.



M A I N T E N A N C E

SCHEMATICS

SCHEMATICS



BLOWER AND SNAP DISC REPLACEMENT

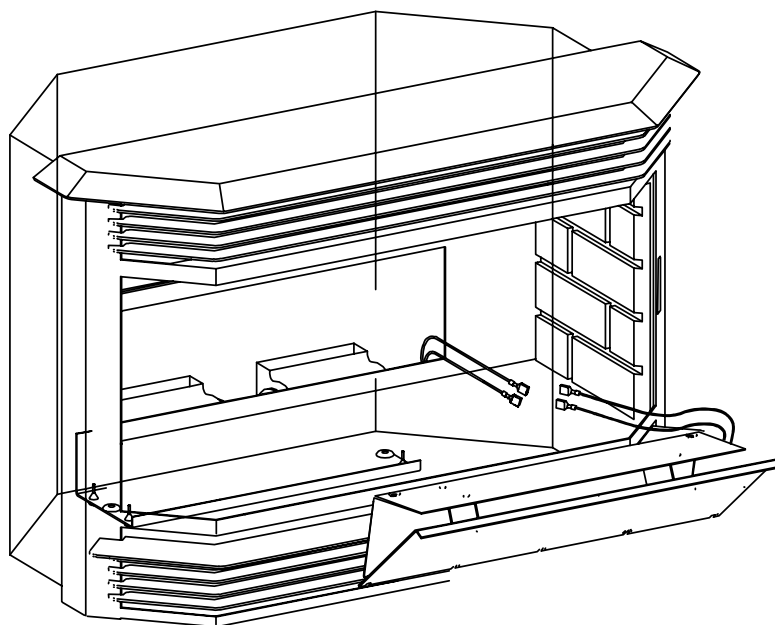
NOTE: BLOWER DOES NOT REQUIRE LUBRICATION. HOWEVER, WE RECOMMEND VACUUMING OR BRUSHING OFF DUST OR LINT FROM THE BLOWER BLADES AS NEEDED.

BLOWER AND SNAP DISC REMOVAL

This appliance is equipped with a 170 cfm convection blower that is automatically controlled by a temperature-sensing snap disc (145°). The blower has a slide speed control located on the right side of the panel trim set.

The blower is located behind the rear access panel at the back of the firebox. It will be necessary to remove the log set to remove the access panel. There are twelve screws that hold the panel in place. To replace or access the blower or snap disc, follow the instructions below.

1. Disconnect power from the unit and turn off gas supply.
2. Remove the log set (see log installation, pages 14-15, for reinstallation).
3. Remove the rear log support, then remove the eight screws that hold the rear access panel/heat shield assembly in place.
4. To remove rear access panel/heat shield assembly, slightly tip forward and remove from firebox. The snap disc is located on the back of this assembly. To replace snap disc, slide it out of its holder before removing heat shield from the firebox. If the snap disc is all that needs to be replaced, reinstall assembly and log set in reverse order. **For blower removal, continue to the next step.**
5. Disconnect the blower wiring. This blower is held in place by rubber grommets that slide over two metal studs welded to the bottom of the unit. Gently lift blower off mounting studs and remove.
6. Reinstall in reverse order.



IMPORTANT! The blower is equipped with a three prong (grounding) plug for your protection against shock hazard, and should be plugged directly into a properly grounded three prong receptacle. Do not cut or remove the grounding prong from this plug.

BLOWER/SNAP

DISC

CONVERSION

FUEL

CONVERSION TO LIQUID PROPANE FUEL

NOTE:
THIS STOVE SHOULD ONLY BE CONVERTED
BY AN AUTHORIZED SERVICE TECHNICIAN.

Kit #842-4160

Kit Contents:

- (1) #35 Pilot Orifice
- (3) Burner Orifices (sizes specified below)
- (1) Conversion Sticker
- (1) HI/LO Valve Regulator with instructions

Tools Required:

- 5/32" Allen wrench
- 3/8" socket and open end wrenches
- 7/16" socket and open end wrenches
- 10 mm open-end wrench
- TH20 torque screwdriver
- Phillips screwdriver
- Gas Leak Detector
- Manometer

Directions:

1. Remove door, logs, burner tubes, nuggets and rear log shelf.
Remove 4 screws from burner pan and remove pan.
2. Pull off black extension knobs & remove control panel cover.
3. Replace pilot orifice:
Lift pilot hood and remove. See Fig. 1.
Use a 5/32" Allen wrench to remove existing pilot orifice. See Fig. 2.
Replace pilot orifice with the #35 DMS.
Replace pilot hood by ensuring that the notches on the hood and the pilot tower are aligned. Snap the hood into place.



FIG. 1

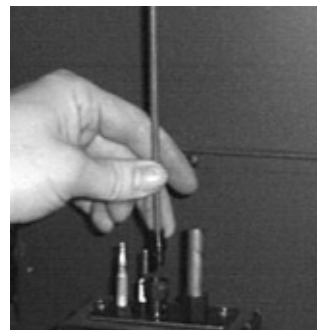


FIG. 2

CONVERSION INSTRUCTIONS, CONT.

4. **Replace Burner Orifices:**

Use a 3/8" socket wrench to remove existing burner orifices. See Fig. 3

Install new burner orifices as follows:

Rear Burner = #53

Middle Burner = #63

Front Burner = #66

NOTE! Ensure that orifice size for each burner tube and your altitude is correct. Refer to the Safety Label located at the rear of stove, a copy of which is also located in the Owner's Manual for these sizes and their proper placement. See page 11 of this manual for high altitude adjustment of burner orifice size.

5. Reinstall burner pan and burner tubes.
6. Remove and replace manual regulator. See instructions provided with part.
7. Light pilot and leak test.
8. Ignite burners and check HI/LO regulator for leaks.
9. Apply conversion sticker to unit.
10. Turn unit OFF and reinstall firebox components in reverse order.



FIG. 3



FIG. 4

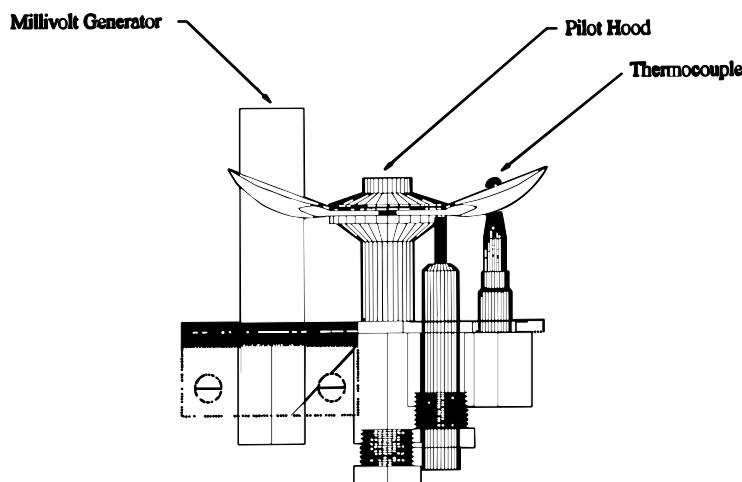
FUEL

CONVERSION

TROUBLESHOOTING

- A. Pilot won't light
1. Make sure valve setting is in the pilot position.
 2. Check for spark at igniter.
 - a. If no spark:
 1. Check the wiring between the piezo and the igniter. If bad, fix wiring; if good, you may have a faulty piezo or cracked ceramic on the electrode.
 2. Call your Quadra-Fire dealer.
 - b. If there is a spark:
 1. Try to light the insert with a match. The flame should either light or flutter.
 - a. If the flame flutters but does not light the pilot, there probably is air in the line. Hold flame to pilot hood, then bleed the line until gas comes through.
 - b. If the match flame does not flutter, make sure the gas is turned on and be sure you are pushing the knob in all the way. If this still doesn't help, you may be dealing with a bad valve, a blocked pilot orifice, or a kinked pilot line.
 3. Call your dealer or authorized service person.
- B. Pilot goes out when knob is released
1. Wait five minutes and try again. If the pilot still goes out, try again and hold the knob in longer.
 2. If the problem persists, call your dealer or authorized service person.
- C. Pilot lights but burner won't ignite
1. Make sure the knob is turned to the "on" position.
 2. Turn the thermostat up.
 3. If there is no thermostat, flip the manual switch on the right side panel of the insert. If the burner does not light, short out the thermostat screws on the face of valve marked TH and TPTH. If the burner lights, you may have a problem in the wiring of the stove, and it should be checked.
 4. Check the thermostat and thermopile connections at the valve, and tighten or reconnect if needed.
 5. If the burner still will not ignite, you may have a bad valve; call your dealer or authorized service person.
 6. Refer to page 23, which covers operation of spill switch and testing.

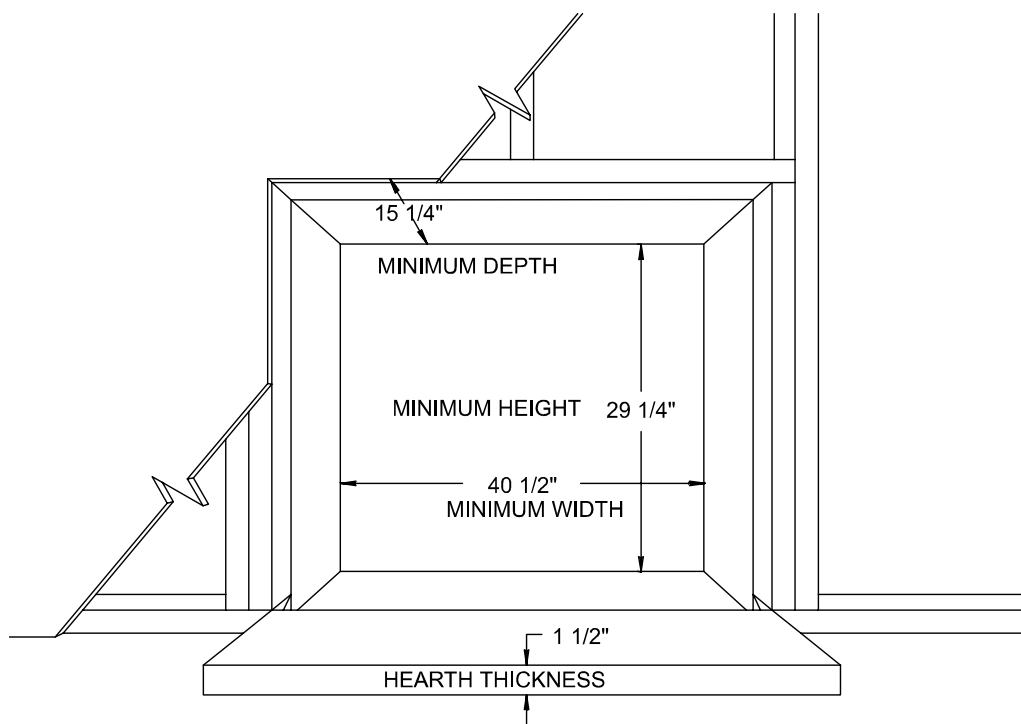
Check the pilot and burner flames periodically. When properly adjusted, they should look like the flames in the illustration on the next page. Call your dealer or authorized service person to have the pilot properly adjusted.



Pilot assembly showing flame properly adjusted

GB40-I ZERO CLEARANCE FIREPLACE KIT **FRAMING DIMENSIONS** **KIT PART #841-0121**

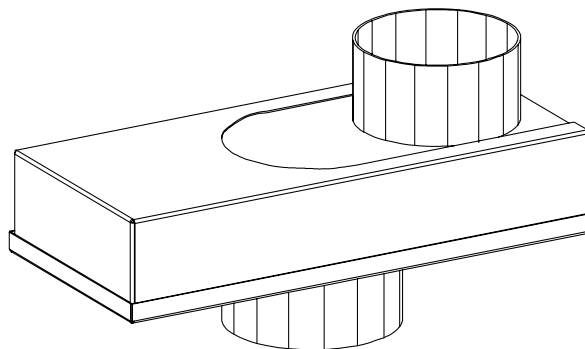
DIMENSIONS: Depth 15¼" - Width 40½" - Height 29¼"



NOTE: Comply with clearances to combustibles as outlined on page 8.

OFFSET ADAPTER **PART #841-0550**

For those installations in which it is difficult or impossible to connect the venting system to the insert with B-vent directly, there is an offset adapter available to facilitate this connection. The adapter adjusts from 0" to 3½" to help make the necessary connections. This part can be obtained from an authorized Quadra-Fire dealer.



ZERO

CLEARANCE

ACCESSORIES

These may be ordered through your Quadra-Fire dealer.

841-0071	Panel and trim, standard (42½" x 28¼")
841-0261	Panel and trim, medium (31½" x 44")
841-0081	Panel and trim, oversized (51" x 34")
841-0130	Panel and trim with access door, standard (42½" x 28¼")
841-0270	Panel and trim with access door, medium (31½" x 44")
841-0140	Panel and trim with access door, oversized (51" x 34")
812-2880	Thermostat, manual
811-0520	Thermostat, electronic set back
841-0150	ZC trim support (raised hearth), 2"-4"
841-0160	ZC trim support (raised hearth), 4"-7"
841-0170	ZC trim support (raised hearth), 7"-10"
841-0121	ZC fireplace kit
841-0200	Trim only, side panel extensions
841-0320	Remote control
841-0550	Offset adapter for zero clearance fireplaces

SERVICE PARTS

842-2210	Blower, 170 cfm, with heat shield (for stoves with serial numbers lower than 251497)
842-1351	Blower, 170 cfm, (for stoves with serial numbers between 251497 and 253377)
842-3360	Blower, 170 cfm, 2 speed for serial numbers 253377 and higher
842-0250	Millivolt generator (thermopile)
842-0390	Thermocouple
842-1260	Baffle
842-0320	Rocker switch
842-1270	Owner's manual
842-0360	Piezo igniter
842-1500	Blower cord, 9 foot
841-0341	Log assembly (2 logs & 2 twigs)
842-3450	Log, front, split GB series
842-3680	Log, back, split GB series
842-3690	Log, left twig, split GB series
842-3510	Log, right twig, split GB series
841-0370	Nuggets, charred
842-1000	LP conversion kit
842-0990	NG conversion kit
842-1360	Side glass, roped
842-1280	Center glass, roped
842-3090	H Channel Gold Door
842-3100	H Channel Black Door
842-1761	Full view gold door
842-0970	Door latch assembly
842-1370	Wire harness
842-1380	Blower speed control, slide, for serial numbers 253376 and lower
812-3500	Blower speed control, switch, for serial numbers 253377 and higher
842-1390	Door hinge assembly
842-1400	Blower snap disc, ceramic, 145 degree
842-1410	Spill switch, 250 degree
842-1420	Door rope, 5/8" x 96"

GAS APPLIANCE LIMITED LIFETIME WARRANTY

Aladdin Hearth Products, warrants this gas heating appliance to the original purchaser for the lifetime of the appliance, to be free from defects in material and workmanship. This warranty gives you specific legal rights; you may have other rights which may vary from state to state.

This limited Lifetime Warranty covers items such as but not limited to combustion chambers, heat exchange systems, gas logs, doors, gold plating, and glass damaged by thermal breakage. Burners in Natural Gas appliances are warranted for three (3) years from date of purchase. Burners in Liquid Propane appliances are warranted for one (1) year from date of purchase.

All parts to be replaced must be returned to an authorized Aladdin Hearth Products dealer at purchaser's expense for inspection and approval by Aladdin Hearth Products prior to repair or replacement. No repair or replacement costs will be honored without approval of Aladdin Hearth Products.

This new Quadra-Fire product must be installed by a competent, authorized service contractor. It must be installed and operated at all times in accordance with the Installation, Operation and Maintenance Instructions included in this manual, as well as any applicable local and national codes. Any alteration, willful abuse, accident, or misuse of the product shall void this warranty.

Any installation, construction, transportation, or other related costs or expenses arising from defective part(s), repair, replacement, etc., will not be covered by this warranty, nor will Aladdin Hearth Products assume responsibility for them. Further, Aladdin Hearth Products will not be responsible for any incidental, indirect, or consequential damages, except as provided by law.

All electrical components such as but not limited to blowers, wiring, speed controls, thermodisc switches and gas valves are covered by Aladdin's one year warranty program.

Aladdin Hearth Products will not be responsible for any alteration to the unit which causes sooting that results in damage to the interior of the building in which this appliance is installed.

This warranty is void if the insert has been operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals, the stove is subjected to prolonged periods of dampness or condensation, or there is any damage to the stove or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

This limited Lifetime Warranty does not extend to or include paint, door gasketing, glass gasketing, firebrick or other ceramic insulating materials. It does not cover installation or operational-related problems such as overfiring, downdrafts or spillage caused by environmental conditions, nearby trees, buildings, hilltops, mountains, inadequate venting or ventilation, excessive offsets, or negative air pressures caused by mechanical systems such as furnaces, fans, clothes dryers, etc.

This limited Lifetime Warranty does not apply to venting components, hearth components or other accessories used in conjunction with the installation of this product not manufactured by Aladdin Hearth Products.

This limited Lifetime Warranty is effective on all gas inserts sold after September 1, 1996, and supersedes any and all warranties currently in existence.

IMPORTANT

Completing and returning your warranty registration card will assist us in expediting any warranty claims. Please return the completed card within 10 days from the date of purchase to Aladdin Hearth Products, 401 North Wynne Street, Colville, WA 99114-2153. Proof of purchase is required to secure warranty.

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Grand Bay 40 Gas Insert
OWNER'S MANUAL
#250-2641/842-1270