# Quadra-Fire

Model(s):

QFP38-NG

QFP38-LP

**Owner's Manual** 

Installation and Operation



This appliance has been retired. Service parts pages within have been removed. For replacement parts, please refer to the individual service parts list located on the brand websites.

# DO NOT DISCARD THIS MANUAL

maintenance instructions included.

Important operating and • Read, understand and follow • Leave this manual with these instructions for safe installation and operation.

party responsible for use and operation.



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

- · Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- What to do if you smell gas:
  - Do not try to light any appliance.
  - Do not touch any electrical switch. Do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter;

See Table of Contents for location of additional Commonwealth of Massachusetts requirements.

# 

# HOT SURFACES!

Glass and other surfaces are hot during operation and cool down.

# Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- · Keep children away
- · CAREFULLY SUPERVISE children in same room as appliance.
- · Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

· Keep clothing, furniture, draperies and other combustibles away.

This appliance requires the installation of a decorative front with an integral barrier to prevent direct contact with the fixed glass panel. Do NOT operate the appliance with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.



Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies suggests NFI certified or factorytrained professionals, or technicians supervised by an NFI certified professional.

Read this manual before installing or operating this appliance. Please retain this owner's manual for future reference.

# A. Congratulations

Congratulations on selecting a Quadra-Fire gas fireplace, an elegant and clean alternative to wood burning fireplaces. The Quadra-Fire gas fireplace you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of a new fireplace, you'll want to read and carefully follow all of the instructions contained in this owner's manual. Pay special attention to all cautions and warnings. This owner's manual should be retained for future reference. We suggest that you keep it with your other important documents and product manuals.

The information contained in this owner's manual, unless noted otherwise, applies to all models and gas control systems.

Your new Quadra-Fire gas fireplace will give you years of durable use and trouble-free enjoyment. Welcome to the Quadra-Fire family of fireplace products!

Homeowner Reference Information	We recommend that you record the following pertinent information about your fireplace.
Model Name:	Date purchased/installed:
Serial Number:	Location on fireplace:
Dealership purchased from:	Dealer Phone:
Notes:	

# Listing Label Information/Location

The model information regarding your specific fireplace can be found on the rating plate usually located in the control area of the fireplace.

Type of Gas	Quadra-Fire, a brand of Hearth & Home Technologies, Inc.      7571 215th Street West, Lakeville, MN 55044      Not for use with solid fuel.      (Ne doit pas entre utilise avec un combustible solide).	
Gas and Electric Information	Type of Gas (Sorte De Gaz):    This appliance must be installed in accordance with local codes, if any; if not, follow ANSI Z223.1 In the USA or CAN/CGA B149 Installation codes. (Installer l'appareil seion les codes ou reglements locaux ou, en l'absence de tels reglements, seion les codes d'Installation CAN/CGA-B149.)      ANSI Z21XX-XXXX · CSA 2.XX-MXX · UL307B      Minimum Permissible Gas Supply for Purposes of Input Adjustment.      Approved Minimum (De Gaz) Acceptable    0.0 in w.c. (Po. Col. d'eau)      Maximum Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Maximum Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Minimum Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Minimum Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Montenue Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Minimum Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Minimum Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Montenue Permission    0.0 in w.c. (Po. Col. d'eau)      Minimum Manifold Pressure (Pression)    0.0 in w.c. (Po. Col. d'eau)      Made In USA    0.0 in w.c. (Po. Col. d'eau)	Model Number
	IN CANADA      Model: (Modele):      XXXXXXXX        ALTITUDE:      0-0000 FT.      0000-0000FT.      (Modele):      XXXXXXXXX        MAX. INPUT BTUH:      00,000      00,000      Serial      XXXXXXXXX        ORIFICE SIZE:      #XXXXXXXX      #XXXXXXXXXX      XXXXXXXXXXX	Serial Number

# A Safety Alert Key:

- DANGER! Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- WARNING! Indicates a hazardous situation which, if not avoided <u>could</u> result in death or serious injury.
- CAUTION! Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- NOTICE: Used to address practices not related to personal injury.

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 $\rightarrow$  = Contains updated information.

#### **B. Limited Lifetime Warranty**

# Hearth & Home Technologies Inc. LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

#### WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

#### WARRANTY PERIOD:

Warranty coverage begins on the date of original purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warrant	ty Period	HHT Manufactured Appliances and Venting								
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	Components Covered	
1 Y	′ear	х	x	х	х	х	x	x	All parts and material except as covered by Conditions, Exclusions, and Limitations listed	
			х	х			Igniters, electronic components, and glass			
2 ye	ears	Х	Х	Х	Х	Х			Factory-installed blowers	
			Х						Molded refractory panels	
3 years				Х					Firepots and burnpots	
5 years	1 year			Х	Х				Castings and baffles	
7 years	3 years		х	х	х				Manifold tubes, HHT chimney and termination	
10 years	1 year	Х							Burners, logs and refractory	
Limited Lifetime	3 years	Х	Х	Х	Х	Х			Firebox and heat exchanger	
90 [	Days	Х	Х	Х	Х	Х	Х	Х	All replacement parts beyond warranty period	

See conditions, exclusions, and limitations on next page.

# B. Limited Lifetime Warranty (continued)

# WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

#### WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets, firebricks, grates, flame guides, light bulbs, batteries and the discolor-ation of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/ incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

#### This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

### LIMITATIONS OF LIABILITY:

 The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

# A. Appliance Certification

MODELS: QFP38-NG, QFP38-LP

LABORATORY: Underwriters Laboratories, Inc. (UL)

**TYPE:** Vented Gas Fireplace Heaters

STANDARD: ANSI Z21.88b-2008 • CSA 2.33b-2008

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

- A manufactured home (USA only) or mobile home OEM installation must conform with the (U.S.) Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 or, when such a standard is not applicable, the Standard for Fire Safety Criteria for Manufactured Home Installation Sites and Communities, ANSI/NFPA 501A, in the United States, or the Mobile Homes Standard, CAN/CSA Z240 MH Series in Canada.
- This appliance complies with the installation requirements for HUD.

**NOT INTENDED FOR USE AS A PRIMARY HEAT SOURCE.** This appliance is tested and approved as either supplemental room heat or as a decorative appliance. It should not be factored as primary heat in residential heating calculations.

# **B. Ceramic Glass Specifications**

This appliance is equipped with 5 mm ceramic glass. Replace glass with 5 mm ceramic glass. Please contact your dealer for replacement glass.

### **C. BTU Specifications**

QFP38 Series	IPI
Max/Min Input Rate (NG) Both Burners	55,000/37,000
Max/Min Input Rate (NG) Front Burner	17,000/12,000
Max/Min Input Rate (LP) Both Burners	55,000/42,500
Max/Min Input Rate (LP) Front Burner	17,000/13,500
Orifice Size (NG) Front	#49/.073
Orifice Size (NG) Rear	#30/.1285
Orifice Size (LP) Front	#56/.0465
Orifice Size (LP) Rear	#50/.070

# **D. High Altitude Installations**

**NOTICE:** If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce input rate 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

Check with your local gas utility to determine proper orifice size.

# E. Non-Combustible Materials Specification

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.

Materials that are reported as passing **ASTM E 136**, **Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 °C** and **UL763** shall be considered non-combustible materials.

### F. Combustible Materials Specification

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or plastered or unplastered shall be considered combustible materials.

# **G. Electrical Codes**

**NOTICE:** This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with National Electric Code ANSI/NFPA 70-latest edition or the Canadian Electric Code CSA C22.1.

 A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks. **Note:** The following requirements reference various Massachusetts and national codes not contained in this document.

# H. Requirements for the Commonwealth of Massachusetts

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

#### Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

#### **Approved Carbon Monoxide Detectors**

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

#### Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) in. in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".

#### Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

#### Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

### MANUFACTURER REQUIREMENTS

#### **Gas Equipment Venting System Provided**

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

#### Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

See Gas Connection section for additional Commonwealth of Massachusetts requirements.

# **User Guide**

**2** Operating Instructions

# A. Gas Fireplace Safety

# **WARNING**

#### HOT SURFACES!

Glass and other surfaces are hot during operation and cool down.

#### Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as appliance.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

• Keep clothing, furniture, draperies and other combustibles away.

This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. Do NOT operate the appliance with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.



If you expect that small children or vulnerable adults may come into contact with this fireplace, the following precautions are recommended:

- Install a physical barrier such as:
  - A decorative firescreen.
  - Adjustable safety gate.
- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.
- Never leave children alone near a hot fireplace, whether operating or cooling down.
- Teach children to NEVER touch the fireplace.
- Consider not using the fireplace when children will be present.

Contact your dealer for more information, or visit: <u>www.</u> <u>hpba.org/safety-information</u>.

To prevent unintended operation when not using your fireplace for an extended period of time (summer months, vacations, trips, etc):

- Remove batteries from remote controls.
- Turn off gas controls valve on standing pilot models

When lighting the pilot light on fireplaces with a standing pilot, remove the fixed glass assembly so you can detect presence of residual gas build-up. See Standing Pilot Lighting instructions and Maintenance Tasks.

# **B. Your Fireplace**

**WARNING! DO NOT** operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

- Your appliance is equipped with a Climate Control Switch (Figure 2.2).
- In the ON position, the pilot will remain lit. This will keep the air in the flue warm and will help prevent negative air pressure in the flue.



Figure 2.2 Climate Control Switch

# C. Clear Space

**WARNING! DO NOT** place combustible objects in front of the fireplace or block louvers. High temperatures may start a fire. See Figure 2.3.

Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.



# **D. Decorative Doors and Fronts**

**WARNING! Risk of Fire!** Install ONLY doors or fronts approved by Hearth & Home Technologies. Unapproved doors or fronts may cause fireplace to overheat.

This fireplace requires the installation of a decorative front with an integral barrier to prevent direct contact with the fixed glass panel. **DO NOT** operate the fireplace with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

For more information refer to the instructions supplied with your decorative door or front.

# E. Fixed Glass Assembly

See Section 15.K.

# F. Before Lighting Fireplace

Before operating this fireplace for the first time, **have a qualified service technician**:

- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Review proper placement of logs, rockwool and/or other decorative materials.
- Check the wiring.
- · Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position and that the integral barrier is in place.

WARNING! Risk of Fire or Asphyxiation! DO NOT operate fireplace with fixed glass assembly removed.

# **G. Remote Controls**

For safety:

- Install a switch lock or a wall/remote control with child protection lockout feature.
- · Keep remote controls out of reach of children.
- See your dealer if you have questions.

# H. System Description

The Remote Control System consists of three elements:

- Transmitter
- Receiver
- Fan Control Module (FCM)

#### I. Fan Control Module

- Fan Control Module (FCM) controls the following items remotely:
- Fan (six speeds)
  - 120V Out
  - Aux Out (accent lighting)



### J. Receiver

- The receiver is powered by four AA batteries.
- The receiver accepts commands via radio frequency from the transmitter to operate the appliance in accordance with the system configuration.
- The receiver three position slider switch can be set to one of three positions:
  - ON (manual override)
  - REMOTE (remote control)
  - OFF



# K. Initializing the System for the First Time

Install the four AA batteries into the receiver battery bay. Note the polarity of the battery and insert into the battery bay as indicated on the battery cover (+/-). Place the 3 position slider switch in the REMOTE postion. Using the end of a paper clip, or other similar object, insert the end of the paper clip into the hole marked "PRG" on the receiver front cover. The receiver will "beep" three times to indicate that it is ready to synchronize with a transmitter. Install the three AAA batteries in the transmitter battery bay, located on the base of the transmitter. With the batteries already installed in the transmitter, push the ON button. The receiver will "beep" four times to indicate the transmitter's command is accepted and sets to the particular code of that transmitter. The system is now initialized.

# L. Transmitter (Remote Control with LCD Display)

- The transmitter is powered by three AAA batteries.
- A MODE key is provided to index between the features.
- A THERMOSTAT key is used to turn on/off or index through thermostat functions (Figures 2.6 and 2.7).





# M. Operating Procedure with Split Flow (DualBurner Control)

- The rear burner is controlled by the split flow function. To activate this function use the MODE key to index to the SPLIT FLOW icon. (Figure 2.8.)
- Press the UP ARROW key to turn the rear burner on.
- Press the DOWN ARROW to turn the rear burner off. A single "beep" will confirm the reception of the command.



#### **Temperature Indication Display**

With the system in the OFF position, press the THERMOSTAT key and the MODE key at the same time. Look at the LCD screen on the transmitter to verify that a C or F is visible to the right of the room temperature display. (Figure 2.9.)



#### Turn on the Appliance

Press the ON/OFF key on the transmitter. The transmitter display will show all active icons on the screen. At the same time the receiver connects, the thermopile to the gas valve millivolt coil and the appliance main burner turns on. A single "beep" from the receiver will confirm reception of the command.

#### **Turn off the Appliance**

Press the ON/OFF key on the transmitter. The transmitter LCD display will only show the room temperature and icon. At the same time the receiver disconnects, the thermopile from the gas valve millivolt coil and the appliance burner turns off. A single "beep" from the receiver confirms reception of the command.



#### **Remote Flame Control**

The flame control has six flame levels. With the system on, and the flame level at the maximum in the appliance, pressing the DOWN ARROW key once will reduce the flame height by one step until the flame is turned off.

The UP ARROW key will increase the flame height each time it is pressed. If the UP ARROW key is pressed while the system is on but the flame is off, the fame will come on in the hight position. (Figure 2.11.)

A single "beep" will confirm reception of the command.



#### **Room Thermostat (Transmitter Option)**

The remote control can operate as a room thermostat. The thermostat can be set to a desired temperature to control the comfort level in a room.

To activate this function, press the THERMOSTAT key. The LCD display on the transmitter will change to show that the room thermostat is ON and the set temperature is now displayed. (Figure 2.12.) To adjust the set temperature, press the UP ARROW or DOWN ARROW keys until the desired set temperature is displayed on the LCD screen of the transmitter.



#### Smart Thermostat (Transmitter Operation)

The Smart Thermostat function adjusts the flame height in accordance to the difference between the set point temperature and the actual room temperatures. As the room temperature gets closer to the set point the Smart Function will modulate the flame down.

To activate this function, press the THERMOSTAT key until the word "SMART" appears to the right of the temperature bulb graphic (Figure 2.13). To adjust the set temperatures, press the UP ARROW or DOWN ARROW keys until the desired set temperature is displayed on the LCD screen of the transmitter.



#### **Fan Speed Control**

Your appliance is equipped with a hot air circulating fan and the speed of the fan can be controlled by the system. The fan speed can be adjusted through six speeds.

To activate this function use the MODE key to index to the Fan Control icon (Figure 2.14). Use the UP ARROW/DOWN ARROW keys to turn on, off or adjust the fan speed. A single "beep" will confirm reception of the command.



### Remote Actuated 120V Auxiliary Outlet (accent lighting)

The auxiliary function controls the accent lighting.

To activate this function use the MODE key to index to the AUX icon (Figure 2.15). Press the UP ARROW key to activate the outlet. Press the DOWN ARROW key to turn the outlet off. A single "beep" will confirm the reception of the command.



#### Key Lock

This function will lock the keys to avoid unsupervised operation.

To activate this function, press the MODE and UP ARROW keys at the same time. (Figure 2.16.)

To de-activate this function, press the MODE and UP ARROW keys at the same time.



# **N. Low Battery Power Detection**

#### Transmitter

The life span of the remote control batteries depends on various factors: quality of batteries used, the number of ignitions of the appliance, the number of changes to the room thermostat set point, etc.

When the transmitter batteries are low, a battery icon will appear on the LCD display of the transmitter (Figure 2.17) before all battery power is lost. When the batteries are replaced this icon will disappear.



# O. Manual Bypass of the Remote System

If the batteries of the receiver or transmitter are low or depleted, the appliance can be turned on manually by sliding the 3-position slider switch on the receiver to the ON position. This will bypass the remote control feature of the system and the appliance main burner will come on if the gas valve is in the ON position.

# P. Remote Operation

This remote control kit has a hand held transmitter that can be used as a remote on/off or as a thermostat. The transmitter display shows the current room temperature, target temperature, timer setting, on/off status, low battery indicator, current time, burner/valve operation and fan operation. Electrical ratings for the receiver are: 110 VAC, 60 Hz, 6 W.

# **Q. Lighting Instructions (IPI)**

- For normal use, activate/deactivate your fireplace with the remote control.
- The IPI system may be operated with four AA batteries.
- If your fireplace must be deactivated for serviced or an extended period of time, follow the instructions below.

# R. After Fireplace is Lit

#### **Initial Break-in Procedure**

- The fireplace should be run three to four hours continuously on low.
- Turn the fireplace off and allow it to completely cool.
- Remove fixed glass assembly. See Section 15.K.
- Clean fixed glass assembly. See Section 3.
- Replace the fixed glass assembly and run continuously on high an additional 12 hours.

This cures the materials used to manufacture the fireplace.

**NOTICE!** Open windows for air circulation during fireplace break-in.

- Some people may be sensitive to smoke and odors.
- Smoke detectors may activate.

ISSUE	SOLUTIONS
Condensation on the glass	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20 to 40 minutes.
Odor from appliance	When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of materials from manufacturing. Odor may also be released from finishing materials and adhesives used near the appliance. These circumstances may require additional curing related to the installation environment.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning. A non-abrasive cleaner such as gas appliance glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the appliance.
Is it normal to see the pilot flame burn continually?	In an IntelliFire ignition system (IPI), the pilot flame should turn off when appliance is turned off. Some optional control systems available with IPI models may allow pilot flame to remain lit. In a standing pilot system the pilot will always stay on.

#### S. Frequently Asked Questions



Any safety screen or guard removed for servicing must be replaced prior to operating the fireplace.

When properly maintained, your fireplace will give you many years of trouble-free service. We recommend annual service by a qualified service technician.

### A. Maintenance Tasks-Homeowner

Installation and repair should be done by a qualified service technician only. The fireplace should be inspected before use and at least annually by a professional service person.

The following tasks may be performed annually by the homeowner. If you are uncomfortable performing any of the listed tasks, please call your dealer for a service appointment.

More frequent cleaning may be required due to lint from carpeting or other factors. Control compartment, burner and circulating air passageway of the fireplace must be kept clean.

**CAUTION!** Risk of Burns! The fireplace should be turned off and cooled before servicing.

#### **Glass Cleaning**

Frequency: Seasonally

By: Homeowner

**Tools Needed**: Protective gloves, glass cleaner, drop cloth and a stable work surface.

#### **CAUTION! Handle fixed glass assembly with care.** Glass is breakable.

- · Avoid striking, scratching or slamming glass
- Avoid abrasive cleaners
- DO NOT clean glass while it is hot
- Prepare a work area large enough to accommodate fixed glass assembly and door frame by placing a drop cloth on a flat, stable surface.

**Note**: Fixed glass assembly and gasketing may have residue that can stain carpeting or floor surfaces.

- Remove door or decorative front from fireplace and set aside on work surface.
- See Section 15.K for instructions to remove fixed glass assembly.
- Clean glass with a non-abrasive commercially available cleaner.
  - Light deposits: Use a soft cloth with soap and water
  - Heavy deposits: Use commercial fireplace glass cleaner (consult with your dealer)
- Carefully set fixed glass assembly in place on fireplace. Hold glass in place with one hand and secure glass latches with the other hand.

Doors, Surrounds, Fronts

Frequency: Annually

By: Homeowner

Tools needed: Protective gloves, stable work surface

- Assess condition of screen and replace as necessary.
- Inspect for scratches, dents or other damage and repair as necessary.
- Check that louvers are not blocked.
- Vacuum and dust surfaces.

#### **Remote Control**

Frequency: Seasonally

By: Homeowner

**Tools needed:** Replacement batteries and remote control instructions.

- Locate remote control transmitter and receiver.
- Verify operation of remote. Refer to remote control operation instructions for proper calibration and setup procedure.
- Place batteries as needed in remote transmitters and battery-powered receivers.
- Place remote control out of reach of children.

If not using your fireplace for an extended period of time (summer months, vacations/trips, etc), to prevent unintended operation:

Remove batteries from remote controls.

#### Venting

Frequency: Seasonally

#### By: Homeowner

Tools needed: Protective gloves and safety glasses.

- Inspect venting and termination cap for blockage or obstruction such plants, bird nests, leaves, snow, debris, etc.
- Verify termination cap clearance to subsequent construction (building additions, decks, fences, or sheds). See Section 6.
- Inspect for corrosion or separation.
- Verify weather stripping, sealing and flashing remains intact.
- Inspect draft shield to verify it is not damaged or missing.

Reinstall door or decorative front.

# B. Maintenance Tasks-Qualified Service Technician

The following tasks must be performed by a qualified service technician.

#### **Gasket Seal and Glass Assembly Inspection**

#### Frequency: Annually

By: Qualified Service Technician

**Tools needed**: Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.
- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

#### Logs

#### Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves.

- Inspect for damaged or missing logs. Replace as necessary. Refer to Section 15.E. for log placement instructions.
- Verify correct log placement and no flame impingement causing sooting. Correct as necessary.

### Firebox

#### Frequency: Annually

By: Qualified Service Technician

**Tools needed**: Protective gloves, sandpaper, steel wool, cloths, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation. Sand and repaint as necessary.
- Replace fireplace if firebox has been perforated.

### **Control Compartment and Firebox Top**

#### Frequency: Annually

By: Qualified Service Technician

**Tools needed**: Protective gloves, vacuum cleaner, dust cloths

- Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
- Remove all foreign objects.
- Verify unobstructed air circulation.

### **Burner Ignition and Operation**

#### Frequency: Annually

By: Qualified Service Technician

**Tools needed**: Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with pilot or igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
- Replace rockwool with new dime-size pieces. DO NOT block ports or obstruct lighting paths. Refer to Section 15.F for proper rockwool placement.
- Verify batteries have been removed from battery backup IPI systems to prevent premature battery failure or leaking.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See Section 15.I. for required air shutter setting. Verify air shutter is clear of dust and debris.
- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect pilot flame pattern and strength. See Figure 3.1 for proper pilot flame pattern. Clean or replace orifice spud as necessary.
- Inspect thermocouple/thermopile or IPI flame sensing rod for soot, corrosion and deterioration. Polish with fine steel wool or replace as required.
- Verify thermocouple/thermopile or IPI millivolt output. Replace as necessary.



Figure 3.1 IPI SIT Pilot Flame Patterns

#### Fan Replacement & Maintenance

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, screwdriver.

- Remove door front and fixed glass assembly; refer to Sections 14.K. and 14.L.
- Remove logs.
- Bend right front log tab down.



Figure 3.2 Bend Down Tab

- Remove two mounting screws from front burner.
- Slide burner to the left, lift left side up and out.



Figure 3.3 Remove Burner

 Remove the two screws holding the dashboard in place, remove dashboard to access gas line and valve wires.



Figure 3.4 Remove Screws Holding Dashboard

- Shut off gas and unhook flex line from the valve.
- Unplug wires from the valve.

• Remove eight screws holding valve plate in place.



Figure 3.5 Remove Screws From Valve Plate

• Lift the valve assembly up and out. Set aside.



Figure 3.6 Lift Up & Remove Valve Assembly

• Remove two wing nuts holding the fan bracket in place and remove bracket.



Figure 3.7 Remove Fan Bracket

• Remove fan through the valve plate opening.



Figure 3.8 Remove Fan

- Clean or replace fan.
- Check condition of gasket. It should remain in place when you remove the valve plate. Replace if necessary.
- Reinstall all parts.



# A. Typical Appliance System

**NOTICE:** Illustrations and photos reflect typical installations and are for design purposes only. Illustrations/diagrams are not drawn to scale. Actual product may vary from pictures in manual



# **B. Design and Installation Considerations**

Quadra-Fire direct vent gas appliances are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the outside. No additional outside air source is required.

Installation MUST comply with local, regional, state and national codes and regulations. Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

Before installing, determine the following:

- · Where the appliance is to be installed.
- The vent system configuration to be used.
- · Gas supply piping.
- Electrical wiring requirements.
- · Framing and finishing details.
- Whether optional accessories are desired.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified service technician, service agency or your dealer.

# C. Tools and Supplies Needed

Before beginning the installation be sure that the following tools and building supplies are available.

Tape measure	Framing material
Pliers	Flat blade screwdriver
Hammer	Phillips screwdriver
Gloves	Framing square
Voltmeter	Electric drill and bits (1/4 in.)
Plumb line	Safety glasses
Level	Reciprocating saw
Manometer	

Non-corrosive leak check solution

Caulking material (300°F minimum continuous exposure rating)

1/2 - 3/4 in. length, #6 or #8 Self-drilling screws

### **D. Inspect Appliance and Components**

- Carefully remove the appliance and components from the packaging. Refer to Figure 4.2.
  - Remove the refractory from the back of the unit by removing the screws from the shipping bracket.
  - Remove the screws from the shipping brackets before trying to remove the unit from the pallet.
  - Remove the andirons.

- Remove the screw from the top of each carrying handle. The handles have been provided to assist in moving the unit.
- The vent system components and decorative doors and fronts are shipped in separate packages.
- Report to your dealer any parts damaged in shipment, particularly the condition of the glass.
- Read all of the instructions before starting the installation.
  Follow these instructions carefully during the installation to ensure maximum safety and benefit.

**WARNING!** Risk of Fire or Explosion! Damaged parts could impair safe operation. **DO NOT i**nstall damaged, incomplete or substitute components. Keep appliance dry.

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance or vent system component.
- · Modification of the appliance or vent system.
- Installation other than as instructed by Hearth & Home Technologies.
- · Improper positioning of the gas logs or the glass door.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.
- Any such action may cause a fire hazard.

**WARNING!** Risk of Fire, Explosion or Electric Shock! DO NOT use this appliance if any part has been under water. Call a qualified service technician to inspect the appliance and to replace any part of the control system and/or gas control which has been under water.



Figure 4.2 Refractory Shipping Location, Brackets

Framing and Clearances

#### A. Select Appliance Location

When selecting a location for the appliance it is important to consider the required clearances to walls (see Figure 5.1).

WARNING! Risk of Fire or Burns! Provide adequate clearance around air openings and for service access. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies. **NOTICE:** Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY. Illustrations/diagrams are not drawn to scale. Actual installation may vary due to individual design preference.



**Note:** Wiring for and the installation of the heat zone kit must be done before framed enclosure is completed.

# **B.** Construct the Appliance Chase

A chase is a vertical box-like structure built to enclose the gas appliance and/or its vent system.

**NOTICE:** Treatment of ceiling firestops and wall shield firestops and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Therefore, you MUST check local building codes to determine the requirements to these steps.

Chases should be constructed in the manner of all outside walls of the home to prevent cold air drafting problems. The chase should not break the outside building envelope in any manner.

Walls, ceiling, base plate and cantilever floor of the chase should be insulated. Vapor and air infiltration barriers should be installed in the chase as per regional codes for the rest of the home. Additionally, in regions where cold air infiltration may be an issue, the inside surfaces may be sheetrocked and taped for maximum air tightness.

To further prevent drafts, the wall shield and ceiling firestops should be caulked with caulk with a minimum of

300°F continuous exposure rating to seal gaps. Gas line holes and other openings should be caulked with caulk with a minimum of 300°F continuous exposure rating or stuffed with unfaced insulation. If the appliance is being installed on a cement surface, a layer of plywood may be placed underneath to prevent conducting cold up into the room.

#### C. Clearances

**NOTICE:** Install appliance on hard metal or wood surfaces extending full width and depth. **DO NOT** install directly on carpeting, vinyl, tile or any combustible material other than wood.

**WARNING!** Risk of Fire! Maintain specified air space clearances to appliance and vent pipe:

- Insulation and other materials must be secured to prevent accidental contact.
- The chase must be properly blocked to prevent blown insulation or other combustibles from entering and making contact with fireplace or chimney.
- Failure to maintain airspace may cause overheating and a fire.



# **D. Mantel and Wall Projections**

**WARNING! Risk of Fire!** Comply with all minimum clearances to combustibles as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of non-combustible materials (i.e., steel studs, concrete board, etc).

#### Mantels



#### Mantel Legs or Wall Projections



# A. Vent Termination Minimum Clearances

A WARNING

Fire Risk. Maintain vent clearance to combustibles as specified. • DO NOT pack air space with insulation or other materials. Failure to keep insulation or other materials away from vent pipe may cause overheating and fire. Horizontal overhang 20 in. 24 in<sup>'</sup>. min. (508 mm) (610 mm) Vertical Lowest wall - ¥ Discharge Opening Termination Cap Х Storm Collar 12 Roof Flashing Roof Pitch is X / 12 H (min.) - Minimum height from roof to lowest discharge opening. **Roof Pitch Roof Pitch** H (Min.) Ft. H (Min.) Ft. Over 11/12 to 12/12 Flat to 6/12 1.0\* 4.0 Over 6/12 to 7/12 1.25\* Over 12/12 to 14/12 5.0 Over 7/12 to 8/12 1.5\* Over 14/12 to 16/12 6.0 Over 8/12 to 9/12 Over 16/12 to 18/12 2.0\* 7.0 Over 9/12 to 10/12 2.5 Over 18/12 to 20/12 7.5 Over 10/12 to 11/12 3.25 Over 20/12 to 21/12 8.0 \* 3 ft. minimum in snow regions Figure 6.1 Minimum Height From Roof To Lowest Discharge Opening







- B Clearance to window or door that may be opened 10,000 BTUs or less, 6 in. (15 cm) minimum; 10,000-50,000 BTUs, 9 in. (23 cm) minimum; over 50,000 BTUs, 12 in. (30 cm) minimum. \*
- C Clearance to permanently closed window 12 in. (30 cm) minimum recommended to prevent condensation on window.
- D Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 2 ft (60 cm) from the centerline of the termination 18 in. (46 cm) minimum. \*\*
- E Vertical clearance to unventilated soffit 12 in. (30 cm) minimum. \*\*
- F Clearance to outside corner 6 in. (15 cm) minimum.
- G Clearance to inside corner 6 in. (15 cm) minimum.
- H Not to be installed above a meter/regulator assembly within 3 ft (90 cm) horizontally\* from the center line of the regulator (Canada only)
- I Clearance to service regulator vent outlet 3 ft (.91 m) U.S. minimum and 3 ft (.91 m) Canada minimum. \*
- J Clearance to non-mechanical air supply inlet into building or the combustion air inlet to any other appliance 9" (23 cm) U.S. minimum and 12 in. (30 cm) Canada minimum. \*
- K Clearance to mechanical air supply inlet 3 ft (.91 m) U.S. minimum and 6 ft (1.8 m) Canada minimum.  $^{\ast}$
- L Clearance above a paved sidewalk or paved driveway located on public property 7 ft (2.1 m) minimum.

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

M Clearance under veranda, porch, deck or balcony - 12 in. (30 cm) minimum. \* Recommended 30 in. (76 cm) for vinyl or plastic.

Only permitted if veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor. \*

- N Vertical clearance between two horizontal termination caps 12 in. (30 cm) minimum.
- O Horizontal clearance between two horizontal termination caps 12 in. (30 cm) minimum.

- Q 18" Non-vinyl soffit and overhang
  - 42" Vinyl soffit and overhang

R 8 ft.

		S <sub>min</sub>	T <sub>max</sub>	
1 cap	3 ft		2 x S actual	
2 caps		6 ft	1 x S actual	
3 caps	9 ft		2/3 x S actual	
4 caps	12 ft		1/2 x S actual	
S <sub>min</sub> = # term caps x 3		T <sub>max</sub> = (2/# term caps) x S (actual)		

U 6" min. - Clearance from sides of electrical service.

W 12" min. - Clearance above electrical service.

- \* As specified in CGA B149 Installation Codes
- Note: Local codes or regulations may require different clearances.
- \*\* Clearance required to vinyl soffit material 30 in. (76 cm) minimum.
- Note: Location of the vent termination must not interfere with access to the electrical service.

#### WARNING!

In the U.S.: Vent system termination is NOT permitted in screened porches. You must follow side wall, overhang and ground clearances as stated in the instructions.

In Canada: Vent system termination is NOT permitted in screened porches. Vent system termination is permitted in porch areas with two or more sides open. You must follow all side wall, overhang and ground clearances as stated in the instructions.

Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

#### Figure 6.3 Minimum Clearances for Termination

CAUTION: IF EXTERIOR WALLS ARE FINISHED WITH VINYL SIDING, IT IS SUGGESTED THAT A VINYL PROTECTOR KIT BE INSTALLED.

# Vent Information and Diagrams

# A. Approved Pipe

This appliance is approved for use with Hearth & Home Technologies DVP venting systems. Refer to Section 17.B. for vent component information.

**DO NOT** mix pipe, fittings or joining methods from different manufacturers.

The pipe is tested to be run inside an enclosed wall. There is no requirement for inspection openings at each joint within the wall.

**WARNING!** Risk of Fire or Asphyxiation. This appliance requires a separate vent. **DO NOT** vent to a pipe serving a separate solid fuel burning appliance.

# **B. Vent Table Key**

The abbreviations listed in this vent table key are used in the vent diagrams.

Symbol	Description			
<b>V</b> 1	First section (closest to appliance) of vertical length			
V <sub>2</sub>	Second section of vertical length			
H₁	First section (closest to appliance) of horizontal length			
H <sub>2</sub>	Subsequent sections of horizontal length			

# C. Use of Elbows

Diagonal runs have both vertical and horizontal vent aspects when calculating the effects. Use the rise for the vertical aspect and the run for the horizontal aspect (see Figure 7.1).

Two  $45^{\circ}$  elbows may be used in place of one  $90^{\circ}$  elbow. On  $45^{\circ}$  runs, one foot of diagonal is equal to 8-1/2 in. (216 mm) horizontal run and 8-1/2 in. (216 mm) vertical run. A length of straight pipe is allowed between two  $45^{\circ}$  elbows (see Figure 7.1).

# **D. Measuring Standards**

Vertical and horizontal measurements listed in the vent diagrams were made using the following standards.

- Pipe measurements are shown using the effective length of pipe (see Figure 7.2).
- Horizontal terminations are measured to the outside mounting surface (flange of termination cap) (see Figure 6.4.).
- Vertical terminations are measured to bottom of termination cap.
- Horizontal pipe installed level with no rise.



On  $45^{\circ}$  runs, 1 ft (.3 m) of diagonal is equal to 8-1/2 in. (216 mm) horizontal run and 8-1/2 in. (216 mm) vertical run.





# E. Vent Diagrams

To replace the first starter elbow with two 45° elbows, refer to Figure 7.4. All other 90° elbows can be replaced with two 45° elbows.

General Rules:

- SUBTRACT 3 ft. from the total H measurement for each 90° elbow installed horizontally.
- SUBTRACT 1-1/2 ft. from the total H measurement for each 45° elbow installed horizontally.
- A maximum of three 90° elbows (or six 45° elbows) may be used in any vent configuration. Some elbows may be installed horizontally. See Figure 7.5.
- Elbows may be placed back to back anywhere in the system as long as the first 90° elbow is a starter elbow except as shown in Figure 7.4.
- When penetrating a combustible wall, a wall shield firestop must be installed.
- When penetrating a combustible ceiling, a ceiling firestop must be installed.
- Horizontal runs of vent do not require vertical rise; horizontal runs may be level.

#### 1. Top Vent - Horizontal Termination

#### **One Elbow**



	V1 Min.	V1 Max.	H1 Max.
feet	1	-	5
meters	0.30		1.52
feet	2	-	10
meters	0.61		3.05
feet	3	-	15
meters	0.91		4.57
feet	4	-	20
meters	1.22		6.10
feet		25	20
meters		7.62	6.10

Figure 7.3

# 1. Top Vent - Horizontal Termination - (continued)









H2max

3

0.91

7

2.13

14

4.27

# 2. Top Vent - Vertical Termination



Figure 7.7
#### A. Pipe Clearances to Combustibles

WARNING! Risk of Fire! Maintain air space clearance to vent. DO NOT pack insulation or other combustibles:

- Between ceiling firestops
- Between wall shield firestops
- Around vent system

Failure to keep insulation or other material away from vent pipe may cause over heating and fire.



# **B. Wall Penetration Framing**

#### **Combustible Wall Penetration**

Whenever a combustible wall is penetrated, you must frame a hole for the wall shield firestop(s). The wall shield firestop maintains minimum clearances and prevents cold air infiltration.

- The opening must be framed on all four sides using the same size framing materials as those used in the wall construction.
- A wall shield firestop is required on one side only on interior walls. If your local inspector requires a wall shield firestop on both sides, then both wall shield firestops must have a heat shield attached to them.
- See Section 10.J. for information for regarding the installation of a horizontal termination cap.

#### **Non-Combustible Wall Penetration**

If the hole being penetrated is surrounded by non-combustible materials such as concrete, a hole with diameter one inch greater than the pipe is acceptable.

Whenever a non-combustible wall is penetrated, the wall shield firestop is only required on one side and no heat shield is necessary.





# C. Install the Ceiling Firestop

A ceiling firestop **MUST** be used between floors and attics.

- Frame an opening 10 in. by 10 in. (254 mm by 254 mm) whenever the vent penetrates a ceiling/floor (see Figure 8.4).
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- The ceiling firestop may be installed above or below the ceiling joists when installed with a attic insulation shield. It must be under joists between floors that are not insulated. Refer to Figure 8.5.
- Secure with three fasteners on each side. WARNING! Risk of Fire! DO NOT pack insu-

lation around the vent. Insulation must be kept back from the pipe to prevent overheating.





#### **D. Install Attic Insulation Shield**

**WARNING! Fire Risk. DO NOT** allow loose materials or insulation to touch vent. Hearth & Home Technologies Inc. requires the use of an attic shield.

The National Fuel Gas Code ANSI Z223.1 and NFPA 54 requires an attic shield constructed of 26 gauge minimum metal that extends at least 2 in. (51 mm) above insulation.

Attic shields must meet specified clearance and be secured in place.

#### **Flat Ceiling Installation**

Remove one shield from box.

**NOTICE:** Cut previously installed batt insulation to make room for the attic insulation shield.

- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend three tabs on the bottom of the shield outward to allow attachment to the ceiling firestop.
- Bend the remaining bottom tabs inward 90° to maintain the air space between the pipe and the shield. Set the shield on the ceiling firestop and attach to the firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blown insulation from getting between the shield and vent pipe, and to maintain air space clearance.

#### Vaulted Ceiling Installation

• Remove one shield from box.

**NOTICE:** Cut previously installed batt insulation to make room for the attic insulation shield.

- Cut the attic insulation shield (if application is for vaulted ceiling), to fit your ceiling pitch. Snip cut edge to recreate 1 in. bend tabs all the way around the bottom.
- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend three tabs on the bottom of the shield outward to allow attachment to the ceiling firestop.
- Bend the remaining bottom tabs inward 90° to maintain the air space between the pipe and the shield. Set the shield on the ceiling firestop and attach to the firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blown insulation from getting between the shield and vent pipe, and to maintain air space clearance.



# A. Secure and Level the Appliance

WARNING! Risk of Fire! Prevent contact with:

- Sagging or loose insulation
- Insulation backing or plastic
- Framing and other combustible materials Block openings into the chase to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.

**DO NOT** notch the framing around the appliance standoffs.

Failure to maintain air space clearance may cause overheating and fire.

The diagram shows how to properly position and secure the appliance (see Figure 9.1). Nailing tabs are provided to secure the appliance to the framing members.

- · Bend out nailing tabs on each side.
- Place the appliance into position.
- Keep nailing tabs flush with the framing.
- Level the appliance from side to side and front to back.
- Shim the appliance as necessary. It is acceptable to use wood shims underneath the appliance.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.
- Secure the appliance to the floor by inserting two screws through the pilot holes at the bottom of the appliance.



**NOTICE:** The bottom of the door frame at time of installation will be flush with the bottom of the unit. Keep floor or hearth covering flush with the bottom of the unit or the door will not fit on the unit.

Figure 9.1 Proper Positioning and Securing of an Appliance



Figure 9.2 Intake Adapter Assembly



### A. Assemble Vent Sections

#### Attach Pipe to the Firebox Assembly

**Note:** The end of the pipe sections with the lanced tabs will face towards the appliance.

Attach the first pipe section to the starting collar:

- Lanced pipe end to the starting collar
- Inner pipe over inner collar
- Push the pipe section until all lanced tabs snap in place
- Lightly tug on pipe to confirm it has locked.

# Commercial, Multi-family (Multi-level exceeding two stories), or High-Rise Applications

All outer pipe joints must be sealed with silicone with a minimum of 300°F continuous exposure rating, including the slip section that connects directly to the horizontal termination cap.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections. See Figure 10.1
- Only outer pipes need to be sealed. All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed in this manner, unless otherwise stated.

**WARNING!** Risk of Fire or Explosion! DO NOT break silicone seals on slip sections. Use care when removing termination cap from slip pipe. If slip section seals are broken during removal of the termination cap, vent may leak.

#### **Assemble Pipe Sections**

Per Figure 10.2:

- Start the inner pipe on the lanced end of section A into the flared end of section B.
- Start the outer pipe of section A over the outer pipe of section B.
- Once both vents sections are started, push firmly until all lanced tabs lock into place.
- Lightly tug on the pipe to confirm the tabs have locked.

It is acceptable to use screws no longer than 1/2 in. (13 mm) to hold outer pipe sections together. If predrilling holes, **DO NOT** penetrate inner pipe.

For 90° and 45° elbows that are changing the vent direction from horizontal to vertical, one screw minimum should be put in the outer flue at the horizontal elbow joint to prevent the elbow from rotating. Use screws no longer than 1/2 in. (13 mm). If predrilling screw holes, **DO NOT** penetrate inner pipe.



Figure 10.1 High Temperature Silicone Sealant





Figure 10.2

Figure 10.3

 Note: Make sure that the seams are not aligned to prevent unintentional disconnection.

 Image: Constant of the seams are not aligned to prevent unintentional disconnection.

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Figure 10.4 Seams

### **B. Assemble Slip Sections**

**WARNING! Risk of Fire or Asphyxiation!** Overlap pipe sections at least 1 1/2 in. (38 mm). Secure slip sections with two screws which must not exceed 1/2 in. (13 mm) in length. Use the pilot holes. Pipe could separate if not properly joined.

- Slide the inner flue of the slip section into the inner flue of the pipe section and the outer flue of the slip section over the outer flue of the pipe section. See Figure 10.5.
- Slide together to the desired length.



Figure 10.5 Slip Section Pilot Holes

- Maintain a 1-1/2 in. (38 mm) overlap between the slip section and the pipe section.
- Secure the pipe and slip section with two screws no longer than 1/2 in. (13 mm), using the pilot holes in the slip section. See Figure 10.6.



Figure 10.6 Screws into Slip Section

Continue adding pipe as necessary following instructions in "Assemble Pipe Sections."

**NOTICE:** If slip section is too long, the inner and outer flues of the slip section can be cut to the desired length.

**NOTICE:** When installing a vent system with an HRC termination cap, all pipe system joints shall be sealed using a silicone sealant with a minimum of 300°F continuous exposure rating.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections.
- Only outer pipes are sealed, sealing the inner flue is not required.
- All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed.

#### C. Secure the Vent Sections

- Vertical runs of DVP pipe must be supported every 8 ft. (2.44 m) after the 25 ft. (7.62 m) maximum unsupported rise.
- Horizontal sections of vent must be supported every 5 ft. (1.52 m) with a vent support or plumber's strap.
- Wall shield firestops may be used to provide horizontal support.
- Vent support or plumber's strap (spaced 120° apart) may be used for support. See Figures 10.9 and 10.10.

WARNING! Risk of Fire, Explosion or Asphyxiation! Improper support may allow vent to sag and separate. Use vent run supports and connect vent sections per installation instructions. DO NOT allow vent to sag below connection point to appliance.



Figure 10.7 Securing Vertical Pipe Sections



#### **D. Disassemble Vent Sections**

- Rotate either section (see Figure 10.9) so the seams on both pipe sections are aligned as shown in Figure 10.10.
- Pull carefully to separate the pieces of pipe.



Figure 10.9 Rotate Seams for Disassembly



Figure 10.10 Align and Disassemble Vent Sections

#### E. Install Metal Roof Flashing

- See minimum vent heights for various pitched roofs (Figure 10.11) to determine the length of pipe to extend through the roof.
- Slide the roof flashing over the pipe sections extending through the roof as shown in Figure 10.12.



**NOTICE:** Failure to properly caulk the roof flashing and pipe seams may permit entry of water.

- Caulk the gap between the roof flashing and the outside diameter of the pipe.
- Caulk the perimeter of the flashing where it contacts the roof surface. See Figure 10.12.
- Caulk the overlap seam of any exposed pipe sections that are located above the roof line.



Figure 10.12

#### F. Assemble and Install Storm Collar

**CAUTION!** Risk of Cuts, Abrasions or Flying Debris. Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

- Connect both halves of the storm collar with two screws (see Figure 10.13).
- Wrap the storm collar around the exposed pipe section closest to the roof and align brackets. Insert a bolt (provided) through the brackets and tighten the nut to complete the storm collar assembly (Figure 10.14). Make sure the collar is tight against the pipe section.
- Slide the assembled storm collar down the pipe section until it rests on the roof flashing.
- Caulk around the top of the storm collar.



Figure 10.13 Assembling the Storm Collar



Figure 10.14 Assembling the Storm Collar Around the Pipe

# **G. Install Vertical Termination Cap**

•

- Attach the vertical termination cap by sliding the inner collar of the cap into the inner flue of the pipe section while placing the outer collar of the cap over the outer flue of the pipe section.
  - Secure the cap by driving three self-tapping screws (supplied) through the pilot holes in the outer collar of the cap into the outer flue of the pipe (see Figure 10.15).



Figure 10.15

# H. Heat Shield Requirements for Horizontal Termination

**WARNING! Risk of Fire!** To prevent overheating and fire, heat shields must extend through the entire wall thickness.

- **DO NOT** remove the heat shields attached to the wall shield firestop and the horizontal termination cap.
- Heat shields must overlap 1-1/2 in. (38 mm) minimum.

There are two sections of the heat shield. One section is factory-attached to the wall shield firestop. The other section is factory-attached to the cap. See Figure 10.16.

If the wall thickness does not allow the required 1-1/2 in. (38 mm) heat shield overlap when installed, an extended heat shield must be used.

- If the wall thickness is less than 4 in./102 mm, the heat shields on the cap and wall shield firestop must to be trimmed. A minimum 1-1/2 in. (38 mm) overlap MUST be maintained.
- Use an extended heat shield if the finished wall thickness is greater than 7-1/4 in. (184 mm).
- The extended heat shield may need to be cut to length maintaining sufficient length for a 1-1/2 in. (38 mm) overlap between heat shields.
- Attach the extended heat shield to either of the existing heat shields using the screws supplied with the extended heat shield. Refer to "Vent Components Diagrams" in the back of this manual.
- Rest the small leg on the extended heat shield on top of the pipe section to properly space it from the pipe section.

Important Notice: Heat shields may not be field constructed.

#### I. Install Horizontal Termination Cap

**WARNING! Risk of Fire!** The telescoping flue section of the termination cap MUST be used when connecting vent.

• 1-1/2 (38 mm) minimum overlap of flue telescoping section is required.

Failure to maintain overlap may cause overheating and fire.

- Vent termination must not be recessed in the wall. Siding may be brought to the edge of the cap base.
- Flash and seal as appropriate for siding material at outside edges of cap.

 When installing a horizontal termination cap, follow the cap location guidelines as prescribed by current ANSI Z223.1 and CAN/CGA-B149 installation codes and refer to Section 6 of this manual.

**CAUTION! Risk of Burns!** Local codes may require installation of a cap shield to prevent anything or anyone from touching the hot cap.

**NOTICE:** For certain exposures which require superior resistance to wind-driven rain penetration, a flashing kit and HPC caps are available. When penetrating a brick wall, a brick extension kit is available for framing the brick.

**Note:** When using termination caps with factory-supplied heat shield attached, no additional wall shield firestop is required on the exterior side of a combustible wall.





# A. HHT Shrouds

You may install a shroud with this fireplace. See Section 17.D. for a list of UL Listed shrouds. Follow the instructions included with these optional components

#### **B. Field Constructed Shrouds**

WARNING! Risk of Fire! Shrouds must be constructed as specified. Improper construction may overheat chase top.

Chase top shrouds may be field constructed where permitted by regional building codes. •

NOTICE: Some regional codes require an agency-Listed shroud. Consult your local building officials.

- The following field constructed shroud designs have been tested for Hearth Technologies fireplace systems and termination caps.
- The shrouds must be constructed from a minimum .018 in. (26 ga) thick aluminized steel.
- The wire mesh is optional but recommended and must be .018 in. thick minimum, 1/2 in. mesh. •

#### Open Top Shroud (may be used with DVP-TV, DVP-TVHW, SLP-TVHW)



Min. Base Dims.					
in	19 x 19				
mm	483 x 483				
Min. Top Dims.					
in	16 x 16				
mm 406 x 406					

#### Figure 11.1 Open Top Shroud Dimensions



#### Roofed Style Shroud (may be used with DVP-TV, DVP-TVHW, SLP-TVHW)





#### A. Gas Pressure

- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z221.3 National Fuel Gas Code in the USA and CAN/ CGA B149 in Canada.
- Pressure requirements are:

Gas Pressure	Natural Gas	Propane		
Minimum inlet pressure	5.0 in. w.c.	11.0 in. w.c.		
Maximum inlet pressure	10.0 in. w.c.	13.0 in. w.c.		
Manifold pressure	3.5 in. w.c.	10.0 in. w.c.		

WARNING! Risk of Fire or Explosion! High pressure will damage valve. Low pressure may cause explosion.

- Verify inlet pressures. Verify minimum pressures when other household gas appliances are operating.
- Install regulator upstream of valve if line pressure is greater than 1/2 psig.



**Note:** Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI 223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter).

**Note:** A listed (and Commonwealth of Massachusetts approved) 1/2 in. (13 mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 in. (13 mm) control valve inlet.

• If substituting for these components, please consult local codes for compliance.

#### **B. Gas Connection**

- Refer to Reference Section 17.A. for location of gas line access in appliance.
- Gas line may be run through knockout(s) provided.
- The gap between supply piping and gas access hole may be caulked with caulk with a minimum of 300°F continuous exposure rating or stuffed with noncombustible, unfaced insulation to prevent cold air infiltration.
- Ensure that gas line does not come in contact with outer wrap of the appliance. Follow local codes.
- Pipe incoming gas line into valve compartment.
- Connect incoming gas line to the 1/2 in. (13 mm) connection on manual shutoff valve.

**WARNING! Risk of Fire or Explosion!** Support control when attaching pipe to prevent bending gas line.

• A small amount of air will be in the gas supply lines.

**WARNING!** Risk of Fire or Explosion! Gas build-up during line purge could ignite.

- Purge should be performed by qualified service technician.
- Ensure adequate ventilation.
- Ensure there are no ignition sources such as sparks or open flames.

Light the appliance. It will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.

WARNING! Risk of Fire, Explosion or Asphyxiation! Check all fittings and connections with a non-corrosive commercially available leak-check solution. DO NOT use open flame. Fittings and connections could have loosened during shipping and handling.

**WARNING! Risk of Fire! DO NOT** change valve settings. This valve has been preset at the factory.

# C. High Altitude Installations

**NOTICE:** If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce burner orifice 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce burner orifice 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

Note: Gas access is on the left side only.



#### A. Wiring Requirements

**NOTICE:** This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with **National Electric Code ANSI/NFPA 70-latest edition** or the **Canadian Electric Code CSA C22.1**.

- Wire the appliance junction box to 110-120 VAC. This is required for use of optional accessories (standing pilot ignition) or proper operation of the appliance (Intellifire ignition).
- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.
- Low voltage and 110 VAC voltage cannot be shared within the same wall box.

**WARNING! Risk of Shock or Explosion! DO NOT** wire 110V to the valve or to the appliance wall switch. Incorrect wiring will damage controls.

#### **B. Technical Data**

- Remote Control
  - Supply voltage: 4.5 V (three 1.5 V AAA batteries)
  - Ambient temperature ratings: 0 to 60° C (32 to 140° F).
  - Radio frequency: 315 MHz
- Receiver
  - Supply votage: 6.0 V (four 1.5 V AA batteries)
  - Ambient temperature ratings: 0 to 60° C (32 to 140° F)
  - Radio frequency: 315 MHz

#### C. Intellifire Ignition System Wiring

• Wire the appliance junction box to 110 VAC for proper operation of the appliance.

**WARNING! Risk of Shock or Explosion! DO NOT** wire IPI controlled appliance junction box to a switched circuit. Incorrect wiring will override IPI safety lockout.

 Refer to Figure 13.1 System Wiring Diagram and 13.2 Wiring Diagram.

**WARNING! Risk of Shock!** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

**WARNING! Risk of Shock!** Replace damaged wire with type 105° C rated wire. Wire must have high temperature insulation.





# **D. Junction Box Installation**

- Remove junction box from outer shell.
- Remove front cover from junction box.
- Knock out hole in junction box back and install Romex connector.
- Feed necessary length of wire through connector.
- Make all wire connections to receptacle as shown in Figure 13.4.
- Reassemble jumction box with receptacle inside.
- Insert junction box and receptable assembly through hole in outer shell (see Figure 13.3) and fasten with two screws.





# E. Heat-Zone® Gas Kit

Install the Heat-Zone $^{\ensuremath{\mathbb{B}}}$  Gas Kit before enclosing the appliance.

• Remove one of two square cover plates for each kit from the top of the appliance. Set the screws aside, discard the cover plate.



- Replace the cover plate with the heat zone collar from the kit. Use the three screws removed from the cover plate.
- Return to Heat-Zone® Gas instructions.



#### A. Facing Material

- The QFP38 is shipped with a metal front upper in place.
  - The front upper can be removed if replaced with noncombustible materials. See Section 1.E. for materials that may be used.
  - Do not cover or replace this non-combustible upper front with combustible materials.
- The metal front upper may be covered with *non-combustible* materials.
  - Locate the slots on each side of the metal front upper (see Figure 14.1, #1). Loosen the screws.
  - Locate and remove four screws holding the upper to the firebox (see Figure 14.2, #2).
  - Slide the front upper towards the back of the firebox 1/2 in. (13 mm) as shown in Figure 14.1, #3.
  - Tighten the screws on each side of the front upper (Figure 14.1, #1).
  - Replace the four screws to hold the upper to the firebox (Figure 14.1, #2).
  - You may now install non-combustible materials to the face of the front upper.
- Combustible finish wall material may be butted up to the unit and the front upper.
  - The appliance is shipped with door templates attached. The wall material should go behind the templates and butt up to the edge of the appliance. Refer to Figure 14.2.
- The joints next to the appliance should be filled with caulk with a minimum of 300°F continuous exposure rating.

**WARNING! Risk of Fire! DO NOT** apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual. Overlapping materials could ignite and will interfere with proper operation of doors and louvers.



Figure 14.1 Covering Front Upper



#### **Doors - Outside Surface Fit**

Sheetrock/wall finishing material will have been installed and the joints filled.

- Remove facing templates, retain screws for door installation.
- Non-combustible facing material less than one inch thick
   may be brought to the edge of the fireplace opening.
- Doors will be mounted over facing material.
- Door frame is slotted to allow the door to be mounted up to one inch from the surface of the fireplace.

# **B. Facing Template Removal**

There is a metal template on each side and across the top of the door opening. See Figure 14.4.

- Side Templates
  - Remove the screws from the sides of the door opening and set aside.
  - Remove and discard the template pieces.
- Top Template
  - Loosen the screws across the top of the opening.
  - Slide the top template out and discard.
  - Tighten the screws.





#### **Doors - Recessed Fit**

Sheetrock/wall finishing material will have been installed and the joints filled.

- Facing material must be butted to the flanges of the facing templates.
- Remove templates retain screws for door installation.

### **C. Mantel and Wall Projections**

**WARNING! Risk of Fire!** Comply with all minimum clearances to combustibles as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of non-combustible materials (i.e., steel studs, concrete board, etc).

#### Mantels



#### Mantel Legs or Wall Projections





#### A. Remove Fixed Glass Assembly

See Section 15.K.

#### **B. Remove the Shipping Materials**

Remove shipping materials from inside or underneath the firebox.

#### C. Clean the Appliance

Clean/vacuum any sawdust that may have accumulated inside the firebox or underneath in the control cavity.

#### **D. Install the Refractory**

- Remove the refractory retainer from each side of the firebox.
- Put the left side refractory in place and reinstall the left side refractory retainer.



Figure 15.1 Install Left Side Refractory

Install the lower back refractory.



Figure 15.2 Install Lower Back Refractory

Install the upper back refractory.



Figure 15.3 Install Upper Back Refractory

· Install the right side refractory.



Figure 15.4 Install Right Side Refractory

- Slide the back refractory slightly from side to side as necessary to close up any gaps in the corners.
- Install the right side refractory retainer.

**Note:** As you use the appliance, expansion and contraction will cause minor cracking of the refractory. This is normal, unavoidable, and will not affect the performance of the appliance. If the cracks become large enough that the metal behind the refractory is exposed or large pieces fall out, the panels should be replaced.

#### E. Install Logs, Ember Bed

 Your QFP38 log support/bracket is set at the factory for natural gas or propane. Ensure the screws are in the proper holes. See Figure 15.5. If position is not correct, remove screw from each side and pull support forward for NG, push back for LP. There is only a slight adjustment.



Figure 15.5 Log Bracket is Pre-set for NG or LP

• Position the slots in the rear log over the locating tabs at the rear of the hearth pan. See Figure 15.6.



Figure 15.6 Position Log #4061-170

 Position ember bed over the burner locating the notches of the ember bed inside the tabs of the rear burner. See Figure 15.7. Make sure the ember bed is not covering any gas ports on the burner.



Figure 15.7 Position Ember Bed #4061-171

- Place a narrow band of small rockwool pieces on the burner pan in front of the ember bed.
- Position the slots in the log over the tabs in front of the rear burner. See Figure 15.8.



Figure 15.8 Position Log #4061-172

 Adjust log forward for NG and push back for LP. There is only a slight adjustment. • Position the slot in the log over the tab in front of the rear burner. See Figure 15.9.



Figure 15.9 Position Log #4061-173

- Adjust log forward for NG and push back for LP. There is only a slight adjustment.
- Place this log in the right-hand groove in the back log and the tab as shown. See Figure 15.10.



Figure 15.10 Position Leg #4061-174

the tab as shown. See Figure 15.11.

Lays in groove in back log Slot over tab

Place this log in the left-hand groove in the back log and

Figure 15.11 Position Log #4061-175

• Place this log in the white-painted groove of ember bed and front log. See Figure 15.12.



Figure 15.12 Position Log #4061-176

• Place this log in the white-painted groove of ember bed and front log as shown in Figure 15.13.



Figure 15.13 Position Log #4061-177

• The overall placement of the first eight logs is shown in Figure 15.14.



Figure 15.14 Almost Final Log Set

Quadra-Fire • QFP38 Series • 4061-300 Rev. M • 3/12

#### F. Install Andirons, Lava Rock, Rockwool

• Remove four screws from the front of the hearth pan as indicated in Figure 15.15.



Figure 15.15 Remove Screws from Front of Hearth Pan

Align the holes in the andirons with the holes in the hearth pan and fasten, using the four screws removed in the previous step. See Figure 15.16.



Figure 15.16 Install Andirons

- Place lava rock as shown in Figure 15.18 to cover the front of the hearth pan and the front ridge of the burner pan.
- Sprinkle vermiculite over lava rock.



Figure 15.17 Install Lava Rock

**WARNING!** Risk of Explosion! Follow rockwool placement instructions. **DO NOT** place rockwool directly over burner ports. Replace rockwool material annually. Improperly placed rockwool interferes with proper burner operation.

• Place pieces of rockwool on the front of the burner pan in front of the logs. See Figure 15.18.



Figure 15.18 Place Rockwool

• Rub rockwool over the burnt look on the two front logs (as indicated in Figure 15.19). The particles left behind will give the logs a glowing embers look.

#### G. Complete Log Installation

• Place the last two logs in the lava rock and against the andirons as shown in Figure 15.19.



Figure 15.19 Install Logs #4061-178 and #4061-179

Replace fixed glass assembly.

**Note:** If sooting on logs occurs (LP units), readjust the logs out of the flame.

# H. Accent Lighting Set Up

- Remove the two screws (one on each side) holding the dashboard in place.
- Unplug the two brown wires from the back of the ON/OFF switch.
- Set the dashboard and two screws aside for later reinstallation.



Figure 15.20 Remove Dashboard

- Turn off the control module and/or unplug light cord (white) before moving on.
- Locate one of the two light boxes (one on each side behind dashboard). See Figure 15.21.



Figure 15.21 Light Box

• Clip and discard the rubber band holding the light box in place.



Figure 15.22 Clip the Rubber Band

• Pull out the light box.



Figure 15.23 Pull Out Light Box

- Remove lightbulb from box, discard box.
- Plug bulb into socket as shown in Figure 15.24.



Figure 15.24 Plug Bulb into Socket

Slide light assembly back into light housing.



Figure 15.25 Replace Light Assembly

Repeat with the other light box.



Figure 15.26 Finished Assembly

- Switch the control module to "ON" and/or plug light cord (white) into module.
- Plug brown wires into the back of the ON/OFF switch on the dashboard, reattach dashboard with the two screws removed in the first step.

#### I. Adjust the Air Shutter

This appliance has two adjustable air shutters (to control the primary air) which are set at the factory.

- A natural gas unit is set in the closed position.
- An LP gas unit is set in the open position. See Figure 15.27.

If it is necessary to adjust the air shutter to obtain optimal flame appearance, this should be adjusted by a qualified installer.



Figure 15.27 Adjusting the Air Shutter

#### J. Adjust the Vertical Baffle

If the vertical vent run height is more than 8 ft (2.45 m), it may be necessary to adjust the vertical baffle installed in the unit to improve the flame appearance. See Figure 15.28.



Figure 15.28 Adjust the Vertical Baffle

#### K. Fixed Glass Assembly

# **Removing Fixed Glass Assembly**

**WARNING! Risk of Asphyxiation!** Handle fixed glass assembly with care. Inspect the gasket to ensure it is undamaged and inspect the glass for cracks, chips or scratches.

- **DO NOT** strike, slam or scratch glass.
- DO NOT operate fireplace with glass removed, cracked, broken or scratched.
- Replace as a complete assembly.

#### **Removing Fixed Glass Assembly**

- Remove the fixed glass assembly by pulling and realeasing the glass latches. There are two on top and two on the bottom.
- Pull forward on each latch and lift up while supporting the glass assembly.
- The glass assembly is heavy. Use caution while removing.

# **Replacing Fixed Glass Assembly**

- Set the fixed glass assembly on the bottom glass supports.
- Push the glass assembly all the way to the firebox assembly.
- Support the glass assembly while pulling forward on each latch and secure in place.



# L. Install Door Fronts

The doors should be lifted off the frame at the hinges to make installation easier.

- Make sure the templates have been removed, retain the screws.
- Fit the frame inside the unit opening and use the screws from the facing template to attach the door frame to the unit.
- Install the doors by hanging on the hinges.
- Install the door handles if necessary.

**WARNING! Risk of Fire and Electric Shock!** Use ONLY Hearth & Home Technologies-approved optional accessories with this appliance. Using non-listed accessories could result in a safety hazard and will void the warranty.

**IMPORTANT!** This appliance should be run three to four hours on low on the initial start-up. Turn it off and let it cool completely. Remove and clean the glass. Reinstall the glass and run the appliance for an additional 12 hours. This will help cure the products used in the paint and logs.



#### A. Troubleshooting

With proper installation, operation, and maintenance your gas appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service technician in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician. Contact your dealer to arrange a service call by a qualified service technician.

The normal behaviors of the board could be inhibited by the anomalies described in the following tables.

Note on the automatic ignition sequence:

- The supervised pilot flame detection is activated only after a command is correctly received.
- The sparking means are activated only after no parasitic flame is detected, before the ignition.
- The pilot gas valve is energized, and the gas will flow, only after the sparking means are activated.
- The main burner gas valve is energized, and gas will flow, only if commanded and after the supervised pilot flame is detected to be continuously lit.
- The system will try two times for ignition.
- Each try for ignition will last approximately 60 seconds.
- The wait time between the two tries is approximately 35 seconds.
- If there is no positive ignition, after two tries, the ignition module will go into lockout.

Note: To reset the ignition module lockout	- turn the unit off for five seconds, then back on.
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	Symptom		Possible Cause	Corrective Action			
1.	<ol> <li>The ignitor/ module makes noise, but no spark.</li> </ol>		Incorrect wiring.	Verify "S" wire (white) for sensor and "I" wire (orange) for ignitor are connected to the correct terminals on the module and the pilot assembly. Reversed wires at the module may cause the system to make a sparking noise, but the spark may not be present at pilot hood.			
		b.	Loose connections or electrical shorts in the wiring.	Verify there are no loose connections or electrical shorts in wiring from module to pilot assembly. The rod closest to the pilot hood should be ignitor. Verify connections underneath pilot assembly are tight; also verify the connections are not grounding out to the metal chassis, pilot burner, pilot enclosure, mesh screen if present, or any other metal object.			
		C.	Ignitor gap is too large.	Verify gap of ignitor to pilot hood. The gap should be approximately .17 in. or 1/8 in.			
		d.	Faulty module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. Hold ground wire about 3/16 in. away from "I" terminal on module. If there is no spark at "I" terminal, module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode.			
2.	Pilots won't light, there is no noise or spark.	a.	Fireplace burner control installed incorrectly.	Verify that fireplace burner control is installed and plugged into module. Check voltage of transformer under load at space connection on module with ON/OFF switch in ON position. Acceptable readings of a good transformer are between 3.2 and 2.8 volts AC.			
		b.	A shorted or loose connection in wiring configuration or wiring harness.	Remove and install the wiring harness that plugs into module. Verify there is a tight fit. Verify pilot assembly wiring to module. Remove and verify continuity of each wire in wiring harness.			
		C.	Module not grounded.	Verify green ground wire from module wire harness is grounded to metal chassis of appliance.			
		d.	No gas flow out of pilot burner.	Check gas mains supply and pressure. Check gas valve wirings and connections to the board. Check for pilot burner obstruction.			
		e.	No ionization current established through flame within ignition time.	Remove/clean eventual bridging carbon deposits betweeh the pilot burner and the ionization rod.			
		f.	No gas flow out of pilot burner or pilot gas presure dropout upon main burner gas valve opening.	Check gas mains supply and pressure. Check the correct gas type setting on the valve and pilot burner assembly orifice.			
		g.	No spark generation.	Check parasitic pilot flame existence.			
		h.	No spark voltage reaches the spark rod, or spark developes near pilot assembly.	Check for cracks in the rod ceramic insulator, replace as necessary. Check pilot assembly wirings and spark return connections to the board.			

# Troubleshooting (continued)

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3.	Pilot lights but continues to spark, and main	a.	A shorted or loose connection in sensor rod.	Verify all connections to wiring diagram in manual. Verify connections underneath pilot assembly are tight. Verify connections are not grounding out to metal chassis, pilot burner, pilot bracket/enclosure or screen if present, or any other metal object.		
	ignite. (If the pilot continues to spark after the pilot flame has been lit, flame rectification has	b.	Poor flame rectification or contaminated sensor rod.	Verify flame is engulfing sensor rod. If the pilot assembly does not have a ground strap, consider installing one to increase flame rectification. Verify correct pilot orifice is installed and inlet gas specifications are met. Flame carries rectification current, not the gas. If flame lifts from pilot hood, the circuit is broken. A wrong orifice or too high an inlet pressure can cause pilot flame to lift. The sensor rod may be contaminated. Clean sensor rod with emery cloth.		
	not occurred.)	C.	Module is not grounded.	Verify that module is securely grounded to metal chassis of appliance. Verify that the wire harness is firmly connected to module.		
		d.	Damaged pilot assembly or dirty sensor rod.	Verify that ceramic insulator around the sensor rod is not cracked, damaged, or loose. Verify connection from sensor rod to white sensor wire. Clean sensor rod with emery cloth to remove any contaminants that may have accumulated on sensor rod. Verify continuity with a multimeter with ohms set at lowest range.		
		e.	Faulty module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. Hold ground wire about 3/16 in. away from "I" terminal on module. If there is no spark at "I" terminal, module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sdparker wire or cracked insulator around electrode.		
4.	Frequent pilot outage problem.	a.	Pilot flame may be too high or low, or blowing (high), causing pilot safety to drop out.	Clean and adjust the pilot flame for maximum flame impingement on sensor. Follow lighting instructions carefully.		
5.	The pilot and main burner extinguish while in operation.	a.	No LP in tank.	Check the LP (propane) tank. Refill the fuel tank.		
		b.	Inner vent pipt leaking exhaust gases back into the system.	Check for gas leaks.		
		C.	Horizontal vent improperly pitched.	The horizontal vent cap should slope down only enough to prevent any water from entering the unit. The maximum downwards slope is 1/4 in.		
		d.	Glass too loose and air tight packet leaks in corners after usage.	Tighten the corner.		
		e.	Improper vent cap installation.	Check for proper installation and freedom from debris or blockage.		
6.	Glass soots.	a.	Flame impingement.	Adjust the log set so that the flame does not excessively impinge on it.		
		b.	Improper venturi setting.	Adjust the air shutter at the base of the burner.		
		c.	Debris around venturi.	Inspect the opening at the base of the burner. NO MATERIAL SHOULD BE PLACED IN THIS OPENING.		
7.	Flame burns blue and lifts off burner.	a.	Insufficient oxygen being supplied.	Ensure that the vent cap is installed properly and free of debris, and that the vent system joints are tight and have no leaks; that no debris has been placed at the base of, or in the rea of the air holes in the center of the base pan beneath the burner; that the glass is tightened properly on the unit, particularly on top corners.		
8.	No reaction to command.	a.	No power supply connected to the board, false contact, broken wiring.	Verify fan control module is plugged in to box, 3-pin connector is seated.		
		b.	The board could be locked.	A maximum number of failed ignitions or flame restorations has been reached. Remove any possible blocking conditions. The board must be reset from Lockout.		

# **17** Reference Materials

# A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 5.



#### **B. Vent Components Diagrams**



#### B. Vent Components Diagrams (continued)



# B. Vent Components Diagrams (continued)





DVP-TVHW Vertical Termination Cap (High wind)

Note: Heat shields MUST overlap by a minimum of 1-1/2 in. (38 mm). **The heat shield is designed to be used on a wall 4 in. to 7-1/4 in. (102 mm to 184 mm) thick.** If wall thickness is less than 4 in. (102 mm) the existing heat shields must be field trimmed. If wall thickness is greater than 7-1/4 in. (184 mm) a DVP-HSM-B will be required.



DVP-TRAP Horizontal Termination Cap



DVP-TRAPK1



DVP-TRAPK2



DVP-HPC1



**DVP-TRAP to DVP-HPC Side Filler Kit** 



DVP-HPC2

Figure 17.5 DVP Vent Components

# **D. Optional Components**



LDS33/LDS46 Decorative Shroud

	Α		В		С		D	
Catalog #	in.	mm	in.	mm	in.	mm	in.	mm
LDS33	36	914	36	914	8.5	216	11	279
LDS46	48	1219	72	1829	8.5	216	11	279



LDS-BV Decorative Shroud

Catalog #		Α	В	С	Е	Е
	in.	26	12.5	15.5	22	23
LD2-BV	mm	660	318	394	533	584



TCG375 Terra Cotta Cap

LDSCP-M Shroud Leg Multipack (not shown)

See your Heatilator dealer for a complete listing of optional components.



Quadra-Fire, a brand of Hearth & Home Technologies Inc. 7571 215<sup>th</sup> Street West, Lakeville, MN 55044 www.quadrafire.com

Please contact your Quadra-Fire dealer with any questions or concerns. For the location of your nearest Quadra-Fire dealer, please visit www.Quadra-Fire.com.

#### - NOTES -



This product may be covered by one or more of the following patents: (United States) 5328356, 5601073, 5613487, 5647340, 5890485, 5941237, 5947112, 5996575, 6006743, 6019099, 6053165, 6145502, 6170481, 6374822, 6484712, 6601579, 6769426, 6863064, 7077122, 7098269, 7258116, 7470729 or other U.S. and foreign patents pending.

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