# **hearth**stone



- WARNING: FOLLOW THE INFORMATION IN THESE INSTRUCTIONS EXACTLY, IF NOT, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.
- WARNING: DO NOT STORE OR USE GASOLINE OR ANY OTHER FLAMMABLE VAPORS AND LIQUIDS NEAR THIS OR ANY OTHER GAS APPLIANCE.

#### WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch electrical switches; do not use the phone in your building.
- Immediately call your gas supplier from a phone <u>outside the structure</u>. Follow your gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department or 911.

A qualified installer, service agency, or gas supplier must perform installation and service of this appliance. In the Commonwealth of Massachusetts, all installation of gas lines and gas fittings must be performed by a licensed gas fitter or licensed plumber.

## Stowe DX

(Model 8322)

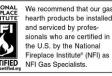
**GAS-FIRED DIRECT-VENT HEATER** 

#### Owner's Manual Installation & Operating Instructions

Read This Manual in Its Entirety Operate And Maintain This Gas Heater According To This Instruction Manual.

SAVE THESE INSTRUCTIONS!





- AVERTISSEMENT: ASSUREZ-VOUS DE BIEN SUIVRE LES INSTRUCTIONS DONNÉ DANS CETTE NOTICE POUR RÉDUIRE AU MINIMUM LE RISQUE D'INCENDIE OU POUR ÉVITER TOUT DOMMAGE MATÉERIEL, TOUTE BLESSURE OU LA MORT.
- AVERTISSEMENT: NE PAS ENTRESPOSER NI UTILISER D'ESSENCE NI D'AUTRE VAPERURS OU LIQUIDES INFLAMMABLES DANS LE VOISINAGE DE CET APPRAREIL OU DE TOUT AUTRE APPAREIL.

#### QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:

- Me pas tenter d'allumer d'appareil.
- Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le batiment où vous vous trouvez.
- Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service dos incendies.

L'installation et service doit être exécuté par un qualifié installer, agence de service ou le fournisseur de gaz.

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## **Information Sheet**

Use this page to record all relevant information concerning the purchase, installation, and maintenance of your Stowe Model 8322 Direct -Vent heater. This information will facilitate servicing, purchase of replacement parts, and warranty claims (if necessary). Keep your original receipt in a safe place as proof of purchase.

Serial Number:		
Fuel type:	Natural Gas	Liquid Propane
Sold by:		Date of Purchase:
Address:		
Phone:		
E-mail		Website:
Installed by:		Date of Installation:
Address:		
Phone:		
E-mail		Website:
Gas Supplier:		
Address:		
Phone:		
E-mail		Website:

**Read this Owner's Manual** before installing, or operating your STOWE. Retain this manual for future reference.

#### SERVICE RECORD

Date	Who Performed Work	Work Performed	Notes:

#### WHAT

#### WHEN

Firebox Cleaning..... Glass Cleaning..... Door Gasket.... annually as needed Replacement as needed

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## Introduction

Congratulations on your purchase of the Stowe Model 8322, Gas-Fired Direct-Vent heater. The Stowe, by Hearthstone, incorporates the latest in direct vent gas technology, which will provide you with clean, efficient heat for years to come. The enameled or painted cast iron gives the Stowe a pleasing look that is maintained with minimum care.

The Stowe will provide you with years of practical and convenient service. However, as with any gas appliance, the unit must be properly and safely installed and maintained by qualified service personnel to ensure safe and trouble-free operation.

#### Stowe Model 8322 Features:

- 1. Proflame Control System
- 2. 5-piece log set
- 3. Heat Wave Baffle for maximum radiant heat output.
- 4. Screen Kit
- 5. Platinum Bright Embers
- 6. The option to toggle back and forth between an Intermittent (IPI) or Continuous (CPI) pilot mode.
  - a. The IPI mode allows the most efficient use of gas, burning the pilot only when the thermostat calls for the burner to ignite.
  - b. The CPI mode runs the pilot continuously keeping the firebox warmer thus promoting better draft in colder climates.
- 7. Battery backup for functionality during power outages.

#### Control System Features:

- 1. Proflame GTMF System
  - a. Thermostatic Remote Control
    - i. Six (6) flame levels, adjustable via the remote

- ii. Six (6) blower speeds, adjustable via the remote
- b. Thermostatic mode to turn on/off based upon room temperature.
- c. "Smart" thermostatic mode to modulate flame levels automatically as the unit approaches the set point temperature.
- d. Additional outlet controlled by the remote.
- 2. "Child-safe" lock-out on remote control.
- 3. "Low Battery" indicator for Transmitter on remote control
- 4. Integral Blower

Part #		Description
	8322-0010DX	Deluxe Matte Black
	8322-0020DX	Deluxe Brown Enamel

#### Read this Owner's Manual

Operate and maintain this gas heater according to the instructions in this manual. For your safety, and years of trouble free operation, read this manual in its entirety.

#### Heater Must Be Installed and Maintained By Qualified Service Personnel

Verify the gas connections and venting systems meet the requirements of local, regional or national installation codes. Qualified service personnel must inspect the gas heater before use, and at least annually.

#### Manufactured & warranted by:

Hearthstone Quality Home heating Products, Inc. 317 Stafford Ave. Morrisville, VT 05661

www.hearthstonestoves.com inquiry@hearthstonestoves.com

## **Safety Information**

Your Stowe is an attractive and extremely efficient heater, utilizing today's best technologies. By following a few simple safety precautions and by performing minimal maintenance, the unit will remain appealing while providing years of quality performance.

The installation must conform to local codes or, in the absences of local codes, the current National Fuel Gas Code, ANSI Z223.1 (NFPA 54) or CAN/CGA B149 Installation Code. (*Installer l'appareil selon les codes ou réglements locaux, ou, en l'absence de tells réglements, selon les Codes d'installation CAN/CGA B149.*)

CAUTION: DO NOT USE THIS APPLIANCE IF ANY PART WAS UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE HEATER AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND GAS CONTROL THAT HAS BEEN UNDER WATER. (NE PAS SE SERVIR DE CET APPAREIL S'IL A ÉTÉ PLONGÉ DANS L'EAU, COMPLÉTEMENT OU EN PARTIE. APPELER UN TECHNICIEN QUALIFIÉ POUR INSPECTOR L'APPAREIL ET REMPLACER TOUTE PARTIE DU SYSTÉME DE CONTRÔLE ET TOUTE COMMANDE QUI ONT ÉTÉ PLUNGES DANS L'LAU.)

During the first few hours of operation the appliance may produce smoke and/or odor. This is normal during the first several burns and also after long periods when the stove is not burned. During these initial burns, open a window(s) to assist in the removal of the smoke/odor.

The appliance and its individual shutoff valve must be <u>disconnected</u> from the gas supply piping system during any pressure testing of that system at test pressures in excess of  $\frac{1}{2}$  psig. (3.5k Pa). The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$  psig (3.5k Pa).

#### Fire Hazard

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this appliance. Locate the Stowe out of traffic areas and away from furniture, draperies, clothing, and flammable material.

#### Vent Only to the Outside

Never vent the gas heater to other rooms or buildings.

#### Service Caution

If you believe your Stowe is not, in any way, performing properly, immediately discontinue operation until the unit is inspected and approved by qualified service personnel. Prior to servicing the unit, turn the gas to the valve off, and disconnect any electrical source. Ensure the unit is cool prior to servicing and cleaning. Replace any safety screen, guard, or component removed during servicing prior to operation. Use of any components not supplied by Hearthstone on the stove voids all warranties. **Do not substitute components.** 

#### **Proper Fuel**

This gas heater is designed to burn natural gas (NG) or with conversion, liquid propane (LP). Never burn any fuel gas not intended for use with this unit. Never burn paper, wood, or other materials in this appliance.

This heater is factory equipped to burn natural gas (NG). To burn propane (LP), you must purchase LP conversion kit #97-56104.

This appliance is only for use with the type(s) of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used. Cet appareil doit être atilisé uniquement avec les types de gas indiqués sur la plaque signalétique. Ne pas l'utiliser avec d'autres gas sauf si un kited conversion certifié est installé.)

- WARNING: THIS GAS APPLIANCE MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVING A SEPARATE GAS OR SOLID-FUEL BURNING APPLIANCE
- WARNING: DO NOT OPERATE THE APPLIANCE WITH THE FRONT GLASS REMOVED, CRACKED, OR BROKEN. REPLACEMENT OF GLASS SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON. ONLY OPEN FRONT FOR ROUTINE SERVICE. DO NOT SLAM FRONT OR STRIKE GLASS.
- WARNING: HEARTHSTONE RECOMMENDS THAT ONLY AN NFI CERTIFIED SERVICE TECHNICIAN INSTALLS, AND REPAIRS THIS APPLIANCE. A QUALIFIED SERVICE TECHNICIAN MUST INSPECT THE APPLIANCE BEFORE USE, AND AT LEAST ANNUALLY. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL, PETS, ETC. IT IS IMPERATIVE THAT THE CONTROL COMPARTMENTS, BURNERS, AND CIRCULATING AIR PASSAGES OF THE APPLIANCE ARE KEPT CLEAN AND FREE OF OBSTRUCTIONS. (S'ASSURER QUE LE BRÛLEUR ET LE

#### COMPARTIMENT DES COMMANDES SONT PROPRES. VOIR LES INSTRUCTIONS D'INSTALLATION ET D'UTILISATION QUI ACCOMPAGNENT L'APPAREIL.)

#### **Hot Surfaces**

Certain exposed surfaces of the Stowe will reach high temperatures during normal operation. Clearances to combustibles must be maintained, as specified in the "Clearances To Combustibles" section of this manual.

- DUE TO HIGH TEMPERATURES THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE, DRAPERIES, CLOTHING AND FLAMMABLE MATERIALS. EN RAISON DES TEMPÉRATURES ÉLEVÉES, L'APPAREIL DEVRAIT ÊTRE INSTALLÉ DANS UN ENDROIT OÙ IL Y A PEU DE CIRCULATION ET LOIN DU MOBILIER ET DES TENTURES
- CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES AND SHOULD STAY AWAY TO AVOID BURNS TO SKIN OR CLOTHING IGNITION. LES ENFANTS ET LES ADULTES DEVRAIENT ÊTRE INFORMÉS DES DANGERS QUE POSENT LES TEMPÉRATURES DE SURFACE ÉLEVÉES ET SE TENIR À DISTANCE AFIN D'ÉVITER DES BRÛLURES OU QUE LEURS VÊTEMENTS NE S'ENFLAMMENT.
- CAREFULLY SUPERVISE YOUNG CHILDREN WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE. TODDLERS, YOUNG CHILDREN, AND OTHERS MAY BE SUSCEPTIBLE TO ACCIDENTAL CONTACT BURNS. A PHYSICAL BARRIER IS RECOMMENDED IF THERE ARE AT **RISK INDIVIDUALS IN THE HOUSE. TO RESTRICT** ACCESS TO A FIREPLACE OR STOVE, INSTALL AN ADJUSTABLE SAFETY GATE TO KEEP TODDLERS, YOUNG CHILDREN, AND OTHER AT RISK INDIVIDUALS OUT OF THE ROOM AND AWAY FROM HOT SURFACES. LES JEUNES SURVEILLÉS DEVRAIENT ÊTRE **ENFANTS** ÉTROITEMENT LORSQU'ILS SE TROUVENT DANS LA MÊME PIÈCE QUE L'APPAREIL. LES TOUT PETITS, LES JEUNES ENFANTS OU LES ADULTES PEUVENT SUBIR DES BRÜLURES S'ILS VIENNENT EN CONTACT AVEC LA SURFACE CHAUDE. IL EST RECOMMANDÉ D'INSTALLER UNE BARRIÈRE PHYSIQUE SI DES PERSONNES À RISQUES HABITENT LA MAISON. POUR EMPÊCHER L'ACCÈS À UN FOYER OU À UN POÊLE, INSTALLEZ UNE BARRIÈRE DE SÉCURITÉ: CETTE MESURE EMPÊCHERA LES TOUT PETITS, LES JEUNES ENFANTS ET TOUTE

AUTRE PERSONNE À RISQUE D'AVOIR ACCÈS À LA PIÈCE ET AUX SURFACES CHAUDES.

- CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE. ON NE DEVRAIT PAS PLACER DE VÊTEMENTS NI D'AUTRES MATIÈRES INFLAMMABLES SUR L'APPAREIL NI À PROXIMITÉ.
- CLEAN THE AREA AROUND, UNDER, AND BEHIND THE UNIT ON A REGULAR BASIS TO PREVENT THE ACCUMULATION OF DUST AND LINT.

#### Ceramic Logs, Burner, & Baffle

If the decorative ceramic log, burner, or baffle material supplied with the Stowe is damaged or parts are missing, they must be replaced with the same, or approved Hearthstone replacement parts. These components affect the combustion quality and safety of the heater. Do not replace ceramic logs, the burner, or baffle with unapproved ceramic components or any other material.

We recommend you always wear gloves and safety goggles while handling the ceramic log set, Heat Wave baffle, and burner materials.

#### Electrical Hazard

If present, any three-prong grounded plug must be plugged directly into a properly grounded threeprong receptacle. Do not cut or remove the grounding prong from any plug or otherwise attempt to circumvent the grounding protection provided with the unit. The Stowe must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI.NFPA 70 in the U.S. or CSA C22.1 Canadian Electrical Code in Canada.

#### Do Not Light Pilot or Burner by Hand

The pilot light on this gas heater is lit by using an electronic ignition module as described elsewhere in this manual. Never attempt to light the pilot or main burner by hand with a match or lighter.

#### Mobile Home Installations

This appliance may be installed as an aftermarket appliance in a permanently located, manufactured (mobile) home, where not prohibited by local codes. (Cet appareil peut être installé dans un maison préfabriquée (mobile) déjá installée á demeure si les réglements locaux le permettent.

## 



HOT GLASS WILL CAUSE BURNS.

DO NOT TOUCH GLASS UNTIL COOL.

NEVER ALLOW CHILDREN TO TOUCH THE GLASS.

## **A** AVERTISSEMENT



Une surface vitrée chaude peut causer des brûlures.

Laisser refroidir la surface vitrée avant d'y toucher.

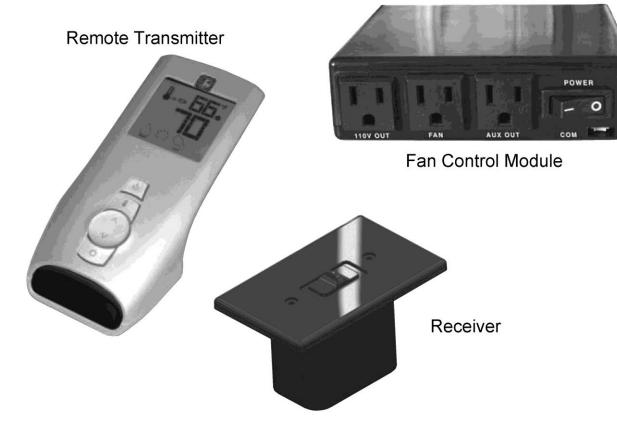
Ne permettez jamais à un enfant de toucher la surface vitrée.

## **Proflame Control System & Features**

**W** NOTE: OPEN DOOR UNDER THE ASH LIP AND REMOVE MODESTY PANEL FOR ACCESS TO ELECTRICAL AND GAS CONNECTIONS.

#### Stowe 8322 DX Model Overview

#### Proflame GTMF System





The Proflame GTMF is a modular remote control system that directs the functions of Stowe DX. The Proflame GTMF System is configured to control the on/off main burner operation, its flame levels, and provides Manual and Smart thermostatic control of the hearth appliance. The system controls two remotely actuated 120V/60Hz power outlets. The Fan outlet controls the fan speed through six levels, and the Auxiliary outlet either on or off. There is also an additional constantly powered 120V/60Hz outlet. The system has battery backup power for burner operation and control during power outages (see page 25 for specifications).

#### Remote Transmitter

The Stowe DX comes equipped with a thermostatic remote control transmitter. The easy to read LCD display shows all functional abilities as well as a childproof lockout and low battery indicator. It displays room temperature readout, set temperature readout and function status. The remote transmitter is powered by three 1.5 volt AAA batteries. A Mode Key is provided to index between the features and a Thermostat Key is used to turn on/off or index through thermostat functions.

#### Receiver

The Receiver accepts commands via radio frequency from the Remote to operate the appliance. The Receiver is powered (6V DC) by the Fan Control Module and uses four 1.5 volt AA type batteries for backup during power outages. The Receiver's slider switch is set to one of three positions: ON (Manual Override), REMOTE (Remote Control) or OFF. The ON selection turns the valve on (to high) if the Remote becomes inoperative.

#### Fan Control Module

The Fan Control Module (FCM) is the main power supply for the entire system when 120v AC is available. The FCM is part of the blower assembly (packaged separately). The FCM provides two 120V remotely controlled outlets, and one constantly powered outlet. The FCM allows the remote to control the fan unit through 6 speeds and turns the auxiliary outlet on and off. This module also powers the Receiver and Ignition Module with 6v DC, making the batteries in the Receiver a backup power source expanding the life of the batteries. When 120V power is not available the FCM will not operate.

The FCM is equipped with a three-prong (grounding) plug for protection against shock hazard and should be plugged directly into a properly grounded threeprong receptacle. Do not cut or remove the grounding prong from the plug.

#### Proflame DFC Ignition Module

This is the command center for the appliance. The DFC Module allows the pilot to run in the Intermittent (IPI) mode or the Constant (CPI) mode. It signals the burner to light or shut down and provides the ignitor with the electricity needed for sparking. The DFC Module is powered by the FCM when 120V power is available or by the batteries in the Receiver during a power outage.

#### SIT Modulating Gas Valve

The remote transmitter can modulate the valve and the flame to 6 different settings between high and low. You can modulate the flame via the remote yourself or by setting the remote control to the Smart Thermostat modulation mode. Smart mode means that as the room temperature approaches the limit set for shut down the valve will automatically gradually step down the flame height. The reverse happens when the room cools - the valve will automatically gradually increase the flame height.

#### **Pilot Assembly**

The pilot assembly consists of a pilot hood, sensor rod, and ignitor. The ignitor sends a spark to the pilot hood which ignites the gas and lights the pilot. With the pilot lit the sensor rod is engulfed by the flame, flame rectification occurs and the appliance remains lit. If the sensor does not stay engulfed by the flame the main burner will not light and the pilot will shut down.

#### **Control Functions**

#### Pilot Mode

**Continuous Pilot (CPI):** Running the Stowe 8322 in CPI mode will keep your pilot running even when the thermostat does not call for heat and when the burner is not lit. This is an advantage in cold climates or under windy conditions. The "standing pilot" helps to keep the venting warm and generate some draft within the system. The standing pilot also keeps the firebox warm – greatly minimizing, or eliminating condensation formation on the glass during startup. The ignitor will automatically spark whenever the pilot mode is switched to CPI, regardless of the position of the receiver switch.

**Intermittent Pilot (IPI):** Using the IPI mode is a more efficient use of fuel as the pilot only ignites when the thermostat calls for heat.



Figure 2 – Pilot Mode Switch

#### **Remote Receiver**

The Receiver is normally powered by the Fan Control Module or by four 1.5V AA batteries during a power outage. The Receiver switch can be set to three different positions:

**On:** Manual override allowing the valve to function and ignite the burner without the remote transmitter. The ignitor will spark automatically.

**Remote:** Remote Transmitter controls all functions of components.

Off: Turns off the stove. If CPI mode is selected, pilot will remain lit.

**PRG:** Used to synchronize the Transmitter and Receiver initially, and after each battery change (see page 37).

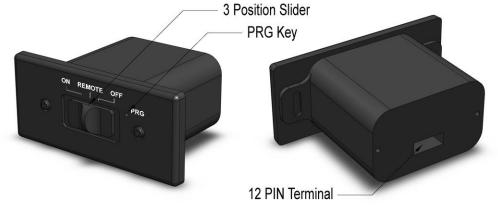


Figure 3 – Receiver Detail

#### **Remote Transmitter**



Figure 4 – Remote Transmitter Function Keys (remote color may differ from shown)

**ON/OFF Key:** Controls the main burner, blower, and the modulation of both.

**Thermostat Key:** This is the function that sets either the Manual or Smart thermostatic control.

**UP/Down Arrow Key:** Adjusts the thermostat temperature range, flame settings, and fan speed.

**Mode Key:** Toggles through the component to be controlled (burner, blower or auxiliary outlet)

The transmitter features a user-friendly layout with a Blue LCD Screen for easier viewing.

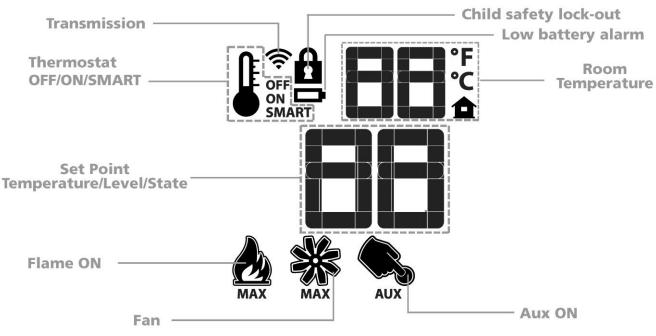


Figure 5 - GTMF Remote Transmitter Display Data

## **Specifications**

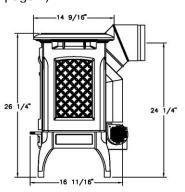
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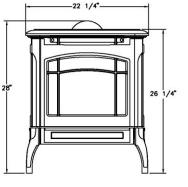
Testing Agency: Intertek Testing Services NA, Inc. (ITS) Tested to: ANSI Z21.88-2009, CSA 2.33 2009, CAN/CGA2.17-M91 Certified for Canada, CSA P.4.1 Approved for Mobile Home Installation (see

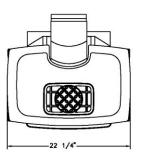
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#### Certified for use by:

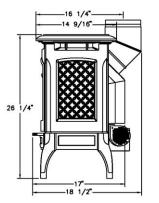
Board of State Examiners of Plumbers & Gasfitters 100 Cambridge Street, Room 1511 Boston, MA 02202 www.mass.gov

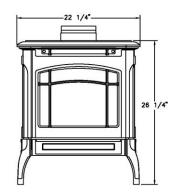






Shown with optional 45° Elbow. Blower is standard and is factory installed.





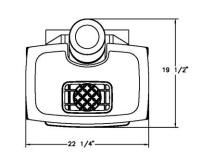


Figure 6 - Model 8322 Dimensions

Specification	NG	LP
INPUT RATING (Btu/hr) 0-2000 ft	25,000	25,000
INPUT RATING (Btu/hr) 2000-4500 ft	24,200	24,800
ORIFICE SIZE (DMS) 0-2000 ft	41	53
ORIFICE SIZE (DMS) 2000-4500 ft	42	54
MANIFOLD PRESSURE - LO SETTING (in. W.c./kpa)	1.6/0.4	6.4/1.59
MANIFOLD PRESSURE - HI SETTING (in. W.c./kpa)	3.5/0.87	10.0/2.48
INLET PRESSURE - MINIMUM (in.w.c./kpa)	5.0/1.24	12.0/2.99
INLET PRESSURE – MAXIMUM (in. w.c./kpa)	7.0/1.74	13/3.22
MINIMUM INPUT RATING LO SETTING (btu/hr)	18,000	21,600
MAXIMUM OUTPUT (btu/hr) 0-2000 ft	17,350	19,100

## **Installation Preparation**

#### Codes

Adhere to **all local codes** or, in their absence, the latest edition of THE NATIONAL FUEL GAS CODE ANSI Z223.1 (NFPA 54) or CAN/CGA B149 (Installer l'appareil selon les codes ou règlements locaux, ou, en l'absence de tels règlements, selon les Codes d'installation CAN/CGA-B149.)

Installation Codes can be obtained from:

AMERICAN NATIONAL STANDARDS INSTITUTE, INC. 1430 BROADWAY NEW YORK, NY 10018 www.ansi.org

#### NATIONAL FIRE PROTECTION ASSOCIATION, INC. BATTERY MARCH PARK

QUINCY, MA 02269 www.nfpa.org

The appliance when installed must be electrically connected and grounded in accordance with local codes or, in the absence of local codes, with the current NFPA 70-National Electrical Code or CSA C22.1-Canadian Electric Code.

A manufactured home (mobile) OEM installation must conform to the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 (U.S.) or Standard for Manufactured Home Installation, ANSI/NCBCS A225.1 or Standard for Gas Equipped Recreational Vehicles and mobile Housing, CSA Z240.4.CAN/SCA Z240 MH (Canada). This appliance is only for use with the type(s) of gas indicated on the rating plate. You must purchase a conversion kit for this appliance to burn propane. Cet appareil peut être installé comme du matériel d'origine dans une maison préfabriquée (É.-U. seulement) ou mobile et doit être installé selon les instructions du fabricant et conformément à la norme Manufactured Home Construction and Safety

Standard, Title 24 CFR, Part 3280 aux États-Unis ou à la norme CAN/CSA-Z240 Série MM, Maisons mobiles au Canada. Cet appareil doit être utilisé uniquement avec les types de gaz indiqué s sur la plaque signalétique.

This appliance is equipped for use at 0 to 2000 feet (0-610 meters) altitude. (*Cet appareil est equipè pour des altitudes compries entre 0 et 2000 pieds (0-610 m) seulement.*)

#### **Items Required for Installation**

- External regulator (for propane (LP) only)
- LP conversion kit (<u>not included</u>, for propane only))
- Piping which complies with local codes
- Pipe sealant approved for use with propane (LP) (resistant to sulfur compounds).
- Manual shutoff valve
- Sediment trap (see page 27)
- 120 volt, 15 Amp electrical service
- ipe wrench
- Phillips head screwdriver
- 7/16-inch wrench
- 3/16" hex wrench
- Other parts as required by local code
- Safety Glasses
- i Gloves

#### **Packing List**

- 1- Stowe 8322 DX Gas-Fired Heater
- 1- Owner's Packet Envelope (manual, warranty card)
- 1- Heat Wave Baffle (box on pallet)
- 5- Decorative Ceramic Logs (in separate box)
- 1- Enamel Touch-up Paint (in firebox)
- 1- Blower Assembly (installed on stove)
- 1- Accessory Box (on pallet) containing:
  - 1- Remote Control w/batteries
    - 1-1 Package of four AA Batteries
    - 1- Bag of Platinum Bright Embers
- Note: Vent kits and components are supplied separately. <u>Failure to use the venting</u> <u>components approved by Hearthstone for this</u> <u>appliance will void your warranty.</u>

#### **Unpacking and Inspection**

Hearthstone packages your Stowe to withstand normal shipment without damage. However, damage can still occur during transit. Take care to inspect for damage when unpacking and installing the unit.

## **W** DO NOT INSTALL, OR PUT INTO SERVICE, A DAMAGED OR INCOMPLETE HEATER.

Remove the shrink-wrap and other packaging materials taking care not to damage the stove's finish. Inspect the Stowe for visible or concealed damage. The unit should be square and true. The sheet metal parts should be smooth and free of bends and dents. Any enameled cast iron should be free of chips or cracks. If visible or concealed damage is found or suspected, contact your dealer for instructions.

Always use gloves and eye protection when handling the decorative ceramic fire logs, burner, and Heat Wave baffle. Use care when handling these parts as they are fragile and subject to damage and breakage if handled roughly. See the firebox access instructions on page 16. Unpack and inspect the logs for damage. Inspect the ceramic burner. Open the other boxes and inspect the components. If log, burner, baffle, or any other component damage is encountered, contact your dealer for a replacement. Otherwise, set the logs and other components aside until called for during the installation.

#### **Dismounting from Pallet**

With the accessory boxes removed and set aside, remove the four lag screws that fasten the unit to the pallet. Take care not to mar or chip the stove's finish.

Have someone help lift the stove off the pallet, taking care to avoid damaging components mounted under the stove.

**INSTALLER:** Leave this manual with the appliance. **INSTALLATEUR** : Laissez cette notice avec l'appareil

**CONSUMER:** Retain this manual for future reference.

**CONSOMMATEUR :** Conservez cette notice pour consultation ultérieure

#### **Firebox Access**

1. Remove the grill and top of the stove (lift off). Set carefully aside on a soft surface.



Figure 7 – Grille Removal



Figure 8 – Top Removal

2. Release the front panel by disengaging the two spring clips at its top – tilt the front toward you slightly and lift it up out of the bottom slots and set aside on a soft surface.

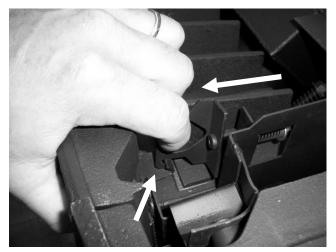


Figure 9 – Front Panel Retaining Clip Detail

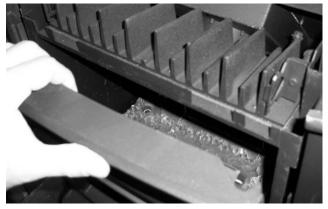


Figure 10 – Front Panel Removal Detail3. Reinstall by reversing the previous steps.

### **Clearances to Combustibles**

Note: Ensure clearances are in accordance with local installation codes and the requirements of the gas supplier. Dégagement conforme aux codes d'installation locaux et aux exigences du foumisseunde gaz.

#### **Clearance to Combustibles**

Due to high surface temperatures, locate the unit out of traffic areas and away from furniture and draperies. Do not place clothing and other flammable material on or near the heater. When positioning the unit always maintain adequate clearances around air openings into the combustion chamber and allow for adequate ventilation. Minimum clearances to combustibles must be maintained as shown in Figures 11 - 14.

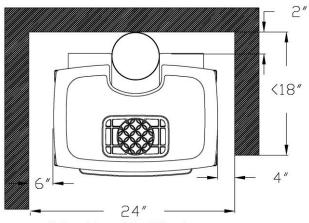
**Note:** The rear clearance to combustibles is determined by either the unit's or the vent pipe's minimum clearance, depending on whether the installation calls for vertical rise within the room or a rear exit, through-the-wall vent pipe.

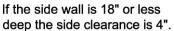
Ensure you consider the need for access to the gas control valve access door on the front of the unit as well as full access for periodic cleaning and servicing. Also consider clearance for the blower assembly if present, or planned in the future.

CAUTION: THESE CLEARANCES REPRESENT MINIMUM DISTANCES IN ALL CASES, WHICH, THROUGH TESTING IN AN INDEPENDENT LABORATORY TO ANSI AND CSA STANDARDS. WILL PREVENT FIRE OR SPONTANEOUS COMBUSTION. WE DO NOT CONTROL THE COMBUSTIBLE MATERIALS EXPOSED TO HEAT BY THIS PRODUCT; THEREFORE, ΔN ASSESSMENT MUST BE MADE BY THE INSTALLER TO PREVENT CONSEQUENTIAL DAMAGE OF WALLS AND FLOORING.

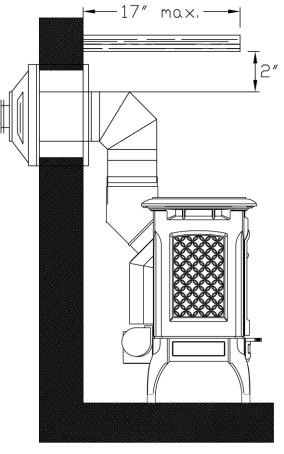
#### Hearth Requirement/Floor Protection

You can place the Stowe directly on any noncombustible surface or on a wood floor. When placing the Stowe on any other type of combustible surface you must install a panel made of metal, wood, stone, or glass under the appliance. The panel must extending the full width and depth of the appliance. Installations must meet all local codes.





#### Figure 11 - Minimum Wall Clearances



Minimum Venting- Mantle

Figure 12 - Horizontal Vent Mantle Clearance

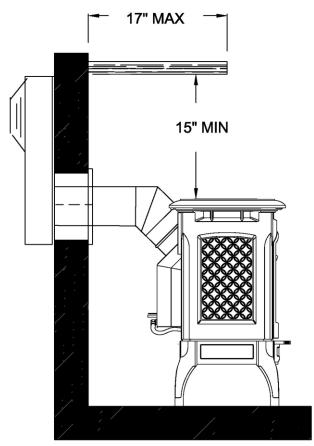


Figure 13 - Snorkel Termination Mantle Clearance

The corner clearance for the Stowe 8322 is 4", measured from the edge of the top castings, to the adjacent wall.

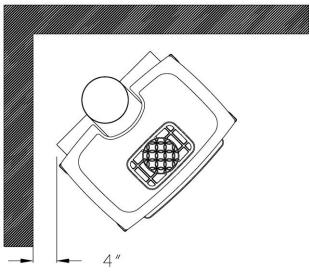


Figure 14 - Corner Clearance

## **Venting Information**

#### Venting Components

Starter collar is installed by Hearthstone.

Use the following instructions along with the pipe manufacturer's instructions to complete the installation. Do not mix vent components from different manufacturers within the same venting system.

#### Approved Venting Manufacturers

The Stowe Direct Vent (8322) is approved for installation only with the venting components provided by manufactures listed on this page.

Simpson Dura-Vent, Inc. P.O. Box 1510 Vacaville, CA 95696-1510 800-835-4429

American Metal Products *(AmeriVent)* 8601 Hacks Cross Rd. Olive Branch, MS 38654 800-423-4270

Selkirk Corporation 1301 W. President George Bush Hwy, Suite 330 Richardson, TX 75080-1139 800-992-8368

Security Chimneys International Ltd (Secure Vent) 2125 Monterey, Laval, Quebec

Canada, H7L 3T6 450-973-9999

ICC, Inc. 400 J-F Kennedy, St. Jerome, Quebec Canada, J7Y 4B7 450-565-6336

Metal-Fab, Inc. P.O. Box 1138 Wichita, Kansas 67201 316-943-2351

#### Venting Terminations

The Stowe cannot be vented jointly with any other solid fuel or gas appliance. It must be vented directly to the outside of the building using a proper termination as listed in this manual. After determining the venting configuration for your stove, select the vent system that will best accommodate your installation.

- CAUTION: ENSURE ALL STOVE AND TERMINATION CAP CLEARANCES ARE OBSERVED PER THIS OWNER'S MANUAL.
- CAUTION: ENSURE THERE IS NO WIRING OR PLUMBING IN THE CHOSEN LOCATION.
- CAUTION: DO NOT RECESS VENTING TERMINALS INTO A WALL OR SIDING.

#### Approved Venting Configurations

WARNING: IN HIGH WIND AREAS AND PARTICULARLY COLD CLIMATES IT MAY BE NECESSARY TO HEAT YOUR VENT SYSTEM WITH THE PILOT PRIOR TO IGNITION OF THE MAIN BURNER. IN THESE INSTANCES IT IS RECOMMENDED THAT YOU LEAVE THE PILOT RUNNING FOR 5 MINUTES PRIOR TO IGNITING THE MAIN BURNER. THIS WILL ALLOW FOR PROPER START UP AND IGNITION OF ALL PORTS ON THE BURNER.

## There are three types of venting configurations approved for use with this appliance:

- Vertical Venting/Vertical Termination
- Vertical Venting/Horizontal Termination
- Horizontal Venting/ Snorkel Termination

#### Pipe Clearances to combustibles:

- 1" to vertical runs
- 4 1" below and to the side of horizontal runs
- 2" from the top of horizontal runs

#### Vertical Venting and Termination

The Stowe 8322 is approved for venting vertically through a roof or ceiling. When installing a vertical vent and/or vertical terminations you must adhere to the following requirements:

- When terminating vertically you must have at least 10' of vertical pipe.
- Always maintain a minimum of 1" clearance from all sides of the vent system to any combustible material.
- A listed fire stop is required at any floor penetration. The opening must be framed in according to the venting manufacturer's instructions.
- Steep roofs, nearby trees, or predominantly strong windy conditions can promote poor draft or down draft conditions. In this event, an increase to the height of the vent may improve performance.
- A maximum of two 90° or four 45° elbows may be used in vertical terminations. (This includes the one 45° elbow off the stove outlet) Whenever possible use 45° elbows instead of 90° elbows as they offer less restriction to the flue gases.
- Vertical terminations may require additional restriction in order to perform as intended. Please refer to Figures 19 - 21 to adjust your vent restrictor accordingly

- All termination caps must be no less than 18" (457mm) horizontally from any roof or vertical surface. See Figure 15.
- The termination must fall within the chart in Figure 21.
- The maximum vertical run is 35'

The vent/air intake termination clearances <u>above</u> the high side of an angled roof are as follows:

Roof Pitch	Feet	Meters
Flat to 6/12	1	0.3
7/12 to 9/12	2	0.6
10/12 to 12/12	4	1.2
13/12 to 16/12	6	1.8
17/12 to 21/12	8	2.4

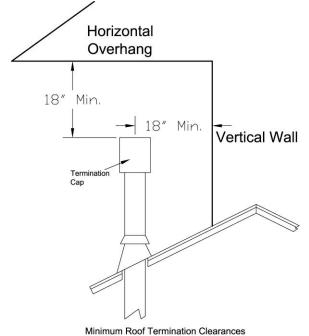


Figure 15 - Termination Cap clearances

#### Prefabricated & Fireplace Chimney Installations

The Stowe 8322 is approved for use with direct vent chimney conversion kits in masonry or prefabricated solid fuel listed chimneys. The following installation requirements must be followed:

- The termination must fall within the chart shown in Figure 21.
- In a masonry chimney, a fireclay liner or listed steel liner, must be present the entire length of the chimney.

- ✤ The maximum length of vent is 35'.
- The liner must have an inside dimension or diameter 6" or greater.
- Prefabricated chimneys must be UL103 or ULC S-629 listed and have a minimum INSIDE diameter of 6". Prefabricated chimneys must be listed for the specific manufacturer's conversion kit.

The use of an existing chimney as an air intake is not listed under the ANSI Z21.88-1999-CSA 2.33-M99 test methods; this installation has been tested and approved by Intertek Testing Services with an appropriate test. The code authority having jurisdiction must be consulted prior to proceeding with this installation method.

#### Horizontal Termination

- The termination must fall within the area shown in Figures 15 & 16.
- A minimum of 9" rise is required either directly off the heater or with the use of a minimum of a 14" snorkel.
- Use a vinyl siding Stand-Off when installing against vinyl siding. The termination cap must not be recessed into the wall or siding. Do not fill air spaces with any type of insulation material.
- A minimum 10" X10" square hole is necessary for proper pipe clearance through a wall, provided the vent is positioned to maintain 2" minimum clearance at the top. A 1" minimum clearance must be maintained to combustible materials around the other sides.
- All horizontal terminations must also comply with the clearance specifications to adjacent structures outlined in Figures 15 & 16.
- Horizontal sections require a 1/4" rise every 12" of horizontal run.
- NOTE: For each 90<sup>0</sup> elbow after 2, remove 5' from the allowable horizontal run. For Canadian installations: remove 4' from the allowable horizontal run.
- At minimum vertical rise, maximum horizontal run is 10'. (If a 14" snorkel termination is used a maximum horizontal run of 10' is also applicable.)
- WARNING: FAILURE TO USE ONLY PARTS SPECIFICALLY APPROVED FOR USE WITH THIS APPLIANCE MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY.

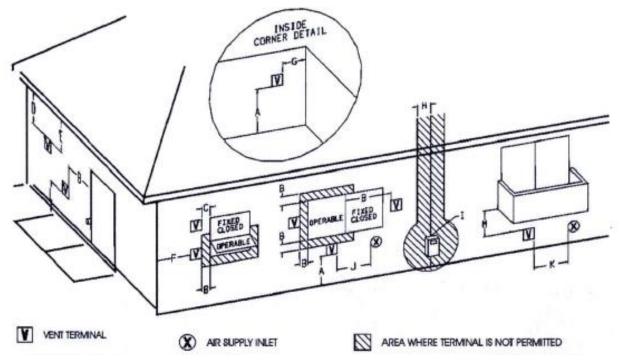


Figure 16 - Acceptable Direct Vent Terminal Vent Cap Locations

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

B = Clearance to window or door that may be opened: \*\*Min. 9 inches U.S./\*12 inches (30cm) CAN. We recommend 12 in, minimum to prevent condensation on the window.

C = Clearance to permanently closed window: \*\*Min. 9 inches, U.S./\*12 inches (30cm) CAN.

We recommend 12 in. minimum to prevent condensation on the window.

D = Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 2 feet (60cm) from the center line of the termination: 18 inches (46cm) minimum.

E = Clearances to unventilated soffit: 12 inches (30cm) minimum.

F = Clearance to outside corner: \*\*Min. 9 inches, U.S./12 inches (30cm) CAN. We strongly recommend 12 inches, particularly where windy conditions prevail.

G = Clearance to inside corner: \*\*Min. 6 inches, U.S./12 inches (30cm) CAN. We strongly recommend 12 inches, particularly where strong winds prevail. H = \*Not to be installed within 15 feet (4.5m) above a meter/regulator assembly within 3 feet (91cm) horizontally from the center line of the regulator.

I = Clearance to service regulator vent: 3 feet (91cm)

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

K = Clearance to a mechanical air supply inlet: \*\*Min. 3 feet (91cm) above if within 10 feet horizontally, U.S./\*6 feet (1.83m) CAN minimum.

 $L = {}^{1}Clearance above paved sidewalk or a paved driveway located on public property: 7 feet (2.1m) minimum.$ 

M = <sup>2</sup>Clearance under veranda, porch, deck, or balcony: 12 inches (30cm) minimum.

\*In accordance with CSA B149 Installation codes.

\*\*In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code. Note: Local Codes and Regulations may require different clearances.

<sup>1</sup>A vent shall not terminate directly above a sidewalk or driveway which is located between two single family dwellings and serves both dwellings

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

## Minimum Venting Installation Instructions

- 1. Install the 45° elbow over the outer collar. Place the elbow so that the twist lock end is pointing up.
- Install one of the 9" pipe sections into the elbow by fully inserting it and turning approximately ¼ turn clockwise, until the 2 sections are fully locked. Install the 90° elbow in similar fashion.
- 3. Move the stove and pipe assembly back until the 90° elbow is flush to the wall. The 9" vertical pipe should be parallel to the wall. Draw a circle around the pipe. Use the center of this circle as the center point of the 10" x 10" square wall pass through. Cut and frame the wall pass through.
- 4. Place the interior wall thimble into the 10" x 10" wall pass through. Secure it with 4 screws (not provided). Install the exterior portion of the thimble in similar fashion, overlapping the 2 sections.
- CAUTION: FOR BUILDINGS WITH VINYL SIDING, INSTALL A VINYL SIDING STANDOFF BETWEEN THE VENT CAP AND THE EXTERIOR WALL.
- 5. Install the horizontal vent termination on the outside of the wall. Ensure both of the retaining straps extend through interior wall thimble. Before attaching the vent termination to the outside of the house, run a bead of non-hardening mastic around its' outside edges, so as to make a seal between it and the wall. The arrow on the end cap should point up. Secure the cap to the wall with the appropriate screws.
- 6. Place the thimble cover onto the 90° elbow. Put the 9" pipe into the horizontal vent cap, (the vent pipe must extend into the horizontal vent cap a minimum of 1-1/4"). Move the stove and vent pipe into position, insert the 9" pipe into the 90° elbow and twist to lock it. Secure the straps from the horizontal vent termination to the interior pipe with 2 sheet metal screws, keeping the screws as close to wall thimble as possible. Bend or cut the excess strapping so that the thimble cover will fit properly. Screw the thimble cover to the wall.

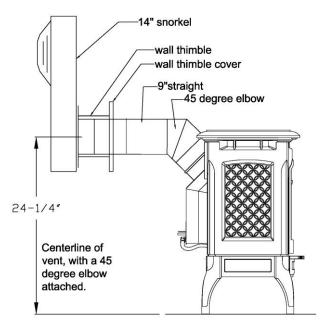


Figure 17 - Components for a Typical Snorkel Installation

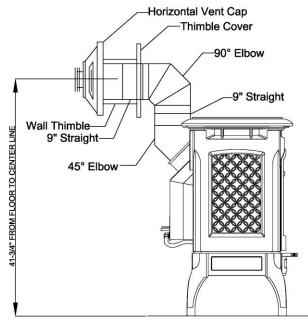


Figure 18 - Components for a Typical Minimum Horizontal Venting Installation

Centerlines shown are approximate. Ensure you dry fit your venting and take a measurement. Pipe dimensions will vary by manufacturer and supplier. These dimensions are using typical Simpson Dura-Vent GS components. See installation instructions on this page (22).

#### **Restrictor Plate**

The restrictor plate is used to control excess draft if necessary. Controlling the draft also changes the aesthetics of the flame. The restrictor plate has a large range of unlimited settings (see *Figures 19 & 20*). The adjustment point is on the left side of the firebox (from front).

#### **Restrictor Plate Position**

The restrictor plate is factory set in the fully closed position for shipping. Leave in the closed position until you install the Heat Wave baffle – then set to

the fully opened position. This ensures proper flames for a wide variety of vent configurations and efficiency. The restrictor plate consists of a rotating flap in front of the firebox exhaust port behind the ceramic Heat Wave baffle plate. Depending on your vent configuration, you may need to adjust the restrictor plate position to reduce draft.

#### **Restrictor Plate Adjustment**

Loosen the screw and position the restrictor plate in the desired location. Tighten the screw to lock in place.

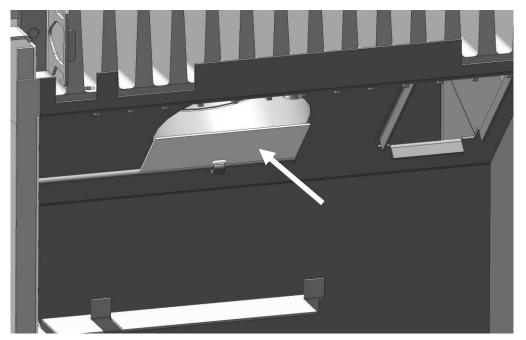


Figure 19 - Restrictor Fully Closed Detail (baffle removed for clarity)

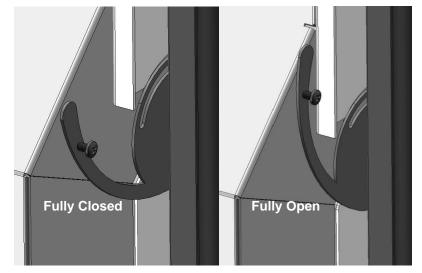


Figure 20 - Restrictor Adjuster Arm Detail

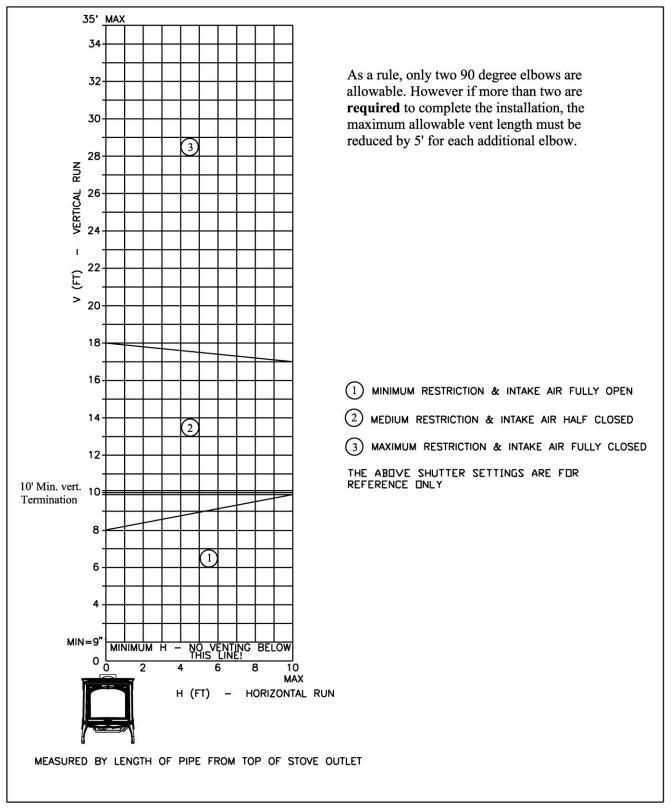


Figure 21 - Venting Termination Diagram

## **Electrical System Information**

- CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING. (ATTENTION: AU MOMENT DE L'ENTRETIEN DES COMMANDES, ÉTIQUETEZ TOUS LES FILS AVANT LE DÉBRANCHEMENT. DES ERREURS DE CÂBLAGE PEUVENT ENTRAÎUN FONCTIONNEMENT INADEQUATE ET DANGEREUX.)
- This appliance is equipped with a three-prong (grounding) plug for protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the plug.

The proper location of wire connections is shown in the following figures.

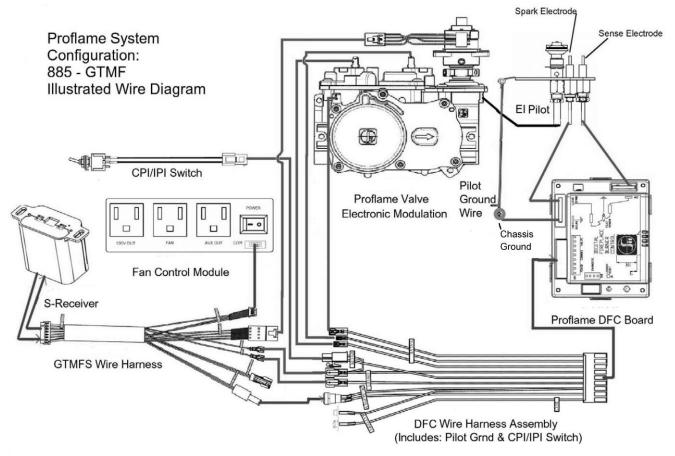


Figure 22 - Stowe DX Wiring Diagram

Remote Control			
Supply voltage	4.5 V (three 1.5 V AAA batteries)		
Ambient temperature ratings	0 - 50 °C (32 - 122 °F)		
Radio frequency	315 MHz		
Receiver			
Supply voltage	6.0 V (four 1.5 V AA batteries)		
Ambient temperature ratings	0 - 60 °C (32 - 140 °F)		
Radio frequency	315 MHz		
Fan Control Module			
Supply voltage/frequency:	120 V / 60 Hz		
Ambient temperature ratings:	0 to 60 °C (32 to 140 °F)		
Three wires bus:	two wires to provide DC voltage to the receiver;		
	one wire gives uni-directionally signal from the receive		
Output voltage/frequency/current:	120 V / 60 Hz / 15 A		
Aux switched output:	120 V / 60 Hz / 2 A		
Fan speed output:	120 V / 60 Hz / 1.5 A		

#### Figure 23 - Proflame GTMF Component Specifications

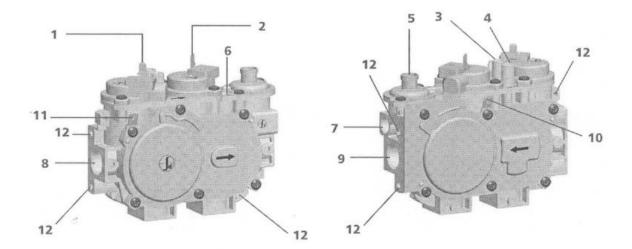
## **Gas Supply & Connections**

- NOTE: Ensure the gas line is installed as close to the floor as possible to avoid interference or conflict with a blower assembly installation.
  - 1 ON-OFF solenoid EV1 terminals
  - 2 ON-OFF solenoid EV2 terminals
  - 3 Inlet pressure test point
  - 4 Outlet pressure test point
  - 5 Pressure regulator adjusting screw
  - 6 Pilot adjusting screw

Pilot outlet

7

- 8 Main gas inlet
- 9 Main gas outlet
- 10-11 Ground connection
- 12 Mounting holes



#### Figure 24 - Gas Control Valve

- NOTICE: A QUALIFIED TECHNICIAN MUST CONNECT THE HEATER TO THE GAS SUPPLY AND LEAK TEST THE UNIT BEFORE IT IS APPROVED FOR USE. CONSULT ALL CODES.
- WARNING: THE UNIT MUST BE INSTALLED AND CONNECTED IN ACCORDANCE WITH LOCAL CODES, OR IN THE ABSENCE OF LOCAL CODES, WITH THE MOST CURRENT EDITION OF THE NATIONAL FUEL GAS CODE ANSI Z223.1 (NFPA 54) OR CAN/CGA B149 INSTALLATION CODE. INSTALLER L'APPAREIL SELON LES CODES OU RÈGLEMENTS LOCAUX, OU, EN L'ABSENCE DE TELS RÈGLEMENTS, SELON LES CODES D'INSTALLATION CAN/CGA-B149
- NFPA Code and Hearthstone require the use of a dedicated sediment trap just upstream of the unit. Damage to the valve, or other components due to the lack of a sediment trap are not covered by warranty (see figure 25).

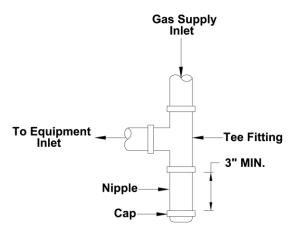


Figure 25 - Sediment Trap (Typical)

#### **Gas Connections**

The gas supply connection is made to the Stowe's gas control valve under the bottom left center of the unit using a 3/8" male NPT fitting. The supply line should be  $\frac{1}{2}$ " diameter, or appropriately sized to provide a sufficient gas supply to meet the maximum demand of the unit without undue loss of pressure. We recommend a flexible line to avoid undue mechanical load on the valve and to ease thread alignment, but refer to local codes.

#### **W** CAUTION: CHECK FUEL GAS TYPE!

The Stowe is factory equipped to use natural gas (NG) and requires conversion for use with propane (LP). You must purchase and install a propane (LP) fuel conversion kit if required for your installation. Use kit 97-56104. Contact your Hearthstone dealer.

#### Gas Supply

This appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of  $\frac{1}{2}$  psig. The Stowe must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or greater than  $\frac{1}{2}$  psig.

#### Gas Pressure Adjustment

#### NOTE: A QUALIFIED TECHNICIAN MUST PERFORM THIS PROCEDURE!

Once connected to the gas supply, the supply line and manifold gas pressures must be tested. The supply line pressure is tested to ensure it meets the minimum gas supply pressure as listed in the specifications for the type of fuel in use (NG or LP). Test by connecting a manometer to the supply line and adjusting the incoming pressure if necessary to meet the required supply line pressure as listed in specifications. The manifold pressure tap on the gas control valve, refer to *Figure 24* for location.

#### High Altitude Installations

For high altitude installations consult the local gas distributer or the authority having jurisdiction for proper rating methods.

The decreased atmospheric pressure at higher altitudes affects the heat value of fuel gases. Gas suppliers typically derate the gas intended for use at elevations above 2000 feet (610 meters). Check with your gas supplier before derating this appliance. If the installer must convert the unit to adjust for varying altitudes, the information sticker (*similar to the one shown in Figure 26* must be filled out by the installer and adhered to the appliance at the time of conversion. For installations from 2000 – 4500 feet (610-1370 meters) use the orifice sizes (DMS) 42 for NG and 54 for LP. See the rating label for more information.

This appliance is factory equipped for use at 0-2000 feet (0-610 meters) altitude. (*Cet appareil est equipe pour des altitudes compries entre 0 et 2000pieds (0-610m) seulment).* 

This appliance is factory set for use between 0-2000 ft. An altitude conversion kit for the Stowe DX (8322) is available through a Hearthstone dealer. The installer must affix this label when converting this appliance for increased altitude. For altitudes of 2000-4500 ft ask for kit #97-56106 (contains both NG & LP orifices). The conversion must be carried out in accordance with the requirements of the Authority Having Jurisdiction.

This appliance is converted for use at the altitude of Orifice Manifold pressure (btu/h) Fuel type Month Year Gapperformed by	Input Day
Conversion performed by: Name	
Company	Address
Cet appreeil a été converti au Injecteur	
Pression à la tubulure d'alimentation calorifique	Déoit
	3300-2##

Figure 26 - Sample Information Sticker

## Heat Wave Baffle, Log Set, & Screen Placement

- CAUTION: FRAGILE! HANDLE LOG SET WITH CARE. ALWAYS WEAR GLOVES AND SAFETY GOGGLES WHILE HANDLING THE LOG SET.
- WARNING: FAILURE TO POSITION THE PARTS IN ACCORDANCE WITH THESE DIAGRAMS OR FAILURE TO USE ONLY PARTS SPECIFICALLY APPROVED WITH THIS APPLIANCE MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. AVERTISSEMENT. RISQUE DE DOMMAGES OU DE BLESSURES SI LES PIÈCES NE SONT PAS INSTALLÉES CONFORMÉMENT À CES SCHÉMAS ET OU SI DES PIÈCES AUTRES QUE CELLES SPÉCIFIQUEMENT APPROUVÉES AVEC CET APPAREIL SONT UTILISÉES.

Place only the ceramic log set supplied with the unit in the firebox. Do not place any other ceramic logs, wood logs, or other materials in the firebox. If the log set is damaged or broken contact your dealer for replacement. The ceramic logs will last a long time; however, they will break if subjected to rough or improper handling. Exact positioning of the log set is required in order to obtain a pleasing flame pattern and efficient combustion. Incorrect log placement may cause carbon build-up; excess thermal stress on the log set and stove parts, reduced efficiency, and high levels of carbon monoxide. If the log set does not fit into the firebox exactly as outlined, contact your dealer for assistance.

#### Installation of the Heat Wave Baffle

To install the heat wave baffle and log set, you must have access to the firebox (for access instructions see page 16).

- 1. Remove the Heat Wave baffle from the packaging.
- 2. Set the base of the baffle centered on the shelf in the rear of the firebox.

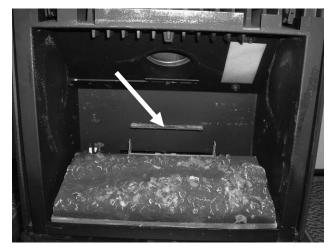


Figure 27 – Baffle Shelf

3. Lift the front edge of the baffle up to align with the hole in the bottom of the cast iron heat exchanger.

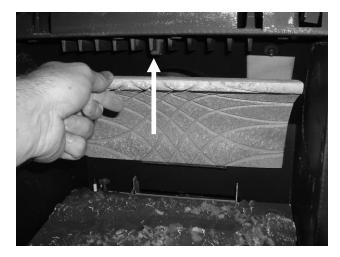


Figure 28 – Baffle Mounting Boss

4. Locate the mounting bolt and install it through the baffle and into the boss on the heat exchanger.



Figure 29 – Baffle Mounting Bolt

- 5. Do not over tighten the bolt as it may damage or break the baffle. When installed properly, the gap across the top should be uniform and the bottom edge of the baffle must rest on the shelf. If the baffle lifts off the shelf, the mounting bolt is too tight.
- 6. You are now ready to adjust the restrictor plate and install the log set.

#### Installation of the Log Set

(Refer to the following images in this section for log set assembly)

1. Remove the packaging material around the log set assembly. Be careful not to damage the log set when unpacking.

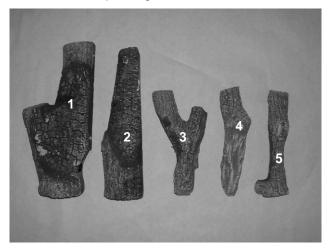


Figure 30 – Log Set Numbering

2. Place log 1 on support bracket as shown.

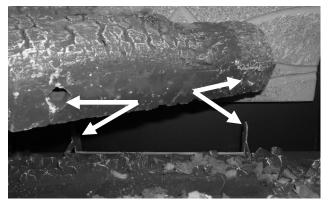


Figure 31 – Log 1 Mounting Detail



Figure 32 – Log 1 in Position

3. Place Log 2 into the channel in the burner in front of log 1 as shown.

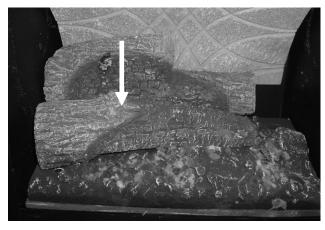


Figure 33 – Log 2 Position

4. Place log 3 onto the end of log 1 as shown.

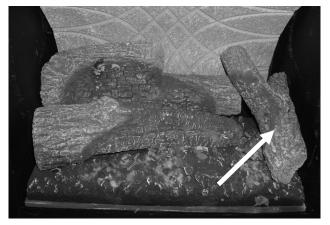


Figure 34 – Log 3 Position

5. Place log 4 on top of logs 1 and 2 as shown.



Figure 35 – Log 4 Position

6. Gently place Log 5 in the indentation on the burner and rest it on log 3 as shown.

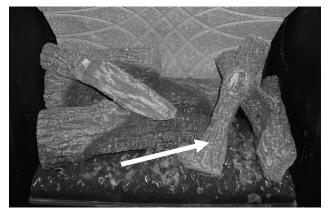


Figure 36 – Log 5 Position

 Place small tufts of the Platinum Bright Embers on the burner and log surfaces for additional glow as desired – do not block burner ports.

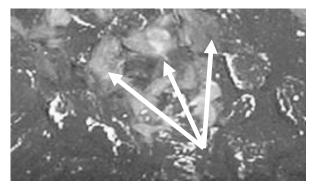


Figure 37 –Platinum Bright Embers (Enlarged to Show Detail)

#### **Removal of Log Set**

CAUTION: <u>THE LOG SET, BURNER, AND EMBERS</u> <u>RETAIN HEAT AND CAN BE VERY HOT!</u> ALLOW 2 TO 3 HOURS TO COOL AFTER PILOT LIGHT IS TURNED OFF FOR SAFE HANDLING.

To remove the log set, follow the Installation of Log Set instructions in reverse order.

#### **Completing the Installation**

- 1. Close the firebox reverse the firebox access procedure outlined on page 16.
- Install any batteries as necessary. Synchronize the Remote Transmitter and Receiver (see page 37).

## Lighting & Operation

- WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.
- CAUTION: LIGHTING THE STOWE FOR THE FIRST TIME AND ADJUSTMENTS TO THE UNIT SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL.

#### **Lighting Instructions**

Use a gas sniffer device or smell all around the appliance area for gas. Ensure you check at the floor also because unlike natural gas, propane is heavier than air. If you do not detect or smell gas, proceed with the lighting procedure. If you do detect or smell gas, <u>DO NOT</u> proceed with the lighting procedure. Instead, **immediately refer to the What** <u>To Do If You Smell Gas Warning</u>, on the cover of this manual.

#### Pilot Light Warning

Do not attempt to light the unit with a match or by any means other than the ignition system supplied with the unit.

#### To Light the Stove:

Connect the power cord from the Fan Control Module to the nearest 120V electrical outlet.

- 1. Open the gas supply to the valve.
- 2. Slide the ON/ REMOTE/OFF switch to the ON position.
- 3. Switch the pilot to CPI mode

The control system will beep several times when lighting the unit for the first time until all air in the gas line is purged. The pilot will ignite automatically when the air is purged. The main burner should ignite seconds later.

#### Using the Remote:

The Remote and Receiver must be synchronized before initial use, and after every battery change (for instructions, see page 37).

#### Smoke and Fumes Warning

When lit for the first time, the Stowe will emit some smoke and fumes. This is normal "off-gassing" of the paints and oils used in the manufacturing and assembly of the unit. Open windows to vent the room if necessary. The off gassing and fumes will subside after the first 10 to 20 minutes of operation.

#### **Odors and Impurities**

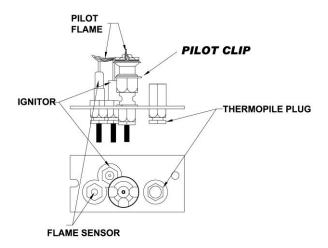
A heater of this type may produce odors during heater operation at any time due to impurities that may exist in the immediate area around the unit. Sources of impurities can be cleaning solvents, paint solvents, cigarettes, candles, smoke, pet hair, dust, adhesives, new carpet, and/or textiles. Such odors will eventually dissipate. However, opening a window or otherwise providing additional ventilation to the area can alleviate the condition sooner. If any odor persists, find and remove the cause, or contact your dealer or an authorized service technician.

#### **Initial Adjustments**

Once the Stowe is set in place, connected and assembled as described in the Clearances To Combustibles, Venting Components & Configurations, Electrical Connections, and Gas Supply and Connections sections of this manual, the unit is ready to be lit and adjusted to its particular installation. Hearthstone tests each unit prior to shipment, so ignition should take place without issue. However, a number of small adjustments may be necessary to compensate for variations in gas pressure, altitude, and other factors particular to each installation.

#### Pilot Adjustment

The pilot light is preset by the manufacturer and should not need adjustment. The pilot light flame should be large enough to engulf the sensor *(refer to Figure 38)* and to reach the light off ports on the burner but not so large as to create excessive noise or consume excessive gas. However, it can be adjusted by means of the pilot light adjustment screw located on the gas control valve. Controlling the Stowe by a remote or wall-mounted thermostat may become erratic, nonexistent, or the unit may go out, if the pilot flame is too small or misdirected away from the thermopile.



#### Figure 38 - Pilot Flame Pattern

WARNING: THE CONTROL HAS AN INTERLOCK DEVICE. IF THE STOVE HAS BEEN LIT, IT WILL NOT RELIGHT AGAIN IMMEDIATELY. AFTER SHUTTING OFF ALL GAS FLOW, THE PILOT BURNER CANNOT BE RELIT UNTIL THE FLAME SENSOR HAS COOLED, ALLOWING THE ELECTROMAGNET TO BE RELEASED (APPROX. 60 SEC.).

#### Air Shutter

The air shutter is used to regulate the air-to-gas combustion mixture, which in turn influences the size and color of the flames. The air shutter is factory positioned in the general location needed for testing the unit with natural gas (NG) and minimum venting. However, if the unit is not burning as well as it should in your installation, then the air shutter may need adjusting.

To determine if the air shutter needs adjustment, it is necessary to view the flame pattern with the burner output set at its highest setting. Allow the unit to operate for at least 10 minutes to allow the entire unit to reach temperature, and for the flame pattern to stabilize. Generally, the more air (open shutter) in the mixture, the bluer the flame. Less air (closed shutter) results in a more yellow flame, but too little air will result in incomplete combustion, low efficiency and a dirty burn. There are two simple guidelines to aid in determining the correct flame pattern:

- 1. If the flame just above the surface of the burner or at the base of the logs is completely blue, the air shutter may be open too far;
- 2. If the flame is dirty, sooty or licks the top of the baffle, the air shutter may be closed too far.

Some conditions cannot be corrected through air shutter adjustment; an adjustment must be made to the gas supply pressure or by changing the restriction plate setting. Qualified service personnel must perform supply line/manifold gas line pressure adjustments and restrictor plate adjustments. Do not attempt to complete any part of the installation or adjustment of this unit unless technically qualified.

#### Air Shutter Adjustments

- WARNING: THE ADJUSTING ROD IS HOT!
- WARNING: THE AIR SHUTTER IS FACTORY SET AND ONLY A QUALIFIED GAS TECHNICIAN SHOULD MAKE ADJUSTMENTS.

The air shutter is adjustable while the stove is burning. Loosen the set screw on the adjusting rod located in the lower rear center of the stove. Move the rod in or out to adjust the flame pattern. See *Figures 39 and 40.* Push the rod in to open the air shutter, and pull it out to close the shutter. When the flame pattern is correct, tighten the set screw without letting the rod move.

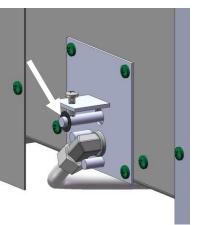


Figure 39 – Air Shutter Opened



Figure 40 – Air Shutter Closed

**Note:** Very little movement is needed to substantially change the burn and flame patterns. Some conditions cannot be corrected through air shutter adjustment; an adjustment must be made to the gas supply pressure. Supply line/manifold gas line pressure adjustments must be performed by <u>gualified service personnel</u>. Do not attempt to complete any part of the installation or adjustment of this unit unless technically qualified to do so.

#### Burner Flame Appearance

Once the unit is lit, observe the flame pattern and adjust as necessary. Also, a periodic visual check of the burner flame should be performed. The burner flames can be adjusted by means of the air shutter. To determine if the burner flame needs adjustment, it is necessary to view the flame pattern with the valve output at its highest setting. Allow the unit to operate for 10 minutes enabling the entire unit to reach temperature and for the flame pattern to stabilize. The flame pattern should be similar to the one shown in Figure 41. There are several guidelines to aid in determining if the flame pattern is correct:

- 1. The flame should not be dirty, smoky, sooty, or lick the top of the stove.
- 2. The flame should not rise off the pan burner; this is called "lifting".
- 3. Flames should not impinge heavily on the log set. They should "fit" through the pre-formed spaces designed in the log set.



Figure 41 – Typical Burner Flame Appearance

#### **Daily Operation**

Your Stowe gas-fired heater is easily operated once installed and adjusted by qualified service

personnel. The unit is controlled via the ON/REMOTE/OFF switch on the Receiver or by the Remote Control.

With the Receiver switch set to 'REMOTE' you have the option of setting the thermostat on the remote control to the desired room temperature and the unit will cycle on and off as required. Or you can set the switch on the Receiver to 'ON' and the burner will light and remain on High until you turn it off.



Photo 1 – DX Receiver Switch

You can adjust the flame height on the DX via the remote control, or use the 'Smart' mode to let the system automatically adjust it for you. See the Proflame GTMF use and installation instructions included with the Remote transmitter for detailed system operation instructions.

During the summer non-heating season, switch the unit "OFF", and flip the pilot switch to Intermittent (IPI). This will improve the overall efficiency of the unit as the heat from the pilot is not wasted. When putting the unit back into service, replace any batteries with fresh ones, and refer to the lighting instructions on page 32.

Note: the unit will produce odors for a short time when lit after a long period of non-use. A thorough cleaning of the unit to remove dust will minimize this effect. Open a window briefly to help quickly dissipate the odors.

When the unit is first lit, especially when cool, it is normal to experience some condensation on the inside of the window glass. This condensation will evaporate within the first few minutes of operation. If continuous condensation on the window glass or dripping water from any part of the unit or venting system (chimney) is noted, immediately discontinue operation of the unit and contact qualified service personnel.

## *To Turn off Gas and Shut Down the Appliance:*

- 1. Close the shut-off in the gas supply to the valve.
- 2. Set the thermostat to the "OFF" position or turn the ON/OFF/T-STAT or ON/REMOTE/OFF switch to the "OFF" position.
- 3. Switch the Pilot mode switch to IPI mode.

## **Routine Maintenance and Care**

Your Stowe requires minimal routine maintenance and care. Ensure the unit is cool and off when cleaning, or servicing.

#### **WARNING: DO NOT SUBSTITUTE MATERIALS.**

For replacement parts, or for information about parts or service, contact your local Hearthstone dealer.

Any safety screen or guard removed for servicing an appliance must be replaced prior to operating the appliance. Tout écran ou protecteur retiré pour permettre l'entretien de l'appareil doit être remis en place avant de mettre l'appareil en marche.

#### Cleaning

#### WARNING: DO NOT CLEAN THE UNIT WHEN HOT.

The unit should receive regular cleaning on, under, and around the stove to prevent the buildup of dust and lint. The exterior surfaces of the unit can be cleaned using soap, water, and a soft cloth. Do not use abrasive or chemical cleaners and take care not to scratch the glass or enamel finish (if so equipped) when cleaning the unit. The use of chemical wax based cleaners or polishes are not recommended due to the potential for discoloration of the castings, or enamel when the residue of the cleaners or polishes is exposed to heat. Excessive buildup of dust, spider webs, or room air contamination may cause odors when the stove is hot.

#### Monthly (or as needed):

#### **Glass Cleaning**

As fuel gas may contain some impurities; it will be necessary to clean the inside of the glass occasionally. Do not use abrasive cleaners. Scratching the glass will weaken the integrity of the glass. **Do not clean the glass when hot!** Allow the glass to cool and apply a mild window cleaning fluid. Special gas appliance window cleaner is available from your local Hearthstone dealer.

WARNING: DO NOT OPERATE THIS APPLIANCE WITH THE GLASS PANEL REMOVED, CRACKED, OR BROKEN. DO NOT SUBJECT THE GLASS OR ITS FRAME TO ABUSE, SUCH AS STRIKING OR BENDING. REPLACEMENT OF THE GLASS PANEL SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON. NE PAS UTILISER L'APPAREIL SI LE PANNEAU FRONTAL EN VERRE N'EST PAS EN PLACE, EST CRAQUÉ OU

## BRISÉ. CONFIEZ LE REMPLACEMENT DU PANNEAU À UN TECHNICIEN AGRÉÉ.

**NOTE:** If the venting system is disassembled for any reason, re-install per the instructions provided in the venting section of this manual.

#### Annually:

#### Clean Firebox, Pilot, & Burner Assembly

The firebox requires periodic cleaning to prevent the accumulation of dust, lint, and other debris. To clean the firebox, set the switch to the "OFF" position, and turn off the gas supply to the valve. When the unit is cool, remove the front panel and glass (see page 16 for Firebox Access instructions) and carefully remove the decorative ceramic log set, taking care not to damage the logs or chip the enamel cast iron. Remove all ember material. Clean the firebox baffle, ceramic burner, and carefully vacuum the entire surface of the log set with a soft brush attachment. Thoroughly vacuum the ports (holes) along the top of the burner, and the pilot assembly.

With the decorative ceramic logs out of the firebox, reseal the firebox and briefly light the unit according to the lighting instructions described on page 32. Check to ensure a proper flame is burning from each burner port. The pilot flame should be burning properly as shown in Figure 38.

NOTE: Do not operate the unit for more than 1-2 minutes without the log set in place. Turn the unit off by setting the switch to "OFF", and turning off the gas supply to the valve. Allow the unit to cool.

Check and clean any burner ports that are not burning, or not burning properly. Clean burner ports using a soft brush or vacuum cleaner. If the pilot flame height needs adjustment, it should be adjusted by qualified service personnel as described on page 32.

Complete the cleaning procedure by carefully placing the log set within the firebox as described on page 28. Reattach the glass and front panel to seal the firebox. Turn on the gas, light the unit and check for proper operation. Flame patterns should look similar to the flames in Figure 41. Regularly check to ensure the area around the Stowe is kept free from combustible materials, gasoline, and other flammable vapors and liquids. Check that the flow of combustion and ventilation air is not obstructed.

#### Battery Replacement

#### WARNING: DISCONNECT POWER TO THE UNIT AND SHUT OFF THE GAS SUPPLY TO THE VALVE BEFORE REPLACING ANY BATTERIES.

Hearthstone recommends replacing all batteries at least every season. Keep a supply of good quality rechargeable batteries on hand to ensure functionality during power outages, and to give the environment a break.

#### Remote Transmitter Battery Replacement

You can easily change the Remote Transmitter batteries by accessing the rear cover plate. Ensure you orient the batteries correctly as indicated in the battery compartment.

#### **Receiver Battery Replacement**

- Move the switch to the OFF position. Remove the cover plate screws and pry the entire plate with the switch off the receiver's battery compartment.
- 2. Install four new AA batteries. Ensure you orient the batteries correctly as indicated on the battery compartment cover.
- 3. Ensure the switch is still in the OFF position, align the slider with switch stem and snap the cover plate back onto the battery compartment.
- 4. Replace the cover plate screws.

#### Initializing the Remote Control

Whenever you replace the batteries, you must synchronize communication between the Receiver and the Remote Control transmitter.

- 1. Place the slider switch in the REMOTE position.
- 2. Insert the end of a paper clip into the hole marked PRG on the Receiver cover. The Receiver will beep three times to indicate it is ready to synchronize with the Remote Control.
- 3. Install three AAA batteries in the Remote Control, and push the ON button. The Receiver will beep four times to indicate the Remote's command is accepted and is set to the particular code of that Remote. The system is now initialized.

#### **Professional Inspection**

Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean. L'installation et la réparation devrait être confiées à un technicien qualifié. L'appareil devrait faire l'objet d'une inspection par un technicien professionnel avant d'être utilisé et au moins une fois l'an par la suite. Des nettoyages plus fréquents peuvent être nécessaires si les tapis, la literie, et cetera produisent une quantité importante de poussière. Il est essentiel que les compartiments abritant les commandes, les brûleurs et les conduits de circulation d'air de l'appareil soient tenus propres.

#### As Needed:

#### Glass and Gasket Replacement

In the event that you need to repair or replace a cracked or broken glass or gasketing use the following instructions to replace the components. For a broken glass ask for kit #97-56110 from your Authorized Hearthstone Dealer. Your Stowe uses a folded flat fiberglass gasket to make a tight seal between the glass frame and the firebox. In time, the gasket can become brittle and compressed and should be replaced. New gasket material is also available from your Authorized Hearthstone Dealer. Protect your hands with work gloves, and wash up later.

- Allow the Stowe to cool completely. Remove the glass from the glass frame by drilling out the four 1/8" rivets that lock the glass in place. Pull the glass away from the frame and set it aside.
- 2. Remove the existing gasket from the glass by grasping one end and pulling firmly. Clean off as much of the hanging fiber "hairs" as possible
- 3. Locate the 1" x1/8" flat tape gasket. Peel the adhesive protecting paper away from one end. Starting at the center of the long end of the glass apply the gasket centered on the edge of the glass. Continue to wrap the gasket around the edge until you meet at the starting point. Do not overlap the gasket ends or leave ends with ragged edges.
- 4. Firmly and evenly, fold the gasket around the edges of the glass so it lies flat on the surface.
- Place the gasket back in the glass frame. With four new 1/8" rivets replace the 2 glass clips. The glass and frame are now ready to be placed back on the unit.

## **Parts List**

Part #	Description	Part #	Description
23xx-331	SIDE	5710-277	PILOT SHIELD
23xx-431	FRONT	5710-279	HANDLE: SPRING HOOK
23xx-433	VALVE CONTROL DOOR	5710-290	PLATE: RESTRICTOR
23xx-831	ТОР	7000-393	REMOTE CONTROL: PROFLAME GT, BLK
23xx-835	GRILLE	7000-394	RECEIVER: PROFLAME, TIMER
2710-487	HEAT EXCHANGER	7200-241	ORIFICE: BURNER HOOD,#41 (NG)
3120-150	BAFFLE: CERAMIC	7210-008	FITTING 90 DEG 3/8" NPT X 3/8"COMP.
3160-105	GASKET: DELAYED IGNITION RELIEF	7211-018	TUBE: FLEX 12"
3160-106	GASKET: VENTURI /BURNER	7211-020	FITTING 90 DEG 3/8-27 X3/8" COMP.
3160-107	GASKET: REAR ORIFICE PLATE	7211-101	DFC PROFLAME CONTROL BOARD
3160-150	GASKET:HEAT EXCHANGER,4"x14.5	7211-102	WIRE HARNESS: DFC
3160-152	GASKET: PILOT, 1.75"x3", ADHESIVE BACK	7211-103	WIRE HARNESS: GTMS
3160-155	GASKET: EXIT,4"x6"	7211-105	FAN CONTROL MODULE
3160-157	GASKET: INLET,6-1/2"x9-5/16"	7211-110	VALVE: STEP. NG, SIT
3170-150	Platinum Bright Embers	7211-220	SHUTTER: AIR CONTROL, PRIMARY
4700-0800	MAGNET: VALVE DOOR,3/4"Dx3/16"	7211-395	PILOT: NG ASS'Y, IPI
5320-020	HEATSHIELD: TOP	7211-588	BURNER: EMBER
5320-030	HEATSHIELD: SIDE,OUTER		KITS
5320-031	HEATSHIELD: SIDE, INNER	97-56110	GLASS ASSEMBLY KIT
5320-032	SPACER: HEATSHIELD,SIDE	93-57220	BLOWER ASSEMBLY KIT
5322-078	HANDLE: RESTRICTOR DISC	97-59010	FRONT GLASS SCREEN
5322-200	FIREBOX	97-67000	LOG SET KIT
5322-220	BASE: PLATE	7211-59	0-LOG: REAR
5322-274	DEFLECTOR: FAN, REAR RIGHT	7211-59	1-LOG: CENTER BASE
5322-275	DEFLECTOR: FAN, REAR LEFT	7211-59	2-LOG: RIGHT, LOWER
5701-924HE	3 COLLAR: INLET/EXIT,4"x6-5/8"	7211-59	3-LOG: RIGHT, TOP
5710-015	VENTURI: BURNER TUBE	7211-59	4-LOG: LEFT, TOP
5710-100	PLATE:DELAYED IGNITION		
5710-210	PLATE: REAR ORIFICE		SOLD SEPERATELY
5710-211	SUPPORT: DFC BOARD MOUNTING	97-56104	LP CONVERSION KIT
5710-227	PANEL: CONTROL MODESTY		

Key:

XX = Finish (e.g. 10 = Matte Black Paint) – Specify finish required when ordering parts

## WARNING: DO NOT SUBSTITUTE MATERIALS. FOR REPLACEMENT PARTS, OR FOR INFORMATION ABOUT PARTS OR SERVICE, CONTACT YOUR AUTHORIZED HEARTHSTONE RETAILER.

**W** For the name of the authorized retailer nearest to you, visit our website <u>www.hearthstonestoves.com</u> or write:

Hearthstone Quality Home Heating Products, Inc. 317 Stafford Ave. Morrisville, Vermont 05661-8695

## Troubleshooting

Symptom	Possible Cause	Corrective Action
1. Pilot will not light.	A. Power supply not plugged in and/or batteries are dead.	A. Ensure power supply is plugged in and receiving 120V AC. Ensure power supply output is 6V DC. Replace all batteries with known good batteries.
	B. Insufficient gas pressure, air in the pilot line, or dirty or kinked gas line.	B. Allow time for system to purge air in line. Check the inlet gas pressure. Make sure it is within the Min/Max. allowable pressures.
	C. Pilot orifice plugged. D. Defective or misaligned electrode in pilot assembly.	C. Clean or replace the pilot assembly. D. If a flame lights the pilot, check the electrode gap and location. The gap should be 1/8" in the flame area. E. Check for a good connection between ignitor and
	E. Defective ignitor.	electrode. Check wire insulation. If everything is properly connected and still no spark, replace the DFC Ignition Module.
	F. After sitting for "off" season (summer), pilot assembly may be dirty. G. On an electrical circuit with a dimmer switch installed.	F. Clean or replace the pilot assembly. G. Plug unit into an electrical circuit without a dimmer switch.
2. Pilot in CPI mode but will not stay lit after carefully following lighting	A. Low or too high gas pressure B. Faulty connections.	<ul> <li>A. Check for proper inlet pressure for the fuel gas in use.</li> <li>B. Check connections on the valve.</li> </ul>
instructions.	C. Pilot dirty or plugged.	C. Clean or replace the pilot assembly.
3. Pilot burning, no gas to main burner, ON/OFF/T'STAT or ON/REMOTE/OFF switch in the "ON" position.	<ul> <li>A. Switch, Thermostat, Receiver, DFC Ignition Module, or wires defective.</li> <li>B. No power and batteries may be dead.</li> </ul>	A. Check wiring for proper connections. Check components for proper operation. Place jumper wire across terminals at thermostat if present. If burner comes on, replace defective thermostat. If not OK, place jumper across thermostat wires at gas valve. If burner comes on, tighten connections, or replace faulty wires.
	C. Plugged burner orifice.	B. Restore 120V service. Check for proper output of FCM, or AC adaptor – replace unit if defective. Replace batteries to ignition system and/or remote receiver.
		C. Remove and check burner orifice - clean or replace. Note: do not use any metal cleaning device, as this may damage the orifice.
4. Pilot and burner come on, but go out after some warm-up.	<ul> <li>A. Inconsistent or insufficient flame on flame rectification sensor.</li> </ul>	A. Adjust pilot flame size and assure that the flame is aimed directly at the rectification sensor.
	<ul><li>B. Insufficient gas pressure.</li><li>C. Excessive draft.</li></ul>	B. Check line pressure to ensure that the correct inlet pressure is present for the type of gas being used. If propane pressure is inconsistent, check for water condensation at the regulator.
		C. Check Restriction settings per this manual.

Symptom	Possible Cause	Corrective Action
5. Frequent pilot outage problem in CPI mode.	A. Pilot flame may be too low or blowing, (high), causing the pilot safety to drop out. B. Excessive draft	<ul> <li>A. Clean and/or adjust the pilot flame for maximum impingement on the rectification sensor.</li> <li>B. Check Restriction settings per this manual.</li> </ul>
6. Glass fogs	A. A normal result of gas combustion in a cold stove.	A1. After the heater has warmed up, the glass should clear. A2. Leave pilot in CPI mode to keep stove warmer.
7. Blue Flames	A. A normal result during the first 20 minutes.	A. Flames should begin to turn more yellowish after 20 minutes of burning.
		B. If the blue color stays; adjust the air shutter for a proper burn.
defined, quiet flames, which roll around,	<ul> <li>A. Potentially dangerous incomplete combustion due to incorrect air to fuel ratio (lack of combustion air or excessive fuel delivery I.e. excessive gas pressure, overrating of appliance).</li> <li>B. Incorrect air intake/exhaust flow system. Causes may be:</li> </ul>	<ul> <li>A. Check the appliance input rate and reduce if necessary. The air intake/exhaust flow system may be too restrictive or blocked (the rate at which the exhaust leaves [draft] determines the rate at which the combustion air is delivered). Poor draft results in insufficient air delivery or a restricted exhaust. Correct air intake/exhaust flow system.</li> <li>B1. Clear ports.</li> <li>B2. Clear obstructions.</li> </ul>
	B1. Blocked burner. B2. Blocked primary air B3. Blocked secondary air inlets C. Incorrect air shutter position.	<ul><li>B3. Clear obstructions.</li><li>C. If gas pressures are correct and the flames stay the same, adjust the air shutter for a proper burn.</li></ul>
usually creating a roaring	<ul> <li>A. Excessive primary air.</li> <li>B. Burner input underrated.</li> <li>C. Valve leak if flashback occurs with burner valve in off position.</li> <li>D. Improper gas pipe size.</li> </ul>	<ul> <li>A. Adjust the air shutter for a proper burn.</li> <li>B. Check input rate. Check input pressure using a manometer. Confirm correct gas pressure at house meter or tank (call gas company). Confirm burner orifice size.</li> <li>C. Replace valve. If above corrections do not eliminate flashback, replace burner.</li> <li>D. Correct plumbing.</li> </ul>
10. Delayed ignition (makes a sudden "whoosh" noise as the burner lights). This is a buildup of gas prior to ignition. This is more prevalent with propane (LP) fuel.	<ul> <li>A. Incorrect air-to-fuel ratio.</li> <li>A1. Primary air incorrect.</li> <li>A2. Burner ports plugged.</li> <li>B. Improper log placement.</li> <li>C. Pilot shield not installed properly.</li> </ul>	<ul> <li>A1. Adjust the air shutter for a proper burn.</li> <li>A2. Open ports to allow for proper travel of flames.</li> <li>B. Reposition logs to eliminate interference with flame travel.</li> <li>C. Ensure the pilot shield is installed in the proper position.</li> </ul>

## **Rating Label**

MODEL / MODELE # MODEL NAME: SERIAL # NUMERO DE SERIE LISTED: TESTED TO: 8322 STOWE DX DIRECT VENT GAS FIRED HEATER

GAS DIRECT VENT HEATER ANSI Z21.88-09/CSA 2.33-09, CGA-2.17-M91, CSA P.4.1-02 CERTIFIED FOR CANADA ALSO FOR MOBILE HOME INSTALLATION

REPORT No. G100009538MID-003



FUEL TYPE: INPUT RATING (Btu/hr) 0-2000 ft	NG 25,000	<b>LP</b> 25,000	CAUTION: DO NOT OPERATE WITH GLASS RE- MOVED OR BROKEN.
INPUT RATING (Btu/hr) 2000-4500 ft	24,200	24,200	Replacement on the panel should be done by a
ORIFICE SIZE (DMS) 0-2000 ft	41	53	licensed or qualified service person.
ORIFICE SIZE (DMS) 2000-4500 ft	42	54	This appliance must be installed in accordance with
MANIFOLD PRESSURE - LO SETTING (in. w.c./kPa)	1.6/0.40	6.4/1.59	the local codes, if any; if not, follow the National
MANIFOLD PRESSURE - HI SETTING (in. w.c./kPa)	3.5/0.87	10.0/2.48	Fuel Gas Code, ANSI Z223.1 or Canadian Installa-
MINIMUM INLET PRESSURE (in. w.c./kPa)	5.0/1.25	12.0/2.99	tion Codes, CAN/CGA B149.
MINIMUM INPUT RATING (Btu/hr)	18,000	21,600	WARNING: Improper installation, adjustment, alteration,
MAXIMUM OUTPUT (Btu/hr) 0-2000 ft	17,300	19,100	service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information
ELECTRICAL RATING:			consult a qualified installer, service agency or the gas
120 VOLTS 60Hz, 15 A			supplier.

#### MINIMUM CLEARANCES TO COMBUSTIBLES

UNIT TO REAR WALL: 2" (51mm) UNIT TO SIDE WALLS: 4" (102 mm) CORNER TO ADJACENT WALL: 3" (76 mm)

#### **OPTIONAL ACCESSORIES**

An optional screen kit is available through your local HearthStone dealer (97-59010).

This appliance is only for use with the type of gas indicated on this rating plate and may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. See owner's manual for details. This appliance is not convertible for use with other gases, unless a certified kit is used. If the vent air intake system is disassembled for any reason, reinstall per the instructions provided with the initial instructions. This vented gas fireplace heater is not for use with air filters. This appliance must be properly connected to a venting system in accordance with the manufacturer's installation instructions.

