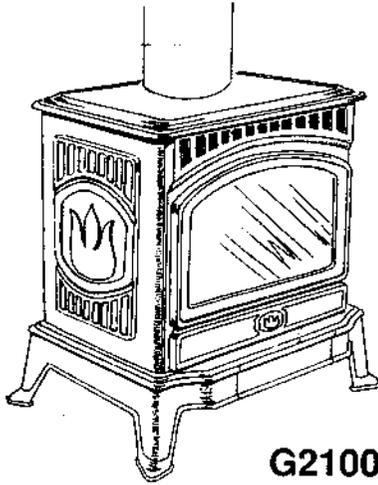


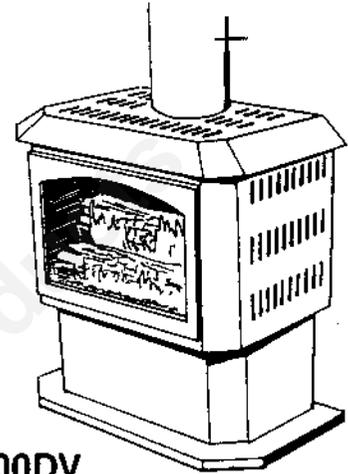


# BRECKWELL

*Hearth Products*



**G2100CDV**



**G2200DV**

**PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE  
FACTORY RECOMMENDS PROFESSIONAL INSTALLATION**

**WARNING:**

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

**FOR YOUR SAFETY:**

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

**FOR YOUR SAFETY:  
WHAT TO DO IF YOU SMELL GAS**

- Do not try to light any appliance.
- Open windows
- Extinguish any open flame.
- 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.

**WARNING:**

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

ALL UNITS TESTED AND LISTED BY

**Wamock Hersey**



ICB0TL-116 NER-QA-219

Manufactured by

**National Steelcrafters of Oregon, Inc.**

P.O. Box 24910

Eugene, Oregon 97402

**NATIONAL STEELCRAFTERS OF OREGON INC.**

0688500

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**Whisper Hearth**  
**BRECKWELL**  
Hearth Products

DO NOT REMOVE THIS LABEL

Serial no. **WH-2100CDV/2200DV-**

No de serie

NE PAS ENLEVER CETTE ÉTIQUETTE

**Label: GAS FIRED DIRECT VENT ROOM HEATER**  
 Listed to: ANSI Z21.6-1988, ANSI Z21.9-1998/CSA-2.2-0988, CAN/CGA-2.17-89/1, UL 3078-85  
 Certified for CANADA  
 Conforme pour AMB U.S.A.  
 REPORTE NO. 206-1400-00

**NOT FOR USE WITH SOLID FUEL / NE DOIT PAS ÊTRE UTILISÉ AVEC UN COMBUSTIBLE SOLIDE.**  
**ONLY FOR DIRECT DISCHARGE WITHOUT DUCT CONNECTION / POUR DÉCHARGE DIRECTE SANS TUYAU DE CONNEXION.**  
 Also for use in mobile (manufactured) homes after home is listed.

MODEL: 901800DF	<input type="checkbox"/> NATURAL GAS	<input type="checkbox"/> PROPANE	
Input Rating (BTU/hr)	25,000	30,000	Potência Evoluída (BTU/hr)
Min. Input Rating (BTU/hr)	15,000	15,000	Potência Mínima Evoluída (BTU/hr)
Output Size (DMS)	200	300	Grandeza do Forno (DMS)
Max. Inlet Pressure (in. w.c./kPa)	2.5/82.7	11.8/234	Pressão de Coeficiente (in. w.c./kPa)
Min. Inlet Pressure (in. w.c./kPa)	1.7/52	5.9/124	Pressão Mínima de Coeficiente (in. w.c./kPa)
Max. Inlet Pressure (in. w.c./kPa)	5.9/124	11.8/234	Pressão Máxima (Admissão) (in. w.c./kPa)
Maximum Output (BTU/hr) For DF	20,000	21,000	Potência Máxima (BTU/hr) Ventilador "OFF"
0-6000 B. (0-1378) in Canada			0-6000 B. (0-1378) in Canada

**INSTALL & USE ONLY IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION & OPERATING INSTRUCTIONS /**  
**INSTALLER ET UTILISER SELON LE MANUEL D'INSTALLATION ET DE FONCTIONNEMENT DU FABRICANT.**

**FOR USE WITH NATURAL GAS AND PROPANE. A CONVERSION KIT SUPPLIED BY MANUFACTURER SHALL BE USED TO CONVERT THIS APPLIANCE TO THE ALTERNATE FUEL.**  
**POUR USAGE AVEC LE GAZ NATUREL ET PROPANE, UN PACKÉTAGE DE CONNEXION FOURNI PAR LE FABRICANT DOIT ÊTRE UTILISÉ POUR CONVERTIR CET APPAREIL AU COMBUSTIBLE ALTERNATIF.**

**MAY BE INSTALLED IN A BEDROOM OR SLEEPING ROOM WHEN INSTALLED WITH A LISTED THERMOSTAT CONTROL IN CANADA. INSTALL PER ANSI Z223.1 IN THE U.S.A. /**  
**AU CANADA, CET APPAREIL PEUT ÊTRE INSTALLÉ DANS UNE CHAMBRE À COUCHER OU UNE CHAMBRE MEUBLÉE S'IL EST INSTALLÉ AVEC UNE COMMANDE DE THERMOSTAT HOMOLOGUÉE. AUX ÉTATS-UNIS L'INSTALLER SELON LA NORME ANSI Z223.1.**

MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION *			
<input type="checkbox"/> <b>G2100CDV</b>			
Unit to left side wall	6 in. (152 mm)	Unit to alcove ceiling	20 in. (508 mm)
Unit to right side wall	6 in. (152 mm)	Maximum alcove depth	33 in. (840 mm)
Unit to back wall	3 in. (80 mm)	Minimum alcove width	33 in. (840 mm)
(measured from rear of unit to wall)		From alcove top to mantel	20 in. (508 mm)
Unit corner to walls	6 in. (152 mm)		
<input type="checkbox"/> <b>G2200DV</b>			
Unit to left side wall	6 in. (152 mm)	Unit to alcove ceiling	27 in. (685 mm)
Unit to right side wall	6 in. (152 mm)	Maximum alcove depth	23 in. (584 mm)
Unit to back wall	3 in. (80 mm)	Minimum alcove width	33 in. (840 mm)
(measured from rear of unit to wall)		From alcove top to mantel	27 in. (685 mm)
Unit corner to walls	6 in. (152 mm)		

**\* NOTE: When Facing Front of Appliance**

**GAS FIRED DIRECT VENT ROOM HEATER**

This appliance must be installed in accordance with local codes, if any. If none, follow current ANSI Z223.1 / CAN 1-9146.

This appliance must be installed in accordance with the current Standard Mobile Home, CAN/CSA Z98.04 or with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3286, or when such standard is not applicable, the current Standard for Fire Safety Criteria for Manufactured Home Installations, Sites and Communities, ANSI/MHPA 991A.

**FOURNISSEUR AU GAZ DE VENTILATION DIRECTE**

Cet appareil doit être installé en accord avec les codes régionaux, s'il y a des lois, selon l'actuel ANSI Z223.1 / CAN 1-9146.

Cet appareil doit être installé en accord avec les normes "Standard Mobile Home", CAN/CSA Z98.04 ou avec les normes de "Manufactured Home Construction and Safety Standard", du Titre 24 CFR, Partie 3286, ou lorsque ces normes ne sont pas applicables, les normes "Standard for Fire Safety Criteria for Manufactured Home Installations, Sites and Communities", ANSI/MHPA 991A.

Optional Fan Electrical Supply    120 V, 15 A, 60 Hz    Material pour Ventilateur Électrique non inclus

National Steelcrafters of Oregon, Eugene, OR, U.S.A.    Made in U.S.A. / Fabriqué Aux États-Unis

# INTRODUCTION

## LISTINGS AND CODES

### *U.S. Certification*

The G2100CDV/G2200DV Gas Heater has been tested in accordance with the applicable section of ANSI Z21.11.1b-1995, ANSI Z21.44-1995, ANSI Z21.50-1996/CGA-2.22-M96 and UL307B-95 and has been listed by Intertek Testing Services/Warnock Hersey for installation and operations as described in these Installation and Operating Instructions. All components are A.G.A. or UL safety certified.

### *Canada Certification*

The G2100CDV/G2200DV Gas Heater has been tested in accordance with the ANSI Z21.50-1996/CGA-2.22-M96, CAN/CGA-2.17-M91 and has been listed by Intertek Testing Services/Warnock Hersey for installation and operations as described in these Installation and Operating Instructions. All components are C.G.A. or C.S.A safety certified.

### *Local Codes*

Consult with your local building code agency and insurance representative before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections. The G2100CDV/G2200DV must be installed in accordance with the manufacturer's installation instructions and with local codes or, in the absence of local codes, follow the current National Fuel Gas Code ANSI Z223.1 in the U.S. or the current CAN/CGA-B149, Installation Codes in Canada.

## MANUFACTURED (MOBILE) HOME INSTALLATION

**This appliance may be installed in manufactured (mobile) homes after the first sale.**

The G2100CDV/G2200DV is a listed gas-fired direct vent room heater tested by Intertek Testing Services/Warnock Hersey to the applicable section of ANSI Z21.11.1b-1995, ANSI Z21.44-1995, ANSI Z21.50-1996/CGA-2.22-M96, CAN/CGA-2.17-M91 and UL307B-95.

This appliance must be installed in accordance with the manufacturer's installation instructions and with local codes, or in the absence of local codes, follow the current ANSI Z223.1 in the U.S. or the current CAN/CGA-B149 in Canada.

For manufactured home installation: This direct vent system appliance must be installed in accordance with the manufacturer's installation instructions and the Manufactured Home Construction and Safety Standard Title 24 CFR, Part 3280, or the current Standard of Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities ANSI/NFPA 501A, and with CAN/CSA Z240 MH Mobile Home Standard in Canada.

**Read the owners manual carefully. In addition to the instructions in the owners manual, the instructions listed below must be followed for installation in a manufactured (mobile) home.**

**WARNING: DURING THE INSTALLATION OF THIS APPLIANCE, DO NOT COMPROMISE THE STRUCTURAL INTEGRITY OF THE MANUFACTURED HOME WALL(S), FLOOR OR CEILING.**

### **WIRING:**

The G2100CDV/G2200DV must be installed in accordance with local codes or in the absence of local codes, with the current ANSI/NFPA 70 National Electrical Code in the U.S. or CAN/CSA C22.1 Canadian National Electrical Code in Canada.

The G2100CDV/G2200DV must be grounded to the steel chassis of the home with 8 Ga. Copper wire using a serrated or star washer to penetrate paint or protective coating to insure grounding.

### **SECURING THE G2100CDV:**

The G2100CDV must be securely fastened to the floor of the manufactured home using the mounting holes provided in the feet of the castings (use 1/4" bolts or lag screws). Use only the mounting holes provided.

### **SECURING THE G2200DV:**

The G2200DV must be securely fastened to the floor of the manufactured home using the mounting bolt holes located in the pedestal of the G2200DV (use 5/16" bolts or lag screws). Use only the mounting bolt holes provided.

### **VENTING COMPONENTS:**

Please refer to the 'VENTING SYSTEM COMPONENTS' section of this manual for components approved for use with the G2100CDV/G2200DV.

## GENERAL INFORMATION

When operating your G2100CDV/G2200DV, respect basic safety standards. Read these instructions carefully and completely before beginning any installation procedures or attempting to operate the heater. Failure to do so may result in damage to property or personal injury and may void the product warranty.

**Installation and repair of the G2100CDV/G2200DV Gas Heater 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 G2100CDV/G2200DV be kept clean.**

Several issues must be addressed when selecting a suitable location for your G2100CDV/G2200DV Gas Heater. Observing required clearances to combustible materials, the proximity to a safe chimney or venting system location, and the accessibility of the gas and electrical supply must all be considered. In addition, selecting a location that takes advantage of the building's natural air flow is also desirable to maximize the heating effectiveness of the appliance. In many cases, this is a central location within the building.

**Due to high temperatures, the G2100CDV/G2200DV Gas Heater should be located out of traffic areas and away from furniture and draperies.**

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

Young children should be carefully supervised when they are in the same room as the appliance.

Clothing or other flammable materials should not be placed on or near the G2100CDV/G2200DV Gas Heater.

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

**WARNING: DO NOT OPERATE APPLIANCE WITH THE GLASS PANEL REMOVED, CRACKED OR BROKEN. REPLACEMENT OF THE PANEL SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON.**

Ensure adequate combustion and ventilation air are provided, and that they are not obstructed.

This appliance is designed to burn either natural gas or propane. Do not burn wood, trash, or any other material in this appliance.

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

## ASSEMBLY

**NOTE: TO AVOID THREAD DAMAGE OR STRIPPING, DO NOT OVERTIGHTEN ANY FASTENERS.**

### ASSEMBLING THE G2100CDV CASTINGS

**NOTE: THE CASTINGS ARE SOMEWHAT HEAVY. BE PREPARED TO HANDLE THE WEIGHT TO AVOID CHIPPING, DAMAGE OR INJURY.**

1/4-20 x 3/8" long bolts

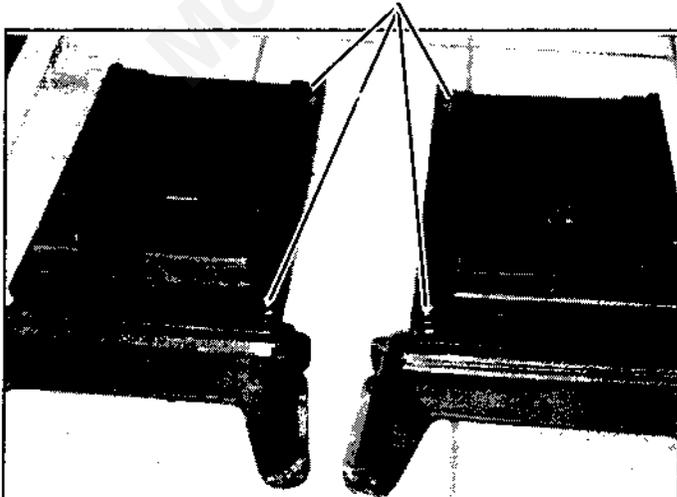


FIGURE 1

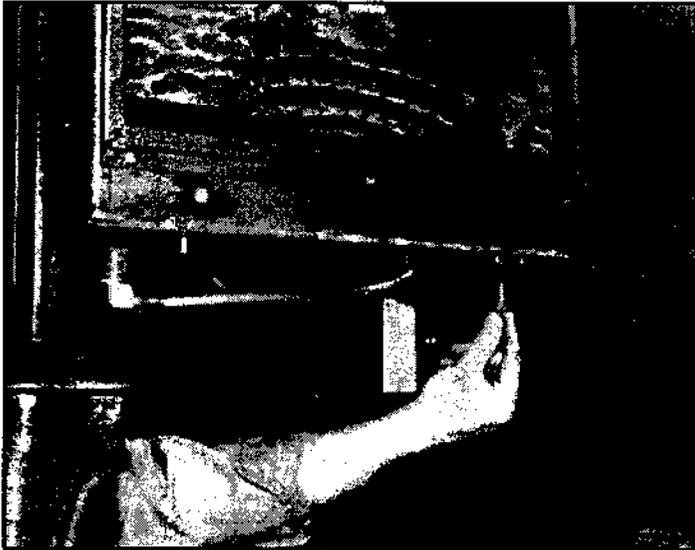


FIGURE 2

1. Carefully unpack castings from shipping box and set in a safe location.
2. Install 4 (2 per side), 1/4-20 x 3/8 bolts into casting sides as shown in Figure 1, but do not tighten completely.
3. Install heat shield to the left side casting by locating key slots over bolts and locking into place as shown in Figure 2.
4. Connect right side casting to heat shield using the same procedure.

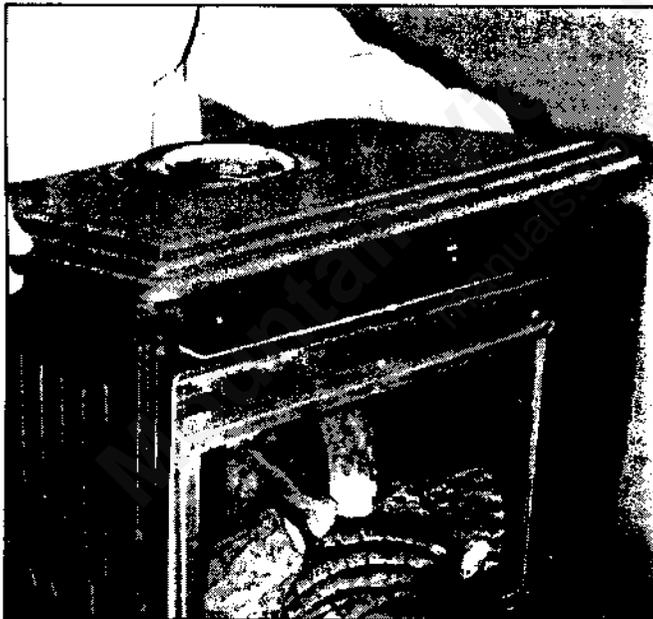


FIGURE 3



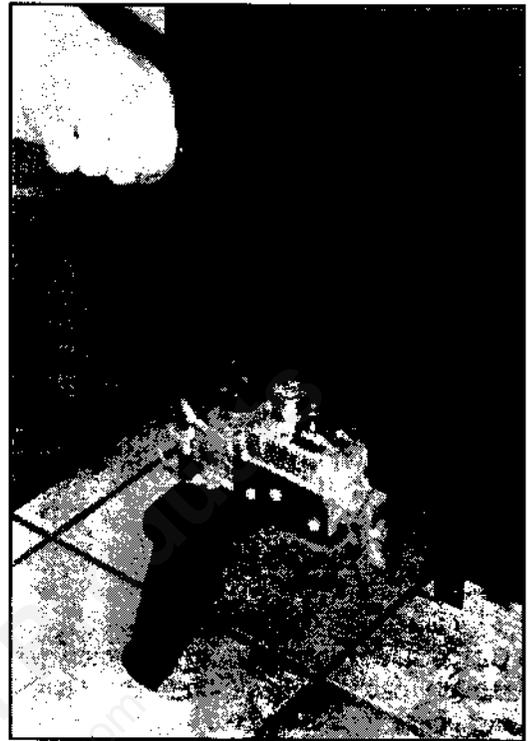
**FIGURE 4**

5. Using a 7/16 in. nut driver, tighten the 4 bolts.
6. Install firebox by sliding on to the supports on the inside of the cast sides, until the mounting holes line up. Using the 2 thumb screws provided, insert from the bottom, leave loose (see **Figures 3 & 4**).



**FIGURE 5**

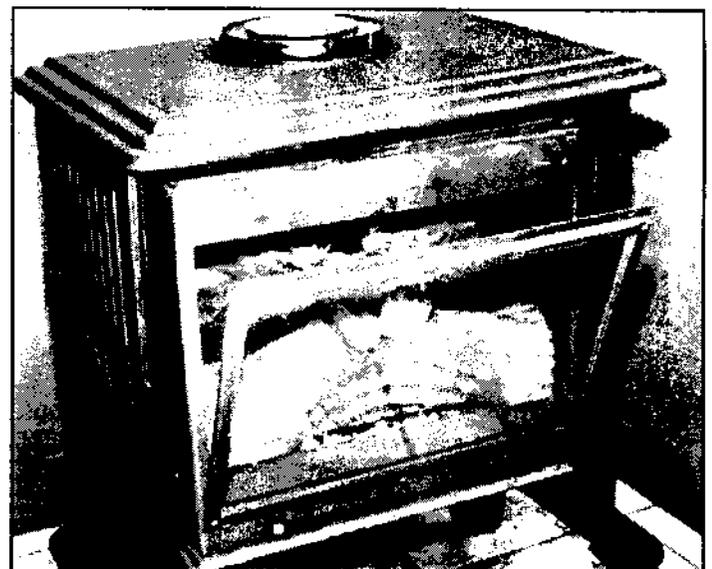
7. Make sure that the firebox and castings are square.
8. Install cast top piece by placing over unit. Make sure that the notches on the cast top are engaged with the tabs on the cast sides (see **Figure 5**).
9. Using the 4, 8-32 pan head Phillips screws provided, install the valve heat shield cover (see **Figure 6**).



**FIGURE 6**

10. Remove glass and frame by slightly loosening the 3 bottom screws on the glass frame, but do not remove. Remove the top 3 screws from the glass frame and set them aside. As the last top screw is removed the glass panel and frame will tilt forward. Grasp both sides of the frame, and while holding the glass panel in the frame, lift the assembly up and away from the firebox (see **Figure 7**). Gently set the assembly face down in a safe area.

**NOTE: THE GLASS AND FRAME ARE A 2 PIECE UNIT. EXERCISE CARE WHEN HANDLING THIS ASSEMBLY SO THAT THE GLASS DOES NOT SLIP OUT OF THE FRAME.**



**FIGURE 7**



**FIGURE 8**

FRONT LOG STOPS

11. The G2100CDV is shipped from the factory with the log set carefully packed in a separate box. Gently remove the packaging, log set and the bag of rock wool and set in a safe location.

**CAUTION: THE CERAMIC LOGS ARE DURABLE WHEN HANDLED AND INSTALLED PROPERLY. HOWEVER, THEY ARE DELICATE AND MAY BE DAMAGED EASILY IF NOT HANDLED WITH CARE. HANDLING DAMAGE TO THE CERAMIC LOGS IS NOT COVERED BY THE WARRANTY.**

12. Install the rear log by guiding it to the rear of the firebox. The rear log should be centered and against the back of the firebox (see **Figure 8**).

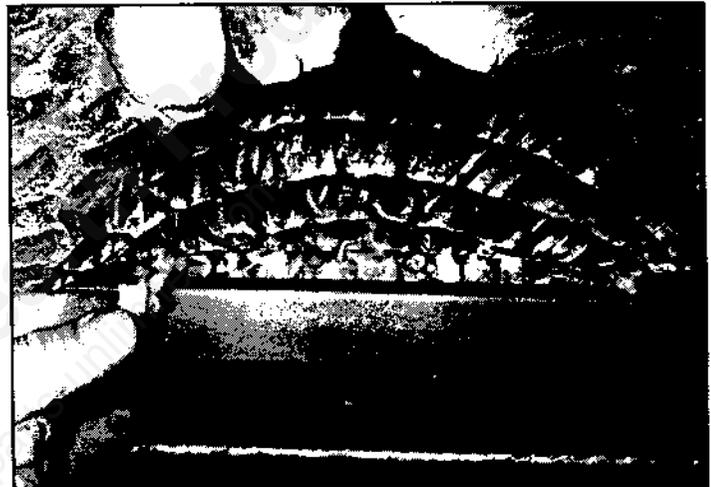


**FIGURE 9**

13. Install the front log just forward of the front log stops. Make sure that it is centered and pushed back to the front log stops (see **Figure 9**).
14. Place the left and right top logs in the notches provided on front and rear logs (see **Figure 10**).



**FIGURE 10**



**FIGURE 11**

15. The placement of the rock wool is critical to the flame pattern as well as the proper glowing ember look. Tear off 3/8 inch diameter pieces of rock wool, gently fluff and carefully place in ember area (see **Figure 11**). Use just enough rock wool to cover the ember area up to the bottom of the front log. Slightly spreading the rock wool to expose the burner in few areas will create visible flame on the front log (see **Figure 12**). A screwdriver works well to achieve this.

**NOTE: TOO MUCH ROCK WOOL WILL DIMINISH THE GLOWING EMBER LOOK, TOO LITTLE WILL AFFECT THE REAR FLAME PATTERN.**

16. Reinstall the glass and frame by reversing step 10.
  17. Install cast face by tilting top slightly forward and engaging the notch on the face into the tab on the cast top. Lift up the cast face and swing the bottom towards the rear until it comes in contact with the cast sides. Lower cast face down in place (see **Figure 13**).
- NOTE: EXERCISE CAUTION IN THIS PROCEDURE TO AVOID CHIPPING THE PORCELAIN OR DAMAGING THE FACE OR SIDES. ALSO MAKE SURE THAT TOP DOES NOT LIFT OFF THE SIDES DURING THIS PROCEDURE.**



FIGURE 12



FIGURE 13

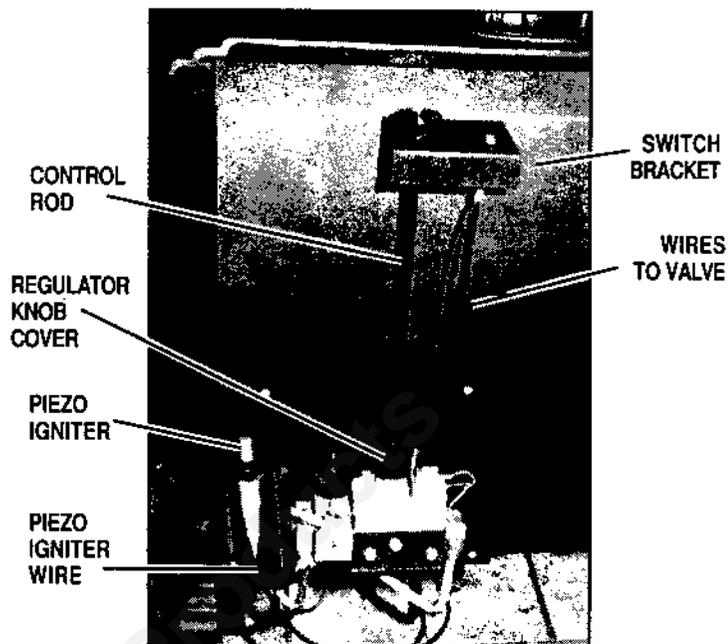


FIGURE 14

**NOTE:** THE SWITCH BRACKET MUST BE MOUNTED ON G2200DV ONLY, USING TWO 8-32 SELF-TAPPING SCREWS.

18. Install the regulator knob cover, control rod and wires to valve (see Figures 14 & 15).
  - Install knob to control rod.
  - Slip rod through the hole in the switch bracket.
  - Connect regulator knob cover to the rod.
  - Slip the knob cover onto the valve knob making sure that the notches on the knob cover engage with the protrusions on the valve knob.
  - Connect the wires to the 'TH' terminals on the valve.
19. Connect the piezo igniter wire to the piezo igniter in the valve cover assembly (see Figure 14).

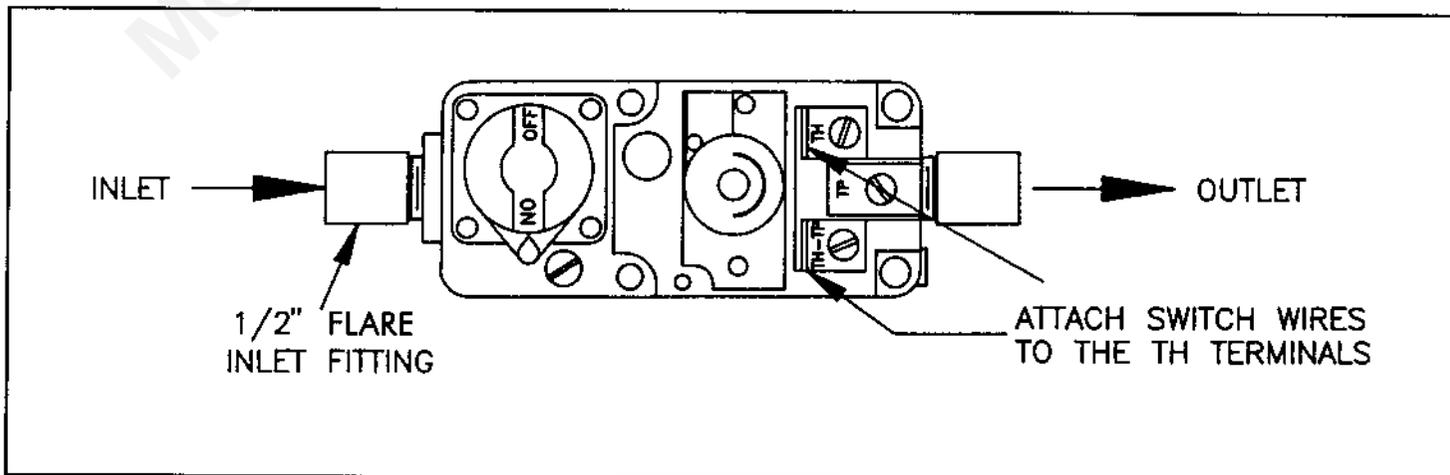


FIGURE 15



**FIGURE 16**

20. Connect the plumbing to the control valve at this time. Refer to GAS SUPPLY section for more information.

21. Install the valve cover assembly to the heat shield using the 4, 8-32 pan head Phillips screws provided (see Figure 16).

22. After vent system is installed, tighten the 2 thumb screws (from step 6).

## ASSEMBLING THE G2200DV STEEL SHELL

1. Mount the firebox to the pedestal by aligning the mounting bolt holes. Using the two thumbscrews provided, insert from the bottom and firmly tighten (see Figure 17).
2. Install the face/sides by sliding over the firebox and aligning the mounting screw holes. Using the 4, 8-32 x 3/8 inch pan head Phillips screws, insert from the bottom and firmly tighten (see Figures 18-1 & 18-2).



**FIGURE 18-1**



**FIGURE 18-2**

3. Install the top by placing on the face/sides and aligning the mounting screw holes. Using the 4, 8-32 x 3/8 inch pan head Phillips screws, insert from the bottom and firmly tighten (see Figure 19).



**FIGURE 17**



FIGURE 19



FIGURE 20

4. Install the heat shield by holding up against the back of the sides and aligning the mounting screw holes. Using the 6, 8-32 x 3/8 inch pan head Phillips screws, insert from the back and firmly tighten (see Figure 20).
5. Remove glass and frame by slightly loosening the 3 bottom screws on the glass frame, but do not remove. Remove the top 3 screws from the glass frame and set them aside. As the last top screw is removed the glass panel and frame will tilt forward. Grasp both sides of the frame, and while holding the glass panel in the frame, lift the assembly up and away from the firebox (see Figure 7, p. 5). Gently set the assembly face down in a safe area.

**NOTE: THE GLASS AND FRAME ARE A TWO-PIECE UNIT. EXERCISE CARE WHEN HANDLING THIS ASSEMBLY SO THAT THE GLASS DOES NOT SLIP OUT OF THE FRAME.**

6. The G2200DV is shipped from the factory with the log set carefully packed in a separate box. Gently remove the packaging, log set and the bag of rock wool and set in a safe location.

**CAUTION: THE CERAMIC LOGS ARE DURABLE WHEN HANDLED AND INSTALLED PROPERLY. HOWEVER, THEY ARE DELICATE AND MAY BE DAMAGED EASILY IF NOT HANDLED WITH CARE. HANDLING DAMAGE TO THE CERAMIC LOGS IS NOT COVERED BY THE WARRANTY.**

7. Install the rear log by guiding it to the rear of the firebox. The rear log should be centered and against the back of the firebox (see Figure 8, p. 6).
8. Install the front log just forward of the front log stops. Make sure that it is centered and pushed back to the front log stops (see Figure 9, p. 6).
9. Place the left and right top logs in the notches provided on front and rear logs (see Figure 10, p. 6).
10. The placement of the rock wool is critical to the flame pattern as well as the proper glowing ember look. Tear off 1/2 inch diameter pieces of rock wool, gently fluff and carefully place in ember area (see Figure 11, p. 6). Use just enough rock wool to cover the ember area up to the bottom of the front log. Slightly spreading the rock wool to expose the burner in few areas will create visible flame on the front log (see Figure 12, p. 7). A screwdriver works well to achieve this.
11. Reinstall the glass and frame by reversing step 5.
12. Install the face plate by centering with the front of the unit while slightly tilting out the bottom of the face plate. Slide the face plate up engaging the top clips. Push the bottom of the face plate in and slide down, engaging the bottom clips (see Figure 21). Face plate can be centered by moving left or right.



FIGURE 21

13. Install the regulator knob cover, control rod and wires to valve (see **Figure 14 & 15**, p. 7).
  - Install knob to control rod.
  - Slip rod through the hole in the switch bracket.
  - Connect regulator knob cover to the rod.
  - Slip the knob cover onto the valve knob making sure that the notches on the knob cover engage with the protrusions on the valve knob.
14. Connect the piezo ignitor wire to the piezo ignitor in the valve cover assembly (see **Figure 14**, p. 7).
15. Connect the plumbing to the control valve at this time. Refer to GAS SUPPLY section for more information.
16. Install the valve cover assembly to the heat shield using the 4, 8-32 pan head Phillips screws provided (see **Figure 16**, p. 8).

### OPTIONAL BLOWER ASSEMBLY

The G2100CDV/G2200DV Optional Blower Kit consists of the following pieces:

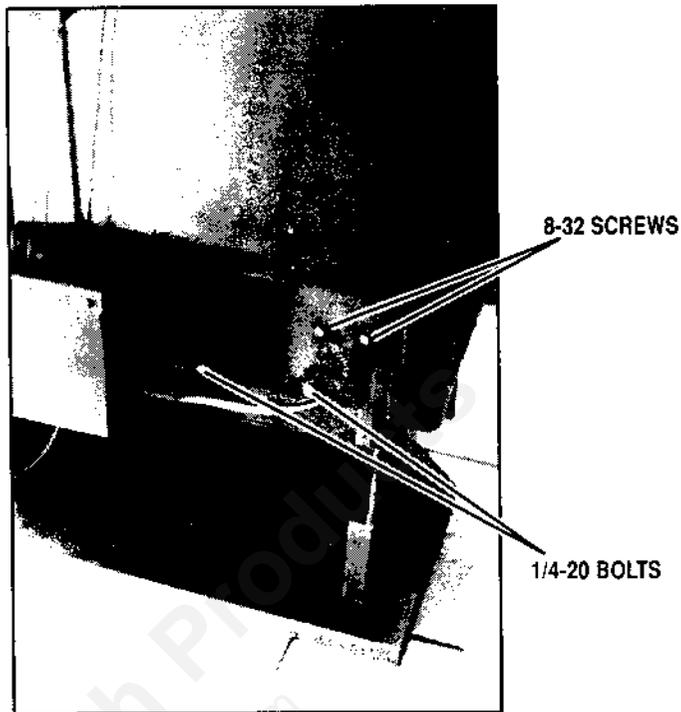
1. Blower With Rheostat Assembly
2. Thermodisc
3. Blower Cover Plate

### CONNECTING THE BLOWER TO THE STOVE

1. Remove 4, 8-32 screws securing the cover plate and discard (saving the screws for step 7; see **Figure 22**).

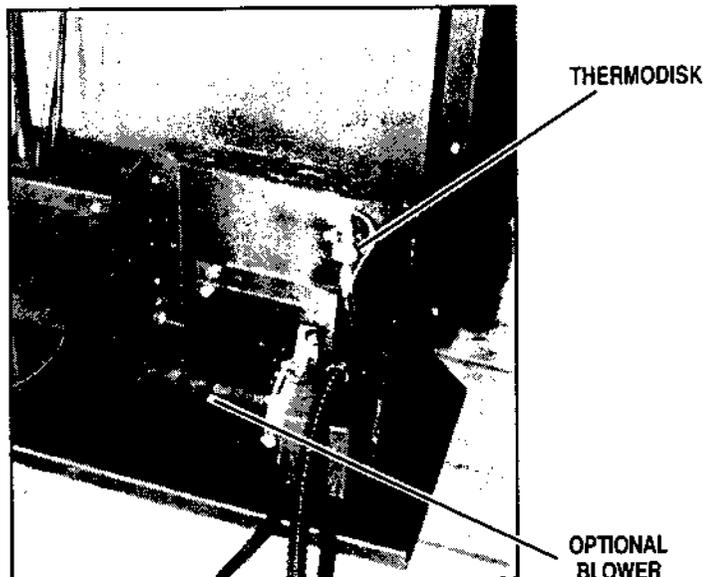


**FIGURE 22**



**FIGURE 23**

2. Remove 2, 1/4-20 bolts from rear of firebox (see **Figure 23**).
3. Install blower to firebox rear using the 2, 1/4-20 bolts that were removed in step 2 (see **Figure 24**).
4. Remove 2, 8-32 screws from firebox and install thermodisc provided (see **Figure 24**).
5. Connect the thermodisc wires (see **Figure 24**).



**FIGURE 24**

6. Install rheostat box to top of heat shield using 4, 8-32 screws provided (see **Figure 25**).
7. Install new blower cover plate using 4, 8-32 screws (see **Figure 25**).



**FIGURE 25**

The G2100CDV/G2200DV must be installed and electrically grounded in accordance with local codes or, in the absence of local codes, with the most recent edition of the National Electrical Code ANSI/NFPA 70, or the current Canadian Electrical Code C22.1.

**NOTE: THE OPTIONAL BLOWER REQUIRES A 120 VAC SUPPLY FOR OPERATION, BUT THE HEATER CAN BE OPERATED WITHOUT THE FAN IN CASE OF A POWER OUTAGE.**

## INSTALLATION

The installation should be done by a qualified service person who is familiar with the building codes and installation techniques appropriate for your area. Your dealer or local gas supplier will be able to refer a qualified service person.

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

## CLEARANCES

In addition to the clearances listed by model below, adequate accessibility clearance for servicing and proper operation must be maintained.

G2100CDV - The following clearances to combustibles must be maintained (see **Figure 26, next page**).

Heater to side walls .....	6" (152 mm)
Heater to corner walls .....	6" (152 mm)
Heater to back wall .....	3" (80 mm)
Heater to alcove ceiling .....	20" (508 mm)
Maximum alcove depth .....	33" (840 mm)
Minimum alcove width .....	33" (840 mm)
Mantel .....	20" (508 mm)

G2200DV - The following clearances to combustibles must be maintained (see **Figure 27, next page**).

Heater to side walls .....	6" (152 mm)
Heater to corner walls .....	6" (152 mm)
Heater to back wall .....	3" (80 mm)
Heater to alcove ceiling .....	27" (685 mm)
Maximum alcove depth .....	23" (610 mm)
Minimum alcove width .....	33" (840 mm)
Mantel .....	27" (685 mm)

## VENTING SYSTEM COMPONENTS

**WARNING: THE G2100CDV/G2200DV GAS HEATER MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVICING A SEPARATE SOLID FUEL OR GAS FUEL BURNING APPLIANCE.**

The G2100CDV/G2200DV Gas heater has been tested and is listed for installation with Simpson Duravent GS venting components (see list below).

The Simpson Duravent GS warranty will be voided, and serious fire, health, or other safety hazards may result from any of the following actions:

- Installation of any damaged Duravent GS component.
- Unauthorized modification of the Duravent GS system.
- Installation of any component part not manufactured or approved by Simpson Duravent.
- Installation other than as instructed by Simpson Duravent and the appliance manufacturer.

Consult your local building codes before beginning the installation, and follow the manufacturer's instructions exactly. The following Simpson Duravent components are approved for use with the G2100CDV/G2200DV.

# G2100CDV CLEARANCES

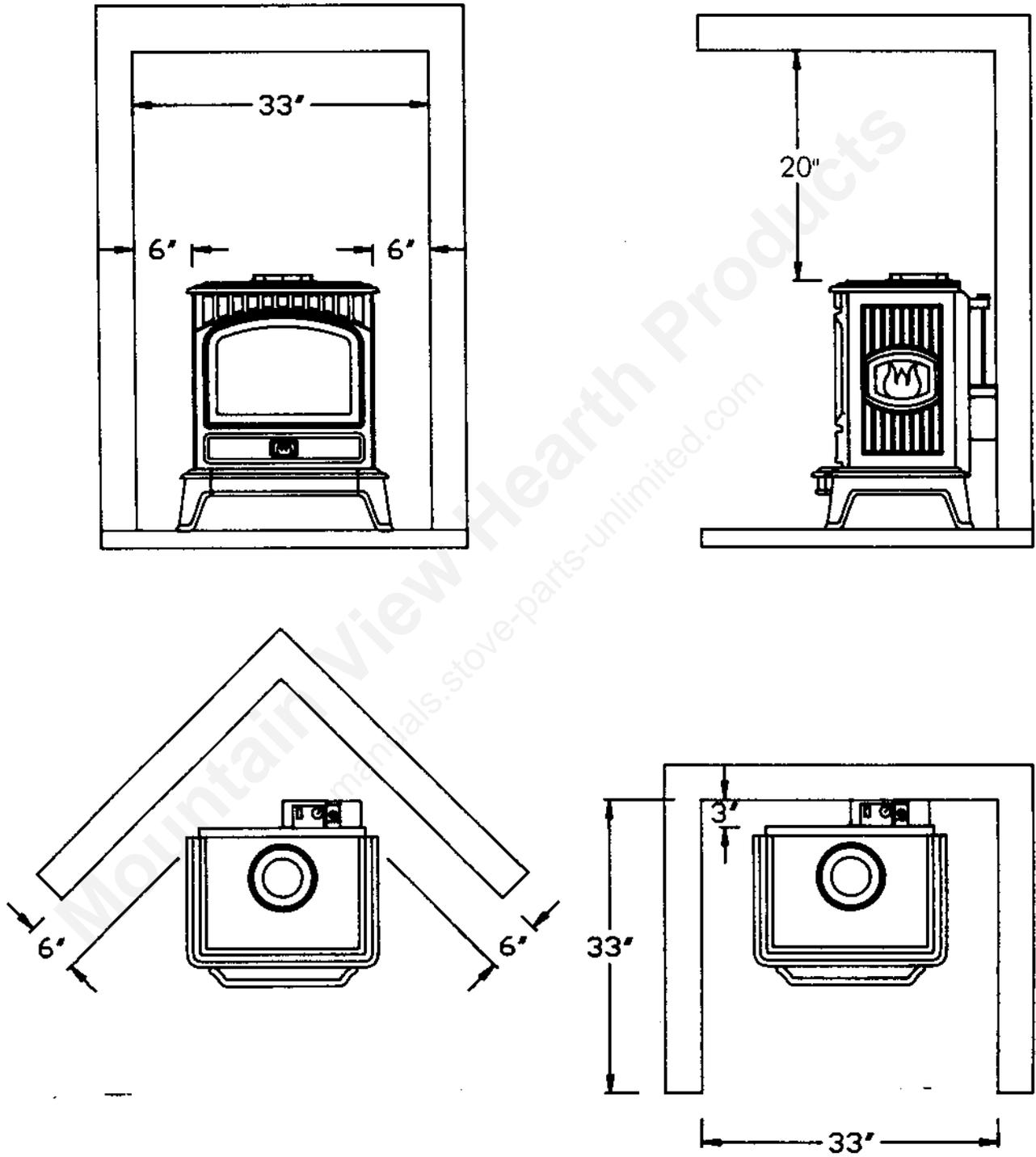


FIGURE 26

# G2200DV CLEARANCES

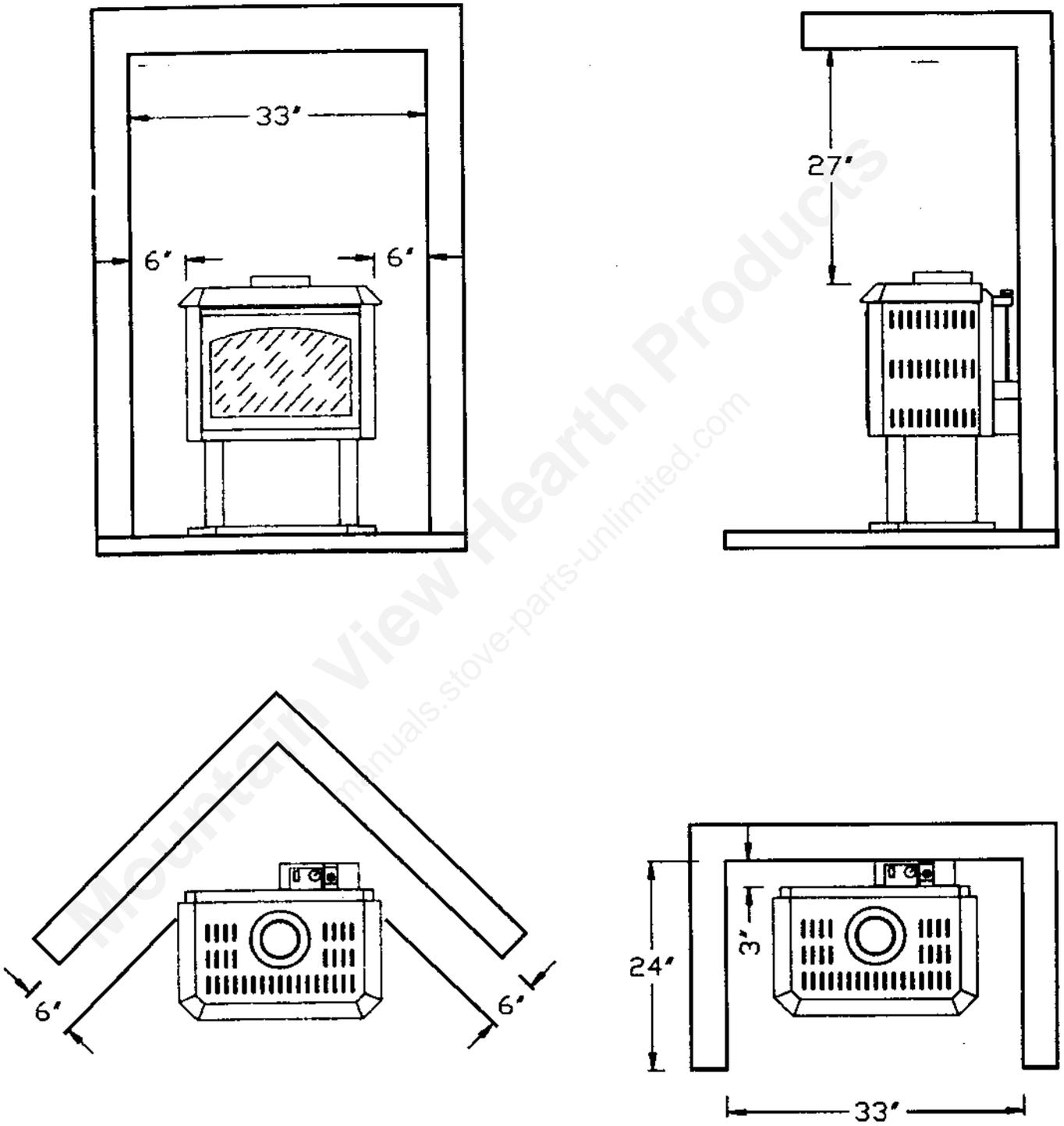


FIGURE 27

## SIMPSON DURAVENT COMPONENTS

6" Straight, Black. ....	908B
9" Straight, Black. ....	907B
12" Straight, Black. ....	906B
12" Straight, Galvanized .....	906
24" Straight, Black. ....	904B
24" Straight, Galvanized .....	904
36" Straight, Black. ....	903B
36" Straight, Galvanized .....	903
48" Straight, Black. ....	902B
48" Straight, Galvanized .....	902
11" - 14 5/8" Straight, Black .....	911B
45° Elbow, Black .....	945B
45° Elbow, Galvanized .....	945
90° Elbow, Black .....	990B
90° Elbow, Galvanized .....	990
Basic Termination Kit .....	970
Horizontal Termination Kit A .....	971
Vertical Termination Kit A .....	973
Horizontal Square Termination Cap .....	984
High Wind Horizontal Square Termination Cap (Recommended) .....	985
Vertical Termination Cap .....	983
High Wind Vertical Termination Cap .....	991
Low Profile Termination Cap .....	980
Vinyl Siding Standoff .....	950
Wall Thimble .....	942
Round Ceiling Support Wall Thimble Cover .....	940
Cathedral Ceiling Support Box .....	941
Storm Collar .....	953
Firestop Spacer .....	963
Roof Flashing 0/12 - 6/12 Pitch .....	943
Roof Flashing 7/12 - 12/12 Pitch .....	943S
Wall Strap .....	988
Restrictor Plate .....	929
Designer Series Trim Kits .....	3951, 3952 3953 3960, 3961, 3962

**NOTE: BRECKWELL'S ENGINEERING STAFF RECOMMENDS THE USE OF THE HIGH WIND TERMINATION CAPS, RATHER THAN USING THE STANDARD TERMINATION CAPS.**

A sealant as specified by Simpson Duravent (Heat Safe Heater Seal or equivalent) should be used on the exhaust (inner) pipe joints.

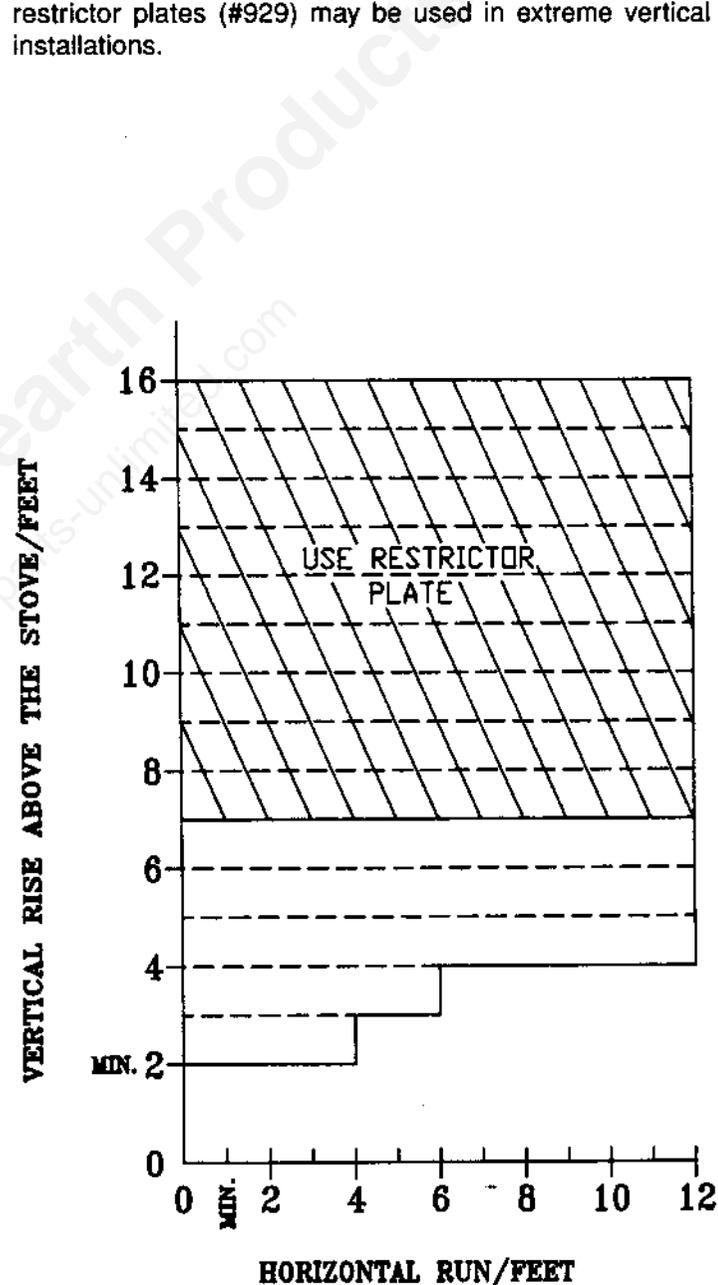
## HORIZONTAL TERMINATION

The maximum permissible horizontal run is 12 feet. The maximum vertical run ending in a horizontal termination is 16 feet. The vent horizontal run must extend a minimum of 1 foot.

Horizontal runs must have a 1/4 inch of rise per foot of run. For specifications concerning overall vent lengths and restrictor placement see **Figure 13**. In most installations two 90 degree elbows may be used. Use only one 90 elbow with 4 foot or less vertical rise.

## VERTICAL TERMINATION

The maximum vertical run with no horizontal is 40 feet. Measured from the stove top to the lowest discharge point at termination. Two 45 degree elbows may be used to offset vertical runs. All vertical terminations require the use of the restrictor plate (see **Figure 28**). Additional Dura Vent restrictor plates (#929) may be used in extreme vertical installations.



**FIGURE 28**

## RESTRICTOR INSTALLATION

To install the restrictor plate, place the plate inside the inner 4" pipe on the Simpson Duravent adapter as shown in Figure 29.

For the G2100CDV/G2200DV, the vent/air intake termination clearances above the high side of an angled roof are as follows:

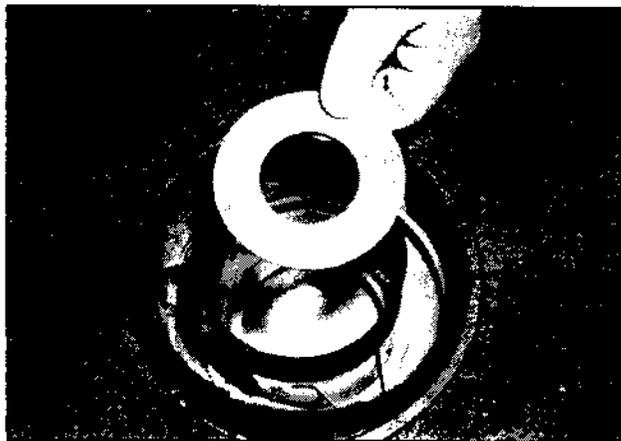


FIGURE 29

Roof Pitch	H (Min.) Ft.
Flat to 6/12	1.0
6/12 to 7/12	1.25
Over 7/12 to 8/12	1.5
Over 8/12 to 9/12	2.0
Over 9/12 to 10/12	2.5
Over 10/12 to 11/12	3.25
Over 11/12 to 12/12	4.0
Over 12/12 to 14/12	5.0
Over 14/12 to 16/12	6.0
Over 16/12 to 18/12	7.0
Over 18/12 to 20/12	7.5
Over 20/12 to 21/12	8.0

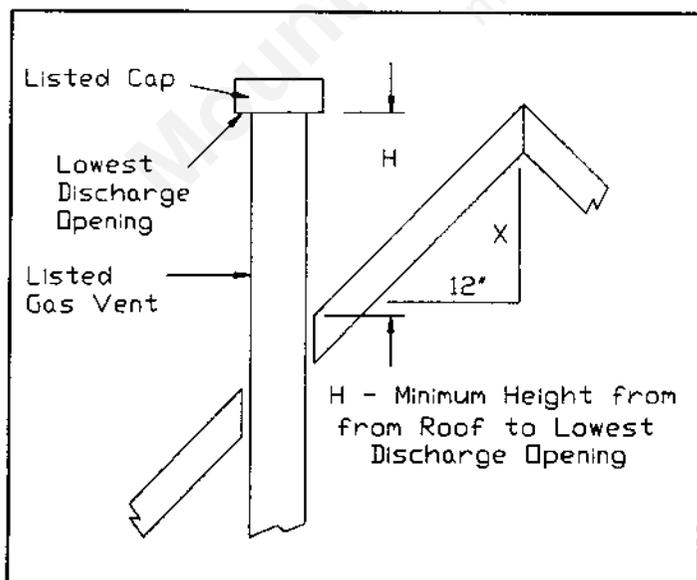


FIGURE 30

## VENT TERMINAL CLEARANCES

**WARNING: VENTING TERMINALS MUST NOT BE RECESSED INTO A WALL OR SIDING.**

Figure 31 (see next page) shows possible termination cap locations and minimum dimensions to surroundings.

- A = The clearance above grade, veranda, porch, deck, or balcony must be a minimum of 12" (30 cm).<sup>1</sup>
- B = The clearance to a door or window that may be opened must be a minimum of 12" (30 cm).<sup>1</sup>
- C = A minimum 12" (30 cm) clearance to a permanently closed window.
- D = The vertical clearance to a ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the center-line of the terminal must be a minimum of 18" (46 cm).
- E = The clearance to an unventilated soffit must be a minimum of 12" (30 cm).
- F = The clearance to an outside corner is 9" (23 cm).
- G = The clearance to an inside corner is 12" (30 cm).
- H = A vent must not be installed within 3 feet (90 cm) above a meter/regulator assembly when measured from the horizontal center-line of the regulator.<sup>1</sup>
- I = The clearance to service regulator vent outlet must be a minimum of 6 feet (1.8 m).<sup>1</sup>
- J = The clearance to a non-mechanical air supply inlet or the combustion air inlet of another appliance must be a minimum of 6 feet (1.8 m).<sup>1</sup>
- K = The clearance to a mechanical air supply inlet must be a minimum of 6 feet (1.8 m).<sup>1</sup>
- L = The clearance above a paved sidewalk or a paved driveway located on public property must be a minimum of 7 feet (2.1 m).<sup>1,2</sup>
- M = The clearance under a veranda, porch, deck or balcony must be a minimum of 12" (30 cm).<sup>1,3</sup>
- N = The clearance to vegetation must be 3 feet (90 cm).

<sup>1</sup> AS SPECIFIED IN THE CURRENT CAN/CGA-8149 INSTALLATION CODES (1991). NOTE: LOCAL CODES OR REGULATIONS MAY REQUIRE DIFFERENT CLEARANCES

<sup>2</sup> A VENT SHALL NOT TERMINATE DIRECTLY ABOVE A SIDE-WALK OR PAVED DRIVEWAY WHICH IS LOCATED BETWEEN TWO SINGLE FAMILY DWELLINGS AND SERVES BOTH DWELLINGS.

<sup>3</sup> ONLY PERMITTED IF VERANDA, PORCH, DECK OR BALCONY IS FULLY OPENED ON A MINIMUM OF 2 SIDES BENEATH THE FLOOR.

In addition to the above listed clearances, some other factors to consider when locating the vent termination are:

- The vent should be located so that people cannot be burned by accidentally touching the vent surfaces.
- The vent should be located so that it cannot be damaged by doors, lawnmowers, snowblowers, etc.
- Obstructions or impediments to venting such as snow or vegetation within 3 ft. of vent.

- Nearby combustible materials that could come into contact with exhaust gases.
- Other nearby openings (within 9") through which exhaust gases could re-enter the building.

Vinyl siding requires protection from vented heat directly above the vent termination. Use Vinyl Siding Standoff #950.

## GAS SUPPLY

The gas inlet connection is located on the valve, behind the valve cover. The inlet fitting is a 1/2 male flare fitting (see Figure 15, p. 7).

The G2100CDV/G2200DV is available in either a natural gas or propane version. The rating plate on a chain, attached to the rear of the unit, indicates the fuel for which your unit is equipped. Please verify that your G2100CDV/G2200DV is equipped for the type of fuel to be used.

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

The G2100CDV/G2200DV must be disconnected from the gas supply piping during any pressure testing of that system at pressures in excess of 1/2 psig (3.5 kPa).

The G2100CDV/G2200DV control valve must be in the OFF position during any pressure testing of that system at pressures equal to or less than 1/2 psig (3.5 kPa).

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

at installation. The pressure should be checked with all appliances that are connected to the gas supply system in full operation. This includes hot water heater, furnace, boilers, kitchen stoves, etc.

**NOTE: IMPROPER GAS PRESSURE CAN AFFECT HEATER PERFORMANCE, FLAME COLOR, OR CAUSE PILOT OUTAGE.**

Natural Gas:

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

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

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

Propane (LPG):

Maximum inlet pressure 13.0" w.c. (3.24 kPa)

Minimum inlet pressure 11.0" w.c. (2.74 kPa)

Gas manifold pressure 11.0" w.c. (2.49 kPa)

## HIGH ALTITUDE INSTALLATIONS

For U.S. installations the G2100CDV/G2200DV is approved for elevations up to 2000 feet using the factory-installed burner orifice. At elevations above 2000 feet, U.S. codes require a decrease in the input rating by changing the burner orifice to a smaller size. Input should be reduced 4 percent for each 1000 feet above sea level. Check with the local gas utility for proper orifice size identification.

For Canadian installations, the G2100CDV/G2200DV is approved for elevations up to 1375 meters (4500 feet). When installing the G2100CDV/G2200DV at altitudes above 1375 meters (4500 feet), consult the local gas distributor or the authority having jurisdiction for proper rating methods.

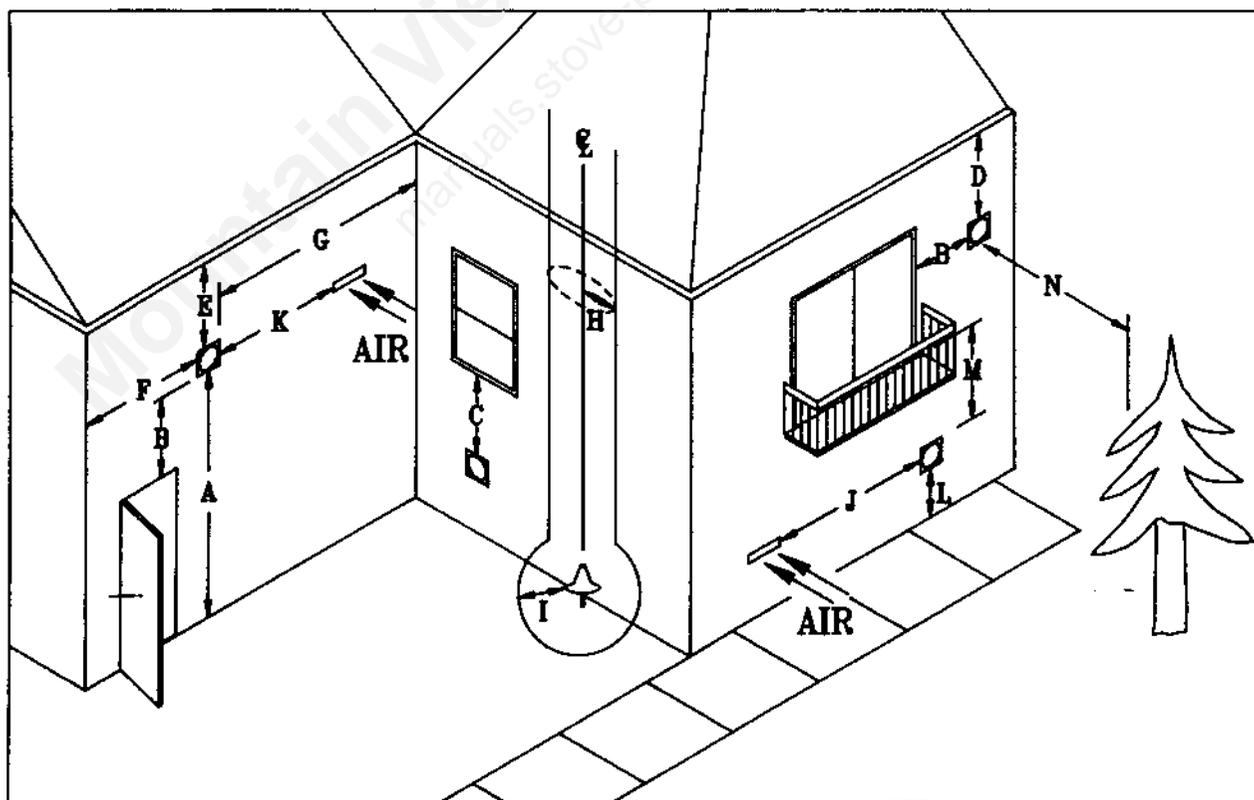


FIGURE 31

**NOTE: THE DIFFERENCE IN ALTITUDE DERATING REQUIREMENTS FOR THE U.S. AND CANADA IS SIMPLY A RESULT OF DIFFERENCES IN TESTING STANDARDS BETWEEN THE TWO COUNTRIES.**

**THE CONVERSION SHALL BE CARRIED OUT BY A MANUFACTURER'S AUTHORIZED REPRESENTATIVE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER AND PROVINCIAL OR TERRITORIAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT CAN/CGA-B149 INSTALLATION CODES.**

## CONNECTING THE OPTIONAL THERMOSTAT

If an optional thermostat is used, it must be connected on the valve.

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

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

It is important to use the proper gauge of wire for the desired length of wire.

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

## OPERATION

### HOW TO LIGHT THE FIRE

1. STOP! Read the safety information on page 18.
2. If using the optional thermostat, set the thermostat to the lowest setting.
3. Turn off the electric power to the appliance.
4. Turn the ON-OFF switch to the OFF position.
5. Push in the gas control knob slightly and turn it clockwise to "OFF". NOTE: The knob cannot be turned from "PILOT" to "OFF" unless it is pushed in slightly. Do not force it.
6. Wait five (5) minutes to clear out any gas. If you smell gas, STOP! Follow "B" in the safety information on the label on page 18.
7. Set the High-Low Regulator to High by turning it fully clockwise.
8. Press in the gas control knob slightly and turn counterclockwise to "PILOT".
9. Find the pilot by looking over the front log, on the right side.
10. Push the control knob fully down and hold. Immediately push the red piezo igniter button to light the pilot. It is normal to have to push the red button several times before the pilot ignites. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release the knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
  - If the knob does not pop up when released, stop and immediately call your service technician or gas supplier.
  - If the pilot will not stay lit after several tries, turn the gas control knob to off and call your service technician or gas supplier.
11. Turn the gas control knob counterclockwise to "ON".
12. Place the ON-OFF switch to the ON position.
13. Turn on the electric power to the heater if the optional blower is used.
14. Set the optional thermostat to the desired room temperature if in use.
15. Set the High-Low regulator to desired setting; turn fully clockwise for High and fully counter-clockwise for Low.
 

**NOTE: AN ODOR RESULTING FROM THE INITIAL HEATING OF NEW MATERIAL IN YOUR HEATER IS NOT UNUSUAL DURING THE FIRST FIRE, AND IN MOST CASES WILL DISAPPEAR AFTER AN HOUR OR TWO.**

## FOR YOUR SAFETY READ BEFORE LIGHTING

This appliance must be installed in accordance with local codes, if any; if not, follow the current CAN1-B149 / ANSI Z223.1-1988

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Improper installation, adjustment, alteration, 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 consult a qualified installer, service agency or gas supplier.

- A) This appliance has a pilot which must be lighted by hand, following the instructions below exactly.
- B) **BEFORE LIGHTING**, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle to the floor.

### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
  - Do not touch any electrical switch; Do not use any phone in your building.
  - Immediately call your gas supplier from a neighbors' phone. Follow your gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C) Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

- D) Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.

**CAUTION:** Hot while in operation. Do not touch. Due to high surface temperatures keep children, clothing and furniture away. Keep burner and control compartment clean. See installation and operating instructions accompanying appliance.

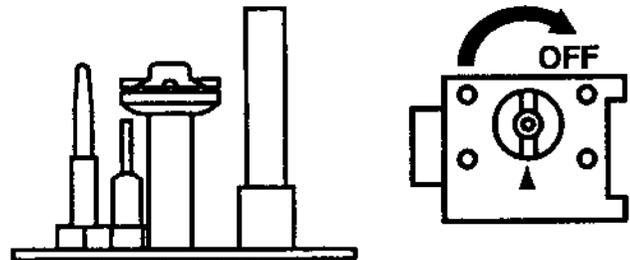
## LIGHTING INSTRUCTIONS

**STOP!** Read the safety information above on this label.

- 1) Push in gas control knob slightly and turn clockwise to "OFF". Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
- 2) Wait five (5) minutes to clear out any gas. If you then smell gas **STOP!** follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
- 3) Turn knob on gas control counterclockwise to "PILOT".
- 4) Push in control knob all the way and hold in. Immediately push red button on spark igniter until pilot lights. Continue to hold the control knob in for about 1/2 minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 3) and 4).

If knob does not pop up when released, stop and immediately call your service technician or gas supplier. If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.

- 5) Turn gas control knob counterclockwise to "ON".
- 6) Use rocker switch to operate main burner.



## TO TURN OFF GAS APPLIANCE

- 1) Push in the gas control knob slightly and turn clockwise to "OFF". Do not force.
- 2) Turn off all electric power to the appliance if service is to be performed.

**DO NOT REMOVE THIS INSTRUCTION PLATE**

90B-401

## HOW TO TURN OFF THE FIRE

1. If using the optional thermostat, set thermostat to the lowest setting.
2. Turn off the electric power to the heater if service is to be performed
3. Turn the ON-OFF switch to the OFF position.
4. Push in the gas control knob slightly and turn it clockwise to the "OFF" position.

**NOTE: THE CONTROL KNOB CANNOT BE TURNED FROM "PILOT" TO "OFF" UNLESS IT IS PUSHED IN SLIGHTLY. DO NOT FORCE.**

## AIR SHUTTER ADJUSTMENT

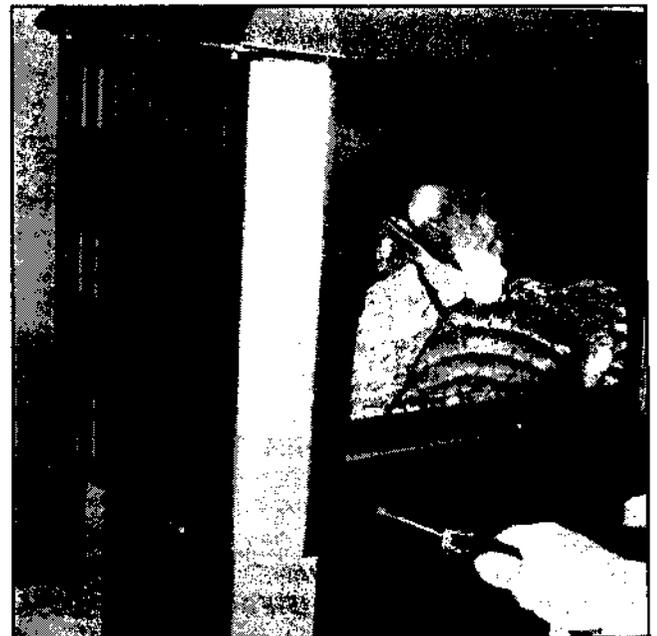
The final step of the installation is to check the flame pattern, which should resemble **Figure 32**. The flames should be relatively well-defined and stable. They should be yellow with a blue base where attached to the burner ports, and should not look orange or sooty.

Start the heater according to the directions on page 17 and allow the heater to burn for approximately 15 minutes. The flames will increase in length and become more yellow in color as the G2100CDV/G2200DV heats up.

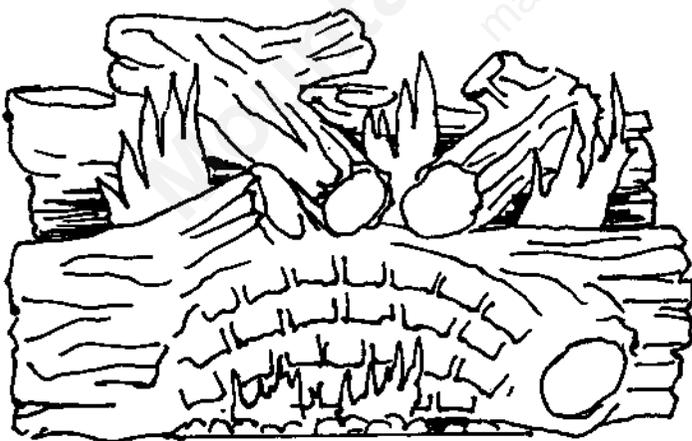
The air shutter adjustment screw is located on the lower left face of the heater. The adjustment can be made with a standard slot blade screwdriver (see **Figures 33-1 & 33-2**). Turning the screw counter clockwise will increase the air supply to the burner orifice, which will decrease the flame. Turning the screw clockwise will decrease the air supply to the burner, which will increase the flame.



**FIGURE 33-1 — G2100CDV**



**FIGURE 33-2 — G2200DV**



**FIGURE 32**

## MAINTENANCE

A qualified service person recommended by your Breckwell dealer should conduct an annual inspection and maintenance of your G2100CDV/G2200DV, its venting, and the installation to keep it running safely and efficiently. The following procedures should be performed only by a qualified service person. The gas supply should be turned off whenever a maintenance procedure is performed.

**NOTE: DO NOT HANDLE THE CAST FACE (G2100CDV), FACE PLATE (G2200DV), GLASS PANEL OR GLASS FRAME WHILE THEY ARE HOT. ALLOW PLENTY OF TIME FOR THE STOVE TO COOL COMPLETELY BEFORE HANDLING.**

### REMOVING THE CAST FACE - G2100CDV

Please note that the front cast face is some what heavy. Be prepared to handle the weight to avoid damage or injury.

Grasping the cast face at the bottom edge, gently lift it up and towards you. As the bottom edge becomes free from the rest of the heater, carefully lower the face. The cast face may now be removed. Whenever the cast face is removed, it should be set aside in a safe location. Refer to the illustrations shown in assembly section of this manual.

To reinstall the cast face, reverse the procedure detailed above.

### REMOVING THE FACE PLATE - G2200DV

To remove the face plate, firmly grasp by bottom edge, lift up while slightly pulling the bottom edge out. As the bottom of the face plate becomes free of the stove body, slide plate down and remove. Refer to the illustrations shown in assembly section of this manual.

To reinstall the face plate, reverse the procedure detailed above.

### REMOVING THE GLASS AND FRAME

**WARNING: DO NOT ABUSE THE G2100CDV/G2200DV'S GLASS BY STRIKING, SLAMMING, OR SIMILAR TRAUMA. DO NOT OPERATE THE UNIT WITH THE GLASS PANEL REMOVED, CRACKED OR BROKEN. USE ONLY GLASS SUPPLIED BY BRECKWELL AND APPROVED FOR USE WITH THIS HEATER. DO NOT USE SUBSTITUTE MATERIALS. REPLACEMENT OF THE PANEL SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON.**

**NOTE: THE GLASS AND FRAME ARE A TWO PIECE ASSEMBLED UNIT. EXERCISE CARE WHEN HANDLING THIS ASSEMBLY SO THAT THE GLASS DOES NOT SLIP OUT OF THE FRAME.**

After removing the cast face (G2100CDV) or face plate (G2200DV), the glass and glass frame may now be removed. Slightly loosen the three bottom screws on the glass frame

but do not remove. Remove the top three screws from the glass frame and set them aside. As the last top screw is removed the glass panel and frame should tilt forward. Grasp both sides of the frame, and while holding the glass panel in the frame, lift the assembly up and away from the firebox. Gently set the assembly face down. the glass may now be lifted out of the frame. Refer to the illustrations shown in assembly section of this manual.

To reinstall the glass and frame, reverse the procedure listed above.

### CLEANING THE GLASS

**WARNING: NEVER CLEAN THE GLASS WHEN IT IS HOT. DO NOT USE ABRASIVE CLEANERS ON THE GLASS.**

The glass may be cleaned with ordinary household glass cleaner and a soft cloth or paper towel. Care must be exercised when cleaning the glass panel as not to disturb the gasketing around the edge of the glass.

### INSPECTING THE VENTING

An inspection of both the inner and outer pipes of the venting system should be made during the annual service appointment. They must have no blockage and be in good repair. The vent manufacturer's instruction may provide specific suggestions or details on vent inspection. Any sections that are taken apart for the inspection must be reassembled and sealed as required.

### REMOVAL AND INSTALLATION OF THE LOG SET

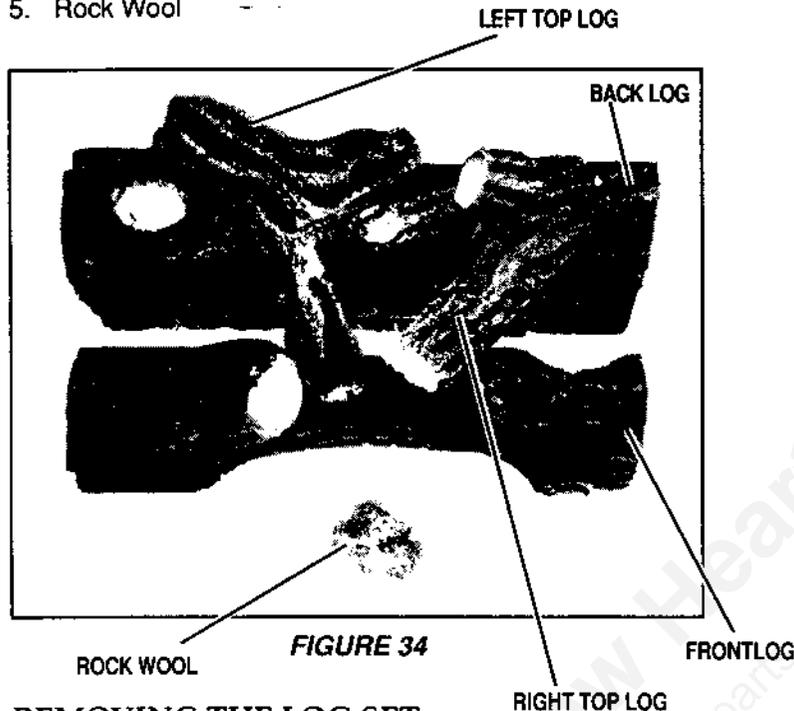
The G2100CDV/G2200DV is shipped from the factory with the log set carefully packed in a separate box. Before using the unit, gently remove the foam packing, log set, and rock wool and locate as instructed below.

**CAUTION: THE CERAMIC LOGS ARE DURABLE WHEN HANDLED AND INSTALLED PROPERLY. HOWEVER, THEY ARE DELICATE AND MAY BE DAMAGED EASILY IF NOT HANDLED WITH CARE. HANDLING DAMAGE TO THE CERAMIC LOGS IS NOT COVERED BY WARRANTY.**

**DO NOT HANDLE THE LOGS WHILE THEY ARE HOT. ALLOW PLENTY OF TIME FOR THE STOVE TO COOL COMPLETELY BEFORE HANDLING.**

The G2100CDV/G2200DV log set consists of the following pieces ( see **Figure 34**).

1. Rear Log
2. Front Log
3. Top Left Log
4. Top Right Log
5. Rock Wool



## REPLACEMENT PARTS

Contact an authorized Breckwell stove dealer to obtain any of these parts:

Item:  
Burner Assembly  
Burner Orifice  
Control Valve  
Glass Frame  
Glass Gasket  
Glass Panel  
Log Set  
Piezo Ignitor & Wire  
Pilot Assembly  
Pilot Gasket  
Pilot Orifice  
On / Off Switch  
Quick Dropout Thermocouple  
Relief Plate Gasket  
Thermopile

### EXTRA-COST OPTIONAL ITEMS:

Convection Blower Kit  
Conversion Kit (L.P.G. to N.G. or N.G. to L.P.G.)  
Gold Face Trim (G2100CDV)  
Gold Face Trim (G2200DV)

### REMOVING THE LOG SET.

1. Remove the rock wool.
2. Remove the top left log.
3. Remove the top right log.
4. Remove the front log.
5. Remove the rear log.

Reinstall the log set as described in the assembly section of this manual.

### CLEANING THE LOG SET AND FIREBOX

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

## APPENDIX A

### CONVERTING THE G2100CDV/G2200DV FROM ONE GAS TO ANOTHER IN THE FIELD

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

The G2100CDV is designed to burn either natural gas or propane (LP) gas. Each heater leaves the factory equipped for one specific fuel but it is a simple operation to convert the heater to the alternate fuel in the field. The original fuel type is marked on the rating plate on a chain, attached to the rear of the unit, indicates the fuel for which your unit is equipped.

To convert to the alternate fuel, follow these steps: (Please note that these instructions assume the heater is disconnected from any gas supply and if equipped the cordset is unplugged.)

1. Remove the cast face (G2100CDV) or face plate (G2200DV) (see instructions on pages 7 & 9).
2. Remove the glass and frame (see instructions on page 5).
3. Remove the log set (see instructions on page 21).
4. Remove the log support plate.

Remove the 2 screws that secure the log support plate. Lift the log support plate up and out, set aside (see Figure 35).

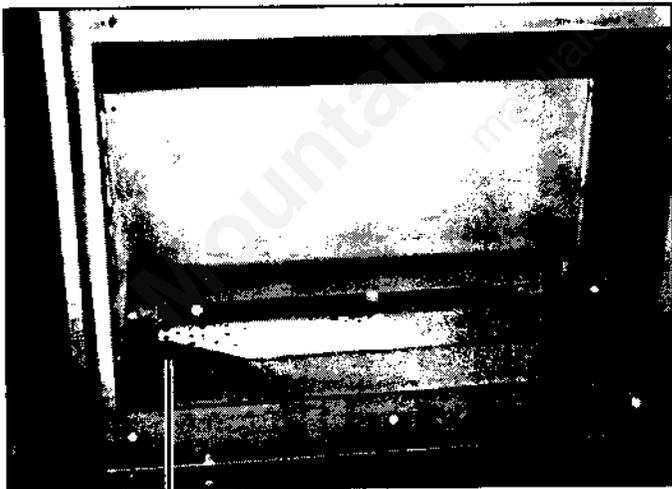


FIGURE 35

LOG SUPPORT  
PLATE

5. Remove the burner assembly.

Remove the 2 screws that secure the burner assembly. Remove the burner assembly by sliding to the right and lifting out. Set the burner assembly aside (see Figure 36).

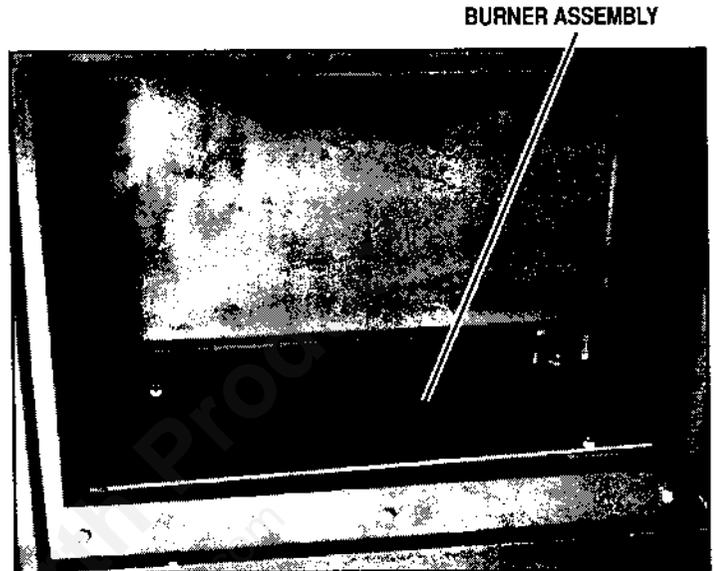


FIGURE 36

6. Replace the main burner orifice.

Remove the old orifice using a 1/2" deep socket and ratchet. Once removed, set apart from the new orifice.

Install the new orifice by first applying a very small amount of pipe sealant to the threads on the orifice. Do not put any sealant on the first thread. This will help avoid getting excess sealant into the burner system. Using the 1/2" deep socket, tighten the new orifice firmly in place. Do not over tighten as you could strip the threads or break the orifice. (see Figure 37)

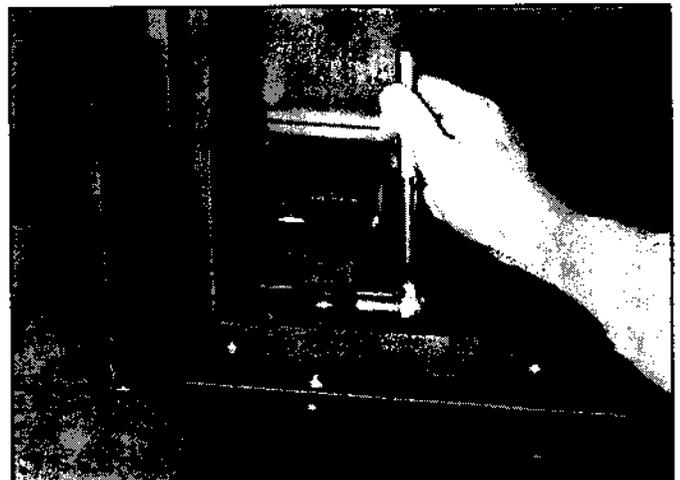


FIGURE 37

When converting from natural gas to L.P.G. (propane), remove the orifice cover plate by removing the screw securing it in place (see **Figure 38**). When converting from L.P.G. to natural gas the orifice cover plate must be installed.



**FIGURE 38**

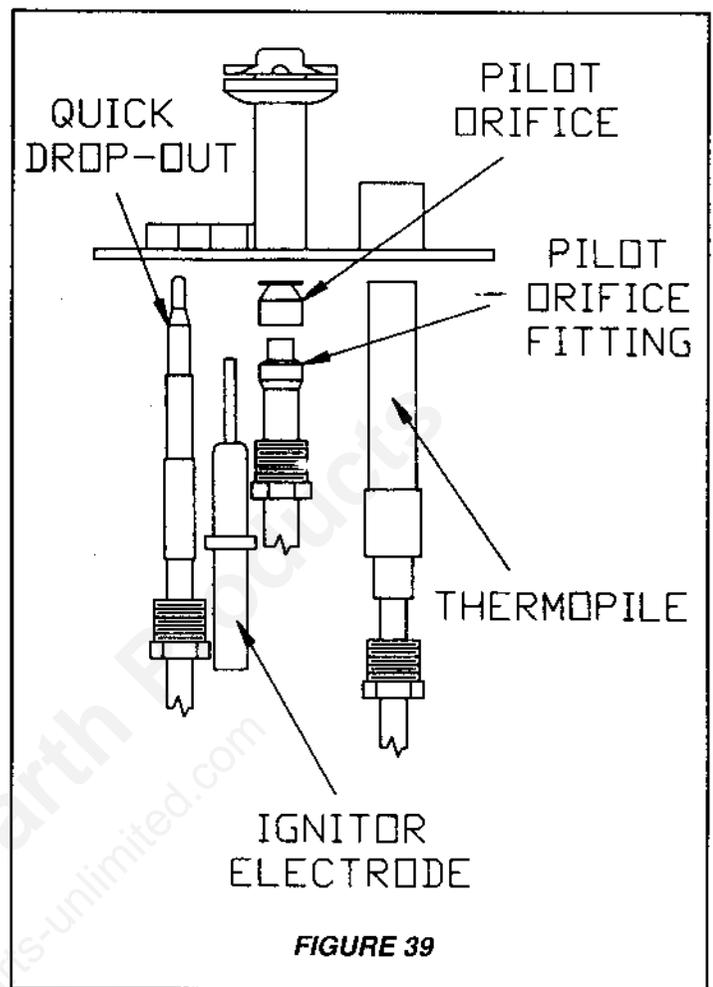
7. Replace the pilot orifice (see **Figure 39**).

Remove the 2 screws that secure the pilot assembly. Carefully lift the pilot assembly high enough to access the fittings. Exercise care when working around the piezo igniter as it is ceramic and could break easily.

Remove the thermopile and quick drop out by loosening the fittings. Remove the wire lead to the piezo igniter electrode. Loosen and remove the pilot fuel line. At the end of the pilot fuel line, you will find the pilot fuel orifice. It will easily lift off the end of the pilot fuel line. Set this orifice away from the replacement components as it will be difficult to differentiate the new orifice from the old. (Note: If the pilot fuel line does not appear to have an orifice at the end when removed, gently tap the pilot assembly. The old orifice should drop out.)

Remove the old pilot assembly and replace with the new gasket provided. Exercise care when handling the gasket, as it is delicate and easily damaged. Damaged gaskets must not be used.

Place the new pilot orifice on the end of the pilot fuel line and insert into the fitting on the pilot assembly. Re-attach the piezo igniter wire. Re-attach the pilot fuel line, quick drop out, and thermopile. Firmly tighten all fittings. Carefully lower the pilot assembly back in place, making sure the screw holes in the firebox, gasket and pilot assembly are aligned. Install the 2 pilot assembly screws and firmly tighten.



**FIGURE 39**

8. Replace the burner assembly

Install the burner assembly by lowering into the firebox and sliding to the left, engaging the venturi tube into the air adjuster box. Install the 2 burner assembly screws and tighten firmly.

9. Replace the log support plate.

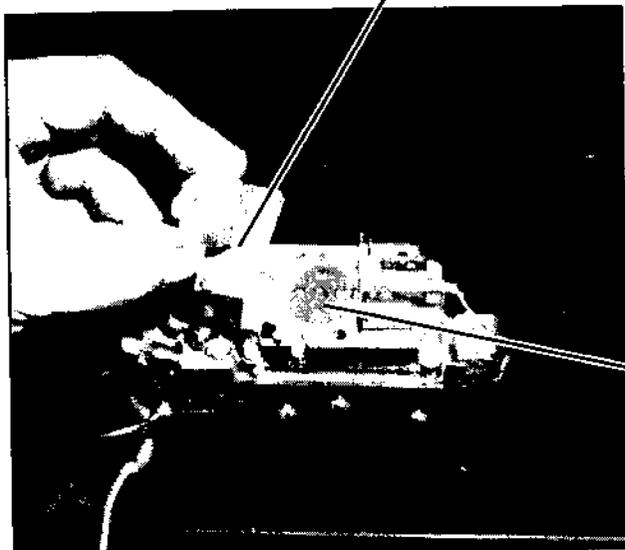
Install the log support plate by lowering into place. Install the 2 log support plate screws and firmly tighten.

10. Replace the log set (See the instructions on page 6)

11. Replace the valve regulator (see **Figure 40**, p. 24)

Remove the 2 screws securing the control valve regulator. Remove the control valve regulator and gasket, set away from the replacement regulator and gasket. Install the new regulator and gasket, making sure the gasket is properly positioned. Install the 2 screws and tighten firmly.

REGULATOR



GASKET

FIGURE 40

12. Leak testing

All fittings must be leak tested before use. Never exceed 1/2 psig during any leak testing while the unit is connected to the fuel supply system.

13. Complete the conversion.

Reinstall the glass and glass frame and the cast face or face plate in accordance with instructions in the assembly section of this manual.

Fill out and install the fuel conversion label provided with the conversion kit.

Follow all instructions on pages 16 & 19 of this manual for connecting to the gas supply, air adjustment and flame monitoring.

## APPENDIX B

### BRECKWELL G2100CDV/G2200DV GAS HEATER SPECIFICATIONS

TESTED TO ANSI Z21.11.1B-1995, ANSI Z21.44-1995, ANSI Z21.50-1996/CGA-2.22-M96, CAN/CGA-2.17-M91 AND UL307B-95.

	Natural Gas	Propane
Input Rating (BTU/hr)	28,000	28,000
Minimum Input Rating	15,000	15,000
Orifice Size (DMS)	#39	#53
Manifold Pressure (in w.c./kPa)	3.5/0.87	11.0/2.74
Min. Inlet Pressure (in w.c./kPa)	5.0/1.24	11.0/2.74
Max. Output (Fan Off)	20,400	21,000

### G2100CDV - MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION

Heater to side walls	6" (152 mm)
Heater to corner walls	6" (152 mm)
Heater to back wall	3" (80 mm)
Heater to alcove ceiling	20" (508 mm)
Maximum alcove depth	33" (840 mm)
Minimum alcove width	33" (840 mm)
Mantel	20" (508 mm)

### G2200DV - MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION

Heater to side walls	6" (152 mm)
Heater to corner walls	6" (152 mm)
Heater to back wall	3" (80 mm)
Heater to alcove ceiling	27" (685 mm)
Maximum alcove depth	23" (610 mm)
Minimum alcove width	33" (840 mm)
Mantel	27" (685 mm)

#### FUEL CONVERSION KIT #ADV-NGCK22 FOR BRECKWELL G2100CDV/G2200DV DIRECT VENT

Attach this label to the rear shield.

This appliance has been converted to NATURAL GAS fuel.

Cet appareil a été converti au GAZ NATUREL.

Orifice Size/Grandeur de l'Orifice:

Input/Débit calorifique (Btu/hr):

Manifold Pressure / Pression a la tubulure d'alimentation (in w.c./kPa):

Inlet Pressure / Pression D'Arrivée (in w.c./kPa): Min.  Max.

Date appliance was converted: \_\_\_\_\_

By \_\_\_\_\_

#### FUEL CONVERSION KIT #ADV-PCK22 FOR BRECKWELL G2100CDV/G2200DV DIRECT VENT

Attach this label to the rear shield.

This appliance has been converted to PROPANE fuel.

Cet appareil a été converti au PROPANE.

Orifice Size/Grandeur de l'Orifice:

Input/Débit calorifique (Btu/hr):

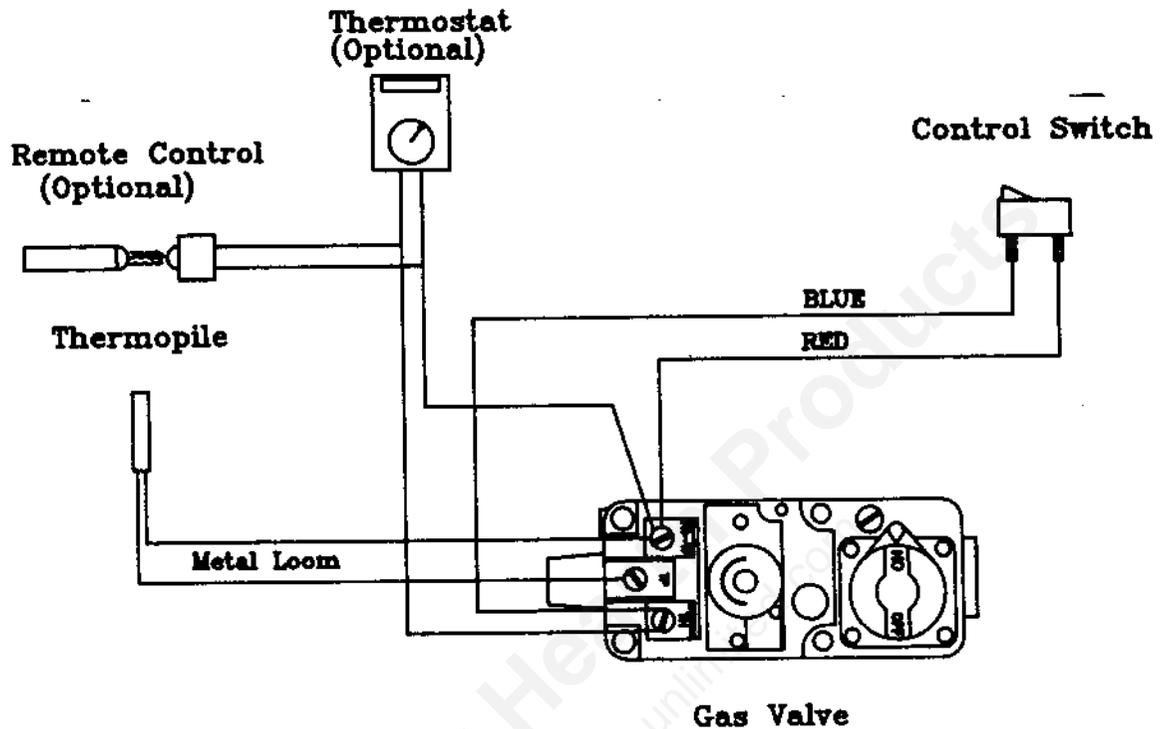
Manifold Pressure / Pression a la tubulure d'alimentation (in w.c./kPa):

Inlet Pressure / Pression D'Arrivée (in w.c./kPa): Min.  Max.

Date appliance was converted: \_\_\_\_\_

By \_\_\_\_\_

## Low Voltage (MVDC) Wiring



## 120 VAC Wiring

Blower Speed  
Control w/ On-Off

