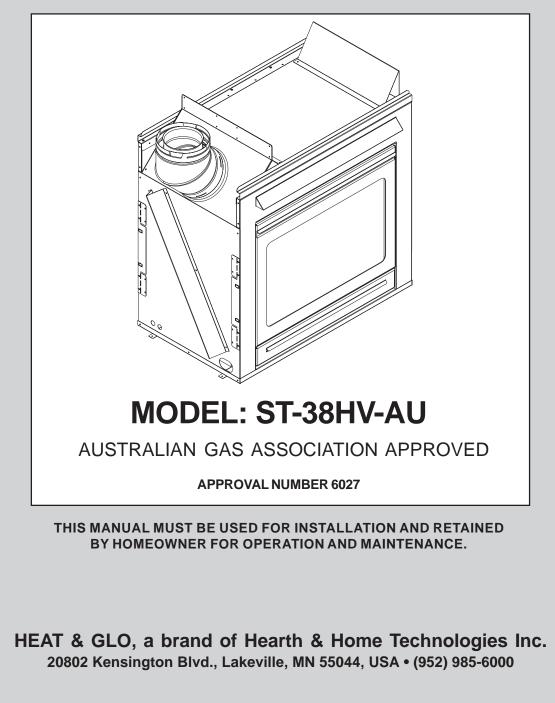


Where everything comes together

INSTALLATION AND OPERATION INSTRUCTIONS



This product may be covered by one or more of the following patents: (United States) 4593510, 4686807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452708, 5542407, 5601073, 5613487, 5647340, 5688568, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5996575, 6006743, 6019099, 6048195, 6053165, 6145502, 6170481, 6237588, 6296474, 6374822, 6430276, 6494712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, 6769426, 6774802, 6796302, 6840261, 6848441, 68630054, 6866205, 6869278, 6875012, 6880275, 6908039, 6919884, D320652, D445174, D462436; (Canada) 1297749, 2195264, 2225408, 2313972; (Australia) 780250, 780403, 1418504 or other U.S. and foreign patents pending.



INSTALLATION AND OPERATION INSTRUCTIONS

PLEASE READ THIS MANUAL BEFORE INSTALLING AND USING THIS APPLIANCE.

MODEL ST-38HV-AU IS AUSTRALIAN GAS ASSOCIATION APPROVED FOR NATURAL GAS OR PROPANE AS A BALANCED FLUE HEATER.

Refer to the appliance data plates for gas consumptions and pressures.

Installation of this appliance should only be carried out by an authorized person in accordance with the manufacturers instructions. All relevant codes and regulations laid down by the gas fitting authorities, municipal building regulations, electrical wiring regulations, and the requirements of the AGA Gas Installation Code must be observed.

This appliance and its components are tested and safe when installed in accordance with this Installation Manual. Report to your dealer any parts damaged in shipment, specifically check glass condition. Read all instructions before starting installation and follow these instructions carefully during installation to ensure maximum benefit and safety. Failure to follow them will void your warranty and may present a fire hazard.

The Heat & Glo warranty will be voided by, and Heat & Glo disclaims any responsibility for the following actions:

- Installation of any damaged heater or flue system component
- Modification of the heater or balanced flue system installation other than as instructed by Heat & Glo.
- Improper positioning of the gas logs or the glass door
- Installation and/or use of any component part not manufactured or approved by Heat & Glo, not withstanding any independent testing laboratory or other party approval of such component part or accessory.

IMPORTANT: Read all instructions carefully before starting installation. Failure to follow these installation instructions may result in a possible fire hazard and will void the warranty. Save this manual for future reference.

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 \rightarrow = Contains updated information.

1.0 INSTALLATION INSTRUCTIONS

When planning a heater installation, it's necessary to determine:

- Where the unit is to be installed.
- The vent system configuration to be used.
- Gas supply piping.
- Electrical supply wiring.
- Framing and finishing details.

• Whether optional accessories—devices such as wall switch, or remote control—are desired.

If the heater is to be installed on carpeting or tile, or on any combustible material other than wood flooring, the heater should be installed on a metal or wood panel that extends the full width and depth of the heater.

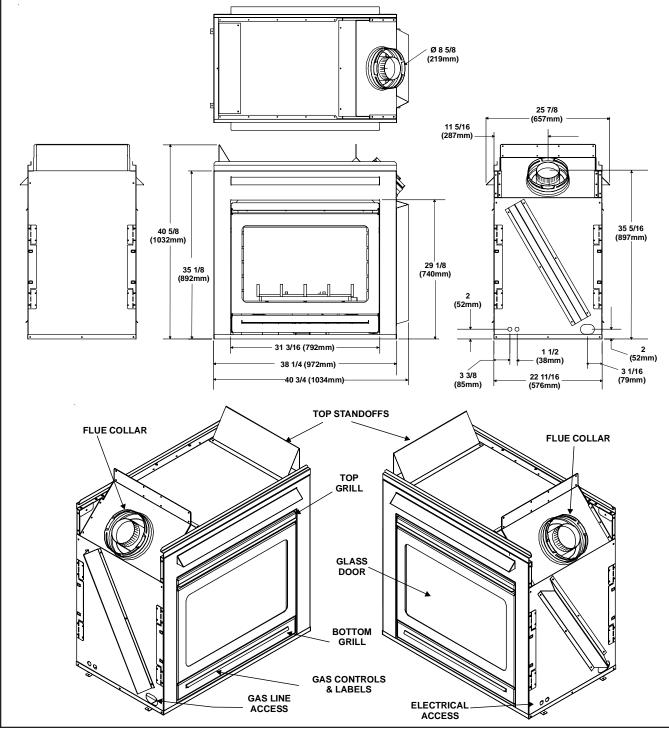


Figure 1. Diagram of ST-38HV-AU

1.1 Locating the Heater

The diagram (See figure 2) shows space and clearance requirements for locating a heater within a room.

Clearance Requirements

The top, back, and sides of the heater are defined by stand-offs.

The minimum clearance to a perpendicular wall extending past the face of the heater is one inch (25mm). The metal ends of the heater may NOT be recessed into combustible construction.

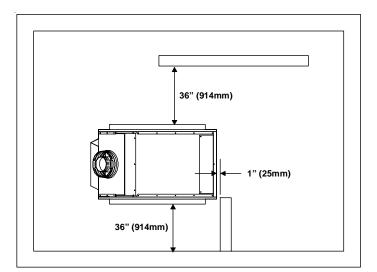


Figure 2. Heater Dimensions, Locations, and Space Requirements

Minimum Clearances from the Heater to Combustible Materials					
Glass Front	Floor	Exhaust Side of Heater	Opposite Side of Heater	Top of Heater	Ceiling
36 inches (914 mm)	0	2-1/2 inch (64 mm)	0	5-1/2 inches (127 mm)	36 inches (914 mm)

NOTE: The clearance to the ceiling is measured from the top of the unit excluding standoffs.

Minimum Clearances from the Flue Pipe to Combustible Materials						
For Horizontal Sections			For Vertical Sections	At V	Vall Firest	ops
Тор	Bottom	Sides		Тор	Bottom	Sides
3 inches (75mm)		1 inch (25mm)	1 inch (25mm)	2-1/2 inches (64mm)	1/2 inch (13mm)	1 inch (25mm)

For minimum clearances, see the direct vent termination clearance diagrams on page 7.

1.2 Framing the Heater

Framing can be built before or after the heater is set in place. Framing should be positioned to accommodate wall coverings and heater facing material. The diagram below shows framing reference dimensions.

CAUTION: MEASURE HEATER DIMENSIONS AND VERIFY FRAMING METHODS AND WALL COVERING DETAILS, BEFORE FRAMING CON-STRUCTION BEGINS.

WARNING: FRAMING DIMENSIONS AS-SUME USE OF 1/2 INCH THICK WALL **COVERING MATERIALS ON EXTERIOR OF** FRAMING ONLY AND NO SHEETROCK ON IN-**TERIOR OF FRAMING.**

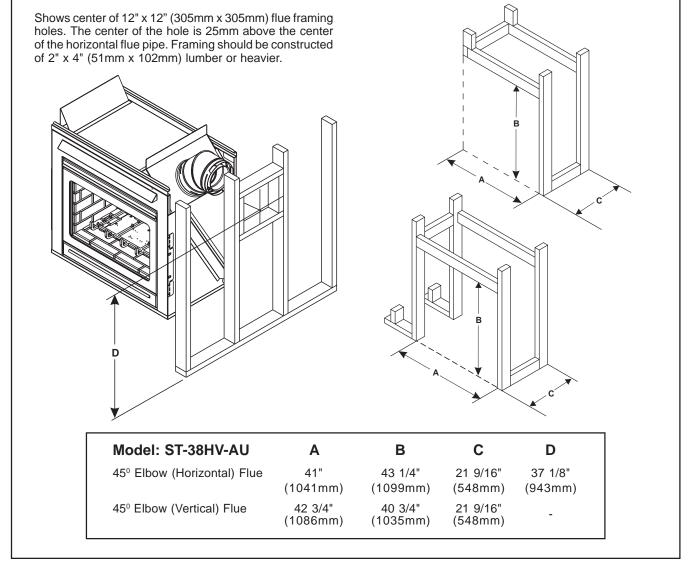
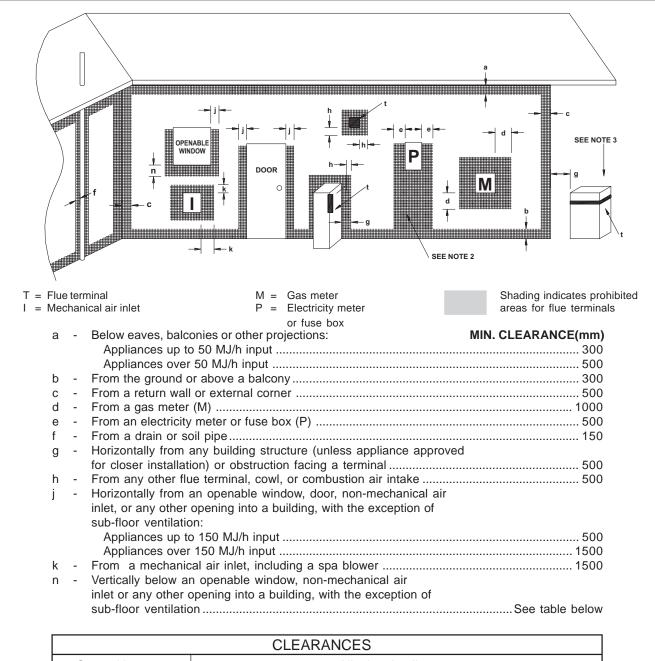


Figure 3. Framing Dimensions



CLEARANCES					
Space Heaters	All other Appliances				
Up to 50 MJ/h Input	Up to 50 MJ/h Input	Over 50 MJ/h and up to 150 MJ/h Input	Over 1 50 MJ/h Input		
150	500	1000	1500		

NOTES: 1. All distances are measured vertically or horizontally along the wall to a point in line with the nearest part of the terminal.

2. Prohibited area below electricity meter or fuse box extends to ground level.

3. See clause 5.13.6.6 for restrictions on a flue terminal under a roofed area.

4. See Appendix J, Figure J1(a) and J2(a) for clearances required from a flue

terminal to a LP Gas cylinder. A flue terminal is considered to be a source of ignition.

MINIMUM CLEARANCES REQUIRED FOR BALANCED FLUE TERMINALS OR THE FLUE TERMINALS OF OUTDOOR APPLIANCES

MODEL FLUE TERMINATION APPROVALS

ST-38HV-AU DVK-01DA, DVK-01TR DVK-03DA DVK-TVCD

TABLE 1

1.3 FLUE SYSTEM APPROVALS AND INSTALLATIONS

This model is approved to use D-Series flue pipe components. A DVK-01DA, DVK-03DA or DVK-01TR Termination Cap must be used to terminate vent systems in a horizontal position. DVK-TVCD vertical Termination Caps must be used to terminate vent systems in a vertical position.

Figures 6 through 10 show the flue systems approved for use with these models. Approved flue system components are labeled for identification. **NO OTHER FLUE SYSTEMS OR COMPONENTS MAY BE USED.** Detailed installation instructions are included with each flue termination kit and should be used in conjunction with this manual.

WARNING: THIS GAS APPLIANCE AND FLUE AS-SEMBLY MUST BE FLUED DIRECTLY TO THE OUT-SIDE AND MUST NEVER BE ATTACHED TO A CHIM-NEY SERVING A SEPARATE SOLID FUEL BURNING APPLIANCE. EACH GAS APPLIANCE MUST USE A SEPARATE FLUE SYSTEM-COMMON FLUE SYSTEMS ARE PROHIBITED.

CAUTION: UNDER NO CONDITION SHOULD COM-BUSTIBLE MATERIAL BE CLOSER THAN 3 INCHES (2 1/2 INCHES AT WALL FIRESTOPS) FROM THE TOP OF THE 8 5/8-INCH PIPE OR 1-INCH TO THE SIDES AND THE BOTTOM FOR HORIZONTAL SECTIONS OF THIS FLUE SYSTEM. VERTICAL SECTIONS OF THIS SYSTEM REQUIRE A MINIMUM OF 1-INCH CLEAR-ANCE TO COMBUSTIBLE MATERIALS ALL AROUND THE 8 5/8 - INCH PIPE.

For alternative installations, other than depicted, contact your dealer for further information.

Refer to Figure 4 for required clearances to flue terminals.

STRAIGHT OUT HORIZONTAL FLUE SYSTEM

Figure 6 shows straight out horizontal flue systems and straight up vertical flue systems approved for use on this model.

ELBOWS

The flue systems installed on this gas heater may also include one (1), two (2), or three (3) 90 - degree elbow assemblies, in addition to the 45 - degree elbow required at the unit.

Figures 7 through 10 and their corresponding tables show examples of vent configurations using elbows. The relationships of vertical rise to horizontal run in vent configurations using elbows **MUS**T be strictly adhered to.

ONE (1) 90-DEGREE ELBOW

Figure 7 shows an installation using one (1) 90-degree elbow. Dimension V is listed as **MINIMUM** vertical dimensions and dimension H is listed as corresponding **MAXIMUM** horizontal dimensions.

TWO (2) 90-DEGREE ELBOWS

Figure 8 shows examples of possible installations using two (2) 90-degree elbows. Dimension V is listed as **MINIMUM** vertical dimensions, dimension H is listed as **MAXIMUM** beginning horizontal dimensions, and dimension $H+H_1$ is listed as corresponding **TOTAL MAXIMUM** horizontal dimensions.

THREE (3) 90-DEGREE ELBOWS

Figures 9 and 10 show examples of possible installations using three (3) 90-degree elbows. Dimensions V are listed **MINIMUM** first vertical dimensions and dimensions H are listed as beginning **MAXIMUM** horizontal dimensions. Dimensions H+H₁ and H+H₁+H₂ are listed as **TOTAL MAXIMUM** horizontal dimensions. Dimensions V+V₁ are listed as **TOTAL MAXIMUM** vertical dimensions.

NOTE: When the 45[°] elbow is attached horizontally, the supplied heat shield must be installed (see Figure 5).

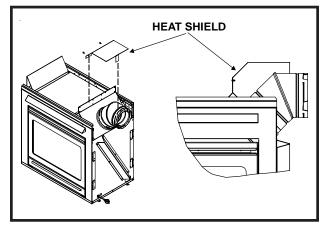
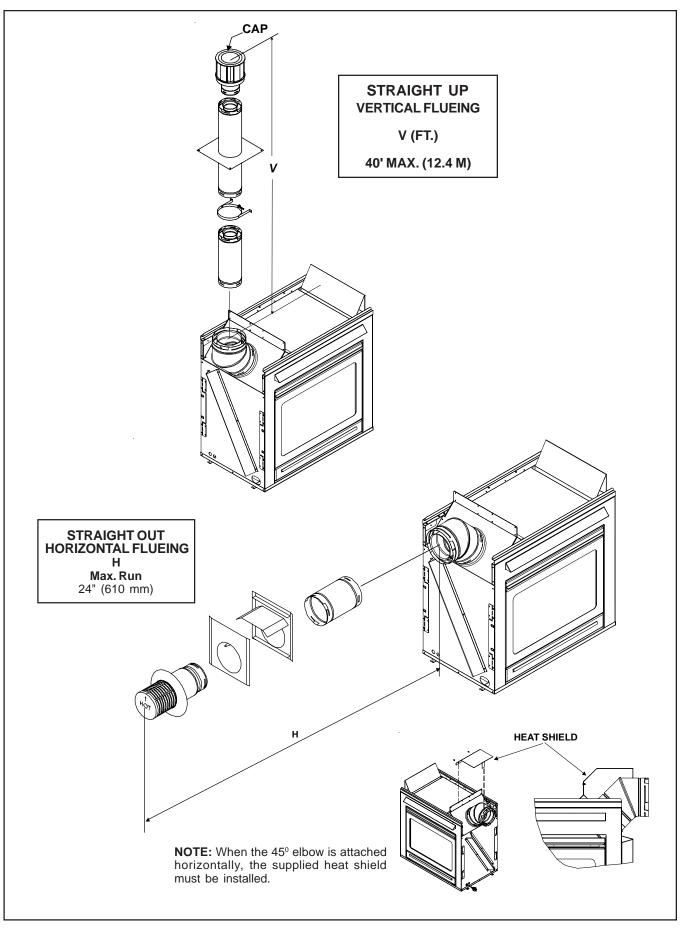
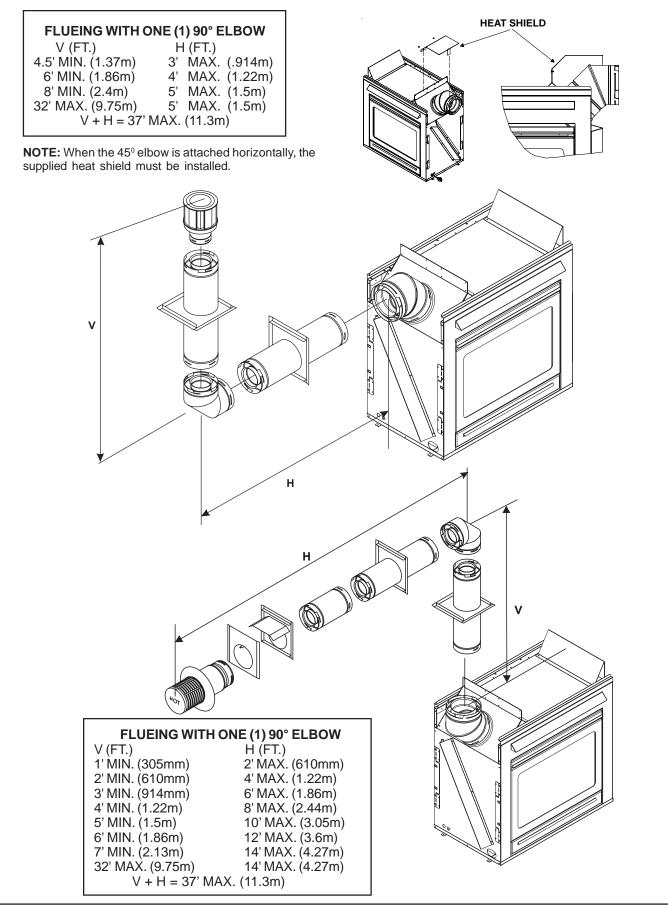
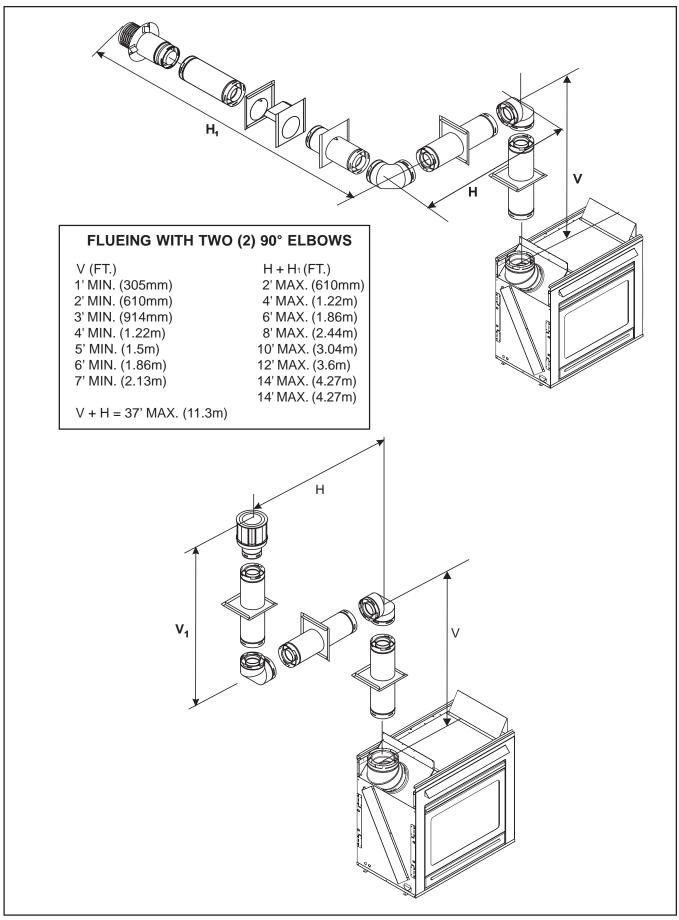


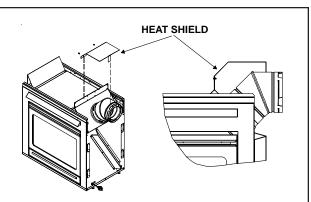
Figure 5



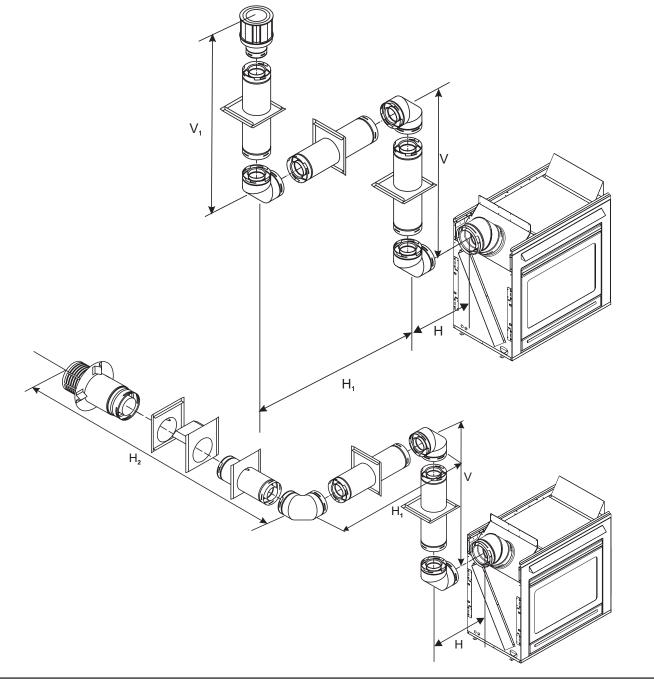


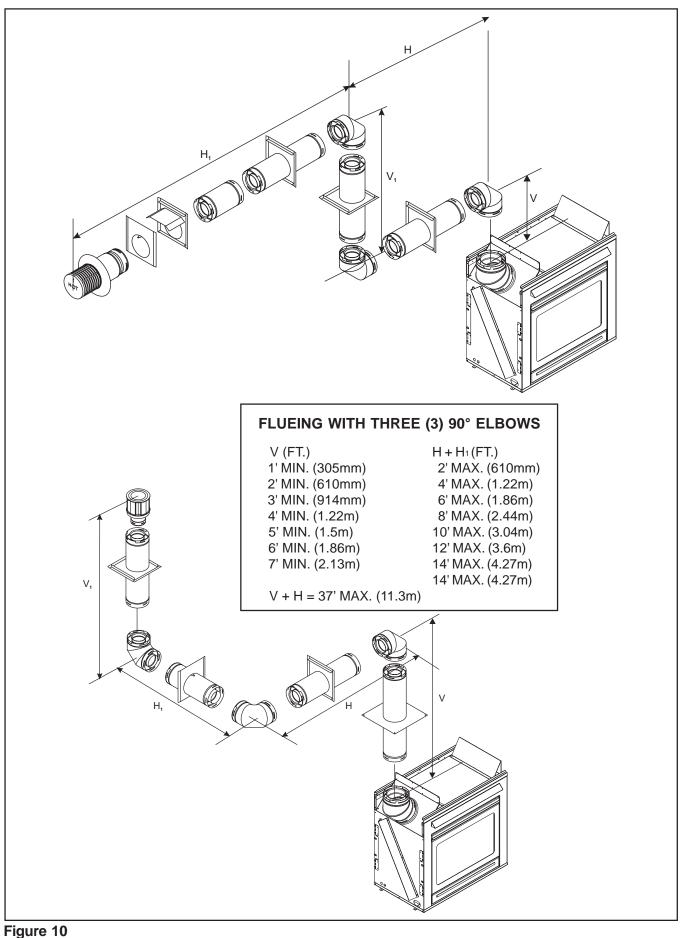


FLUEING WITH THREE (3) 90° ELBOWS					
V	Н	H + H,			
1´ MIN. (305 mm)	2´ MAX. (610 mm)	2´ MAX. (610 mm)			
2´ MIN. (610 mm)	2´ MAX. (610 mm)	4´ MAX. (1.22 m)			
3´ MIN. (914 mm)	2´ MAX. (610 mm)	6´MAX. (1.86 m)			
4´ MIN. (1.22 m)	2´ MAX. (610 mm)	8´ MAX. (2.4 m)			
5´ MIN. (1.52 m)	2´ MAX. (610 mm)	10´ MAX. (3.04 m)			
6´ MAX. (1.86 m)	2´ MAX. (610 mm)	12´ MAX. (3.65 m)			
7´ MAX. (2.13 m)	2´ MAX. (610 mm)	14´ MAX. (4.26 m)			
		14´ MAX. (4.26 m)			
V + H + H ₁ = 37' MA	AX. (11.3 m)				



NOTE: When the 45° elbow is attached horizontally, the supplied heat shield must be installed.





Installing Flue Components

1. Attach the First Flue Component to the Starting Collars

To attach the first flue component to the starting collars of the fireplace:

- Apply a 3/8 inch (10mm) bead of stove cement around the inner pipe heater starting collar.
- Make sure that the heater rope gasket supplied with the heater seals between the first flue component and the outer heater wrap.
- Lock the flue components into place by sliding the concentric pipe sections with four (4) equally spaced interior beads into the heater collar or previously installed component end with four (4) equally spaced indented sections.
- When the internal beads of each outer pipe line up, rotate the pipe section clockwise about onequarter (1/4) turn. The flue pipe is now locked together.
- The first 90° elbow installed in the flue system of a rear flueing heater **MUST BE** in a vertical position.

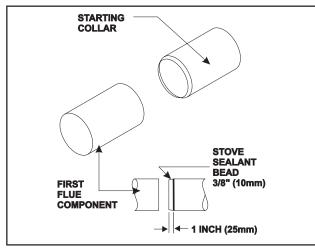
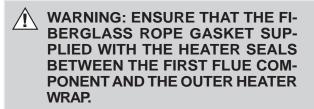


Figure 11 Attaching the First Flue Component to the Starting Collars

WARNING: A 3/8 INCH (10MM) BEAD OF STOVE CEMENT MUST BE PLACED AROUND THE INNER PIPE HEATER STARTING COLLAR BEFORE ATTACHING THE FIRST FLUE COM-PONENT. FAILURE TO SEAL THIS JOINT MAY CAUSE THE HEATER TO OPERATE IMPROPERLY. SEE FIGURE 11.



2. Continue Adding Flue Components

To continue adding flue components in accordance with the pre-planned flue system configuration:

 Ensure that each succeeding flue component is securely fitted and locked into the preceding component in the flue system.

90° elbows may be installed and rotated to any point around the preceding component's vertical axis. If an elbow does not end up in a locked position with the preceding component, attach with a minimum of two (2) sheet metal screws.

3. Install Support Brackets

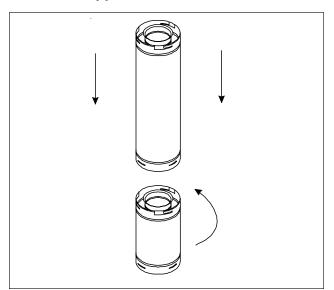


Figure 12 Adding Flue Components

For Horizontal Runs - The flue system must be supported every five (5) feet of horizontal run by a horizontal pipe support.

To install support brackets for horizontal runs:

- Place the pipe supports around the flue pipe.
- Nail the pipe supports to the framing members.

For Vertical Runs

The flue system must be supported every eight (8) feet (2.4M) above the heater flue outlet by wall brackets.

To install support brackets for vertical runs:

• Attach wall brackets to the flue pipe and secure the wall bracket to the framing members with nails or screws.

Use wall brackets to support vertical runs every 8 feet (2.4M) above the heater flue outlet.

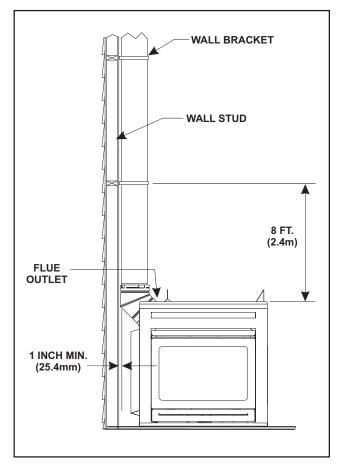


Figure 13 Installing Support Brackets

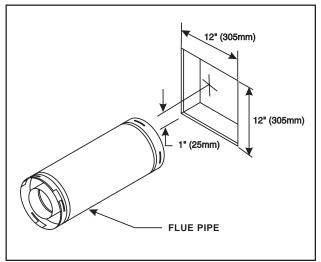
4. Install Firestops

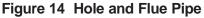
For Horizontal Runs - Firestops are **REQUIRED** on both sides of a combustible wall through which the flue passes.

To install firestops for horizontal runs that pass through either interior or exterior walls:

• Cut a 12-inch by 12-inch (305 mm X 305 mm) hole through the wall. The center of the hole is one (1) inch (25mm) above the center of the horizontal flue pipe.

- Position the firestops on both sides of the hole previously cut and secure the firestops with nails or screws.
- The heat shields of the firestops **MUST BE** placed towards the top of the hole.
- Continue the flue run through the firestops.





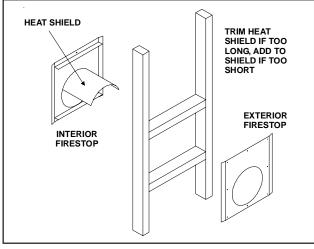


Figure 15 Heat Shield, Interior and Exterior Firestops

For Vertical Runs - One ceiling firestop is **REQUIRED** at the hole in each ceiling through which the flue passes.

To install firestops for vertical runs that pass through ceilings:

- Position a plumb bob directly over the center of the vertical flue component.
- Mark the ceiling to establish the centerpoint of the flue.

- Drill a hole or drive a nail through this center point.
- Check the floor above for any obstructions, such as wiring or plumbing runs.
- Reposition the heater and flue system, if necessary, to accommodate the ceiling joists and/or obstructions.
- Cut an 11-inch X 11-inch (280 mm X 280 mm) hole through the ceiling, using the center point previously marked.
- Frame the hole with framing lumber the same size as the ceiling joists.

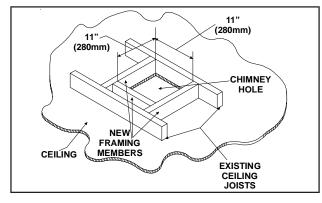


Figure 16 Hole and New Framing Members

If the area above the ceiling is **NOT** an attic, position and secure the ceiling firestop on the ceiling side of the previously cut and framed hole.

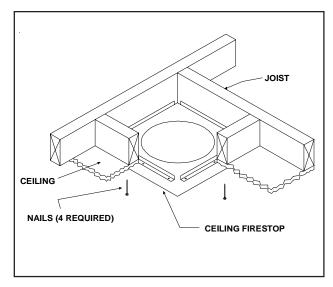


Figure 17 Ceiling Firestop (Ceiling Side)

If the area above the ceiling **IS** an attic, position and secure the firestop on top of the previously framed hole.

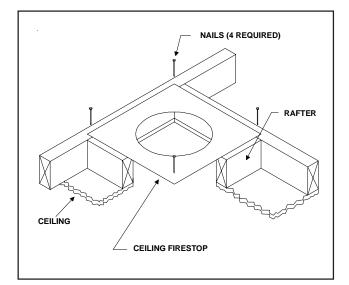


Figure 18 Attic Firestop

C. Flue Termination

For Horizontal Terminations - To attach and secure the termination to the last section of horizontal flue:

- Rotate and interlock the ends as described at the beginning of the Installing Flue Components section.
- The termination kit should pass through the wall firestops from the exterior of the building.
- Adjust the termination cap to its final exterior position on the building.



- Use the exterior pipelock hole provided on the round flange of the wall firestop to secure the flue pipe in place.
- Use a high-temperature sealant or fiberglass rope gasket to seal between the pipe and exterior firestop.
- See Figure 4 for flue termination clearances.

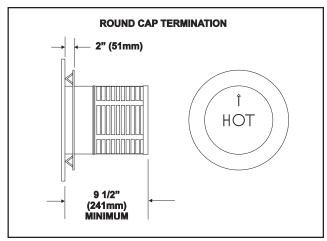


Figure 19 Round Termination Caps

For Vertical Terminations - To locate the flue and install the flue sections:

- Locate and mark the flue center point on the underside of the roof, and drive a nail through the center point.
- Make the outline of the roof hole around the center point nail.
- The size of the roof hole framing dimensions depend on the pitch of the roof. There **MUST BE** a 1-inch (25mm) clearance from the vertical flue pipe to combustible materials.
- Mark the roof hole accordingly.
- Cover the opening of the installed flue pipes.
- Cut and frame the roof hole.
- Use framing lumber the same size as the roof rafters and install the frame securely. Flashing anchored to the frame must withstand heavy winds.
- Continue to install concentric flue sections up through the roof hole and up past the roof line until you reach the appropriate distance above the roof.

CAUTION: FOLLOW THE REQUIREMENTS OF THE AGA GAS INSTALLATION CODE FOR MINIMUM HEIGHT REQUIREMENTS ABOVE THE ROOF.

To seal the roof hole, and to divert rain and snow from the flue system:

- Attach a flashing to the roof using nails, and use a non-hardening mastic around the edges of the flashing base where it meets the roof.
- Attach a storm collar over the flashing joint to form a water-tight seal. Place non-hardening mastic around the joint, between the storm collar and the vertical pipe.
- Slide the termination cap over the end of the flue pipe and rotate the pipe clockwise 1/4 turn.

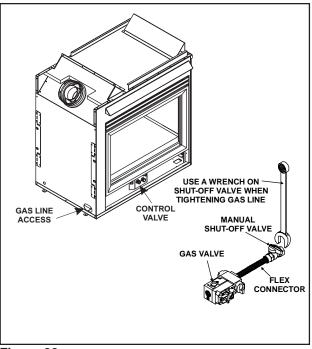


Figure 20

1.4 CONNECTING THE GAS SUPPLY

The gas is introduced to the appliance on the left hand side. See Figure 20.

After the gas pipe installation is complete, check carefully all gas connections for leaks with a soap solution. DO NOT USE AN OPEN FLAME.

NOTE: THE GAS SUPPLY LINE SHOULD BE PURGED OF ANY TRAPPED AIR PRIOR TO THE FIRST FIRING OF THE UNIT.

1.5 FAN

These heaters have a factory installed Fan, Electrical Junction Boxes, variable speed Rheostat Control Switch and Temperature Sensor Switch for the fan. These components are located behind the lower grille.

Use of the fan requires that the Junction Box (factory installed) be connected to 240 VAC service before permanently enclosing the heater. The access hole for connecting the service wires is found on the lower exterior side of the unit. Figure 21 shows the fan, switches, and fan wiring diagram.

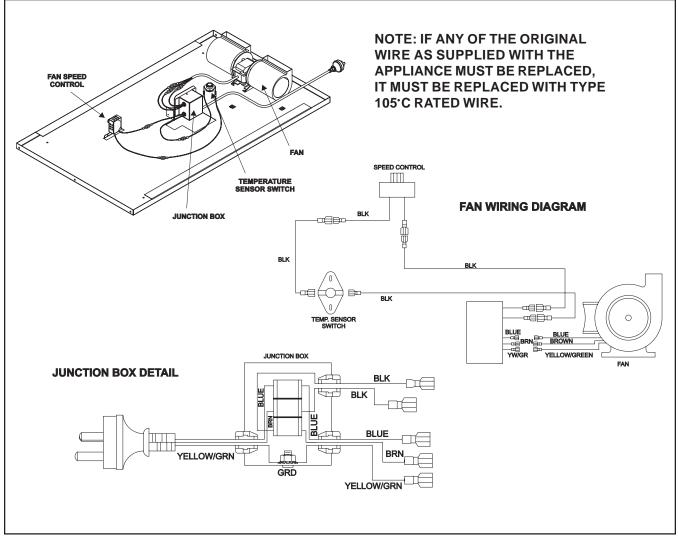


Figure 21

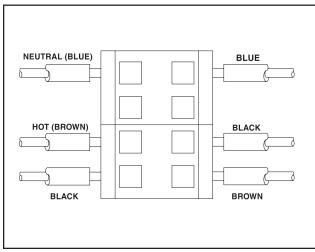
NOTE: IF THE SUPPLY CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER, AN AUTHORIZED SERVICE AGENT, OR A SIMI-LARLY QUALIFIED PERSON IN ORDER TO AVOID A HAZARD.

1.5.1 INSTALLING THE ELECTRICAL SERVICE TO THE JUNCTION BOX

WARNING: TURN ELECTRICAL POWER OFF AT THE CIRCUIT BREAKER BEFORE BEGINNING IN-STALLATION.

- Remove the electrical cover plate from the lower side of the heater. Remove the knockout from the plate and attach the Romex clamp (screws to the outside.)
- 2. Feed the electrical services wires through the Romex clamp and secure the wire to the clamp.
- 3. Using the wire connector provided inside the junction box, attach the neutral service wire to the blue wire, the hot service wire to the black wire, and the service ground wire to the ground screw stud of the junction box. See Figure 22 for wire connection detail and Figure 21 for a complete wiring diagram.
- 4. Re-attach the cover plate to the outside of the heater.

WARNING: DO NOT CONNECT 220 VAC TO THE GAS CONTROL VALVE OR CON-TROL WIRING SYSTEM OF THIS MODEL.

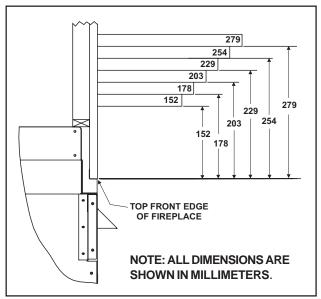




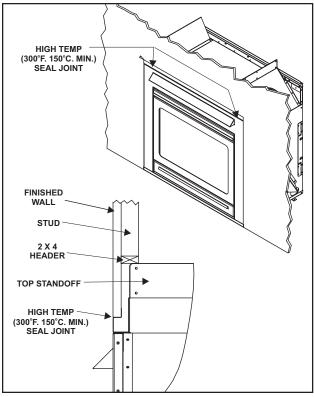
1.6 MANTEL CLEARANCES

Clearance to a mantelpiece is 6-inches (152mm). See Figure 23.

IF JOINTS BETWEEN THE FINISHED WALLS AND THE FIREPLACE SURROUND (TOP AND SIDES) ARE SEALED, A 150° C. MINIMUM SEALANT MATERIAL MUST BE USED. THESE JOINTS ARE NOT REQUIRED TO BE SEALED. ONLY NON-COMBUSTIBLE MATERIAL (USING 150° C. MINIMUM ADHESIVE, IF NEEDED) CAN BE APPLIED AS FACING TO THE FIREPLACE SURROUND. SEE FIGURE 24.





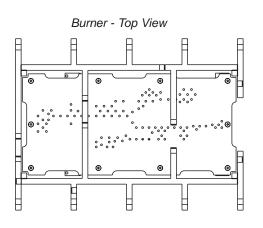


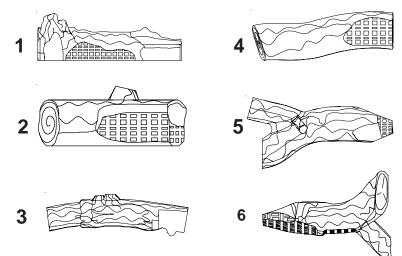


1.7 LOG INSTALLATION

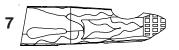
Carefully remove the log packages from the heater and the tags from their packages. Handle logs gently. Place the logs in the heater by following the steps shown in Figure 25. Replace the glass door and dress guard previously removed prior to lighting the unit. Be certain the gas logs are properly positioned.

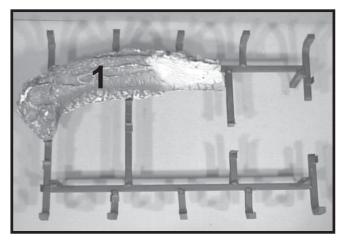
LOG PLACEMENT INSTRUCTIONS

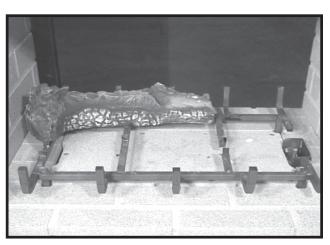




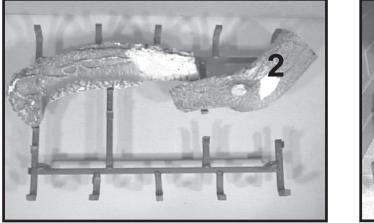
Remove dress guard and glass door from the heater side to access grate/burner with the pilot assembly on the right. Carefully remove the logs from the carton. **CAUTION:** Logs are fragile!

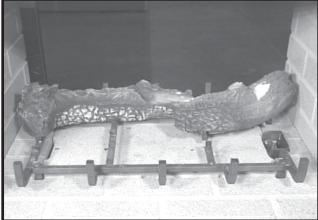




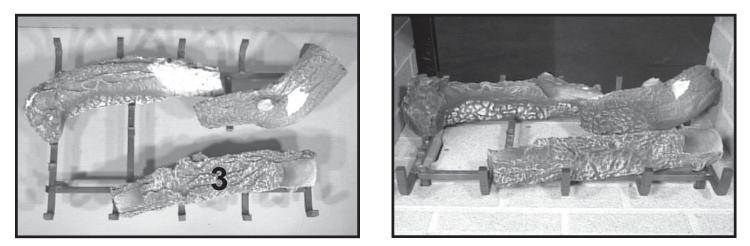


LOG NUMBER 1 (SRV675-721): Position log #1 at the rear left corner of the grate against the three grate stops as shown.

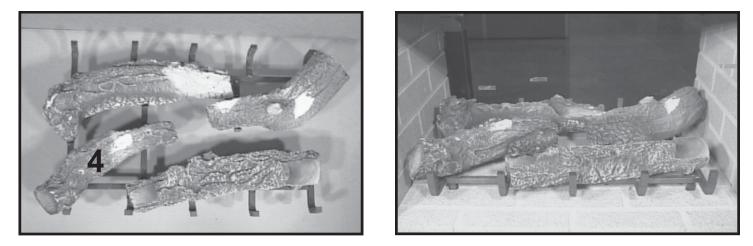




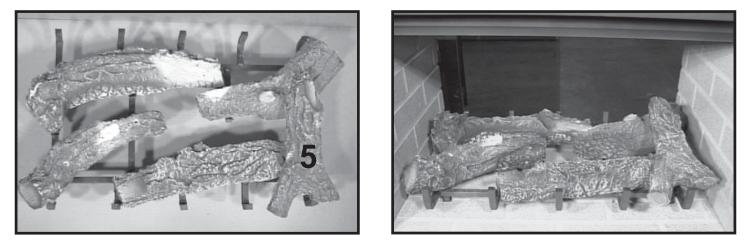
LOG NUMBER 2 (SRV675-722): Place log #2 so that the slot on the bottom of the log fits over the grate tab in the rear right corner. The left end of log #2 should rest against the stop on the right center bar.



LOG NUMBER 3 (SRV675-726): Position log #3 on the front right hand side of the grate against the 3 stops.



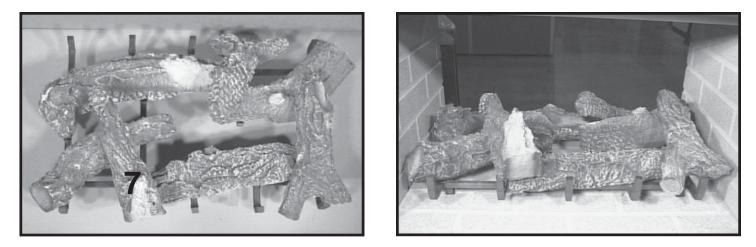
LOG NUMBER 4 (SRV675-723): Place log #4 so that the slot on the bottom of the log fits over the grate tab on the front left corner of the grate. The right end of log #4 must rest against the stop of the left center bar.



LOG NUMBER 5 (SRV285-720): Position log #5 on the location grooves on log #2 and log #3.



LOG NUMBER 6 (SRV278-705): Place the "Y" end of the log #6 over the second rear grate bend and locate its top in the locating groove on log #2.



LOG NUMBER 7 (SRV285-725): Position log #7 on the locating grooves on log #3 and log #4 as shown.



OPPOSITE SIDE VIEW: Check log assembly against figures.

1.8 INSTALLER TESTING

The space heater must be tested and be operating according to manufacturers specifications prior to the installer leaving the site. Note: the tips of the flames should never hit the top of the firebox after the unit has warmed up. Please contact your dealer or a qualified service person to replace injector or adjust valve.

Upon completing the gas line connection, a small amount of air will be in the lines. When first lighting the pilot light, it will take a few minutes for the lines to purge themselves of this air. Once the purging is complete, the pilot and burner will light and operate as indicated in the Lighting Instructions.

Subsequent lightings of the appliance will not require such purging.

CAUTION: DURING THE INITIAL PURGING AND SUBSEQUENT LIGHTINGS, NEVER ALLOW THE GAS VALVE CONTROL KNOB TO REMAIN DE-PRESSED IN THE "PILOT" POSITION WITHOUT PUSHING THE RED IGNITOR BUTTON AT LEAST ONCE EVERY SECOND.

Follow the Safety Information and Lighting Instructions pages of this manual to light the appliance.

To obtain proper operation, it is imperative that the pilot and main burner flame characteristics are steady, not lifting or floating. Typically, the top 3/8-inch (10mm) at the pilot generator should be engulfed in the pilot flame. (Figure 26.)

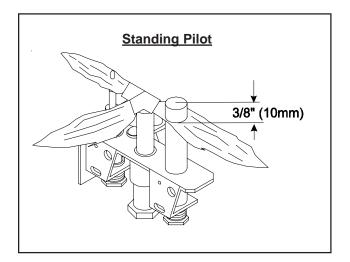


FIGURE 26

Burner flame patterns are shown in Figure 27.

Follow Section 3.5 TROUBLESHOOTING for adjusting the appliance to operate properly.

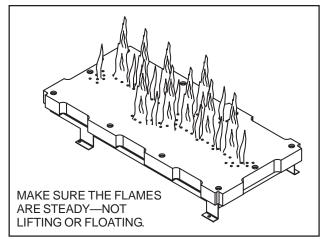


FIGURE 27

2.0 OPERATING INSTRUCTIONS

This appliance is a balanced flue heater and is designed to operate with all combustion air being siphoned from the outside of the building and all exhaust gases expelled to the outside of the building.



The control system for these models is a millivolt type. It consists of a gas control valve/variable regulator, a standing pilot assembly, a thermopile/thermocouple assembly, a piezo ignitor, an ON/OFF rocker switch, and a safety high temperature limit switch. The controls are located in the lower compartment behind the lower grille. Access to this compartment is gained by rotating the grille up. See Figure 1.

MARNING: DO NOT CONNECT 220-240 VAC TO THE GAS CONTROL VALVE OR CONTROL WIRING SYSTEM OF THIS UNIT.

The gas control system is wired so the thermopile, when heated with the pilot light, will provide approximately 350 to 500 millivolts. This activates the gas control valve. See Figure 28 for appliance wiring diagram.

When lit for the first time, the appliance will emit a slight odor for an hour or two. This is due to paint and lubricants used in the manufacturing process. Additionally, for the first few minutes after each lighting, vapor may condense and fog the glass and the flames may be blue. After a few minutes this moisture will disappear and within 15-30 minutes the flames should become yellow.

The heater may produce a noise, caused from metal expansion and contraction as it heats up and cools down. This noise is similar to one that a furnace or heat duct may produce and does not affect the operation or longevity of the heater.

OPERATING CAUTIONS

- THIS APPLIANCE MAY EXHIBIT A SLIGHT CAR-BON DEPOSITION.
- DO NOT PLACE ARTICLES ON OR AGAINST THIS APPLIANCE.
- DO NOT USE OR STORE FLAMMABLE MATERI-ALS NEAR THIS APPLIANCE.
- DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.
- THE DRESS GUARD IS FITTED TO THIS APPLI-ANCE TO REDUCE THE RISK OF FIRE OR INJURY FROM BURNS AND NO PART OF IT SHOULD BE PERMANENTLY REMOVED. FOR PROTECTION OF YOUNG CHILDREN OR THE INFIRM, A SEC-ONDARY GUARD IS REQUIRED.
- THE DRESS GUARD MUST BE IN PLACE AND SEALED AND THE FIXED MESH TRIM ASSEM-BLY MUST BE IN PLACE ON THE HEATER BE-FORE THE UNIT CAN BE PLACED INTO SAFE OP-ERATION.
- DO NOT USE THIS APPLIANCE IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE UNIT AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.
- DO NOT OPERATE THIS APPLIANCE WITH THE GLASS DOOR REMOVED, CRACKED, OR BRO-KEN. REPLACEMENT OF THE GLASS DOOR SHOULD BE DONE BY A LICENSED OR QUALI-FIED PERSON. DO NOT STRIKE OR SLAM THE GLASS DOOR.
- THE GLASS DOOR ASSEMBLY SHALL ONLY BE REPLACED AS A COMPLETE UNIT AS SUPPLIED BY THE GAS HEATER MANUFACTURER. NO SUB-STITUTE MATERIALS MAY BE USED.

2.1 SAFETY & LIGHTING INFORMATION

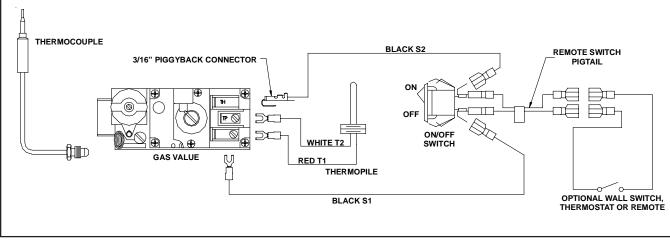
Follow Section **2.2 SAFETY INFORMATION** and **2.3 LIGHTING INSTRUCTIONS** to light the appliance.

By design, the flame pattern will not be identical from unit to unit. Additionally, flame pattern may vary depending on installation type and weather conditions.

NOTE: THE TIPS OF THE FLAMES SHOULD NEVER HIT THE TOP OF THE FIREBOX.

If the flame height is higher than this, adjustments must be made to prevent overheating the gasket and glass. Please contact your dealer or a qualified service person to replace the injector or adjust the valve.

These gas models have gas control valves which allow you to increase or decrease the height of the main burner flames. Rotate the adjustment knobs clockwise to "HI" to increase the flame height and counterclockwise to "LO" to decrease the flame height.



2.2 SAFETY INFORMATION

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLO-SION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR LOSS OF LIFE.

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

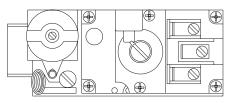
WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.

2.3 LIGHTING INSTRUCTIONS

LIGHTING INSTRUCTIONS

- 1. "STOP!" Read the safety information.
- 2. To access controls, rotate the bottom grille down.
- 3. Turn the valve control knob to the "OFF" position. To do this, you must turn the knob clockwise to the "Pilot" position, and then press in and continue turning clockwise to the "OFF" position.



GASCONTROLVALVE

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

- WAIT FIVE (5) MINUTES TO CLEAR OUT ANY GAS. Then smell for gas, including near the floor. If you then smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to the next step.
- 5. The pilot should not require accessing for lighting purposes. The pilot is located inside the combustion chamber.

1. Open the bottom grille.

2. Turn ON/OFF switch to "OFF".

THERMOPILE

der water.



6. To put the control in the pilot position, turn the control knob counter-clockwise to the "Pilot" position.

Immediately call your gas supplier from a neighbor's

trol knob. Never use tools. If the knob will not push

in or turn by hand, don't try to repair it. Call a quali-

fied service technician. Forced or attempted repair

der water. Immediately call a qualified service technician to inspect the appliance and to replace any

part of the gas control system which has been un-

D. Do not use this appliance if any part has been un-

phone. Follow the gas supplier's instructions. C. Use only your hand to push in or turn the gas con-

may result in a fire or explosion.

- 7. To light the pilot depress the control knob and then depress the red piezo button until it makes a clicking sound. It may be necessary to repeat this step. If the pilot does not light after 10 seconds, go back to step 3. The control knob should be held down for a MINUTE after pilot ignition.
- If the control knob does not pop out when released, STOP-shut off the gas supply to the heater control valve, and IMMEDIATELY call your service technician or gas supplier.
- If the pilot will not stay lit after two tries, turn the control knob to the "OFF" position and call your service technician or gas supplier.
- After the pilot has been lit, the burner can be turned on by turning the knob counter-clockwise to the "ON" position. Flip the ON/OFF switch to the "ON" position.
- 9. Close the bottom grille.
- 10. When using accessories leave rocker switch in the "OFF" position.

TO TURN OFF GAS APPLIANCE

- 3. Turn the valve control knob clockwise to the "Pilot" position, then depress knob and continue turning to "OFF" position.
- 4. Close the bottom grille.

2.4 FAN OPERATION

The accessory fan is wired in series with a speed control switch and a temperature sensor switch. Set the speed control to an "ON" position and light the heater. The temperature sensor switch will automatically start the fan when the switch warms up—and stop the fan when it cools down. You can manually stop the fan by turning the speed control switch to "OFF". See Figure 21 for fan wiring diagram.

3.0 SERVICING AND MAINTENANCE

- A. HEATER SERVICING: Frequency of heater servicing will depend upon use and type of installation.
- B. **IMPORTANT:** TURN OFF GAS BEFORE SERVIC-ING APPLIANCE. IT IS RECOMMENDED THAT A COMPETENT SERVICE TECHNICIAN PERFORM SERVICE CHECK-UPS AT THE BEGINNING OF EACH HEATING SEASON.
- C. The appliance and flue system should be inspected before initial use and at least annually by a qualified field service person.
- D. Inspect the external flue cap on a regular basis to make sure that no debris is interfering with the air flow.
- E. Keep the control compartment, logs, and burner area surrounding the logs clean by vacuuming or brushing at least twice a year.

CAUTION: THE LOGS GET VERY HOT - HANDLE ONLY WHEN COOL.

WARNING: DO NOT USE ABRASIVE CLEANERS ON THE GLASS DOOR ASSEMBLY. DO NOT AT-TEMPT TO CLEAN THE GLASS DOOR WHEN IT IS HOT.

- F. The glass door should be cleaned using a household glass cleaner. **DO NOT** handle or attempt to clean the glass when it is **HOT**.
- G. In order to properly clean the burner and pilot assembly, turn off the gas to the unit and remove the logs exposing the burner and pilot assembly. Clean all foreign materials from top of burner. Check to make sure that the burner orifice is clean.

Visually inspect the pilot periodically. Brush or blow away any dust or linen accumulations. If the pilot orifice is plugged, disassembly may be required to remove any foreign materials from the orifice or tubing. When the appliance is put back in service check burner flame patterns with Figure 30.

To obtain proper operation, it is imperative that the pilot and main burner flame characteristics are steady, not lifting or floating. Typically, the top 3/8-inch at the pilot generator should be engulfed in the pilot flame (Figure 29).

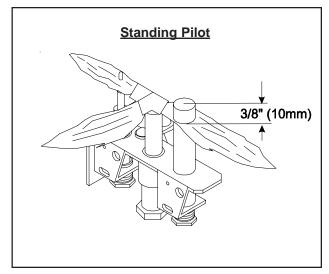
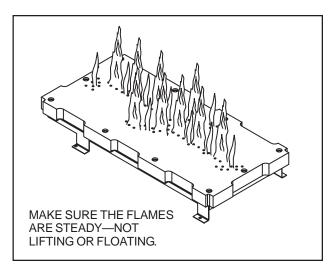


FIGURE 29





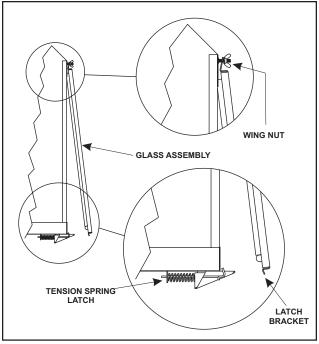
3.1 REMOVAL OF COVERS FOR SERVICING

- A. Control Compartment Grille
 - Rotate the bottom grille down to access the gas controls.
- B. Trim door and Glass Door
 - Lift the front trim door up and out away from the appliance side surrounds. Replace the door when servicing is complete.
 - Note carefully how the glass assembly is held in place. Release the two spring latches at the bottom of the glass door. Next, remove wing nuts from the top of the glass door. Carefully lift the glass up and out away from the appliance. See Figure 31.

3.2 REMOVAL OF COMPONENTS FOR SERVICE

1. BURNER

- Remove the logs and grate.
- Remove the top refractory brackets and carefully remove the side refractories.
- Remove the bottom refractory.
- Unscrew the brackets at both ends of the burner and slide the burner away from the burner orifice.
- 2. PILOTASSEMBLY/IGNITION SYSTEM
- Remove the log set/log grate/refractory assembly.



- Disconnect the gas supply tube from the underside of the pilot burner.
- Disconnect the electrode wire from the piezo ignitor (found adjacent to the gas control valve).
- Disconnect the attachment nut from the underside of the thermopile. The thermopile can then be separated from the pilot bracket.
- Unscrew the pilot assembly bracket and remove. **NOTE:** When removing the pilot assembly, carefully pull the electrode wire up through the grommeted hole in the base pan.

3.3 PARTS REPLACEMENT

1. FAN/SWITCHES

- Unplug the fan wires from the junction box wires by pulling the male and female connectors apart and slide the fan out the front of the lower controls compartment.
- Disconnect the wires from the fan speed control switch, pull off the knob, and remove the nut holding the speed control to the bracket.
- Disconnect the wires from the fan temperature sensor switch and remove the nut holding the switch bracket onto the side of the firebox.
- 2. GLASS PANEL
- To replace the glass door, locate the 4 top holes over the bolts above the opening, push glass against the unit and attach 2 lower tension springs. Hand tighten wing nuts into top 4 bolts.

NOTE: WING NUTS THAT SECURE THE GLASS ONLY NEED TO BE HAND TIGHTENED TO GIVE A SNUG FIT FOR PROPER GASKET SEAL. OVER-TIGHTENING MAY RESULT IN DAMAGED GLASS.

- 3. OVERHEAT SWITCH
- Remove the two screws holding the switch to the top left front of the sheetmetal surround.
- Disconnect the wire from the switch and remove the switch.

3.4 ADJUSTMENTS AND REPLACEMENT PARTS

Adjustments and replacement parts for this appliance should only be done by a qualified service person. A wiring diagram for the appliance is shown in **SECTION 2.0 OPERATING INSTRUCTIONS**. A replacement part table is shown in **SECTION 4.0** of this manual.

FIGURE 31

3.5 TROUBLESHOOTING - ST-38HV-AU

With proper installation and maintenance, your new heater should provide years of trouble-free service. If you do experience a problem, refer to the Troubleshooting Guide below. This guide will assist a qualified service person in the diagnosis of problems and the corrective action to be taken.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
I. Spark Ignitor will not light pi- lot after repeated triggering of red button.	A. Defective ignitor (no spark at electrode).	 Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, re- place ignitor.
	B. Defective pilot or misaligned electrode (spark at electrode).	 Using a match, light pilot. If pilot lights, turn off pilot and trigger the red button again. If pilot lights, an improper gas/air mixture caused the bad lighting and a longer purge period is recommended. If pilot will not light - check gap at pilot - should be 1/8 inch (3.2mm) to have a strong spark. If OK, replace pilot.
	C. No gas or low gas pressure.	1. Check unit's shut-off valve and remote shut off valves from heater. Usually there is a valve near the main. There can be more than one (1) valve between the heater and main.
		2. Low pressure can be caused by a variety of situations such as a bent line, too narrow diameter of pipe or even low line pressure. Check for kinked lines. If none, consult with plumber or gas sup- plier.
II. Pilot will not stay lit after care- fully following lighting in- structions.	A. Defective thermocouple.	1. Check pilot flame. Must impinge on thermocouple. Clean and or adjust pilot for maximum flame impingement on thermocouple.
		2. Be sure wire connections from thermocouple at gas valve termi- nals are tight and thermopile is fully inserted into pilot bracket.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
		 Check thermopile with millivolt meter. Take reading at "TH- TP&TP" terminals of gas valve. Should read 325 millivolts mini- mum while holding valve knob depressed in pilot position, pilot lit, and on/off switch "OFF". Re- place faulty thermocouple if read- ing is below specified minimum.
		 Disconnect thermopile leads from the valve. With pilot burner "ON", take reading at thermopile leads - should read 325 millivolts minimum. Replace thermopile if reading is below this minimum.
	B. Open wire connection in pilot circuit.	 Check wire continuity and con- nection in pilot circuit.
	C. Defective valve.	 Disconnect the thermopile's red wire from the micro-switch and connect to terminal "TP" on the gas valve. Turn green knob to pilot position, depress and light pilot light. If meter reading is greater than 325 m.v. after 30 seconds, the pilot generator is good. If pilot does not stay lit, the valve is defective. If the meter reading is less than 325 m.v., the thermopile is defective.
III. Pilot burning, no gas burner, valve knob "ON", "on-off" switch "ON".	A. "ON-OFF" switch or wires de- fective.	 Check "on-off" switch and wires for proper connections. Place jumper wires across terminals at switch-if burner comes on, re- place defective switch. If OK, place jumper wires across switch wires at gas valve-if burner comes on, wires are faulty or connec- tions are bad.
	B. Thermopile may not be gener- ating sufficient milli- voltage. (325m.v.)	 Recheck Symptom #2. Pilot flame not physically close enough to thermopile.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
	C. Defective valve.	 Turn valve knob to "ON". Place ON/OFF switch to "ON". Check with millivolt meter at thermopile terminals. Millivolt meter should read greater than 100 m.v. If the reading is okay and the burner does not come on, replace the gas valve.
	D. Plugged burner orifice.	1. Check burner orifice for stoppage and remove.
	E. Wall switch or wires defective.	 Follow corrective action in A.1 above; check switch and wiring. Replace where defective.
IV. Frequent pilot outage problem.	A. Pilot flame may be too low or blowing (high), causing the pi- lot safety to drop out.	1. Clean and adjust pilot flame for maximum flame impingement on thermopile.
V. Pilot and main burner go out while being in operation.	A. High limit switch is defective or has reached its maximum tem- perature.	1. Allow unit to cool. Then repeat lighting instructions. If pilot and burner remain lit after the heater warms up, the switch is good.
		2. If 1 above does not allow for igni- tion, or the heater continues to shut-off, disconnect the limit switch wire from the gas valve and repeat the lighting instruc- tions. If the pilot and burner re- main lit after the heater warms up, replace the limit switch. Do not use the heater until the high limit switch is replaced and properly wired.
	 B. Inner 5-inch (13mm) pipe leak- ing exhaust gases back into system. 	1. Check for leaks.
	C. Horizontal flue improperly pitched.	 Horizontal flue termination should slope down only enough to prevent water from entering unit. The maximum downward slope is 1/4" (6.4mm) for any hori- zontal run.

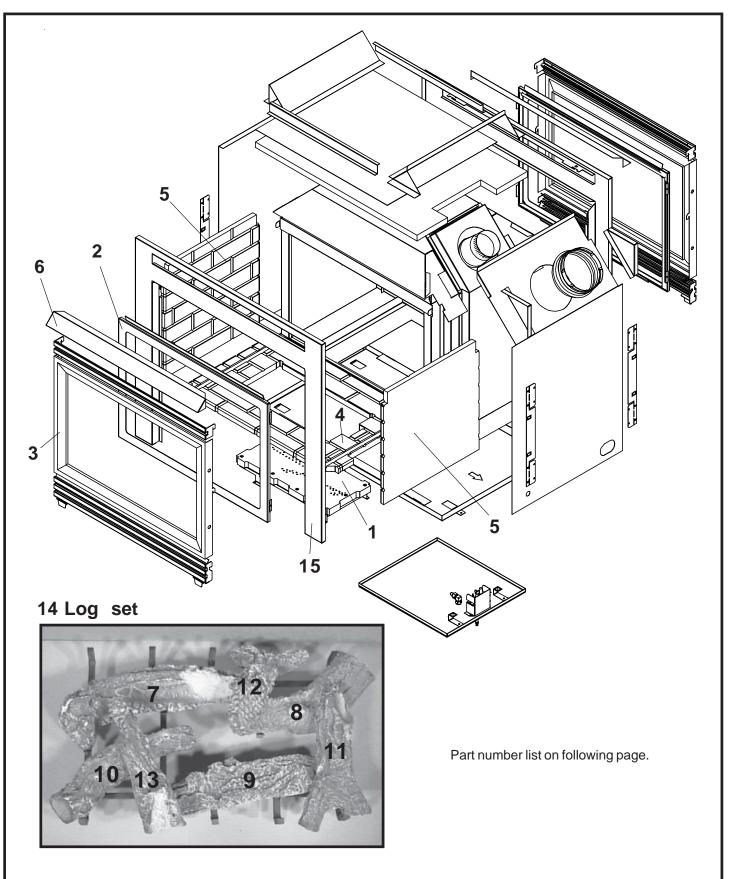
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
	D. Glass too loose and air tight gasket leaks in corners after usage.	1. Tighten corner.
	E. Bad thermopile	1. Replace if necessary.
	F. Improper flue cap installation.	1. Check for proper installation & freedom from debris or blockage.
VI. Glass soots.	A. Flame impingement on logs.	1. Adjust the log set so that the flame does not impinge on it.
	B. Improper venturi setting.	1. Adjust the air shutter at the base of the burner.
	C. Debris around venturi.	 Inspect the opening at the base of the burner. It is imperative that <u>NO</u> material be placed in this opening.
VII. Flame burns blue and lifts off burner.	A. Insufficient oxygen being sup- plied.	1. Check to make sure flue cap is installed properly and free of debris. Make sure that flue system joints are tight and have no leaks.
		2. Check to make sure that no ma- terial has been placed in the opening at the burner base or in the area of the air holes in the center of the base pan beneath the burner.
		 Be sure glass is tightened prop- erly on unit, particularly on top corners.



Where everything comes together (NG, LP) Exploded Parts Diagram

ST-38HV-AU

Beginning Manufacturing Date: 5/2000 Ending Manufacturing Date: _____



Service Parts List

ST-38HV-AU

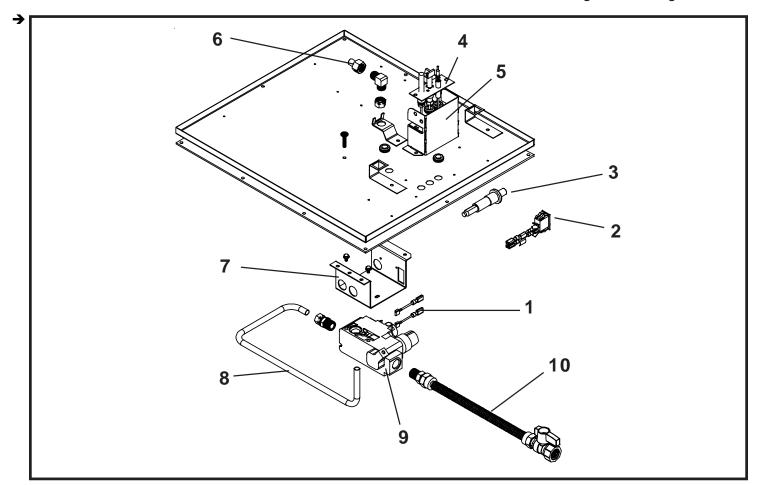
ITEM	Description	SERIAL #	PART NUMBER	
1	Burner NG		SRV675-710A	•
1	Burner LP		SRV675-711A	•
2	Glass Door Assembly		GLA-38HV-AU	
3	Trim Door		675-113A	
4	Base Refractory		SRV285-730	
5	Refractory, Side		SRV285-731	
6	Hood		SRV550-175	
7	Log 1		SRV675-721	
8	Log 2		SRV675-722	
9	Log 3		SRV675-726	
10	Log 4		SRV675-723	
11	Log 5		SRV285-720	
12	Log 6		SRV285-705	
13	Log 7		SRV285-725	
14	Log Set		SRV675-700A	
15	Surround		285-130	
	Flue Restrictor		675-165	
	Blower/Leads 240		100-505A	
	Knob/Rheostat (Black)		100-512	
	Temp Sensor		107-531	
	Rheostat Assembly		491-510A	
	Power Cord		546-251A	
	Log Grate		675-360A	
	Junction Box		546-250A	
	Thermocouple		446-511	
	Thermopile		060-512	
	Pilot Tube		SRV485-301	
	Glass Latch Assembly		386-122A	
	Mineral Wool		050-721	
	Touch Up Paint		TUP-GBK-12	

HEAT & GLO

ST-38HV-AU

Where everything comes together (NG, LP) Exploded Parts Diagram

Beginning Manufacturing Date: 5-2000 Ending Manufacturing Date: _



ITEM	DESCRIPTION	SERIAL #	PART NUMBER
1	Wire Assembly		049-522A
2	ON/OFF Rocker Switch		060-521A
3	Piezo Ignitor		291-513
4	Pilot Assembly NG		485-510A
4	Pilot Assembly LP		485-511A
5	Pilot Bracket		438-164
6	Orifice NG (#31)		506-800
6	Orifice LP (#50)		446-801
7	Valve Bracket		550-152
8	Flex Tube		567-301A
9	Valve NG		060-522
9	Valve LP		060-523
10	Flex Ball Valve Assembly		302-320A

LIMITED 10 YEAR WARRANTY HEAT & GLO, a brand of Hearth & Home Technologies Inc.

In order to presumptively establish the dates to which your HEAT & GLO Limited 10 Year Warranty runs, you must mail the completed warranty card to HEAT & GLO, a brand of Hearth & Home Technologies Inc., 20802 Kensington Boulevard, Lakeville, MN 55044, within 60 days of the date of fireplace installation. If you fail to do so, you may be required to prove the date of installation before warranty work can be performed.

The warranty exclusions and limitations of liability are effective upon installation of the fireplace.

Subject to the conditions set forth herein, HEAT & GLO, a brand of Hearth & Home Technologies Inc. ("HEAT & GLO") extends the following warranty with respect to HEAT & GLO, a brand of Hearth & Home Technologies Inc..

If HEAT & GLO is reasonably satisfied that any part or portion of the fireplace covered by this Limited Warranty is defective in material or workmanship under normal use and service as described in the Operating Instructions, HEAT & GLO will take the following actions:

- 1. If the defect is reported during the first year from the date of installation (stainless steel burners and fiber logs are covered for 3 years), HEAT & GLO will replace or repair the defective components at its sole expense. The decision whether to replace a component shall be made at HEAT & GLO's sole discretion. This Limited Warranty does not cover components broken during shipping, misuse or careless handling. HEAT & GLO shall be not responsible for any indirect, incidental, or consequential damages or for any costs other than those incurred by HEAT & GLO to repair or replace the defective component. If components (including venting) other than factory approved components are used, all warranty and liability on the fireplace is voided. Defects reported after the first year will not be covered by warranty unless they fall within the purview of paragraph 2 or 3 below.
- If the following defects are reported during the second year after the date of installation, HEAT & GLO will supply replacement parts at the current wholesale price: defective electrical or manual components, optional components or accessories, and glass panels (not including glass panels broken during misuse or careless handling). HEAT & GLO shall not be responsible for any labor, transportation or other costs. Furthermore, it shall not be liable for any indirect, incidental or consequential damages.
- 3. HEAT & GLO will replace or repair a defective firebox or heat exchanger, at any time during the 10 years from the date of installation. The decision whether to replace the defective component shall be made at HEAT & GLO's sole discretion. HEAT & GLO shall not be responsible for any indirect, incidental or consequential damages or for any costs other than those incurred by HEAT & GLO to repair or replace the defective component.

This Limited Warranty is the exclusive remedy available to you. If HEAT & GLO cannot effectively resolve a warranty problem in an expedient and cost-effective manner, it can discharge its entire warranty liability by refunding the price of the product to you.

Products made by other manufacturers, whether sold with the fireplace or added thereafter, are NOT covered by this Limited Warranty. The use of other unauthorized components will make this warranty null and void. This Limited Warranty will also be void if the appliance is not installed by a qualified installer in accordance with the Installation Instructions. Furthermore, the Limited Warranty will be void if the fireplace is not operated, at all times, according to the Operating Instructions furnished with the fireplace. Any service work <u>must</u> be performed by authorized service representatives.

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