

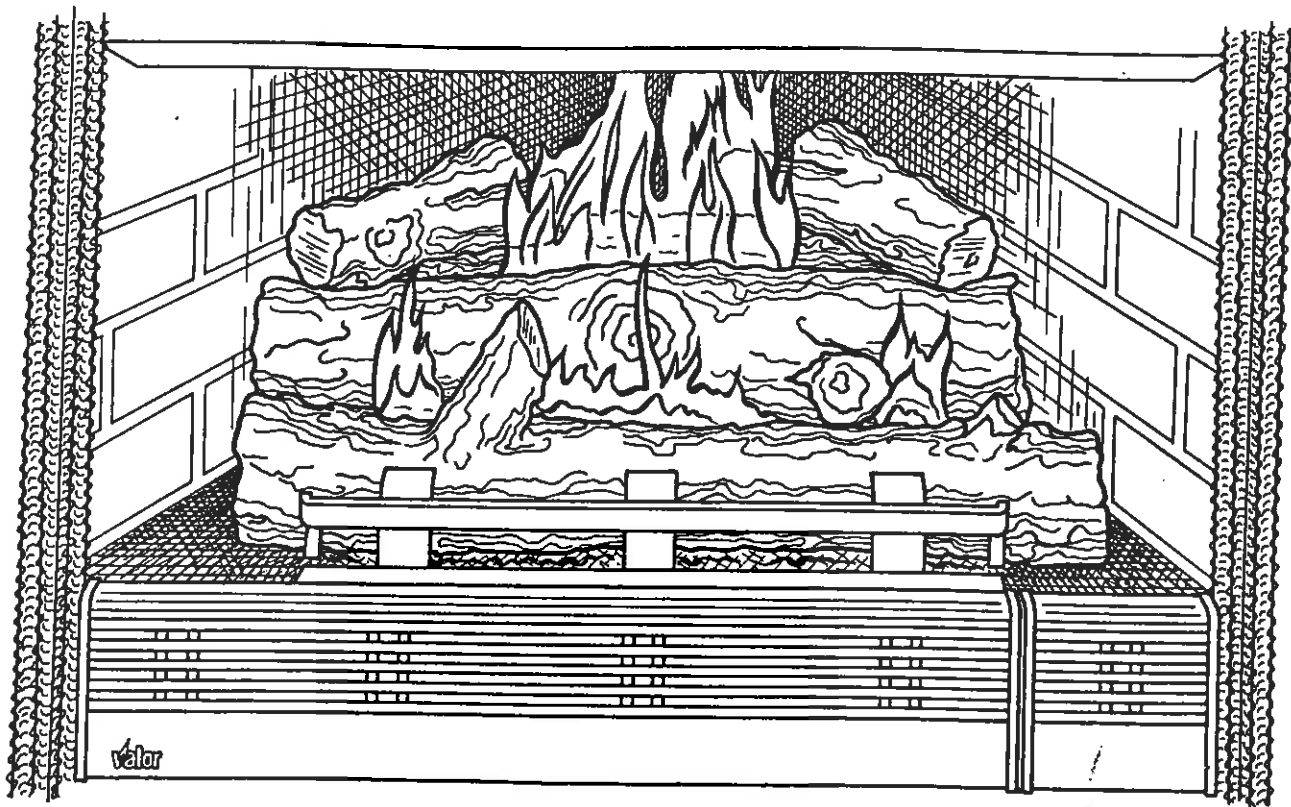
READ & SAVE THESE INSTRUCTIONS

**VALOR, INC.
VALORFLAME**

**LOG INSERT
MODEL VN-21**

(FOR USE WITH NATURAL GAS ONLY)

INSTALLATION AND OPERATING INSTRUCTIONS



FOR YOUR SAFETY

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

FOR YOUR SAFETY

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

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.

IMPORTANT INFORMATION

INSTALLER: Please leave these instructions with the owner.

OWNER: Please retain these instructions for future reference.

MINIMUM FIREPLACE SIZE

Height	Depth	Width
17"	17"	29 F 19R

Do not use on a chimney flue less than 7" dia. and less than 6 ft. high.

IMPORTANT: READ THESE INSTRUCTIONS CAREFULLY BEFORE MAKING INSTALLATION.

- This appliance must be installed only in a non-combustible vented fireplace with a working flue and constructed of noncombustible materials.
- The appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.

- This appliance must only be used with natural gas with a pressure at the inlet between a maximum of 7" w.c. and a minimum of 5" w.c.
- Installation and the provisions for combustion and ventilation air must conform with the national fuel gas code ANSI Z223.1-1988.
- The minimum inlet gas supply pressure for input adjustment must not be less than 5" w.c.
- The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ PSIG.
- The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressure equal to or less than ½ PSIG.
- The minimum permanent free opening that must be provided by either the fireplace chimney or chimney damper to vent the flue gases must be in accordance with the table in Fig. 1.
- Any chimney damper must be fixed so that the minimum permanent vent opening will be maintained at all times. (By screw, bolt at damper edge, or hole in damper.)

Minimum Permanent Free Opening (Square Inches)

Chimney HGT (Ft.)	Model VN-21 41,500 BTU/H
6	39 sq. ins.
8	39 sq. ins.
10	39 sq. ins.
15	29 sq. ins.
20	29 sq. ins.
25	29 sq. ins.
30	29 sq. ins.

Area of Standard Round Flue

Diameter (in.)	Area (sq. in.)
5	19.6
6	28.3
7	38.5
8	50.29

FIGURE 1

INSTALLATION

VN-21 PACKING

The appliance is packed with the front log in place on the chassis and the top, rear and center logs are packed separately. After removing the packed logs and the product chassis from the shipping carton carefully remove all inner packing from around the front log making sure that all components are undamaged. Place the rear log and center log carefully on the chassis centralizing them in position. Refer to Figure 2a and 2b.

The two top logs should be removed from their separate packing and placed on top between the middle and rear logs at their ends (See Figure 2a) using the two pins in each top log to engage in the hole in the middle and rear log.

GAS CONNECTION

The normal gas connection is $\frac{3}{4}$ NPT, made at the left side facing the unit. If a right side connection is desired, the connecting pipe may be led under the appliance to terminate at the left hand side for connection to the inlet of the appliance.

Test for leaks using soap and water solution after completing connection. DO NOT USE OPEN FLAME.

GAS PRESSURE CHECK

Check the inlet pressure to the appliance to insure that it is between 5" and 7" w.c.

The burner pressure is controlled by the regulator and should be checked at the pressure test point which is located immediately down stream from the regulator. Access to the pressure test point is obtained by removing the two screws on the top and the three screws on the bottom of the large front grille and removing the grille assembly (Figure 3). The pressure test point $\frac{1}{8}$ " NPT plugged tapping is located on the left hand side through the hole provided.

The burner pressure should be 4" w.c.

The pressure regulator is preset and locked to avoid tampering. If the pressure is not as specified, replace the regulator with the Valor Part No. F0017 only. After pressure measurement, replace the test point plug ensuring no gas leak and replace the grille assembly and fixing screws.

LOG POSITIONING

Log shifting can sometimes occur when removing the styrofoam log wedges, therefore it is necessary to check the alignment of the logs. Refer to Figure 2a for proper location. The three large logs should be located centrally on their right and left hand supports. The base of the logs must sit fully down on the supports with their vertical rear face against the vertical face for the supports. The distance between the front and middle log should be $\frac{11}{16}$ " as shown on Figure 2b.

The two top logs should be located positively with the pins provided and be well clear of the rear burner flames.

NOTE: Make sure that the rear flame spreaders are aligned in one straight line.

LOCATION

The fireplace and chimney being used must be thoroughly cleaned of any foreign materials and debris. Observe and make damper opening adjustment based on chimney height outlined in Figure 1 so that the damper is permanently fixed to give the minimum vent opening which must be maintained at all times.

Centrally locate unit in fireplace and deep enough into firepit to accomplish adequate draft. Level unit in place by adjusting leveling screws on each corner.

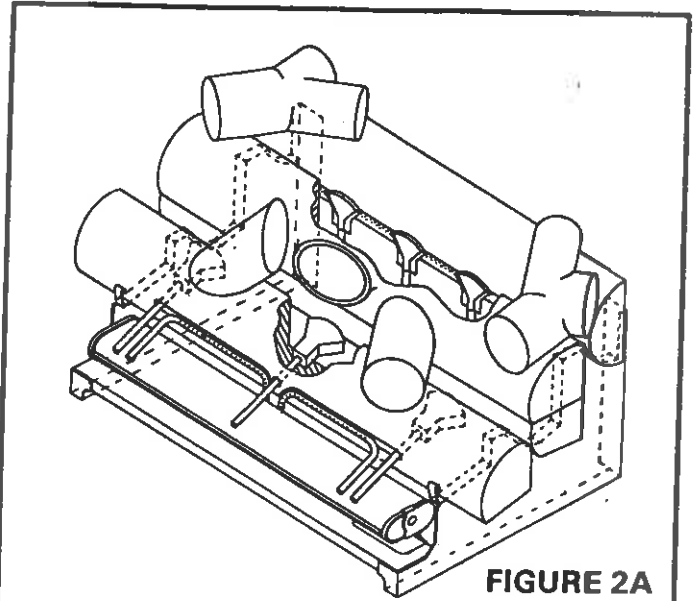


FIGURE 2A

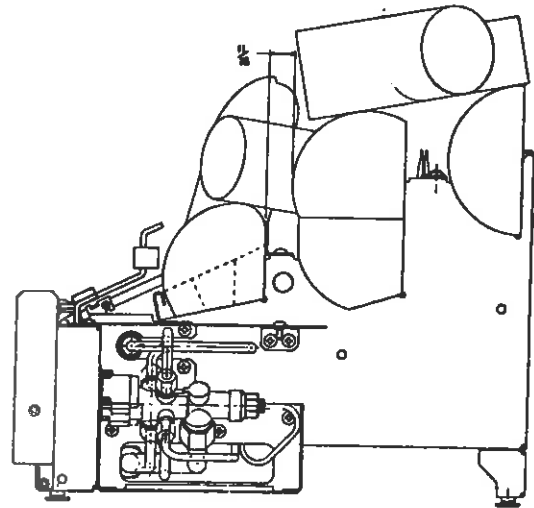


FIGURE 2B

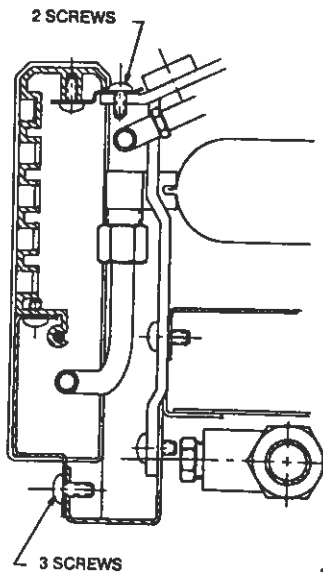


FIGURE 3

EPLACE SCREEN

...replace screen must be in place when the appliance is operating and unless other provisions for combustion air are provided, the screen shall have openings for introduction of combustion air.

LIGHTING INSTRUCTIONS

NOTE: If the appliance has just been turned off, wait 5 minutes before relighting.

If match lighting is required, refer to section "Match Lighting".

Lift the right hand grille from the bottom edge to reveal the control knob and ignitor pushbutton.

Push in the control knob and turn counter-clockwise to the 1/IGN position. (Figure 4)

Hold the control knob in for a few seconds to allow gas to flow to the pilot.

While still holding in the control knob, press in the ignitor pushbutton several times. This will cause a spark at the pilot which will ignite the pilot gas.

Hold the control knob for a further 10 seconds to prevent the flame failure detector from shutting off the gas while its probe is warming up. See Figures 4 & 5. Release the control knob.

Depress the knob slightly and turn to the setting you prefer.

The setting positions are:

1/IGN pilot ignition only

2 main burner (24,500 BTU's/hr)

3 main burner and front flames (30,700 BTU's/hr)

4 all burners on (41,500 BTU's)

This appliance is fitted with a transient pilot burner for the sole purpose of safe, momentary ignition of the main burner in conjunction with the piezo igniter. When in operation with the main burner it contributes to the base of the flame and is turned off by turning the control knob to the off position.

The control knob should not be left at the ignition setting after the pilot has been ignited.

TEST FOR FLUE SPILLAGE

A "spillage" test must be made before the installed appliance is left with the customer. Carry out as follows:

Close all doors and windows in the home.

Light the unit and set the control on setting 4.

After 3 minutes, test with a smoke match or cigarette at about 1" below the top of the opening (lintel) across the full width (Figure 7). If spillage occurs it will most likely be near the top center.

Possible cures are:

Damper needs to be open further.

Fireplace opening needs reducing by adding a drop panel across the top under the lintel.

Air supply from outdoors needs increasing.

If necessary, seek expert advice and do not operate unit.

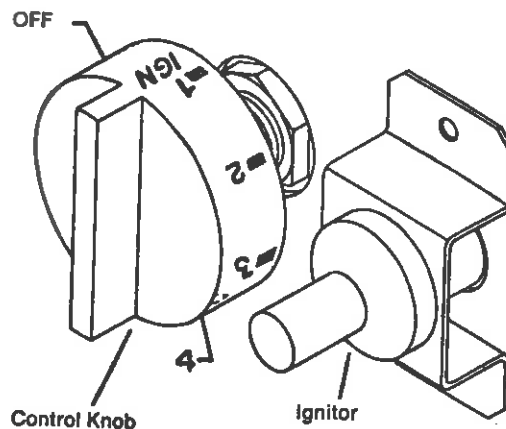


FIGURE 4

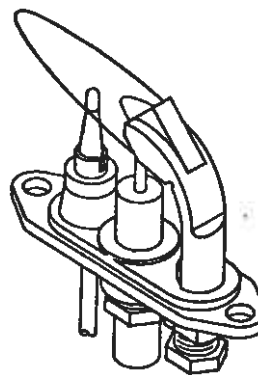


FIGURE 5

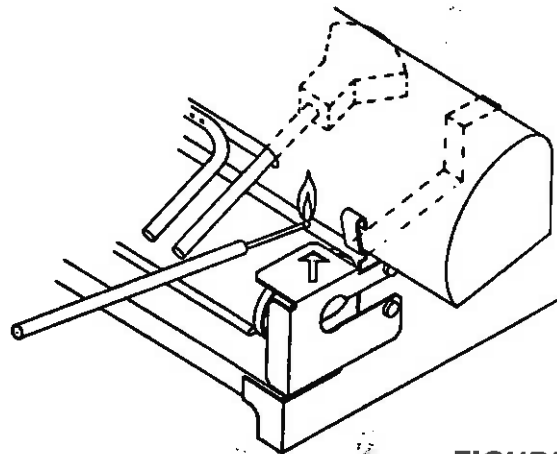


FIGURE 6

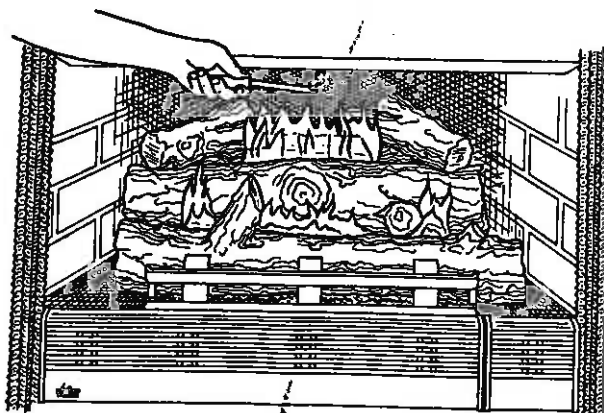


FIGURE 7

MATCH LIGHTING

If the pilot cannot be ignited with the piezo, it can be manually lit with the use of a paper match and lighter rod.

Remove the lighter rod from inside the control compartment door. It is located horizontally in the bottom front left hand corner of the compartment inside the main grille compartment. Place the match in the holder and light.

With the right hand, depress and turn the control knob counter clockwise to the ignition position. Hold in.

Take rod and lighted match and with the left hand insert through log opening to pilot shield as shown above, Figure 6, and ignite the pilot.

Continue to hold control knob for an additional 10 seconds to insure pilot is maintained.

FLAME CHECK

A periodic visual check of the flames should be made. The pilot flame should always be present when the appliance is in operation. See Figure 5.

In normal operation at full rate (for approximately 15 minutes) the following flame appearance should be observed:

Rear Flames: These should be yellow in color, 5" to 6" high and approximately 2" to 2½" wide. All three should be identical.

Middle Flames: The two (2) outside flames should be identical, yellow in color and should reach to the top of the middle log (i.e. 4" high). The center flame should be less yellow in color with a blue tinge. It should be approximately ½" shorter than the other two middle flames.

Front Flames: Blue in color with yellow tips and irregular heights.

Main Burner: The flames below the front log will normally be blue.

NOTE: For your safety, the appliance is equipped with a flame failure detector incorporating a probe which senses the heat from the pilot flame. If the probe is cool the detector will shut off the gas supply.

SHUTTING DOWN

Depress the knob slightly and turn clockwise to the off position.

IMPORTANT SAFEGUARDS

Although your Valorflame is very realistic in appearance, it is not a real wood burning fire and must not be used for burning reject materials.

To avoid irreparable damage to the appliance or personal injury, matches, paper, garbage or any other material must not be placed or thrown on top of the logs.

Do not touch hot surfaces when the appliance is operating to avoid personal injury. Touch only the bottom of the control compartment to lift for access to the control knobs. Lower the compartment door immediately after operating the controls.

Always ensure that the fireplace screen is closed when the appliance is operating.

Close supervision is necessary when the appliance is being used near children.

WARNING

The glowing ember base and the bottom of the middle and front logs are manufactured from bonded ceramic fibre. This is a commonly used material in the industry worldwide. In the event of the logs and base being removed, care should be taken not to damage the bonded material.

Internal misuse or deliberately fragmenting the material could be injurious to health by inhaling.

The Valorflame is intended for use as a decorative effect gas appliance with radiant heat, mounted in a vented fireplace, as described in the instructions and should not be used for any other purpose.

CLEANING

CAUTION: Before cleaning or moving logs or other parts of the unit be sure to read the following section on important safeguards.

All cleaning should be carried out when the appliance is cold.

Only limited cleaning will be required under normal use of the appliance. Dusting the front grille, control compartment door and side cover plates will be required occasionally. Do not use any cleaning fluids to clean the logs, front grille or any other part. If necessary clean the front grille and control compartment door with a damp cloth.

If the flames show unusual shapes and behavior, or the burners fail to ignite properly, then the burner heads may require cleaning. If this occurs it is preferable to contact your nearest dealer to get the appliance serviced.

Alternatively, the appliance can be cleaned by removing the top, back and middle logs. Handle the bottom of the middle log, the bottom fibre base of the front log (if fitted), and the base gently, so as not to damage the fibre pieces. Use the vacuum cleaner carefully to remove dust and loose particles from the base, logs and from around the burners. Gloves are recommended to prevent the fibres from pricking your skin. If the skin is pricked, wash gently with soap and water.

SERVICING

Repair and replacement work should only be done by a qualified service person.

Always shut off the gas supply and make sure the appliance is cool before beginning any service operation.

Always check for gas leaks after servicing.

Always check for proper venting.

Where any major repair or servicing is required the qualified service person must refer to Valor Service Department before proceeding.

REPAIR PARTS

A parts list with exploded views is attached. Always include correct name, part number and model number of appliance when ordering service parts.

Contact your local dealer for a source of parts.

If you desire to communicate with the factory write to:

Valor Inc.
60 Industrial Park Drive
P.O. Box 1629
Hendersonville, TN 37077-1629
Phone: 1-800-654-8534

Owner Registration:

Please complete and return your owner registration card to:

Valor Inc.
60 Industrial Park Drive
P.O. Box 1629
Hendersonville, TN 37077-1629

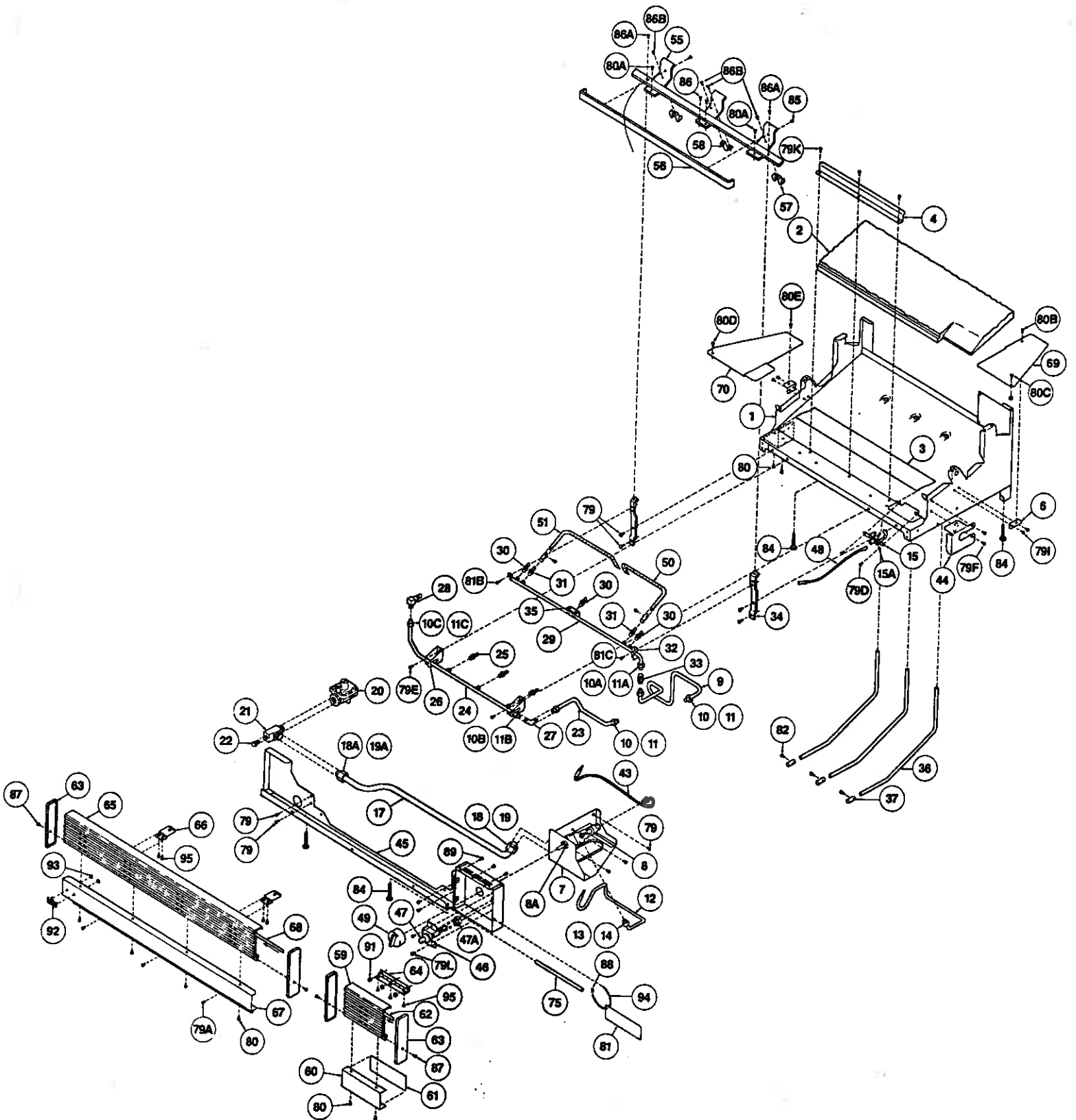
PARTS LIST

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Part #	Part Name	Quantity
1. F0002	Cabinet - Assy	1
2. F0019	Base Ceramic Fiber	1
3. F0012	Foil - Aluminum	1
4. F0020	Retainer - Base	1
5. F0006	Bracket - Main Burner	2
6. F0088	Bracket - Cover Support	2
7. F0059	Bracket - Gas Tap	1
8. F0014	Gas Tap W/Nut	1
9. F0037	Tube - Front Manifold/Tap	1
10. F0079	Nut 7/16 - 24 UNS (1/2 Dia Tube)	5
11. F0080	Ferrule (1/2 Dia Tube)	5
12. F0022	Tube - Pilot/Tap	1
13. F0077	Nut 3/8 - 24 UNF (3/16 Dia. Tube)	1
14. F0078	Ferrule (3/16 Dia. Tube)	1
15. F0021	Pilot & Electrode Assy	1
16. F0031	Tube - Main Burner Inj/Tap	1
17. F0026	Tube - Regulator Tee/Tap	1
18. F0081	Nut 11/16 - 20 UNS (1/2 Dia. Tube)	1
19. F0082	Ferrule (1.2 Dia. Tube)	1
20. F0017	Regulator	1
21. F0018	Regulator Tee W/Nut & Ferrule	1
22. F0092	Plug - 1/2 Pipe	1
23. F0028	Tube - Rear Manifold/Tap	1
24. F0054	Rear Manifold Tube Assy	1
25. F0098	Injector - Rear Manifold (#66)	3
26. F0076	Retainer - Rear Manifold	2
27. F0115	Union Elbow - 1/4 Dia. Tube W/Nut and Ferrule	1
28. F0052	Elbow Injector (#56)	1
29. F0027	Front Manifold Tube Assy	1
30. F0053	Injector - Front (#69)	3
31. F0146	Injector - Log Flame (#70)	2
ALTERNATE FOR ITEMS 31		
F0097	Injector - Log Flame (#70)	2
F0151	Adaptor - Injector	2
32. F0072	Bracket - Front Manifold	1
33. F0029	Union (1/4 Dia. Tube)	1
34. F0066	Connector - Grate	2
35. F0070	Retainer - Front Manifold	1
36. F0023	Tube - Rear Burner	3
37. F0034	Air Shutter (1/4 Dia. Tube)	8
38. F0116	Clamp (1.4 Dia. Tube)	3
39. F0049	Ignitor Tube Assy.	1
40. F0040	Flame Spreader Assy.	3
41. F0024	Main Burner	1
42. F0025	Injector - Main Burner	1
43. F0030	Thermocouple	1
44. F0060	Panel - Heatshield	1
45. F0117	Front Support Assy.	1
46. F0012	Bracket - Piezo Ignitor	1
47. F0011	Piezo Ignitor W/Nut	1
48. F0083	High Tension Electrode Lead	1
49. F0015	Knob - Control W/Clip	1
50. F0057	Tube - Right Flame	1
51. F0056	Tube - Left Flame	1
52. F0039	Front Log	1

53.	F0032	End Front Burner - Assy.	2
54.	F0145	Center Front Burner Tube Assy.	1
55.	F0063	Log Grate Assy (weld).....	1
56.	F0068	Cross Bar - Grate	1
57.	F0069	Retainer - Double Tube.....	2
58.	F0071	Retainer - Single Tube	1
59.	F0093	Grille Door	1
60.	F0095	Panel - Grille Door	1
61.	F0013	Plate - Lighting Instructions	1
62.	F0100	Decorative Strip - Door.....	1
63.	F0099	End Cap.....	4
64.	F0089	Hinge	1
65.	F0094	Grille - Main	1
66.	F0091	Bracket - Grille	2
67.	F0096	Panel - Main Grille	1
68.	F0090	Decorative Strip	1
69.	F0061	Cover - Right Side	1
70.	F0062	Cover - Left Side	1
71.	F0104	Middle Log Assy	1
72.	F0045	Log - Rear	1
73.	F0046	Log - Top Right	1
74.	F0084	Log - Top Left	1
75.	F0110	Match Holder	1
76.	F0102	Log - Top Front.....	1
77.	F0103	Log - Bottom Front.....	1
78.	F0131	Bracket Front Log.....	2
79.	52820	Screw #8 x ¾ PH. PAN HD "A"	38
80.	52779	Screw #6 x ¼ PH. PAN HD "B"	22
81.	F0087	Plate - Warning/Safety	1
82.	F0149	Screw #4 x 11/64 HEX Socket HD "B"	8
83.	90958	Screw #4 x ¼ LG PH PAN HD "A"	3
84.	F0047	Screw #12-24 x 1-¼ LG - Leveling	4
85.	52815	Screw 8-32 x ¼ PH. PAN HD "M"	2
86.	F0150	Screw #6 x 11/32 HEX Socket FLT HD "B"	8
87.	F0109	Screw #6 x ½ PH FLT under cut HD "23"	4
88.	F0142	Coupling - Bead Chain	1
89.	52763	Screw #4-40 x 3/16 PH PAN HD "M"	3
90.	F0124	NUT #10-24 HEX.....	2
91.	11159	NUT #4-40 HEX	3
92.	F0127	Nameplate (Logo).....	1
93.	39044	Nut - Push on .125 DIA.	2
94.	F0141	Chain - Bead	1
95.	39384	Screw #8 x 9/32 PH. PAN HD "25"	7

EXPLODED VIEW



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