KOZY HEAT

MODEL: #PRC-36
Princeton

DIRECT VENT GAS FIREPLACE

INSTALLATION AND OPERATING MANUAL

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

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

WHAT TO DO IF YOU SMELL GAS:
- Do not try to light any appliance.
- Do not touch electrical switches; do not use the phone in your building.
- Immediately call your gas supplier from a neighbor’s phone. Follow your gas supplier’s instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation & service must be performed by a qualified installer, service agency, or the gas supplier.

This appliance is only for use with the type(s) of gas indicated on the rating plate and may be installed in an aftermarket permanently located, manufactured (mobile) home, where not prohibited by local codes. See owner’s manual for details. This appliance is supplied with a conversion kit.

IMPORTANT:
READ INSTRUCTIONS CAREFULLY BEFORE INSTALLATION. FAILURE TO INSTALL THIS FIREPLACE CORRECTLY CAN CAUSE SERIOUS STRUCTURAL AND FIRE HAZARDS AND MAY VOID YOUR WARRANTY.

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

www.kozyheat.com

February 2006
## INDEX

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFETY REQUIREMENTS / SPECIFICATIONS</td>
<td>2-3</td>
</tr>
<tr>
<td>MINIMUM CLEARANCES</td>
<td>4-5</td>
</tr>
<tr>
<td>TYPICAL INSTALLATION OPTIONS</td>
<td>5</td>
</tr>
<tr>
<td>VENTING REQUIREMENTS</td>
<td>5-9</td>
</tr>
<tr>
<td>MINIMUM / MAXIMUM VENTING REQUIREMENTS</td>
<td>6</td>
</tr>
<tr>
<td>HORIZONTAL VENTING</td>
<td>6-7</td>
</tr>
<tr>
<td>TERMINATION CAP LOCATION</td>
<td>8</td>
</tr>
<tr>
<td>VERTICAL VENTING</td>
<td>9</td>
</tr>
<tr>
<td>DETERMINE LOCATION</td>
<td>10-11</td>
</tr>
<tr>
<td>VENT SYSTEM Framing</td>
<td>10</td>
</tr>
<tr>
<td>ROUGH-IN DIMENSIONS</td>
<td>11</td>
</tr>
<tr>
<td>PREPARE THE FIREPLACE</td>
<td>12</td>
</tr>
<tr>
<td>POSITION THE FIREPLACE</td>
<td>13</td>
</tr>
<tr>
<td>REMOVE THE GLASS ASSEMBLY</td>
<td>13</td>
</tr>
<tr>
<td>DIRECT VENT CHIMNEY INSTALLATION</td>
<td>14-15</td>
</tr>
<tr>
<td>FAN INSTALLATION</td>
<td>16-17</td>
</tr>
<tr>
<td>GAS LINE SPECIFICATIONS</td>
<td>18-19</td>
</tr>
<tr>
<td>SECURE THE MILLIVOLT BOARD</td>
<td>19</td>
</tr>
<tr>
<td>ADJUST COMBUSTION AIR INTAKE SHIELD - VERTICAL TERMINATIONS ONLY</td>
<td>19</td>
</tr>
<tr>
<td>LOG INSTALLATION</td>
<td>20</td>
</tr>
<tr>
<td>THERMOSTAT - WALL SWITCH - REMOTE CONTROL INSTALLATION</td>
<td>21</td>
</tr>
<tr>
<td>COMPLETE THE INSTALLATION</td>
<td>22-23</td>
</tr>
<tr>
<td>LIGHTING &amp; SHUTDOWN</td>
<td>24-25</td>
</tr>
<tr>
<td>MANIFOLD &amp; INCOMING PRESSURE CHECK PROCEDURES</td>
<td>26</td>
</tr>
<tr>
<td>CLEANING &amp; MAINTENANCE REQUIREMENTS</td>
<td>27</td>
</tr>
<tr>
<td>MILLIVOLT BOARD REMOVAL / INSTALLATION</td>
<td>28-30</td>
</tr>
<tr>
<td>TROUBLE SHOOTING</td>
<td>31-32</td>
</tr>
<tr>
<td>REPLACEMENT PARTS LISTS</td>
<td>33</td>
</tr>
<tr>
<td>WARRANTY POLICY</td>
<td>34-35</td>
</tr>
</tbody>
</table>
IMPORTANT:

READ THIS MANUAL BEFORE INSTALLING AND USING THIS FIREPLACE

MODEL #PRC-36 PRINCETON' DIRECT VENT GAS FIREPLACE

This fireplace has been tested to and complies with ANSI Z21.88B-2003 •CSA 2.33B-2003 "VENTED GAS FIREPLACE HEATERS" by OMNI-Test Laboratories, Beaverton, OR. Installation must conform with local building codes or in the absence of local building codes, with the National Fuel Gas Code, ANSI Z223.1/ NFPA 54 - Current Edition, or the Natural or Propane Installation Code, CSA B149.1.

COMMONWEALTH OF MASSACHUSETTS INSTALLATIONS

WARNING: This Product Must Be Installed By A Licensed Plumber Or Gas Fitter When Installed Within The Commonwealth of Massachusetts

IMPORTANT: Installation of a CO detector is required in the fireplace room.

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

INSPECT THE FIREPLACE & ALL COMPONENTS

Inspect the fireplace, vent system & all components. Contact your dealer if any parts are damaged or missing. Do not install the fireplace with damaged, incomplete, or substitute parts.

PLANNING THE INSTALLATION

Prior to installation of this fireplace, the following must be considered:

♦ Location of fireplace.
♦ Configuration of vent system.
♦ Gas piping.
♦ Electrical wiring (if needed).
♦ Framing.
♦ Hearth height, width & depth. NOTE: A hearth is required - refer to page #4 for complete information.
♦ Materials used for finishing the fireplace.
♦ Optional accessories used.

NOTE: When the fireplace is installed directly on carpeting, tile, or other combustible materials other than wood flooring, it must be installed on a metal or wood panel extending the full width and depth of the unit. The minimum for the support platform under the unit is 35 7/8" wide by 21 3/8" deep.

If masonry is to be used (optional), prepare the necessary foundation for the masonry load. When masonry construction is being used, a lintel must be used over the top of the unit to support the added weight.
SPECIFICATIONS

Height ........................................ 32"
Height to top of stand-off ................. 42"
Front width ................................. 35 7/8"
Back width ................................. 24 5/8"
Depth ........................................ 21 3/8"

Refer to Diagrams for additional measurements.

FIGURE 1

Page 3
INSTALLATION REQUIREMENTS:

Minimum clearances from the fireplace to combustible materials:

<table>
<thead>
<tr>
<th>From unit face top:</th>
<th>10&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>From unit left &amp; right sides &amp; back:</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>From face sides:</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>Unit bottom to flooring:</td>
<td>0&quot;</td>
</tr>
<tr>
<td>Unit top to ceiling:</td>
<td>31&quot;</td>
</tr>
<tr>
<td>Unit side to adjacent sidewall:</td>
<td>10&quot;</td>
</tr>
<tr>
<td>Unit front:</td>
<td>36&quot;</td>
</tr>
</tbody>
</table>

MANTEL REQUIREMENTS*:

<table>
<thead>
<tr>
<th>Unit top to 10&quot; mantel:</th>
<th>15&quot; minimum*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projection:</td>
<td>3/4&quot; maximum projection allowed at a minimum of 10&quot; from unit top</td>
</tr>
</tbody>
</table>

*Mantel height must be raised 1" for every additional 1" of depth
See chart at right for mantel requirements. No mantel is allowed from 0" - 15" from the top of the fireplace

HEARTH REQUIREMENTS - Figures 2A & 2B

When the fireplace is installed on carpet, tile or other combustible material, it must be installed on a metal or wood panel extending the full width & depth of the fireplace. The minimum platform size is 35 7/8" wide X 21 3/8" deep

HEARTH EXTENSIONS: A HEARTH EXTENSION IS REQUIRED AND MUST COMPLY WITH THE FOLLOWING REQUIREMENTS:

RAISED HEARTH EXTENSION:

COMBUSTIBLE MATERIAL: The minimum / maximum hearth extension when using combustible material is 2" high x 6" deep. This is the only size approved for combustible hearth extensions. Refer to Figure 2A

NON-COMBUSTIBLE MATERIAL: The minimum hearth extension size when using non-combustible material is 2" high x 6" deep. Refer to Figure 2A

NON-RAISED HEARTH EXTENSION: Only non-combustible material may be used if installing this fireplace without a raised hearth. The minimum non-raised hearth extension is 36" wide by 14" deep. Refer to Figure 2B
VENTING REQUIREMENTS:

THIS FIREPLACE IS APPROVED FOR USE WITH THE FOLLOWING 5" X 8" DIRECT VENT SYSTEMS: SIMPSON DURA-VENT DV-GS, AMERI-VENT, AND SELKIRK METALBESTOS.

THIS FIREPLACE IS ALSO APPROVED FOR USE WITH THE KOZY HEAT #800 SERIES FLEXIBLE VENT SYSTEM FOR HORIZONTAL VENTING APPLICATIONS.

THIS FIREPLACE IS DESIGNED TO BE USED WITH ANY OF THE ABOVE VENT SYSTEMS WITHOUT THE USE OF AN ADDITIONAL ADAPTOR.

Contact your dealer for the appropriate venting components for your specific application.

VENT SYSTEM CLEARANCES:

Dura-Vent, Ameri-Vent, or Selkirk Metalbestos chimney systems:

- Horizontal Sections: All Sides: 3"
- Vertical Sections: All sides: 1"

#800 Series Flex Vent System: All sides: 3"

IMPORTANT: THE KOZY HEAT WALL THIMBLE PASS-THRU, PART #MTK-WPT MUST BE USED ON ALL HORIZONTAL VENT RUNS. THE MINIMUM WALL THICKNESS FOR THIS PASS-THRU IS 4 1/2" AND THE MAXIMUM WALL THICKNESS IS 8".

TYPICAL INSTALLATION OPTIONS:

Refer to the vent system manufacturer's installation manual for complete installation instructions. Installation must conform with the venting requirements & restrictions as outlined in this manual.

IMPORTANT: Consult the local and national installation codes to assure that adequate combustion and ventilation air is available.
VENTING SPECIFICATIONS:

IMPORTANT: Flame height and appearance will vary depending upon venting configuration and type of fuel used.

HORIZONTAL TERMINATIONS:

IMPORTANT: The horizontal heat shield included with this fireplace must be installed when using a 45-degree elbow to horizontally position the vent system.

Minimum: 45-degree elbow at start followed by 6" section, then termination cap.
Maximum: Option #1: 45-degree elbow at start followed by a maximum 5 ft.
          Option #2: 6" section at start followed by a 45-degree elbow then maximum horizontal 10 ft

VERTICAL TERMINATIONS:

Minimum: 45-degree elbow at start followed by 2 ft.
Maximum: 45-degree elbow at start followed by a maximum 30 ft.

CORNER INSTALLATION:

45-degree elbow at start to vertically position the vent system, then a 90-degree elbow to horizontally position the vent system, then the appropriate vent section or adjustable vent section to accommodate the exterior wall thickness.

ELBOWS: FOR EACH ADDITIONAL ELBOW USED AFTER THE FIRST ELBOW, 3 FT. MUST BE SUBTRACTED FROM THE MAXIMUM VENTING ALLOWED. NOTE: (2) 45-DEGREE ELBOWS MAY BE USED IN PLACE OF (1) 90-DEGREE ELBOW.

HORIZONTAL & VERTICAL COMBINATION: 25 ft. · 10 ft. maximum horizontal / 15 ft. maximum vertical.
MINIMUM HORIZONTAL VENTING

IMPORTANT: THE KOZY HEAT WALL THIMBLE PASS-THRU MUST BE USED ON ALL HORIZONTAL VENT RUNS. THE
MINIMUM WALL THICKNESS FOR THIS PASS-THRU IS 4 1/2" AND THE MAXIMUM WALL THICKNESS IS 8".

Minimum horizontal venting

NOTE: Horizontal Vent Heat shield must be installed when using
a 45-degree elbow to horizontally position the vent system

NOTE: Option #1 shown in Figure 4A
A maximum horizontal run of
5 feet is allowed for this venting
configuration

Figure 4A

Minimum corner installation

NOTE: Horizontal Vent Heat shield is not used on
corner venting configurations

Figure 4B

Min. 9" pipe section (2" x 4" construction)
or the adjustable pipe to accommodate the
exterior wall thickness
This gas appliance must not be connected to a chimney flue serving another type of appliance.

GENERAL:

1. Terminations against vinyl siding must use a vinyl siding protector. Follow instructions included.
2. **DO NOT RECESS TERMINATION KIT INTO OUTSIDE BUILDING MATERIALS** - i.e.: brick, stone, siding, etc. If necessary, extend framing so that termination kit will be exposed once building materials are installed.
3. Vent termination must not be located where it will become plugged by snow or other material. The flow of combustion and ventilation air must be not obstructed.

LOCATION CLEARANCES:

1. Above grade, veranda, porch, deck, balcony - 12" (A)
2. Operable window - 12" (B)
3. Permanently closed window* - 12" (recommended to prevent condensation on window) (C)
4. Ventilated soffit* - 24" (D)
5. Unventilated soffit* - 12" (E)
6. Outside / inside corner* - 6" (F)
7. Meter / Regulator: **NOT TO BE INSTALLED ABOVE** within 3 ft. horizontally from the center line of the regulator.
8. Service regulator vent outlet - 3 ft. radius
9. Non-mechanical air supply inlet to building - 12"
10. Combustion air inlet to any other appliance - 12"
11. Mechanical air supply inlet (G) - **CANADA**: 6 ft. **US**: 3 ft. above if within 10 ft. horizontally. **NOTE**: Massachusetts installations: 10 ft.
12. Above furnace exhaust or inlet - 12"
13. Above paved side-walk or paved driveway located on public property - 7 ft. (H) **NOTE**: A vent cannot be located directly above a side-walk or paved driveway that is located between two single family dwellings and serves both dwellings.
14. Under veranda, porch, deck, or balcony (must be fully opened on a min. of 2 sides) - 12" (I)
15. Between two horizontal terminations - 12"
16. Between two vertical terminations - 12" (J) - Note: May be the same height

*Clearance must be in accordance with local installation codes & the requirements of the gas supplier.
WHEN VERTICALLY TERMINATING, THE MINIMUM CHIMNEY HEIGHT ABOVE THE ROOF LINE IS DETERMINED BY THE FOLLOWING CHART:

<table>
<thead>
<tr>
<th>Roof Pitch</th>
<th>Minimum Chimney Height</th>
<th>Roof Pitch</th>
<th>Minimum Chimney Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat to 6/12</td>
<td>1 ft.</td>
<td>13/12 to 16/12</td>
<td>6 ft</td>
</tr>
<tr>
<td>6/12 to 9/12</td>
<td>2 ft.</td>
<td>17/12 to 21/12</td>
<td>8 ft</td>
</tr>
<tr>
<td>10/12 to 12/12</td>
<td>4 ft.</td>
<td></td>
<td></td>
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</tbody>
</table>

CAUTION: This gas appliance must not be connected to or joined with any chimney flue serving any other appliance.

Figure 6A

NOTE: Horizontal Vent Heat shield is not used on vertical venting configurations.

Vertical Termination Cap

Max. Vertical Height: 30 ft.

45° Elbow
DETERMINE LOCATION

1. Determine the exact position of your fireplace, the width, depth and height of the hearth & hearth extension (required), and location of the vent system termination. If possible place the fireplace in such a manner that the vent termination will be placed between two studs so additional framing is not necessary.

HEARTH REQUIREMENTS: When the fireplace is installed on carpet, tile or other combustible material, it must be installed on a metal or wood panel extending the full width & depth of the fireplace. The minimum platform size is 35 7/8" wide X 21 3/8" deep.

HEARTH EXTENSIONS: A HEARTH EXTENSION IS REQUIRED AND MUST COMPLY WITH THE FOLLOWING REQUIREMENTS ON PAGE #4 OF THIS INSTALLATION MANUAL.

If masonry is to be used (optional), prepare the necessary foundation for the masonry load. When masonry construction is being used, a lintel must be used over the top of the fireplace to support the added weight.

IMPORTANT - Vent cap location must be in compliance with the guidelines on page #8 of this manual.

2. HORIZONTAL TERMINATIONS:

IMPORTANT: The horizontal vent heat shield must be installed when using a 45-degree elbow to horizontally position the vent system or when using the #800 series Kozy Heat flexible vent system for horizontal terminations. Refer to page #12 of this manual for instruction on attaching the horizontal vent heat shield.

Frame a 14 1/8" high (H) x 14 1/8" wide (W) opening on the exterior wall for the chimney termination.

This opening size includes the required 3" clearance on all sides of approved rigid vent systems and the Kozy Heat #800 series flexible vent system.

To achieve the minimum horizontal venting requirement OPTION #1 for RIGID PIPE APPLICATIONS, a minimum of 34 3/8" (A) to the top of the vent pipe and 37 3/8" (B) to the top of the framed opening from the floor or hearth the fireplace is setting on is required. See Figure 7A.

To achieve the minimum horizontal venting requirement OPTION #2 for RIGID PIPE APPLICATIONS, a minimum of 37 1/2" (A) to the top of the vent pipe and 40 1/2" (B) to the top of the framed opening from the floor or hearth the fireplace is setting on is required. See Figure 7A.

To achieve the minimum venting requirement for FLEX VENT APPLICATIONS, a minimum of 37 7/8" (A) to the top of the vent pipe and 40 7/8" (B) to the top of the framed opening from the floor or hearth the fireplace is setting on is required. See Figure 7A.

CORNER INSTALLATIONS:

To achieve the minimum corner venting requirements for RIGID PIPE APPLICATIONS, a minimum of 45" (A) to the top of the vent pipe and 48" (B) to the top of framed opening from the floor or hearth the fireplace is setting on is required.
3. VERTICAL TERMINATIONS: Follow vent pipe manufacturer’s installation instructions for vertical terminations. A minimum 1” clearance on all sides of vertical vent pipe sections must be maintained.

The horizontal vent heat shield is not used for vertical venting configurations.

CAUTION: COLD AIR TRANSFER AREA. THE SURROUNDING CHASE OF THE FIREPLACE MUST COMPLY WITH ALL CLEARANCES AS OUTLINED IN THIS MANUAL AND BE CONSTRUCTED IN COMPLIANCE WITH LOCAL BUILDING CODES. OUTSIDE WALLS SHOULD BE INSULATED TO PREVENT COLD AIR FROM ENTERING THE ROOM.

NOTE: Due to high temperatures, this unit should be located out of traffic areas and away from furniture and draperies.

4. Build the hearth and hearth extension. Refer to page #4 for complete information.

5. Rough in the wall enclosure. Figure 7B.

IMPORTANT: Framing dimensions should allow for wall covering thickness and fireplace facing materials. Adjust rough opening size as necessary to maintain at least the minimum clearance requirements.

MINIMUM FINISHED OPENING DIMENSIONS (Wall covering / facing materials included):

HORIZONTAL TERMINATIONS:

42” high x 36 3/8” wide x 21 7/8” deep*

*“½” clearance at the back & sides of the fireplace must be maintained for horizontal terminations. See Figure 3A, page #5.

VERTICAL TERMINATIONS:

42” high x 36 3/8” wide x 23 7/8” deep*

*2½” clearance at the back to maintain required vent system clearance and ½” at the sides of the fireplace must be maintained for vertical terminations. See Figure 3B, page #5.

NOTE: Provide adequate clearance in front of the fireplace to access the control valve, install and attach gas line, install a fan, etc..

Do not obstruct the upper and lower convection air passage areas to allow proper ventilation air around the unit. Room air enters through the lower passage, is heated and exits at the upper passage. Blocking these passages may result in overheating the fireplace creating a potentially hazardous situation.
PREPARE THE FIREPLACE

STAND-OFF ASSEMBLY & INSTALLATION

1. The top stand-off brackets must be formed and correctly positioned prior to positioning the fireplace into the framed opening. Figure 8A.

   The top stand-off brackets are attached to the top of the fireplace in a flat state when the fireplace is shipped.

2. Remove the screws securing each stand-off bracket and remove from the fireplace.

3. Remove the remaining (2) sets of screws under the stand-off brackets and set aside.

4. Form each stand-off as shown in Figure 8B.

5. Re-attach the stand-off brackets to the top of the fireplace using the screws removed in steps 2 & 3 above. Figure 8C.

HORIZONTAL VENT APPLICATIONS:

ATTACH THE HORIZONTAL VENT HEAT SHIELD:

1. Loosen, but do not remove the center three screws at the back of the fireplace as shown in Figure 9A.

2. Slide the (3) slots on the horizontal vent heat shield under the screws. Re-tighten the screws to secure in place. Refer to Figure 9B.
VERTICAL VENT APPLICATIONS

This fireplace is approved for use with the Simpson Dura-Vent, Ameri-Vent and the Selkirk Metalbestos 5" x 8" direct vent systems for vertical vent applications. There is no additional adaptor necessary to begin installing the chimney components.

POSITION THE FIREPLACE

1. Place the fireplace into position. Figure 10.

   NOTE: Shown in horizontal vent configuration

2. REMOVE THE GLASS ASSEMBLY.
   See Figure 11.
   
   A. Locate the spring-loaded handles securing the glass assembly at the top & bottom of the firebox.

   CAUTION: TO PREVENT THE GLASS ASSEMBLY FROM FALLING FROM THE FIREPLACE AND BECOMING DAMAGED, FOLLOW THESE DIRECTIONS EXACTLY WHEN REMOVING THE GLASS ASSEMBLY.

   B. Pull the handles out, then 'down' to release the glass assembly at the bottom.

   C. Pull the handles out, then 'up' to release the glass assembly at the top.

   D. Lift the glass assembly off from the front of the fireplace and set aside where it will not be broken.

   E. Remove the log package from the firebox and set aside.

   Figure 10

   Figure 11
VENT SYSTEM INSTALLATION:

Install the vent system components for your specific venting configuration. Follow the vent system manufacturer’s installation instructions in conjunction with the venting requirements in this installation manual.

HORIZONTAL & VERTICAL TERMINATIONS:

All firestops, support brackets, etc. must be used as specified by the vent system manufacturer.

All clearances and venting requirements as specified in this manual must be followed.

HORIZONTAL TERMINATIONS:

IMPORTANT: The Kozy Heat wall pass-thru, part #MTK-WPT, must be used on all horizontal vent applications regardless of which vent system you are using.

INSTALLATION OF #800 SERIES DIRECT VENT TERMINATION KIT(S)

IMPORTANT: The flex pipe is permanently attached to the exterior plate. DO NOT ATTACH the #844 or #845 termination kit to the fireplace (or extension kit) until it has passed through the wall or roof. The termination plates should all be installed on the exterior of the outside wall.

HORIZONTAL TERMINATIONS

IF TERMINATING AGAINST VINYL SIDING, A VINYL SIDING PROTECTOR, INCLUDED WITH THE #844 and #845 DIRECT VENT KITS, MUST BE USED. FOLLOW INSTRUCTIONS INCLUDED.

CAUTION: This gas appliance must not be connected to a chimney flue serving another type of appliance.

1. If your vent system application is 8’ or less from the top of the fireplace and doesn’t require an extension kit, proceed to step #7.

2. If your vent system application will require one or more extension kits (part #846), proceed with the following steps. Each #846 extension kit contains enough 5” and 8” flexible aluminum to extend the chimney an additional 6’.

3. Gently stretch the 5” & 8” flexible aluminum pipes on the termination kit (#844 or #845) and on each extension kit, if used, the length required so when all the sections are connected together, the vent system length for your installation is attained.

IMPORTANT: DO NOT STRETCH THE EXTENSION KIT BEYOND 6’. DO NOT STRETCH BEYOND WHAT IS REQUIRED - IT IS VERY DIFFICULT TO RECOMPRESS THE FLEX PIPES ONCE STRETCHED.

4. Using your extension kit pieces, place a bead of sealant outside the 5” flex pipe collar (C) - the end with the EXTERNAL lip - and slide it inside the 5” pipe on top of the fireplace (D). Secure with 3 evenly spaced spaced screws.

5. Place a bead of sealant inside the 8” flex pipe collar (E) - the end with the INTERNAL lip - and slide it over the 8” pipe on top of the fireplace (F). Secure with 3 evenly spaced screws.
Minimum venting requirements: A minimum of 37 7/8" to the top of the vent pipe and 40 7/8" to the top of the framed opening from the floor or hearth the fireplace is setting on is required.

Refer to pages #5 - #10 for complete venting requirements & restrictions.

FIGURE 13

6. If additional extension kits are being used, repeat steps 4 and 5, placing the 5" & 8" pipes onto the previous extension kit.

Refer to Figure 13:

7. A MTK-WPT wall pass-thru must be used for horizontal runs that pass through either interior or exterior walls. Install the MTK-WPT wall pass-thru on both sides of the 14 1/8" square opening and secure with nails or screws.

NOTE: Attachment brackets are included with the termination kit. These optional brackets should be screwed or nailed (screws not provided) onto the top and bottom of the 14 1/8" square opening, on the exterior of the house. The termination plates then fit between these brackets, and using the screws provided, screw the brackets to the termination kit box (A). Attach the vinyl siding protector (G).

8. Apply a liberal bead of exterior sealant around the outer edge of the plate (A), and place the assembly through the 14 1/8" square opening in the exterior wall. Place screws through the four slots (B) securing it in place.

9. Gently pull the 5" & 8" flexible aluminum down to the top of the extension kit, or the top of the unit if no extension kits were used.

10. Place a bead of sealant outside the 5" flex pipe collar (C) and slide it into the 5" pipe on the extension kit or top of the stove (D). Secure with 3 evenly spaced screws.

   NOTE: This connection is very difficult to remove without damaging the collars once installed.

11. Place a bead of sealant inside the 8" flex pipe collar (E) and slide it over the 8" pipe on the extension kit or top of the stove (F). Secure with 3 evenly spaced screws.

   NOTE: This connection is very difficult to remove without damaging the collars once installed.

12. OPTIONAL: Place insulation between the 8" pipe and the wall studs.
FAN KIT INSTALLATION INSTRUCTIONS (OPTIONAL)

INSTALLATION OF THIS FAN SHOULD BE DONE ONLY BY A QUALIFIED INSTALLER

IMPORTANT: If a fan is going to be installed, it is easier to complete before the millivolt board is connected to the gas line.

The wiring must be done prior to enclosing the sides of the unit. An electrical box & romex connector are pre-installed on a removable panel on the right side of the fireplace. A receptacle / speed control assembly is included in the fireplace components packet.

This optional fan kit includes:

Right & left fan assemblies with thermostatic control switch
Components package: Installation instructions

NOTE: To wall-mount the speed control, you will need to purchase a speed control assembly & mounting plate, an electrical box to mount the speed control and a cover / switch plate with screws.

NOTE: Code approved line voltage wiring 14 gauge or better must be used when wiring this assembly. Refer to your local electrical codes for specific requirements in your area.

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

Figure 14
INSTALLATION INSTRUCTIONS

THE FOLLOWING COMPONENTS MUST BE REMOVED FROM THE FIREPLACE PRIOR TO INSTALLATION OF THIS FAN. REFER TO THE FIREPLACE INSTALLATION MANUAL FOR ASSISTANCE IF NECESSARY.

1. Upper hood, upper louver & lower grill, if installed. Refer to page #23 if necessary.
2. Glass assembly.

Note: Millivolt board has been removed for clarity. It is not necessary to remove the millivolt board to install this optional fan kit.

INSTALL THE FANS:

1. Slide the left and right fans through the lower grill opening (left side of the valve) pushing them all the way to the back of the fireplace.
2. Slide the left fan assembly to the left until it stops and slide the right fan assembly to the right until it stops. NOTE: The fans will be behind the legs. Figure 15A.

NOTE: Each fan bracket is held in position by a magnetic strip attached to the bottom of each bracket.

3. Connect the fan wiring by inserting the red connectors on the right fan wires onto the terminals on the left fan assembly. It does not matter which connector is on each terminal. Figure 15B.
4. Remove the (2) screws securing the removable access panel (with electrical box & romex connector installed) from the right side of the fireplace.
5. Insert 115V wiring (with ground) through the romex connector and wire to the speed control / receptacle assembly matching the black (hot) white (neutral) and green (ground) wire to the corresponding wire on the speed control / receptacle assembly. NOTE: (3) wire nuts are included in the fireplace components packet.
6. Secure the speed control / receptacle assembly into the electrical box with the (2) screws provided.
7. Replace the electrical access panel and secure with the (2) screws removed.
8. Place the thermostatic control switch on the bottom of the firebox.
9. Plug cord into receptacle in the electrical box.
10. Turn on/off speed control counter-clockwise until it 'clicks'. This is the 'OFF' position.
11. Turn the speed control 'ON' by turning the knob clockwise past the 'click' - this is the highest setting.
12. Replace the glass assembly.
13. Replace the lower grill, upper louver & upper hood. Refer to page #23 if necessary.

NOTE: This appliance must be electrically grounded and connected in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-Current edition, or the Canadian Electrical Code, CSA C22.1.

THERMOSTATIC CONTROL SWITCH POSITION: Prior to adjusting the temperature control switch, unplug the 3-prong plug on the fan cord from the receptacle. Adjust the position of the temperature control switch to a warmer location under the firebox to turn the fan 'ON' sooner or move it to a cooler location under the firebox to turn the fan 'ON' later. The fan will turn on when the sensor in the temperature control switch reaches 110°F and will turn "OFF" when the sensors reach 90°F. After adjustment, plug the 3-prong plug on the fan cord into the receptacle.

NOTE: The fan will not operate unless the speed control has been turned 'ON' and sufficient heat has been applied to the thermostatic control switch. The fan will turn 'ON' and 'OFF' automatically when the fireplace heats and cools. Adjust fan to desired speed while it is running.
RUN THE GAS LINE.

CAUTION: Installation of the gas line must only be done by a qualified person in accordance with local building codes.

GAS CONVERSIONS - If a gas conversion to LP GAS is necessary, the appropriate gas conversion components, burner orifices, and instructions are included in the fireplace components packet.

The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the ANSI Z223.1 installation code.

NOTE: This unit is equipped with a 3/8" x 18" long flexible gas connector and manual shut off valve.

NOTE: The gas line should be run to the point of connection where the shut-off valve and flexible gas line will connect.

CAUTION: The manual shut-off valve or flexible gas tubing must not extend outside of the unit cavity. See the WARNING label affixed to the flexible tubing for additional installation instructions and warnings.

NATURAL GAS:

The minimum inlet gas supply pressure: 5.0 inches W.C. (7.0 inches W.C. recommended)
The maximum inlet gas supply pressure: 10.5 inches W.C.
Manifold pressure: 3.5 inches W.C.
Manifold pressure (lo setting): 1.7 inches W.C.

Orifices sizes: #37 & #55 Input: 35,000 BTU/hr. Efficiency: 68.33% AFUE: 67.69% P-4 AFE: 54.77%
Minimum input: 22,500 BTU/hr.

LP GAS:

The minimum inlet gas supply pressure: 11.0 inches W.C. (recommended)
The maximum inlet gas supply pressure: 13.0 inches W.C.
Manifold Pressure: 10.0 inches W.C.
Manifold Pressure (lo setting): 6.5 inches W.C.

Orifices size: #52 & #71 Input: 34,800 BTU/hr. Efficiency: 71.81% AFUE: 71.20% P-4 AFE: 58.79%
Minimum input: 25,500 BTU/hr.

This fireplace is equipped for use at altitudes of 0-2,000 ft. in the U.S. and 0-4,500 ft. in Canada.

IMPORTANT: The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

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

1. Run the gas line. Gas line holes are positioned on both sides of the fireplace for gas line connection. An accessible shut off valve (included) must be installed up stream from the regulator.

   NOTE: Do not run the incoming gas line in a manner that would obstruct the operation of the fan, if used.

2. This fireplace is designed to accept either a 3/8" or 1/2" gas line approved for gas appliances. Consult local building codes to properly size the gas supply line leading to a 3/8" reduction.
3. Connect the gas line to the manual shut-off valve.

4. Connect the flexible gas line (installed on the millivolt board valve) to the manual shut off valve.

**IMPORTANT:**

**ALL CONNECTIONS WHETHER FIELD OR FACTORY MADE MUST BE CHECKED FOR LEAKS!**

NOTE: The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psi.

NOTE: The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psi.

Pressure check taps for both the manifold (outgoing) & inlet (incoming) pressures are located in front of the gas valve. The right pressure tap is the manifold pressure and the left pressure tap is the incoming pressure. Follow instructions on page #26 for checking these pressures.

(H) SECURE THE MILLIVOLT BOARD:

This fireplace is equipped with the millivolt board, burner, log grate, pilot shield, & cover assembly already installed.

1. Referring to the 'INSTALLING THE MILLIVOLT BOARD' section on pages #28-#29, check to ensure that all (8) screws securing the millivolt board are in place and properly tightened.

2. Ensure that the burner tubes are properly positioned over each burner orifice.

(I) ADJUST COMBUSTION AIR INTAKE SHIELD - VERTICAL TERMINATIONS ONLY:

Flame height & appearance will vary depending upon venting configuration and type of fuel used. Use the following as a guideline when adjusting the combustion air intake shield to achieve desired flame appearance.

NOTE: Straight vertical runs typically would require more restriction, while a venting configuration with elbows would require less restriction.

The intake shield is marked as shown in Figure 16. Make sure that it is positioned for the type of gas you are using. Adjust from that point according to vertical venting.

**LP GAS:** Place in the bottom position. The intake is fully open. See Figure 16.

**NAT. GAS:** Place Intake shield in the position directly above the LP Gas position.

Vertical terminations 25-30 ft. should be placed at the top setting

TO ADJUST: Loosen the (2) screws securing the intake shield, move to desired position and re-tighten the screws.
LOG INSTALLATION

The PRC-500 log set includes 10 logs, 1 bag klinkers and 1 pkg. rock wool burning embers. The logs are numbered on the bottom side - refer to the instructions below for proper placement.

![Figure 1](image1)

1. Position base log P1 over the pilot shield on the burner, setting the backside of the log against the flange at the back. Pull the log forward until it reaches the backside of the burner port holes. IMPORTANT: DO NOT ALLOW THE LOG TO COVER THE PORT HOLES.

2. Position base logs P2, P3 & M6 onto the burner as shown in Figure 1. Adjust log position so that they are close to the burner port holes, but do not cover them.

![Figure 2](image2)

3. Place (2) klinkers (*) as shown onto the burner.

4. Position top logs P5, P6, P7 onto the base logs, placing them into the corresponding formed outline in the base logs.

5. Position remaining top logs P8 & P9 onto the base logs, aligning the notched-out sections in the logs to the log grate.

6. Place klinkers onto the burner and rock wool embers onto burner and logs as desired to create glowing effect. NOTE: You will not use all the klinkers & rock wool embers at this time, save for future use.
If desired, a thermostat (wireless style available), wall switch, or remote control assembly may be used to turn the fireplace ‘OFF’ and ‘ON’. Only ONE of these may be installed. Follow instructions included with each assembly.

OPTIONAL: Disconnect the on/off rocker switch wires from the top & bottom terminals on the gas valve. Refer to Figure 24, page #32 of this manual.

NOTE: INSTALLATION OF A THERMOSTAT OR WALL SWITCH SHOULD ONLY BE DONE BY A QUALIFIED INSTALLER.

WALL SWITCH / THERMOSTAT USERS:

Run low-voltage (thermostat) wires from the terminals on the gas valve to the desired location of the wall switch or thermostat.

Attached the appropriate connector to each wall switch / thermostat wire and connect to the top and bottom terminals on the gas valve marked ‘TH’.

REMOTE CONTROL USERS:

Follow instructions included with the remote control.

IMPORTANT: The insulated cover included with the remote control must be placed over the remote receiver to protect it from overheating.

IMPORTANT: If the ON/OFF rocker switch wires are not disconnected, the ON/OFF rocker switch on the millivolt board must be in the ‘OFF’ position for proper operation of any of these components.

If the rocker switch is ‘ON’, the fireplace burner will operate until it is turned ‘OFF’ by the rocker switch. A wall switch, thermostat, or remote control will not turn the fireplace ‘OFF’ when it has been turned ‘ON’ by the rocker switch.

NOTE: The fireplace must be turned ‘ON’ and ‘OFF’ by the same method. For example: If the fireplace is turned ‘ON’ by the remote control, it must be turned ‘OFF’ by the remote control.
COMPLETE THE INSTALLATION

1. **A)** If not previously done, plumb & level the unit and secure the fireplace to the framing using the stud tabs located on the sides of the unit. The stud-tabs are adjustable to accommodate the thickness of finish material you are using. To adjust, loosen the screws securing it to the sides of the fireplace and slide to desired position. Re-tighten the screws to secure in place.

   **CAUTION: NEVER PERMANENTLY REMOVE THIS ASSEMBLY FROM THE FIREPLACE - IT MUST BE SECURED IN PLACE REGARDLESS OF FINISH MATERIAL USED.**

   

   **B)** Use screws (not provided) to secure the unit to the flooring through the holes located in the bottom of the outer box.

   **IMPORTANT - MOBILE HOME INSTALLATIONS: THE FIREPLACE MUST BE SECURED TO THE FLOOR.**

   

   **C)** Complete the fireplace walls, and the fireplace facing.

   **IMPORTANT:** This fireplace has a 10" clearance requirement from the top of the fireplace. If not previously done, position & secure the top stand-off brackets. Refer to page #12 for complete information.

   If tile or marble is used around or over the face of the fireplace, we recommend using rock board as a backer at the top of the fireplace.

   **CAUTION:** **ONLY NON-COMBUSTIBLE MATERIAL MUST BE USED FOR A MINIMUM OF 10" FROM THE TOP OF THE FACE AT THE FRONT OF THE FIREPLACE.**

   

   **COLD AIR TRANSFER:** The surrounding wood chase of the outside wall must be insulated to prevent cold air from entering the room.

2. **Heat Damper Control:**

   This fireplace has been designed certified to be operated with the damper fully opened or completely closed depending on the heat output desired without compromising flame appearance.

   To reduce the amount of heat entering the room, pull the damper control handle (located behind the lower grill) down and slightly to the right to the fully open position. This allows more heat generated from the fireplace to exit through the vent system rather than into the home.

   If more heat is desired, slide the damper control handle to the left and release to it's original position.

   **NOTE:** The damper position is located in the upper portion of the firebox and may be visually checked by looking through the front viewing glass. Refer to Figure 19.

3. **THIS STEP SHOULD ONLY BE DONE BY A QUALIFIED INSTALLER OR SERVICE TECHNICIAN:**

   **A)** Perform lighting and shutdown procedures as described on pages #24-25. This should be done prior to replacing the glass so that any necessary adjustments can be made and proper operation verified.
4. Replace the glass.

A) Place the glass assembly onto the front of the fireplace and secure with the spring-loaded handles FIRST AT THE TOP, THEN AT THE BOTTOM of the firebox. CAUTION: TO PREVENT THE GLASS ASSEMBLY FROM FALLING OFF WHEN INSTALLING ON THE FIREPLACE, SECURE THE TOP GLASS LATCH BRACKETS FIRST, THEN THE BOTTOM.

WARNING: DO NOT OPERATE THIS FIREPLACE WITH THE GLASS ASSEMBLY REMOVED, CRACKED OR BROKEN. Replacement of the glass assembly, part #PR-007T should be done by a licensed or qualified service person.

5. Upper louver, Hood & Lower Grill Installation - Refer to Figures 20A - 20C.

A) Align the hooks (A) in the upper louver to the slots located in the face of the fireplace and set down into position. Figure 20A.
B) Insert the flange at the top of the upper hood into the clips located in the top of the upper air passage. NOTE: This is a fairly tight fit. Figure 20B.
C) Partially thread the (2) screws included in the components packet into the nuts (B) at each end of the lower grill as shown in Figure 20C.
D) Place the lower grill into the lower grill opening and secure to the fireplace by threading the screws into the corresponding holes in the inside flange of the lower grill opening. The lower grill can now be opened and closed to access the gas valve and controls.

Remove:
A) Grasp the bottom of the upper hood at each end and pull the hood out of the clips at the top of the air passage.
B) Lift the upper louver up out of the slots and remove from the fireplace.
C) Remove the screws securing the lower grill at each side and remove from the fireplace.
LIGHTING AND SHUTDOWN PROCEDURES

NOTE: Prior to lighting, check all fittings for leakage. This is accomplished by applying soapy water on all connections made. If there is any leakage, bubbles will appear at the point of connection. If bubbles occur, tighten the fittings until the bubbles no longer appear.

IMPORTANT: TEST ALL CONNECTIONS WHETHER FIELD OR FACTORY MADE.

NOTE: The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi.

NOTE: 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 line at test pressures equal to or less than 1/2 psig (3.5 kPa)

Pressure check taps for the manifold (outgoing) and inlet (incoming) pressures are located in front of the gas valve. The left pressure tap is the manifold pressure and the right pressure tap is the incoming pressure. Follow instructions on page #25 for checking these pressures.

FOR YOUR SAFETY - READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

1. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
2. BEFORE LIGHTING, smell all around the appliance for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
3. 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. Forced or attempted repair may result in a fire or explosion, and loss of warranty.
4. 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 which has been under water.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

DUE TO HIGH SURFACE TEMPERATURES, KEEP CHILDREN, CLOTHING AND FURNITURE AWAY

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

WHAT TO DO IF YOU SMELL GAS:
*Do not touch electrical switches.
*Do not try to light any appliance.
*Do not use any phone in your building.
*Follow the gas supplier's instructions.
*Immediately call your gas supplier from a neighbor's phone.
*If you cannot reach your gas supplier, call the fire department

LIGHTING INSTRUCTIONS

NOTE: Read 1-8 before lighting the unit for the first time. Refer to Figure 21, page #25.

1. Set the thermostat to the lowest setting, if installed.
2. Turn off all electric power to the appliance. (Fan)
3. To access the gas valve & controls, open the lower grill.
4. Push in control knob (A) slightly and turn clockwise to "OFF".

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

5. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow the safety information on the front cover of this installation manual. If you don't smell gas, go to the next step.

6. Find the pilot - follow metal tube from gas control. The pilot is located inside the combustion chamber.

7. Push the control knob (A) on the gas valve in slightly and turn counterclockwise to "PILOT".
8. Push in the control knob all the way and hold in. Press the BLACK piezo igniter button (B).

The pilot will generally light with two or three pushes on the igniter. Hold the knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back out. Pilot should remain lit. If it goes out, repeat steps 4 through 8.

*If knob does not pop out 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.

9. Push the control knob on the gas valve in slightly and turn counterclockwise to the "ON" position.

10. The burner can now be turned 'ON' or lit by depressing the ON/OFF rocker switch (C) located beside the valve OR by setting the thermostat or remote control to the desired setting.

11. NOTE: When the unit is initially lit, condensation will appear on the glass, this is normal in all gas fireplaces, and will disappear in one to three minutes.

TO TURN THE BURNER OFF:

To turn the burner 'OFF', depress the ON/OFF rocker switch to 'OFF', flip 'off' the wall switch, or adjust the setting on the thermostat or remote control. NOTE: The pilot will stay lit.

TO TURN THE PILOT OFF:

To turn off the pilot, push in and turn the control knob to the "OFF" position. DO NOT FORCE.

NOTE: A PAINT SMELL WILL OCCUR DURING THE FIRST FEW HOURS OF BURNING. IT IS RECOMMENDED TO LEAVE THE FAN OFF DURING THIS PERIOD AS THIS WILL SPEED UP THE PAINT CURING PROCESS.

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INITIAL BURN PERIOD

DUE TO THE MAKEUP OF THE FIBER LOGS & REFRAC TORY, THE CURING PROCESS MAY TAKE UP TO 4 HOURS OF BURN TIME. DURING THIS PERIOD, THE LOGS & REFRAC TORY WILL DISCOLOR, BUT WILL RETURN TO THEIR TRUE COLOR ONCE THE CURING PROCESS IS COMPLETE. DO NOT BURN THIS FIREPLACE WITHOUT THE GLASS PROPERLY IN PLACE.

**MAKE SURE THE HOMEOWNER IS AWARE OF THIS**

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NOTE: 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 material should not be placed on or near the appliance.

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NOTE: THIS FIREPLACE MAY PRODUCE NOISES OF VARYING DEGREE AS IT HEATS AND COOLS TO DUE METAL EXPANSION AND CONTRACTION. THIS IS NORMAL AND DOES NOT AFFECT THE PERFORMANCE OR LONGEVITY OF THE FIREPLACE.
PRESSURE TEST - MANIFOLD & INLET PRESSURE

IMPORTANT NOTICE: A pressure check tap for both the manifold (outgoing) and inlet (incoming) pressure has been incorporated into the valve by HONEYWELL Controls. The left pressure tap is the manifold pressure and the right pressure tap measures the incoming pressure. Follow the instructions below for proper pressure testing procedures.

TO CHECK THE MANIFOLD PRESSURE:

1. Light pilot .
2. Loosen the manifold pressure tap [D] by turning the screw counter-clockwise.
3. Attach manometer to pressure tap using a 5/16” I.D. hose [F].
4. Push the control knob [A] on the gas valve in slightly and turn to the ‘ON’ position.
5. Turn the burner ‘ON’ by depressing the rocker switch [C] and note manometer reading.
6. Depress the rocker switch [C] to the ‘OFF’ position.
7. Disconnect manometer hose and tighten screw (clockwise). Screw should be snug, do not over tighten.
8. Attach manometer to manifold pressure tap to verify that it is completely sealed.

Manometer should read no pressure when the rocker switch is depressed to the ‘ON’ position.

NOTE: If manifold pressure reading is within the normal range, an incoming pressure check is not necessary. A too high or too low pressure reading warrants an inlet (incoming) gas pressure check.

TO CHECK THE INLET PRESSURE:

1. Loosen Inlet pressure tap screw [E] by turning screw counter-clockwise.
2. Attach manometer using a 5/16” I.D. hose [F].
3. Light the pilot.
4. Push the control knob on the gas valve [A] in slightly and turn to the ‘ON’ position. (Burner should not come ‘ON’) and note manometer reading.
5. Turn the rocker switch [C] to the ‘ON’ position by depressing the switch and check the pressure to ensure that it stays near the maximum inlet pressure.
6. Depress the rocker switch [C] to the ‘OFF’ position.
7. Turn the pilot ‘OFF’ by pushing the control knob in slightly and turning to the ‘OFF’ position.
8. Disconnect hose and tighten screw (clockwise). Screw should be snug, do not over tighten.
9. Relight pilot. Push the control knob [A] in slightly and turn to the ‘ON’ position. Attach manometer to the inlet pressure tap to verify that it is completely sealed. Manometer should read no pressure.

NOTE: If Inlet pressure reading is too high or too low, contact the gas company. Only a qualified gas service technician should adjust the incoming gas pressure.

CAUTION: A LOW PRESSURE READING CAN CAUSE DELAYED IGNITION.

Figure 22
MAINTENANCE REQUIREMENTS

1. The appliance should be inspected at least once a year by a professional service person.

NOTE: INSTALLATION AND REPAIR SHOULD BE DONE ONLY 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 MATERIALS, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS AND CIRCULATION AIR PASSAGEWAYS OF THE APPLIANCE BE KEPT CLEAN.

2. The compartment below the firebox (behind the lower grill) must be cleaned at least once a year, more frequent cleaning may be required due to excessive lint from carpeting, bedding materials, or other fibrous materials. It is imperative that the burner be cleaned once a year.

FAN
The fan should be disconnected from electrical current, and cleaned (vacuumed) every six months. The bearings are sealed and require no oiling.

VENT SYSTEM
Annual examination of the venting system by a qualified agency is required.

IF THE VENT-AIR INTAKE SYSTEM IS DISASSEMBLED FOR ANY REASON, REINSTALL PER THE INSTRUCTIONS PROVIDED WITH THE INITIAL INSTALLATION.

The flow of combustion and ventilation air must not be obstructed.

IMPORTANT: ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.

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

MILLIVOLT BOARD SYSTEM

1. Annual cleaning of the burner is required. The burner & cover assembly may be removed for easier access.
2. Refer to pages #28-#30 for complete instruction on removing & reinstalling the burner & cover assembly.
12. Visually check for blocked port holes, especially near the pilot. Blocked port holes may cause delayed ignition.
4. Replace the burner cover following instructions on pages #28-#30
5. Visually check the pilot light and burner when they are burning. The flames should be steady, not lifting or floating.

GLASS CLEANING & REPLACEMENT
- Clean glass only when cool and only with non-abrasive cleansers.
- Do not operate this fireplace with the glass/frame assembly remove, cracked or broken.
- The glass assembly, Part PRC-07T, shall only be replaced as a complete unit, as supplied by Hussong Mfg Co., Inc.
- Replacement of the glass & gasket assembly, Part PRC-07T, must only be performed by a licensed or qualified service person. DO NOT SUBSTITUTE MATERIALS.
- Do not strike or slam glass door assembly.

CAUTION: KEEP THE APPLIANCE AREA CLEAR OF COMBUSTIBLE MATERIALS, SUCH AS GASOLINE AND OTHER FLAMMABLE VAPORS AND LIQUIDS.
MILLIVOLT BOARD REMOVAL / INSTALLATION

NOTE: This fireplace is equipped with the millivolts board, burner & burner cover already installed. Follow instructions ‘INSTALLING THE BOARD’ on pages #29-#30 to properly secure the millivolts board in place. Follow these procedures should the millivolts board need replacing or is removed for servicing.

MILLIVOLT BOARD REMOVAL:

CAUTION: If the burner and/or pilot has been burning, the logs and refractory will be hot and continue to hold heat. Use the appropriate protection to avoid burns and place them on a properly protected surface upon removal to avoid damage to flooring or personal property.

1. Turn the black control knob to the ‘OFF’ position.
2. Shut off the gas supply at the manual shut-off valve.
3. Disconnect the gas line flex tube from the manual shut-off valve.
4. Disconnect any wall switch, remote control or thermostat wires from the top & bottom terminals on the gas valve.
5. Remove the upper hood, upper louver, lower grill & glass assembly. Refer to the instructions in this manual if necessary.
6. Remove the logs, rock wool embers, & klinkers from the burner assembly and set aside on a properly protected surface.
7. Remove the ember refractory and set aside.
8. Remove the pilot shield.
9. Remove the screws securing the front left and back right log grate legs.
10. Remove the burner / log grate assembly from the firebox by lifting the front of the burner assembly up out of the flange. Push the pilot assembly back slightly to allow the burner assembly to be removed from the firebox.

![Figure 23A](image)

11. Loosen and remove the (2) screws securing the front burner assembly. The screws are located at the side flanges of the burner assembly. Figure 23B.

12. Carefully lift the burner assembly up & remove from the firebox.

![Figure 23B](image)
13. Loosen and remove the (8) screws securing the board. Figure 23C.

14. Carefully lift the board up and remove from the firebox.

Figure 23C

**MILLIVOLT BOARD INSTALLATION:**

NOTE: The millivolt board is fitted with a gasket to seal the millivolt board. Make certain this gasket is properly placed around the opening before installing the millivolt board. If the gasket is damaged, a replacement one must be used.

1. Grasp the board with both hands and place inside the firebox, aligning the (8) mounting holes in the board to the corresponding holes in the bottom of the firebox. Secure with the (8) screws previously removed. Refer to Figure 23C.

2. Place the front burner assembly into the firebox, placing the burner venturi on the underside of the assembly onto the front burner orifice and aligning the slots in the mounting flanges on the burner assembly to the corresponding mounting holes in the millivolt board. Secure with the screws previously removed. Figure 23B, page #28.

3. To install the burner/log grate assembly, the adjustable venturi must be set to the LP gas position. This will provide easiest method of installation.

**TO SET THE ADJUSTABLE VENTURI:**

Loosen and remove the set screw securing the venturi wheel. Move the handle toward you until it is at position #1 on the wheel. Notice that the venturi opening is front to back.

4. Position the burner/log grate assembly into the firebox aligning the burner tube on the underside of the assembly into the venturi collar on the millivolt board and the pilot assembly through the rectangular opening.

**NOTE:** The pilot assembly may need to be pushed slightly back to allow the burner/log grate assembly to set properly in place.

5. Secure the front left and back right legs on the log grate assembly to the corresponding holes in the burner base tray using the screws previously removed. Refer to Figure 23A, page #28.

**CAUTION:** Ensure that the pilot assembly is above the burner/log grate assembly and the burner venturies are properly positioned over the burner orifices.
6. RE-ADJUST THE BACK BURNER VENTURI POSITION:

A. Move the handle until the venturi wheel is at the #1 position for Natural Gas and the #9 position for LP Gas. These are the factory standard settings.

NOTE: The venturi opening may need further adjusting, depending on your specific venting configuration.

B. Replace set screw and tight to secure venturi position.

7. Replace ember refractory.
8. Replace the logs. Refer to the instructions on page #20 for proper placement if necessary.
9. Connect the flexible gas line to the manual shut-off valve.
10. Re-connect any wall switch, remote control or thermostat wires.
11. Replace the glass assembly, lower grill, upper single louver & upper hood.
12. Check all connections for gas leaks, whether field or factory made.

IMPORTANT: CHECK ALL CONNECTIONS, WHETHER FIELD OR FACTORY MADE, FOR LEAKS!
TROUBLE SHOOTING GUIDE

NOTE: The millivolt board includes the following items: Valve, pilot assembly, piezo, electrode, on/off rocker switch, burner, burner venturi tubes, & burner orifices. If any of these items are defective, contact your dealer for the appropriate repair / replacement procedures to follow.

WARNING: DO NOT ATTEMPT TO SERVICE THIS UNIT IF YOU ARE NOT A QUALIFIED INSTALLER OR REPAIRMAN.

1. If the fireplace fails to ignite, a qualified service person should check the fireplace installation.
2. It is imperative that the control compartment, burner and circulation air passageways of the unit be kept clean. This is necessary to provide adequate combustion and ventilation air.
3. All of the working parts of this unit can be removed at one time. Before removing millivolt board, check for loose wires.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) No spark when piezo button is depressed</td>
<td>Wire on back of piezo button is loose or off.</td>
<td>Put wire back into place.</td>
</tr>
<tr>
<td></td>
<td>Wire from piezo to electrode is loose at electrode.</td>
<td>Reconnect wire.</td>
</tr>
<tr>
<td></td>
<td>Electrode moved out of position.</td>
<td>Realign electrode with 1/8&quot; space between it &amp; the pilot.</td>
</tr>
<tr>
<td>B) Pilot won't light</td>
<td>Gas shut off.</td>
<td>Turn Gas ON.</td>
</tr>
<tr>
<td></td>
<td>Gas line not purged.</td>
<td>Hold black control knob in long enough to purge line.</td>
</tr>
<tr>
<td></td>
<td>Not holding black control knob in long enough.</td>
<td>Hold in longer.</td>
</tr>
<tr>
<td></td>
<td>No spark at piezo.</td>
<td>See problem A.</td>
</tr>
<tr>
<td>C) Pilot won't stay lit</td>
<td>Not holding black control knob in long enough.</td>
<td>Hold button in longer to heat thermocouple.</td>
</tr>
<tr>
<td></td>
<td>Thermocouple connection loose at valve connection.</td>
<td>Check connection on valve and tighten if necessary.</td>
</tr>
<tr>
<td></td>
<td>Pilot hood misdirecting pilot flame from thermocouple.</td>
<td>Check pilot flame location. Flame must be burning on generator and thermocouple.</td>
</tr>
<tr>
<td></td>
<td>Refractory panels not positioned against firebox back &amp; sides.</td>
<td>Secure refractory panels with high-temp sealant, especially around the intake duct.</td>
</tr>
</tbody>
</table>
**PROBLEM**

D) Burner won't light

**CAUSE**

- Pilot not lit
- Regulator valve not turned "ON".
- Rocker switch not turned "ON".
- Rocker switch wires not connected.
- Generator wires loose at regulator terminals
- Generator wire grounded out due to pinching of wires.
- Generator is not producing enough millivolts to operate burner.
- Wall switch, remote control or thermostat not connected properly or turned to wrong setting. See Figures 18A & 18B, page #21.

**SOLUTION**

- Relight pilot
- Turn valve to "ON"
- Depress switch.
- Check wiring diagram Figure 24 to ensure that all wires are secure.
- Reposition wire and tighten screws. See Figure 24 for wiring instructions.
- Screws securing millivolt board may need loosening to remove pinched wire.
- Replace generator.
- Connect properly or disconnect and use ON/OFF switch only.

E) Burner won't stay lit

- Generator wires loose on valve terminals.
- Generator wire grounded out due to pinched wires.
- Generator is not producing enough millivolts to sustain burner operation.
- Refractory panels not positioned against firebox.

**SOLUTION**

- Reposition wires and tighten screws. See Figure 24 below.
- Screws securing millivolt board may need loosening to remove pinched wire.
- Check millivolt reading, replace generator if necessary.
- Secure refractory panels with high-temp sealant, especially around the intake duct.

**WIRING DIAGRAM**

*Figure 24*
REPLACEMENT PARTS

Replacement parts are available through your local dealer. Contact them for availability and pricing.

MILLIVOLT BOARD AND PARTS

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-800</td>
<td>Princeton Millivolt Board - Natural Gas</td>
<td>700-213B</td>
<td>18&quot; Flexible Gas Line - Black</td>
</tr>
<tr>
<td>PRC-800RF</td>
<td>Princeton Modulating Millivolt Board - Natural Gas</td>
<td>700-224</td>
<td>3/8&quot; Flexible Gas Line - Valve to Burner connection</td>
</tr>
<tr>
<td>700-023</td>
<td>On/Off Rocker Switch</td>
<td>700-237</td>
<td>Natural Gas orifice #37 (back burner)</td>
</tr>
<tr>
<td>700-057</td>
<td>Honeywell Valve - Natural Gas</td>
<td>700-255</td>
<td>Natural Gas orifice #55 (front burner)</td>
</tr>
<tr>
<td>700-059</td>
<td>Thermocouple</td>
<td>700-252</td>
<td>LP Gas orifice #52 (back burner)</td>
</tr>
<tr>
<td>700-060</td>
<td>Flexible Pilot Tubing (Valve to Pilot</td>
<td>700-271</td>
<td>LP Gas orifice #71 (front burner)</td>
</tr>
<tr>
<td>700-063</td>
<td>Pilot/Generator/Thermocouple - Natural Gas</td>
<td>700-075</td>
<td>Natural Gas conversion cap</td>
</tr>
<tr>
<td>700-092</td>
<td>Millivolt Generator</td>
<td>700-076</td>
<td>LP Gas conversion cap</td>
</tr>
<tr>
<td>700-203</td>
<td>Manual Shut off Valve</td>
<td>700-083</td>
<td>Piezo Ignitor w/ wire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PRC-135</td>
<td>Burner / cover / log grate assembly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PRC-043</td>
<td>Pilot Shield</td>
</tr>
</tbody>
</table>

GLASS & GLASS GASKET

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-07T</td>
<td>23 3/4&quot; x 30 1/2&quot; Glass with gasket</td>
</tr>
<tr>
<td>900-006</td>
<td>1 1/8&quot; Glass gasket w/ adhesive</td>
</tr>
<tr>
<td>PRC-005</td>
<td>Replacement Valance</td>
</tr>
</tbody>
</table>

GRILL REPLACEMENT

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-200</td>
<td>Upper Hood</td>
</tr>
<tr>
<td>PRC-201</td>
<td>Lower Grill</td>
</tr>
<tr>
<td>PRC-200L</td>
<td>Upper Hood Louver</td>
</tr>
</tbody>
</table>

LOG SET

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-500</td>
<td>Log Set</td>
</tr>
<tr>
<td>P1</td>
<td>Log</td>
</tr>
<tr>
<td>P2</td>
<td>Log</td>
</tr>
<tr>
<td>P3</td>
<td>Log</td>
</tr>
<tr>
<td>P4</td>
<td>Log</td>
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<tr>
<td>P5</td>
<td>Log</td>
</tr>
<tr>
<td>P6</td>
<td>Log</td>
</tr>
<tr>
<td>P7</td>
<td>Log</td>
</tr>
<tr>
<td>P8</td>
<td>Log</td>
</tr>
<tr>
<td>P9</td>
<td>Log</td>
</tr>
<tr>
<td>M6</td>
<td>Log</td>
</tr>
<tr>
<td>900-KLK</td>
<td>Kilnkers</td>
</tr>
<tr>
<td>900-REMB</td>
<td>Rockwool Embers</td>
</tr>
</tbody>
</table>

REFRACTORY PANELS

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-G900</td>
<td>Refractory Panel Set - 3 pc. back &amp; sides</td>
</tr>
<tr>
<td>PRC-G900B</td>
<td>Back Refractory panel</td>
</tr>
<tr>
<td>PRC-G900S</td>
<td>Side Refractory panel - 1 pc.</td>
</tr>
<tr>
<td>PRC-G902</td>
<td>Top Refractory panel</td>
</tr>
<tr>
<td>PRC-901</td>
<td>Bottom Refractory panel</td>
</tr>
<tr>
<td>PRC-900E</td>
<td>Ember Refractory</td>
</tr>
</tbody>
</table>

LOGS

*Consult your dealer for information on optional accessories available for this fireplace.

This appliance tested & certified by: OMNI-Test Laboratories, Inc.
5465 SW Western Avenue
Beaverton, Oregon 97075

Model #PRC-36 ‘Princeton’

February 2006

www.koryheat.com