

Fuel Conversion - Installation Instructions

Models: Radiance Direct Vent Gas Stove



Kits:

Natural Gas to Propane (LP): (Millivolt) LPK-RADVT-SP

Propane (LP) to Natural Gas: (Millivolt) 20012899



WARNING

The installation of this conversion kit must only be undertaken by a qualified gas appliance installer.

This kit is designed for conversion of the Radiance Direct Vent Gas Stove Models RADVT.

Tools required: 5/32" (4 mm) Allen wrench, 9/32" (7mm) and 1/2" open end wrenches, needlenose pliers.

Kit contents: Pilot orifice, injector orifice, conversion label and stepper motor for kits.

Conversion Precautions

Allow unit to cool completely before beginning conversion. Before proceeding, turn control knob on valve to OFF and turn gas supply to OFF. Turn OFF any electricity that may be going to the appliance.

Conversion Procedure

1. Remove stove front. Lift stove front up and then swing bottom out and away to disengage from the stove body. (Figure 1)

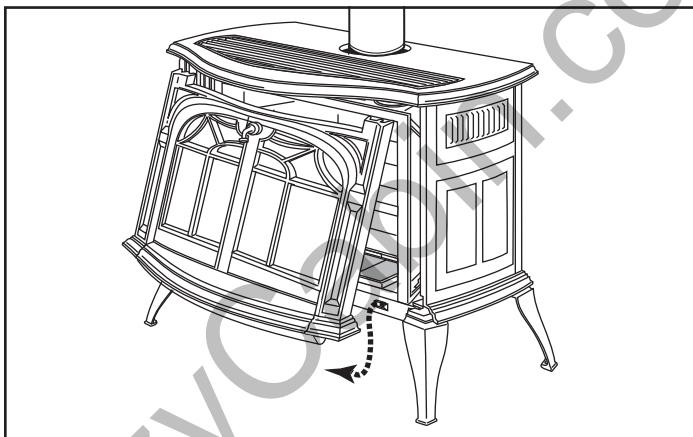


Figure 1 - Remove the stove front.

2. Undo the right and left latches at the top of the glass frame. (Figure 2)
3. Pull the top edge of the glass and frame assembly away from the firebox face. Place the assembly out of the way on a flat, padded surface such as a counter protected by a towel.
4. Remove the logset from the firebox.

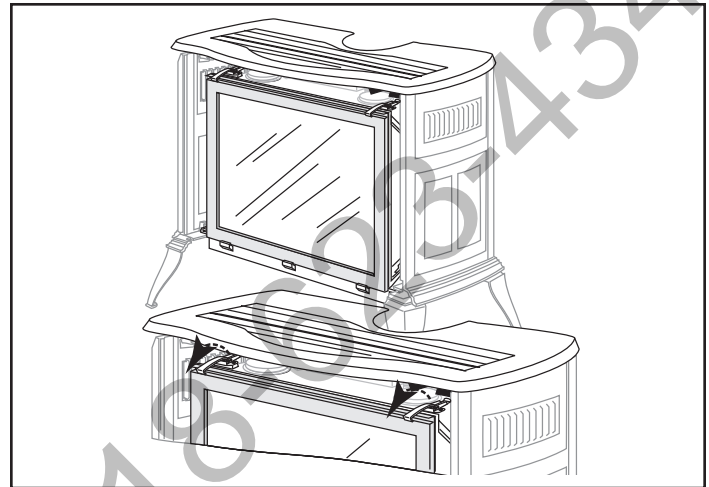


Figure 2 - Release the latches to remove the glass frame.

Valve Conversion - RADVT Series Models (Millivolt)

1. Turn control knob to the OFF position, and shut off the gas supply to the valve.
2. Allow the valve to cool to room temperature.
3. Remove the black protection cap by hand. (Figure 3)
4. Insert a 5/32" or 4 mm Allen wrench into the hexagonal key-way of the screw (Figure 4), rotate it counterclockwise until it is free and extract it.

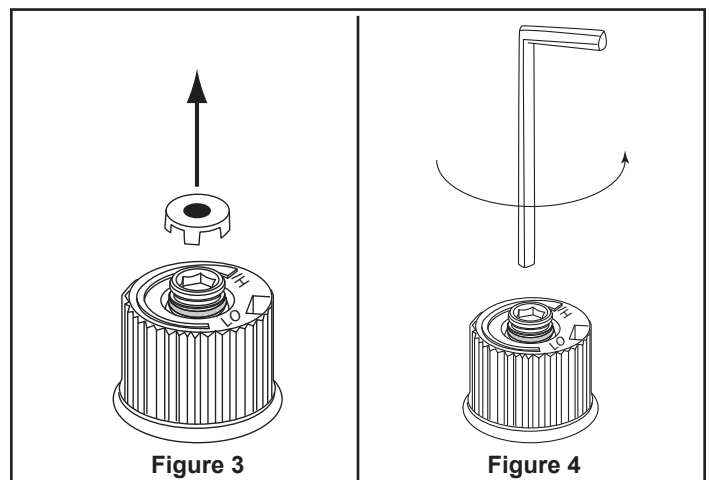
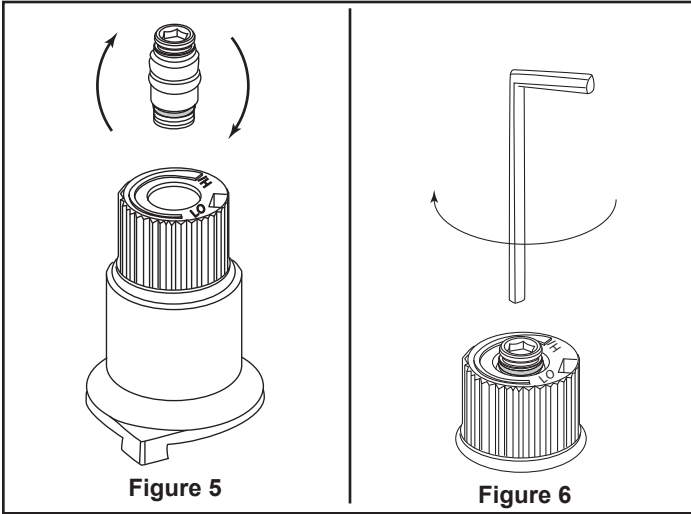


Figure 3

Figure 4

5. Check that the screw is clean and if necessary remove dirt.
6. Flip the screw. (Figure 5)
7. Using the Allen wrench as shown in Figure 6, rotate the screw clockwise and tighten until snug.



WARNING

Do not overtighten the screw. Recommended to grip the wrench by the short side.

8. Verify that if the conversion is from NG to LP, the screw must be reassembled with the red o-ring visible. (Figure 7)
9. Replace the black protection cap.

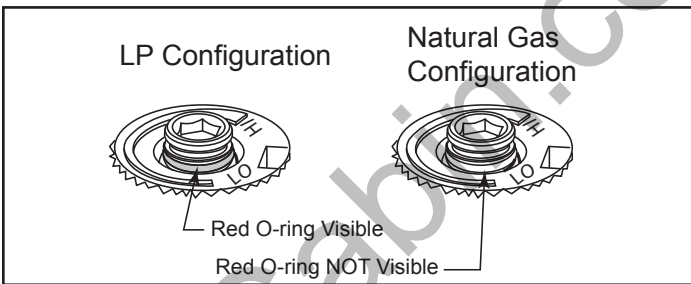


Figure 7

WARNING

Check to ensure the pilot and main burner injectors are appropriate for the gas type.

Pilot Orifice Conversion RADVT (Millivolt Only)

1. Locate pilot. (Figure 9)
2. Replace pilot orifice.

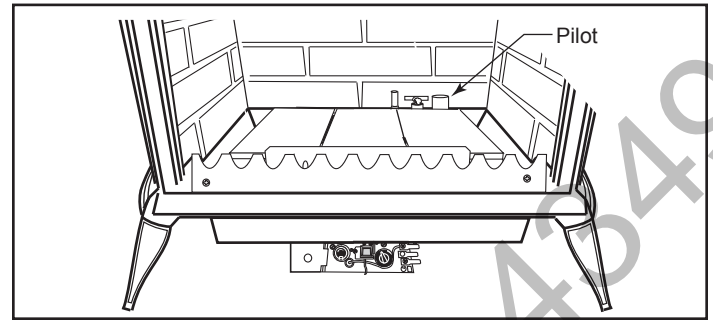


Figure 9 - Locate pilot.

3. Remove pilot hood by lifting up. (Figure 10) Do not remove the snap ring to remove the pilot hood. **NOTE:** It is not necessary to remove the pilot tube for conversion.

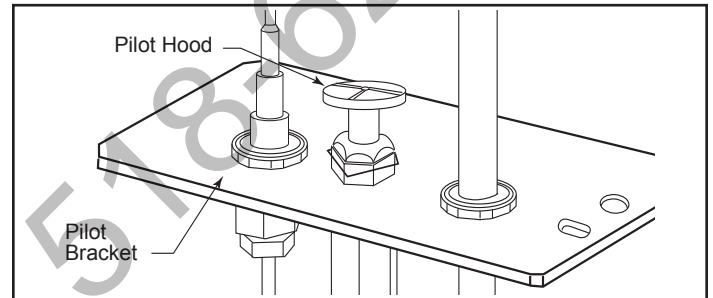


Figure 10 - Remove pilot hood.

4. Remove pilot orifice with Allen wrench. (Figure 11)
5. Install the conversion orifice.
6. Reinstall pilot hood. Be sure to align hood with index tab.

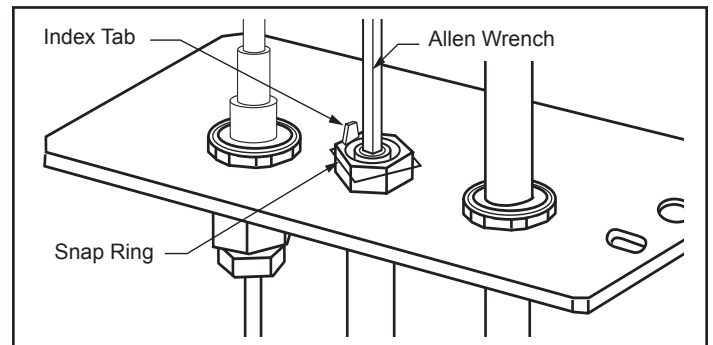


Figure 11 - Remove pilot orifice.

Burner Orifice Conversion

1. Remove three (3) nuts on bottom side of burner pan with a 9/32" or 7mm wrench. (Figure 12)

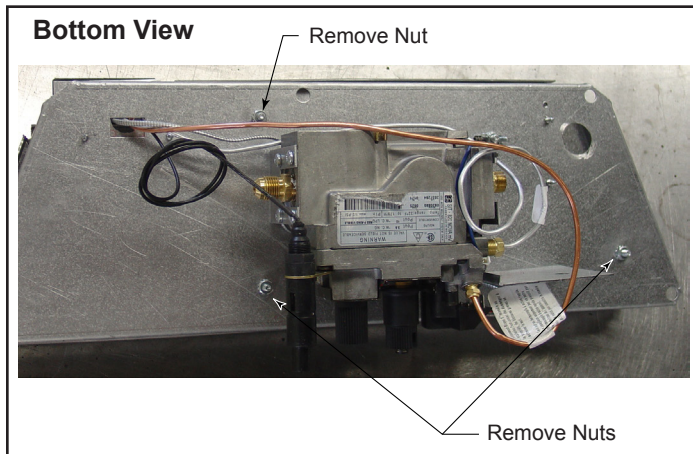


Figure 12 - Remove three (3) nuts securing ember bed in place.

2. Carefully remove ember bed by tilting the right side up and lifting out toward the right side of the unit. (Figure 13)
3. Remove injector orifice from left burner bracket with a 1/2" wrench.
4. Install conversion orifice. (Refer to Table 1, Page 6)

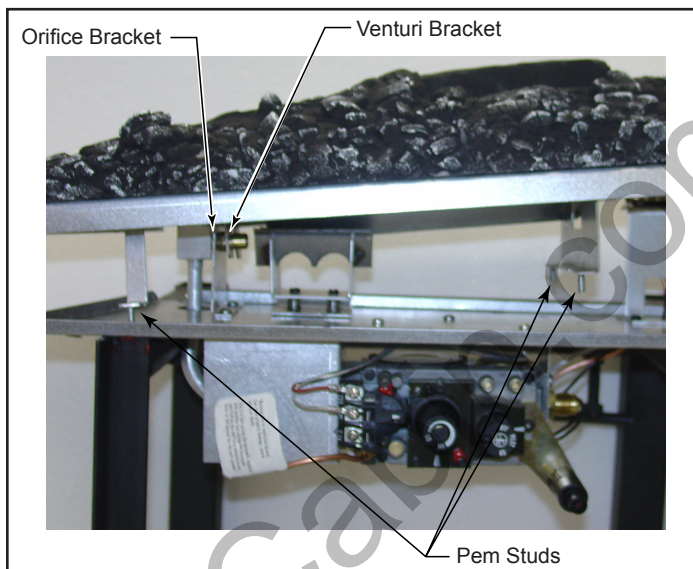


Figure 13 - Tilt ember bed slightly to correctly place on venturi and air shutter.

5. The air shutter is factory set according to Table 2, Page 6, and should not need adjustment. Air shutter opening may be verified by measuring as shown in Figure 14.

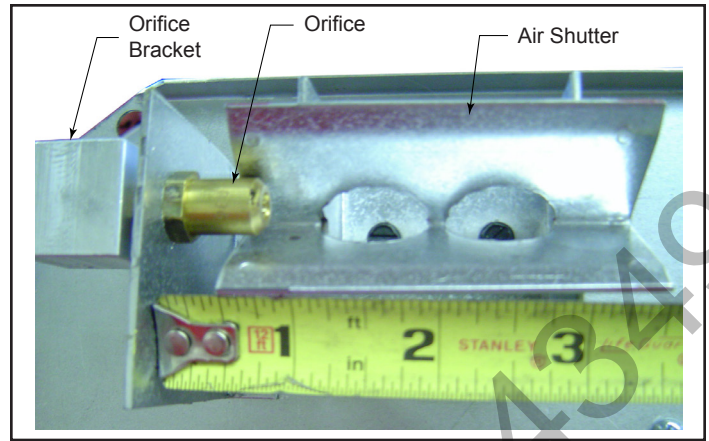


Figure 14 - The air shutter setting is 1/2" (13 mm) from the orifice bracket to the edge of the air shutter.

All Models

1. Replace burner making sure venturi on bottom of ember bed aligns with orifice and is seated properly on air shutter assembly. (Figure 13) Make sure burner is slid into place at a slight angle and opposite to how it was removed. Make sure when burner is slid into position, the venturi bracket is on the right side of the orifice bracket. The venturi bracket should straddle the hex portion of the orifice. When burner is slid into place, the three (3) pem studs should slide down through clearance holes into the bottom of the control panel.
2. Thread and tighten (3) nuts back onto pem studs on underneath side of control panel, reversing Step 1 shown in Figure 12.
3. Reinstall logs.
 - a. Install the rear log by placing it on the ember bed toward the back of the firebox. (Figure 15) The log should touch the back wall of the firebox. When the log is in place, the two (2) notches on the bottom of the log rest on the two (2) ribs on the back side of the ember bed. (Figure 16)
 - b. Install the front left and right logs (Figure 17) by placing them on the ribs shown in Figure 16. Make sure the logs line up with the flat spots on the ember bed intended for location purposes. (Figure 16)
 - c. Install the left cross log by engaging the hole on the bottom with the pin on the left side of the rear log. Set front side of cross log on notch in ember bed. (Figure 18)
 - d. Install the right cross log by engaging the hole on the bottom with the pin on the right side of the rear log. Set front edge of cross log on ember bed as shown in Figure 18.

4. Place conversion label supplied with kit on rating plate.
5. Replace glass and stove front.
6. Restore gas to system and relight appliance according to Lighting Instructions in Homeowner's Manual or on rating label.
7. Leak check the system using a gas leak detector solution.
8. Relight the main burner in both the "HI" and "LO" positions to verify proper burner ignition and operation.

Conversion is complete.

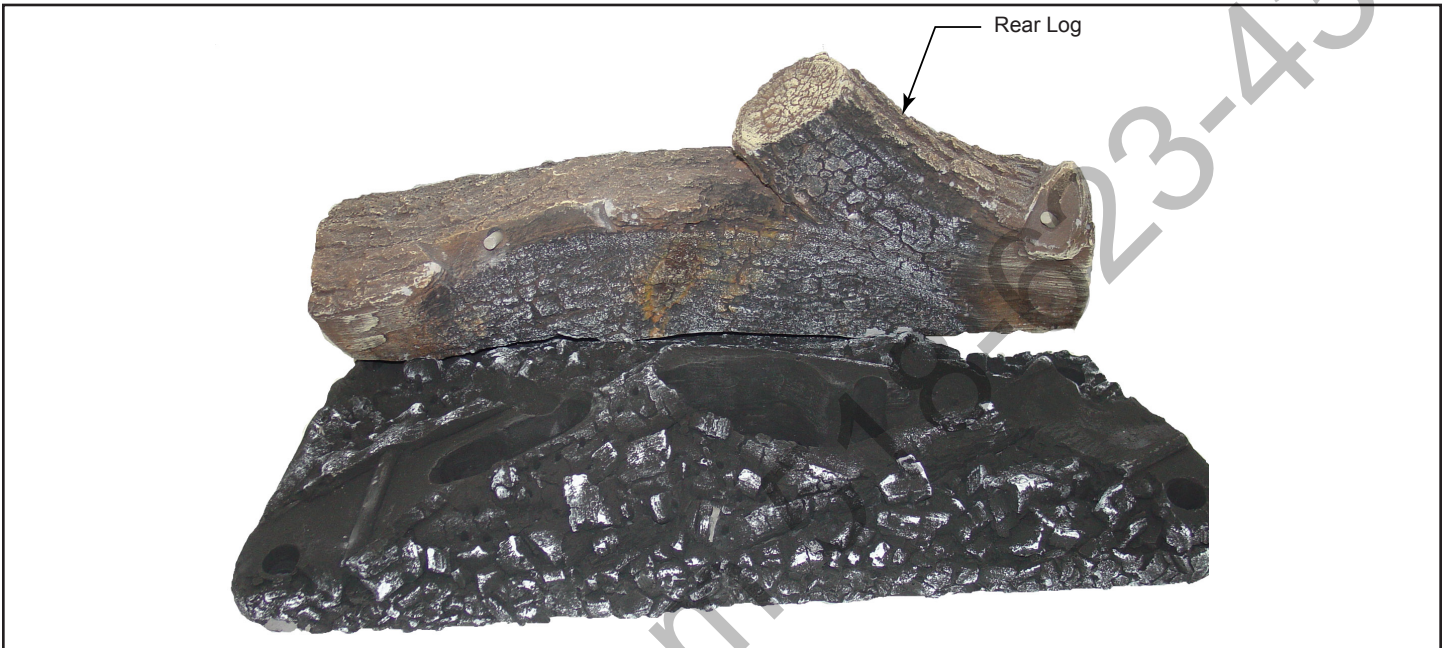


Figure 15

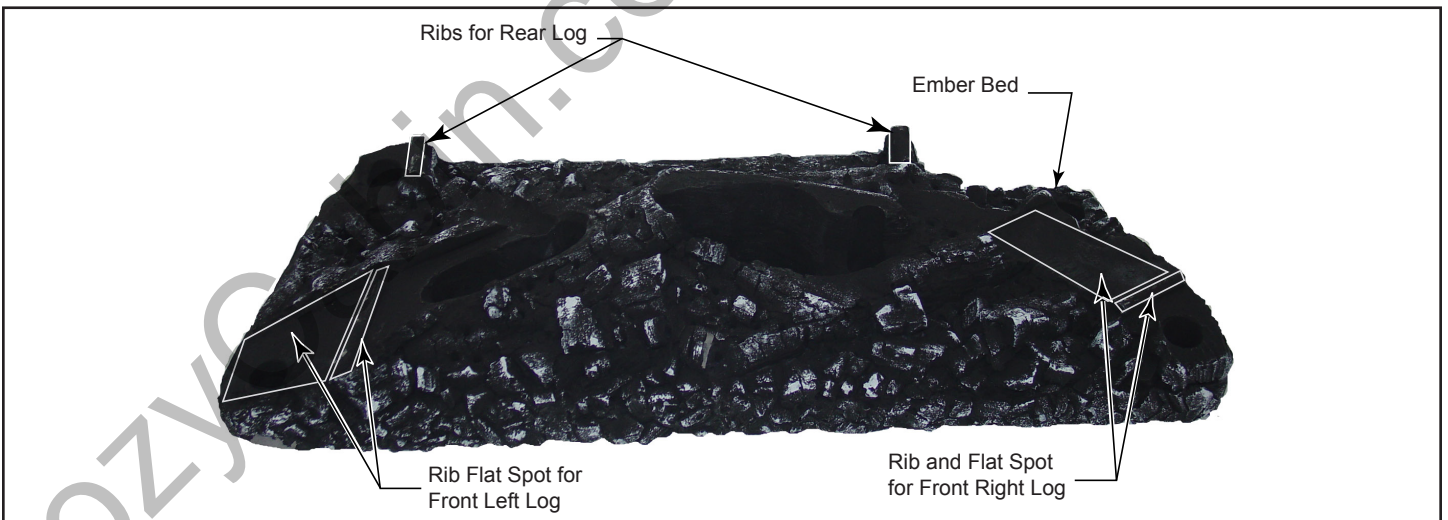


Figure 16

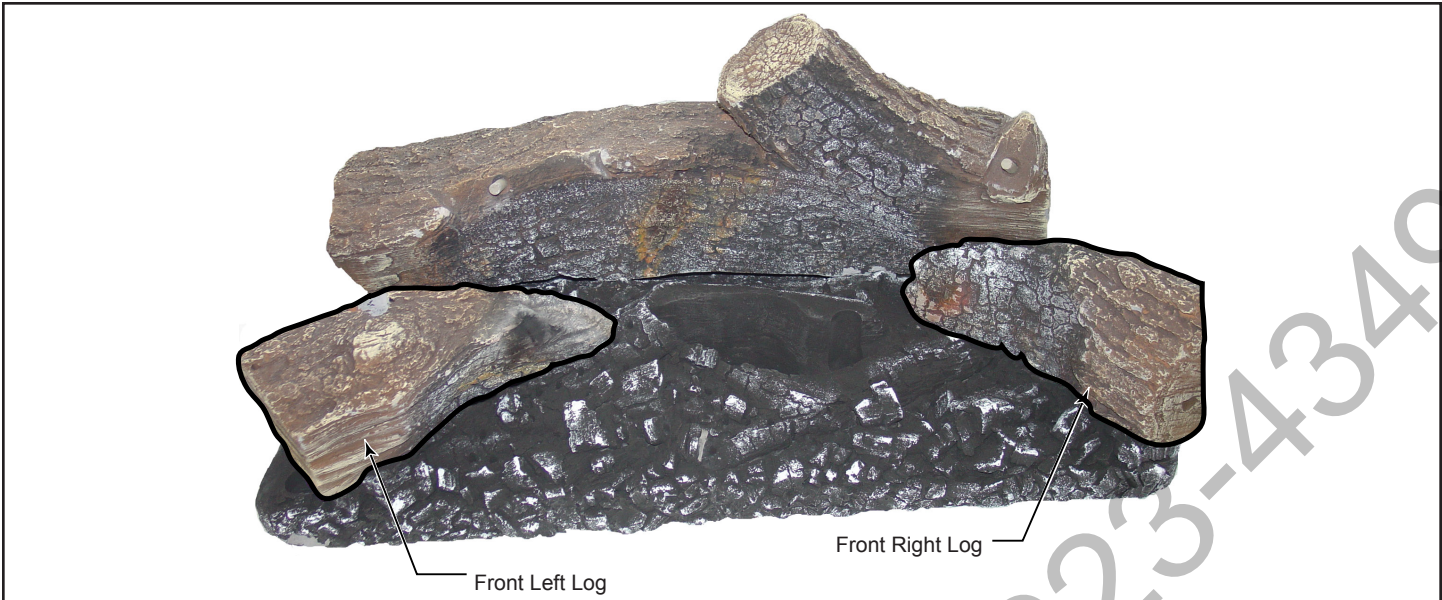


Figure 17

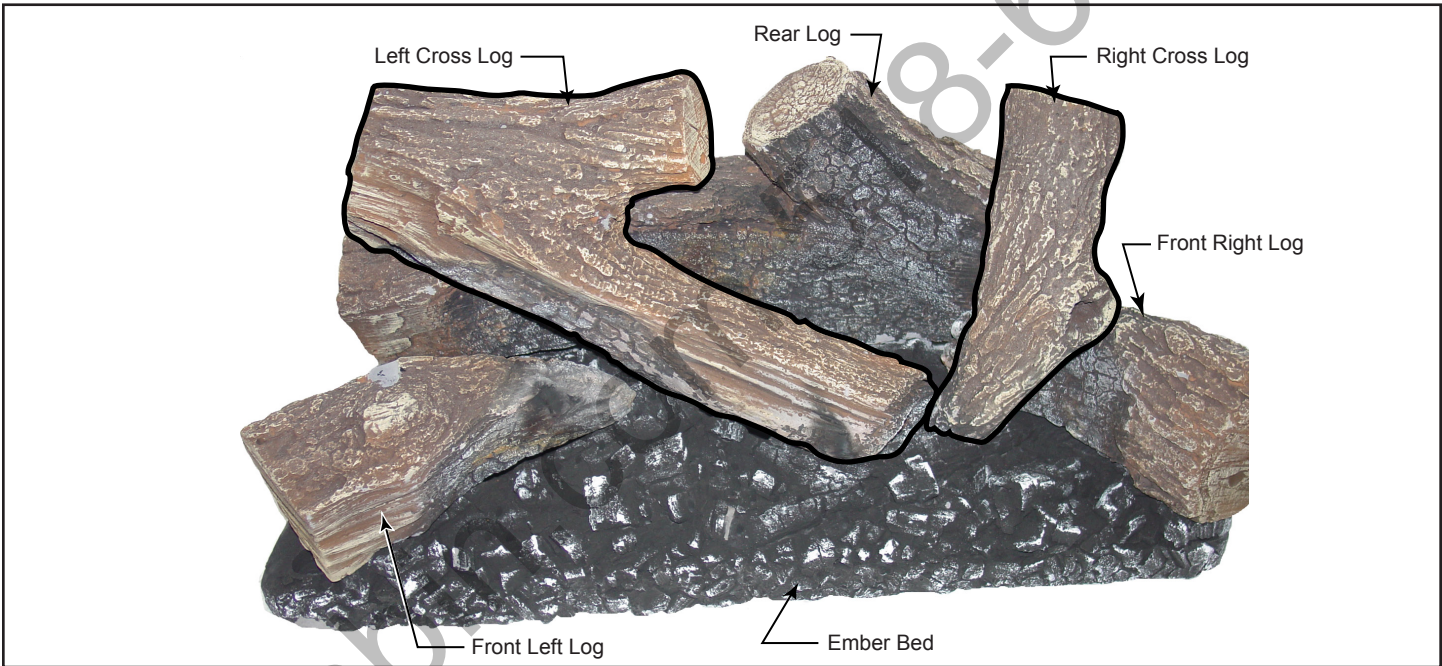


Figure 18

Table 2. Injector Orifice Size Matrix					
Conversion to LP					
				Input (BTU/h)	
Model	Kit #	Orifice	Part #	Minimum	Maximum
RADVT	LPK-RADVT-SP	#51	20008557	25,000	36,000
RADVTCS	20300165				
Conversion to Natural Gas					
				Input (BTU/h)	
Model	Kit #	Orifice	Part #	Minimum	Maximum
RADVT	20012899	#33 / 0.113"	20012554	25,000	38,000
RADVTCS	20300166				

Table 3. Air Shutter Adjustment			
Model	Natural Gas	Natural Gas High Altitude	LP
RADVT/ RADVTCS	1/2" Open	1/2" Open	1/2" Open

Table 4. High Altitude Orifice				
[Required for altitudes above 2000' (610 m) up to 4500' (1,370 m)]				
			Input (BTU/h)	
Model	Orifice	Part #	Minimum	Maximum
RADVT/ RADVTCS (Natural Gas only)	#33 / 0.113"	20012554	24,000	36,000