These instructions are supplementary to the Installation and Operating Instructions supplied with the fireplace and should be kept together. Refer to the Installation and Operating Instructions for proper gas supply, safety requirements and operating instructions.
Contents of Package

A  MANIFOLD ASSEMBLY  
   (including supply tube)
B  BURNER TUBE, FRONT
C  BURNER TUBE, REAR
D  BURNER SHIELD
E  MEDIA SPACER, Rr Center
F  MEDIA SPACER, Fr Center
G  MEDIA SPACER, Front
H  MEDIA SPACER, Rear
I  MEDIA SPACER, Left
J  MEDIA SPACER, Right
K  HARDWARE PACKAGE
L  5 lbs. GLASS MEDIA
M  BURNER TRAY
N  PILOT
O  CONVERSION KIT (not shown)
Black Diamond Burner Installation

NOTE:
If unit is to be converted to Propane, see Propane conversion instructions on page 8 before proceeding.

The panel set instructions must be used when installing this burner. Typically all panels except the right side should be installed prior to burner installation.

NOTE: Pilot and manifold plumbing and wires are grouped and tied at the factory to ensure proper connection. Nylon zip ties must be removed after connections have been made, and prior to ignition.

NOTE: Plug the 4 vacant holes in the bottom of the firebox with #8x1/2” screws. The holes are not required for this style of burner.

1. Remove one screw from the center rear of the firebox and use it to attach the manifold assembly. (Fig. #1)

2. Remove the 2 screws from the firebox bottom. (Fig. #1b)

3. Attach the manifold supply tube from the lower manifold to the front bulk head fitting and tighten. (Fig. #2)

4. Attach the pilot supply tube from the forward pilot to the front bulk head fitting and tighten. (Fig. #3)
5. Remove access cover from side of firebox.

6. Remove access cover from side of firebox. Secure the bulkhead plate and gasket to the firebox. (2 screws) Attach the ignition and sensor wires to the module on the front valve. Red end to the connector marked by the red dot, white end to the connector marked by the white dot. Repeat for the rear valve. (Fig. #4 & #4b)

7. Place burner shield into unit, flexing right shield leg slightly to clear manifold. Make sure the pilot protrudes through the center hole. (Fig. #6)

   **NOTE:** The shield sits at an approximately 15 degree angle to the base of the firebox.

8. Cover the glossy surface of the burner shield to prevent surface damage while connecting pilot to the underside of the burner tray. (Fig. #7)

   **NOTE:** Start screws with fingers first to prevent cross-threading.

9. Place front media spacer to the front of the tray. (Fig. #8)
Set the air shutter to fully open for Propane or fully closed for Natural gas.

10. Install front burner tube by tilting it into front tray hole until almost fully seated. (Fig. #9)

11. Guide tray and burner tube back until the burner tube engages the forward orifice. This can be seen through the rear burner hole. (Fig. #10)

12. Attach burner tray to shield with four screws. (Fig. #11)
13. The rear media spacer is now installed. (Fig. #12)

Set the air shutter to fully open for Propane or fully closed for Natural gas.

14. Install rear burner by tilting the inlet through the rear hole in the tray. Engage the inlet with the rear orifice. This can be seen from the back of the tray. (Fig. #13)

15. Install center media spacers and screw down through burner and tray with 1 1/2" screws. (Fig#14). Three holes must line up to set each screw.
16. Install the left media spacer and secure to front and rear media spacers with two screws. (Fig. #15)

17. Install right media spacer and secure to front and rear media spacers with two screws. (Fig. #16)

18. Apply just enough glass media to cover the burner assembly. (Fig #17 & 18) Use caution not to get any glass media into the pilot slot.

NOTE: Too much tumbled glass over the burner will cause sooting with the use of propane gas.
WARNING

This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction.

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

The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

CAUTION

The gas supply and electrical power must be shut off before proceeding with the conversion.

If the unit is to be used on propane, convert as follows using the components supplied with this fireplace:

Note:
Factory supplied components must be used to ensure correct input. After conversion confirm proper manifold pressure.

1. Ensure the burner, pilot and gas supply are turned off, and the appliance has cooled.

2. Using a 1/2" wrench, undo both natural gas burner orifices (marked #29). (Fig. #19)

3. Apply a small amount of pipe joint compound to the threads of the propane burner orifice (marked #44) to ensure a good seal, before screwing it into the fitting.

4. Open primary air shutters fully.

5. With a 7/16" wrench loosen the pilot head on the pilot assembly (Fig. #21)

6. Slide the pilot adjustment band over and ensure that the hole in the orifice band is showing. (Fig. #21 indicates NG position, Fig. #22 indicates LP position)
7. Fill in the date and the name of the person who performed the conversion in the white area on the conversion label. Peel off the protective backing and apply the conversion label directly over the gas specifications on the rating label.

8. Attach the access panel to the side of the firebox with the previously removed screws.

Note: Gasket must be installed with access panel.

For complete valve installation instructions, refer to the instruction book included in the SIT conversion kit.
Gas Pressure Check

Note: To test the gas pressure, turn off the gas supply before removing the plug from the supply pressure test port or manifold pressure test port.

Verify gas pressures with the fireplace lit and on the highest setting.

1. Remove the plug from the pressure test port using a 7/16” socket and extension. The plug is located between the right side lintel and firebox side. (Fig. #23)

2. Thread the extension test fitting into the open test port. (Fig. #24)

3. Attach a pressure gauge onto the fitting.

4. When testing is complete remove the extension test fitting and replace the plug. Thread sealant will be required to ensure a gas tight connection.

Correct gas pressure requirement:

<table>
<thead>
<tr>
<th></th>
<th>Natural Gas</th>
<th>Propane</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supply Pressure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. Pressure</td>
<td>5.0” WC</td>
<td>12.5” WC</td>
</tr>
<tr>
<td>Max. Pressure</td>
<td>13.9” WC</td>
<td>13.9” WC</td>
</tr>
<tr>
<td><strong>Manifold Pressure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>3.5” WC</td>
<td>10” WC</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.6” WC</td>
<td>6.4” WC</td>
</tr>
</tbody>
</table>
The flame should be just orange and "lazy".

It should NEVER be set to create sooting on internal parts and window glass.

The air shutter on the burner tube controls the primary combustion air to the gas burner. The shutter should be set to fully closed for natural gas or fully open for propane. See Fig. #25 for proper flame pattern.
# TC54 Black Diamond Replacement Parts

(WHEN ORDERING, INCLUDE PART NUMBER WITH DESCRIPTION)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>PART NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>TC54 BLACK DIAMOND BURNER KIT</td>
<td>TC54.NG03.C</td>
</tr>
<tr>
<td>#2a</td>
<td>BURNER TUBE</td>
<td>TC54. 50118305</td>
</tr>
<tr>
<td>#2b</td>
<td>BURNER TUBE</td>
<td>TC42. 5011832.A</td>
</tr>
<tr>
<td>#3</td>
<td>PILOT ASSEMBLY, CONVERTIBLE</td>
<td>TCRP.5005025B</td>
</tr>
<tr>
<td>#4</td>
<td>ORIFICE, NG (#29) (2 Required)</td>
<td>5022.135</td>
</tr>
<tr>
<td>*</td>
<td>MANIFOLD ASSEMBLY</td>
<td>TC54.9654</td>
</tr>
<tr>
<td>*</td>
<td>GLASS MEDIA</td>
<td>TCRP.501201</td>
</tr>
<tr>
<td>*</td>
<td>PROPANE CONVERSION KIT</td>
<td>TC54.LPCE01</td>
</tr>
</tbody>
</table>

* NOT SHOWN
For technical support, please contact your retailer.

Web site:  www.townandcountryfireplaces.net
2975 Allenby Rd., Duncan, BC V9L 6V8