# TC42 BLACK DIAMOND BURNER KIT
## TC42.NG03

**PACKAGE CONTENTS:**

- **BURNER**
  - PART# TC42.5011832
- **BURNER TRAY ASSY**
  - PART# TC42.9641
- **TUMBLED GLASS**
  - PART# 5012.01
- **BURNER SHIELD**
  - PART# TC42.9642
- **PANEL, lower rear**
  - PART# 9643
- **MANIFOLD ASSY**
  - PART# TC42.9640
- **PILOT BRACKET**
  - PART# 9626
- **HARDWARE PKG**
  - PART# TC36.HK03
- **MEDIA SPACER, rear**
  - PART# 9645
- **MEDIA SPACER, front**
  - PART# 9646
- **MEDIA SPACER, center**
  - PART# 9647

**NOTE:** MUST BE USED WITH PORCELAIN PANELS #TC42.PNLPBKB

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.

**IMPORTANT:** THESE INSTRUCTIONS ARE TO REMAIN WITH THE HOMEOWNER
CONTROL BOX RELOCATION

The gas control system is housed in a control box remote of the fireplace. Flexible conduits attach the control box to the fireplace and house all the plumbing and wiring to the burner.

Although the control box may be installed on the right or left side, the fireplace is assembled at the factory to accept the control box from the right hand side as a default location. (Fig. # 1)

If installing on the left hand side, the casing and firebox inlet covers must first be removed and reinstalled on the opposite side of the unit. The manifold will also need to be repositioned before the manifold assembly is installed. This is done by removing two retaining screws, turning the manifold over and re-attaching. See Fig. #3. The pilot support bracket, installed on the burner tray, will also have to be positioned on the left hand side of the burner tray.

DEFAULT INSTALLATION

1) Insert the inlet box into the opening at the base of the right hand side of the unit, as shown in fig # 1, taking care not to damage pilot, plumbing or wires.

2) Install 4 screws from the inside of the firebox to secure the inlet box to the firebox.

3) Install Porcelain Panel Set as per instructions.(Refer to “Porcelain Panels Installation Manual”)

4) Floor panels do not require installation as a burner shield is provided with the Black Diamond kit.

A porcelain panel set must be installed prior to the installation of the burner assembly. See Installation and Operating Instructions manual for details.
BLACK DIAMOND BURNER INSTALLATION

1) Remove the three lower screws from the air channel at the back of the firebox and attach the manifold bracket to the back of the firebox with the three screws as shown in fig. # 4.

2) Panel clips must be installed on the bottom of both side panels and positioned as shown in Fig. # 5 to insure proper positioning of burner shield.

3) Install burner shield by tipping the shield into the firebox, catching the folded edges in the panel clips. (Fig # 6)

4) Position clip nuts, included in hardware package, onto burner shield. (Fig # 7)
5) Attach the burner tray to the burner shield using two screws at the back of the tray. (Fig. # 8)

6) Attach the pilot (millivolt shown) to the side of the tray. (Fig # 9)

7) Attach pilot shield to burner tray with two screws. If using an electronic control system, attach the pilot to the pilot shield then attach the shield to the burner tray.

8) Rear and front media spacers are now installed. (Figs #11 & 12)
9) Install burner by tilting burner inlet through tray. Ensure that the orifice has entered the inlet tube and secure the burner to the tray with two screws. (Fig # 13a & 13b) Set the air shutter to fully open for Propane or fully closed for Natural Gas.

10) Install the center media spacer. (Fig # 14)

11) Install lower rear panel with two screws. (Fig # 15)

12) apply just enough tumbled glass to cover the burner assembly. (Fig # 16)

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

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**Fig. # 13a**

**Fig. # 13b**

**Fig. # 14**

**Fig. # 15**

**Fig. # 16**
**BURNER FLAME ADJUSTMENT**

The air shutter on the burner inlet tube controls the primary combustion air to the gas burner and is preset closed at the factory for natural gas fuel. Some adjustment may be necessary to obtain desired flame and to eliminate carbon deposits. Evaluate flame appearance after the fireplace has reached operating temperature. See Fig. #17 for proper flame pattern. Open primary air shutter if the glass, and firebox have carbon accumulation and/or the flames are long, dark and stringy. The shutter may also be opened to lessen the flame height.

**Caution: Burner area may be hot!**

Turn off the fireplace and allow the unit to cool before proceeding.

**To Adjust:** (See Fig. # 18)

1) Open and remove window frame and set aside. See “Window Frame Removal” section found in the Installation and Operating Instructions manual.
2) Remove the lower rear panel and set aside.
3) Loosen the screw in the Primary Air Shutter.
4) Rotate the shutter to increase or decrease the amount of primary air.

The flame should be just orange and “lazy”. It should NEVER be set to create sooting on internal parts and glass.
REPLACEMENT PARTS

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<td>TUMBLED GLASS</td>
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Fig. # 19