

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

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.



TOWN & COUNTRY
L U X U R Y F I R E P L A C E S

TCWS54 BLACK DIAMOND BURNER KIT INSTRUCTIONS



**PART# TCWS54.NG03D
For TCWS Series D
Fireplaces**



Visit www.townandcountryfireplaces.net for the most up-to-date version of this manual

Contents of Package

2 BURNER ASSEMBLIES

1 BURNER TRAY

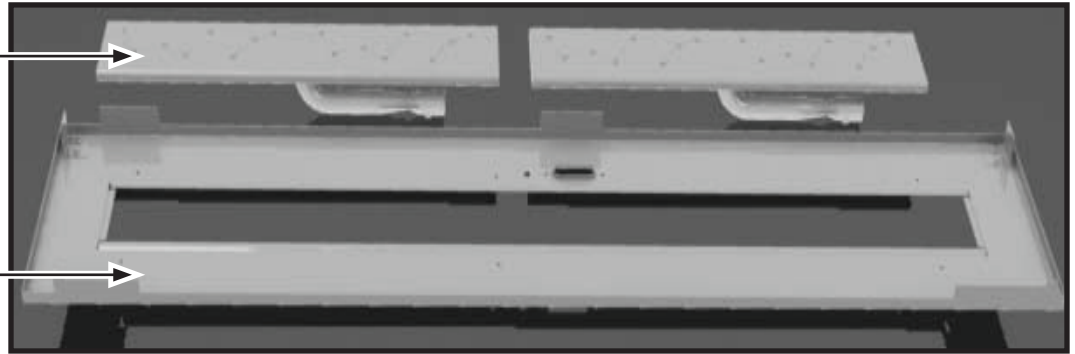


Figure 1: TCWS54 Black Diamond Burner parts.



Figure 2: Instruction book.

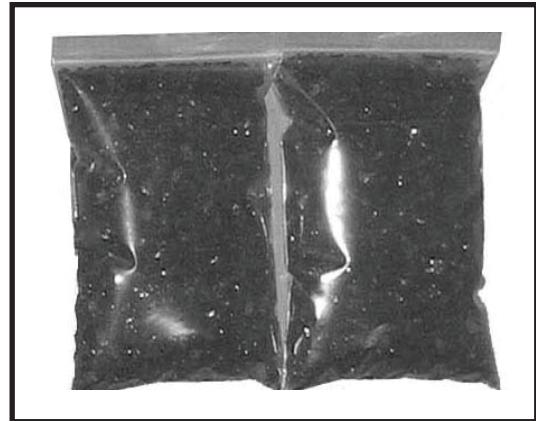


Figure 3: Glass media.

Black Diamond Burner Installation

If converting to propane see conversion instructions on page #5 before proceeding.

Install panels according to the TCWS.54D Installation and Operating manual prior to burner installation. (Page 28)

1. Install one of the two burners into the right side of the firebox by laying into location trough and sliding to the right to engage the venturi tube over the orifice. Insert the 2nd burner from the left so that it butts up to the previously placed right side burner (Figure 4).
2. Ensure that the Pilot is attached to the burner support rail with a screw in the first hole (Figure 5).
3. Tilt the burner tray into the unit and place on top of the manifold brackets and over top of the pilot (Figure 6).
4. Secure the burner tray to manifold brackets using eight screws (Figure 7).

NOTE: check air shutter for correct fuel setting before proceeding further. Both burner shutters are to be set the same, fully closed for natural gas. 13/64 (0.2)" open for LP.

CAUTION: The burners should be tightly butted up against each other at the center to ensure correct operation.

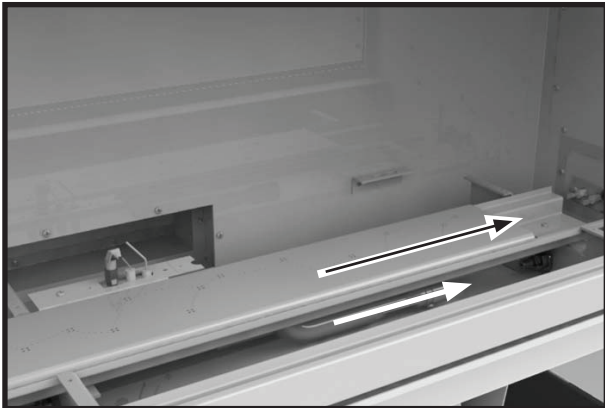


Figure 4: Installing right burner.

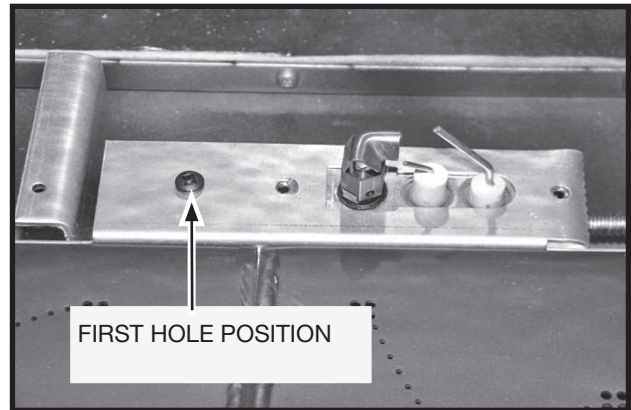


Figure 5: Attaching pilot to burner tray.

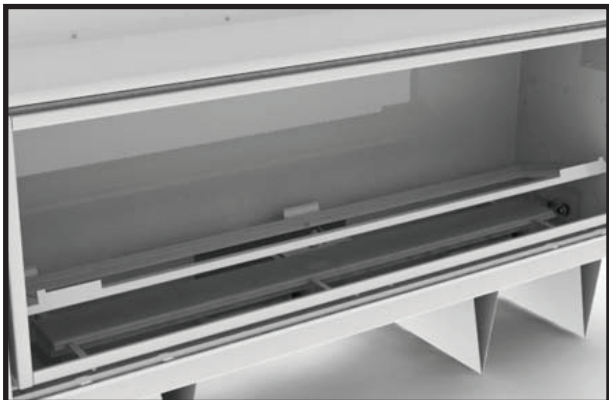


Figure 6: Tilting burner tray to install.

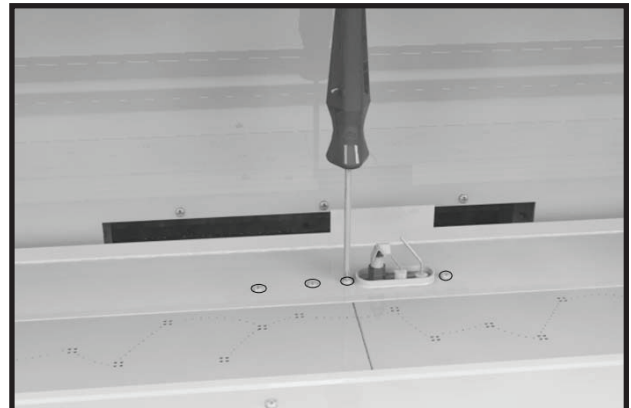


Figure 7: Screwing down the burner tray.



Figure 8: Applying glass media.



Figure 9: Placing rear trim.

NOTE: Too much glass media will cause sooting and improper flame pattern.

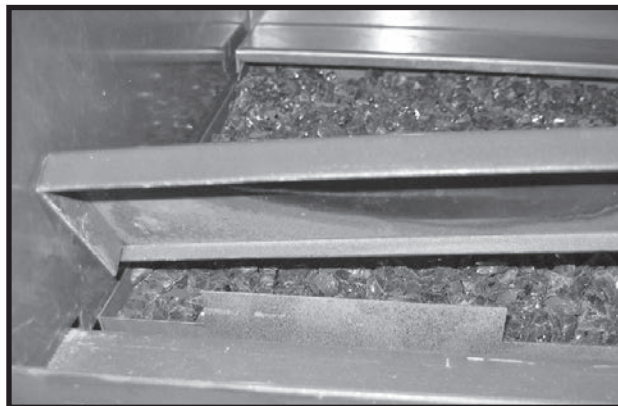


Figure 10: Positioning front trim.

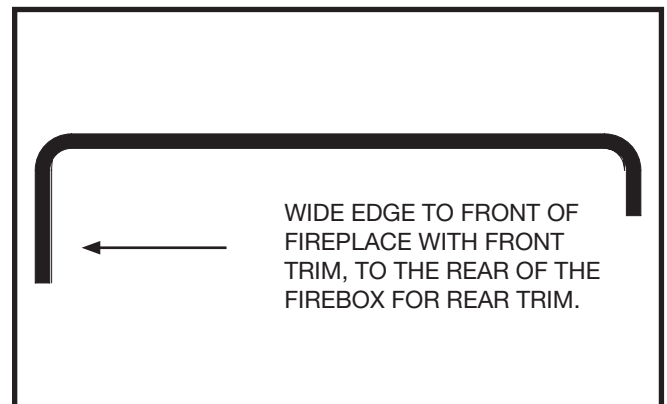


Figure 11: Front trim.

5. Place glass media into the burner tray and brush smooth so that a very light layer covers the burners (Figure 8).
6. Place rear porcelain trim, wide edge, against the back panel and press down over the pre-bent tabs on the burner tray (Figure 9).
7. Place the front porcelain trim so that it rests on the front shelf of the firebox and is snug against the firebox frame (Figure 10). Ensure that the wide edge of the trim is against the firebox frame (Figure 11).

Propane Conversion

If the unit is to be used with propane, convert as follows using the components supplied with the TCWS 54 Propane Conversion Kit p/n TCWS54DLPKIT which includes Propane orifice and Conversion Label.

CAUTION

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

Note:

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



Figure 12: Burner tray removal.



Figure 13: Removing the orifice.

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.

1. If installed remove the glass media from the burners.
2. If installed remove the burner tray from the manifold brackets (Figure 12).
3. Remove burners.
4. Using a 1/2" wrench, undo the natural gas burner orifice (Figure 13). Apply a small amount of pipe joint compound to the threads of the propane burner orifice (marked 1.70mm) to ensure a good seal, before screwing it into the fitting.

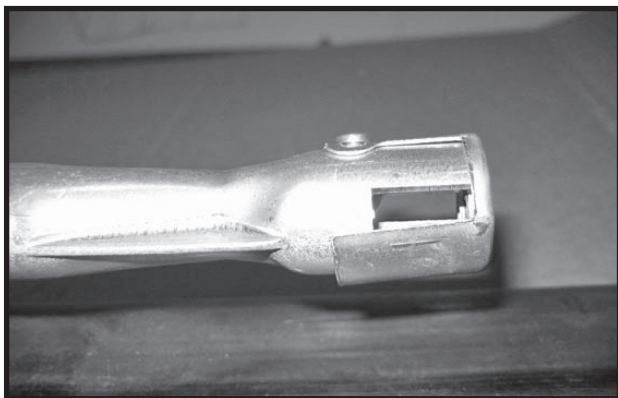


Figure 14: Air shutter gap.



Figure 15: Loosening the pilot.

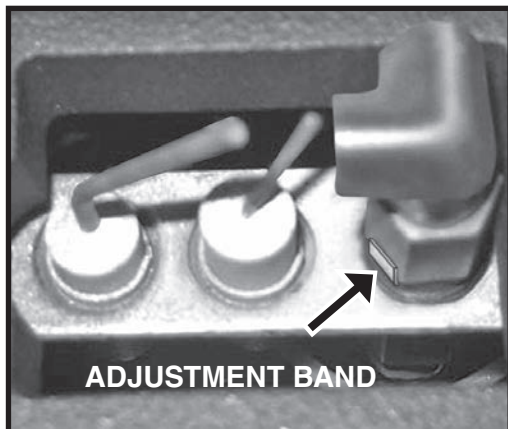


Figure 16: Natural gas position.

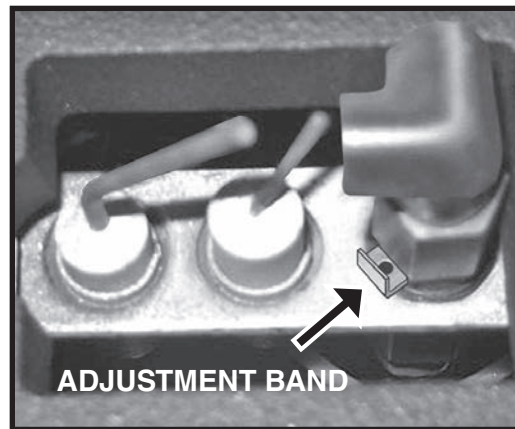


Figure 17: Liquid propane position.

5. Loosen the primary air shutter screw, open shutter to give a gap of $\frac{13}{64}$ " (0.2") and re-tighten. Repeat on other burner (Figure 14).
6. With a $\frac{7}{16}$ " wrench loosen the pilot head on the pilot assembly (Figure 15).
7. Slide the pilot adjustment band over and ensure that the hole in the orifice band is showing (Figure 17).
8. Update Propane Conversion Sticker with date and name after conversion is finished (Figure 19).

WARNING: Both the control box shield and the access panel must be reinstalled after conversion/ installation or servicing has been completed. Failure to do so will cause overheating and premature failure of the control system.

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

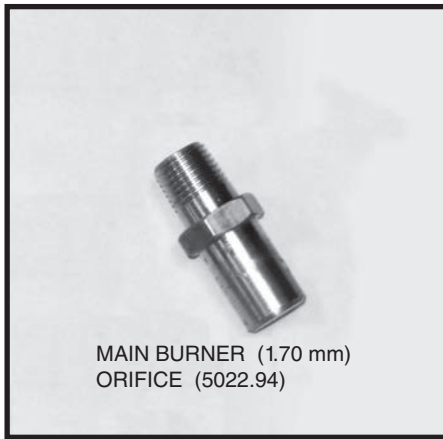


Figure 18: Main burner orifice.

Kit # TCWS54_D.LPD/ESB/ESC for use with model: Pour utiliser avec du modèle: TCWS54 Series D	
Date: _____	
By / Par: _____	
PACIFIC ENERGY	
LP GAS/ DU GAZ LP	
12.5 in/wc / 12.5 po/c.e. (3.11 kPa)	
13.9 in/wc / 13.9 po/c.e. (3.45 kPa)	
10.0 in/wc / 10.0 po/c.e. (2.49 kPa)	
1.70 mm	
Max.: 57,000Btu (16.7kw) Min.: 45,000Btu (13.1kw)	
071014 6-TCWS54_D 5052.52088D	

Figure 19: Conversion label
5052.52088D.

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.



Figure 20: Gas pressure adjustment fitting.



Figure 21: Gas pressure adjustment location.

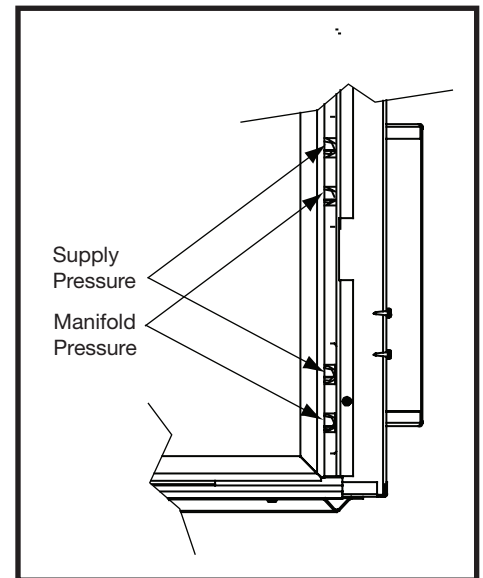


Figure 22: Gas pressure test ports.

Correct gas pressure requirement:

Supply Pressure	Natural Gas	Propane
Min. Pressure (For purpose of input adjustment)	5.0" WC	12.5" WC
Max. Pressure	13.9" WC	13.9" WC
Manifold Pressure		
Maximum	3.5" WC	10" WC
Minimum	1.6" WC	6.4" WC

Burner Flame Adjustment

The air shutter on the burner tube controls the primary combustion air. It is set to the closed position at the factory for natural gas fuel. For LP see Pg.6. 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. #25 for proper flame pattern.

Open primary air if the window 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.

NOTE:

Proper air shutter setting is required.

The flame should be just orange and “lazy”. It should NEVER be set to create sooting on internal parts and window glass. Allow the fireplace to run for 30 minutes before evaluating flame appearance.



Figure 23: Example of desired flame appearance.

Replacement Parts

(WHEN ORDERING, INCLUDE PART NUMBER WITH DESCRIPTION)

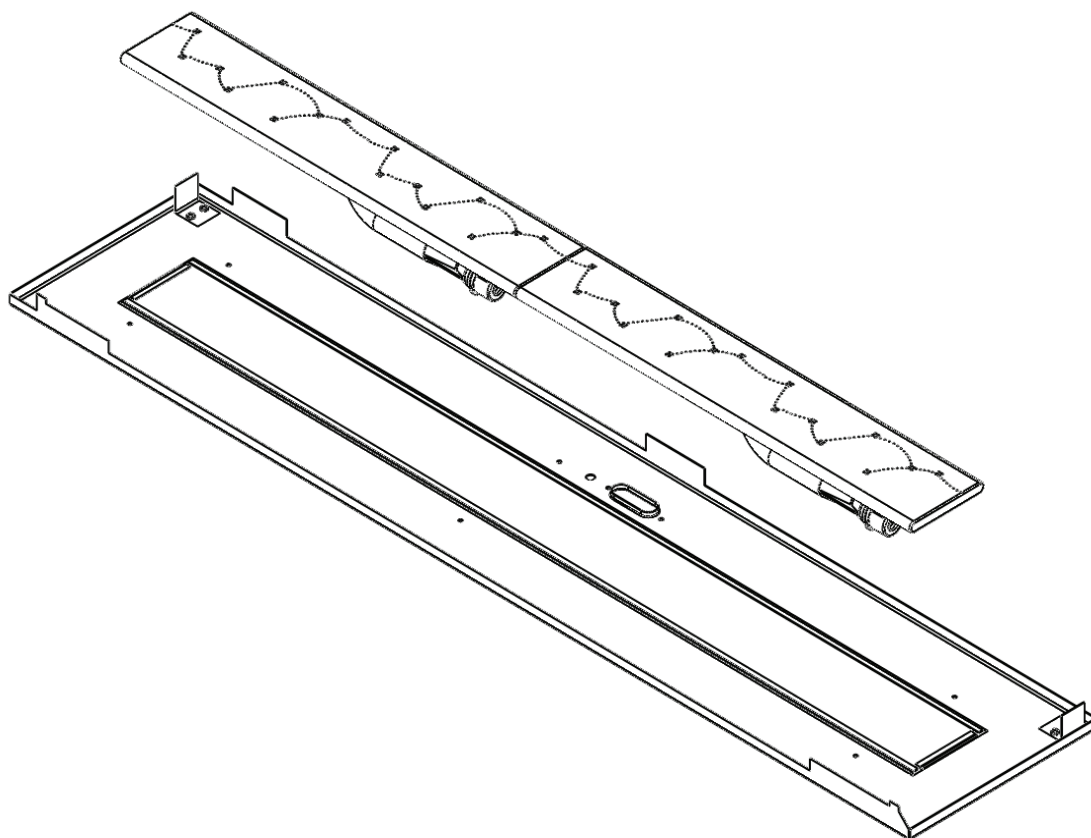
ITEM	DESCRIPTION	PART NO.
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#1.....	BLACK DIAMOND BURNER	TCWS.54NG03.C2
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* #2.....	GLASS MEDIA (2 required).....	TCRP.501201
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* NOT SHOWN

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