

**IMPORTANT:  
THESE INSTRUCTIONS ARE TO REMAIN  
WITH THE HOMEOWNER**

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  
FIREPLACES™**

## **TCWS.38NG03.C BLACK DIAMOND BURNER KIT INSTRUCTIONS**

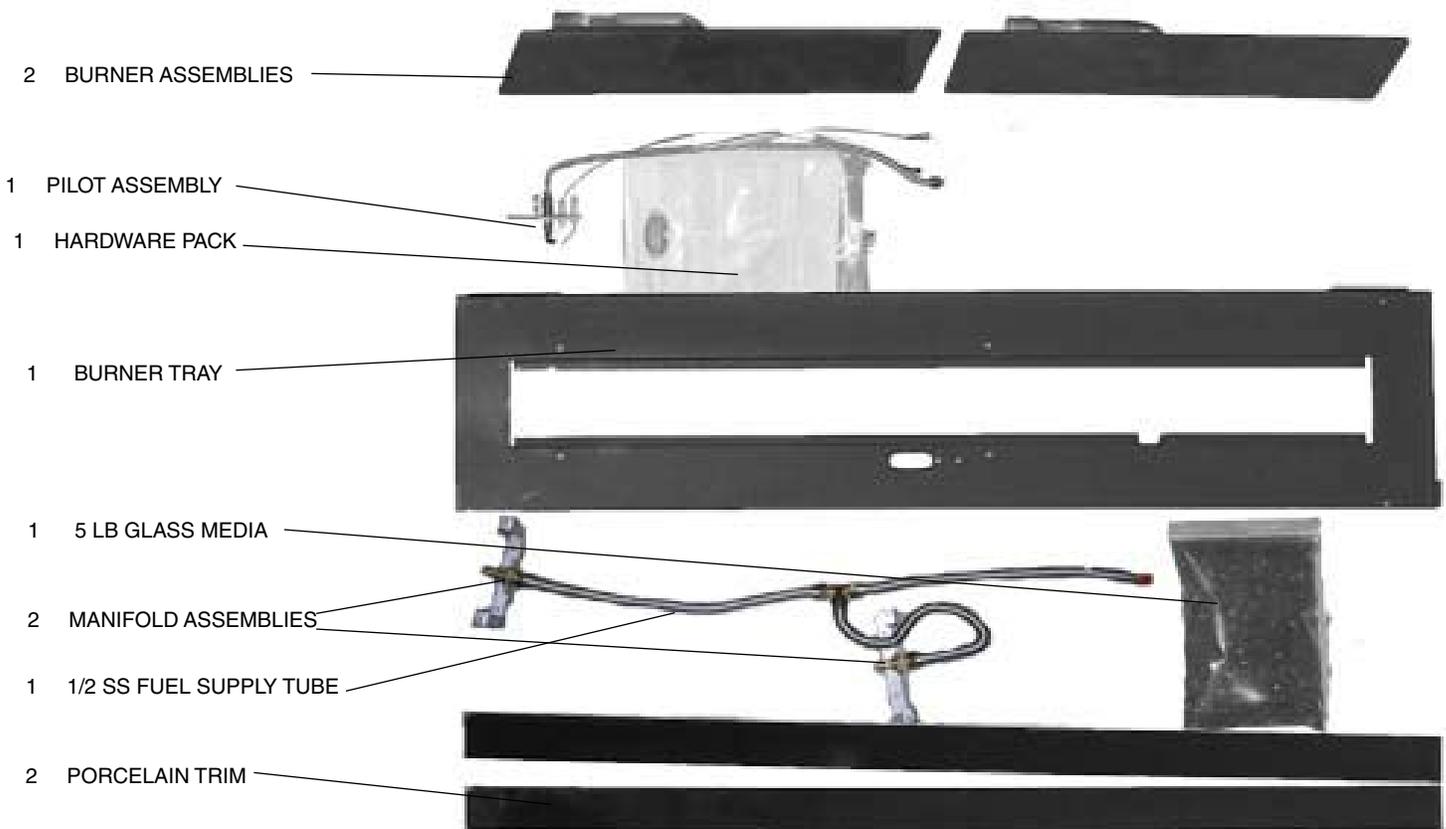


**PART# TCWS.38NG03.C**

**For use with  
Model TCWS38  
Series C**



## Contents of Package

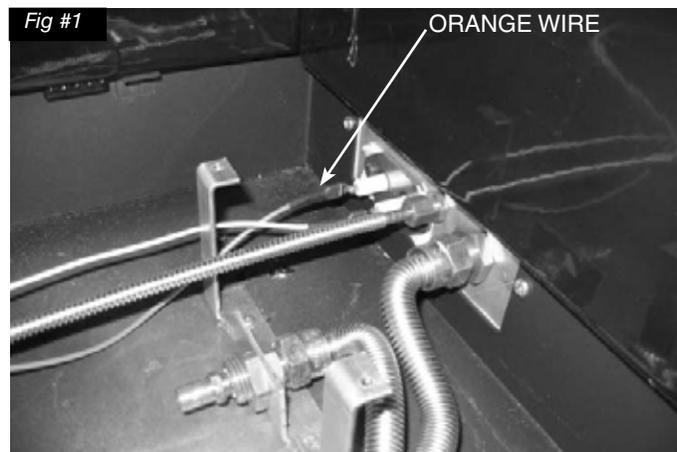


## Black Diamond Burner Installation

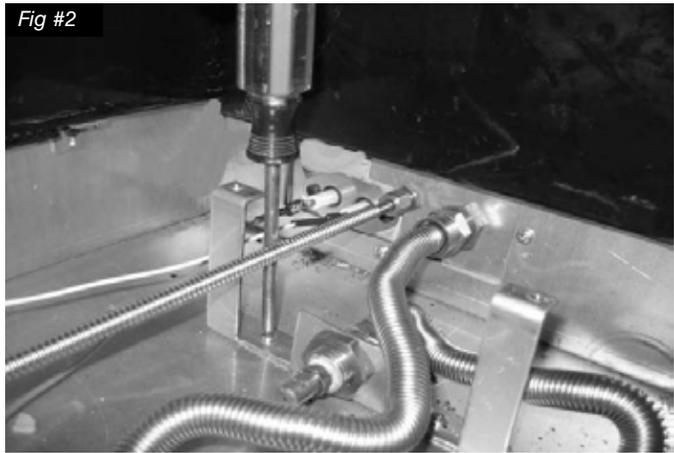
If converting to propane see conversion instructions on page #6 before proceeding.

Install panels according to the TCWS.38CE Installation and Operating manual prior to burner installation. (Page 27)

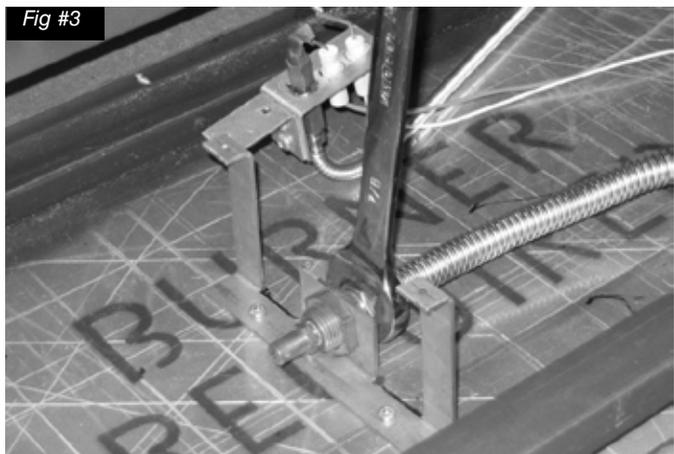
- 1 Attach fuel supply tube and pilot assembly to bulk-head fittings. Ensure the fuel supply tube travels around the mounting leg towards the front of the firebox as shown. (Fig. #1)
2. Connect spark electrode wire (ORANGE) to the rear electrical bulk head fitting. Connect the flame sensor wire (WHITE) to the front electrical bulk head fitting. (Fig. #1)



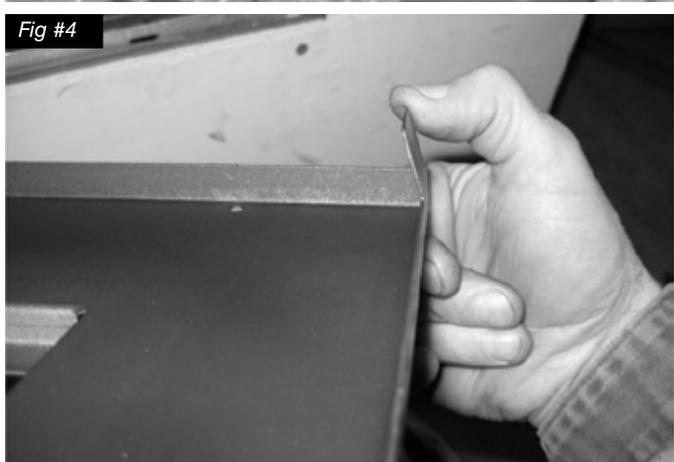
3. Attach the manifold brackets, with the supply tubes, to the bottom of the firebox using four screws. (Fig. #2)



**CAUTION:**  
Ensure that all connections are gas tight.



4. Bend side tabs on burner tray inwards about 20° or 1/2" (Fig. #4)



5. Tilt the burner tray into the unit and place on top of the legs. Attach pilot to burner tray. Ensure pilot is tight to burner tray. (Fig. #5)



- Secure the burner tray to legs using eight screws (Fig. #6)

**NOTE: use a light to aid aligning the holes in the tray with the leg.**

**NOTE: check air shutter for correct setting for fuel before proceeding further. Both primary air shutters are to be set the same, fully closed for natural gas. 1/8" (0.125)" open for LP.**

- Install the right burner first by placing it into the center of the burner tray. With the left end slightly elevated, slide it to the far right. The primary air shutter should engage fully with the main orifice. Test for connection by lightly prying at the end of the burner with a screw driver. Repeat with left burner. (Fig. #7)

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

- Place glass media into the burner tray and brush smooth so that a very light layer covers the burners. (Fig. #8)

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

- Place rear porcelain trim, wide edge, against the back panel and press down over the pre-bent tabs on the burner tray. (Fig. #9)

Fig #6



Fig #7

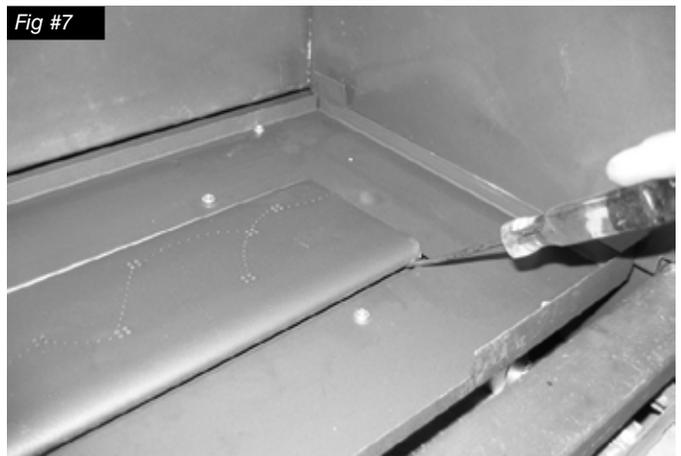


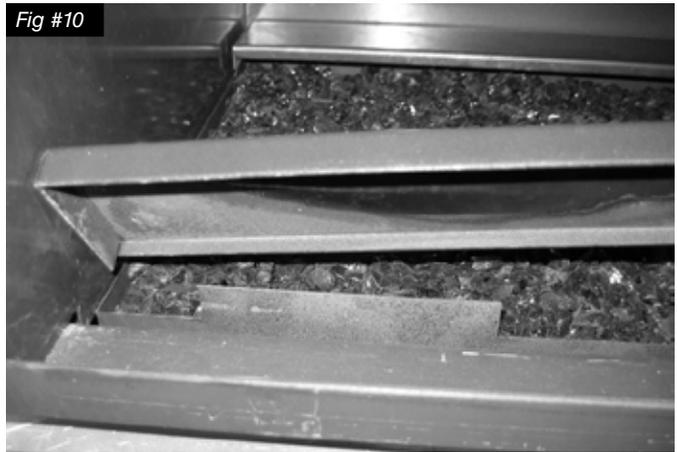
Fig #8



Fig #9



10. Install front porcelain cover (wide edge should face the front).  
(Fig. #10 & 11)



WIDE EDGE TO FRONT OF  
FIREPLACE

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

**Caution:**

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

**CAUTION**

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

**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.

# Propane Conversion



Kit # TCWS.38LPCE01 for use with model /  
Pour utiliser avec du modèle: **TCWS38**  
**SERIES C**

Date: \_\_\_\_\_

By / Par: \_\_\_\_\_

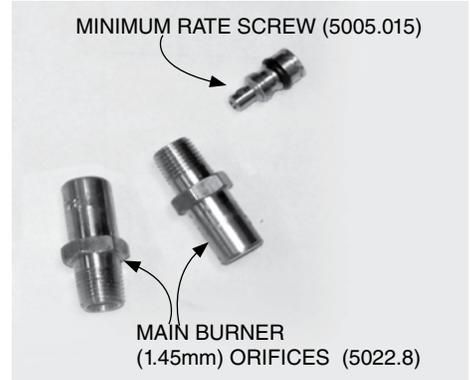


<b>LP GAS/ DU GAZ LP</b>
12.5 in/wc / 12.5 po/c.e. (3.11 kPa)
13.9 in/wc / 13.9 po/c.e. (3.45 kPa)
11.0 in/wc / 11.0 po/c.e. (.95 kPa)
1.45 mm
Max.: 47,000 (13.8)
Min.: 35,000 (10.3)

This appliance was converted to PROPANE GAS with this kit on this date by the organization which accepts the responsibility that this conversion has been properly made. / Cet appareil est converti au gaz LP par l'emploi de la trousse de conversion par une organisation qui accepte la responsabilité pour une installation en bon état.

160409 6-TCWS38 5052.52087

CONVERSION LABEL (5052.52087)



1. If installed remove the glass media from the burners.
2. If installed remove the burner from the burner tray. Gently lift up the left side of the burner and disengage the venturi tube from the orifice. (Fig. #14)



3. Using a 1/2" wrench, undo the natural gas burner orifice, (Fig #15) (marked #40). Apply a small amount of pipe joint compound to the threads of the propane burner orifice (marked 1.45mm) to ensure a good seal, before screwing it into the fitting.



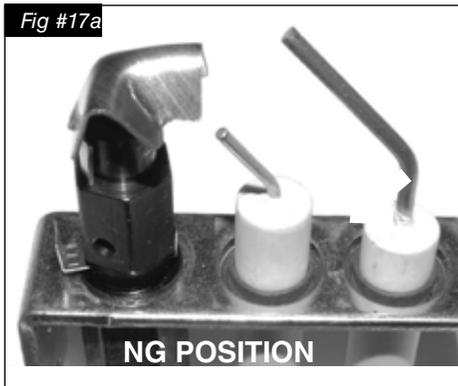
Loosen the primary air shutter screw, open shutter to give a gap of 1/8" (0.125") and re-tighten. Repeat on other burner. (Fig. #15a)



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



Fig #17a



- Slide the pilot adjustment band over and ensure that the hole in the orifice band is showing.(Fig #18) Retighten pilot head.

◀ Fig. #17 shows NG position

Fig. #18 shows LP position).  
(Hole visible) ▶

- Remove the access panel on the right side of the firebox, 10 screws, and set aside.(Fig #23)

Fig #18

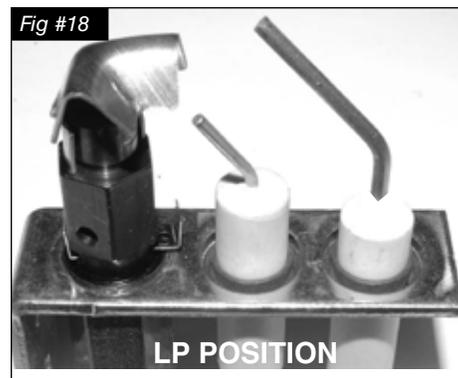


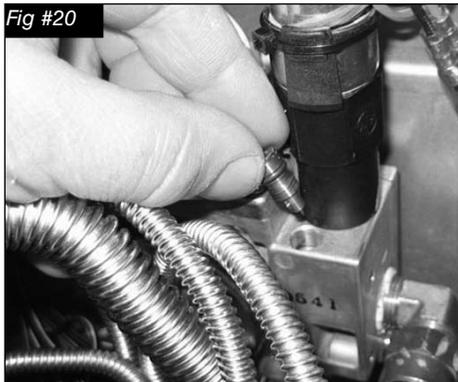
Fig #19



- Remove the minimum rate screw located in the valve. (Fig. #19)

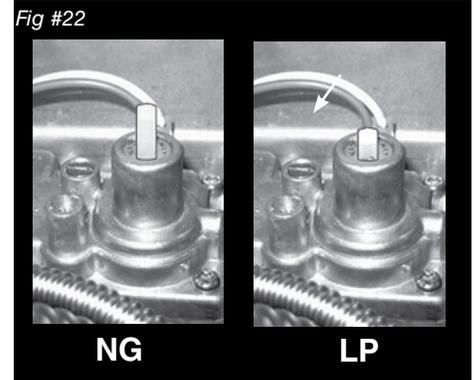
The minimum rate screw is sealed with an O-ring. Use a thin bladed screwdriver to back the screw out past the limit of the threading. At this point a groove on the screw body will be visible just above the valve body. Insert a thin tool (knife blade or fine screwdriver blade) into the groove and gently pry the screw up.

Fig #20



- Replace the minimum rate screw with the one provided in the propane conversion kit supplied with this fireplace. Ensure that the screw is fully seated. (Fig. #20)

- Pull off the rubber cap from the top of the pressure regulator. (Fig. #21)



- Press down on the center post and rotate 90°. The center post should stay down. (Fig. #22). Replace the rubber cap.
- 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.
- Check all connections for leaks.

**Fig #22a**

Kit # TCWS.38LPCE01 for use with model /  
 Pour utiliser avec du modèle: **TCWS38  
 SERIES C**

ADD DATE → **Date:** \_\_\_\_\_

**By / Par:** \_\_\_\_\_ ← ADD NAME

<b>LP GAS/ DU GAZ LP</b>
12.5 in/wc /12.5 po/c.e. (3.11 kPa)
13.9 in/wc / 13.9 po/c.e. (3.45 kPa)
11.0 in/wc / 11.0 po/c.e. (.95 kPa)
1.45 mm
Max.: 47,000 (13.8)
Min.: 35,000 (10.3)

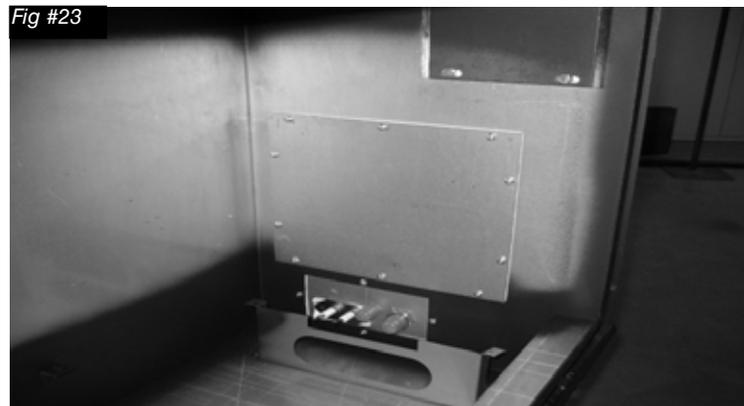
**PACIFIC ENERGY**

This appliance was converted to PROPANE GAS with this kit on this date by the organization which accepts the responsibility that this conversion has been properly made. / Cet appareil est converti au gaz LP par l'emploi de la trousse de conversion par une organisation qui accepte la responsabilité pour une installation en bon état.

160409 6-TCWS38 5052.52087

**WARNING: The access panel including gasket 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.**

- Re-attach the access panel to the side of the firebox with the screws previously removed. (Fig. #23)



- If the burner was removed in previous steps replace in reverse order or return to installation process on Pg. 2

# 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.

Fig #24



1. Remove the plug from the pressure test port using a 3/16" hex key. The plug is located between the right side lintel and firebox side. (Fig. #24)

Fig #26

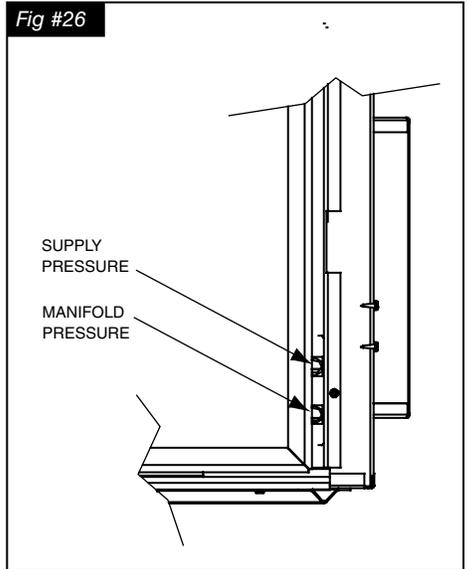


Fig #25



2. Thread the extension test fitting into the open port. (Fig. #25)
3. Attach a pressure gauge onto the fitting.
4. When testing is complete shut off the gas, remove the fitting and replace the plug. Thread sealant will be required to ensure a gas tight connection.

## Correct gas pressure requirement:

Supply Pressure	Natural Gas	Propane
<b>Min. Pressure</b> (For purpose of input adjustment)	5.0" WC	12.5" WC
<b>Max. Pressure</b>	13.9" WC	13.9" WC
<b>Manifold Pressure</b>		
<b>Maximum</b>	3.8" WC	11" WC
<b>Minimum</b>	2.1" WC	5.5" WC

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## 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. #27 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.

Fig #27



**NOTE:**  
Proper air shutter setting is required.

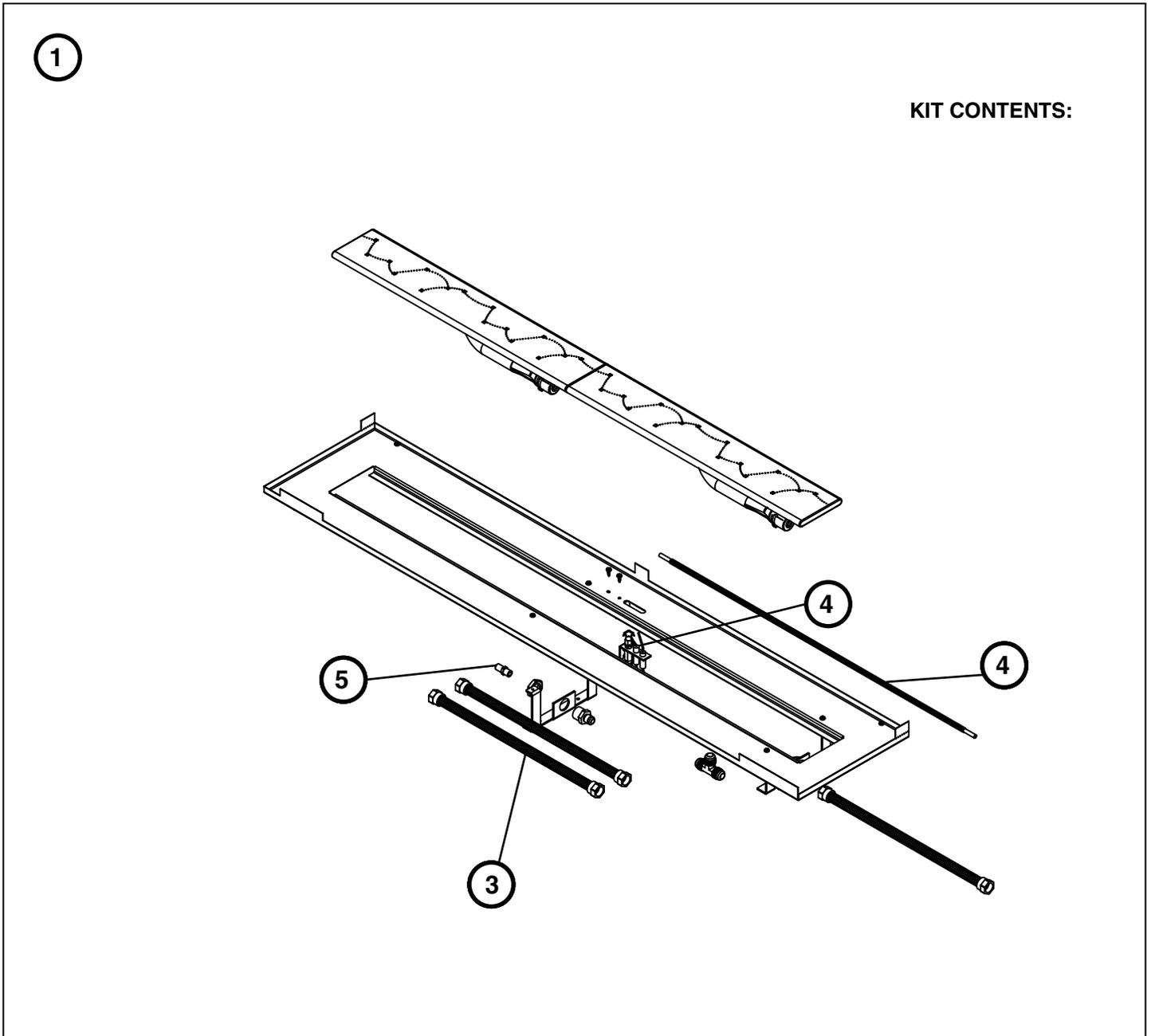
The flame should be just orange and “lazy”. It should NEVER be set to create sooting on internal parts and window glass. Allow the fireplace to run for 30 minutes before evaluating flame appearance.

# Replacement Parts

(WHEN ORDERING, INCLUDE PART NUMBER WITH DESCRIPTION)

ITEM.....DESCRIPTION..... PART NO.	ITEM.....DESCRIPTION..... PART NO.
#1..... BLACK DIAMOND BURNER ..... TCWS.38NG03.C	#5..... ORIFICE, NATURAL GAS (#40)..... 5022.3
* #2..... GLASS MEDIA ..... TCRP.501201	* #6..... PROPANE CONVERSION KIT ..... TCWS.38LPCE01
#3..... FUEL SUPPLY TUBE ..... 5019.223	
#4..... PILOT ASSEMBLY.....TCRP.5005025C	

\* NOT SHOWN





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**Technical support: 1-250-748-1184**  
**Web site: [www.townandcountryfireplaces.net](http://www.townandcountryfireplaces.net)**  
**2975 Allenby Rd., Duncan, BC V9L 6V8**