



# INSTALLATION INSTRUCTIONS

## VKSPH(N,P) VALVE KIT

FOR USE ON VENTED BURNER MODELS: BFL(2124,30)MTN

INSTRUCTIONS MUST BE LEFT WITH THE OWNER FOR FUTURE REFERENCE AFTER INSTALLATION.

### **⚠ WARNING**

This valve kit is to be installed by an Empire Comfort Systems Dealer (or other qualified agency<sup>1</sup>)\* in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. Failure to follow instructions could result in serious injury or property damage. The qualified agency performing this work assumes responsibility for this conversion.

<sup>1</sup>National Fuel Gas Code Z223.1 (Latest Edition)

\*The term "qualified individual", firm, corporation or company which either in person or through a representative is engaged in and is responsible for (a) the installation of gas piping or (b) the connection, installation repair, or servicing of equipment, who is experienced in such work, familiar with all precautions required, and has complied with all the requirements of the authority having jurisdiction.

### CHECK SAFETY SHUTDOWN PERFORMANCE

### **⚠ WARNING**

Perform the safety shutdown test anytime work is done on a gas system to avoid the possibility of fire or explosion with property damage, personal injury or loss of life.

#### TOOLS NEEDED:

- 3/8" Open-end wrench
- 5/16" Open-end wrench
- 9/16" Open end wrench
- 1/4" Hex driver
- 5/16" Hex driver
- Electric screw gun
- Adjustable wrench

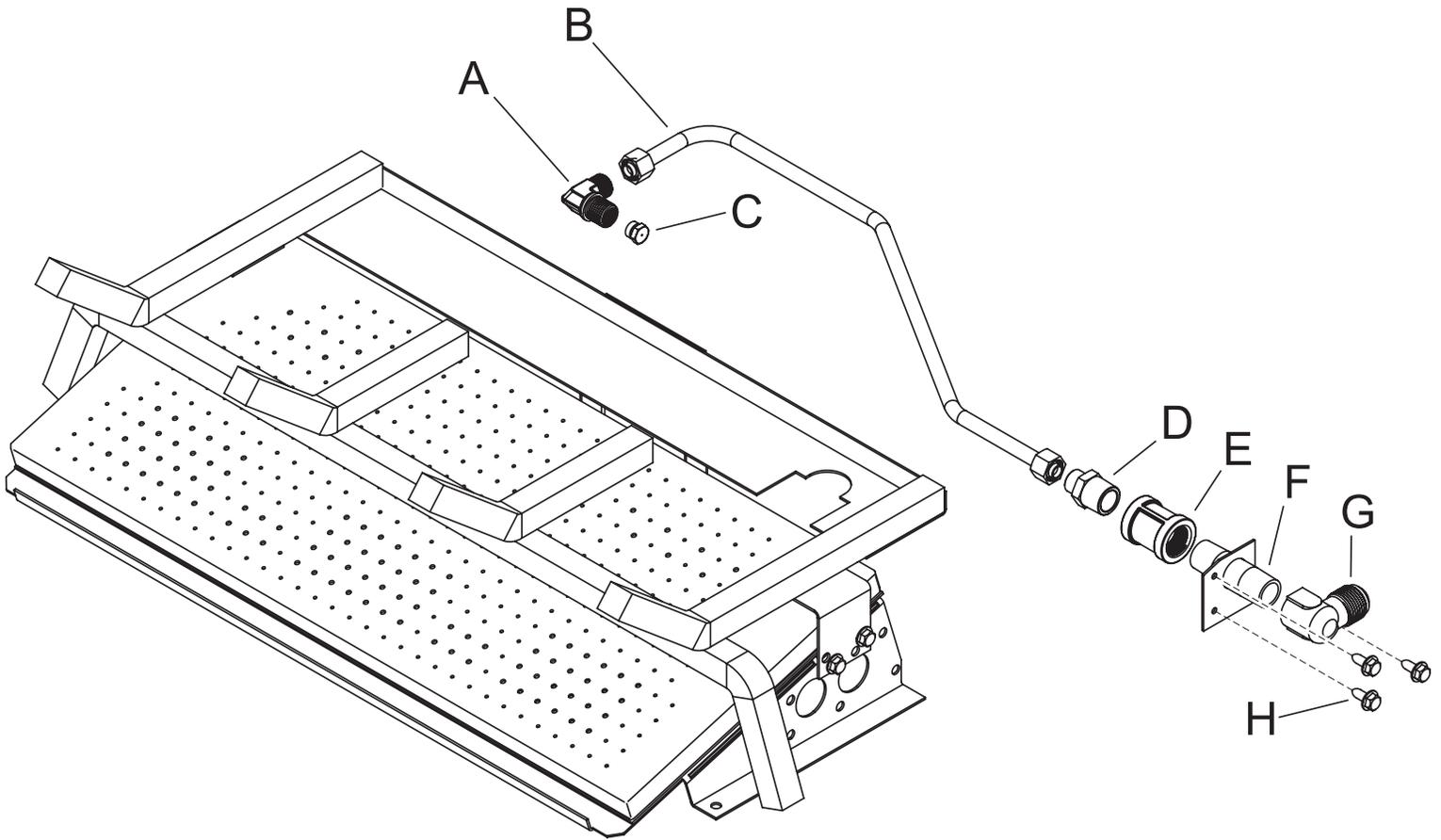


Figure 1

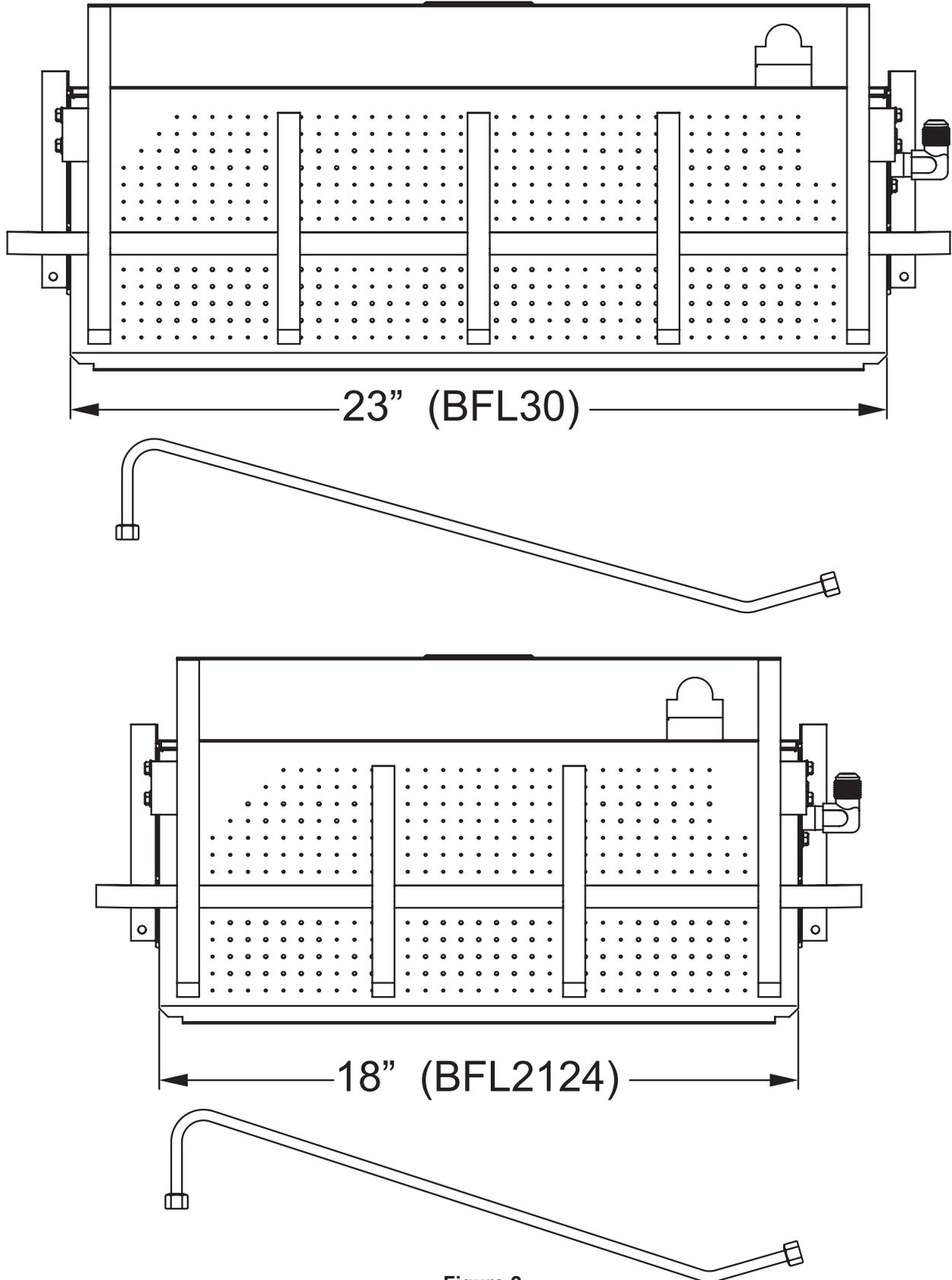
TABLE 1		
Match-Light Components - Disassembly Diagram (Figure 1)		
A	Orifice Fitting Elbow	KEEP - WILL BE REUSED
B	Match-Light Tube Assembly	REMOVE AND DISCARD
C	Match-Light Orifice	REMOVE AND DISCARD
D	Tube Connector, Brass	REMOVE AND DISCARD
E	3/8" NPT Union	REMOVE AND DISCARD
F	Nipple Weldment	REMOVE AND DISCARD
G	1/2" Flare X 3/8" NPT Elbow, Brass	KEEP - WILL BE REUSED
H	#10 Screws	REMOVE AND DISCARD

**REFERENCE FIGURE 1 AND TABLE 1 DURING THE FOLLOWING DISASSEMBLY STEPS:**

1. Remove the logs, fiber heat sink, and rockwool from the burner surface.
2. Disconnect the gas line and remove the burner from the firebox. Move the burner to a suitable work area.
3. Using a 9/16" wrench, remove the Match Light Tube Assembly (B) from the Orifice Fitting Elbow (A) and the Tube Connector (D).  
Keep this for later.
4. Using an adjustable wrench, remove the 1/2" Flare Elbow (G) from the nipple on the side of the burner.
5. Using a 5/16" hex driver, remove the three #10 screws (H), Nipple Weldment (F), 3/8" NPT Union (E), and Tube Connector (D).
6. Un-screw the Orifice Fitting Elbow (A) from the Venturi Air Shutter. Remove the orifice from the Fitting Elbow. Discard the orifice but **KEEP THE FITTING ELBOW FOR LATER.**

**MANUAL VALVE TUBE SELECTION:**

1. Refer to **Figure 2** to determine which size burner you are working with. Select the appropriate tube from the valve kit and discard the other one.



**Figure 2**

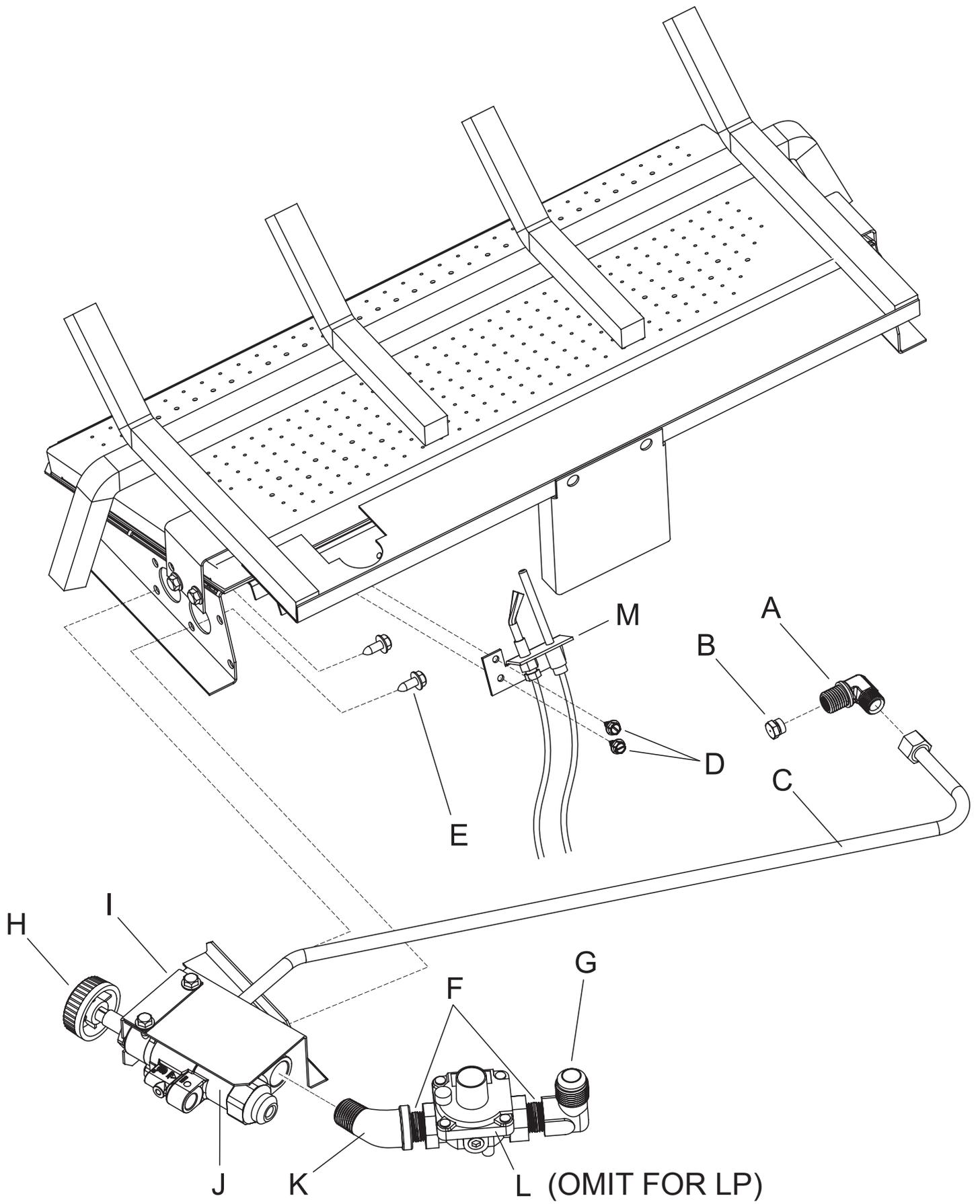
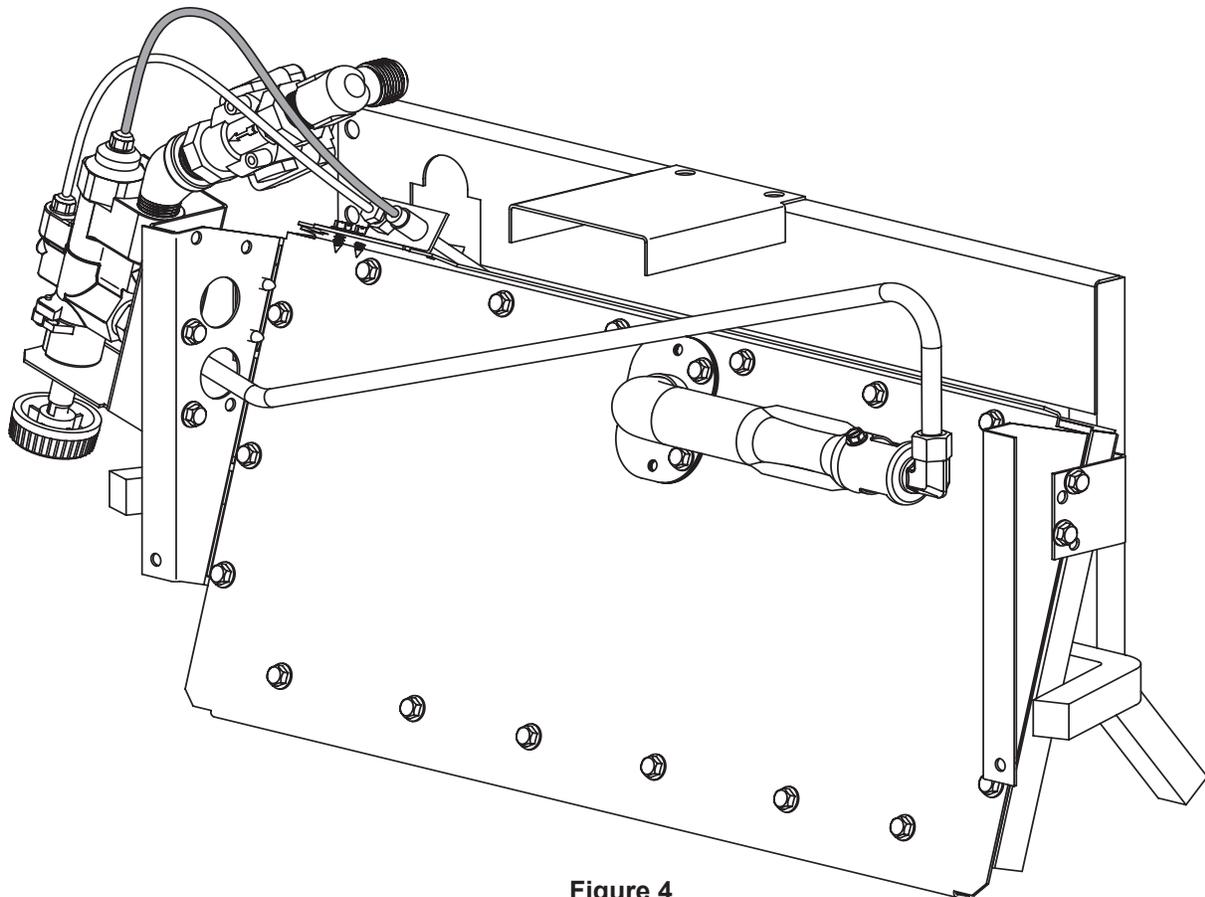


Figure 3

**TABLE 2****Manual Components, Assembly Diagram (Figure 3)**

	Description	Part Number	Notes
A	Orifice Fitting Elbow		Retained From Match-Light Configuration
B	Orifice	P252	Orifice, #44 - 24" LP Burner
		P286	Orifice, #42 - 30" LP Burner
		P280	Orifice, #29 - 24" NG Burner
		P273	Orifice, #22 - 30" NG Burner
C	Burner Supply Tube Assembly	38663	Use Longer Tube For 30" Burner
		38638	Use Shorter Tube For 24" Burner
D	#8 X 3/8" Screws		
E	#10 X 1/2" Screws		
F	3/8" Close Nipple	R12059	Two Required For NG Burners
			One Required For LP Burners
G	3/8" NPT x 1/2" Flare Elbow, Brass	38632	Retained From Match-Light Configuration
H	Valve Knob	R12050	
I	Valve Bracket	38631	
J	Manual Valve	R12049	
K	3/8" NPT 45 Degree Elbow, Brass	R11031	
L	5.3" Regulator	R11044	Use on (NG) Burners Only
M	Pilot	R12051 (NG or LP)	
		Add R12069 Pilot Orifice For LP Only	

**Figure 4**

**REFERENCE FIGURES 3, 4, AND TABLE 2, DURING THE FOLLOWING ASSEMBLY STEPS:**

1. Select the correct Orifice (B) for your application from **Table 2** and, using a 3/8" wrench, install it into the Orifice Fitting Elbow (A) retained from the disassembly sequence. DO NOT use an incorrect orifice.
2. Install the Orifice Fitting Elbow w/ Orifice back into the Venturi Air Shutter, pointing rearwards.
3. Attach the assembly of items (K), (F), (L), and (G) to the Manual Valve (J), oriented as shown in **Figure 3**. Use pipe dope on threaded connections. OMIT THE REGULATOR (L) and one Nipple (F) if this is an LP burner.
4. Using a 9/16" wrench, attach the Manual Tube Assembly (C) to the Manual Valve (J) as shown in **Figure 3**.
5. Feed the Tube Assembly through the front-most hole in the burner leg as shown in **Figure 4**.
6. Attach the Valve Bracket (I) to the burner leg using a 5/16" hex driver and two #10x1/2" Screws (E).
7. Attach opposite end of Tube Assembly ( C ) to the Orifice Fitting Elbow (A) using a 9/16" wrench.
8. Using a 1/4" hex driver and two #8x3/8" Screws (D), attach the Pilot (M) to the burner base as shown in **Figure 3**.
9. Attach the Pilot Line to the Valve using a 3/8" wrench, and the Thermocouple Line to the valve using a 5/16" wrench, as shown in **Figure 4**.
10. Neatly arrange the Pilot and Thermocouple Lines behind the burner.
11. Attach lighting instruction plate to rear hole in burner leg using included length of chain.
12. Return burner assembly to fireplace.
13. Connect gas line to Brass Flare Elbow (G).
14. Compounds used on threaded joints of gas piping shall be resistant to the action of liquefied petroleum gases. The gas lines must be checked for leaks by the installer. Testing for leaks on all exposed connections should be done with leak test solution or a soap solution. After testing is complete, all solution should be cleaned off. On unexposed connections, a pressure test should be made. Never use an exposed flame to check for leaks. Burner must be disconnected from piping at inlet of control valve and pipe capped or plugged for pressure test. Never pressure test with fireplace connected; control valve will sustain damage!
15. Replace rockwool on burner surface. See burner Installation Manual for more information.
16. Reinstall Fiber Heat Sink
17. Reinstall logs according to log instruction manual.
18. Installation is complete.

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