

# MODEL CVS303

## SAFETY PILOT KIT

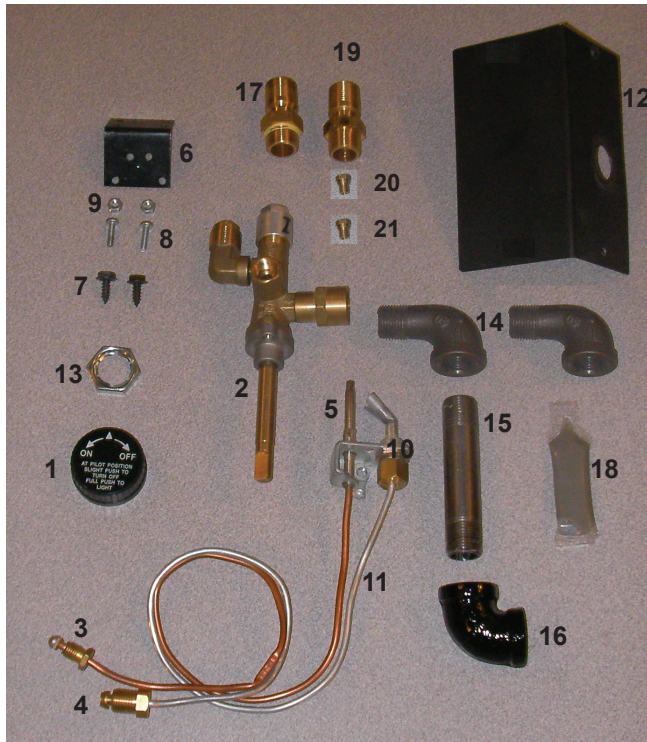
### Supplemental Installation Instructions for use with Natural Gas Log Sets

**NOTE:** This kit is for both Natural Gas and LP Gas applications. For LP (Propane) Gas installation, see additional LP/Propane instructions packaged with necessary hardware.

**DO NOT USE THE NATURAL GAS ORIFICE HOLDER SUPPLIED WITH THIS KIT ON LP(PROPANE) GAS INSTALLATIONS! IMPROPER COMBUSTION WILL OCCUR!**

### IMPORTANT:

Read and follow ALL instructions carefully, as these supplemental Pilot Assembly instructions are to be used in conjunction with the General Installation Instructions supplied with all Vented Natural Gas Log Sets.



### Illustrated Parts List

Part No.	Description	Part No.	Description	Part No.	Description
1	Control Knob	9	Nut (2)	17	Natural Gas Orifice Holder (No Orifice)
2	Gas Control Valve	10	Pilot Orifice Location (NG)	18	Thread Sealant
3	Thermocouple lead connection	11	Pilot supply line	19	LP Orifice Holder
4	Pilot Line Connection	12	Heat Shield	20	LP Orifice 18" set (Small Hole)
5	Pilot Burner Assembly	13	Lock Nut (3/8 NPT)	21	LP Orifice 24" set (Large Hole)
6	Pilot Bracket	14	Street Elbow, 90 deg. (2)	<b>You will need to purchase ACC 18 When converting to LP/Propane gas</b>	
7	Sheet Metal Screw (2)	15	3" Pipe Nipple		
8	Machine Screw (2)	16	3/8 Female Pipe Elbow		

**National fuel gas code requirements mandate the use of a Safety Pilot Valve on all LP/Propane applications. These regulations MUST be followed on all installations of this type.**

# INSTALLATION ON DUAL BURNER SYSTEMS

**⚠ WARNING:** This product contains and/or generates chemicals known to the State of California to cause cancer or birth defects, or other reproductive harm.

This Safety Pilot Kit contains a Control Valve certified by C.S.A., which provides a safe and convenient way to ignite your Energy Efficient gas log set.

**HEARTH PAN INSTALLATION** (These items provided with your Log Set and not included in CVS303 kit)  
If using propane/LP gas, see LP/Propane Conversion sheet before installing hearth pan.

A. Place the burner pan assembly in the center of the fireplace floor. Make sure the front of pan faces forward. Determine if the fireplace has a right or left side gas line feed. The circular “dimpled” hole covering (See *Figure 4 A* below) must be knocked out on the appropriate side (right or left) of the burner pan.

**NOTE:** Brace pan on workbench when removing burner knock-out. Strike knock-out plug with a punch or drift.

B. Slide the 3/4” burner support spacer (Part #9) over the Dual Burner bar (Part #10) and move spacer to opposite side of the gas inlet connection (See *Figure 1*).

## INSTALLATION OF NATURAL GAS SAFETY PILOT VALVE

This Safety Pilot Kit contains a Natural Gas Orifice Holder (use the Burner Orifice (See *Figure 2*) provided with your Burner System) If connecting to LP/Propane, use the L.P. Gas hardware and LP instructions, packaged separately in this kit.

C. Attach Pilot Bracket (Part #6) to the Burner Pan, using the sheet metal screws (Part #7). Install sheet metal screw into the two holes of the bracket (See *Figure 4*).

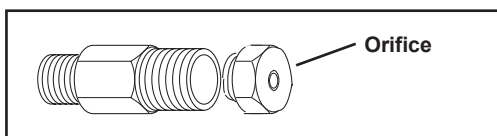
D. Attach Pilot connection (Part #4) and the Thermocouple connection (Part #3) to the Gas Control Valve in the locations shown in *Figure 5*.

**NOTE:** When connecting to the Control Valve, hand tighten both the Pilot Gas connection and Thermocouple connection, then tighten 1/8 turn with a wrench. **DO NOT OVER TIGHTEN** as this may cause improper operation of the pilot.

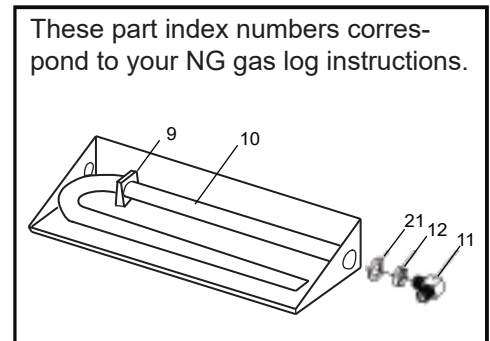
**Note:** Use pipe sealant on all male threads to seal joints.

E. Connect the two 3/8” Street Elbows (Part #14) and screw the 3/8” Locknut (Part #13) down on the male threads of the elbow. Place the hole of the Heat Shield (Part #12) over the elbow and slide it down against the locknut. Apply pipe compound to the male threads of the elbow and attach it to the control valve (See *Figure 5*).

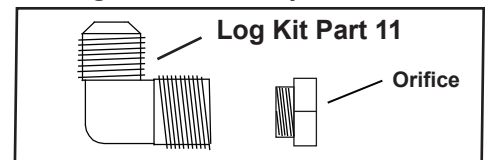
F. Install the burner orifice provided with your Log Set Burner System into NG Orifice holder (Part #17) with NG orifice (See *Figure 3*). install second Locknut (from Log kit) onto the the Orifice Holder (at the same end as orifice). Attach the 3/8” Natural Gas Orifice Holder (Part #17) through the washer (Log Kit Part # 21) and Burner Pan to the Burner Bar using the 3/8” Locknut.



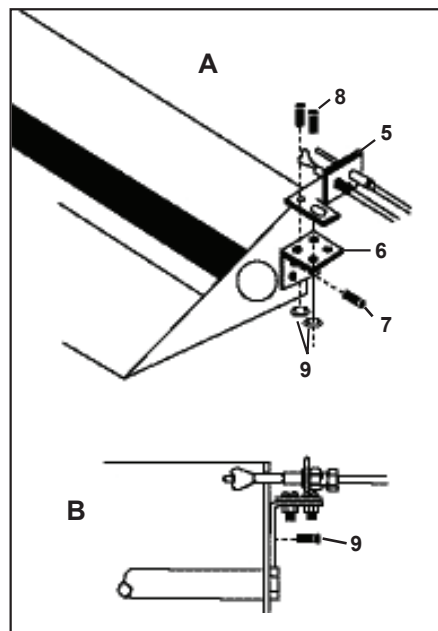
**Figure 3 - NG Orifice Holder**



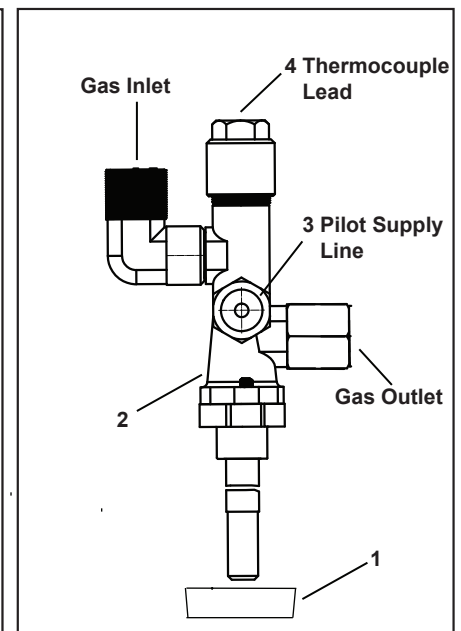
**Figure 1 - Burner pan and bar**



**Figure 2 - Orifice and elbow**



**Figure 4 (A&B) Pilot Assembly**



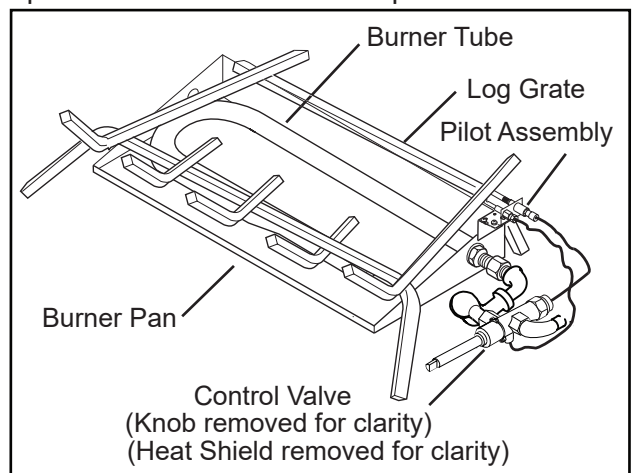
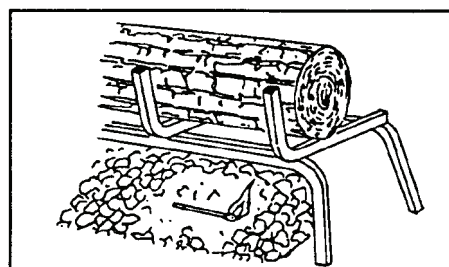
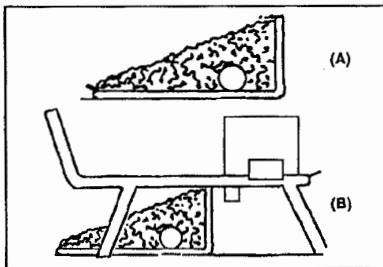
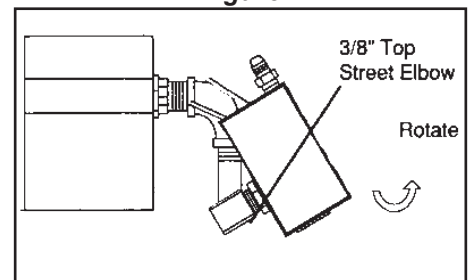
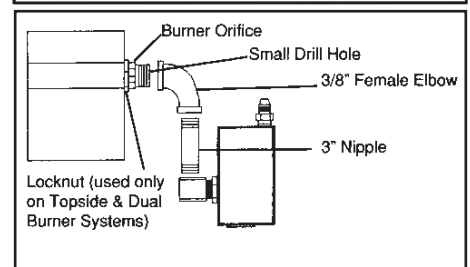
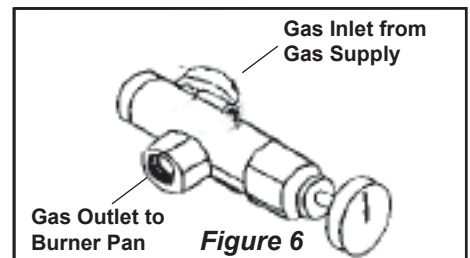
**Figure 5 Gas Control Valve (shown from below)**

# INSTALLATION ON DUAL BURNER SYSTEMS cont.

- G. Using pipe sealant the 3" Nipple (Part #15) to the 3/8" Street Elbow attached to the valve assembly and to the 3/8" Female Elbow (Part #16). Connect the 3/8" Female elbow, which is now connected to the entire valve assembly to the Burner Orifice. Using pipe sealant on threads. (See Figure 7)
- H. The valve assembly can be rotated to better conceal the controls. Simply rotate the entire valve assembly by turning the top 3/8" Street Elbow with a wrench. (See Figure 10)
- I. Attach Pilot Burner Assembly (Part #5) to the Pilot Bracket (Part #6) (See Figure 4B on the previous page), using the bolts (Part #8) and nuts (Part #9). Carefully bend the Pilot tubing (Part #11) when attaching the Pilot Burner Assembly to the Burner Pan. Care should be taken not to kink the tubing, which would restrict gas flow to the Pilot Burner.

**NOTE:** The Pilot Bracket utilizes four mounting holes for adjustment of the Pilot Burner Assembly should your installation require repositioning. Repositioning of the Pilot Burner Assembly may be necessary if the log set is experiencing intermittent shutdown. Shutdown is caused by overheating of the Pilot Burner Assembly by the main burner flame. If shut down is occurring, move the Pilot Burner Assembly over to the next mounting hole so that only the tips of the Pilot Burner Assembly are hanging over the Burner Pan.

- J. Place the assembled Burner Pan with the Gas Control Valve back in the center of the fireplace.
- K. Connect the 1/2" gas supply line from the fireplace to the 3/8" flare fitting on valve with the 3/8" Flared Tubing supplied with the gas log set. Refer to the General Installation Instructions section titled "Connecting Gas Supply to Burner Pan" for full instructions.
- L. Test connections for leaks with soapy water. Retighten if necessary, and retest the connections to determine if any other leaks are present.



- M. Spread granules (Log Kit Part #16) over the installed burner pan. Granules should be sloped to the same angle as the burner pan filling the entire pan (See Figure 8A).
- N. Spread Glowing Embers (Log Kit Part #17) evenly over the top of the granules covering the entire surface area, concentrating on the front and sides of the burner pan as shown (Figures 8 & 9) for the most realistic burning effect.
- O. Place Log Grate (Log Kit Part #7) over the Burner Pan, aligning as shown in Figure 8B.
- P. Attach Back Log Standoff (Log Kit Part #18) to the back part of the grate (See Figure 8B).

# LIGHTING YOUR GAS LOGS WITH THE SAFETY PILOT KIT

## 1. Light Pilot

Turn Control Knob to Pilot Position (*Figure 6*), push knob fully in and hold a long lighted match at the outlet of Pilot Burner Assembly. After lighting the Pilot, hold the Control Knob in the ignition position for approximately 45 seconds. This is an adequate time for the Thermocouple to reach an operational temperature in order to keep the Pilot lit once the Control Knob is released. If the Pilot does not remain lit, turn the Control Knob to the Off position, wait 5 minutes, then repeat the process as outlined above.

**NOTE:** If the Pilot continues to go out, check to be sure the Pilot Thermocouple connection (Part #5) has not been overtightened to the Gas Control Valve.

## 2. Burner Ignition

To light the Burner, turn the Control Knob counter clockwise from the Pilot Position to the On Position (*See Figure 7*). In this position, both the Pilot Burner and Main Pan Burner will be lit.

## 3. Burner Shutdown (Pilot remains lit)

To turn off the Burner Pan, move the Control Knob clockwise back to the Pilot Position (*See Figure 6*). This will extinguish the Main Burner Pan, but will keep the Pilot Burner lit for instantaneous ignition of the Main Burner Pan the next time you wish to use your gas log set.

## 4. Total Burner Shutdown (Burner and Pilot off)

To turn off the gas supply to the Main Burner Pan and the Pilot Burner move the Control Knob clockwise from the Pilot Position to the "OFF" Position (*See Figure 8*).

**NOTE:** The Control Knob will need to be depressed slightly in order to move it from the Pilot Position to the "OFF" Position.

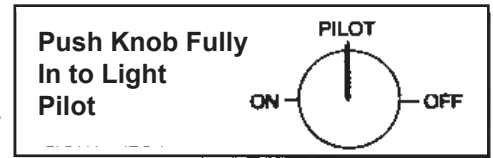


Figure 6- Rotate control valve to Pilot Position

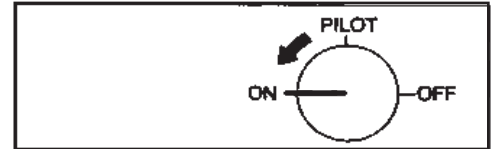


Figure 7- Rotate control valve to On Position to ignite burner

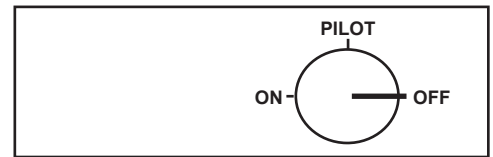


Figure 8- Rotate control valve to Off Position for both Pilot and Burner shutdown

## **TROUBLESHOOTING**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>CORRECTIVE ACTION</b>
1. Pilot noise	Excess pressure	<ul style="list-style-type: none"> <li>• Check line pressure and adjust to 7 inch water column.</li> <li>• Adjust pilot location away from flame.</li> </ul>
2. Pilot will not light	Inadequate gas flow  Thermocouple too tight	<ul style="list-style-type: none"> <li>• Check all valves</li> <li>• Clear obstructions</li> <li>• Check for line kinks</li> <li>• Loosen Thermocouple slightly</li> </ul>
3. Pilot & Burner go out after burning for several minutes (up to one hour)	Overheating of Thermocouple	<ul style="list-style-type: none"> <li>• Check to see that Main Burner Flames are not hitting the Thermocouple (move Pilot Assembly so only the tips of the Thermocouple and pilot are hanging over the burner pan).</li> <li>• Reposition logs, if that is the cause , move Main Burner flames away from the Thermocouple.</li> <li>• If you have glass doors, open them fully when operating your gas logs.</li> </ul>

## LIMITED WARRANTY

**Limited Warranty shall apply to the original purchaser at the original installation point only.**

Pilot, valves and thermocouples are guaranteed for a period of one (1) year under the original manufacturers warranty.

General Warranty: This warranty does not apply in the case of improper installation, neglect, accident, misuse or as a result of modifications of the original product.

All costs for removal and re-installation are the expressed responsibility of the purchaser

For repair, replacement, or service to defective part(s) please contact our Customer Service Hotline, number below. Thereafter with valid warranty registration and proof of purchase, call the Customer Service Hotline for authorization to ship defective part prepaid and insured in original carton to Sure Heat Manufacturing, 3140 Moon Station Road, Kennesaw GA 30144. Goods returned improperly packaged are the sole responsibility of purchaser.

It is agreed that any repair or replacement is the exclusive remedy from Sure Heat Manufacturing. In no case shall Sure Heat be liable for any consequential damage or breach of this or any other warranty expressed or implied whatsoever. This limitation as to consequential damages shall not apply in states where prohibited.

Purchased From: \_\_\_\_\_ Date: \_\_\_\_\_

**Size:**  18"  24"  30" **Model: CVS303 Safety-Pilot Valve Kit**

Name: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Please photocopy and return registration along with proof of purchase  
within 14 days of purchase to:**

**SHM International 3140 Moon Station Road, Kennesaw GA 30144**

**If you have other questions, please contact the  
Customer Service Hotline — (800) 229-5647**