

# **ELEGANT EMBERS™**

## **RADIANT HEAT BURNER™ SYSTEM SAFETY PILOT LIGHT**

(For Model #'s SPK-NG, SPK-LP18, SPK-LP24, SPK-LP30)  
**OWNERS MANUAL and INSTALLATION GUIDE**

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**WARNING:** If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### **WHAT TO DO IF YOU SMELL GAS**

- \* Do not try to light any appliance.
- \* Do not touch any electrical switch; do not use any phone in your building.
- \* Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions.
- \* If you cannot reach your gas supplier, call the fire department.

Installation and services should be performed by a qualified, professional installer, service agency or gas supplier.

### **INSTALLER & CONSUMER:**

**These instructions MUST be retained with this appliance.**

**BE SURE YOUR FIREPLACE DAMPER IS FULLY OPEN WHEN OPERATING THE LOG SET. YOUR ELEGANT EMBERS™ LOG SET IS TO BE BURNED ONLY IN A FULLY VENTED NONCOMBUSTIBLE FIREPLACE WITH DAMPER AND CHIMNEY FREE OF ANY OBSTRUCTIONS. THE FIREPLACE MUST BE DESIGNED AND APPROVED TO BURN WOOD.** Like burning a natural wood fire, your Elegant Embers™ log set is designed to burn with a realistic yellowish smoky flame. For this reason it must be adequately vented. Be sure your fireplace damper is fully open when you burn your gas log set. The smallest dimension of the chimney flue must be at least 8 inches. If it is smaller, **DO NOT USE AN ELEGANT EMBERS™ GAS LOG SYSTEM.** If fumes or an odor from the burner emerge into the room when the damper is fully open, creating an exhaust like smell it indicates that the fireplace draft is defective. Check your chimney flue for obstructions. **DO NOT OPERATE GAS LOGS UNTIL THE FIREPLACE DRAFT IS CORRECTED.** Check with your dealer or installer. Do not use firewood with this unit.

**This Safety Pilot System contains a control certified by C.S.A. and A.G.A.**



## **IMPORTANT INFORMATION**

The installation, including provisions for combustion and ventilation air, must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (latest edition).

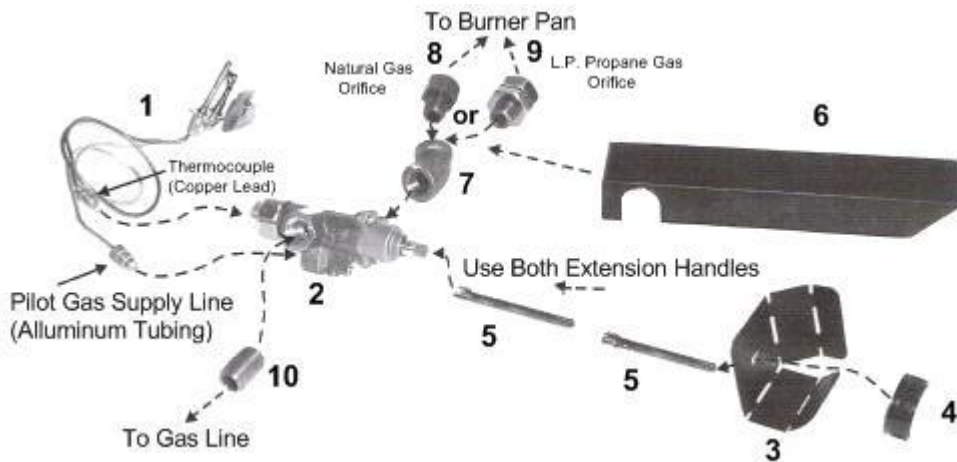
This appliance and its individual shutoff valve must be disconnected from the gas supply piping system when testing at pressures that exceed ½ psig. This is accomplished by closing the gas supply line valve, which is required by NFPA 54.

This appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any testing of the gas supply system at test pressures up to and including ½ psig.

**WHEN GLASS FIREPLACE ENCLOSURES (DOORS) ARE USED, OPERATE THE GAS LOG SET WITH THE GLASS DOORS OPEN, BOTH SIDES IF FIREPLACE IS SEE-THRU TYPE.**

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### **Safety Pilot Kit Parts List**



Picture 1

1. Pilot Assembly (complete)  
Natural Gas (**Green**) – L.P. (**Red**)
2. Safety Control Valve
3. Heat Shield
4. Safety Control Valve Knob
5. Safety Control Valve Extension Handle (2 each)
6. Air Mixer Cover (With propane gas pilot light purchase only)
7. 3/8" x 45° Elbow
8. Natural Gas Orifice (With natural gas pilot light purchase only)
9. L.P. Gas Air Mixer Orifice (With propane gas pilot light purchase only)
10. 3/8" x 1" Nipple

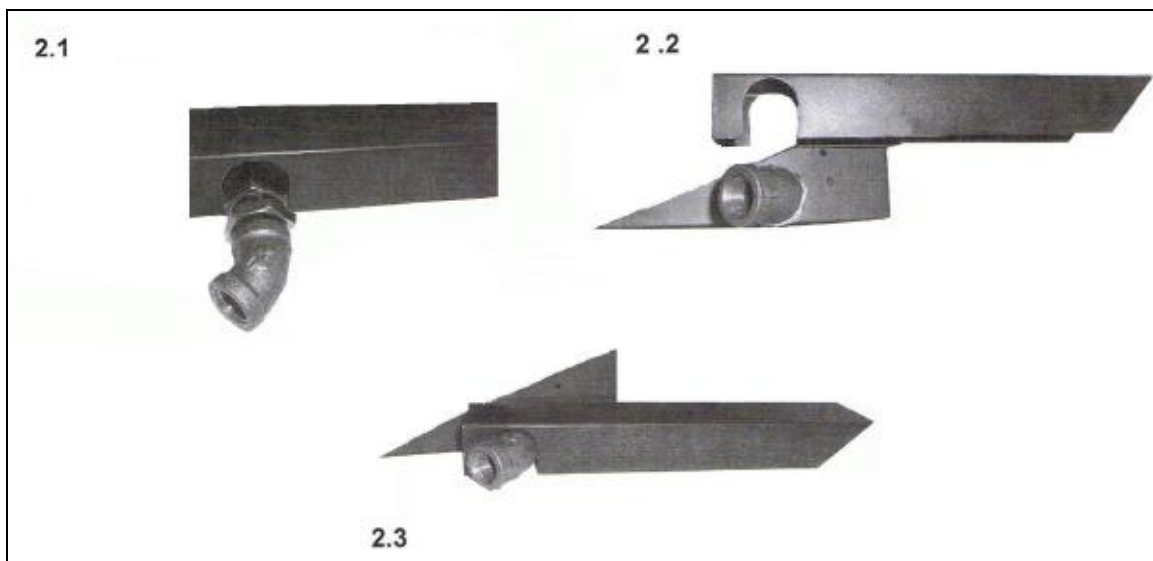
## HOW TO INSTALL YOUR SAFETY PILOT KIT (SPK)

**Warning:** These instructions must be used as a supplement to the instructions supplied with your gas log set. Follow the gas log set instructions and make adjustments as appropriate for the addition of a Safety Pilot Kit. **Apply approved gas pipe sealant (paste or tape) to all male pipe threads.** Make sure all gas connections are tight. Check for gas leaks with leak detector after all final connections are made and gas is turned on. If leaks are detected, stop all leaks before lighting the gas log.

**GETTING STARTED:** Determine if you are connecting the SPK Valve to a LP (Propane) or Natural Gas system. Make sure your Safety Pilot Kit is of the correct gas type for your installation.

For **L.P. (Propane Gas)** proceed with step 1. For **Natural Gas** proceed with Step 2.

**STEP 1** - Remove factory mounted Natural Gas burner orifice from the burner pan if one is installed. Install LP – Air mixer burner orifice (supplied in this kit) to the burner pan. Install LP – Air Mixer Cover (supplied in this kit). See Picture 2. The LP – Air Mixer Cover must be flush with the fireplace floor and extended to rear of fireplace. See Picture 2.3. If fireplace is shallow, trim the cover as necessary to allow proper burner positioning. Trim cover on the same profile as seen. See picture 2.3. Remove LP – Air Mixer Cover and set aside once proper fit in the fireplace has been assured. It will be replaced in step 3C.



**Picture 2**

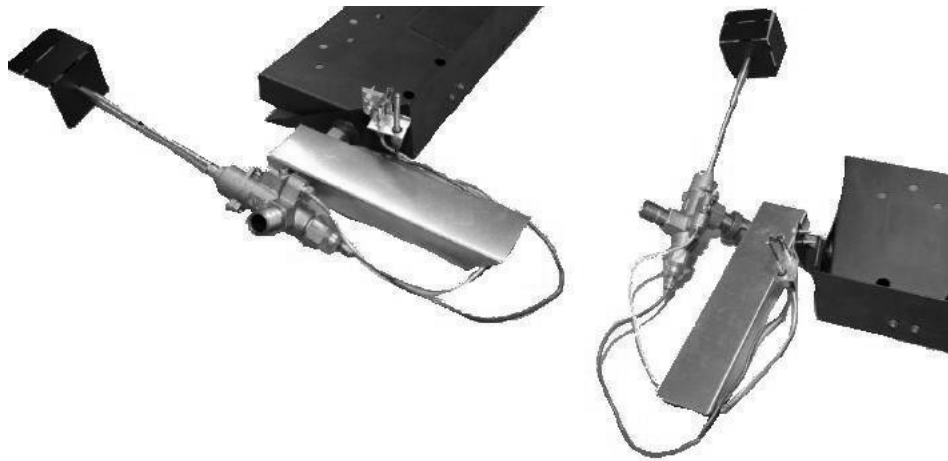
## STEP 2 – CONNECT THE SAFETY PILOT VALVE TO THE BURNER

**REMEMBER to use gas pipe sealant on ALL male pipe threads.**

A – Determine what side of the gas log burner to assemble the Safety Pilot Valve to. Either the LEFT side or RIGHT side. Attached to the burner pan is a burner orifice fitting and a cap. The burner orifice is required to be on the same side of the burner pan as the Safety Pilot Valve. Install cap on the opposite side of the burner orifice. Make adjustments as necessary.

B – Attach the 3/8" x 45° elbow (or optional 90° elbow) to burner orifice fitting. Screw the SPK Valve to the 45° elbow. Be aware that the final position needs to be parallel with the side wall of the fireplace and the On/Off Knob facing forward.

C – Attach the 3/8" x 1" nipple to the SPK Valve gas inlet. Screw 3/8" FIP x 3/8" Flare brass fitting (supplied in the **Radiant Heat Burner™** Kit) onto nipple.



**STEP 3 – INSTALL PILOT ASSEMBLY (part #1) TO THE RADIANT HEAT BURNER™ AND SPK VALVE. See Picture 3 and 4 above.**

**CAUTION – DO NOT KINK THE PILOT SUPPLY TUBE OR THERMOCOUPLE LEAD! DO NOT GET GRANULES INTO THE PILOT ASSEMBLY HOOD!**

A – Attach Thermocouple Lead (copper lead) to the SPK Valve. Attach Pilot Supply tube (aluminum tube) to SPK Valve. See Picture 1.

B – Carefully hand form the Thermocouple Lead and Pilot Supply Tube so you can attach the Pilot Assemble Bracket to the **SIDE** of the **Radiant Heat Burner™**. (Do not attach to back of burner.) See Picture 3 and 4.

C – Replace LP Air Mixer Cover (Propane use only) over the burner orifice fitting.

**IMPORTANT: Completely submerge Pilot Assembly (part #1) and Safety Pilot Valve (part #2) with the ASH supplied with the Elegant Embers™ Radiant Heat Burner™ Kit to protect SKP valve from overheating. Leave only ½” of the Pilot Assembly tip exposed as shown in picture 9. When covering the SKP valve and LP – Air Mixer Cover with ASH be careful not to clog LP – Air Mixer orifice or block air intake of the cover at the rear of fireplace. See picture 8 thru 11 below.**

We recommend that before you install your log set you familiarize yourself with the control valve layout. This will help you to be confident operating the log set when fully installed. See pictures 5 thru 7 below for typical control positions.

## **Safety Pilot Kit Operating Instructions**

### **HOW TO LIGHT THE PILOT**

To light the pilot from the “PILOT” position (Picture 6), push in slightly on the knob and turn to the “OFF” position (Picture 5). Wait five minutes, then turn the knob to the “PILOT” position (Picture 6). Push the knob fully in and at the same time place a long lighted match or long necked lighter at the pilot burner. The pilot should light. Hold the knob in approximately 60 seconds. If the pilot does not stay lit turn knob to the “OFF” position (Picture 5). Wait five minutes and repeat the lighting instructions.

## HOW TO TURN YOUR GAS LOG SET ON AND OFF USING YOUR SAFETY PILOT LIGHT

**BE SURE THE DAMPER IS FULLY OPEN WHEN OPERATING YOUR GAS LOG SET.** TO TURN ON THE GAS LOG SET FROM THE PILOT POSITION when pilot is lit (Picture 6) turn the knob 90° clockwise to the ON position (Picture 7).

TO TURN OFF THE GAS LOG SET FROM THE ON POSITION (Picture 7), turn the knob 90° counter clockwise to the PILOT position (Picture 6).

TO TURN OFF THE GAS LOG SET AND THE PILOT FROM THE PILOT POSITION (Picture 6), push in slightly on the knob and turn 90° counter clockwise to the OFF position (Picture 5).

### FOR IMPROVED PILOT OPERATION

**PILOT ADJUSTMENT.** Should the pilot require adjustment, the following steps should be taken: With the pilot lit and the control knob in the pilot position, use a long narrow screw driver and turn the pilot adjustment screw slowly clockwise to reduce the pilot flame or counterclockwise to increase the flame. The adjustment screw can be turned so that the pilot flame is completely extinguished. Some tightening of the screw may occur during adjustment, this is normal. The pilot flame should be a soft blue color with slightly yellow tipping which encircles the thermocouple tip.

Turn the control knob to the ON position to assure proper ignition of the log burner.

READ HERE



Use "OFF" only when complete shutdown is necessary.

**Picture 5  
OFF POSITION**

**BURNER OFF  
PILOT OFF**

READ HERE



Turn dial to "PILOT" position. With match ready, press knob in and hold for 60 seconds while lighting pilot.

**Picture 6  
PILOT POSITION**

**BURNER OFF  
PILOT ON**

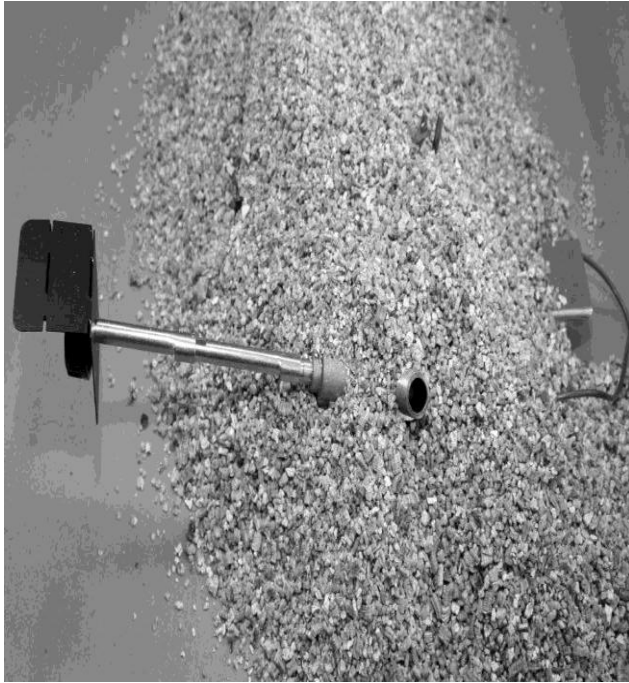
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Turn knob to "ON" position to light burner.

**Picture 7  
ON POSITION**

**BURNER ON**



**(Picture 8 – Side view) Pilot Light Assembly installed and covered with ash.**



**(Picture 9) Pilot Assembly covered leaving only 1/2" of tip exposed.**



**(Picture 10 – Back view) Pilot Light Assembly installed and covered with ash.**



**(Picture 11) Be sure to keep back of LP Air Mixer Cover clear of ash for proper air flow.**

## TROUBLESHOOTING YOUR SAFETY PILOT KIT

PROBLEM	CAUSE	SOLUTION
1. Pilot will not light.	<ul style="list-style-type: none"> <li>a. Obstruction in pilot gas supply/pilot gas supply line is kinked.</li> <li>b. Inadequate gas supply.</li> <li>c. Pilot light out of adjustment.</li> <li>d. Air in line.</li> </ul>	<ul style="list-style-type: none"> <li>a. Clear out obstruction. Replace pilot gas supply line if kinked.</li> <li>b. Have gas pressure checked by installer or gas supplier.</li> <li>c. Adjust pilot (see page 6).</li> <li>d. Air should clear, attempt to relight.</li> </ul>
2. Pilot will not stay lit after releasing knob.	<ul style="list-style-type: none"> <li>a. Pilot flame out of adjustment (tip of flame should encircle tip of thermocouple).</li> <li>b. Thermocouple (SPK) either too tight or too loose.</li> <li>c. Bad thermocouple.</li> </ul>	<ul style="list-style-type: none"> <li>a. Adjust pilot (see page 6).</li> <li>b. Thermocouple should finger tight and then 1/8" turn with a wrench.</li> <li>c. Replace thermocouple.</li> </ul>
3. Log set extinguishes in a few minutes after lighting.	<ul style="list-style-type: none"> <li>a. Inadequate gas supply causing pilot flame to reduce after burning lights.</li> </ul>	<ul style="list-style-type: none"> <li>a. Using pilot adjustment, increase gas to pilot. Pilot flame must be in contact with the thermocouple tip.</li> </ul>
4. Log set extinguishes after burning for some time (approximately 10 minutes to 1 hour).	<ul style="list-style-type: none"> <li>a. Thermocouple has overheated; ash not covering thermocouple and SPK valve.</li> <li>b. Thermocouple has overheated; glass doors are closed.</li> <li>c. Thermocouple has overheated; burning flames are heating the thermocouple cold junction.</li> </ul>	<ul style="list-style-type: none"> <li>a. Be sure the ash is correctly covering the thermocouple (leave just the tip exposed) and the SPK valve.</li> <li>b. Be sure glass doors are open during operation.</li> <li>c. Be sure the pilot assembly and the flame diverter are in their proper position. Rearrange logs so that flame is not deflected to the thermocouple.</li> </ul>
5. Pilot will light without holding in knob or gas flows to burner without pilot being lit.	<ul style="list-style-type: none"> <li>a. Valve is installed backwards.</li> </ul>	<ul style="list-style-type: none"> <li>a. Reinstall valve with inlet port attached to gas supply and outlet port attached to burner.</li> </ul>

If you still experience problems with your Safety Pilot Kit, please contact your dealer.