

## IMPORTANT

**We highly recommend that our products be installed and serviced by professionals who are certified in the U.S. by NFI (National Fireplace Institute) or in Canada by WETT (Wood Energy Technical Training).**

**Read and understand these instructions before starting assembly and installation of this product. Failing to follow these instructions may void warranty. Installations must be done in accordance with local codes.**

These instructions must be used as a supplement to the instructions that came with your gas log set. Follow those instructions and make appropriate adjustments for addition of this kit. Gas supply system must be at least ½ " with appropriate pressure.

Installer: Be sure to leave these instructions with log set/ valve kit user.

User: These instructions contain valuable operating information. Please keep them for future use.



## **Assembly/Installation/Use Instructions:**

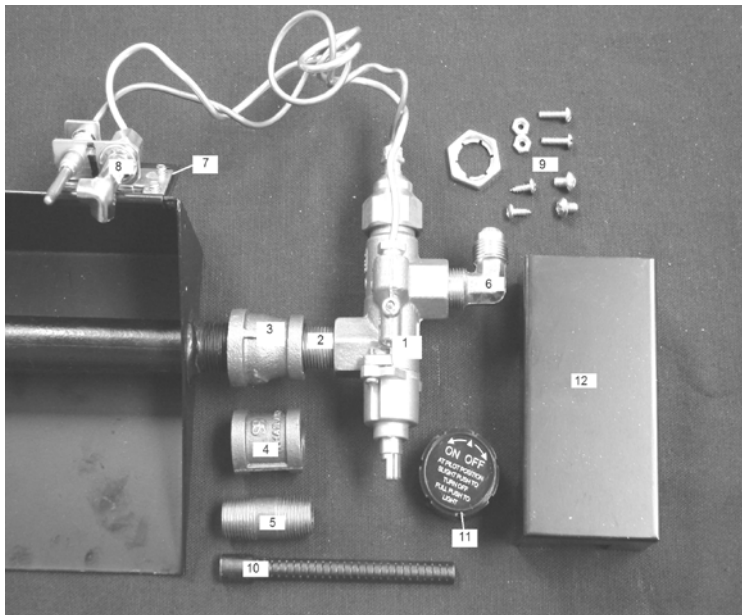
**NOTE:** 1) Use pipe dope or Teflon tape on all male pipe threads.

Do not use Pipe dope or Teflon tape on female pipe threads.

Do not use pipe dope or Teflon tape on flare connections.

2) On nearly all of our kits it is easiest and best to preassemble as much as you can before putting it in the fireplace. These instructions are written to help you do that.

These are instructions for the 72PKN and 172UPK Kits. The 72PKN is a standard safety pilot kit that uses a 300° side inlet valve and has all the fittings to connect to all gas log set burner pans that have ½" male, 3/8" male or 3/8" female threads. By adding the parts from the 70LPK LP Conversion Kit to the parts for the 72PKN Pilot kit, we make the 172UPK Kit. You now have a single kit that will allow you to make either Natural or LP installations.



### **72PKN Parts List**

- 1) 110 Valve
- 2) 500 3/8" x Close Nipple
- 3) 505 ½" x 3/8" Reducing Coupler
- 4) 509 3/8" x 3/8" Coupler
- 5) 504 3/8" x 1 ½" Nipple
- 6) 400 3/8" x 3/8" Elbow
- 7) 120 Pilot Burner Mounting Bracket
- 8) 102 Pilot Burner
- 9) 660 Parts Bag Contents
- 10) 101 Stem Extender
- 11) 111 Control Knob
- 12) 122 Heat Shield

### **70LPK Parts List**

- 1) 460 Air Mixer/Orifice
- 2) 663 Parts Bag
- 3) 125 VE8 Vermiculite

## **ASSEMBLY/INSTALLATION**

- 1) Choose between parts 3, 4 & 5 according to the threads on your burner pan. 3 for pans with 1/2" male threads, 4 for pans with 3/8" male threads and 5 for pans with 3/8" female threads.
- 2) In this step you will use either part 2 from the 72PKN parts list or, if your gas supply is LP you will use part 1 from the 70LPK parts list. Attach whichever part that is appropriate to the outlet on left side of valve. **IMPORTANT:** If you are using part 1 (from 70LPK) be sure you install it with the long end that has the air adjustment nut on it facing toward the valve and away from the burner pan.
- 3) Attach your choice of parts 3 or 4, attach it to the part you attached to the valve in step 2.
- 4) If you chose part 5 in step 1, attach it to the outlet (on left side) of valve.
- 5) Attach part 6 to the inlet (on right side) of valve.
- 6) Spin this assembly on to the burner pan.

**NOTE:** If your fuel supply is LP, now is the time to convert the pilot burner to LP. Go to 70LPK instructions on page 4.

### **7) PILOT BURNER ASSEMBLY**

Use 2 1/4" machine screws from parts bag (if the 2 mounting holes in the pilot burner bracket are threaded) or the 2 1/2" machine screws and matching nuts if they are not. See picture at right for proper assembly and installation illustration. When assembled, clip on to back or end of burner pan, as shown. Use 2 self drilling screws to close the 2 open holes in the back or end of the burner pan.



### **8) For kits that use 109 and 110 valves.**

Being very careful to not crimp tubing, bring small aluminum gas tube around from the pilot burner to the port on top of part 1 and connect it.

Again, being very careful, bring the copper conduit around from the thermocouple to the port on the back end of part 1 and connect it.

**Do not over tighten these connections. Finger tight plus 1/4 to 1/2 turn is enough.**

- 9) Attach control knob to stem of part 1. If you would like it out farther to the front, attach the 3" stem extension to stem of part 1 before attaching the control knob.
- 10) Attach one end of the aluminum gas supply tube that came with your gas log set to the part you attached earlier to the inlet port on part 1.
- 11) **Now is the time to put the assembly into the fireplace and attach the other end of the gas supply tube to the incoming gas pipe stub. An adapter to attach between the pipe stub and the aluminum gas supply tube should have been included in your gas log set.**

**NOTE: 1) FIRST TIME STARTUPS OR RE-CONNECTIONS**

BE SURE ALL AIR HAS BEEN BLED OUT OF ALL GAS SUPPLY LINES SO GAS IS GETTING TO BURNER AND BURNER TUBE. BURNER WILL NOT LIGHT UNTIL ALL AIR IS BLED OUT OF SYSTEM.

**NOTE; 2) Before lighting, open fireplace damper fully and lock it in place with the Damper clamp.**

**PILOT & BURNER LIGHTING** NOTE: it is easiest and best to light up before putting the grate and logs in place.

- 1) Turn control knob so the arrow on it is pointing straight up.
- 2) Push in on control knob until it stops (about ¼"). This will release gas to the pilot burner.
- 3) Continue to hold knob in while applying flame to the hooded part of the pilot burner every 5 or 10 seconds.
- 4) When pilot burner ignites it will begin to warm the thermocouple. Continue to hold knob pushed in for 45 to 60 seconds. After that amount of time the pilot should continue to burn when the knob is released. Repeat this step until pilot burner stays lit.
- 5) With pilot lit, turn control ¼ turn counter clockwise to the ON position. The main burner should light at this time.

**NOW IS THE TIME TO CHECK FOR GAS LEAKS.** Use a gas sniffer or soapy water on every connection joint. A gas sniffer signal or bubbles will identify leaks. If there are any, shut off the gas and repair the identified leaks. Relight system. **DO NOT LEAVE SYSTEM BURNING UNTIL ALL LEAKS ARE REPAIRED.**

- 6) Turn gas off by turning control ¼ turn clockwise (until it stops), push in it again and turn it another ¼ turn clockwise to the OFF position.
- 7) Install part over valve with open end at back and slotted end in front.
- 8) Finish out your log set per the instructions that came with it.

**USE INSTRUCTIONS**

**CAUTIONS:** Glass doors must remain open while gas log set is in operation. Operating set with doors closed could overheat the system and cause failure. This would void the warranty.

Damper must be fully open and locked in place with the damper clamp that came with your log set, while the log set is in operation. Failure to do so could cause injury or death.

**If you have burner shutdown during operation, consult trouble shooting on page 5.**

# **IMPORTANT**

**READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE INSTALLING**

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**These are instructions for the 70LPK, LP conversion kit designed to be used with all HPC safety pilot kits except the 70PKN-HC, 72PKNQM, 80PKNQM, 81PKNQM and 91PKNQM**

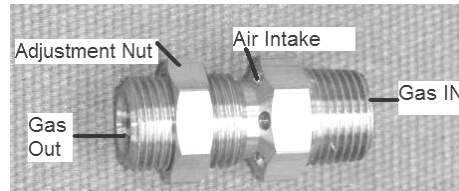


**These instructions must be used as a supplement to those that came with your gas log set and your safety pilot kit. Follow those instructions carefully and make the appropriate adjustments for the addition of this kit.**

## **70LPK Parts List**



1) 460 air mixer/orifice. Install as directed in the pilot kit that you are converting.



- 2) 663 parts bag with 104P LP Orifice for White Rodgers Pilot Assembly and 218P LP Orifice for Robertshaw pilot assembly
- 3) 125-VE8 vermiculite – use in place of sand

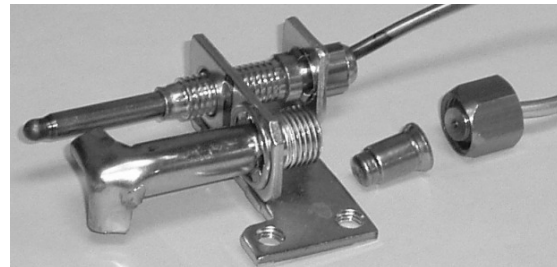
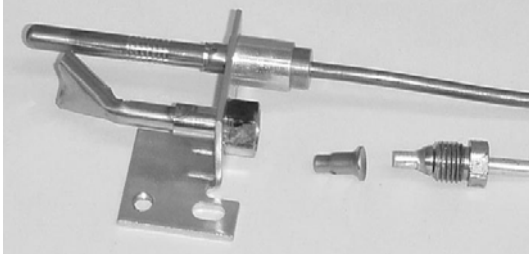


Figure 1

Figure 2

White Rodgers Pilot Assembly

Robertshaw Pilot Assembly

Step A) Choose LP pilot orifice from small plastic bag to match the pilot assembly in your pilot kit. See figures 1 and 2.

Step B) Disconnect pilot gas supply tube at bottom of pilot hood. Inside you will find a small bell shaped part. Remove it and replace it with the matching one from

this kit.

Step C) Reconnect tube to pilot hood.

Step D) Use adjustment on 460 to control air/gas mix, too much air can cause sooting.

## Safety Pilot Kit Trouble Shooting

IT IS EXTREMELY RARE FOR A VALVE, PILOT BURNER OR THERMOCOUPLE TO MALFUNCTION DUE TO A DEFECT. BEFORE ASSUMING A DEFECT BE SURE UNIT IS INSTALLED CORRECTLY AND CHECK FOR THESE CONDITIONS.

| <u>Symptoms</u>   | <u>Possible Cause</u>  | <u>Solution</u>  |
|---|--|--|
| Pilot won't light.  | <ol style="list-style-type: none"><li>1) Gas line not bled to let gas reach pilot.</li><li>2) Pilot adjustment screw not open far enough.</li><li>3) Pilot gas supply tube burned or crimped.</li><li>4) Stem on valve not being pushed in far enough.</li><li>5) Pipe dope or tape used on thermocouple connections.</li><li>6) Soot or rust covering outlet hole on pilot orifice.</li><li>7) Gas not reaching pilot because valve is installed backwards.</li></ol> | <ol style="list-style-type: none"><li>1) Bleed lines.</li><li>2) Open screw.</li><li>3) Install new line. Route away from Flame.</li><li>4) Push in about 1/4".</li><li>5) Remove pipe dope or tape.</li><li>6) Clean thoroughly and open hole with pin.</li><li>7) Re-install valve.</li></ol>        |
| Pilot won't stay lit when knob released                           | <ol style="list-style-type: none"><li>1) Thermocouple is not hot enough</li></ol>  | <ol style="list-style-type: none"><li>1) Make sure pilot flame is strong and is hitting thermo-couple and is strong enough</li><li>1a) Make sure thermocouple is paint, carbon &amp; rust free.</li><li>1b) Be sure lead wire is properly tightened at both ends (finger tight + 1/4 turn).</li></ol>  |
| Pilot lights but burner won't.                                    | <ol style="list-style-type: none"><li>1) Pilot burner too far from main burner.</li><li>2) Too much or not enough material in pan.</li><li>3) Gas not getting to burner due to debris in line.</li></ol>   | <ol style="list-style-type: none"><li>1) Relocate pilot burner.</li><li>2) Add or remove material.</li><li>3) Clear debris.</li></ol>  |
| System lights, but goes out after a while.                        | <ol style="list-style-type: none"><li>1) Thermocouple over heating. Too close to main burner.</li><li>2) Back log blocking flames.</li><li>3) Thermocouple lead over heating.</li><li>4) Glass doors shut.</li><li>5) Grate too close to be resting on thermocouple.</li></ol>   | <ol style="list-style-type: none"><li>1) Relocate pilot burner per instructions.</li><li>2) Relocate back log.</li><li>3) Move away from flame.</li><li>4) Open doors.</li><li>5) Move grate or thermocouple</li></ol>   |
| Flames come out of holes on air/mixer orifice <b>(LP systems)</b> | <ol style="list-style-type: none"><li>1) Air mixer/orifice installed incorrectly.</li><li>2) Possible back pressure from elbow installed after air/mixer going to burner pan</li><li>3) Possible paint over spray in the burner ports.</li></ol>   | <ol style="list-style-type: none"><li>1) Install air mixer/orifice so long end and air holes face toward valve (away from main burner).</li><li>2) Reinstall air mixer so it is going straight into burner pan</li><li>3) Check all ports in burner pan and ream out all that may be clogged</li></ol> |

|                 |  |  |
|-----------------|--|--|
| Whistling Sound | <ol style="list-style-type: none"><li>1) Seldom caused by pilot.</li><li>2) Possibly a too small flex connector.</li></ol> | <ol style="list-style-type: none"><li>1) Check log set burner, orifice (if used) m and amount of material covering burner.</li><li>2) Use minimum 1/2" OD connector.</li></ol> |
| Soot on Logs    | <ol style="list-style-type: none"><li>1) Rarely caused by pilot.</li></ol>   | <ol style="list-style-type: none"><li>1) Check for flame impingement on logs.</li><li>2) Adjust air mixer if using LP.</li></ol>   |