IMPORTANT

READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE INSTALLING

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 appropriate adjustments for addition of safety pilot kit. Gas supply must be 2" minimum I.D. and with appropriate pressure.

General Instructions

We 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). Installer must follow all instructions carefully to ensure proper performance and safety.

Installer: Please leave these instructions with consumer.

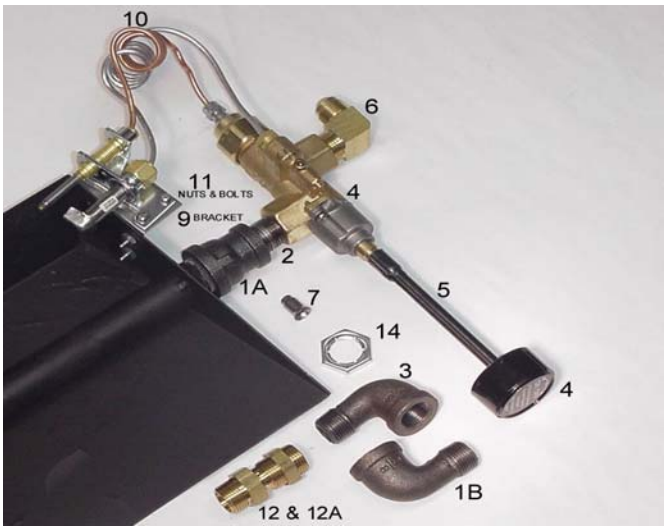
Consumer: Please retain these instructions for future use.

NATIONAL FIREPLACE INSTITUTE
A Certification Agency

INSTRUCTIONS FOR 72PKN & 172UPKN PILOT KIT AND 70LPK CONVERSION KIT

72PKN For natural gas applications on sets that have internal 3/8" threads in end of burner tube such as Cozy Glow, Glo Fire, Rasmussen, Bohanna & Pearce, Sunbeam, Heatmaster, Sure Heat & Timberline and those sets that have external 1/2" threads on the end of the burner tube such as Hargrove, Majco, Delta, Golden Blount, Uniflame, Burns & Howe, Haugh=s, Fireside & American Gas Log and those sets that have 3/8" external threads such as Peterson.

70LPK For converting 72 PKN for use with (LP) propane gas.



72PKN Parts List (cont=d)

1A)	505	2" x 3/8" reducing coupler
1B)	502	3/8" x 2" Street Elbow
2)	500	1" Close nipple
3)	502	3/8" x 3/8" Street Elbow
4)	110/111	Valve & Knob
5)	101	Stem Extension
6)	400	3/8X x 3/8" Brass Elbow
7)	104	LP Pilot Orifice (parts bag)
8)	122	Heat Shield (Not pictured)
9)	120	Pilot Burner Mounting Bracket
10)	102	Pilot Burner Assembly
11)	610/611	Nuts/Bolts
14)	607	Locknut (in parts bag 660)

70LPK PARTS LIST

12)	460	Orifice/Air Mixer with (12A) Air Adjustment Nut
13)	615-1	Vermiculite (Not pictured)

Note: It is easiest to assemble Pilot Kit to burner pan before putting the entire assembly in fireplace.

Caution: Use pipe dope or Teflon pipe sealing tape on all male pipe connections, but not on flare connections.

Make sure all connections are tight. Test all connections with soapy water and gas turned on. Bubbles show leaks. Do not light pilot until all leaks are eliminated.

FOR OFFSET MOUNTING

For straight out mounting (see below)

Step 1)

1A) For sets that have external 2" threads on end of burner tube, screw reducing coupler (part 1A) on to end of burner tube. Use pipe dope or tape. Go to step 1B.

1B) On sets with 3/8" internal threads or reducing coupler (1A) assemble parts 1B, 2 & 3 in order shown in parts illustration. Use pipe dope or tape. Proceed with step 2.

Note 1: On Peterson sets remove the adapter on the burner tube, then proceed like it is a ½" external thread refer to Step 1A

Note 2: If your gas supply is LP (propane) use the Air Mixer/Orifice (part 12) from the 70LPK kit in place of part 2. Using pipe dope or tape, attach part 2 (or part 12) to the female end of part 1B. **IF YOU USE PART 12, BE SURE THE LONG END OF THAT PART (WITH THE AIR ADJUSTMENT NUT ON IT) FACES AWAY FROM THE BURNER PAN AND TOWARD THE VALVE)**.

Step 2) Attach valve to this assembly by screwing outlet port of part 4 (valve) onto male end of part 3. Use pipe dope or tape. Leave valve pointing directly toward front of fireplace.

Step 3) Attach this assembly to burner pan by screwing male end of part 1B (street elbow) into reducer or burner tube Use pipe dope or tape. Leave this assembly so it is pointing toward front of fireplace and angled up slightly. If necessary, use part 14 (lock nut) to hold in proper position..

Note 3: If your gas supply is LP (propane) this is the time to convert the pilot burner to the LP orifice. See instructions on page 3.

FOR STRAIGHT OUT MOUNTING

Skip Steps 1B through 4 above

Step 1)

1A) For sets that have external 2" threads on end of burner tube, screw reducing coupler (part 1A) on to end of burner tube. Use pipe dope or tape. Go to step 1B.

1B) For sets that have internal 3/8" threads on end of burner tube or have the reducing coupler in place, screw nipple (part 2) into burner tube or reducing coupler. Use pipe dope or tape.

1C) In Peterson sets, leave adapter in place on end of burner pan and screw outlet of valve directly on that adapter.

Note 1: If your gas supply is LP (propane) use the air mixer/orifice (part 12) from the 70LPK kit in place of part 2 in Step 2. Put air adjustment nut (part 12A) on long end of part 12. Make sure that end faces away from burner pan and toward the valve.

Step 2) Screw other end of nipple directly into outlet port of valve (part 4). Use pipe dope or tape.

Step 3) Using 2 of the 6/32 x 3/8 bolts & nuts (#11) attach pilot burner assembly (part 10) to pilot burner mounting bracket (part 9).

Step 4) Using other 2 6/32 x 3/8 bolts & nuts (#11) attach above assembly to burner pan. (See parts illustration on page 1) Make sure pilot burner assembly is mounted to outside of burner pan.

4A) Some sets provide mounting holes on the end of the pan. Pilot burner assembly should stay horizontal on these.

4B) Other sets provide a hole or holes on the back of the pan. With this type it is possible that overheating of thermocouple could occur and cause pilot shutdown, See shutdown info on Page 3.

Step 5) Very carefully, bend aluminum pilot gas supply line see (figure 1) around and screw into port on top (towards the back) of the valve. **Be careful not to crimp tubing**.

Step 6) Again, very carefully bend copper thermocouple lead around and screw into port on the very back of the valve.

Note: This is the point at which the pan/pilot assembly can be put into the fireplace.

Step 7) Using elbow (part 6) or a suitable straight fitting, connect side incoming hole of valve to gas supply.

Step 8) Slide heat shield (part 8) down over valve.

Step 9) If you would like the control knob to be farther forward, remove control knob (pull straight out), install stem extension (part 5) and replace knob. Additional extensions are optionally available through your dealer.

Step 10) Turn gas on to valve. Put control knob in pilot position (white triangle pointing straight up). Push knob straight in until it stops (about 1/4"). With knob pushed in apply flame to pilot burner every 5 to 10 seconds until pilot burner lights.

Note: **First time startups or re-connections - be sure all air has been bled from all supply lines so gas is getting to pilot and burner tube. Pilot will not light until all air is bled out of system.** Put a flame to the pilot burner every 5 to 10 seconds with knob depressed until lighting occurs. It may be necessary to adjust the flame height of the pilot burner. This is done by turning small brass screw in upper part of valve. Clockwise to reduce flame, counter clockwise to increase flame. Flame should envelop tip of thermocouple and extend beyond it 1/3" to 2". After pilot lights - hold control knob in for 30 to 60 seconds. **Long enough so pilot will stay lit when control knob is released.** When steady pilot flame is assured, control knob can be turned counter-clockwise to **ON** position where log burner should start burning. **NOW IS THE TIME TO TEST FOR LEAKS WITH SOAPY WATER. BUBBLES WILL IDENTIFY LEAKS. IF THERE ARE ANY, TURN GAS OFF, REPAIR LEAKS, RE-LIGHT AND RE-TEST. DO NOT LEAVE SET BURNING UNTIL ALL LEAKS ARE REPAIRED.**

If, during operation, you experience shutdown due to overheating of the thermocouple; Here is what to do.

1) Burn gas log set with glass doors open.
2) Make sure pilot burner assembly and pilot burner mounting bracket are assembled and mounted so pilot burner is as far as possible away from the first flame hole in the burner tube. If you were able to move the pilot burner as much as an inch this may be enough.

If you still have shutdown;

3) Bend flat top of pilot burner mounting bracket downward so pilot burner assemble becomes more vertical than horizontal. Try this in steps until you reach a position that works. If you get to a completely vertical position and sill have shutdown;
4) Drill 2 new holes in burner pan 2" to 1" further from the flame port in the burner pan. Remount pilot burner assembly. With Delta or Hargrove sets, it is suggested to mount the pilot vertically without the bracket.
5) See Trouble Shooting Guide on page 4.

LP Conversion Kit
Assembly Instructions
This kit to be used in conjunction with all Maddox Company Safety Pilot Kits

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 and make appropriate adjustments for adding this kit.

Step A) Remove LP Pilot Burner orifice (bell shaped part) from The pilot kit parts bag.

Step B) Disconnect pilot gas supply tube (see figure 2). Inside you will find a part that looks like the bell Shaped part from parts bag. Discard this one.

Figure 2

Step C) Replace discarded part with new one from parts bag.

Step D) Re-connect gas supply tube. **DO NOT OVER TIGHTEN. FINGER TIGHT PLUS 1/4 TURN IS ENOUGH.**

Step E) Use vermiculite (#13) in this kit in burner pan in place of black cinders or sand that came with your log set.

Step F) Put glowing embers that came with your log set on top of vermiculite as described in the log set instructions.

Step G) Use air adjustment nut (part 12A) on Orifice/Air Mixer (Part 12) to control air going into the 6 air holes; this will help avoid sooting and make more attractive flames.

CAUTION: Too much air will cause too much yellow flame and may 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.

Symptoms	Possible Cause	Solution
Pilot won=t light.	1) Gas line not bled to let gas reach pilot.	1) Bleed lines.
	2) Pilot adjustment screw not open far enough.	2) Open screw.
	3) Pilot gas supply tube burned or crimped.	3) Install new line. Route away from Flame.
	4) Stem on valve not being pushed in far enough.	4) Push in about 1/4".
	5) Pipe dope or tape used on thermocouple connections.	5) Remove pipe dope or tape.
	6) Soot or rust covering outlet hole on pilot orifice.	6) Clean thoroughly and open hole with pin.
	7) Gas not reaching pilot because valve is installed backwards.	7) Re-install valve.
Pilot won=t stay lit when knob released	1) Thermocouple is not hot enough	1) Make sure pilot flame is strong and is hitting thermo-couple and is strong enough. 1a) Make sure thermocouple is paint, carbon & rust free. 1b) Be sure lead wire is properly tightened at both ends (finger tight + 1/4 turn).
Pilot lights but burner won=t.	1) Pilot burner too far from main burner.	1) Relocate pilot burner.
	2) Too much or not enough material in pan.	2) Add or remove material.
	3) Gas not getting to burner due to debris in line.	3) Clear debris.
System lights, but goes out after a while.	1) Thermocouple over heating. Too close to main burner.	1) Relocate pilot burner per instructions.
	2) Back log blocking flames.	2) Relocate back log.
	3) Thermocouple lead over heating.	3) Move away from flame.
	4) Glass doors shut.	4) Open doors.
	5) Grate too close to be resting on on thermocouple.	5) Move grate or thermocouple
Flames come out of holes on air/mixer orifice	1) Air mixer/orifice installed incorrectly.	1) Install air mixer/orifice of holes so long end and air holes face toward valve (away from main burner).
Whistling Sound	1) Seldom caused by pilot.	1) Check log set burner, orifice (if used) and amount of material covering burner.
	2) Possibly a too small flex connector.	2) Use minimum 1/2" OD connector.
Soot on Logs	1) Rarely caused by pilot.	1) Check for flame impingement on logs. 2) Adjust air mixer if using LP.

New Pilot Mounting Bracket Instructions

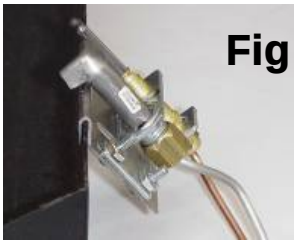


Fig 1

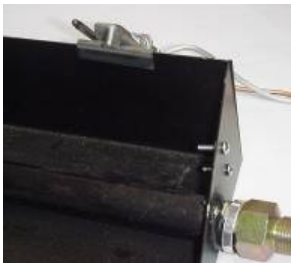


Fig 3

Our new pilot-mounting bracket allows easier and faster installation of any of our pilot assemblies. It also allows installer to conveniently move the pilot in any overheat situation without having to drill new holes in the burner pan.

Step 1

Assemble pilot to mounting bracket with two screws and nuts supplied in the parts bag (as shown in Fig 1). The bracket is slotted allowing you to adjust the pilot up and down. We recommend that the flame just clear the top of the burner pan

Step 2

Take remaining two screws and nuts and put them in the holes (if any) that are there to mount the bracket to. This will prevent any flames coming through the holes and burning the pilot tube.

Caution

GLASS DOORS AND DAMPER MUST REMAIN OPENED DURING OPERATION
THE CONTROL KNOB MAY BECOME HOT AND CAN BE REMOVED AS NEEDED (SOME VALVES CANNOT)
PILOT CAN GO OUT DUE TO DOWNDRAFTS AND/OR FLUCTUATING GAS PRESSURES.
NEVER THROW COMBUSTIBLE MATERIALS ONTO GAS LOGS. (IE, PAPER, PINE PONES, TRASH, FOOD, CIGARETTES ETC)

Pilot Lighting instructions

1. **Caution** – Doors must be left open during operation of gas logs. Operating gas logs with doors closed will overheat control and void warranty
2. Fireplace damper must be fully opened with damper clamp in place during operation.
3. Be sure gas supply to the fireplace is on.
4. Before lighting pilot remove all the logs from the grate carefully and set them on a piece of newspaper or towel. **Please note the logs will be very dirty it is best to use glove when handling the logs.**
5. Turn the gas control knob to the pilot position (pilot marker on control knob pointing to 12:00 or upward position).
6. Push in on the control knob. The knob should depress approximately ½ inch, this will release a small amount of gas to the thermocouple and pilot lighting area. See pictures above
7. While continuing to depress the control knob, light a match or lighter and put it into the thermocouple and pilot lighting area. A small blue flame should appear.
8. Continue to depress the control knob for 45 seconds to 1 minute while the pilot flame is lit.
9. When the gas control knob is released, the pilot flame should continue to burn (if the pilot goes out repeat the above steps).
10. Rotate the gas control knob from “pilot” to the “on” position approximately ¼ turn counterclockwise (Refer to control knob and valve for exact location) to supply full flow to main burner.