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.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org
We suggest that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

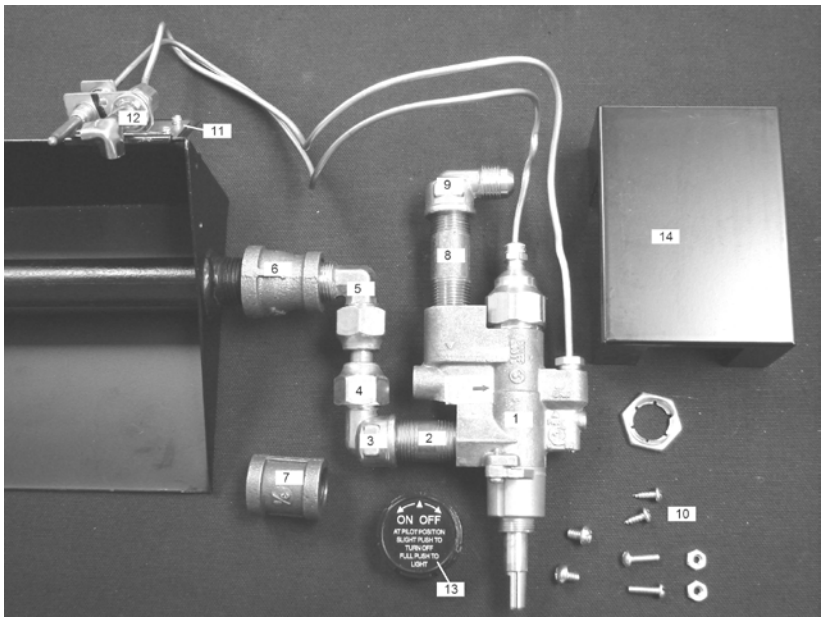
Installer: Be sure to leave these instructions with log set/ valve kit user.
User: These instructions contain valuable operating information. Please keep them for future use.

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 kit 91PKNQM. The 91PKNQM is a quick mount safety pilot kit that uses a 300° rear inlet, low profile valve and has all the fittings to connect to burner pans with ½" male, 3/8" male or 3/8" female threads. This kit is for natural gas applications. For LP installations add kit 70LPK



91PKNQM Parts List

1) 108 Valve
2) 504 3/8" x 1 ½" Nipple
3) 405 3/8" x 3/8" Elbow
4) 425 Swivel Connector
5) 400 3/8" x 3/8" Elbow
6) 505 ½" x 3/8" Reducing Coupler
7) 509 3/8" x 3/8" Coupler
8) 512 3/8" x 2" Nipple
9) 405 3/8" x 3/8" Elbow
10) 660 Parts Bag Contents
11) 120 Pilot Burner Mounting Bracket
12) 111 Control Knob
13) 140 Heat Shield

ASSEMBLY/INSTALLATION

1) Attach part 2 to outlet (on left side) of part 1.**IF YOUR FUEL SUPPLY IS LP, USE PART 1 FROM YOUR 70LPK KIT TO REPLACE PART 2 FROM THE 91PKNQM KIT. Screw the**

long end of part 1, with the nut on it, into the outlet on the left side of the valve. Attach part 3 to part 2 or part 4.

2) Select from parts 5, 6 & 7 according to the threads on your burner pan.

   5 for pans with 3/8" female threads

   6 for pans with ½" male threads

   7 for pans with 3/8" male threads

4) Attach selected part to burner pan.

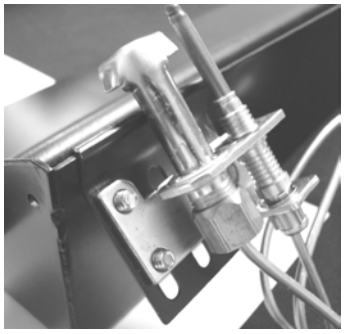
5) Attach part 8 to inlet (on left rear) of burner pan.

6) Attach part 9 to part 8

7) Use part 4 to connect parts 3 and 5.

PILOT CONVERSION TO LP

If your fuel supply is LP, now is the time to convert the pilot burner. Go to the INSTRUCTIONS and parts, in your 70LPK, 70LPK-HC OR 70LPK-QM PILOT BURNER ASSEMBLY.



Use 2 ¼" machine screws from parts bag (if the 2 mounting holes in the pilot burner bracket are threaded) or the 2 ½" 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.

7-2 for kits that use the 108 valve.
Being very careful to not crimp tubing, bring small aluminum gas tube around from the pilot burner to the port on the right side of the valve and connect it.
Again, being very careful, bring the copper conduit around from the thermocouple to the port on the back end of the valve and connect it.

Do not over tighten these connections. Finger tight plus ¼ to ½ turn is enough.

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.
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.

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 from 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.**

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.

6) Install part 14 over valve with open end at back and slotted end in front.
7) 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 EXPERIENCE BURNER PAN SHUTDOWN DURING OPERATION, CONSULT THE TROUBLE SHOOTING GUIDE ON THE NEXT PAGE.

SAFETY PILOT KIT TROUBLESHOOTING

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 **(LP systems)**	1) Air mixer/orifice installed incorrectly.	1) Install air mixer/orifice so long end and air holes face toward valve (away from main burner).
	2) Possible back pressure from elbow installed after air/mixer going to burner pan	2) Reinstall air mixer so it is going straight into burner pan
	3) Possible paint over spray in the burner ports.	3) Check all ports in burner pan and ream out all that may be clogged
Whistling Sound	1) Seldom caused by pilot.	1) Check log set burner, orifice (if used) m 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.