

## 80LTK / 80LTK-T Kit Instructions

### 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 1/2 " 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:

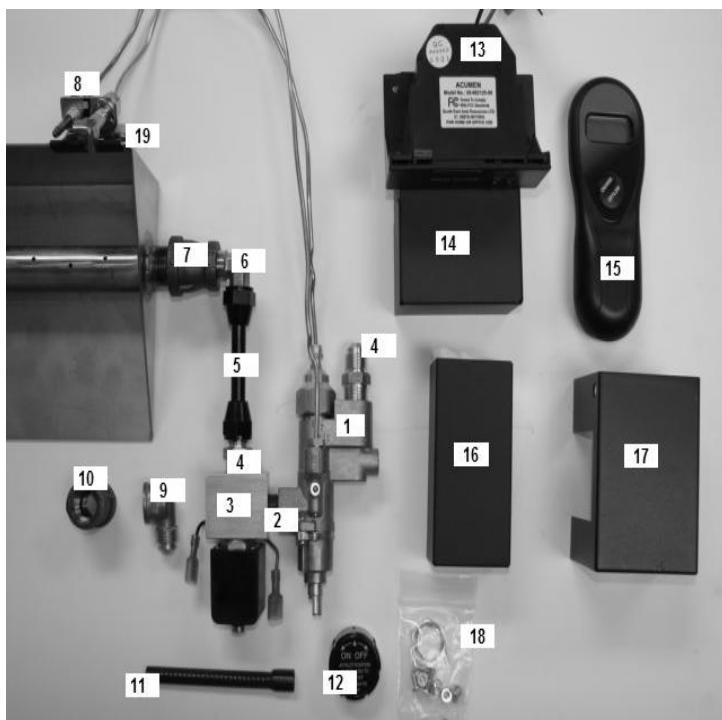
**NOTE: 1) Use pipe dope or Teflon tape on all male pipe threads.**

**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 kit 80LTK. The 80LTK is a quick mount safety pilot kit that uses a 300° rear inlet valve and has all the fittings to connect to burner pans with 1/2" male, 3/8" male or 3/8" female threads on them. This kit is for natural gas applications. For LP applications add the 70LPK kit.**



#### 80LTK Parts List

- 1) 109-C Safety Pilot Valve
- 2) 500 3/8" Close Nipple
- 3) Latch Tap Valve
- 4) 410 3/8" FL x 3/8" (2)
- 5) 426 3/8" x 3" Swivel
- 6) 400 3/8" FL x 3/8" Elbow
- 7) 505 1/2" x 3/8" Reducer
- 8) 102 Pilot Burner Assembly
- 9) 405 3/8" x 3/8" Elbow
- 10) 509 3/8" Coupling
- 11) 101 Stem extension
- 12) 111 Black knob
- 13) LTK Remote receiver
- 14) LTK Receiver Heat Shield
- 15) LTK Remote transmitter
- 16) LTK Valve Heat Shield
- 17) 140 SP Valve Heat Shield
- 18) 660 Parts Bag
- 19) 120 PB Mounting Bracket

## **ASSEMBLY/INSTALLATION**

- 1) Attach part 2 to outlet (on left side) of safety pilot valve (part 1).
- 2) Attach Latch Tap Valve (part 3) to part 2.
- 3) Attach part 4 to part 3. **IF YOUR FUEL SUPPLY IS L.P. , USE PART 1 FROM YOUR 70LPK KIT TO REPLACE PART 4 FROM THE 80LPK KIT. Screw the long end of part 1 (with the nut on it) into the outlet on the left side of the valve, Proceed through rest of steps.**
- 4) Attach swivel connector (part 5) to part 4.
- 5) If the threads on the end of your burner pan are 3/8" female, attach part 6 to the burner pan.
- 6) If the pan has 1/2" male threads, attach part 7 to part 6, then to the burner pan.
- 7) If the pan has 3/8" male threads, attach part 10 to part 6, then to the burner pan.
- 8) Attach part 4 to safety pilot valve inlet port on right rear side of part 1.
- 9) Using the 2 1/4" screws from part 18 parts bag, mount part 19 to burner pan as described and illustrated below. Install assembly on back of pan.
- 10) Install LPK receiver in front corner of fireplace. Connect red & black wire accordingly to latch tap valve- see LPK instructions for more details on installation of batteries & operation.

## **PILOT BURNER CONVERSION**

If your fuel supply is LP, now is the time to convert the pilot burner. Go to the instructions and parts in your 70LPK kit.

## **PILOT BURNER ASSEMBLY**

Use 1/4" (2) machine screws from parts bag (if the 2 mounting holes in the pilot burner bracket are threaded) or the 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.



### **For kits that use 109-C 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.**

Attach control knob (part 12) to stem of part 1. If you would like it out farther to the front, attach the 3" stem extension (part 11) to stem of part 1 before attaching the control knob.

**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.**

**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.
- 6) Use remote control to control burner ignition- see LTK instructions for details.

**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**

- 7) Turn gas off by turning control knob ¼ turn clockwise (until it stops), push in it again and turn it another ¼ turn clockwise to the OFF position.
- 8) Install heat shields (parts 14, 16, & 17) over valves & receiver.
- 9) 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 shutdown during operation, Consult trouble shooting guide on next page.**

## 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.	1) Gas line not bled to let gas reach pilot. 2) Pilot adjustment screw not open far enough. 3) Pilot gas supply tube burned or crimped. 4) Stem on valve not being pushed in far enough. 5) Pipe dope or tape used on thermocouple connections. 6) Soot or rust covering outlet hole on pilot orifice. 7) Gas not reaching pilot because valve is installed backwards.	1) Bleed lines. 2) Open screw. 3) Install new line. Route away from Flame. 4) Push in about 1/4". 5) Remove pipe dope or tape. 6) Clean thoroughly and open hole with pin. 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. 2) Too much or not enough material in pan. 3) Gas not getting to burner due to debris in line.	1) Relocate pilot burner. 2) Add or remove material. 3) Clear debris.
System lights, but goes out after a while.	1) Thermocouple over heating. Too close to main burner. 2) Back log blocking flames. 3) Thermocouple lead over heating. 4) Glass doors shut. 5) Grate too close to be resting on on thermocouple.	1) Relocate pilot burner per instructions. 2) Relocate back log. 3) Move away from flame. 4) Open doors. 5) Move grate or thermocouple
Flames come out of holes on air/mixer orifice ( <b>LP systems</b> )	1) Air mixer/orifice installed incorrectly. 2) Possible back pressure from elbow installed after air/mixer going to burner pan 3) Possible paint over spray in the burner ports.	1) Install air mixer/orifice so long end and air holes face toward valve (away from main burner). 2) Reinstall air mixer so it is going straight into burner pan 3) Check all ports in burner pan and ream out all that may be clogged
Whistling Sound	1) Seldom caused by pilot. 2) Possibly a too small flex connector.	1) Check log set burner, orifice (if used) m and amount of material covering burner. 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.