

MVK-N

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.

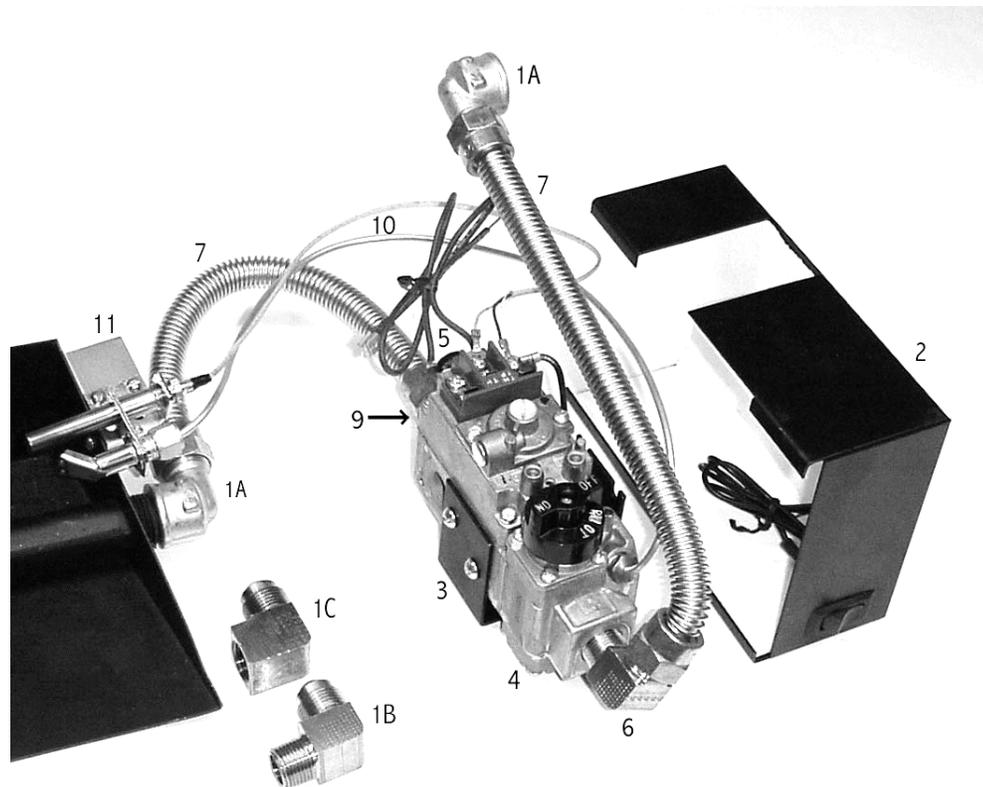
Consumer: Please retain these instructions for future use.



**NATIONAL
FIREPLACE
INSTITUTE**
A Certification Agency

INSTRUCTIONS FOR MVK-N PILOT KIT

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



MVK-N Parts List

1A	407	2" x 2" Elbow - To connect incoming gas pipe stub to #7 Flex Line
1A	407	2" x 2" Elbow - To connect pan with 2" external threads to #7 Flex Line
1B	401	3/8" x 2" Elbow - To connect pan with 3/8" internal threads to #7 Flex Line
1C	408	3/8" x 2" Elbow - To connect pan with 3/8" external threads to #7 Flex Line
2	206/207/212/213	Insulated Heat Shield with On/off Switch
3	205	Valve Mounting Bracket - To attach valve to floor of fireplace
4	200	Control Valve
5	211	High Limit Switch - Shuts down main burner if valve gets to 225<
6	401	3/8" x 2" Elbow - To connect valve inlet to #7 Flex Line
7 (2)	229	10" Flex Line
9	411	3/8" x 2" Connector - To connect valve outlet to #7 Flex line
10	203	Pilot Burner Assembly
11	120	Pilot Burner mounting bracket
12	661	Parts Bag

IMPORTANT

FOR YOUR SAFETY - WHAT TO DO IF YOU SMELL GAS.

1. Shut off gas to valve.
2. Extinguish any flame.
3. Go to a phone outside your home and call your gas supplier.
4. If you can't reach your gas supplier, call the Fire Department.

IF YOU HAVE GLASS DOORS - To prevent damage to remote control system, keep them open while burning log set.

USE PIPE DOPE OR TAPE ON ALL MALE PIPE THREAD CONNECTIONS. DO NOT USE IT ON MALE FLARE CONNECTIONS.

INSTALLATION INSTRUCTIONS

When these instructions refer to the front, left side etc. of the valve, it is assumed the AIN@ port of the valve is facing you and the control knob is on the top. See part #4 in parts illustrations. Front, Top & Left side are showing.

When these instructions refer to the bottom or left side of mounting bracket it is assumed the mounting bracket is positioned like a AU@ and the leg on the left has the holes that match the two screw holes on the left center side of the valve.

Note: Valve must be installed in the right front corner of the fireplace.

Step 1) Determine whether the valve and heat shield should be installed standing up or laying down.

Note: When laying valve down be sure to leave enough room between fireplace wall and control knob on valve to allow operation of the control knob.

Step 2) Step 1 will help you determine where the mounting bracket should be installed in the fireplace floor. This bracket is used to stabilize the valve in the appropriate position. Remove valve from bracket.

FOR LAYING VALVE & HEAT SHIELD DOWN

Use two slots in right leg of bracket to attach it to the fireplace floor. Use two smallest self drilling screws in Parts Bag.

FOR STANDING THE VALVE & HEAT SHIELD UP

IMPORTANT: The smallest self drilling screws usually work just fine but, in some material they don't hold well. If they don't, remove them and using the holes they made as pilot holes, insert larger self drilling screws from parts bag.

Use two screw holes in bottom of bracket to attach it to the fireplace floor. Use two smallest self drilling screws in Parts Bag.

Step 3) Using pipe dope or tape connect female end of one of the part #1A to incoming gas pipe.

Step 4) Using pipe dope or tape connect pipe thread end of part #6 to inlet port on front of valve. The port is marked AIN@.

Step 5) Connect one end of #7 flex line to male flare end of part #6.

Note: If your incoming gas pipe is located on the left side or center of the fireplace, determine distance from end of #7 flex line to incoming gas pipe. Get EXT 18, EXT 24 or EXT 30 from dealer to span that distance. Using brass union in this kit connect the flex line in this kit to #7 flex line.

Step 6) Using pipe dope or tape, connect pipe thread end of part #9 to outlet port on back of valve.

Step 7) Connect one end of the second #7 flex line to the flare end of part #9.

Step 8) Select one of three parts to connect to burner pan. Use #1A to connect to pans with 2" external threads, 1B for pans with 3/8" internal threads or 1C for pans with 3/8" external threads. Using pipe dope or tape connect that fitting to burner pan tube.

Step 9) Using two 6/32 x 3/8" bolts & nuts from parts bag attach part #10 to part #11. Position pilot burner assembly (part 10) with Thermopile and pilot burner pointing toward you and parallel to each other. Position pilot burner mounting bracket (part 11) with side with slots horizontal and under the bracket of part 10. Line up 2 holes in bracket on part 10 with the 2 slots on the right side of part 11. Attach two parts together.

Step 10) Using the other two 6/32 bolts & nuts attach the #10/11 assembly to the outside back or end of burner pan. Match 2 (of 4) holes on left side of part 11 to holes in burner pan.

Step 11) Now you have a valve Assembly@. Connect this assembly to part #3 valve mounting bracket using same holes the screws were in when you removed valve from bracket.

- Step 12) Connect other end of #7 flex line (or EXT kit) that is connected to part #6 (see step 4) to flare end of part 1A that is mounted on incoming gas pipe.
- Step 13) Connect other end of second #7 flex line coming from part #9 in outlet port of valve (see step #7) to flare end of fitting mounted on burner pan tube.
- Step 14) Very carefully bend aluminum pilot burner tube around to front of valve. Remove brass plug just below and to the right of the control knob. Screw end fitting of aluminum tube into that hole. Do not over tighten. Finger tight plus 1/4 turn is enough.
- Step 15) Bring wire leads from thermopile of part #10 pilot burner assembly around to terminal block on rear top of valve. Connect 1 lead to terminal TH/TP, the other to terminal TP.
- Note: First time start ups or re-connections - be sure all air has been bled from all supply lines so gas is getting to pilot. Pilot will not light until all air is bled from system. This may take several minutes. Put a flame to pilot burner every 5 to 10 seconds with knob depressed until pilot lights. Pilot flame is preset at the factory and should encircle the thermopile.
- Step 16) Turn gas on to valve. Light plot by turning control knob to point to AL@ in the word pilot. Push knob in as far as it will go, apply flame to pilot burner every 5-10 seconds until pilot lights, then hold knob in for 30-60 seconds until pilot stays lit when knob is released. Turn knob to on position to light main burner.
- Step 17) **NOW IS THE TIME TO TEST FOR LEAKS. USE SOAPY WATER ON ALL CONNECTIONS. BUBBLES WILL SHOW LEAKS. SHUT GAS OFF AND REPAIR LEAKS BEFORE LEAVING YOUR SET BURNING.**
- Step 18) Turn gas back on to valve.
- Step 19) For wiring instructions for HI LIMIT switch and On/Off switch see enclosed page 196. If you are using a remote control or wall switch, see instructions in those kits.
- Step 20) Slide part #2 heat shield over valve with right leg of mounting bracket sliding into notch on right side of heat shield. After pilot lights - hold control knob in for 30 to 60 seconds or until thermopile heats up enough to keep pilot lit when knob is released. When steady pilot is assured, control knob can be turned counter clockwise to the AON@ position where log burner should start burning.
- Step 21) Finish the burner pan, grate and logs per the instructions that came with your log set.

ATTENTION

If, during operation, you experience shut down of the main burner and pilot, it is probably due to overheating the thermopile on the pilot burner assembly. This is usually caused by the thermopile being too close to the main burner flame. If you are having this problem, here is what to do.

- a) **Make sure pilot burner assembly is 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:**
- b) **Bend back of part #11 pilot burner mounting bracket downward so pilot burner assembly becomes more vertical. You can do this in stages until the thermopile is far enough away from main burner so you no longer experience shut down.**
- c) **Drill 2 new holes in burner pan 2" to 1" further from the flame port in the burner pan. Remount pilot burner assembly.**
- d) **If, during operation the main burner goes out, but the pilot stays lit, it is because the valve has gotten too hot 225< and the high limit switch has shut down the main burner. This may be because you are burning with the glass doors closed or some other material is obstructing the air flow to the valve heat shield. Open glass doors or clear obstruction. When valve temperature reduces to 185<, the main burner will automatically come back on.**

MVLPK For conversion of MVK-N to use with LP (Propane) Gas.

MVLPK Parts List

1D	422	3/8" x 2" Adapter - To connect the air mixer/orifice/nut to flex line
1E	460	Air Mixer/Orifice/Nut
1F	502	3/8" x 3/8" Street EL - to connect pans with 3/8" internal threads to part #1E Air Mixer/Orifice/Nut
1G	503	2" x 3/8" reducing Elbow - To connect pans with 2" external threads to part #1E Air Mixer/Orifice/Nut
13	125	Vermiculite
14	217	Valve Conversion Kit
15	218	LP Pilot Orifice

WHEN USING THIS KIT THESE STEPS REPLACE STEPS 8 & 13 IN MVK-N INSTRUCTIONS.

Step 1) Follow Robertshaw directions for changing regulator in valve.

Step 2) Change pilot orifice in pilot burner assembly. To do this, first disconnect long brass part from pilot burner (hooded part on part #10). Pop out bell shaped pilot orifice from bottom end of pilot burner. Replace it with LP pilot orifice (in plastic bag), reconnect brass part.

Step 3) Select from parts 1C in MVK-N kit and 1F & 1G in this kit. Use 1C for burner pans with 3/18" external threads. 1F for burner pans with 3/8" internal threads or 1G for pans with 2" external threads.

Step 4) Using pipe dope or tape connect your selected fitting to the burner pan.

Step 5) Using pipe dope or tape connect part #1G or #1F to part 1E air mixer/orifice/nut.

Step 6) Using pipe dope or tape connect part #10 to other end of part 1E air mixer/orifice/nut.

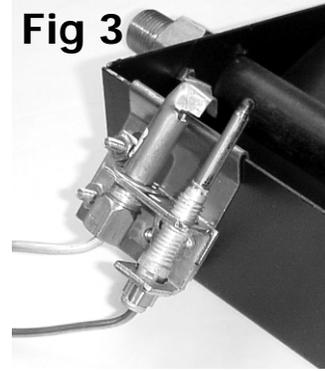
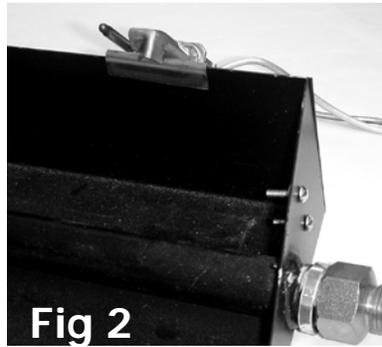
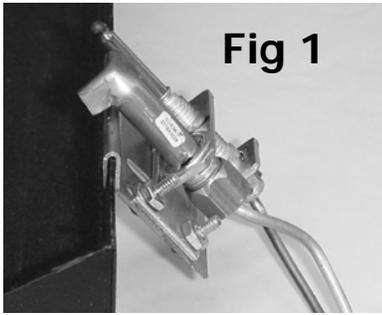
Step 7) Attach end of #7 flex line coming from outlet port of valve to part #1C (on burner pan) or 1F or 1G on end of part 1E.

**Millivolt Pilot Valve Kit
Trouble Shooting**

IT IS EXTREMELY RARE FOR A THERMOCOUPLE OR VALVE TO FAIL DUE TO DEFECT.
SEE BELOW BEFORE REMOVING EITHER FROM THE FIREPLACE.

<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) Gas not reaching pilot because valve is installed backwards. 4) Pilot gas supply tube burned or crimped. 5) Knob on valve not being in far enough. 6) Pipe dope or tape used on thermopile connections. 7) Soot or rust covering outlet hole on pilot orifice.	1) Bleed lines. 2) Open pilot adjustment screw. (Turn to Left). 3) Re-install Valve. 4) Replace pilot burner assembly. Route away from main burner flame. 5) Push in about 1/4". 6) Remove pipe dope or tape. 7) Clean thoroughly and open hole with pin.
Pilot won=t stay lit	1) Thermopile is not hot enough. 2) Thermopile lead too tight or not tight enough at valve. 3) Insulation burned off thermopile	1) Make sure pilot flame is strong and is hitting thermopile. 1 a) Make sure thermopile is paint, carbon & rust free. 1 b) Hold knob on valve in longer. 2) Adjust to finger tight + 1/4 turn. 3) Replace and route away from main burner flame.
Pilot lights but burner won=>t.	1) Gas not getting to burner. Valve control not set to ON position. 2) Valve/Receiver not wired correctly. 3) Pilot Burner Assembly to valve not 4) Gas not getting to burner due to debris in line.	1) Turn control knob to <u>ON</u> position. 2) Rewire. 3) Rewire. 4) Disassemble and clean line.
Pilot lights, burner lights, but system goes out after a while.	1) Thermopile over heating.	1) Consult Instructions
Flames come out of holes on air/mixer orifice (LP systems)	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. 2) Possibly a too small flex connector.	1) Check log set burner, orifice (if used) and amount of material covering burner. 2) Use minimum 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



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.

MVK Wiring Supplement

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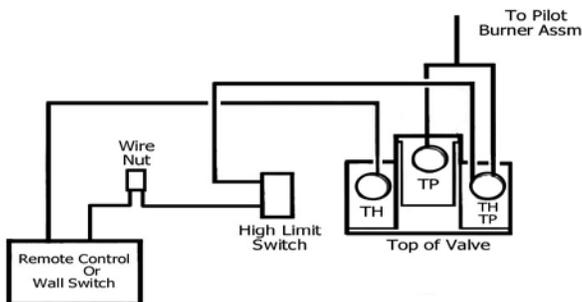
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- 1) If you are using a remote control or wall switch but **do not** have a Timer or On/Off switch wire as shown in **Diagram 1**.
- 2) If you are using a remote control or wall switch and have **either** a Timer or On/Off switch, wire as shown in **Diagram 2**.
- 3) If you are using a remote control or wall switch and have **neither** a Hi-Limit, Timer, or On/Off switch, connect the remote control or wall switch wires directly to TH & TH/TP.

Standard Millivolt Valves



High Capacity Valves

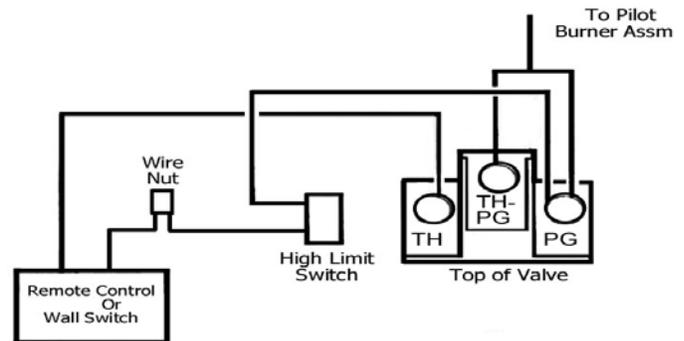


Diagram 1

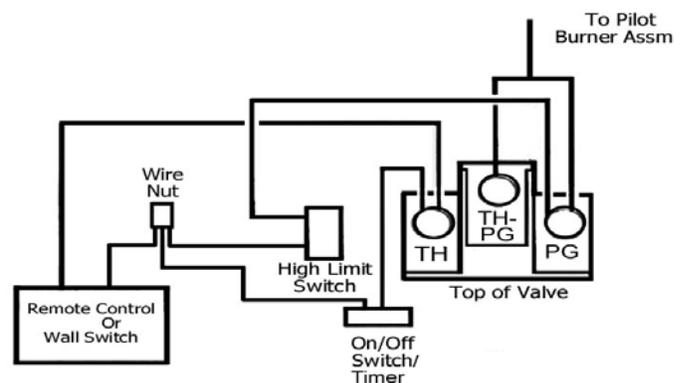
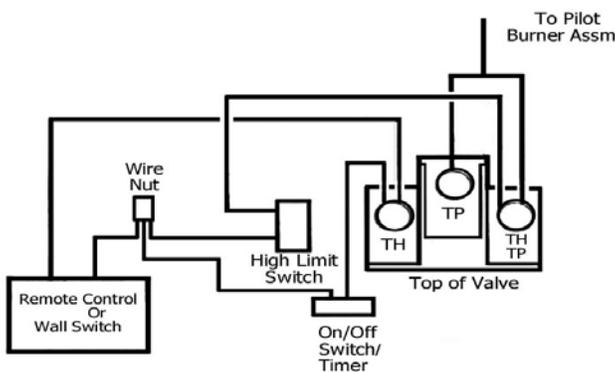


Diagram 2