

# MVK-NQM

## 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.

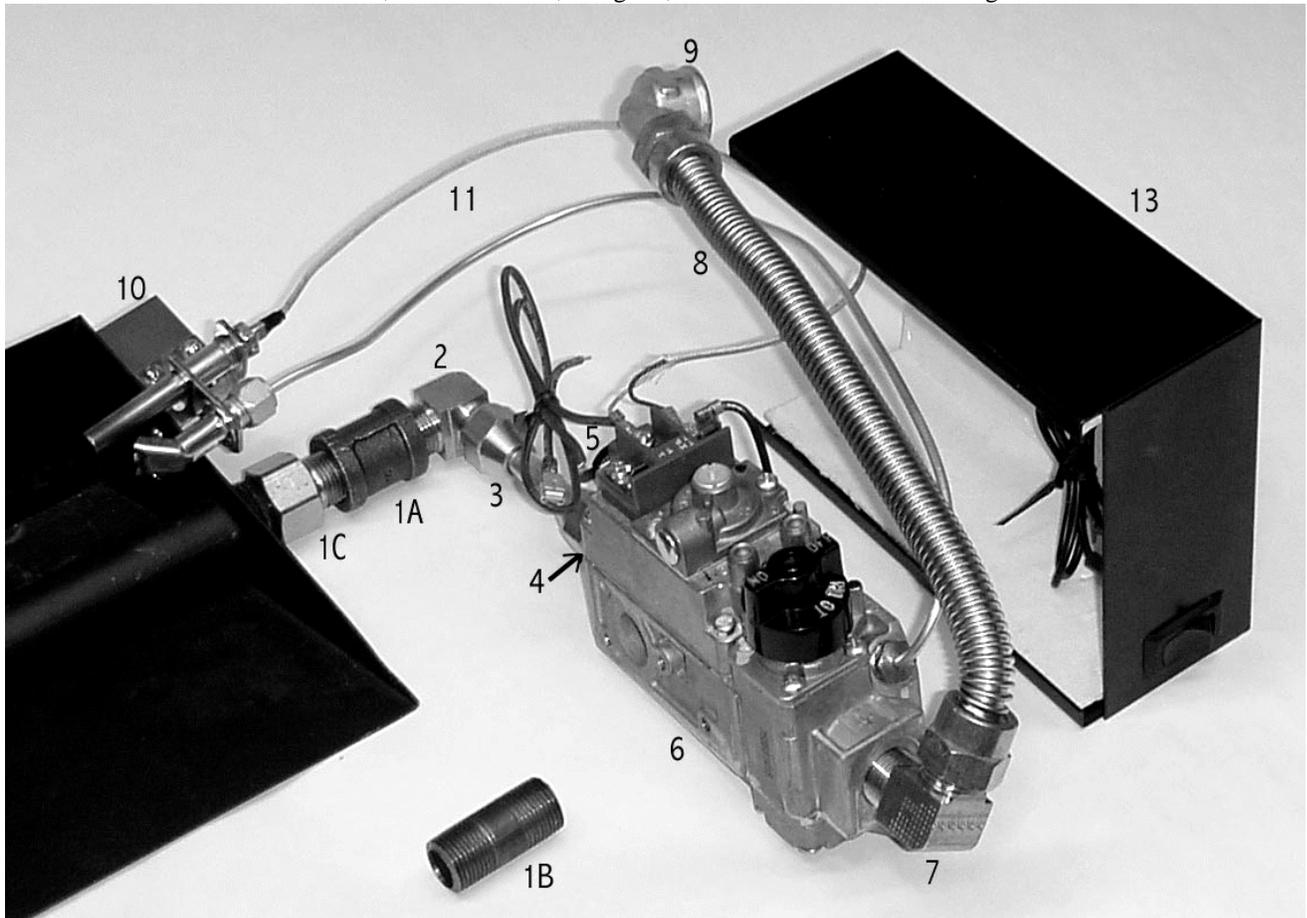
Consumer: Please retain these instructions for future use.

### **INSTRUCTIONS FOR MVK-NQM PILOT KIT**



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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-NQM Parts List

1A	509	3/8 x 3/8 Coupler			
1B	504	1 2" x 3/8" Nipple	7	401	E1-8C 2 x 3/8
1C	442	120A-DC 2 x 3/8		8	229 20-9898-10 Flex Connector
2	400	E1-8C 2 x 3/8		9	407 E3-8D 2 x 2
3	426	3" x 3/8 Swivel Connector	10	120	PBMB Pilot Mounting Bracket
4	410	U1-6C 3/8 x 3/8 Male Connector		11	203 Natural Gas Pilot
5	211	TD 225 Thermo Disc		13	208/209/212/213 LHS, Insulation, On/Off Switch, Wires
6	200	MVLRC-N Natural Gas Valve		14	669 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.

Valve may be installed in either 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.

**Space needed for installation:** Laying down: 6 1/4" wide, 3 1/4" high, 6 2" long. Standing up: 3 1/4" wide, 4 1/4" high, 6 2" long. **Suggested positioning:** Laying down on right front of fireplace with control knob in front and facing fireplace sidewall. Open side of heat shield on fireplace floor. Open end toward rear. Standing up: On right front of fireplace with control knob on top and toward front of valve. Open side of heat shield facing fireplace wall. Open end toward rear. Put control box on left front of fireplace, on hearth or in wall.

Step 2) For burner pans with: (Using pipe dope or tape attach the proper part to the burner pan).  
3/8" External Threads use Part 1A  
2" External Threads use Part 1C then 1A  
3/8" Internal Threads use Part 1B then 1A

Step 3) Using pipe dope or tape on pipe thread end of part 2 (elbow) assemble it to the female end of part 1A. Leave male flare end pointing toward front of fireplace.

Step 4) Using pipe dope or tape on pipe thread end of part 4, screw it into outlet port on back of part 6 (valve).

Step 5) Using 2 of the small nuts and bolts in parts bag, attach bracket of part 11 to 2 of the concentric holes on one face of >L= shaped pilot burner mounting bracket, part 10.

Step 6) Using 2 of the small nuts and bolts in parts bag, attach 2 of the oblong holes in part 10 to the holes in the back or end of the burner pan.

Step 7) Using pipe dope or tape, attach female end of part 9 elbow to incoming gas pipe.

Step 8) Using pipe dope or tape, screw 3/8" pipe thread end of part 7 into inlet port on front of part 6. Leave flare end of part 7 pointing up and to the right at about 1:30 (about 15°).

Step 9) Attach one end of part 3 swivel nut to part 2 and the other to part 4 (on back of valve).

Step 10) Depending on the position you have decided for your valve, put n in that position and attach male flare end of part 7 (already in your valve inlet) to one female end of part. Using direction male flare end of part 7 is pointing as a guide, make a 90° bend as close to part 7 as possible in part 8 so part 8 lays as close as possible to the valve and runs along the top right edge of the valve and toward the back. This way part 8 will stay inside the heat shield so it doesn't show.

For Installation on left front of your fireplace

Rotate part 7 about 30° to the left so part 8 will run back along the top left edge of valve.

Step 11) Very carefully bend aluminum pilot burner tube around to front of valve. (Go around side of valve that is away from burner pan), if possible. 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 12) Bring wire leads from thermopile of part #11 pilot burner assembly around to terminal block on rear top of valve. Connect 1 lead to terminal TH/TP, the other to terminal TP.

Step 13) For wiring of Hi Limit & on/off switches see enclosed separate page 196. **IF YOU ARE USING A REMOTE CONTROL OR WALL SWITCH, SEE WIRING INSTRUCTIONS IN THOSE KITS.**

**NOW IS THE TIME TO PUT COMPLETE ASSEMBLY INTO FIREPLACE**

Step 14) Attach other female end of part 8 to the male flare end of part 9 that is on incoming gas pipe.

Step 15) Turn gas on.

Step 16) To light pilot, set control knob so the AL@ in the word pilot lines up with the red colored post on the valve. Push knob straight in as far as it will go. Apply flame to pilot burner every 5 to 10 seconds until pilot lights.

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 17) With knob still depressed let pilot burn for 45 to 60 seconds. When knob is released pilot should continue to burn. If it doesn't, re-light and let burn longer before releasing knob. To light main burner, turn knob counter clockwise so Aon@ is lined up with red post.

Step 18) After making sure all connections are tight and testing for leaks with soapy water, put heat shield (part 2) over valve. Be sure back and bottom are open with front, top and both sides closed.

To turn off main burner but leave pilot burning, turn knob clockwise so the AL@ in pilot returns to line up with red post to turn off completely, depress knob and turn off.

**If during operation, you experience shutdown 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 or you are burning with the glass doors closed.**

**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.
- b) Open glass doors.

If you still have shutdown:

- a) 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.
- b) Drill 2 new holes in burner pan 2" to 1" further from the flame port in the burner pan. Remount pilot burner assembly.
- c) On some pans (including Delta and Hargrove) it is best to mount part 10 directly to burner pan without part 11 so pilot burner is vertical.
- d) See Trouble Shooting information on Page 4.

## 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 lead.	1) Make sure pilot flame is strong and is hitting thermopile. 1a) Make sure thermopile is paint, carbon & rust free. 1b) 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 ΔON@ 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 ( <b>LP systems</b> )	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

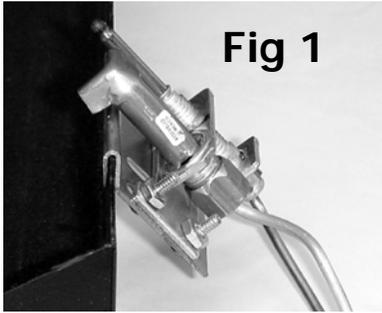


Fig 1

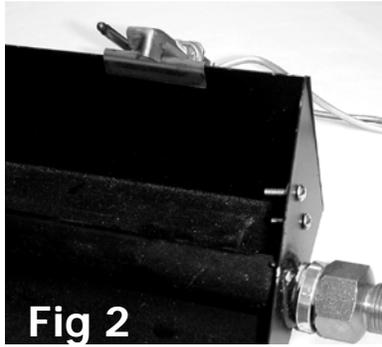


Fig 2

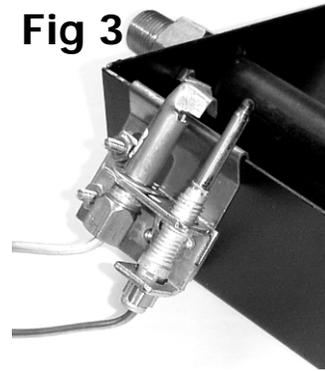


Fig 3

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 NEED (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

## IMPORTANT

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### General Instructions

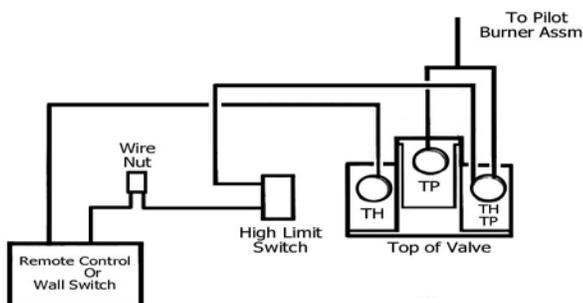
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- 1) If you are using a remote control or wall switch but **do not** have a Timer or On/Off switch wire as shown in **Diagram 1**.
- 2) If you are using a remote control or wall switch and have **either** a Timer or On/Off switch, wire as shown in **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

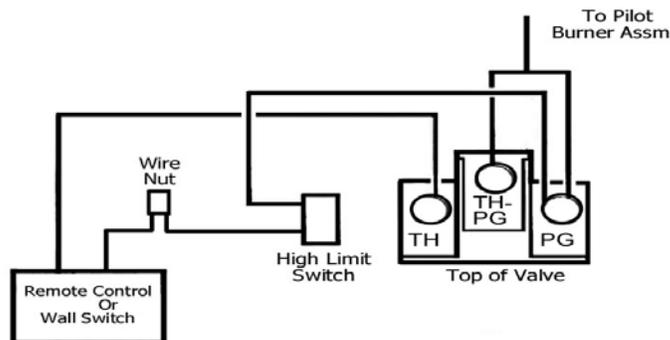


Diagram 1

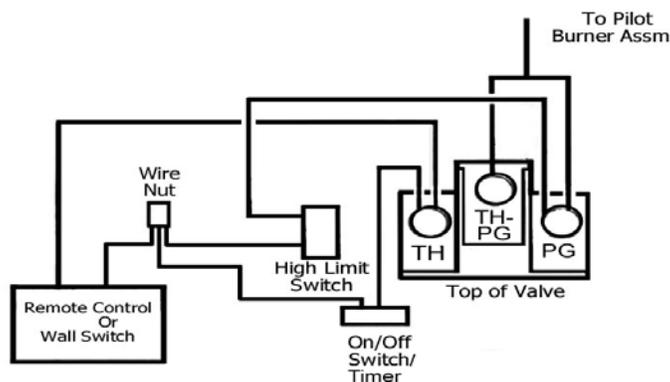
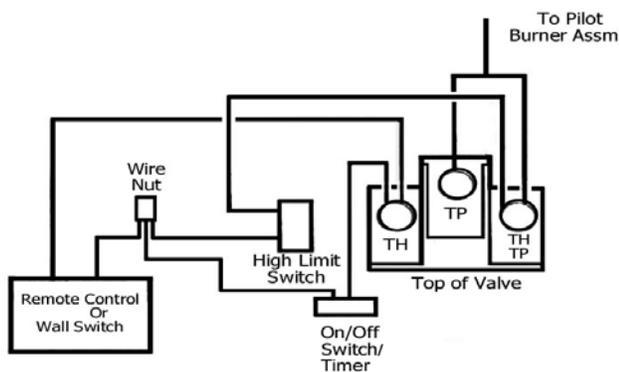


Diagram 2