



AMERICAN FLAME

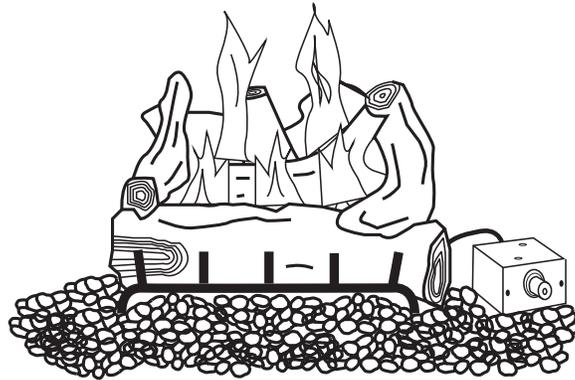
Safety Valve System for Vented Gas Logs

**Models:**

AF-LMF, AFLMF-R,  
AF-LMF-RV, AF-LMF-RVS

**IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS DO NOT ATTEMPT TO INSTALL OR OPERATE**

**INSTALLATION AND OPERATION INSTRUCTIONS**



**NATIONAL FIREPLACE INSTITUTE**  
  
**CERTIFIED**  
[www.nficertified.org](http://www.nficertified.org)

We recommend 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.

**INTRODUCTION**

These instructions apply to LMF-Series valve kits: These Natural gas safety pilot kits are designed to be used with 18 to 30-inch gas logs sets purchased separately as a complete valve kit. These control systems were developed to provide safe, reliable, user-friendly remote control system for gas heating appliances. Optional LP conversion kits LPK-18, LPK-24 with pilot orifices are available.

**Warning:** Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or gas supplier.

**For Your Safety:** Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

**Notice:** Please leave these instructions for the consumer. Retain for future reference.

**FOR YOUR SAFETY**  
**WHAT TO DO IF YOU SMELL GAS**

- Do not try to light the appliance.
- Do not touch any electrical switch.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier, call the fire department.

**Young children should be carefully supervised when they are in the same room as the appliance.**

**Be sure flue damper and glass doors are fully open when operating any vented gas log set.**

**CALIFORNIA PROPOSITION 65**  
  
**WARNING**

This product is designed to operate with one of the following fuel sources: Liquid Propane or Natural Gas. The fuel used to operate this product, and the products of combustion of such fuel, can expose you to chemicals including Benzene which is known to the State of California to cause cancer, birth defects and other reproductive harm and Carbon Monoxide which is known to the State of California to cause birth defects or other reproductive harm. (For more information go to: [www.p65Warnings.ca.gov](http://www.p65Warnings.ca.gov))

**NOTICE:** Please leave these instructions for the consumer. Retain for future reference.

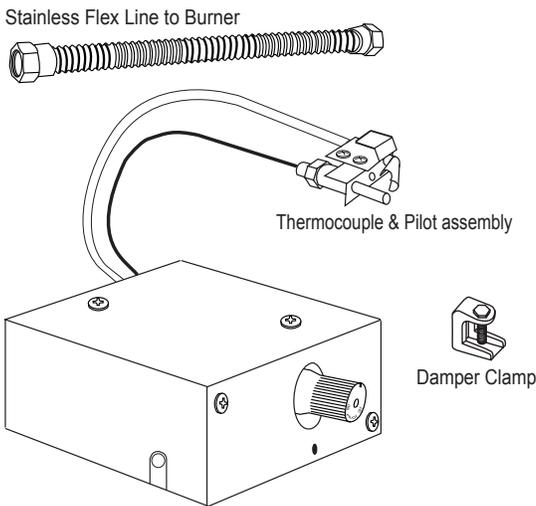
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**INSTALLER:** Each valve kit is supplied with a (UR3-68) adapter that provides an option to convert the inlet or outlet gas connection from 3/8" to a 1/2" flared fitting. Simply thread the UR3-68 on to the inlet/outlet gas flared fitting as shown in Fig. 1. **Note:** No pipe joint compound or thread tape is necessary. Ensure fittings are tight and test for gas leaks.

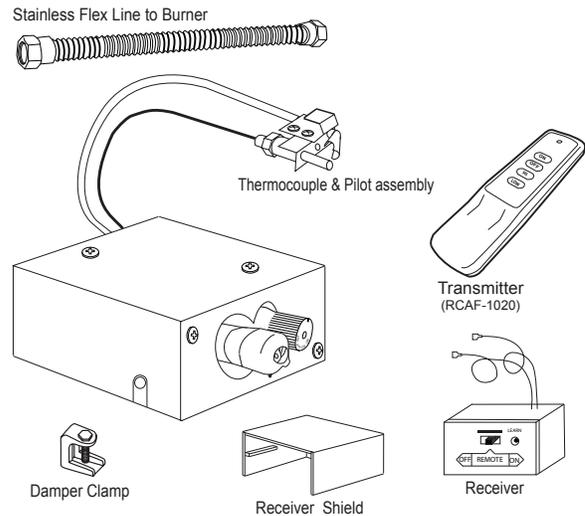


**Fig. 1** Adapter installation.

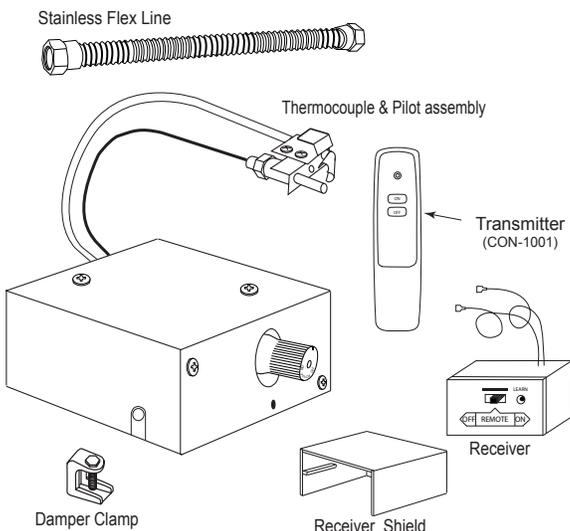
**DESCRIPTION:** This installation manual covers the four (4) valve kits. See Figs. 2-5. Read the description of each kit to understand how each one operates. See each kit below and their contents.



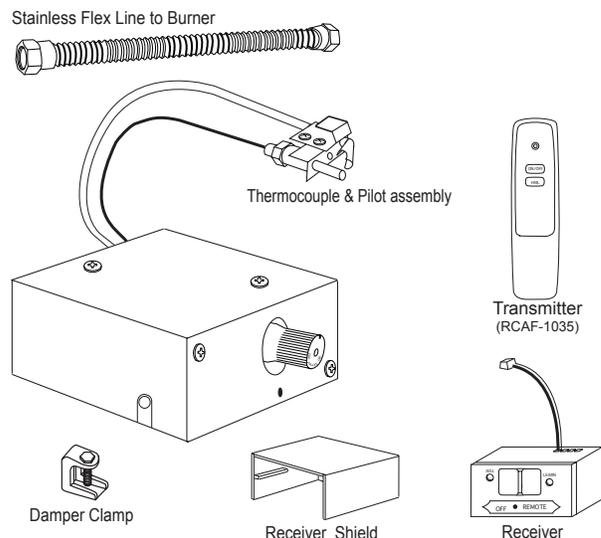
**Fig. 2** AF-LMF: Manual ON/OFF gas valve kit.



**Fig. 4** AF-LMF-RV: Manual ON/OFF gas with motor drive and ON/OFF (Hi/Lo) remote control.



**Fig. 3** AF-LMF-R: Manual ON/OFF gas with solenoid and ON/OFF remote control.



**Fig. 5** AF-LMF-RVS: Manual ON/OFF gas with step motor and ON/OFF (Hi/Med/Lo) remote control.

## WARNING

This control system must be installed exactly as outlined in these instructions. Read all instructions completely before attempting installation. Follow instructions carefully during installation. Any modifications of this control or any of its components will void the warranty and may pose a fire hazard.

These instructions must be used as a supplement to the instructions supplied with the gas log set. Follow the gas log instructions supplied by the manufacturer on the placement of the burner pan, log basket grate, burner media (sand or vermiculite), ember material and the log placement. Please follow these instructions on the connection of the inlet line to the gas valve and then to the burner pan assembly.

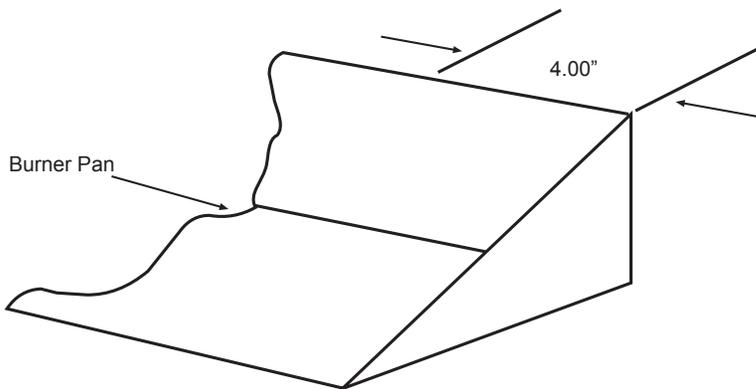
**If your fireplace installation has glass doors, only operate the fireplace with glass doors in the fully open position.**

### **INSTALLATION: VALVE KIT WITH PRE-EXISTING LOG SET**

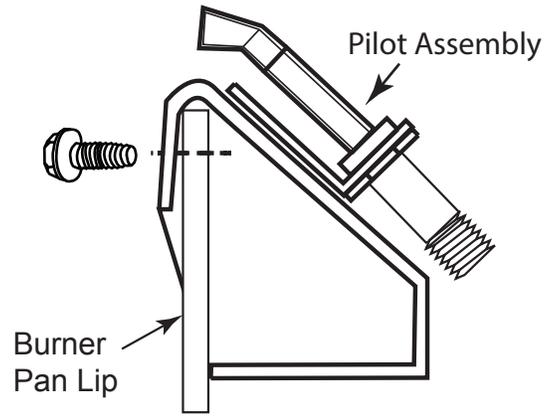
1. Make sure all gas flow is completely turned **OFF** to the gas log set. Make sure you have a certified and approved shut-off within 6-feet of the fireplace, or follow local code requirements.
2. Remove all logs and basket grate and set aside.
3. Disconnect the existing manual valve from the inlet gas supply.
4. Remove existing manual valve and fittings on the burner pan.
5. Locate a position on the back of the burner pan about 4-inches from the right or left side of the burner pan to mount the pilot assembly (Figs. 6-8).
6. Mount pilot assembly to burner pan as shown in Figs. 6-7. Note this pilot bracket clips on the burner pan and holds the pilot at a 45-degree position onto the pan with no screws required. A screw can be added to secure the pilot assembly if needed. Carefully bend 1/4" pilot tubing from pilot assembly until the bottom of the pilot bracket is resting against the pan. (This will hold the pilot at the 45 degree position) then connect pilot fitting to valve. **(Use caution when bending pilot tubing not to kink the tubing or locate the tubing in or over the burner pan)**.
7. Locate the valve kit in the right or left front corner of the firebox as far forward as possible to maintain clearances shown in Fig. 8.
8. Bend inlet gas supply line and connect the 3/8" flare fitting to gas valve 3/8" inlet connector (Use caution not to kink the line when bending). **Note:** Use the UR3-6 adapter to convert to 1/2" fitting if applicable to installation. See Fig. 1.
9. Bend 12" stainless flex line and connect to valve outlet then connect other end to 3/8" flare fitting on burner pan **(Caution do not let gas inlet line to the valve kit or gas outlet line from the valve kit be placed in or over the burner pan)**.
10. Turn ON gas supply and check all connections for leaks using soapy water solution.
11. Follow valve pilot lighting instructions. After pilot is lit, check pilot fittings for leaks.
12. Reinstall basket grate and logs.
13. Install Damper stop (supplied with this valve kit) on edge of damper to prevent it from fully closing. This allows damper to remain slightly open to allow the pilot exhaust to vent outdoors.
14. **CAUTION: On all PROPANE installations it is recommended that an inlet pressure regulator be used.**

### **INSTALLATION: VALVE KIT WITH NEW LOG SET**

1. Ensure gas is turned OFF to the existing log set before proceeding. Make sure you have a certified and approved shutoff within 6-feet of the fireplace, or follow local code requirements.
2. Follow the instructions supplied with the log set to locate the burner pan. Using the fittings, orifice and gas supply line that came with the log set, connect the line to the inlet gas supply.
3. Locate a position on the back of the burner pan about 4-inches from the right or left side of the burner pan. See (Figs. 6- 8)
4. Mount pilot assembly to burner pan as shown in (Figs 6 and 7). Note this pilot bracket clips on the burner pan and holds the pilot at a 45-degree position onto the pan and no screws required. Note: A screw can be added to secure the pilot assembly if needed. Carefully bend 1/4" pilot tubing from pilot assembly until the bottom of the pilot bracket is resting against the pan. (This will hold the pilot at the 45 degree position) then connect pilot fitting to valve. **(Use caution when bending pilot tubing not to kink the tubing or locate the tubing in or over the burner pan)**
5. Locate the valve kit in the right or left front corner of the firebox as far forward as possible to maintain the clearances shown in Fig. 8.
6. Bend inlet gas supply line and connect the 3/8" flare fitting to gas valve 3/8" inlet connector **(Use caution not to kink the line when bending)**.
7. Bend 12" stainless flex line and connect to valve outlet then connect other end to 3/8" flare fitting on burner pan **(Caution do not let gas inlet line to the valve kit or gas outlet line from the valve kit be placed in or over the burner pan)**.
8. Turn ON gas supply and check all connections for leaks using soapy water solution.
9. Follow valve pilot lighting instructions. After pilot is lit check pilot fittings for leaks.
10. Follow the instructions supplied with the log set to install ember material, basket grate and logs.
11. Install Damper stop (supplied with this valve kit) on edge of damper to prevent it from fully closing. This allows damper to remain slightly open to allow the pilot exhaust to vent outdoors.
12. **CAUTION: On all PROPANE installations it is recommended that an inlet pressure regulator be used.**



**Fig. 6** Shows approximate pilot location from end of the burner pan.



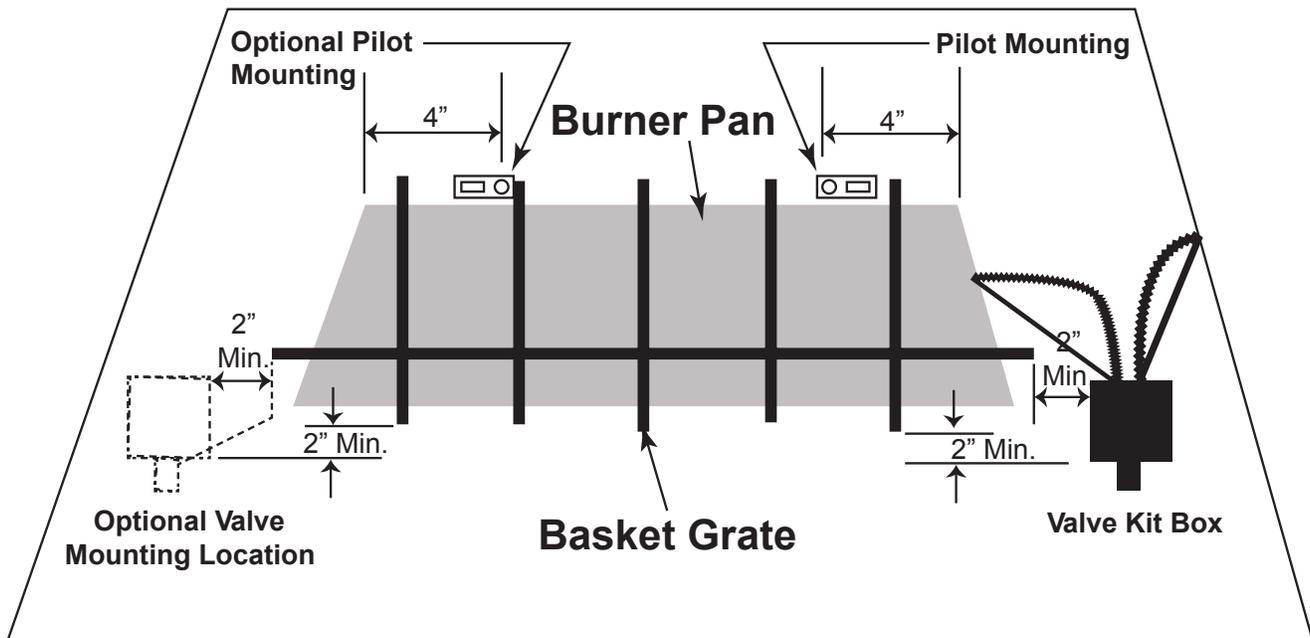
**Fig. 7** Side view of pilot assembly mounted on edge of burner pan 4-inches from end of pan.

**CAUTION**

Improper installation or use may overheat the valve and cause malfunction which could result in a dangerous and possibly deadly gas leak. Overheating the valve kit will also void your warranty.

To avoid overheating:

- The installation clearance dimensions that follow are MINIMUM clearances and must be met or exceeded.
- The clearance dimensions are from the burner GRATE, **NOT** the burner pan. Maintain at least 2-inches from the burner GRATE while keeping the burner pan centered to the grate.
- Never install the valve kit behind the burner. The valve kit must be installed to the side and to the front of the burner grate as shown.
- Ensure the orifice supplied by the burner manufacturer or an authorized hearth dealer for the gas type to be used is installed in the burner. Never remove, drill-out, or use an orifice that increased the rated output of the burner.
- Fully open any solid doors (glass, metal, etc.), open all door vents, and remove any solid barriers from in front of the fireplace while in operation.
- Ensure chimney flue is open while in operation.



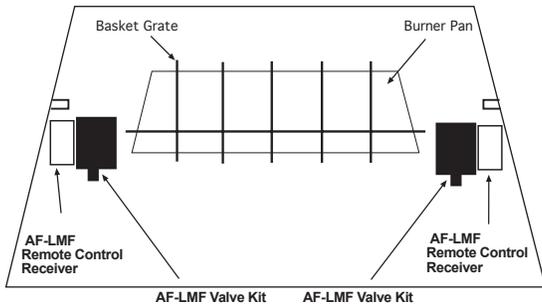
**Fig. 8** Shows clearances to be maintained inside the fire box.

**NOTE: VALVE BOX MUST BE LOCATED A MINIMUM OF 2-INCHES FROM SIDE OF THE BASKET GRATE AND NEVER PLACED DIRECTLY IN FRONT OR BEHIND THE BASKET GRATE**

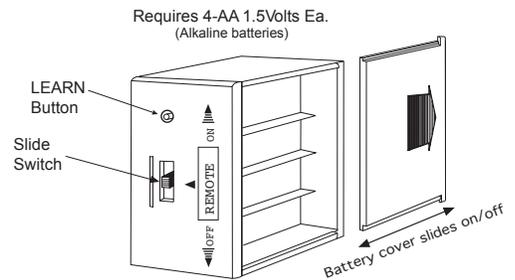
**Note: If you installed a manual gas valve ONLY (without a transmitter and remote receiver) then, disregard the information below and go directly to the Lighting Procedures.**

**CONNECTING THE REMOTE CONTROL ON AF-LMF-R & AF-LMF-RVS VALVE KITS**

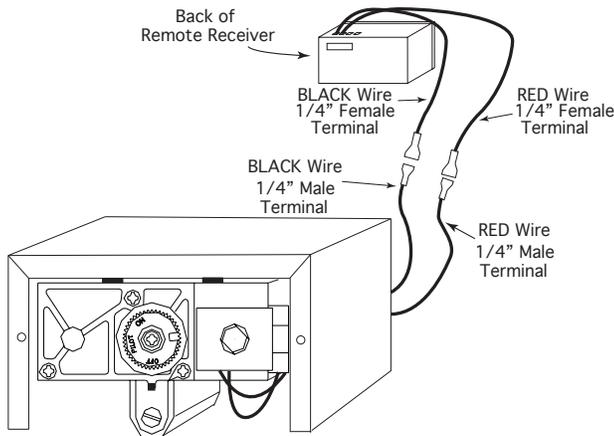
1. The remote control receiver is to be placed next to the valve kit, away from the fire. See Fig 9.
2. Remove receiver shield and battery cover then install (4) AA alkaline batteries shown in Fig. 11. Reinstall receiver shield.
3. Connect the red and black wires from the ON/OFF latching solenoid or motor drive on the valve to the red and black wires from the remote receiver for AF-LMF-R and AF-LMF-RV (Fig. 10). If installing the AF-LMF-RVS connect the 4-pin connector from the step motor to the remote receiver (Fig 12).
4. Refer to the instructions supplied with the remote control for operation of the remote control.



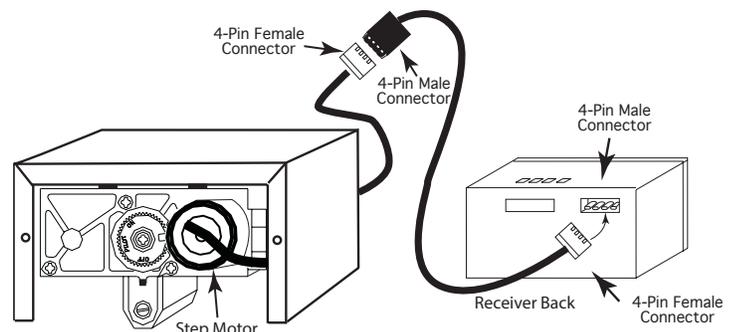
**Fig. 9** Shows placement of remote receiver for protection of radiant heat.



**Fig. 11** Installing batteries into receiver.



**Fig. 10** Solenoid or motor drive connection to receiver.

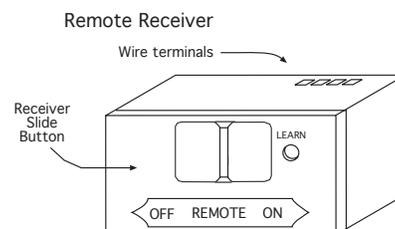


**Fig. 12** Step motor connection using 4-PIN connector.

**LEARNING TRANSMITTER TO RECEIVER**

Ensure batteries are installed into the transmitter. Each transmitter uses a unique security code. It may be necessary to press the LEARN button on the receiver to accept the transmitter security code upon initial use, if batteries are replaced or a replacement transmitter is purchased from your dealer or the factory. In order for the receiver to accept the transmitter security code, be sure the slide button is in the REMOTE position; the receiver will not LEARN if the slide switch is in the ON or OFF position. The LEARN button is located on the front of the receiver inside the small hole labeled LEARN. Using a small screwdriver gently push the black LEARN button inside the hole and release. When you release the LEARN button the receiver will emit a “beep”. After the receiver emits a “beep” press the transmitter ON button and release. The receiver will emit several rapid “beeps” indicating the transmitters code has been accepted into the receiver.

**Note:** The remote receiver will only respond to the transmitter when the 3-position slide switch is in the REMOTE position. The remote receiver houses the microprocessor that responds to commands from the transmitter to control the system operation.



**Fig. 13** Remote receiver.

## FUNCTIONS OF RECEIVER

- With the slide button in the ON position (towards the LEARN button), the system will remain ON until the slide switch is placed in the OFF or REMOTE position. See Fig. 13.
- With the slide switch in the REMOTE position (centered), the system will only operate if the remote receiver receives commands from the transmitter.
- With the slide switch in the OFF position (away from the LEARN button), the system is OFF.
- It is suggested that the slide switch be placed in the OFF position if you will be away from your home for an extended period of time. If the remote receiver is mounted out of children's reach, placing the slide switch in the OFF position also functions as a safety "lock-out" by both turning the system OFF and rendering the remote receiver inoperative.

**NOTE:** This product is designed for use with an attended hearth appliance or fire feature. Adults must be present when the Control System is operating. DO NOT program or thermostatically set this Control to operate a hearth appliance or fire feature when adults are not physically present. Furthermore, DO NOT leave the hearth appliance or fire feature burning unattended; it may cause damage or serious injury. If an adult is going to be away from the hearth appliance or fire feature for any length of time, then the transmitter, receiver/control module and application should be in the "OFF" position.

## LIGHTING PROCEDURE

**WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

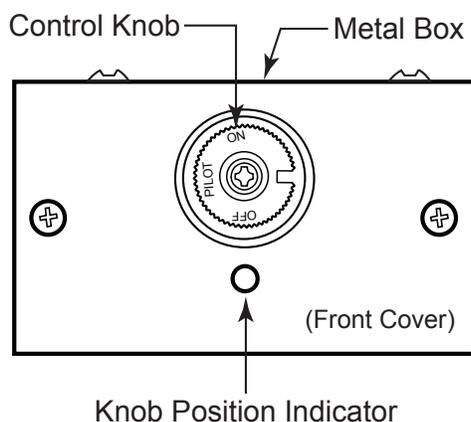
- This product has a standing pilot, which must be lit by hand. When lighting the pilot, follow these instructions exactly.
- This product should be installed including provisions for combustion and ventilation air, must conform with local codes or, in the absence of local codes, to the National Fuel Gas Code, ANSI Z223 latest addition.
- This product must be on a gas supply line that is less than 1/2 psi. and with an individual manual shut-off.
- **Never operate this system with the glass fireplace enclosures (doors) in the closed position.**
- Connecting 120-volt electrical power to this product will cause damage and will void warranty.

## TURNING ON VALVE KIT

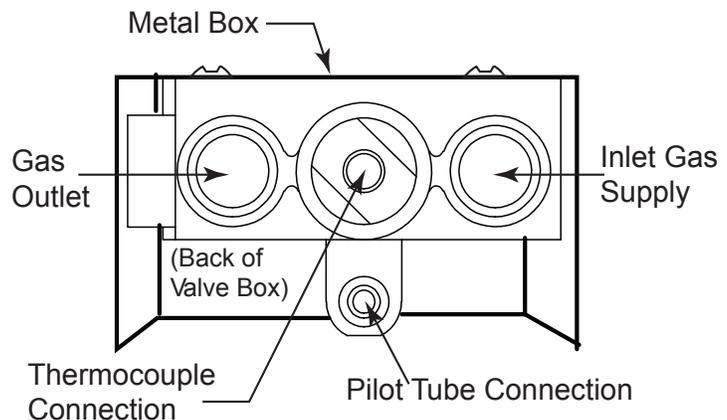
1. Turn the gas control knob so the indicator points to the **PILOT** position, push the gas control knob IN and HOLD in position. This will open the pilot valve and allows gas to flow to the pilot burner. See Fig. 14.
2. Light the pilot burner while holding the gas control knob in until a strong pilot flame is present. (Approx. 60-seconds)
3. Release the gas control knob and verify the pilot flame remains lit.
4. Turn the gas control knob counter clockwise to the **ON** position, The main burner valve will open and the main burner will ignite. **Note:** If using a remote control, push the ON button of the transmitter to light the main burner.

## TURNING OFF VALVE KIT

1. To shut **OFF** the main burner while leaving the pilot **ON**, turn the gas control knob clockwise to the **PILOT** position. This action will close the main gas flow.
2. To shut **OFF** the main burner and pilot, turn the gas control knob clockwise to the **OFF** position. This action will close the main gas valve and disengage the safety pilot valve.
3. To relight the pilot, follow the steps in the Lighting Procedure section.



**Fig. 14** Front of valve kit showing gas control knob.

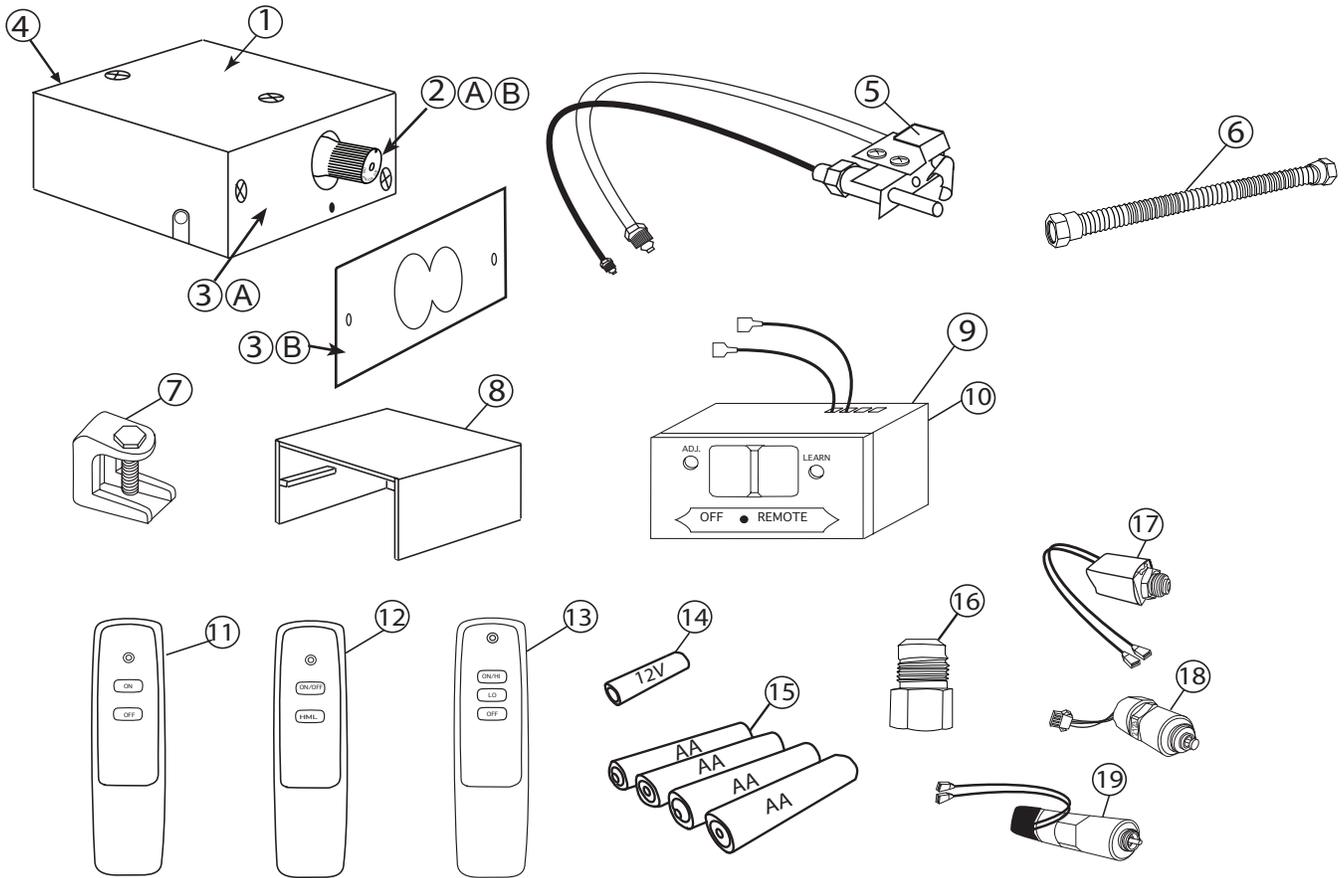


**Fig. 15** Back of valve kit showing all connections.

Refer to Fig. 15 for all connections at the back of the gas valve, inside the black metal box.

## Replacement Part List

(Attached to Valve)



Item#	Description	Part Number
1.	Manual Valve Assembly	AF-LMF
2A.	Gas Valve <u>ONLY</u> ; Used on AF-LMF, AF-LMF-R, AF-LMF-RV	AF-1000
2B.	Gas Valve <u>ONLY</u> ; Used on AF-LMF-RVS	AF-1005
3A.	Metal Face Plate for AF-LMF, AF-LMF-R, AF-LMF-RV	563-1
3B.	Metal Face Plate for AF-LMF-RVS	563-8
4.	3/8" NPT to 3/8" Flared Connector	U1-6C-S
5.	PSE Pilot Assembly	2385-P
6.	10-inch Black Stainless Flex Connector	T102-9898-10
7.	Damper Clamp	685-14
8.	Receiver Shield	RS-1A
9.	6-volt DC Receiver (For AF-LMF-R & AF-LMF-RV)	UN3-RX
10.	6-volt DC Receiver (For AF-LMF-RVS)	RCAF-1035RX
11.	ON/OFF Transmitter (For AF-LMF-R)	CON1001TX
12.	ON/OFF Hi/Med/Lo Transmitter (For AF-LMF-RVS)	RCAF-1035TX
13.	ON/OFF Hi/Lo Transmitter (For AF-LMF-RV)	RCAF-1020TX
14.	12-volt Battery (For AF-LMF-R, RV & RVS Transmitters)	BATT12VOLT
15.	AA Batteries (4 Required on all 6-volt Receivers)	BATTAA
16.	3/8" to 1/2" Adapter (Increases 3/8" flare to 1/2" flare)	UR3-68
17.	Solenoid (Used on AF-LMF-R gas valve)	AF-1000S
18.	Step Motor ( Provides Hi/Med/Lo on AF-LMF-RVS gas valve)	AF-1000MOT
19.	Motor Drive (Provides Hi/Lo on AF-LMF-RV gas valve)	AF-1000MVH-L

## MAINTENANCE OF YOUR AF-LMF SERIES VALVE KITS

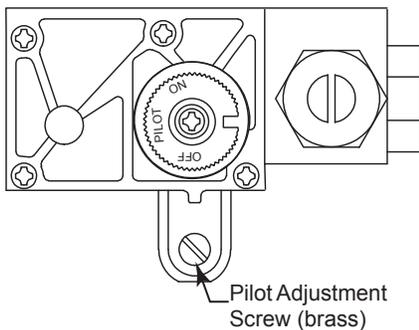
Your system should be checked once a year (at start of heating season) for proper operation by a qualified serviceman. Items to check: Valve operation, pilot operation, switch operation, damper operation, visual check of the burner and check gas connections for any leaks.

## TROUBLESHOOTING

**CAUTION:** Only an experienced service person should be troubleshooting. If not, please call Technical service below.

### PILOT WILL NOT STAY LIT

1. When lighting pilot, ensure you wait at least 30 seconds to one minute for the thermocouple to heat up before releasing the black control knob. See lighting instructions.
2. Check the connection from the pilot assembly to the gas valve. Follow the copper wire to the gas valve and ensure the fitting is snug and not too tight. The connection should only be installed finger tight plus a quarter turn with a wrench. See Fig. 15 for reference.
3. Over time the thermocouple can get dirty with a white or soot film. This can cause the pilot not to stay lit or light at all. Clean off the thermocouple and wipe off dust and try again.
4. If pilot will not light at all, then replace thermocouple or the entire pilot assembly.
5. If pilot flame is too large, noisy, or too small, it can be adjusted with the pilot adjustment screw by removing the two screws from the front cover of the valve box. See Fig 16.



**Fig. 16** Pilot adjustment. Clockwise decreases flame; Counter clockwise increases flame

### REMOTE WILL NOT LIGHT BURNER

1. Ensure the pilot is lit and the control knob is in the ON position. See Fig. 14.
2. Ensure the transmitter is "LEARNED" to the receiver. See page 6 as reference.
3. Check the black slide switch on the receiver. The switch should be in the REMOTE position. See Fig. 13.
4. Check the (4) batteries in the receiver. The total voltage of all (4) batteries should not be less than 5.3 volts.
5. Check the transmitter battery/batteries; there should be a red LED light glow when pressing any button on the remote control. **Note:** The 12-volt battery should be no less than 9 volts and ensure the batteries are not installed backwards.

## LIMITED WARRANTY

American Flame warrants the AF-LMF Valve Kit for 12 months from the date of purchase or installation to the original purchaser to be free from defects in materials and workmanship. Damage to the AF-LMF Valve Kit caused by accident, misuse, abuse, or installation error, whether performed by a contractor, Service Company, or owner, is not covered by this warranty. American Flame will not be responsible for labor charges and/or damage incurred in installation, repair, replacement, or for incidental or consequential damage. Some states, provinces, and nations do not allow exclusion or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives you specific legal rights. You may also have other rights that vary by state, province, or nation.

**FOR TECHNICAL  
SERVICE, CALL:**

**U.S. INQUIRIES**  
(855) 498-8324 or (260) 459-1703

**CANADIAN INQUIRIES**  
(877) 472-3923

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