

MODERUSTIC

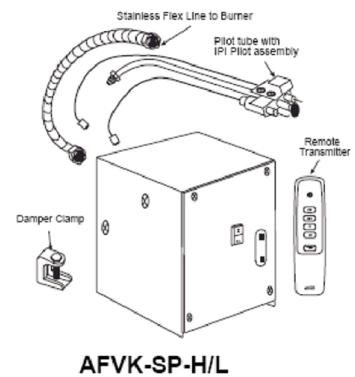
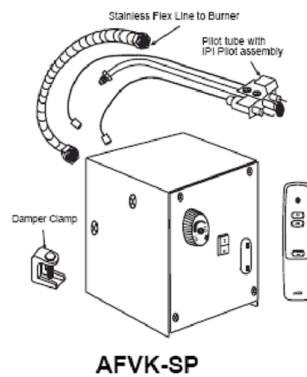
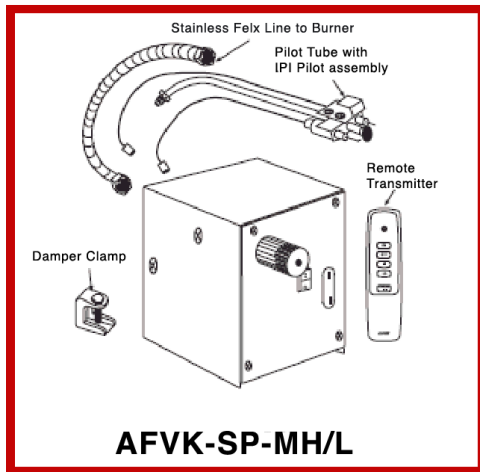
Battery Operated Remote Control Electronic Safety Pilot System 'IPI Intermittent Pilot Light' For Fire Pits or Fireplaces

Model:

AFVK-SP-MH/L – Remote flame height adjustment DC Motor Drive Hi, Medium to Lo (Natural / Propane Gas)

AFVK-SP Manual Flame Height Adjustment Hi to Lo (Natural / Propane Gas)

AFVK-SP-H/L Remote Flame Height Adjustment Solenoid Hi to Lo (Natural / Propane Gas)



Warning:

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

Important:

Read these instructions carefully before starting installation of your Aquatic Glassel

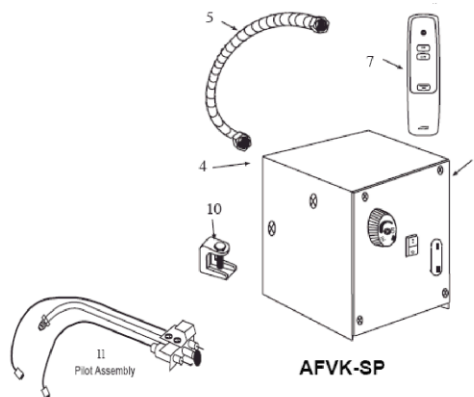
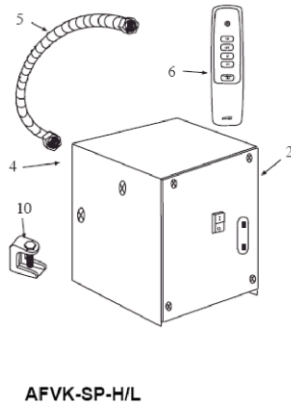
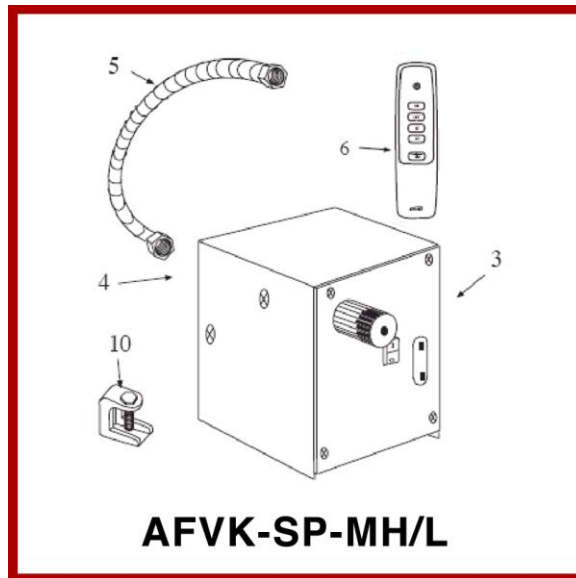
FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

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 you gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier call, the fire department.

Be sure Flue Damper and Glass Doors are fully open when operating any vented fireplace. Young children should be carefully supervised when they are in same room as the appliance.



AFVK-SP-MH/L (AFVK-SP & AFVK-SP-H/L) Parts List

Item Number Description Part Number

1. AFVK-SP Valve Assembly 238577-4
2. AFVK-SP-H/L Valve Assembly 238577-5
3. AFVK-SP-MH/L Valve Assembly 238577-16
4. 3/8" Flare x 3/8" NPT connector 685-22
5. 12"stainless steel connector line 685-11
6. SP1001H/L Transmitter (AFVK-SP-H/L & AFVK-SP-MH/L (Only) 238577-14
7. SP1001 Transmitter (AFVK-SP Only) 238577-15
10. Damper clamp 685-14
11. Complete Pilot assembly 238577-13

Installation Precautions

These instructions must be used as a supplement to the instructions supplied with the Aquatic Glassel fireplace glass. Follow the Aquatic Glassel fireplace glass instructions supplied by the manufacturer on the placement of the burner pan (if one is used).

Please follow these instructions on the connection of the inlet line to the gas valve and to the burner pan assembly. If this fireplace installation has glass doors - only operate the fireplace with glass doors in the fully open position.

- This electronic safety pilot system contains a valve, pilot assembly, and connector that are certified by CSA.
CSA Numbers
Valve #224930-1546330
Module #224930-1587838
- These ignition systems are primarily made for interior use by specific manufacturers.
- These manufacturers recommend these units be used indoors. If you are using any of these electronic units outdoors you must take precautionary measures to protect the unit you are using.
- You must protect any and all electrical components from moisture at all times. This also includes the sparker/ ignition head/ module that are to protrude from the surface.
- You will accept all responsibility for these units being used outdoors. Moderustic Inc accepts no responsibility for misuse or mis-installation of any of our electronic ignitions whether electronic or battery operated.

Valve Kit Installation With Fireglass

- 1.** Make sure gas is completely turned off to the fireplace. Make sure you have a certified and approved shut-off within six feet of the fireplace, or what ever the local inspection authority requires.
- 2.** Follow the instructions supplied with the Aquatic Glassel to locate the burner pan (if one is to be used). Using the fittings, orifice and gas supply line that came with the Aquatic Glassel. Connect the line to the inlet gas supply.
- 3.** Locate a position on the back of the burner pan about 4" from the right or left side of the burner pan. Mount pilot assembly to burner pan. Note: This pilot bracket clips on the burner pan and holds the pilot at a 45-degree position onto the pan an attachment screw is recommended. The pilot light assembly can also rest in the Aquatic Glassel, as this will support the pilot light assembly as well. Bend 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 and when locating the igniter and flame sensor wires not to locate the wires and the tubing in or over the burner pan)**(Again if one is used).
- 4.** Locate the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) valve kit in the right or left front corner of the firebox as far forward as possible.
- 5.** Bend inlet gas supply line and connect the 3/8" flare fitting to 3/8" inlet connector (Fitting with **Plastic** cap) on the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) **(Use caution not to kink the aluminum inlet line when bending to fit to the valve).**
- 6.** Bend 12" stainless flex line and connect to valve outlet. Connect other end to 3/8" flare fitting on burner pan.
(Caution do not let gas inlet line to the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) or gas outlet line from the AFVK-SP-MH/L (AFVK-SP, AFVK-SP-H/L) be placed in or over the burner pan).
- 7.** Turn on gas supply and check all connections for leaks using soapy water solution.
- 8.** Follow valve lighting instructions. After pilot is operating check pilot fittings for leaks.
- 9.** Follow the instructions supplied with the Aquatic Glassel fireplace glass to finish the installation.
- 10.** Install Damper clamp (supplied with this valve kit) (This allows damper to remain slightly open to allow the pilot gases to vent).

NOTE: On all PROPANE installations it is recommended that an inlet pressure regulator be used.

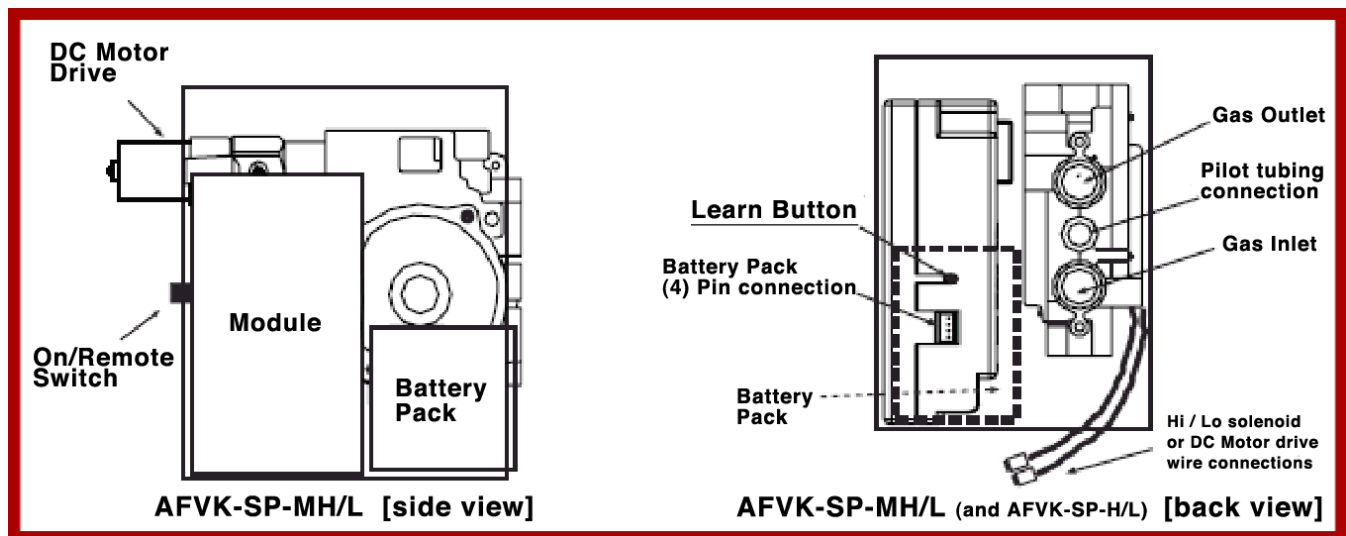
Side and Back View Diagram Of AFVK-SP-MH/L (and AFVK-SP-H/L) Models

1. Check the connections of the stripped ends of the RED and BLACK wires on solenoid wiring harness to the screw terminals located on the top of the battery pack.

2. Connect the (2) 1/4" female terminals on the solenoid or DC Motor Drive wiring harness to the matching color (RED & BLACK) 1/4" male terminals on the wires from the Hi/Lo solenoid or DC Motor Drive.

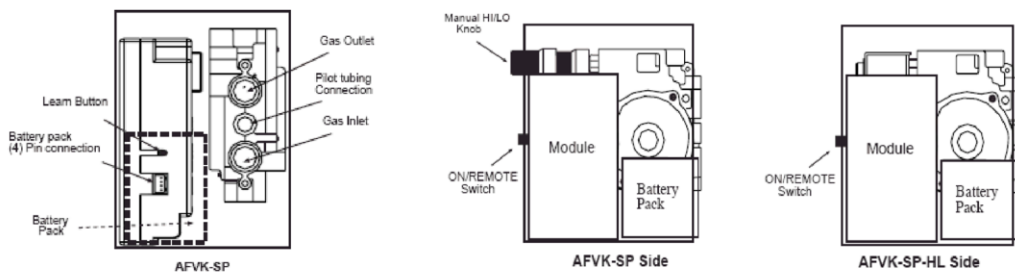
Note: On the AFVK-SP-MH/L the battery pack switch must be set to DC MOTOR DRIVE power to operate the HI/LO DC Motor Drive. This switch is located on the face of the battery pack.

Note: On the AFVK-SP-H/L the battery pack switch must be set to LATCHING SOLENOID power to operate the HI/LO solenoid. This switch is located on the face of the battery pack Note Figure # 11



AFVK-SP-MH/L [side view]

AFVK-SP-MH/L (and AFVK-SP-H/L) [back view]



3. When the remote/off switch is in the REMOTE position the appliance will operate from the Remote Control transmitter. **Note:** The AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) must be programmed to the Remote Control transmitter.

4. To program the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) (Make sure the batteries have been installed in the battery pack) locate the learn button on the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L)

Press and release the learn button there will be a beep sound from the AFVK-SPMH/L (or AFVK-SP, AFVK-SP-H/L). Then press any key on the remote transmitter. Once the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) internal receiver accepts the transmitter code, there will be a series of confirming beeps.

5. The remote system is ready for use.

MAINTENANCE OF YOUR AFVK-SP-MH/L (and AFVK-SP, AFVK-SP-H/L) SYSTEM

- 1.** Your system should be checked once a year (At the start of the heating season) for proper operation by a qualified service representative.
- 2.** Replace all batteries at the start of the season. Items to check: electronic valve operation, Spark to pilot operation, ON/OFF switch operation, damper operation, visual check of the burner and gas connections for leaks.

OPERATING PROCEDURE

After installation is completed follow these steps to operate the AFVK-SP-MH/L (or AFVK-SP)

1. Turn on the main gas supply and check all fittings and connections for leaks with rich soap and water solution.
2. Move the OFF/REMOTE slide switch on the front to the REMOTE position.
3. Push the ON button on the remote transmitter this will start the ignition system. The pilot will begin to spark and then light. Once the pilot is lit 2 seconds the main burner will light.
4. Adjust the main flame from HI to LO with the manual HI/LO knob.

Note: Move the OFF/REMOTE slide switch on the front to the OFF position then push the rocker switch to the "I" position this will manually start the ignition system. Once the pilot is lit 2 seconds the main burner will light.

After the installation is complete follow these steps to operate the AFVK-SP-MH/L (and AFVK-SP-H/L)

1. Turn on the main gas supply and check all fittings and connections for leaks with rich soap and water solution.
2. Move the OFF/REMOTE slide switch on the front to the REMOTE position.
3. Push the ON button on the remote transmitter position this will start the ignition system. The pilot will begin to spark and then light once the pilot is lit 2 seconds later the main burner will light.
4. Adjust the main flame from HI to LO with the HI/LO buttons on the remote transmitter.

Note: Move the OFF/REMOTE slide switch on the front to the OFF position then push the rocker switch to the "I" position this will manually start the ignition system. Once the pilot is lit 2 seconds the main burner will light.

Note: On the AFVK-SP-MH/L press and hold the LO button and the flame will modulate to LO. Press and hold the HI button and the flame will modulate to HI.

Note: On the AFVK-SP-H/L press and release the LO button and the flame will go to LO. Press and release the HI button and the flame will go to HI.

Note: On initial start up: due to air in the gas supply line it may take an extended amount of time for the pilot to light. There is a 60 second lockout built into the module. To reset turn the rocker switch OFF then ON or push the OFF button on the remote transmitter then push the ON button.

TROUBLESHOOTING

IMPORTANT: Before any dis-assembling occurs, Call Moderustic for a diagnosis. NOTE: Pictures of your unit will be required. Only experienced qualified service technician should only perform troubleshooting procedures.

1. If unit is making a beeping sound when "ON"
 - Pilot is buried too low in the glass
 - Sparker wires are tied /tapped together
 - Glass or other material is causing sparker shortage
2. Confirm that the "S" wire and the "I" wire are properly connected to the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) module "S" and "I" terminals.
3. Confirm that the Spark to Pilot burner is properly grounded to the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) gas control valve (Ground is provided through the pilot tubing).
4. Check the ground wire from the module to the gas control valve (Black ground wire on the 8 pin connector).
5. Check the power source battery pack connections and voltage of batteries.
6. Optional check the position of the CONTINUOUS PILOT switch on the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) module.

If main burner does not come ON when the manual rocker switch or remote control is turned ON:

1. Confirm that the pilot sparks and lights.
2. Check the (2) pin plastic connectors that plug in the face of the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) gas control valve
3. Confirm that the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) gas control valve is properly grounded to the AFVK-SP-MH/L (or AFVK-SP, AFVK-SP-H/L) module.

Limited Warranty

American Flame warrants the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L 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 AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L Valve Kit caused by accident, misuse, abuse, or installation error, whether preformed 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.

These Pictures Are For Reference Only



This shows the pilot in its proper position on the outer ring/burner pipe. In a propane installation a base plate will be required under the burner to prevent propane from leaking downward.



This shows the burner covered with glass and pilot just above the surface with flame pointing towards the burner. NOTE: Only a small portion of the burner is covered to show pilot position and burner coverage

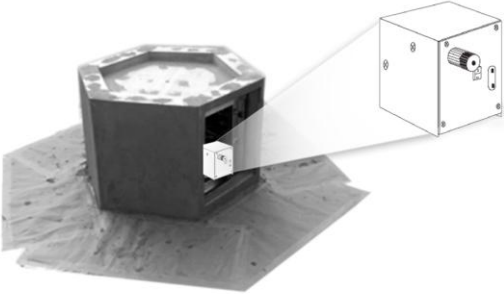


This picture shows the pilot in its proper position, No mounting is required the glass will support the pilot

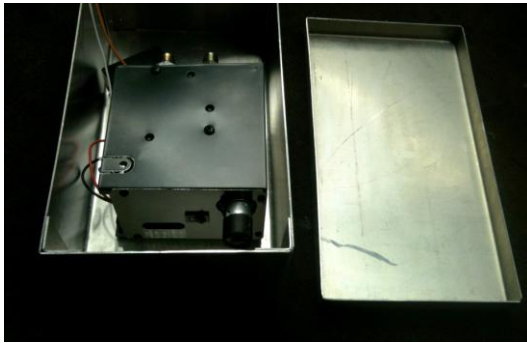


Here again is the pilot, sparker and sensor above the fireglass. All wires and tubing need to be away from burner holes.

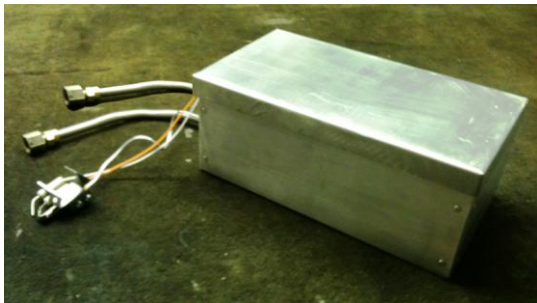
The Pictures Below Have The AFVK Series Valves Used in A Fire Pit Application.



If the valve unit can be installed **inside the fire pit** - make sure to have an access door for future service to the internal components when required.



For valve units that must be placed **outside the fire pit** - make sure it's encased within a weather resistant box to prevent any damage from the elements.



However, holes should be made **into the back of the protective box** for both flex lines and pilot wiring.

Make sure to caulk those openings afterwards to **properly re-seal the box.**



Remember to place the burner ring high enough over the valve to prevent overheating

Manufactured for Moderustic Inc and in conjunction with and for Aquatic Glassel products by:
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www.skytechsystem.com

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9467 9th street Suite D
Rancho Cucamonga, California 91730
Phone 909 989 6129
Fax 909 944 3811

If you should have any problems or Issues with Installation please e mail the pictures of your installation to Ed@Moderustic.com.

REFERENCE MATERIAL

Note: The pilot tubing connection and pilot wiring comes assembled to the electronic module (AF-4000MOD) and the valve.

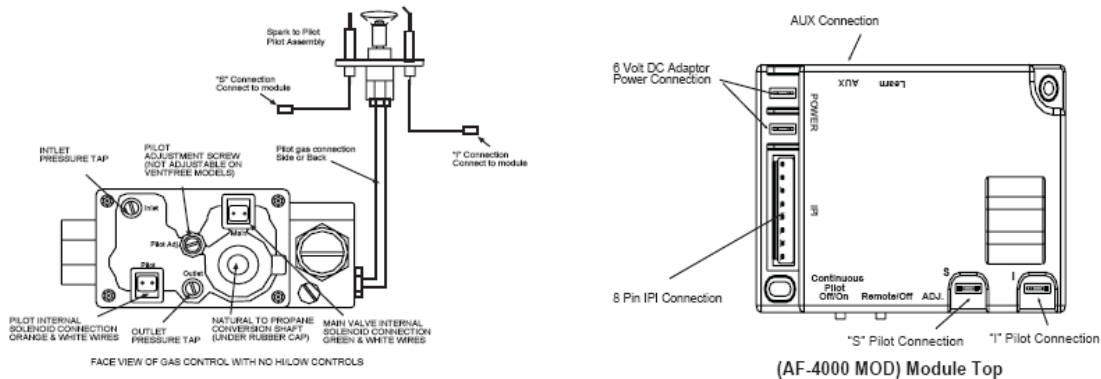
Spark to Pilot Burner Connections

This AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L electronic valve kit uses a spark to pilot burner assembly. The pilot gas connections are as follows.

1. Connect the pilot tubing fitting into the pilot outlet connection at the rear of the AFVK-SP, AFVK-SP-H/L, or AFVK-SPMH/L and tighten. (Use caution on brass connectors)
2. After installing the pilot tubing connector and gas has been turned on check all connections for leaks with rich soap and water solution.

Wiring The Pilot

1. The “S” & “I” wires from the pilot assembly are pre connected at the factory to the “S” & “I” terminals on the (AF-4000 MOD) module.
2. Route the “S” & “I” wires from the pilot assembly to the (AF-4000 MOD) module in an area that will be away from the pilot or main burner flame.



Instructions for installing batteries into the AFVK-SP, AFVK-SP-H/L & AFVK-SP-MH/L battery pack

The battery pack is located at the back of the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L valve kit inside the metal case.

- A. On the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L the battery pack has a 6” (4) wire harness connecting the battery pack to the module.
- B. Prior to installation Note: The location of the battery pack (Figure #5 & #6) is located just in the metal housing at the back of the valve kit. Note: Remove the battery pack during installation.

Note: The AFVK-SP, AFVK-SP-H/L, & AFVK-SP-H/L are DC volt Battery powered systems and will not operate without the battery pack.

AFVK-SP, AFVK-SP-H/L, & AFVK-SP-H/L Models.

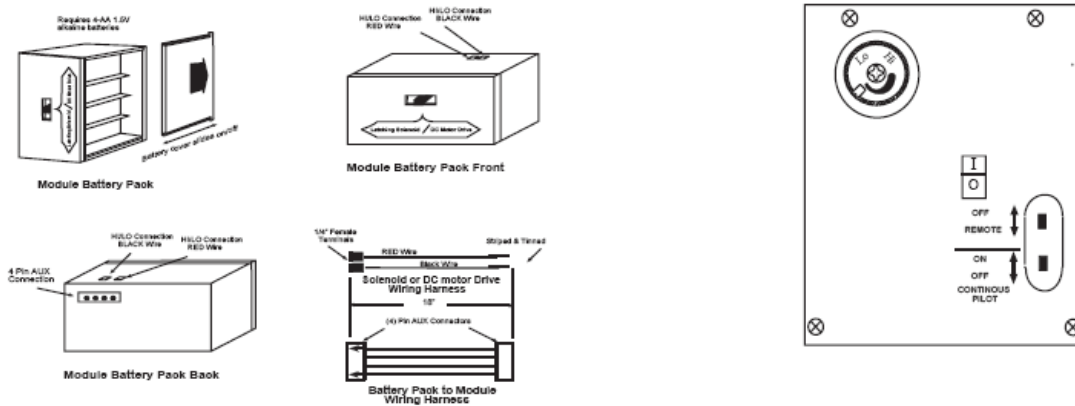
1. Install (4) AA alkaline batteries (Included) in the battery pack.
2. The (4) pin male connector on the 6” (4) wire battery pack comes pre connected to the (4) pin female connector

located on the battery pack and module.

3. On the AFVK-SP-H/L & AFVK-SP-MH/L there are also (2) 18" wires (Red & Black) that are connected to the High/ Low solenoid.

4. After the valve kit installation process is completed reinstall the battery pack back into the rear area of the AFVKSP, AFVK-SP-H/L, or AFVK-SP-MH/L metal case.

5. Use caution that the excess wire of the (4) pin wire harness and HI/LO wire harness is tucked in the metal case to protect them from heat.



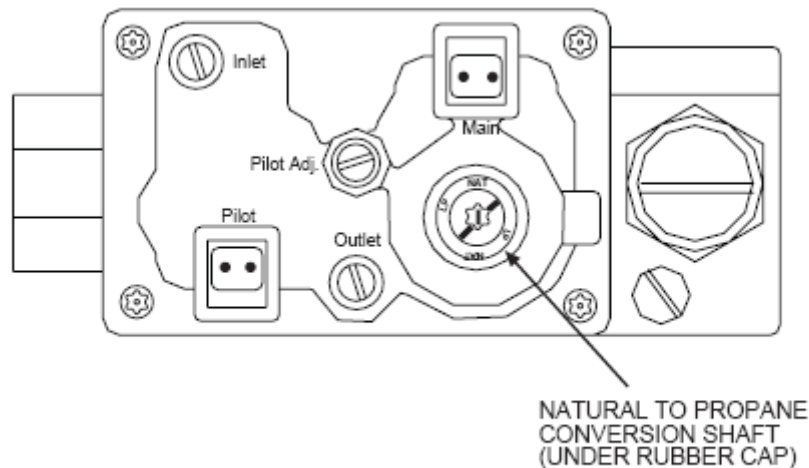
Converting the AFVK-SP, AFVK-SP-H/L, & AFVK_SP-MH/L Natural to Propane

Note: When converting a vented fireplace or fire pit from NATURAL to PROPANE it will be necessary to use the SPLPK-18 or SPLPK-24

The AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L electronic control valves are convertible from natural gas to propane gas by a Simple Rotary knob located on the front (Face) of the valve.

1. Remove the front cover to access the face of the control valve.
2. Remove the Black cap by pulling the cap straight off. Note: the position of the marker on the shaft of the Simple Rotary knob. This mark will point to NAT or LP that indicates the type of gas the valve is set on.
3. To convert the AF-4000 from the factory setting (NAT) push in the Simple Rotary knob and rotate 90°. Note: the marker will now point to LP and the shaft will stay in.
4. To convert the AF-4000 back to the factory setting (NAT) push in the Simple Rotary knob and rotate 90°. Note: the marker will now point to NAT and the shaft will stay out.
5. After the conversion has been made check the outlet pressure with a manometer. The factory setting on the internal regulator is 3.50"wc natural and 10.5"wc propane.
6. Replace the Black cover cap.

Note: The Conversion is already done per your order. See the SPLPK 18 or 24 instructions to convert the burner pan to propane gas this involves installing an orifice air shutter pilot orifice and media. Use extreme caution when changing this Simple Rotary knob.



FACE VIEW OF GAS CONTROL WITH NO HI/LOW CONTROLS

FOR YOUR SAFETY READ BEFORE LIGHTING

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

1. This installation should be installed with 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.
2. This product must be on a gas supply line that is less than 1/2 psi. And with an individual manual shut off.
3. **Never** operate this new system with the glass fireplace enclosures (doors) in the **closed position**.
4. Connecting 110-volt electrical power to this product will cause damage and will void warranty.
5. There is an adapter available must be ordered separately.

Special Features On The (AFVK-SP, AFVK-SP-H/L, & AFVK-SP-MH/L Module

The (AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L) module has (2) special features built into the system.

CONTINUOUS PILOT FEATURE:

This allows the user to change from a spark to pilot system to a standing pilot system for use during Cold Climate conditions to maintain a draft in the chimney.

1. There is a switch located on the front of the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L that reads CONTINUOUS PILOT ON/OFF. This switch will allow the user to manually select the pilot mode of operation, on at all time, Or only when the main flame is lit.
2. When the continuous pilot switch is in the OFF position and the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L's

rocker switch is turned ON the pilot will spark and light, and when the AFVK-SP, AFVK-SP-H/L, or AFVK-SPMH/L's rocker switch is turned OFF the pilot will shut OFF when the main burner shuts OFF. When the continuous pilot switch is in the ON position and the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L's rocker switch is turned ON the pilot will spark and light, when the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L's rocker switch is turned OFF the pilot will stay ON when the main burner shuts OFF. This setting is generally used in Cold Climate conditions to maintain a draft in the chimney.

3. The hand held Remote Control can also activate the CONTINUOUS pilot feature mode.

REMOTE CONTROL FEATURE:

Note: The AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L comes with a remote control transmitter.

The (AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L) module has a built in remote control receiver that allows the user to program a hand held remote transmitter to the appliance at any time during or after installation of the appliance.

1. There is a switch located on the front of the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L that reads REMOTE/OFF.

2. When the remote/off switch is in the OFF position the AFVK-SP, AFVK-SP-H/L, or AFVK-SP-MH/L will operate from the front mounted rocker switch.

Manufactured for Moderustic Inc and in conjunction with and for Aquatic Glassel products by:
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If you should have any problems or Issues with Installation please e mail the pictures of your installation to Ed@Moderustic.com.