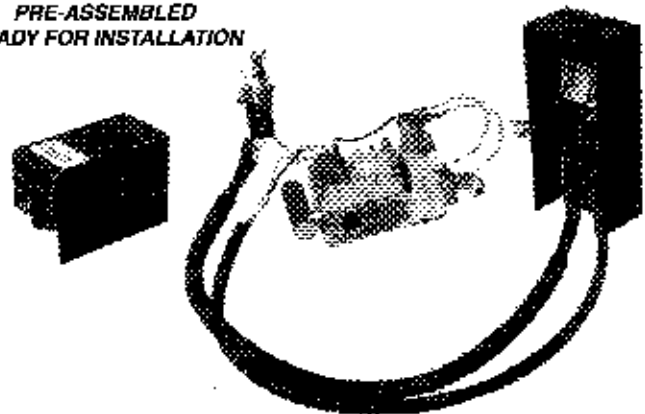




AUTOMATIC REMOTE CAPABLE SAFETY PILOT SYSTEM

- FEATURES:**
- NON-STANDING FLAME-SENSING PILOT •
 - MANUAL SWITCH ON/OFF •
 - OPTIONAL REMOTE CONTROL •
 - BATTERY OPERATION •

PRE-ASSEMBLED
READY FOR INSTALLATION



(Suitable for G4, G45, and PB series burners)
(Sizes 12"- 24" for natural; 12"- 60" for propane gas)

MODEL EPK-1(M)(P)

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result, causing property damage, personal injury, or loss of life.

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:

- Open a window.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in the building.
- Immediately call the gas supplier from a neighbor's phone and follow the gas supplier's instructions.
- If you cannot reach the gas supplier, call the fire department.

Installation and service must be performed by an NFI Certified or other qualified professional installer, service agency, or the gas supplier.

INSTALLER & CONSUMER

These instructions **MUST** be retained with this appliance

Important: Read these instructions carefully before starting installation of the burner control system.

The Peterson Real-Fyre® gas log set is to be installed only in a solid-fuel-burning fireplace with a working flue constructed of noncombustible material. Solid fuels shall not be burned in a fireplace where this gas log set is installed. The installation, including provisions for combustion, ventilation air, and required minimum permanent vent opening, must conform with the *National Fuel Gas Code (ANSI Z223.1/NFPA 54)* and applicable local building codes. In Canada, the installation must conform with the *Natural Gas and Propane Storage and Handling Installation Code (CSA-B-149.1)*. A damper stop clamp is included to maintain the minimum permanent vent opening and to prevent full closure of the damper blade. **The chimney damper must be fixed fully opened when burning this log set. This log set is designed to burn with yellow flames; thus, adequate ventilation is absolutely necessary.**

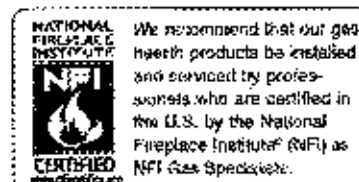


TABLE OF CONTENTS

2	TABLE OF CONTENTS
2	IMPORTANT INFORMATION
3	EPK-1(M)(P) PARTS LIST
4	INSTALLATION
4	PREPARATION
4	ATTACHING THE EPK-1(M)(P) VALVE
4	INSTALLING THE FLAME DIVERTER BRACKET
5	INSTALLING THE PILOT ASSEMBLY TO THE BURNER
5	CONNECTING TO THE GAS SUPPLY
6	CHECKING THE IGNITION PACK
7	INSTALLING OR REPLACING BATTERIES FOR THE IGNITION MODULE PACK
7	HEAT SHIELD PLACEMENT
7	SWITCH BOX PLACEMENT
8	LIGHTING INSTRUCTIONS
9	TROUBLESHOOTING THE EPK-1(M)(P)
10	NOTES PAGE
11	ELECTRONIC PILOT TROUBLESHOOTING
12	WARRANTY

IMPORTANT INFORMATION

CHECK TO BE SURE THAT THE PROPER FUEL GAS IS BEING USED WITH THIS PILOT KIT.

The installation, including provisions for combustion and ventilation air, must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code (ANSI Z223.1/NFPA 54).

This component and its individual shutoff valve must be disconnected from the gas-supply piping system when testing at pressures that exceed $\frac{1}{2}$ psig. This is accomplished by closing the gas-supply line valve.

This component must be isolated from the gas-supply piping system by closing its individual manual shutoff valve during any testing of the gas-supply system at test pressures up to and including $\frac{1}{2}$ psig.

A fireplace screen must be in place when the gas log set is in operation. Unless other provisions for combustion air are provided, the screen shall have an opening(s) for introduction of combustion air.

WHEN GLASS FIREPLACE ENCLOSURES (DOORS) ARE USED, OPERATE THE GAS LOG SET WITH THE GLASS DOORS FULLY OPEN; BOTH SIDES IF THE FIREPLACE IS A SEE-THROUGH TYPE.

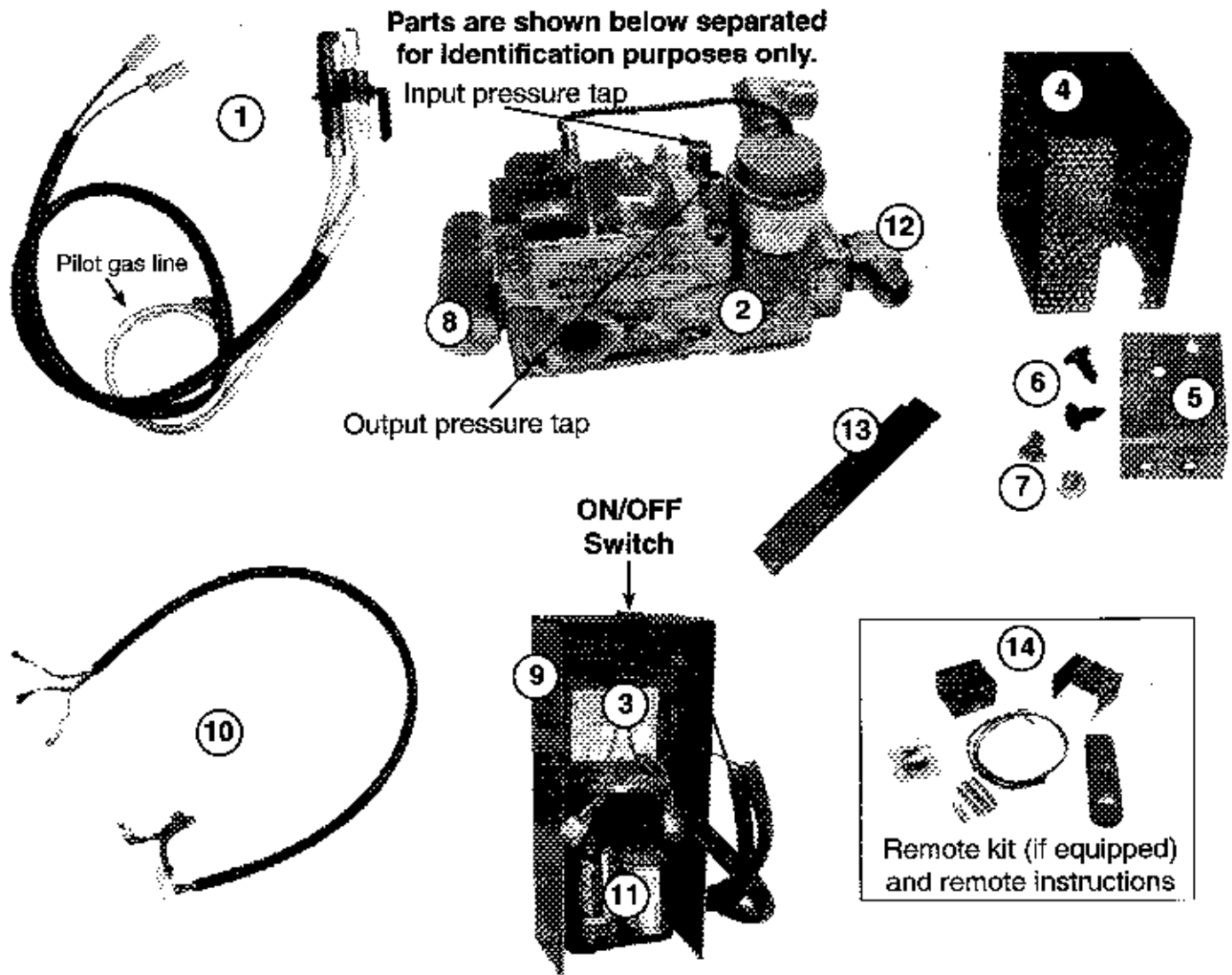
This appliance may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. Installation of appliances designed for manufactured homes or mobile homes must conform with *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280* in the U.S.; or with *CAN/CSA Z240 MH* in Canada; or with *ANSI/NCSBCS A225.1/NFPA 501A, Manufactured Home Installations Standard* when such as standard is not applicable.

Do not use this appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been underwater.

EPK-1(M)(P) PARTS LIST

Note: Unit is shipped pre-assembled, ready for installation.

DO NOT REMOVE THE PILOT ASSEMBLY FROM THE VALVE OR SWITCH BOX.



Photos not to scale

Item No.	Description
1.	Pilot assembly, natural gas or Pilot assembly, propane gas
2.	Valve, natural or propane gas
3.	Ignition module pack
4.	Valve heat shield
5.	Pilot mounting bracket
6.	Screw #10 x 3/8" Phillips BLK (2)
7.	Mounting screws 10-32 x 1/4" (2)
8.	Brass adapter without plug
9.	Switch box
10.	Wire harness, 24"
11.	Batteries (D-cells) (not installed)
12.	Elbow, brass 3/8" x 3/8"
13.	Flame diverter bracket
14.	Remote kit (if equipped)

**FOR WIRING DIAGRAM & WIRE COLORS,
SEE P. 6**

*Rear view of the switch box assembly
showing battery & ignition module packs.*

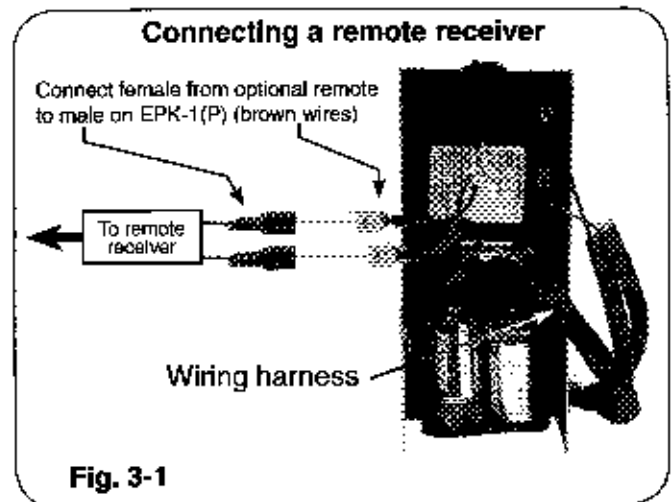


Fig. 3-1

INSTALLATION

HOW TO INSTALL THE EPK-1(M)(P) SAFETY PILOT SYSTEM

This safety pilot system must be installed by a qualified professional installer. Instructions must be followed carefully when installing to ensure proper performance and full benefit from the gas log set and safety pilot system.

These instructions must be used as a supplement to the instructions supplied with the Peterson gas log set. Follow the gas log set instructions and make adjustments as appropriate for the addition of a safety pilot system. Use gas pipe sealing compound that is resistant to all gasses (or Teflon tape) and apply to all male pipe connections. Make sure that all connections are tight. Use soapy water and a brush to inspect all connections for leaks prior to use. **NEVER TEST FOR LEAKS WITH AN OPEN FLAME.**

INSTALLATION

The EPK-1(M)(P) is shipped pre-assembled for easy installation onto the burner pan.

Note: Installation is easier when done outside of the fireplace.

FOLLOWING THESE INSTRUCTIONS WILL ENSURE PROPER INSTALLATION.

PREPARATION

If the burner system the EPK-1(M)(P) is to be added to is already installed, remove the logs, sand, and/or other media, and set it aside to be correctly reinstalled later using the instructions that came with the original burner system.

ATTACHING THE EPK-1(M)(P) VALVE

1. Apply gas pipe sealing compound (or Teflon tape) to the male end of the fuel injector or air mixer on the burner.
2. Attach the brass adapter to the fuel injector or air mixer by screwing the pan onto the adapter (Fig. 4-1). Take care not to damage the attached pilot assembly when rotating the burner pan. Be sure all connections are tight.

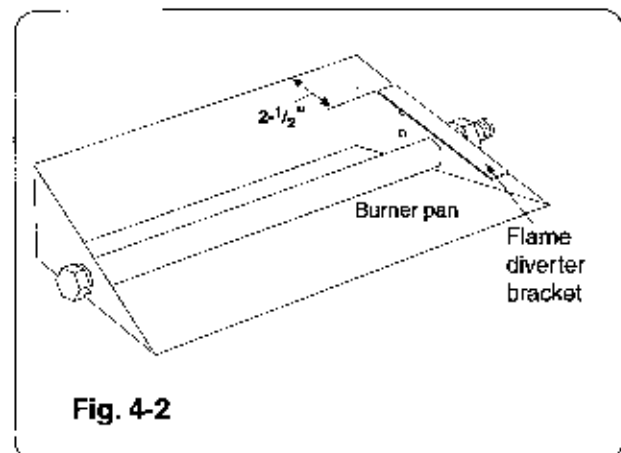
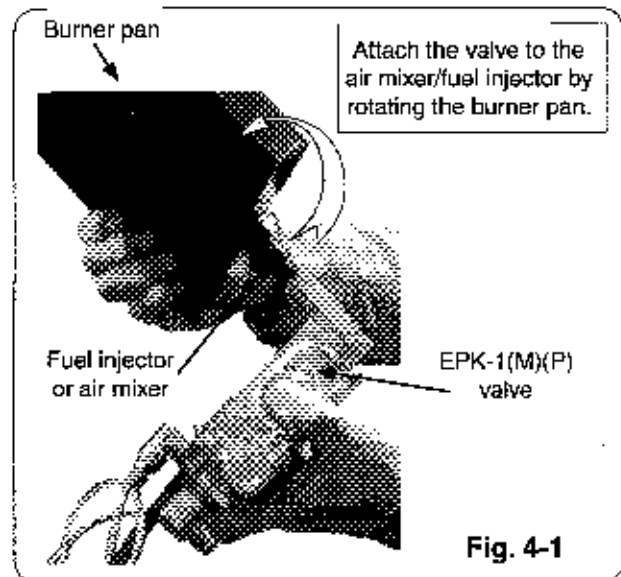
Note: The EPK-1(M)(P) valve may need to be angled slightly upward to allow for the pan to sit flat against the fireplace floor. Adjust as necessary.

INSTALLING THE FLAME DIVERTER BRACKET

When properly installed onto the burner pan, the flame diverter bracket will promote quicker ignition and protect the safety control system from overheating.

Note: You must first install the flame diverter bracket before installing the pilot assembly. Use only the pilot assembly pre-assembled with this kit. Never substitute with an existing pilot.

1. Place the flame diverter bracket over the side edge of the burner pan, near the location the safety control system pilot bracket will be attached. It should be placed approximately 2-1/2" from the rear wall of the burner pan (see Fig. 4-2).
2. Tap the bracket lightly with a hammer to secure it in place.



INSTALLATION (Cont.)

INSTALLING THE PILOT ASSEMBLY TO THE BURNER

Caution: Do not kink or damage the pilot supply tube, sparking, and sensor probes. Do not unscrew the gas line from the valve.

1. The pilot assembly comes with an L-shaped mounting bracket. Using the two black screws, fasten the bracket to burner pan (short side toward the back of the pan) using the pre-drilled holes in the pan (see Fig. 5-1).
2. Using the two (2) remaining screws, mount the pilot assembly onto the bracket (Fig. 5-2) and tighten until snug. **Check to be certain the pilot hood and probes are situated above the edge of the pan. Adjust if necessary.**

WARNING

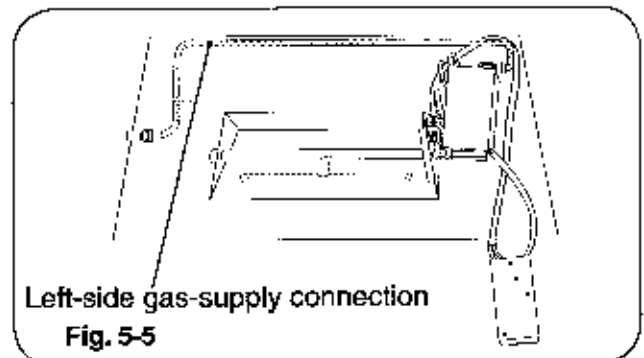
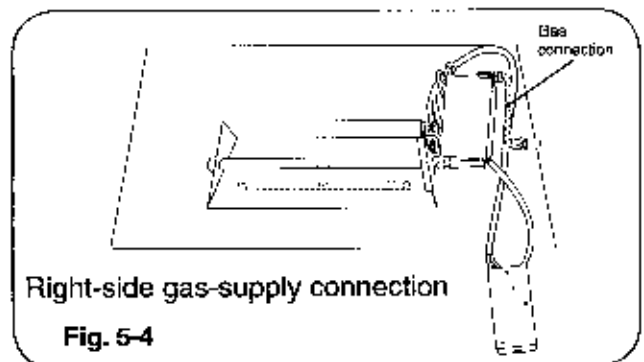
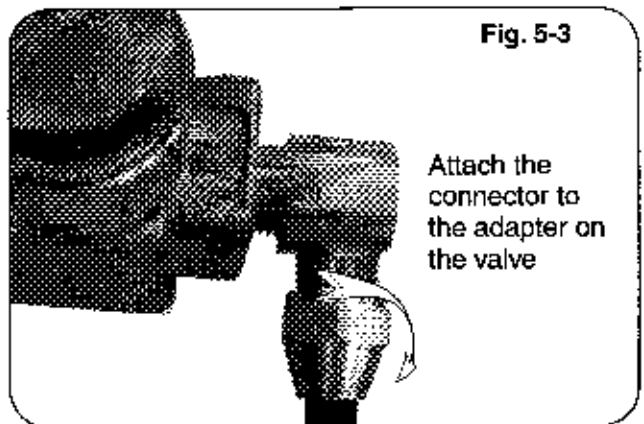
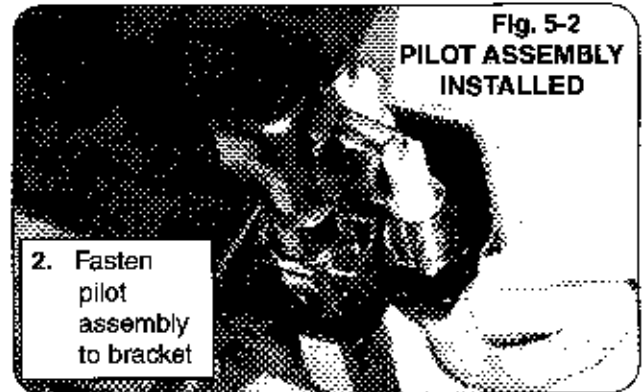
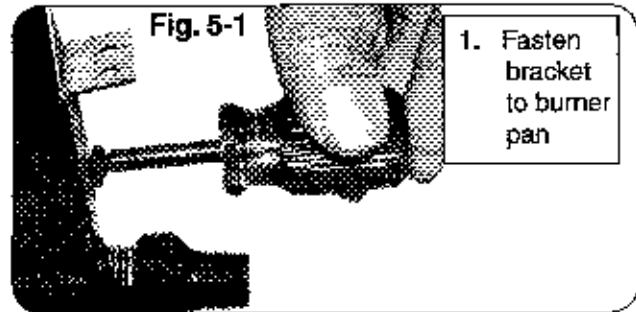
Keep the pilot assembly clear at all times. Never cover any part of the pilot assembly.

CONNECTING TO THE GAS SUPPLY

To connect the EPK-1(M)(P) to the gas supply, the connector kit and component parts will be needed, which are included with the burner system. Refer to the PARTS LIST in the instructions supplied with the burner to identify the key parts needed.

1. Apply gas pipe sealing compound (or Teflon tape) to the male end of the gas stub. Attach the hearth elbow from the connector kit to the gas-supply stub in the fireplace.
2. Attach the tubing of the connector kit to the elbow on the EPK-1(M)(P) control valve (see Fig. 5-3). Use Teflon tape or pipe compound. Tighten securely. (Discard the smaller connector elbow from the connector kit, as this is not needed.)
3. Connect the tubing to the hearth elbow on the gas stub. Tighten both ends securely.
4. Follow the instructions supplied with the Peterson burner system for proper burner placement.
5. Turn on the gas supply and test for leaks at all connections with a soapy water solution. **Never use an open flame to check for leaks.**

Note: Although the flex connector supplied with the burner system (not with this kit) should be sufficient for right-side supply installation (Fig. 5-4), for a left-side gas supply, a longer flex hose may be required to reach the valve (Fig. 5-5).



INSTALLATION (Cont.)

CHECKING THE IGNITION PACK

The EPK-1(M)(P) valve comes completely assembled with the wiring harness already connected to the switch box assembly. However, we recommend that you follow the steps below to ensure it has not become detached during shipping before installing the batteries.

TO CHECK THE WIRING ASSEMBLY

1. Check that the wiring harness is fitted tightly into the connector on the green ignitor pack in the rear of the switch box (Fig. 6-1).
2. Check that the female connectors on the two black wires from the pilot assembly (wires marked "I" and "S") are inserted fully into the male connectors on the ignitor pack (Fig. 5-1).
3. Check the connection of the red and black wires of the wire harness to the respective counterpart wires from the battery holder (red-red and black-black). The two brown wires should be connected to the switch.

Note: The two (2) spare brown wires with coated male connectors are used to connect an optional remote system.

4. Check the connections of the wires to the EPK-1(M)(P) valve (see Fig. 6-2):

Orange wire marked **THTP** - to **THTP** connector on valve

Black wire marked **TP** - to **TP** connector on valve

Green wire marked **TH** - to **TH** connector on valve

The diagram below (Fig. 6-3) shows the wiring layout for the complete unit.

For installation of a remote system (if equipped), see instructions included in the remote kit and p. 3, Fig. 3-1.

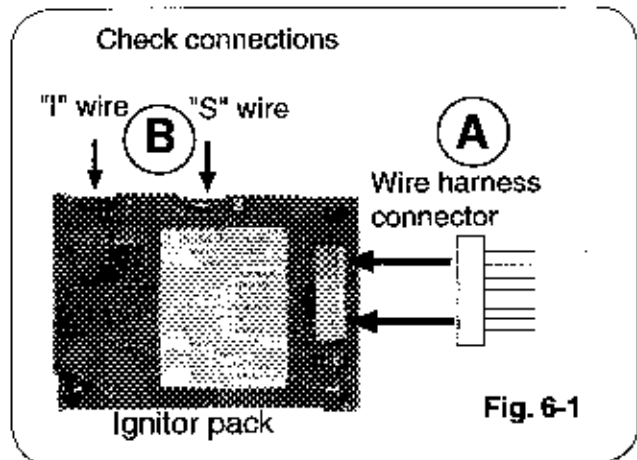


Fig. 6-1

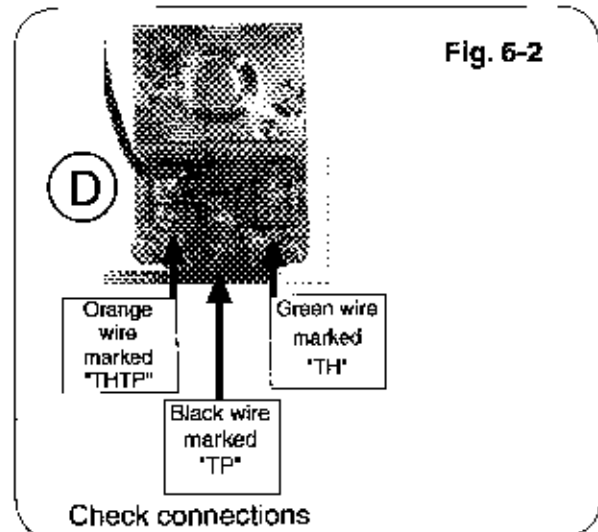


Fig. 6-2

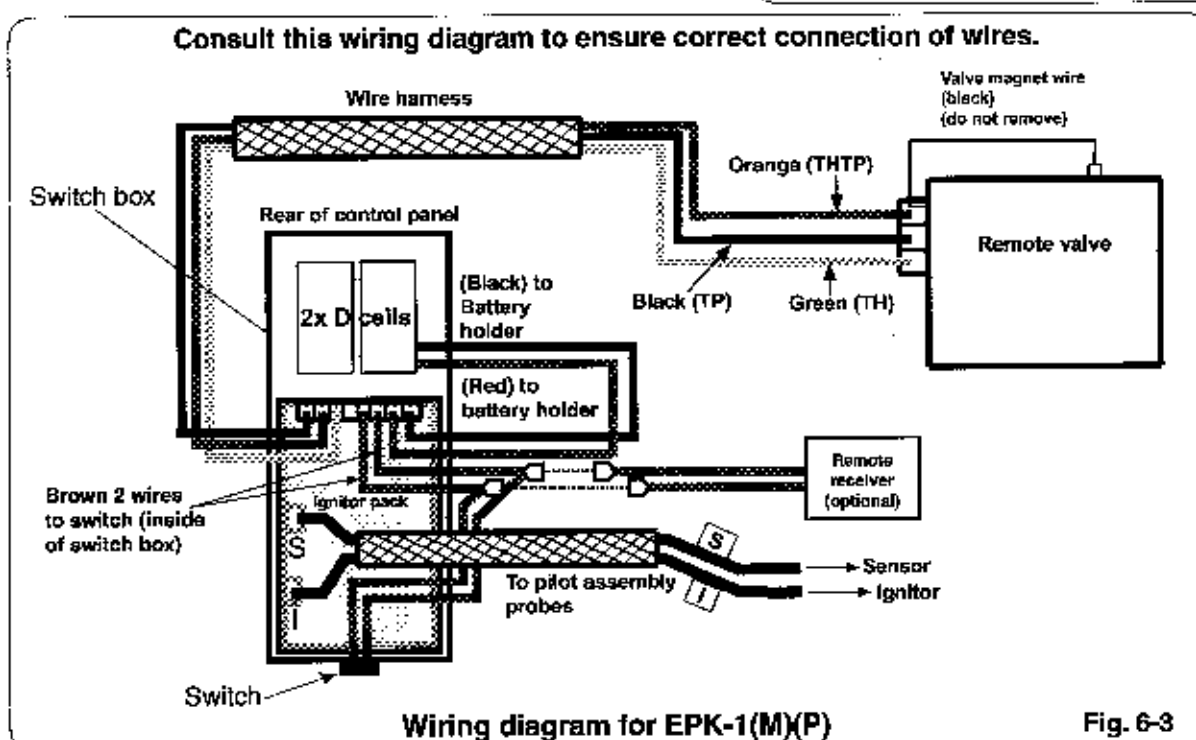


Fig. 6-3

INSTALLATION (Cont.)

INSTALLING OR REPLACING BATTERIES FOR THE IGNITION MODULE PACK

Two 1.5-volt (D-cell) alkaline batteries are supplied with the burner system. To install or replace batteries, remove any old batteries (if applicable) and install new batteries according to the diagram illustrated on the battery holder mounted inside the switch box (Fig. 7-1).

Note: For the EPK-1(M)(P) system to work properly, it is suggested that you replace the batteries annually with fresh batteries. Always replace both batteries at the same time.

IMPORTANT

TURN ON THE GAS AND CHECK ALL CONNECTIONS FOR GAS LEAKS USING A SOAPY WATER SOLUTION. NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS. IF LEAKS ARE PRESENT, TIGHTEN DOWN CONNECTIONS UNTIL NO MORE LEAKS ARE DETECTED.

HEAT SHIELD PLACEMENT

Cover the EPK-1(M)(P) safety valve with the heat shield as shown in Fig. 7-2. The heat shield must remain in place over the valve at all times during operation. Keep the area above the heat shield clear of logs or any other object. Follow the log placement instructions that came with the burner exactly. **Failure to follow these instructions will cause overheating in EPK-1(M)(P) safety valve components, resulting in system shutdown.**

CAUTION: DO NOT place the EPK-1(M)(P) wire bundles on, under, or near the heat shield, burner, or valve. See Fig. 7-3 for example placement.

SWITCH BOX PLACEMENT

The switch box is aesthetically designed and is an integral part of the operation of the EPK-1(M)(P).

Place the switch box a minimum of 6" from the burner/flame. Additionally, if the switch box is in the firebox, the rear of the switch box must not be exposed to the flame. Set the box on its side and face the bottom of the box toward the right firebox wall. Be sure that the pilot and valve wire bundles remain clear of the burner, valve, and heat shield at all times.

Note: Coil excess wire within the switch box.

CAUTION: THE SWITCH BOX MAY BE HOT DURING AND AFTER OPERATION.

Fig. 7-1

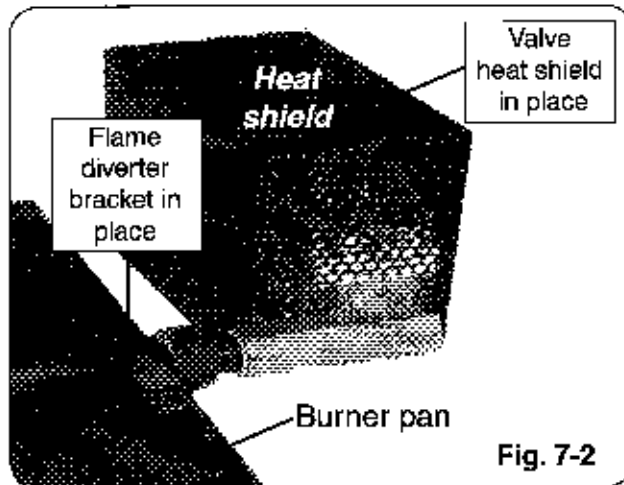
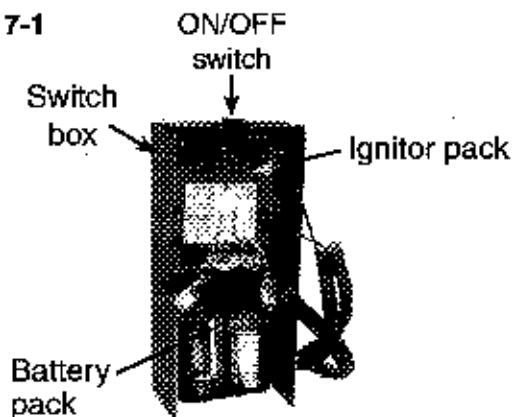


Fig. 7-2

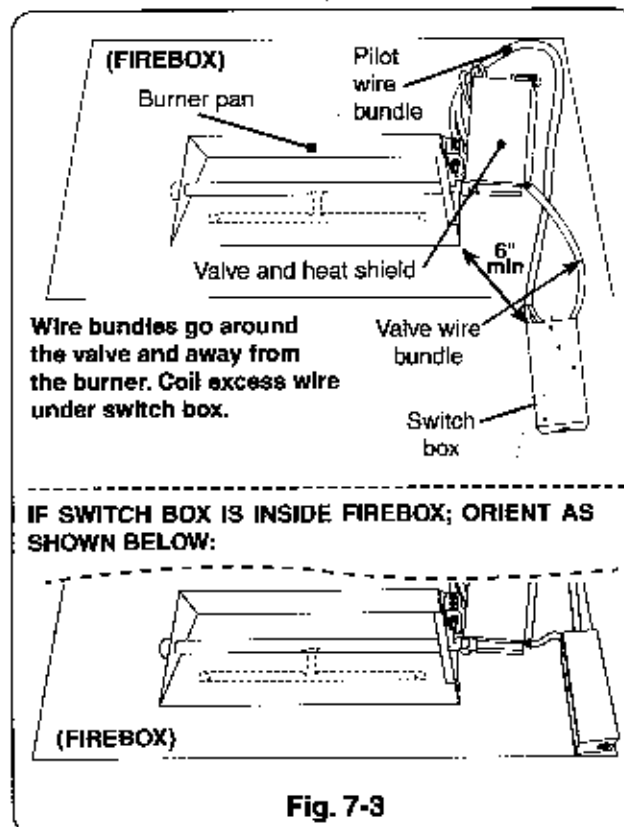


Fig. 7-3

LIGHTING INSTRUCTIONS

We recommend that before you install the log set, you familiarize yourself with the control valve layout. This will help you to be confident operating the log set when fully installed.

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.

The Real-Fyre® EPK-1(P) has a pilot that is lit using the ignitor switch. When lighting the pilot, follow these instructions exactly.

BEFORE LIGHTING, smell all around the gas log set area for gas. Be sure to smell next to the floor, as some gas is heavier than air and will settle on the floor. **IF YOU SMELL GAS, FOLLOW THE INSTRUCTIONS ON THE FRONT COVER OF THESE INSTRUCTIONS.**

TO LIGHT THE BURNER SYSTEM USING THE SWITCH BOX

Use the switch in front of the switch box (marked **I** = **IGNITE**; **O** = **OFF**, Fig. 8-1).

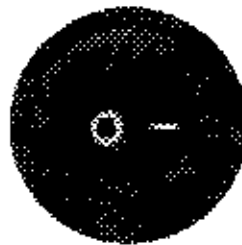
1. Press switch to **I (Ignite)**; see Fig. 8-2. This transmits a rapid series of sparks at the pilot head and will ignite the gas.
2. Sparks cease when the pilot flame is lit and stable. After a short time, the pilot will then light the main burner.

CAUTION: IF THE BURNER DOES NOT IGNITE WITHIN 20 SECONDS, STOP, WAIT 5 MINUTES, THEN REPEAT STEPS 1. AND 2. ABOVE.

If the pilot will not stay lit after several tries, turn the ignitor switch to **O (OFF)** and call the service technician or gas supplier.



Switch box
Fig. 8-1



Switch box
in ON position
Fig. 8-2



Switch box
in OFF position
Fig. 8-3

TO SHUT DOWN THE GAS LOG SET USING THE SWITCH BOX

Simply press the **O (OFF, Fig. 8-3)** switch in front of the switch box. The gas flow will cease, and all flames (main burner and pilot) will go out (see important note below).

OPERATING THE BURNER USING THE REMOTE CONTROL

If your EPK-1 came equipped with a remote, or if one was added later, follow the instructions included in the remote kit for lighting and shutting down the attached burner.

IMPORTANT: Both the switch box switch and the remote control (if equipped) must be in the off state to shut the burner off. If one control is commanded off while the other is still on, the burner will remain on.

TROUBLESHOOTING THE EPK-1(M)(P)

PROBLEM	CAUSE	SOLUTION
1. Pilot will not light	<ul style="list-style-type: none"> a. Obstruction in pilot gas supply or pilot gas-supply line is kinked b. Inadequate gas supply c. Air in line 	<ul style="list-style-type: none"> a. Clear out obstruction. Replace pilot gas-supply line if kinked b. Have gas pressure checked by installer or gas supplier c. Air should clear; attempt to relight
2. No spark at pilot	<ul style="list-style-type: none"> a. Loose wires b. Dead batteries c. Faulty switch or remote (if equipped) 	<ul style="list-style-type: none"> a. Check all wires are securely in place b. Replace batteries c. Replace the switch box unit or remote system as appropriate
3. Pilot lights, but main burner will not	<ul style="list-style-type: none"> a. Wire leads are not connected to proper valve terminals or toggle switch terminals not tight b. Batteries too low for voltage output c. Defective valve 	<ul style="list-style-type: none"> a. Make sure all wire leads are tight and attached to proper terminals (see wiring diagram on p. 6, Fig. 6-3) b. Replace with new ones c. Replace valve
4. Log set not burning properly	<ul style="list-style-type: none"> a. Low flame/uneven flame 	<ul style="list-style-type: none"> a. Check for low gas pressure; should have operating pressures of 7" w.c. for natural gas, 11" w.c. for propane at manifold b. Burner should be filled completely with sand or vermiculite
5. Log set shuts down during operation	<ul style="list-style-type: none"> a. Glass doors closed, causing excessive heat buildup b. Pilot electrode not properly set to pilot location c. Heat shield not in place 	<ul style="list-style-type: none"> a. Open glass doors b. See p. 5 (INSTALLING THE PILOT ASSEMBLY TO THE BURNER) c. Place heat shield over valve. Be sure the solid black face of the shield is between the valve and the burner
6. Intermittent ignitor spark during use (main burner has been burning for well over a minute).	<ul style="list-style-type: none"> a. Embers or sand covering pilot assembly 	<ul style="list-style-type: none"> a. Clear all foreign material from around the pilot assembly

Periodically inspect the pilot assembly and valve controls and maintain them free of obstruction or debris. If the pilot flame is not blue with possibly yellow tips and does not impinge on the electrodes or if the pilot does not stay lit, contact a qualified professional service technician to service the pilot system.

Detail A

Electrode (A)

When adjusting the spark electrode (if necessary); NEVER adjust the electrode by bending the wire. ALWAYS adjust the electrode by loosening the retainer nut(s), then adjust accordingly.

The minimum gap between the spark electrode/sensor electrode and the pilot flame hood is $1/8"$. The maximum is $5/32"$.

If the electrode ceramic is loose in the threaded barrel; the pilot assembly must be replaced.

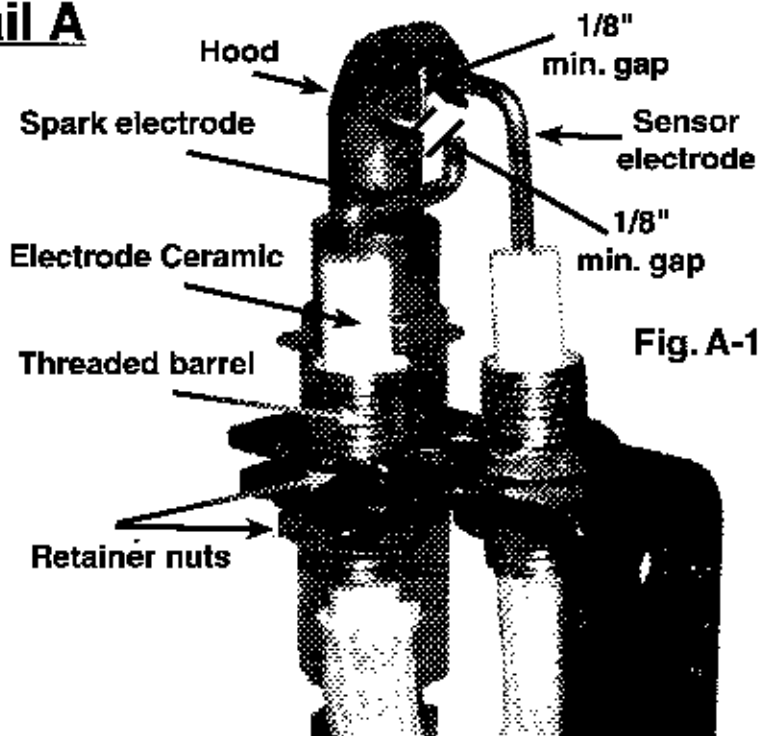


Fig. A-1

Detail B

Terminal Connections (B)

All of the connections on the control module must be properly attached. If the spade terminals are loose; inspect to ensure they correctly appear as detailed below. Use needle nose pliers to clamp down on the center/sides of the terminals if needed (to provide a tight fit.)

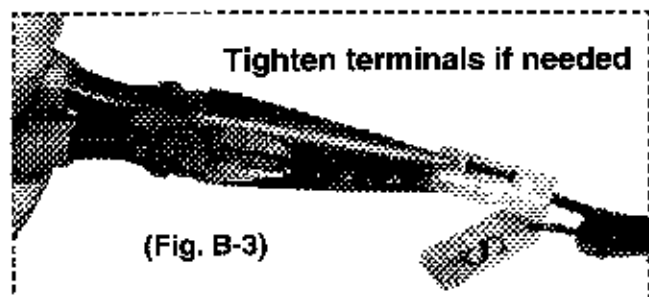
Spade Terminal Detail



Ensure that spade terminals (S and I) are attached securely

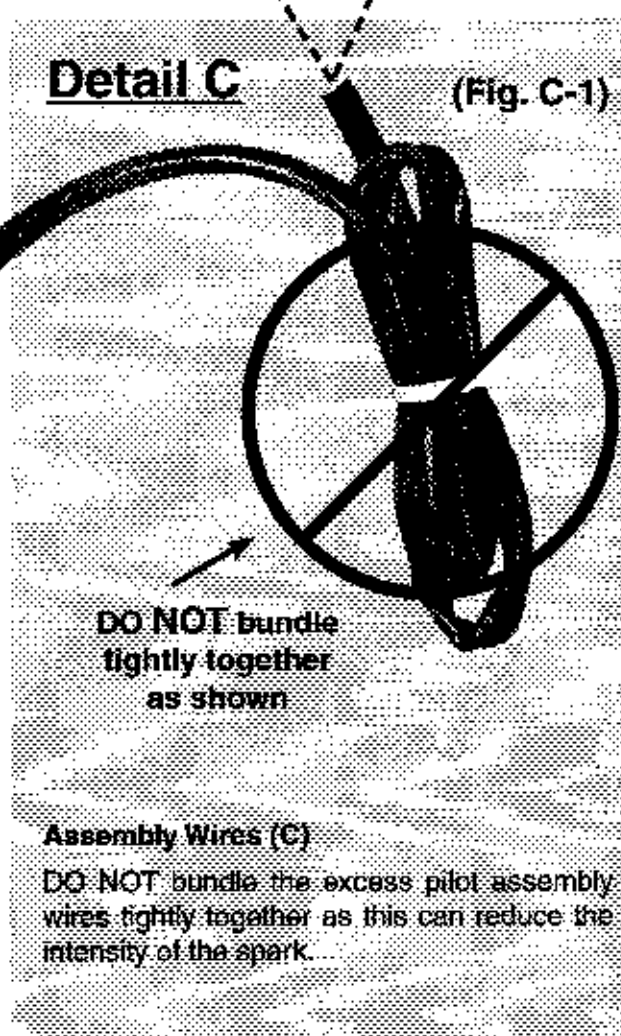
Ensure that multi-wire connector is properly locked in place

Control Module (DESIGN MAY VARY) (Fig. B-2)



Detail C

(Fig. C-1)



Assembly Wires (C)

DO NOT bundle the excess pilot assembly wires tightly together as this can reduce the intensity of the spark.