

Please read this entire instruction before attempting repair.

WARNING - ELECTRIC SHOCK POTENTIAL. All repairs must be accomplished with the 115VAC and 12 DC power disconnected from heater.

Basic start up operation is as follows (with thermostat jumped):

- 1) From "Off" press operating button (Low). DC controller energizes the 115VAC relay completing the igniter high voltage connection. Igniter temperature immediately rises from room temperature.
- 2) Combustion fan starts at 1 minute along with feed motor for 1 ½ minutes providing start up fuel.
- 3) Pellets start to ignite approx. 3 to 4 minutes. Feed motor starts at 4 minutes to provide additional start up fuel.
- 4) At 7 minutes unit should have flame in burn pot. If no temperature rise is noted by T-1 (sensor) at 20 minutes heater starts shut down process.

TROUBLESHOOTING IGNITER SYSTEM

The igniter system incorporates a cartridge style high wattage 115VAC igniter located at the bottom of the pellet burn pot. This system is continuously cooled by incoming combustion air and provides years of general service. However, for the igniter to work properly the burner pot must be cleaned as required to allow the pellets to fall onto the igniter. Generally, this is accomplished during normal cleaning which would include removing the burn pot and brushing the ash from the pot and igniter. Removing the screen from below the igniter and brushing all ash from the burn pot holder will also aid in the starting process.

Check the igniter rod surface for disintegration or obvious damage. If any white ceramic material is showing through the SS protective cover the igniter should be replaced.

Once the burn pot is cleaned and the igniter inspected the remaining system checks are electrical. A simple check of the system may be accomplished on a cold heater by placing a gloved hand on the igniter rod and pressing one of the operating button (Low). The igniter will start to get hot immediately (2 minute temperature 500°F). If not temperature rise is noted then continue with electrical trouble shooting.

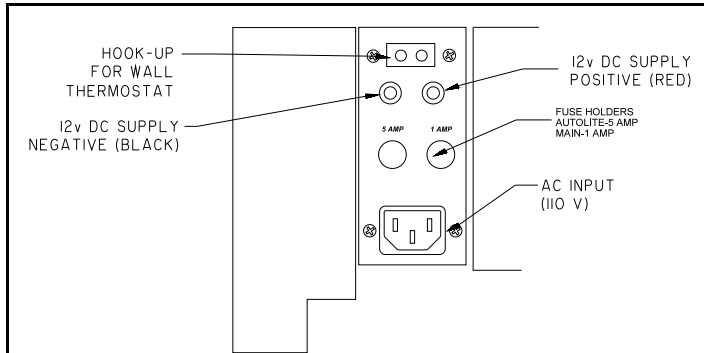


Figure 1 Insert Connection Panel

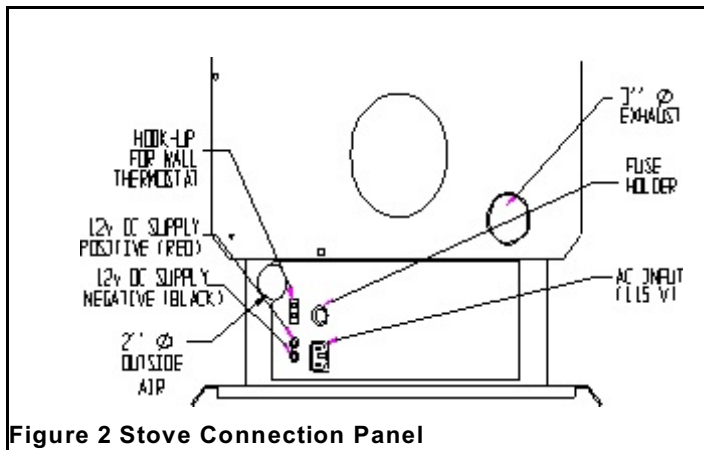
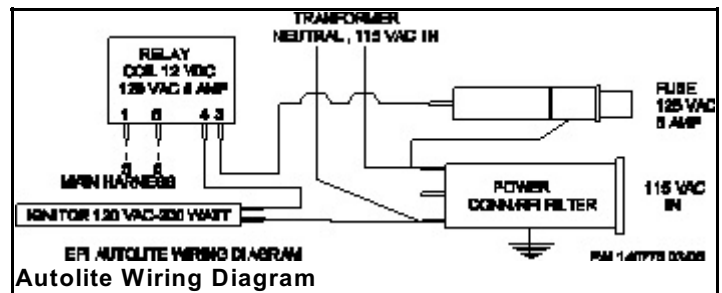


Figure 2 Stove Connection Panel

GENERAL INFORMATION

Your EASYFIRE Pellet Heater is equipped with the Autolite Automatic ignition and operating system.

The AutoLite system is integrated into the heater to allow for automatic start up using a heating element located in the burn pot. This element starts the initial fire required to burn the wood pellets. The system operates on 115VAC power supplied through a separate fuse for seven minutes during the initial heater start up. After the seven minute period the AutoLite system is deactivated and the heater operates based on the EasyFire digital control system requirements. If the house AC power should quit, the AutoLite system will not be available. however, with the optional battery attached the heater can be manually lit.



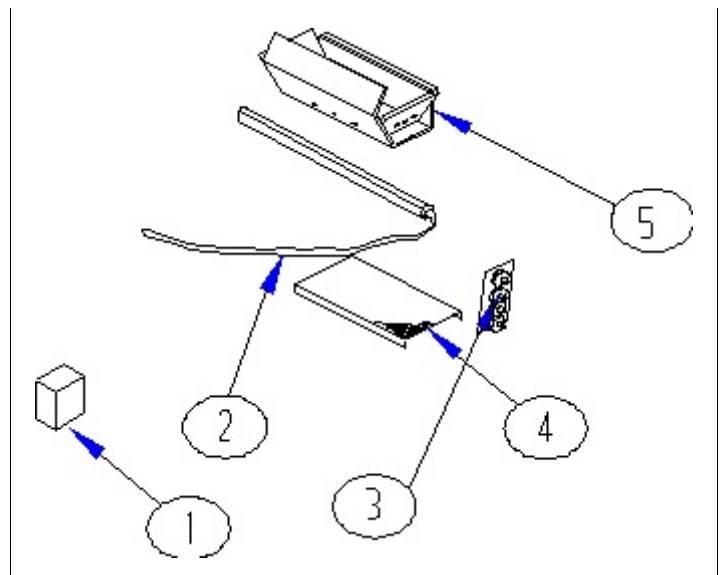
ELECTRICAL TROUBLE SHOOTING

WARNING: Only a trained technician should attempt to repair a pellet heater electrical system.

Note: All tests should be accomplished with the unit thermostat by-passed.

Remove both AC and DC power from unit. The igniter system is protected with a 5 amp fuse located on the back or side of the heater (**Figure 1**). The igniter is switched "Off" and "On" by the control system via a relay located in the lower right pedestal in front of the control board (EF3801/5001) or in lower left rear of the unit accessed from the back (EF4001). Wiring on all igniter systems are the same. The following test steps will require a multi-meter with AC/DC volt and ohm functions:

- a. Unplug heater from wall outlet and 12VDC power!
- b. Remove 5 amp fuse holder cap and fuse by pressing in and turning counter clockwise. Test fuse with ohm meter to confirm is not "open". If fuse is open go to Testing Igniter "d". If fuse is good continue.
- c. Check 115VAC power wire connection to relay and neutral wire connection to igniter terminal. This can be accomplished with the ohm meter. If wire is disconnected or open replace.
- d. Disconnect igniter leads from relay and neutral. Test continuity with ohm meter between leads. If open igniter is defective. If continuity exists then check for internal grounding by checking each lead to the shielded conduit of the igniter leads. If continuity exists to ground then igniter is defective. If meter reads open on both leads to ground then igniter should produce heat when properly connected to 115VAC.
- e. With igniter disconnected from relay, attach volt meter (set meter to 200VAC) leads to relay 115VAC out terminal and igniter neutral. Reapply 115VAC power. Press operating button low. Relay should immediately engage applying 115VAC to meter. If meter has 115VAC then replace igniter as it should be activated. If no AC power outputted from relay. Continue to next test.
- f. Disconnect DC control wires from harness to relay. Attach volt meter (set meter to 20VDC) leads to harness terminals. Reapply 115VAC power. Press operating button low. Control system should immediately engage applying 12VDC to meter. If meter has 12VDC then replace relay as it should be activated. If relay does not engage, exchange control board and/or main switch board.



REPLACEMENT PARTS:

ITEM NO.	PART NO.	DESCRIPTION
1	120120	12VDC RELAY
2	120117	CARTRIDGE HEATER
3	120118	AUTOLITE CONTROL SWITCH
4a	202163	BURN POT SCREEN 5001
4b	202164	BURN POT SCREEN 3801/4001
5a	300501	BURN POT 5001-AUTOLITE
5b	300500	BURN POT 3801/4001-AUTOLITE
6	110510	5 AMP FUSE MDL5 (NOT SHOWN)

Customer Service & Replacement Parts

Replacement parts are available from your local dealer or on-line @ www.sierraproductsinc.net . or call or write:

Customer Service
Sierra Products, Inc.
5061 Brooks St. Ste. B,
Montclair, CA 91763
Phone 1-909-399-3355
Fax 1-909-399-3357
www.sierraproductsinc.net

