

Quick Reference Guide for the Integra Pellet Stove

Eprom Reference

Eprom #	Combustion Mtr		Auger On Time		Convection Mtr	
	Min.	Max.	Min	Max	Min.	Max.
2.3	34 V	48V	0.6 sec	3.9 sec	53 V	101 V
2.4	32 V	46 V	0.6 sec	3.9 sec	60 V	101 V
2.5	34 V	50 V	0.6 sec	3.9 sec	60 V	101 V
2.5A	34 V	50 V	0.6 sec	3.9 sec	60 V	101 V
3.1	40 V	52 V	0.6 sec	3.9 sec	60 V	101 V
3.1A	40 V	52 V	0.6 sec	3.9 sec	60 V	101 V
3.2A	40 V	52 V	0.6 sec	3.9 sec	60 V	101 V

Note: All Voltages listed above are AC +/- 10%.

User Control Board Specifications

Air Feed Potentiometer	2.5 V DC =>	Adjust Clockwise to Increase Comb.Mtr Feed
Auger Feed Potentiometer	2.5 V DC =>	Adjust Clockwise to Increase Auger Mtr Feed
Hall IC Test Point	5 V DC	

Air Sensor Test

Bypass the low limit switch, adjust the User Control Board to the Minimum Position, wait 1 minute, then open the stove door. Comb. Mtr. should speed up and auger should stop. *Light goes out*

Low Limit Switch

Normally Open => Closes at 120° F => Power = 5 V DC
 Switch is tested by the Main Control Board after 15 min. in startup mode. *Close door after 30-45 seconds - feeding begins. Combustion Blower slows to normal.*

High Limit Switch

Normally Closed => Opens at 250° F => Power = 120 V AC
 Switch controls power to Auger Mtr in the event of overheating of the stove.
Red Light on User Control Board blinks even when the high limit switch is open: Auger Mtr is OFF

Self Ignitor

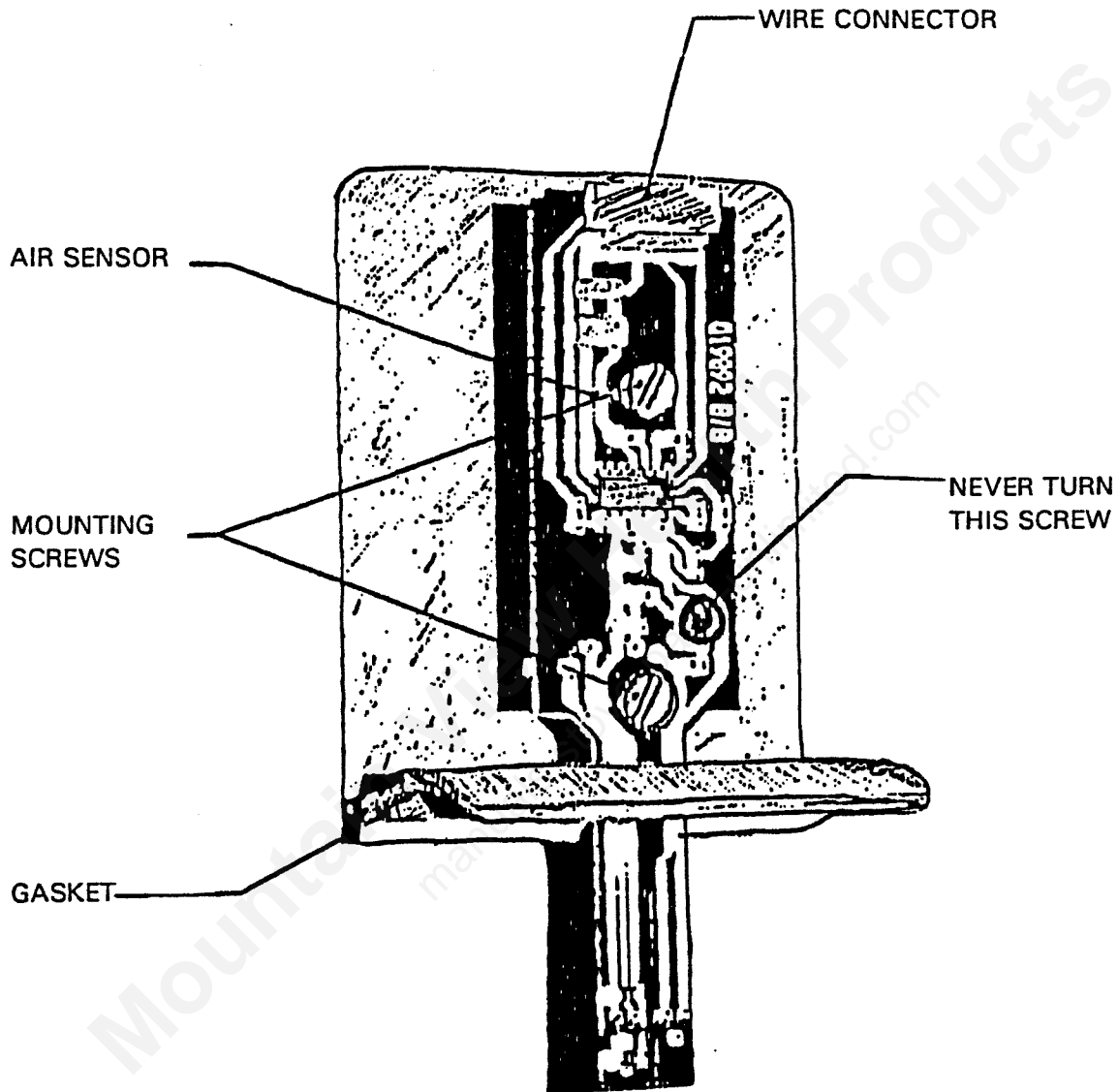
Power = 120 V AC => On for 10 minutes in the Startup Cycle.
 Ignitor should glow cherry red within 1 minute.
 Eprom 3.1 and higher required => Bumpot with slot on left side groove required.
 Heating Element should have a resistance of 65 ohms +/- 10%.

Terminal Block Wiring Assignments

To:	Color	Color	From
Fuse	Black	1	Black Power Cord
Wiring Harness	Grey	2	Black Convection Fan
Wiring Harness	Orange	3	Blue Combustion Fan
High Limit Switch	Yellow	4	Black Auger Motor
Wiring Harness	Black	5	4-Black Auger, Conv., Comb, Fuse
Wiring Harness	Red	6	White Power Cord
Wiring Harness	Blue	7	Brown Thermostat or Jumper
Wiring Harness	Brown	8	Brown Thermostat or Jumper

1.8 AIR SENSOR:

The air sensor samples the amount of incoming air and shuts down the auger feed if not enough air is flowing through the stove. The air sensor measures speed, temperature, humidity and density of incoming air and transfers this information to the circuit board. The air sensor adjusts combustion air and auger feed to fine tune air/fuel ratio.

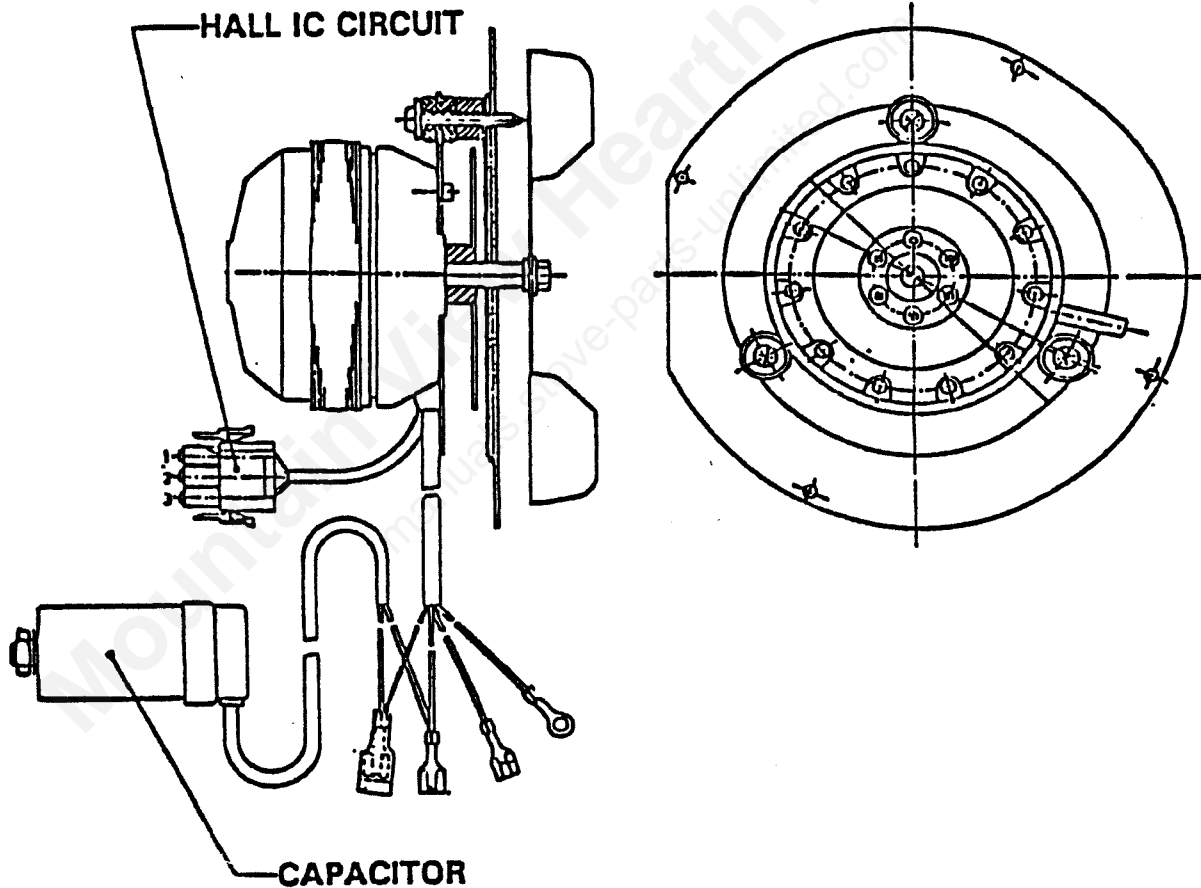


1. ELECTRICAL COMPONENTS:

1.1 COMBUSTION MOTOR:

Manufactured by EBM, Germany, the combustion motor has sealed ball bearings and cast aluminium housing for even exhaust pressure and quiet operation. A Hall IC circuit measures RPMs of the motor, and the motor is capacitor protected against fluctuations in current.

- > Stainless Steel Impellar
- > 115 Volt; 0.31 Amps, 60 Hz.
- > RPM range: 500 - 2300 RPM
- > UL listed
- > Serial #: R2E-150-An89-11 (with Hall IC)
- > cfm = 97cuft/min



3. FUNCTION OF THE STOVE:

NOTE:

The stove arrives with the user control board on the insert packaged separately inside the hopper. This components must be installed before performing the preburn procedure. The user control board on the insert is installed into the right side shroud panel. **INSTALL THIS COMPONENT BEFORE CONNECTING THE STOVE TO 110 VOLTS AC.**

3.1 START UP FUNCTIONS:

When the on / off switch is turned on, the 12 (8) minute start-up cycle (detailed below) begins. During the start-up cycle, function of the stove is controlled by the circuit board. The user control dial does not affect the operation level of the stove during this cycle, and the on/off switch controls only the auger feed.

After 12 (8) minutes the stove operation is adjustable by the user control board.

After 15 minutes, if the stove has reached operating temperature (>120° F), the start - up cycle is complete and the stove burns in normal operation mode.

START UP MODE

TIME	FUNCTION
0 - 45sec.	combustion motor: from 30% to 33% convection motor: off auger motor: from 20% to 100%
45sec - 12 (8) min.	combustion motor: 100% convection motor: off auger motor: 100%
12 (8) - 15 mi	combustion motor: controlled with user control setting convection motor: on auger motor: controlled with user control setting
after 15 min.	Low limit switch is checked. Is stove reaching operating temperature?

