

MODEL 2300A Trouble Shoot Guide

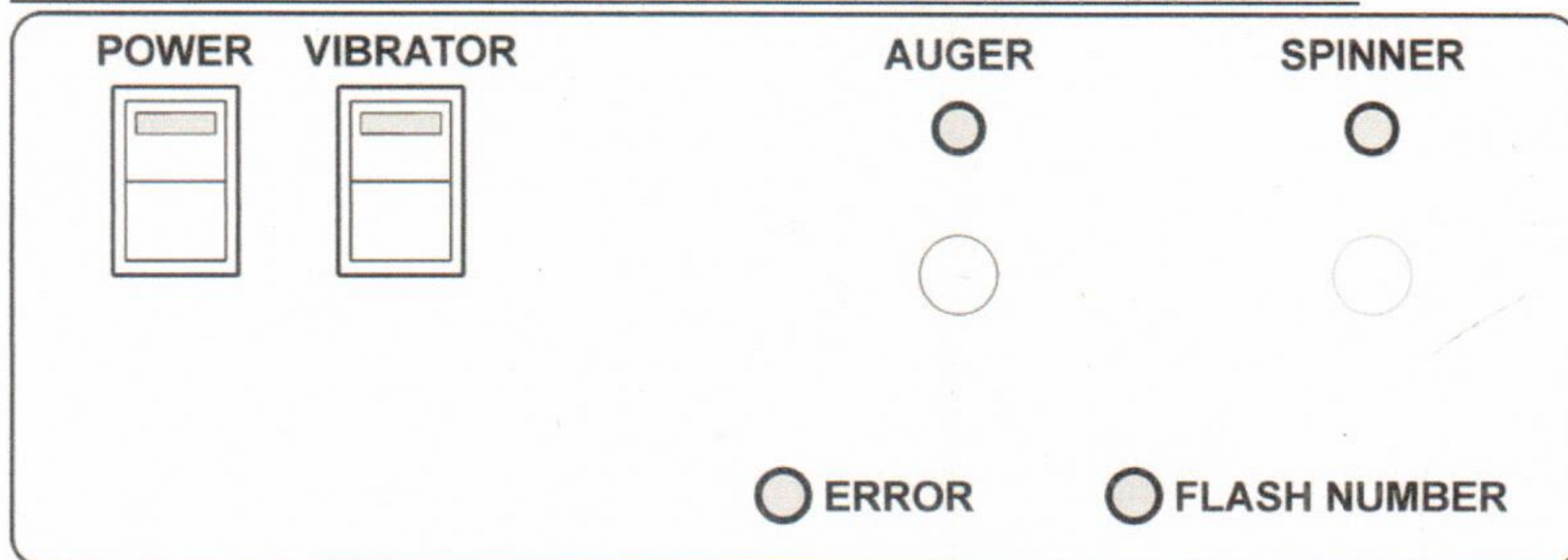


Figure 1- Shows the 6 Status LED locations on the front panel of the 2300A controller: 1) Power switch red LED, 2) Vibrator Switch red LED, 3) AUGER green dial illumination LED, 4) SPINNER green dial illumination LED, 5) ERROR red LED, 6) FLASH NUMBER red LED.

2300A Trouble Shoot Procedures (Preliminary 4/10/13)

| Controller Symptom | Problem and Resolution |
|--|---|
| Controller is turned on but no LEDs on the front panel light up. | If, when the POWER switch is first turned on, you do not see any LEDs light up on the front panel, then the input power to the controller may not be present or may be reversed in polarity. Check the 2 red wires and 1 black wire which provide power input to the 2300A controller. The 2 red wires should both be connected to +12 volts and the black wire should be connected to the battery negative terminal. |
| ERROR LED is ON | Whenever the ERROR LED is on, an error in the spreader has been detected. This may either be a fatal or non-fatal error depending on the error number. Count the number of flashes produced by the FLASH NUMBER LED to determine what the error code number is and use the table below to find out the meaning of this error code number. |

| ERROR LED | FLASH NUMBER LED | Problem and Resolution (Note: non-fatal errors mean that the controller continues working in spite of the error. Fatal errors means that the controller will shut itself down.) |
|-----------|------------------|---|
| OFF | OFF | NO PROBLEMS. NO ERRORS. This is the normal state of the controller. |
| ON | OFF | MOTOR OVERLOAD. This is a non-fatal error. An electrical overload has occurred in either the AUGER or SPINNER motor. The controller is trying to un-jam the appropriate motor using its un-jamming algorithm and will turn off the ERROR LED if it is successful in eliminating this motor overload condition. |
| ON | 1 flash | LOW BATTERY VOLTAGE. This is a non-fatal error. The input voltage to the controller has been measured to be less than 10 volts. You may want to check the input voltage connection to the controller or the battery voltage. |
| ON | 2 flashes | BLOWN FUSE. This is a non-fatal error. One of the internal controller fuses was found to be blown after power was applied to the controller. If the AUGER dial light is off, replace the AUGER fuse. If the SPINNER dial light is off, replace the SPINNER fuse. If, when the VIBRATOR switch is turned on, the VIBRATOR switch LED is off, replace the VIBRATOR fuse. |
| ON | 3 flashes | DISCONNECTED MOTOR. This is a non-fatal error. Either the AUGER motor, the SPINNER motor, or the VIBRATOR motor was found to be disconnected when power was first applied to the controller. Check the cable harness or motor for a disconnection to the respective motor. |
| ON | 4 flashes | OVERLOADED SPINNER MOTOR. This is a fatal error. The SPINNER motor is continuously drawing greater than 30 amps of current and cannot be un-jammed by the controller using 50 amps of current. Turn off the controller and physically check that the SPINNER motor is not jammed. |
| ON | 5 flashes | OVERLOADED AUGER MOTOR. This is a fatal error. The AUGER motor is continuously drawing greater than 52 amps of current and cannot be un-jammed by the controller using the AUTO-REVERSE feature and 70 amps of current. Turn off the controller and physically check that the AUGER motor is not jammed. |
| ON | 6 flashes | EXTERNAL SHORT CIRCUIT TO GROUND. This is a fatal error. After power was first applied to the controller, the controller measured a short circuit to ground in one of the +12 Volt wires leaving the controller. This short is from either the WHITE AUGER +12 volt wire to ground, or it is from the GREEN SPINNER +12 volt wire to ground. Turn off the controller. Disconnect the controller from the motor cable harness and then turn on the controller again. If this error then goes away, the short is in the cable harness. If this error does not go away after disconnecting the motor cable harness and power cycling the controller, then the controller needs to be replaced. |
| ON | 7 flashes | MISSING BATTERY VOLTAGE. This is a fatal error. The +12 volts coming into the controller on the red 10 AWG wire was measured to be less than 5 volts after power was first applied to the controller. Check the 12 volt input to this controller for low voltage or for a poor connection. The controller needs a minimum of 8 volts to run. |