Toyostove Error Codes

**WARNING**

*Rural Energy Enterprises, Inc. does not accept liability for the improper use of this information. Installation, service, and maintenance of heating equipment should be performed by a qualified technician. Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life.*

**This is a brief summary**

Toyostove Laser 30, 56, 60, 73, and Oil Miser 22, 23 model heaters which fail to operate properly show an error code rather than the reset light which has been the case with the Toyostove Laser 55, 72.

Please read the error code/troubleshooting chart that is printed in the Owner's Installation and Operation Instructions.

The following information will help you respond to various error codes:

**EE2 and EE6**

These two codes provide essentially the same information as the reset light on the earlier models. However, in addition they indicate WHEN during the operation cycle the problem occurred. The EE2 code means that the flame sensor did not detect a flame during the ignition and pre-heat stage. The EE6 code means that the flame sensor has lost flame contact twice after the unit reached the normal burning stage.

**EE2 Failure During Ignition**

Check in whatever order you think easiest:

- Dirty flame sensor.
- Poor contact on flame sensor wire.
- Defective flame sensor.
- Defective igniter.
- No fuel to unit.
- Plugged fuel nozzle.
- Plugged or defective fuel sump.
- Defective high limit switch.
- Defective circuit board(s).

**EE6 Failure during the burning stage.**
This code means the sensor has twice lost contact with the flame after it has successfully completed the burning cycle. It usually indicates a fuel delivery problem or a defective high limit switch.

- EE8 Combustion Blower Failure.
- Blower motor stuck due to obstruction.
- Blower motor bearings or shaft problems.
- Bad RPM counter wiring contacts at motor or circuit board.
- Dirt in RPM counter on blower motor.
- Defective RPM counter.
- Defective main circuit board.

**EE10 Flame in burner during post purge cycle.**
Flame is detected by the flame sensor for 3 minutes after the fuel pump has stopped pumping. This means the unit has been flooded. This indicates a possible hazardous condition. Do not operate the unit until the problem has been identified and corrected!

- Inspect Burner assembly to ensure burner is new style burner assembly with burner mat installed in base. If not, then Burner Enhancement must be performed.
- Check fuel type and quality. #2 diesel or mixed fuel does not burn as well as good #1. Use a fuel test hydrometer.
- Check for airflow obstructions in flue pipe, blower, air chamber under the burner, or burner pot itself. If the pot on a new stove has a great deal of hard carbon the most likely cause is poor quality or incorrect fuel.
- Check fuel flow rate as described in the Toyotomi bulletin.

"HI" or "LO"
Indicates that either the room temperature is higher (Hi) or lower (Lo) than the thermistor scale or there is a problem with the thermistor. If "LO" the thermistor may be disconnected, and the unit will continue to operate on high burn mode. If "HI", the
thermistor may be shorted out and the unit will not start. If there is no problem with the connection, shorting, or room temperature, the thermistor likely needs to be replaced.

**CL10  Can be CL9,8, etc.**
Indicates the unit is in the Igniter Self-Cleaning mode. This is normal and should happen at 2:00 A.M. if the clock is set to the correct time.

**ALL 3 Mode Lights Blinking**
This means that there has been a short-term power interruption while the unit was operating. The unit has been OFF and is now back ON and is detecting a flame during Preheat mode when there should not be one. Nothing needs to be done to the unit. It will continue to operate in the Shut Down mode until the flame is gone and will automatically re-ignite and operate normally.