



Manager 2-Minute Diagnostic

Most no-heat problems are not caused by the manager. Before replacing the manager, we advise performing this procedure to verify proper manager operation.

The manager cannot cause a burner lockout.

Step 1: Make sure you have no thermostat calls (turn thermostats down or disconnect after labeling zones).

Step 2: Turn Service Switch OFF for 5 seconds.

Turn Service Switch ON while carefully observing the temperature LED bars.

Temperature bars should briefly light at random, and then all the temperature lights will turn ON and then OFF. The power light will stay ON.*

If each temperature light comes on and goes off, this proves:

- All the temperature lights work
- The processor is functioning properly

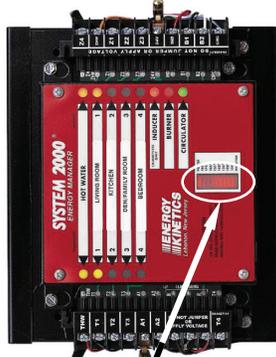
Step 3: Turn Service Switch OFF for 5 seconds.

Turn Service Switch ON while carefully observing the output lights.

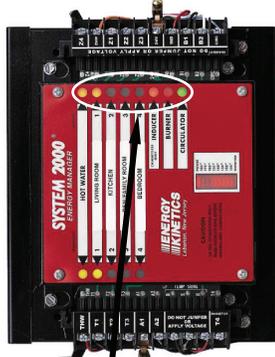
Output lights should briefly light at random, and then all output lights will turn ON and then OFF.*

This proves the following:

- All the output lights and outputs work
- The lights (except Burner) are in the output circuit, so 24 VAC should be present
- The processor works (second verification)



Example of brief random temperature lights on startup



Step 1: Have all connected thermostats including hot water aquastat call continuously for at least 10 minutes. Service Switch must be ON. Turn burner switch off to prevent zone overheating and to maintain thermostat calls continuously.

Additional Manager Tests

Perform the following tests ONLY if you have either:

- Case 1) Zones heating intermittently
- Case 2) the 140F temperature light flashing WITHOUT a burner lockout

If you have a burner lockout, trouble shoot as any conventional burner lockout.

Case 1: Zones heating intermittently

Step 1: Observe thermostat Lights.

- If any thermostat input lights (left side) are not ON, check wiring and thermostats.
- If thermostat input light (left side) is OFF within 10 minutes, and with thermostat call present, thermostat input LED is bad. **Solution:** Move thermostat wire lead and zone valve wire lead to a different zone or replace manager.

Case 2: 140 F light Flashing without burner lockout (monitor light is ON)

Step 1: Turn service switch OFF and disconnect right hand (output) quick connector.

Step 2: Using a multi-meter, check the resistance from B1 to B2 on the manager solder strips.

This will be an open circuit (infinite resistance).

Step 3: Turn service switch ON and start a thermostat call while observing the resistance from B1 to B2. Burner light should come on.

- If resistance is less than 3 ohms, manager is functioning properly. Look elsewhere for a problem.
- If resistance is greater than 3 ohms after 3 seconds of operation, B1-B2 contact is bad. **Solution:** Replace manager.

***If you observe problems in step 2 or step 3, turn Burner Service Switch OFF, disconnect the right hand (output) quick connector and repeat steps 1, 2, and 3. If problem persists, call technical support or replace manager. Note malfunction on warranty tag and return manager to Energy Kinetics. If problem goes away, there is a problem with the output wiring – check all wiring, re-connect quick connector and repeat steps 1, 2 and 3 until problem is resolved.**

You're done. The manager is functioning properly. Remember to reset thermostats to original set point, to re-connect wiring connections, connect the quick connector and to turn the Service Switch ON.

Troubleshooting using the Digital Energy Manager

The burner will not run unless there is a call for heat (thermostat call).

Note: Do NOT Jumper or Apply Voltage to Test the Manager

Follow these simple steps:

- 1) Look at the manager
- 2) See what it is telling you is supposed to be happening
- 3) See if it is happening - if it isn't, fix it!
- 4) If you do not find the problem, perform the

2 Minute Manager Diagnostic to check all manager functions

These are the thermostat input lights. These lights indicate when a thermostat is calling and only come on when there is an external connection.

- If the light is not ON, check the thermostat and thermostat wiring.
- If the light is ON, the thermostat is calling.

These are zone output lights.

- If the light is ON, the zone valve should be open. For hot water, the bronze circulator should be running.
- If zone valve is not open with the light on, check the zone valve and zone valve wiring. For hot water, check the hot water relay, wiring, and the bronze circulator.

This is the sidewall vent inducer output. This light should only operate if option switch 2 is on.

- If the light is ON, the inducer should be running.
- If the light is on and the inducer is not running, check the inducer, wiring, and inducer relay and wiring.

This is the burner output. This light indicates T-T is made on the burner.

- If the light is ON, the burner should be running.
- If the light is on and the burner is not running, check the burner, limit aquastat, wiring, burner/main circulator relay, and burner service switch.

This is the burner/main circulator output. This light indicates 24 volts is applied to the burner/main circulator relay coil.

- If the light is ON, the main circulator will be running, and the burner primary control should have line voltage.
- If the light is on and the circulator is not running, check the burner/main circulator relay, the circulator, and associated wiring.

