

BioSmart 1000F Diagnostic Procedure

(To be performed by a qualified technician)

If the heater is off but the fan keeps running constantly:

If the temperature in the room is higher than the thermostat setting on the heater, the heating plate should be turned off and the fan will normally stop running in about 3-5 minutes. If the fan is still running, most likely the temperature in the room exceeds the upper temperature upon which the fan switch normally turns off. It usually turns off at about 86 degrees. We can send the customer a fan switch with a higher set point (94 degrees) that should solve the problem.

If the heater does not produce heat:

1. Check the breaker
2. Check to see if the thermostat seems to be functioning properly. If still no heat,
3. Remove the plastic cover plate and the electronics cover plate underneath the fans.
4. Check to make sure that all the connections and plugs on the PC Board are secure and that they make good contact.
5. With the breaker on, check for power to the power terminals on the main terminal block. See schematic for color code. If the terminal block is live,
6. Jump the thermostat wires (blue and white) together to see if by-passing the thermostat turns the heater on. Notice whether the red light on the relay turns on when you by-pass the thermostat. If the light does not turn on, you most likely have a burnt-out printed circuit board.
7. If the light on the relay does turn red, check the continuity at the high-voltage side of the relay to make sure that it is passing current to the ceramic plates. If current flows through the high-voltage side of the relay when the red light is on, but there is no heat, it means that the small terminal block on the back of the heat exchanger is damaged. The heat exchanger can be removed by unscrewing the 4 retaining screws. Replacing a damaged terminal block on the back of the heat exchanger should restore proper functioning to the heater.
8. There is a slim possibility that one of the ceramic plates could burn out producing only half as much heat as usual, in which case the plate can be removed and a new one installed. Rarely would both plates go out at the same time. Normally, a plate will last 10 years or more.

If the heater produces heat but stays on:

1. Disconnect the thermostat
2. If the heater remains on, remove the plastic cover plate and the electronics cover plate underneath the fans and disconnect one of the thermostat wires (blue or white) on the terminal block. If this solves the problem you have an internal wiring problem in the wall between the heater and the thermostat. The most likely cause is rodents in the walls. Happens all the time.

3. If the heater remains on after disconnecting the thermostat wire, notice whether or not the red light on the relay is on. If it is on, the Printed Circuit Board (PCBoard) is most likely faulty. Remove and replace.
4. To make double sure it is the PC board, unplug the plug on the PC Board with the wires leading to the low-voltage side of the relay. As long as the light goes out, it's the PC Board. If the light stays on, The relay is faulty. Replace the relay if this is the situation.

Alternative solution (for those without professional assistance):

Remove the heater from the wall. Call our Customer Service Dept. We will send out a complete refurbished replacement heater with a 1 year warranty for \$129. This will require a security deposit for the heater core and the replacement totaling \$229. When you receive the replacement heater place the old heater in the original packing box and mail it back to us. Upon receipt of the heater core we will refund the \$100 core deposit that is required to obtain a refurbished replacement. The \$129 fee includes the shipping of the refurbished heater to you, (a \$35 value) and the cost of refurbishing. It is your responsibility to return the old heater to us at your expense for the \$100 core deposit back.

If you or your electrician decide to repair the heater yourself, any warranty parts covered by our warranty are free. We ship any warranty parts free of charge except for the cost of shipping and handling.

You can call for replacement parts at 1.866.446.0500, 9 to 5 PST.