

## Top 10 CM<sup>3</sup> Control Q & A

1. Question: The reservoir is full of water but the water valve continues to flow water until the controller water light begins to blink 2 times and repeats. What is wrong?

Answer: The water did not lift the float and attached stick high enough to trip the bottom photo eye in the water level sensor. Test by lifting it slightly. If that stops the water and the compressor starts then the water level is too low. In overflow models check the standpipe height. If the compressor does not start when the float is lifted then the water level sensor is not working.

2. Question: The bin full light is on all the time. What is wrong?

Answer: Two possibilities: a) the bin thermostat, used on some models, is stuck closed. Test by unplugging the connection at number 7. b) If nothing on number 7 there is no thermostat and the photo eyes are either dirty or have failed. Remove, clean and recheck.

3. Question: The controller's refrigeration light is flashing 2 times and repeating. What is wrong?

Answer: Ice was not sensed by the ice photo eyes during the full harvest cycle. If the unit did release ice, test the control system by dropping a scoop of ice thru the normal ice drop area. If the bin full light did not blink, the photo eyes are either dirty or have failed. Remove, clean and retest. Also test both the photo eyes and thermistors to confirm they are not shorted to ground. Replace any that are.

4. Question: The controller's refrigeration light is on all the time. What is wrong?

Answer: The water level did not drop enough to trip the top photo eye of the water level sensor during the allotted freeze cycle time. Test by starting a freeze cycle and pushing the float stick down. If the unit goes into harvest, the sensor is working. However, it may have hung up from wear on the stick or sensor. Other causes can be too much heat load from a leaking inlet water solenoid valve or refrigeration system not able to remove heat adequately.

5. Question: The ice is too thick. What is the cause?

Answer: Ice size is determined by water level. If the water level does not drop because the inlet water solenoid valve leaks thru the ice will be too large. A sticking float stick can cause the same in some models. A service controller set to the wrong model can also cause this.

6. Question: The fans cycle on and off during a freeze cycle. Why?

Answer: The discharge temperature may be unusually low, the room is cold or the cabinet is cold. The controller operates the fan or fans. It will cycle them thru the entire freeze cycle if the discharge temperature at 3 minutes into the freeze cycle is less than the trigger point – which varies by model. If the temperature is greater than the trigger point then the fan or fans will be on thru the freeze cycle. Test the discharge thermistor by measuring its resistance and the bulbs temperature and checking the chart (in handbook or manual).

Replace thermistors if off by more than 5 degrees. Note it is common for the fans to cycle the first cycle after a restart.



7. Question: Both refrigeration and water diagnostic lights are on and all sensors connected. What is wrong?

Answer: If the resistance of either thermistor is too high or too low the two lights will be on and the thermistors must be replaced.

8. Question: My new controller's bin full light blinks all the time. What is wrong?

Answer: Replacement controllers ship in a non-functioning mode so they must be set to the model they are being installed on. If they are not set, the controller will not work and the bin full light will blink rapidly all the time.

9. Question: The unit has a very short freeze cycle then goes directly to harvest. What is wrong?

Answer: Likely nothing, as this is a normal electrical power interrupt restart mode and if the unit is switched off and on at the breaker this can occur. A blinking Freeze light during harvest is the indicator for that. Test by first holding the Off button in until the machine stops. Then cycle power to the unit or controller. Then push the Freeze button to restart. If restart is normal, nothing is wrong with that part of the cycle.

10. Question: The water reservoir is empty, float stick all the way down but the compressor is on. What is going on?

Answer: The water level sensor is falsely communicating a full sump to the controller, most likely because the wrong float stick has been installed. This can be tested by starting a new freeze cycle and lifting the float stick until the slot is in the sensor. If the water flows in then confirm that the float stem part number, as blocking both photo eyes in the water level sensor can cause the problem, and the wrong stem can do that. Otherwise all is OK and the machine will operate normally once the reservoir has water in it.

#### Additional Service Tips:

- Confirm the unit has the correct float stick or stem. The part number is molded into them.
- CME810 light blue float stick/stem may be correct but has lost the ability to accurately block the infrared light, causing thick ice. Test by coloring in the area above and below the slot with black.
- If the water pump does not work when the unit is in a Clean mode a non-OEM contactor may have been installed and the pump wired to a switched terminal, which means it can only operate when the compressor is on.
- A steady water diagnostic light indicates that the water thermistor measured a low cooling rate **and** the controller has conducted a diagnostic test. The test involved topping off the reservoir, stopping the pump and then restarting it, or in drain valve models opening and closing the drain valve. If the water level did not drop then the inlet water valve is understood to be leaking by.