

PRODUCT SUPPORT TECHNICAL BULLETIN

January 4, 2024

Issue: i15/i16 Leak from Vent Tube or Ice Chute

Problem:

Water is leaking from the ice chute or from the internal vent line located inside the unit, behind the ice bin, and above the leak detector.

Cause:

Ice Melt Pump is not pumping water from the ice melt reservoir to the water reservoir.

Solution:

Test check for an air lock in the water path, test level sensors, PCB, and replace any necessary parts.

Process: Approx 30-45 minute repair.

Diagnose:

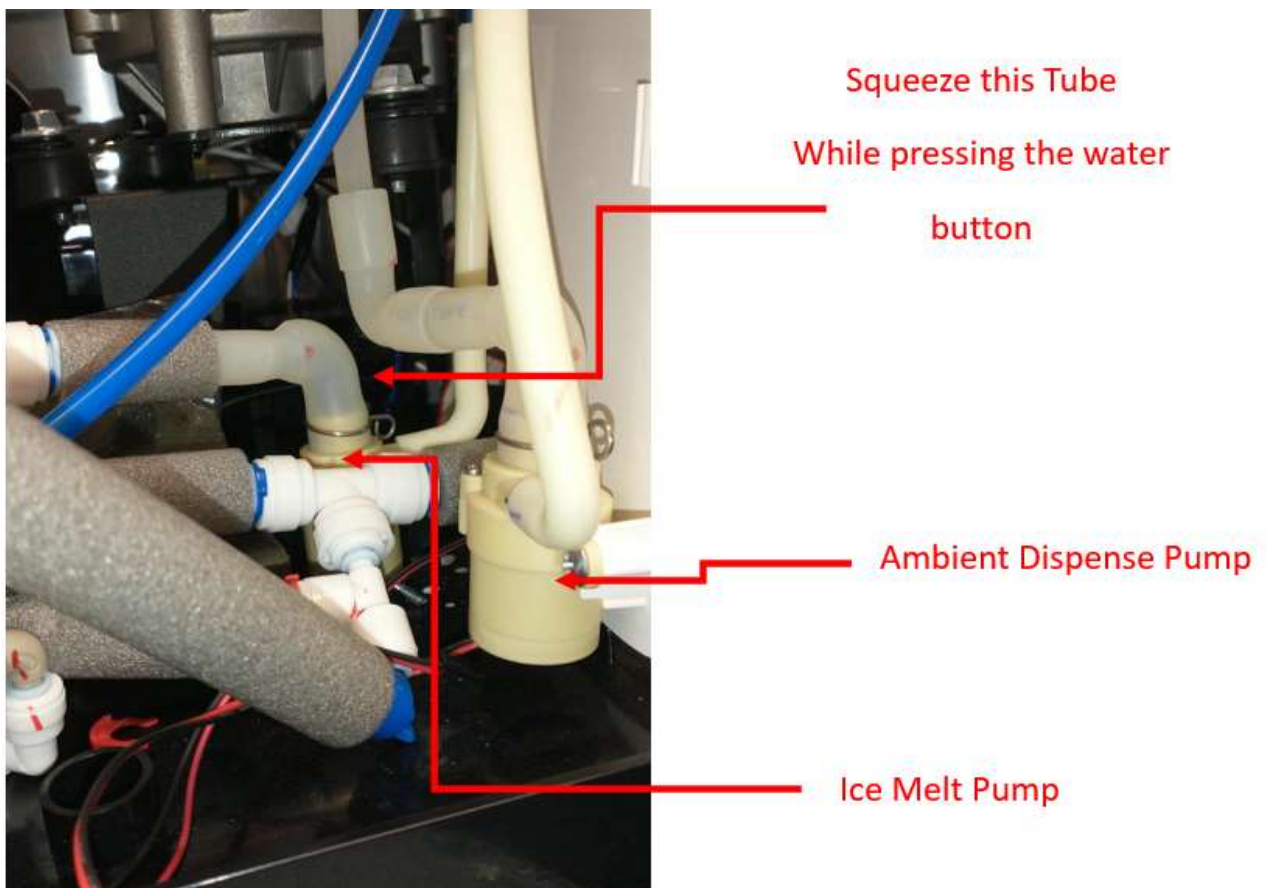
1. Open the water reservoir and inspect the water flow coming from the weep hole above the float by dispensing water. The stream from the weep hole should reach the opposite side of the water reservoir.



2. If water is not pushing through weep hole or if the water stream is weak, then check for the following:
 - a. Air lock in the Ice Melt pump – most common with RO fed systems. The air lock is caused by a unit running out of water at some point and air is introduced into the water path.
 - b. Faulty level sensor(s) (multimeter required)
 - c. Faulty PCB/Ice Melt Pump (multimeter required)

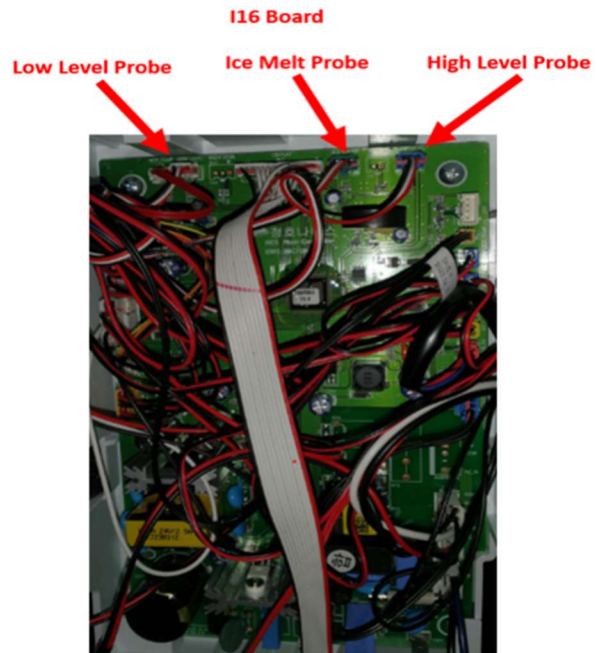
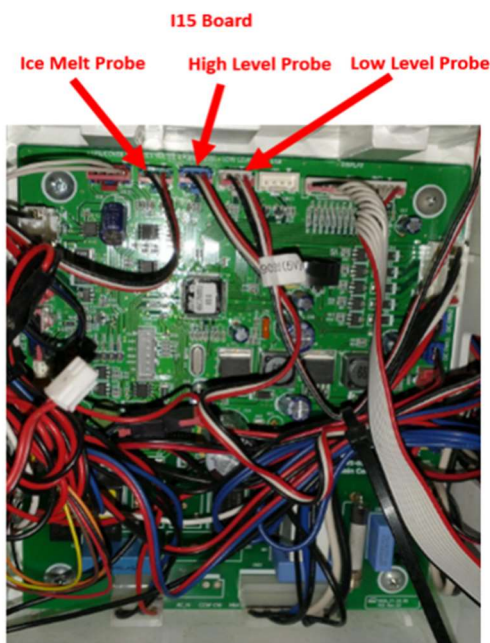
Check for an air lock in the Ice Melt Pump

- Remove the top, front, and left side panels.
- Locate the Ice Melt Pump
- Squeeze the soft tubing feeding the pump, while pressing the water button
- If water pushes into the water reservoir through the weep hole, then the air lock has been released. Add Booster Pump to RO and consider increasing tank size to prevent future air locks.
- If this process does not introduce water into the reservoir, the next step is to test the level sensors for functionality.



Testing the level sensors for functionality

- Locate the Ice Melt Reservoir Level Probe and Water Reservoir High Level Probe (2-pin sensor in Water Reservoir tank), on the main PCB.



- This step requires the use of a multimeter and needle pin test probes. The level probe connections to the PCB are tight and cannot be tested with regular test probes. Test each level probe at the connection point on the PCB, across the Red and White wires.



- When level sensors are touching water, the multimeter should read $\approx 5\text{VDC}$ across the red and white wires, and a reading of 0VDC when level sensors are not touching water.
- **Ice Melt Level Sensor:** When the water level in the Ice Melt Reservoir touches this sensor, the sensor tells the PCB that the Ice Melt Pump can be activated during ice production and when dispensing water. There should always be water in the Ice Melt Reservoir in an operational unit; therefore, the multimeter should read $\approx 5\text{VDC}$ when testing across the red and white wires.



For example: If it reads 0VDC, and water is touching the level pin in the reservoir, replace the level sensor.

- **High Level Sensor in the Water Reservoir (2-pin):** This sensor tells the PCB whether the reservoir needs water. Insert the needle probes from the multimeter in the red and white wires of the High Level Probe connector on the PCB. When water is not touching the 2-pin sensor there should be a reading of 0VDC, telling the PCB it can activate the Ice Melt Pump to push water from the Ice Melt Reservoir into the Water Reservoir when making ice or dispensing water. When there is water touching the 2-pin sensor (High Level Sensor) there should be a reading of $\approx 5\text{VDC}$. If water is not touching the High Level Sensor and the multimeter yields a reading of $\approx 5\text{VDC}$ then the sensor is bad - replace the High Level Sensor.



High Level
Probe

Condition - Good Sensor	Voltage
Water Touching Sensor	$\approx 5\text{VDC}$
Water Not Touching Sensor	0VDC
Condition - Bad Sensor	
Water Touching Sensor	0VDC
Water Not Touching Sensor	$\approx 5\text{VDC}$

- If the Ice Melt and High Level Sensors yield the proper voltages, then check that the PCB is sending $\approx 14\text{VDC}$ to the Ice Melt Pump.

Testing Voltage to the Ice Melt Pump

- Locate the yellow connector on the bottom left hand side of the PCB. Using the needle test probes of the multimeter, make contact with the bottom two wires (black and red) of the yellow connector. The needle probes will need to be held in place.
- While holding the needle probes in place, press the water dispense button on the front panel. The multimeter should read $\approx 14\text{VDC}$.
- A reading of $\approx 14\text{VDC}$ confirms that the PCB is sending the proper voltage to the Ice Melt Pump. This indicates the pump has failed and it needs to be replaced.
- A reading of 0VDC, or erratic readings, indicates that the PCB has failed and needs to be replaced.

