

Title	Frost/Ice on Top of FF Evaporator, Water Under Crispers, French Door Dual Evaporator		
Create Date	10/5/2017	Service Bulletin Number	ASC20171005001
Revision Date		Models: All FDR with Dual Evaporators	
Symptom	ICE/WATER/SPARKLING	LEAK/DRIPPING	IN FRIDGE ROOM

Models:

All Samsung Dual Evaporator French Door Refrigerators

Issue:

Fan noise that stops when the door is open, or FF section not cooling due to stuck fan (22 E or C), and/or water pooling under the crisper drawers.

Root Cause

- During the defrost cycle, frost on the FF evaporator becomes water, which falls to the bottom of the evaporator drain and runs down the drain tube to the lower evaporation pan.
- The “duck bill” at the top of the rubber tube can become clogged over time, due to any debris that may have attached to the evaporator coils.



- Once the “duck bill” is completely clogged, the drain water will begin to back up in the drain tube, eventually forming ice in the evaporator drain pan. When this occurs, every time the FF section defrosts, the water will overflow the drain pan.
- Some of this water will drip down below the crisper drawers. Some will remain behind the evaporator cover and create an excessive moisture condition. This moisture is then circulated by the fan and can settle on the top coils of the evaporator, where it will freeze into solid ice.
- The ice will continue to build up, usually to the point where it will interfere with the FF section fan, eventually leading to a no-cool or poor cooling condition.



Additional Causes

- Air infiltration at the top of the evaporator cover due to wires protruding into the evaporator seals.



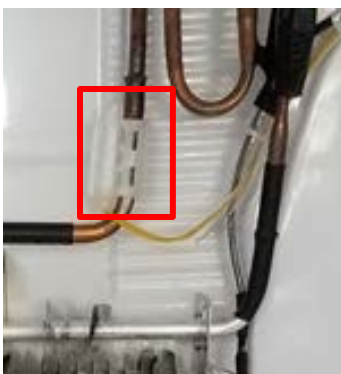
- Torn door gasket(s).
- Customer may have left the doors slightly open.

Field Repair:

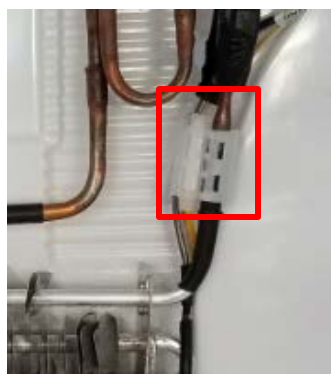
1. Remove the evaporator cover and inspect the condition of the evaporator. If the cover is frozen or stuck due to ice buildup, use "Forced Defrost" to initiate a defrost cycle, and then start the melting process. Try not to force the cover, as the Styrofoam can break. You may need to use a steamer pointed in the air ducts to assist with defrosting.
2. Once the cover is removed, check the evaporator. Use the steamer to melt all the frost completely.
3. If the defrost sensor was encased in ice, it may have been compromised and should be replaced.

Important: The defrost sensor should never be moved to a different tube. It belongs on the evaporator inlet tube (below the capillary tube) and as high up on the tube as possible. Make sure the sensor is facing LEFT, towards the center of the evaporator.

Wrong Position



Correct Position



Sensor Facing Left



4. If the sensor is replaced, make sure the wires are secured like the original ones. If the new sensor wires are longer than the original, make sure the extra wire is secured so it does not create a place where moisture can collect and freeze into ice.
5. Go to the back of the unit, and then remove the compressor cover. Remove the drain tube and duck bill assemblies.
6. If ice has formed in the drain pan under the evaporator, use the steamer to melt the ice. Point the steamer down the drain hole, and apply steam until the drain becomes clear.
7. Use a trombone cleaner (available at music supply stores) to clean the walls of the internal drain tube. Do not use plastic water lines. They cannot bend their way through the drain tube.



Trombone cleaner

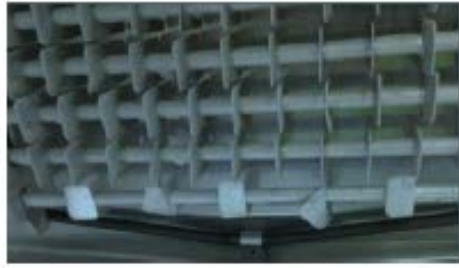
8. When you are sure the internal drain is clear, install the new drain tubes from the water leakage kit, part # **DA82-01415A**.



8. Reinstall the compressor cover.
9. Under the evaporator, check the size and position of the defrost heater heat probe.
10. If the probe is long enough to reach the hole, there is no need to install the new probe from the leakage kit.
11. If the probe is short, remove it, and then install the new one. Make sure the new clip is wrapped securely around the heater and the tail portion does not touch the plastic liner. Do not leave the original probe attached.



12. Bend the bottom row of cooling ribs on the evaporator.



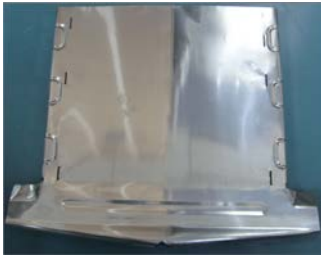
13. Units produced after January 2013 do not require installation of the foam strips included in the kit.

14. If the unit was produced prior to that, install the strips as described below:

Lift the evaporator and drain plate out of position, and then carefully bend them up. Add the two foam strips to the back of the plate, and then add the seal to the bottom of the drain plate.

Note: If foam seals are already installed on the drain plate, you do not need to add the new ones.

Back of drain plate without foam strips



Foam strips installed (back and bottom)

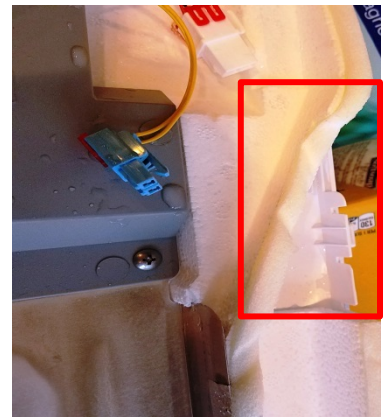
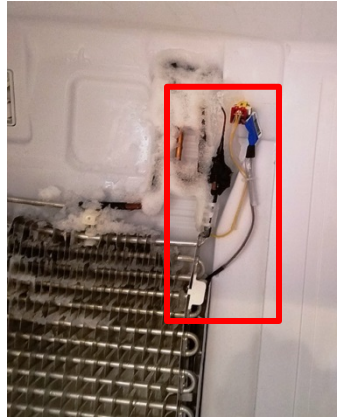
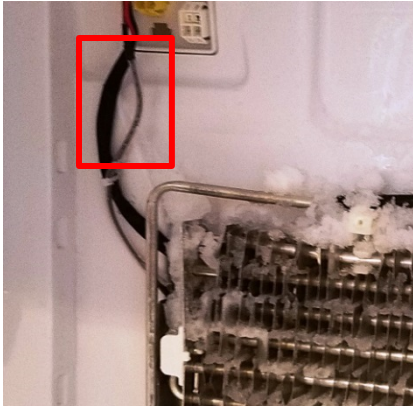


IMPORTANT:

Before reinstalling or replacing the evaporator cover, check the position of the heater and sensor wires on both sides.

The wires should be tucked so that they do not interfere with the evaporator cover foam gaskets. See the next page.

Incorrectly tucked wires, causing compressed foam seal, which creates an air leak



Correctly tucked wires



Check the evaporator tubing. Make sure the tubes are not touching. Gently move the tubes so that there is a gap between them. This prevents water from getting trapped and turning into ice.

15. Reinstall the evaporator cover.

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