ADC9102 Instruction Sheet

Icemaker Optics Diagnostic Procedure for

4389102, W10290817, W10193840, W10193666, 4389102R, 4388635, 2255114, 2220402, 2220398, 2198586, & 2198585

WARNING !

Electrical Shock Hazard - Unplug the refrigerator or disconnect the power before servicing the refrigerator. Replace all parts and panels before operation

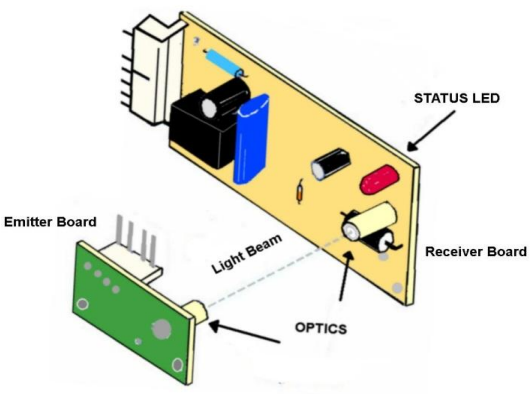
Failure to replace protective coverings can result in death or electrical shock!

If there is no ice production or low ice production, always check the temperature of the freezer. The temperature must be between 0° F and 5° F for several hours to achieve proper ice production. Some models recommend 5° F or colder for 24 hours. Water will not flow into the icemaker until the icemold has reached operating temperatures.

When updating the control boards, replace both boards to ensure compatibility. Make sure to replace the old Icemaker Tech Sheet with the new Tech Sheet.

Diagnostic Test Procedures for Icemaker Optics Boards

Step Number		LED Status	Possible Cause	Action
1.)	Open the freezer door to see the diagnostics "status" LED.	Light pulses twice followed by a one second delay and then repeats	There is an obstruction blocking the beam. Check flapper door on the emitter.	Move to step 2
			The optic boards are faulty.	Move to step 2
		No lamp	Icemaker is in harvest mode	Press in the freezer door switch. When the icemaker is in harvest mode the status LED will flash every second.
			Faulty Status LED	Replace boards
2.)	Press in the emitter flapper door to unblock the optics beam	Light pulses twice followed by a one second delay and then repeats	The optics are faulty.	Replace both optics boards.
		Status LED is on steadily.	The optics are working properly.	Close the freezer door.



ADC9102 Instruction Sheet

These procedures are for use by a trained service technician. This is not a "DIY" project. This service requires training in the use and handling of active circuits, test cords and test equipment. Untrained repair can damage the control boards, damage the icemaker, or cause harm to the person doing the repair.

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Run the diagnostic test procedures on the front page first.

Instructions:

- **Follow each of the steps below to set the icemaker for the test.**
- **For this test the icemaker control must be in the "ON" position.**
- **The ice bin must be on the door and the level of the ice must be below the notched openings.**
- **The icemaker must be in harvest mode immediately after the water fill cycle.**
- **Use an insulated piece of solid copper wire for the jumper listed below. Dull the ends of the wire before jumping. This will help to prevent damage to the module circuits.**

Steps for testing.

1.) Disconnect power or unplug appliance.
2.) Slide the icemaker out and remove the module cover.
3.) Use an insulated jumper and jump "T" to "H" on the module to bypass the bimetal to start a harvest cycle.
4.) With insulated jumper in place, plug in refrigerator or reconnect power.
5.) Close the freezer door to align the optic sensors. A harvest cycle will begin in about 5 seconds.
6.) Open the freezer door and look at the icemaker rake. If "T" to "H" is properly jumped and the icemaker won't run, then stop this test and check the icemaker.
7.) Unplug the refrigerator or disconnect the power.
8.) Remove the jumper wire before the fingers on the rake reach the 10 o'clock position. Reinstall the icemaker or place a catch cup under the fill spout. There will be 4 to 5 ounces of water that will flow in step 10.
9.) Plug in refrigerator or reconnect power.
10.) Listen for the water fill and disconnect the power immediately after fill.
11.) With the freezer door closed, plug in the refrigerator or reconnect power.
12.) Wait 5 seconds to a maximum of 50 seconds. Then open the freezer door to watch the LED.

Diagnostic results, if the status light …				
No light showing on receiver board.	Steady light for 5 seconds indicates the relay and optics are good and the receiver board senses the icemaker is active.	2 pulses repeated once indicates the optics have failed..	3 pulses repeated once indicates optics and relay are good but the icemaker is not being sensed or is inoperable.	4 pulses repeated once, indicates a failed relay.
Actions				
Unplug refrigerator for 5 minutes to reset boards. Plug refrigerator back in and repeat tests.	Sensor boards are working	Replace both optics boards.	Check the icemaker components, circuits, and connections.	Replace both optics boards.