

# Adaptive Defrost Control (ADC)

## LED Light Normal Operation / Fault Code Indication

Normal Operation	LED Light Indication
<p><b>Cooling Mode</b></p> <ul style="list-style-type: none"> <li>• compressor running</li> <li>• compressor not running</li> </ul> <p><b>Defrost Mode</b></p> <ul style="list-style-type: none"> <li>• defrost heater on (bi-metal closed)</li> <li>• defrost heater not on - dwell / drip time (bi-metal open)</li> <li>• Total defrost time – 23 minutes *** (***this is a variable defrost heater on time + dwell / drip time which totals 23 minutes)</li> </ul> <p><b>NOTE:</b> On a new installation of an ADC, the unit is programmed to cycle the compressor on-off for four (4) hours of <b>CUMULATIVE</b> compressor run time before a defrost cycle can begin.</p> <p>If a defrost cycle is needed sooner, jumper between terminals "L1 and TEST" with an insulated screwdriver. This will start the defrost cycle, <b>ONLY</b> if the defrost bi-metal thermostat contacts are closed and the defrost heater has continuity.</p>	<p>LED 1 blink / second</p> <p>LED continuously on</p>
Fault Modes	LED Fault Code Indication
<p><b>Cooling Operation Failure</b></p> <ul style="list-style-type: none"> <li>• Compressor runs continuously               <ul style="list-style-type: none"> <li>○ Leaking gasket</li> <li>○ Insufficient airflow across evaporator                   <ul style="list-style-type: none"> <li>▪ blocked freezer ducts</li> <li>▪ air diffuser incorrectly set</li> <li>▪ no airflow over the cold control sensing element</li> <li>▪ iced coil</li> <li>▪ evaporator fan motor inoperative</li> </ul> </li> <li>○ Insufficient airflow across condenser                   <ul style="list-style-type: none"> <li>▪ dirty condenser</li> <li>▪ condenser shroud loose or missing</li> <li>▪ condenser fan motor inoperative</li> </ul> </li> <li>○ Refrigerant leak</li> <li>○ Bad compressor valves</li> </ul> </li> <li>• Compressor does not run               <ul style="list-style-type: none"> <li>○ Compressor overload open – no continuity</li> <li>○ PTC relay "power pill" inoperative</li> <li>○ Cold control failed open</li> <li>○ ADC relay failure</li> <li>○ Internal compressor failure</li> </ul> </li> </ul>	<p>LED 3 fast blinks / 2 seconds off</p>
<p><b>Defrost Operation Failure</b></p> <ul style="list-style-type: none"> <li>• Defrost heater open – no continuity</li> <li>• Defrost bi-metal failed open – no continuity</li> <li>• Defrost bi-metal not attached to low side line</li> <li>• ADC failure</li> </ul>	<p>LED 4 fast blinks / 2 seconds off</p>
<p><b>Defrost Termination failure</b></p> <ul style="list-style-type: none"> <li>• Defrost bi-metal failed close</li> </ul>	<p>LED 5 fast blinks / 2 seconds off</p>
<p><b>Undefined failure</b></p> <ul style="list-style-type: none"> <li>• No power to refrigerator</li> <li>• No power to ADC</li> <li>• ADC failure</li> </ul>	<p>LED continuous off</p>
<p><b>NOTE:</b> Record any fault code on work order prior to clearing fault code. This will aid in identifying a reoccurring problem.</p> <p>To clear ADC fault code, jumper between terminals "L1 and TEST" with an insulated screwdriver.</p> <p>All LED error codes are retained during a power interruption, until normal operation resumes.</p>	
<p>IS053 (2/10)</p>	