|   |                         | FORMANCE D   |                                  |   |                                    |                                   |  |
|---|-------------------------|--|----------------------------------|---|------------------------------------|-----------------------------------|--|
| Type  | A with Run/             | 65°F (18°C   | C) Ambient                       | 90°F (32°C) Ambient   |                                    |                                   |  |
| Start Capacitor   |                         | Variable Speed   | Standard                         | Variable Speed  |                                    | tandard                           |  |
| Operating Time  |                         | 74 to 84%  | 32 to 40%                        | 100%  |                                    | 55 to 65%                         |  |
| Freezer<br>Temperature  |                         | -2° to 2° F 0° to 4° F<br>-19° to -17° C -18° to -16° C  |                                  | -1° to 3° F<br>-18° to -16° C   | -1° to 3° F<br>-18° to -16° C      |                                   |  |
| Refrigerator<br>Temperature   |                         | 34° to 39° F<br>1° to 4° C   | 34° to 39° F<br>1° to 4° C       | 34° to 39° F<br>1° to 4° C  |                                    | o to 39° F<br>o to 4° C           |  |
| Low Side Pres-<br>sure (cut-in)   |                         | 5 to 12 psig<br>43 to 83 kPa   | 5 to 12 psig<br>43 to 83 kPa     | N/A   | 5 to 12 psig<br>43 to 83 kPa       |                                   |  |
| Low Side Pressure<br>(cut-out)  |                         | -2 to 2 psig<br>-14 to 14 kPa  | -2 to 2 psig<br>-14 to 14 kPa    | -2 to 2 psig<br>-14 to 14 kPa   | -2 to 2 psig<br>-14 to 14 kPa      |                                   |  |
| High Side Pressure (last 1/3 cycle)   |                         | 90 to 105 psig<br>621 to 724 kPa   | 90 to 115 psig<br>621 to 793 kPa | 120 to 135<br>psig 827 to<br>931 kPa  | 130 to 155 psig<br>896 to 1069 kPa |                                   |  |
| Watta<br>(last  | ige<br>¹/₃ cycle)       | 50 to 60   | 90 to 130                        | 60 to 70  | 100 to 140                         |                                   |  |
| Amps (running)  |                         | 0.5 to 0.9   | 0.7 to 1.1                       | 0.6 to 1.0  | 0.8 to 1.2                         |                                   |  |
| Base  | Voltage                 | 115 vac (127 vac   | max)                             |   |                                    |                                   |  |
|   |                         | D  | EFROST SPEC                      | CIFICATIONS   | <br>S                              |                                   |  |
| Cabinet Size  |                         | Thermal Cut-out  |                                  | Heater  |                                    | Defrost Thermistor<br>Termination |  |
|   |                         | Cut-in   | Cut-out                          | Watts   | Ohms                               | Cut-out                           |  |
| 23' CD, 26' SD  |                         | 110° F (43.3° C)   | 135° F (52.2° C)                 | 450   | 30 48° F (8° 0                     |                                   |  |
|   |                         | (  | CONDENSER                        | FAN MOTOR   |                                    |                                   |  |
|   | Watts                   | RP   | М                                | Amps  |                                    |                                   |  |
|   | 3.1                     | 1100 CW Op   | posite Shaft                     | 0.03 Running  |                                    |                                   |  |
|   |                         | ICE  | MAKER DIAG                       | NOSTIC MO   | DE                                 |                                   |  |
| Activate:  Press FZ+ and FF+ temperature pads for up to 10 sec. simultaneously. Press FF+ or - to move forward or backward through tests. |                         |  |                                  |   |                                    | ısly.                             |  |
| Deactivate:   |                         | Press FF+ for up to 10 sec. IM Diagnostic Mode will automatically deactivate after min. of inactivity.  NOTE: Silence alarm. |                                  |   |                                    |                                   |  |
| Test  |                         | To activate test   |                                  | Passing Result  |                                    |                                   |  |
| 52C   | Ice Maker<br>Thermistor | Activates automatically  |                                  | FZ display shows temperature sensed by Ice<br>Maker Thermistor.<br>"OP" if open; "SH" if short  |                                    |                                   |  |
| 55C   | Water<br>Valve          | Press Power On-C   | Off                              | Remove ice tray to collect water into a measuring container to measure water fill. If collecting water into ice tray, first perform test 63C to empty ice tray.                       |                                    |                                   |  |
| 58C   | Ice Level<br>Sensor     | Activates automat  | tically                          | Remove ice bucket. Allow bail arm to drop freely. Pass if no alarm when tray returns to "home" position. Hold bail arm up. Pass if alarm sounds when tray returns to "home" position. |                                    |                                   |  |

## **SERVICE DATA SHEET**

A01461105

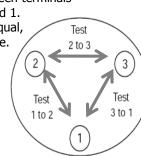
# **ICE & WATER - AUTOMATIC DEFROST** SIDE BY SIDE - R134a

### IMPORTANT: PLEASE RETURN THIS SHEET TO ITS ORIGINAL LOCATION

| ERF | ROR  | CODES  | SPECIAL MODES  |  |    |  |  |
|-----|------|--|--|--|----|--|--|
| Dis | play | _  | Mode   | Display                                      |    | Activate/Deactivate                      |  |
| FZ  | FF   | Interpretation   |  | FZ   | FF | (press for up to 10 sec. simultaneously) |  |
|     | OP   | Open FF<br>mid-level thermistor  | Manual<br>Defrost  | d  | F  | + and -/same to deactivate               |  |
| OP  |      | Open FZ thermistor   | Display/<br>Showroom   | 77   | 77 | ^ and -/set                              |  |
|     |      |  | Sabbath  | Sb   | Sb | <b>V</b> and +/same to deactivate        |  |
|     | SH   | Shorted FF<br>mid-level thermistor   | Diagnostic   | gnostic No FF or FZ display, all UI LEDs on. |    | ^ and V/+ to deactivate                  |  |
| SH  |      | Shorted FZ thermistor  | Notes:   |  |    |  |  |
| SY  | CF   | UI to Main Control<br>Board communication<br>failure; on start up            | <ul> <li>Always check for pin back-outs, pinched or damaged wires before replacing components.</li> <li>Determine whether failure is caused by the component, main control board or wiring. Contact TID before replacing main control board.</li> <li>Refer to Service Manual for additional information.</li> </ul> |  |    |  |  |
| SY  | CE   | UI Main Control Board<br>communication error;<br>after a period in operation |  |  |    |  |  |
| SY  | EF   | Evaporator fan failure   |  |  |    |  |  |

### **VCC Resistance Check**

Check resistance between terminals 1 and 2, 2 and 3, 3 and 1. If all resistances are equal, compressor is operative.



### **IMPORTANT SAFETY NOTE**

The information provided herein is designed to assist qualified repair personnel only. Untrained persons should not attempt to make repairs due to the possibility of electrical shock. Disconnect power cord before servicing this appliance.

If any green grounding wires are removed during servicing, they must be returned to their original position and properly secured.

This test runs continuously until another test is selected.

Remove ice bucket.

FZ display shows "1" and "GOOD".

63C

Twist Tray

Press Power On-Off

All electrical parts and wiring must be shielded from torch flame. DO NOT allow torch to touch insulation; it will char at 200°F and flash ignite (burn) at 500°F. Excessive heat will distort the plastic liner.

### **DIAGNOSTIC MODE** Press $\mbox{^{\hfill}}$ and V temperature pads for up to 10 sec. simultaneously. Press + to advance through tests. Activate: Press + for up to 10 sec. Diagnostic Mode will automatically deactivate after 5 min. of inactivity. **Note: Silence alarm.** Deactivate:

- Tests marked with "\*" may not be applicable to this unit and will not be displayed in Diagnostic Mode.
  Tests displayed in diagnostic mode but not described below are for internal purposes only; advance through.
  View UI display for "on," "off," "CL," "OP," "SH," "LO," "HI" or numerical results of tests.

| First Screen Second Screen Third Screen     |  | All LED lights on UI illuminated  |  |
|---|--|---|--|
|   |  |   |  |
| Third Screen                                | ==   | All segments on UI temperature displays illuminated   |  |
|   |  | Blank UI display, no lights illuminated, no shadowing; "-" and "+" blinking on FF display side to show location.  |  |
| Dispenser Paddle                            | Press disp. paddle   | "on" on UI when depressed; "off" when released  |  |
| Humidity Sensor                             | Activates<br>automatically   | "OP" if open, "SH" if short AC Heater System: Displays %RH DC Heater System: "HI" – heater should be on "Lo" – heater should be off %RH is displayed when humidity is between "Lo" and "HI" values; heater could be on or off.  |  |
| Dispenser<br>Pocket Heater                  | Press set  | AC Heater System: ""; test not available DC Heater System: heater on when "on", off when "off"  |  |
| Standard<br>Compressor and<br>Condenser Fan | Press set  | Compressor and Condenser Fan running when "on"; stop when "off"   |  |
| Defrost Heater                              | Press set  | Defrost limit switch must be closed; verify "CL" in test 26 Feel for heat from defrost heater when "on". If "OP" in test 26, heater will not activate.  |  |
| Water Valve<br>(Dispenser)                  | Press set  | <b>Be prepared to collect water at dispenser.</b> Water dispenses when "on"; stops when "off"   |  |
| Auger Motor                                 | Press set  | FZ door must be closed. Motor running when "on"; motor stopped when "off"   |  |
| Cube/Crush<br>Solenoid                      | Press set  | <b>Do not leave solenoid in activated state.</b> Solenoid activated when "on"; deactivated when "off"   |  |
| VCC Condenser<br>Fan                        | Press set  | Fan running when "on"; stopped when "off"   |  |
| VCC Compressor                              | Press set  | Compressor running when "on"; stopped when "off"  |  |
| FF Light<br>(LED Models)                    | Press set  | FF Lights on when "on"; off when "off"  |  |
| Evaporator Fan                              | Press set  | Press to toggle between "Off", "LO", and "HI". A current sensor reading is flashed (units are not mA). Off reading should be around 1. "LO" speed reading should settle down around 10. "HI" speed reading should settle down around 53.  |  |
| FZ Light<br>(LED Models)                    | Press set  | FZ Lights on when "on"; off when "off"  |  |
| Damper                                      | Press set  | With inspection mirror, observe damper open when "OP"; closed when "CL"   |  |
| Ice Chute Door                              | Depress ice chute<br>door or press set   | "OP" on UI when manually opened; "CL" when closed. Or, using "set", "OP" on UI when fully opened or "CL" when fully closed by the motor.  |  |
| FF Door                                     | Open/close FF door   | "CL" on UI when door closed; "OP" when open   |  |
| FZ Door                                     | Open/close FZ door   | "CL" on UI when door closed; "OP" when open   |  |
| Defrost Limit<br>Switch                     | Activates automatically  | "CL" on UI when closed; "OP" when open  |  |
| FF Thermistor                               | Activates automatically  | UI shows temperature sensed by FF thermistor; pass if within 10°F of temperature measured with gauge at mid-level FF thermistor location. "OP-" if open; "SH-" if short   |  |
| FZ Thermistor                               | Activates automatically  | UI shows temperature sensed by FZ thermistor; pass if within 10°F of temperature measured with gage at FZ thermistor location. "OP" if open; "SH" if short  |  |
| Ambient Thermistor @ Main Board             | Activates automatically  | UI shows temperature sensed at main board; pass if within +20°F/-10°F of temperature measured with gauge at main board location. "OP" if open; "SH" if short  |  |
| Ambient Thermistor @ UI                     | Activates automatically  | UI shows temperature sensed at UI; pass if within +20°F/-10°F of temperature measured with gauge at UI location. "OP" if open; "SH" if short  |  |
| Evaporator<br>Thermistor                    | Activates automatically  | UI shows temperature sensed at main board; pass if within +20°F/-10°F of temperature measured with gauge at evaporator thermistor location. "OP" if open; "SH" if short   |  |
|   | Pocket Heater Standard Compressor and Condenser Fan  Defrost Heater  Water Valve (Dispenser) Auger Motor  Cube/Crush Solenoid  VCC Condenser Fan  VCC Compressor  FF Light (LED Models)  Evaporator Fan  FZ Light (LED Models)  Damper  Ice Chute Door  FF Door  FZ Door  Defrost Limit Switch  FF Thermistor  FZ Thermistor  Ambient Thermistor @ Main Board  Ambient Thermistor @ UI  Evaporator | Pocket Heater  Standard Compressor and Condenser Fan  Defrost Heater  Press set  Water Valve (Dispenser)  Auger Motor  Press set  Cube/Crush Solenoid  VCC Condenser Fan  VCC Compressor  Fr Light (LED Models)  Evaporator Fan  Press set  FZ Light (LED Models)  Damper  Press set  FF Door  Activates automatically  FZ Thermistor  Activates automatically  Ambient Thermistor Qu II  Activates automatically  Ambient Thermistor Qu II  Activates automatically  Evaporator  Activates automatically  Ambient Thermistor  Activates automatically  Evaporator  Activates automatically  Activates automatically  Ambient Thermistor Activates automatically  Evaporator  Activates Activates automatically |  |

Displays digit sequence; record

Displays digit sequence; record

Displays digit sequence; record

Firmware

**Parameters** Main Board Firmware

**UI** Firmware

Press set

Press set

Press set

