

| PERFORMANCE DATA NO LOAD & NO DOOR OPENINGS AT<br>0° F FREEZER & 37° F FRESH FOOD (2500 ++ V5) |                                  |                                  |                                   |                                    |
|--|----------------------------------|----------------------------------|-----------------------------------|------------------------------------|
| Type A with Run/Start Capacitor  | 65°F (18°C) Ambient              |                                  | 90°F (32°C) Ambient               |                                    |
|  | Variable Speed                   | Standard                         | Variable Speed                    | Standard                           |
| Operating Time   | 74 to 84%                        | 32 to 40%                        | 100%                              | 55 to 65%                          |
| Freezer Temperature  | -2° to 2° F<br>-19° to -17° C    | 0° to 4° F<br>-18° to -16° C     | -1° to 3° F<br>-18° to -16° C     | -1° to 3° F<br>-18° to -16° C      |
| Refrigerator 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        | 34° to 39° F<br>1° to 4° C         |
| Low Side Pressure (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 (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 psig<br>827 to 931 kPa | 130 to 155 psig<br>896 to 1069 kPa |
| Wattage (last 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)            |                                  |                                   |                                    |

| DEFROST SPECIFICATIONS |               |              |        |      |
|------------------------|---------------|--------------|--------|------|
| Cabinet Size           | Thermostat    |              | Heater |      |
|                        | Cut-in        | Cut-out      | Watts  | Ohms |
| 23' CD, 26'            | 25° F (-4° C) | 47° F (8° C) | 450    | 30   |

Electronic Timer - (ADC) Defrost 24 minutes every 6-96 hours of compressor run time.

| CONDENSER FAN MOTOR |                        |              |
|---------------------|------------------------|--------------|
| Watts               | RPM                    | Amps         |
| 3.1                 | 1100 CW Opposite Shaft | 0.03 Running |

| ICE MAKER DIAGNOSTIC MODE |                      |  |   |
|---------------------------|----------------------|--|---|
| Activate:                 |                      | Press FZ+ and FF+ temperature pads for up to 10 sec. simultaneously. Press FF+ or - to move forward or backward through tests. |   |
| Deactivate:               |                      | Press FF+ for up to 10 sec. IM Diagnostic Mode will automatically deactivate after 5 min. of inactivity. NOTE: Silence alarm.  |   |
| Test                      | To activate test     | Passing Result   |   |
| 52C                       | Ice Maker Thermistor | Activates automatically  | FZ display shows temperature sensed by Ice Maker Thermistor. "OP" if open; "SH" if short  |
| 55C                       | Water Valve          | Press Power On-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 Sensor     | Activates automatically  | 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. This test runs continuously until another test is selected. |
| 63C                       | Twist Tray           | Press Power On-Off   | Remove ice bucket. FZ display shows "1" and "GOOD".   |

## SERVICE DATA SHEET

### A07201501

### ICE & WATER - AUTOMATIC DEFROST

### SIDE BY SIDE - R134a

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

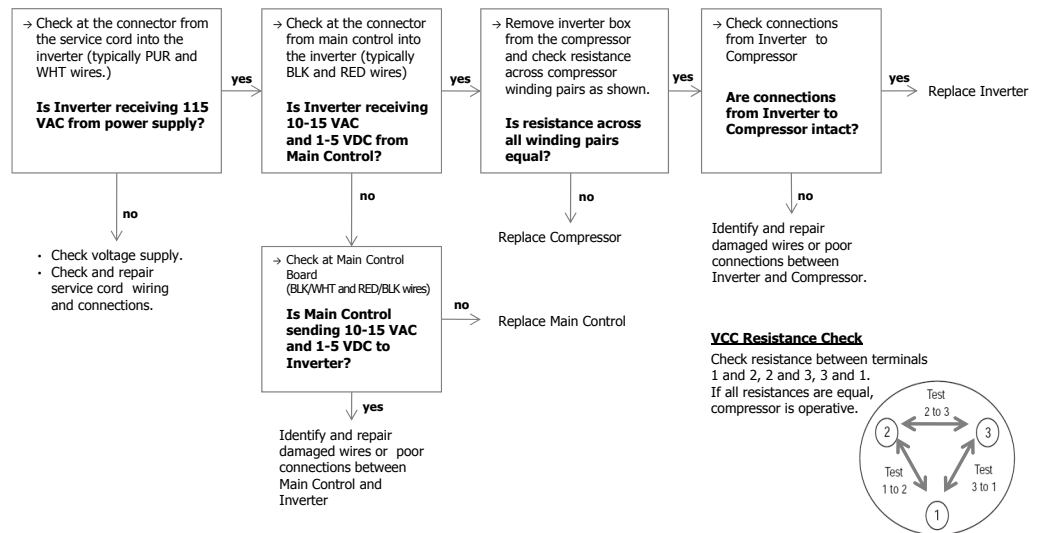
| ERROR CODES |                |  | SPECIAL MODES |    |  |
|-------------|----------------|--|---------------|----|--|
| Display     | Interpretation | Mode   | Display       |    | Activate/Deactivate (press for up to 10 sec. simultaneously) |
| FZ          | FF             |  | FZ            | FF |  |
| --          | OP-            | Open FF mid-level thermistor   | d             | F  | + and -/to activate and deactivate                           |
| OP          | --             | Open FZ thermistor   | 77            | 77 | ^ and -/to activate and deactivate                           |
| --          | SH-            | Shorted FF mid-level thermistor  | Sb            | Sb | V and +/to activate and deactivate                           |
| SH          | --             | Shorted FZ thermistor  |               |    |  |
| SY          | CF             | UI to Main Control Board communication failure; on start up            |               |    |  |
| SY          | CE             | UI Main Control Board communication error; after a period in operation |               |    |  |
| SY          | EF             | Evaporator fan failure   |               |    |  |

**Notes:**

- Always check for pin back-outs, pinched or damaged wires before replacing components.
- Determine whether failure is caused by the component, main control board or wiring. Contact TID before replacing main control board.
- Refer to Service Manual for additional information.

### Variable Capacity Compressor (VCC) Diagnostics (select models)

If test 38 fails, diagnose as follows:



**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.

**IMPORTANT**

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

**CAUTION**

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   |                                       |  |  |
|---|---------------------------------------|--|--|
| Activate:   |                                       | Press ^ and V temperature pads for up to 10 sec. simultaneously. Press + to advance through tests.                       |  |
| Deactivate:   |                                       | Press + for up to 10 sec. Diagnostic Mode will automatically deactivate after 5 min. of inactivity. Note: Silence alarm. |  |
| <ul style="list-style-type: none"> <li>Tests marked with "*" may not be applicable to this unit and will not be displayed in Diagnostic Mode.</li> <li>Tests displayed in diagnostic mode but not described below are for internal purposes only; advance through.</li> <li>View UI display for "on," "off," "CL," "OP," "SH," "LO," "HI" or numerical results of tests.</li> <li>Listen for operating sounds; feel for heat or air flow as appropriate to determine results of tests.</li> </ul> |                                       |  |  |
| Test  | To activate test:                     | Passing result   |  |
| --  | First Screen                          | --   | All LED lights on UI illuminated   |
| --  | Second Screen                         | --   | All segments on UI temperature displays illuminated  |
| --  | Third Screen                          | --   | Blank UI display, no lights illuminated, no shadowing; "--" and "+" blinking on FF display side to show location.  |
| 28  | Dispenser Paddle                      | Press disp. paddle   | "on" on UI when depressed; "off" when released   |
| 46  | Humidity Sensor                       | Activates automatically  | "OP" if open, "SH" if short<br>AC Heater System: Displays %RH<br>DC Heater System: "HI" - heater should be on<br>"Lo" - heater should be off<br>%RH is displayed when humidity is between "Lo" and "HI" values; heater could be on or off. |
| 47*   | Dispenser Pocket Heater               | Press set  | AC Heater System: "--"; test not available<br>DC Heater System: heater on when "on", off when "off"  |
| 1*  | Standard Compressor and Condenser Fan | Press set  | Compressor and Condenser Fan running when "on"; stopped when "off"   |
| 2   | 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.  |
| 8   | Water Valve (Dispenser)               | Press set  | <b>Be prepared to collect water at dispenser.</b> Water dispenses when "on"; stops when "off"  |
| 10  | Auger Motor                           | Press set  | FZ door must be closed. Motor running when "on"; motor stopped when "off"  |
| 11  | Cube/Crush Solenoid                   | Press set  | <b>Do not leave solenoid in activated state.</b> Solenoid activated when "on"; deactivated when "off"  |
| 41*   | Perfect Temp Drawer (PTD)             | Press set  | PTD UI illuminated when "on", off when "off"   |
| 12*   | VCC Condenser Fan                     | Press set  | Fan running when "on"; stopped when "off"  |
| 38*   | VCC Compressor                        | Press set  | Compressor running when "on"; stopped when "off"   |
| 13  | FF Light (LED Models)                 | Press set  | FF Lights on when "on"; off when "off"   |
| 15  | Evaporator Fan                        | Press set  | Fan running for <b>minimum of 10 sec.</b> when "LO" or "HI"; stopped when "off". Feedback failure if fan starts but runs less than 10 sec. Listen for speed change from "LO" to "HI".  |
| 20  | FZ Light (LED Models)                 | Press set  | FZ Lights on when "on"; off when "off"   |
| 22  | Damper                                | Press set  | With inspection mirror, observe damper open when "OP"; closed when "CL"  |
| 36  | Ice Chute Door                        | Depress ice chute 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.   |
| 23  | FF Door                               | Open/close FF door   | "CL" on UI when door closed; "OP" when open  |
| 24  | FZ Door                               | Open/close FZ door   | "CL" on UI when door closed; "OP" when open  |
| 26  | Defrost Limit Switch                  | Activates automatically  | "CL" on UI when closed; "OP" when open   |
| 29  | 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  |
| 30  | 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   |
| 33  | 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   |
| 34  | 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   |
| 39  | Evaporator 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  |
| 45  | Ice Maker Mold Thermistor             | Activates automatically  | UI shows temperature sensed at ice maker, pass if within +/- 20°F/-10°F of temperature measured with gauge at ice maker mold. "OP" if open; "SH" if short  |
| 0-  | Firmware Parameters                   | Press set  | Displays digit sequence; record  |
| 2-  | Main Board Firmware                   | Press set  | Displays digit sequence; record  |
| 4-  | UI Firmware                           | Press set  | Displays digit sequence; record  |

