

FOR SERVICE TECHNICIAN'S USE ONLY

NOTE: This sheet contains important Technical Service Data.

W11362243A

Tech Sheet

Do Not Remove or Destroy

⚠ DANGER



Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING



Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- Verify the controls are in the off position so that the appliance does not start when energized.
- Allow enough space to perform the voltage measurements without obstructions.
- Keep other people a safe distance away from the appliance to prevent potential injury.
- Always use the proper testing equipment.
- After voltage measurements, always disconnect power before servicing.

Component Specifications

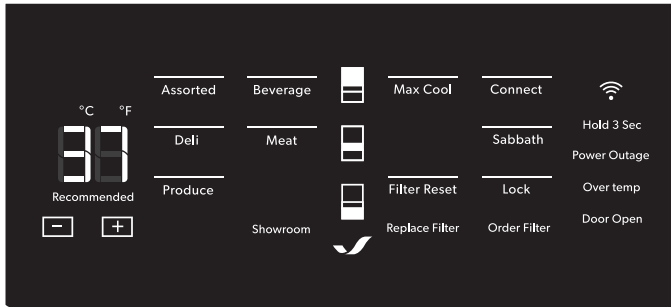
Component	Specifications all parts 115 VAC/60 HZ unless noted
Cooling	
Compressor	BTUH.....Variable VEMX11C+ Wattage FC40 Hz - 150 Hz / 56 W - 155 W Wattage RC 40 Hz -150 Hz / 56 W - 155 W Current lock rotor2.1 A Current full load.....2.1 A Resistance run windings.....8.10 ohms ± 8% @ 25°C (77°F) Resistance start windings.....8.10 ohms ± 8% @ 25°C (77°F) Inverter.....Input: 115 V - 127 V, 50 Hz - 60 Hz, 3.3 A Output: 230 V, 40 Hz -150 Hz, 2.1 A
Condenser Motor	Rotation.....Clockwise (facing end opposite shaft) RPM.....1240 RPM Wattage.....2.3 W ± 1 W @ 115 VAC NOTE: Fan blade must be fully seated on shaft to achieve proper airflow
Refrigerator/ Freezer Evaporator Fan Motor	Rotation.....Clockwise (facing end opposite shaft) RPM.....Minimum 3450 RPM @ 12 VDC and 100% duty cycle Wattage.....Maximum 4.2 W @ 12 VDC and 100% duty cycle
Controls	
Control Board	Volts.....120 VAC, 60 Hz See control board section for diagnostics.
Thermistor	Temperature.....Resistance 77°F/25°C.....2700 ohms ± 5.0% 36°F/2°C..... 7964 ohms ± 1.0% 0°F/-18°C..... 23,345 ohms ± 2.0%
Light Switch	Type.....SPDT NO/NC Volts..... 125/250 VAC Current..... 8/4 A
Ice and Water	
Mullion Valve	Wattage..... 16 W @ 12 VDC
Isolation Valve Refrigerator	Wattage..... 20 W @ 120 VAC
Isolation Valve Freezer	Wattage..... 35 W @ 120 VAC
Fill Tube Heater	Volts.....8 W Wattage.....12 VDC Resistance..... 18 ohms ± 7.5%

Evaporator heater	1) 18" & 24"
	Volts.....120 VAC
	Wattage.....129 W
	Resistance.....102 ohms ± 5%
	2) 30" & 36"
	Volts.....120 VAC
	Wattage.....348 W
	Resistance..... 38 ohms ± 5%

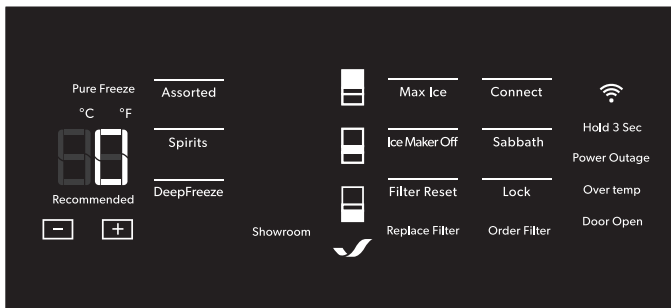
Control Board Troubleshooting

Accessing Service Mode

Refrigerator Control



Freezer Control



To Enter Service Diagnostics Mode:

Press the pulsing JennAir logo to wake up the UI. Press the middle zone key. Press CONNECT key slightly before assorted key and hold both for 3 seconds. Release both keypads when you hear the chime indicator. The display will show "01" to indicate the control is in step 1 of the diagnostics routine.

To Exit Service Diagnostics Mode:

Do one of the following four options:

- Press ASSORTED and CONNECT simultaneously for 3 seconds.
- Select Step 0 by pressing Enter key (DEEPFREEZE in the Freezer Control or PRODUCE in the Refrigerator Control).
- Disconnect the power from the product.
- Allow 20 minutes to pass.

The controls will resume normal operation after exiting Service Diagnostics Mode.

Each step must be manually advanced. Press + to move to the next step in the sequence. Press - to go back to the previous step. Diagnostics will begin at Step 1. Each step is displayed in the two digits of the internal user interface display. The step results are displayed in the two digits on the internal user interface display when the Enter key. To return to the step selection after running one step, press the Back key (SPIRITS in the Freezer Control, DELI in the Refrigerator Control).

Key Assignments		
Service mode requirement	Keypad on Django UI	
	Freezer	Refrigerator
Enter Key For Navigation	Press DEEPFREEZE keypad	Press PRODUCE keypad
Increment Key For Navigation	Press "+" Keypad	Press "+" Keypad
Decrement Key For Navigation	Press "-" Keypad	Press "-" Keypad
Back Key For Navigation	Press SPIRITS Keypad	Press DELI Keypad
Degree C LED Indicator	Press °C Indicator	
Degree F LED Indicator	Press °F Indicator	
Enter Service Key Combination	NOTE: Press CONNECT key slightly before ASSORTED key and hold both for 3 seconds.	
Exit Service Key Combination	NOTE: Press CONNECT key slightly before ASSORTED key and hold both for 3 seconds.	

Service Test 00 – Exit Service Mode

Service Test 01 – Deli Compartment Thermistor

Read Deli Compartment Thermistor value or indicate SH for short circuit and OP for open circuit.

Service Test 02 – Main Compartment Thermistor

Read Main Compartment Thermistor value or indicate SH for short circuit and OP for open circuit.

Service Test 04 – Evaporator Thermistor

Read Evaporator Thermistor value or indicate SH for short circuit and OP for open circuit.

Service Test 14 – Crisper Thermistor (Refrigerator Only)

Read Crisper Compartment Thermistor value or indicate SH for short circuit and OP for open circuit.

Service Test 16 – Ice Maker Tray 1 Thermistor (Freezer Only)

Read Ice Maker Tray Thermistor value or indicate SH for short circuit and OP for open circuit.

Service Test 23 – Deli Maximum Temperature

Maximum temperature reached during the last 6 hours of operation.

Service Test 24 – Main Maximum Temperature

Maximum temperature reached during the last 6 hours of operation.

Service Test 26 – Crisper Maximum Temperature

Maximum temperature reached during the last 6 hours of operation.

Service Test 28 – Deli Average Temperature

Average temperature during the last 6 hours of operation.

Service Test 29 – Main Compartment Average Temperature

Average temperature during the last 6 hours of operation.

Service Test 31 – Crisper Average Temperature

Average temperature during the last 6 hours of operation.

Service Test 33 – Deli Minimum Temperature

Minimum temperature during the last 6 hours of operation.

Service Test 34 – Main Minimum Temperature

Minimum temperature during the last 6 hours of operation.

Service Test 36 – Crisper Minimum Temperature

Minimum temperature during the last 6 hours of operation.

Service Test 38 – Compressor Speed Change Without Ramp

In this step, UI will lock out until 2.5 minutes has passed. In this test, the compressor will turn on but the unit will not cool.

Control the compressor speed. When entering Service Test, the compressor goes off if it was previously on.

- Press the + or - keypad to select the power from 0 Hz to 133 Hz (0 to max speed). When pressing the Enter key, the compressor will change power.
- After changing the power keypad from 0. The compressor will shut off after 2.5 minutes.

Service Test 39 – Compressor Speed Change With Ramp

In this step, UI will lock out until 2.5 minutes has passed. In this test, the compressor will turn on but the unit will not cool.

Control the compressor speed. When entering Service Test, the compressor goes off if it was previously on.

- Press the + or - keypad to select the power from 0 Hz to 133 Hz (0 to max speed). When pressing the Enter key the compressor will ramp up to the selected frequency.
- After changing the power keypad from 0, the compressor will shut off after 2.5 minutes.

Service Test 40 – Compressor and Compartment Freezing Cooling Test

After entering, the compressor will be turned on and will be turned off when leaving the step.

“off” – Off

“on” – On (Compressor on at 100%)

Service Test 42 – Deli Air Baffle State

When entering Service Test, the damper continuously turns, showing the state in the numeric display.

- Possible position readings:
 - “00” – Air Baffle in Open Position
 - “02” – Air Baffle in Closed Position

Service Test 43 – Crisper Air Baffle State (Refrigerator Only)

When entering Service Test, the damper continuously turns, showing the state in the numeric display.

- Possible position readings:
 - “00” – Air Baffle in Open Position
 - “02” – Air Baffle in Closed Position

Service Test 44 – Deli Perimeter Lighting

- When entering Service Test, the Deli Perimeter Lights turn on. The display shows “ON.”
- When leaving Service Test, the Deli Perimeter lights turn off.

Service Test 45 – Main Perimeter Lighting

- When entering Service Test, the Main Perimeter Lights turn on. The display shows “ON.”
- When leaving Service Test, the Main Perimeter lights turn off.

Service Test 46 – Crisper Perimeter Lighting

- When entering Service Test, the Crisper Perimeter Lights turn on. The display shows “ON.”
- When leaving Service Test, the Crisper Perimeter lights turn off.

Service Test 47 – Tower Lighting

- When entering Service Test, the Tower and Top Lights turn on. The display shows “ON.”
- When leaving Service Test, the Tower and Top lights turn off.

Service Test 54 – Crisper Lighting

- When entering Service Test, the Crisper Lights turn on. The display shows “ON.”
- When leaving Service Test, the Crisper lights turn off.

Service Test 56 – Evap Fan Test

- When entering Service Test, the Evap Fan turns on. The display shows “ON.”
- When leaving Service Test, the Evap Fan turns off.

Service Test 58 – Condenser Fan Test

- When entering Service Test, the Condenser Fan turns on. The display shows “ON.”
- When leaving Service Test, the Condenser Fan turns off.

Service Test 66 – Ice Maker Fill Tube Heater Test (Freezer Only)

- When entering Service Test, the Ice Maker Fill Tube Heater turns on. The display shows “ON.”
- When leaving Service Test, the Ice Maker Fill Tube Heater turns off.

Service Test 73 – Door Switch State

- “00” identifies door OPEN and “01” identifies door CLOSED. Press the switch inside the hinge pocket manually to see state change.
- “00” identifies Water Dispenser Switch is CLOSED and “01” identifies Water Dispenser Switch is OPEN.

Service Test 82 – Water Dispenser Switch State

- “00” identifies Water Dispenser Switch is CLOSED and “01” identifies Water Dispenser Switch is OPEN.

Service Test 89 – Run Defrost Heater

- When entering this Service Test, Defrost Heater turns on and stays on for 5 minutes or until the evaporator thermistor goes above 60°F (16°C).
- “...” will be displayed while the operation is executed

Service Test 91 – Run a Forced Defrost

- Activates the Forced Defrost.
- When ON is selected and exiting Service Mode, defrost will be executed.
- When OFF is selected and exiting Service Mode, defrost will NOT be executed. FF will be displayed when OFF.
- Press + or - keypad to change state.

Service Test 92 – Turn All User Interface LEDs ON

- When entering Service Test, all indicators and keypads will light up in the two user interfaces (UIs).
- The icons turn automatically off after 30 seconds.

Service Test 93 – User Interface Keypad Test

- When inside Service Test, the numeric display shows “00” for no keypad press and “01” for keypad press.

Service Test 96 – Water Valve General Test (RC Only)

- When entering Service Test, the Water Dispenser Valve turns on for 7 seconds.

Service Test 97 – Ice Maker Valve General Test (FC Only)

- When entering Service Test, the Freezer Ice Maker Water Valve turns on for 7 seconds.

For steps 100 and above, initiating the step will display the first two numbers example 01, then a slight delay of about 2 seconds, then the next set of numbers would display showing for example, “06” indicating you are in step 106.

Service Test 100 – Display Water Filter Gallons Remaining

- Displays the remaining gallons of water left on the water filter

Service Test 101 – Display Water Filter Days Remaining

- Displays the remaining days left on the water filter.

Service Test 102 – Display Days Since Last Water Filter Reset

- Displays the total amount of days since the last Water Filter Reset.

Service Test 103 – Display Number of Water Filter Resets

- Displays the total amount of Water Filter Resets that have occurred over the life of the product.

Service Test 106 – Wi-Fi Link Connection Self Test

- While the test is in progress, the display will show:
 - “00” – Link Test in Progress.
- Following the completion of the Link Test, the display will transition to the following code designation:
 - “01” – Not able to link with AP or WISE.
 - “02” – Not able to link with WISE.
 - “03” – Connected to AP and WISE.

Service Test 107 – Wi-Fi Antenna Self Test

- While the test is in progress the display shall show :
 - “00” – Link Test in Progress
- Following the completion of the Link Test, the display shall transition to the following code designation:
 - “01” – Antenna A is good
 - “02” – Antenna B is good
 - “03” – Antenna A and B not functioning
 - “04” – Antenna A and B are good

Service Test 108 – Wi-Fi Antenna 1 Signal Strength (Top Filter Assy)

- Display the measured value as a percentage of possible range. The possible range to the technician is 0% to 100%.

Service Test 109 – Wi-Fi Antenna 2 Signal Strength (Toe Kick)

- Display the measured value as a percentage of possible range. The possible range to the technician is 0% to 100%.

Service Test 120 – Check Ice Maker Self Diagnostics (Freezer Only)

Note : “The upper door switch serves as an interlock to the ice maker power. In order to run Service mode 120, the upper door switch must be closed manually by placing tape over the switch which will close the circuit and provide power to the icemaker.”

- “00” – Stopped
- “01” – Moving CCW to ice break position
- “02” – Moving clockwise to end of harvest location
 - If ice bin is full jump to step 04
 - If timeout occurs (60 seconds) execute
- “03” – Reached end of harvest location

- “04” – Moving CCW back to homing location
- If timeout occurs (60 seconds) end test

The display shall show to the technician the error codes following the execution of the test.

- “PA” – All steps successfully passed
- “bF” – Ice bin is full
- “E1” – Cannot find ice break position
- “E2” – Cannot find end of harvest location
- “E3” – Cannot find home
- “E4” – Multiple failures.

Service Test 126 – Change Defrost Type

- Press + or - key pad to change mode.
- Displays the current Defrost Mode. (01 Default)
- Engineer will then choose between the 2 available modes. Pressing the Enter key will save the selection.
- The display will then return to Service Test Screen where the selected Duty cycle will be displayed.
- Available Defrost Modes: “01” - Global Defrost Routine
ON “02” - Basic Mode ON (8 hour timer).

Service Test 127 – Gemini Flash 2 SW Version Number (Main ACU)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 128 – Gemini Flash 2 Flashmap Version Number (Main ACU)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 134 – Django UI SW Version Number (Internal UI)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 135 – Django UI Flashmap Version Number (Internal UI)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 136 – Django UI Touch EEPROM Version Number (Internal UI)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 137 – Wi-Fi SW Version Number

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 140 – Neleus SW Version Number (LED Driver)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Service Test 141 – Neleus Flashmap Version Number (LED Driver)

- Show XX for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show YY for 1 second (version format XX YY ZZ)
- Blank for 0.5s
- Show ZZ for 1 second (version format XX YY ZZ)
- Keep Blank when Complete.

Refrigerator Compartment Error Codes

- Displays Refrigerator error codes on the JennAir® App when the failure occurs.

Error Code	Description
F3E0	Refrigerator/ Main compartment (Z1) thermistor short
	Refrigerator/ Main compartment (Z1) thermistor open
F3E2	Refrigerator Evaporator thermistor short
	Refrigerator Evaporator thermistor open
F3E4	Deli compartment (Z2) thermistor short
	Deli compartment (Z2) thermistor open
F3E5	Crisper (Z3) thermistor short
	Crisper (Z3) thermistor open

Freezer Compartment Error Codes

- Displays Freezer error codes on the JennAir® App when the failure occurs.

Error Code	Description
F3E1	Freezer/ Main compartment (Z1) thermistor short
	Freezer/ Main compartment (Z1) thermistor open
FDEA	Ice Maker Jammed (cannot find Homing or end of harvest location)
FDE0	Ice maker tray thermistor short
	Ice maker tray thermistor open
F3E3	Freezer Evaporator thermistor short
	Freezer Evaporator thermistor open
F3E4	Deli compartment (Z2) thermistor short
	Deli compartment (Z2) thermistor open

Wiring Diagram

Refrigerator DWG. No.: W11395099 Rev. B

Assy: W11362242A



FOR SERVICE TECHNICIAN'S USE ONLY

Rev B

Wiring Diagram

Freezer DWG. No.: W11395098 Rev. E

W11362243A

Assy: W11362242A

W11362243A

Assy: W11362242A

