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/yellow grounding wires are removed during servicing, they must be returned to their original position and properly secured.

PERFORMANCE		
Ambient Temperature	70ºF	90ºF
Operating Time	100%	100%
Freezer Temperature	4 to -4ºF	4 to -4ºF
Low Side Pressure (cut-in)	-	-
Low Side Pressure (cut-off)	-7.02 to -3.94 PSIG	-6.63 to -4.65 PSIG
High Side Pressure	35 to 37 PSIG	51 to 56 PSIG
Wattage	32W	46.6W
Amps	0.4	0.61
Base Voltage	115V	115V
Refrigerant Charge	50g	50g

SERVICE DATA SHEET

A14365701

AUTOMATIC DEFROST UPRIGHT FREEZER - R600a

DEFROST CONTROL

The defrost period will vary dependent on the heater on time, with a maximum of 60 minutes. There is a 7 minute idle (drip time) time after the heater turns off before the evaporator fan and compressor will turn on. During the defrosting period a temperature sensor monitors the evaporator temperature and the main control board turns the defrost heater off after the frost on the evaporator has melted.

IMPORTANT: PLEASE RETURN THIS SHEET TO ITS ORIGINAL LOCATION.

Specifications subject to change without notice. For complete performance data by model, refer to service manual. Options shown are not necessarily part of the model.

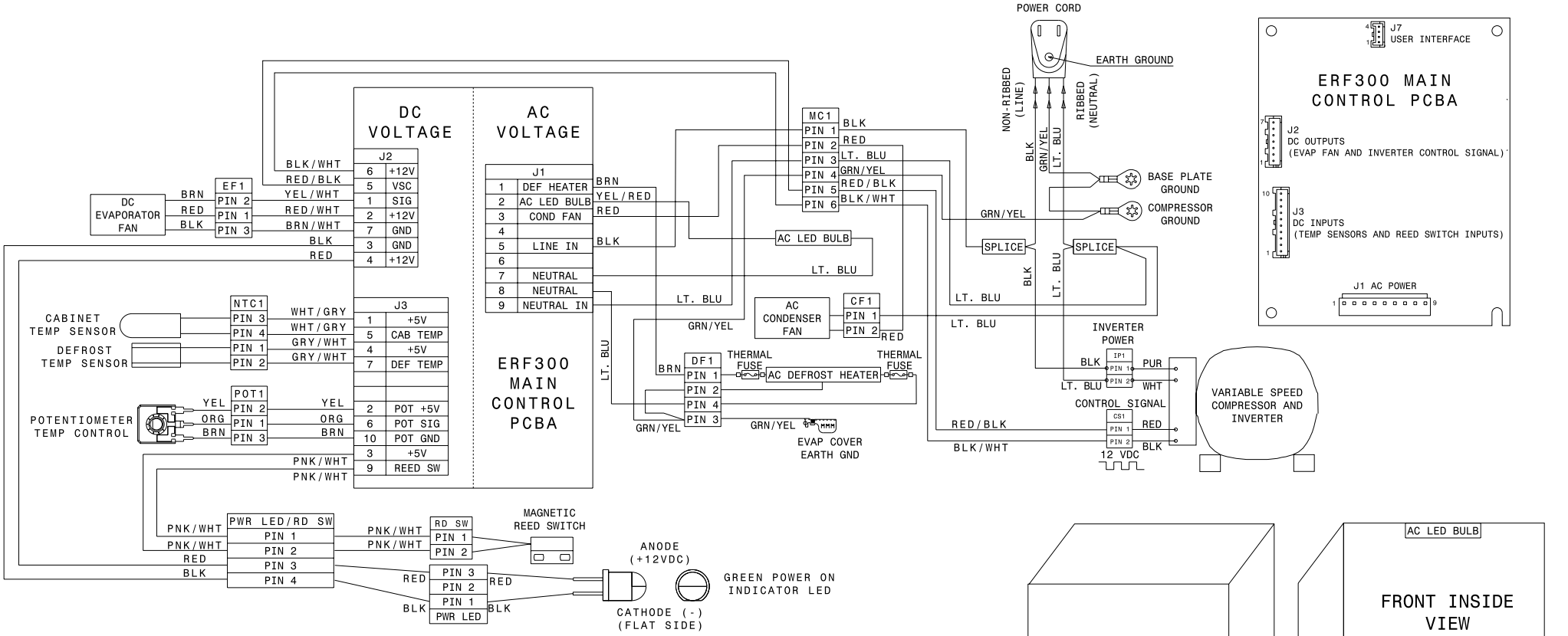
SERVICE MODE DIAGNOSTIC TESTS

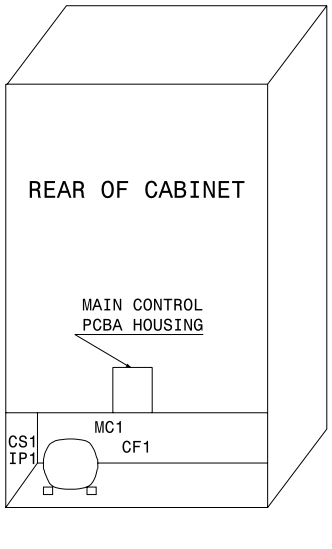
Allows technicians to step through available tests to diagnose individual electrical circuits.

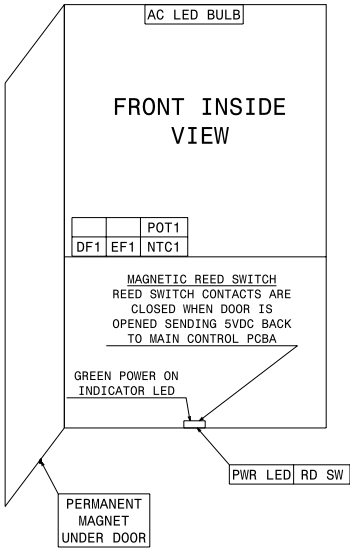
NOTE: There is a magnetic switch located in the bottom front of the cabinet (beside the green power on indicator light) and a permanent magnet is located in a holder in the bottom of the door that work together to sense when the door is opened and closed.

To Enter Service Mode:	• Open the door. • Using a permanent magnet, activate the magnetic switch 4 times within 2 seconds, holding the forth activation against the magnetic switch until a long beep is heard and the interior AC LED Light bulb turns on. • Move the magnet away from the magnetic switch. The internal light will turn off indicating the unit is in service mode. **NOTE:** When service mode is entered, the green power on indicator light will remain on. • Using the permanent magnet, activate the magnetic switch 2 times to terminate the current test and activate the next test. Two beeps will sound confirming the service mode has advanced to the next test. • **Test 1: Compressor and condenser fan:** The compressor and condenser fan turns ON as soon as service mode is activated. • **Test 2: Defrost heater** **NOTE:** The defrost heater has a thermal fuse on each side of the heater element. During the defrost heater test the main board monitors the evaporator temperature and will automatically turn off the defrost heater, if the evaporator temperature exceeds a specified value to ensure the thermal fuses are not permanently open circuited as they are designed to operate. • **Test 3: AC LED bulb** **CAUTION: DO NOT REPLACE THE AC LED BULB WITH ANY BULB GREATER THAN 5 WATTS.** • **Test 4: Evaporator Fan**
To manually exit service mode:	• Using a permanent magnet, activate the magnetic switch 4 times in 2 seconds, holding the forth activation against the magnetic switch until a long beep is heard and the interior AC LED Light bulb turns on. The unit will restart in normal operating mode. • Unplug the unit from power and plug it back in to power. The unit will restart in normal operating mode. • The unit will automatically exit service mode if no magnetic switch activation is detected after 10 minutes. The unit will restart in normal operating mode.

To activate manual defrost:	• Using a permanent magnet, activate the magnetic switch 5 times in 2 seconds, holding the fifth activation against the magnetic switch until five short beeps are heard.
	  • The unit can enter in manual defrost only during normal operating mode.
	  • The unit will not enter in manual defrost if already in defrost mode.
	  • The unit will not enter manual defrost if the temperature control knob is in the OFF position.
	• The defrost heater has a thermal fuse on each side of the heater element. During manual defrost, the main board monitors the evaporator temperature and will automatically turn off the defrost heater if the evaporator temperature exceeds a specified value to ensure the thermal fuses are not permanently open circuited as they are designed to operate.







CONNECTOR ABBREVIATION KEY	
ABBR.	EXPLANATION
MC1	6 PIN (2x3) INLINE CONNECTION TO HARNESS FROM MAIN CONTROL PCBA HOUSING (IN MACHINE COMPARTMENT)
CF1	2 PIN (1x2) CONNECTION TO AC CONDENSER FAN (IN MACHINE COMPARTMENT)
IP1	2 PIN (1x2) IN LINE CONNECTION TO INVERTER POWER CONNECTOR (IN MACHINE COMPARTMENT)
CS1	2 PIN (1x2) IN LINE CONNECTION TO INVERTER CONTROL SIGNAL CONNECTOR (IN MACHINE COMPARTMENT)
DF1	4 PIN (1x4) CONNECTION TO DEFROST HEATER (BEHIND EVAPORATOR COVER)
EF1	3 PIN (1x3) CONNECTION TO DC EVAPORATOR FAN (BEHIND EVAPORATOR COVER)
POT1	3 PIN (1x3) CONNECTION TO POTENTIOMETER TEMPARTURE CONTROL (BEHIND EVAPORATOR COVER)
NTC1	4 PIN (1x4) CONNECTION TO CABINET AND DEFROST TEMP SENSORS (BEHIND EVAPORATOR COVER)
PWR LED/RD SW	4 PIN (1x4) INLINE CONNECTION FOR USER INTERFACE AND REED SWITCH (IN MAIN BOARD PLASTIC HOUSING ON BACK OF UNIT)
PWR LED	3 PIN (1x3) INLINE CONNECTION TO GREEN POWER ON INDICATOR LED (BEHIND REED SWITCH COVER OR UNDER FRONT CENTER OF UNIT IN REED SWITCH HOUSING)
RD SW	2 PIN (1x2) INLINE CONNECTION TO REED SWITCH (BEHIND REED SWITCH COVER OR UNDER FRONT CENTER OF UNIT IN REED SWITCH HOUSING)
J2	7 PIN (1x7) CONNECTION TO DC OUTPUTS ON MAIN CONTROL BOARD (LOCATED IN PLASTIC HOUSING ON BACK OF UNIT)
J3	10 PIN (1x10) CONNECTION TO DC INPUTS ON MAIN CONTROL BOARD (LOCATED IN PLASTIC HOUSING ON BACK OF UNIT)
J1	9 PIN (1x9) CONNECTION TO AC INPUT/OUTPUTS ON MAIN CONTROL BOARD (LOCATED IN PLASTIC HOUSING ON BACK OF UNIT)

HARNESSES AND ELECTRONIC/ELECTRICAL COMPONENTS THAT CAN BE REPLACED FOR SERVICE
MAIN CONTROL PCBA LOCATED ON BACK OF UNIT IN PLASTIC HOUSING
MACHINE COMPARTMENT HARNESS
MAGNETIC REED SWITCH (LOCATED AT BOTTOM FRONT OF CABINET BEHIND REED SWITCH COVER)
MAGNET (CLIPS INTO BOTTOM OF DOOR)
CABINET AND EVAPORATOR TUBE (DEFROST TEMP) TEMPERATURE SENSORS HARNESS (4-PIN CONNECTOR LOCATED BEHIND EVAPORATOR COVER, DEFROST TEMP SENSOR CLIPPED ONTO EVAPORATOR TUBE, CABINET TEMP SENSOR IS INSTALLED INSIDE OF AIR TOWER)
EVAPORATOR FAN (3 PIN CONNECTOR FOR DC EVAPORATOR FAN (EVAPORATOR FAN INSTALLED IN AIR TOWER BEHIND EVAPORATOR COVER)
POTENTIOMETER HARNESS (3 PIN CONNECTOR LOCATED BEHIND EVAPORATOR COVER)
DEFROST HEATER (LOCATED BEHIND EVAPORATOR COVER) DEFROST HEATER HAS TWO THERMAL FUSES THAT PERMANENTLY OPEN CIRCUIT IF THEIR TEMPERATURE REACHES ABOVE 72°C (162°F), ONE ON THE LINE SIDE AND ONE ON THE NEUTRAL SIDE. IT ALSO HAS AN ***EARTH GROUND CLIP THAT MUST BE CONNECTED TO THE EVAPORATOR COVER*** IF THE DEFROST HEATER IS REPLACED.
LIGHT SOCKET (LOCATED IN TOP OF CABINET BEHIND LED BULB COVER

Wiring Diagram A14353601