

"M"

REFRIGERATION

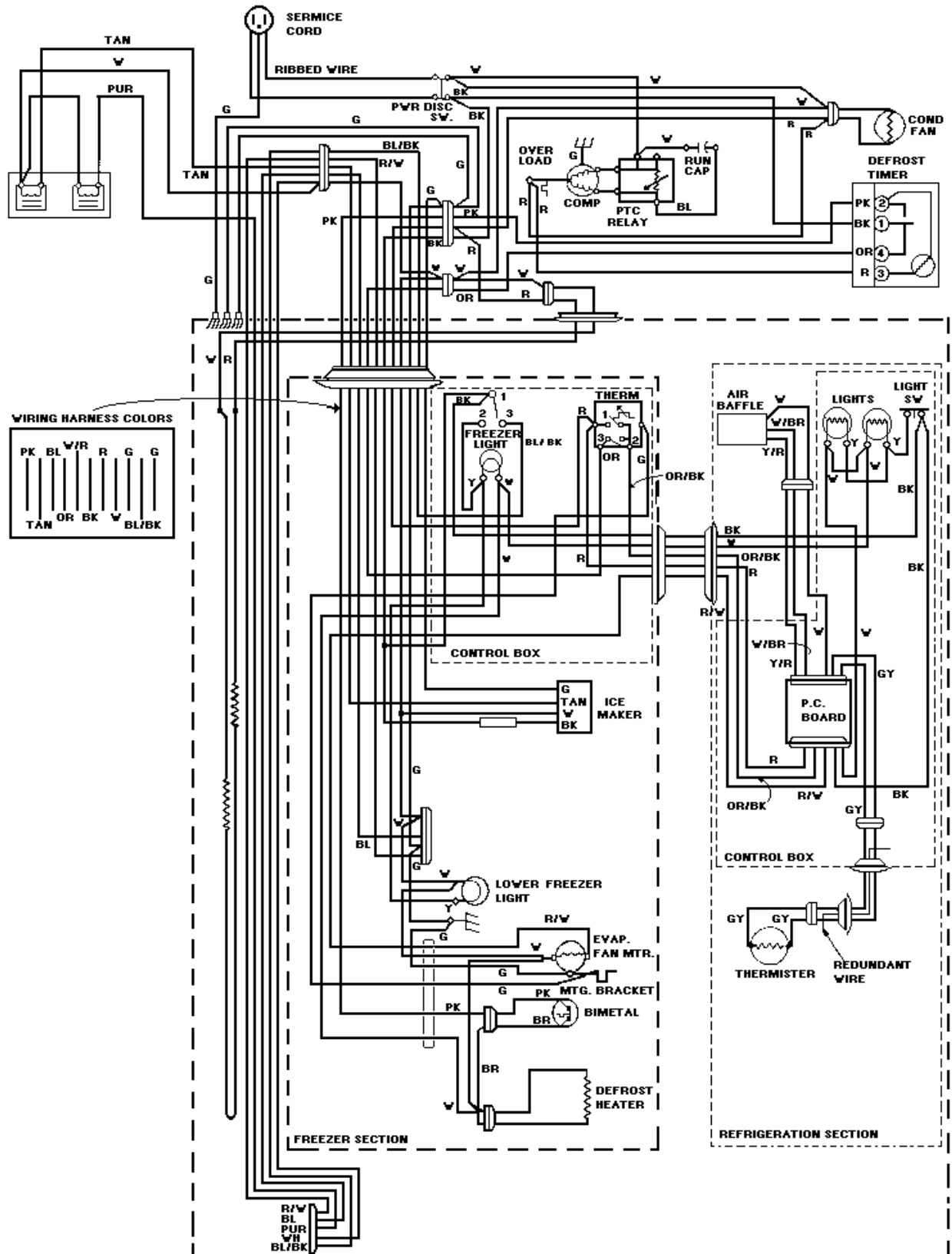


REFRIGERATION

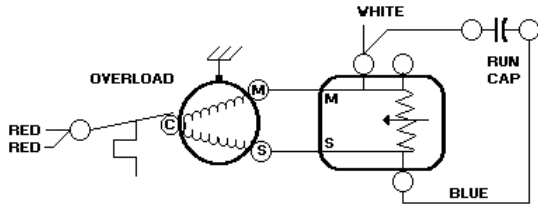
REFRIGERATION

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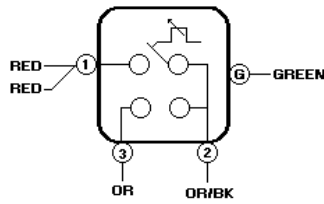
WIRING DIAGRAM VCSB 36"-42"-48" REFRIGERATOR



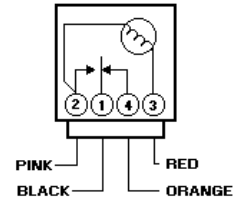
REFRIGERATOR COMPONENTS



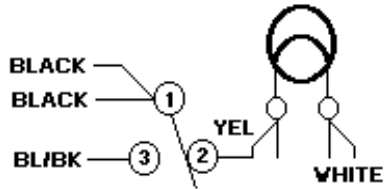
COMPRESSOR PTC RELAY



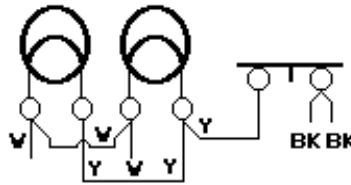
THERMOSTAT



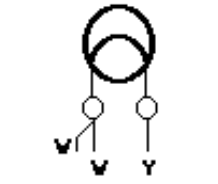
DEFROST TIMER



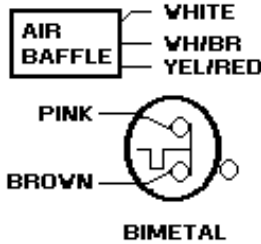
FREEZER LIGHT



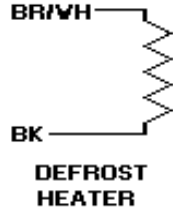
LIGHTS LIGHT SWITCH



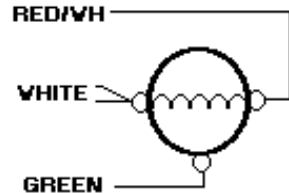
LOWER FREEZER LIGHT



BIMETAL



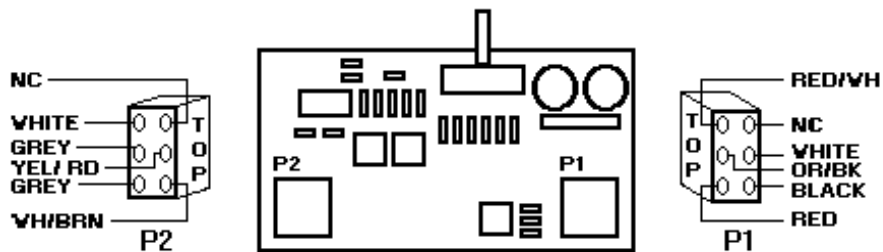
DEFROST HEATER



EVAP. FAN MOTOR



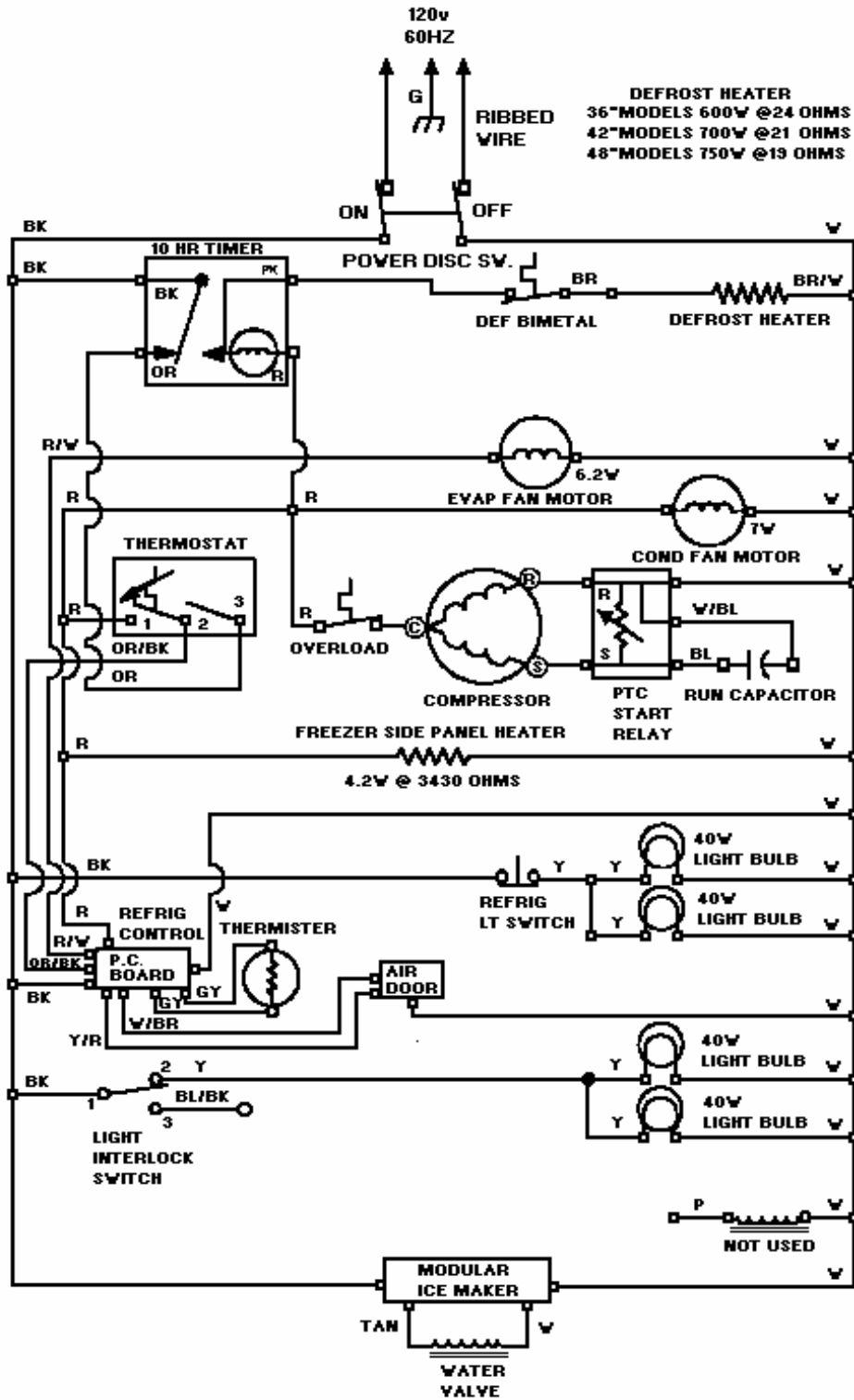
WATER VALVE



BK --- BLACK
 BL --- BLUE
 BR --- BROWN
 GY --- GRAY
 OR --- ORANGE
 PK --- PINK
 PUR - PURPLE
 R --- RED
 TAN - TAN
 V --- WHITE
 Y --- YELLOW

BL/OR --- BLUE/ORANGE TRACER
 V/BL --- WHITE/BLUE TRACER
 V/BR --- WHITE/BROWN TRACER
 Y/BK --- YELLOW/BLACK TRACER
 Y/O --- YELLOW/ORANGE TRACER
 Y/R --- YELLOW/RED TRACER
 BR/V --- BROWN/WHITE TRACER
 OR/BK --- ORANGE/BLACK TRACER
 R/V --- RED/WHITE TRACER
 G/Y --- GRAY/WHITE TRACER
 G --- GREEN OR GREEN/YELLOW TRACER
 BK/Y --- BLACK/YELLOW TRACER
 BLBK --- BLUE/BLACK TRACER

WIRING DIAGRAM VCSB360-420-480

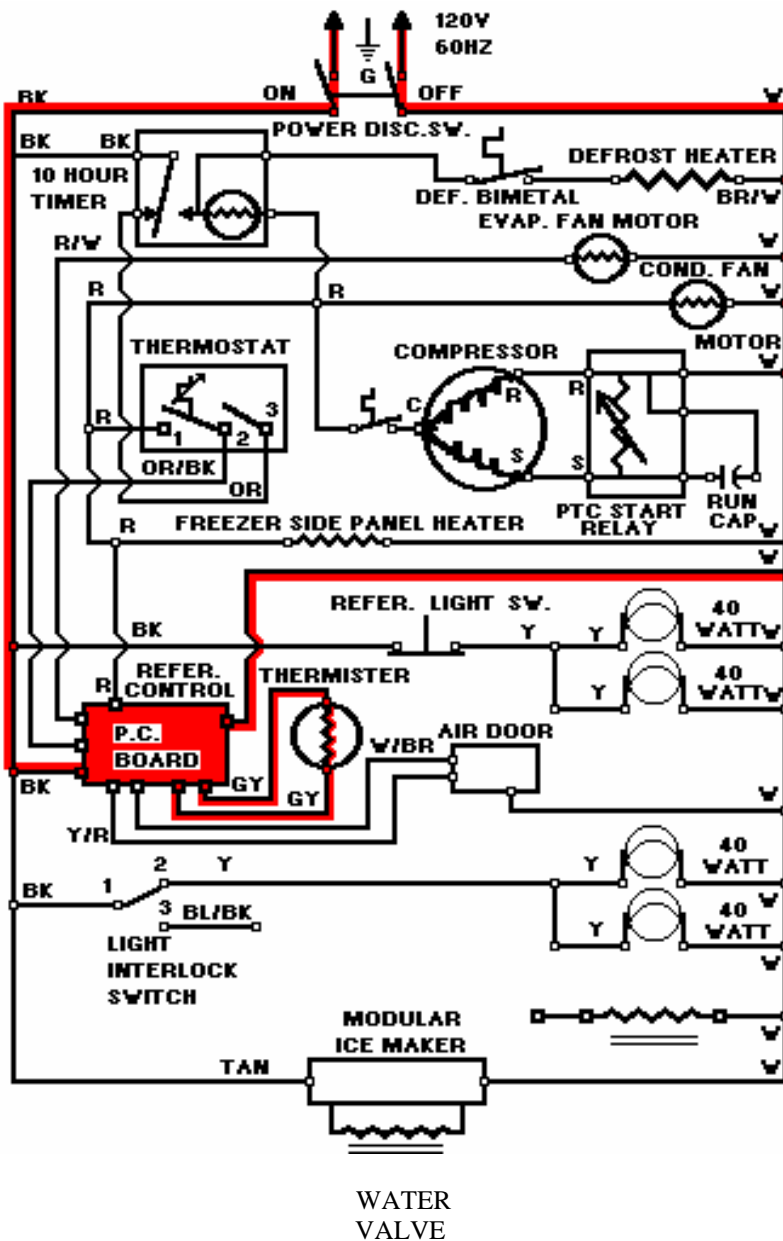
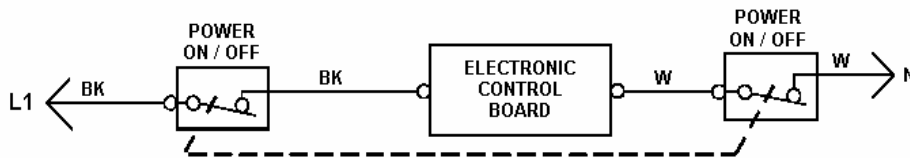


VCSB360-420-480

LINE CIRCUIT (#1)

THE COOLING CYCLE

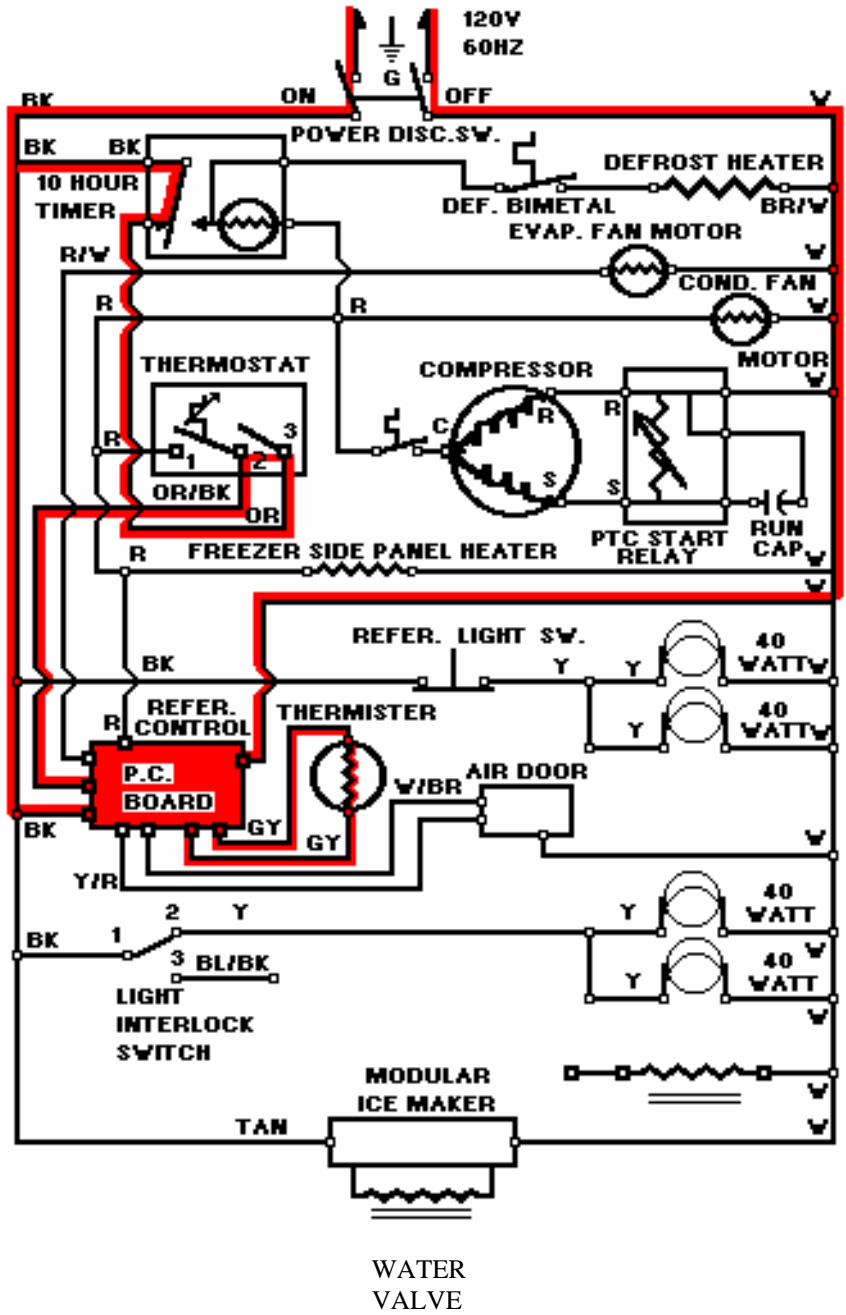
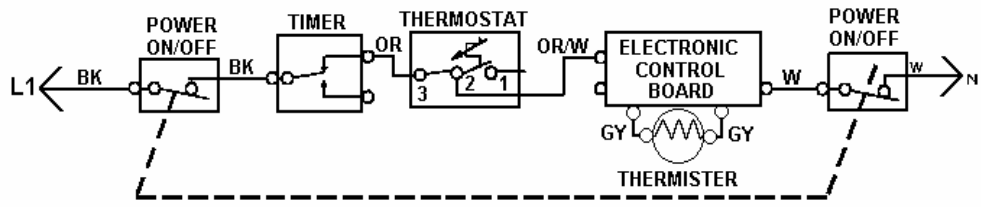
- Unit plugged in, Electronic Control Board Energized (also during Defrost)



VCSB360-420-480
LINE CIRCUIT (#2)

THE COOLING CYCLE

2. Freezer Thermostat Turned On. But Satisfied – Low Voltage to Thermistor.

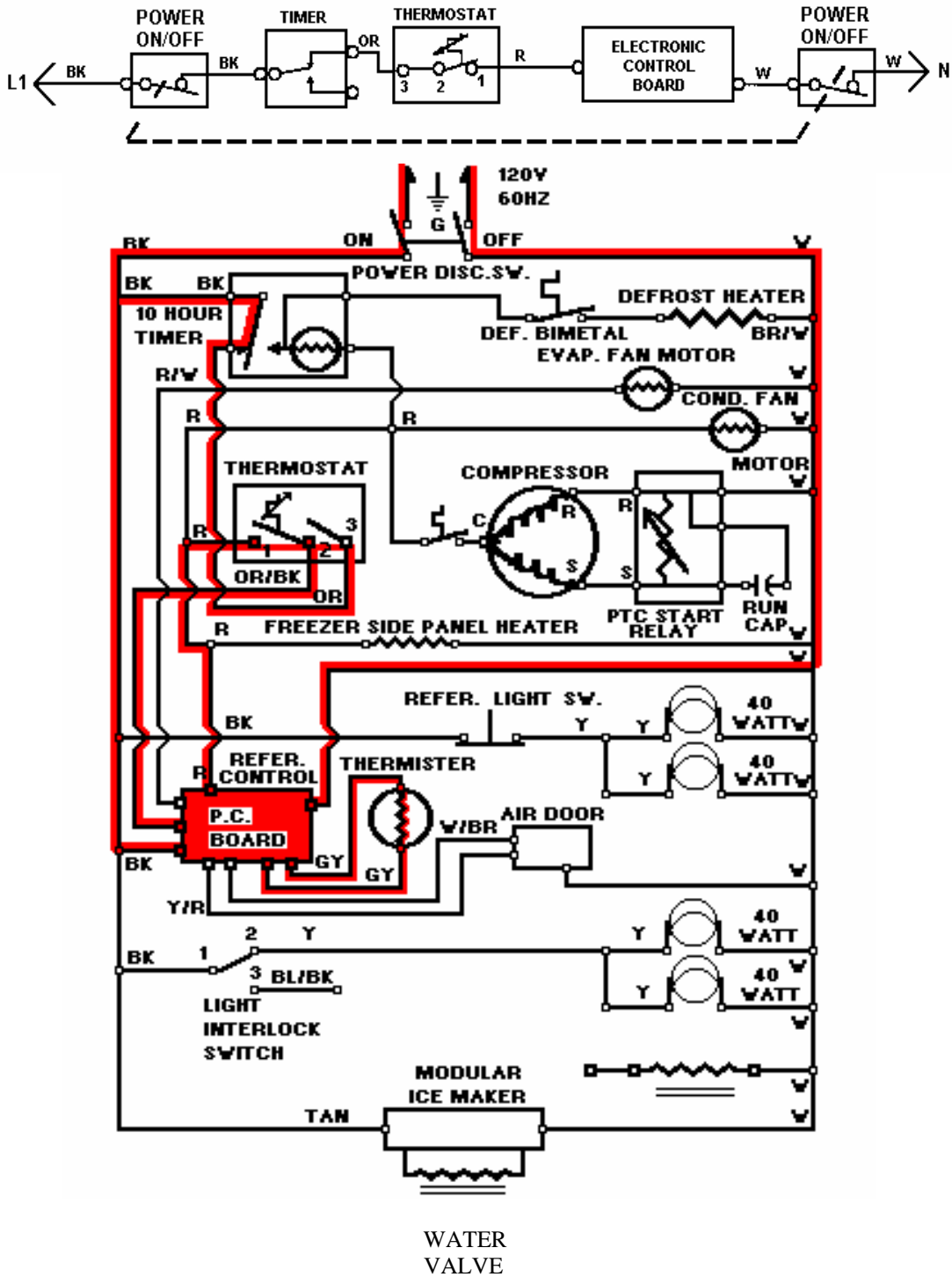


WATER VALVE

VCSB360-420-480 LINE CIRCUIT (#3)

THE COOLING CYCLE

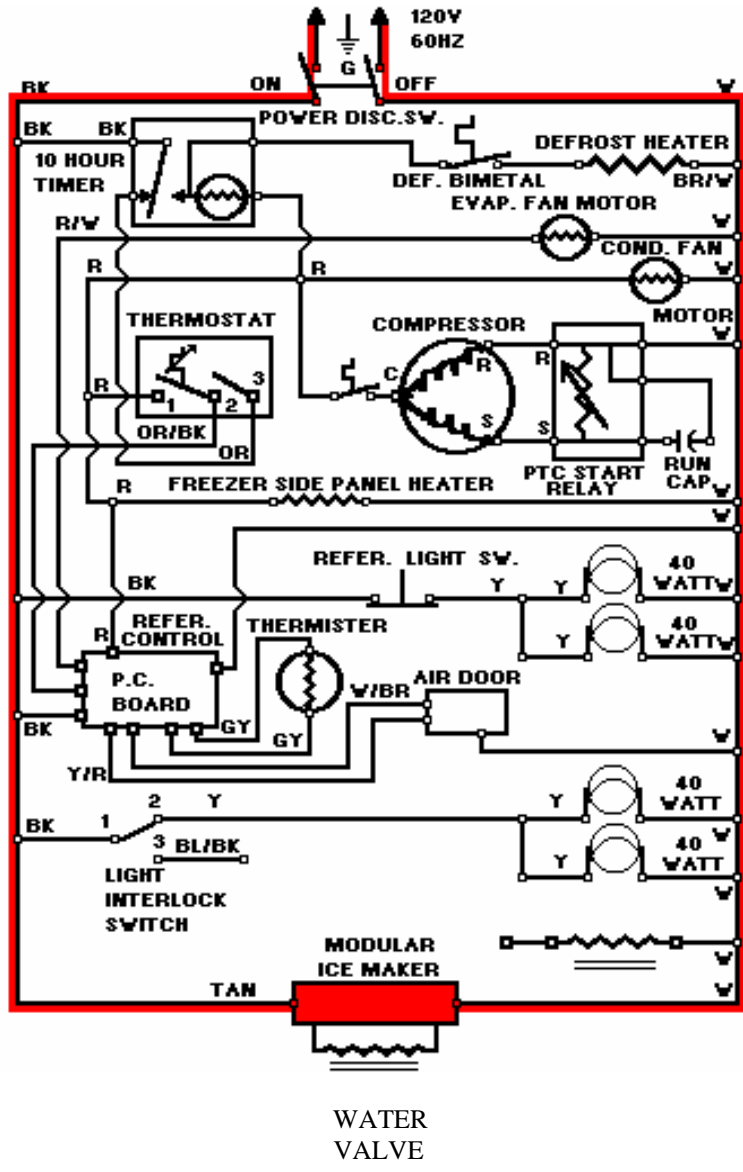
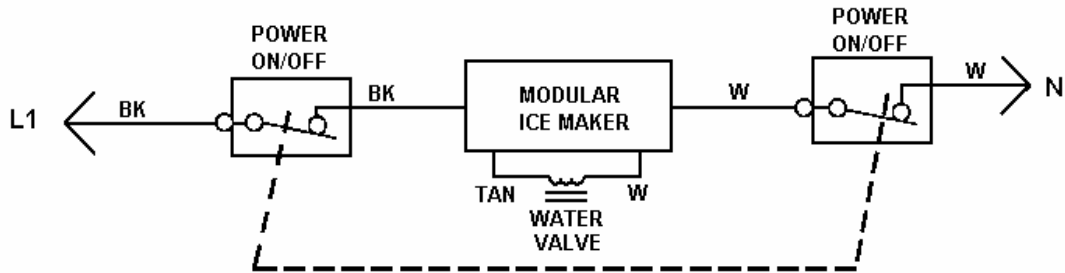
3. Freezer Thermostat Turned On and Calling For Cooling.
 - ◆ COMPRESSOR ON – INPUT SIGNAL TO ELECTRONIC CONTROL BOARD.



VCSB360-420-480
 LINE CIRCUIT (#4)

THE COOLING CYCLE

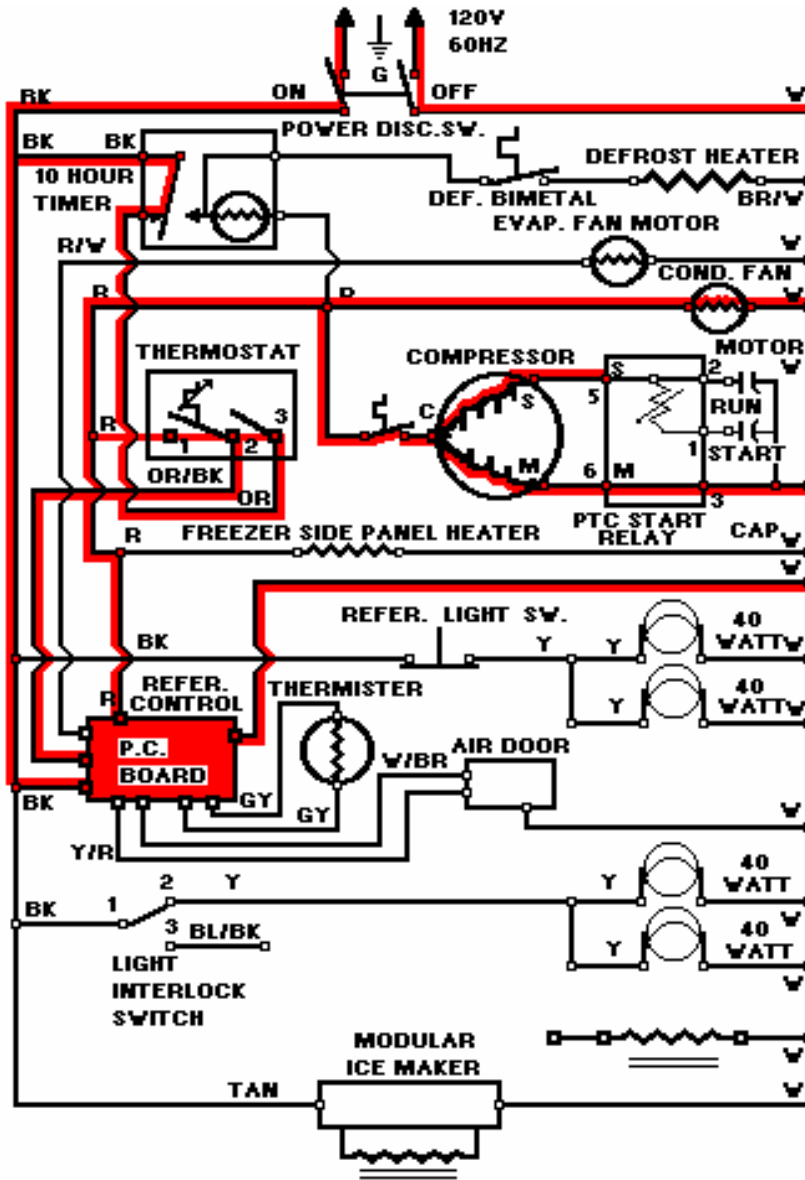
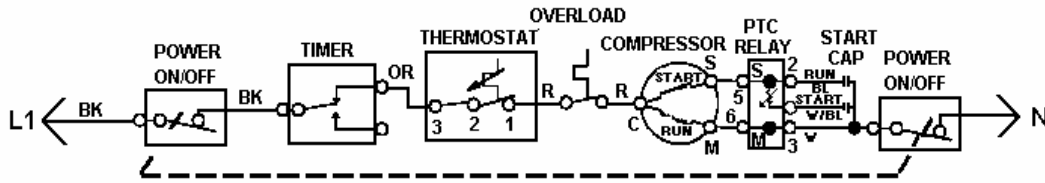
4. Freezer Thermostat Calling for Cooling – Compressor Circuit at Instant Start.



VCSB360-420-480
 LINE CIRCUIT (#5)

THE COOLING CYCLE

5. Freezer Thermostat Turned On and Calling for Cooling – Compressor Circuit During Run.

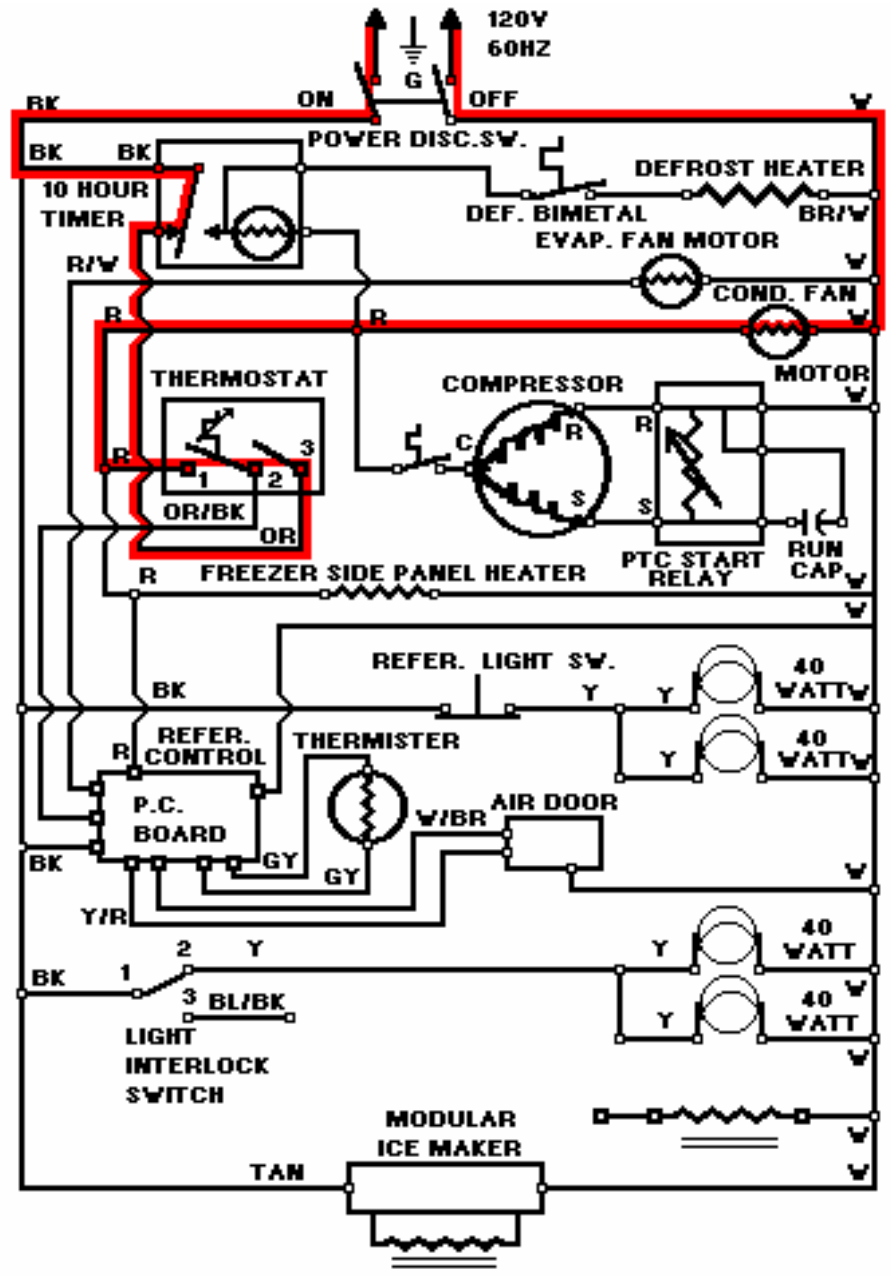
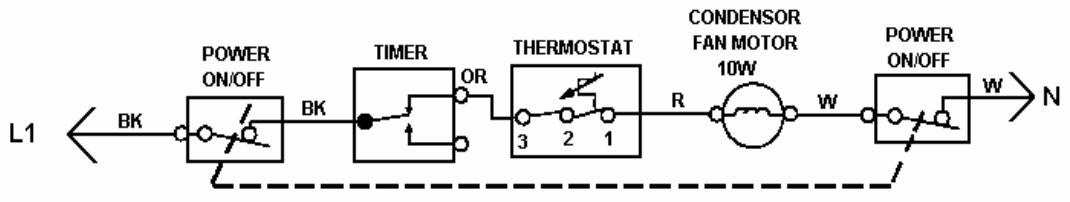


WATER
 VALVE

VCSB360-420-480
LINE CIRCUIT (#6)

THE COOLING CYCLE

6. Freezer Thermostat Calling for Cooling – Condenser Fan Motor Circuit.

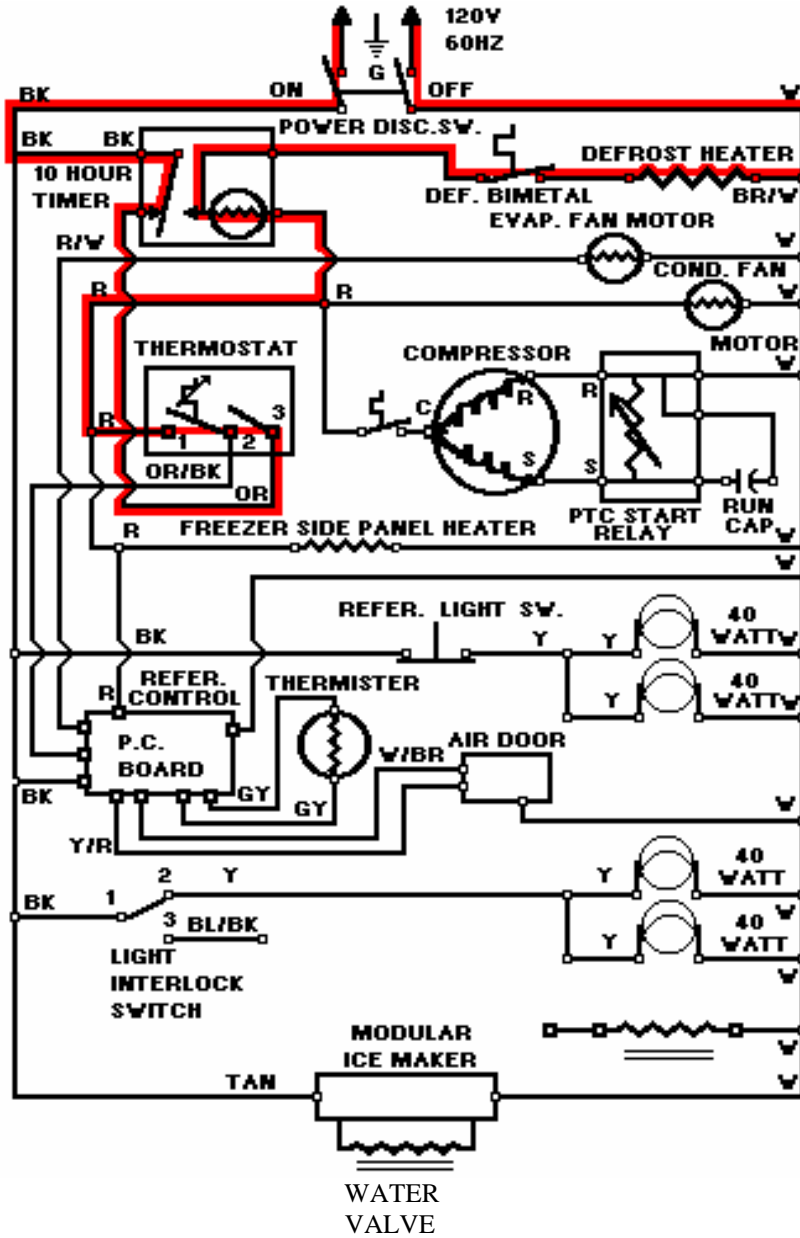
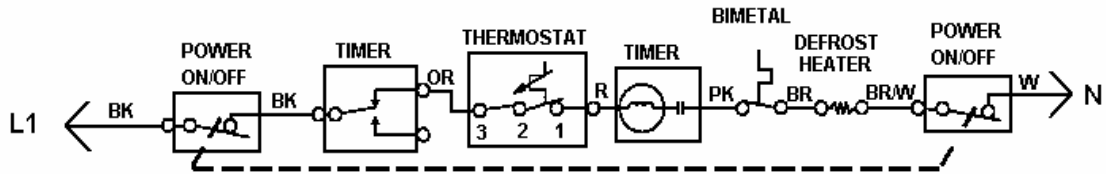


WATER
VALVE

VCSB360-420-480
LINE CIRCUIT (#7)

THE COOLING CYCLE

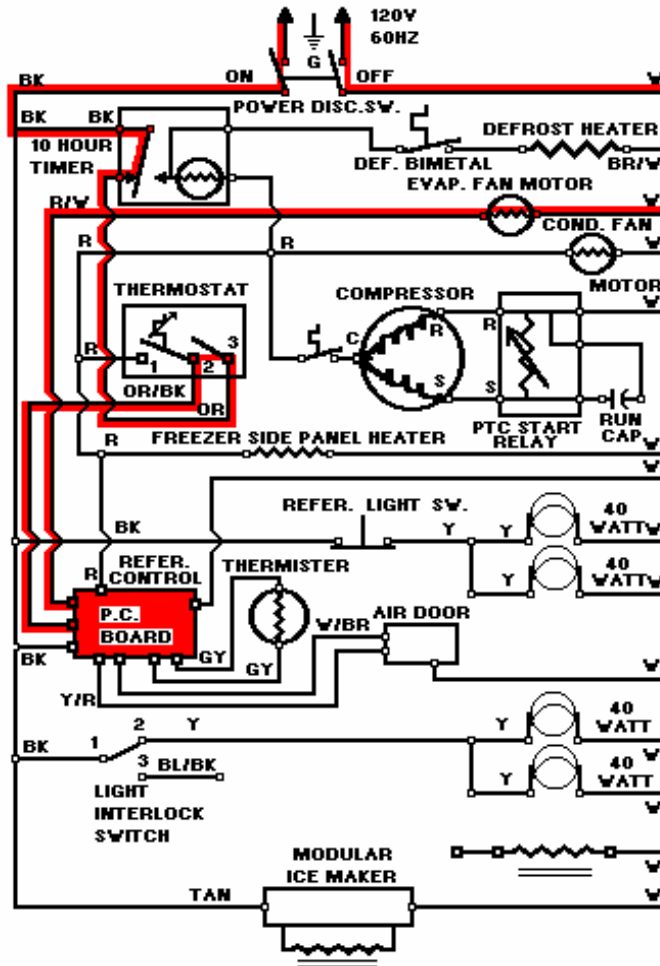
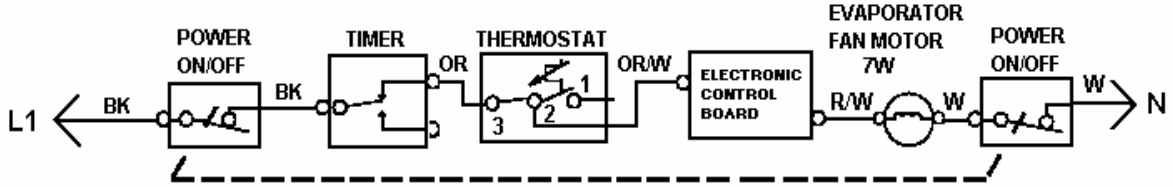
7. Freezer Thermostat Turned On and Calling for Cooling – Defrost Timer Running.



VCSB360-420-480
LINE CIRCUIT (#8)

THE COOLING CYCLE

8. Freezer Thermostat Turned On and Calling For Cooling – Evaporator Fan Motor Circuit.

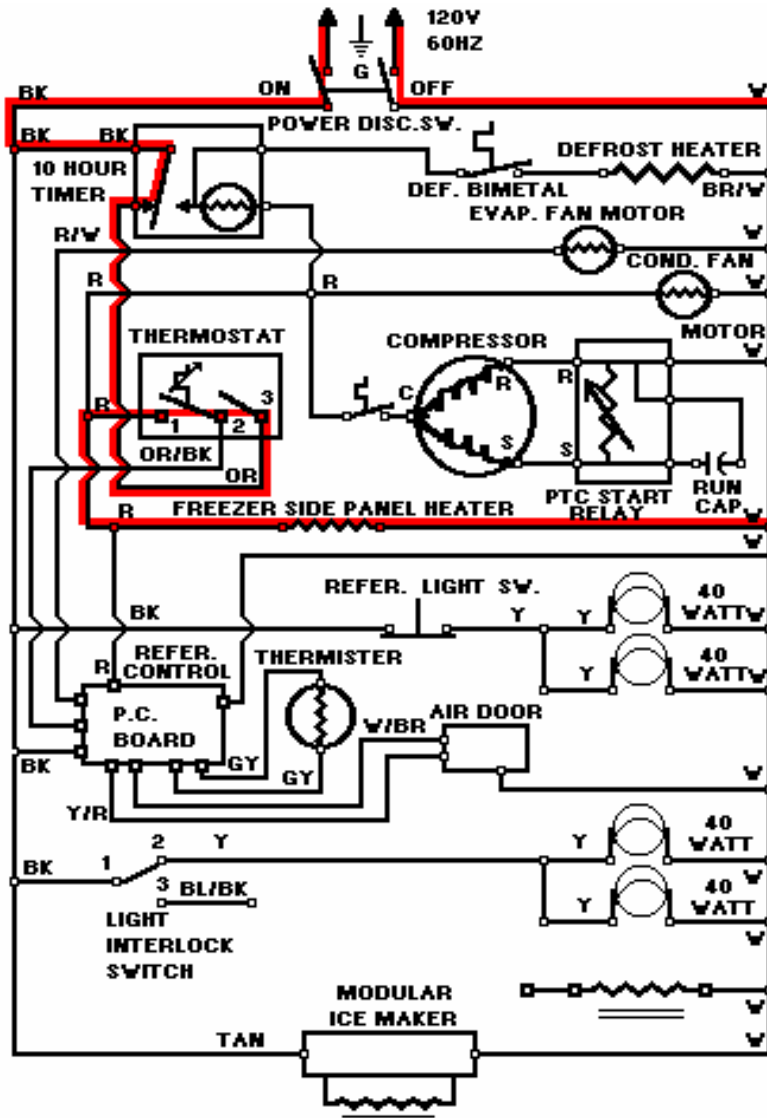
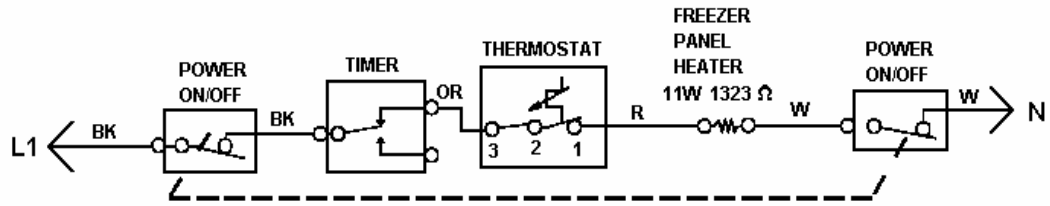


WATER VALVE

VCSB360-420-480
 LINE CIRCUIT (#9)

THE COOLING CYCLE

9. Freezing Thermostat Calling for Cooling – Freezing Side Panel Heater Circuit.

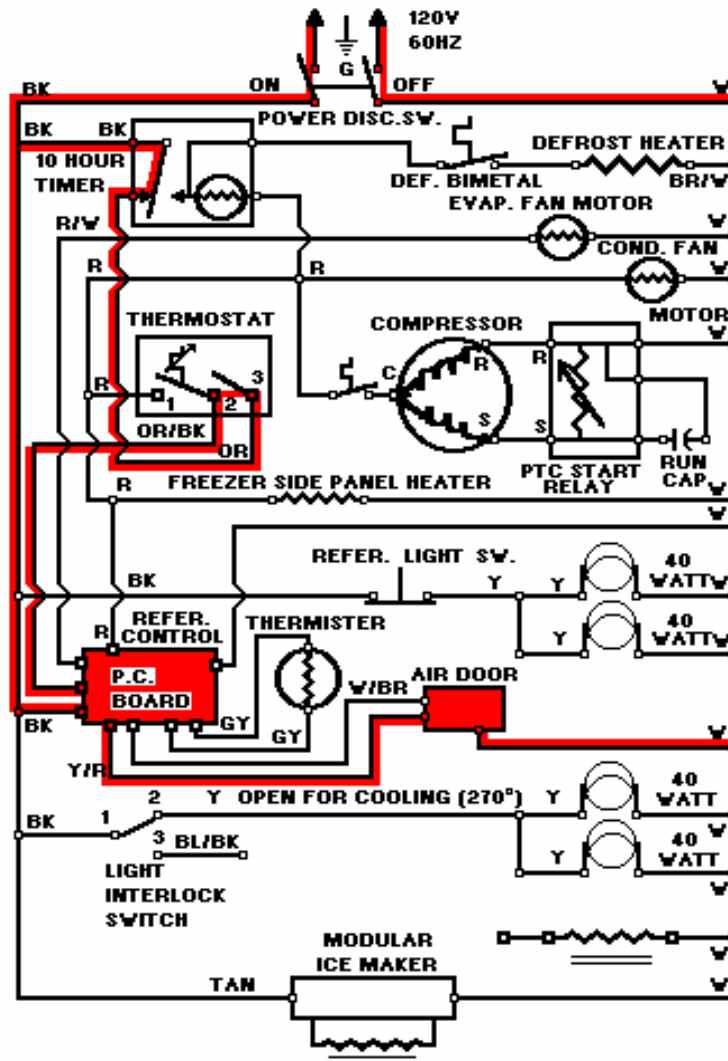
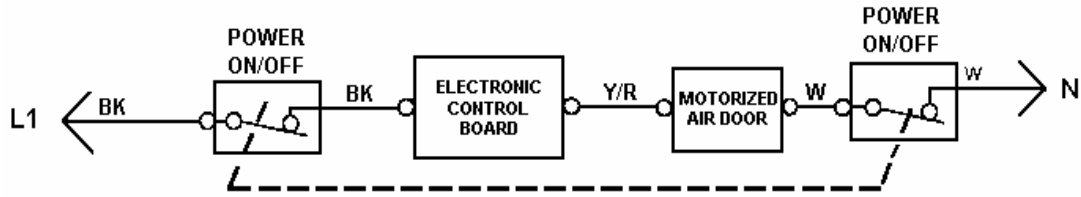


WATER
 VALVE

VCSB360-420-480
 LINE CIRCUIT (#10)

THE COOLING CYCLE

10. Refrigerator Control Calling for Cooling – Motorized Air Door Opening.

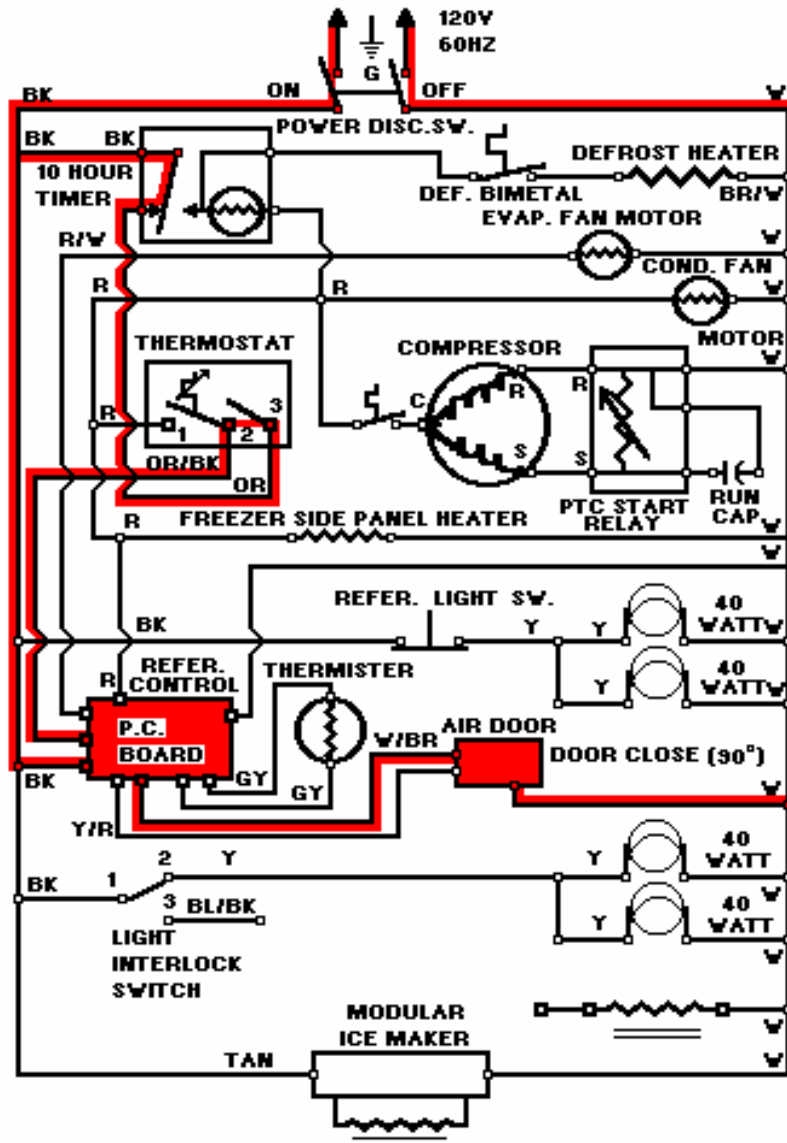
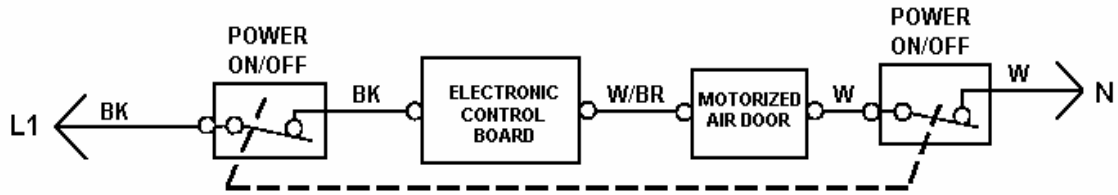


WATER
 VALVE

VCSB360-420-480
LINE CIRCUIT (#11)

THE COOLING CYCLE

11. Refrigerator Control Satisfied – Motorized Air Door Closing.

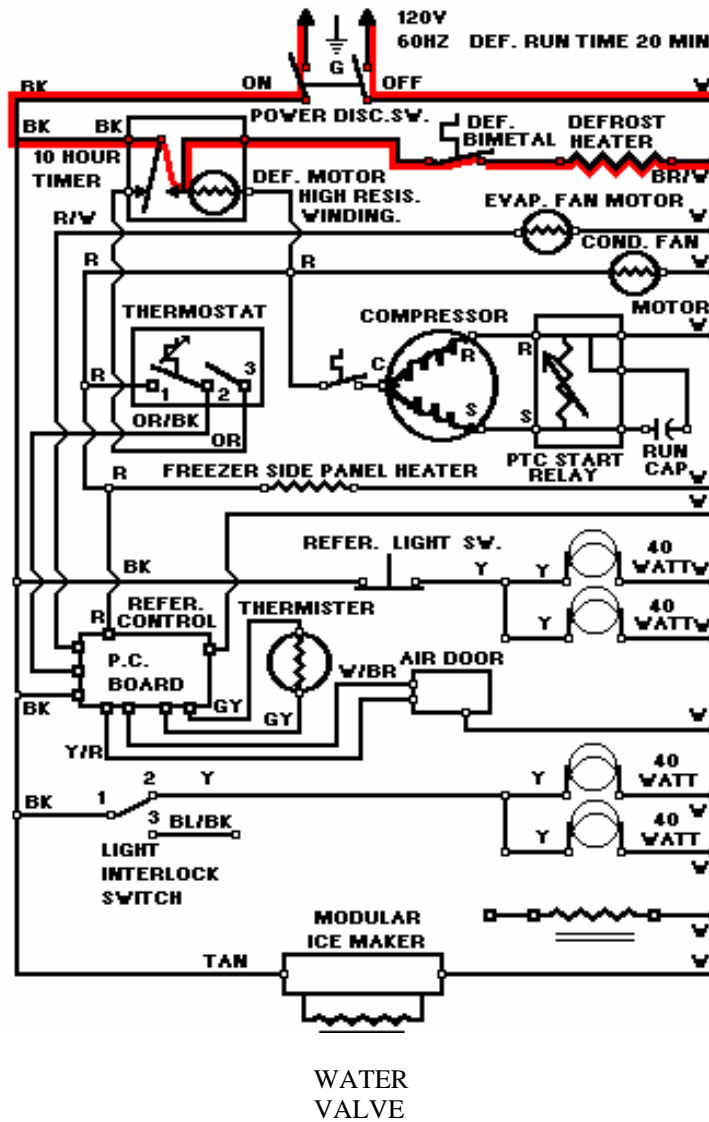
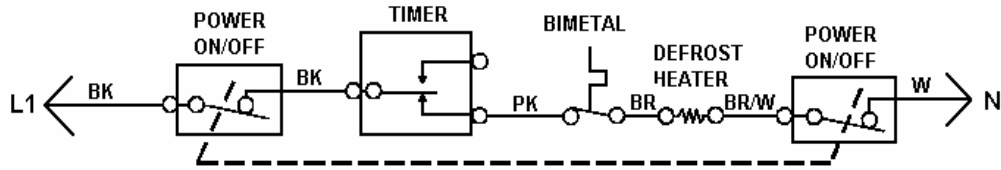


WATER
VALVE

VCSB360-420-480
LINE CIRCUIT (#12)

THE DEFROST CYCLE

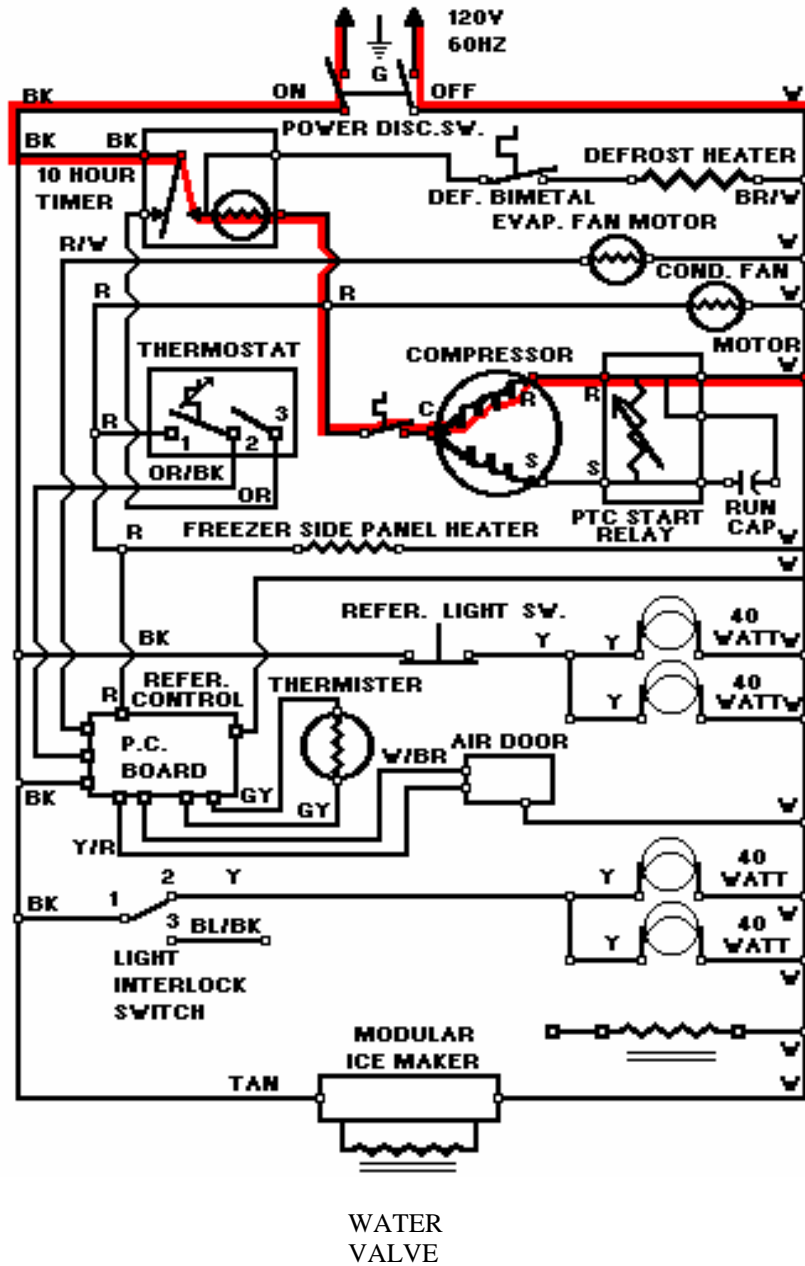
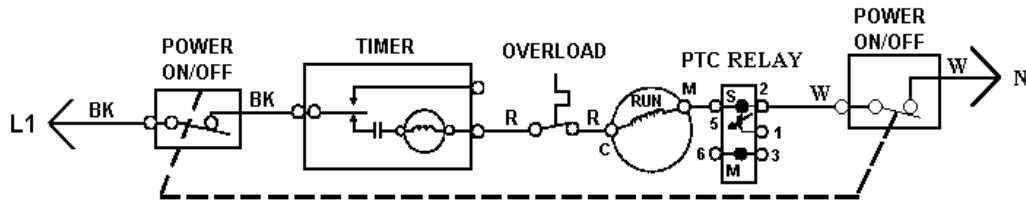
12. Defrost Heater Circuit.



VCSB360-420-480
 LINE CIRCUIT (#13)

THE DEFROST CYCLE

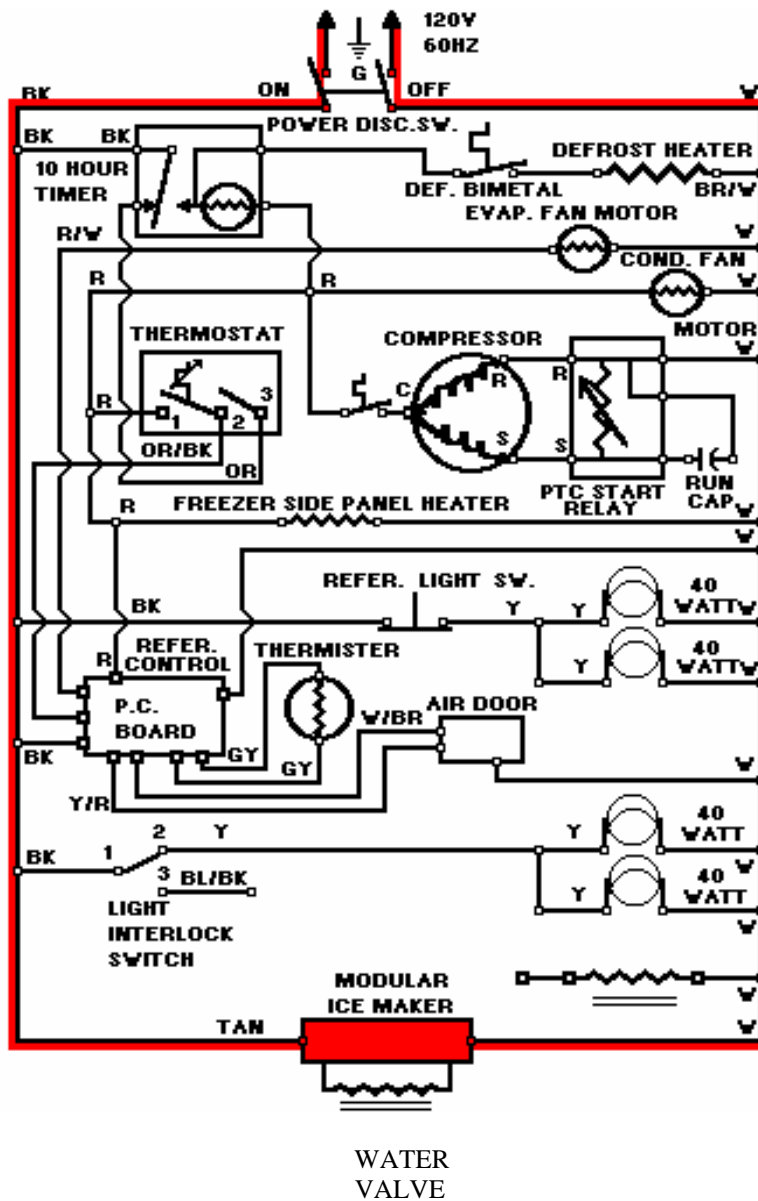
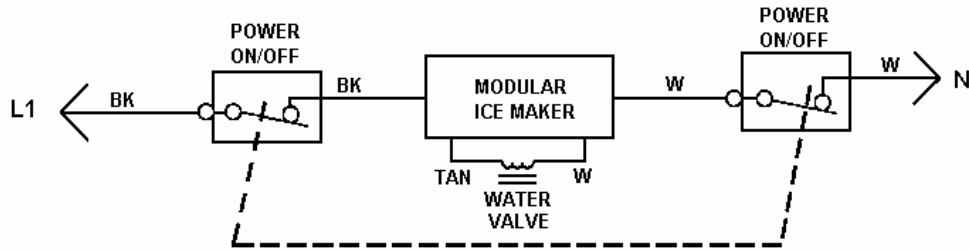
13. Defrost Timer Motor Running.



VCSB360-420-480
 LINE CIRCUIT (#14)

THE DISPENSER CIRCUIT

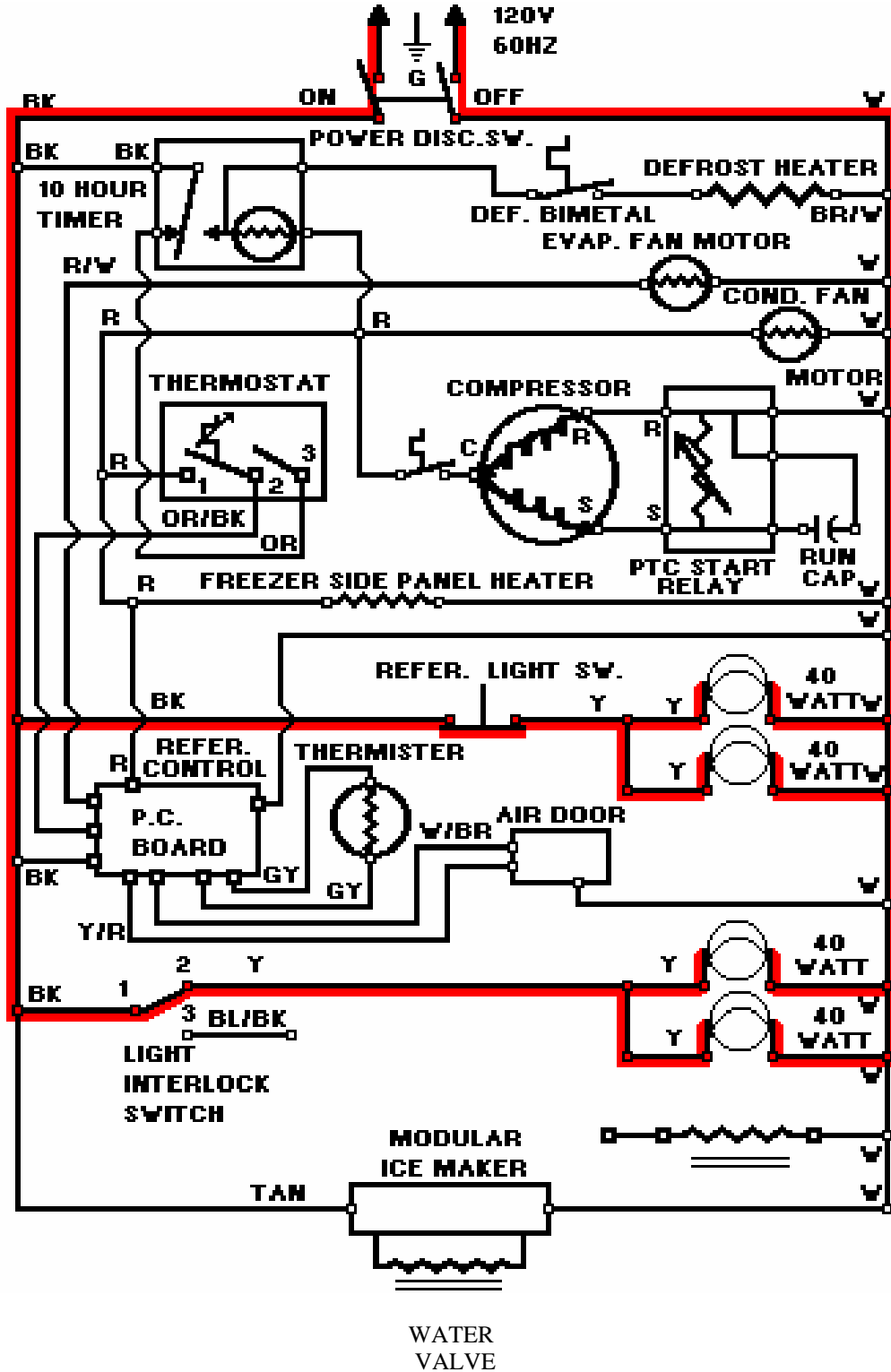
14. Module Ice Maker Circuit.



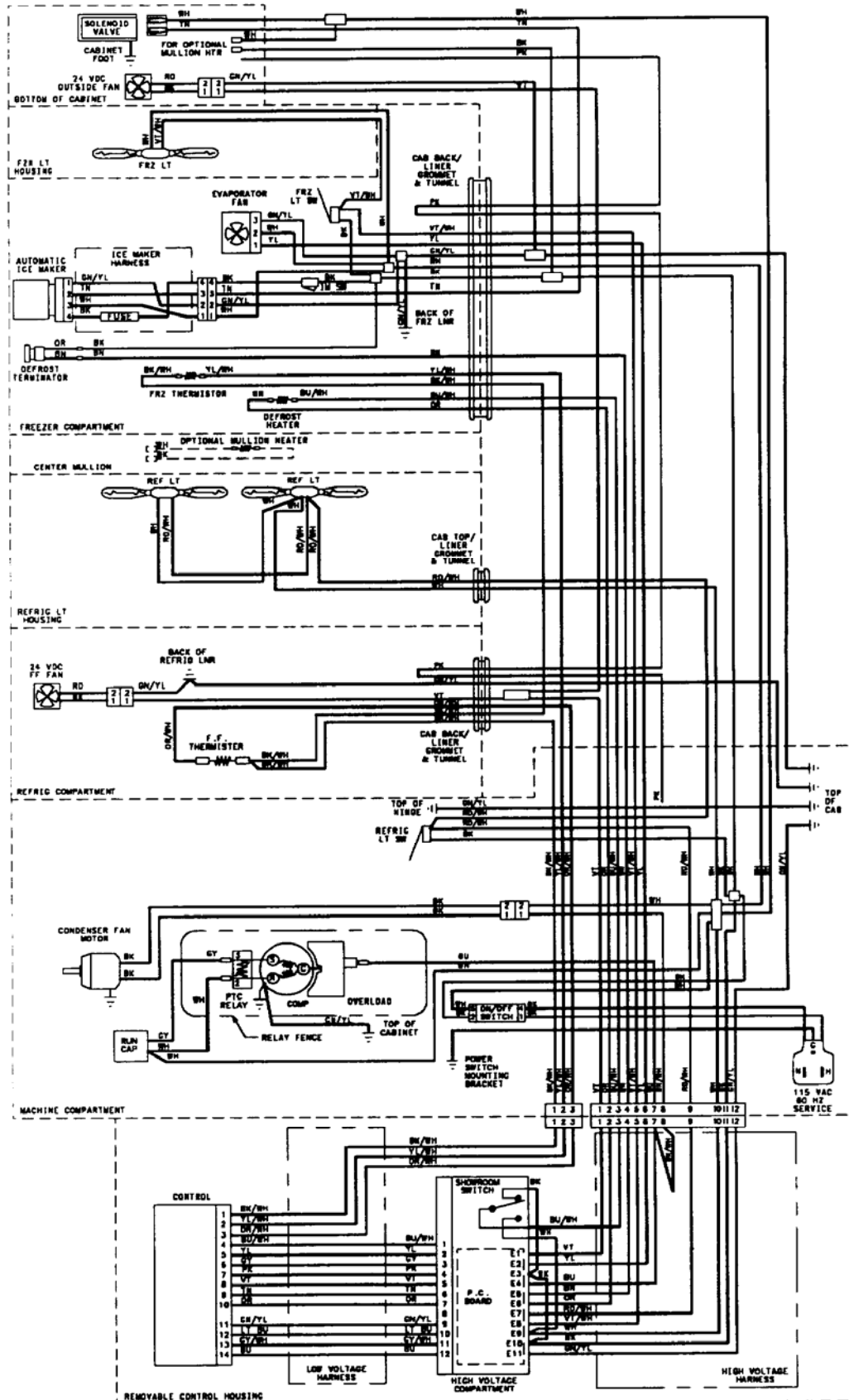
VCSB360-420-480
 LINE CIRCUIT (#15)

REFRIGERATOR AND FREEZER LIGHT CIRCUIT

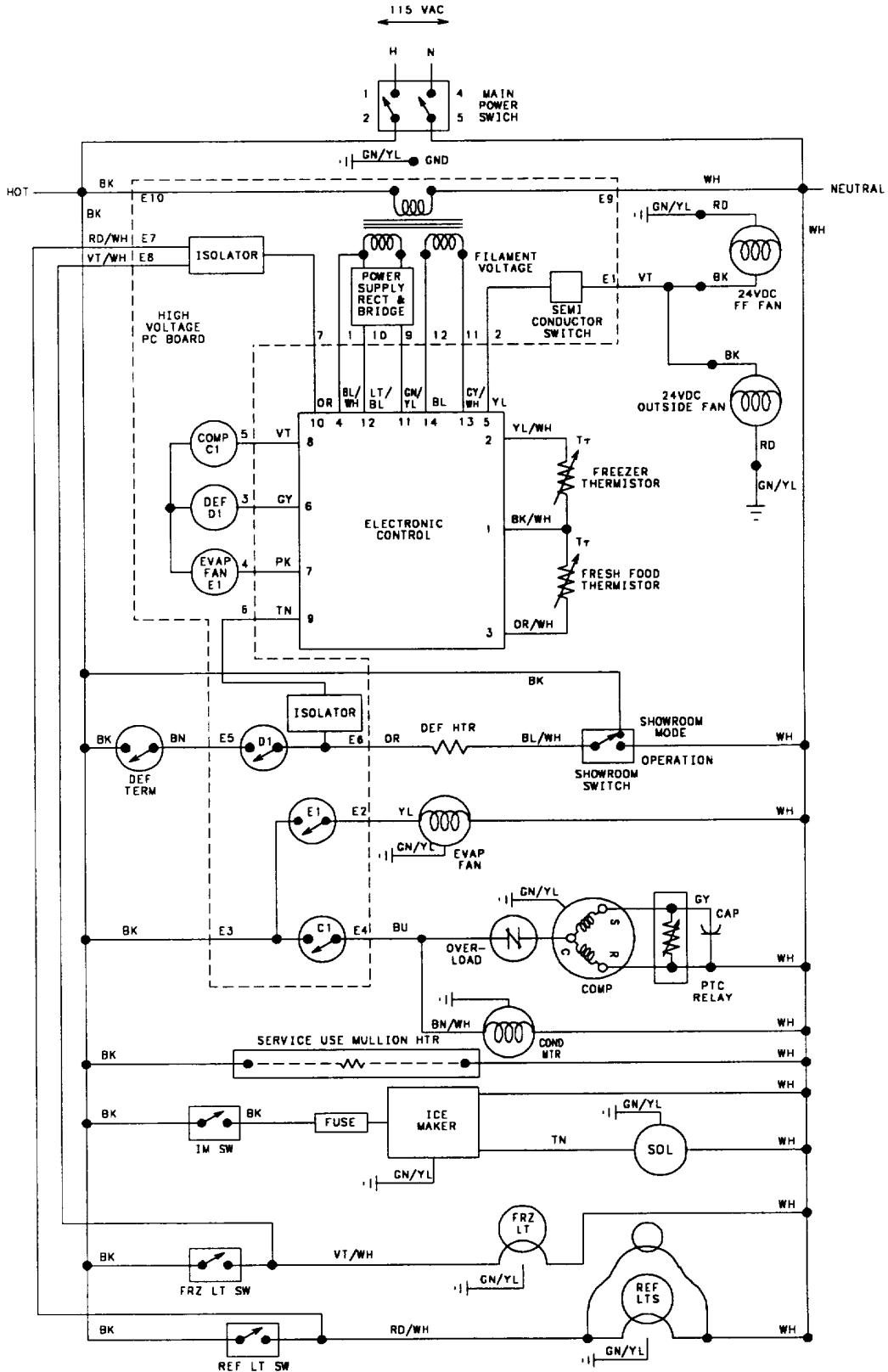
15. Refrigerator and Freezer Light Circuit.



WIRING DIAGRAM VCBB360 REFRIGERATOR /FREEZER



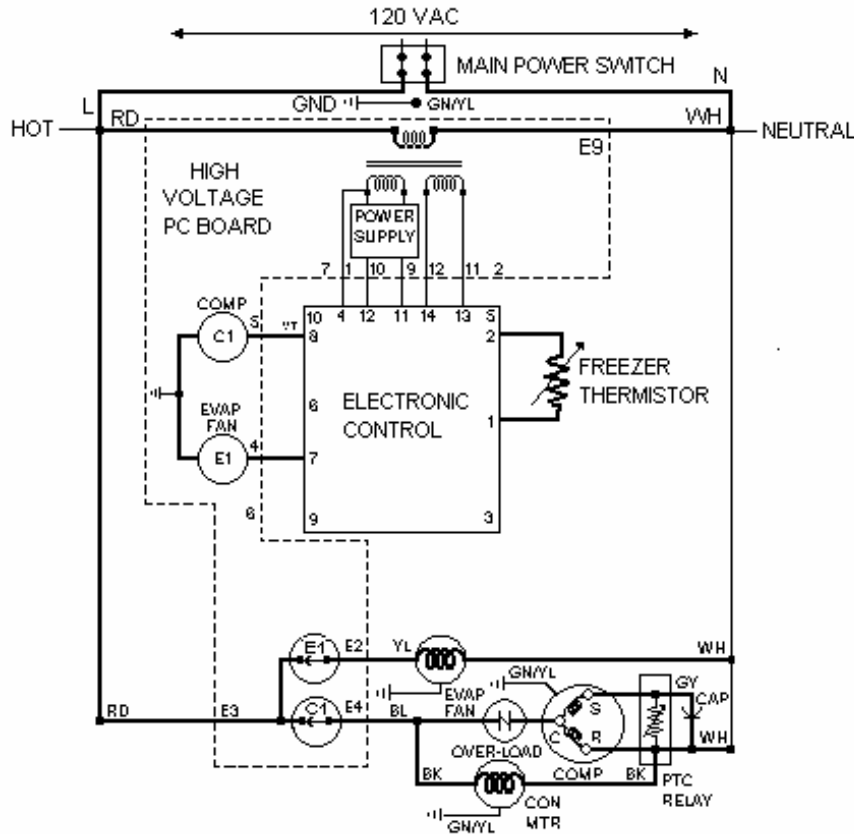
WIRE SCHEMATIC VCBB360 REFRIGERATOR / FREEZER





VCBB360-362 Electronic Function Description

WARNING: To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct grounding and polarization. After servicing, reconnect power using power switch.



Freezer Compartment Theory of Operation

As the freezer thermistor warms, the resistance decreases allowing low voltage to be sent to electronic control. Electronic control sends two low voltage signals, one to the compressor relay coil (C1) and one to the evaporator relay (E1).

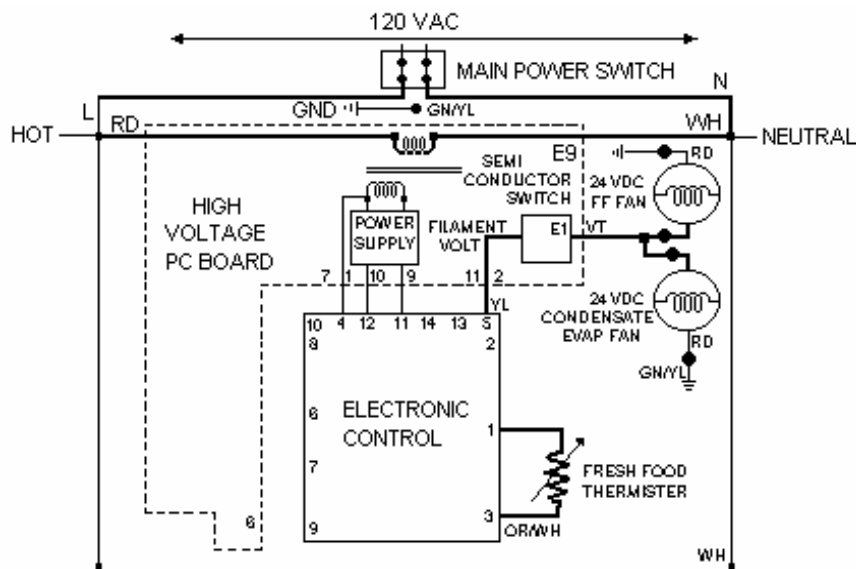
When both relay coils are energized and both relay contacts are closed, high voltage circuits to evaporator fan motor and compressor / condenser fan motors are complete.

As thermistor cools during refrigeration cycle, resistance through thermistor increases blocking low voltage signal to electronic control interrupting circuit.



VCBB360-362 Electronic Function Description

WARNING: To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct grounding and polarization. After servicing, reconnect power using power switch.



Refrigeration Compartment Theory of Operation

As fresh food thermistor warms, resistance decreases allowing low voltage signal to be sent to the electronic control. Electronic control sends a low voltage signal, to semiconductor switch for DC fresh food fan and DC condensate evaporator fan.

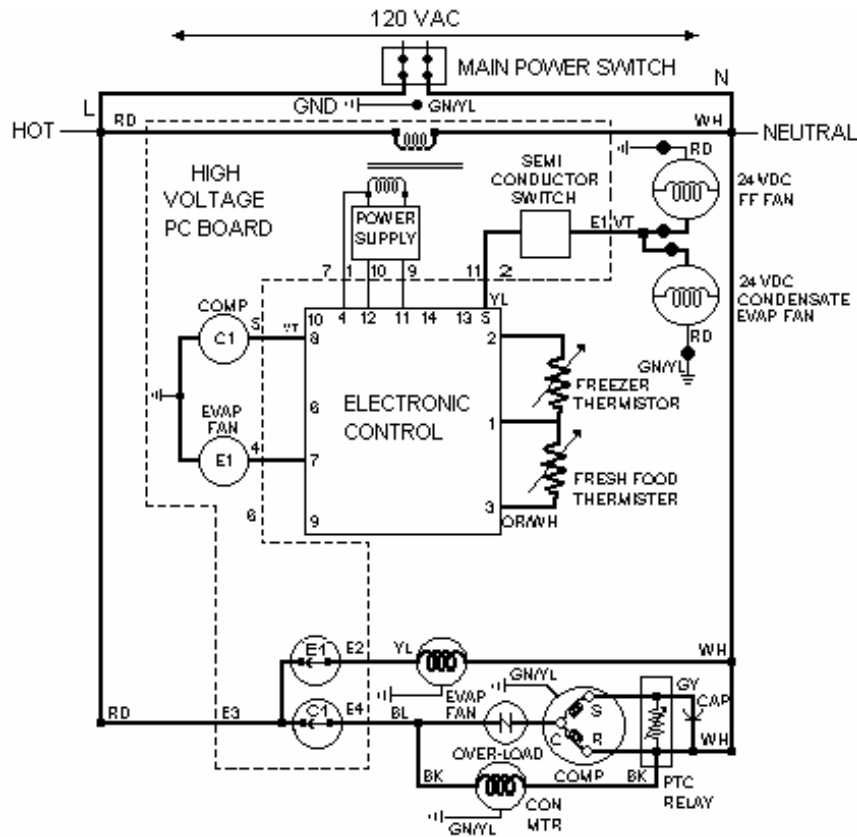
Both fans begin operating. Fresh food fan circulates freezer air into fresh food compartment. Condensate evaporator fan circulates air over condensate drain pan aiding in evaporation.

As fresh food thermistor cools, resistance increases blocking low voltage signal to electronic control interrupting circuit to DC fresh food fan and DC condensate evaporation fan.



VCBB360-362 Electronic Function Description

WARNING: To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct grounding and polarization. After servicing, reconnect power using power switch.



Refrigerator and Freezer Compartment Theory of Operation

If both freezer and fresh food thermistors are warm, their resistance drops (see table Refrigerator and Freezer Thermistor in Temperature Control Section) and the electronic signals for compressor / condenser fan motor operation and for operation of fresh food and condensate evaporator fans.

After freezer thermistor cools sufficiently to raise resistance and block the signal to the electronic control, compressor / condenser fan motor will shut off.

However, fresh food and condensate evaporator fans will continue to run until fresh food thermistor cools and signal is blocked to electronic control.

If fresh food thermistor cools before freezer thermistor, electronic control will interrupt circuit to fresh food and condensate evaporator fans while evaporator fan motor will continue to operate under control of freezer thermistor.

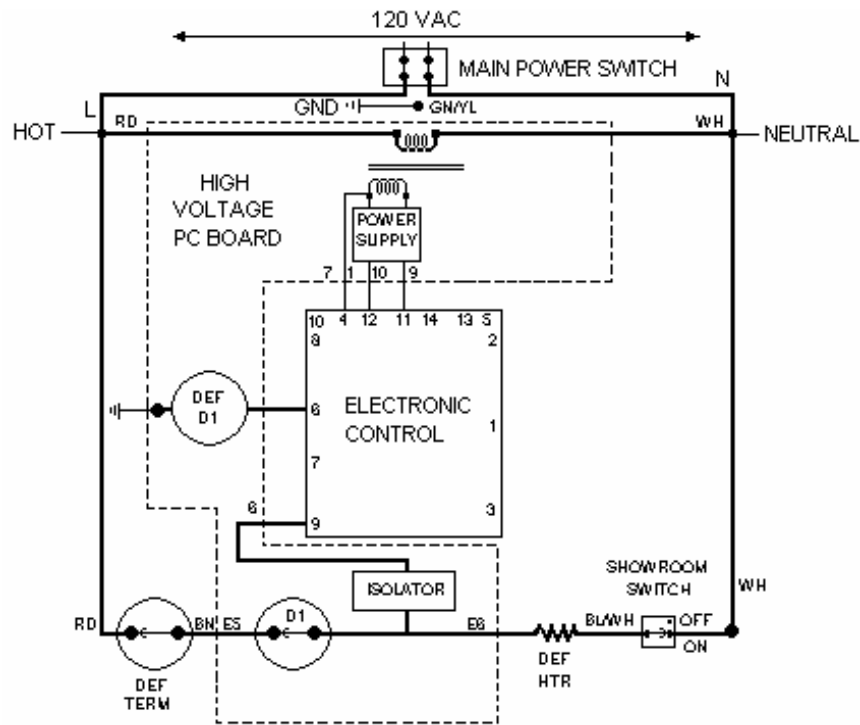


VCBB360-362

Electronic Function Description

WARNING: To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct grounding and polarization. After servicing, reconnect power using power switch.

IMPORTANT: When the showroom switch is OFF, the isolator sees line voltage which keeps the electronic controller from signaling the evaporator fan motor or compressor relay coils and also keeps the fresh food and condensate evaporation fans off.



Adaptive Defrost Theory of Operation

After designated compressor run time, refrigeration cycle is interrupted and electronic control sends a low voltage signal to defrost relay coil (def D1).

Powering the relay coil closes contact (D1) completing high voltage circuit to defrost heater through closed defrost terminator (closes at 15 F).

Isolator, which is part of high voltage PC board, recognizes presence of line voltage to defrost heater and sends low voltage signal to electronic control.

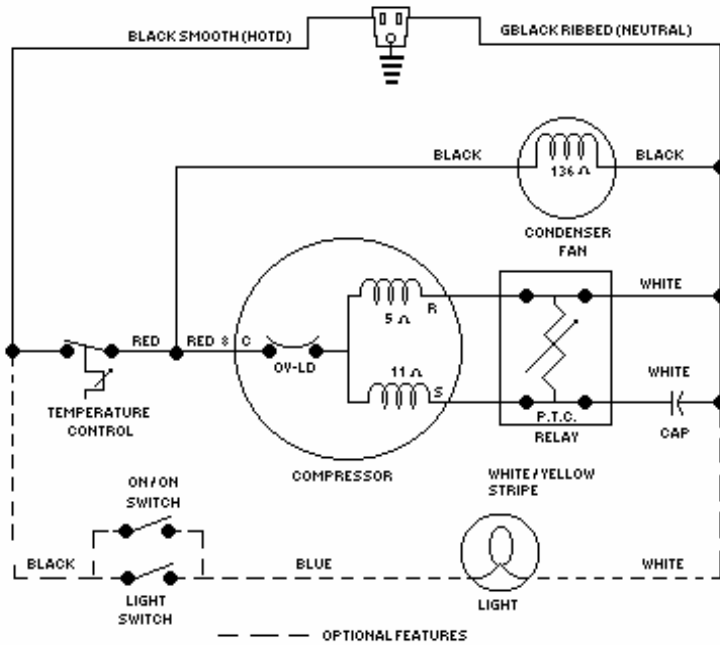
Electronic control keeps count of number of minutes, defrost terminator remains closed (opens at 48 F).

Length of time defrost terminator is closed determines if the next defrost cycle advances by 4 hours of compressor run, stays at the same interval, or delays by 4 hours of compressor run.

If defrost terminator does not open before 29 minutes, defrost cycle is automatically terminated by electronic control and refrigeration cycles will resume after 6 minutes dwell time.

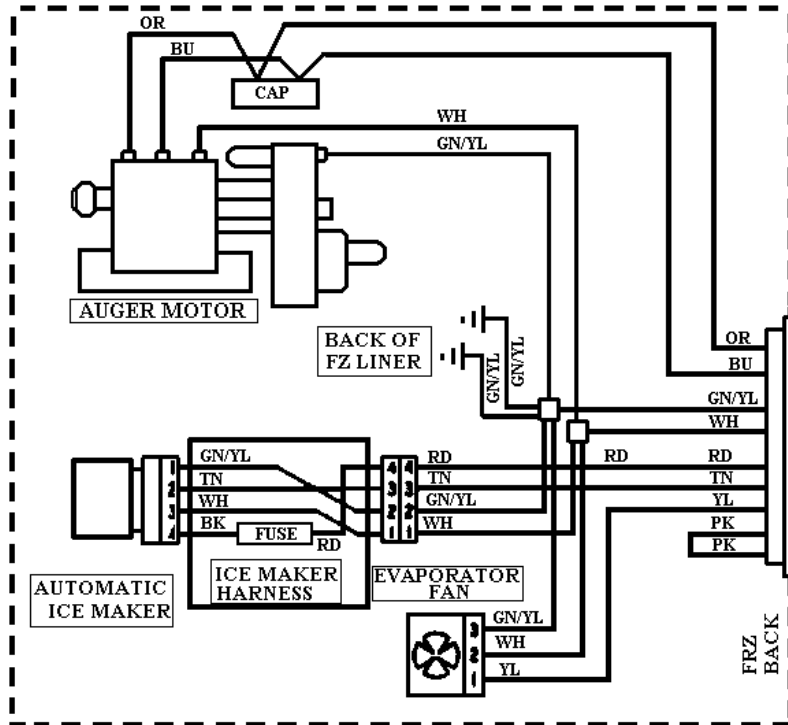
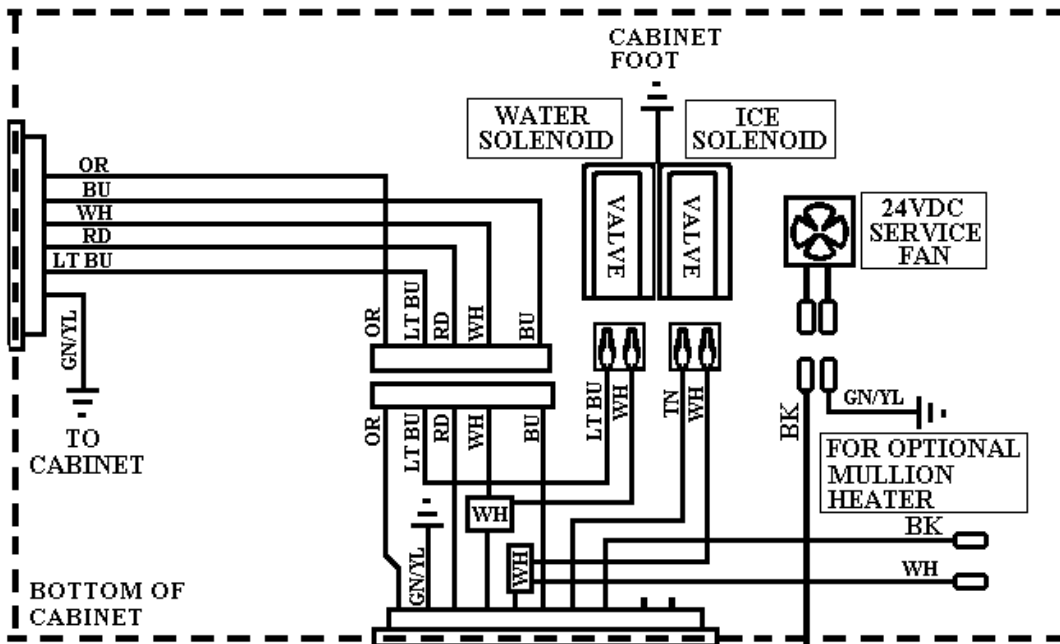
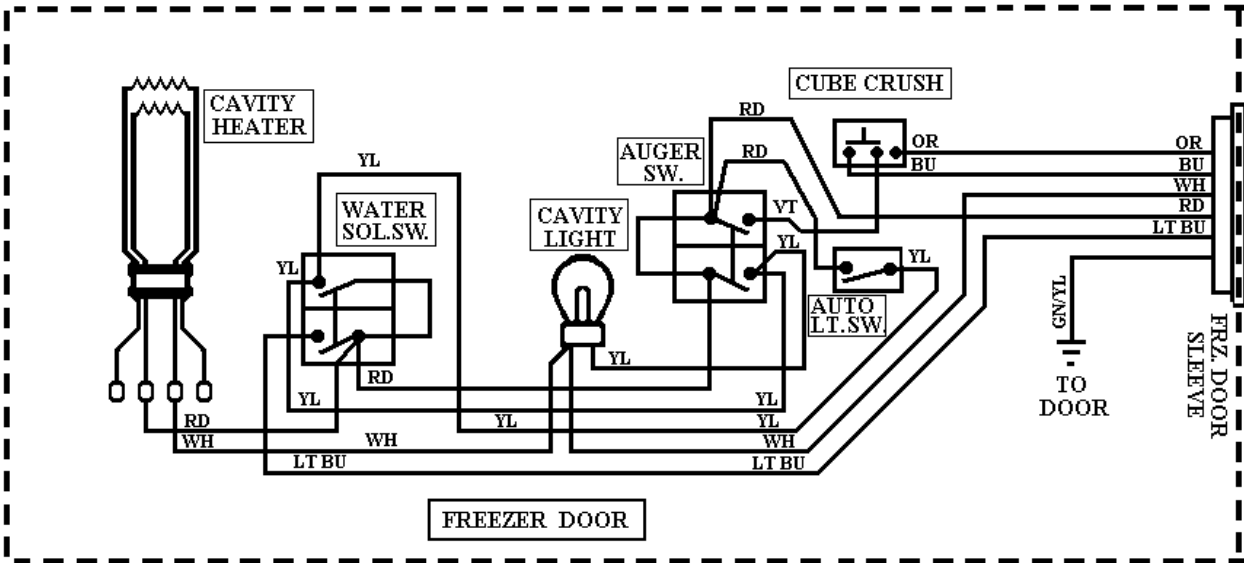
VUAR-VUWC
 WIRING DIAGRAM

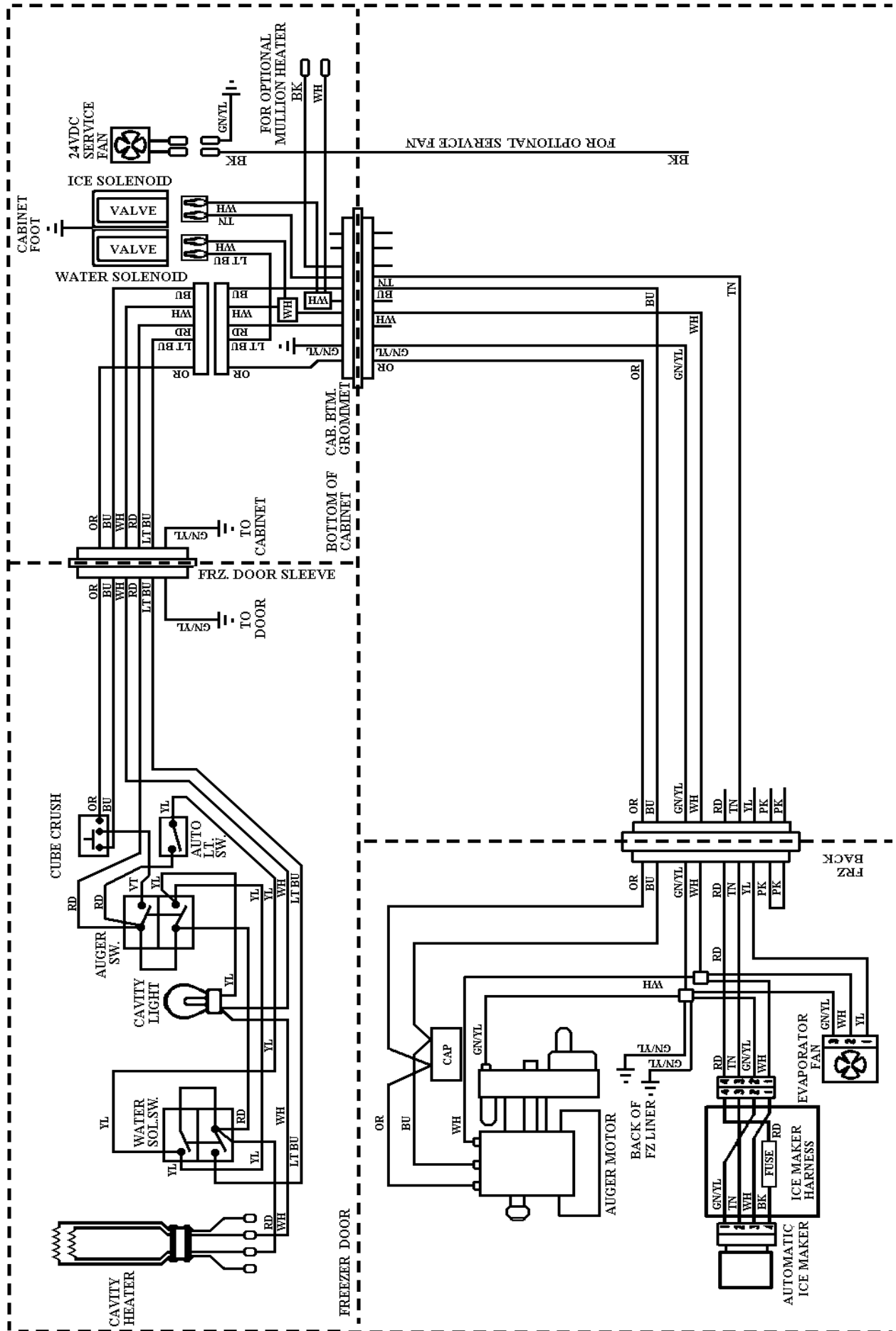
UNDERCOUNTER 24" W. REFERATOR



WARNING: ELECTRICAL GROUNDING INSTRUCTIONS.

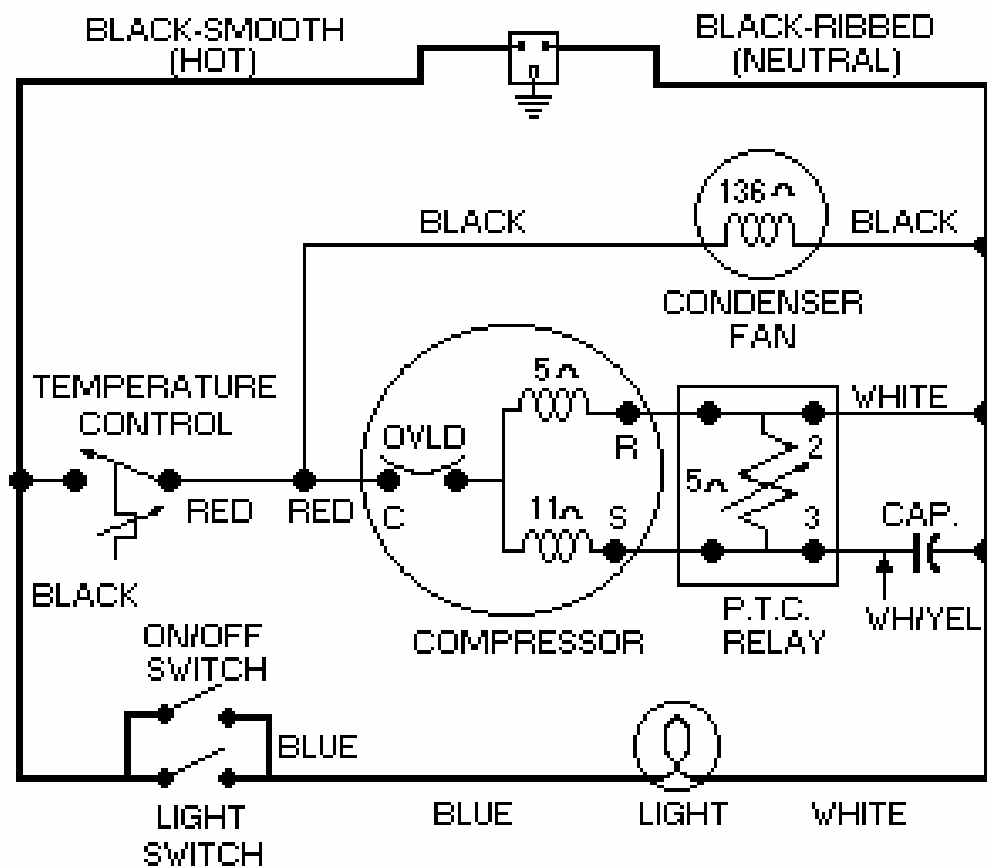
This appliance is equipped with a three prong grounding plug for your protection against shock hazard and should be plugged directly into a properly grounded three prong receptacle. Do not cut or remove the grounding prong from this plug.





WIRING DIAGRAM

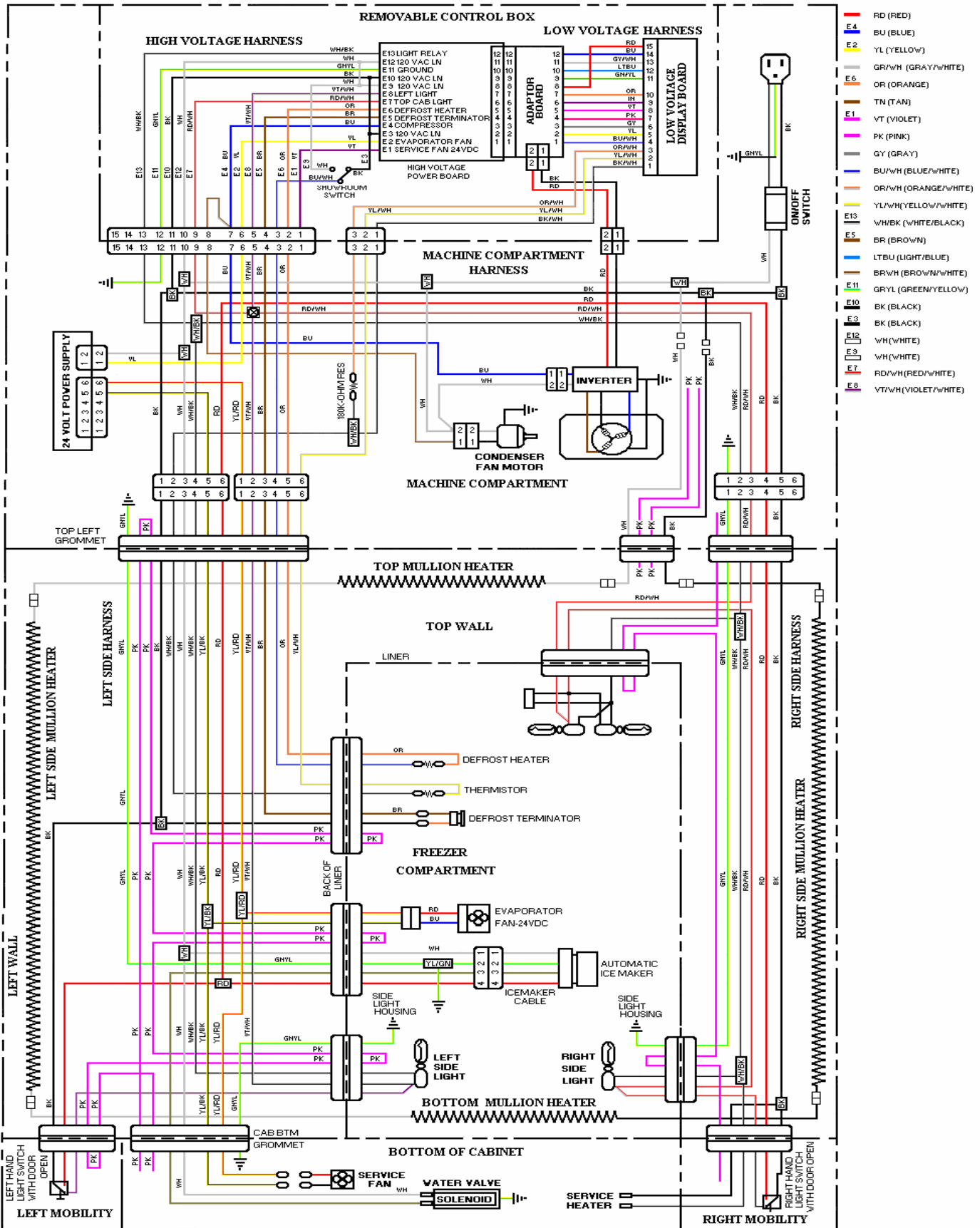
24" Wide Wine Cooler
VUAR-VUWC



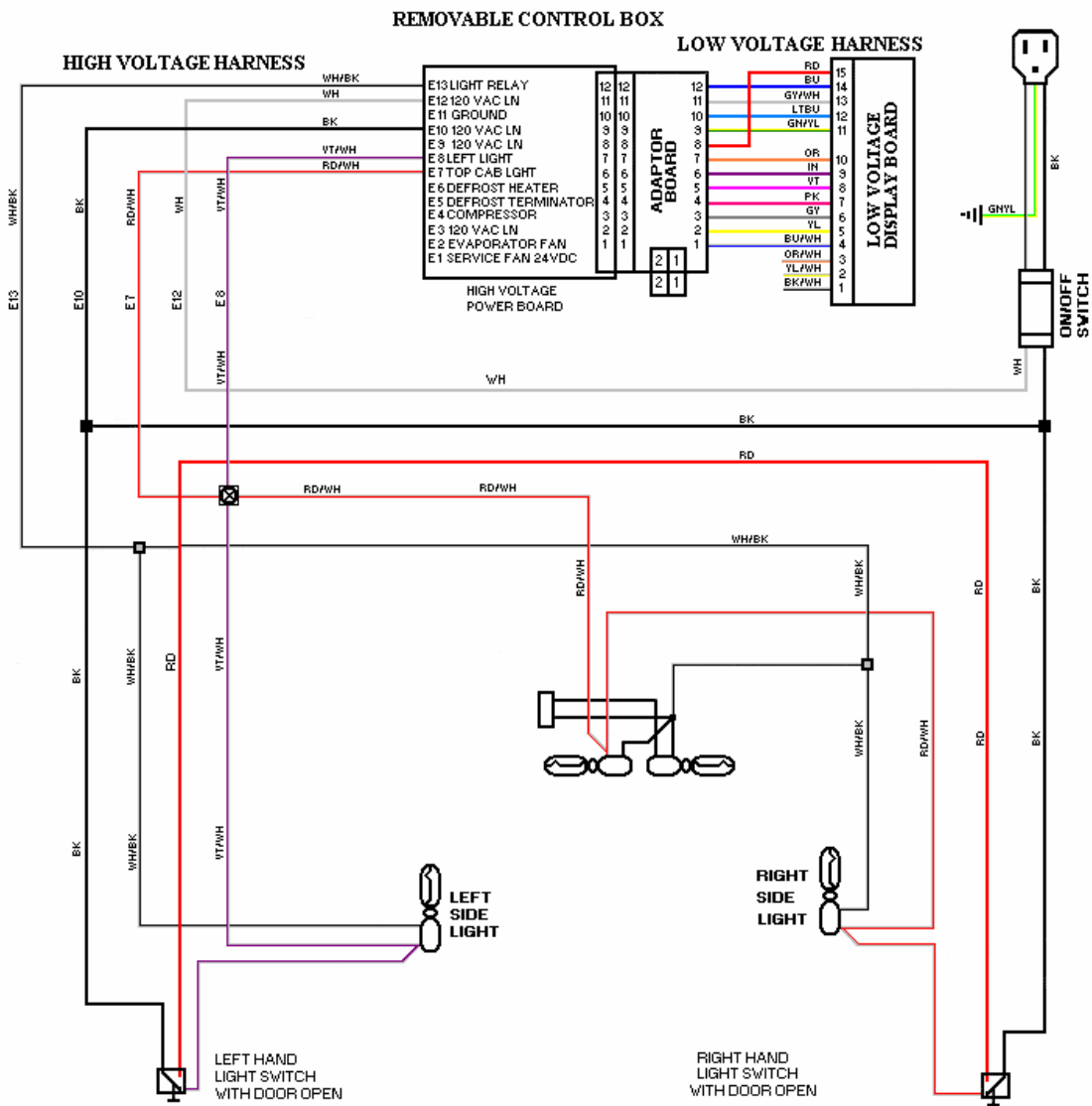
WARNING: ELECTRICAL GROUNDING INSTRUCTIONS

This appliance is equipped with a three prong grounding plug for your protection against shock hazard and should be plugged directly into a properly grounded three prong receptacle. Do not cut or remove the grounding prong from this plug.

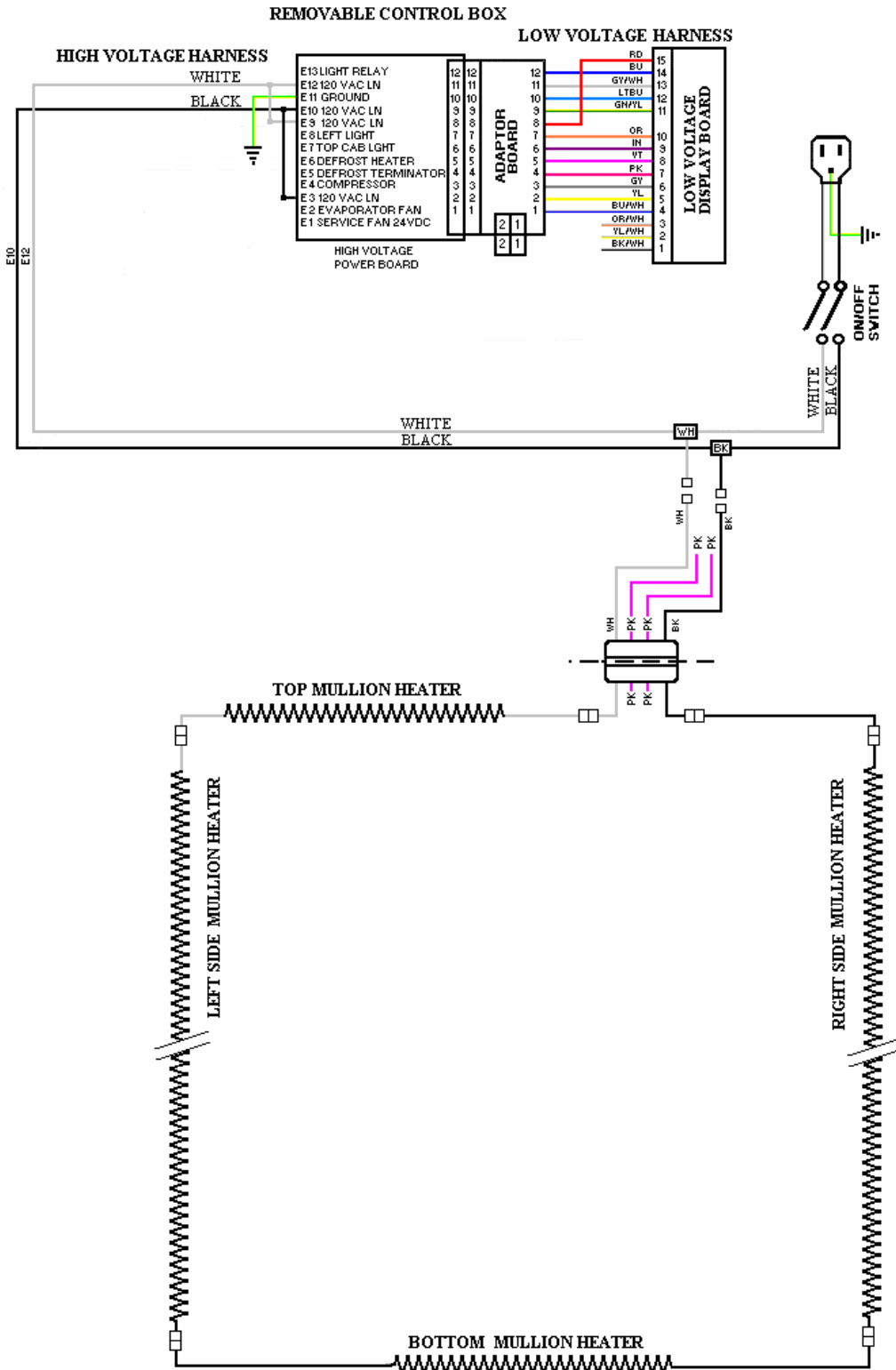
Wiring Schematic 30" W. All Freezer



AF 30 LIGHT CIRCUITS

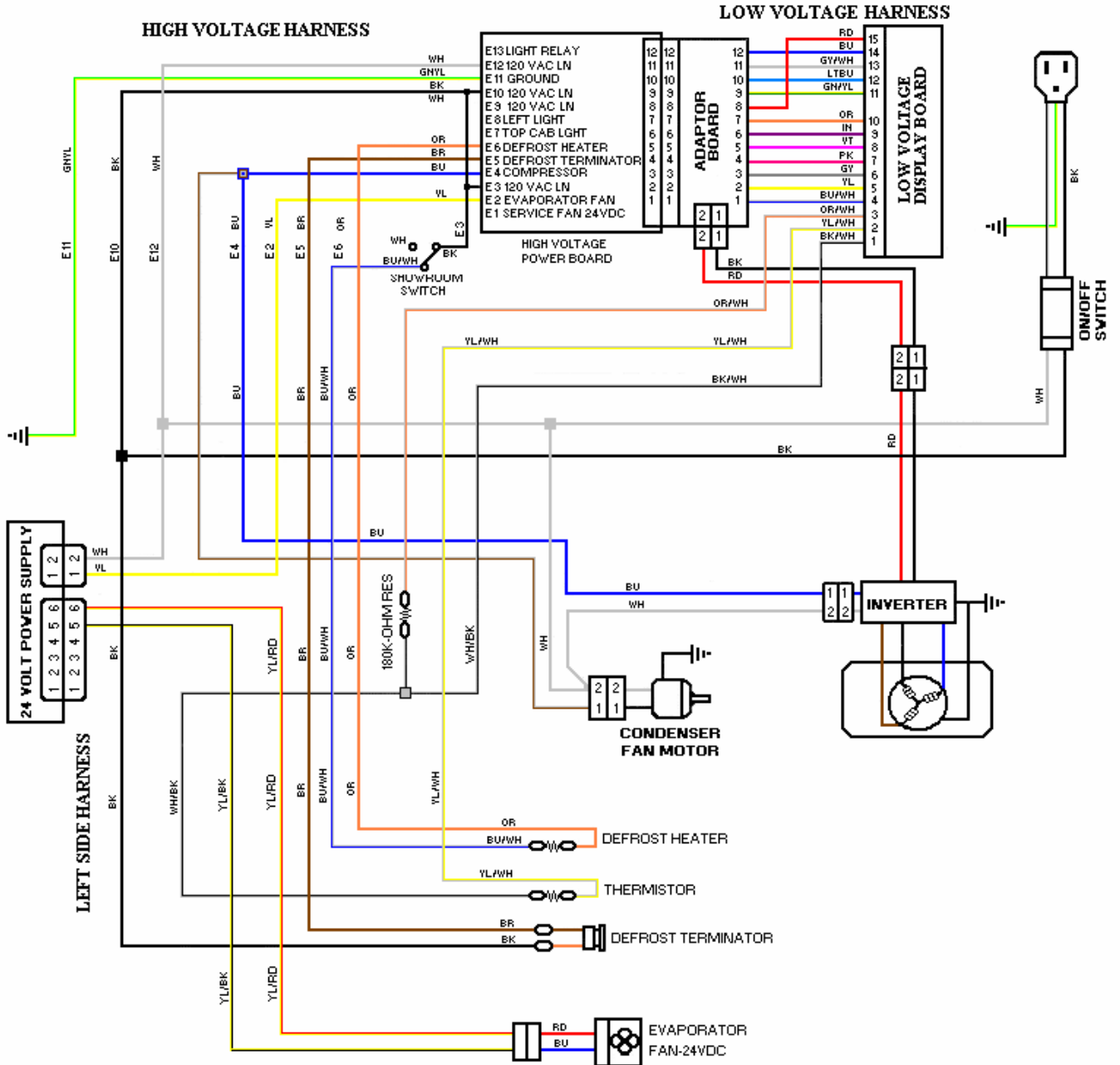


AF 30 120V CIRCUIT

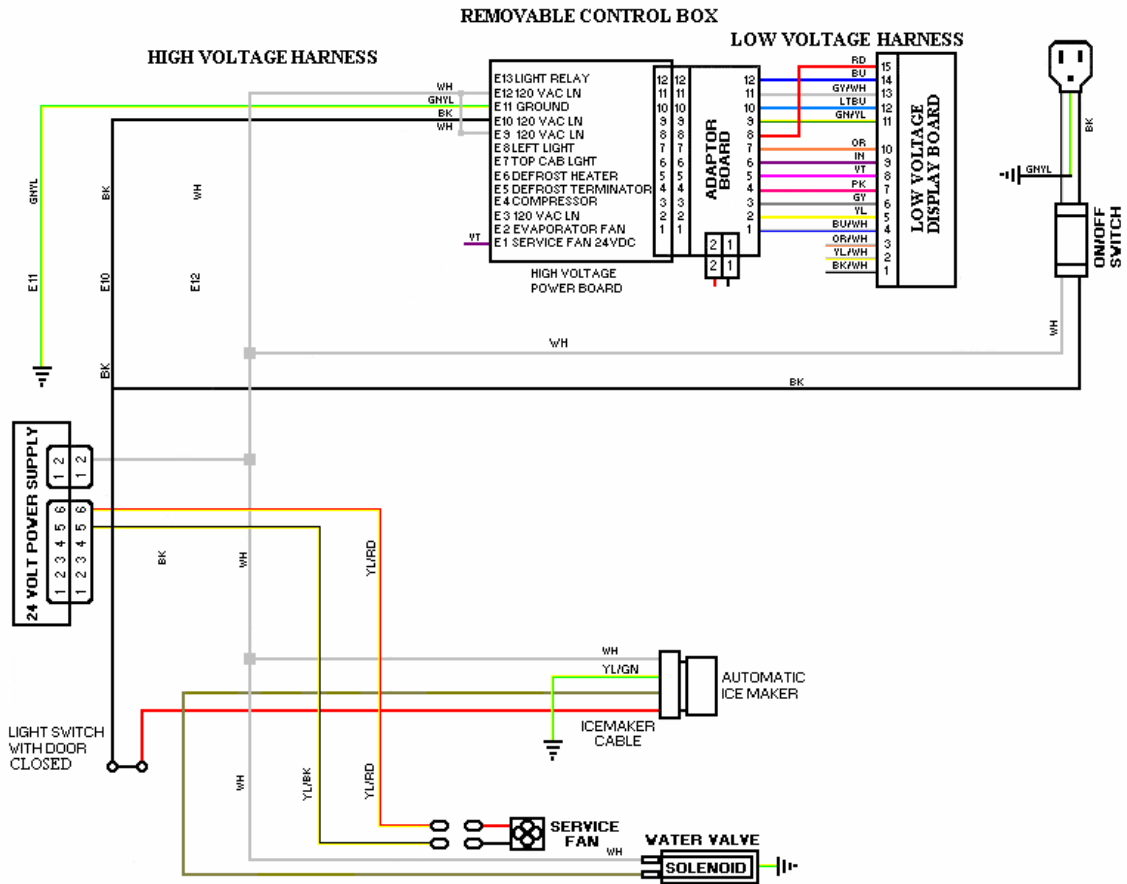


AF 30 SEALED SYSTEM

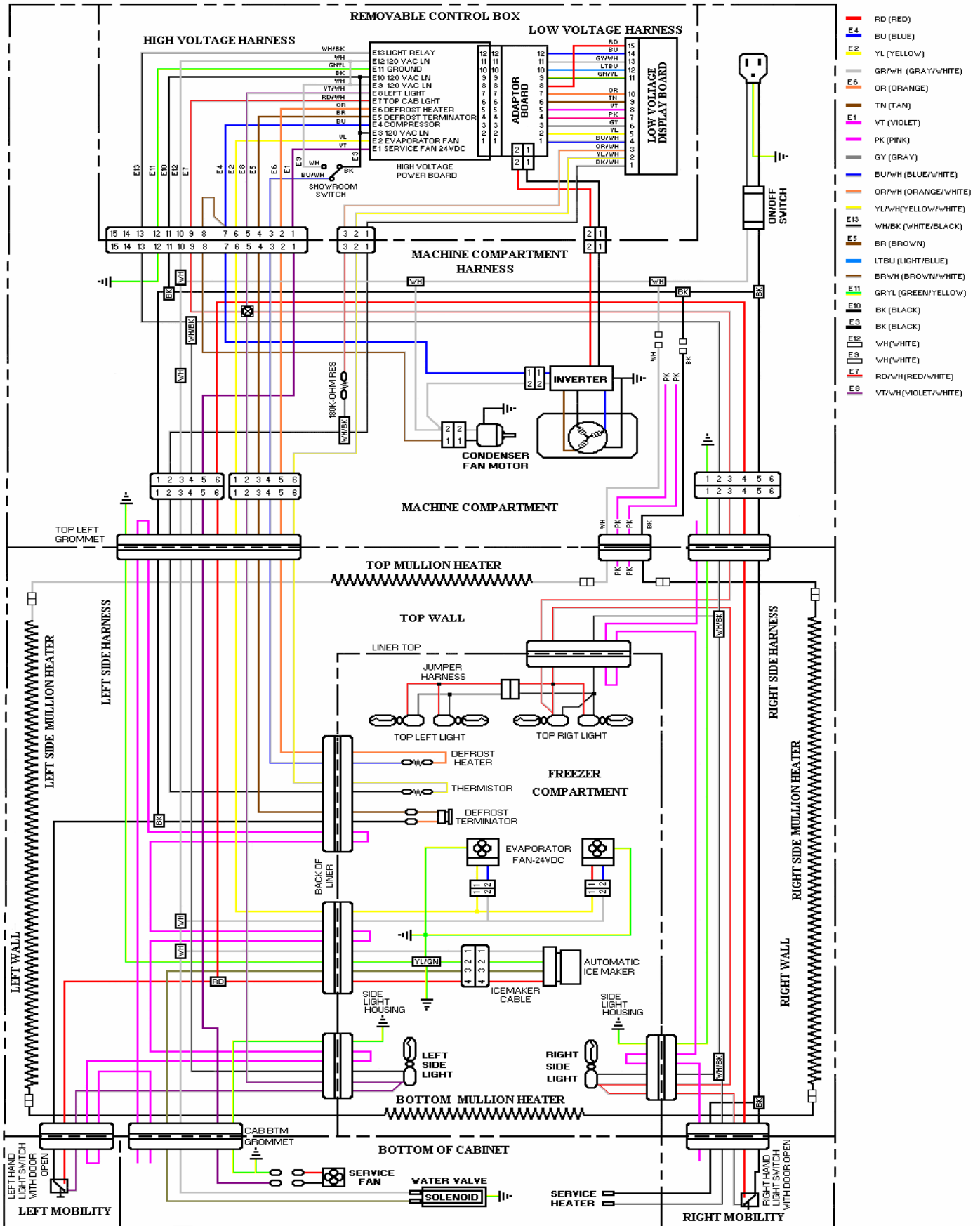
REMOVABLE CONTROL BOX



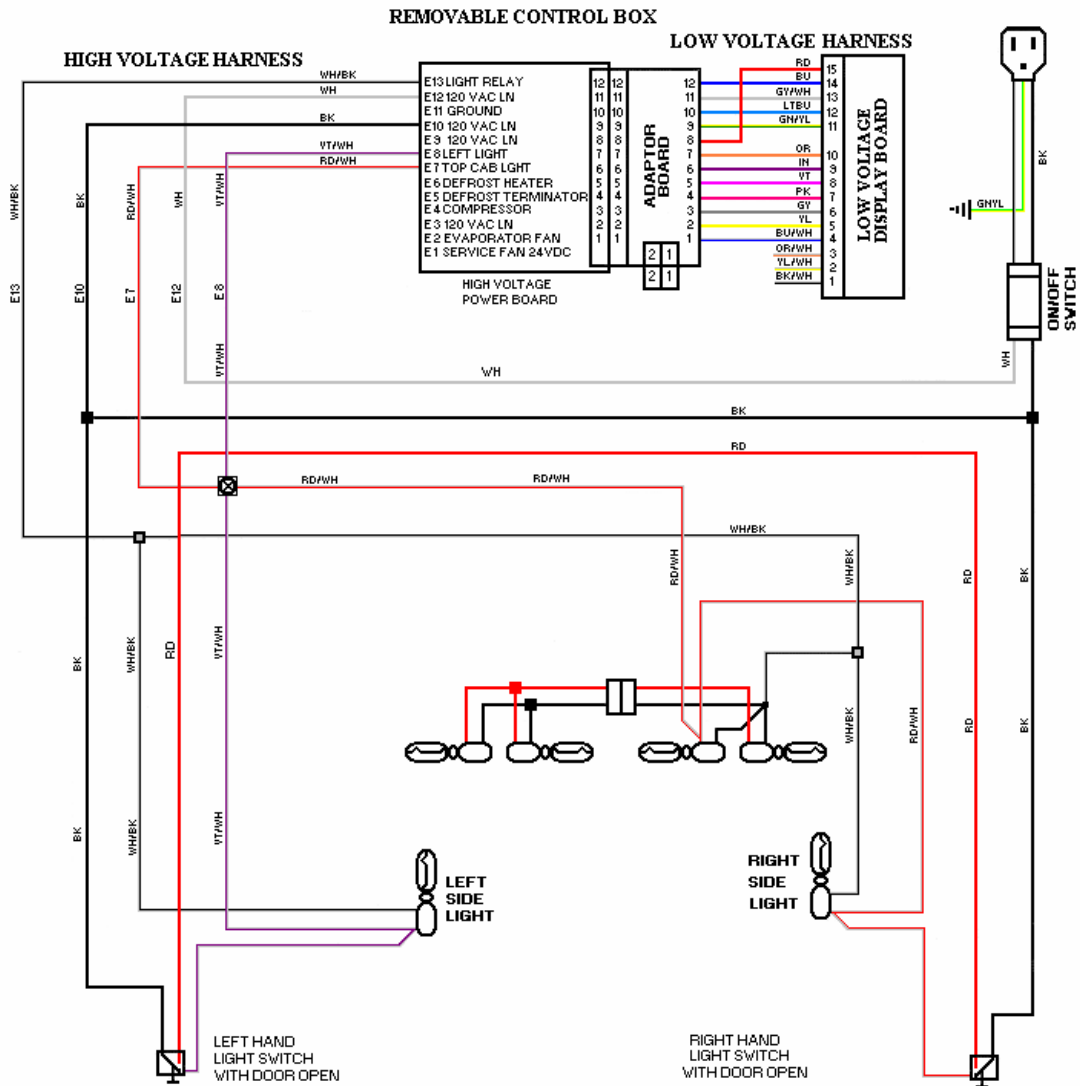
AF 30 ICEMAKER CIRCUIT



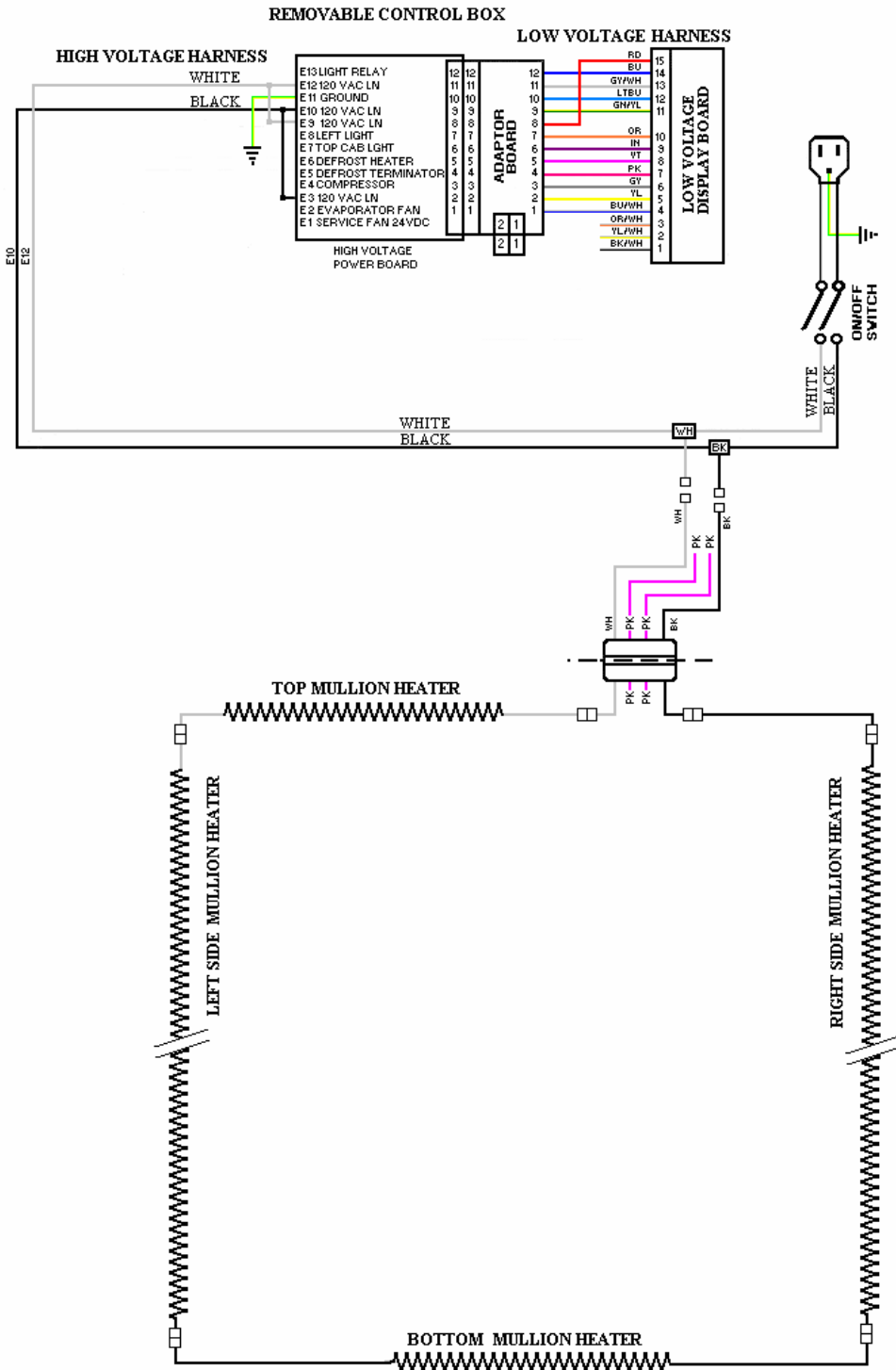
Wiring Schematic 36" W. All Freezer



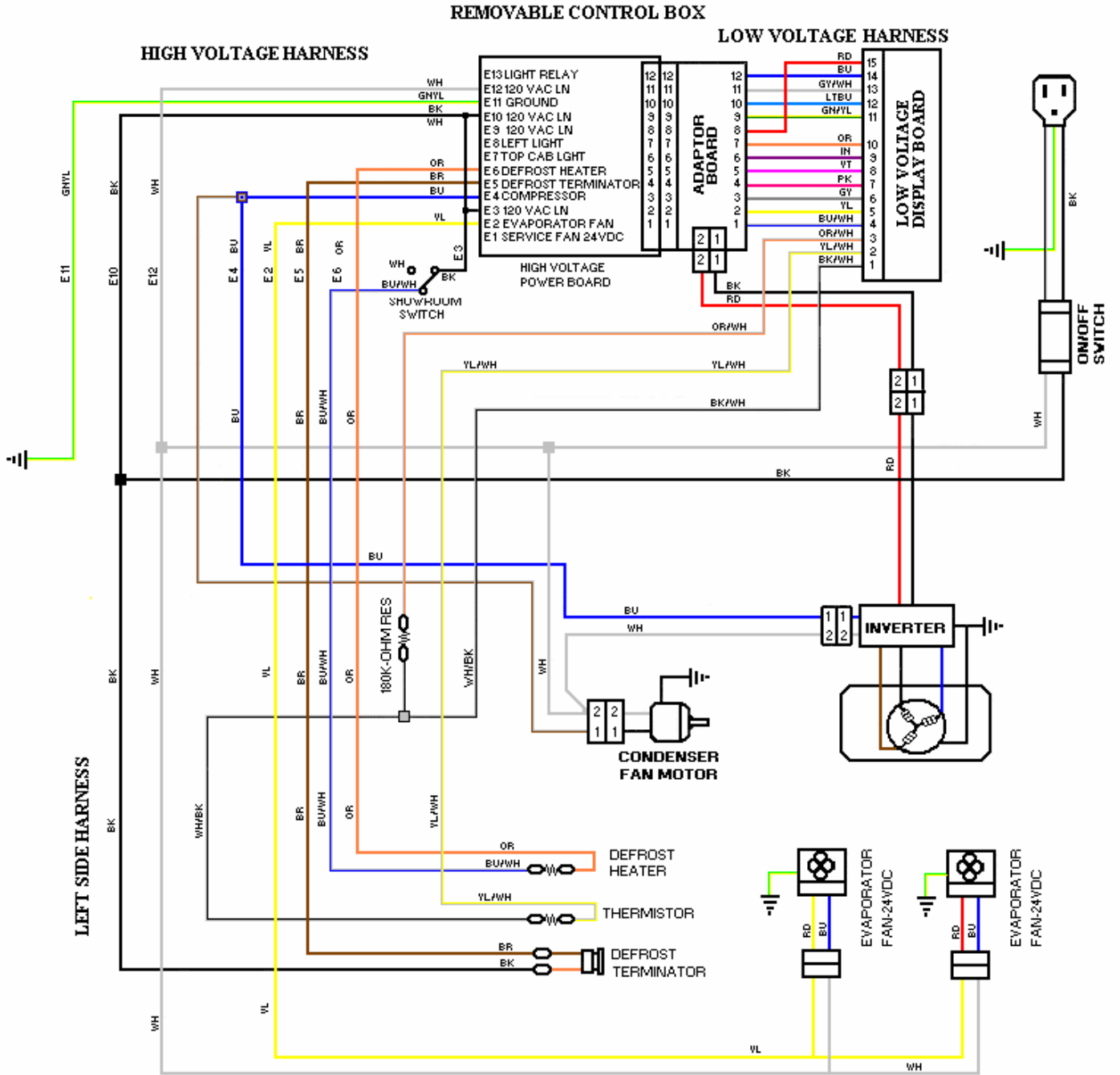
AF 36 LIGHT CIRCUITS



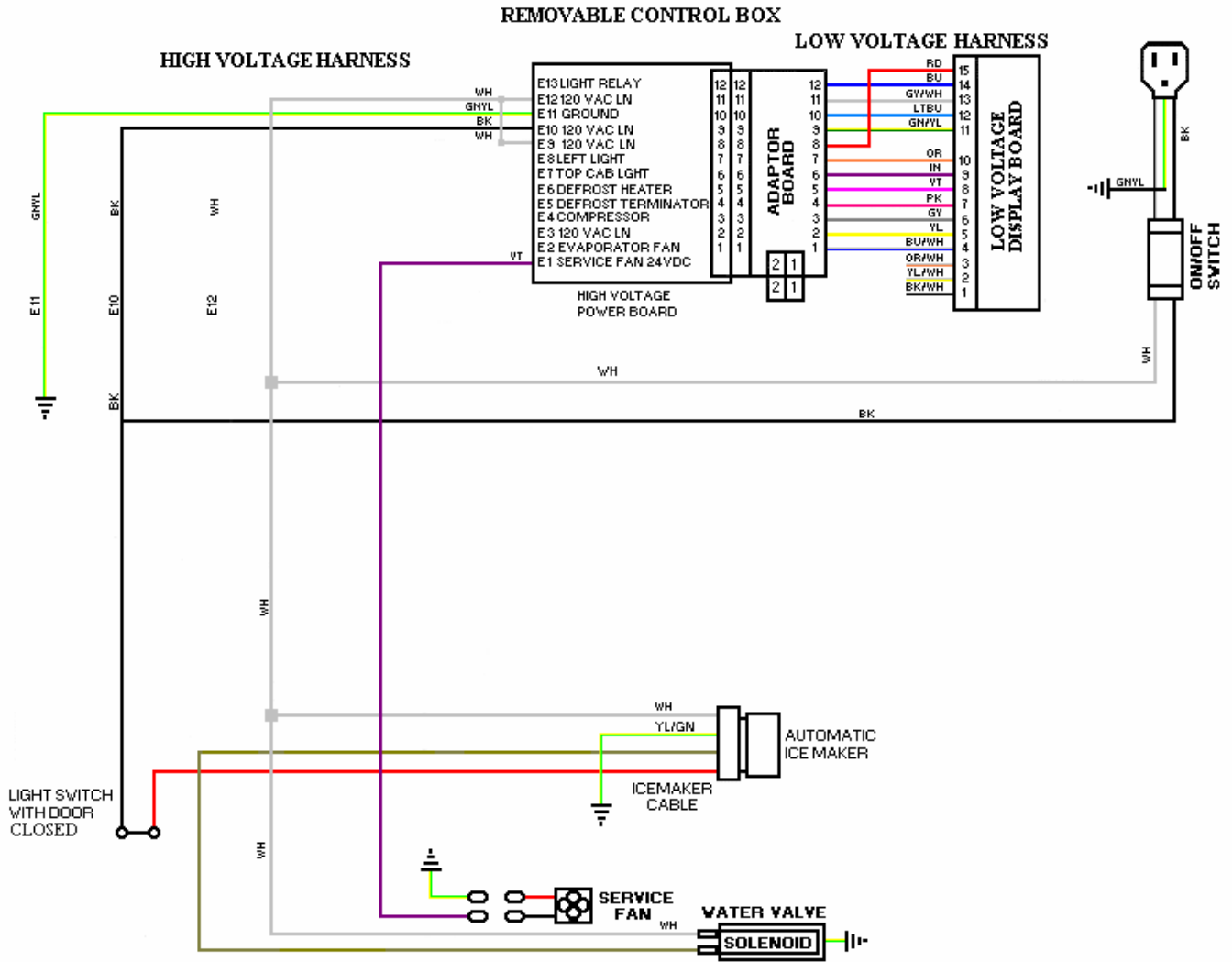
AF 36 120V CIRCUIT



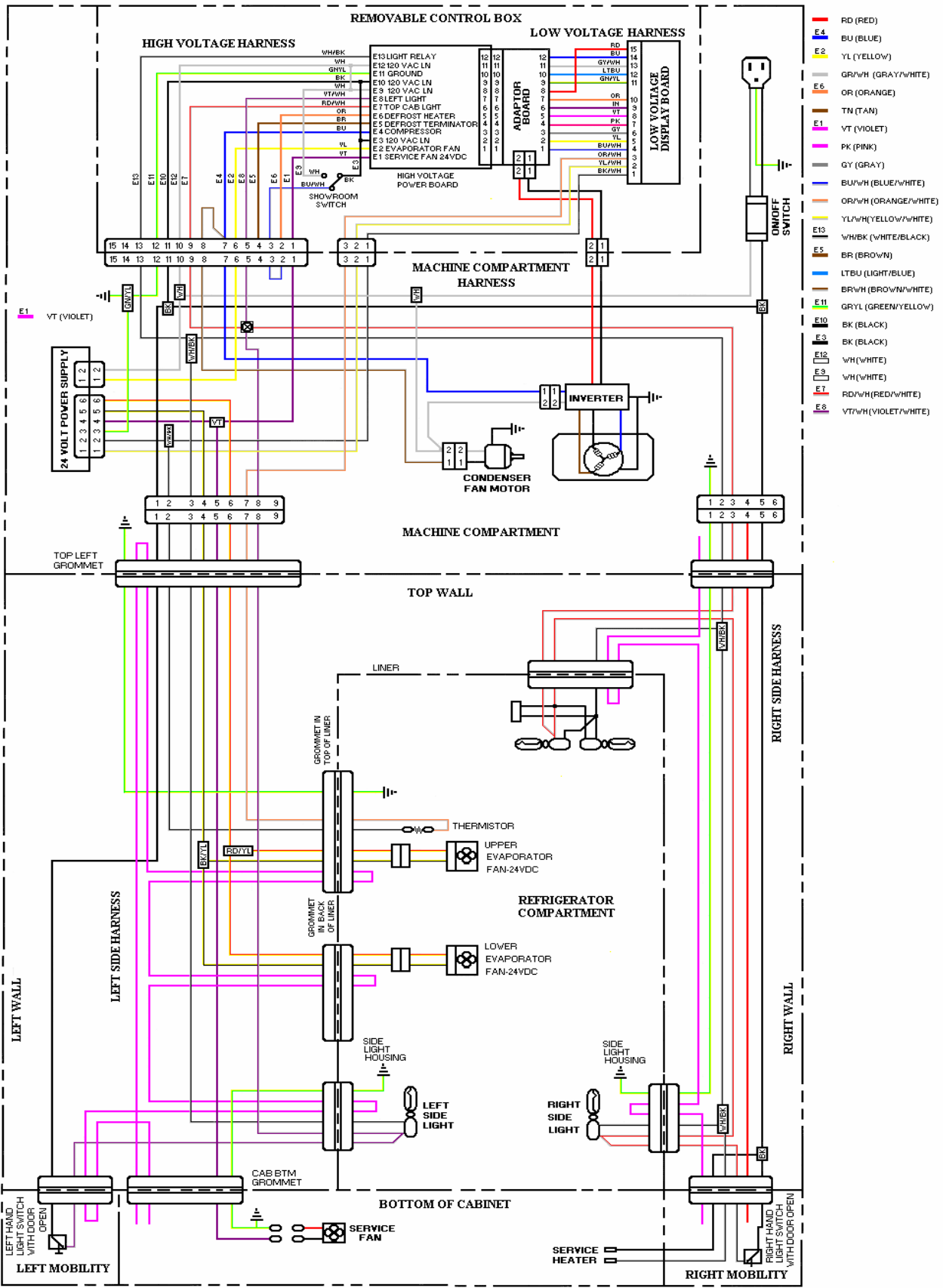
AF 36 SEALED SYSTEM



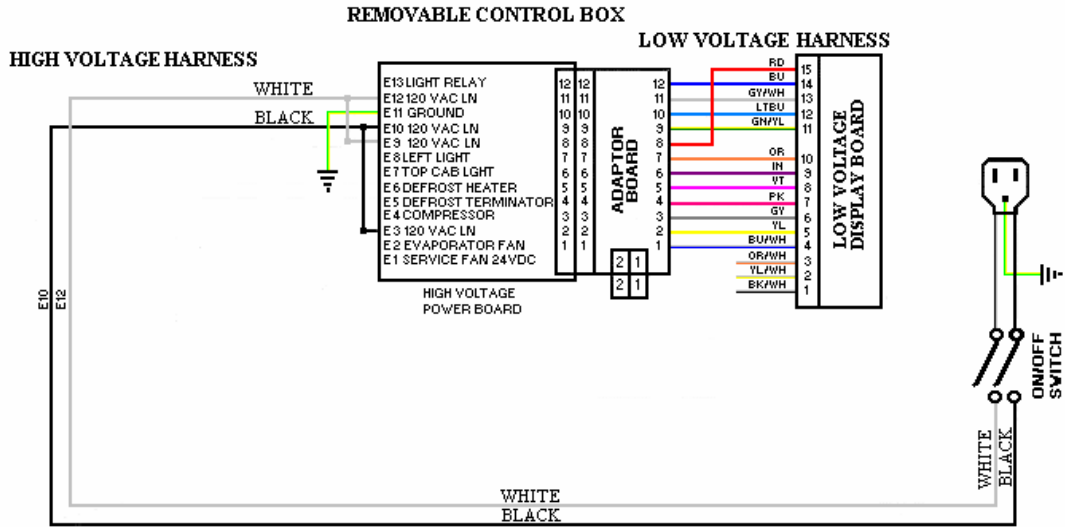
AF 36 ICEMAKER CIRCUIT



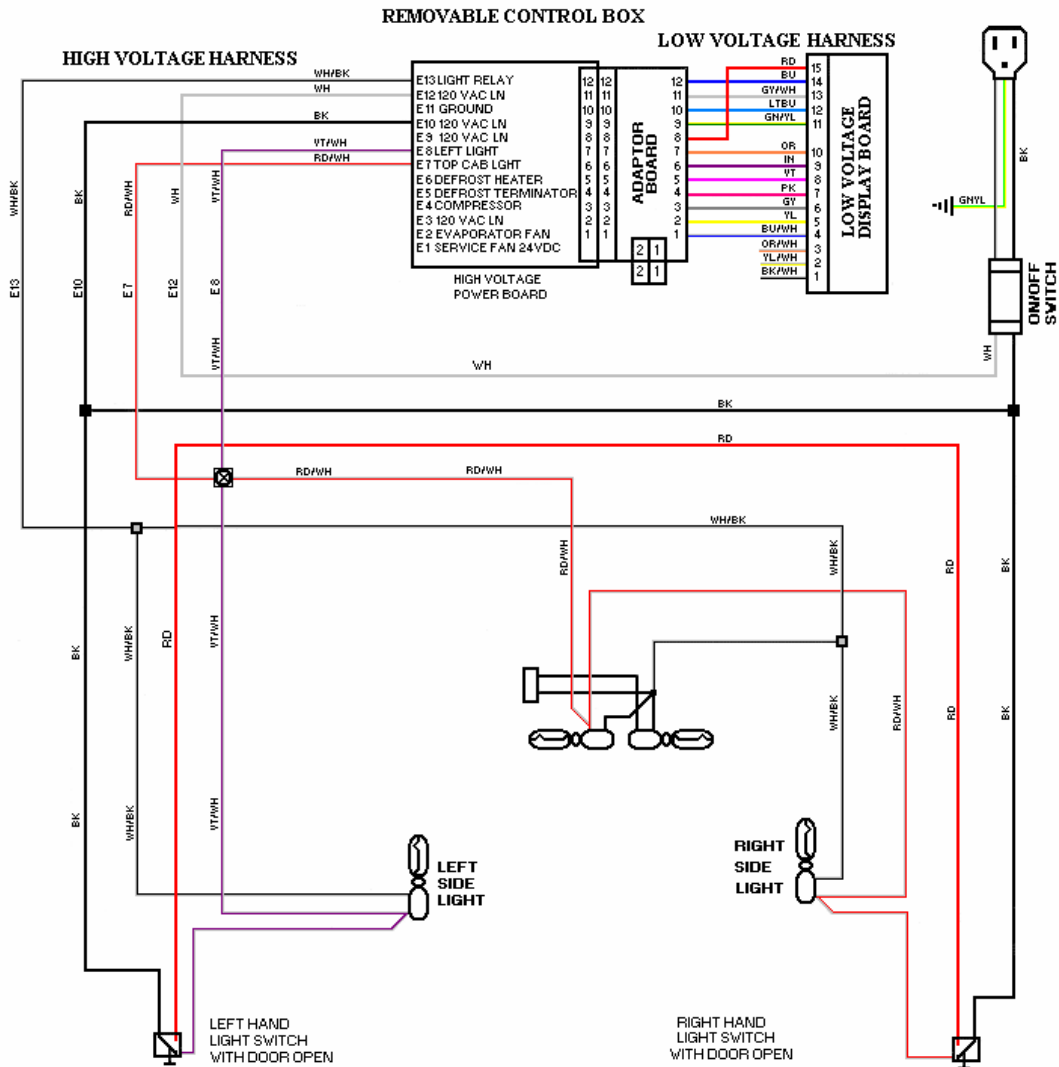
Wiring Schematic 30" W. All Refrigerator



AR 30 120V INPUT



AR 30 LIGHT CIRCUITS

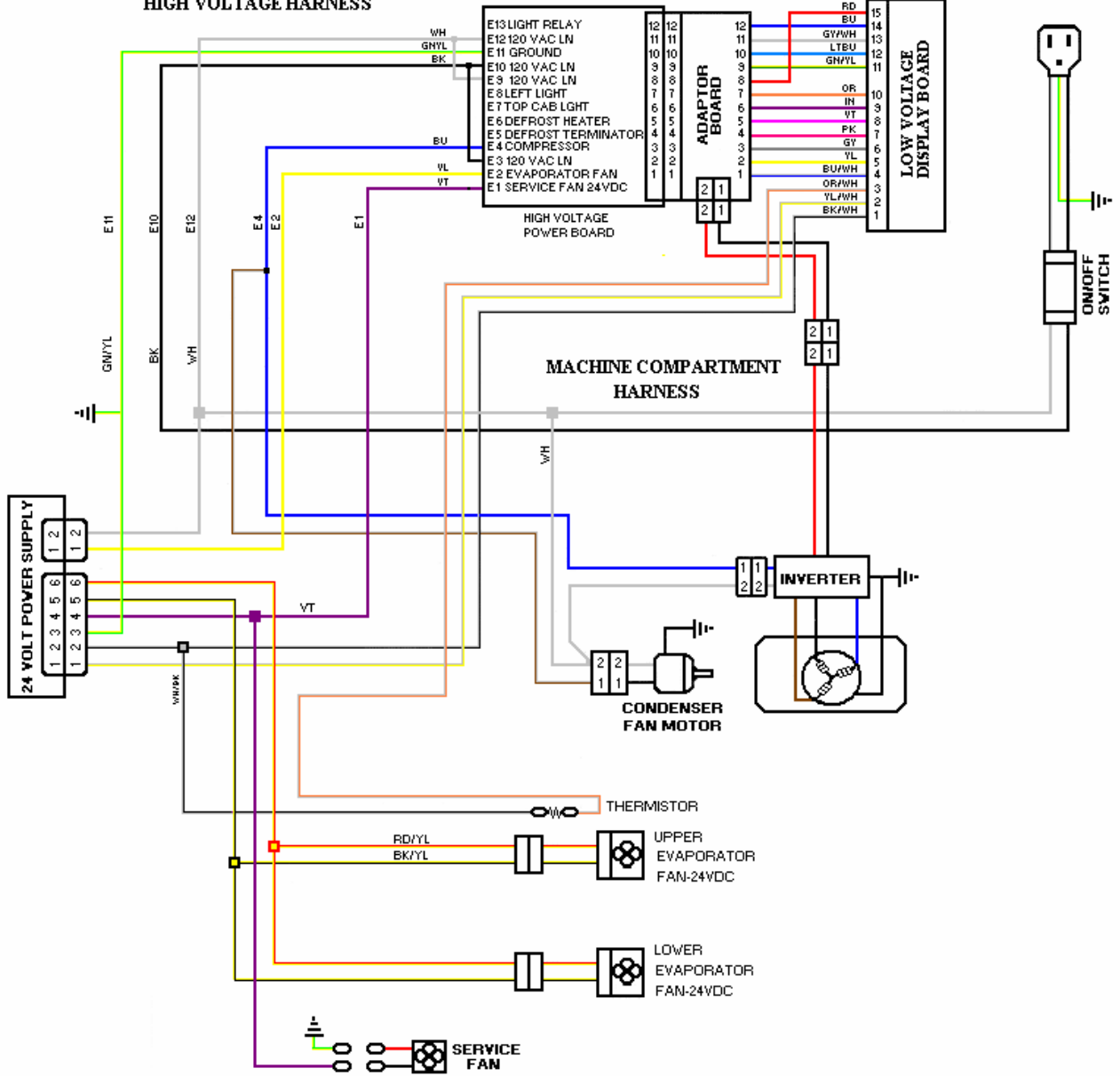


AR 30 SEALED SYSTEM

REMOVABLE CONTROL BOX

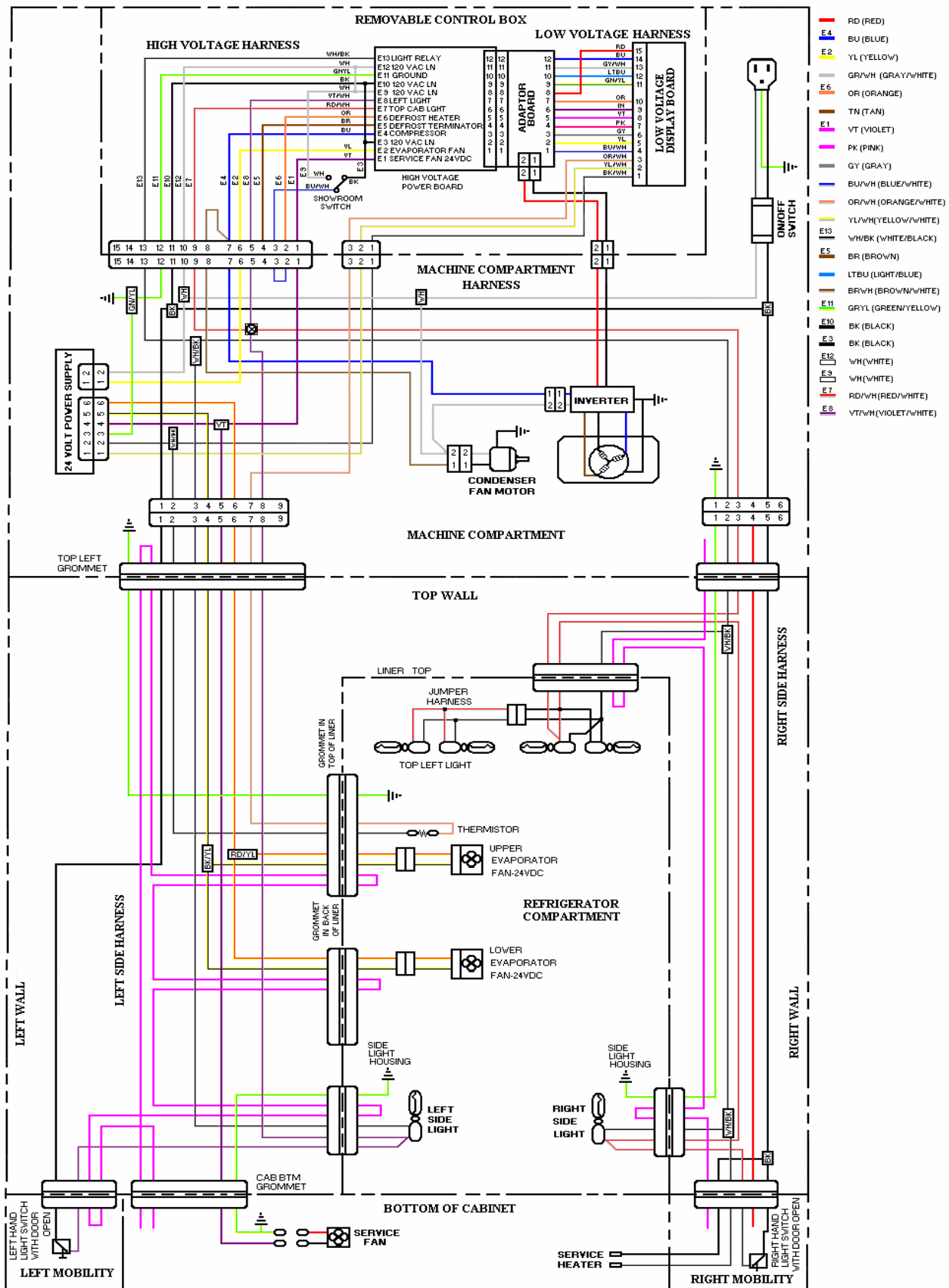
HIGH VOLTAGE HARNESS

LOW VOLTAGE HARNESS

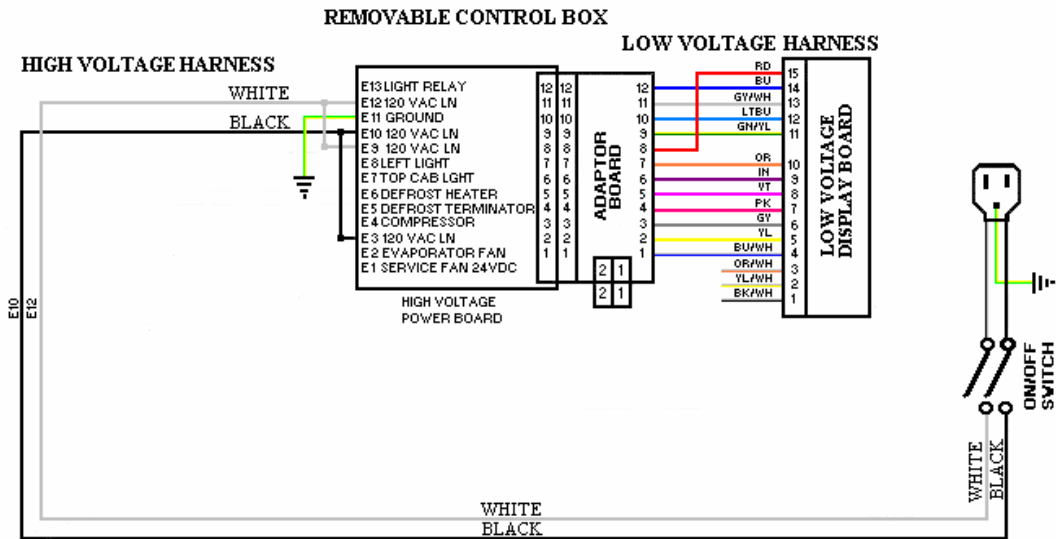


LEFT SIDE HARNESS

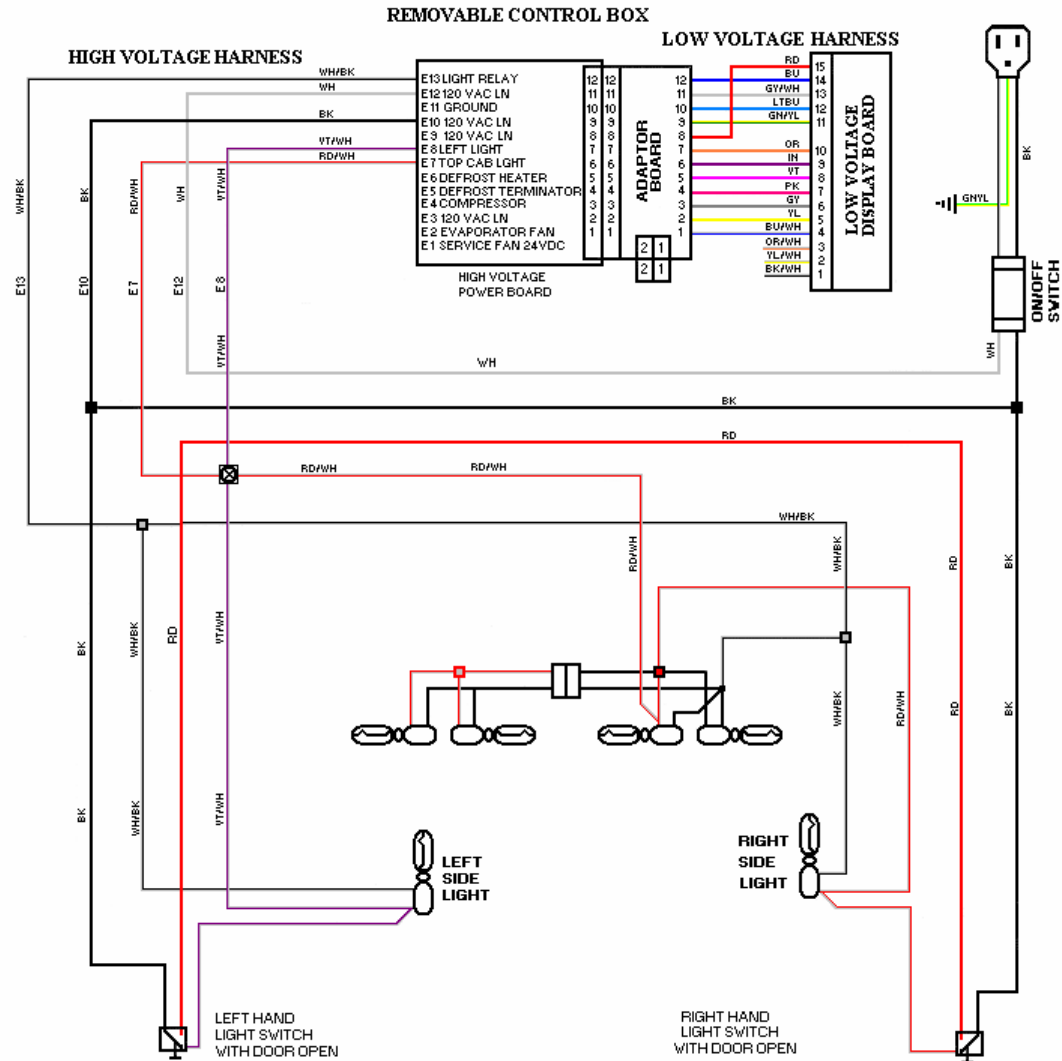
Wiring Schematic 36" W. All Refrigerator



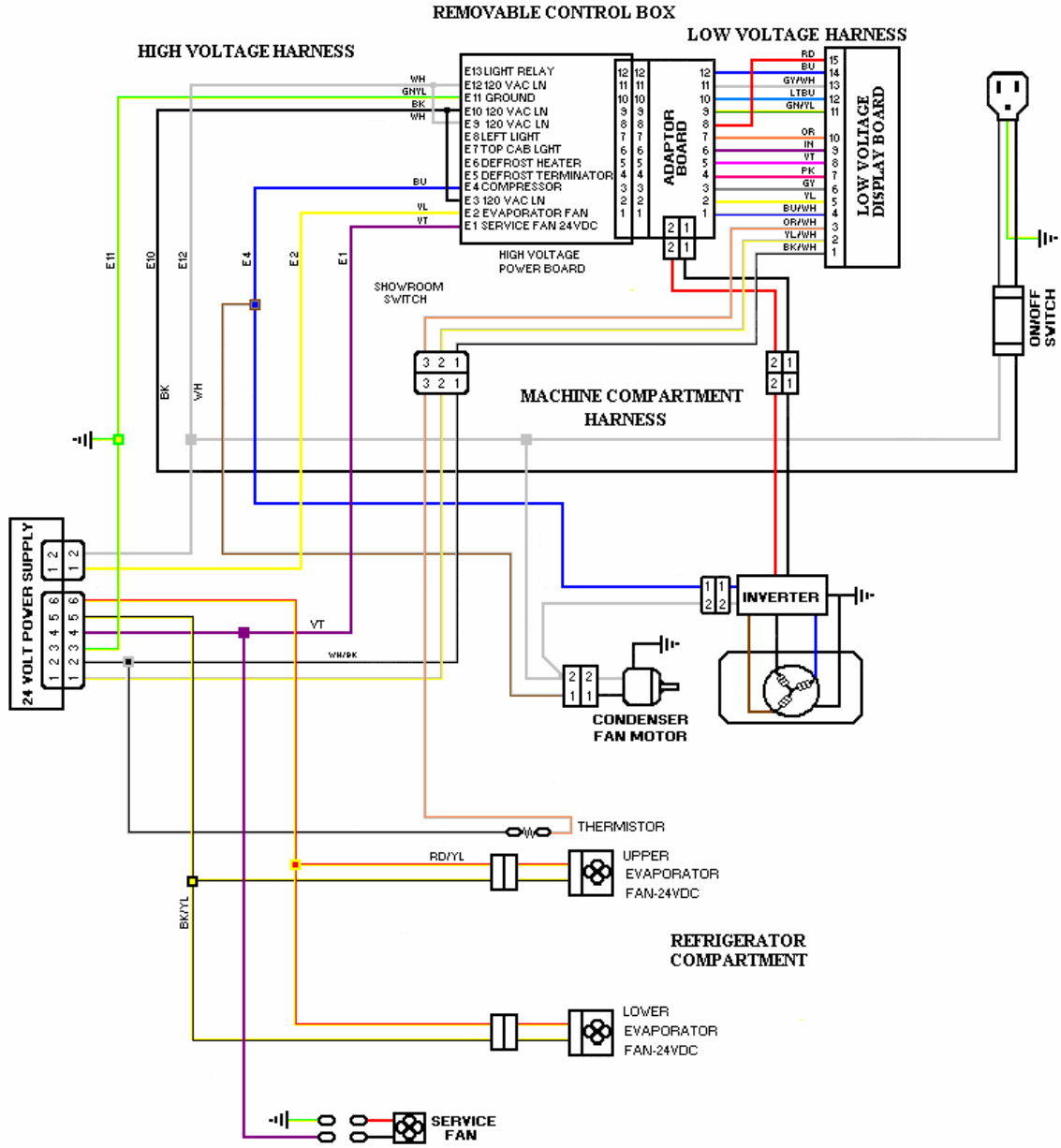
AR 36 120V INPUT



AR 36 LIGHT CIRCUITS



AR 36 SEALED SYSTEM

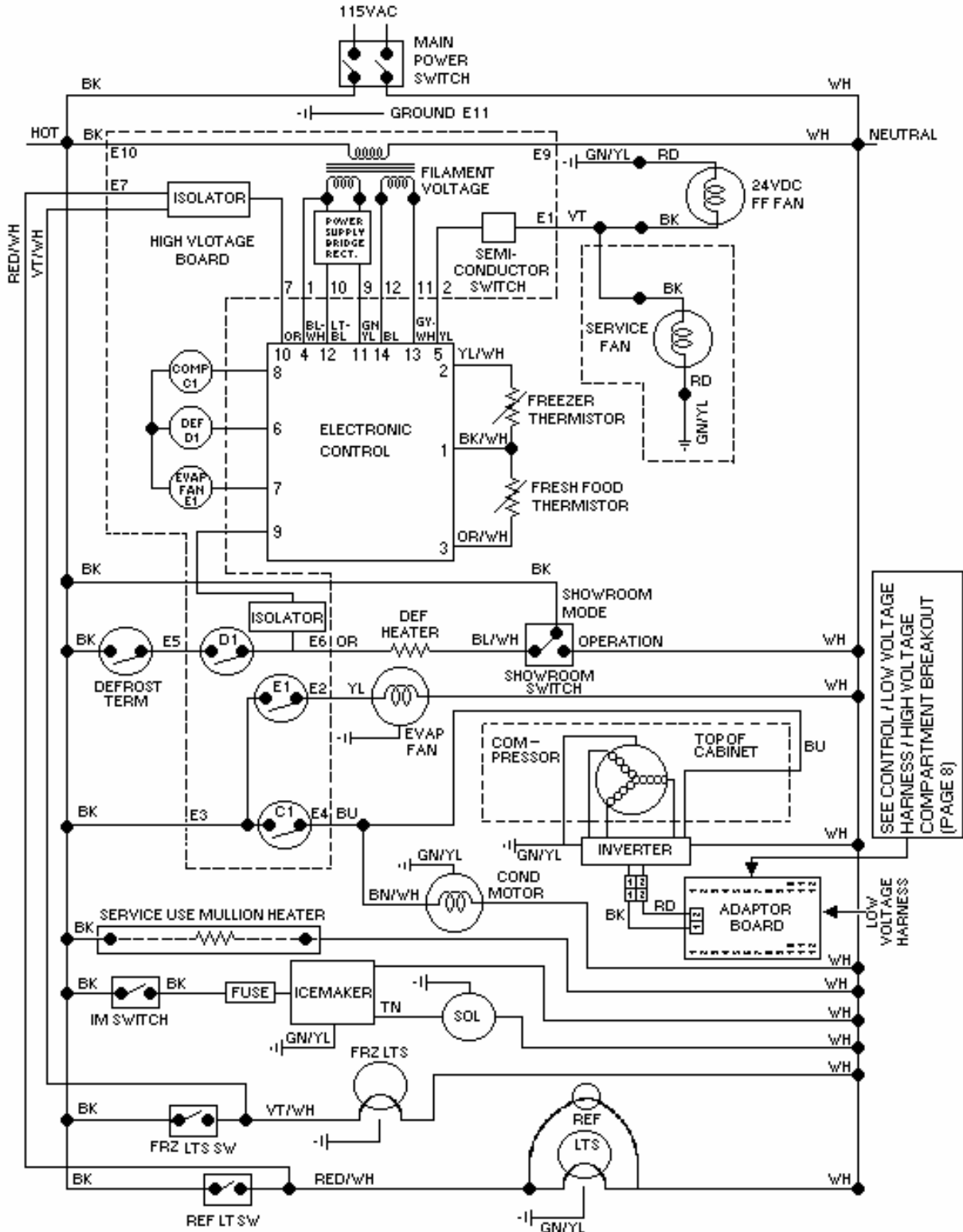


VCBB-DFBB-DDBB-DTBB360/360G

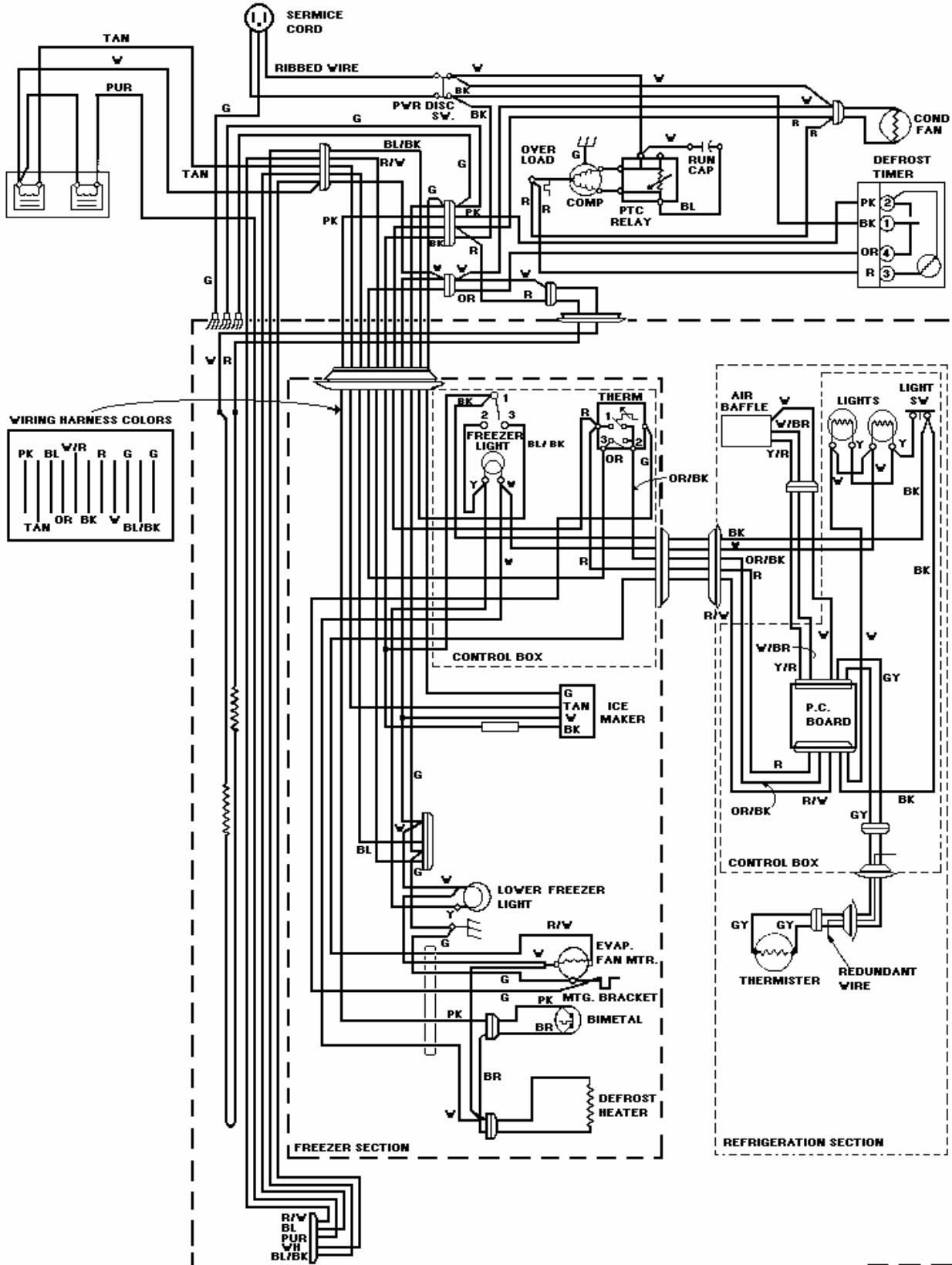


WARNING

To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct earth ground and polarization. After servicing, reconnect power using power switch.



WIRING DIAGRAM VCSB360-420-480

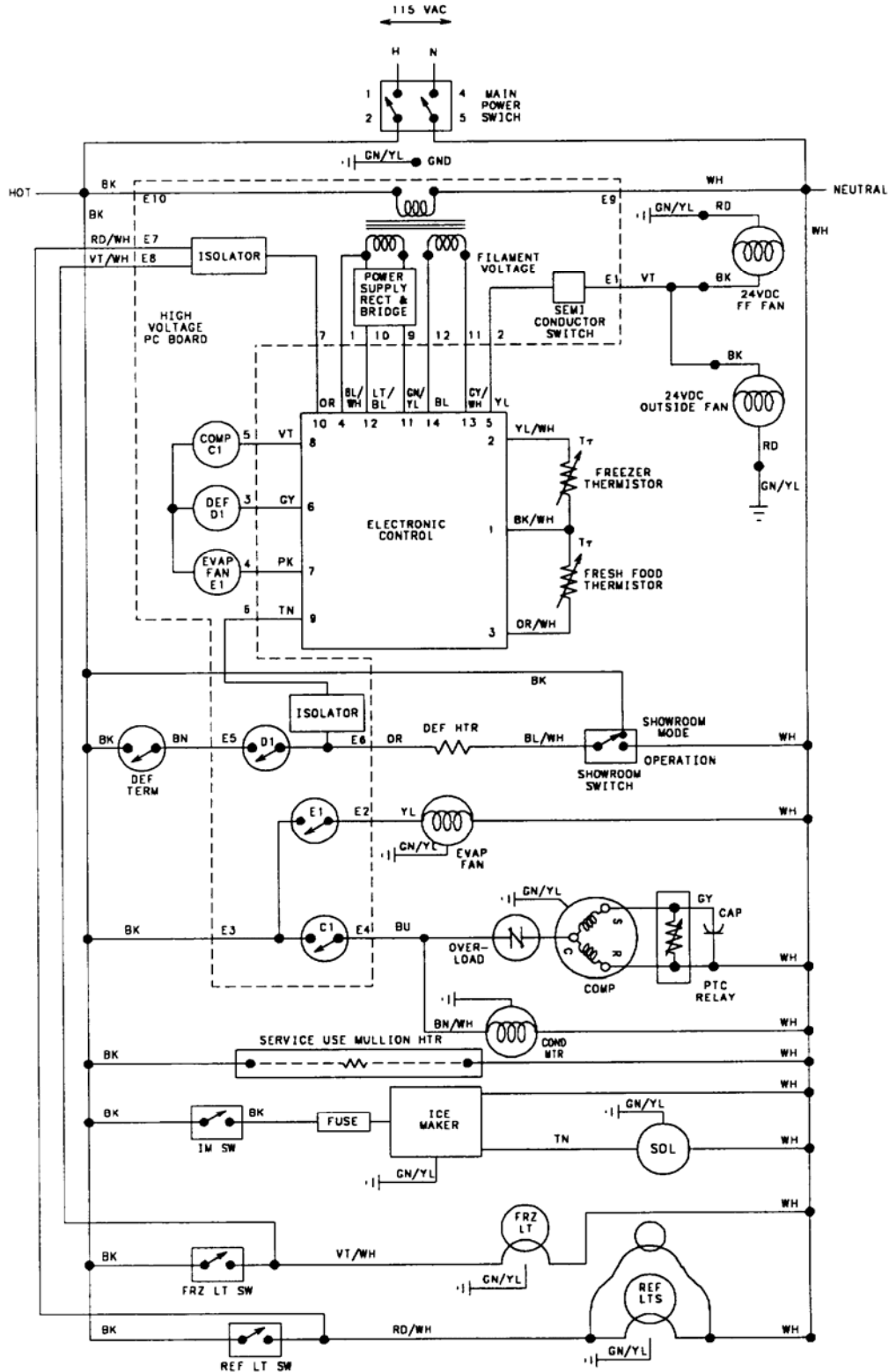


VCSB481-482

WARNING

DANGER
High Voltage

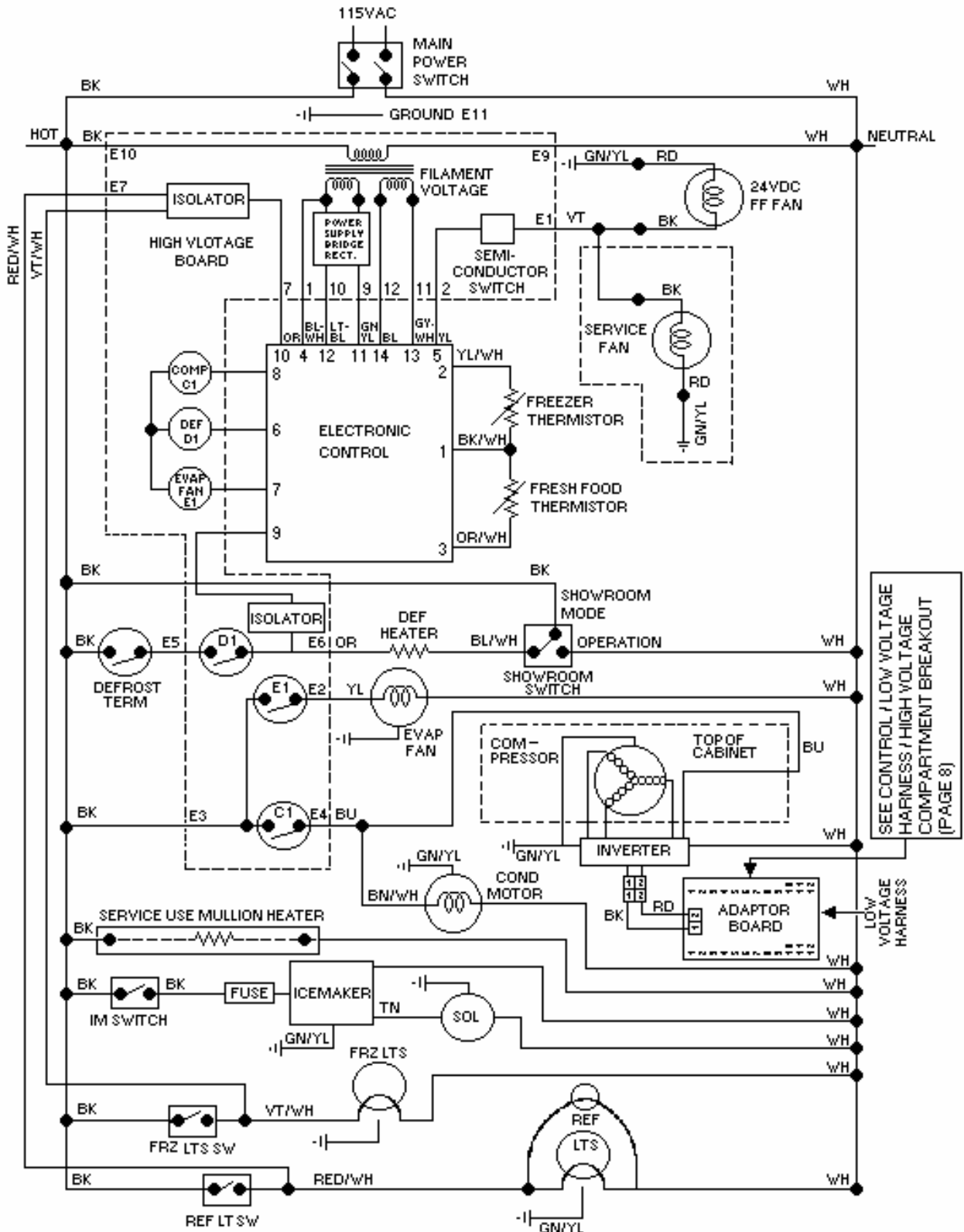
TO AVOID ELECTRICAL SHOCK WHICH CAN CAUSE SEVERE PERSONAL INJURY OR DEATH, DISCONNECT POWER TO REFRIGERATOR USING POWER SWITCH BEFORE SERVICING. WIRES REMOVED DURING DISASSEMBLY MUST BE REPLACED ON PROPER TERMINALS TO INSURE CORRECT EARTHING AND POLARIZATION. AFTER SERVICING, RECONNECT POWER USING POWER SWITCH.





WARNING

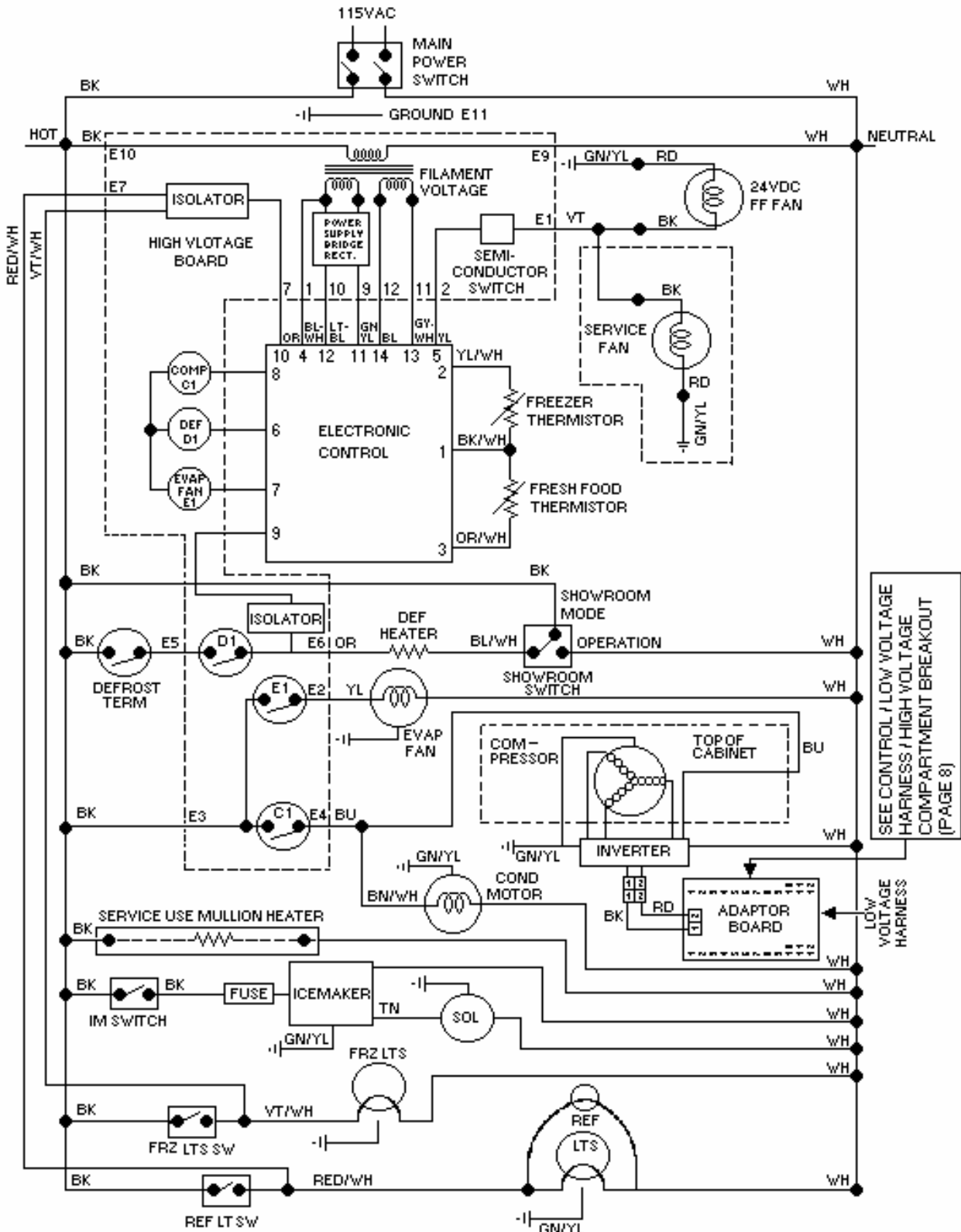
To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct earth ground and polarization. After servicing, reconnect power using power switch.



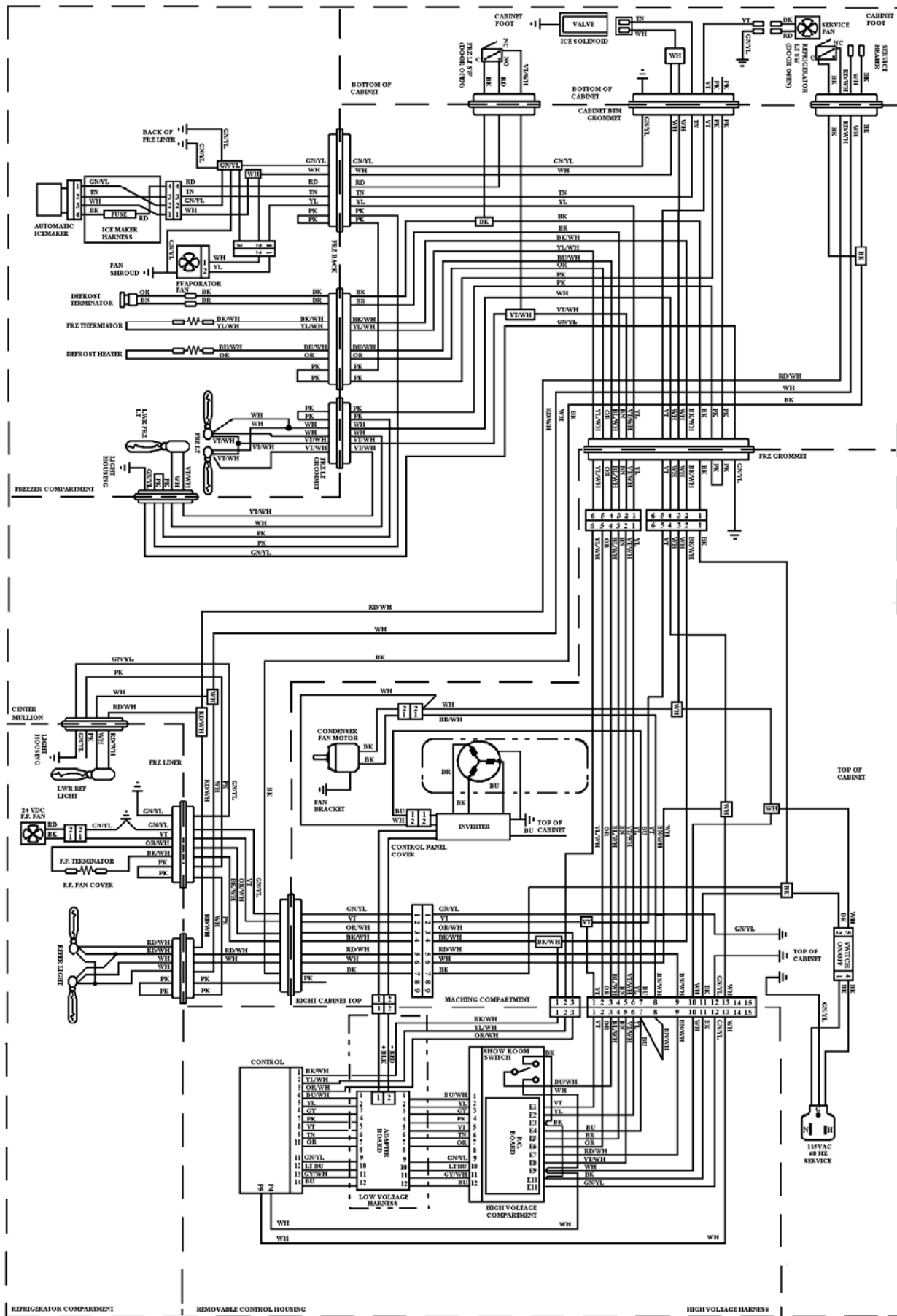


WARNING

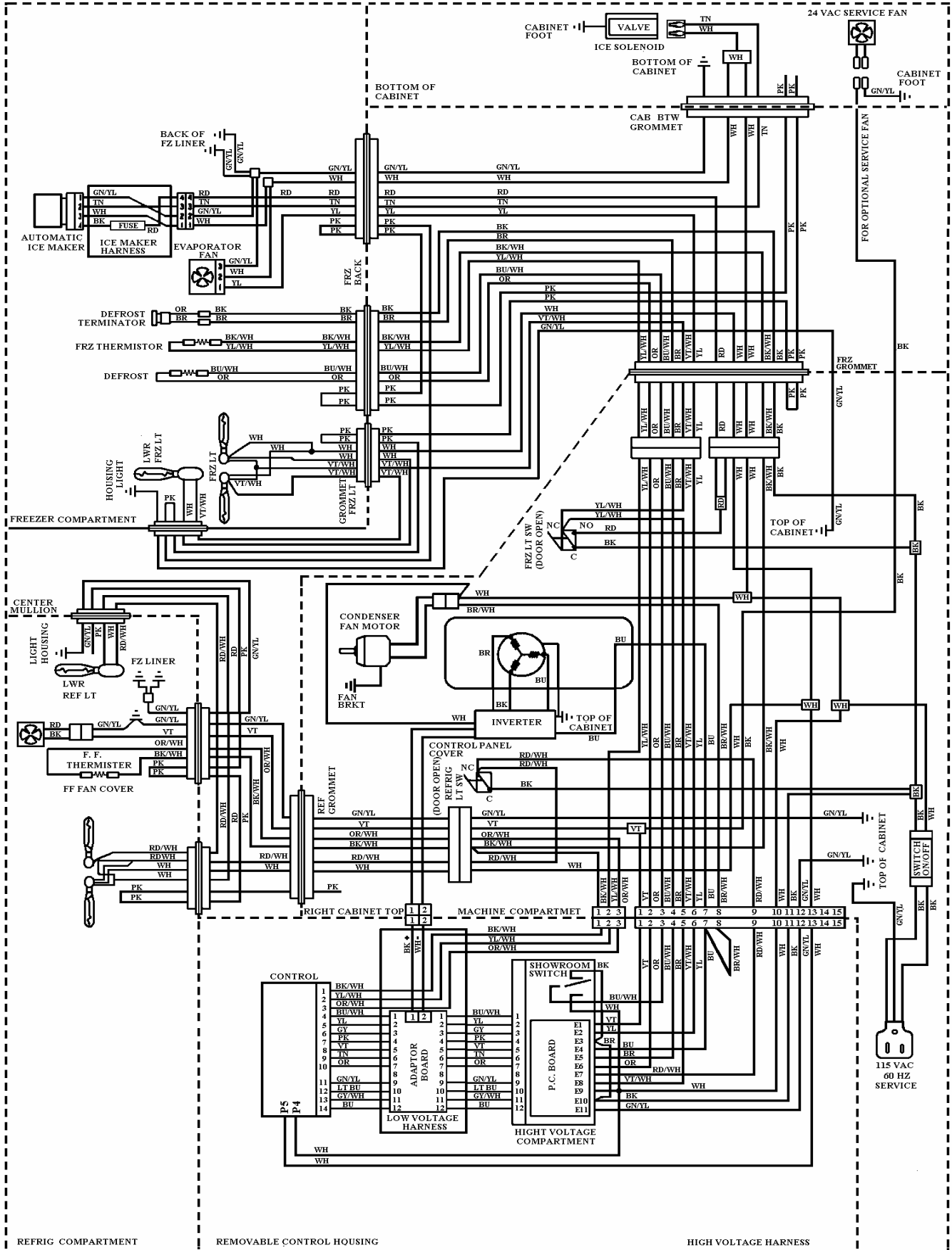
To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct earth ground and polarization. After servicing, reconnect power using power switch.



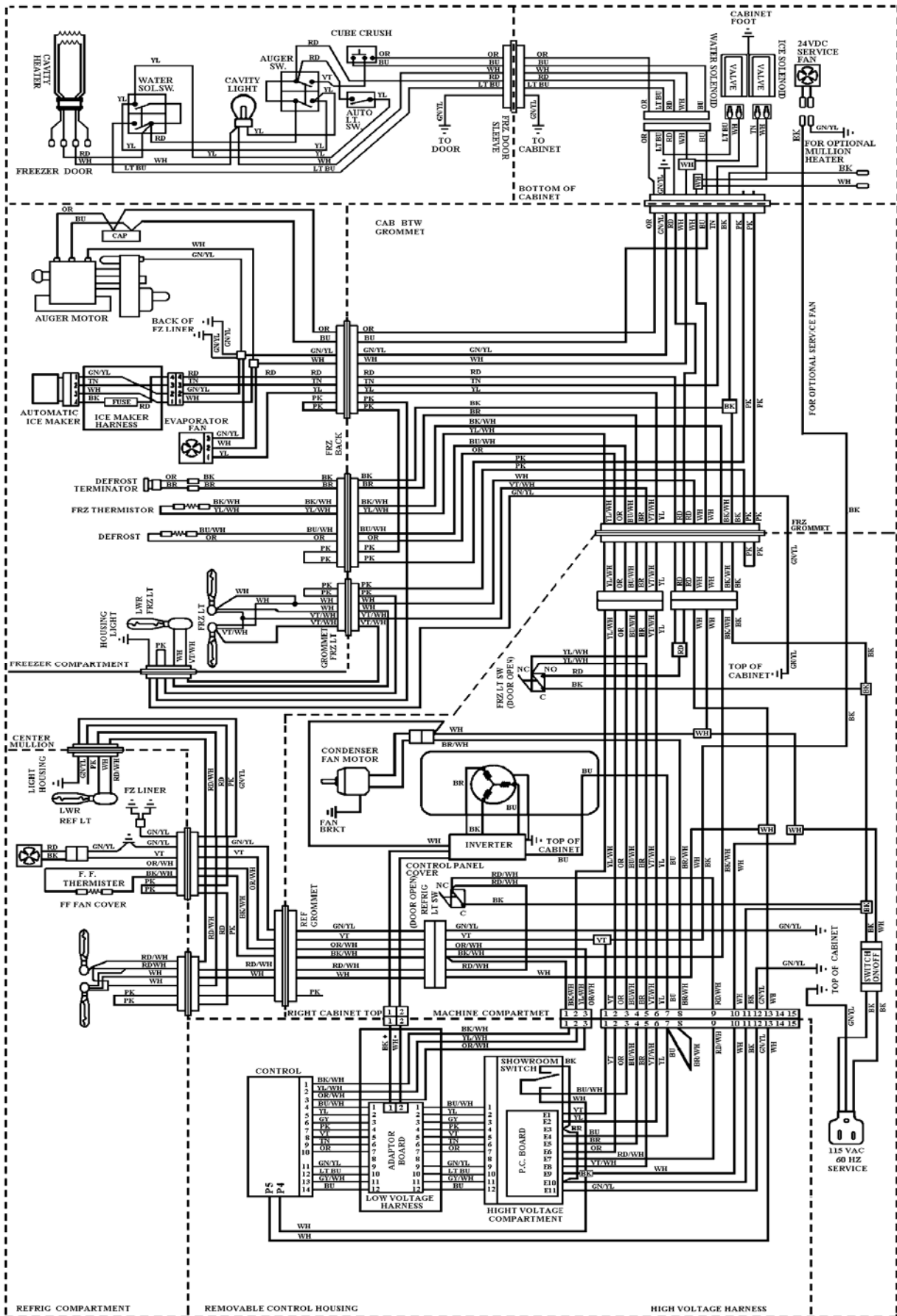
WIRING DIAGRAM BUILT-IN SIDE-BY-SIDE 42" W. REFRIGERATOR



VCSB483# WIRING DIAGRAM



VCSB483D# WIRING DIAGRAM – DISPENSER MODEL

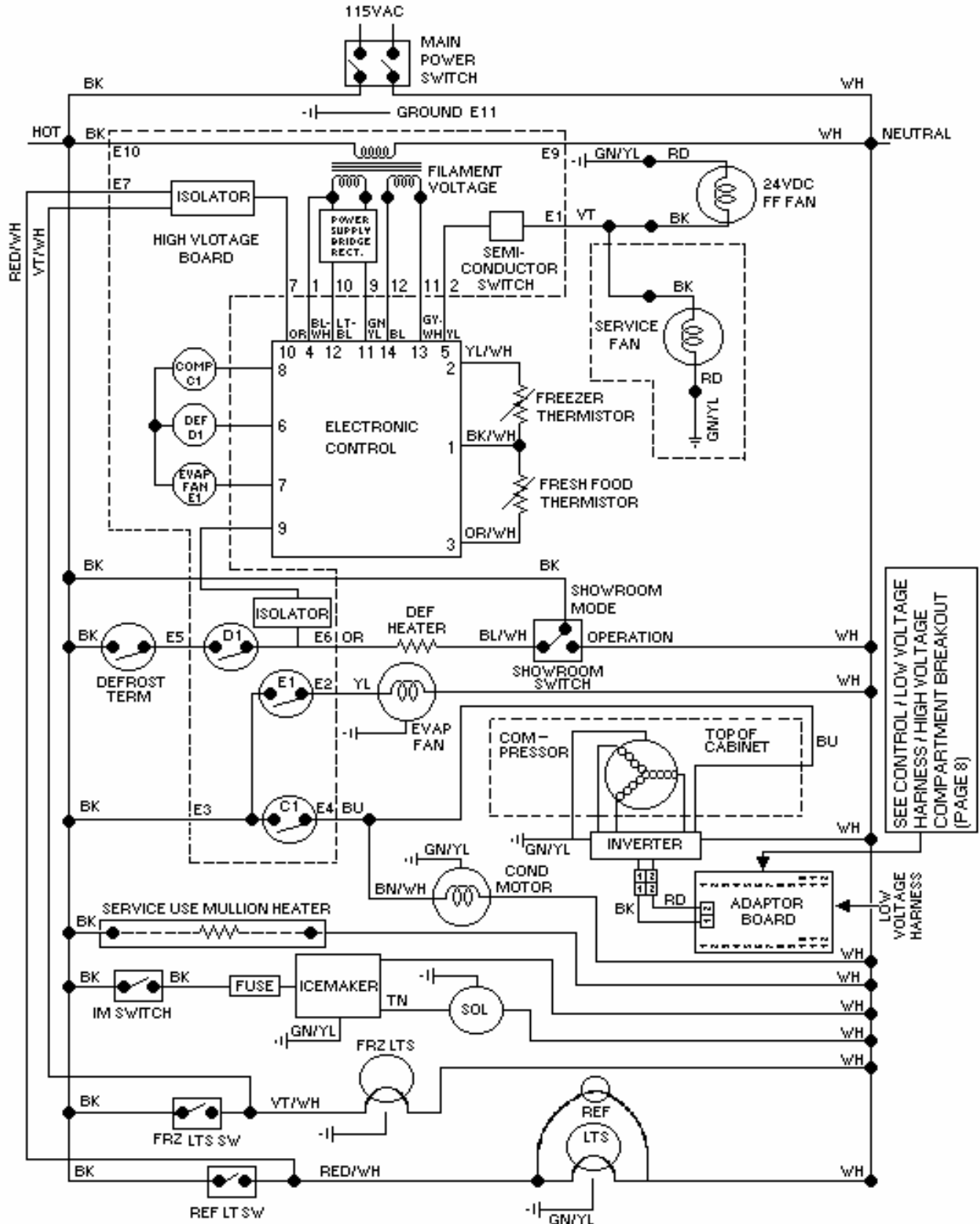


VCSB-DFSB-DDSB-DTSB483 SXS



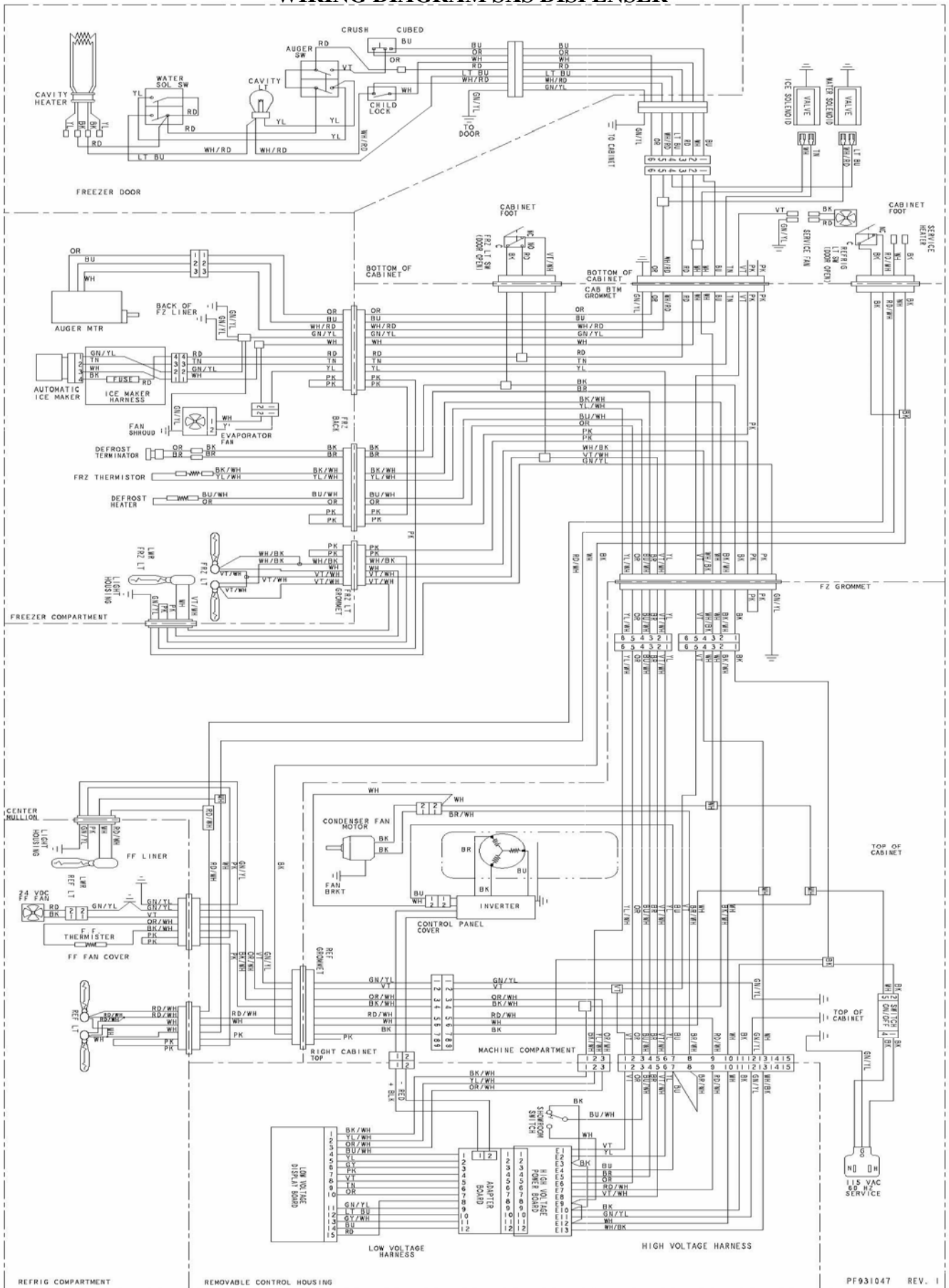
WARNING

To avoid electrical shock which can cause severe personal injury or death, disconnect power to refrigerator using power switch before servicing. Wires removed during disassembly must be replaced on proper terminals to insure correct earth ground and polarization. After servicing, reconnect power using power switch.

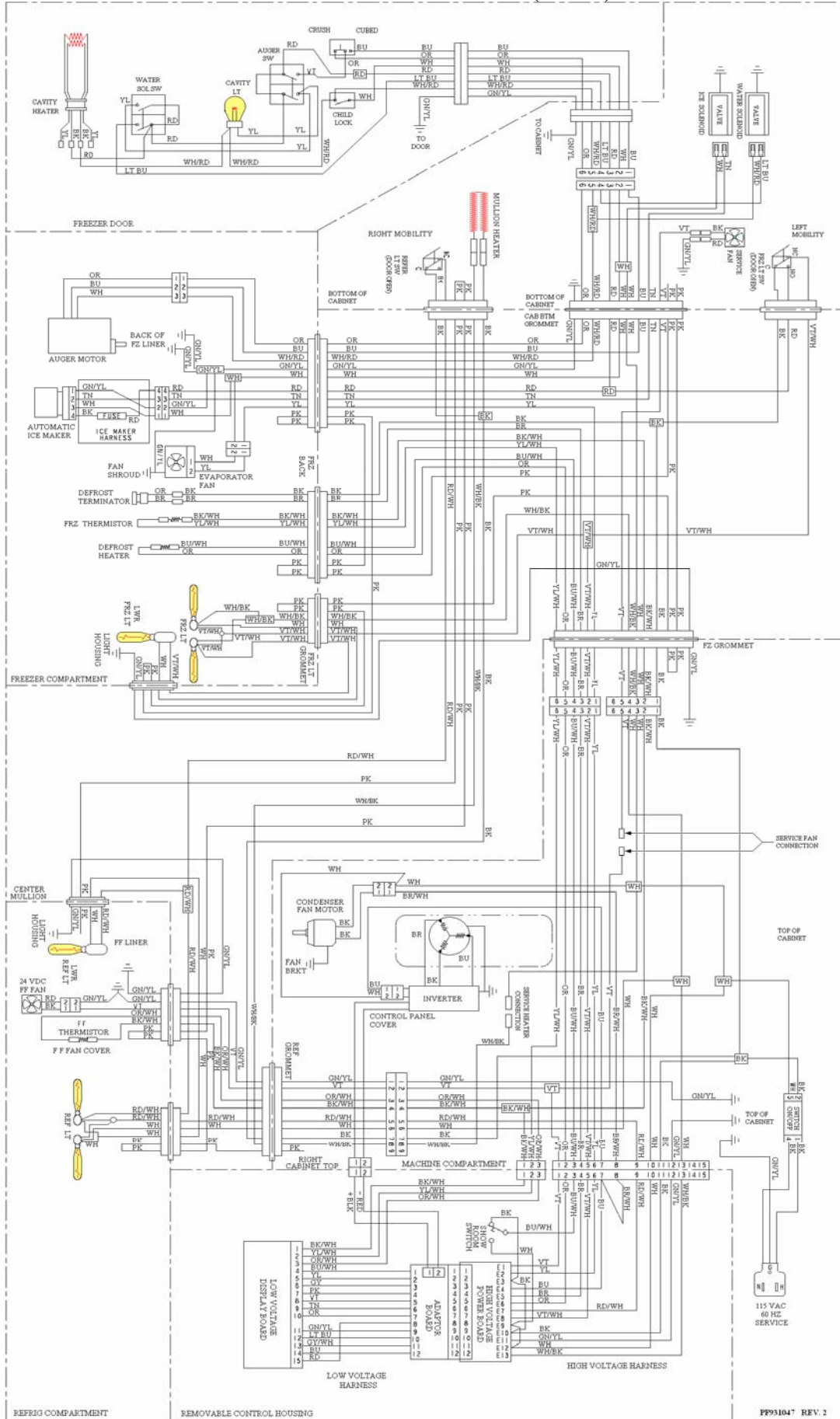


SEE CONTROL / LOW VOLTAGE HARNESS / HIGH VOLTAGE COMPARTMENT BREAKOUT (PAGE 8)

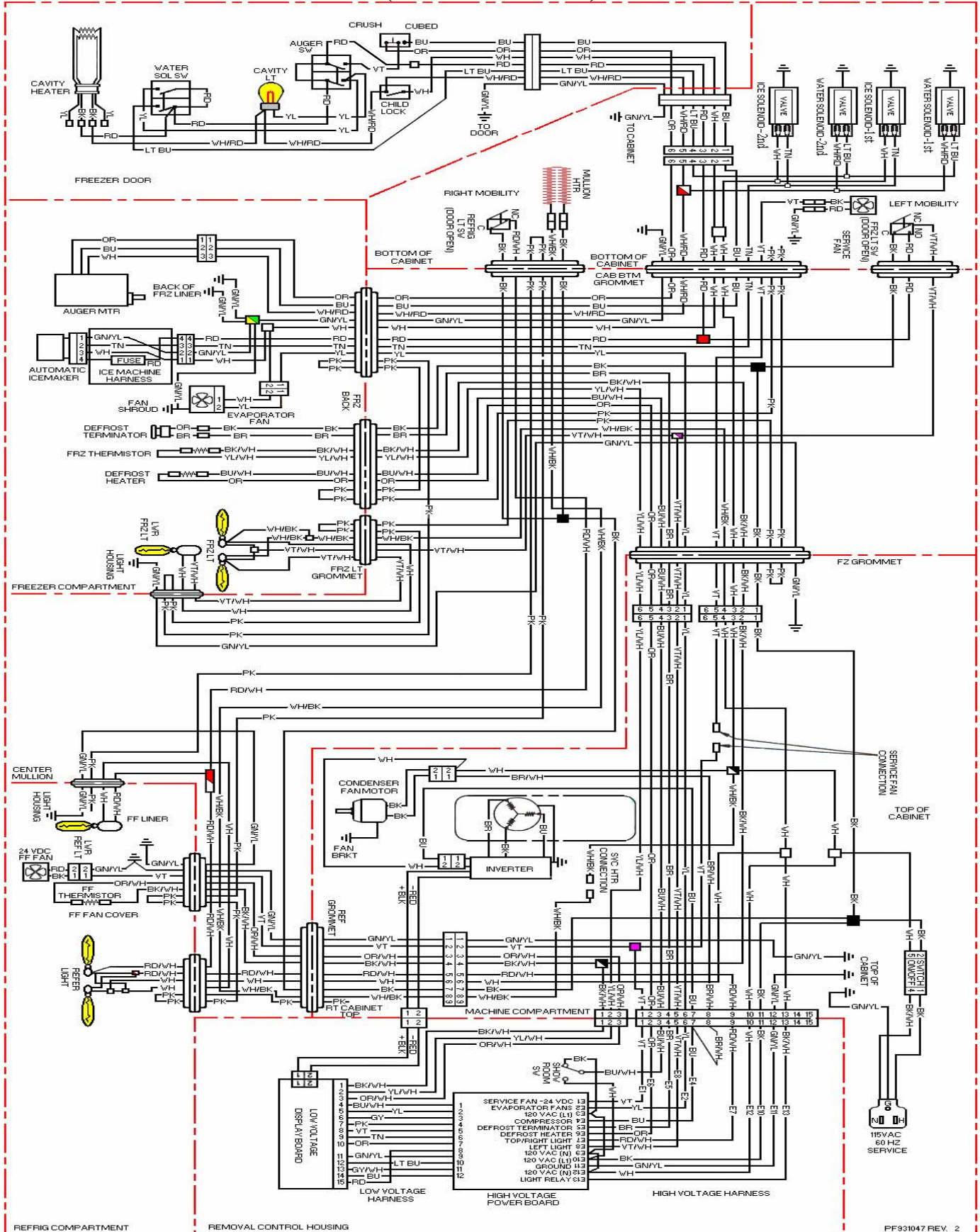
WIRING DIAGRAM SXS DISPENSER



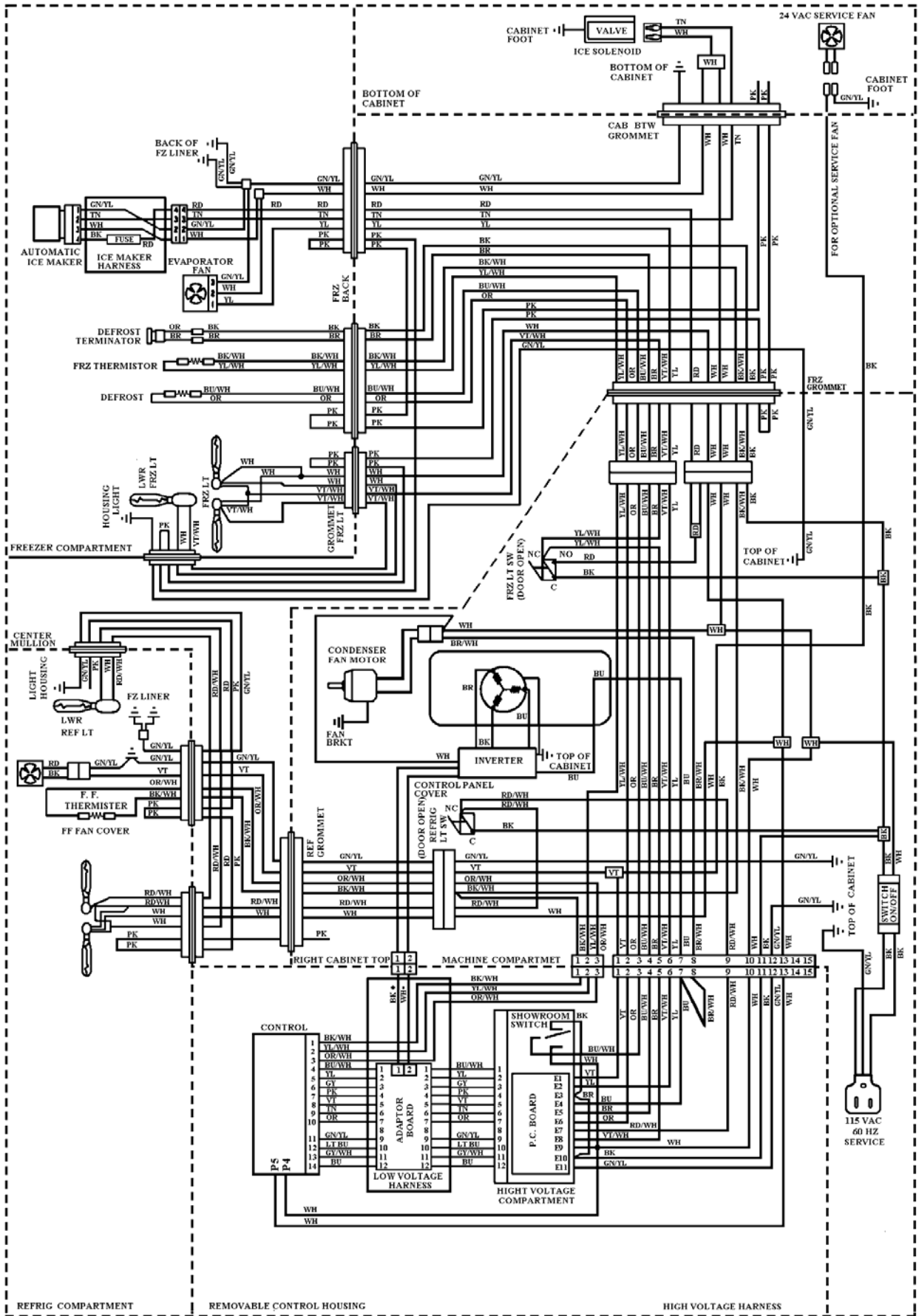
SXS DISPENSER SCHEMATIC (Rev. 2)



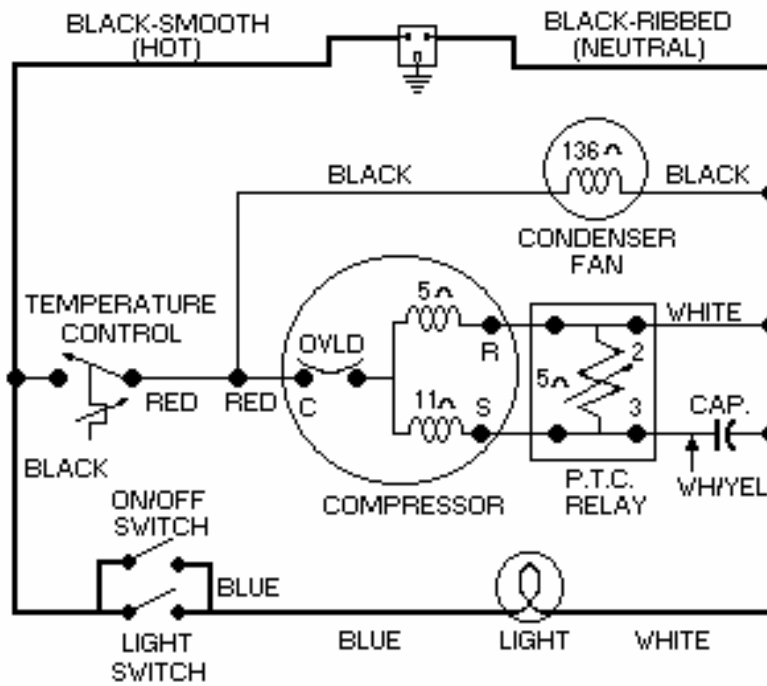
WIRING DIAGRAM with DISPENSER (Double Water Valve)



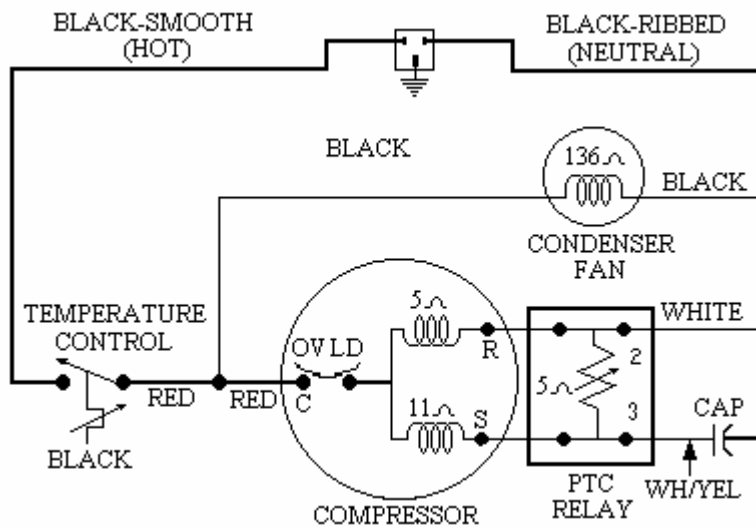
SXS WIRING DIAGRAM



WIRING DIAGRAM VUAR—VUWC

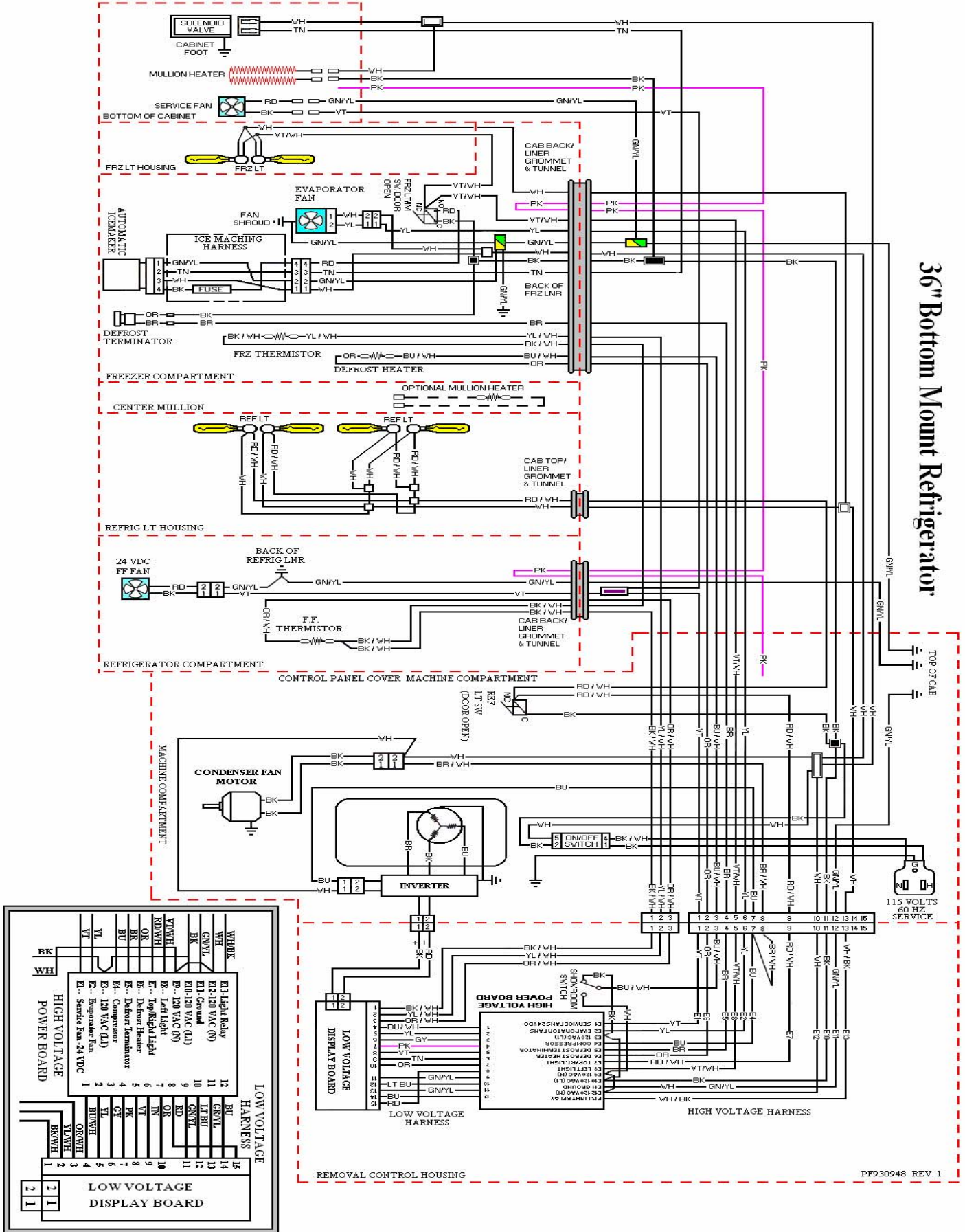


WIRING DIAGRAM VUBD—VRBD

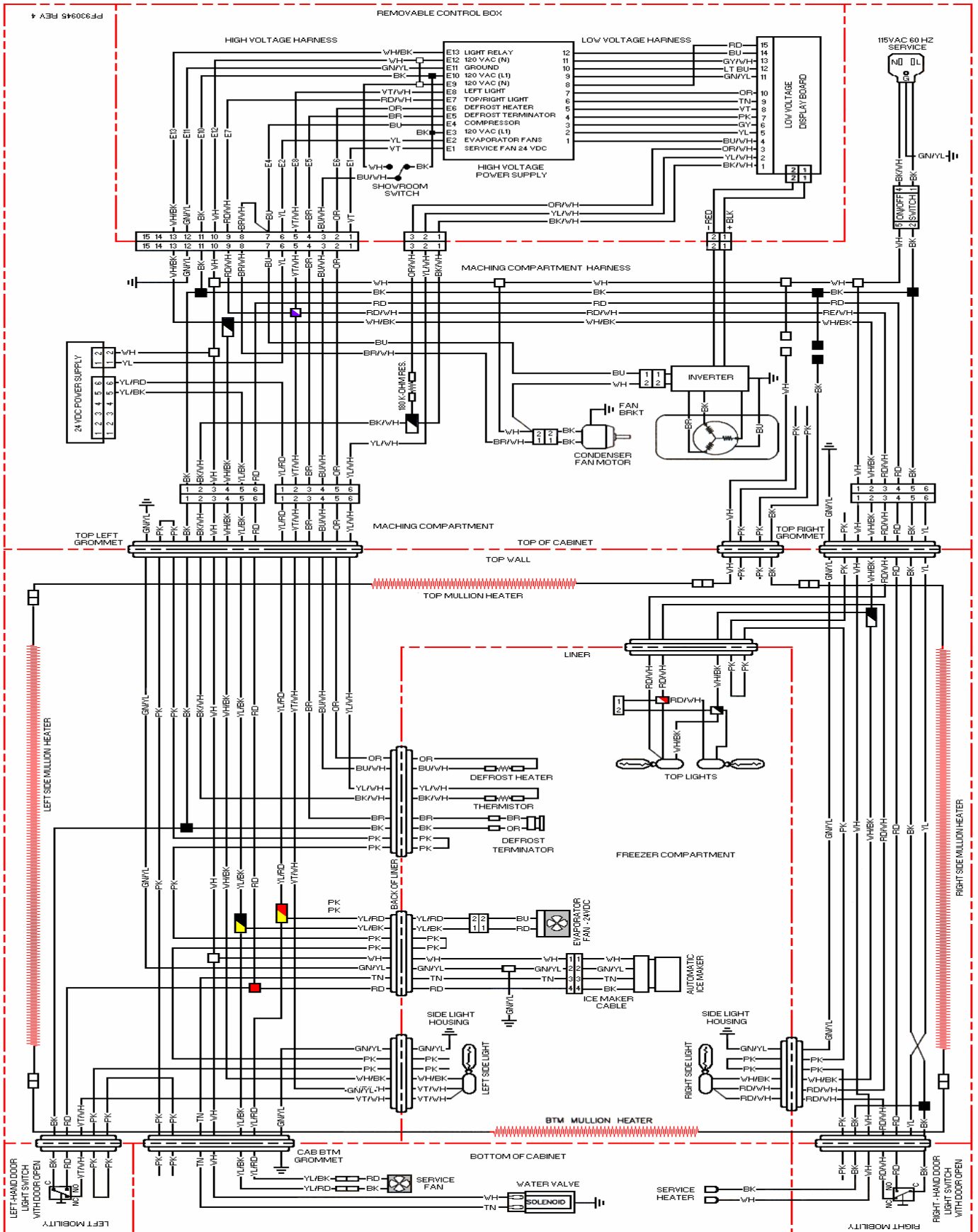


36" BTM Wiring Diagram with Icemaker

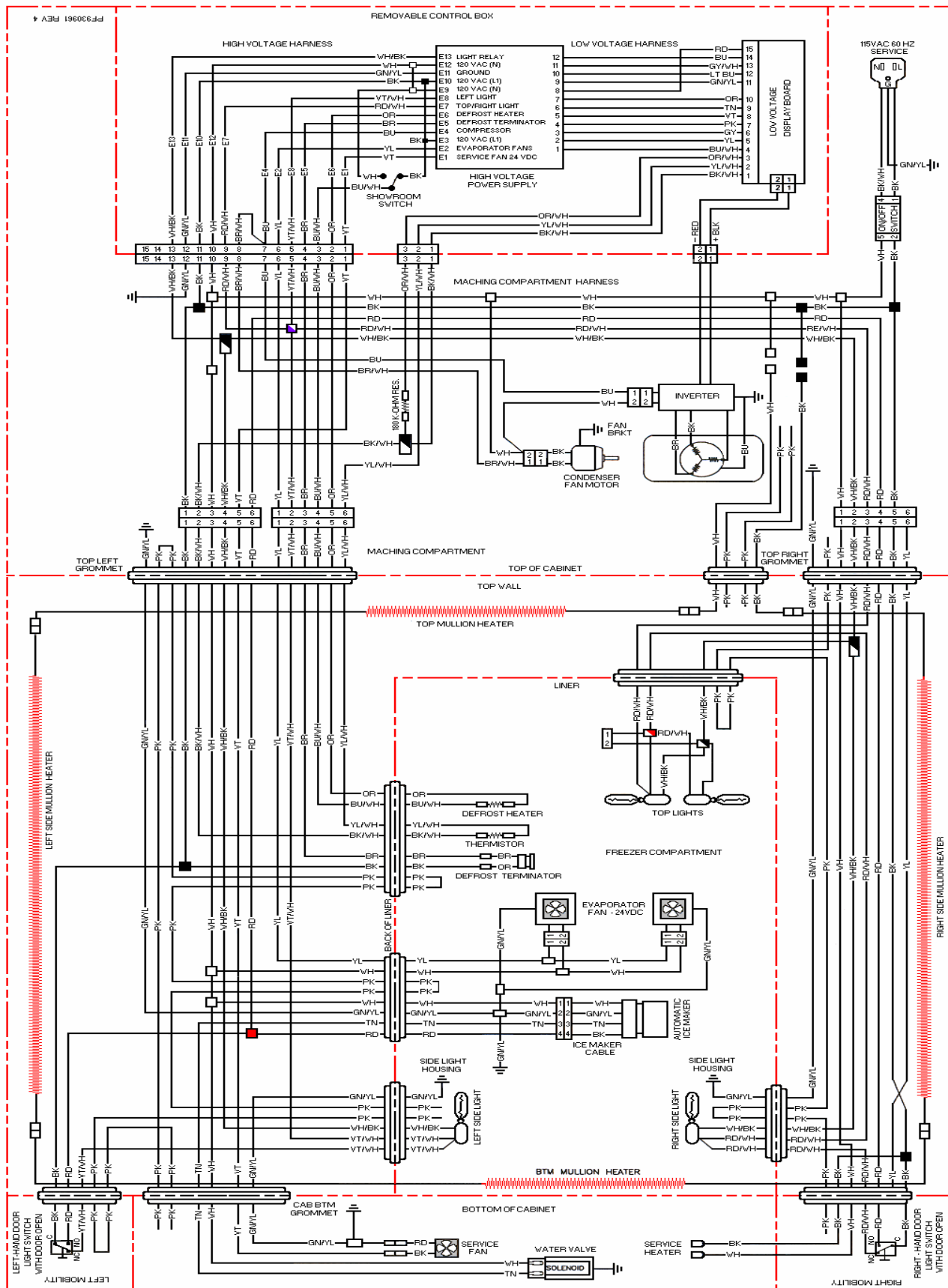
36" Bottom Mount Refrigerator



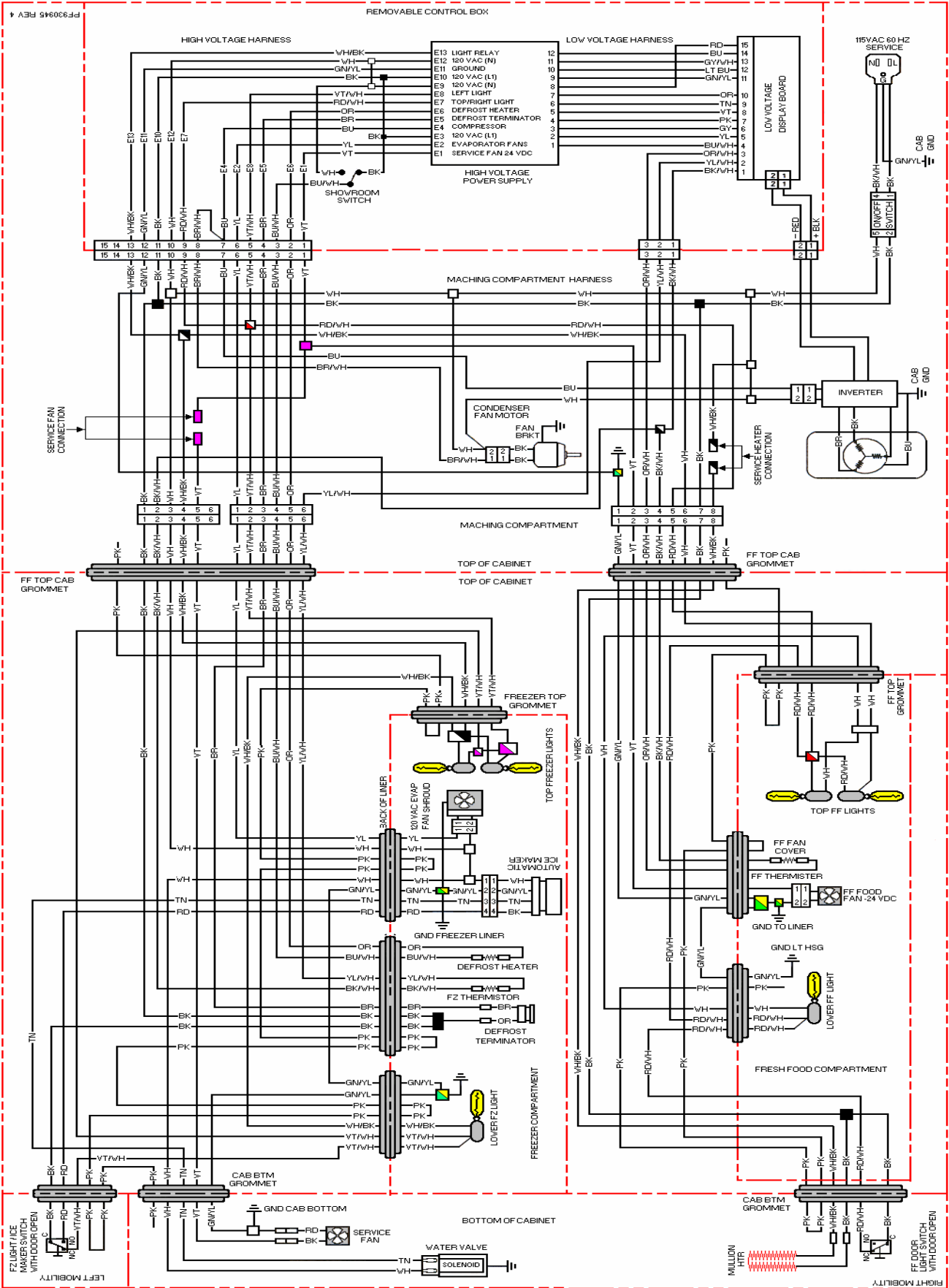
AF30 WIRING DIAGRAM



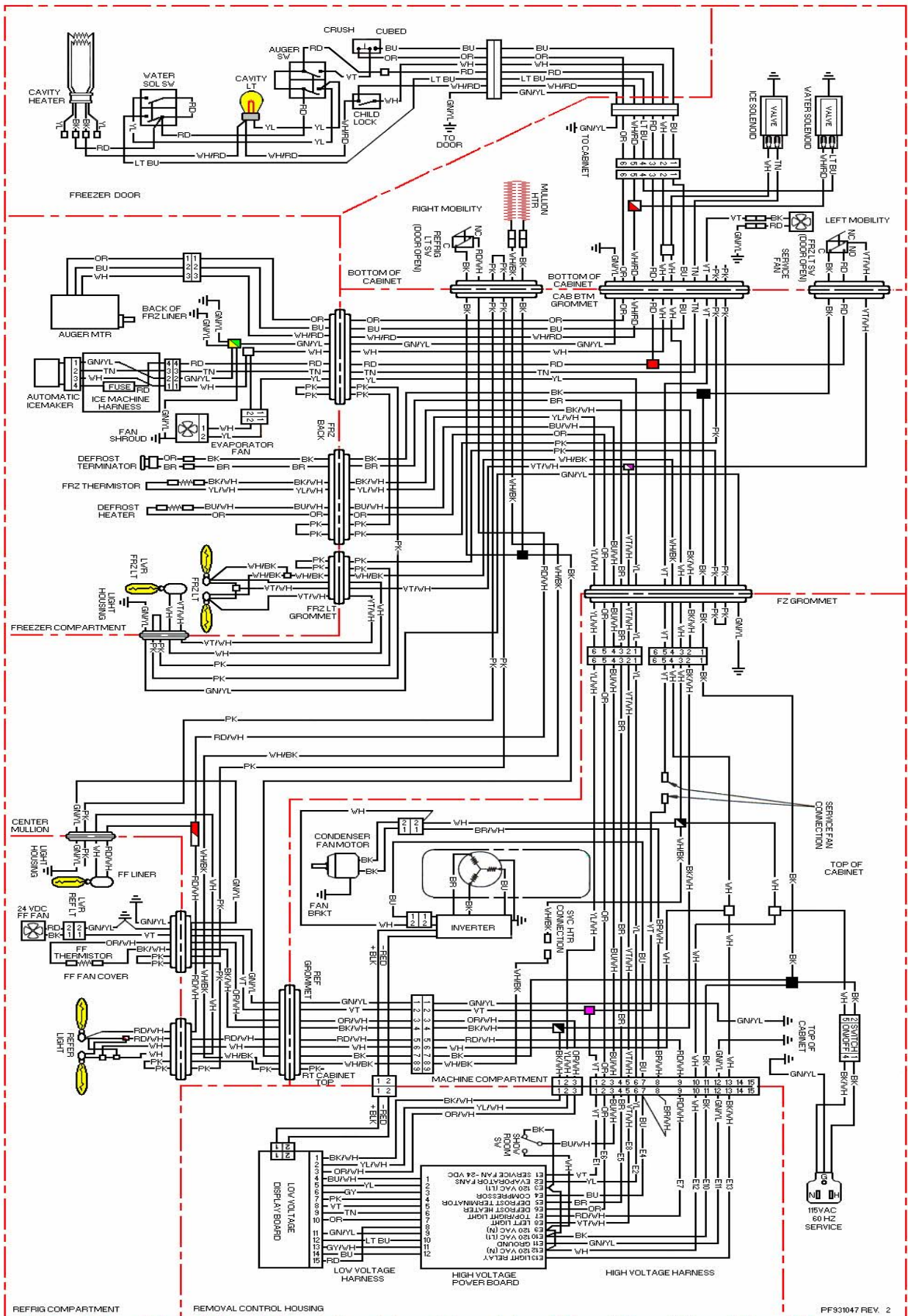
AF36 WIRING DIAGRAM



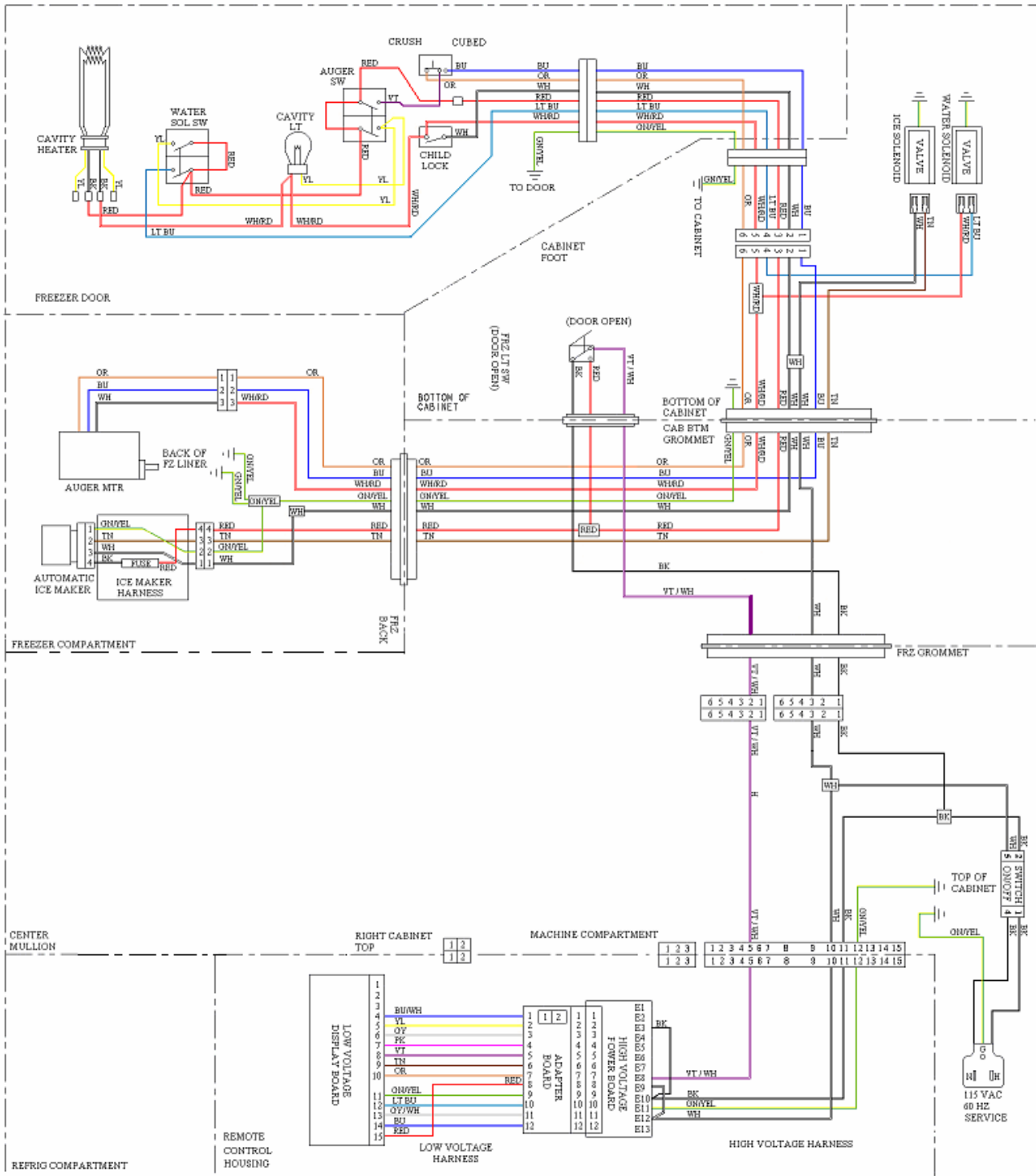
SXS WIRING DIAGRAM (Without Dispenser)



SxS REFER WIRING DIAGRAM with DISPENSER



SXS DISPENSER / ICEMAKER CIRCUIT



115 VOLT CIRCUIT

