

LOCATION	SYMBOL	DESCRIPTION	LOCATION IN FRAME
J1	AMMETER	CONTROL BOX	1
B13	ALT	MID FRAME	1
I10	BUZZER	CONTROL BOX	1
H9,L7	BPR	CONTROL BOX	1
R8	BY-PASS RELAY	CONTROL BOX	1
BPV	BY-PASS VALVE	FRAME	1
B7	BATTERY	LOWER FRAME	1
M2	COMPRESSOR	COMPRESSOR	1
H11,L9	COOL RELAY (1ST COMPARTMENT)	CONTROL BOX	2
H2	CONDENSER MOTOR OVERLOADER (THERMAL)	MOTOR	2
H11,L12	COOL RELAY (2ND COMPARTMENT)	CONTROL BOX	2
H12,L14	COOL RELAY (3RD COMPARTMENT)	CONTROL BOX	2
H8,M10,M13,M16	DEFROST COMPARTMENT RELAY	CONTROL BOX	2
DER	DIESEL ELECTRIC RELAY	CONTROL BOX	2
N11,P6	DEFROST RELAY (1ST COMPARTMENT)	CONTROL BOX	2
N13,P6	DEFROST RELAY (2ND COMPARTMENT)	CONTROL BOX	2
N16,P7	DEFROST RELAY (3RD COMPARTMENT)	CONTROL BOX	2
I05	DOOR SWITCH (1ST COMPARTMENT)	EVAPORATOR	3
P12	DOOR SWITCH (2ND COMPARTMENT)	EVAPORATOR	3
P13	DOOR SWITCH (3RD COMPARTMENT)	EVAPORATOR	3
B10	DEFROST THERMISTOR SENSOR (1ST COMPARTMENT)	EVAPORATOR	3
B8	DEFROST THERMISTOR SENSOR (2ND COMPARTMENT)	EVAPORATOR	3
B8	DEFROST THERMISTOR SENSOR (3RD COMPARTMENT)	EVAPORATOR	3
M10	DRAIN WATER HEATER (1ST COMPARTMENT)	EVAPORATOR	3
M12	DRAIN WATER HEATER (2ND COMPARTMENT)	EVAPORATOR	3
M15	DRAIN WATER HEATER (3RD COMPARTMENT)	EVAPORATOR	3
H13	ELECTRIC HEAT RELAY (1ST COMPARTMENT)	CONTROL BOX	4
H13	ELECTRIC HEAT RELAY (2ND COMPARTMENT)	CONTROL BOX	4
H13	ELECTRIC HEAT RELAY (3RD COMPARTMENT)	CONTROL BOX	4
H13	ENGINE COOLANT LEVEL SWITCH (OPTIONAL)	COND/RAD COIL	4
Q5	ENGINE OIL LEVEL SWITCH (OPTIONAL)	ENGINE	4
ENCL5	EVAP MOTOR RELAY (1ST COMPARTMENT)	HI-VOLT BOX	4
R6	EVAP MOTOR RELAY (2ND COMPARTMENT)	HI-VOLT BOX	4
R7	EVAP MOTOR RELAY (3RD COMPARTMENT)	HI-VOLT BOX	4
R8	FUSE (MAX1 FUSE 60A)	CONTROL BOX	5
F1	FUSE 5A	CONTROL BOX	5
J3	FUSE 3A	CONTROL BOX	5
J5	FUSE 3A	CONTROL BOX	5
J6	FUSE 3A	CONTROL BOX	5
J8	FUSE 7.5A	CONTROL BOX	5
J8	FUSE 20A	CONTROL BOX	5
K9,K12,K14	F14/15/16	CONTROL BOX	5
NE	FAULT LIGHT (LIGHT BAR)	MICRO	6
FLR	FLASHING RELAY	HI-VOLT BOX	6
N8	FUEL HEATER (OPTION)	ENGINE	6
FHR	FUEL HEATER RELAY (OPTION)	CONTROL BOX	6
H10,L6	FAULT RELAY	CONTROL BOX	6
FR	FUEL PUMP	FUEL TANK	6
FP	FUEL SOLENOID	ENGINE	6
Q3	GLOW PLUG	ENGINE	6
M4	GLOW PLUG RELAY	CONTROL BOX	6
H6,L4	HOT GAS RELAY (1ST COMPARTMENT)	CONTROL BOX	7
H10,L10	HOT GAS RELAY (2ND COMPARTMENT)	CONTROL BOX	7
H10,L12	HOT GAS RELAY (3RD COMPARTMENT)	CONTROL BOX	7
H11,L15	HOT GAS VALVE (1ST COMPARTMENT)	EVAPORATOR	7
N10	HOT GAS VALVE (2ND COMPARTMENT)	EVAPORATOR	7
N12	HOT GAS VALVE (3RD COMPARTMENT)	EVAPORATOR	7
N15	HIGH PRESSURE CUT-OUT SWITCH	COMPRESSOR	7
H5	HIGH PRESSURE UNLOADER SWITCH	COMPRESSOR	7
P5	HEAT THERMOSTAT (1ST COMPARTMENT)	EVAPORATOR	7
I13	HEAT THERMOSTAT (2ND COMPARTMENT)	EVAPORATOR	7
I13	HEAT THERMOSTAT (3RD COMPARTMENT)	EVAPORATOR	7
I13	INTERFACE RS232	---	8
J4	JUMPER 4	CONTROL BOX	8
N9	LIQUID SOLENOID VALVE (1st COMPARTMENT)	EVAPORATOR	8
N12	LIQUID SOLENOID VALVE (2nd COMPARTMENT)	EVAPORATOR	8
N14	LIQUID SOLENOID VALVE (3rd COMPARTMENT)	EVAPORATOR	8
J11	MGC	CONTROL BOX	8
H9,09	MHR	CONTROL BOX	8
Q9	MHV	FRAME	8
D2,D13	MP	MICRO	8
OCJ1	OPTION CONNECTOR JUMPER 1 (10 WAY)	CONTROL BOX	9
OCJ2	OPTION CONNECTOR JUMPER 2 (3 WAY) (RS232)	CONTROL BOX	9
OP	OIL PRESSURE SAFETY SWITCH (NO)	ENGINE	9
C3	PL	MICRO	9
B7	RETURN AIR SENSOR (1ST COMPARTMENT)	EVAPORATOR	9
B11	RETURN AIR SENSOR (2ND COMPARTMENT)	EVAPORATOR	9
B12	RETURN AIR SENSOR (3RD COMPARTMENT)	EVAPORATOR	9
Q9	RECEIVER PRESSURE VALVE	FRAME	9
H6,L3	RR	CONTROL BOX	9
R12,06	RR	CONTROL BOX	9
R13,07	RR	CONTROL BOX	9
R14,08	RR	CONTROL BOX	9
B1	RS	CONTROL BOX	9
P2	SM	ENGINE	9
E2	SPA/B/C	CONTROL BOX	9
B5	SPT	COMPRESSOR	9
M3	STARTER SOLENOID	COMPRESSOR	9
N2	STARTER SOLENOID CONTACTOR	STARTER	9
H2,L3	STARTER SOLENOID RELAY	CONTROL BOX	9
O12	START-STOP SWITCH (1ST COMPARTMENT)	CONTROL BOX	9
O13	START-STOP SWITCH (2ND COMPARTMENT)	CONTROL BOX	9
O14	START-STOP SWITCH (3RD COMPARTMENT)	CONTROL BOX	9
B3	SSW	CONTROL BOX	9
Q6	STANDBY SWITCH	MICRO	9
H7,L5	UR	ENGINE	9
M5	UNLOADER FRONT RELAY	CONTROL BOX	9
H7,05	UNLOADER FRONT	ENGINE	9
URR	UNLOADER REAR RELAY	CONTROL BOX	9
W5	WTS	ENGINE	9

- ⊙ INDICATES A SOLDERED SPLICE POINT (SP#).
- ⊠ INDICATES A SPLICE PACK CONNECTION (SPK#).
- LIGHT LINES INDICATE SYSTEM WIRES.
- NORMALLY CLOSED CONTACTS.
- NORMALLY OPEN CONTACTS.
- ⊙ X1 INDICATES CONNECTION.
- HC2F HIGH CURRENT MULTIPLE PLUG CONNECTION NUMBER (36 WAY).
- ⊕ INDICATES MOMENTARY CONTACTS.
- ⊕ INDICATES A WIRE GROUND.
- ⊕ INDICATES A CHASSIS GROUND (NO WIRE).
- — — INDICATES STANDARD OPTIONS.
- INDICATES A CONNECTION, WIRE, LUG, ETC.
- INDICATES INSULATING PLUG.
- ① COMPONENT CONNECTION NUMBER OR LETTER.

- NOTES:
- UNIT SHOWN "OFF" POSITION.
  - WIRE IDENTIFICATION SYSTEM:  
COLOR: WHITE - DC CONTROL CIRCUITS  
BLACK - DC GROUNDS  
RED - AC CIRCUITS  
GREEN - AC GROUNDS
  - ADDRESS SYSTEM: EXAMPLE: HC1D2-MP2  
INDICATES A WIRE BETWEEN PLUG HC1-PIN D2 AND MICROPROCESSOR MP AND PIN W2.
  - \* VOLTAGE BELOW 12 VOLTS. REFER TO OWNERS MANUAL FOR TROUBLESHOOTING PROCEDURE.
  - IF YOU HAVE AN OPTIONAL CONTROL/INDICATOR PANEL, YOU REMOVE "OCJ1".
  - IF YOU HAVE A DOOR SWITCH, YOU REMOVE JUMPER IN EVAPORATOR.
  - EVAPORATOR CONNECTOR LABELS: EXAMPLE: 2C13  
INDICATES #2 COMPARTMENT CONNECTOR, PIN 13 (19 WAY CONNECTOR).

15 DIODE IS IN DIODE BLOCK1, (DB1) WITH CATHODE ON PIN 5. ANODE IS ON PIN 9 OF DIODE BLOCK 1 FOR ALL DIODES. SAME AS DIODE BLOCK 2 AND 3

DECAL NO.	REV
62-03955-00	C
NDD93A MICRO	

A B C D E F G H I J K L M N O P Q R S T U V W X Y

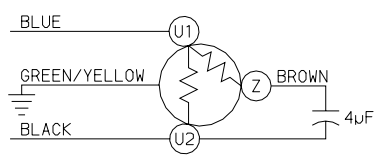
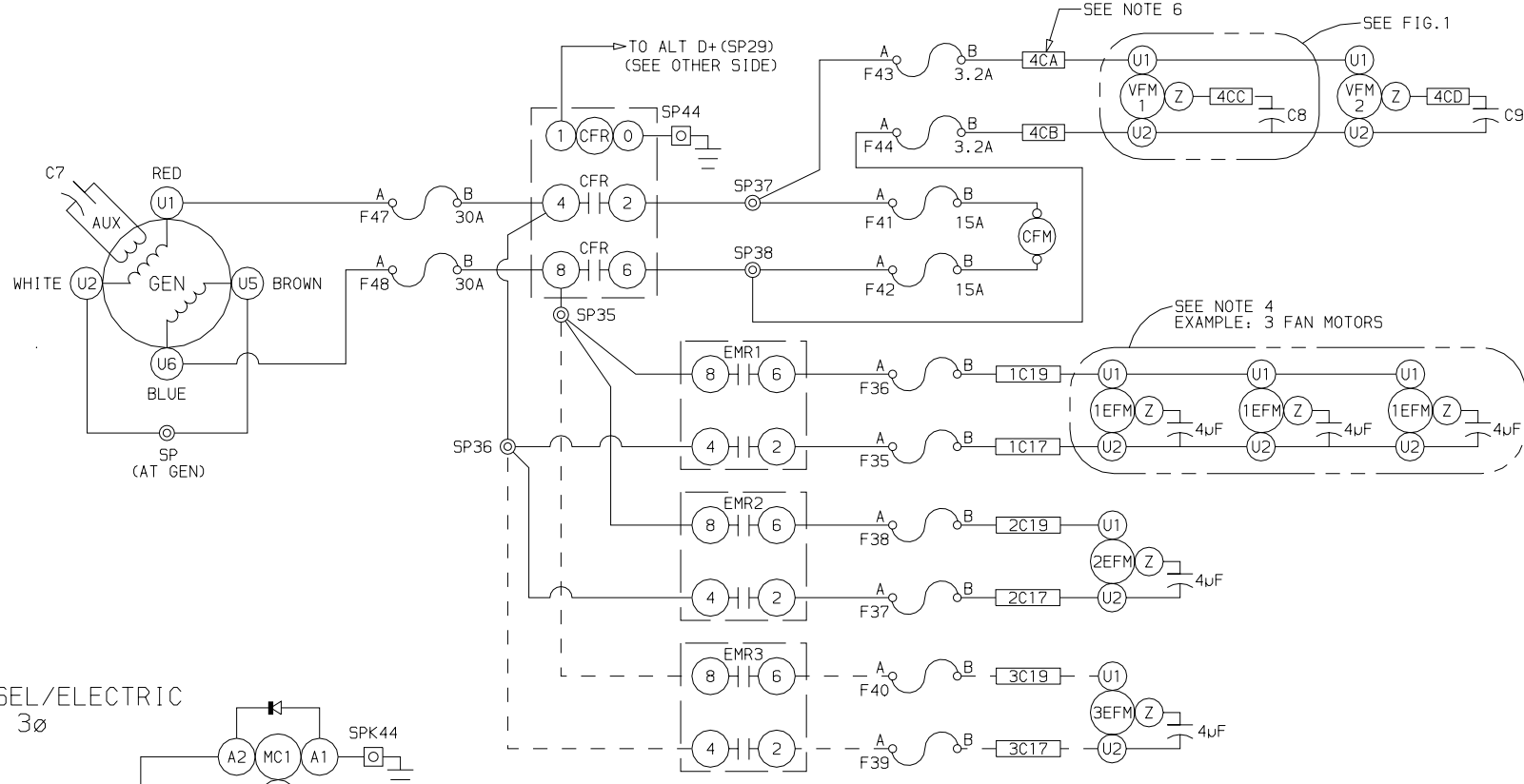
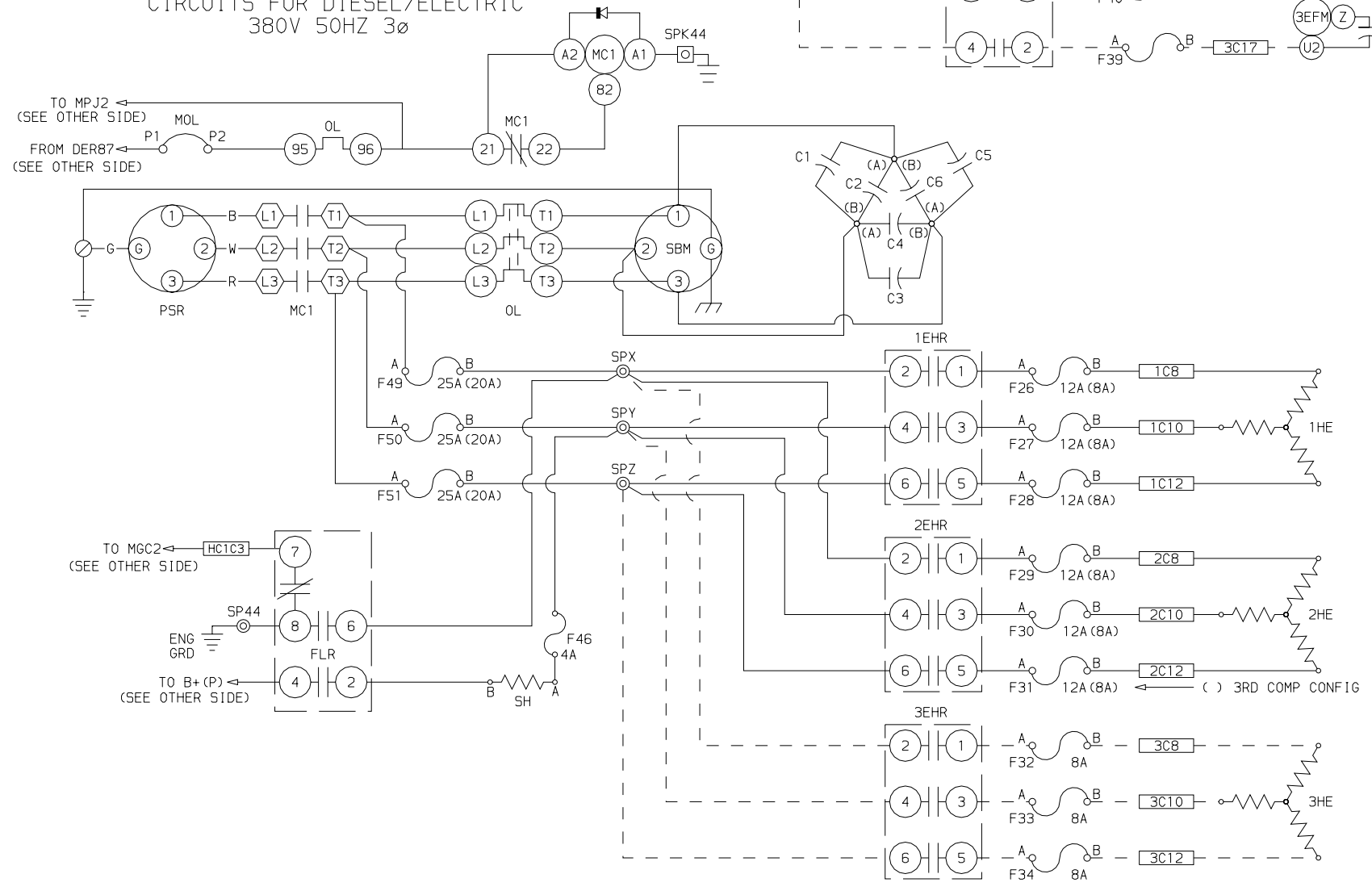


FIG. 1  
APPLICABLE TO ALL  
VFM AND EFM MOTORS



CIRCUITS FOR DIESEL/ELECTRIC  
380V 50HZ 3ø



ZONE	SYMBOL	DESCRIPTION
I9	C1	CAPACITOR (18µF)
J9	C2	CAPACITOR (18µF)
J10	C3	CAPACITOR (18µF)
J9	C4	CAPACITOR (18µF)
K9	C5	CAPACITOR (18µF)
J9	C6	CAPACITOR (18µF)
E2	C7	CAPACITOR (40µF)
P2	C8	CAPACITOR (4µF)
R2	C9	CAPACITOR (4µF)
N3	CFM	COND FAN MOTOR
J2	CFR	COND FAN RELAY
O4	1EFM	EVAP FAN MOTOR
O6	2EFM	EVAP FAN MOTOR (2ND COMP)
O7	3EFM	EVAP FAN MOTOR (3RD COMP)
L11	1EHR	EVAP HEATER RELAY
L13	2EHR	EVAP HEATER RELAY (2ND COMPT)
L15	3EHR	EVAP HEATER RELAY (3RD COMPT)
K4	1EMR	EVAP MOTOR RELAY
K5	2EMR	EVAP MOTOR RELAY (2ND COMPT)
K7	3EMR	EVAP MOTOR RELAY (3RD COMPT)
J11	F26	FUSE (12 AMP 2 COMPT, 8 AMP 3 COMPT)
J11	F27	FUSE (12 AMP 2 COMPT, 8 AMP 3 COMPT)
J12	F28	FUSE (12 AMP 2 COMPT, 8 AMP 3 COMPT)
J13	F29	FUSE (12 AMP 2 COMPT, 8 AMP 3 COMPT)
J13	F30	FUSE (12 AMP 2 COMPT, 8 AMP 3 COMPT)
J14	F31	FUSE (12 AMP 2 COMPT, 8 AMP 3 COMPT)
J15	F32	FUSE (8 AMP 3 COMPT ONLY) (OPTIONAL)
J15	F33	FUSE (8 AMP 3 COMPT ONLY) (OPTIONAL)
J16	F34	FUSE (8 AMP 3 COMPT ONLY) (OPTIONAL)
M5	F35	FUSE 1 FAN (1.6A), 2 FAN (3.2A), 3 FAN (5A), 4 FAN (6.3A)
M4	F36	FUSE 1 FAN (1.6A), 2 FAN (3.2A), 3 FAN (5A), 4 FAN (6.3A)
M6	F37	FUSE 1 FAN (1.6A), 2 FAN (3.2A), 3 FAN (5A), 4 FAN (6.3A)
M5	F38	FUSE 1 FAN (1.6A), 2 FAN (3.2A), 3 FAN (5A), 4 FAN (6.3A)
M7	F39	FUSE 1 FAN (1.6A), 2 FAN (3.2A), 3 FAN (5A), 4 FAN (6.3A)
M7	F40	FUSE 1 FAN (1.6A), 2 FAN (3.2A), 3 FAN (5A), 4 FAN (6.3A)
M3	F41	FUSE 15 AMP
M3	F42	FUSE 15 AMP
M1	F43	FUSE 3.2 AMP
M2	F44	FUSE 3.2 AMP
F14	F46	FUSE 4 AMP
H2	F47	FUSE 30 AMP
H2	F48	FUSE 30 AMP
E11	F49	FUSE (25A 2 COMPT, 20A 3 COMPT)
E12	F50	FUSE (25A 2 COMPT, 20A 3 COMPT)
E12	F51	FUSE (25A 2 COMPT, 20A 3 COMPT)
D14	FLR	FLASHING RELAY
F3	GEN	1 PHASE GENERATOR
N11	1HE	HEATER ELEMENT
N13	2HE	HEATER ELEMENT (2ND COMPARTMENT)
N15	3HE	HEATER ELEMENT (3RD COMPARTMENT)
D10, F8, G7	MC1	MOTOR CONTACTOR
BB	MOL	MOTOR OVERLOADER
DB, F10	OL	OVERLOAD PROTECTOR
C10	PSR	POWER SUPPLY RECEPTACLE
H10	SBM	STANDBY MOTOR
F14	SH	SHUNT (5 OHM, 25 WATT)
C13, G11, G12, H4, I5, K2, K3, J3	SP	SPLICE POINT
H7, K2	SPK	SPLICE PACK
N1, P1	VFM	VENTILATION FAN MOTOR

- NOTES:
- UNIT SHOWN IN "OFF" POSITION.
  - WIRE IDENTIFICATION SYSTEM:  
COLOR: WHITE - DC CONTROL CIRCUITS  
BLACK - GROUNDS  
RED - AC CIRCUITS  
GREEN - AC GROUNDS
  - ADDRESS SYSTEM: EXAMPLE, HCD2-MPW2 INDICATES A WIRE BETWEEN PLUG HC, PIN D2 & MICROPROCESSOR MP & PIN W2.
  - THE NUMBER OF FANS DEPEND ON YOUR COMPARTMENT CONFIGURATION (i.e. 1, 2, 3, 4 FANS).
  - EVAPORATOR CONNECTOR LABELS: EXAMPLE: 2C12 INDICATES #2 COMPARTMENT CONNECTOR, PIN 12.
  - VENTILATION FAN MOTOR CONNECTOR LABELS: EXAMPLE 4CA INDICATES CONNECTOR 4, PIN A.

- ⊙ INDICATES A SOLDERED SPLICE POINT.
  - ⊠ INDICATES A SPLICE PACK CONNECTION.
  - LIGHT LINES INDICATE SYSTEM WIRES.
  - NORMALLY CLOSED CONTACTS.
  - NORMALLY OPEN CONTACTS.
  - (X1) INDICATES CONNECTION.
  - [HC2F] MULTIPLE PLUG CONNECTION NUMBER.
  - ① COMPONENT CONNECTION NUMBER OR LETTER.
  - ⚡ INDICATES MOMENTARY CONTACTS.
  - ⊥ INDICATES A WIRE GROUND.
  - ⊥ INDICATES A CHASSIS GROUND (NO WIRE).
  - - - INDICATES STANDARD OPTIONS.
  - INDICATES A CONNECTION, WIRE, LUG, ETC.
- 15 DIODE IS IN DIODE BLOCK1, (DB1) WITH CATHODE ON PIN 5. ANODE IS ON PIN 9 OF DIODE BLOCK 1 FOR ALL DIODES. SAME AS DIODE BLOCK 2 AND 3