



DataMate 1.5, 2 and 3 Ton Systems

Parts Manual

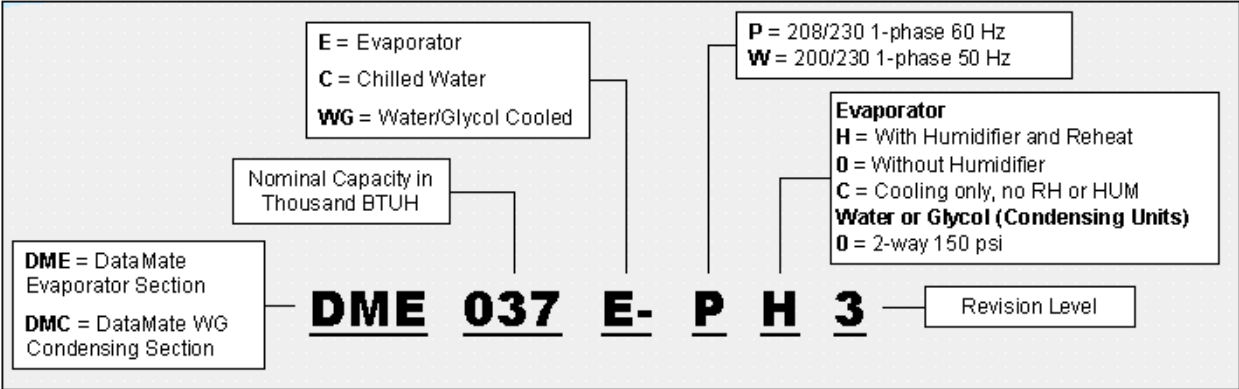


DataMate (1.5, 2 and 3 Ton Systems)

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Model Number Designations



DataMate Information

The DataMate is a split system air or water/glycol cooled unit or self-contained chilled water unit.

The evaporator section includes the blower assembly, filter, microprocessor control, and electric reheat. All evaporator sections are 208/230 Volt 1-phase. A cooling-only model is also available.

Air cooled units - include the evaporator section plus one of the following condensing units. (Design ambient 95°F (35°C).)

MCD Centrifugal fan unit includes scroll compressor, factory mounted disconnect switch, condenser coil, centrifugal blower assembly, high pressure switch, Lee-temp head pressure control system, hot gas bypass, and filter drier. Unit must be mounted indoors. Duct flanges are provided. (See pricing for voltages).

Prop fan unit which includes scroll compressor, condenser coil, prop fan, high pressure switch, Lee-Temp head pressure control, filter dryer, hot gas bypass, and sight glass. Unit is designed for outdoor location (see pricing for voltages). (Consult the Prop Fan Condensing Unit Price Book for optional selections).

DMC Water/Glycol cooled includes the evaporator section plus a water/glycol cooled condensing unit which includes compressor, condenser, two-way water regulating valve, filter dryer, and sight glass. Design pressure is 1034 kpa (50 psi). Condensing unit is designed to mate up to evaporator section to create a self-contained system. (See pricing for voltages.) Drycooler(s) and pump(s) selected separately.

MCD Water/Glycol Condensing Unit includes a scroll compressor, factory mounted disconnect switch, coaxial condenser, two-way or optional three-way water regulating valve, hot gas bypass, and filter drier. Design pressure is 150 psi (1034 kPa) or optional 350 psi (2413 kPa). (See pricing for voltages and complete model number). Drycooler(s) and pump(s) selected separately for applications using glycol loop. Drycooler and pump selected separately.

Chilled water fan/coil section includes chilled water coil and two-way slow close valve. Design pressure is 125 psi (862 kPa).

Humidifier. Steam-generating type with electronic control and automatic flushing circuit, humidification and dehumidification control, strainer, inlet drain, and solenoid valves and controls for humidification and dehumidification.

Condensate Pump. Can be field installed in the base of the unit. The pump is supplied with discharge check valve.

Pre-charged refrigerant line set. Contains an insulated copper suction line and a copper liquid line for interconnection of the indoor and outdoor sections. Available in 15 foot (4.5m) and 30 foot (9m) sections.

Refrigerant-Line sweat adapter kit. Contains two suction and two liquid line compatible fittings that allow field-supplied interconnecting refrigerant lines to be used. See Installation, Operation & Maintenance Manual for maximum recommended installed distances.

277 Volt System requires two field installed transformers (37.5 amps each). One for evaporator module and one for condensing module. For self-contained water/glycol system: consult factory for required transformer. The transformer is epoxy encapsulated and is suitable for indoor/outdoor installation.

DataMate Parts

EVAPORATOR

1.0 Blower Assembly

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
BLOWER HOUSING COMPLT 2T DM	124117G1	208/230-60-1 200/230-50-1		3			1-2	
BLOWER HOUSING CMPLT 1.5&3T DM	124117G2	208/230-60-1 200/230-50-1	2		3	3	1-2	
MOTOR .16HP 220-1-60 DBL SHFT	124101P1	208/230-60-1 200/230-50-1	1		1	1	1-3	C
MOTOR .12HP 220-1-60 DBL SHFT	124102P1	208/230-60-1 200/230-50-1		1			1-3	
MOTOR .11HP 220-1-60 SGL SHFT	124103P1	208/230-60-1 200/230-50-1			1	1	1-4	
MOTOR .08HP 220-1-60 SGL SHFT	124104P1	208/230-60-1 200/230-50-1		1			1-4	

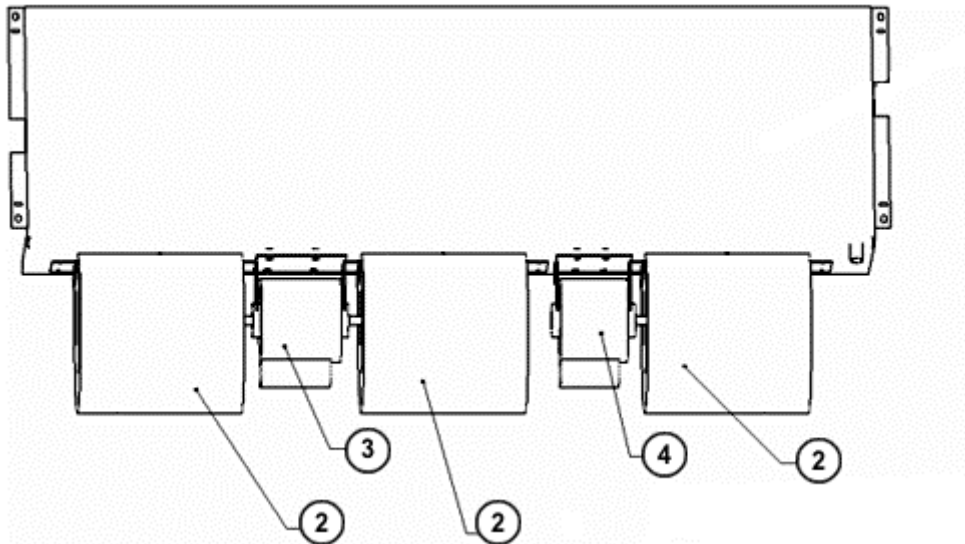


Figure 1

2.0 Coil Assembly

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
COIL EVAP DM 1.5T 12X29.31X3.5	124105P1	208/230-60-1 200/230-50-1	1				2-12	
COIL EVAP DM 1.5T 12X47X2.62	124105P2	208/230-60-1 200/230-50-1		1			2-12	
COIL EVAP DM 3T 12X47X3.5	124105P3	208/230-60-1 200/230-50-1			1		2-12	
COIL CW 2T DME	130886P1	208/230-60-1 200/230-50-1				1	2-12	
HOSE DRAIN .75 ID FORMED	1C11305P1	208/230-60-1 200/230-50-1	1	1	1	1	2-76	
CLAMP HOSE WORM DRIVE.31 X 1.25	124216P2	208/230-60-1 200/230-50-1	2	2	2	2	2-77	
ELL NYLON 90 3/4Barb X 3/4Barb	P15-0110	208/230-60-1 200/230-50-1	1	1	1	1	2-78	

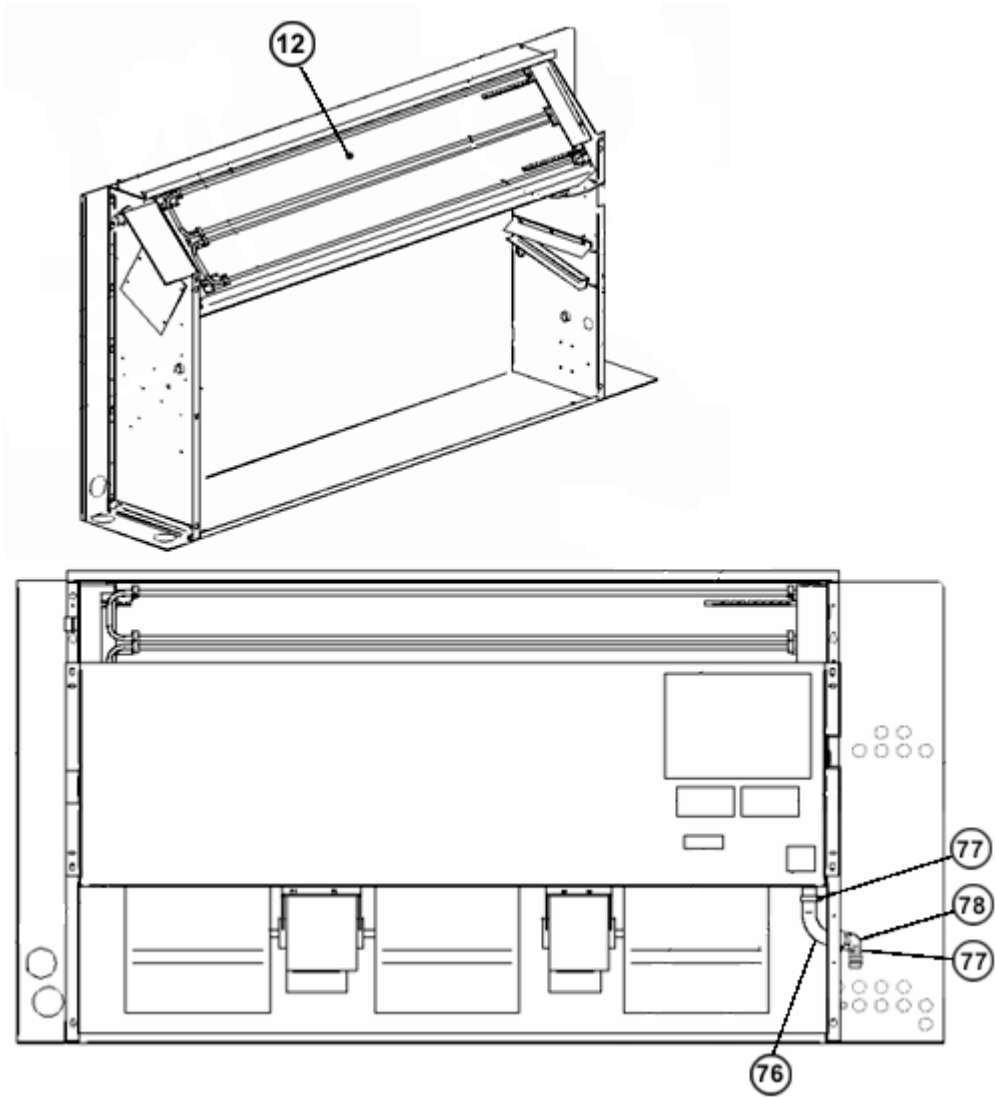


Figure 2

3.0 Humidifier

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
HOSE STEAM 0.88ID 10PSI	124220P1	208/230-60-1 200/230-50-1	1	1	1	1	3-4	
CLAMP HOSE WORM DRIVE .31X1.25	124216P2	208/230-60-1 200/230-50-1	1	1	1	1	3-5	
CLAMP HOSE WORM DRIVE .75- 1.75	P02-0020	208/230-60-1 200/230-50-1	1	1	1	1	3-21	

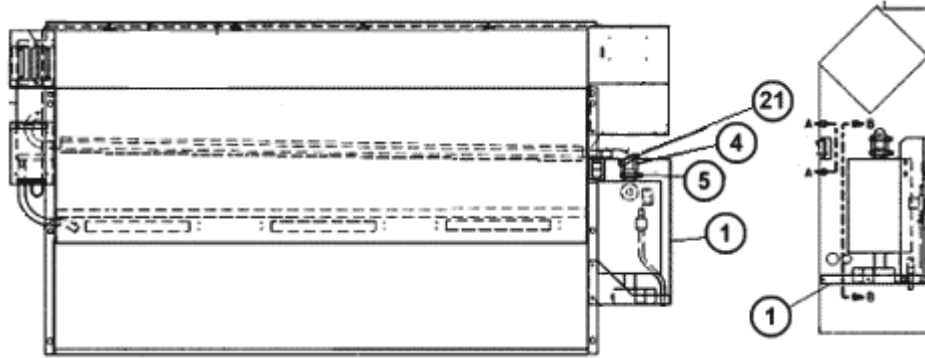


Figure 3

3.1 Humidifier Detail

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
PWA CNTL ELEC RELAY HUM 2STG	134562P1	208/230-60-1 200/230-50-1	1	1	1	1	4-1	
BOTTLE HUM 1PH 220/277 5 LBS	127849P1	208/230-60-1 200/230-50-1	1	1	1	1	4-2	A
XFMR TORROID HUM 5T MME	127853P1	208/230-60-1 200/230-50-1	1	1	1	1	4-3	B
VALVE SOL / STRNR HUM FILL 24V	136812P1	208/230-60-1 200/230-50-1	1	1	1	1	4-4	B
VALVE SOL DRAIN KIT HUM 24V	127992P1	208/230-60-1 200/230-50-1	1	1	1	1	4-5	B
RELAY 1P2T 24V 50/60HZ	E03-0170	208/230-60-1 200/230-50-1	2	2	2	2	4-6	B
BOOT RUBBER SG HUM TERM COVER	128759P1	208/230-60-1 200/230-50-1	2	2	2	2	4-7	
RES MF 1/4W 0.1% 249K	100281	208/230-60-1 200/230-50-1	1	1	1	1	4-8	

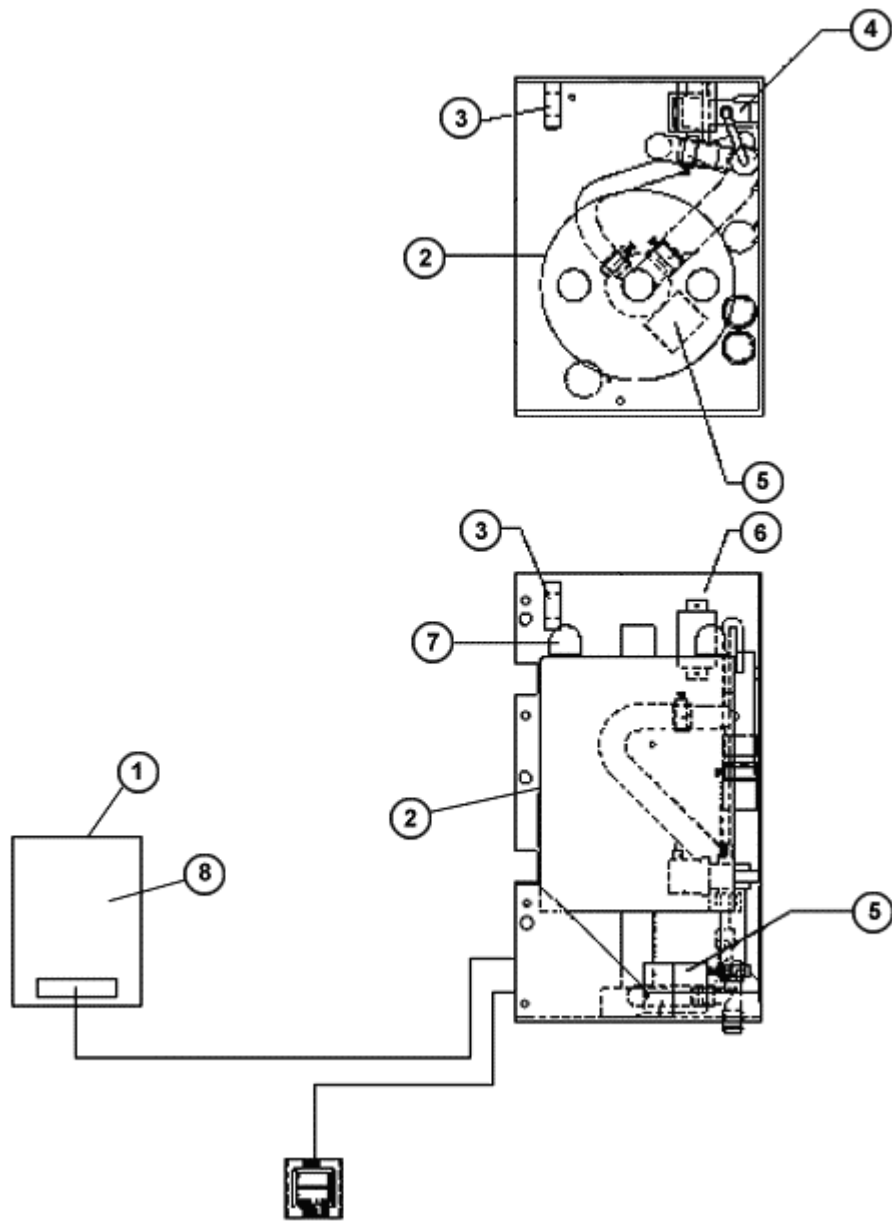
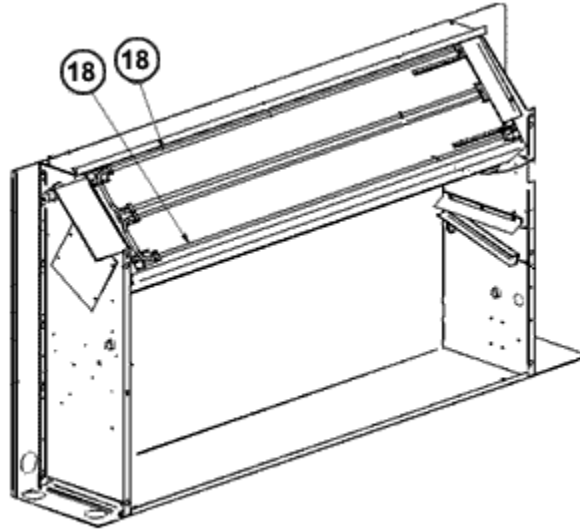


Figure 4

4.0 Reheat

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
ELEMENT HEATER DM	124067P1	208/230-60-1 200/230-50-1	1				5-18	C
ELEMENT HEATER DM	124068P1	208/230-60-1 200/230-50-1		2	2	2	5-18	C



Note: One (1) element used on 020E units

Figure 5

5.0 Piping - DX

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
VALVE EXP 3/8 X 1/2 X 1/4 ODF	1C19507P1	208/230-60-1 200/230-50-1		1			8-3	
VALVE EXP 3/8 X 1/2 X 1/4 ODF	1C19507P2	208/230-60-1 200/230-50-1			1		8-3	
VALVE EXP 3/8 X 1/2 X 1/4 1.5T DM	1C19507P3	208/230-60-1 200/230-50-1	1				8-3	B
FILTER/DRIER 3/8ODF SLDR	136782P1	208/230-60-1 200/230-50-1	1	1	1		8-7	B

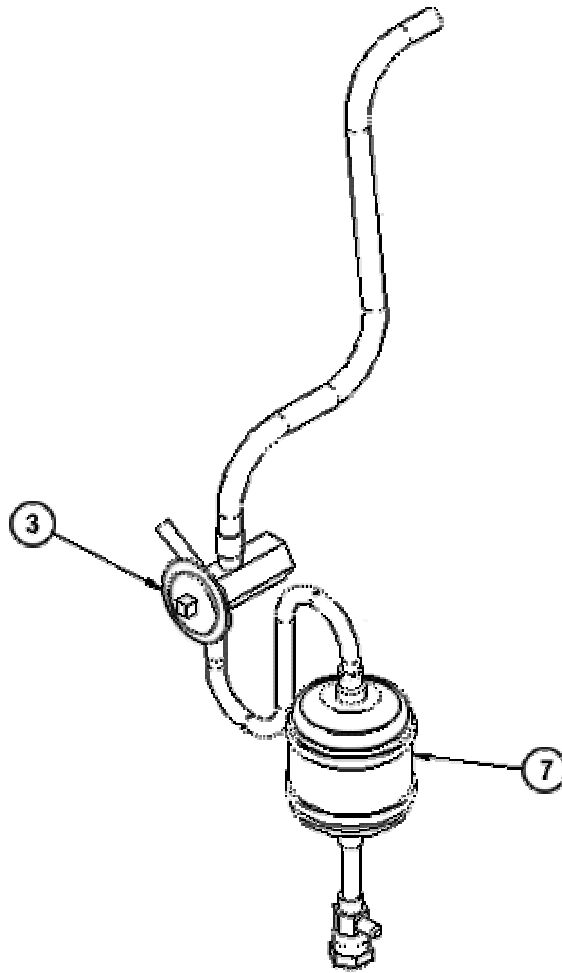


Figure 6

6.0 Piping - CW

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
VALVE H2O SLOW 2WAY 3/5" 8CV	127585P2	208/230-60-1 200/230-50-1				1	10-3	B

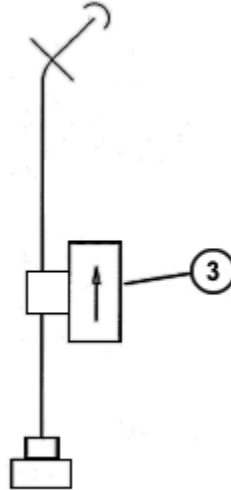


Figure 7

7.0 Electrical Panel

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
SAFETY STAT REHEAT DM	1D16378P20	208/230-60-1 200/230-50-1	1	2	2	2	13-3	B
Relay 1P2T 24V 50/60HZ	E03-0170	208/230-60-1 200/230-50-1	2	2	2	2	13-8	B
PWRBLK 2PL 1)2:14X6)10:18 QC	121187P1	208/230-60-1 200/230-50-1	1	1	1	1	13-9	
XMFR 075VA 5060 208/30/77-24	E03-0010	208/230-60-1 200/230-50-1	1	1	1	1	13-11	
CB 3.2A BRKT MNT ETA	E-276C	208/230-60-1 200/230-50-1	1	1	1	1	13-12	
RELAY ELECTRIC HEAT	131116P1	208/230-60-1 200/230-50-1	1	1	1	1	13-38	B
PWA Control Board MM2	415771G1	208/230-60-1 200/230-50-1	1	1	1	1	13-53	C
WALL BOX MINIMATE2	153210G1	208/230-60-1 200/230-50-1	1	1	1	1		C

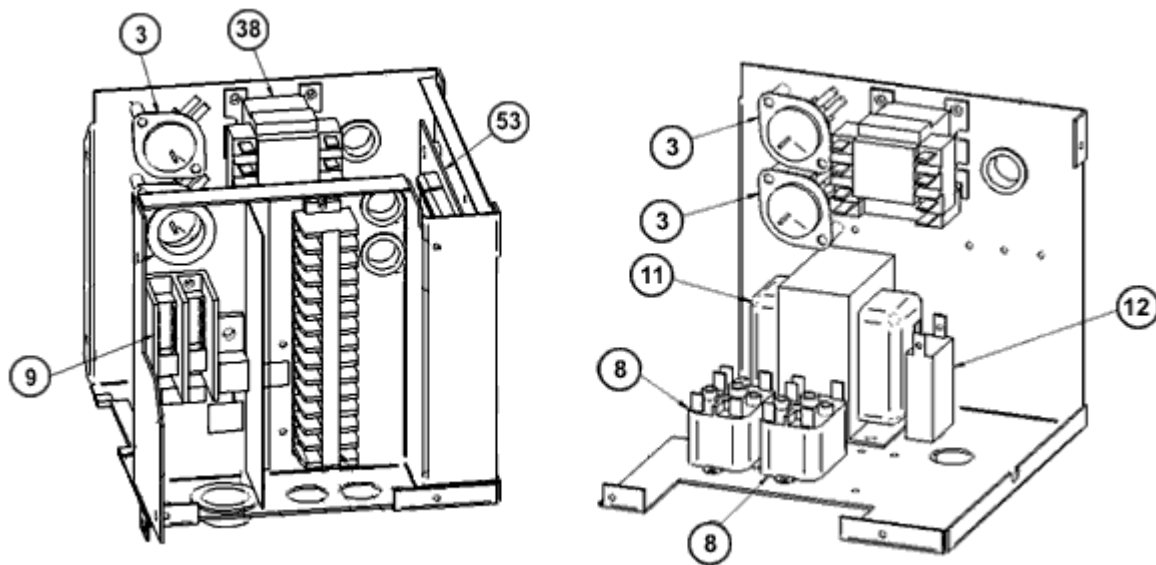


Figure 8

8.0 Exterior Panel

Component Description	Part #	Volts	20E	27E	37E	44C	Figure #	RSP
PANEL CAB TOP 16GA CRS 62.88	131111P1	208/230-60-1 200/230-50-1		1	1	1	15-1	
PANEL CAB TOP 16GA CRS 45.25	131111P2	208/230-60-1 200/230-50-1	1				15-1	
PANEL CAB UP FR 16GA CRS 62.88	131110P1	208/230-60-1 200/230-50-1		1	1	1	15-2	
PANEL CAB UP FR 16GA CRS 45.25	131110P2	208/230-60-1 200/230-50-1	1				15-2	
PANEL CABINET LOWER FR 63" DM	132483P1	208/230-60-1 200/230-50-1		1	1	1	15-3	
PANEL CABINET LOWER FR 45 " DM	132483P2	208/230-60-1 200/230-50-1	1				15-3	
PANEL CABINET LEFT SIDE DM	124079P1	208/230-60-1 200/230-50-1	1	1	1	1	15-4	
PANEL CABINET RIGHT SIDE DM	124079P2	208/230-60-1 200/230-50-1	1	1	1	1	15-5	
PANEL FRAME SERVICE 63 " DM	124081P1	208/230-60-1 200/230-50-1		1	1	1	15-6	
PANEL FRAME SERVICE 45 " DM	124081P2	208/230-60-1 200/230-50-1	1				15-6	
PLATE LL & CAB HOLE COVER DM	124080P1	208/230-60-1 200/230-50-1	1	1	1	1	15-7	
FILTER AIR MEDIA 2/3T DM	124156P1	208/230-60-1 200/230-50-1		1	1	1	15-8	A
FILTER AIR MEDIA 1.5T DM	124156P2	208/230-60-1 200/230-50-1	1				15-8	A
ENCL AIR FILTER 2&3T DM	124157P1	208/230-60-1 200/230-50-1		1	1	1	15-8	
ENCL AIR FILTER 2&3T DM	124157P2	208/230-60-1 200/230-50-1	1				15-8	
WIRE FILTER MED RETAIN END DM	124158P1	208/230-60-1 200/230-50-1	2	3	3	3	15-8	
GRILL AIR RETURN ASSY DME 2/3T	131108G2	208/230-60-1 200/230-50-1		1	1	1	15-9	
GRILL AIR RETURN ASSY DME 1.5T	131108G4	208/230-60-1 200/230-50-1	1				15-9	
GRILL AIR DISCH ASSY DME 2/3T	131108G1	208/230-60-1 200/230-50-1		1	1	1	15-10	
GRILL AIR DISCH ASSY DME 1.5T	131108G3	208/230-60-1 200/230-50-1	1				15-10	
LOCK PANEL DMATE	1D16378P63	208/230-60-1 200/230-50-1	2	2	2	2	15-13	
SUPPORT FRONT SERVICE PANEL DM	124144P1	208/230-60-1 200/230-50-1	3	3	3	3	15-17	
CLIP AIR FILTER MTG DM	124145P1	208/230-60-1 200/230-50-1	10	10	10	10	15-20	
CLIP AIR GRILL SPACING DM	124143P1	208/230-60-1 200/230-50-1	10	10	10	10	15-21	
BEZEL DM CONTROL	131109P1	208/230-60-1 200/230-50-1	1	1	1	1	15-23	
STRIP MAGNETIC ADH BACKED	167442P1	208/230-60-1 200/230-50-1	1.5	1.5	1.5	1.5	15-26	

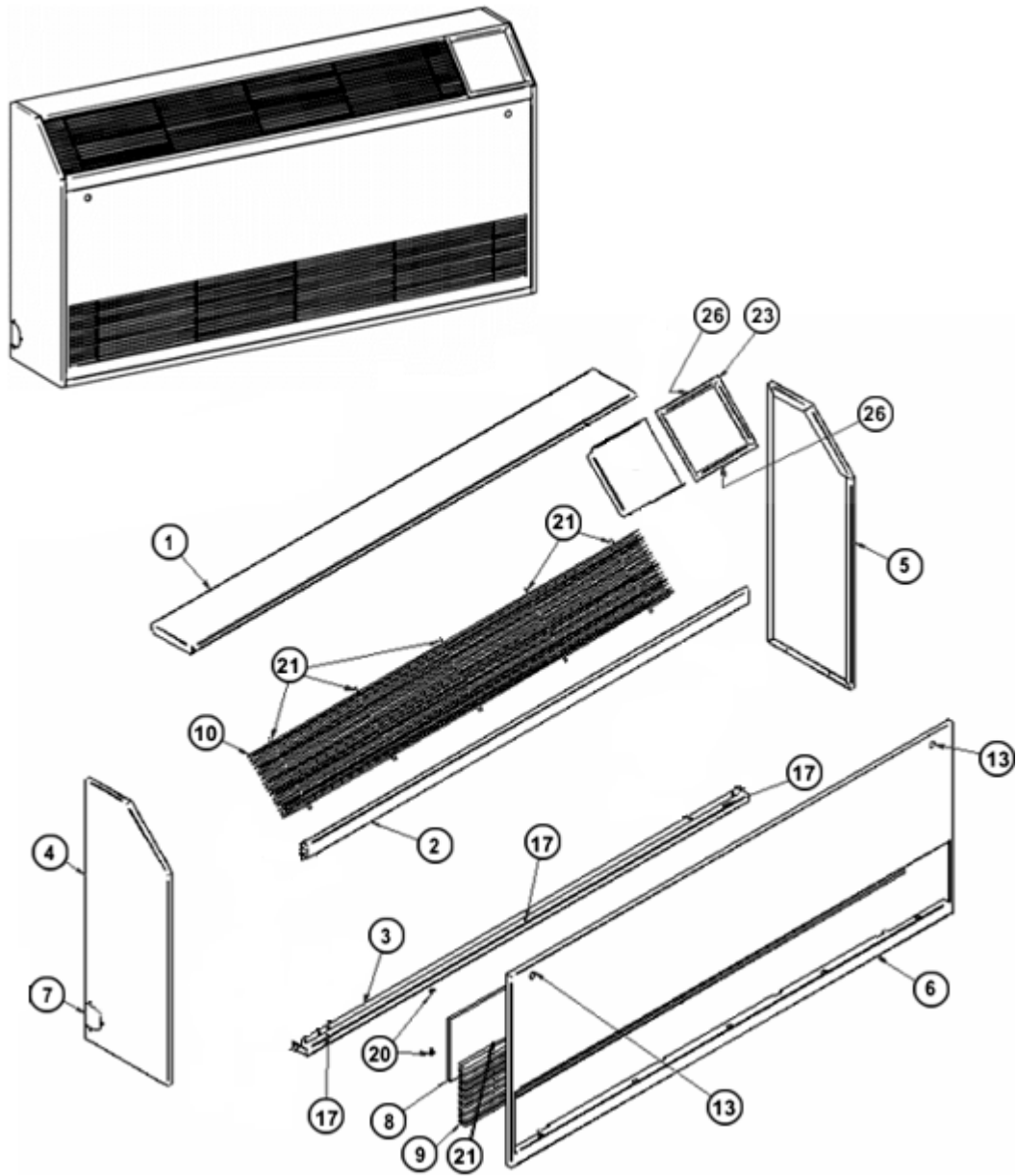


Figure 9

CONDENSER

1.0 Piping – Water/Glycol

Component Description	Part #	Volts	22WG	29WG	40WG	Figure #	RSP
VALVE H2O REG 2WAY 1/2" UB	156400P1	208/230-60-1	1			11-18	C
VALVE H2O REG 2WAY 3/4" UB	136696P1	208/230-60-1		1	1	11-18	C
PLATE CONDENSER DM 1.5T	121197P2	208/230-60-1	1			11-8	
PLATE CONDENSER DM 2T	121197P3	208/230-60-1		1		11-8	
PLATE CONDENSER DM 3T	121197P4	208/230-60-1			1	11-8	
Press SW HP SPDTAR C/Out 370PS	148372P1	208/230-60-1	1	1	1	11-27	

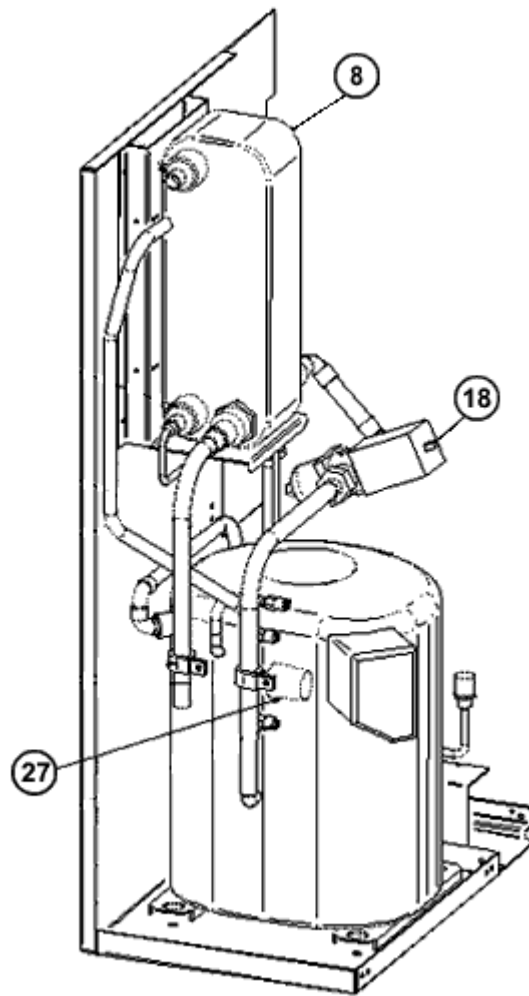


Figure 10

2.0 Compressor

Component Description	Part #	Volts	22WG	29WG	40WG	Figure #	RSP
COMP HERM 208/230-1-60 CR22K6	146303P1	208/230-60-1	1	1		6-6	C
COMP HERM 208-230/1/60	163166P1	208/230-60-1			1	6-6	C
KIT SPRING COMP MTG	C03-0020	208/230-60-1	4	4	4	6-9	

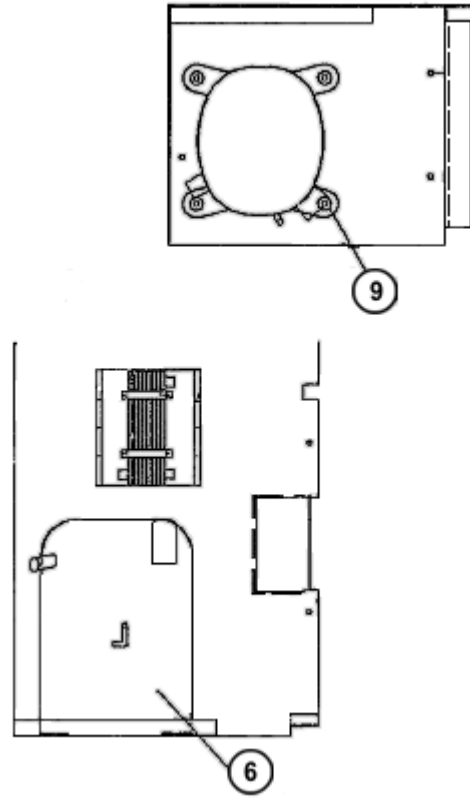


Figure 11

3.0 Electrical Panel

Component Description	Part #	Volts	22WG	29WG	40WG	Figure #	RSP
CONTACTOR 2 PL 24V	1C21105P1	208/230-60-1	1	1	1	14-5	
RES PTC 12.5 OHM 20%	1C19540P1	208/230-60-1	1	1	1	14-6	
CAP RUN 25MF 370VAC	C03-005A	208/230-60-1	1			14-9	
CAP RUN 30UF 370VAC	1A19537P1	208/230-60-1		1		14-9	
CAP RUN 40UF 440VAC	C15-0091	208/230-60-1			1	14-9	
PWRBLK 2PL 1)2:14X6)10:18 QC	121187P1	208/230-60-1	1	1	1	14-19	

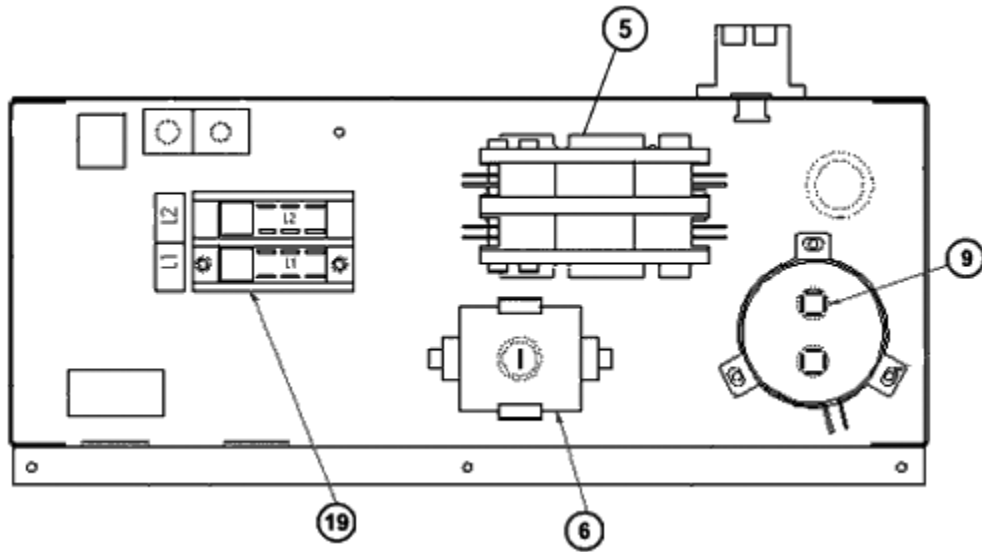


Figure 12

4.0 Exterior Panels

Component Description	Part #	Volts	22WG	29WG	40WG	Figure #	RSP
PANEL EXT FRONT W/INSUL DM PBK	121170G1	208/230/60/1	1	1	1	16-5	
PANEL EXT TOP W/INSUL DMPGBK	121194G1	208/230/60/1	1	1	1	16-6	
PANEL EXT LEFT W/INSUL DM PGBK	121172G1	208/230/60/1	1	1	1	16-6	
SPACER ASSY PIN BAR Z43	121180G2	208/230/60/1	1	1	1	16-7	
LOCK PANEL DMATE	1D16378P63	208/230/60/1	2	2	2	16-8	

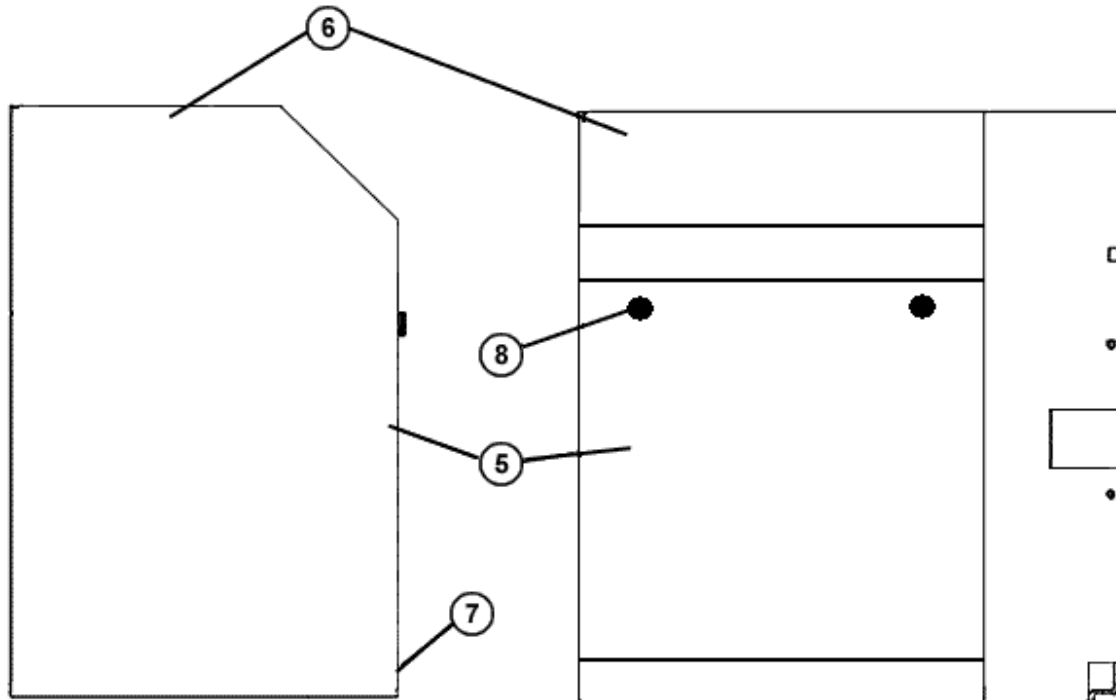


Figure 13

Recommended Spare Parts (RSP) Kits

RSP Kits – A

RSP	Part Number	Part Description	Section Where Used
A	124156P2	FILTER MEDIA	EXTERIOR PANEL SECTION
A	127849P1	HUMIDIFIER BOTTLE	HUMIDIFIER DETAIL SECTION

RSP Kits - B

RSP	Part Number	Part Description	Section Where Used
B	127853P1	HUMIDIFIER TORROID TRANSFORMER	HUMIDIFIER DETAIL SECTION
B	127992P1	HUMIDIFIER DRAIN VALVE	HUMIDIFIER DETAIL SECTION
B	136812P1	HUMIDIFIER FILL VALVE	HUMIDIFIER DETAIL SECTION
B	E03-0170	HUMIDIFIER RELAY	HUMIDIFIER DETAIL SECTION
B	127585P2	CHILLED WATER VALVE	PIPING SECTION
B	136782P1	FILTER DRIER	PIPING SECTION
B	148372P1	Press SW HP SPDTAR C/Out 370PS	PIPING SECTION
B	1C19507P1	VALVE EXP 3/8 X 1/2 X 1/4 ODF	PIPING SECTION
B	1C19507P2	VALVE EXP 3/8 X 1/2 X 1/4 ODF	PIPING SECTION
B	1C19507P3	EXPANSION VALVE	PIPING SECTION
B	131116P1	REHEAT RELAY	ELECTRICAL PANEL SECTION
B	1A19537P1	CAP RUN 30UF 370VAC	ELECTRICAL PANEL SECTION
B	1C19540P1	RES PTC 12.5 OHM 20%	ELECTRICAL PANEL SECTION
B	1C21105P1	CONTACTOR 2 PL 24V	ELECTRICAL PANEL SECTION
B	1D16378P20	REHEAT SAFETY(S)	ELECTRICAL PANEL SECTION
B	C03-005A	CAP RUN 25MF 370VAC	ELECTRICAL PANEL SECTION
B	C15-0091	CAP RUN 40UF 440VAC	ELECTRICAL PANEL SECTION
B	E03-0010	XMFR 075VA 5060 208/30/77-24	ELECTRICAL PANEL SECTION
B	E03-0170	MOTOR RELAYS	ELECTRICAL PANEL SECTION
B	E276C	CB 3.2A BRKT MNT ETA	ELECTRICAL PANEL SECTION

RSP Kits - C

RSP	Part Number	Part Description	Section Where Used
C	124101P1	MOTOR .16HP 220-1-60 DBL SHFT	BLOWER MOTOR SECTION
C	124102P1	MOTOR .12HP 220-1-60 DBL SHFT	BLOWER MOTOR SECTION
C	124103P1	MOTOR .11HP 220-1-60 SGL SHFT	BLOWER MOTOR SECTION
C	124104P1	MOTOR .08HP 220-1-60 SGL SHFT	BLOWER MOTOR SECTION
C	153210G1	WALL CONTROLLER	ELECTRICAL PANEL SECTION
C	415771G1	CONTROL BOARD	ELECTRICAL PANEL SECTION
C	124067P1 124068P1	REHEAT ELEMENTS	REHEAT SECTION
C	136696P1 156400P1	WATER REGULATING VALVE	PIPING SECTION
C	146303P1 163166P1	COMPRESSOR	COMPRESSOR SECTION
C	134562P1	PWA CNTL ELEC RELAY HUM 2STG	HUMIDIFIER DETAIL SECTION