

Parts List

Technical Labels & Wiring Diagrams

Models

Three Phase

**PAB090N2LC
PAB120N2LC
PAB180N2LC**

**RAMA75F001C
RAMA10F001C
RAMA15N001C**

Commercial Package Air Conditioner

Save This Manual For Future Reference

TECH DATA FOR PAB090N2LC AND RAMA75F001C

Style / Description		7 1/2 Ton 460V 3 Phase Package A/C																			
Specifications		Performance Data: 80° D.B. Indoor																			
		Low Wet Bulb (63°)							High Wet Bulb (69°)												
Electrical: Voltage/Cycles/Phase Branch Circuit Ampacity Max. Fuse/HACR Brk.	460/60/3 20.7 25	First Stage					Rated 3000			CFM		.25		ESP Wet.							
		Amb. Outd	Appx. MBTUH	Sens. Total Ratio	PSIG. Liquid (Head)	PSIG. Suct.	Unit Amp.	Amb. Outd	Appx. MBTUH	Sens. Total Ratio	PSIG. Liquid (Head)	PSIG. Suct.	Unit Amp.								
		65	45.3	1.01	173	64	7.5	65	49.6	.75	186	73	7.9								
		75	44.3	1.03	193	67	8.0	75	48.5	.77	208	77	8.4								
		85	43.6	1.05	220	71	8.5	85	47.7	.79	237	80	9.0								
		95	42.4	1.07	250	74	9.0	95	46.4	.80	270	84	9.5								
Fan Motor: Voltage/Cycles/Phase H.P./Qty. RLA/LRA Speeds/CFM Cap. MFD/Volts	460/60/1 3/4-1Ea 1.8/3.9 1/5800 12.5/440	105	40.4	1.08	281	77	9.5	105	44.2	.81	303	88	10.0								
		115	37.0	1.08	310	80	10.0	115	40.5	.81	334	91	10.6								
		Second Stage																			
		65	90.6	.87	173	64	11.9	65	99.1	.61	186	73	12.5								
		75	88.6	.89	193	67	12.7	75	97.0	.63	208	77	13.4								
		85	87.1	.91	220	71	13.6	85	95.3	.65	237	80	14.3								
Compressor: System #1 RLA/LRA System #2 RLA/LRA	6.9/41 6.9/41	95	84.9	.93	250	74	14.4	95	92.9	.66	270	84	15.2								
		105	80.9	.94	281	77	15.2	105	88.5	.67	303	88	16.0								
		115	74.0	.94	310	80	16.0	115	80.9	.67	334	91	16.9								
		EXTERNAL STATIC PRESSURE IN INCHES WATER COLUMN																			
		.25		.5		.75		1.0		1.25		1.50		1.75		2.0		2.25		2.5	
		RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
Service Driers (Each Sys): Liquid/Charge Suction	8 cu in / 0 oz 30 sq in	2500			880	980	970	1200	1050	1450	1120	1700	1200	1900	1270	2250	1350	2600			
		2750			920	1200	1010	1450	1100	1725	1170	1950	1240	2275	1300	2500	1380	2850			
		3000			980	1450	1060	1750	1140	2000	1210	2300	1280	2550	1340	2875					
		3250	960	1500	1030	1750	1110	2050	1180	2325	1250	2675	1320	3000	1390	3250					
		3500	1010	1800	1090	2100	1170	2375	1230	2700	1300	3100	1380	3425							
Ref. Charge (R-22) System #1 System #2	8Lbs-7oz 8Lbs-7oz	PULLEY TURNS OPEN		0		1		2		3		4		5							
		FAN RPM		2 HP STD PULLEY		1224		1139		1113		1057		1001		945					
		2 HP HI STATIC PULLEY		1391		1335		1280		1224		1169		1113							
Clearances		See Installation Instructions																			
		FACTORY SETTING TURNS OPEN					NOTE: High static pulleys are field installed and MUST be adjusted by the installing technician.					LEGEND									
2 HP STANDARD PULLEY					4							W = Watts					High Static Data				
2 HP HIGH STATIC PULLEY					(See NOTE)							1071649 3-16-92 AH-1									

TECH DATA FOR PAB120N2LC AND RAMA10F001C

Style / Description		10 Ton 460V 3 Phase Package A/C																										
Specifications		Performance Data: 80 ⁰ D.B. Indoor																										
		Low Wet Bulb (63 ⁰)							High Wet Bulb (69 ⁰)																			
Electrical: Voltage/Cycles/Phase Branch Circuit Ampacity Max. Fuse/HACR Brk.	460/60/3 29.7 35	First Stage					Rated 4000			CFM		.30		ESP Wet.														
		Amb. Outd.	Appx. MBTUH	Sens. Total Ratio	PSIG. Liquid (Head)	PSIG. Suct.	Unit Amp.	Amb. Outd.	Appx. MBTUH	Sens. Total Ratio	PSIG. Liquid (Head)	PSIG. Suct.	Unit Amp.															
		65	60.4	1.01	182	62	13.1	65	66.1	.75	196	71	13.8															
		75	59.1	1.03	203	66	14.0	75	64.7	.77	219	75	14.7															
		85	58.1	1.05	231	69	14.9	85	63.6	.79	250	78	15.7															
		95	56.6	1.07	263	72	15.8	95	61.9	.80	284	82	16.7															
Fan Motor: Voltage/Cycles/Phase H.P./Qty. RLA/LRA Speeds/CFM Cap. MFD/Volts	460/60/1 3/4-2EA. 1.8/3.9 1/4600EA 12.5/440	105	53.9	1.08	295	75	16.7	105	59.0	.81	319	85	17.6															
		115	49.3	1.08	326	78	17.6	115	54.0	.81	352	89	18.5															
		Second Stage																										
		65	123.8	0.84	182	62	20.0	65	135.5	0.58	196	71	21.0															
		75	121.2	0.86	203	66	21.4	75	132.6	0.60	219	75	22.5															
		85	119.0	0.88	231	69	22.8	85	130.3	0.62	250	78	24.0															
Compressor: System #1 RLA/LRA System #2 RLA/LRA	7.9 /63.0 7.9 /63.0	95	116.0	0.90	263	72	24.2	95	126.9	0.63	284	82	25.5															
		105	110.5	0.91	295	75	25.5	105	120.9	0.64	319	85	26.9															
		115	101.1	0.91	326	78	26.9	115	110.6	0.64	352	89	28.3															
		EXTERNAL STATIC PRESSURE IN INCHES WATER COLUMN																										
		.25		.5		.75		1.0		1.25		1.50		1.75		2.0		2.25		2.5								
		CFM	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W						
3500			1110	2200	1190	2600	1260	2900	1320	3250	1390	3600	1440	3900	1510	4250												
3750			1170	2700	1240	3000	1310	3300	1380	3750	1440	4175	1500	4300	1590	4850												
4000	1160	2750	1230	3175	1300	3500	1360	3800	1420	4200	1490	4500	1560	4875														
4250	1220	3200	1290	3625	1350	3950	1410	4350	1480	4675	1540	4900																
4500	1290	3800	1350	4200	1410	4600	1460	4700																				
Ref. Charge (R-22) System #1 System #2	9 Lbs-6 oz 9 Lbs-6 oz	PULLEY TURNS OPEN					0		1		2		3		4		5											
		FAN RPM	2 HP STD PULLEY			1391		1335		1280		1224		1169		1113												
			2 HP HI STATIC PULLEY			1558		1502		1446		1391		1335		1280												
Blower Motor: VOLTAGE H. P. RLA/LRA RPM	208-230 / 460-60-3 2HP 3.4 / 28.9 1725	FACTORY SETTING TURNS OPEN					NOTE: High static pulleys are field installed and MUST be adjusted by the installing technician.										LEGEND											
		2 HP STANDARD PULLEY															4				W = Watts				High Static Data			
		3 HP HIGH STATIC PULLEY															4								1097127 3-02-96 AH-1			
Clearances		See Installation Instructions																										

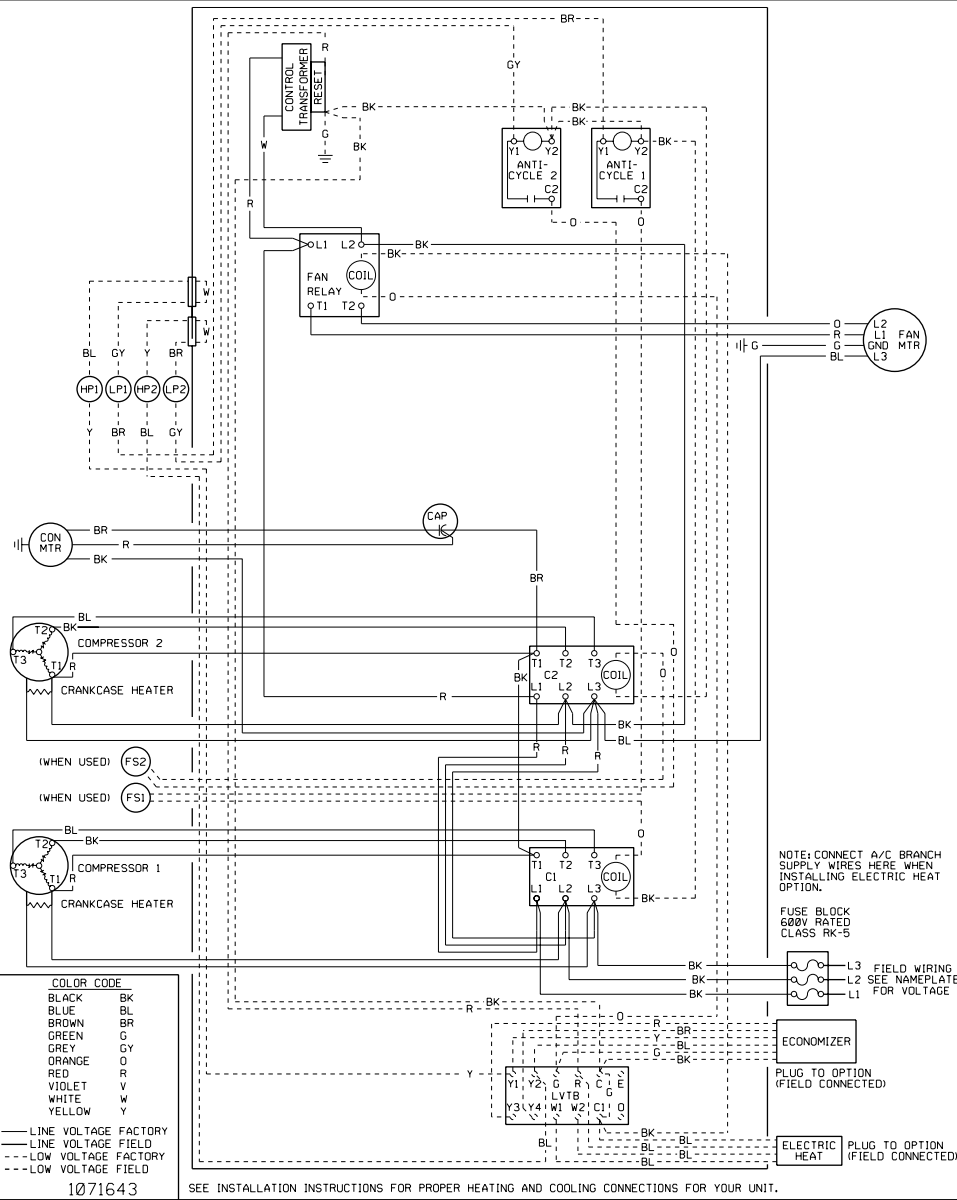
TECH DATA FOR PAB180N2LC AND RAMA15F001C

Style / Description		15 Ton 460V 3 Phase Package A/C																					
Specifications		Performance Data: 80° D.B. Indoor																					
		Low Wet Bulb (63°)						High Wet Bulb (69°)															
Electrical: Voltage/Cycles/Phase Branch Circuit Ampacity Max. Fuse/HACR Brk.	460–60–3 38.1 50	First Stage						Rated 6000 CFM		.35		ESP Wet.											
		Amb. Outd	Appx. MBTUH	Sens. Total Ratio	PSIG. Liquid (Head)	PSIG. Suct.	Unit Amp.	Amb. Outd	Appx. MBTUH	Sens. Total Ratio	PSIG. Liquid (Head)	PSIG. Suct.	Unit Amp.										
		65	95.6	1.01	192	60	17.4	65	104.6	0.75	207	68	18.3										
		75	93.6	1.03	215	63	18.6	75	102.4	0.77	232	72	19.6										
		85	91.9	1.05	244	66	19.8	85	100.6	0.79	264	76	20.9										
		95	89.6	1.07	278	69	21.1	95	98.0	0.80	300	79	22.2										
		105	85.3	1.08	312	72	22.2	105	93.4	0.81	337	82	23.4										
		115	78.1	1.08	345	75	23.4	115	85.4	0.81	372	85	24.7										
Fan Motor: Voltage/Cycles/Phase H.P./Qty. RLA/LRA Speeds/CFM Cap. MFD/Volts	460 / 60 / 1 3 / 4 – 2 EA. 1.8 / 3.9 1 / 5800EA. 12.5 / 440	Second Stage																					
		65	189.2	0.83	192	60	27.7	65	207.1	0.57	207	68	29.1										
		75	185.2	0.85	215	63	29.6	75	202.7	0.59	232	72	31.2										
		85	182.0	0.87	244	66	31.6	85	199.1	0.61	264	76	33.2										
		95	177.3	0.89	278	69	33.5	95	194.0	0.62	300	79	35.3										
		105	168.9	0.90	312	72	35.4	105	184.8	0.63	337	82	37.3										
		115	154.5	0.90	345	75	37.3	115	169.1	0.63	372	85	39.3										
		Compressor: System #1 RLA/LRA System #2 RLA/LRA	12.0 / 89 12.0 / 89	EXTERNAL STATIC PRESSURE IN INCHES WATER COLUMN																			
CFM				.25		.5		.75		1.0		1.25		1.50		1.75		2.0		2.25		2.5	
Service Driers (Each Sys): Liquid/Charge Suction	16 cu in / 0 oz 210 sq in		RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	
		5250				900	2700	950	2900	1000	3250	1050	3600	1100	3850	1140	4175	1180	4400	1230	4850		
Ref. Charge (R-22) System #1 System #2	13 Lbs – 2 oz 13 Lbs – 2 oz	5500				940	3050	980	3250	1030	3625	1080	3925	1130	4225	1170	4575	1210	4900	1250	5200		
		5750	930	3175	970	3400	1020	3825	1060	4050	1110	4375	1150	4675	1190	4850	1230	5250					
Blower Motor: VOLTAGE H. P. RLA/LRA RPM	208–230 / 460–60–3 3 H. P. 7.5 / 36.8 1725	6000	960	3400	1000	3800	1050	4200	1090	4550	1140	4850	1180	5125	1220	5500							
		6250	990	3800	1040	4350	1080	4600	1120	4900	1170	5300	1210	5675	1250	5875							
		6500	1020	4350	1070	4750	1120	5025	1160	5500	1200	5875	1240	6200									
		6750	1060	4750	1100	5200	1150	5675	1190	6000													
Clearances	See Installation Instructions	PULLEY TURNS OPEN				0		1		2		3		4		5							
		FAN RPM	3 HP STD PULLEY				1150		1097		1045		993		940		888						
			5 HP STD PULLEY				1236		1172		1107		1042		977		911						
		FACTORY SETTING TURNS OPEN	3 HP STANDARD PULLEY				4		NOTE: 5 HP motor requires blower pulley change.				LEGEND				W = Watts						
			5 HP STANDARD PULLEY				4 (See NOTE)						High Static Data										
1071658 3–16–92 AH–1																							

Wiring Diagrams 7 1/2 Ton

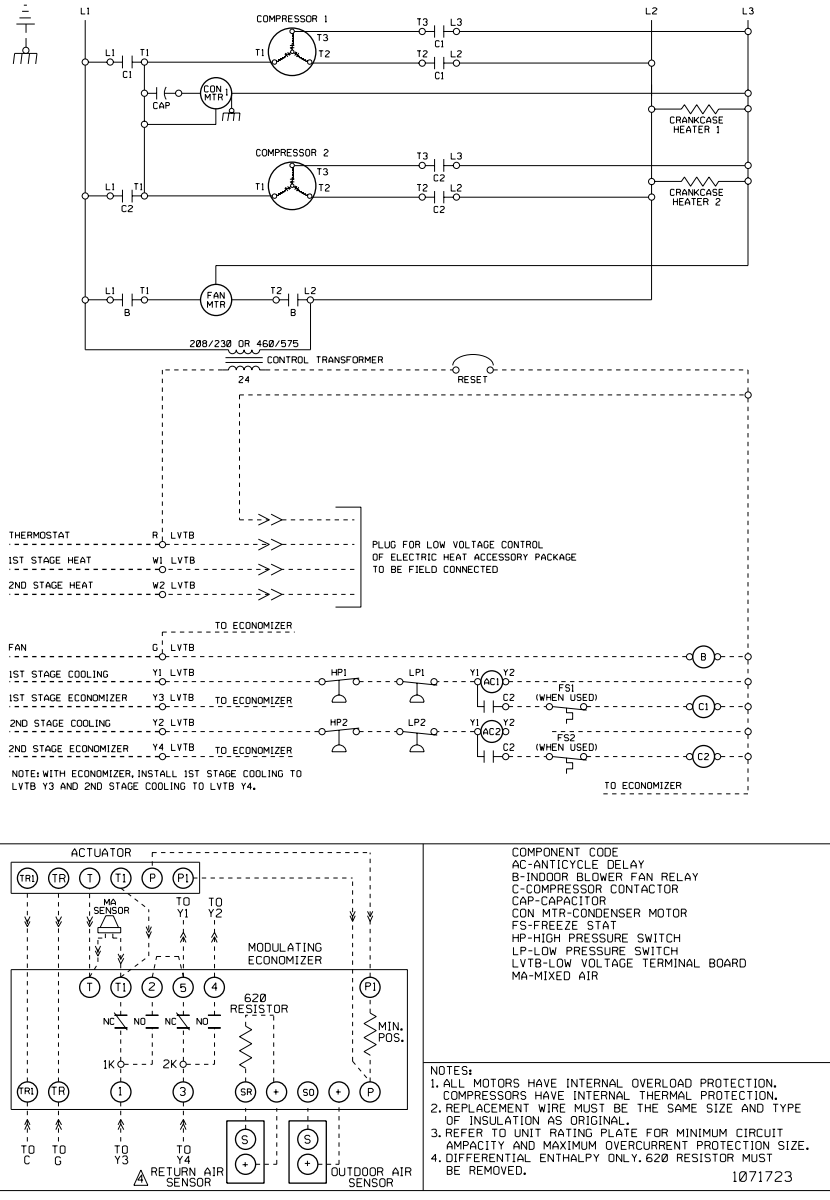
CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD
DISCONNECT POWER BEFORE SERVICING



LADDER WIRING DIAGRAM

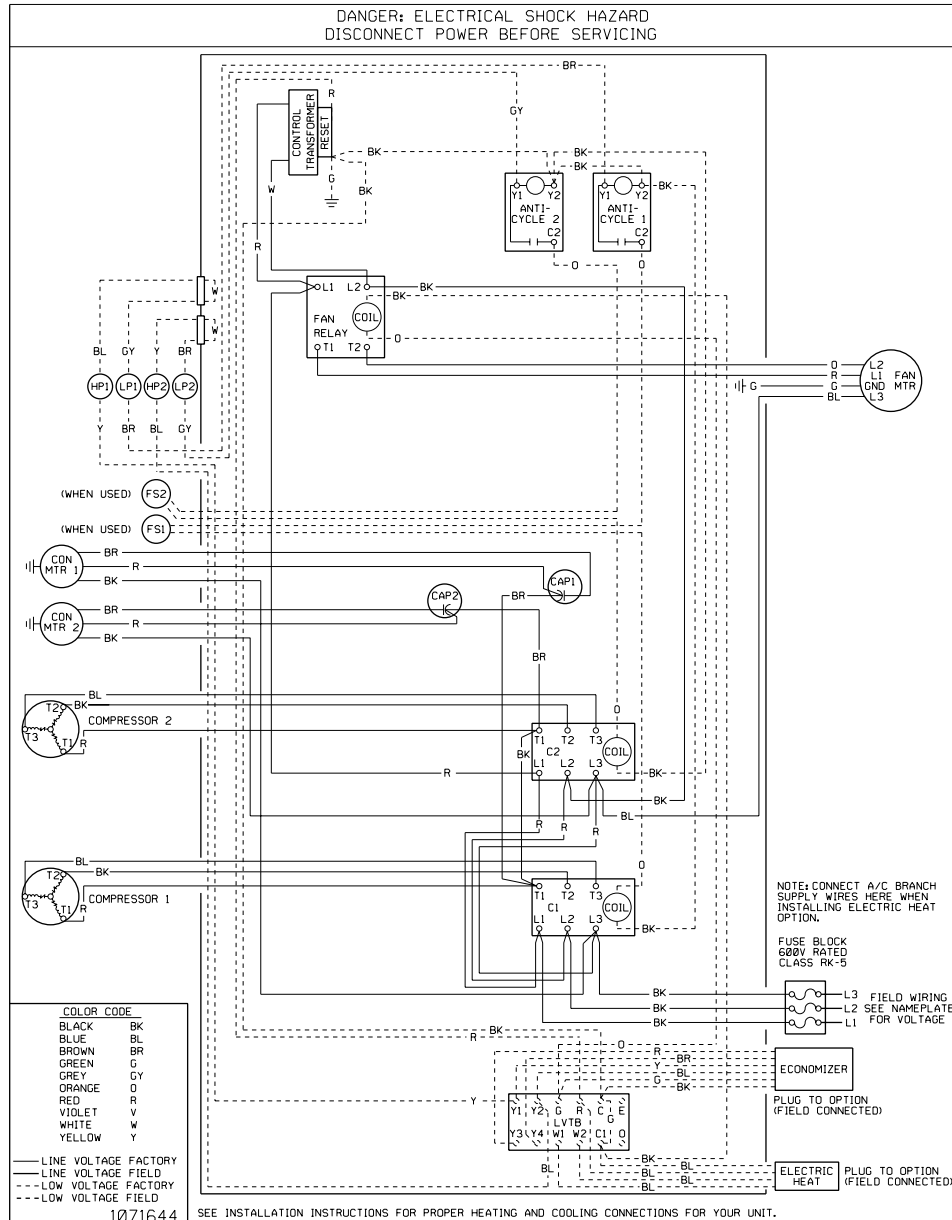
DANGER: ELECTRICAL SHOCK HAZARD
DISCONNECT POWER BEFORE SERVICING



Wiring Diagram 10 Ton

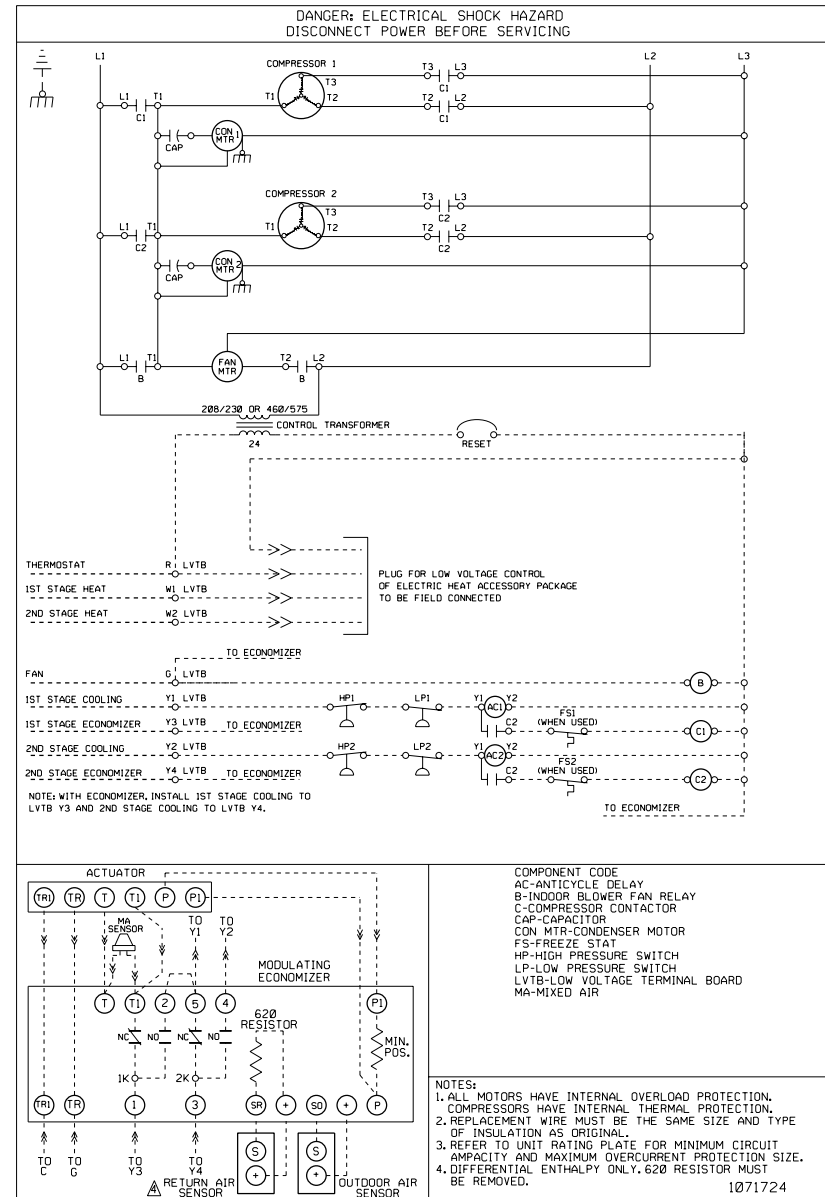
CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD
DISCONNECT POWER BEFORE SERVICING



LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD
DISCONNECT POWER BEFORE SERVICING



Parts List - See pages 9 thru 11 for parts illustrations.

MODELS: PAB090N2LC, PAB120N2LC, PAB180N2LC, RAMA75F001C, RAMA10F001C, RAMA15F001C

	Description	Part Number	090/ 75F	120/ 10F	180/ 15F
1	Compressor, CRK30325TFD	1070488	2		
1	ZR61KCTFD	1069414	*	2	
1	SFA5594EXG	1068415	*	*	2
2	Motor, Condenser	1070466	1	2	2
3	Fan Blade	1080797	1		2
3		1080799	*	2	
4	Coil, Evaporator	1071800	1		
4		1071799	*	1	
4		1071798	*	*	1
5	Valve, Expansion	1070726	2		
5		1070727	*	2	
5		1070728	*	*	2
6	Distributor Asy (Evaporator)	1071797	1	1	
6		1071794	*	*	1
7	Distributor Asy (Evaporator)	1071796	1	1	
7		1071793	*	*	1
8	Manifold Asy (Evaporator)	****			
9	Manifold Asy (Evaporator)	****			
10	Filter, Air (20" x 25" x 2")	85953	4	4	4
11	Pan, Drain	1071339	1	1	1
12	Pan, Drain Asy	1071801	1	1	
12	(Includes No. 11 & SS)	1071802	*	*	1
13	Hose, Drain	1071344	1	1	
13		1071345	*	*	1
14	Grommet, Compressor Mtg.	1053188	8		
14		1052060	*	8	
14		79608	*	*	8
15	Bolt, Compressor Mounting	1057967	8	8	8
16	Drier, Filter	1071419	2	2	
16		1071420	*	*	2
17	Manifold Asy (Condenser)	1070865	1	1	
17		1070853	*	*	2
18	Manifold Asy (Condenser)	1070862	1	1	
18		1070854	*	*	2
19	Switch, High Pressure	1071749	2	2	2
20	Coil, Condenser	1072743	1	1	
20		1072746	*	*	1
21	Switch, Low Pressure	1071713	2	2	2

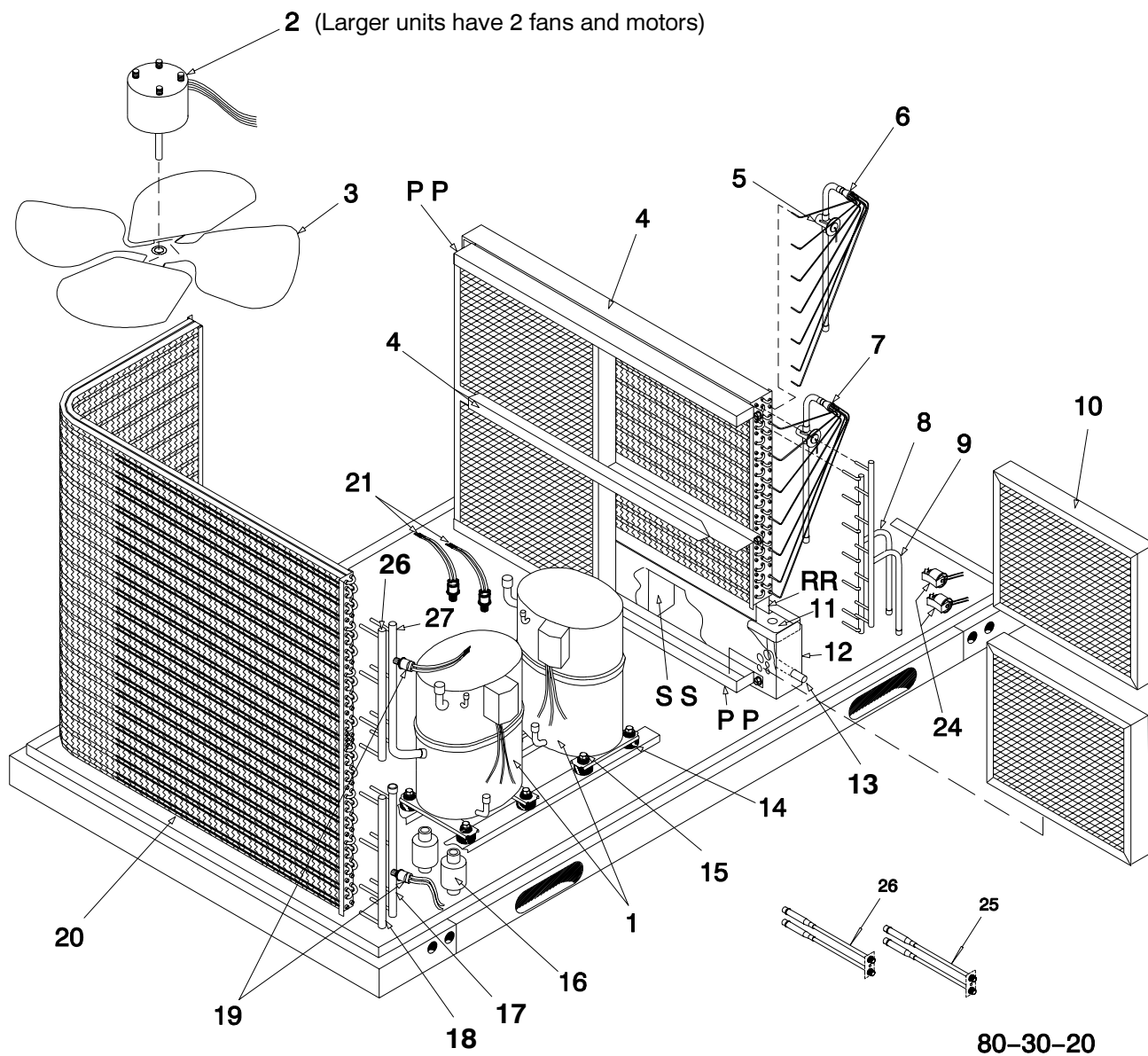
	Description	Part Number	090/ 75F	120/ 10F	180/ 15F
22	Manifold Asy (Condenser)	1070858	1	1	
23	Manifold Asy (Condenser)	1070852	1	1	
24	Switch, Freeze Stat.	1071790	2	2	2
25	Port Asy (Discharge)	1071144	1	1	
25		1071500	*	*	1
26	Port Asy (Suction)	1071161	1	1	1
27	Lug, Ground	500920	1	1	1
28	Block, Fuse	1071621	1		
28		1071622	*	1	1
29	Fuse	91750	3		
29		92566	*	3	
29		91178	*	*	3
30	Motor, Blower	1070644	1	1	
30		1070646	*	*	1
31	Wheel, Blower	1071609	1	1	
31		1071615	*	*	1
32	Pulley, Motor	1097240	1	1	
32		520290	*	*	1
33	Belt, Drive	1097236	1		
33		1097299	*	1	
33		1070670	*	*	1
34	Puller, Blower	1097228	1		
34		1097293	*	1	
34		1097294	*	*	1
35	Key, Square Machine	1071604	1	1	1
36	Bearing / Collar	1071605	2	2	2
37	Shaft, Blower	1071607	1	1	
37		1071613	*	*	1
38	Cushion, Bearing	2110273	2	2	2
39	Housing / Wheel Assembly	1070639	1	1	
39	(Includes 31,35,36,37,YY,38)	1070641	*	*	1
40	Timer, Anti-Cycle	1070822	2	2	2
41	Capacitor, 12.5 Mfd.,440 Volt	1094967	1	2	2
42	Contactor, 30 Amp	607339	1	1	
42	40 Amp	1071334	*	*	1
43	Contactor, 30 Amp	1070823	1	1	
43	40 Amp	1071334	*	*	1
44	Board, Low Voltage Terminal	1070171	1	1	1
45	Contactor, 30 Amp	1054736	1	1	1
46	Transformer, 75VA	1084001	1	1	1
47	Block, Terminal	170720	*	*	1

	Description	Part Number	090/ 75F	120/ 10F	180/ 15F
A	Grille, Outlet	1072841	1		2
A		1072842	*	2	
A1	Nut, Cap	1067902	4	8	8
B	Panel, Top (Heat)	1072778	1	1	
B		1072777	1	*	1
C	Panel, Top (Evaporator)	1072781	1	1	
C		1072831	*	*	1
D	Support, Condenser Top	1071296	1	1	1
E	Panel, Top (Condenser)	1072837	1		
E		1072838	*	1	
E		1072839	*	*	1
F	Orifice, Fan	1070458	1		2
F		1065725	*	2	
G	Panel, Division	****			
H	Panel, Supply Air	1072798	1	1	
H		1072799	*	*	1
J	Post, Corner Heat Rear	1072774	1	1	
J		1072775	*	*	1
K	Deck, Blower	1070288	1	1	
K		1070292	*	*	1
L	Post, Corner Heat Front	1072827	1	1	
L		1072828	*	*	1
M	Bracket, Heater Box	1071484	1	1	1
N	Panel, Access	1072829	1	1	
N		1072830	*	*	1
O	Plate, Panel Cover	1071487	1	1	1
P	Rail, Base (Heat End)	****			
Q	Panel, Fuse Block	1071466	1	1	
		1071467	*	*	1
R	Cover, Fuse Block	1071603	1	1	1
S	Panel, Blower	1072802	1	1	
S		1072803	*	*	1
T	Panel, Fuse Access	1072813	1	1	
T		1072814	*	*	1
U	Panel, Evaporator Access	1072788	1	1	
U		1072789	*	*	1
U1	Panel, Control Box	1072783	*	*	1
V	Panel, Condenser Access	1072784	1	1	
V		1072785	*	*	1
W	Bracket, Fuse Block	1071602	1	1	1
X	Pan, Heat Section Base	****			

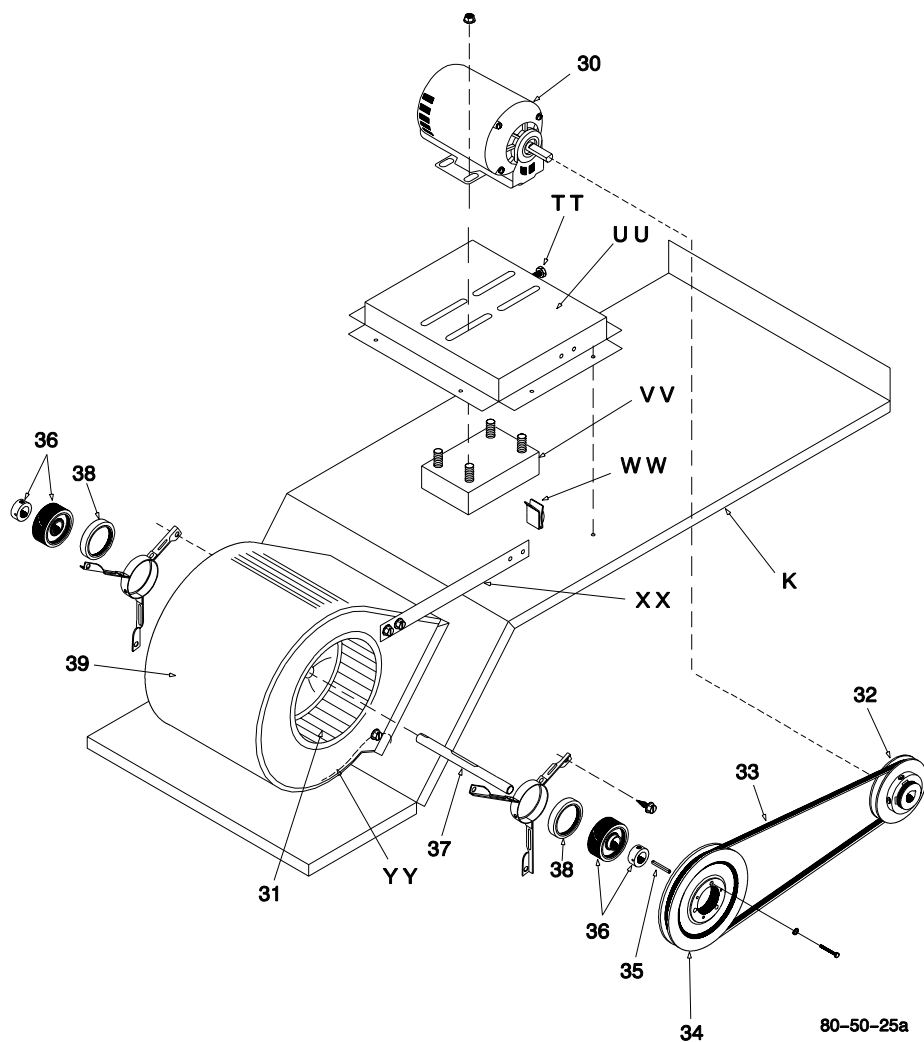
	Description	Part Number	090/ 75F	120/ 10F	180/ 15F
Y	Post, Evaporator Front	1072821	1	1	
Y		1072822	*	*	1
Y1	Panel, Evaporator	****			
Y2	Post, Control Box	1072824	*	*	1
Z	Post, Condenser Front	1072762	1	1	
Z		1072763	*	*	1
AA	Base, Base (Front)	****			
BB	Post, Condenser Front	1072752	1	1	
BB		1072753	*	*	1
CC	Support, Compressor	****			
DD	Rail, Base Condenser End	****			
EE	Panel, Condenser Base	****			
FF	Post, Condenser Rear	1072754	1	1	
FF		1072755	*	*	1
GG	Rail, Rear Base	****			
HH	Post, Rear Condenser	1072744	1	1	
HH		1072747	*	*	1
JJ	Panel, Duct Cover (Return)	1072809	1	1	
JJ		1072810	*	*	1
KK	Panel, Duct Cover (Supply)	1072811	1	1	
KK		1072812	*	*	1
LL	Panel, Return Air	1072794	1	1	
LL		1072795	*	*	1
MM	Post, Evaporator Rear	1072770	1	1	
MM		1072771	*	*	1
NN	Panel, Division (Evaporator/Heat	****			
OO	Pan, Evaporator Base	****			
PP	Bracket, Filter Rack	1070993	2	2	2
QQ	Rack, Filter	1070516	1	1	1
RR	Support, Coil	1070784	1	1	1
SS	Bracket, Drain Pan Support	****			
TT	Screw, 3/8 - 16 Adjustment	1071172	1	1	1
UU	Bracket, Motor Mount	1070361	1	1	1
VV	Mount, Motor	1071248	1	1	1
WW	Clip, Retaining	1071304	1	1	1
XX	Bracket, Blower Support	1071239	1	1	1
YY	Panel, Cutoff	1071608	1	1	
YY		1071614	*	*	1
AB	Box, Control	1070330	1	1	
AB		1070331	*	*	1
AC	Clamp, Capacitor	1095022	1	2	2
	**** = Not Stocked - Non-Serviceable Part				

Functional Parts (Blower Assy. & Control Panel shown on next page, parts list are on page 7 & 8.)

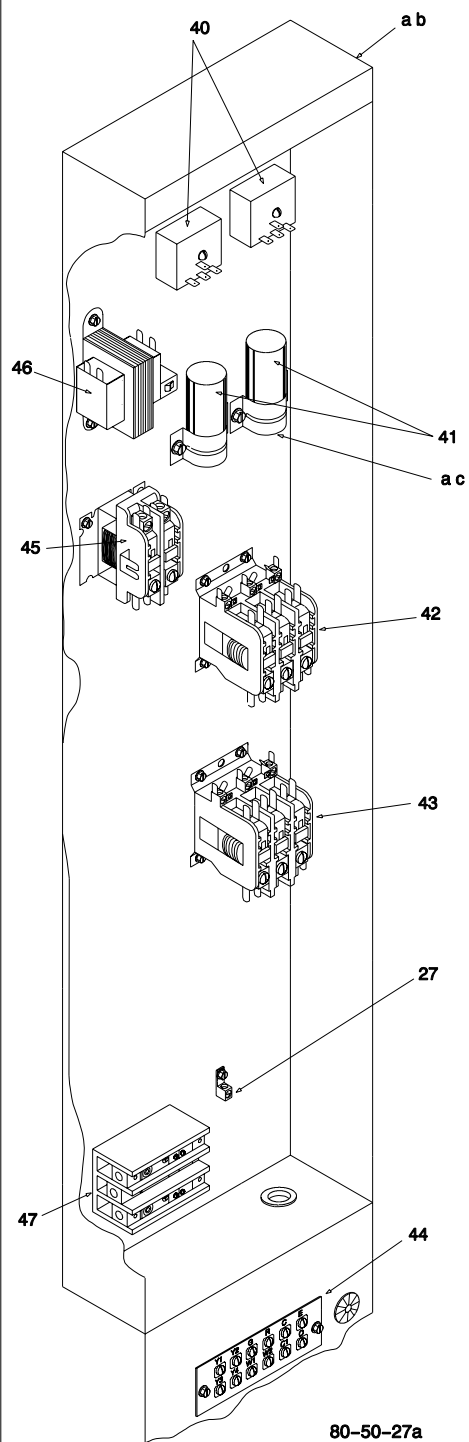
This illustration is for reference only,
your unit may differ from the one shown.



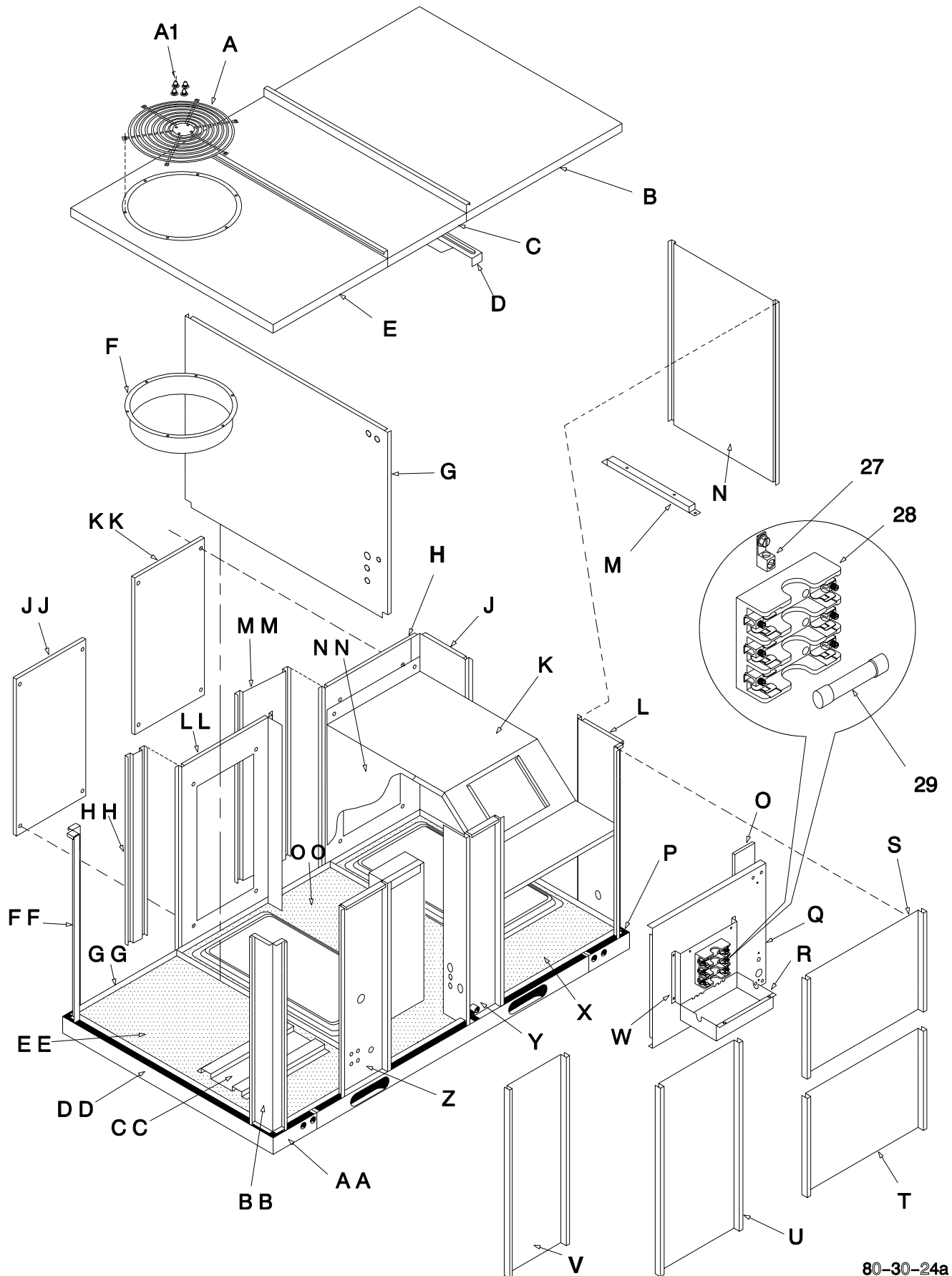
Functional Parts - Blower Assembly & Control Panel - Parts list are on pages 7 & 8.



This illustration is for reference only,
your unit may differ from the one shown.



Non-Functional Parts - See pages 7 & 8 for parts list.



80-30-24a

NOTES