

Parts List, Charging Chart, Tech Labels, Wiring Diagrams

**PAF3 1Phase
24-36 (A2) SERIES
42-54 (A1) SERIES**

PACKAGE AIR CONDITIONER UNITS



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PAF3 24 - 36 1Phase PARTS LIST					
KEY NO.	DESCRIPTION	FAST PART NO.	PAF324000K00A2	PAF330000K00A2	PAF336000K00A2
1	COMPRESSOR	ZR21KAPFV130	1	*	*
1	COMPRESSOR	ZR26KAPFV130	*	1	*
1	COMPRESSOR	ZR32KAPFV130	*	*	1
2	MOTOR,OUTDOOR	1173699	1	1	*
2	MOTOR,OUTDOOR	1175625	*	*	1
3	PROPELLER,FAN	1173706	1	1	1
4	COIL ASY	1174221	1	*	*
4	COIL ASY	1175762	*	1	*
4	COIL ASY	1175761	*	*	1
5	ORIFICE	1174003	1	1	*
5	ORIFICE	1174094	*	*	1
6	KIT, TAIL PIECE	1174325	1	1	1
7	DISTRIBUTOR ASY	1174240	1	*	*
7	DISTRIBUTOR ASY	1174446	*	1	*
7	DISTRIBUTOR ASY	1174242	*	*	1
9	KIT, BLW MTR MTG	1175295	1	1	1
10	WHEEL,BLOWER	1173813	1	1	*
10	WHEEL,BLOWER	1171742	*	*	1
11	MOTOR,BLOWER	1173816	1	1	*
11	MOTOR,BLOWER	1173817	*	*	1
12	CAPACITOR	1172110	1	*	*
12	CAPACITOR	1172124	*	1	*
12	CAPACITOR	1172111	*	*	1
13	CONTACTOR	1173689	1	1	1
15	TRANSFORMER	1173691	1	1	1
16	BOARD	1173692	1	1	1
17	COIL ASY,FORMED	1175731	1	*	*
17	COIL ASY,FORMED	1175732	*	1	*
17	COIL ASY,FORMED	1175733	*	*	1
18	PLUG ASY	1173826	1	1	1
20	VALVE,SERVICE	1083939	1	1	1
23	HEATER,CRANK	1173824	1	1	1
57	RAIL,BASE	1098870	2	2	2
58	RAIL,BASE	1098868	2	2	2
A	PANEL ASY	1174264	1	1	1
B	GRILLE,OUTLET	1173832	1	1	1
C	GRILLE ASY	1097527	1	*	*
C	GRILLE ASY	1097528	*	1	1
G	PANEL ASY	1114518	1	*	*
G	PANEL ASY	1111015	*	1	1
H	PLATE	1085473	1	1	1
J	HOUSING BLOWER	1174166	1	1	*
J	HOUSING BLOWER	1174167	*	*	1
K	BOX ASY	1174265	1	1	1
N	PANEL ASY	1114517	1	*	*

PAF3 24 - 36 1Phase PARTS LIST (continued)					
KEY NO.	DESCRIPTION	FAST PART NO.	PAF324000K00A2	PAF330000K00A2	PAF336000K00A2
N	PANEL ASY	1111014	*	1	*
N	PANEL ASY	1111014	*	*	1
P	COVER ASY	1114525	2	2	2
R	PANEL	1084134	1	*	*
R	PANEL	1097977	*	1	1
U	PANEL ASY	1114522	1	*	*
U	PANEL ASY	1111018	*	1	1
W	POST,CORNER	1098761	1	*	*
W	POST,CORNER	1098762	*	1	1
ZZ	PAN,EVAPORATER	1172243	1	1	1
PARTS NOT SHOWN					
)	BRACKET,COIL	1113337	1	1	1
)	BRACKET,COIL	1175765	1	*	*
)	BRACKET,FILTER	1097531	1	1	1
)	CONDUIT	1171428	1	1	1
)	GROMMET	1171270	4	4	4
)	HARNESS ASY	1174321	1	1	1
)	PANEL ASY	1114524	1	*	*
)	STRAP,CAPACITOR	1172734	1	1	1
)	PANEL ASY	1111019	*	1	1
)	CONDUIT	1171428	*	1	*
)	BRACKET,COIL	1175766	*	1	*
)	CONDUIT	1171428	*	*	1
)	BRACKET,COIL	1175767	*	*	1

PAF3 42 - 54 1Phase PARTS LIST

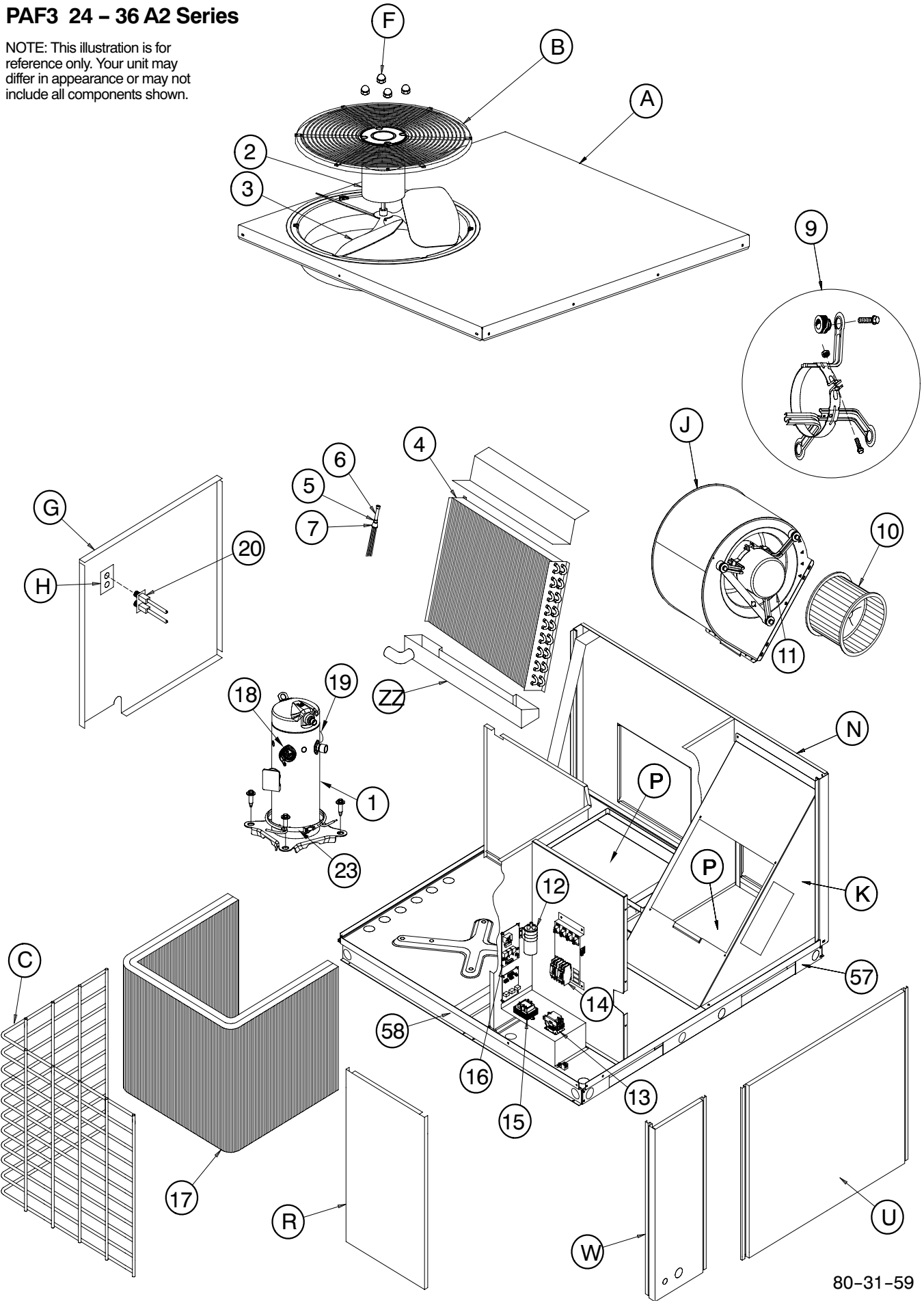
KEY NO.	DESCRIPTION	FAST PART NO.	PAF342000K00A1	PAF348000K00A1	PAF354000K00A1
1	COMPRESSOR (R-22, 36,000 BTU, 208/230V-1 PH)	ZR36K3PFV130	1	*	*
1	COMPRESSOR (R-22, 43,000 BTU, 2 STAGE, 208/230V-1 PH)	ZRS43K4PFV130	*	1	*
1	COMPRESSOR (R-22, 52,000 BTU, 2 STAGE, 208/230V-1 PH)	ZRS52K4PFV130	*	*	1
2	MOTOR, CONDENSER FAN (1/8 HP, 208/230V-1 PH)	1173700	1	1	*
2	MOTOR, CONDENSER FAN (1/8 HP, 208/230V-1 PH, 2 SPEED)	1173701	*	*	1
3	FAN, CONDENSER (20" DIA.)	1173706	1	1	1
4	COIL, EVAPORATOR -MANIFOLDS INCLUDED-	1174224	1	*	*
4	COIL, EVAPORATOR -MANIFOLDS INCLUDED-	1174225	*	1	*
4	COIL, EVAPORATOR -MANIFOLDS INCLUDED-	1174226	*	*	1
7	DISTRIBUTOR (R-22)	1174243	1	1	*
7	DISTRIBUTOR (R-22)	1174242	*	*	1
9	KIT, BLOWER MOTOR MOUNTING	1174295	1	1	1
10	WHEEL, BLOWER (10-8DD)	1173813	*	*	*
10	WHEEL, BLOWER (11-9DD)	1171742	1	*	*
10	WHEEL, BLOWER (11-10DD)	1173815	*	1	1
11	MOTOR, BLOWER (208-230 VAC, 6A, 1 PHASE, 3/4 HP)	1173817	1	*	*
11	MOTOR, BLOWER (208-230 VAC, 7.6A, 1 PHASE, 1 HP)	1173819	*	1	*
11	MOTOR, BLOWER (208-230 VAC, 7.6A, 1 PHASE, 1 HP)	1173820	*	*	1
12	CAPACITOR (45 + 5 MFD, 370V)	1172124	*	1	*
12	CAPACITOR (50 + 5 MFD, 370V)	1172111	1	*	*
12	CAPACITOR (80 + 10 MFD, 370V)	1173703	*	*	1
13	CONTACTOR (SPST, NO, 40A, 24VAC)	1173690	1	1	1
14	CIRCUIT BREAKER (250VAC, 3.2 A)	1171114	*	1	1
15	TRANSFORMER (208/230V-24V 40VA)	1173691	1	*	*
15	TRANSFORMER (200/230/460V-24V 75VA)	1171496	*	1	1
16	CONTROL BOARD (MOTOR)	1173692	1	*	*
16	CONTROL BOARD (MOTOR)	1173693	*	1	1
17	COIL, CONDENSER -MANIFOLDS INCLUDED-	1174249	1	*	*
17	COIL, CONDENSER -MANIFOLDS INCLUDED-	1174250	*	1	*
17	COIL, CONDENSER -MANIFOLDS INCLUDED-	1174251	*	*	1
18	PLUG, COMPRESSOR	1173826	1	1	1
19	PLUG, SOLENOID	1173827	*	1	1
20	VALVE, SERVICE (HI/LO PORT)	1083939	1	1	1
21	HARNESS, WIRE (SINGLE CAPACITY PAC)	1174321	1	*	*
21	HARNESS, WIRE (DUAL CAPACITY PAC)	1174322	*	1	1
22	HARNESS, WIRE (DUAL CAPACITY ADAPTER)	1174323	*	1	1
23	HEATER, CRANKCASE (40W, 240V, FIT 17" DIA.)	1173825	1	1	1
25	SWITCH, HIGH PRESSURE	1173712	*	1	1
A	PANEL, TOP	1174264	1	1	1
B	GRILLE, OUTLET (20" FAN)	1173832	1	1	1
C	GRILLE, INLET	1097528	1	1	1
F	NUT, CAP	1172740	4	4	4
G	PANEL, ACCESS COMPRESSOR	1111015	1	1	1
H	PLATE, HI/LO PORT	1085473	1	1	1
J	HOUSING, BLOWER	1174167	1	*	*
J	HOUSING, BLOWER	1174168	*	1	1

PAF3 42 - 54 1Phase PARTS LIST (continued)

KEY NO.	DESCRIPTION	FAST PART NO.	PAF342000K00A1	PAF348000K00A1	PAF354000K00A1
K	BOX ASY, BLOWER	1174265	1	1	1
P	PANEL, REAR	1111014	1	1	1
R	COVER, DUCTS	1114525	2	2	2
S	PANEL, ACCESS CONTROL BOX	1097977	1	1	1
U	PANEL, ACCESS BLOWER	1111018	1	1	1
W	POST, CORNER	1098762	1	1	1
ZZ	PAN, DRAIN (EVAPORATOR)	1172243	1	1	1

PAF3 24 - 36 A2 Series

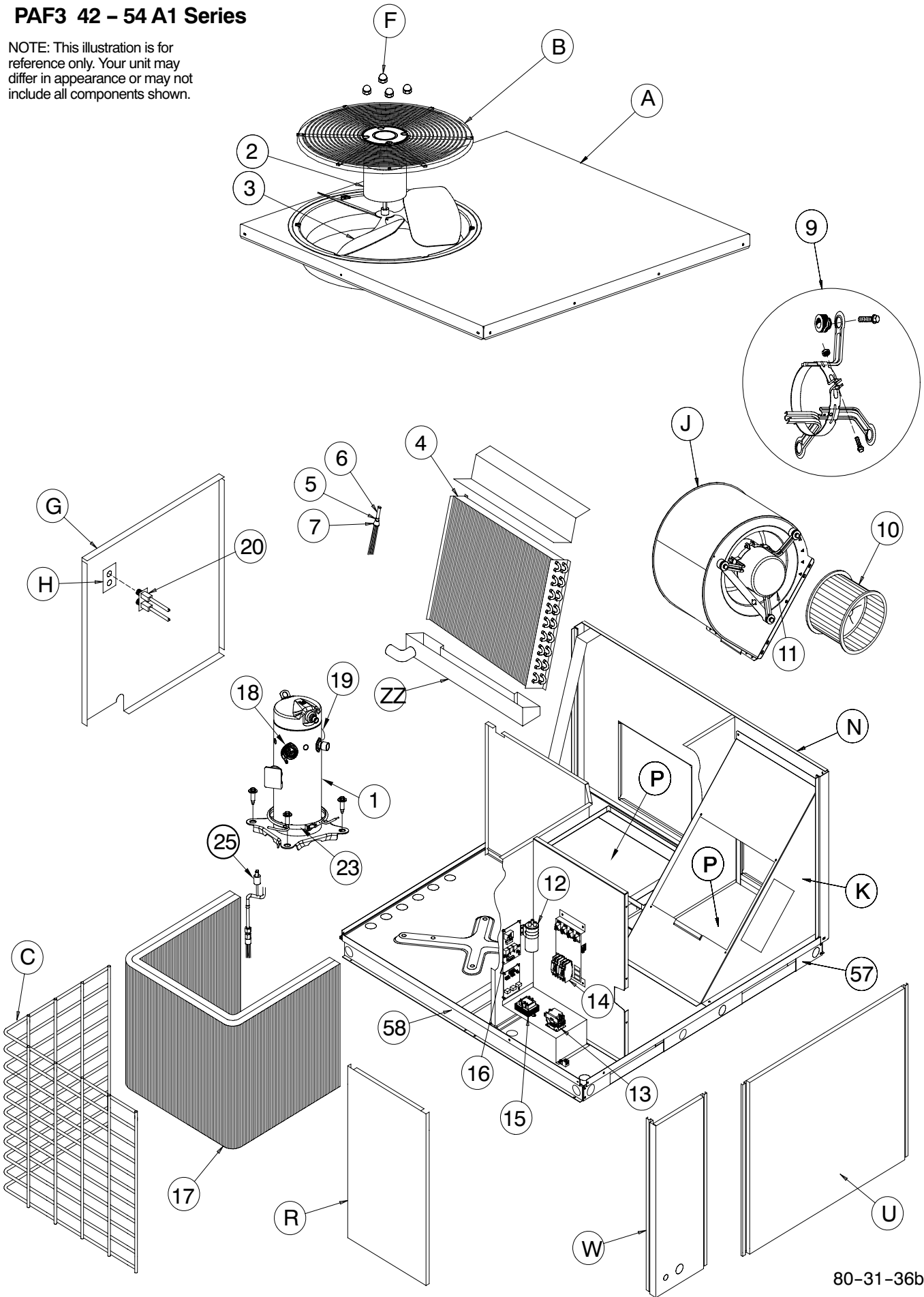
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



80-31-59

PAF3 42 - 54 A1 Series

NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



80-31-36b

CHARGING CHART PAF3 24 - 36

Suction Line Temperature (°F)															
OD Temp. (°F)	Suction Line Pressure (PSIG)														
	52	54	56	59	61	64	67	70	73	76	79	82	85	89	92
45	51	55	60	64	69	-	-	-	-	-	-	-	-	-	-
55	-	-	53	57	62	66	70	-	-	-	-	-	-	-	-
65	-	-	-	-	53	57	62	66	71	75	-	-	-	-	-
75	-	-	-	-	-	-	-	56	61	66	71	76	-	-	-
85	-	-	-	-	-	-	-	-	53	58	63	67	72	-	-
95	-	-	-	-	-	-	-	-	-	50	54	58	62	66	-
105	-	-	-	-	-	-	-	-	-	-	50	53	57	60	64
115	-	-	-	-	-	-	-	-	-	-	49	52	55	58	61
125	-	-	-	-	-	-	-	-	-	-	-	50	53	56	59

Suction Line Temperature (°C)															
OD Temp. (°C)	Suction Line Pressure (kPa)														
	361	370	387	405	423	442	462	482	502	523	544	566	589	612	636
7	11	13	15	18	21	-	-	-	-	-	-	-	-	-	-
13	-	-	12	14	16	19	21	-	-	-	-	-	-	-	-
18	-	-	-	-	12	14	17	19	21	24	-	-	-	-	-
24	-	-	-	-	-	-	-	13	16	19	22	24	-	-	-
29	-	-	-	-	-	-	-	-	12	14	17	20	22	-	-
35	-	-	-	-	-	-	-	-	-	10	12	14	17	19	-
41	-	-	-	-	-	-	-	-	-	-	10	12	14	16	18
46	-	-	-	-	-	-	-	-	-	-	9	11	13	14	16
52	-	-	-	-	-	-	-	-	-	-	-	10	11	13	15

CHARGING CHART – PAF3 42 – 54

Model Size	Required Subcooling oF (°C)				
	Outdoor Ambient Temperature				
	75 (24)	82 (28)	85 (29)	95 (35)	105 (41)
042	22.5 (12.5)	22.1 (12.3)	22 (12.2)	21.6 (12)	21.1 (11.7)
048	26.1 (14.5)	26.8 (14.9)	27 (15)	28 (15.5)	28.9 (16)
060	17.8 (9.9)	18.9 (10.5)	19.3 (10.7)	20.8 (11.6)	22.3 (12.4)

Charging Procedure

- 1- Measure Discharge line pressure by attaching a gauge to the service port.
- 2- Measure the Liquid line temperature by attaching a temperature sensing device to it.
- 3- Insulate the temperature sensing device so that the Outdoor Ambient doesn't affect the reading.
- 4- Refer to the required Subcooling in the table to find the required Subcooling based on the model size and the Outdoor Ambient temperature.
- 5- Interpolate if the Outdoor temperature lies in between the table values. Extrapolate if the temperature lies beyond the table range.

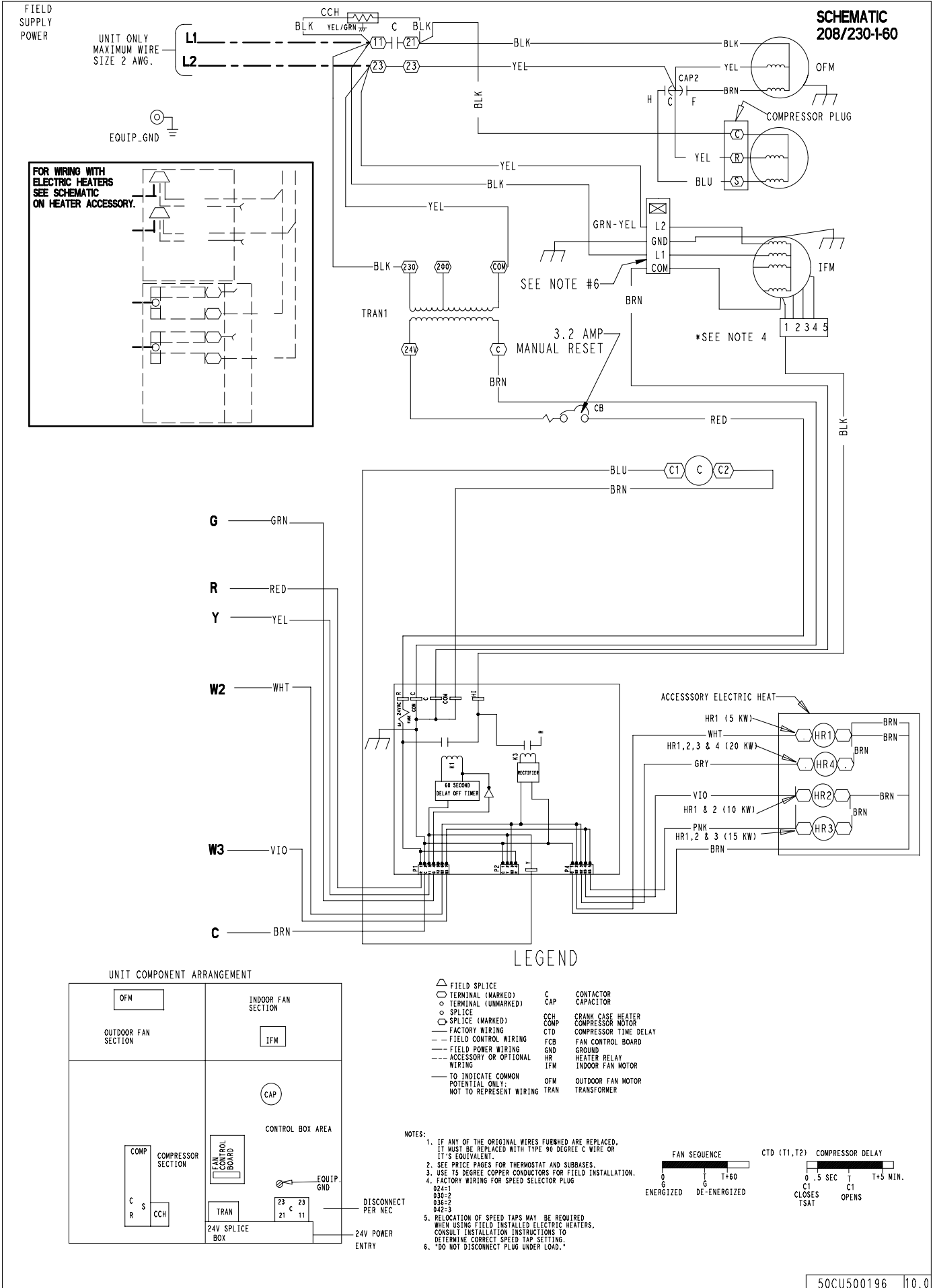
- 6- Find the Pressure Value corresponding to the measured Pressure on the Compressor Discharge line.
- 7- Read across from the Pressure reading to obtain the Liquid line temperature for a required Subcooling.
- 8- Add Charge if the measured temperature is higher than the liquid line temperature value in the table.
- 9- Add Charge using the service connection on the Suction line of the Compressor.

Required Liquid Line Temperature for a Specific Subcooling (R-22)

Pressure (psig)	Required Subcooling (°F)						Pressure (kPa)	Required Subcooling (°C)					
	5	10	15	20	25	30		3	6	8	11	14	17
174	87	82	77	72	67	62	1200	31	28	25	22	19	17
181	88	83	78	73	68	63	1248	31	28	26	23	20	17
188	92	87	82	77	72	67	1296	33	31	28	25	22	19
195	95	90	85	80	75	70	1344	35	32	29	27	24	21
202	97	92	87	82	77	72	1393	36	33	31	28	25	22
209	100	95	90	85	80	75	1441	38	35	32	29	27	24
216	102	97	92	87	82	77	1489	39	36	33	31	28	25
223	104	99	94	89	84	79	1537	40	37	34	32	29	26
134	71	66	61	56	51	46	924	22	19	16	13	11	8
141	74	69	64	59	54	49	972	23	21	18	15	12	10
156	80	75	70	65	60	55	1075	27	24	21	19	16	13
163	83	78	73	68	63	58	1124	28	26	23	20	17	15
170	86	81	76	71	66	61	1172	30	27	24	22	19	16
177	89	84	79	74	69	64	1220	31	29	26	23	20	18
184	91	86	81	76	71	66	1268	33	30	27	24	22	19
191	94	89	84	79	74	69	1317	34	31	29	26	23	20
198	96	91	86	81	76	71	1365	36	33	30	27	24	22
205	98	93	88	83	78	73	1413	37	34	31	29	26	23
213	101	96	91	86	81	76	1468	38	36	33	30	27	24
221	104	99	94	89	84	79	1524	40	37	34	31	29	26
229	106	101	96	91	86	81	1579	41	38	36	33	30	27
237	108	103	98	93	88	83	1634	42	40	37	34	31	29
245	111	106	101	96	91	86	1689	44	41	38	35	33	30
253	113	108	103	98	93	88	1744	45	42	40	37	34	31
262	116	111	106	101	96	91	1806	46	44	41	38	35	33
271	118	113	108	103	98	93	1868	48	45	42	40	37	34
280	121	116	111	106	101	96	1930	49	46	44	41	38	35
289	123	118	113	108	103	98	1992	51	48	45	42	39	37
298	125	120	115	110	105	100	2054	52	49	46	44	41	38
307	128	123	118	113	108	103	2116	53	50	48	45	42	39
317	130	125	120	115	110	105	2185	54	52	49	46	43	41
327	132	127	122	117	112	107	2254	56	53	50	47	45	42
337	130	125	120	115	110	105	2323	54	52	49	46	43	41
347	137	132	127	122	117	112	2392	58	56	53	50	47	45
357	139	134	129	124	119	114	2461	60	57	54	51	49	46
367	142	137	132	127	122	117	2530	61	58	55	53	50	47

PAF3 208/230V - 1 - 60 2 - 3.5 Ton

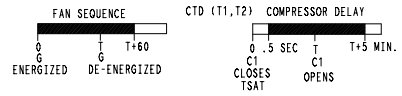
**SCHEMATIC
208/230-1-60**



LEGEND

- △ FIELD SPLICE
 - TERMINAL (MARKED)
 - TERMINAL (UNMARKED)
 - SPLICE
 - SPLICE (MARKED)
 - FACTORY WIRING
 - - - FIELD CONTROL WIRING
 - - - FIELD POWER WIRING
 - - - ACCESSORY OR OPTIONAL WIRING
 - TO INDICATE COMMON
 - △ FIELD SPLICE
 - TERMINAL (MARKED)
 - TERMINAL (UNMARKED)
 - SPLICE
 - SPLICE (MARKED)
 - FACTORY WIRING
 - - - FIELD CONTROL WIRING
 - - - FIELD POWER WIRING
 - - - ACCESSORY OR OPTIONAL WIRING
 - TO INDICATE COMMON
- | | |
|------|-----------------------|
| C | CONTACTOR |
| CAP | CAPACITOR |
| CCH | CRANK CASE HEATER |
| COMP | COMPRESSOR MOTOR |
| CTD | COMPRESSOR TIME DELAY |
| FCB | FAN CONTROL BOARD |
| GND | GROUND |
| HR | HEATER RELAY |
| IFM | INDOOR FAN MOTOR |
| OFM | OUTDOOR FAN MOTOR |
| TRAN | TRANSFORMER |

- NOTES:**
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, IT MUST BE REPLACED WITH TYPE 90 DEGREE C WIRE OR IT'S EQUIVALENT.
 - SEE PRICE PAGES FOR THERMOSTAT AND SUBBASES.
 - USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - FACTORY WIRING FOR SPEED SELECTOR PLUG
024-1
036-2
036-2
042-3
 - RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS. CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
 - "DO NOT DISCONNECT PLUG UNDER LOAD."

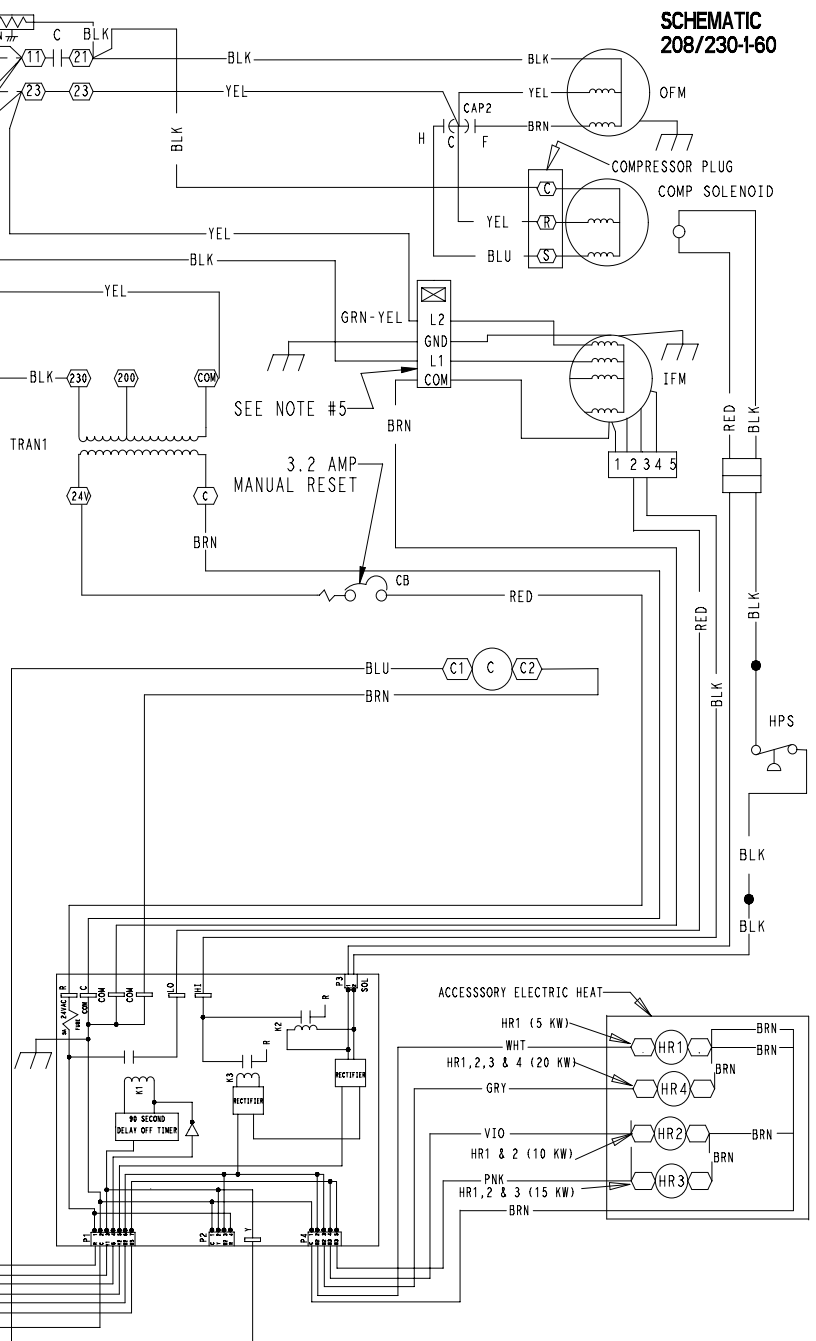
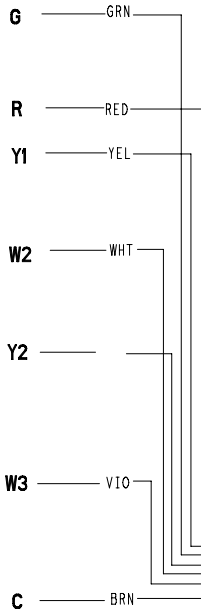
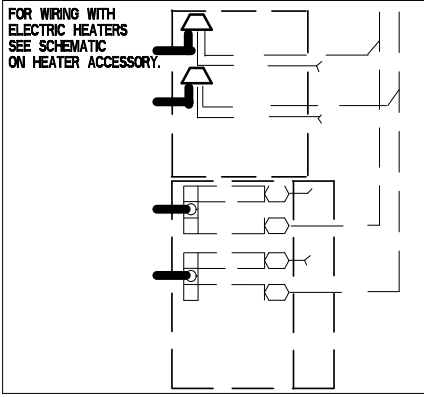


**SCHEMATIC
208/230-1-60**

FIELD
SUPPLY
POWER

UNIT ONLY
MAXIMUM WIRE
SIZE 2 AWG.

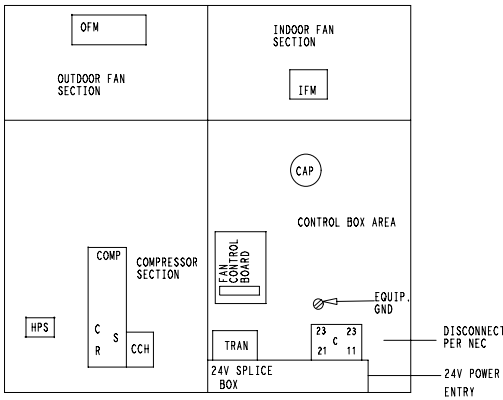
EQUIP_GND



LEGEND

- △ FIELD SPICE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- - - FIELD CONTROL WIRING
- - - FIELD POWER WIRING
- - - ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON
- POTENTIAL ONLY - NOT TO REPRESENT WIRING
- C CONTACTOR
- CAP CAPACITOR
- CB CIRCUIT BREAKER
- CCH CRANK CASE HEATER
- COMP COMPRESSOR MOTOR
- CTD COMPRESSOR TIME DELAY
- FCB FAN CONTROL BOARD
- GND GROUND
- HR HEATER RELAY
- IFM INDOOR FAN MOTOR
- HPS HIGH PRESSURE SWITCH
- OFM OUTDOOR FAN MOTOR
- TRAN TRANSFORMER

UNIT COMPONENT ARRANGEMENT



- NOTES:**
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, IT MUST BE REPLACED WITH TYPE 90 DEGREE C WIRE OR IT'S EQUIVALENT.
 - SEE PRICE PAGES FOR THERMOSTAT AND SUBBASES.
 - USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS. CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
 - *DO NOT DISCONNECT PLUG UNDER LOAD.*

