

Parts List, Charging Chart, Wiring Diagrams

**PHN4 30 – 60 SERIES
3 Phase**

R-410A PACKAGE HEAT PUMP UNITS



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PHN4 30 - 60 (208 / 230V) 3PH PARTS LIST							
KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN430000H00A1	PHN436000H00A1	PHN442000H00A1	PHN448000H00A1	PHN460000H00A1
01	COMP ZP25K5E-TF5-130	ZP25K5ETF5130	1	*	*	*	*
01	COMP ZP31K5E-TF5-130	ZP31K5ETF5130	*	1	*	*	*
01	COMP ZP36K5E-TF5-130	ZP36K5ETF5130	*	*	1	*	*
01	COMP ZP39K5E-TF5-130	ZP39K5ETF5130	*	*	*	1	*
01	COMP ZP51K5E-TF5-130	ZP51K5ETF5130	*	*	*	*	1
02	COIL ASY OUTDOOR 30 AL LF	1177775	1	*	*	*	*
02	COIL ASY OUTDOOR 36 AL LF	1177777	*	1	*	*	*
02	COIL ASY OUTDOOR 42 AL LF	1177779	*	*	1	*	*
02	COIL ASY OUTDOOR 48 AL LF	1177781	*	*	*	1	*
02	COIL ASY OUTDOOR 60 AL LF	1177783	*	*	*	*	1
03	COIL ASY OUTDOOR 30 AL RT	1177776	1	*	*	*	*
03	COIL ASY OUTDOOR 36 AL RT	1177778	*	1	*	*	*
03	COIL ASY OUTDOOR 42 AL RT	1177780	*	*	1	*	*
03	COIL ASY OUTDOOR 48 AL RT	1177782	*	*	*	1	*
03	COIL ASY OUTDOOR 60 AL RT	1177784	*	*	*	*	1
04	COIL ASY INDOOR 24	1177770	1	*	*	*	*
04	COIL ASY INDOOR 36	1177771	*	1	*	*	*
04	COIL ASY INDOOR 42	1176996	*	*	1	*	*
04	COIL ASY INDOOR 48	1176997	*	*	*	1	*
04	COIL ASY INDOOR 60	1177772	*	*	*	*	1
05	MTR BLT 1/230 1 VS 600-1200	1177597	*	*	*	1	*
05	MTR BLT 1/230 3/4 VS 600-1200	1177596	*	1	1	*	*
05	MTR BLW 1/230 1 600-1200	1177343	*	*	*	*	1
05	MTR BLW 1/230 1/2 600-1200	1177014	1	*	*	*	*
06	MTR CND 1/230 1/3 1100	1177345	*	*	*	*	1
06	MTR CND 1/230 1/4	1171335	*	1	*	1	*
06	MTR CND 1/230 1/4 900/1100	1177346	*	*	*	1	*
06	MTR CND 1/230 1/8 825	1175625	*	*	1	*	*
06	MTR CND 1/230 1/8 825/1	1173699	1	*	*	*	*
07	FAN C 22" 3B 1/2" 24 INT	1171220	1	*	*	1	*
07	FAN C 22" 3B 1/2" 28 INT	1171219	*	1	1	*	1
08	CAP RN OV 370V 10 AERO	1171807	*	1	*	1	1
08	CAP RN OV 370V 5	1172149	1	*	1	*	*
08	CAP RN RD 370V 70+10 MFD	1177750	*	*	*	*	1
10	CONTACTOR 2P 20A 24V	1171160	1	1	1	*	*
10	CONTACTOR 2P 40A 24V	1174905	*	*	*	1	1
13	TRANS 200/230/460>24 75VA	1171496	1	1	1	1	1
14	WHEEL 11-10DD CCW	1177025	*	1	1	1	1
14	WHEEL DD 10X10 CW	1175970	1	*	*	*	*
16	DISTRIBUTOR 4 CIRCUIT R-410A	1174359	1	*	*	*	*
16	DISTRIBUTOR 4 CIRCUIT R-410A	1174361	*	1	1	*	*
16	DISTRIBUTOR 6 CIRCUIT R-410A	1175220	*	*	*	1	*
16	DISTRIBUTOR 7 CIRCUIT R-410A	1177785	*	*	*	*	1
18	VALVE REV W/COIL 24V	1172618	*	*	1	1	*
18	VALVE REV W/COIL 24V	1173708	1	1	*	*	*
18	VALVE REV W/COIL 24V	1173709	*	*	*	*	1

PHN4 30 – 60 (208 / 230V) 3PH PARTS LIST (continued)

KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN430000H00A1	PHN436000H00A1	PHN442000H00A1	PHN448000H00A1	PHN460000H00A1
21	COIL REV VLV 24V	1172619	1	1	1	1	1
22	SENSOR DEFROST O65 C32	1173637	1	1	1	1	1
23	BOARD DEFROST	1174185	1	1	1	1	1
24	DISTRIBUTOR 2 CKT	1177711	2	2	*	*	*
24	DISTRIBUTOR 3 CKT	1177712	*	*	2	2	*
24	DISTRIBUTOR 4 CKT	1174240	*	*	*	*	2
25	PISTON CHATLEFF .038	1174858	2	*	1	1	*
25	PISTON CHATLEFF .042	1173634	*	2	*	*	*
27	PISTON CHATLEFF .040	1173990	*	*	1	1	*
27	PISTON CHATLEFF .049	1173868	*	*	*	*	2
28	ACCUMULATOR	1172313	*	*	*	1	*
28	ACCUMULATOR	1172805	*	1	1	*	*
28	ACCUMULATOR 120 3/4 NH	1172018	1	*	*	*	*
28	ACCUMULATOR 247 CI 7/8	1173672	*	*	*	*	1
32	MOUNTING KIT BLW MTR	1175958	1	*	*	*	*
32	MOUNTING KIT BLW MTR	1176088	*	1	1	1	1
37	PLUG COMPRESSOR	1177022	1	1	1	1	1
38	HTR CC WP 40W 240V TCH196	1176105	*	*	1	1	1
38	HTR CC WP 40W 240V TCH268	1176161	1	1	*	*	*
39	SWITCH LOW PRESSURE	1174412	1	1	1	1	1
40	DRIER BIFLOW 06 CI 3/8 SWEAT	1172311	1	1	1	1	1
41	SWITCH HIGH PRESSURE	1174407	1	1	1	1	1
43	VALVE TXV 3 TON	1176869	1	1	*	*	*
43	VALVE TXV 4 TON	1176870	*	*	*	1	*
43	VALVE TXV 4 TON	1177748	*	*	1	*	*
43	VALVE TXV 5 TON	1176871	*	*	*	*	1
45	CIRCUIT BOARD	1177026	1	1	1	1	1
AB	CLAMP CAPACITOR	1171552	1	1	1	1	*
AB	CLAMP CAPACITOR ROUND 2.5"D	1064218	*	*	*	*	1
AE	SCROLL	1176074	*	1	1	1	1
AE	SCROLL FAN	1176010	1	*	*	*	*
AF	PLATE ASY FAN	1176011	1	*	*	*	*
AF	PLATE ASY FAN SIDE	1176075	*	1	1	1	1
AH	PLATE FAN	1176012	1	*	*	*	*
AH	PLATE FAN BOTTOM	1176077	*	1	1	1	1
AK	GRILLE ASY 14"	1176080	*	1	*	*	*
AK	GRILLE ASY 18"	1177739	1	*	*	*	*
AK	GRILLE ASY 20"	1176108	*	*	1	1	*
AK	GRILLE ASY 24"	1177340	*	*	*	*	1
AL	GRILLE ASY 14"	1176078	*	1	*	*	*
AL	GRILLE ASY 18"	1177740	1	*	*	*	*
AL	GRILLE ASY 20"	1176106	*	*	1	1	*
AL	GRILLE ASY 24"	1177339	*	*	*	*	1
AM	GRILLE ASY 18"	1177738	1	*	*	*	*
AN	GRILLE ASY 14"	1176079	*	2	*	*	*
AN	GRILLE ASY 18"	1177337	1	*	*	*	*

PHN4 30 – 60 (208 / 230V) 3PH PARTS LIST (continued)

KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN430000H00A1	PHN436000H00A1	PHN442000H00A1	PHN448000H00A1	PHN460000H00A1
AN	GRILLE ASY 20"	1176107	*	*	2	2	*
AN	GRILLE ASY 24"	1177341	*	*	*	*	2
AP	PANEL CORNER 14" COND	1176022	*	2	*	*	*
AP	PANEL CORNER 18"	1177347	3	*	*	*	*
AP	PANEL CORNER 20" COND	1176109	*	*	2	2	*
AP	PANEL CORNER 24" COND	1177350	*	*	*	*	2
AQ	BRACKET SUPPORT 10"	1176023	4	4	4	4	4
AR	PANEL CORNER 14" HEADER	1176025	*	1	*	*	*
AR	PANEL CORNER 18" HEADER	1177348	1	*	*	*	*
AR	PANEL CORNER 20" HEADER	1176111	*	*	1	1	*
AR	PANEL CORNER 24" HEADER	1177351	*	*	*	*	1
AS	PARTION COIL EVAP	1176026	1	*	*	*	*
AS	PARTITION COIL EVAP	1176081	*	1	1	*	*
AS	PARTITION COIL EVAP	1176112	*	*	*	1	1
AZ	BARRIER 24V	1176144	1	*	*	*	*
AZ	BARRIER 24V 42-60	1176148	*	1	1	1	1
BA	PANEL CORNER 14" HEADER	1176082	*	1	*	*	*
BA	PANEL CORNER 20" HEADER	1176113	*	*	1	1	*
BA	PANEL CORNER 24" HEADER	1177352	*	*	*	*	1
BB	SUPPORT BLOWER	1176085	*	1	1	1	1
BC	PARTION COIL EVAP	1176783	1	*	*	*	*
BC	PARTITION COIL SUPPLY	1176084	*	1	1	1	1
BD	SUPPORT BLOWER	1176784	1	1	1	1	1
BE	SHEILD BASE PAN	1176086	*	1	1	1	1
BE	SHIELD BASEPAN	1176794	1	*	*	*	*
BF	INSULATION RETURN DUCT PANEL	1176087	*	1	1	1	1
BF	INSULATION RETURN DUCT PANEL	1176151	1	*	*	*	*
BG	COMPRESSOR MTG BOLT	1176731	4	4	4	4	4
BH	INSULATION COIL PARTITION	1176152	1	*	*	*	*
BH	INSULATION COIL PARTITION	1176153	*	1	1	1	1
BJ	INSULATION COIL PARTITION	1176785	1	*	*	*	*
BJ	INSULATION COIL PARTITION	1176786	*	1	1	1	1
BK	GROMMET	1176613	2	2	2	2	2
BL	PARTITION COIL EVAP	1176114	*	*	*	1	1
BM	BLOCKOFF PANEL UPPER	1177319	1	*	*	*	*
BM	BLOCKOFF PANEL UPPER	1177326	*	1	1	1	1
BN	BLOCKOFF PANEL LOWER	1177323	1	*	*	*	*
BN	BLOCKOFF PANEL LOWER	1177325	*	1	1	1	1
A	RACEWAY	1171428	1	1	1	1	1
B	INSULATION ASY TOP EVAP	1175988	1	*	*	*	*
B	INSULATION ASY TOP EVAP	1176083	*	1	1	1	1
C	BASE PAN ASY	1175989	1	*	*	*	*
C	BASE PAN ASY	1176061	*	1	1	1	1
D	DUCT COVER ASY	1175990	2	*	*	*	*
D	DUCT COVER ASY	1176062	*	2	2	2	2
E	TOP CONDENSER	1175991	1	*	*	*	*

PHN4 30 – 60 (208 / 230V) 3PH PARTS LIST (continued)

KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN430000H00A1	PHN436000H00A1	PHN442000H00A1	PHN448000H00A1	PHN460000H00A1
E	TOP CONDENSER	1176063	*	1	1	1	1
F	PARTITION COIL	1175992	1	*	*	*	*
F	PARTITION COIL RETURN	1176064	*	1	1	1	1
G	PARTITION FAN	1175993	1	*	*	*	*
G	PARTITION FAN	1176065	*	1	1	1	1
H	PANEL REAR DUCT	1175994	1	*	*	*	*
H	PANEL REAR DUCT	1176066	*	1	1	1	1
J	PANEL COMP SIDE	1175995	1	*	*	*	*
J	PANEL COMP SIDE	1176067	*	1	1	1	1
K	PANEL ACCESS	1175996	1	*	*	*	*
K	PANEL ACCESS	1176068	*	1	1	1	1
L	INSULATION ACCESS PANEL	1175997	1	*	*	*	*
L	INSULATION ACCESS PANEL	1176069	*	1	1	1	1
M	INSULATION COMP PANEL	1176070	*	1	1	1	1
M	INSULATION PANEL COMP	1175998	1	*	*	*	*
N	GRILLE OUTLET	1171267	1	1	1	1	1
P	GROMMET COMPRESSOR 1.62"DIA S	1171270	4	4	4	4	4
R	COVER HEATER OPENING	1176139	1	1	1	1	1
S	INSULATION CONTROL PLATE	1176140	1	1	1	1	1
X	PANEL SIDE POWER SUPPLY	1176141	1	*	*	*	*
X	PANEL SIDE POWER SUPPLY	1176145	*	1	1	1	1
Y	INSULATION PANEL SIDE	1176142	1	*	*	*	*
Y	INSULATION PANEL SIDE	1176146	*	1	1	1	1
Z	PLATE CONTROL	1176143	1	1	1	1	1
PARTS NOT SHOWN							
)X	HARNESS ASY CONT BOX	1177012	1	1	1	1	1

PHN4 36 – 60 (460V) 3PH PARTS LIST						
KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN436000L00A1	PHN442000L00A1	PHN448000L00A1	PHN460000L00A1
01	COMP ZP31K5E-TFD-130	ZP31K5ETFD130	1	*	*	*
01	COMP ZP36K5E-TFD-130	ZP36K5ETFD130	*	1	*	*
01	COMP ZP39K5E-TFD-130	ZP39K5ETFD130	*	*	1	*
01	COMP ZP51K5E-TFD-130	ZP51K5ETFD130	*	*	*	1
02	COIL ASY OUTDOOR 36 AL LF	1177777	1	*	*	*
02	COIL ASY OUTDOOR 42 AL LF	1177779	*	1	*	*
02	COIL ASY OUTDOOR 48 AL LF	1177781	*	*	1	*
02	COIL ASY OUTDOOR 60 AL LF	1177783	*	*	*	1
03	COIL ASY OUTDOOR 36 AL RT	1177778	1	*	*	*
03	COIL ASY OUTDOOR 42 AL RT	1177780	*	1	*	*
03	COIL ASY OUTDOOR 48 AL RT	1177782	*	*	1	*
03	COIL ASY OUTDOOR 60 AL RT	1177784	*	*	*	1
04	COIL ASY INDOOR 36	1177771	1	*	*	*
04	COIL ASY INDOOR 42	1176996	*	1	*	*
04	COIL ASY INDOOR 48	1176997	*	*	1	*
04	COIL ASY INDOOR 60	1177772	*	*	*	1
05	MTR BLT	1177599	1	1	*	*
05	MTR BLT	1177600	*	*	1	1
06	MTR CND	1176050	1	1	*	*
06	MTR CND	1171334	*	*	1	*
06	MTR CND	1177761	*	*	*	1
07	FAN C 22" 3B 1/2" 28 INT	1171219	1	1	*	1
07	FAN C 22" 3B 1/2" 24 INT	1171220	*	*	1	*
08	CAP RN RD	1172149	1	1	*	*
08	CAP RN OV 370V 7.5 MFD	1176150	*	*	1	*
08	CAP	1171807	*	*	*	1
08	CAP RN RD 370V 70+10 MFD	1177750	*	*	*	1
10	CONTACTOR	1171160	1	1	*	*
10	CONTACTOR	1174905	*	*	1	1
13	TRANS 200/230/460>24 75VA	1171496	1	1	1	1
14	WHEEL 11-10DD CCW	1177025	1	1	1	1
16	DISTRIBUTOR 4 CIRCUIT R-410A	1174361	1	1	*	*
16	DISTRIBUTOR 6 CIRCUIT R-410A	1175220	*	*	1	*
16	DISTRIBUTOR 7 CIRCUIT R-410A	1177785	*	*	*	1
18	VALVE REV W/COIL 24V	1173708	1	*	*	*
18	VALVE REV W/COIL 24V	1172618	*	1	1	*
18	VALVE REV W/COIL 24V	1173709	*	*	*	1
19	FUSE	1177759	2	2	2	2
20	FUSE HOLDER	1177760	2	2	2	2
21	COIL REV VLV 24V	1172619	1	1	1	1
22	SENSOR DEFROST O65 C32	1173637	1	1	1	1
23	BOARD DEFROST	1174185	1	1	1	1
24	DISTRIBUTOR 2 CKT	1177711	2	*	*	*
24	DISTRIBUTOR 3 CKT	1177712	*	2	2	*

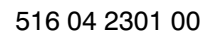
PHN4 36 - 60 (460V) 3PH PARTS LIST (continued)

KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN436000L00A1	PHN442000L00A1	PHN448000L00A1	PHN460000L00A1
24	DISTRIBUTOR 4 CKT	1174240	*	*	*	2
25	PISTON CHATLEFF .042	1173634	2	*	*	*
25	PISTON CHATLEFF .038	1174858	*	1	1	*
27	PISTON CHATLEFF .040	1173990	*	1	1	*
27	PISTON CHATLEFF .049	1173868	*	*	*	2
28	ACCUMULATOR	1172805	1	1	*	*
28	ACCUMULATOR	1172313	*	*	1	*
28	ACCUMULATOR 247 CI 7/8	1173672	*	*	*	1
32	MOUNTING KIT BLW MTR	1176088	1	1	1	1
37	PLUG COMPRESSOR	1177022	1	1	1	1
38	HTR CC WP	1176867	1	*	*	*
38	HTR CC WP	1176125	*	1	1	1
39	SWITCH LOW PRESSURE	1174412	1	1	1	1
40	DRIER BIFLOW 06 CI 3/8 SWEAT	1172311	1	1	1	1
41	SWITCH HIGH PRESSURE	1174407	1	1	1	1
42	TRANS STEP DOWN 460>230V	1177023	1	1	1	1
43	VALVE TXV 3 TON	1176869	1	*	*	*
43	VALVE TXV 4 TON	1177748	*	1	*	*
43	VALVE TXV 4 TON	1176870	*	*	1	*
43	VALVE TXV 5 TON	1176871	*	*	*	1
45	CIRCUIT BOARD X-13	1177026	1	1	1	1
46	RELAY	1174099	1	1	1	1
A	RACEWAY	1171428	1	1	1	1
B	INSULATION ASY TOP EVAP	1176083	1	1	1	1
C	BASE PAN ASY	1176061	1	1	1	1
D	DUCT COVER ASY	1176062	2	2	2	2
E	TOP CONDENSER	1176063	1	1	1	1
F	PARTITION COIL RETURN	1176064	1	1	1	1
G	PARTITION FAN	1177787	1	1	1	1
H	PANEL REAR DUCT	1176066	1	1	1	1
J	PANEL COMP SIDE	1176067	1	1	1	1
K	PANEL ACCESS	1176068	1	1	1	1
L	INSULATION ACCESS PANEL	1176069	1	1	1	1
M	INSULATION COMP PANEL	1176070	1	1	1	1
N	GRILLE OUTLET	1171267	1	1	1	1
P	GROMMET COMPRESSOR 1.62"DIA S	1171270	4	4	4	4
R	COVER HEATER OPENING	1176139	1	1	1	1
S	INSULATION CONTROL PLATE	1176140	1	1	1	1
X	PANEL SIDE POWER SUPPLY	1176145	1	1	1	1
Y	INSULATION PANEL SIDE	1176146	1	1	1	1
Z	PLATE CONTROL	1176143	1	1	1	1
AA	INSUL FAN PARTITION	1177788	1	1	1	1
AB	CLAMP CAPACITOR	1171552	1	1	1	*
AB	CLAMP CAPACITOR ROUND 2.5"D	1064218	*	*	*	1

PHN4 36 - 60 (460V) 3PH PARTS LIST (continued)

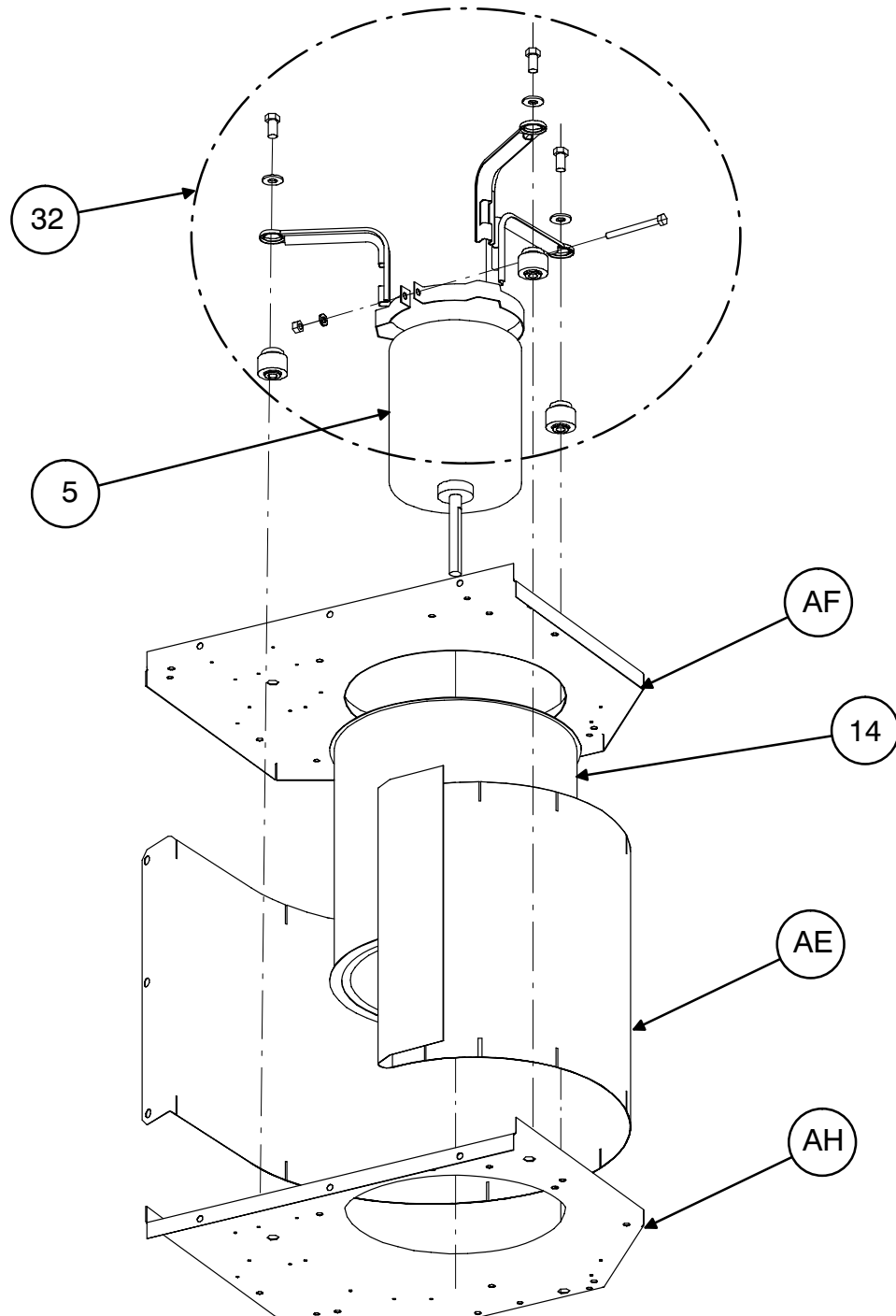
KEY NO.	DESCRIPTION	FAST PARTS NO.	PHN436000L00A1	PHN442000L00A1	PHN448000L00A1	PHN460000L00A1
AE	SCROLL	1176074	1	1	1	1
AF	PLATE ASY FAN TOP	1177021	1	1	1	1
AH	PLATE FAN FAN BOTTOM	1176076	1	1	1	1
AK	GRILLE ASY 14"	1176080	1	*	*	*
AK	GRILLE ASY 20"	1176108	*	1	1	*
AK	GRILLE ASY 24"	1177340	*	*	*	1
AL	GRILLE ASY 14"	1176078	1	*	*	*
AL	GRILLE ASY 20"	1176106	*	1	1	*
AL	GRILLE ASY 24"	1177339	*	*	*	1
AN	GRILLE ASY 14"	1176079	2	*	*	*
AN	GRILLE ASY 20"	1176107	*	2	2	*
AN	GRILLE ASY 24"	1177341	*	*	*	2
AP	PANEL CORNER 14" COND	1176022	2	*	*	*
AP	PANEL CORNER 20" COND	1176109	*	2	2	*
AP	PANEL CORNER 24" COND	1177350	*	*	*	2
AQ	BRACKET SUPPORT 10"	1176023	4	4	4	4
AR	PANEL CORNER 14" HEADER	1176025	1	*	*	*
AR	PANEL CORNER 20" HEADER	1176111	*	1	1	*
AR	PANEL CORNER 24" HEADER	1177351	*	*	*	1
AS	PARTITION COIL EVAP	1176081	1	1	*	*
AS	PARTITION COIL EVAP	1176112	*	*	1	1
AZ	BARRIER 24V 42-60	1176148	1	1	1	1
BA	PANEL CORNER 14" HEADER	1176082	1	*	*	*
BA	PANEL CORNER 20" HEADER	1176113	*	1	1	*
BA	PANEL CORNER 24" HEADER	1177352	*	*	*	1
BB	SUPPORT BLOWER	1176085	1	1	1	1
BC	PARTITION COIL SUPPLY	1176084	1	1	1	1
BD	SUPPORT BLOWER	1176784	1	1	1	1
BE	SHEILD BASE PAN	1176086	1	1	1	1
BF	INSULATION RETURN DUCT PANEL	1176087	1	1	1	1
BG	COMPRESSOR MTG BOLT	1176731	4	4	4	4
BH	INSULATION COIL PARTITION	1176153	1	1	1	1
BJ	INSULATION COIL PARTITION	1176786	1	1	1	1
BK	GROMMET	1176613	2	2	2	2
BL	PARTITION COIL EVAP	1176114	*	*	1	1
BM	BLOCKOFF PANEL UPPER	1177326	1	1	1	1
BN	BLOCKOFF PANEL LOWER	1177325	1	1	1	1
PARTS NOT SHOWN						
)(	HARNESS ASY CONT BOX	1177013	1	1	1	1

CONTROL BOX ASY



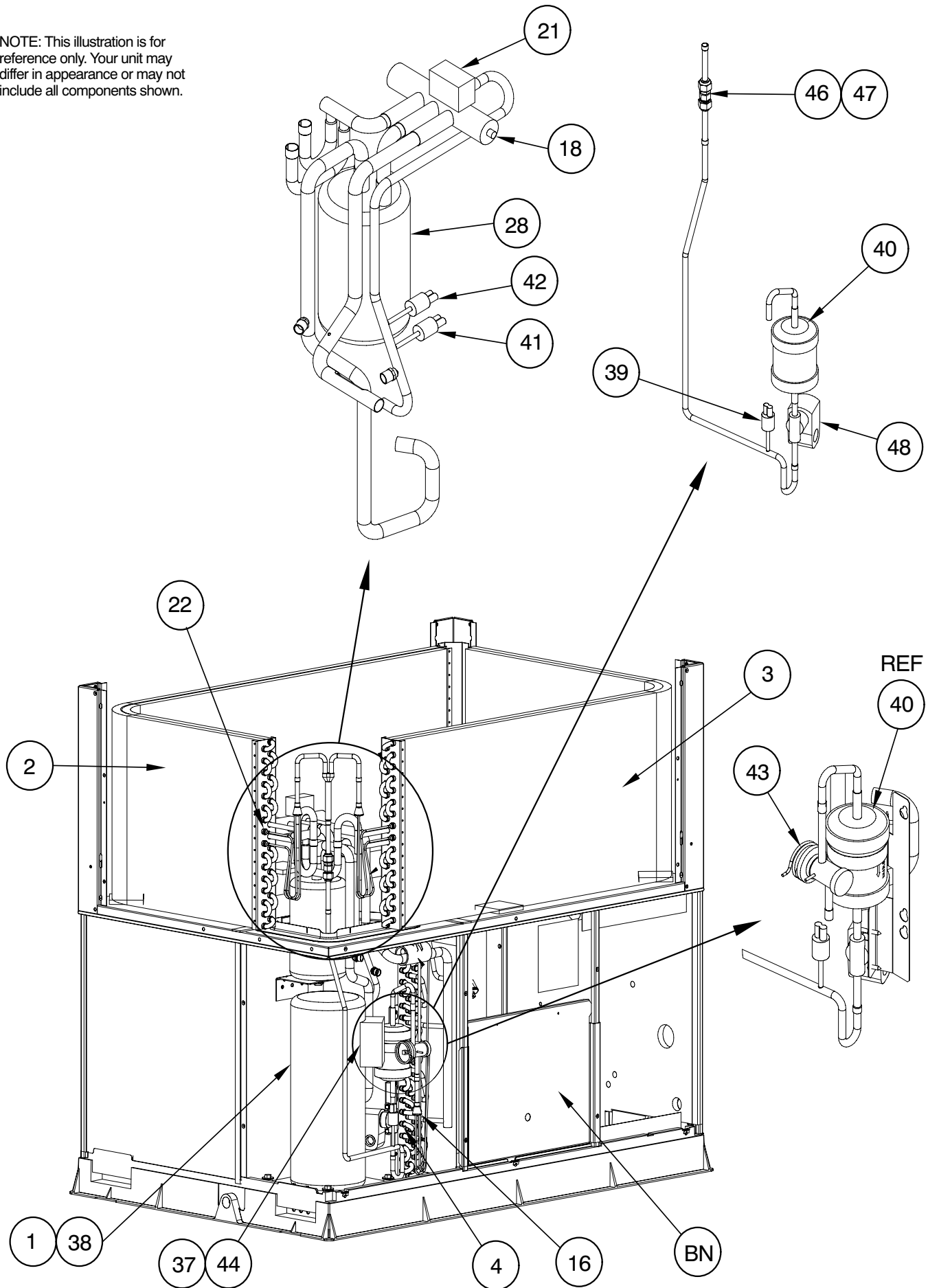
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.

BLOWER ASY



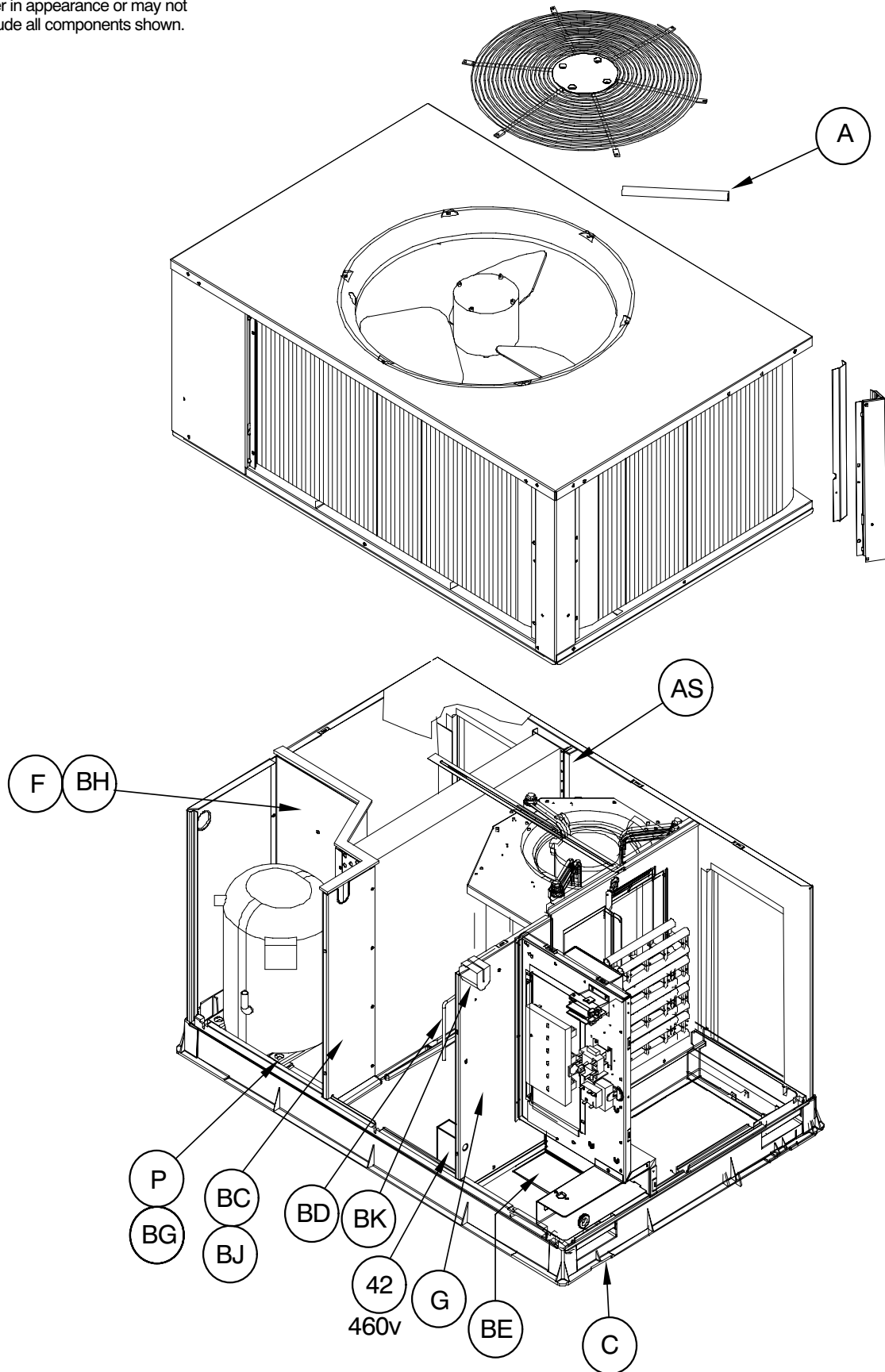
PHN4 30

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

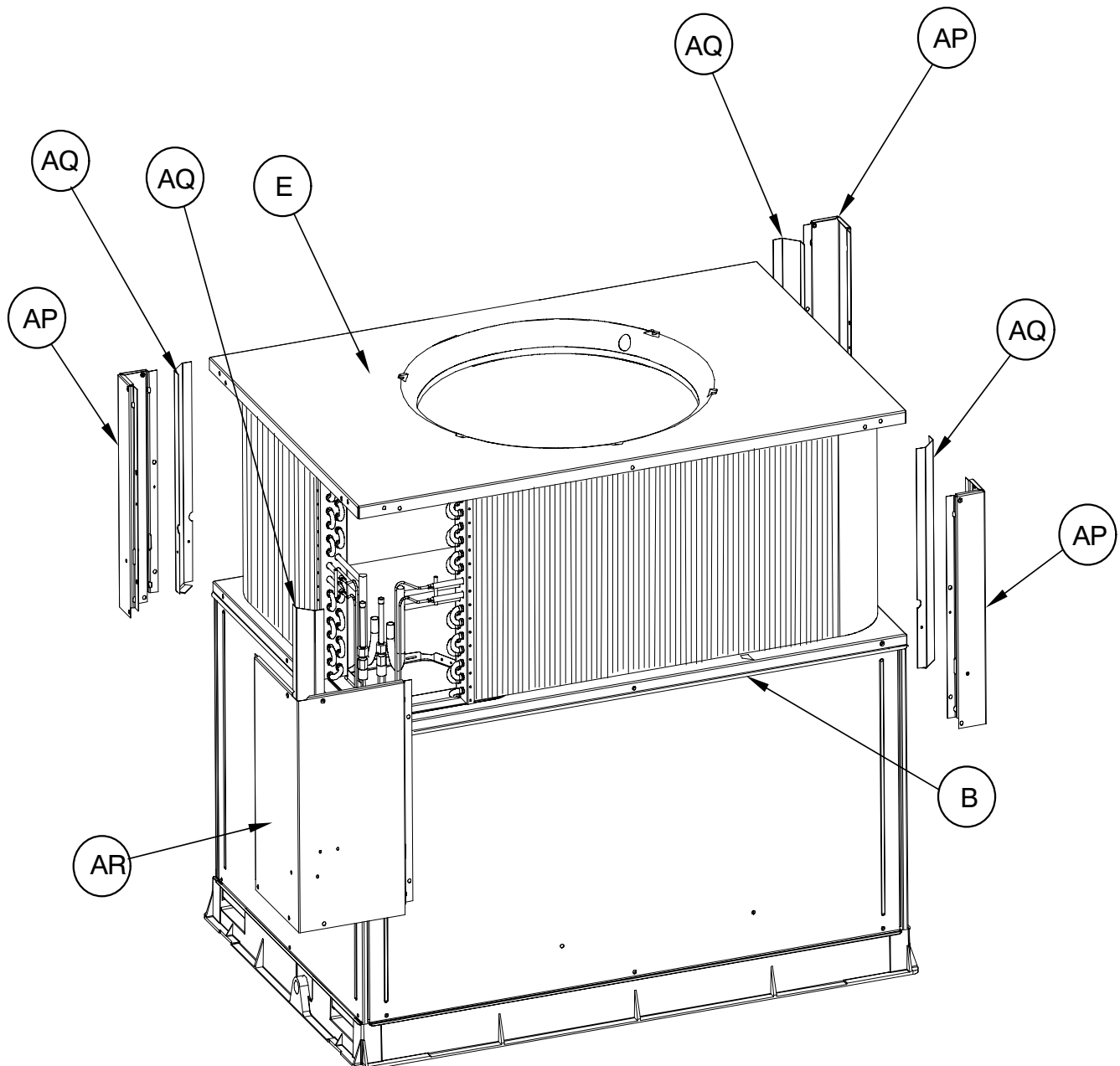
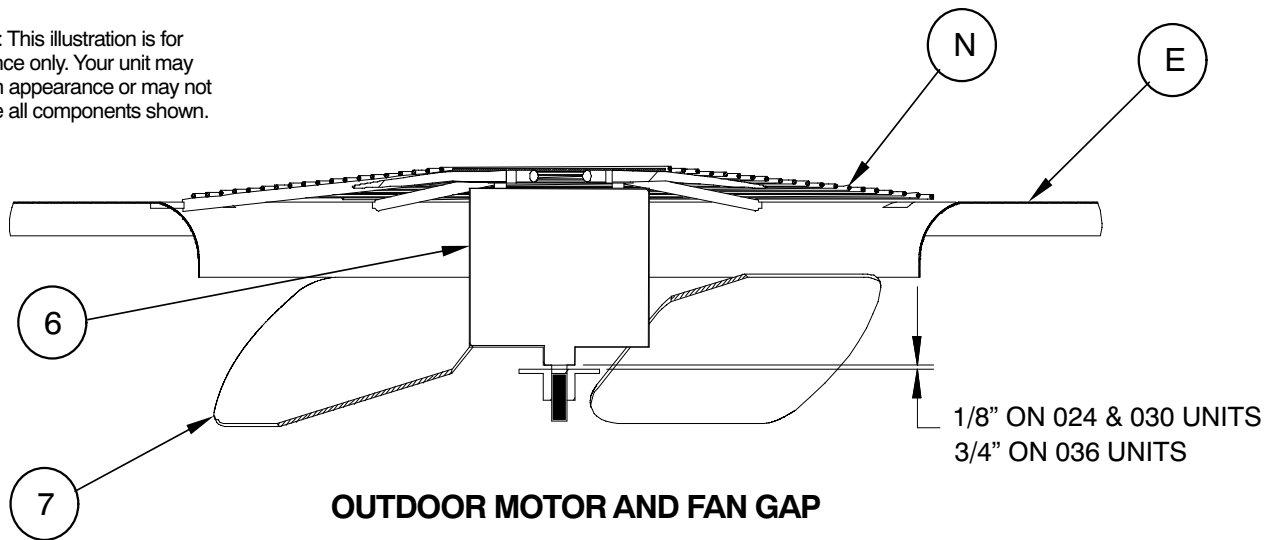


50-10-11

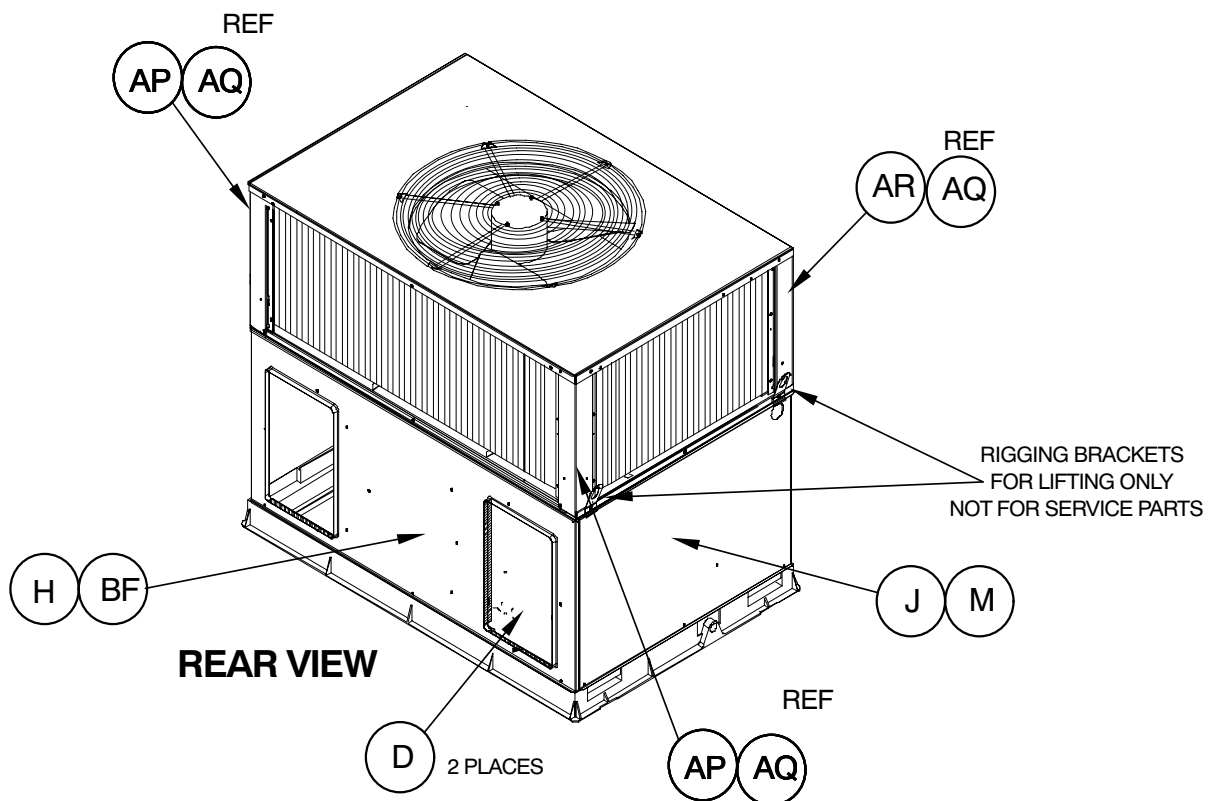
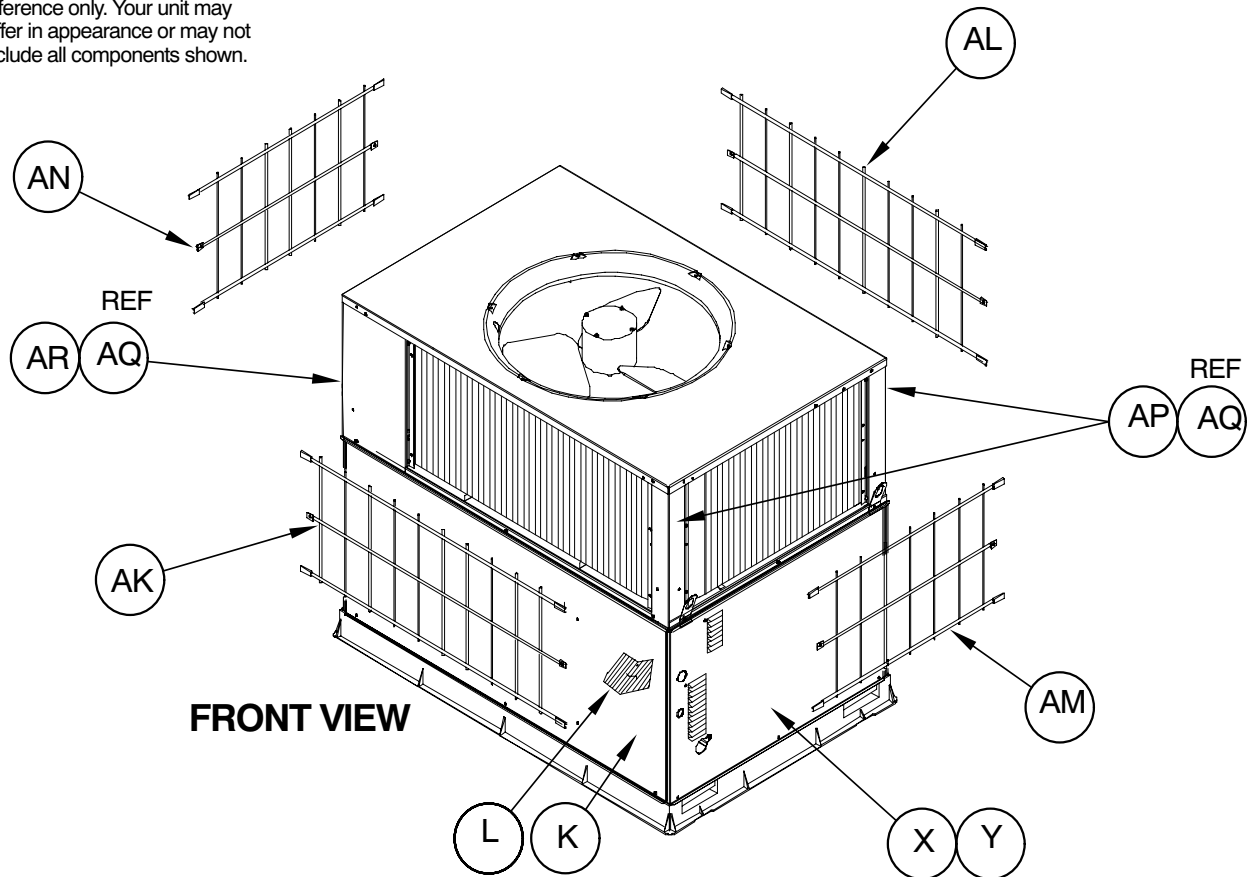
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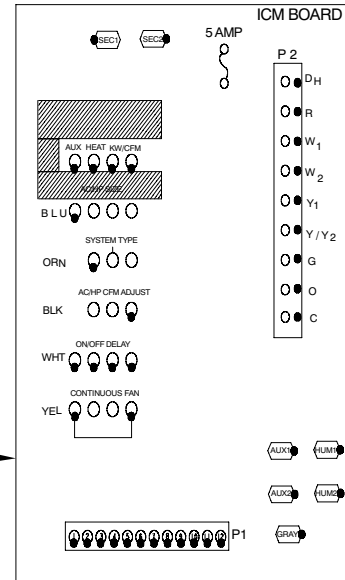
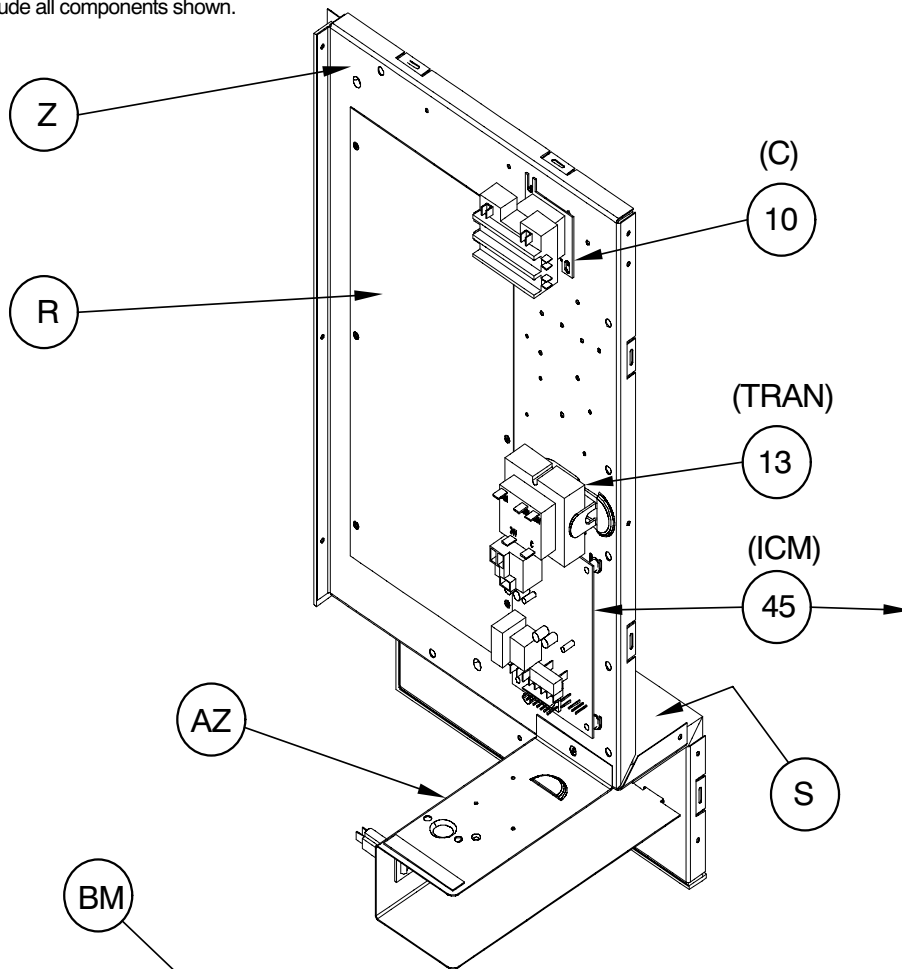


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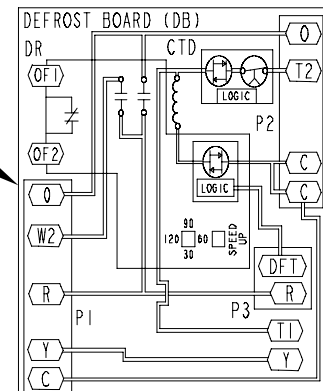
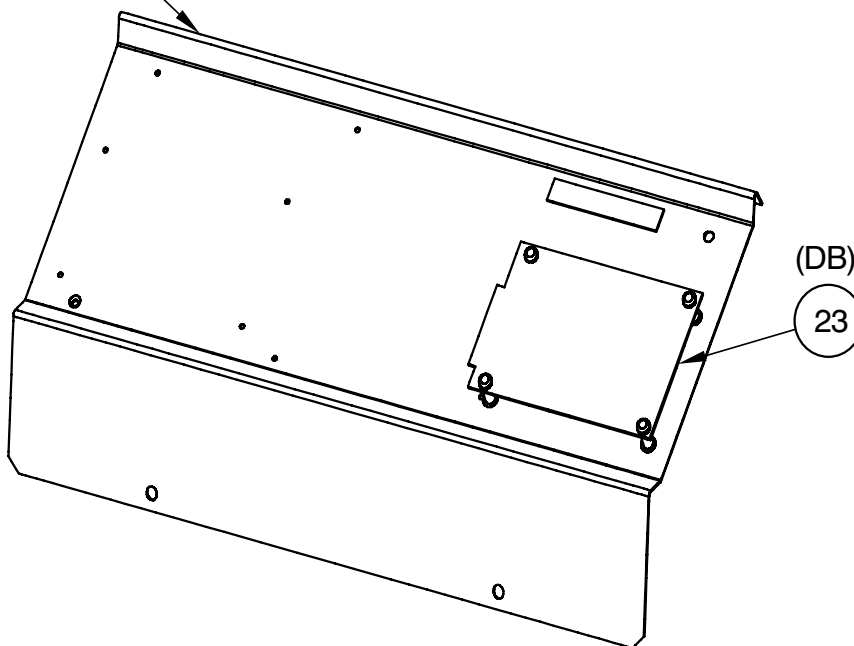


NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.

CONTROL BOX ASY



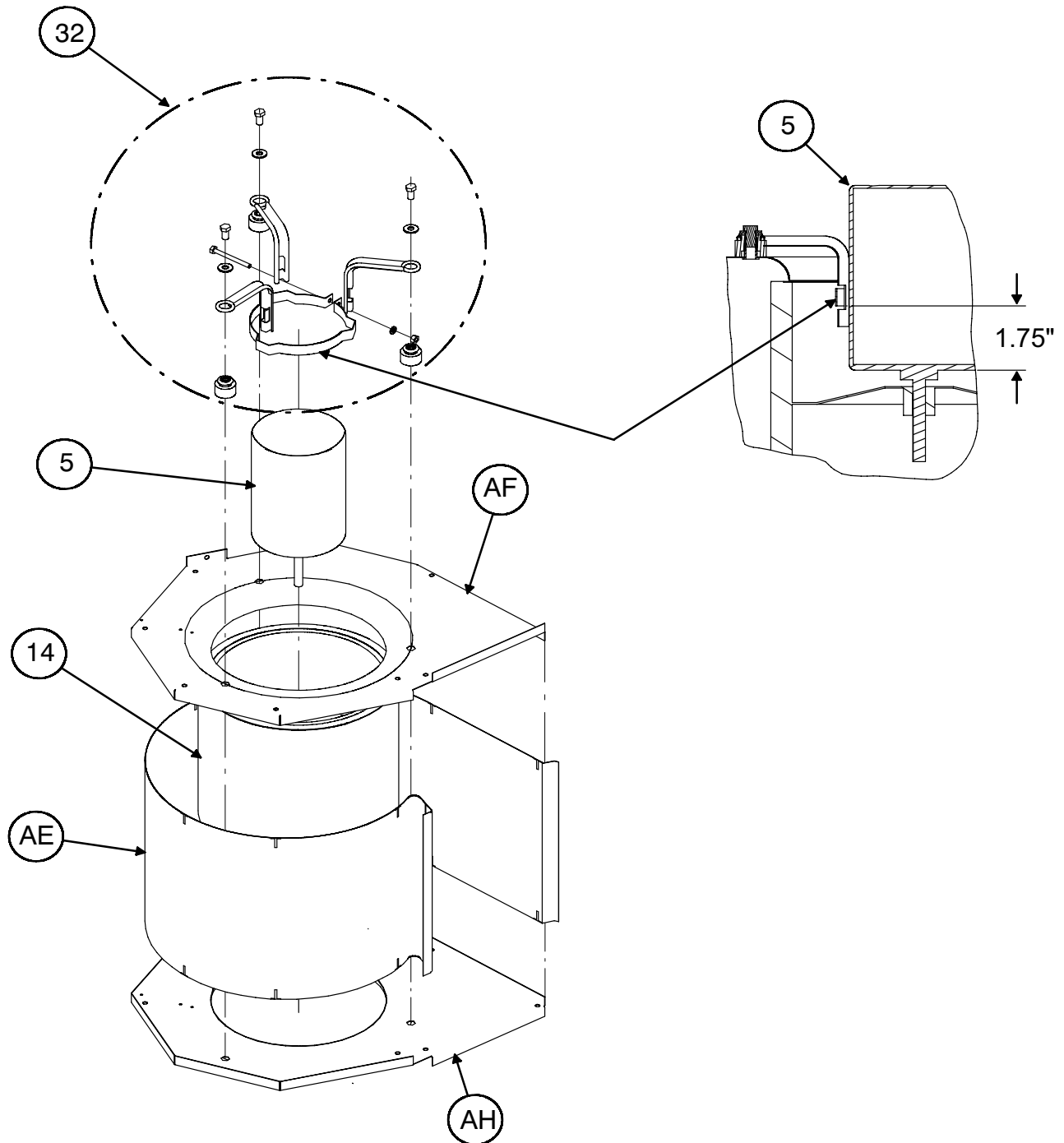
ICM BOARD



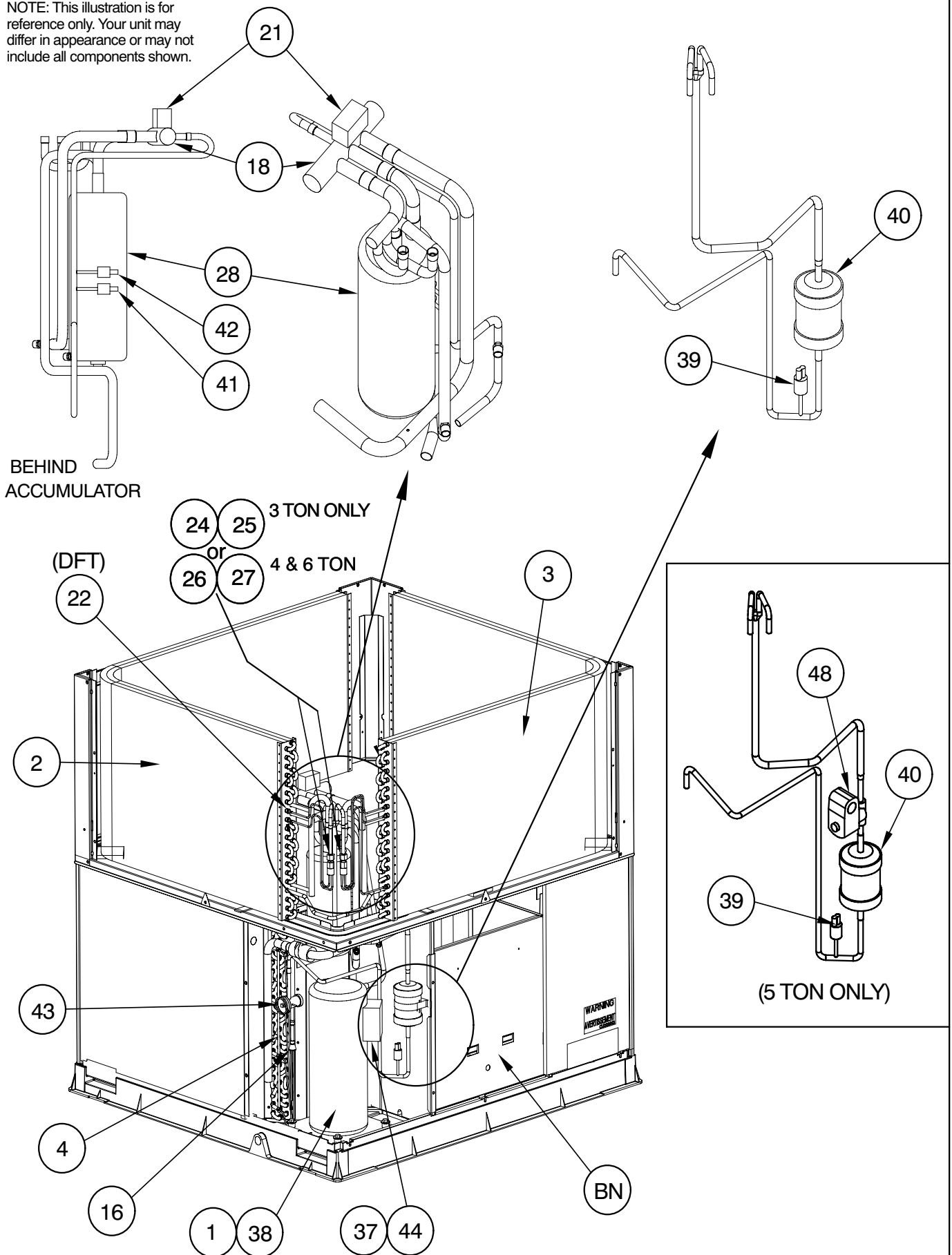
CONTROL PANEL ASY

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

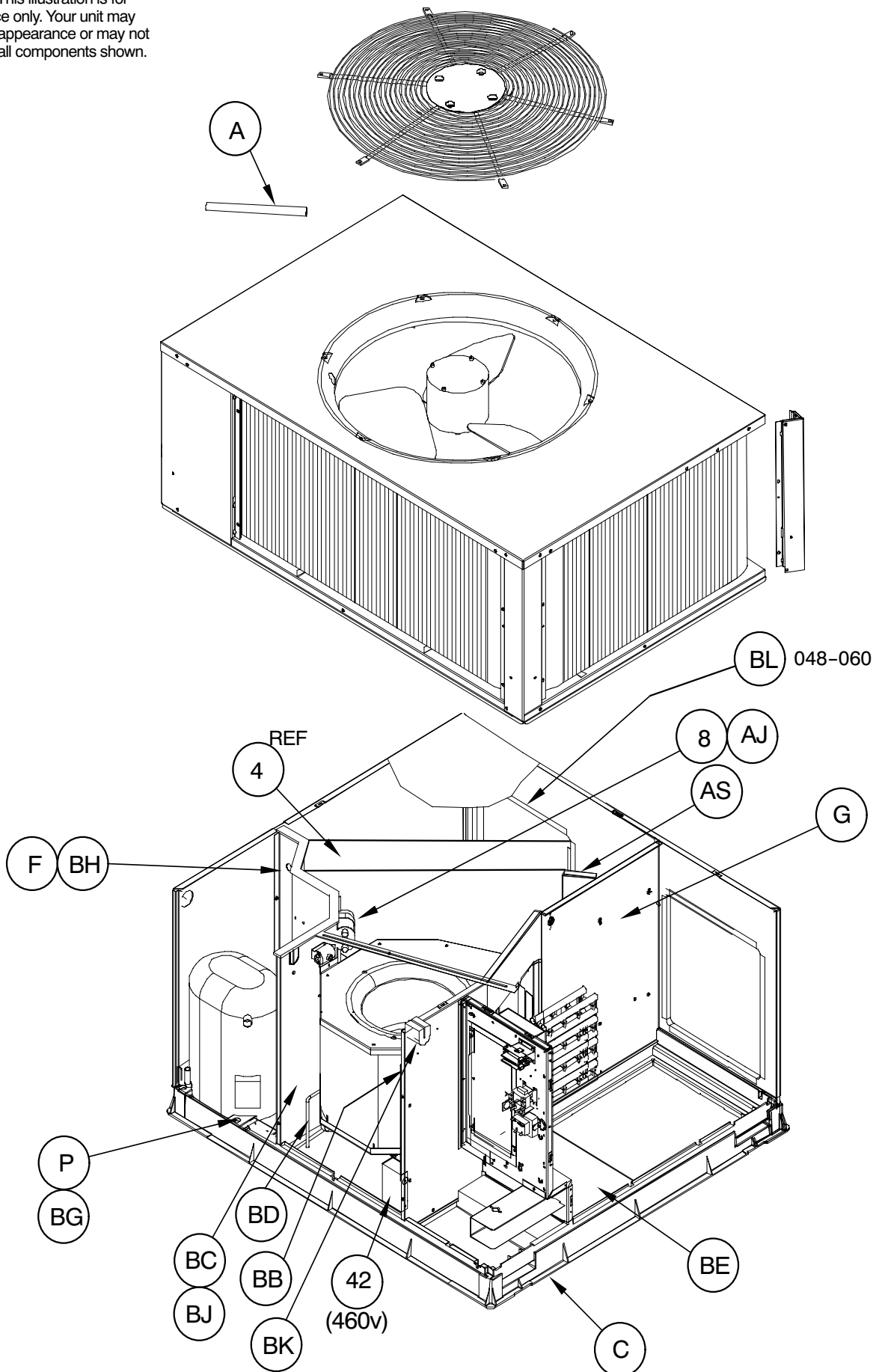
BLOWER ASY



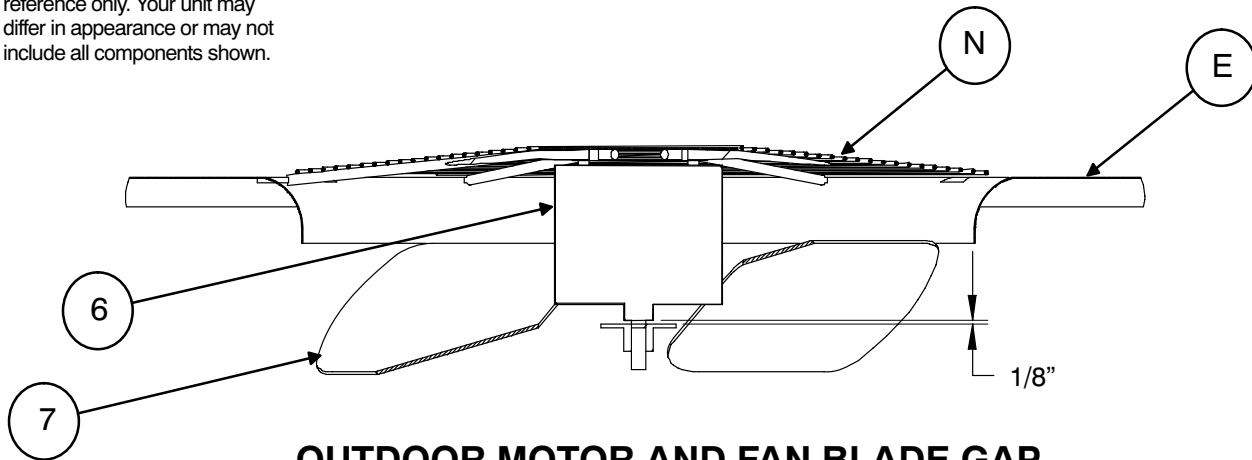
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



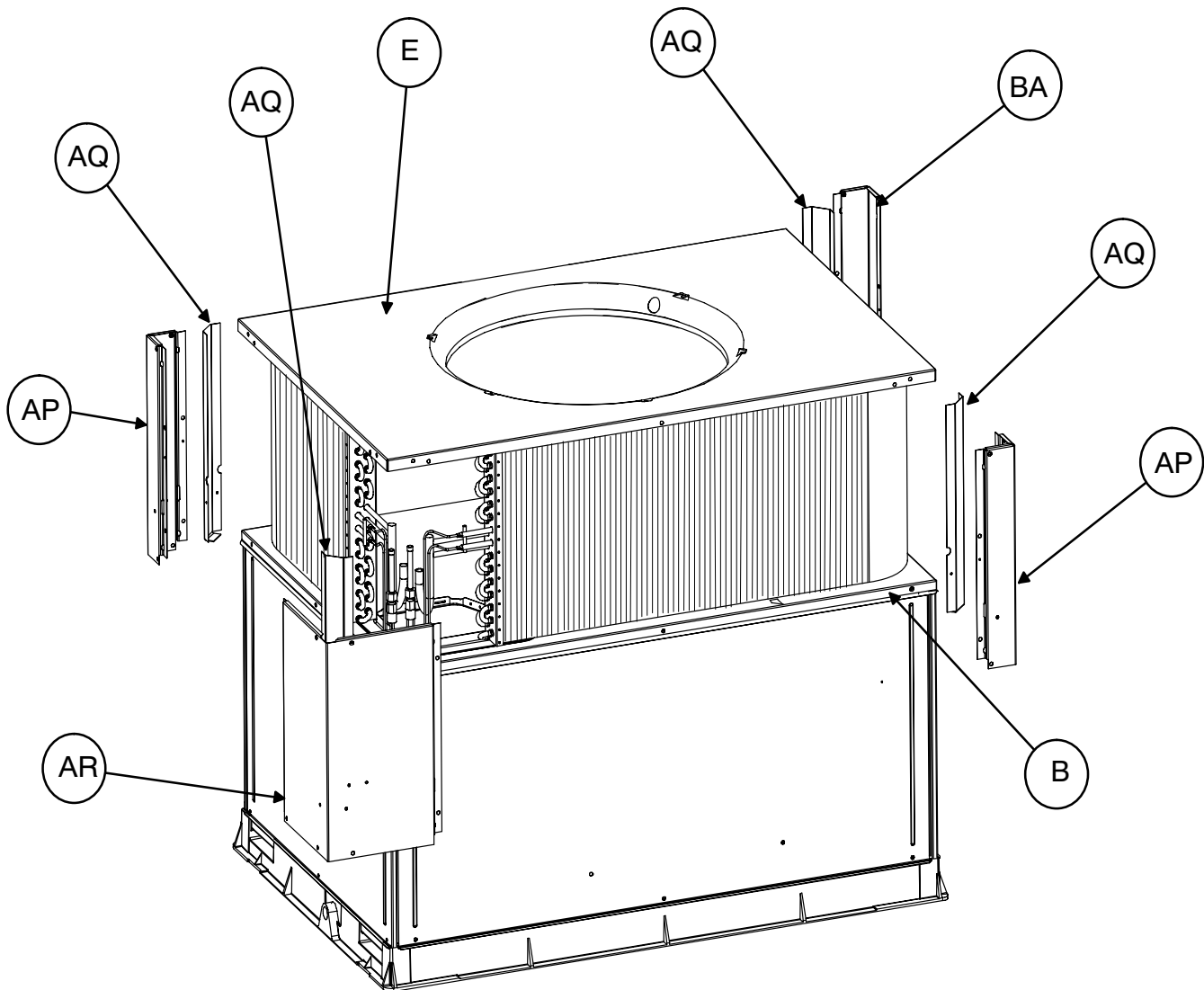
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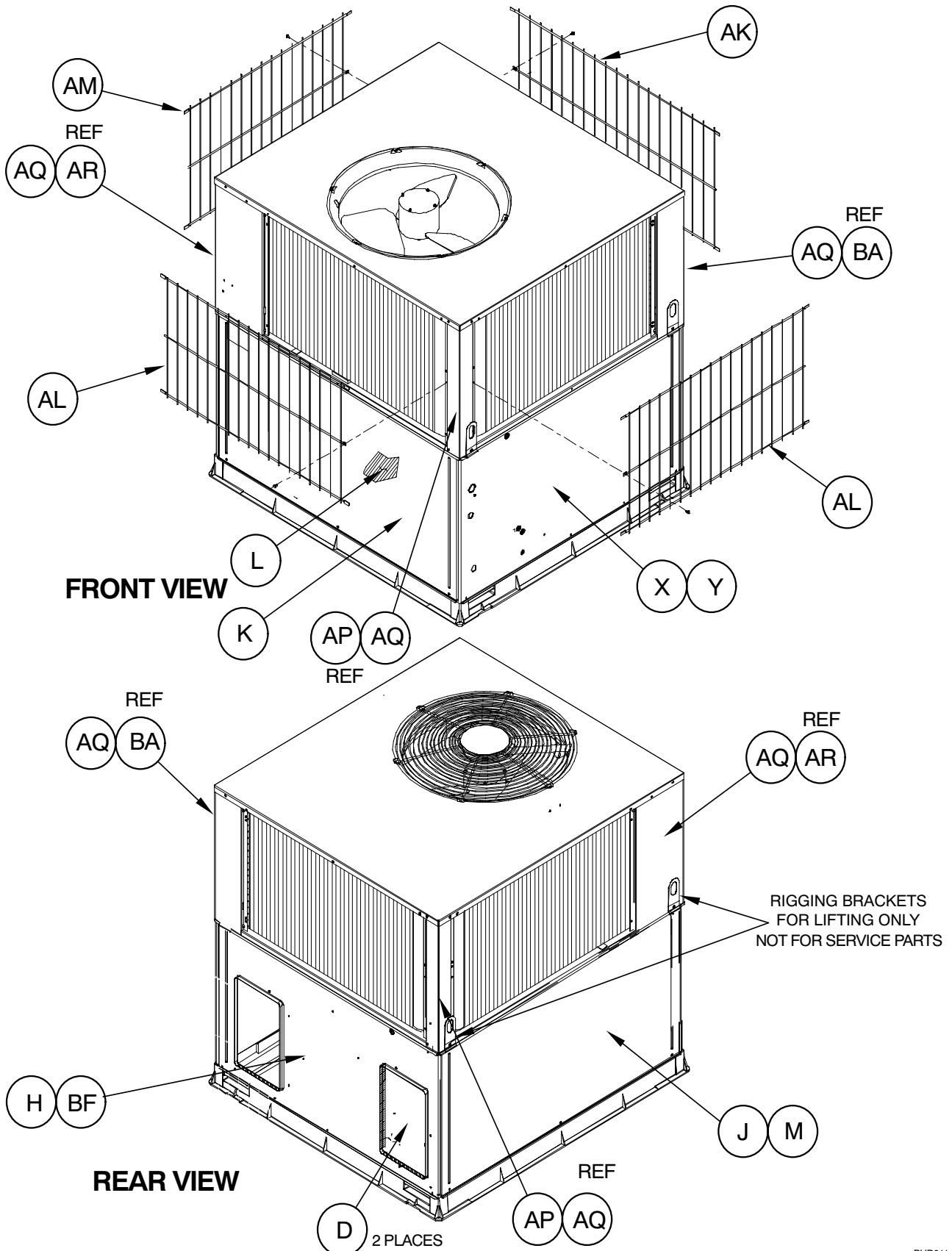
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



OUTDOOR MOTOR AND FAN BLADE GAP



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



PHD011

PHN4 30 – 60 CHARGING CHART

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 based on the model size and the Outdoor Ambient temperature.
- 5- Interpolate if the Outdoor ambient temperature lies in between the table values.
- 6- Find the Pressure Value in the table corresponding to the the measured Pressure of 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 table value.
- 9 - Remove charge if the measured temperature is lower than the table value.

REQUIRED SUBCOOLING °F(°C)					
Model Size	Outdoor Ambient Temperature °F(°C)				
	75 (24)	85 (29)	95 (35)	105 (41)	115 (46)
030	16 (8.9)	15 (8.3)	15 (8.3)	15 (8.3)	14 (7.8)
036	16 (8.9)	15 (8.3)	14 (7.8)	14 (7.8)	13 (7.2)
042	14 (7.8)	14 (7.8)	13 (7.2)	13 (7.2)	13 (7.2)
048	18 (10)	17 (9.4)	17 (9.4)	17 (9.4)	17 (9.4)
060	15 (8.3)	15 (8.3)	14 (7.8)	14 (7.8)	14 (7.8)

Required Liquid Line Temperature for a Specific Subcooling (R-410A)														
Pressure (psig)		Required Subcooling (°F)						Pressure (kPa)		Required Subcooling (°C)				
		5	10	15	20	25				3	6	8	11	14
189	66	61	56	51	46	41		1303	19	16	13	11	8	5
196	68	63	58	53	48	43		1351	20	17	15	12	9	6
203	71	66	61	56	51	46		1399	21	19	16	13	10	8
210	73	68	63	58	53	48		1448	23	20	17	14	11	9
217	75	70	65	60	55	50		1496	24	21	18	15	13	10
224	77	72	67	62	57	52		1544	25	22	19	16	14	11
231	79	74	69	64	59	54		1593	26	23	20	18	15	12
238	81	76	71	66	61	56		1641	27	24	21	19	16	13
245	82	77	72	67	62	57		1689	28	25	22	20	17	14
252	84	79	74	69	64	59		1737	29	26	23	21	18	15
260	86	81	76	71	66	61		1792	30	27	25	22	19	16
268	88	83	78	73	68	63		1848	31	29	26	23	20	17
276	90	85	80	75	70	65		1903	32	30	27	24	21	19
284	92	87	82	77	72	67		1958	33	31	28	25	22	20
292	94	89	84	79	74	69		2013	35	32	29	26	23	21
300	96	91	86	81	76	71		2068	36	33	30	27	24	22
309	98	93	88	83	78	73		2130	37	34	31	28	26	23
318	100	95	90	85	80	75		2192	38	35	32	29	27	24
327	102	97	92	87	82	77		2254	39	36	33	31	28	25
336	104	99	94	89	84	79		2316	40	37	34	32	29	26
345	106	101	96	91	86	81		2378	41	38	35	33	30	27
354	108	103	98	93	88	83		2440	42	39	36	34	31	28
364	110	105	100	95	90	85		2509	43	40	38	35	32	29
374	112	107	102	97	92	87		2578	44	41	39	36	33	30
384	113	108	103	98	93	88		2647	45	42	40	37	34	31
394	115	110	105	100	95	90		2716	46	44	41	38	35	32
404	117	112	107	102	97	92		2785	47	45	42	39	36	33
414	119	114	109	104	99	94		2854	48	46	43	40	37	34
424	121	116	111	106	101	96		2923	49	47	44	41	38	35
434	123	118	113	108	103	98		2992	50	48	45	42	39	36
444	124	119	114	109	104	99		3061	51	48	46	43	40	37
454	126	121	116	111	106	101		3130	52	49	47	44	41	38
464	128	123	118	113	108	103		3199	53	50	48	45	42	39
474	129	124	119	114	109	104		3268	54	51	48	46	43	40
484	131	126	121	116	111	106		3337	55	52	49	47	44	41
494	132	127	122	117	112	107		3406	56	53	50	47	45	42
504	134	129	124	119	114	109		3475	57	54	51	48	46	43
514	136	131	126	121	116	111		3544	58	55	52	49	46	44
524	137	132	127	122	117	112		3612	58	56	53	50	47	45
534	139	134	129	124	119	114		3681	59	56	54	51	48	45

CONNECTION WIRING DIAGRAM DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC
208/230-3-60

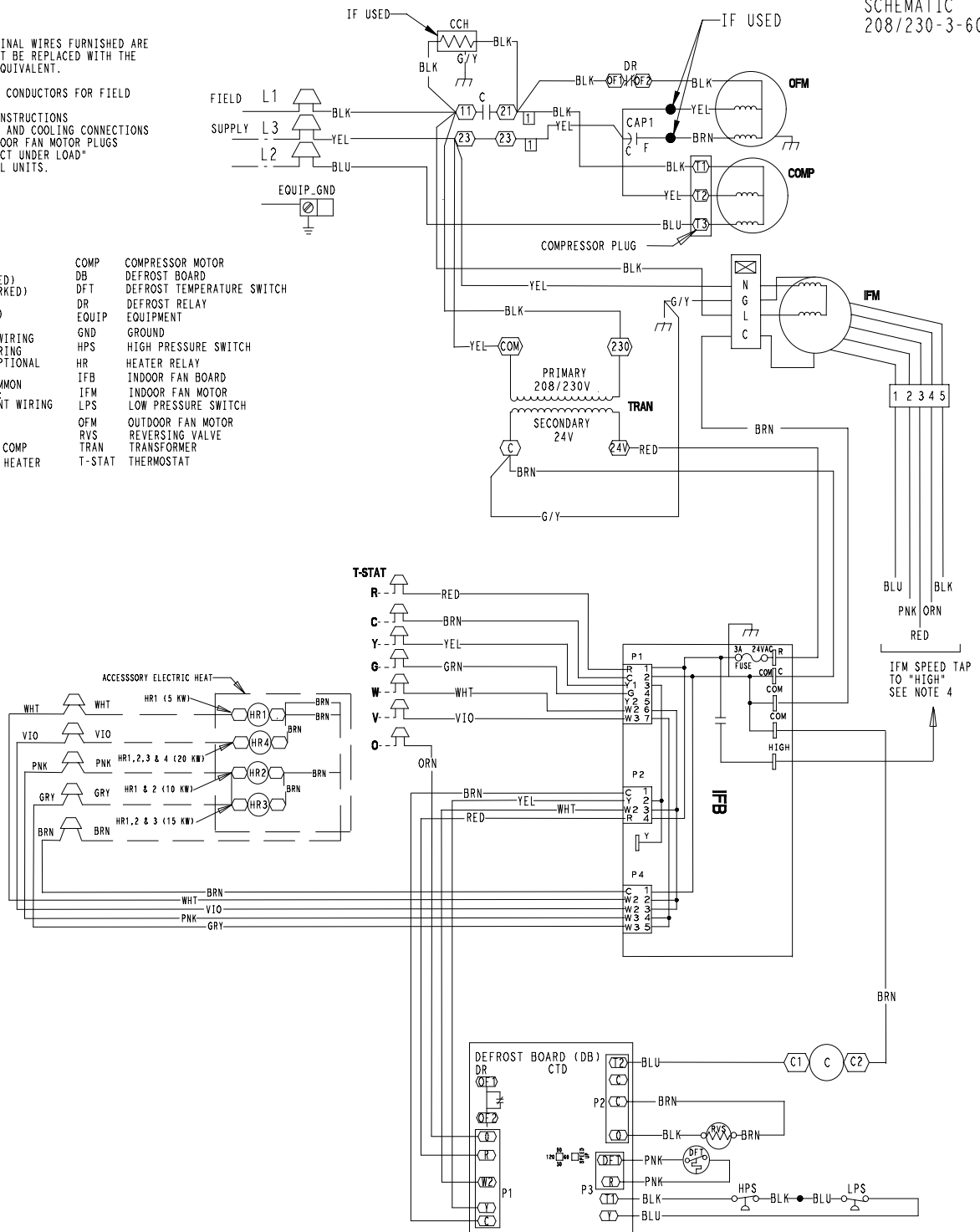
- NOTES:
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR ITS EQUIVALENT.
 - USE 75 DEG. COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT. INDOOR FAN MOTOR PLUGS - "DO NOT DISCONNECT UNDER LOAD"
 - CCH NOT USED ON ALL UNITS.

LEGEND

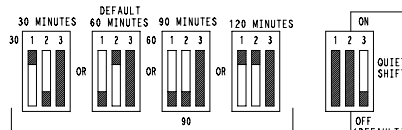
- △ FIELD SPLICE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON
- POTENTIAL ONLY
- NOT TO REPRESENT WIRING

- C CONTACTOR
- CAP 1 CAPACITOR, COMP
- CCH CRANK CASE HEATER

- COMP COMPRESSOR MOTOR
- DB DEFROST BOARD
- DFT DEFROST TEMPERATURE SWITCH
- DR DEFROST RELAY
- EQUIP EQUIPMENT
- GND GROUND
- HPS HIGH PRESSURE SWITCH
- HR HEATER RELAY
- IFB INDOOR FAN BOARD
- IFM INDOOR FAN MOTOR
- LPS LOW PRESSURE SWITCH
- OFM OUTDOOR FAN MOTOR
- RVS REVERSING VALVE
- TRAN TRANSFORMER
- T-STAT THERMOSTAT



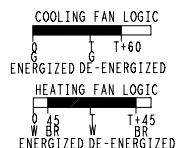
DIP SWITCH SETTINGS



FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES)
THE COMPRESSOR WILL SHUT OFF FOR 30 SEC. ON DEFROST INITIATION AND TERMINATION IN THE "QUIET SHIFT" ON POSITION

COLOR CODE

- BLK BLACK
- BLU BLUE
- BRN BROWN
- GRY GRAY
- GRN GREEN
- ORN ORANGE
- PNK PINK
- RED RED
- VIO VIOLET
- WHT WHITE
- YEL YELLOW

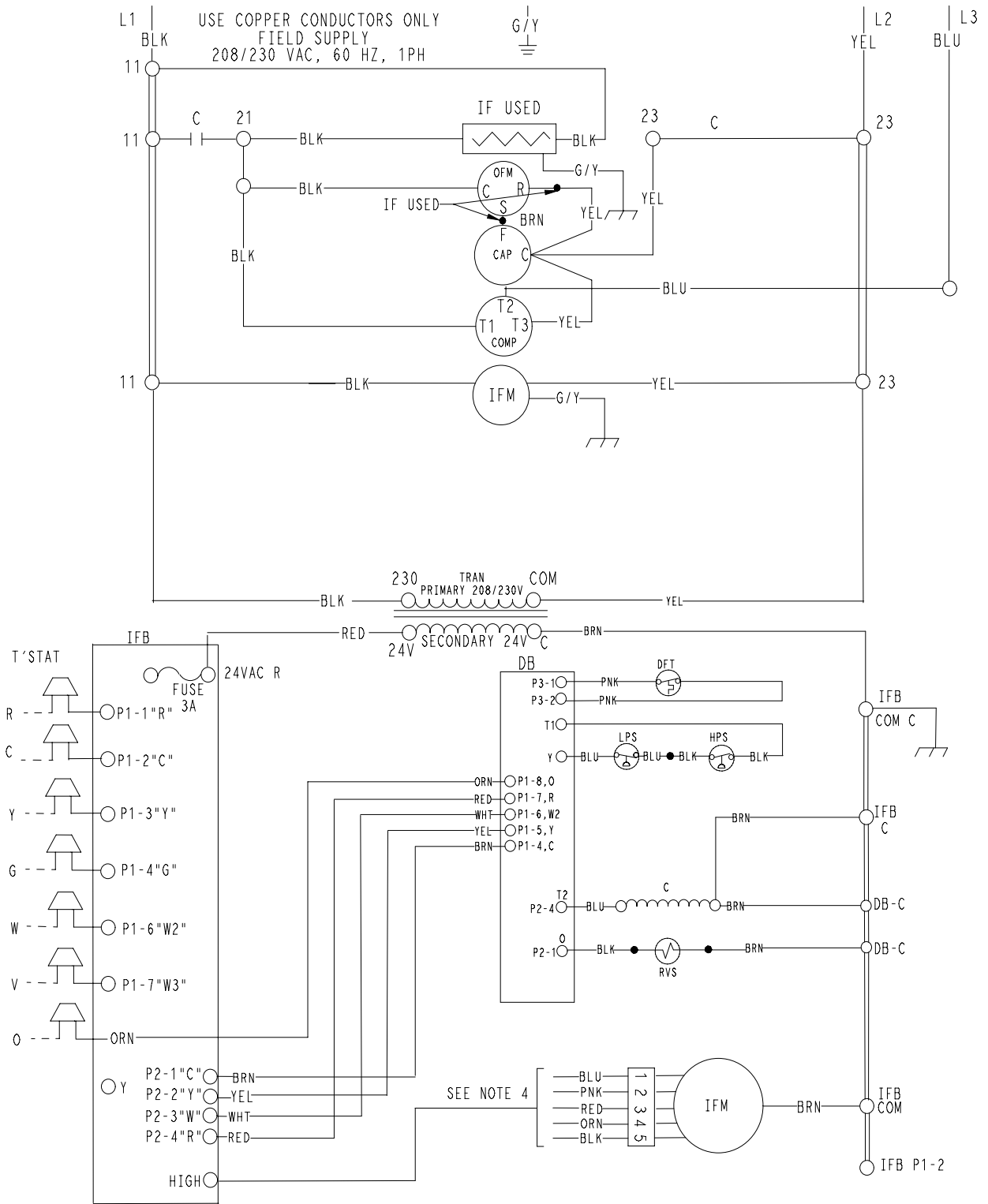


SPEED UP ☐ JUMPERED TEST PINS (USE METAL OBJECT)
FIELD SPEED-UP CYCLE

- MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
- SHORT FOR 5+ SEC. AND RELEASE FOR FORCED DEFROST.
- PERMANENT SHORT WILL BE IGNORED.

DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN.
DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.

LADDER WIRING DIAGRAM
DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50EZ500161 2.0

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC
460-3-60

NOTES:

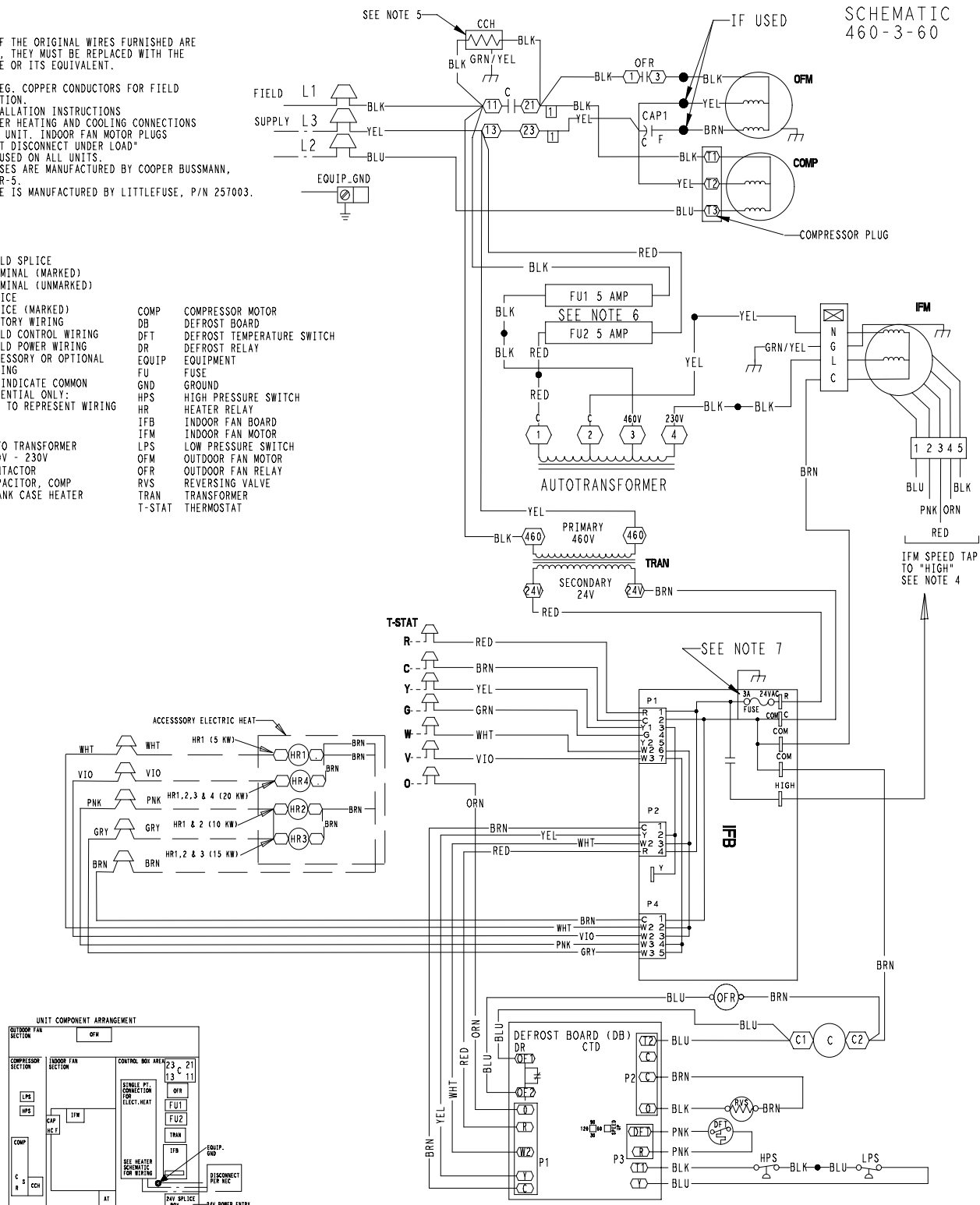
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3. USE 75 DEG. COPPER CONDUCTORS FOR FIELD INSTALLATION.
4. SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT. INDOOR FAN MOTOR PLUGS - "DO NOT DISCONNECT UNDER LOAD"
5. CCH NOT USED ON ALL UNITS.
6. THESE FUSES ARE MANUFACTURED BY COOPER BUSSMANN, P/N FNO-R-5.
7. THIS FUSE IS MANUFACTURED BY LITTLEFUSE, P/N 257003.

LEGEND

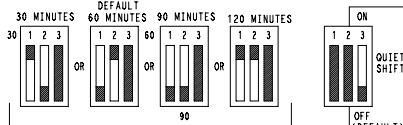
- △ FIELD SPICE
 ○ TERMINAL (MARKED)
 ○ TERMINAL (UNMARKED)
 ● SPICE
 ● SPICE (MARKED)
 — FACTORY WIRING
 - - FIELD CONTROL WIRING
 - - - FIELD POWER WIRING
 - - - - ACCESSORY OR OPTION
 WIRING
 — TO INDICATE COMMON
 POTENTIAL ONLY:
 NOT TO REPRESENT WI

- | | |
|--------|----------------------------|
| COMP | COMPRESSOR MOTOR |
| DB | DEFROST BOARD |
| DFT | DEFROST TEMPERATURE SWITCH |
| DR | DEFROST RELAY |
| EQUIP | EQUIPMENT |
| FU | FUSE |
| GND | GROUND |
| HPS | HIGH PRESSURE SWITCH |
| HR | HEATER RELAY |
| IFB | INDOOR FAN BOARD |
| IFM | INDOOR FAN MOTOR |
| LPS | LOW PRESSURE SWITCH |
| OFM | OUTDOOR FAN MOTOR |
| OFR | OUTDOOR FAN RELAY |
| RVS | REVERSING VALVE |
| TRAN | TRANSFORMER |
| T-STAT | THERMOSTAT |

- | | |
|-------|-------------------|
| AT | AUTO TRANSFORMER |
| | 460V - 230V |
| C | CONTACTOR |
| CAP 1 | CAPACITOR, COMP |
| CCH | CRANK CASE HEATER |



DIP SWITCH SETTINGS



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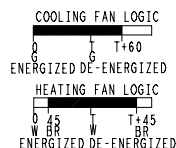
SPEED UP  JUMPED TEST PINS (USE METAL OBJECT)
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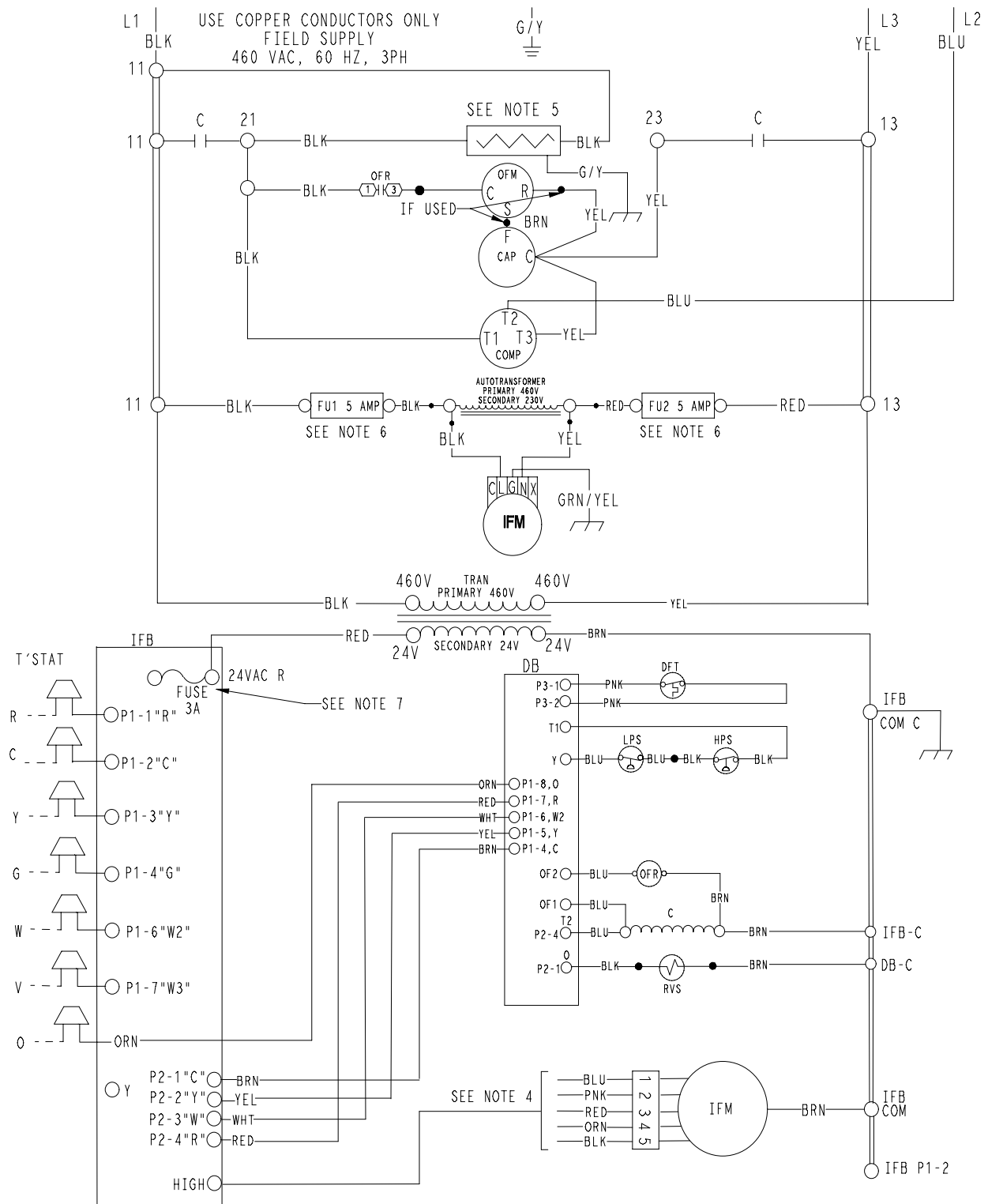
COLOR CODE

BLK	BLACK
BLU	BLUE
BRN	BROWN
GRY	GRAY
GRN	GREEN
ORN	ORANGE
PNK	PINK
RED	RED
VIO	VIOLET
WHT	WHITE
YEL	YELLOW



LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50EZ500125	2.0
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