

TECHNICAL SUPPORT MANUAL

Fan Coils

FSM4X60

Safety Labeling and Signal Words

DANGER, WARNING, CAUTION, and NOTE

The signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTE** are used to identify levels of hazard seriousness. The signal word **DANGER** is only used on product labels to signify an immediate hazard. The signal words **WARNING**, **CAUTION**, and **NOTE** will be used on product labels and throughout this manual and other manuals that may apply to the product.

DANGER – Immediate hazards which **will** result in severe personal injury or death.

WARNING – Hazards or unsafe practices which **could** result in severe personal injury or death.

CAUTION – Hazards or unsafe practices which **may** result in minor personal injury or product or property damage.

NOTE – Used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

Signal Words in Manuals

The signal word **WARNING** is used throughout this manual in the following manner:



The signal word **CAUTION** is used throughout this manual in the following manner:



Signal Words on Product Labeling

Signal words are used in combination with colors and/or pictures on product labels.

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MODELS

FSM4X6000A

FSM4X6000AT

ELECTRICAL SHOCK HAZARD

Failure to turn off electric power could result in personal injury or death.

Before installing or servicing system, turn off main power to the system. There may be more than one disconnect switch, including accessory heater(s).

FAN COIL MODEL NUMBER IDENTIFICATION GUIDE									
F = Fan Coil		F	S	M	4	X	6000	A	T
E = High efficiency ECM		MOTOR TYPE							
S = Standard PSC									
U = Upflow		INSTALLATION TYPE							
M = Multiposition									
4 = Environmentally Sound R-410A		REFRIGERANT							
X = TXV					METERING DEVICE				
6000 = 60,000 BTUH = 5 tons							NOMINAL CAPACITY		
A = Standard									
AT = Tin Coated Copper Tube Coils									SALES CODE / FEATURES

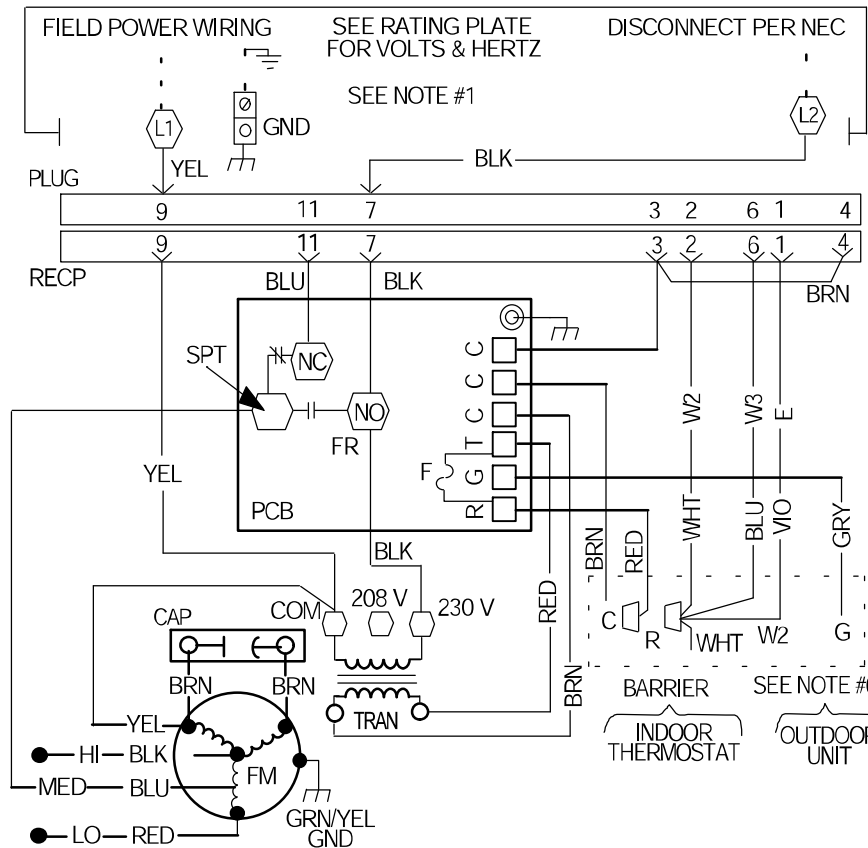
ACCESSORIES PART NUMBER IDENTIFICATION GUIDE						
EB = Evaporator Blower		EB	AC	01	NCB	A
AC = Accessory						
01 = Product Identifier Number						
NCB = Non-Combustible Base Kit						
DFK = Down Flow Kit						
PLG = Power Plug (no heat kit)						
SPK = Single Point Wiring Kit						
FKS = Filter Kit Small						
FKM = Filter Kit Medium						
FKL = Filter Kit Large						
FKX = Filter Kit Extra Large						
CTK = Condensate Trap Kit (PVC pipe)						
Sales Code						

ELECTRIC HEATER MODEL NUMBER IDENTIFICATION GUIDE							
EHK = Electric Heater Kit		EHK	05	A	K	N	1
05 = 5 kW							
07 = 7 kW							
09 = 9 kW							
10 = 10 kW							
15 = 15 kW							
18 = 18 kW							
20 = 20 kW							
25 = 25 kW							
30 = 30 kW		NOMINAL HEAT VALUE					
Sales Code							
K = 208 / 230 single-phase							
H = 208 / 230, 3-phase							
KC = 208 / 230, supplied as single phase, field convertible to 3-phase							
HC = 208 / 230 supplied as 3-phase, field convertible to single phase				VOLTAGE (60 Hz)			
Product Identifier							
Engineering Code							

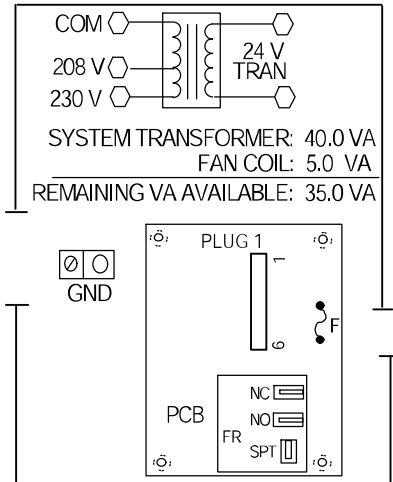
THIS COMPARTMENT MUST BE CLOSED EXCEPT FOR SERVICING

BLOWER MOTOR
ROTATION

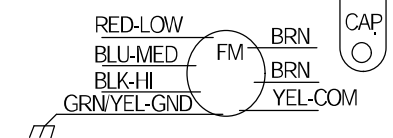
COOLING CONTROL ONLY



COMPONENT ARRANGEMENT



SEE NOTE #5



FAN MOTOR THERMALLY PROTECTED

LEGEND

- CAP CAPACITOR
- COM COMMON
- F LOW VOLTAGE FUSE
- FR PCB FAN RELAY
- FM FAN MOTOR
- GND EQUIPMENT GROUND
- PCB PRINTED CIRCUIT BOARD
- RECP RECEPTACLE
- SPT FAN SPEED TAP LOCATION
- TRAN TRANSFORMER
- UNMARKED TERMINAL
- - - FIELD POWER WIRING
- ◻ MARKED TERMINAL
- PLUG AND RECEPTACLE

Minimum Motor Speed Tap Selection
For Electric Heater

MODEL SIZE	HEATER SIZE KW						
	3,5,8	9	10	15	18	20	24, 30
18	MED *	----	HI	----	----	----	----
24	MED ‡	----	MED ‡	MED ‡	----	----	----
30	----	----	LO	LO	----	MED *	---
36,42,48,60	----	LO	LO	LO	LO	LO	LO
70	----	MED	MED	MED	MED	MED	MED

* - MED speed on 3 speed motors and HI speed on 2 speed motors.
‡ - MED speed on 3 speed motors and LO speed on 2 speed motors.

NOTES

1. Use Copper Wire (75°C Min) Only Between Disconnect Switch And Unit.
2. To Be Wired In Accordance With NEC And Local Codes.
3. If Any Of The Original Wire, As Supplied, Must Be Replaced, Use The Same Or Equivalent Type Wire.
4. Replace Low Voltage Fuse With No Greater Than 5 Amp Fuse.
5. (3) Speed Motor Shown Optional (2) Speed Motor Uses HI (BLK) and LOW (BLUE or RED)
6. Connect R to R, G to G, Etc. See Outdoor Instruction For Details.

328964-101 REV. A

AIRFLOW PERFORMANCE – CFM at a given Speed and Static reading							
Model	Blower Speed	Measured Static Pressure, inlet to outlet (inches water column)					
		0.10	0.20	0.30	0.40	0.50	0.60
FSM4X6000	High	2128	2050	1965	1875	1778	1674
	Medium	1959	1898	1829	1750	1663	1566
	Low	1748	1709	1659	1598	1525	1442

NOTES:

1. Airflow based on dry coil at 230V with factory approved filter and electric heater
(2 element heater for model sizes 1800 – 3600, 3 element heater for model sizes 4200 – 6000)
2. Not recommended for use above 0.60 inches water column external static pressure.
3. Shaded cells indicate airflow is greater than 450 CFM per ton.

STATIC PRESSURE CORRECTION FROM DRY TO WET COIL (inches of water column)

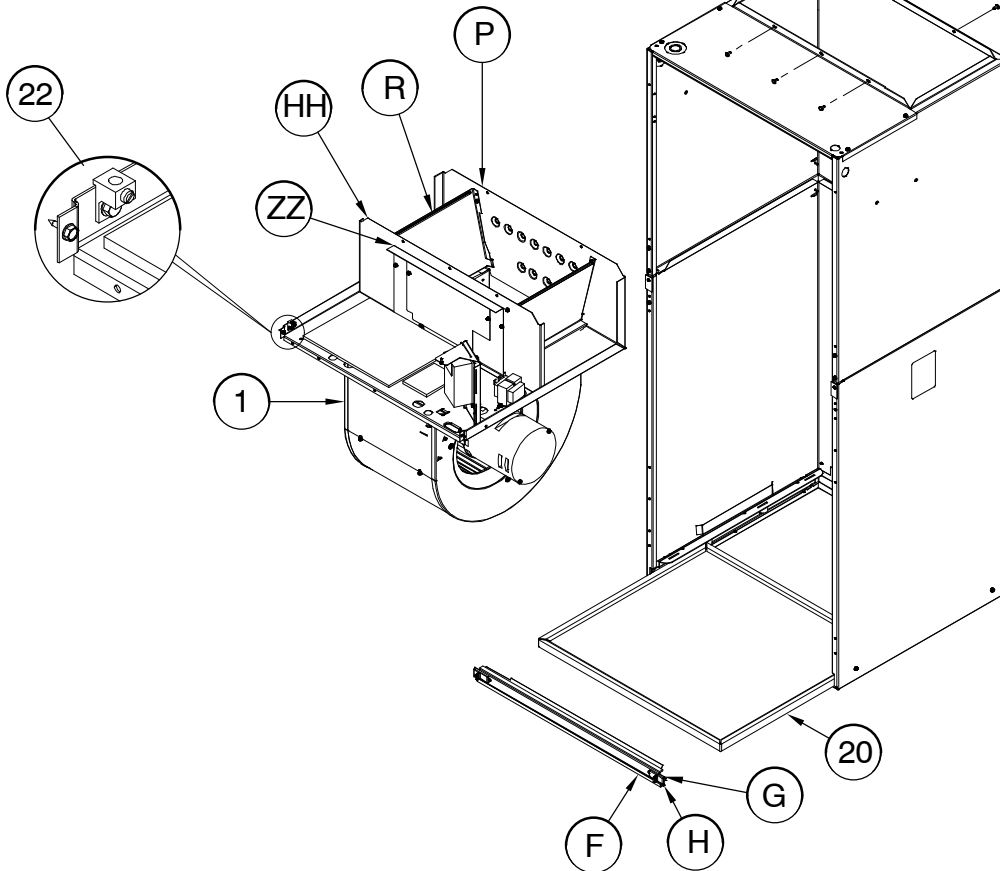
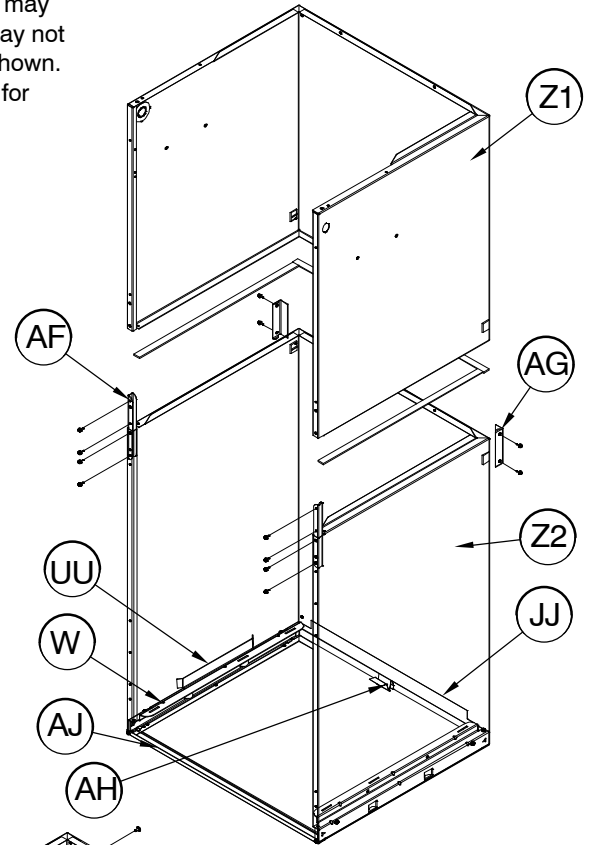
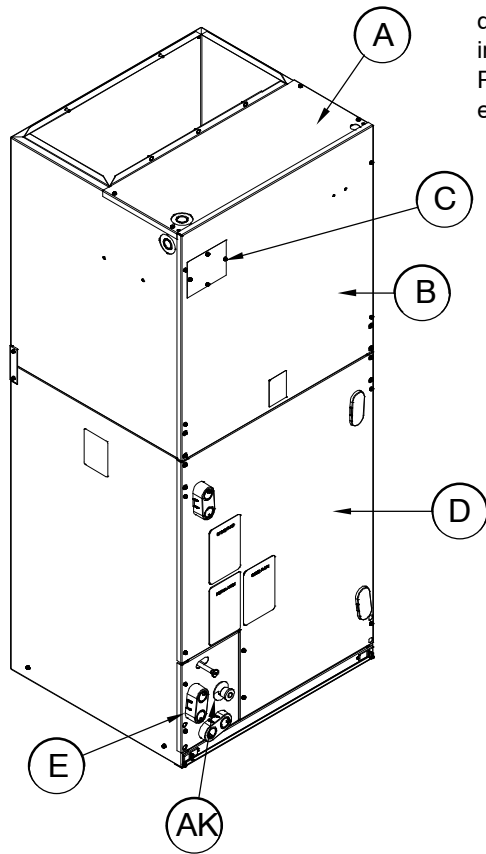
Airflow performance chart above was developed using fan coils with DRY coils. When taking a static reading across a WET coil, adjust the static pressure numbers above by **adding** the values in this table (for a given CFM, wet coil will have greater static pressure drop than dry coil).

Model Size	CFM															
	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
6000	-	-	-	-	-	-	-	-	-	-	-	.027	.031	.035	.039	.043

STATIC PRESSURE DROP ACROSS FILTER (inches of water column)

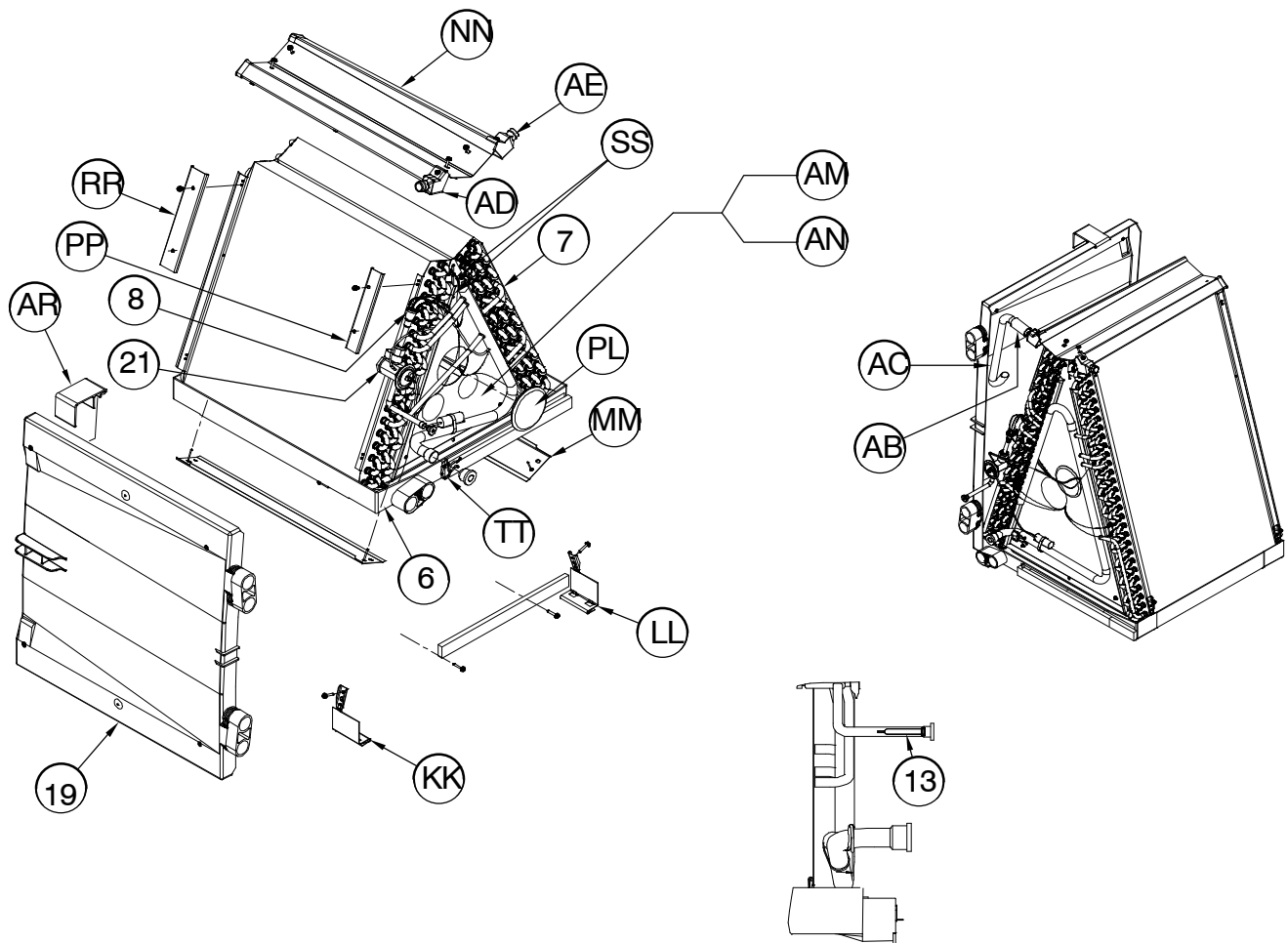
Model Size	CFM									
	400	600	800	1000	1200	1400	1600	1800	2000	
6000	-	-	-	-	-	-	.120	.152	.187	

NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown. Please refer to Parts List for exact parts listing.



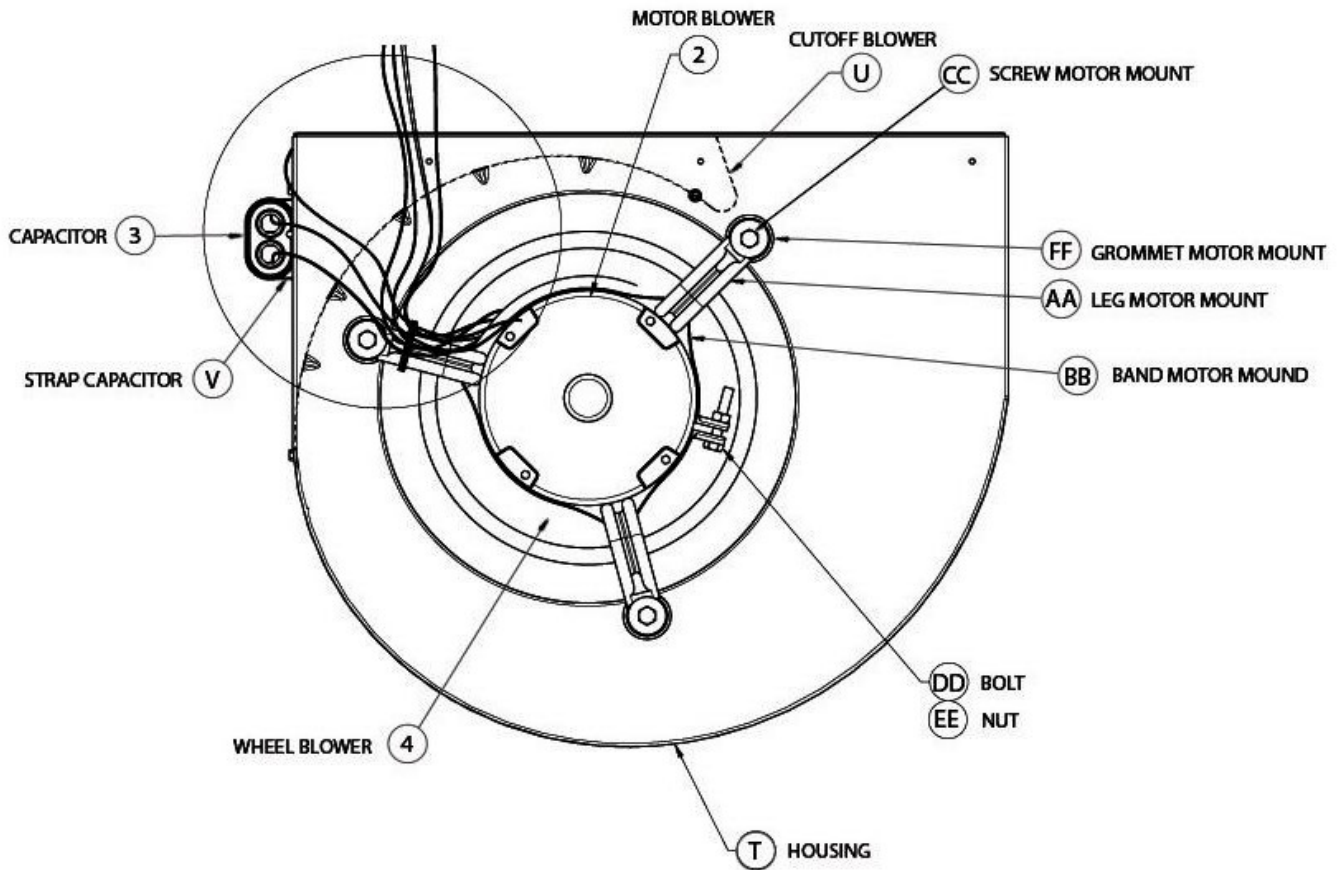
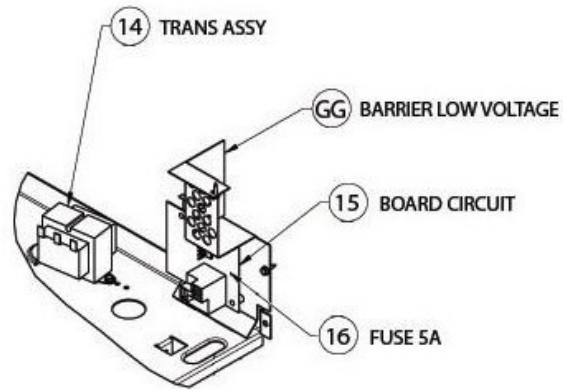
FSM4X6000A

NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown. Please refer to Parts List for exact parts listing.



FSM4X6000A

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FSM4X6000A

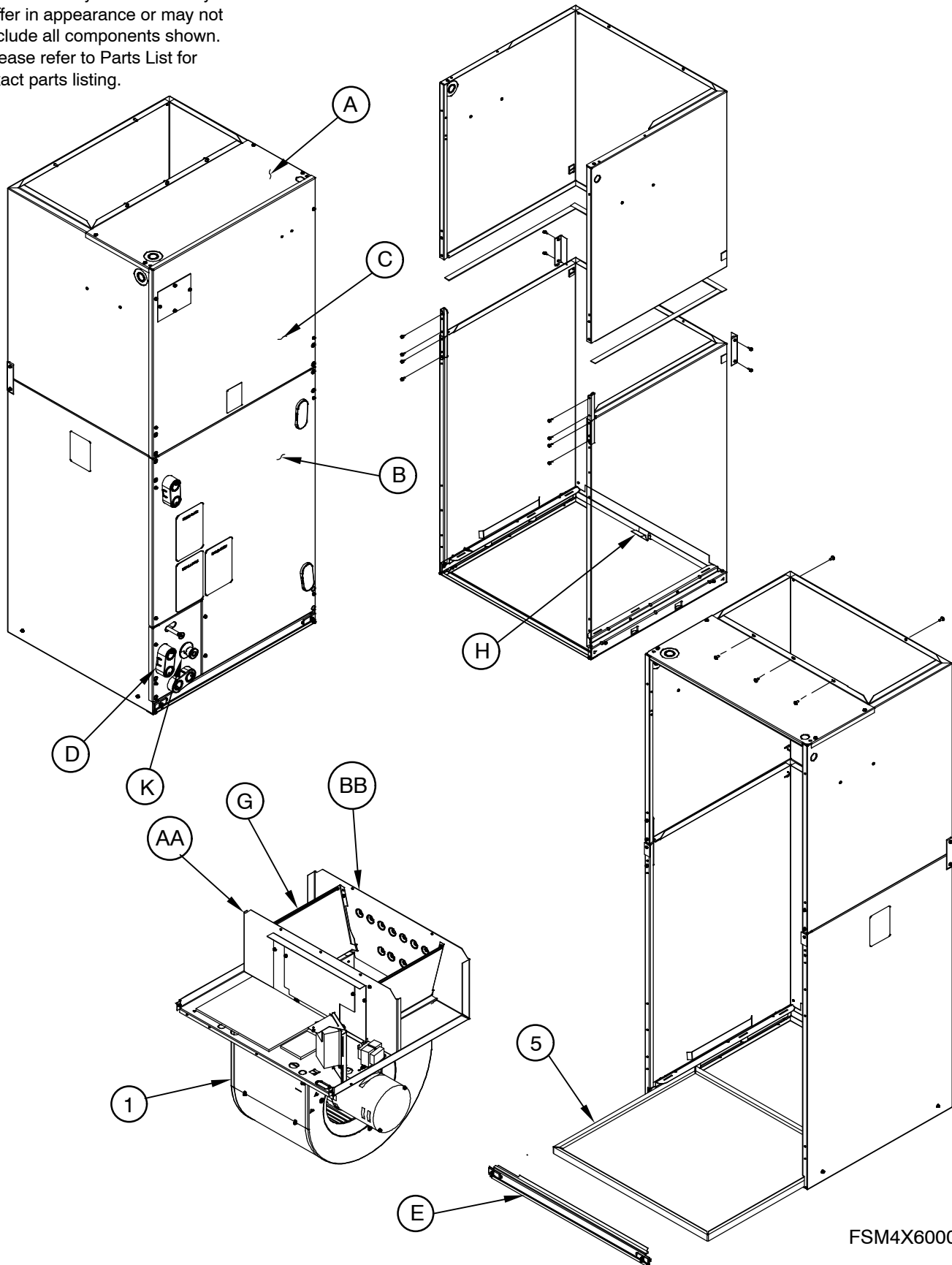
FSM4X PARTS LIST			
KEY NO.	DESCRIPTION	FAST PARTS NO.	FSM4X6000A
01	BLOWER ASSEMBLY	1171617	1
02	MOTOR, BLOWER	1171725	1
03	CAPACITOR 15 MFD 370 VOLTS	1171730	1
04	WHEEL, BLOWER DD10-9	1171741	1
06	PAN, DRAIN VERTICAL	1171577	1
07	COIL & HEADER ASSEMBLY	1172332	1
08	DISTRIBUTOR ASSEMBLY	1171605	1
13	STRAINER	1171740	1
14	TRANSFORMER	1172028	1
15	BOARD, FAN CONTROL CIRCUIT	1171734	1
16	FUSE, CIRCUIT BOARD	1171735	1
17	HARNES ASSEMBLY	1171676	1
19	PAN DRAIN HORIZONTAL	1171675	1
20	FILTER 23-7/16 X 21-9/16	1171654	1
21	VALVE, EXPANSION	1172350	1
22	LUG, GROUND	1170677	1
A	PANEL, TOP	1172336	1
AA	LEG & GROMMET, MOTOR MOUNT	1173746	3
AB	TUBE, DRAIN	1172337	1
AC	TUBE, DRAIN	1172338	1
AD	FITTING, DRAIN	1171635	1
AE	FITTING, DRAIN	1171636	1
AF	BRACKET, FRONT	1171595	2
AG	BRACKET, REAR	1171954	2
AH	SPRING, FILTER	1172554	1
AJ	ANGLE TIE	1173745	1
AK	GROMMET, SUCTION	1171622	1
AL	PLUG, BUTTON	1173764	1
AM	PLATE DELTA FRONT	1173759	1
AN	PLATE DELTA REAR	1173762	1
AR	SUPPORT BRACKET	1172636	1
B	DOOR, UPPER	1172347	1
BB	BAND, MOTOR MOUNT	1171733	1
C	COVER, DISCONNECT	1171949	1
CC	SCREW, MOTOR MOUNT	1170636	3
D	DOOR, LOWER	1172342	1
DD	BOLT, MOTOR MOUNT	1171713	1
E	DOOR, FITTING	1172344	1
EE	NUT, MOTOR MOUNT	1171736	1
F	DOOR, FILTER	1171936	1
FF	GROMMET, MOTOR MOUNT	1171565	3
G	LATCH, FILTER DOOR	1171573	2
GG	BARRIER, LOW VOLTAGE	1171660	1
H	NUT, FILTER DOOR	1171714	2
HH	PLATE, HEATER	1171582	1
JJ	SUPPORT, COIL REAR	1171608	1
KK	BRACKET, COIL	1171574	2
LL	BRACKET, COIL	1171575	2
MM	SHIELD, DRAIN PAN	1172328	2
NN	AIR SEAL ASSEMBLY	1171641	1
P	DECK, BLOWER	1171589	1
PP	TROUGH, CONDENSATE	1171638	1
R	BAFFLE, DIFFUSER	1171569	2
RR	TROUGH, CONDENSATE	1171637	1
S	BRACKET, HOUSING	1171592	1
SS	BAFFLE, DRIP	1171648	2
T	HOUSING & WHEEL ASSEMBLY	1171600	1
TT	RING, DRIP	1171649	1
U	CUTOFF, BLOWER	1171568	1
UU	SUPPORT, DRAIN PAN	1171657	1

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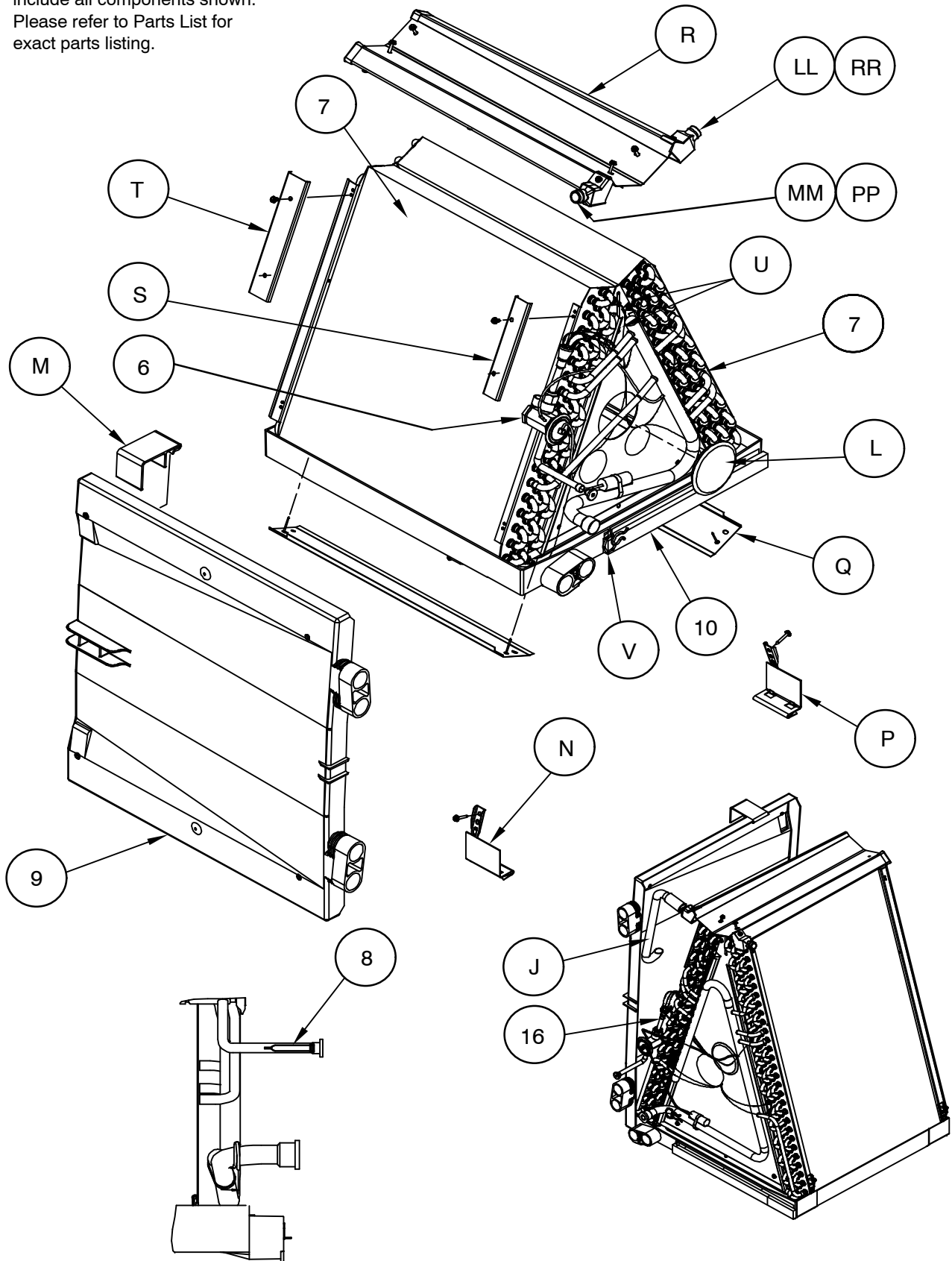
FSM4X PARTS LIST (continued)

KEY NO.	DESCRIPTION	FAST PARTS NO.	FSM4X6000A
V	STRAP, CAPACITOR	1171694	1
W	SUPPORT, SIDE COIL	1171609	2
YY	PLATE, FILLER	1171695	1
Z1	WRAPPER, UPPER	1171952	1
Z2	WRAPPER, LOWER	1171953	1
ZZ	PLATE, FILLER	1171696	1
PARTS NOT SHOWN			
)(GROMMET	1171737	1
)(GROMMET, LIQUID	1171620	1
)(HARNES ASSEMBLY, UNIT	1171698	1

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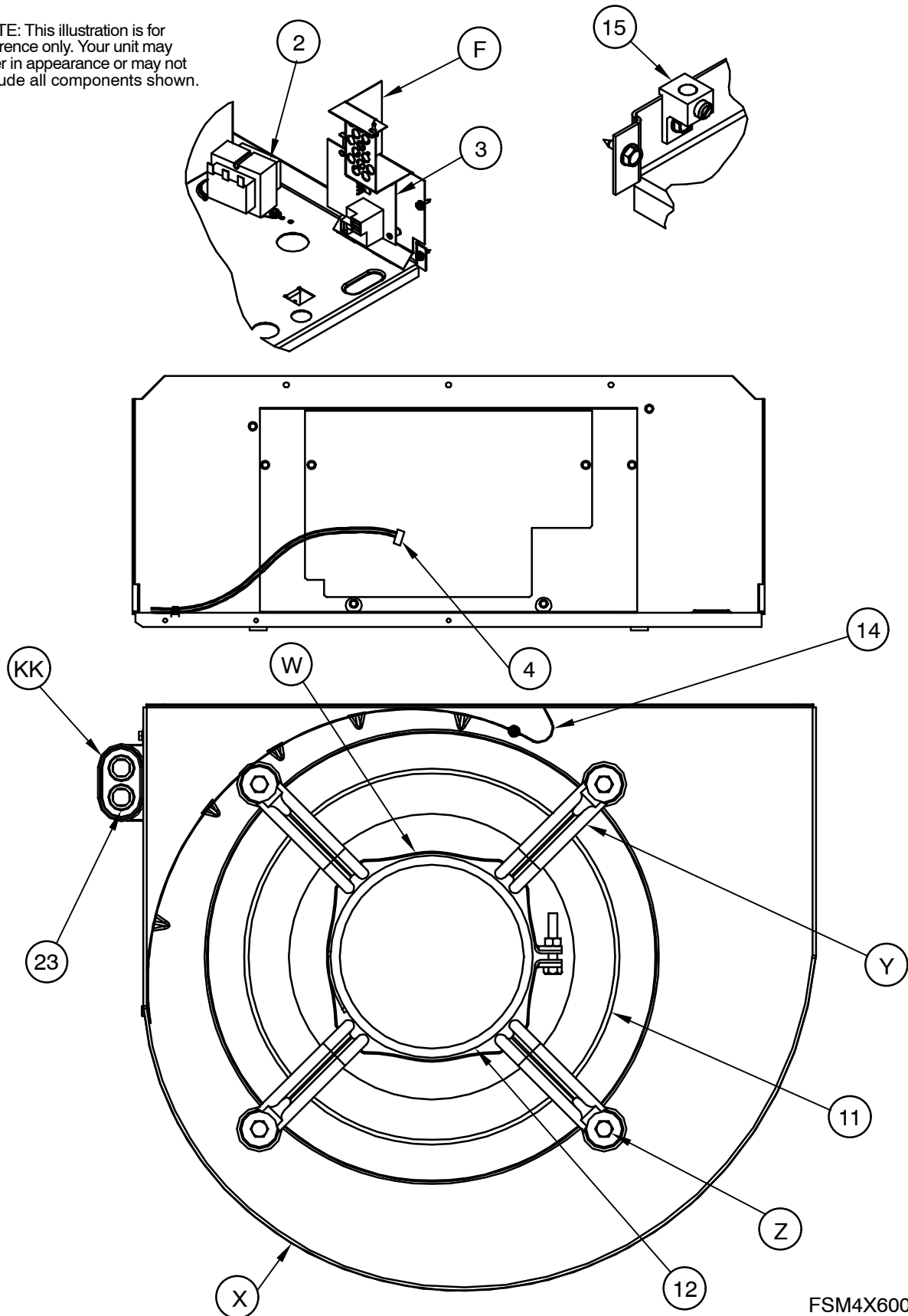


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FSM4X6000AT

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FSM4X PARTS LIST			
KEY NO.	DESCRIPTION	FAST PARTS NO.	FSM4X6000AT
01	BLOWER ASY	1171617	1
02	TRANS 208/230>24 40VA	1172028	1
03	BOARD CIRCUIT W/TDR	1171734	1
04	HARNES ASSY BLOWER	1171676	1
05	FILTER HH 21.5X23.3125X1	1171654	1
06	TXV	1183311	1
07	COIL & HDR ASSY	1183382	1
08	STRAINER	1171740	1
09	PAN DRAIN	1179728	1
10	CNDS PAN ASY	1179677	1
11	WHEEL DD10X9X1/2 CW CV	1171741	1
12	MTR BLR 1/230V 3/4	1171725	1
14	PANEL CUTOFF BLWR	1171568	1
15	LUG GROUND	1170677	1
16	DISTRIBUTOR ASY	1171605	1
23	CAP RN OV 370V 15	1171730	1
A	PANEL TOP	1172336	1
AA	PLATE HEATER	1171582	1
B	DOOR LOWER	1172342	1
BB	DECK BLOWER	1171589	1
C	DOOR UPPER	1172347	1
D	DOOR FITTING	1172344	1
E	DOOR FILTER	1171936	1
F	BARRIER LOW VOLTAGE	1171660	1
G	BAFFLE DIFFUSER	1171569	1
H	SPRING FILTER	1172554	1
J	TUBE DRAIN	1172337	1
K	GROMMET SUCTION	1171622	1
KK	STRAP CAPACITOR	1171694	1
L	PLUG BUTTON	1173764	1
LL	FITTING DRAIN	1171636	1
M	SUPPORT BRACKET	1172636	1
MM	FITTING DRAIN	1171635	1
N	BRACKET COIL	1171574	1
P	BRACKET COIL	1171575	1
PP	CAP END	1174949	1
Q	SHIELD COND PAN	1172328	1
R	AIR SEAL ASY	1171641	1
RR	CAP END	1174950	1
S	TROUGH CNDS	1171638	1
T	TROUGH CNDS	1171637	1
V	RING DRIP	1172329	1
W	BAND MOTOR MOUNT	1171733	1
X	HOUSING BLR REPLACEMENT KIT	1171752	1
Y	ARM & GROM ASSY	1173746	3
Z	SCREW	1170636	3
PARTS NOT SHOWN			
)	FUSE	1171735	1
)	GROMMET	1171737	1
)	GROMMET LIQUID	1171620	1
)	HARNES ASSY UNIT	1171698	1
)	PAINT DARK GREY 16OZ AEROSOL	1171357	1