

# TECHNICAL SUPPORT MANUAL

## Duct Free Split Systems - DFS4(A/H) DFF4(A/H) - indoor and DFC4(A/H)-outdoor

### 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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WARNING

**PERSONAL INJURY, AND/OR PROPERTY DAMAGE HAZARD**

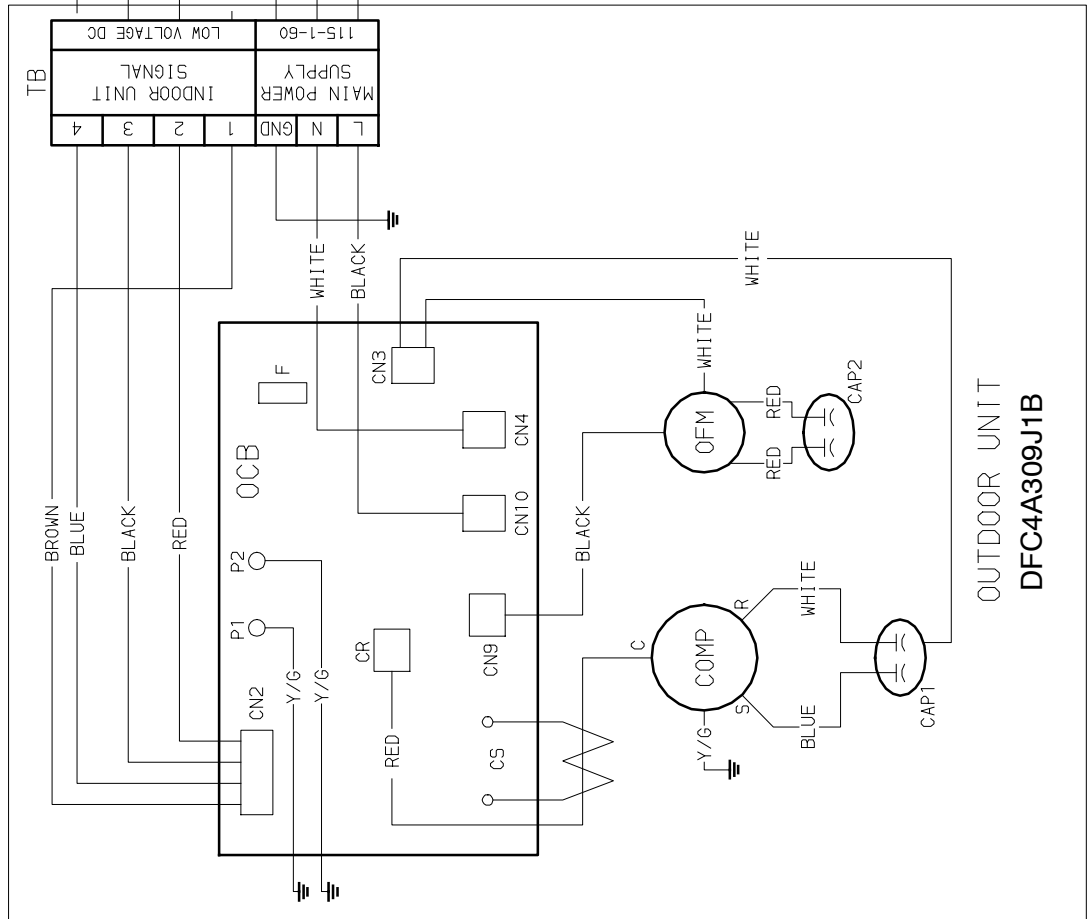
Failure to carefully read and follow this warning could result in equipment malfunction, property damage, personal injury and/or death.

Installation or repairs made by unqualified persons could result in equipment malfunction, property damage, personal injury and/or death.

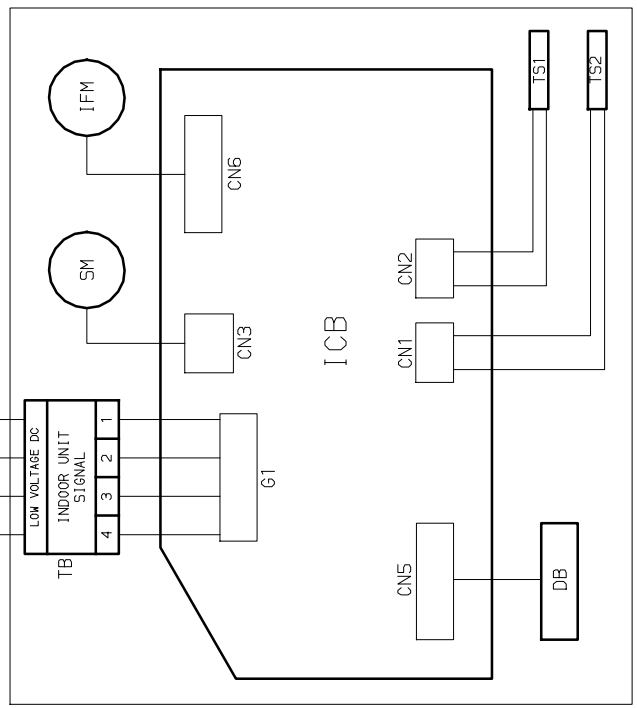
The information contained in this manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.

Installation must conform with local building codes and with the National Electrical Code NFPA70 current edition or Canadian Electrical Code Part 1 CSA C.22.1.

**WIRING DIAGRAMS**

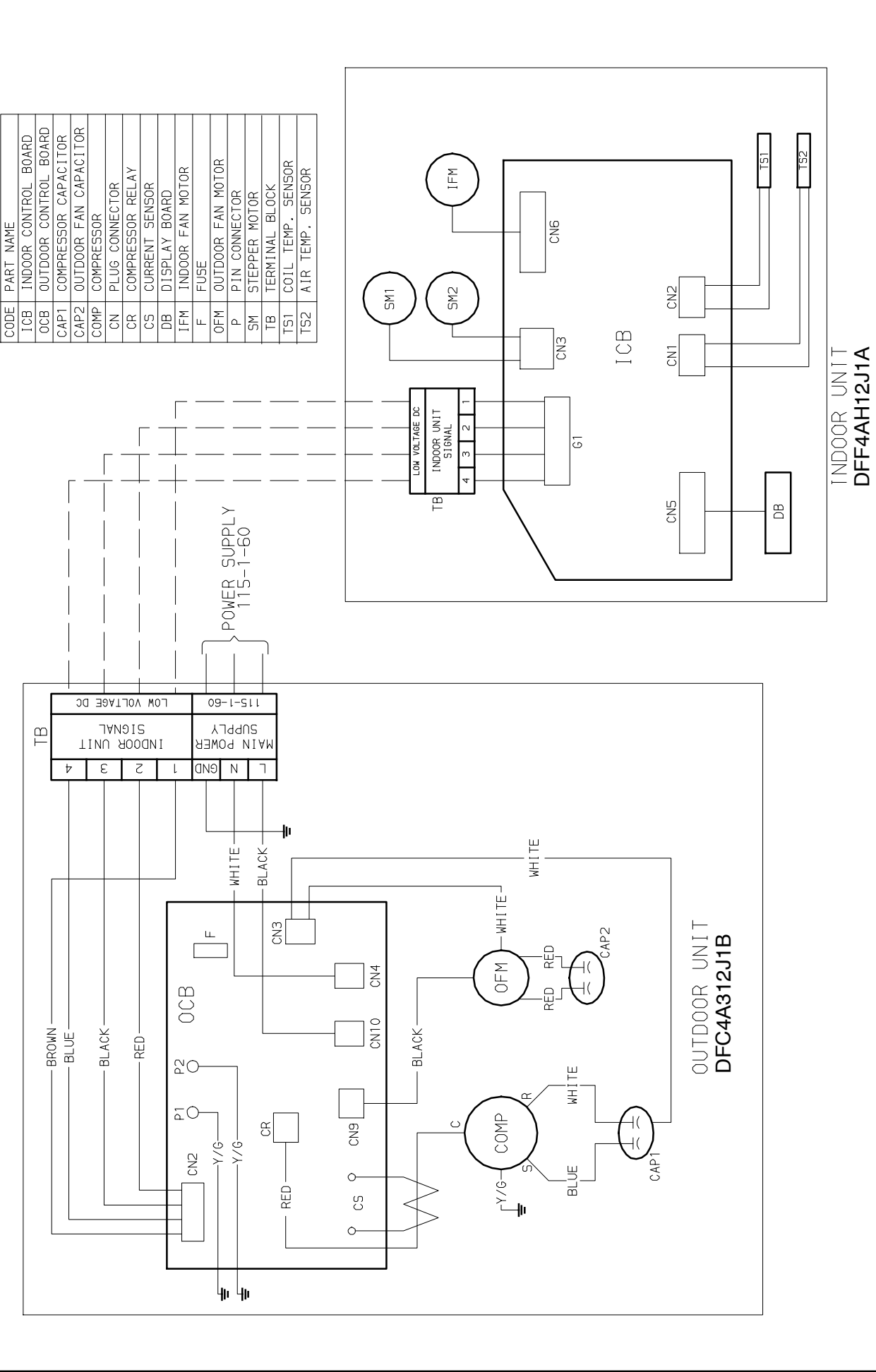


CODE	PART NAME
ICB	INDOOR CONTROL BOARD
OCB	OUTDOOR CONTROL BOARD
CAP1	COMPRESSOR CAPACITOR
CAP2	OUTDOOR FAN CAPACITOR
COMP	COMPRESSOR
CN	PLUG CONNECTOR
CR	COMPRESSOR RELAY
CS	CURRENT SENSOR
DB	DISPLAY BOARD
IFM	INDOOR FAN MOTOR
F	FUSE
OFM	OUTDOOR FAN MOTOR
P	PIN CONNECTOR
SM	STEPPER MOTOR
TB	TERMINAL BLOCK
TS1	COIL TEMP. SENSOR
TS2	AIR TEMP. SENSOR



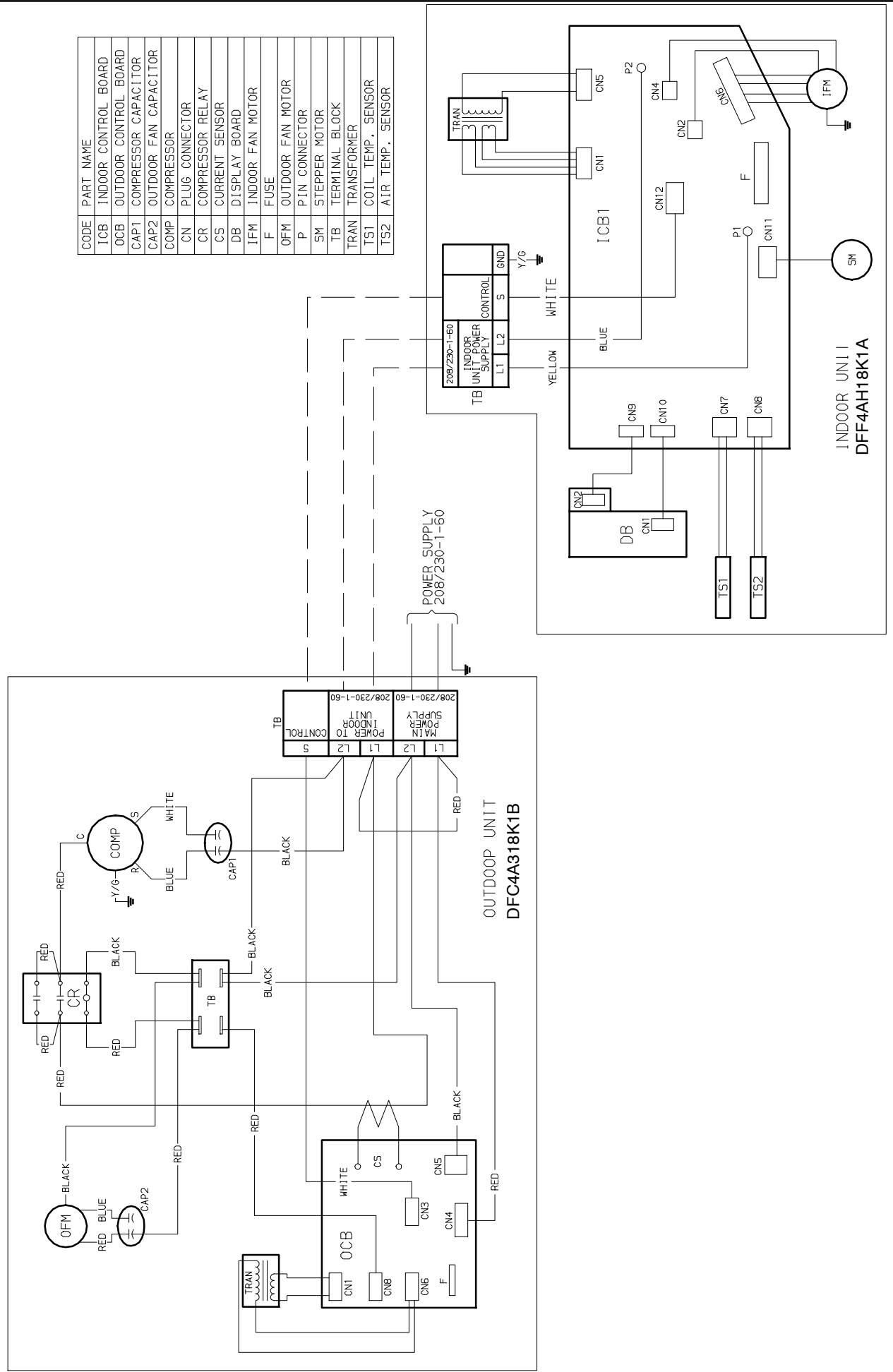
Wiring Diagram DFC4A309J1B w/ DFF4AH09J1A

**WIRING DIAGRAMS (CONT.)**



Wiring Diagram DFC4A312J1B w/ DFF4AH12J1A

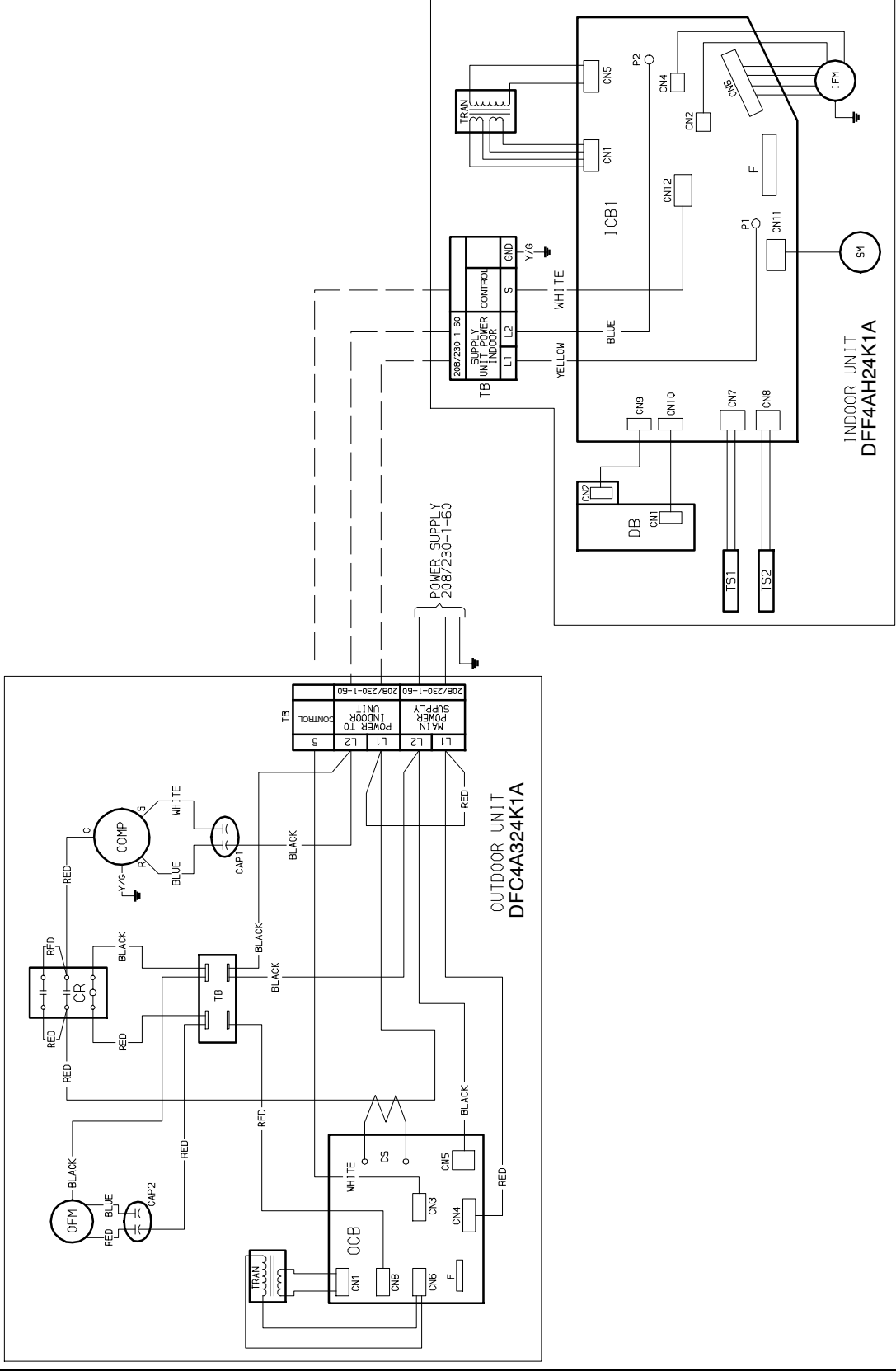
**WIRING DIAGRAMS (CONT.)**



Wiring Diagram DFC4A318K1B w/ DFF4AH18K1A

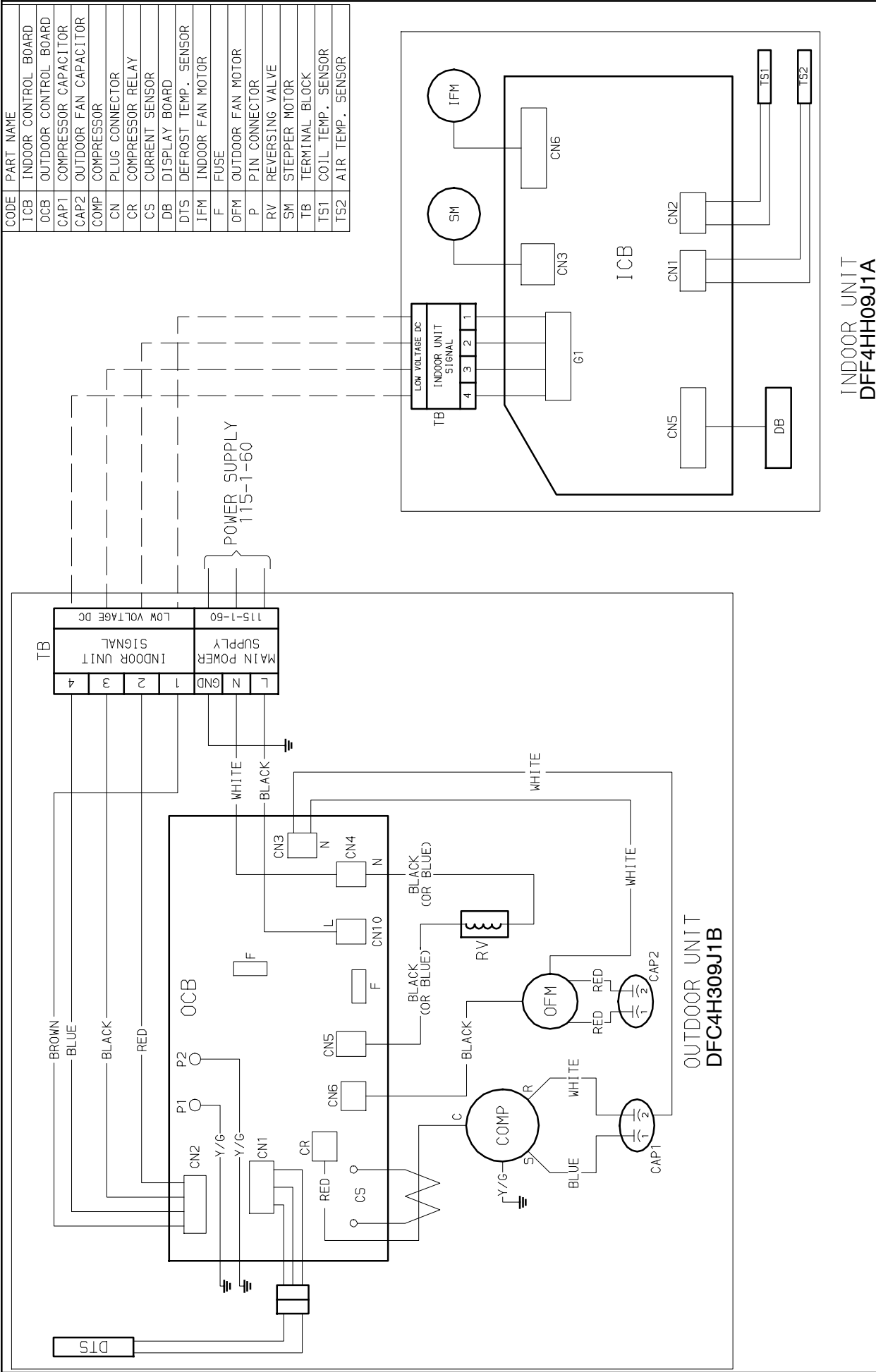
WIRING DIAGRAMS (CONT.)

CODE	PART NAME
ICB	INDOOR CONTROL BOARD
OCB	OUTDOOR CONTROL BOARD
CAP1	COMPRESSOR CAPACITOR
CAP2	OUTDOOR FAN CAPACITOR
COMP	COMPRESSOR
CN	PLUG CONNECTOR
CR	COMPRESSOR RELAY
CS	CURRENT SENSOR
DB	DISPLAY BOARD
IFM	INDOOR FAN MOTOR
F	FUSE
OFM	OUTDOOR FAN MOTOR
P	PIN CONNECTOR
SM	STEPPER MOTOR
TB	TERMINAL BLOCK
TRAN	TRANSFORMER
TST1	COIL TEMP. SENSOR
TST2	AIR TEMP. SENSOR



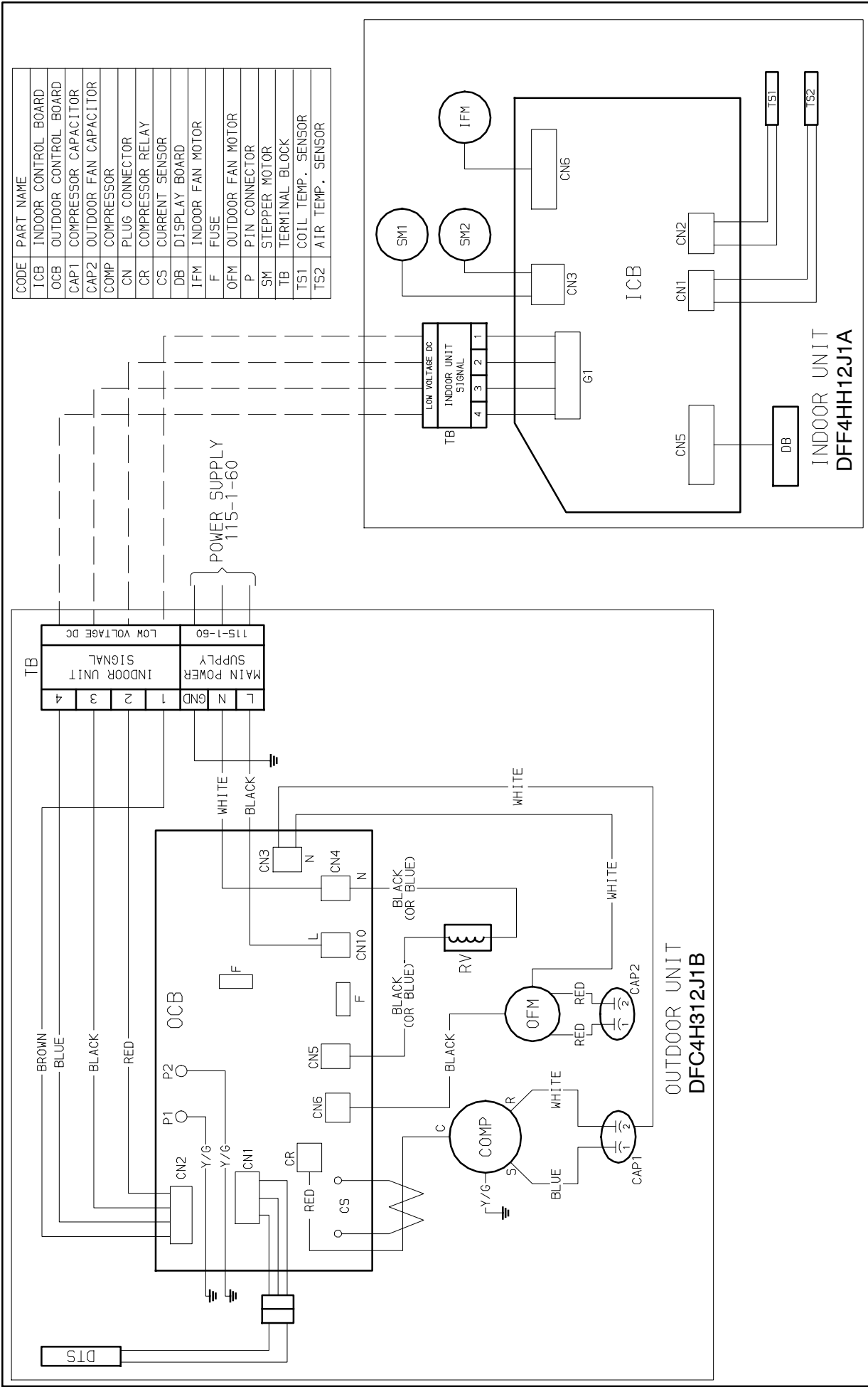
Wiring Diagram DFC4A324K1A w/ DFF4AH24K1A

**WIRING DIAGRAMS (CONT.)**



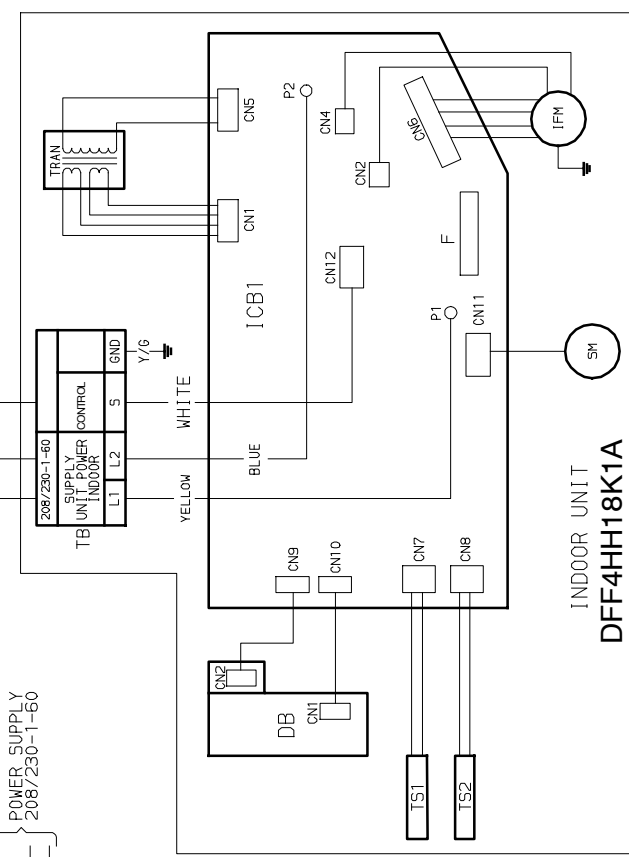
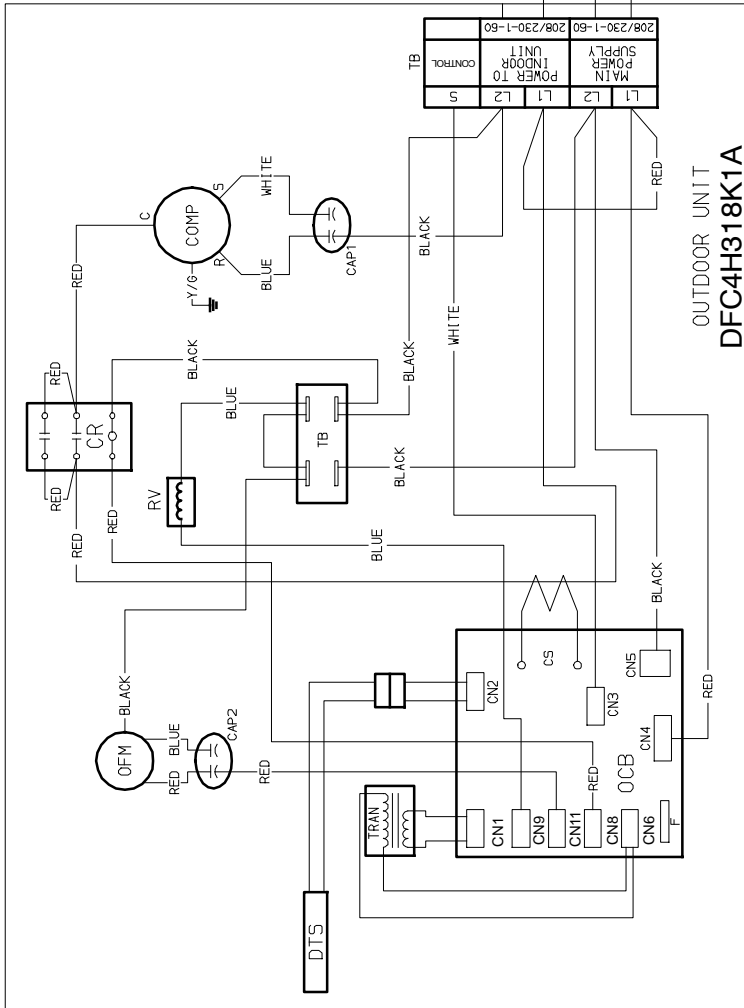
Wiring Diagram DFC4H309J1B w/ DFF4HH09J1A

**WIRING DIAGRAMS (CONT.)**



**WIRING DIAGRAMS (CONT.)**

CODE	PART NAME
ICB	INDOOR CONTROL BOARD
OCB	OUTDOOR CONTROL BOARD
CAP1	COMPRESSOR CAPACITOR
CAP2	OUTDOOR FAN CAPACITOR
COMP	COMPRESSOR
CN	PLUG CONNECTOR
CR	COMPRESSOR RELAY
CS	CURRENT SENSOR
DB	DISPLAY BOARD
DTS	DEFROST TEMP. SENSOR
IFM	INDOOR FAN MOTOR
F	FUSE
OFM	OUTDOOR FAN MOTOR
P	PIN CONNECTOR
RV	REVERSING VALVE
SM	STEPPER MOTOR
TB	TERMINAL BLOCK
TRAN	TRANSFORMER
TS1	COIL TEMP. SENSOR
TS2	AIR TEMP. SENSOR

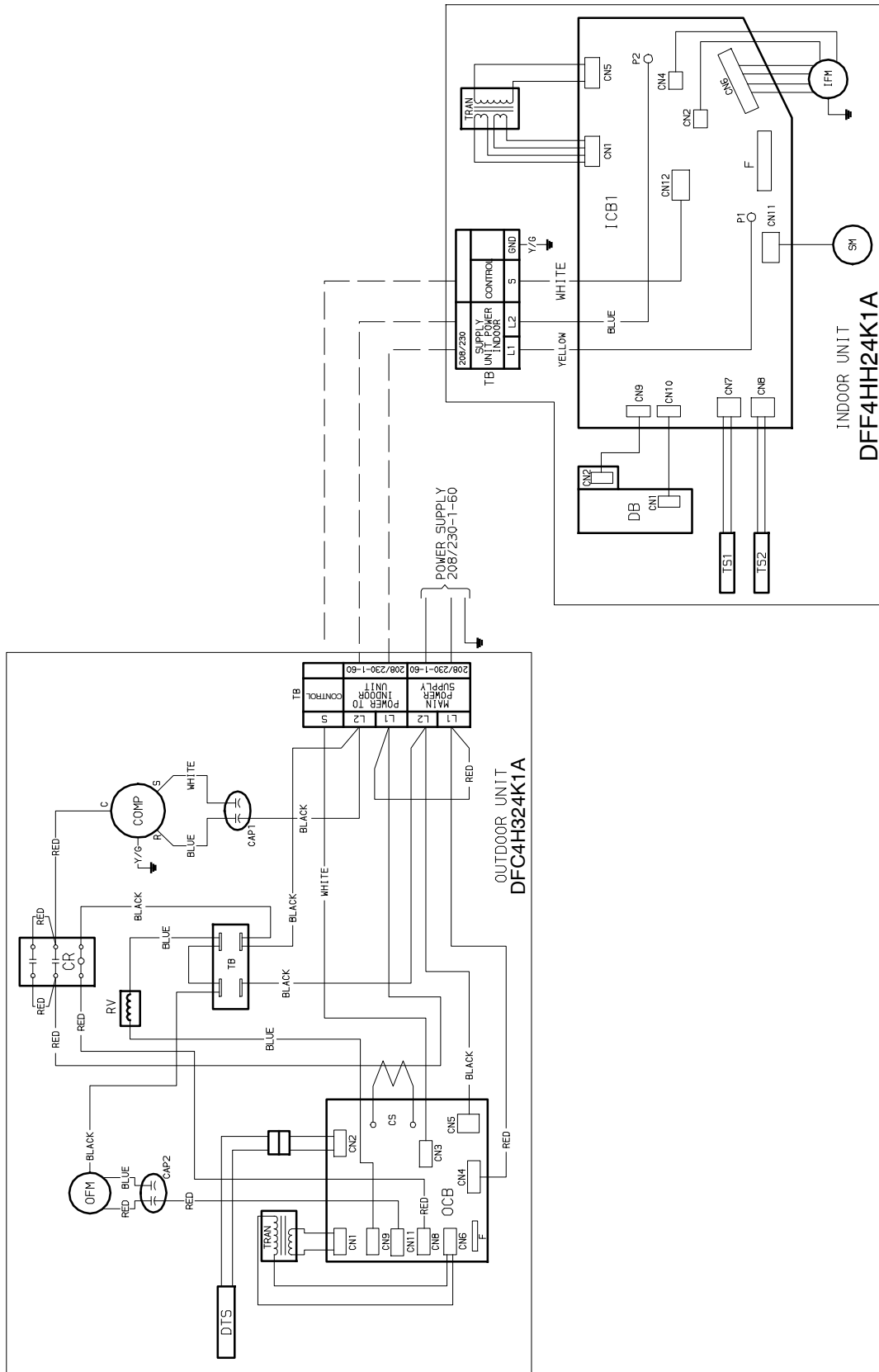


Wiring Diagram DFC4H318K1A w/ DFF4HH18K1A



WIRING DIAGRAMS (CONT.)

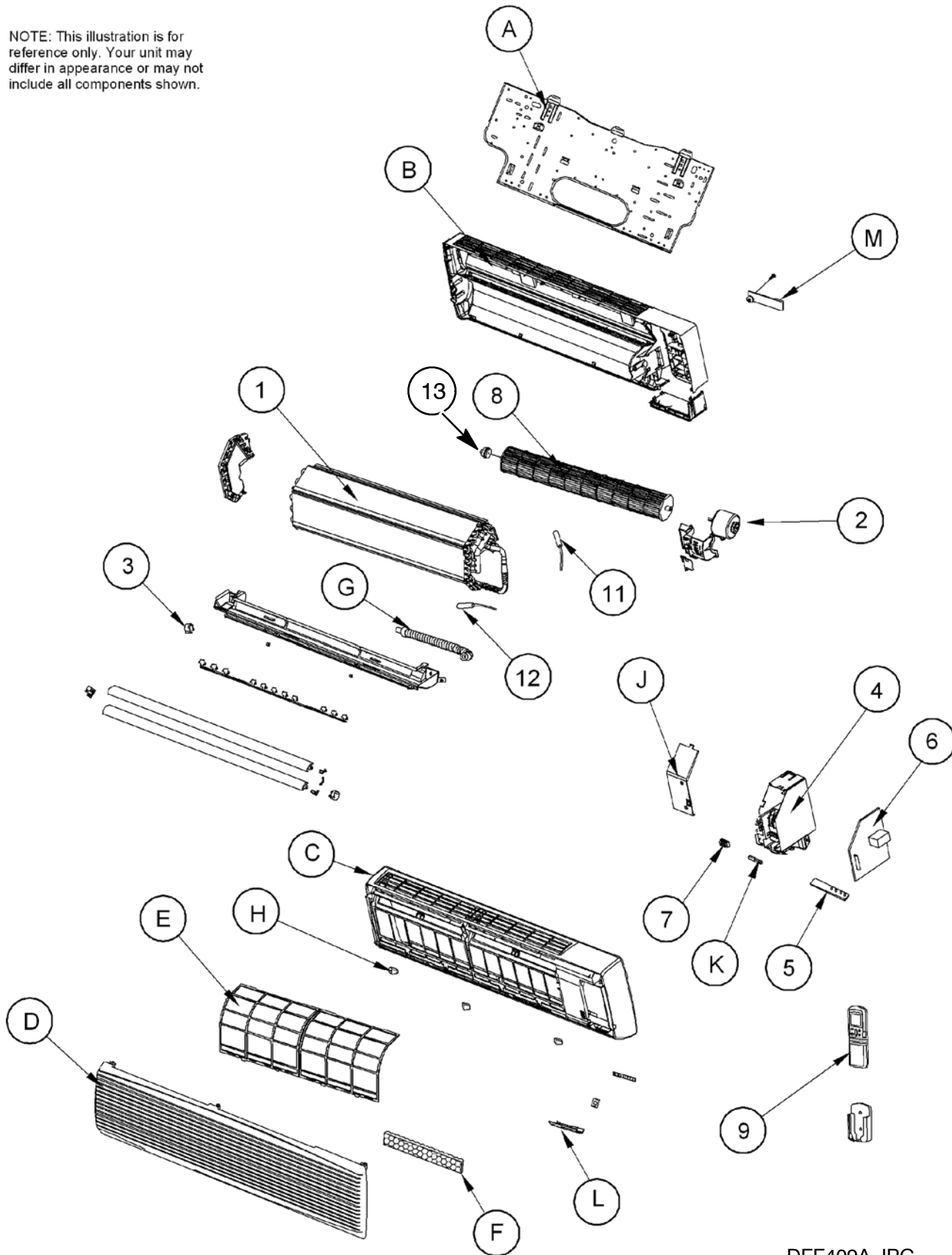
CODE	PART NAME
ICB	INDOOR CONTROL BOARD
OCB	OUTDOOR CONTROL BOARD
CAP1	COMPRESSOR CAPACITOR
CAP2	OUTDOOR FAN CAPACITOR
COMP	COMPRESSOR
CN	PLUG CONNECTOR
CR	COMPRESSOR RELAY
CS	CURRENT SENSOR
DB	DISPLAY BOARD
DTS	DEFROST TEMP. SENSOR
JFM	INDOOR FAN MOTOR
F	FUSE
OFM	OUTDOOR FAN MOTOR
P	PIN CONNECTOR
RV	REVERSING VALVE
SM	STEPPER MOTOR
TB	TERMINAL BLOCK
TRAN	TRANSFORMER
TS1	COIL TEMP. SENSOR
TS2	AIR TEMP. SENSOR



Wiring Diagram DFC4H324K1A w/ DFF4HH24K1A

INDOOR UNIT - DFF4AH09J1A & DFF4HH09J1A

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

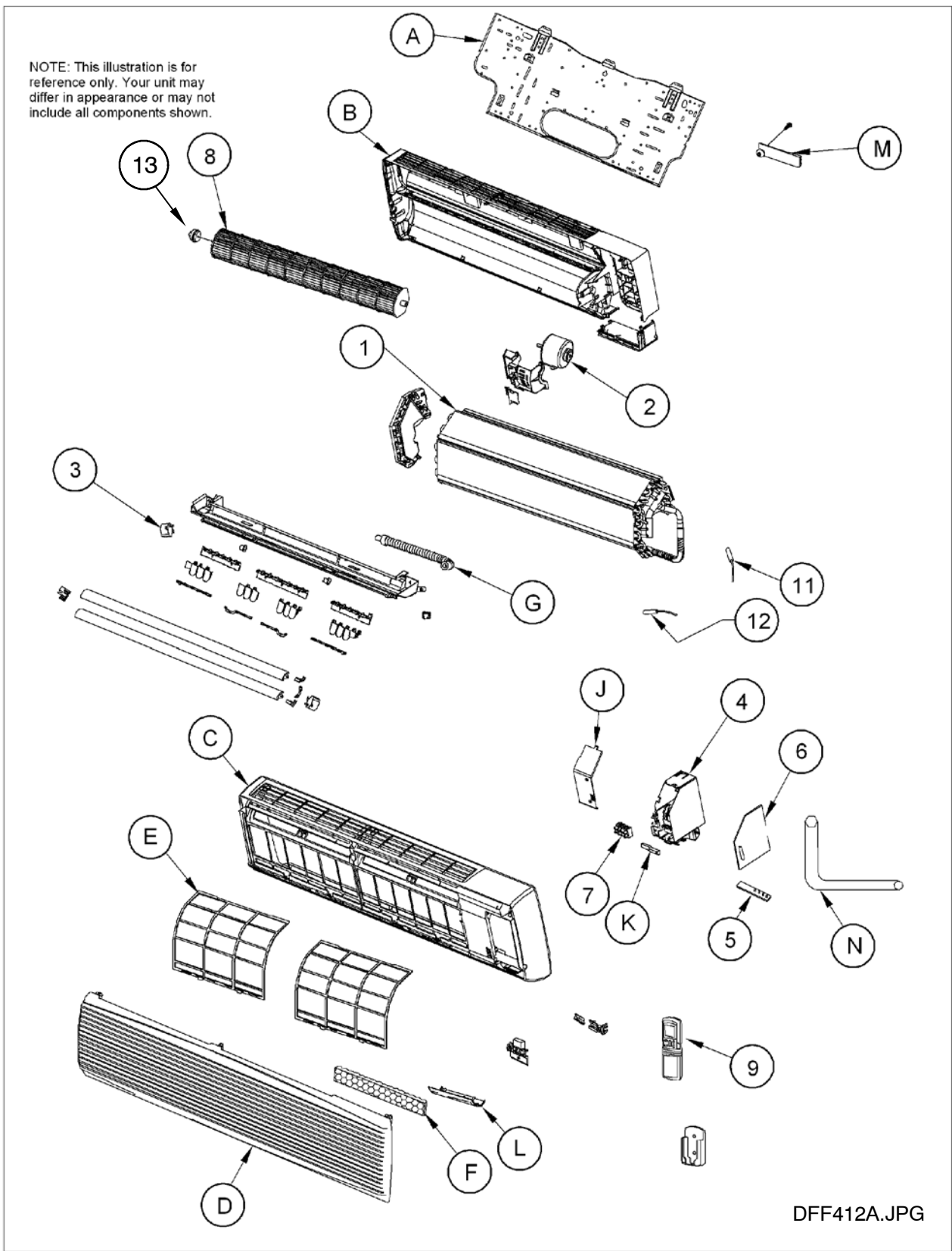


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INDOOR UNIT - DFF4AH09J1A & DFF4HH09J1A				
Item No.	Part no.	Description	DFF4AH09J1A	DFF4HH09J1A
			Qty	Qty
01	201532390040	Coil Evap	1	1
02	202400300008	Motor Fan	1	1
03	202400200012	Motor Louver	1	1
04	203332390171	Control Box Assembly	1	-
04	203332390172		-	1
05	203331390087	Board, Display	1	1
06	201332390139	Control Board, Main	1	1
07	202301400064	Terminal Block	1	1
08	201100200021	Blower Wheel	1	1
09	2033550A1207	Remote Control	1	-
09	2033550A1208	Remote Control	-	1
11	202432900004	Thermistor Evap Temp	1	1
12	202432390005	Thermistor Indoor Air Temp	1	1
13	202730100201	Bearing Asy	1	1
A	201230500010	Bracket Unit Mounting	1	1
B	201132600004	Body, Unit	1	1
C	201132690014	Chassis, Front	1	-
C	201131320315		-	1
D	2011326A0161	Panel, Front ICP	1	-
D	2011326A0162		-	1
E	201131320312	Filter, Air	2	2
F	201130100212	Cleaner, Air	1	1
G	201130000011	Hose, Drain	1	1
H	201131320323	Cap, Screw	3	3
J	201132690017	Cover, Control Box	1	1
K	201132200022	Clamp, Wire	1	1
L	201131320317	Panel, Display	1	1
M	201130100204	Clamp, Pipe	1	1
PARTS NOT SHOWN				
)	201130390070	Holder, Thermistor	1	1

INDOOR UNIT - DFF4AH12J1A & DFF4HH12J1A

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

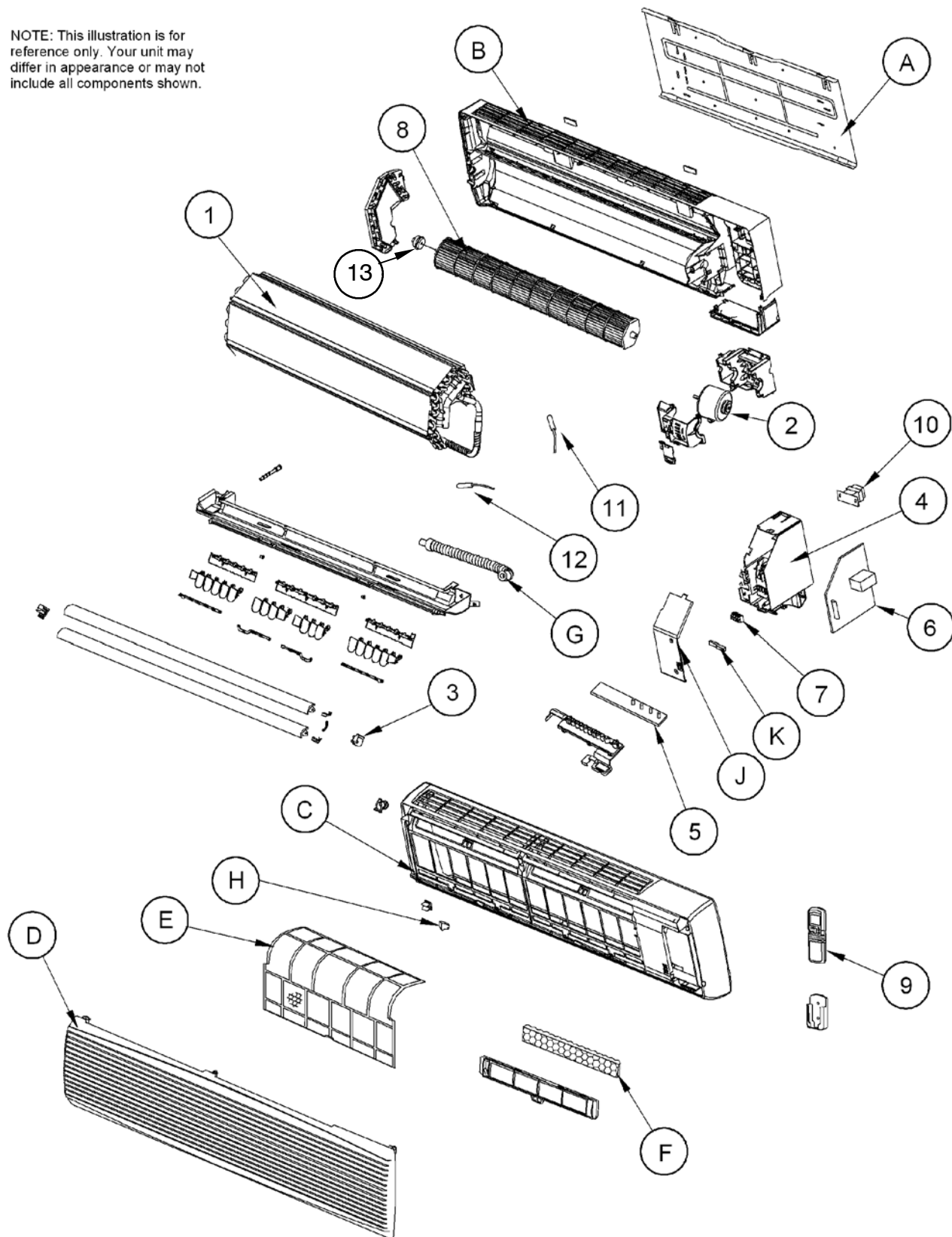


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INDOOR UNIT - DFF4AH12J1A & DFF4HH12J1A				
Item No.	Part no.	Description	DFF4AH12J1A	DFF4HH12J1A
			Qty	Qty
01	201530290025	Coil Evap	1	1
02	202400300011	Motor Fan	1	1
03	202400100022	Motor Louver	1	1
05	201332590010	Board, Display	1	-
05	201332590022		-	1
06	201332590077	Control Board, Main	1	-
06	201332590078		-	1
07	202301400064	Terminal Block	1	1
08	201100200022	Blower Wheel	1	1
09	2033550A1207	Remote Control	1	-
09	2033550A1208		-	1
11	202432900004	Thermistor Evap Temp	1	1
12	202432390005	Thermistor Indoor Air Temp	1	1
13	202731010401	Bearing Asy	1	1
A	201231010405	Bracket Unit Mounting	1	1
B	201130200728	Body, Unit	1	1
C	201130200721	Chassis, Front	1	1
D	2011328A0339	Panel, Front ICP	1	-
D	2011328A0340		-	1
E	201130010402	Filter, Air	2	2
F	201130100212	Cleaner, Air	1	1
G	201101020012	Hose, Drain	1	1
J	201132890063	Cover, Control Box	1	1
K	201132200022	Clamp, Wire	1	1
L	201130200733	Panel, Display	1	1
M	201131010405	Clamp, Pipe	1	1
N	201101020011	Connector Pipe, Drain	1	1
PARTS NOT SHOWN				
)	201130390070	Holder, Thermistor	1	1

INDOOR UNIT - DFF4AH18K1A & DFF4HH18K1A

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

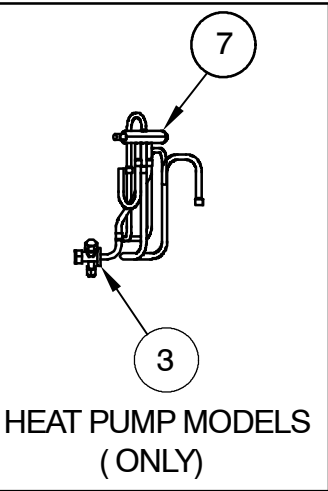
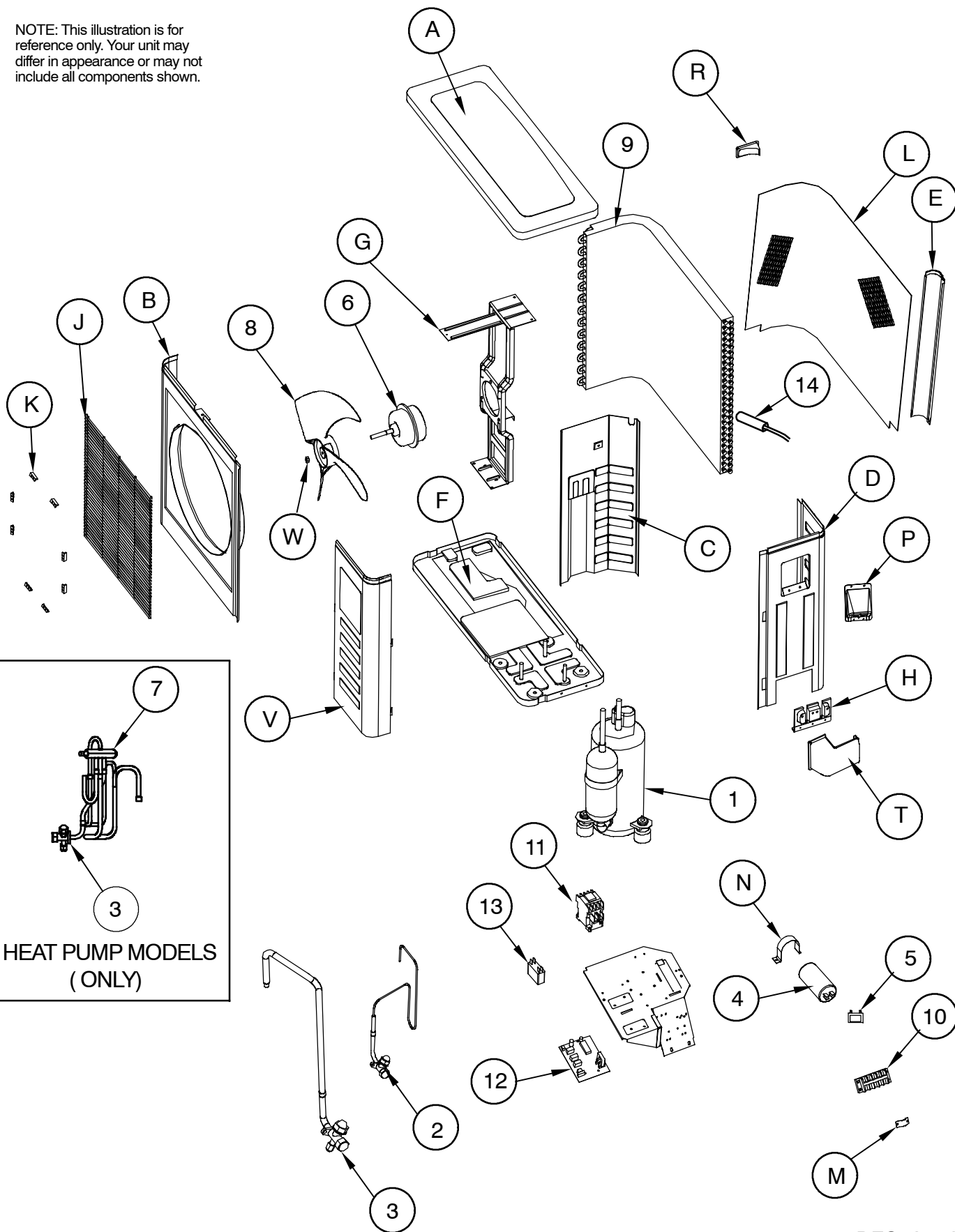


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INDOOR UNIT - DFF4AH18K1A, DFF4HH18K1A & DFF4AH24K1A, DFF4HH24K1A						
Item No.	Part no.	Description	DFF4AH18K1A	DFF4AH24K1A	DFF4HH18K1A	DFF4HH24K1A
			Qty	Qty	Qty	Qty
01	201532890021	Coil Evap	1	-	1	-
01	201533190002		-	1	-	-
01	201533090039		-	-	-	1
02	202400400623	Motor Fan	1	-	1	-
02	202400410657		-	1	-	1
03	202400200007	Motor Louver	1	1	1	1
04	203332890030	Control Box Assembly	1	-	-	-
04	203332890031		-	-	1	-
04	203333090032		-	1	-	-
04	203333090033		-	-	-	1
05	201330790858	Board, Display	1	1	-	-
05	201330790044		-	-	1	1
06	201332890019	Control Board, Main	1	-	-	-
06	201332890020		-	-	1	-
06	201333090036		-	1	-	-
06	201333090037		-	-	-	1
07	202301400068	Terminal Block	1	1	1	1
08	201100200023	Blower Wheel	1	1	1	1
09	2033550A1207	Remote Control	1	1	-	-
09	2033550A1208		-	-	1	1
10	202300900171	Transformer	1	-	1	-
10	202300900170		-	1	-	1
11	202301300080	Thermistor Evap Temp	1	1	1	1
12	202433190000	Thermistor Indoor Air Temp	1	-	1	-
12	202432390005		-	1	-	1
13	201101090004	Bearing Asy	1	-	1	-
A	201230790026	Bracket Unit Mounting	1	1	1	1
B	201130790389	Body, Unit	1	1	1	1
C	201130790368	Chassis, Front	1	1	1	-
C	201133190020		-	-	-	1
D	2011331A0105	Panel, Front ICP	1	1	1	1
E	201130790121	Filter, Air	2	2	2	2
F	201130790130	Cleaner, Air	1	1	1	1
G	201130000011	Hose, Drain	1	-	1	-
G	201130000001		-	1	-	1
H	201131320323	Cap, Screw	3	-	3	-
H	201130790131		-	3	-	3
J	201133190018	Cover, Control Box	1	-	1	-
J	201133090151		-	1	-	1
K	201133190022	Clamp, Wire	-	1	-	1
PARTS NOT SHOWN						
)	201130390070	Holder, Thermistor	1	1	1	1

OUTDOOR UNIT - DFC4H & DFC4A

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



DFC4A-1A



OUTDOOR UNIT - DFC4H & DFC4A

Item No.	Part no.	Description	DFC4A309J1B	DFC4A312J1B	DFC4A318K1B	DFC4H309J1B	DFC4H312J1B	DFC4H318K1A
			Qty	Qty	Qty	Qty	Qty	Qty
01	1176647	Compressor	1	-	-	1	-	-
01	1176648		-	1	-	-	1	-
01	1176664		-	-	1	-	-	1
02	201637390307	Valve Asy, Liquid	1	-	-	-	-	-
02	201637390308		-	-	-	1	-	-
02	201637590258		-	1	-	-	-	-
02	201637590259		-	-	-	-	1	-
02	201637890138		-	-	1	-	-	-
02	201637890135		-	-	-	-	-	1
03	201637390205	Valve Asy, Suction	1	-	-	-	-	-
03	201637590174		-	1	-	-	-	-
03	201637890087		-	-	1	-	-	-
03	201637390207	Valve Asy, 4 Way	-	-	-	1	-	-
03	201637590177		-	-	-	-	1	-
03	201637890089		-	-	-	-	-	1
04	202401070032	Capacitor, Run 45 mf 250v	1	1	-	1	1	-
04	202401070031	Capacitor, Run 40 mf 450v	-	-	1	-	-	1
05	202401170017	Capacitor, Fan 6.5 mf 450v	1	1	-	1	1	-
05	202401170004	Capacitor, Fan 3.0 mf 450v	-	-	1	-	-	1
06	202400400487	Motor, Fan 115v .102 HP	1	1	-	1	1	-
06	202400410752	230v .224 HP	-	-	1	-	-	1
07	201600670009	Valve, 4 Way	-	-	-	1	-	-
07	201600670010		-	-	-	-	1	-
07	201600670011		-	-	-	-	-	1
08	201100300510	Blade, Fan	1	1	-	1	1	-
08	201100300511		-	-	1	-	-	1
09	201535290366	Coil, Condenser	1	-	-	-	-	-
09	201537390004		-	-	-	1	-	-
09	201537690000		-	1	-	-	-	-
09	201535290100		-	-	-	-	1	-
09	201537790019		-	-	1	-	-	-
09	201537990015		-	-	-	-	-	1
10	202301400067	Terminal Block	1	1	-	1	1	-
10	202301400069		-	-	1	-	-	1
11	202300850053	Contactora	-	-	1	-	-	1
12	201337390013	Control Board, Main	1	1	-	-	-	-
12	201337390014		-	-	-	1	1	-
12	201337890000		-	-	1	-	-	-
12	201338090003		-	-	-	-	-	1
13	202301400066	Terminal Block, Multi-Plex	-	-	1	-	-	1
14	202301300175	Sensor, Outdoor Temp	1	1	-	1	1	-
14	202301300095		-	-	1	-	-	1
A	201237490015	Cover, Top	1	-	-	1	-	-
A	201237490014		-	1	-	-	1	-
A	201248190000		-	-	1	-	-	1
B	201237400017	Panel, Front	1	-	-	1	-	-
B	201237400018		-	1	-	-	1	-
B	201248100052		-	-	1	-	-	1

OUTDOOR UNIT - DFC4H & DFC4A (cont)								
Item No.	Part no.	Description	DFC4A309J1B	DFC4A312J1B	DFC4A318K1B	DFC4H309J1B	DFC4H312J1B	DFC4H318K1A
			Qty	Qty	Qty	Qty	Qty	Qty
C	201235250761	Partition	1	-	-	1	-	-
C	201235270007		-	1	-	-	1	-
C	201235300552		-	-	1	-	-	1
D	201237390014	Panel, Access Right Side	1	-	-	1	-	-
D	201237590022		-	1	-	-	1	-
D	201237890002		-	-	1	-	-	1
E	201237400015	Panel, Access Left Side	-	-	-	1	-	-
E	201248100054		-	-	1	-	-	1
E	201237400019		-	1	-	-	1	-
F	201235290074	Pan, Base	1	-	-	-	-	-
F	201237590021		-	-	-	1	-	-
F	201237590020		-	1	-	-	1	-
F	201245500022		-	-	1	-	-	1
G	201235250266	Mount, Motor	1	-	-	1	-	-
G	201235750001		-	1	-	-	1	-
G	201248100056		-	-	1	-	-	1
H	201235000018	Plate, Valve Mounting	1	-	1	1	-	1
H	201235120614		-	1	-	-	1	-
J	201235100023	Grille, Discharge	1	1		1	1	-
J	201235390011		-	-	1	-	-	1
K	201135110801	Clip, Discharge Grille	6	6	8	6	6	8
L	201135220361	Net, Inlet	1	-	-	1	-	-
L	201135270207		-	1	-	-	1	-
L	201145500004		-	-	1	-	-	1
M	201219900001	Clamp, Wiring	1	1	-	1	1	-
M	201245400027		-	-	1	-	-	1
N	201200100005	Strap, Capacitor	1	1	-	1	1	-
N	201200100002		-	-	1	-	-	1
P	201235290217	Handle, Large	1	1	1	1	1	1
R	201150290006	Handle, Small	1	1	1	1	1	1
T	201135290005	Shield, Water	1	-	1	1	-	1
T	201135279201		-	1	-	-	1	-
V	201248100053	Panel, Right Front	-	-	1	-	-	1
W	202502000009	Nut, Fan Blade	1	-	-	1	-	-
W	202502000051		-	1	-	-	1	-
W	202502000061		-	-	1	-	-	1
PARTS NOT SHOWN								
)	202300900169	Transformer	-	-	1	-	-	1

OUTDOOR UNIT - DFC4H & DFC4A				
Item No.	Part no.	Description	DFC4A324K1A	DFC4H324K1A
			Qty	Qty
01	1177651	Compressor	1	1
02	201638090104	VALVE ASY LIQUID	1	-
02	201638090205		-	1
03	201638090179	VALVE ASY SUCTION	1	-
03	201638090106	VALVE ASY 4 WAY	-	1
04	202401070030	Capacitor, Run 50 mf 450v	2	2
05	202401170015	Capacitor, Fan 4.0 mf 450v	1	1
06	202400430115	Motor Fan 230v	1	1
07	201600670011	Valve, 4 Way	-	1
08	201100300207	Blade, Fan	1	1
09	201538090012	Coil, Condenser	1	-
09	201538090045		-	1
10	202301400069	Terminal Block	1	1
11	202300850053	Contactora	1	1
12	201338090003	Control Board, Main	-	1
12	201337890000		1	-
13	202301400066	Terminal Block, Multi-Plex	1	1
14	202301300095	Sensor, Outdoor Temp	1	1
A	201248190000	Cover, Top	1	1
B	201248200021	Panel, Front	1	-
B	201248200034		-	1
C	201245320908	Partition	1	-
C	201248200030		-	1
D	201238090003	Panel, Access Right Side	1	1
E	201248400021	Panel, Access Left Side	1	1
F	201245300260	Pan, Base	1	-
F	201238090002		-	1
G	201238190003	Mount, Motor	1	1
H	201245370923	Plate, Valve Mounting	1	1
J	201235390011	Grille, Discharge	1	1
K	201135110801	Clip, Discharge Grille	8	8
L	201145320902	Net, Inlet	1	1
M	201245400027	Clamp, Wiring	1	1
N	201200100009	Strap, Capacitor	2	2
P	201235290217	Handle, Large	1	1
R	201145400003	Handle, Small	1	1
T	201135490001	Shield, Water	1	1
V	201248200020	Panel, Right Front	1	1
W	202502000061	Nut, Fan Blade	1	1
PARTS NOT SHOWN				
)	202300900169	Transformer	1	1