S/M No : DWB056C001

Service Manual

Window Type
Room Air Conditioner

Model : DWC-056CL
DWC-056C

Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information,please refer to PPL(Parts Price List) in Service Information Center.

DAEWOO ELECTRONICS

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1. PRECAUTION

Please observe the following instructions.

1. Turn off unit.
Make sure the unit is OFF and the AC cord is unplugged before repairing or servicing.

2. In case of checking the circuit unavoidably while the unit is connected with power source, be careful not to connect with the part of electric charge.
You may cause electric shock.

3. Use of proper part if you need to replace the part, be sure to use genuine part of servicing model.
Do not repair or replace the electric contact part.
Consumer must not repair the unit, because it is dangerous.

4. Use of proper tool.
You must use the proper tool to repair the unit, and use the measuring appliance adjusted accurately.

5. Damage of electric wire and power cord when servicing.
Check electric wire and a surely replace a damage electric wire and a damage power cord.

6. Never use connecting the middle of wire, after cutting the middle of wire.
It may cause a fire and trouble.

7. Checking the insulation resistance.
After you complete the assembly of unit, surely check the insulation resistance.
Confirm that the insulation resistance of the power line and the ground terminal is over 30MΩ by measuring insulation resistance.

8. Checking the ground.
After checking the ground, servicing it completely.

9. Checking the installation.
After checking the installation, servicing it completely.

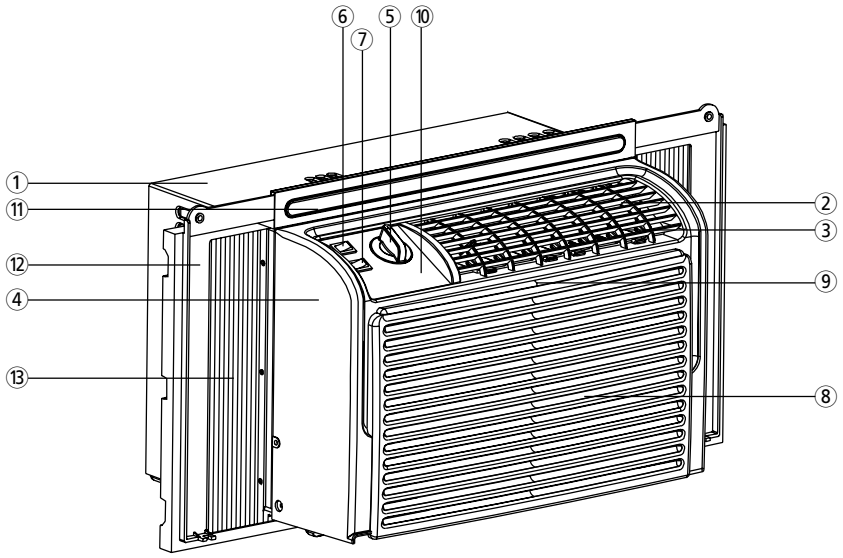
10. Care children.
When servicing, do not make the children approach the air-conditioner.

2. GENERAL SPECIFICATIONS

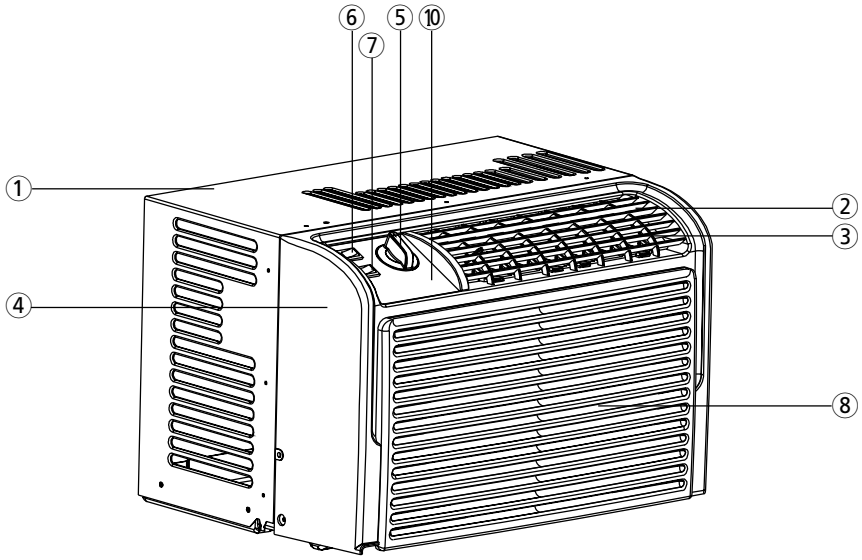
ITEM \ MODEL		DWC-056CL	DWB-056C
Function		Cooling only	
Power source		AC 115V/60Hz	AC220~240V/50Hz
Cooling Capacity	Btu/h	5,200	5,000
	Kcal/h	1,310	1,260
Energy Efficiency Ratio	Btu/Wh	9.7	9.26
	Kcal/Wh	2.44	2.33
Dehumidification	Pts/h	1.63	1.02
	g/h	742	464
Electrical Data	Power Input (W)	535	540
	Running Current (A)	5.0	2.5
Compressor	Type	ROTARY	
	Model	39R131ER-54P	39A052JSAJA
	Capacitor	35µF/250VAC	20µF/400VAC
Fan Motor	Model	YSLA-28-6-0004	YSLA-35-4-0006
	Capacitor	4µF/250VAC	2µF/400VAC
	Indoor-Fan	Blower-Fan	
	Outdoor-Fan	Propeller-Fan	
Refrigerant(R-22)	Control	Capillary	
	Charge Amount(g)	11.3oz(320g)	12.3oz(350g)
Dimensions	Unit(W x H x D)	16.9(W)x11.4(H)x12.8(D)inch (430(W)x289(H)x325(D)mm)	
	PACKING(W x H x D)	18.5(W) X 13.0(H) X 15.1(D) inch (470(W) X 330(H) X 385(D)mm)	
Weight	Net Weight	41.9 lbs(19kg)	
	Gross Weight	46.3 lbs(21Kg)	

3.NAMES OF MAJOR COMPONENTS

• DWC-056CL



• DWB-056C

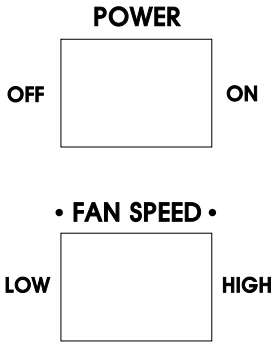


NO	PART NAME	NO	PART NAME
1	CABINET	8	AIR INTAKE
2	BLADE VERTICAL	9	AIR FILTER
3	COOL AIR DISCHARGE	10	CONTROL PANEL
4	GRILLE FRONT	11	PLATE WINDOW TOP
5	KNOB THERMOSTAT	12	FRAME WINDOW KIT
6	SWITCH POWER	13	SHUTTER WINDOW
7	SWITCH FAN		

4. FUNCTION OF MAIN COMPONENTS

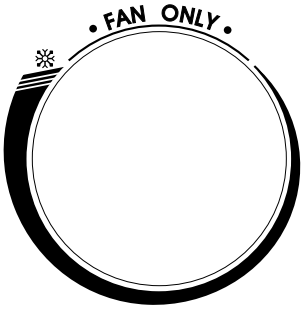
1. POWER & FAN CONTROL

Please refer to the part of switch in the chapter 9(Wiring Diagram).



ON	Select this setting to turn on the unit.
OFF	Select this setting to turn off the unit.
HIGH	Select this setting for maximum air circulation.
LOW	Select this setting for quite air circulation.

2. THERMOSTAT (TEMPERATURE CONTROL)



- The Thermostat automatically starts and stops cooling operation in order to keep the room temperature at a proper level, and this results in efficient use of power and economical cooling.
- Turn clockwise for a cooler room temperature.
- Turn counter-clockwise for a warmer room temperature.

3. MOTOR

The motor is used to rotate the indoor and outdoor fan so that the room air can be recirculated.

4. FAN

- BLOWER FAN: The Blower draws hot air from the room through the Evaporator and then discharges it back into the cool air. It circulates the room air.
- PROPELLER FAN: The propeller draws outdoor air through louvering and cools Condenser, and then blows the hot air out.

5. CAPACITOR

The Capacitor enlarges the difference of phase between main coil and sub coil so that the Compressor and Fan Motor starts well.

6. ACCUMULATOR

The Accumulator blocks the unflow of liquid refrigerant and impurities into the Compressor.

5. GENERAL INFORMATIONS

1. CHANGING AIR FLOW DIRECTION

Air flow deflectors divert air from center flow to left or right.
Adjust deflectors for desired air flow pattern.

2. AIR FLOW AROUND UNIT

Check in door grill and outdoor louvers for air flow obstructions. Do not block air flow to and from unit. The outdoor coil should be checked and periodically cleaned for debris that may collect and block unit air flow. If air flow is obstructed or deflected back into unit, the compressor may cycle on and off rapidly, causing early compressor failure.

3. Electrical Grounding Instructions.

This appliance is equipped with a three-prong(grounding) plug for protection against possible shock hazards. If a two-prong wall receptacle is encountered, the customer is required to contact a qualified electrician and have the two-prong wall receptacle replaced with a properly grounded three-prong wall receptacle in accordance with the National Electrical Code.

4. USE OF EXTENSION CORDS (ONLY DWB-056C)

Because of potential safety hazards under certain conditions we strongly recommend against the use of an extension cord. However, if you still elect to use an extension cord, it is absolutely necessary that it is earthed and the marked rating of the extension cord should be 250V 10A or more for Model DWB-056C.

5. USE OF LCDI OR AFCI POWER CORDS(ONLY DWC-056CL)

Testing:

CASE 1 : Lamp exists

1. Plug into power receptacle.
2. If light is not on, press “RESET” button, light should turn on.
3. Press “TEST” button, light must turn off.
4. Press “RESET” button again for use. Light should turn on.
   Do not use of above test fails.

CASE 2 : Lamp not exist

1. Plug into power receptacle. Turn on Unit.

2a. If unit operates normally, press “TEST” button. Unit should trip.
   Press “RESET” button again for use.

2b. If unit not operate, press “RESET” button for use. Unit should operate.
   Do not use if above test fails.

6. CARE AND MAINTENANCE

1. AIR FILTER

Clean the air filter, which removes dust inside the room.
It should be washed at least once every week during operation.

1. Remove the Air Filter from the front grill by pulling up.
2. Clean Air Filter with a vacuum cleaner or lukewarm, soapy water.
3. Shake it when clean to remove moisture completely. Replace it.

2. CLEANING THE AIR CONDITIONER

1. At least once a year, remove cabinet and thoroughly clean air conditioner. Have the unit inspected by an authorized servicer to ensure unit is functioning properly.
2. Wash air conditioner with lukewarm, soapy water as needed. Rinse and dry thoroughly.
3. If using concentrated liquid detergent, dilute in warm water first.
4. Front grill may be wiped off with a cloth dampened in a mild detergent solution.
5. Cabinet may be washed with mild soap or detergent and lukewarm water, then polished with liquid wax for appliances.
6. Condenser and Evaporator coils should be cleaned at the beginning of each cooling season. Use a soft brush or vacuum cleaner to clean them, making sure that the Condenser and Evaporator coils are not damaged.
7. Do not use abrasive cleaners. These items scratch, crack and discolor surfaces.

7. TROUBLE SHOOTING GUIDE

TROUBLE	SITUATION	ANALYSIS	CAUSE	REMEDY
Fan motor and compressor do not run	1. Power failure	1) Power plug 2) Circuit breaker	1) Power failure 2) Circuit breaker is tripped 3) Power plug is not contacting	• Consult your electric company • In case of a breaker, turn it on and off a few times • Replace the power plug
	2. Power is supplied, but the equipment does not run	1) receptacle 2) Operation switch 3) Cord or lead wire to the switch	• Disconnection • Mechanical failure of switch 1) Disconnection 2) Malfunction of contact	• Repair or replace the receptacle • Replace the cord or lead wire
Thermostat is in cool position but the compressor does not run	1. Not operating at all	1) Compressor 2) Thermostat 3) O.L.P 4) Capacitor	• Disconnection or burned-out 1) Failure 2) Malfunction 3) Knob is not set to the proper setting • Failure of malfunction of proper setting 1) Disconnection 2) Malfunction of contact • Lack of capacity • Disconnection	• Replace the compressor or connection wire • Replace • Repair or replace • Turn knob for cooler setting • Repair or replace the swtting • Repair • Repair or replace • Replace • Repair
	2. Compressor	1) Electricity 2) Room temperature and outside temperature 3) Compressor 4) O.L.P 5) Capacitor	1) The voltage exceeded allowed range 2) Capacity of wire is not sufficient • Extremely high • Burned-out • Malfunction • Lack of capacity	• Consult your electric company • Check the capacity of wire • Ventilate well and remove the heat source • Replace • Replace • Replace
	3. Frequent start and stop	1) Thermostat 2) Capacitor 3) O.L.P	• Malfunction • Lack of capacity • Malfunction	• Replace • Replace • Replace

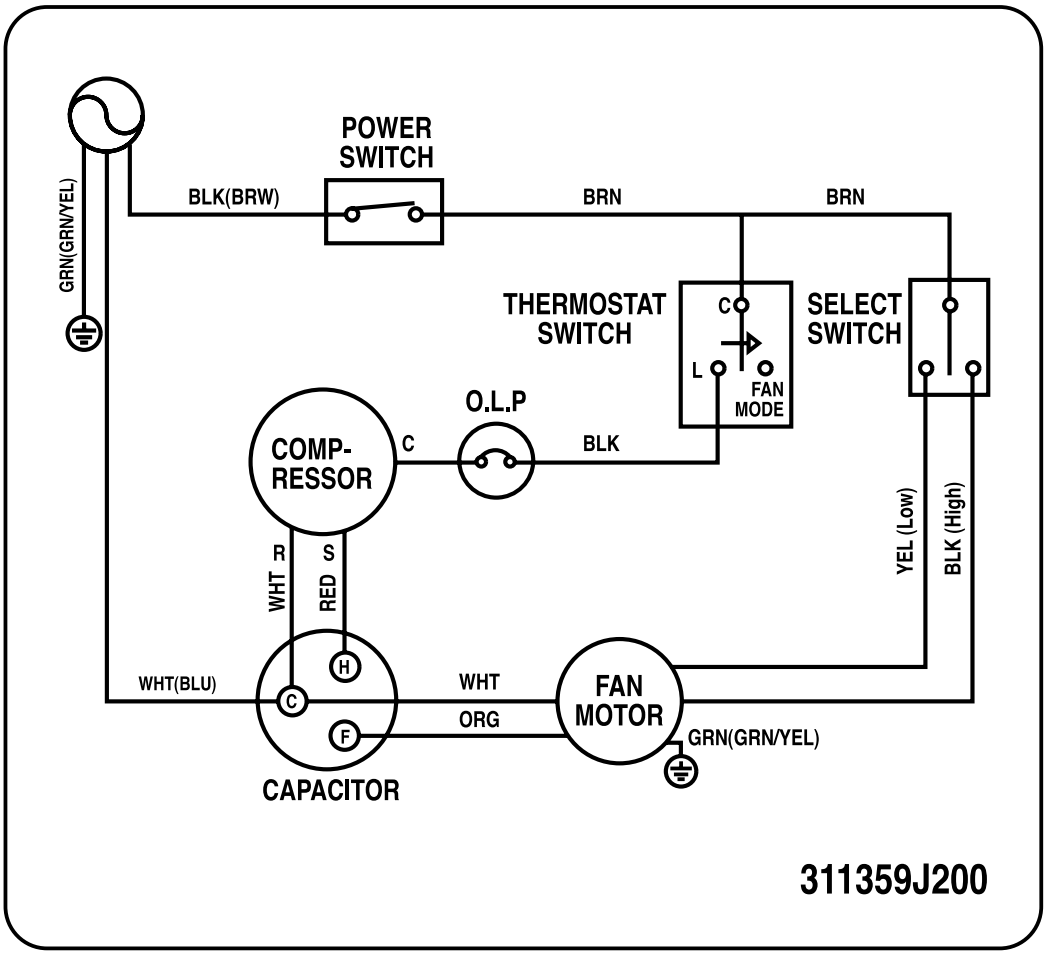
TROUBLE	SITUATION	ANALYSIS	CAUSE	REMEDY
The compressor runs but the motor doesn't run		1) Fan 2) Fan motor 3) Capacitor 4) Fan motor circuit	• Blocked by others • Disconnection or burned-out electric cord • Failure malfunction of contact • Disconnection of malfunction of contact	• Repair • Replace the fan motor • Replace • Check the circuit
Both fan motor and compressor are running but cooling is bad	Not cooling at all	Refrigerant system	1) Refrigerant system is choked 2) Compressor failure 3) Leakage of refrigerant gas	• Repair • Repair • Recharge refrigerant gas
	Insufficient cooling	1) Refrigerant system 2) Filter 3) Heat exchanger of condenser	1) Refrigerant system is choked 2) Compressor failure 3) Leakage of refrigerant gas 4) Refrigerant charge is too high • Clogged up with dust 1) Fin is cogged up with dust 2) The ventilation is not good 3) The unit is exposed to the sunlight 4) Other heat source is added in the room	• Check and repair refrigerant system • Replace • Check a part of Leakage and repair • Repair and recharge • Clean the air fiter • Clean the unit • Shade the unit from the sunlight • Remove the added heat source
Vibration & Noise		1) Installation place 2) Fan 3) Fixing screws 4) Electric components	• Installation of the unit is imperfectly done 1) Fan is contacted with obstacles 2) Fixing bolt • Have a screw loose • Electrical noise	• Install the unit perfectly • Remove obstacles • Tighten the bolt • Tighten the screw • Exchange the components
Water leakage into room		• Installation condition	• The front is lower than rear side	• Make rear side of the unit lower than the front
Electric shock (Leakage of current)		• Insulation of components	1)Insulation defect of wiring and lead wire 2) Leakgae of current due to the dew or rust	• Check the unit's Leakage of current. • Replace the defective parts or components

8. HOW TO DISASSEMBLE

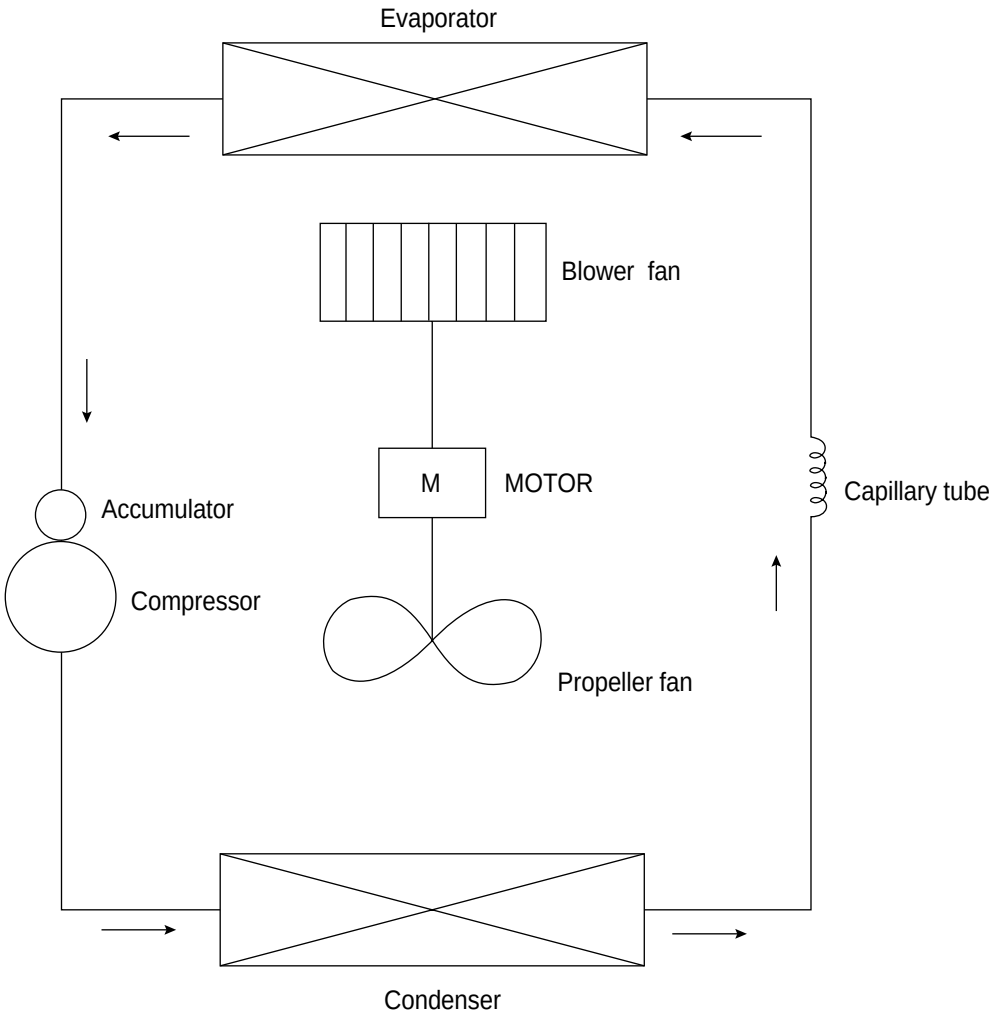
Please refer to the chapter 11 (Exploded diagram and parts list).

1	Before service of any part.	1. Stop the unit, remove the power cord from the receptacles. 2. Move the unit to the safe location for the suitable work.
2	Ass'y Fan Motor - Fan Motor - Propeller Fan - Blower Fan - Orifice	1. Remove Front Grill. - Remove Filter Pre. - Remove screws(2 points) in Front Grill. 2. Remove Cabinet from the unit. - Remove screws(7 point) from the unit's sides. 3. Remove screw(1 point) from Earth Wire and EVA end plate 4. Remove clamp cord. - Remove screw(1 point) from the Pan Base. 5. Remove Ass'y Control Box. - Remove wires in the each components. 6. Remove Plate Scroll and Scroll Upper. - Remove Sealing Scroll from two scrolls. 7. Remove screws(6 point) from Ass'y Fan Motor's sides. - Ass'y Fan Motor is assembly of Fan Motor, Propeller and Blower Fan and Orifice. 8. Lift Ass'y Fan Motor from the unit. 9. Remove Clip Fan(2 point) from the shaft of Fan Motor. 10. Remove Propeller Fan from the shaft of Fan Motor. 11. Remove Blower Fan from the shaft of Fan Motor.
3	Ass'y Control Box - Power Switch - Fan Switch - Thermostat - Capacitor - Power Cord	1. Same as the procedure 1 to 4 in the Item 2.
4	O.L.P	1. Same as the procedure 1 to 2 in the Item 2. 2. Remove Terminal Cover from Compressor. - Remove hex-nut (1 point).

9. WIRING DIAGRAM



10. REFRIGERANT CYCLE



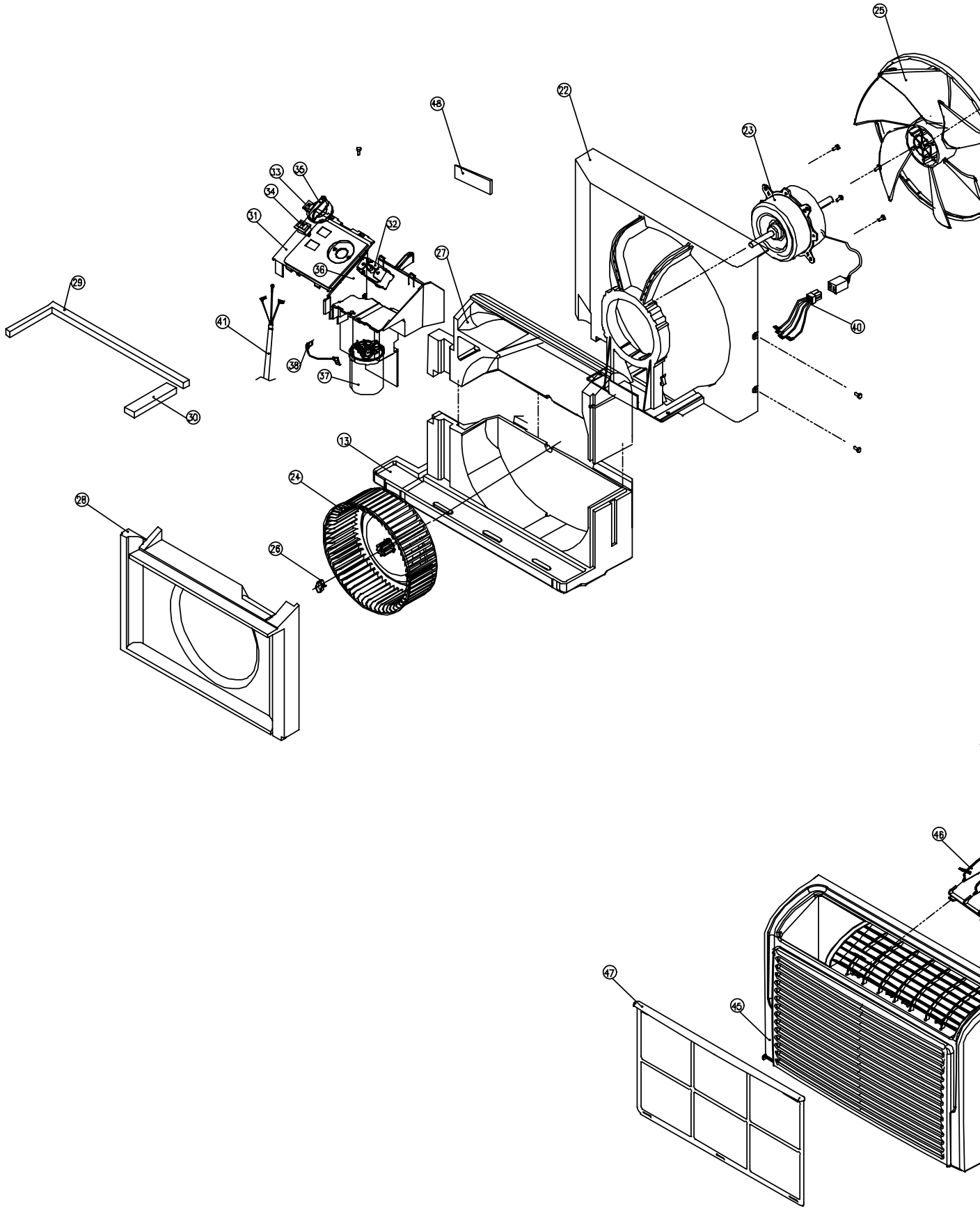
11. EXPLODED DIAGRAM AND PARTS LIST.

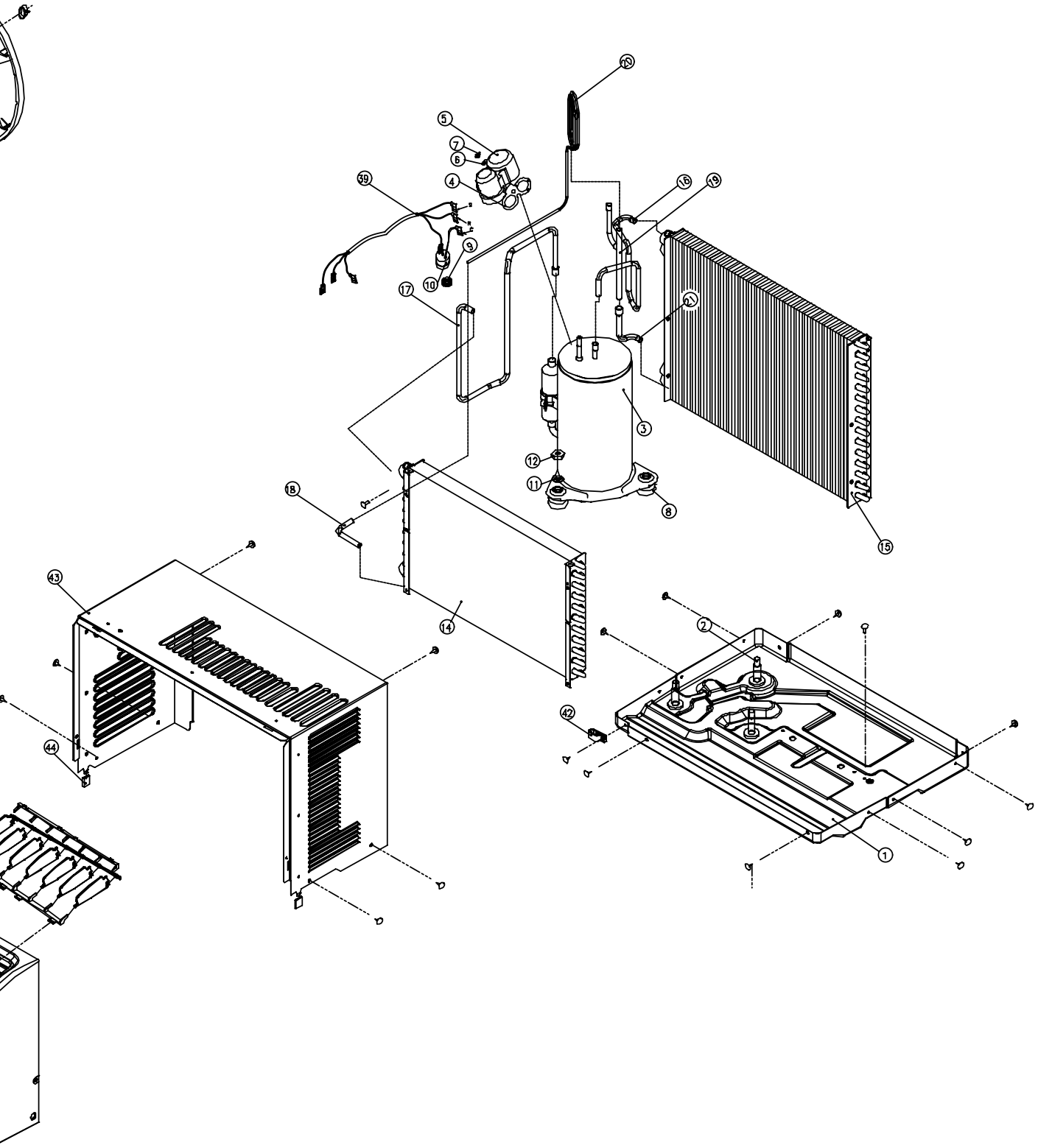
• DWC-056CL, DWB-056C PARTS LIST

DW*-****

NO	CODE	COMPONENTS	QTY	SPECIFICATION	REMARK
1	3118101100	PAN BASE	1	SGCC T0.8	DWC-056CL
	3118101110	PAN BASE	1	SGCC T0.8	DWB-056C
2	3116005500	BOLT COMP	3	M8,RECHI COMP	DWC-056CL
	3116000400	BOLT COMP	3	M8,SAMSUNG COMP	DWB-056C
3	3117147800	COMPRESSOR	1	39R131ER&54P - RECHI	DWC-056CL
	3117148800	COMPRESSOR	1	39A052JSAJA - SAMSUNG	DWB-056C
4		GASKET	1		
5		TERMINAL COVER	1		
6		GASKET NUT	1		
7		NUT FLANGE	1		
8		GROMMET	3		
9		SPRING	1		
10		O.L.P	1	MRA4757-380(TEXAS INC.), B210-130-241A(TONGBAO)	DWC-056CL
		O.L.P	1	KA-122-LYDN59B (YAMADA)	DWB-056C
11	7400208411	WASHER PLAIN	3	ID8.4*OD22*T1.6	
12	7392801211	NUT LOCK	3	M8*1.25P	
13	3116601100	SCROLL LOWER	1	EPS X25, (UL-HB)	
14	311009RQ00	ASSY EVA	1	DWC-056CL(2R-1C)	
15	311009RR00	ASSY COND	1	DWC-056CL(2R-1C)	
16	3114489900	PIPE DISCHARGE	1	C1220T-0 OD6.35XT0.7	DWC-056CL
	3114490400	PIPE DISCHARGE	1	C1220T-0 OD6.35XT0.7	DWB-056C
17	3114490100	PIPE SUCTION	1	C1220T-0 OD7.0XT0.7	DWC-056CL
	311009S200	PIPE SUCTION	1	C1220T-0 OD7.0XT0.7	DWB-056C
18	3114490200	PIPE EVA IN	1	C1220T-0 OD7.0XT0.7	
19	3114400802	PIPE FEEDER	1	C1220T-OL, OD7.94,FILTER	
20	3114490300	PIPE CAPILLARY	1	C1220T-0 ID1.2XT0.7XL1,000	DWC-056CL
	311009S300	PIPE CAPILLARY	1	C1220T-0 ID1.2XT0.7XL1,100	DWB-056C
21	3114490000	PIPE COND OUT	1	C1220T-0 OD7.0XT0.7	
22	3111412300	COVER ORIFICE	1	HIPS	
23	3118011000	MOTOR FAN	1	YSLA-28-6-0004 115V 60HZ (WELLING)	
	3118012800	MOTOR FAN	1	YSLA-35-4-0006 230V 50HZ (WELLING)	
24	3111801900	FAN BLOWER	1	ABS730 ONLY	
25	3111802300	FAN PROPELLER	1	ABS730 ONLY	
26	3101202800	CLIP FAN	2	SK-5	
27	3116601000	SCROLL UPPER	1	EPS X25, (UL-HB)	
28	3114508300	PLATE SCROLL	1	EPS (X25)	
29	3118402200	SEALING SCROLL 1	1	F-US 380X10X10T	
30	3118402300	SEALING SCROLL 2	1	F-US 90X20X10T	
31	3114206700	PANEL CONTROL	1	HIPS (UL 5V)	
32	3118502000	THERMOSTAT	1	WK14S-408-520 ON/OFF TYPE	
33	3118502100	SWITCH ROCKER 1	1	MR2-120-C2-AA-2N SPDT 125/250V 10/6A	
34	3118502200	SWITCH ROCKER 2	1	MR2-110-C2-AA-2N SPST 125/250V 10/6A	
35	3113401700	KNOB	1	ABS720	
36	3110526900	BOX CONTROL	1	HIPS (5V)	
37	3116905040	CAPACITOR DUAL	1	4+35UF 250VAC ¯ 50 L65	DWC-056CL
	3116901510	CAPACITOR DUAL	1	2+20UF 400VAC ¯ 50 L70	DWB-056C
38	3112746400	HARNESS SWITCH	1	UL1015 2*#20, #16*70 BRN	
39	3112700310	HARNESS COMP	1	UL 1015 3*#16*430MM BK,RD,WH	
40	3112746500	HARNESS MOTOR	1	UL1015 4*#20*100 BR,BL,OR,WH	
41	31113M45H2	CORD POWER LCDI	1	250V 10A SPT-3 #18*2,300MM	DWC-056CL
	3111313800	CORD POWER	1	250V, 10A, SJT3*1.0MM (HONGCHANG),187,250	DWB-056C
42	3111201300	CLAMP CORD	1	PP	DWC-056CL
	3101204600	CLAMP CORD	1	DA-4N	DWB-056C
43	3110801800	CABINET	1	SGCC T0.6	
44	3110701700	BUSHING CABINET	2	EPDM	DWC-056CL
45	3112406500	GRILLE FRONT	1	HIPS	
46	311009RN00	ASSY BLADE	1	PP	
47	3111906100	FILTER	1	HIPS + PP(NANO)	
48	3118402500	SEALING SCROLL 3	1	F-PE 110X15X2T	

■ DWC-056CL, DWB-056C EXPLODED DIAGRAM

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