

SAMSUNG

ROOM AIR CONDITIONER

AW07GANBA

AW09FANBA

AW12FADBA

AW07FANBA

AW09GANBA

AW12FADEA

AW07FANEA

AW09FANEA

AW12GADEA

AW07GANEA

AW09GANEA

AW12FADAA

AW10FADBA

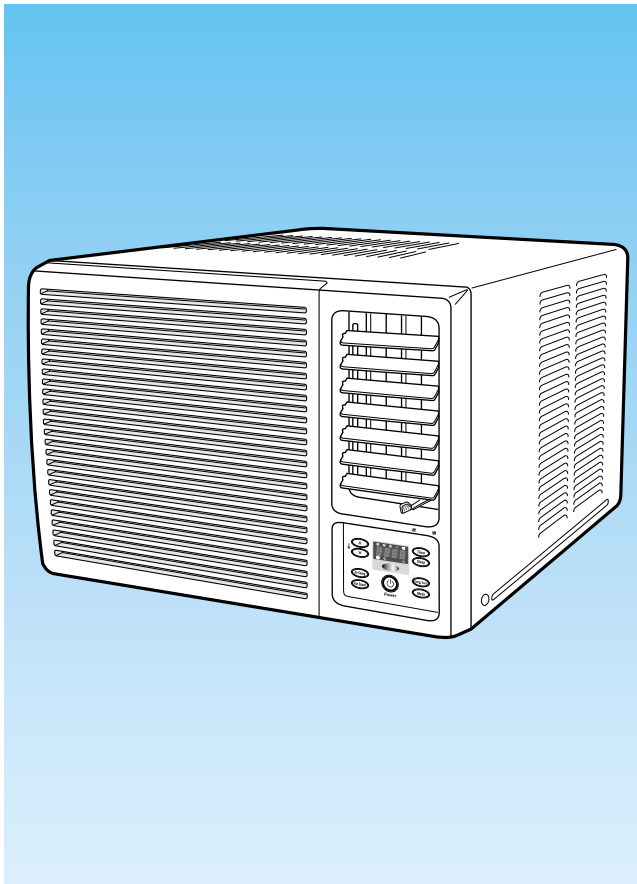
AW12FADBB

AW12FBDAA

AW12FBDBA

SERVICE *Manual*

AIR CONDITIONER



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1. Precautions

1. Warning: Prior to repair, disconnect the power cord from the circuit breaker.
2. Use proper parts: Use only exact replacement parts. (Also, we recommend replacing parts rather than repairing them.)
3. Use the proper tools: Use the proper tools and test equipment, and know how to use equipment may cause problems later-intermittent contact, for example.
4. Power Cord: Prior to repair, check the power cord and replace it if necessary.
5. Avoid using an extension cord, and avoid tapping into a power cord. This practice may result in malfunction or fire.
6. After completing repairs and reassembly, check the insulation resistance.
Procedure: Prior to applying power, measure the resistance between the power cord and the ground terminal. The resistance must be greater than 30 megaohms.
7. Make sure that the grounds are adequate.
8. Make sure that the installation conditions are satisfactory.
Relocate the unit if necessary.
9. Keep children away from the unit while it is being repaired.
10. Be sure to clean the unit and its surrounding area.

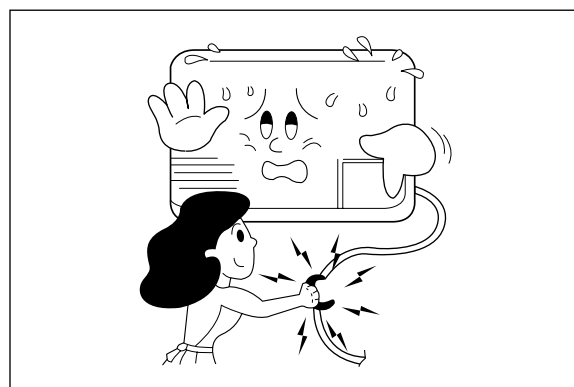


Fig. 1-1 Avoid Dangerous Contact

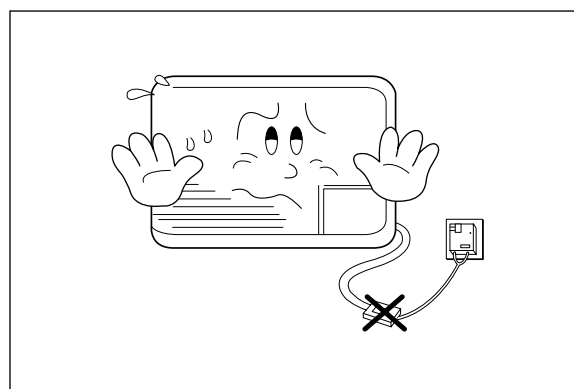


Fig. 1-2 No Tapping and No Extension Cords

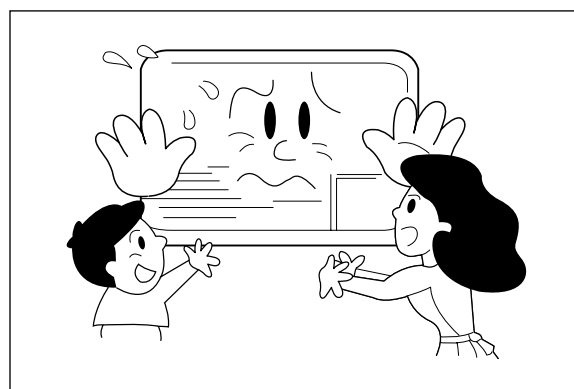


Fig. 1-3 No Kids Nearby!

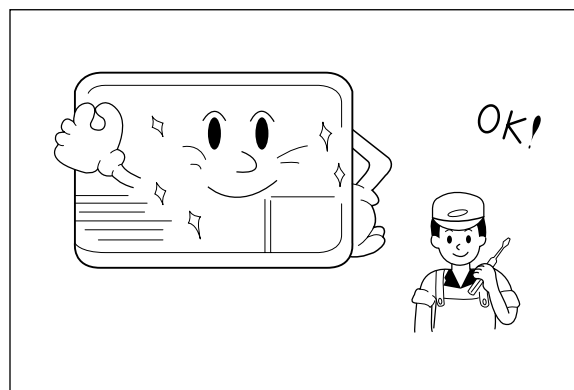


Fig. 1-4 Clean the Unit

Notice : The symbol of model name

Type	Model Name	
A	AW07GANBA	AW09FANBA
	AW07FANBA	AW09GANBA
	AW07FANEA	AW09FANEA
	AW07GANEA	AW09GANEA
B	AW12FADBA	AW10FADBA
	AW12FADEA	AW12FADBB
	AW12GADEA	AW12FBDAA
	AW12FADAA	AW12FBDDBA

2. Product Specifications

2-1 Table

Item	Unit of Measure	AW07FANBA AW07GANBA	AW09FANBA AW09GANBA	AW12FADBA AW12FBDBA	AW12FADAA AW12FBDAA	AW10FADBA
Type	-	WINDOW				
Dimension: (Width x Height x Depth)	mm	520 x 345 x 485		600 x 394 x 595		
Voltage	Volt	220 (230-208)			115	220
Phase	-	SINGLE				
Frequency	Hz	60				
Operation Current	A	3.3	4.5	5.6	11.7	4.8
Power Consumption	W	720	960	1,250	1,250	1,050
Refrigerant Type	FREON	R-22				
Refrigerant Charge	g	365	510	580		470
Capacity	BTU/h	7,200	8,500	12,200		10,000
EER	BTU/h.W	10.0	8.9	9.98	9.94	9.5
Net Weight	kg	29		42		41
Condenser	Row	2 x 15	3 x 15	3 x 17		2 x 17
Condenser Fan	Type	Propeller Fan				
Evaporator	Row	2 x 14		3 x 16		2 x 14
Evaporator Fan	Type	Blower				
Fan Motor	MODEL	IC-9630SWF6X	IC-9630SWF6G	YGN60-6D	YGN60-6B	YFK-70-6E
Compressor (Rotary)	MODEL	44A072IW1EB	44B092IU1EF	44B124IX1EL	44B124HX1EL	44B102IU1EL
Overload Protect	-	MRA12043-12008	MRA12032-12008	MRA12070-12007	MRA98693-12008	RAC12049-6200
Compressor Capacitor	μF/VAC	25 / 370	20 / 370	30 / 450	50 / 370	20 / 450
Fan Motor Capacitor	μF/VAC	2.5 / 450	3 / 450	3.5 / 450	15 / 250	2.5 / 450
Fan Speed	RPM	840 / 700 / 600	910 / 780 / 690	880 / 830 / 780	880 / 830 / 780	760 / 660 / 560
Thermo Control	-	THERMISTOR				
Air Swing	MODEL	M2LJ49ZV32			M2CK59ZT79-H	M2LJ49ZV32

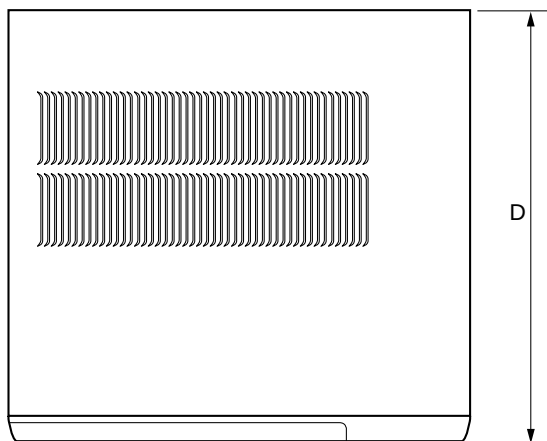
Table (cont.)

Item	Unit of Measure	AW07FANEA AW07GANEA	AW09FANEA AW09GANEA	AW12FADEA AW12GADEA	AW12FADBB	Remarks
Type	-	WINDOW				
Dimension: (Width x Height x Depth)	mm	520 x 345 x 485		600 x 394 x 595		
Voltage	Volt	220-240			220	
Phase	-	SINGLE				
Frequency	Hz	50			60	
Operation Current	A	3.4	4.3	6.0	5.5	
Power Consumption	W	760	930	1,340	1,150	
Refrigerant Type	FREON	R-22				
Refrigerant Charge	g	365	480	480	580	
Capacity	BTU/h	7,200	8,500	12,000	3.2KW	
EER	BTU/h.W	9.7	9.1	9.0	2.77(C.O.P)	
Net Weight	kg	29		43	42	
Condenser	Row	2 x 15	3 x 15	2 x 17	3 x 17	
Condenser Fan	Type	Propeller Fan				
Evaporator	Row	2 x 14		3 x 16		
Evaporator Fan	Type	Blower				
Fan Motor	MODEL	IC-9430SWJ5C		YFK-70-6C	YFK-70-6E	
Compressor (Rotary)	MODEL	44A070JW1EB	44B092JU2EF	48A124JV1EL	44B124IX1EL	
Overload Protect	-	MST24AMN-12008	MRA12054-12008	MRA12030-12008	MRA12070-12007	
Compressor Capacitor	μF/VAC	25 / 450	35 / 450	30 / 450	30 / 450	
Fan Motor Capacitor	μF/VAC	2.5 / 450	3 / 450	3.5 / 450	3.0 / 450	
Fan Speed	RPM	840 / 770 / 620 (at 240V)	880 / 810 / 660 (at 240V)	880 / 800 / 720	790 / 720 / 640	
Thermo Control	-	THERMISTOR				
Air Swing	MODEL	M2LJ49ZV32				

2-2 Dimensions

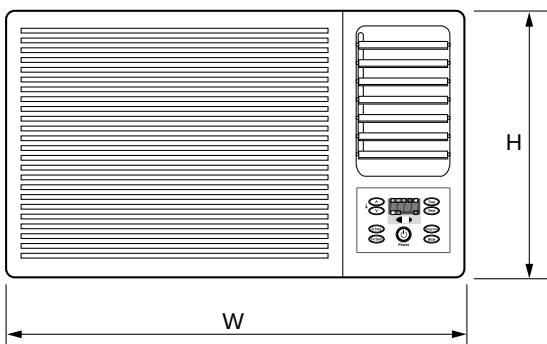
2-2-1 Main Unit

(Unit : mm)

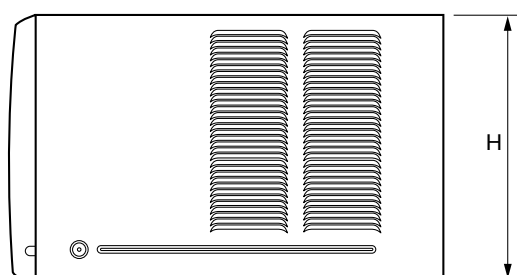


Type	W	H	D
A	520	345	485
B	600	394	595

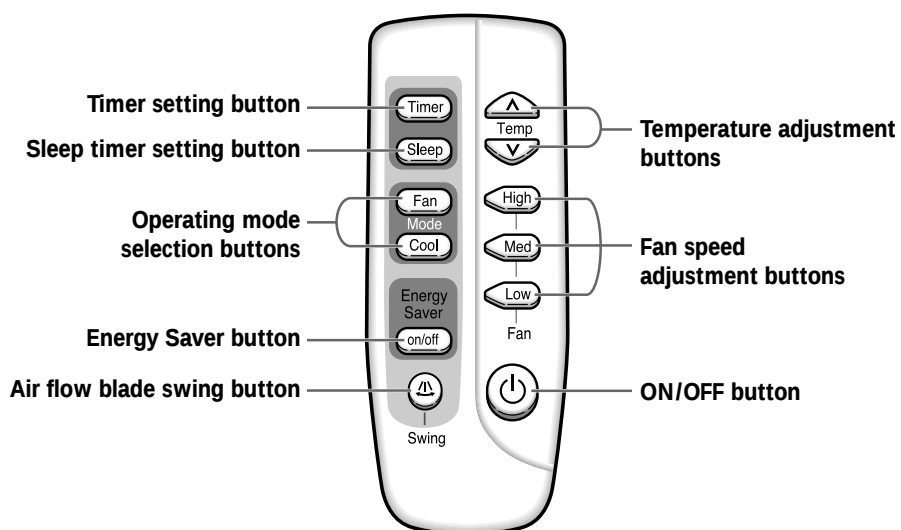
Front view



Side view



2-2-2 Remote Control



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3. Installation and Operating Instructions

3-1 Installation

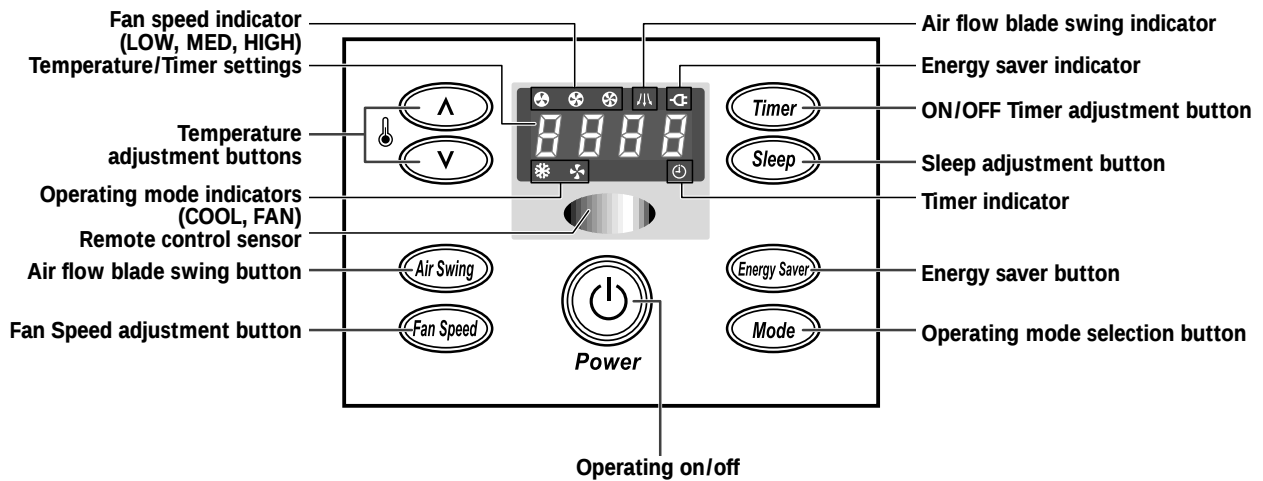
3-1-1 Selecting Area for Installation

1. Make sure that you install the unit in an area providing good ventilation. The air conditioner must not be blocked by any obstacle affecting the air flow near the air inlet and air outlet.
2. Make sure that you install the unit in an area that allow good air handling. The installation area must be able to endure vibration from the unit.
3. Make sure that you install the unit away from heat or vapor.
4. Make sure that you install the unit in an area which is cool and has adequate space.
5. Make sure that you install the unit in an area away from TVs, audio units, cordless phones, fluorescent lighting fixtures and other electrical appliances (obtain a clearance of at least one meter).
6. Make sure that you install the unit in an area which provides easy drainage for condensed water.
7. Make sure that you install the unit in an area not exposed to rain or direct sunlight. (Install a separate sunblind if exposed to direct sunlight.)
8. Make sure that you install the unit in an area allowing good air movement. Do not install it in a space that would cause noise amplification of noise.
9. Fix the unit firmly if mounted in a high place.

Caution:

Do not use the air conditioner in the following environments : greasy areas (including areas near machines), or marine areas. Contact your local dealer for advice.

3-2 Function Description



3-2-1 Cooling operation mode

The compressor is turned on and off according to the ambient temperature and set temperature.

- 1) Compressor on and off control
 - Compressor on and off control according to the ambient temperature
 - * The compressor is turned off when "ambient temperature = set temperature"
 - * The compressor is turned on when "ambient temperature = set temperature + 1°C"
- 2) Default value after power reset → set temperature = 24°C
Fan speed = High
- 3) Set temperature indicating (setting) range : 1°C interval from 18°C to 30°C.

3-2-2 Fan operation mode

- 1) If "Fan operation mode" signal is received from remocon or panel.
 - the compressor is immediately turned off and only fan motor is operated at set blowing speed.
 - it changes such as "High → Med → Low → High"(if Fan speed is selected).
- 2) The initial Fan motor speed is set to "High".
- 3) The set temperature can not be indicated and set.

3-2-3 Energy saver operation mode

- * If the compressor turn off at the cooling operation, the fan motor turn off after operation during the fixation time only, and operation that energy saver by turn off the fixation time only, and operation that energy saver by turn off the motor continuously before the condition of the compressor on.
- * The fan motor is not operated at flow wind operation.
- * Energy saver operation specification at the cooling operation.
 - 1) Fan motor control in compressor on : operate with setting wind speed
 - 2) Fan motor control in compressor off : After compressor off, the fan motor is operated breeze for 2 minutes and then it turn off.
 - 3) After the fan motor off, the compressor and fan motor is operated normally when the compressor on.

3-2-4 Sleep operation mode

- 1) Enable to sleep operation only when cooling operation.
- 2) First, 7-SEG LED DISPLAY "SLEEP" while 15 second, Second, 7-SEG LED DISPLAY "8Hr"
And, automatically SET OFF after operated while 8 Hour
- 3) If sleep operation, setting Temperature rise 1°C after 1 Hour
- 4) ON TIMER operation, not operation, ENERGY SAVER operation, not sleep operation.

3-2-5 Air flow blade swing motor operation

- 1) The Air flow blade swing motor is turned on and off according to Air flow blade swing operation in remocon or panel, if SET is cooling or Fan operation mode.
- 2) If the operation mode is "ENERGY SAVER", in case of fan motor being turned off Air flow blade swing motor is immediately turned off.

3-2-6 LED display indication in case of error detection

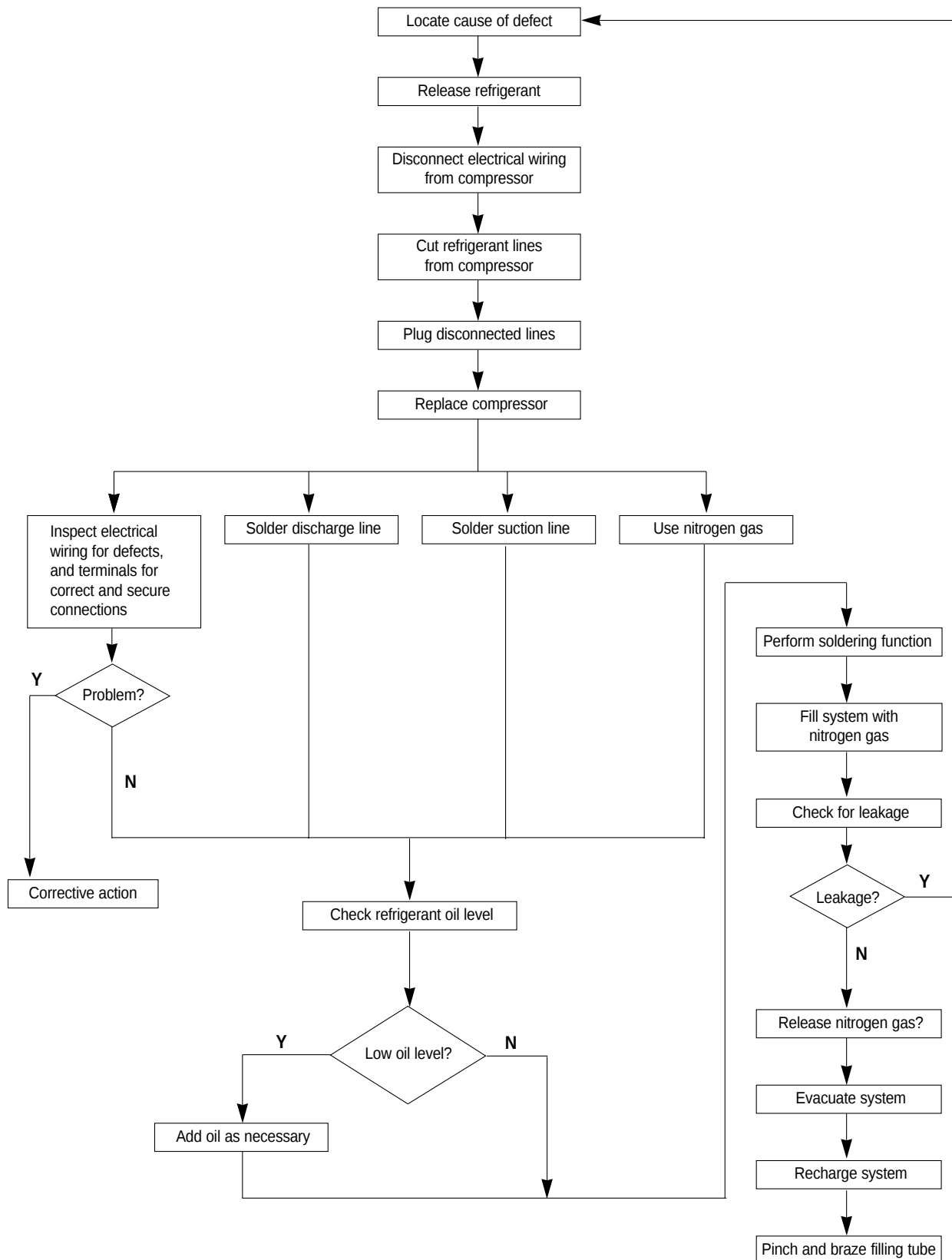
ERROR OPERATION	7-SEG LED DISPLAY
ROOM THERMISTOR (OPEN or SHORT)	E1 displayed

- 1) Set operation in case of error occurrence.
 - Malfunction of each temperature sensor (open, short)
 - Error mode display, warning sound.
 - The operation status is off.

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4. Disassembly and Reassembly

4-1 Compressor Replacement Flow Chart



4-2 Checking the oil

Fill the transparent container with 10cc of oil, and then conduct the test.

4-2-1 Oil quality

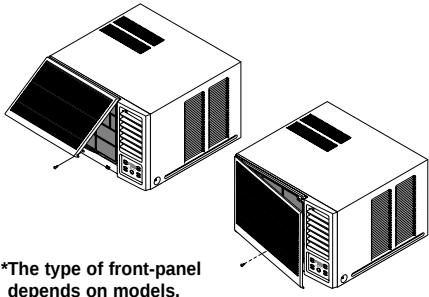
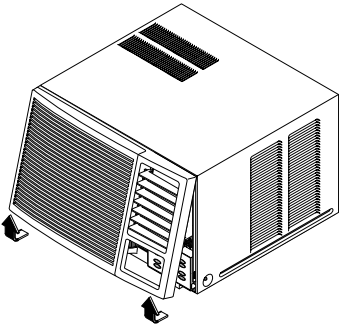
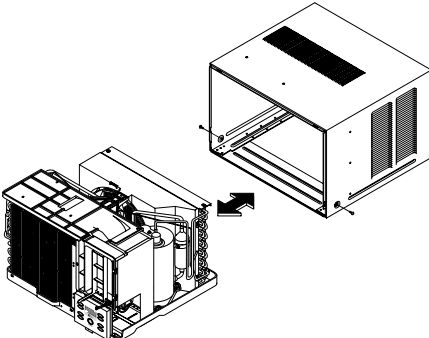
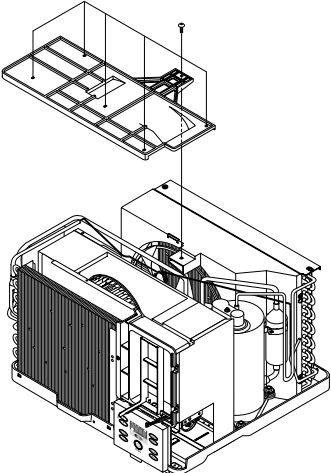
Condition of Refrigerant Cycle	Oil Condition		Remarks
	Color	Odor	
Normal	Straw Yellow	No Odor	Return with the system
Over-heated	Brown Color	-	Change the oil
Compressor Damage	Dark Brown	Pungent oil	Change the oil

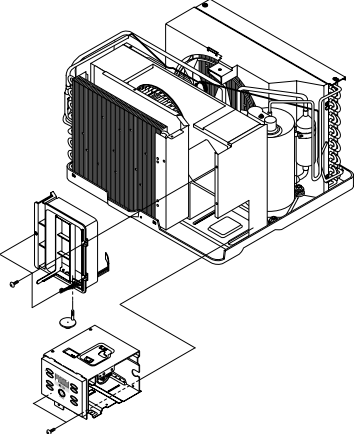
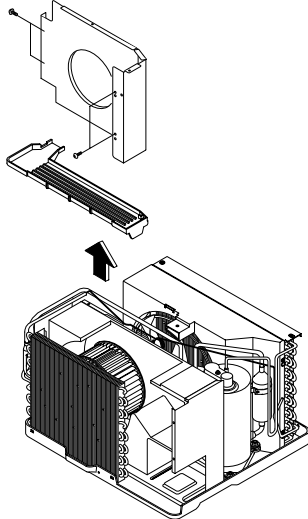
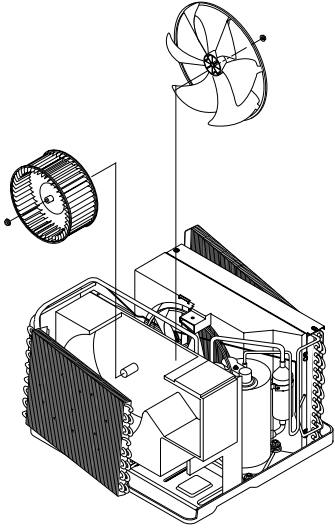
4-2-2 Replacing and refilling the refrigerant oil

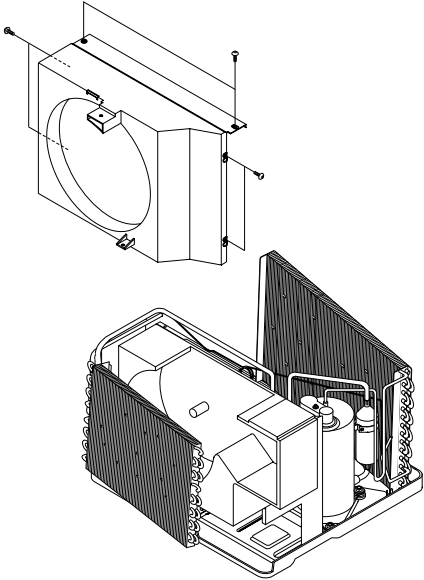
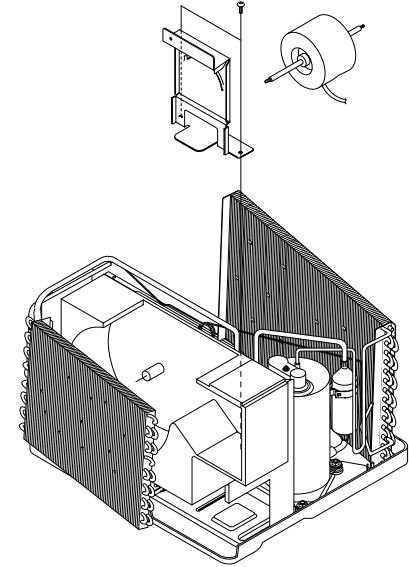
1. Change the compressor - DO NOT recharge the oil as the compressor itself is already charged.
2. Change the condenser add 50cc
3. Change the evaporator add 50cc
4. When the refrigerant is replaced add 30cc oil.
5. After vacuum is completed, the oil is filled through the high pressure side.
6. In the event of a refrigerant leak, generally it is not necessary to add oil.
(Unless the oil has leaked significantly.)

4-3 Disassembly and Reassembly Procedure (Type "A")

Stop operating the air conditioner, and pull out the power cord before repair.

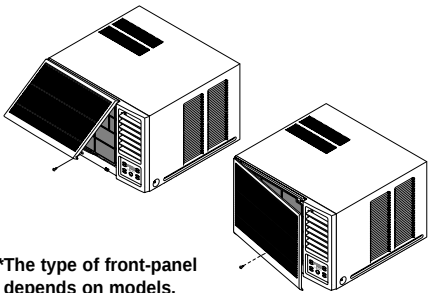
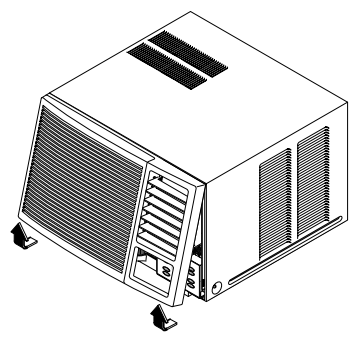
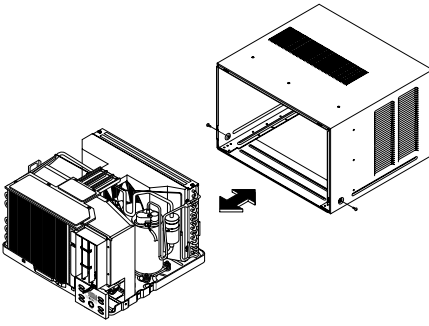
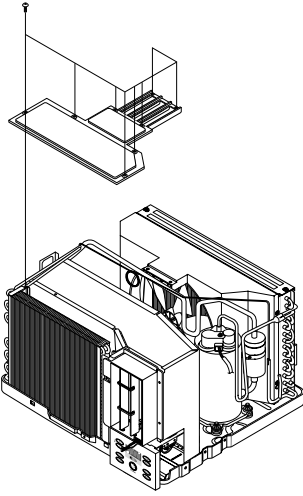
No.	Part name	Procedures	Remarks
①	Ass'y Grill	1. Pull the panel front and remove the screw on the grille. 2. Hold the lower part of grill with two hands while pressing down on both sides of the lower part of the cabinet, pull it forward by about 30, and the then lift it up for removal.	 
②	Ass'y Cabinet	1. Remove the two screws both side cabinet. 2. Pull the front both side, and remove the unit from the cabinet.	
③	Ass'y COVER EVAP	1. Remove 6 screws on the COVER EVAP. 2. Remove the COVER EVAP.	

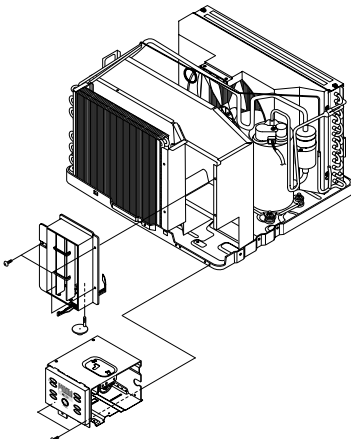
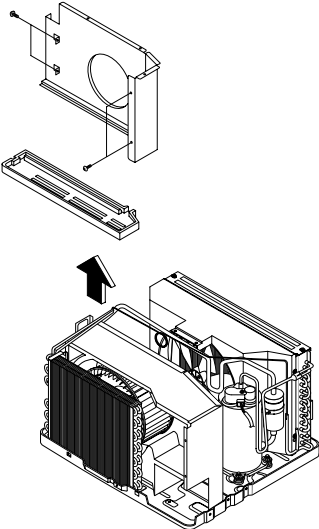
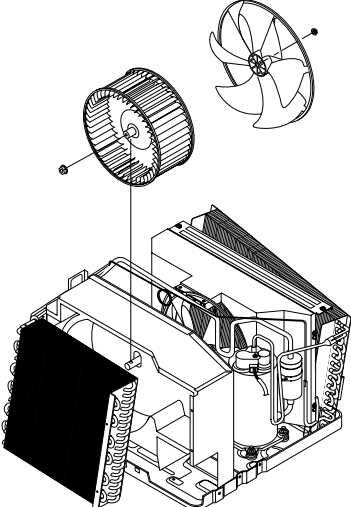
No.	Part name	Procedures	Remarks
④	Ass'y Control	1. Remove the blade V(and arm blade). 2. Remove 3 screws on the FRAME BLADE. 3. Remove the FRAME BLADE. 4. Remove 1 screw under the Base pan, and earth wire screw. 5. Remove two lead wire assemblies. 6. Take out the control box forward.	
⑤	PLATE EVAP CASING & TRAY DRAIN	1. Remove 2 screws on the front side. 2. Remove 4 screws on the left side. 3. Pull up the PLATE EVAP CASING and TRAY DRAIN.	
⑥	Blower & Propeller Fan	1. Remove 2 screws on the rear side (Base pan), and 7 screws on the case cond. 2. Pull up the CONDENSER from the Base pan. 3. Remove the nut, and remove the propeller fan. 4. Remove the nut, and remove the BLOWER.	

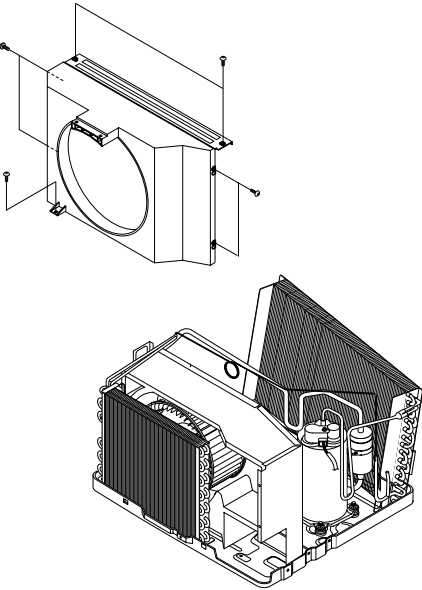
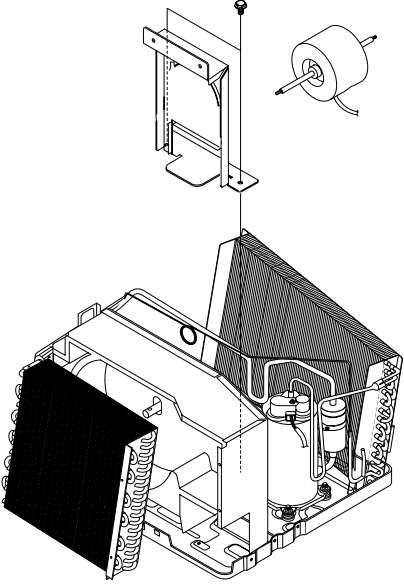
No.	Part name	Procedures	Remarks
⑦	CASE COND	1. Remove the CASE COND.	
⑧	Motor & the others parts	1. Remove 4 screws on the MOTOR, and remove the motor. 2. Remove 4 screws on the mouter motor, and remove the mouter motor. 3. Remove the CASE BLOWER. 4. Remove 4 screws on the PARTITION.	

Disassembly and Reassembly Procedure (Type “B”)

Stop operating the air conditioner, and pull out the power cord before repair.

No.	Part name	Procedures	Remarks
①	Ass'y Grill	1. Pull the grille air inlet and remove the screw on the grille. 2. Hold the lower part of the grill with two hands while pressing down on both sides of the lower part of the cabinet, pull it forward by about 30, and then lift it up for removal.	 
②	Ass'y Cabinet	1. Remove the screws on both sides of the cabinet to disconnect the cabinet and frame. 2. Pull the handle on the front side of the bottom, and remove the unit from the cabinet.	
③	COVER-EVAP	1. Remove the 8 screws on the COVER EVAP. 2. Remove the COVER EVAP.	

No.	Part name	Procedures	Remarks
④	Ass'y control	1. Remove the blade V(and arm blade). 2. Remove 4 screws on the FRAME BLADE. 3. Remove the FRAME BLADE. 4. Remove 2 screws under the BASE PAN, and earth wire screw. 5. Remove two lead wire assemblies. 6. Take out the control box forward.	
⑤	PLATE EVAP CASING & TRAY DRAIN	1. Remove 2 screws on the front side. 2. Remove 3 screws on the left side. 3. Remove 1 screw from the Base pan. 4. Pull up the PLATE EVAP CASING and TRAY DRAIN.	
⑥	Case Cond & Propeller Fan	1. Remove 2 screws on the rear side (Base pan), and 7 screws on the case cond. 2. Pull up the CONDENSER from the Base pan. 3. Remove the Nut, and remove the propeller fan. 4. Remove the Nut, and remove the BLOWER.	

No.	Part name	Procedures	Remarks
⑦	CASE COND	1. Remove the CASE COND.	
⑧	MOTOR & the others parts	1. Remove 4 screws on the MOTOR, and remove the motor. 2. Remove 4 bolts on the mounter motor, and remove the mounter motor. 3. Remove the CASE EVAP. 4. Remove 4 screws on the partition.	

5. Troubleshooting

Check the basic checkpoints first to determine whether it is machine trouble or a problem in the operation method. When it is not related to the basic checkpoints, perform checking in accordance with the procedures of troubleshooting by symptom.

5-1 Basic Checkpoints for Troubleshooting

- 1) Is the voltage of the power source appropriate ?
 - (1) It should be within the rating voltage $\pm 10\%$ range.
 - (2) The air conditioner may not operate properly when the voltage is out of this range.
- 2) Is the connection with the fan motor, compressor wire, and starting condenser appropriately made ?
- 3) The symptoms listed in the table below are not indicative of machine trouble.

Symptom	Cause and check
No operation	• Check whether there is power failure or the power plug is pulled out. • Check whether the unit is stopped as a result of completion of the sleep time. • Pull out the power plug for ten seconds, and then insert it again.
Air flows, but no cooling	• Check whether the Air filter is clogged with dust or is dirty. • Check whether the desired temperature is too high. Set the desired temperature to a lower level than the current temperature. • Check whether it is in "FAN" mode.
The remocon does not operate	• Check whether battery is completely depleted. • Check whether the battery is properly inserted. • Check whether the receiving window of the remocon for the assembly main PCB is blinded. • Check whether the remocon is affected by jamming due to a neon sign.
No temperature setting	• Check whether the unit is in "FAN" mode. (In "FAN" mode, only the current temperature is displayed, and the desired temperature is not set.)

✻ Checking and Display of Fault Area

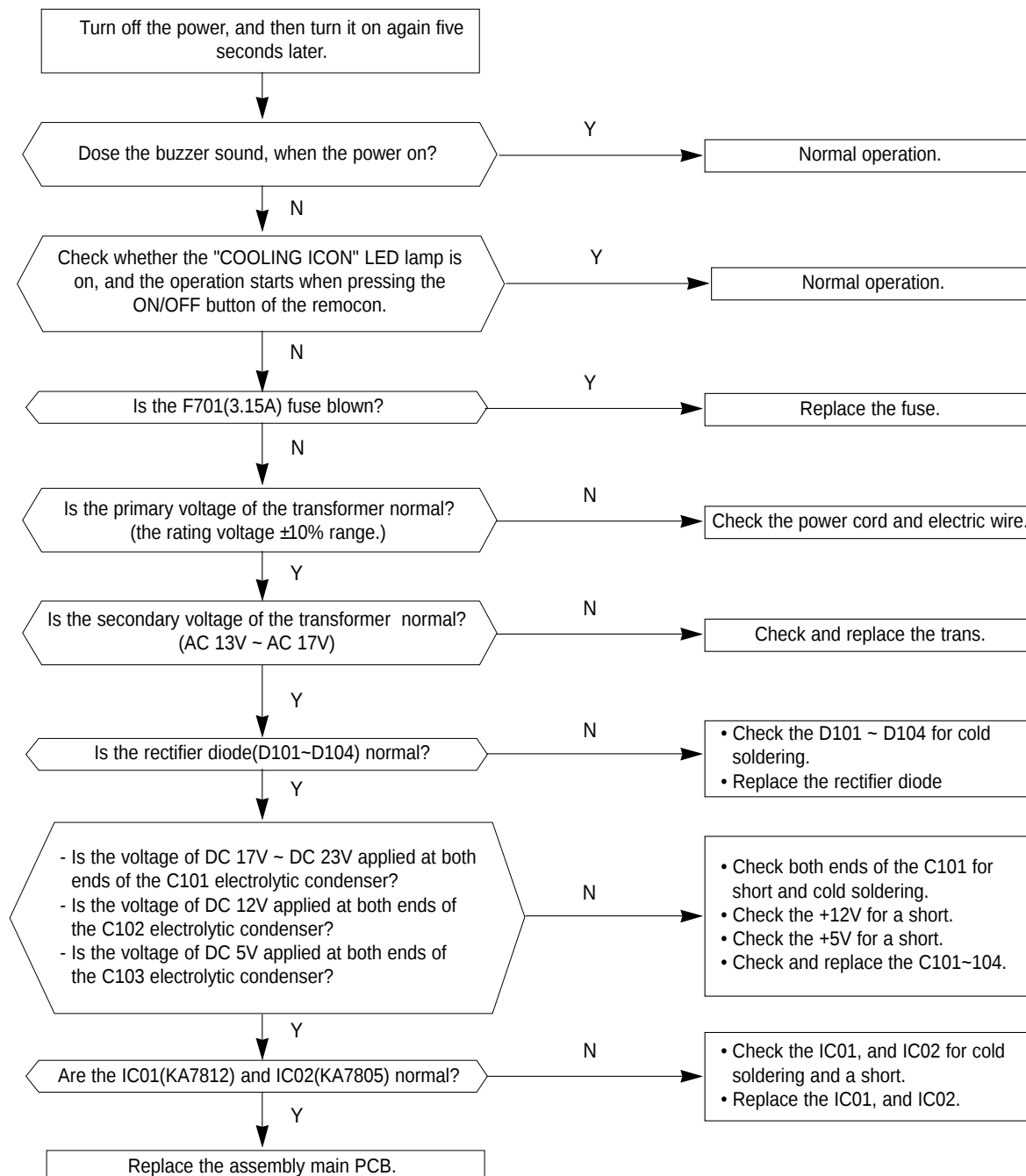
ERROR OPERATION	ERROR OPERATION
ROOM THERMISTOR (OPEN OR SHORT)	E1 displayed

5-2 Troubleshooting by Symptom

5-2-1 No power

1) Check points

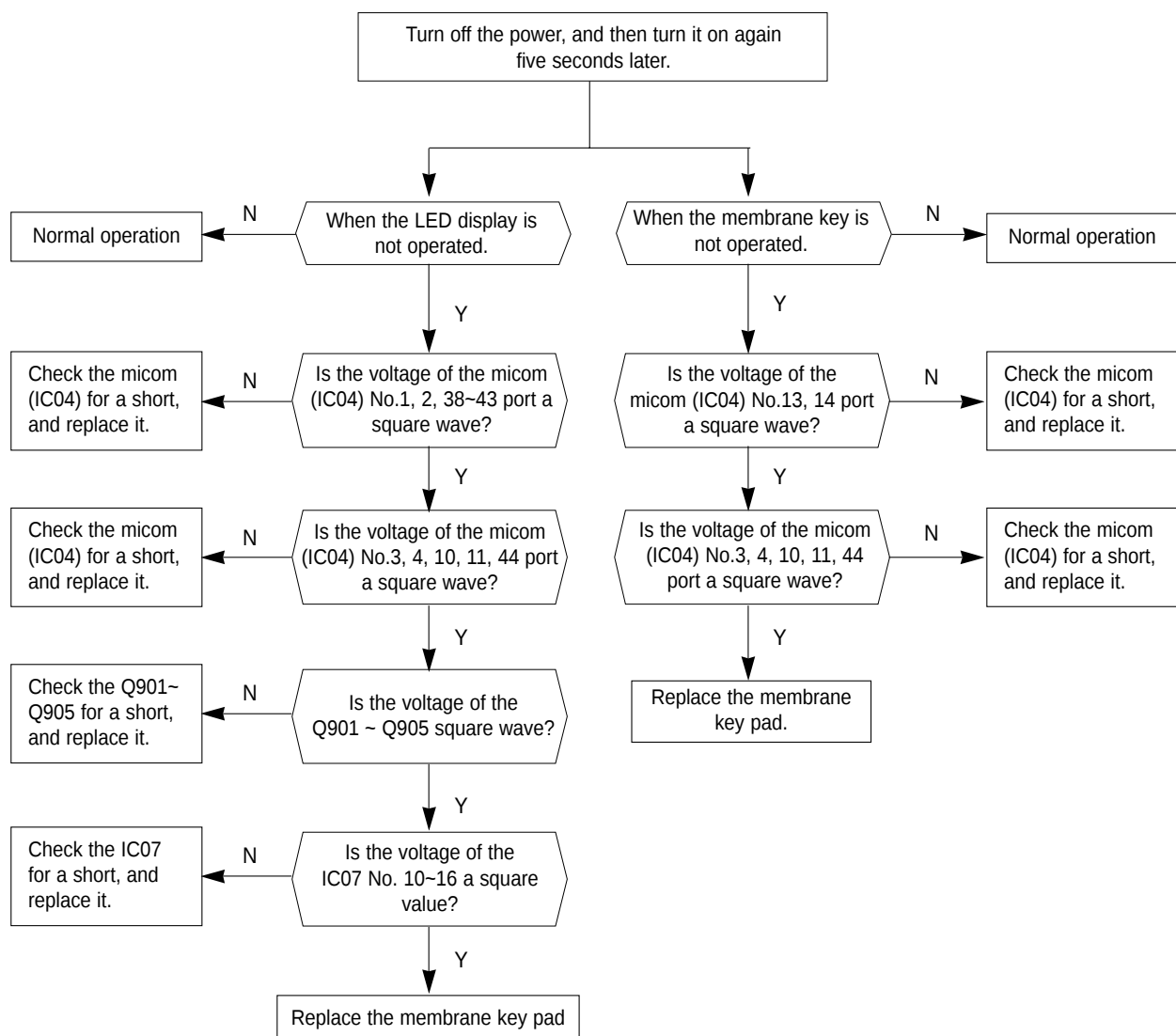
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ?(CN 71, RY 71)
- (3) Is the output voltage of the IC01(KA 7812) normal ?(DC 11.5V ~ DC 12.5V)
- (4) Is the output voltage of the IC02(KA 7805) normal ?(DC 4.5V ~ DC 5.5V)



5-2-2 When the Membrane Key pad and Led Display

1) Check points

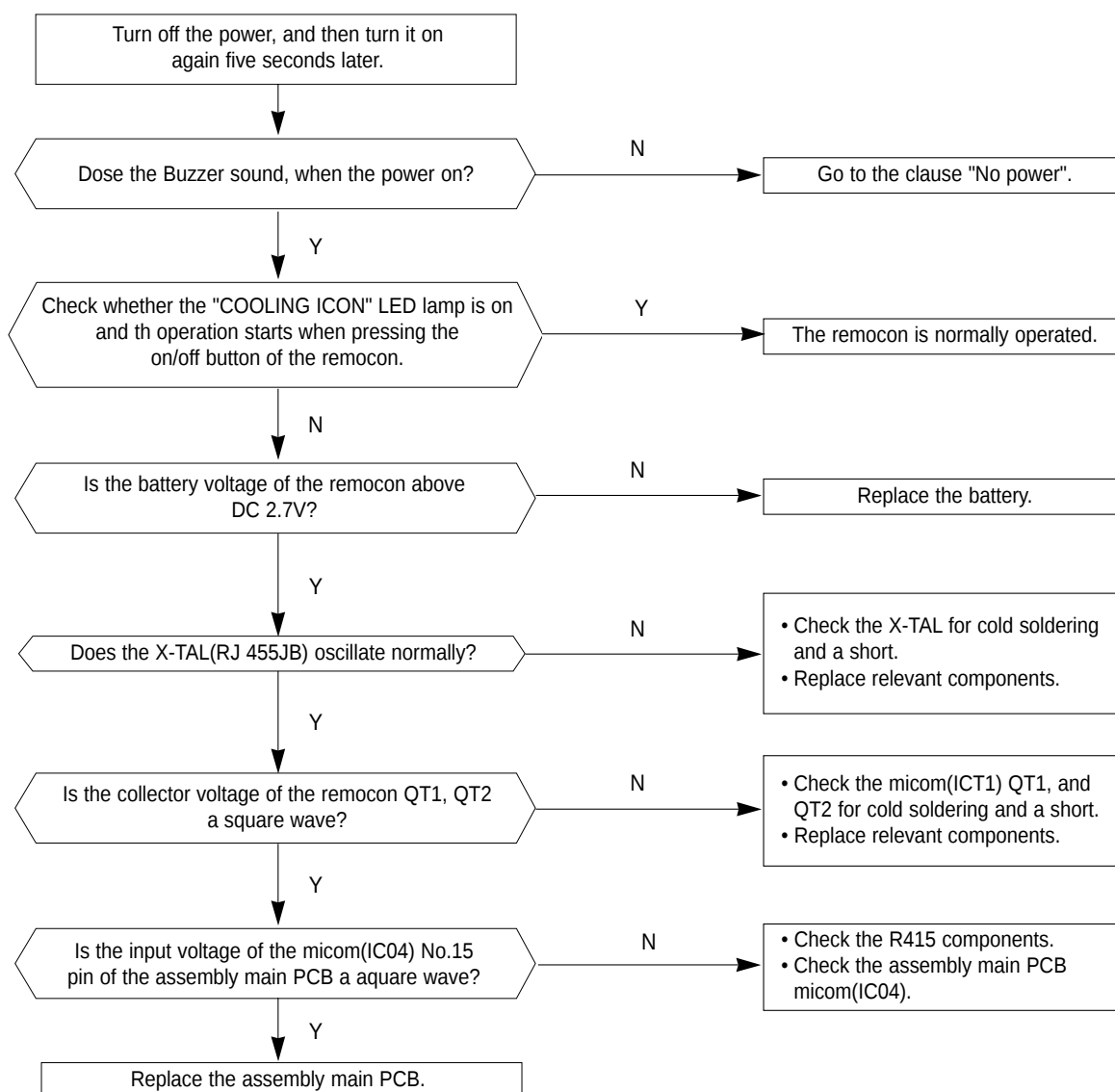
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ?(CN71, RY71)
- (3) Is the connection of the assembly main PCB, and MEMBRANE KEY PAD in good contact? (CN91)



5-2-3 When the remocon is not operated

1) Check points

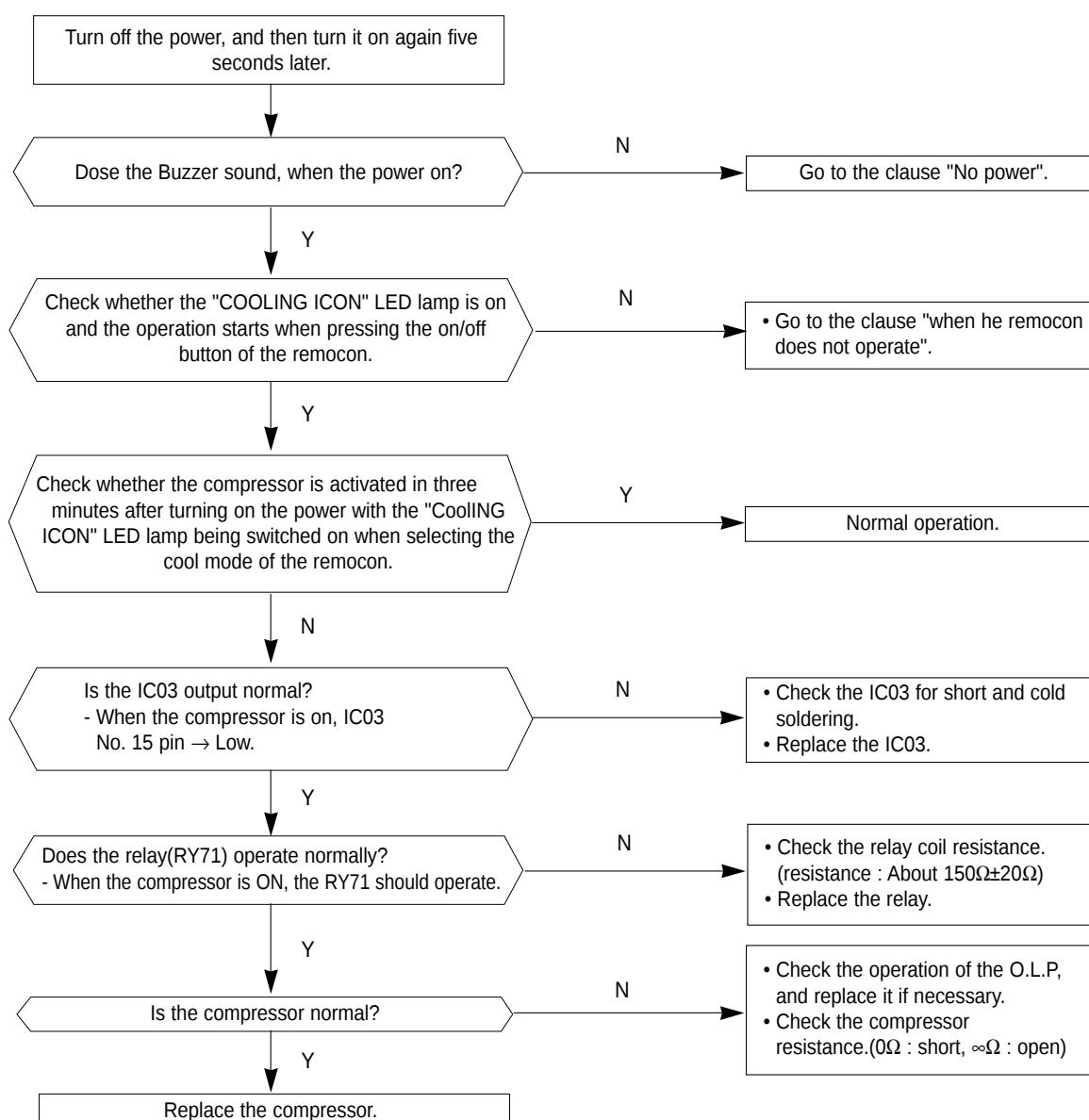
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ? (CN71, RY71)
- (3) Is the assembly main PCB in good contact with the MEMBRANE KEY PAD(CN91)
- (4) Is the battery voltage of the remocon above DC 2.7V?



5-2-4 When the compressor is not operated

1) Check points

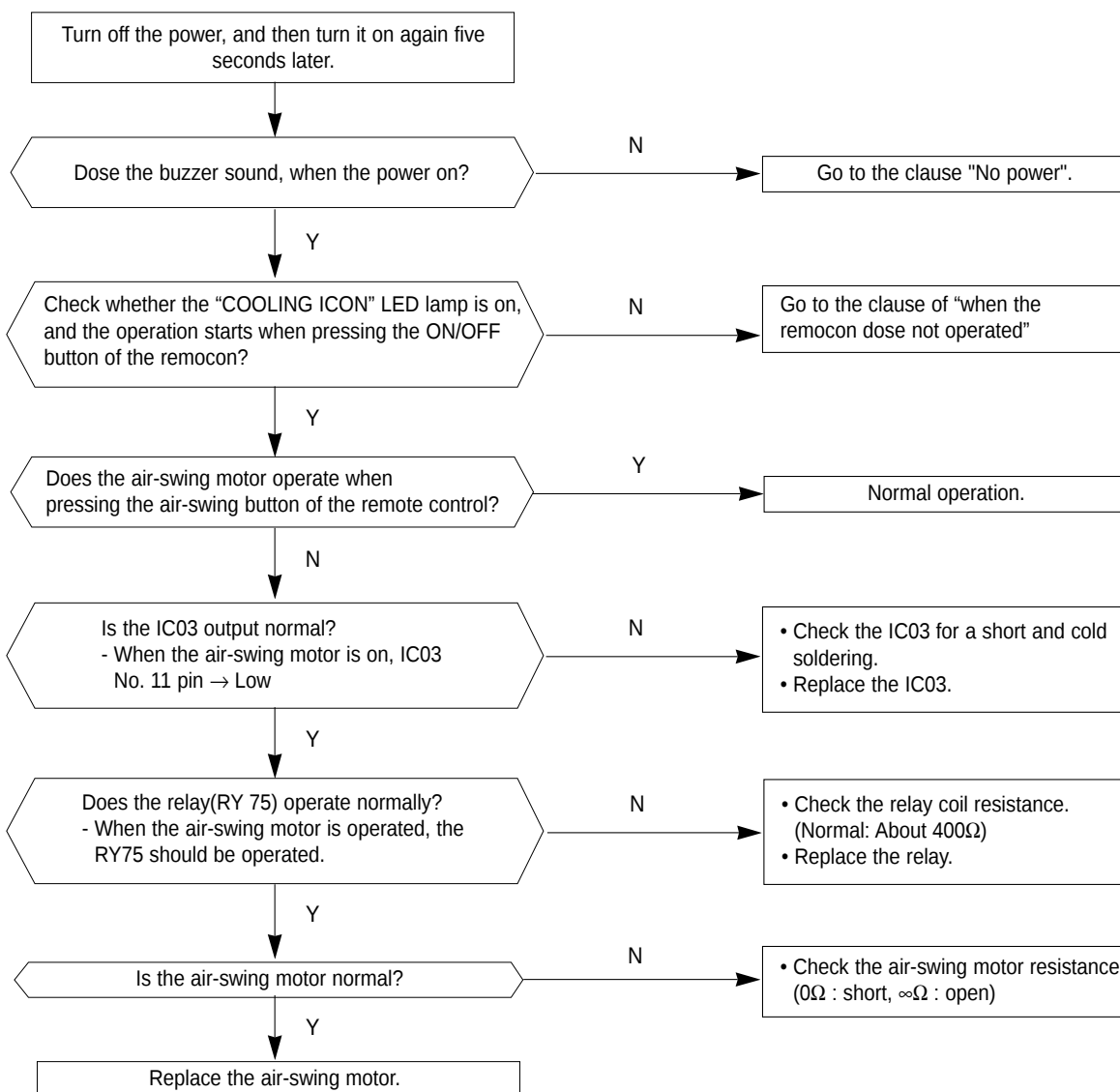
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the desired temperature lower than the indoor temperature in the "COOL" mode?
(Compressor stopped)
- (3) Is the starting condenser in good contact?
- (4) Is the electric wire in good contact ? (CN71, RY71)
- (5) Is the output voltage of the IC01(KA7812) and IC02(KA7805) normal ?



5-2-5 When the air swing motor is not operated

1) Check points

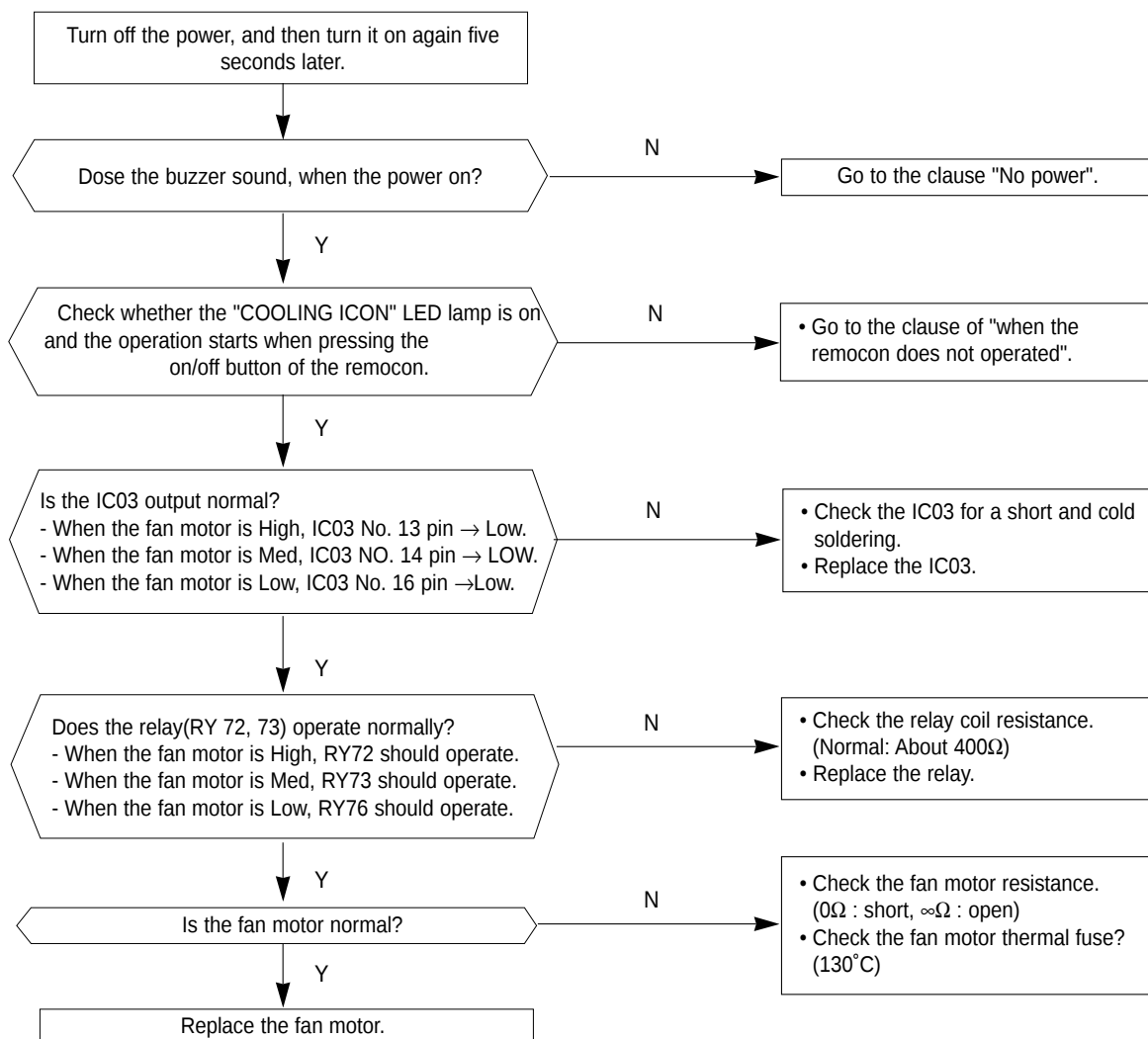
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ?(CN71, RY71)
- (3) Is the swing motor connector in good contact?(CN71)
- (4) Is the terminal connected to the swing motor in good contact?
- (5) Is the output voltage of the IC01(KA7812) and IC02(KA7805) normal?



5-2-6 When the fan motor does not operated

1) Check points

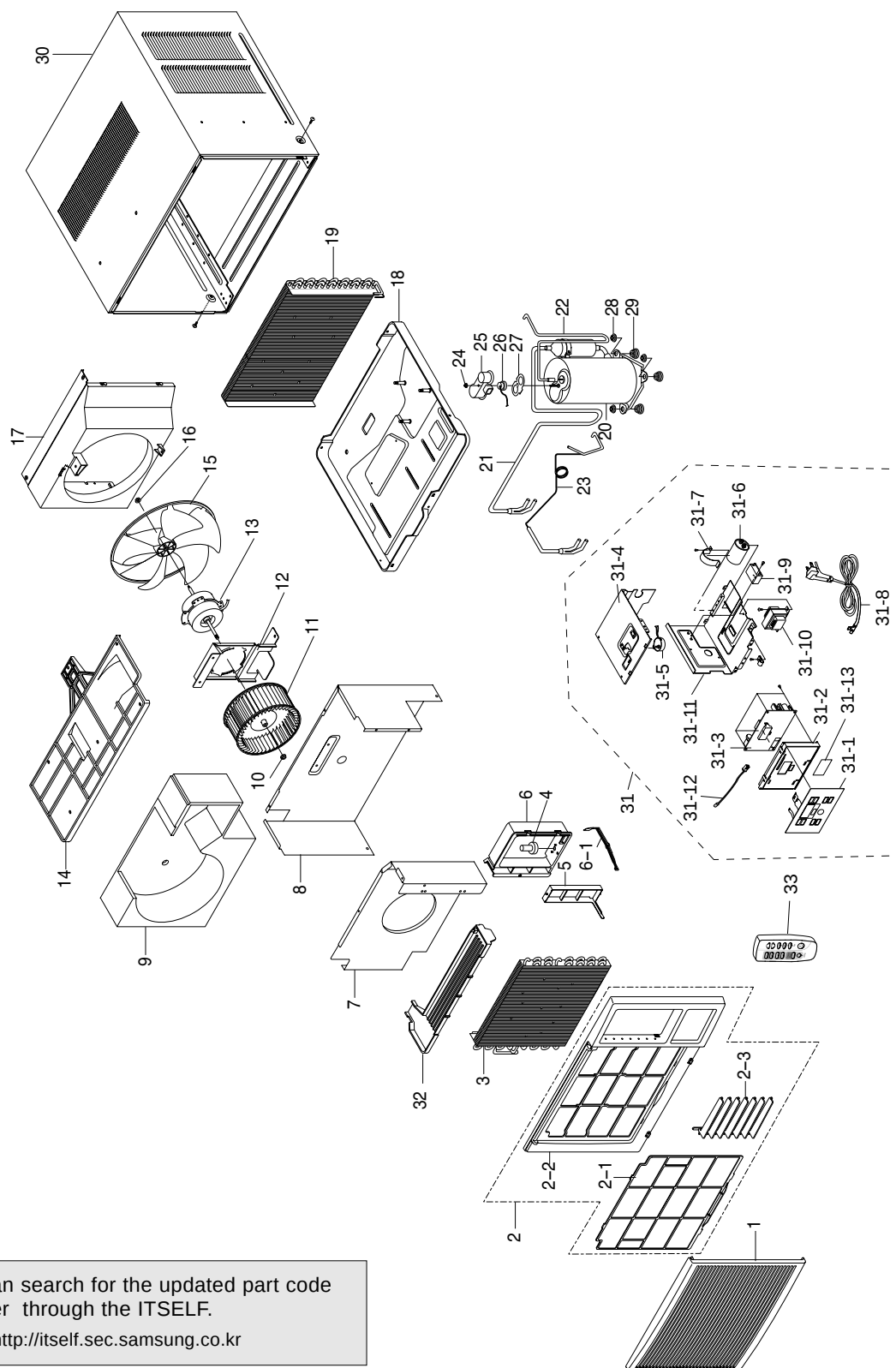
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ?(CN71, RY71)
- (3) Is the starting condenser(FAN MOTOR) in good contact?
- (4) Is the fan motor connector in good contact?(CN73)
- (5) Is the output voltage of the IC01(KA7812) and IC02(KA7805) normal ?



MEMO

6. Exploded View and Parts List

6-1 Main unit (Type "A")



You can search for the updated part code number through the ITSELF.
URL : <http://itself.sec.samsung.co.kr>

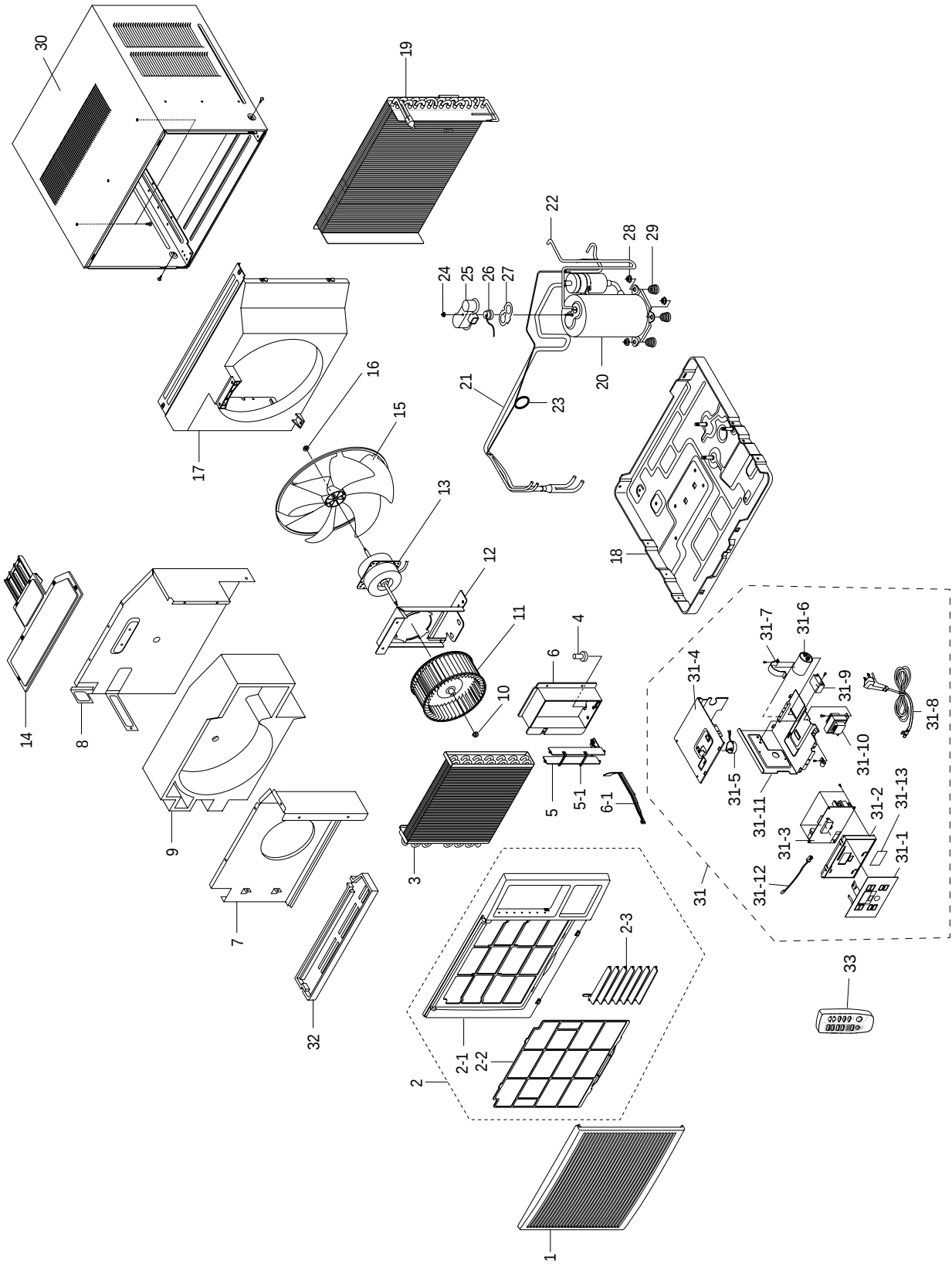
■ Part List (Type "A")

No	Description	Code No.	Specification	Q'ty			
				AW07FANBA	AW07GANBA	AW07FANEA	AW07GANEA
1	INLET GRILLE	DB92-00046C	HIPS, ASS'Y	1	-	1	-
		DB64-00014A	HIPS, SC-94445R	-	1	-	1
2	ASS'Y PANEL FRONT	DB92-00052A	F-TYPE, SC-94445R	1	-	1	-
		DB92-70096A	G-TYPE, SC-94445R	-	1	-	1
2-1	FILTER	DB64-00014A	G-TYPE, SC-94445R	-	1	-	1
2-2	PANEL-FRONT	DB64-70093A	G-TYPE, SC-94445R	-	1	-	1
		DB64-00167A	F-TYPE, SC-94445R	1	-	1	-
2-3	BLADE-H	DB66-00053A	F-TYPE, SC-94445R	1	-	1	-
		DB66-30191A	G-TYPE, SC-94445R	-	1	-	1
3	EVAPORATOR	DB96-00994A	2R x 14S, FP1.3	1	1	1	1
4	ARM BLADE	DB66-70031A	PS, BLK	1	1	1	1
5	BLADE-V	DB66-30211B	HIPS, SC-97525R	1	1	1	1
6	FRAME-BLADE	DB90-00508B	ASS'Y, SC-94445R	1	1	1	1
6-1	LEVER-DAMPER	DB66-70030A	HIPS, SC-94445R	1	1	1	1
7	PLATE-EVAP CASING	DB90-00604A	ASS'Y, SGCC-M	1	1	1	1
8	PLATE-PARTITION	DB90-00619A	ASS'Y, SGCC-M	1	1	1	1
9	CASE-BLOWER	DB61-00645A	EPS, WHT	1	1	1	1
10	NUT-FRANGE	DB60-30004A	M6, YEL	1	1	1	1
11	BLOWER	DB67-50078A	ABS 0D ø180	1	1	1	1
12	MOUNTNER MOTOR	DB61-00651A	SGCC-M, T1.0	1	1	1	1
13	MOTOR	DB31-00124B	IC-9630SWF6X	1	1	-	-
		DB31-00124C	IC-9430SWJ5C	-	-	1	1
14	ASS'Y-CASE EVAP	DB90-00539A	ASS'Y, PP	1	1	1	1
15	FAN PROPELLER	DB67-50077A	ABS, YEL	1	1	1	1
16	NUT-FRANGE	DB60-30020A	M6, LEFT	1	1	1	1
17	CASE-COND	DB90-00337A	PP, BLK	1	1	1	1
18	BASE	DB90-20212B	ASS'Y, SC-94445T	1	1	1	1
19	CONDENSER	DB96-00995A	2R x 15S, FP1.5	1	1	1	1
20	COMPRESSOR	44A072IW1EB	220V / 60Hz	1	1	-	-
		44A070JW1EB	240V / 50Hz	-	-	1	1
21	TUBE-SUCTION	DB96-00966A	0D 9.52	1	1	1	1
22	TUBE-DISCHARGE	DB62-00675A	0D 7.93	1	1	1	1
23	TUBE-CAPILLARY	DB96-00992A	ID ø1.3 x 900	1	1	1	1
24	NUT-FRANGE	DB60-30018A	M5, YEL	1	1	1	1
25	COVER TERMINAL	DB63-10026A	NORYL, BLK	1	1	1	1
26	O.L.P	DB47-20002J	MRA12043-12008	1	1	-	-
		DB47-20001Y	MST24AMN-12008	-	-	1	1
27	GASKET	DB63-20002A	RUBBER, T0.8	1	1	1	1
28	NUT WASHER	DB60-30028A	M8, ZPC	3	3	3	3
29	GROMET ISOLATOR	DB73-00070A	NR, 35°	3	3	3	3
30	ASS'Y-CABINET	DB90-00133M	ASS'Y	1	1	1	1
31	ASS'Y-CONTROL	DB93-01040A	220V / 60Hz	1	1	-	-
		DB93-00465U	240V / 50Hz	-	-	1	1
32	TRAY DRAIN	DB63-00274A	HIPS, T2	1	1	1	1
33	ASS'Y-REMOCON	DB93-00284K	ENGLISH, ARC-709	1	1	1	1

■ Part List (Type "A")

No	Description	Code No.	Specification	Q'ty			
				AW09FANBA	AW09GANBA	AW09FANEA	AW09GANEAE
1	INLET GRILLE	DB92-00046C	HIPS, ASS'Y	1	-	1	-
		DB64-00014A	HIPS, SC-94445R	-	1	-	1
2	ASS'Y PANEL FRONT	DB92-00052A	F-TYPE, SC-94445R	1	-	1	-
		DB92-70096A	G-TYPE, SC-94445R	-	1	-	1
2-1	FILTER	DB64-00014A	G-TYPE, SC-94445R	-	1	-	1
2-2	PANEL-FRONT	DB64-70093A	G-TYPE, SC-94445R	-	1	-	1
		DB64-00167A	F-TYPE, SC-94445R	1	-	1	-
2-3	BLADE-H	DB66-00053A	F-TYPE, SC-94445R	1	-	1	-
		DB66-30191A	G-TYPE, SC-94445R	-	1	-	1
3	EVAPORATOR	DB96-00994A	2R x 14S, FP1.3	1	1	1	1
4	ARM BLADE	DB66-70031A	PS, BLK	1	1	1	1
5	BLADE-V	DB66-30211B	HIPS, SC-97525R	1	1	1	1
6	FRAME-BLADE	DB90-00508B	ASS'Y, SC-94445R	1	1	1	1
6-1	LEVER-DAMPER	DB66-70030A	HIPS, SC-94445R	1	1	1	1
7	PLATE-EVAP CASING	DB90-00604A	ASS'Y, SGCC-M	1	1	1	1
8	PLATE-PARTITION	DB90-00619A	ASS'Y, SGCC-M	1	1	1	1
9	CASE-BLOWER	DB61-00645A	EPS, WHT	1	1	1	1
10	NUT-FRANGE	DB60-30004A	M6, YEL	1	1	1	1
11	BLOWER	DB67-50078A	ABS 0D ø180	1	1	1	1
12	MOUNTER MOTOR	DB61-00651A	SGCC-M, T1.0	1	1	1	1
13	MOTOR	DB31-00124B	IC-9630SWF6X	1	1	-	-
		DB31-00124C	IC-9430SWJ5C	-	-	1	1
14	ASS'Y-CASE EVAP	DB90-00539A	ASS'Y, PP	1	1	1	1
15	FAN PROPELLER	DB67-50077A	ABS, YEL	1	1	1	1
16	NUT-FRANGE	DB60-30020A	M6, LEFT	1	1	1	1
17	CASE-COND	DB90-00337A	PP, BLK	1	1	1	1
18	BASE	DB90-20212B	ASS'Y, SC-94445T	1	1	1	1
19	CONDENSER	DB96-01027A	3R x 15S, FP1.5	1	1	1	1
20	COMPRESSOR	44A092IU1EF	220V / 60Hz	1	1	-	-
		44A092JU2EF	240V / 50Hz	-	-	1	1
21	TUBE-SUCTION	DB96-01370A	0D 9.52	1	1	1	1
22	TUBE-DISCHARGE	DB62-00826A	0D 7.93	1	1	1	1
23	TUBE-CAPILLARY	DB96-001375A	ID ø1.42 x 1100	1	1	1	1
24	NUT-FRANGE	DB60-30018A	M5, YEL	1	1	1	1
25	COVER TERMINAL	DB63-10026A	NORYL, BLK	1	1	1	1
26	O.L.P	DB47-20002A	MRA12032-12008	1	1	-	-
		DB47-20057R	MRA12054-12008	-	-	1	1
27	GASKET	DB63-20002A	RUBBER, T0.8	1	1	1	1
28	NUT WASHER	DB60-30028A	M8, ZPC	3	3	3	3
29	GROMET ISOLATOR	DB73-00070A	NR, 35°	3	3	3	3
30	ASS'Y-CABINET	DB90-00133M	ASS'Y	1	1	1	1
31	ASS'Y-CONTROL	DB93-00465G	220V / 60Hz	1	1	-	-
		DB93-01040C	240V / 50Hz	-	-	1	1
32	TRAY DRAIN	DB63-00274A	HIPS, T2	1	1	1	1
33	ASS'Y REMOCON	DB93-00284K	ENGLISH, ARC-709	1	1	1	1

6-2 Main unit (Type “B”)



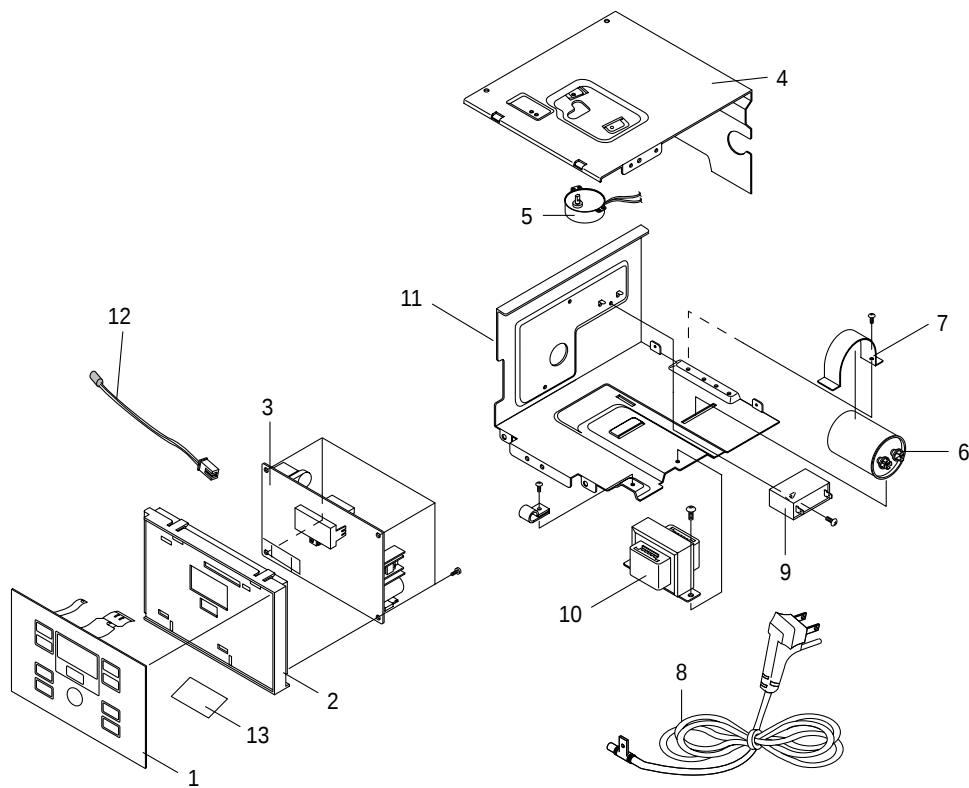
■ Part List (Type "B")

No	Description	Code No.	Specification	Q'ty							
				AW12FADBA	AW12FBDBA	AW10FADBA	AW12FADEA	AW12FADAA	AW12FBDA	AW12GADEA	AW12FADBB
1	INLET GRILLE	DB92-00071A	HIPS,SC-94445R	1	1	1	1	1	1	-	1
		DB64-00012A	HIPS,SC-94445R	-	-	-	-	-	-	1	-
2	ASS'Y-PANEL FRONT	DB92-00072A	ASS'Y,SC-94445R	1	1	1	1	1	1	-	1
		DB92-10319C	ASS'Y,SC-94445R	-	-	-	-	-	-	1	-
2-1	FILTER	DB63-30142A	HIPS,SC-94445R	-	-	-	-	-	-	1	-
2-2	PANEL-FRONT	DB64-70080A	HIPS,SC-94445R	-	-	-	-	-	-	1	-
		DB64-00168A	HIPS,SC-94445R	1	1	1	1	1	1	-	1
2-3	BLADE-H	DB66-00049A	PP,SC-94445R	1	1	1	1	1	1	-	1
		DB66-30169A	PP,SC-94445R	-	-	-	-	-	-	1	-
3	EVAPORATOR	DB96-01002A	3R*16S, F.P1.2	1	1	-	1	1	1	1	1
		DB96-00978A	2R*14S, OD9.52	-	-	1	-	-	-	-	-
4	ARM BLADE	DB66-70022D	PS,T2	1	1	1	1	1	1	1	1
5	BLADE-V	DB66-30170A	PP,SC-97525R	1	1	1	1	1	1	1	1
6	FRAME-BLADE	DB90-00510A	ASS'Y,SC-94445R	1	1	1	1	1	1	1	1
6-1	LEVER DAMPER	DB66-70024A	HIPS,SC-94445R	1	1	1	1	1	1	1	1
7	PLATE-EVAP CASING	DB71-00074A	SGCC-M,T0.7	1	1	1	1	1	1	1	1
8	PLATE-PARTITION	DB90-00647B	SGCC-M,T0.7	1	1	1	1	1	1	1	1
9	CASE EVAP	DB61-00649A	30FOAM-PS	1	1	1	1	1	1	1	1
10	NUT FRANGE	DB60-30020A	M6, LEFT	1	1	1	1	1	1	1	1
11	BLOWER	DB67-50073A	ABS, OD180	1	1	-	1	1	1	1	1
		DB67-50078A	ABS, SPS	-	-	1	-	-	-	-	1
12	MOUNTER MOTOR	DB61-00650A	SGCC-M,T1.2	1	1	1	1	1	1	1	1
13	MOTOR	DB31-00122B	YGN60-6D	1	1	-	-	-	-	-	-
		DB31-00122C	YFK-70-6C	-	-	-	1	-	-	1	-
		DB31-00122A	YGN60-6B	-	-	-	-	1	1	-	-
		DB31-00122D	YFK-70-6E	-	-	1	-	-	-	-	1
14	ASS'Y-COVER EVAP	DB90-00511A	ASSY,PP	1	1	1	1	1	1	1	1
15	FAN PROPELLER	DB67-00139A	ABS+G/F, NTR	1	1	1	1	1	1	1	1
16	NUT FRANGE	DB60-30004A	M6, WHT	1	1	1	1	1	1	1	1
17	CASE COND	DB61-00647A	PP,T2	1	1	1	1	1	1	1	1
18	BASE PAN	DB90-00514C	44 FRAME	1	1	1	-	1	1	-	1
		DB90-00514B	48 FRAME	-	-	-	1	-	-	1	-
19	CONDENSER	DB90-00979A	3R*17S, F.P1.5	1	1	-	-	1	-	-	1
		DB96-00982A	2R*17S, F.P1.5	-	-	1	1	-	-	1	-
		DB96-00979B	2R*17S, F.P1.5	-	-	-	-	-	1	-	-
20	COMPRESSOR	44B124IX1EL	208/230V, 60Hz	1	1	-	-	-	-	-	1
		44B102IU1EL	208/230V, 60Hz	-	-	1	-	-	-	-	-
		44B124HX1EL	115V, 60Hz	-	-	-	-	1	1	-	-
		48A124JV1EL	208/230V, 50Hz	-	-	-	1	-	-	1	-
21	TUBE-SUCTION	DB62-00684A	OD12.7	1	1	-	1	1	1	1	1
		DB96-01444A	OD9.52	-	-	1	-	-	-	-	-
22	TUBE-DISCHARGE	DB62-00327A	OD9.52	1	1	1	1	1	1	1	1
23	TUBE-CAPILLARY	DB96-01009A	ID1.7xL1000x1	1	1	-	-	-	-	-	-
		DB96-01010A	ID1.7xL1100x1	-	-	-	1	-	-	1	1
		DB62-00687A	ID1.7xL900x1	-	-	-	-	1	1	-	-
		DB96-01501A	ID1.2x1000x2	-	-	1	-	-	-	-	-

■ Part List (Type "B")

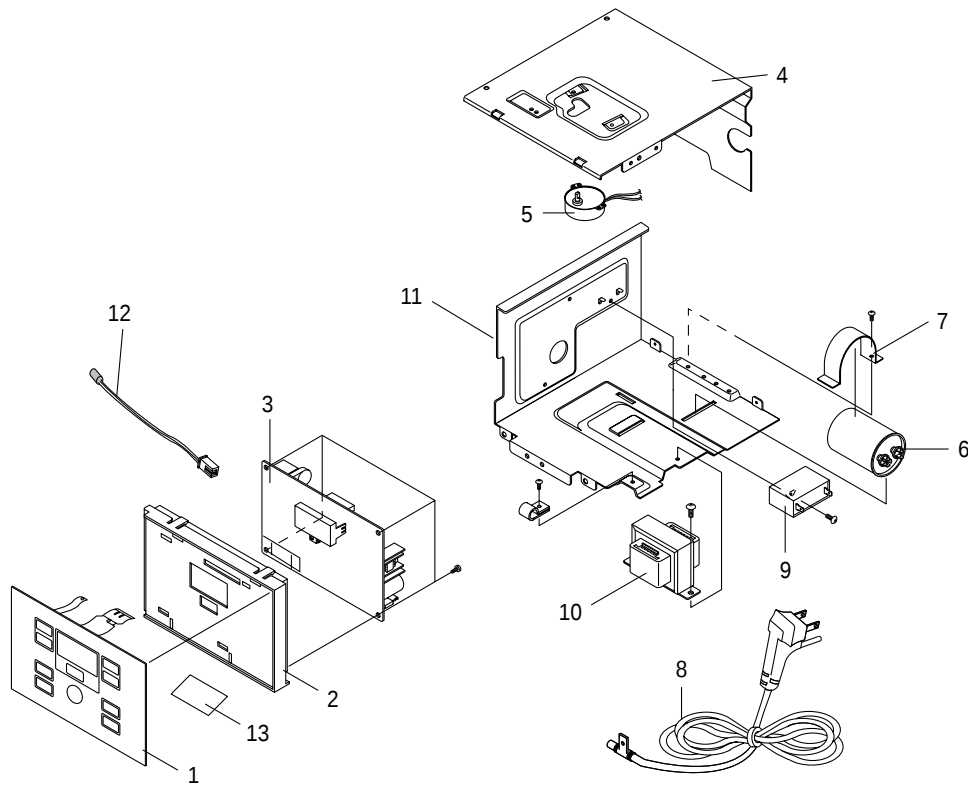
No	Description	Code No.	Specification	Q'ty							
				AW12FADBA	AW12FBDDBA	AW10FADBA	AW12FADEA	AW12FADAA	AW12FBDAA	AW12GADEA	AW12FADBB
24	NUT FRANGE	DB60-30018A	M5	1	1	1	1	1	1	1	1
25	COVER TERMINAL	DB63-10026A	NORYL,BLK	1	1	1	1	1	1	1	1
26	OLP	DB35-00004Z	MRA12070-12007	1	1	-	-	-	-	-	1
		DB47-20001Z	MRA12030-12008	-	-	-	1	-	-	1	-
		DB47-20001U	MRA98693-12007	-	-	-	-	1	1	-	-
		DB35-00015M	RAC12049-9622	-	-	1	-	-	-	-	-
		DB63-20002A	RUBBER,BLK	1	1	1	1	1	1	1	1
27	GASKET	DB63-20002A	RUBBER,BLK	1	1	1	1	1	1	1	1
28	NUT WASHER	DB60-30028A	M8,ZPC	3	3	3	3	3	3	3	3
29	GROMET ISOLATOR	DB73-00070A	NR, BLK	3	3	3	3	3	3	3	3
30	ASS'Y CABINET	DB90-00364A	ASS'Y, SC-9445T	1	1	1	1	1	1	1	1
31	ASS'Y CONTROL	DB93-00674B	TANDEM, 220V/60Hz	1	-	-	-	-	-	-	-
		DB93-00674H	TANDEM, 220V/60Hz	-	-	1	-	-	-	-	-
		DB93-01047B	BF3, 220/240V, 50Hz	-	-	-	1	-	-	1	-
		DB93-01047A	115V, 60Hz	-	-	-	-	1	-	-	-
		DB93-00694U	115V, 60Hz	-	-	-	-	-	1	-	-
		DB93-00674Q	220V/60Hz	-	-	-	-	-	-	-	1
		DB93-00674T	220V/60Hz	-	1	-	-	-	-	-	-
		DB63-00276A	30FOAM-PS	1	1	1	1	1	1	1	1
32	TRAY DRAIN	DB63-00276A	30FOAM-PS	1	1	1	1	1	1	1	1
33	ASS'Y-REMOCON	DB93-00284K	ARC-709	1	1	1	1	1	1	1	1

6-3 Ass'y Control



■ Part List (Type "A")

No	Description	Code No.	Specification	Q'TY			
				AW07FANBA AW07GANBA	AW07FANEA AW07GANEAE	AW09FANBA AW09GANBA	AW09FANEA AW09GANEAE
0	ASS'Y-CONTROL	DB93-01040A	220V/60Hz	1	-	-	-
		DB93-00465U	220-240/50Hz	-	1	-	-
		DB93-00465G	220V/60Hz	-	-	1	-
		DB93-01040C	220-240V/50Hz	-	-	-	1
1	SWITCH MEMBRANE	DB34-00015B	99*134.5, PC	1	-	-	-
		DB34-00013B	99*134.5, PC	-	1	1	1
2	PANEL CONTROL	DB64-00259A	HIPS, T2.0	1	1	1	1
3	ASS'Y-MAIN PCB	DB93-00407B	COOLING	1	1	1	1
4	CASE-CONTROL, UP	DB61-00419A	SGCC-M, T0.7	1	1	1	1
5	SWING MOTOR	DB31-00084B	AC240V	1	1	1	1
6	CAPACITOR(C-OIL)	2501-001225	20uF, 450V	-	-	1	-
		2501-001226	25uF, 450V	1	1	-	-
		2501-001237	35uF, 450V	-	-	-	1
7	CLIP-CAPACITOR	DB61-10008B	SGCC-M, T0.8	1	1	1	1
8	POWER CORD	DB39-00342A	TANDEM TAIWAN	1	-	-	-
		DB39-00344A	TANDEM, 250V	-	-	1	-
		DB39-00455B	BF-3, 250V/13A	-	1	-	1
9	CAPACITOR(C-FILM)	2301-001370	2.5uF, 450V	1	1	-	-
		2301-001369	3.0uF, 450V	-	-	1	1
10	TRANSFORMER	DB26-00006A	230V, 50/60Hz	1	1	1	1
11	CASE-CONTROL, LOW	DB61-00417A	SGCC-M, T0.7	1	1	1	1
12	THERMISTOR	DB32-10051B	10K/25, 103AT	1	1	1	1
13	WINDOW REMOCON	DB64-00321A	MTN-G2	1	1	1	1

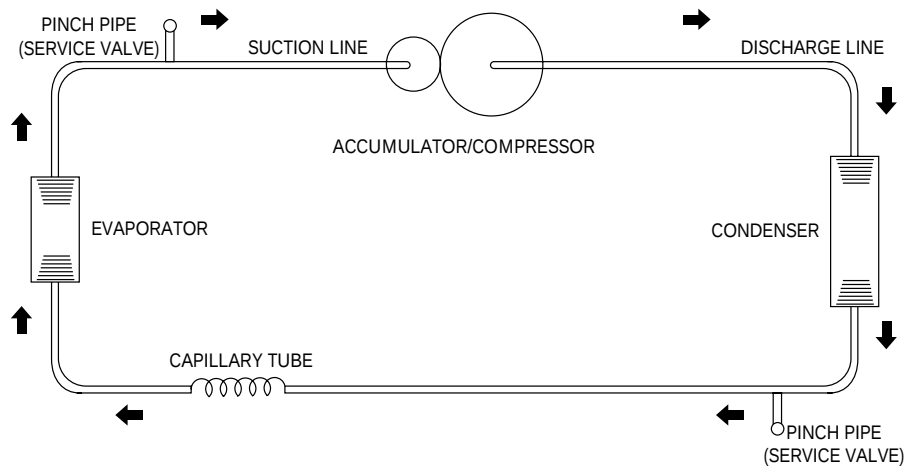


Part List (Type "B")

No	Description	Code No.	Specification	Q'TY						
				AW12FADBA	AW12FBDBA	AW10FADBA	AW12FADEA AW12GADEA	AW12FADAA	AW12FBDA A	AW12FADBB
0	ASS'Y-CONTROL	DB93-00674B	220V/60Hz	1	-	-	-	-	-	-
		DB93-00674H	220V/60Hz	-	-	1	-	-	-	-
		DB93-01047B	220-240V/50Hz	-	-	-	1	-	-	-
		DB93-01047A	115V/60Hz	-	-	-	-	1	-	-
		DB93-00674Q	220V/60Hz	-	-	-	-	-	-	1
		DB93-00674T	220V/60Hz	-	1	-	-	-	-	-
		DB93-00674U	115V/60Hz	-	-	-	-	-	1	-
1	SWITCH MEMBRANE	DB34-00013B	99*134.5, PC	1	-	-	1	1	-	-
		DB34-00015B	99*134.5, PC	-	-	1	-	-	-	1
		DB34-00026A	99*134.5, PE	-	1	-	-	-	1	-
2	PANEL CONTROL	DB64-00259A	HIPS, T2.0	1	1	1	1	1	1	1
3	ASS'Y-MAIN PCB	DB93-00407B	COOLING	1	-	1	1	1	-	1
		DB93-00407G	COOLING	-	1	-	-	-	1	-
4	CASE-CONTROL, UP	DB61-00421A	SGCC-M, T0.7	1	1	1	1	1	1	1
5	SWING MOTOR	DB31-00084A	AC120V	-	-	-	-	1	1	-
		DB31-00084B	AC240V	1	1	1	1	-	-	1
6	CAPACITOR(C-OIL)	2501-001234	20uF, 450V	-	-	1	-	-	-	-
		2501-001236	30uF, 450V	1	1	-	1	-	-	1
		2501-001231	50uF, 450V	-	-	-	-	1	1	-
7	CLIP-CAPACITOR	DB61-10008B	SGCC-M, T0.8	1	1	1	1	1	1	1
8	POWER CORD	DB39-00342A	TANDEM TAIWAN	-	-	1	-	-	-	1
		DB39-00344A	TANDEM, 250V	1	1	-	-	-	-	-
		DB39-00455B	BF-3, 250V/13A	-	-	-	1	-	-	-
		DB39-00343B	BF-3, 250V/13A	-	-	-	-	1	1	-
9	CAPACITOR(C-FILM)	2301-001378	3.5uF, 450V	1	1	1	-	-	-	-
		2301-001574	3.5uF, 450V	-	-	-	1	-	-	-
		2301-001452	15uF, 250V	-	-	-	-	1	1	-
		2301-001369	3.0uF, 450V	-	-	-	-	-	-	1
10	TRANSFORMER	DB26-00006B	125V, 60/50Hz	-	-	-	-	1	-	-
		DB26-00006A	230V, 50/60Hz	1	-	1	1	-	-	1
		DB26-00006E	230V, 50/60Hz	-	1	-	-	-	-	-
		DB26-00006F	230V, 50/60Hz	-	-	-	-	-	1	-
11	CASE-CONTROL, LOW	DB61-00417A	SGCC-M, T0.7	1	1	1	1	1	1	1
12	THERMISTOR	DB32-10051B	10K/25, 103AT	1	-	1	1	1	-	1
		DB32-10051E	10K/25	-	1	-	-	-	1	-
13	WINDOW REMOCON	DB64-00321A	MTN-G2	1	1	1	1	1	1	1

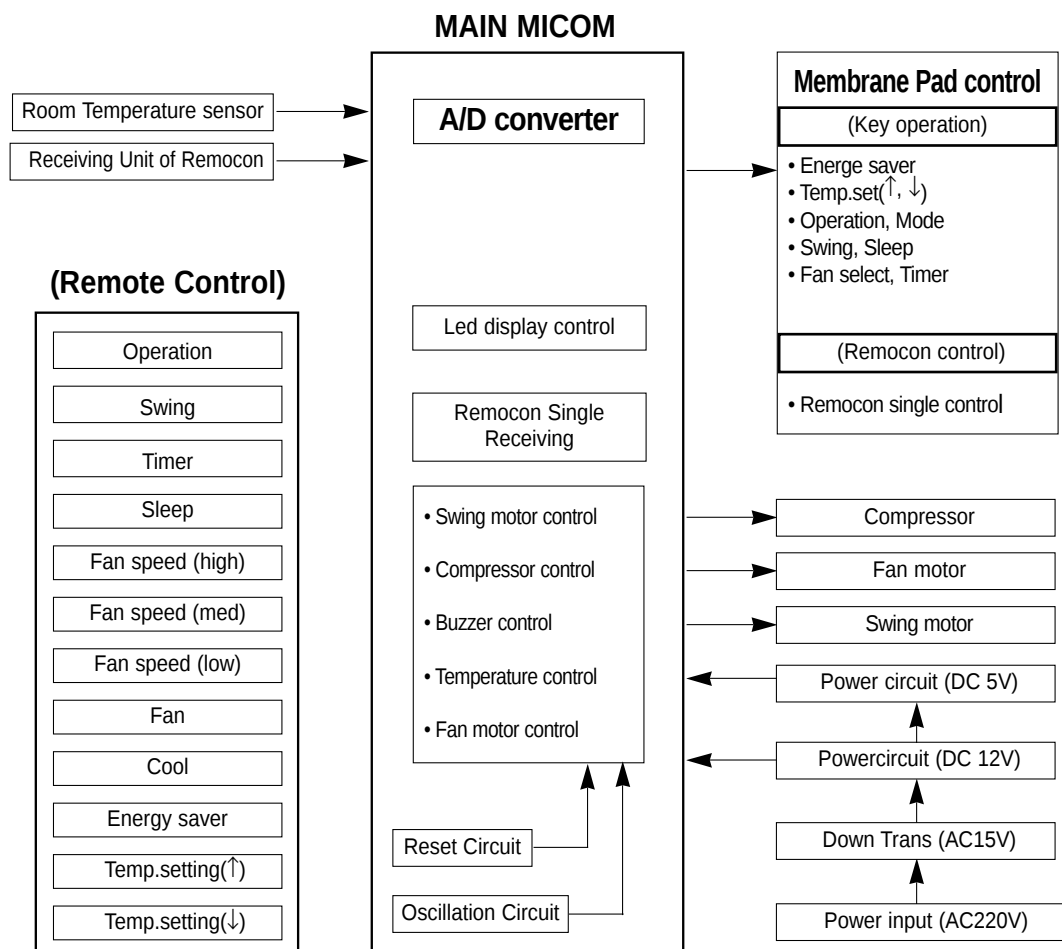
7. Block Diagram

7-1 Refrigerating Cycle Block Diagram



7-2 Basic Structure

7-2-1 Micom Control Diagram



7-2-2 Micom pin assignment

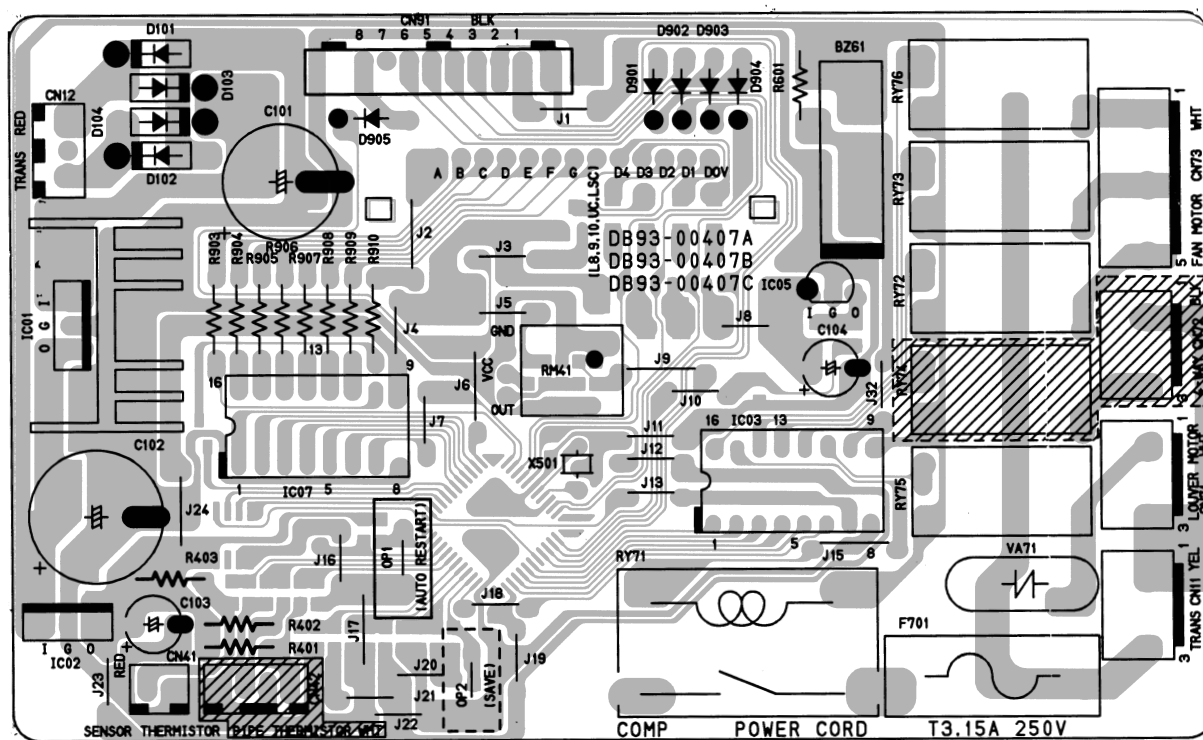
KS88C4716					
SEG-DATA(c)	1	P0.1	P4.4	44	GRID5
SEG-DATA(b)	2	P0.0	P0.2	43	SEG-DATA(d)
GRID4	3	P4.3	P0.3	42	SEG-DATA(e)
GRID3	4	P4.2	P0.4	41	SEG-DATA(f)
Vcc	5	VDD	P0.5	40	SEG-DATA(g)
Vss	6	VSS	P0.6	39	SEG-DATA(h)
10MHz RESONATOR	7	Xout	P0.7	38	SEG-DATA(a)
10MHz RESONATOR	8	Xin	P1.0	37	EEPROM CLK
TEST	9	TEST	P1.1	36	EEPROM IN
GRID2	10	P4.1	P1.2	35	EEPROM OUT
GRDI1	11	P4.0	P1.3	34	BUZZER
RESET IC OUTPUT	12	RESET	P1.4	33	OPTION
KEY-IN1	13	P2.0	P1.5	32	JIG OUTPUT
KEY-IN2	14	P2.1	P3.7	31	OPTION
REMOCON	15	P2.2	P3.6	30	SENSOR THERMIS-
EEPROM CS	16	P2.3	P3.5	29	TOR(103AT)
LOW FAN	17	P2.4	P3.4	28	OPTION
COMPERSOR	18	P2.5	P3.3	27	OPTION
MIDDLE FAN	19	P2.6	P3.2	26	OPTION
HIGH FAN	20	P2.7	P3.1	25	OPTION
4-WAY VALVE	21	P4.5	P3.0	24	SAVE OPTION
Vcc	22	AVref	AVss	23	SWING MOTOR
					GND

MEMO

8. PCB Diagram

8-1 ASS'Y Main PCB

- DB93-00407B(I)
DB93-00407G(II)



■ Part List

No	Code No.	Description	Specification	I	II	Remarks
1	-	DIODE-RECTIFIER	1T4	4	4	D101~D104
2	1405-000147	VARISTOR	470V 4500A	1	1	VA71
3	DE13-20017A	IC-DRIVE	KID65003AP	2	2	IC03, IC07
4	DE13-20009A	IC	KA7533Z	1	1	IC05
5	DE13-20016A	IC-VOLT REGU	KA7805A	1	1	IC02
6	DE13-20008A	IC-VOLT REGU	KA7812A	1	1	IC01
7	DE60-10100A	SCREW TAPPING	PH-3 L6	1	1	
8	DE62-30031A	HEAT SINK	A6063 L23.5 W30	1	1	
9	-	C-AL	2200μF 25V	1	1	C102
10	-	C-AL	1000μF 35V	1	1	C101
11	-	C-AL	100μF 10V	1	1	C103
12	-	C-AL	22μF 16V	1	1	C104
13	-	CONNECTOR WAFER	YW396-03AV YEL	1	1	CN11
14	-	CONNECTOR WAFER	YW396-03AV WHT	1	1	CN71
15	3711-003407	CONNECTOR WAFER	YW396-05AV WHT	1	1	CN73
16	-	CONNECTOR WAFER	JSW250-02 RED	1	1	CN41
17	-	CONNECTOR WAFER	JSW250-03 RED	1	1	CN12
18	DE32-10037A	FUSE	250V 3.15A	1	1	F701
19	-	FUSE HOLDER	FB 58 20MM	1	1	F701
20	DE30-20016A	BUZZER	CSB2220BA	1	1	BZ61
21	2001-001172	R-CARBON	620 OHM 1/2W	1	1	R601
22	-	REMOCON MODULE	KSM713TE5	1	1	RM41
23	-	CONNECTOR WAFER	FCZ254-08S	1	1	CN91
24	-	JUMPER WIRE	PI0.6 52MM	24	24	J1~J13, J15~J24, J32
25	-	JUMPER WIRE	PI0.6 52MM	1	0	OP01
26	-	JUMPER WIRE	3216 TYPE	7	7	J25~J31
27	-	PCB-MAIN	FR-1 81.5*134.5	1	1	
28	-	R-CARBON	RD 1/4W 180-J	8	8	R903~R910
29	-	R-CARBON(2012)	MCR10 330-J	5	5	R404~R406, R415, R902
31	-	R-CARBON(2012)	MCR10 10K-J	10	10	R301, R407, R408, R410~R414, R501, R901(R411)
32	2004-001137	R-CARBON	RD 1/8W 6.8K-F	1	1	R403
33	2004-000218	R-CARBON	RD 1/8W 10K-F	2	2	R401, R402
34	-	R-CARBON(2012)	MCR10 1K-J	2	1	R201, R202
35	-	R-CARBON(2012)	MCR 100K-J	1	1	R409
36	-	C-CERAMIC(2012)	MCR21 2F 104Z	9	9	C105, C106, C401~C406, C410
37	-	C-CERAMIC(2012)	MCR21 2F 223Z	4	4	C501, C502, C601, C901
38	-	C-CERAMIC(2012)	MCR21 2F 101Z	1	1	C407
39	-	C-CERAMIC(2012)	MCR21 2F 102Z	3	3	C408, C409, C902
40	-	TRANSISTOR	KRA226S	5	5	Q901~Q905
41	-	TRANSISTOR	KRC246S	1	1	Q906
42	-	DIODE-SWITCHING(SMALL)	1N4148	5	5	D901~D905
43	DB09-00091A	IC-MCU	KS88C4716	1	1	IC04
44	3501-001058	RELAY-POWER	ID 1U	1	1	RY71
45	2802-000103	CERAMIC RESONATOR	10MHz	1	1	X501
46	DB07-00010A	LED DISPLAY	ELF-316GWB	1	1	
47	3501-000399	RELAY	JQ1A 12V	4	4	RY72, 73, 75, 76
48	-	R-CARBON	MCR10 4.7K-J	0	0	R411
49	-	IC-MASK ROM	P93LC56B	0	1	IC06

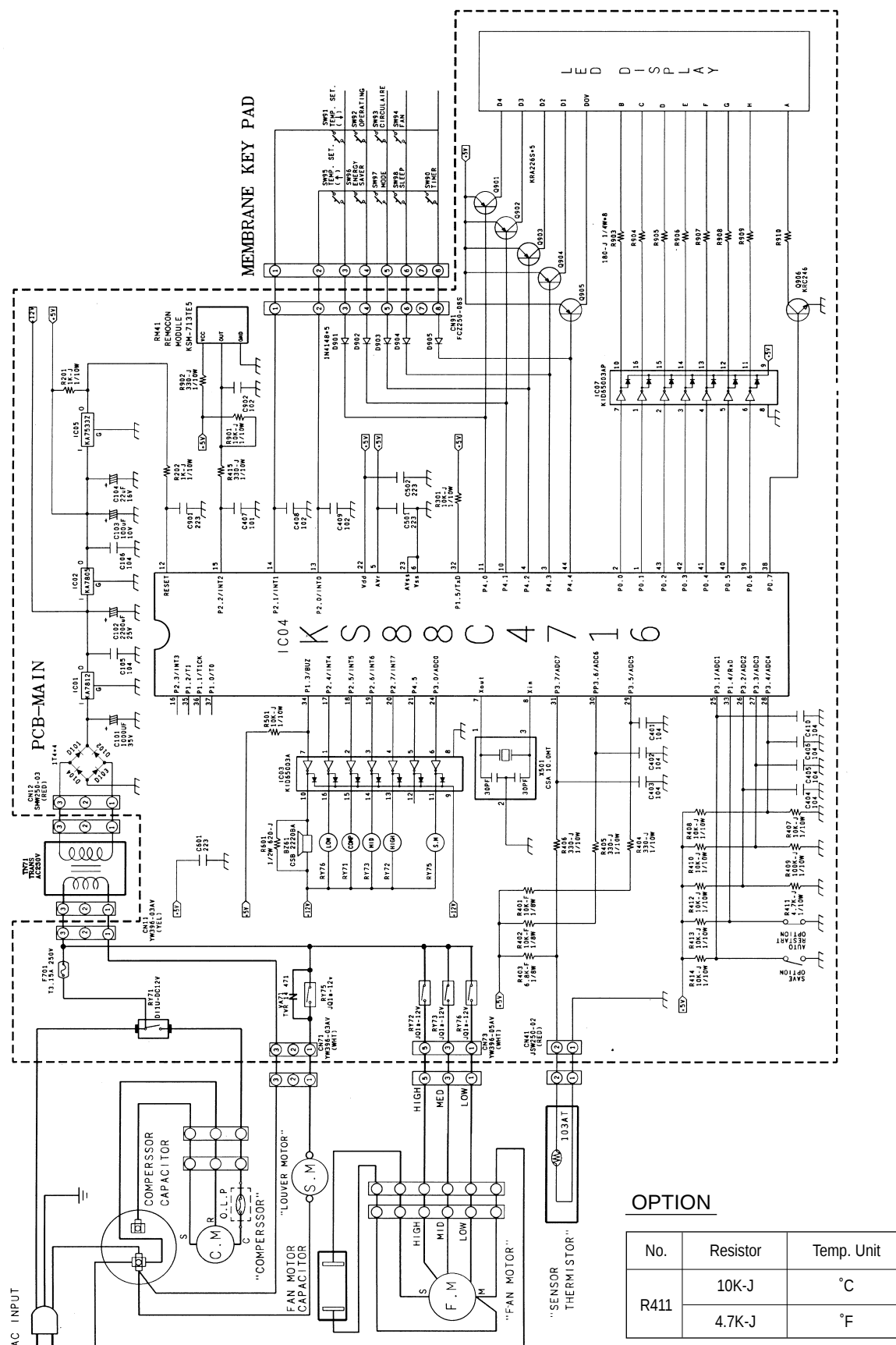
MEMO

9. Wiring Diagram



10. Schematic Diagrams

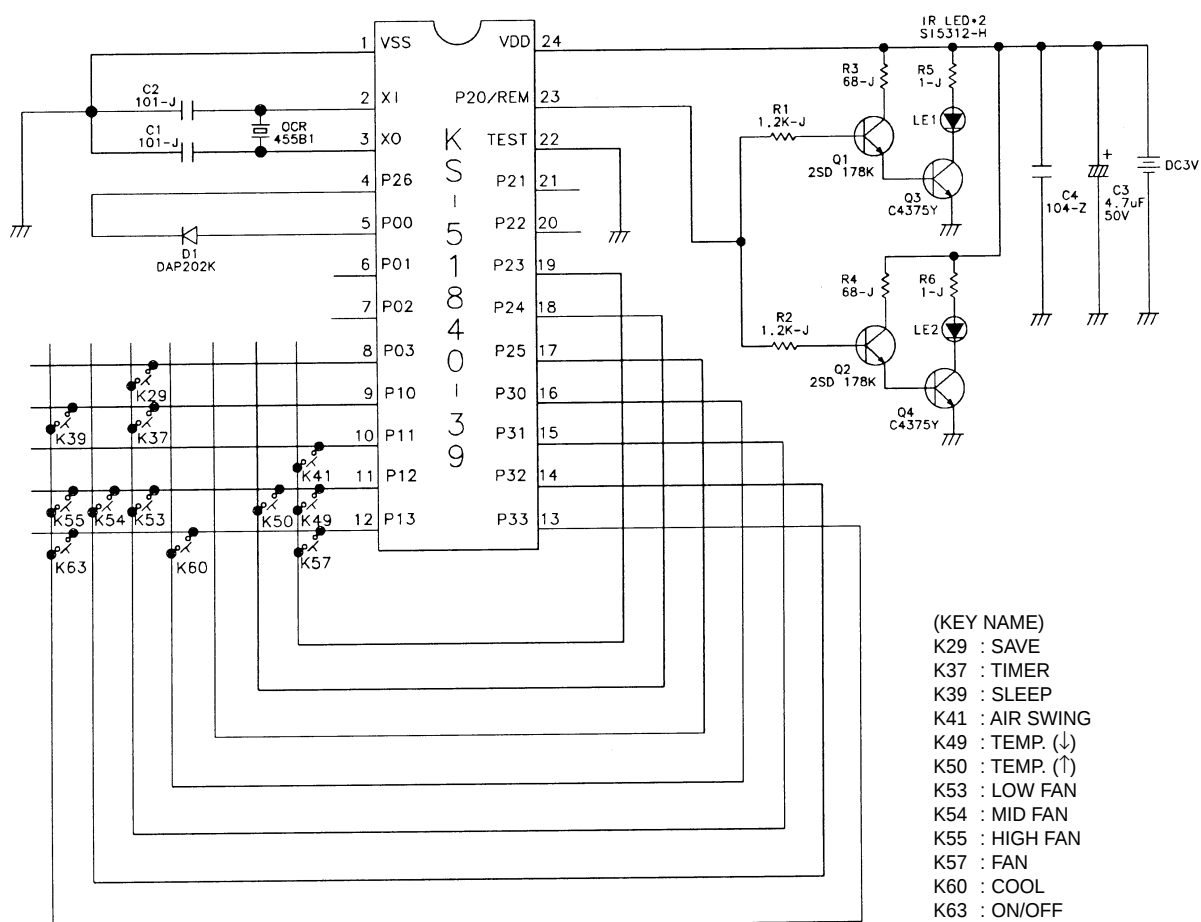
10-1 Main PCB



OPTION

No.	Resistor	Temp. Unit
R411	10K-J	°C
	4.7K-J	°F

Samsung Electronics



UPDATE LOG SHEET				
Application date	Page	Part#	Note(Cause & Solution)	S/Bulletin#

Use this page to keep any special servicing information. (Service Bulletin, etc.)

If only parts number changes, Just change parts number directly on parts list.

And if you need more information, please see the service website.

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