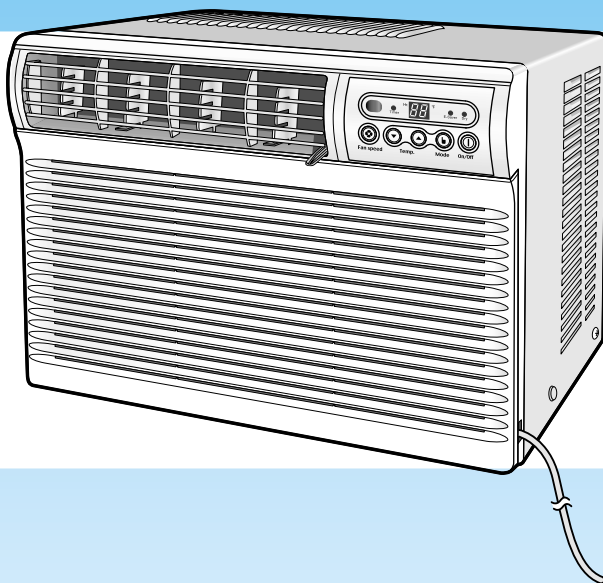


SERVICE *Manual*

AIR CONDITIONER**CONTENTS**

1. Precautions
2. Product Specifications
3. Installation and Operating Instructions
4. Disassembly and Reassembly
5. Troubleshooting
6. Exploded Views and Parts List
7. Block Diagram
8. PCB Diagram
9. Wiring Diagram
10. Schematic Diagram

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.**

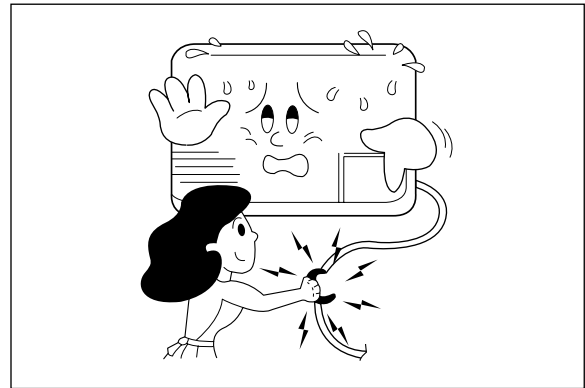


Fig. 1-1 Avoid Dangerous Contact

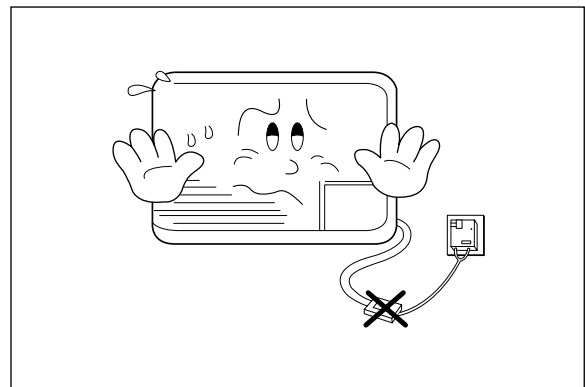


Fig. 1-2 No Tapping and No Extension Cords

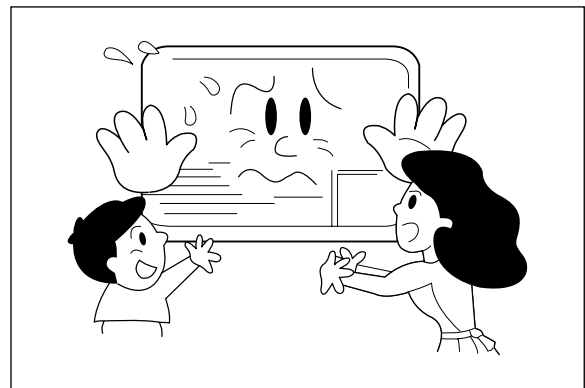


Fig. 1-3 No Kids Nearby!

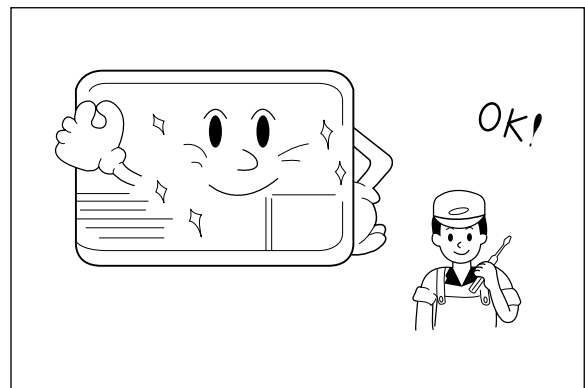


Fig. 1-4 Clean the Unit

2.Product Specifications

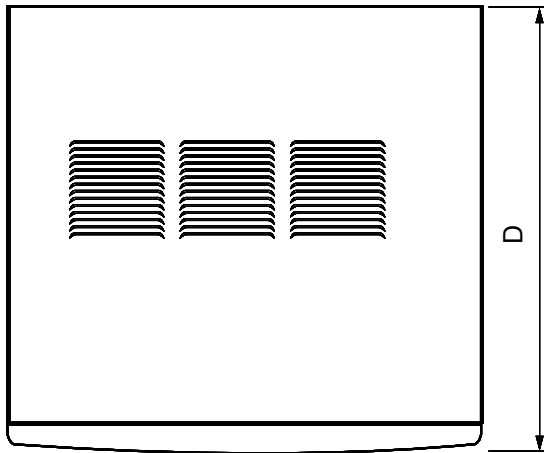
2-1 Table

Item	Unit of Measure	SP06A10	SP08A10	SP10A10	SP12A10
Type		WINDOW			
Dimension: (Width×Height×Depth)	mm	520×345×485		600×394×595	
Voltage	Volt	115			
Phase	-	SINGLE			
Frequency	Hz	60			
Operation Current	A	5.4	6.6	9.3	10.5
Power Consumption	W	610	740	1000	1170
Refrigerant Type	FREON	R22			
Refrigerant Change	g	300	470	450	635
Capacity	BTU/h	6500	8000	10800	12600
EER	BTU/h.W	10.8	10.8	10.8	10.8
Net Weight	Kg	26	29	43	45
Condenser	Row	2×15	3×15	2×17	3×17
Condenser Fan	Type	Propeller Fan			
Evaporator	Row	2×11	2×11	2×12	2×10
Evaporator Fan	Type	Blower			
Fan Motor	MODEL	YSLA-40-6-0002	YSLA-40-6-0003	YGN60-6B	YGN60-6B
Compressor(Rotary)	MODEL	39A062HS1EA	44A076HU1EB	44B098HX1EF	44B117HX1EL
Overload Protect	-	MRA12146-120 08	MRA12083-120 08	MRA12132-12007	MRA12053-12007
Compressor Capacitor	μ F/VAC	40/370	35/370	45/370	50/370
Fan Motor Capacitor	μ F/VAC	8/450	8/450	15/250	15/250
Fan Speed	RPM	920/850/800	1050/1010/970	890/850/800	890/860/750
Thermo Control	-	THERMISTOR			

MEMO

2-2 Dimensions

2-2-1 Main Unit

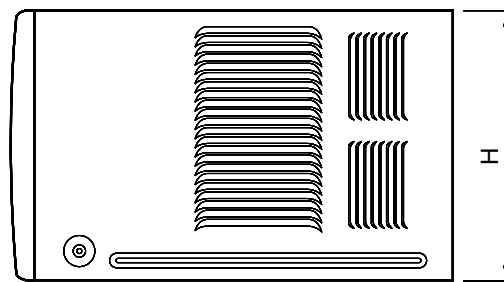
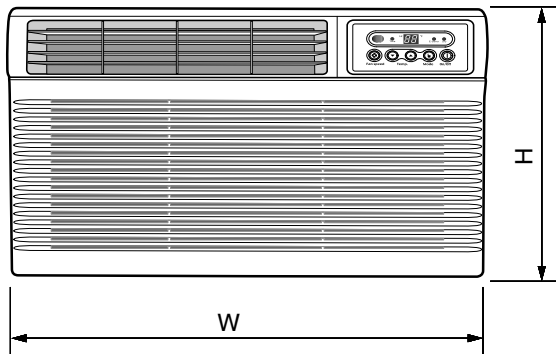


(Unit : mm)

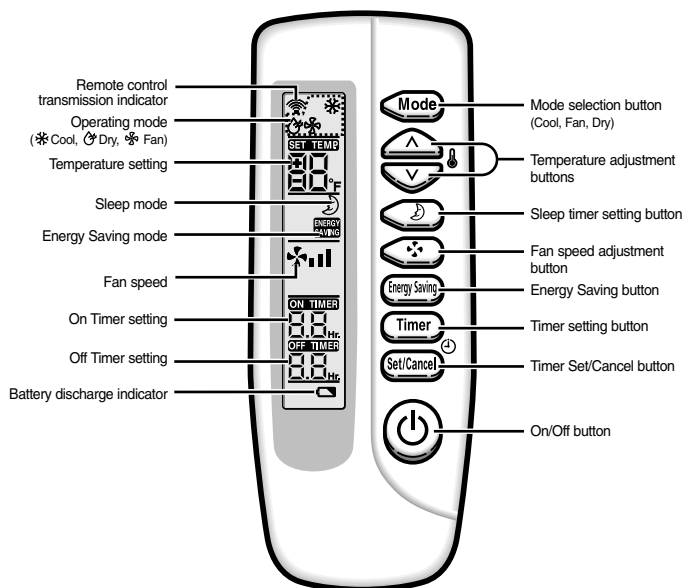
MODEL	W	H	D
SP06A10	520	345	485
SP08A10			
SP10A10	600	394	595
SP12A10			

Front view

Side view



2-2-2 Remote Control



3. Installation and Operating Instructions

3-1 Installation

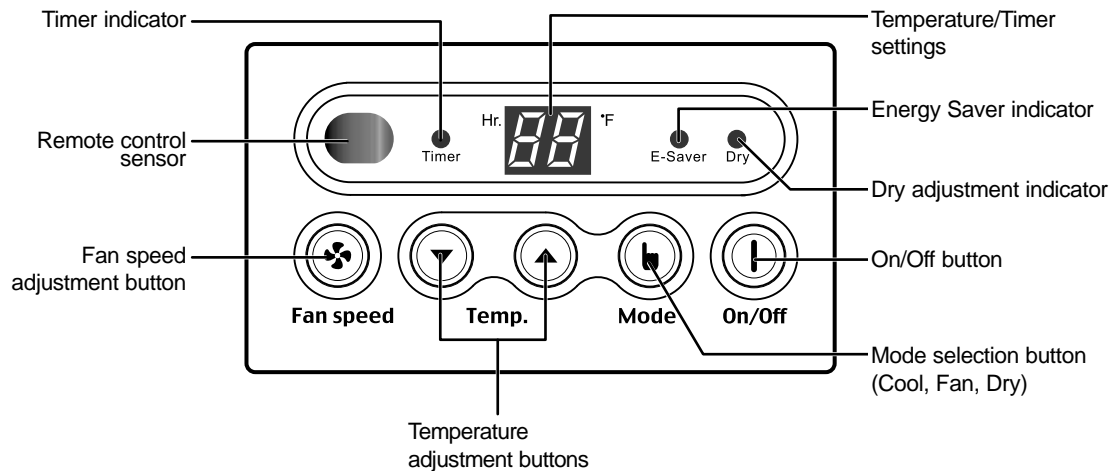
3-1-1 Selecting Area for Installation

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 = 75°F
Fan speed = High
- 3) Set temperature indicating (setting) range : 1°F interval from 64°F to 86°F.

3-2-2 Fan operation mode

- 1) If "Fan operation mode" signal is received from remote 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 Dry operation mode

If the atmosphere in the room is very humid or damp, use this operation mode. It can remove excess humidity without lowering the room temperature too much.

- 1) The quantity of air is adjusted automatically.

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

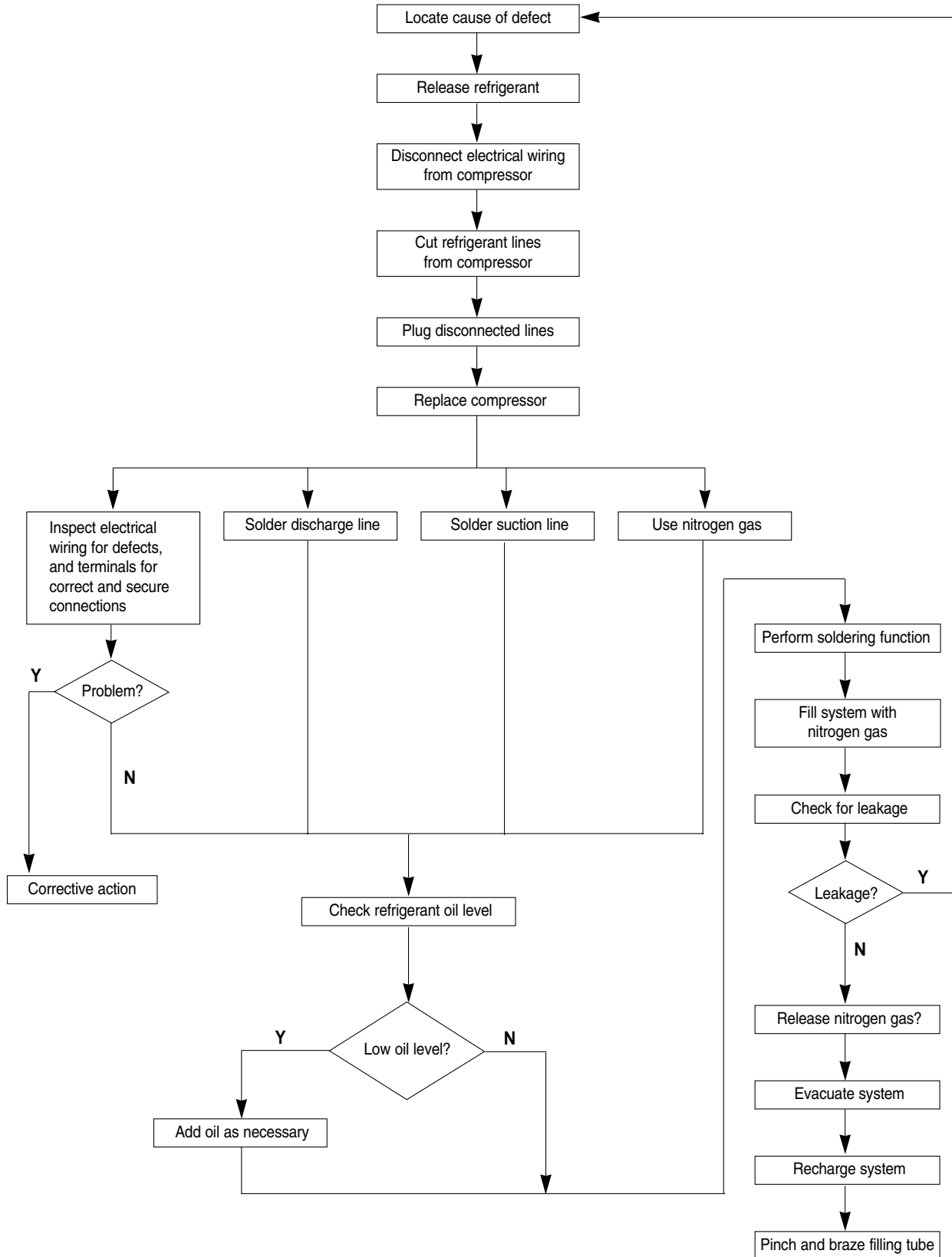
ERROR OPERATION	7-SEG LED DISPLAY
ROOM THERMISTOR (OPEN or SHORT)	E1 displayed

- 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.

MEMO

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(SP10A10/SP12A10)

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




No.	Part Name	Procedures	Remarks
1	Ass'y Grille	<p>1.Pull the Grille air inlet and Guard air filter out.</p> <p>2.Remove the screw on the panel front.</p> <p>3.Hold the lower part of panel with two hands while pressing down on both sides of the lower part of the cabinet, pull it forward by about 30mm,and then lift it up carefully for removal.(Must un-connect the Displayer with the controller inside.)</p>	
2	Ass'y Cabinet	<p>1.Remove 2 screws on the both side of the cabinet.</p> <p>2.Pull the front part both side, and remove the unit from the cabinet.</p>	
3	Ass'y Control	<p>1.Remove the earth screw fixed on the cabinet.</p> <p>2.Remove 3 screws fixed on the partition and frame up.</p> <p>3.Remove the screw fixed for the power cord.</p> <p>4.Un-connect the motor wire and comp lead wire, then take out the control box upward.</p>	

Disassembly and Reassembly Procedure(SP10A10/SP12A10)




No.	Part Name	Procedures	Remarks
4	Plate reinf& Case evap up	<ol style="list-style-type: none"> 1..Remove 4 screws on the partition and case cond. 2.Remove the plate reinf. (The shape maybe different depend on models) 3.Remove the seal stucked on the case evap up carefully. 4.Pull the case evap up upward. 	
5	Plate evap casing & Blower	<ol style="list-style-type: none"> 1.Remove the cover on the evaporator. 2.Remove all screws on the evaporator. 3.Pull the evaporator forward carefully. 4.Remove all screws fixed on plate evap casing, then pull it out completely. 3.Remove the nut and remove the Blower. 	
6	Case Cond & Fan Propeller & Motor Fan	<ol style="list-style-type: none"> 1.Remove 2 screws on the rear side of the base pan, and all screws fixed on case cond. 2.Pull up the condenser from the base pan. 3.Remove the nut and remove the Propeller fan. 4.Remove 4 screw(fixed on the mounter), then take out the motor. 	

4-5.Disassembly and Reassembly Procedure(SP06A10/SP08A10)

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

No.	Part Name	Procedures	Remarks
1	Ass'y Grille	1.Pull the Grille air inlet and Guard air filter out. 2.Remove the screw on the panel front. 3.Hold the lower part of panel with two hands while pressing down on both sides of the lower part of the cabinet, pull it forward by about 30mm,and then lift it up carefully for removal.(Must un-connect the Displayer with the controller inside.)	
2	Ass'y Cabinet	1.Remove 2 screws on the both side of the cabinet. 2.Pull the front part both side, and remove the unit from the cabinet.	
3	Ass'y Control	1.Remove the earth screw fixed on the cabinet. 2.Remove 3 screws fixed on the partition and frame up. 3.Remove the screw fixed for the power cord. 4.Un-connect the motor wire and comp lead wire, then take out the control box upward.	

Disassembly and Reassembly Procedure(SP06A10/SP08A10)

No.	Part Name	Procedures	Remarks
4	Frame up	<ol style="list-style-type: none"> 1..Remove 2 screws on the frame up and case cond. 2.Remove all the screws on the frame up. 3.Pull the frame up upward. 	
5	Blower	<ol style="list-style-type: none"> 1.Remove 3 screws on the evaporator. 2.Pull the evaporator from frame low carefully. 3.Remove the nut and remove the Blower. 	
6	Case Cond & Fan Propeller & Motor Fan	<ol style="list-style-type: none"> 1.Remove 2 screws on the rear side of the base pan, and all screws fixed on case cond. 2.Pull up the condenser from the base pan. 3.Remove the nut and remove the Propeller fan. 4.Remove the earth screw(fix the motor earth wire), then take out the motor upward. 	

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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 remote control does not operate	<ul style="list-style-type: none"> • Check whether battery is completely depleted. • Check whether the battery is properly inserted. • Check whether the receiving window of the remote control for the assembly main PCB is blinded. • Check whether the remote control is affected by jamming due to a neon sign.
No temperature setting	<ul style="list-style-type: none"> • 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

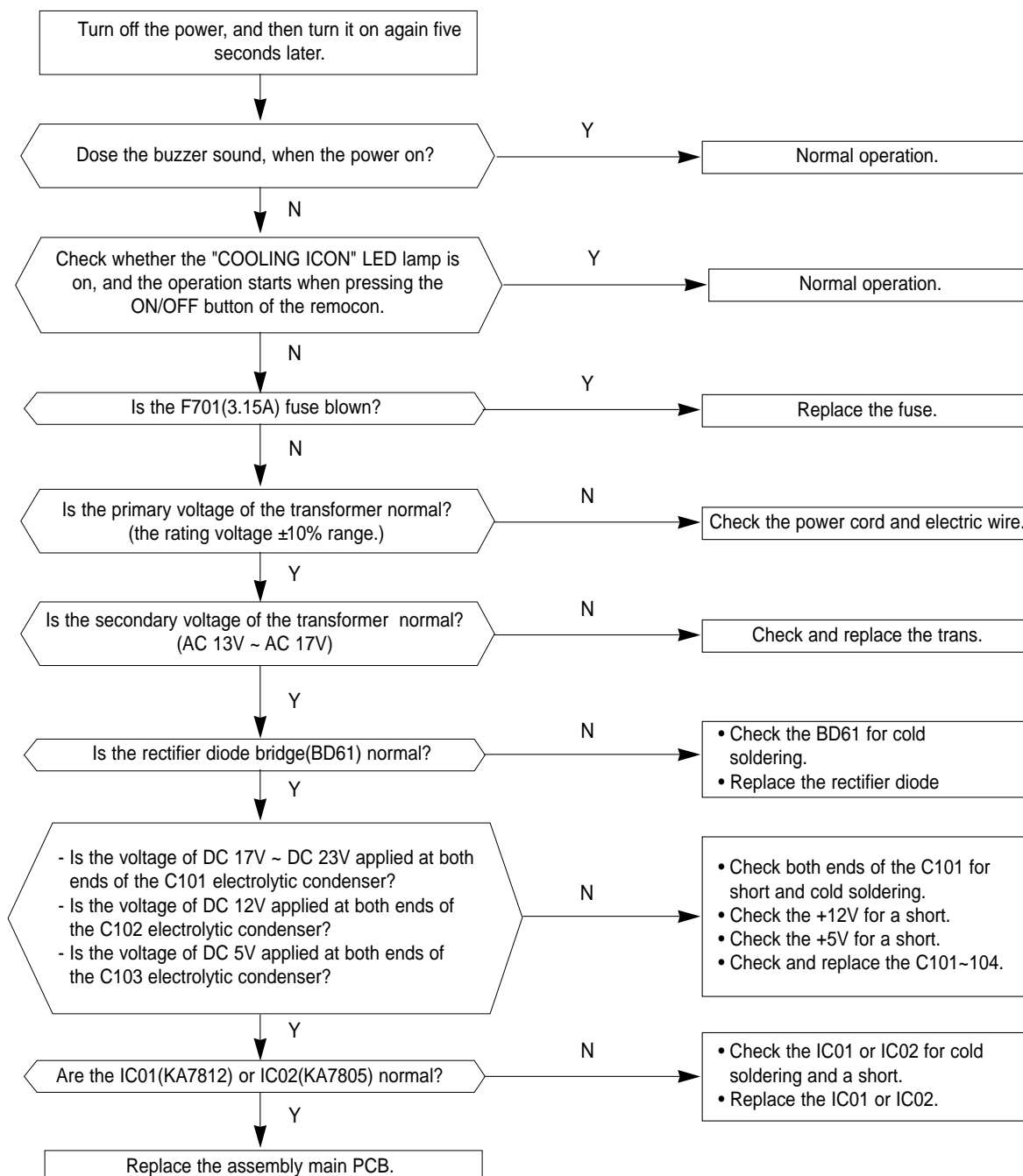
ERROR OPERATION	ERROR OPERATION
ROOM THERMISTOR (OPEN OR SHORT)	E1 displayed

5-2 Troubleshooting by Symptom

5-2-1 No power

1) Check points

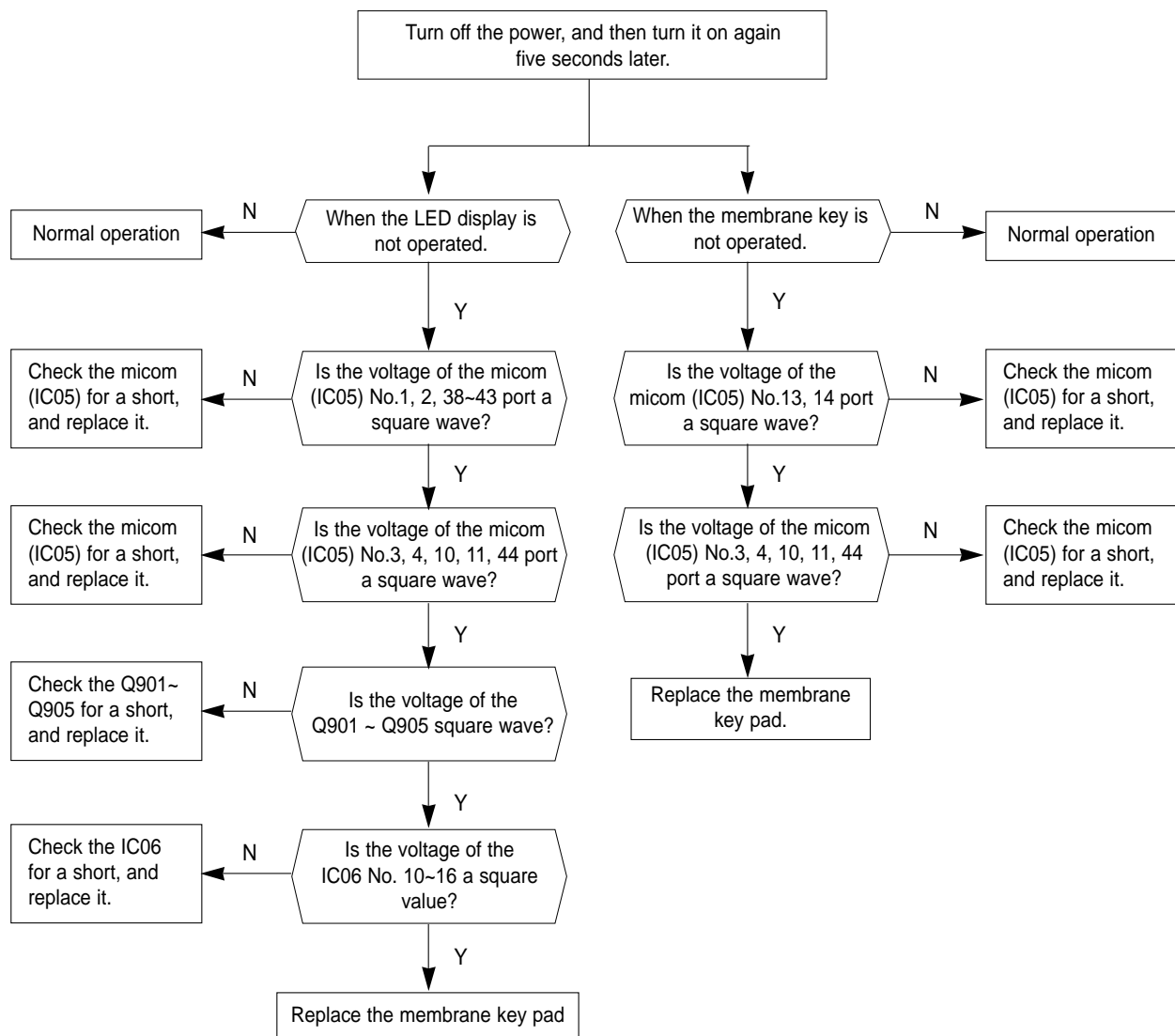
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ?(CN 71, RY 71)
- (3) Is the output voltage of the IC01(KA 7812) normal ?(DC 11.5V ~ DC 12.5V)
- (4) Is the output voltage of the IC02(KA 7805) normal ?(DC 4.5V ~ DC 5.5V)



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

1) Check points

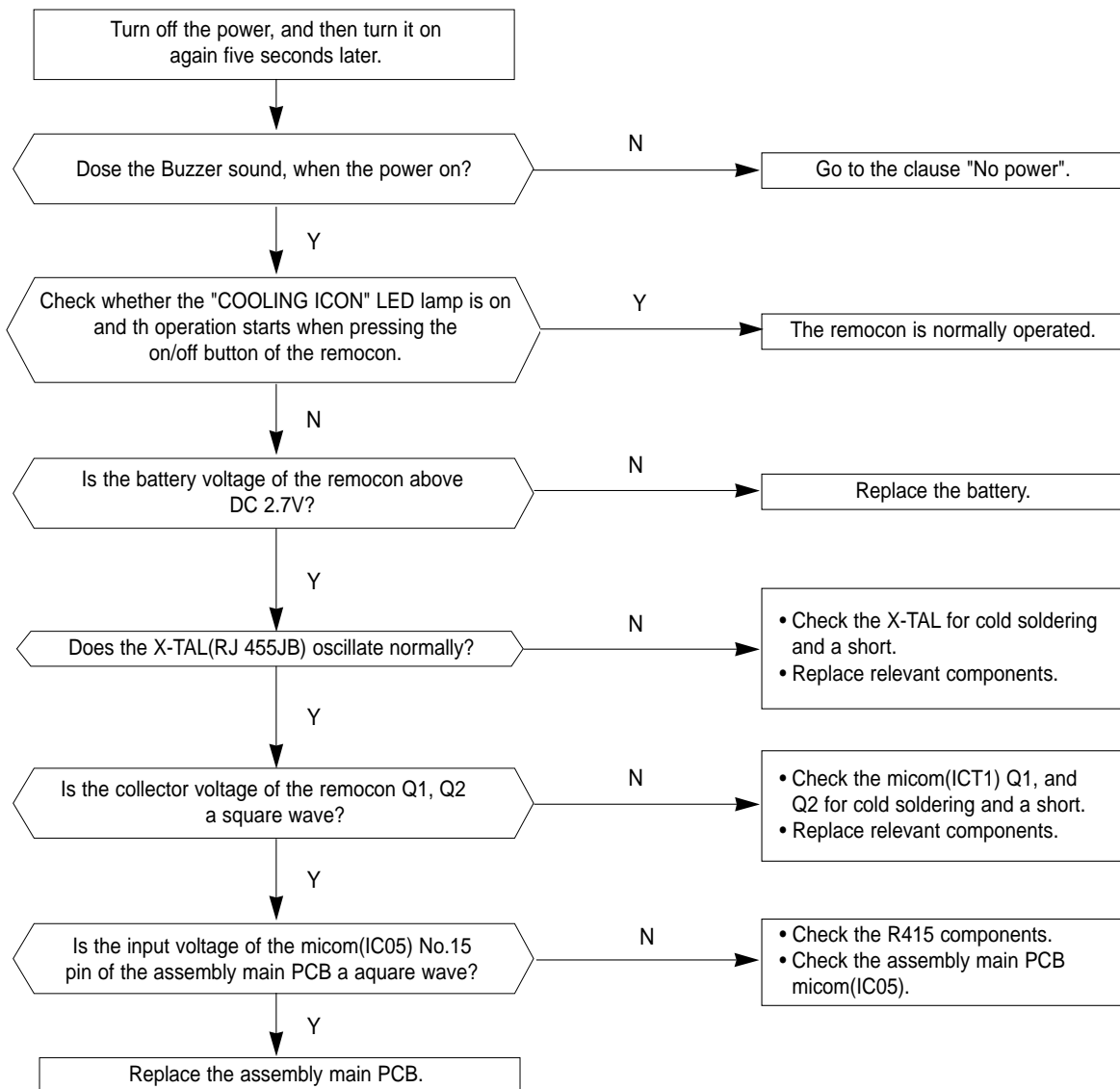
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ?(CN71, RY71)
- (3) Is the connection of the assembly main PCB, and TOUCH KEY PAD in good contact? (SW01-SW05)



5-2-3 When the remocon is not operated

1) Check points

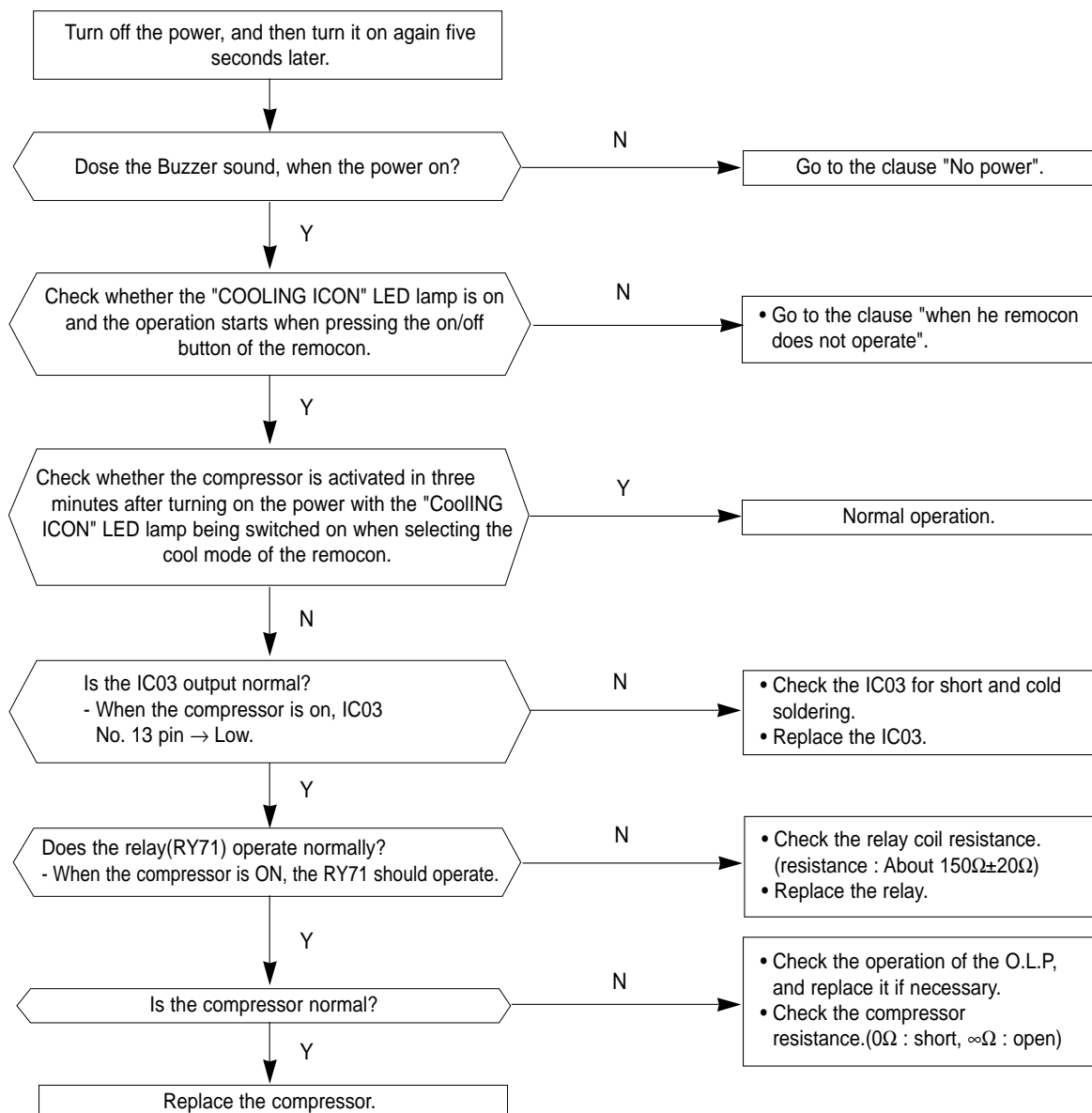
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the electric wire in good contact ? (CN71, RY71)
- (3) Is the assembly main PCB in good contact with the TOUCH KEY PAD(SW01-SW05)
- (4) Is the battery voltage of the remocon above DC 2.7V?



5-2-4 When the compressor is not operated

1) Check points

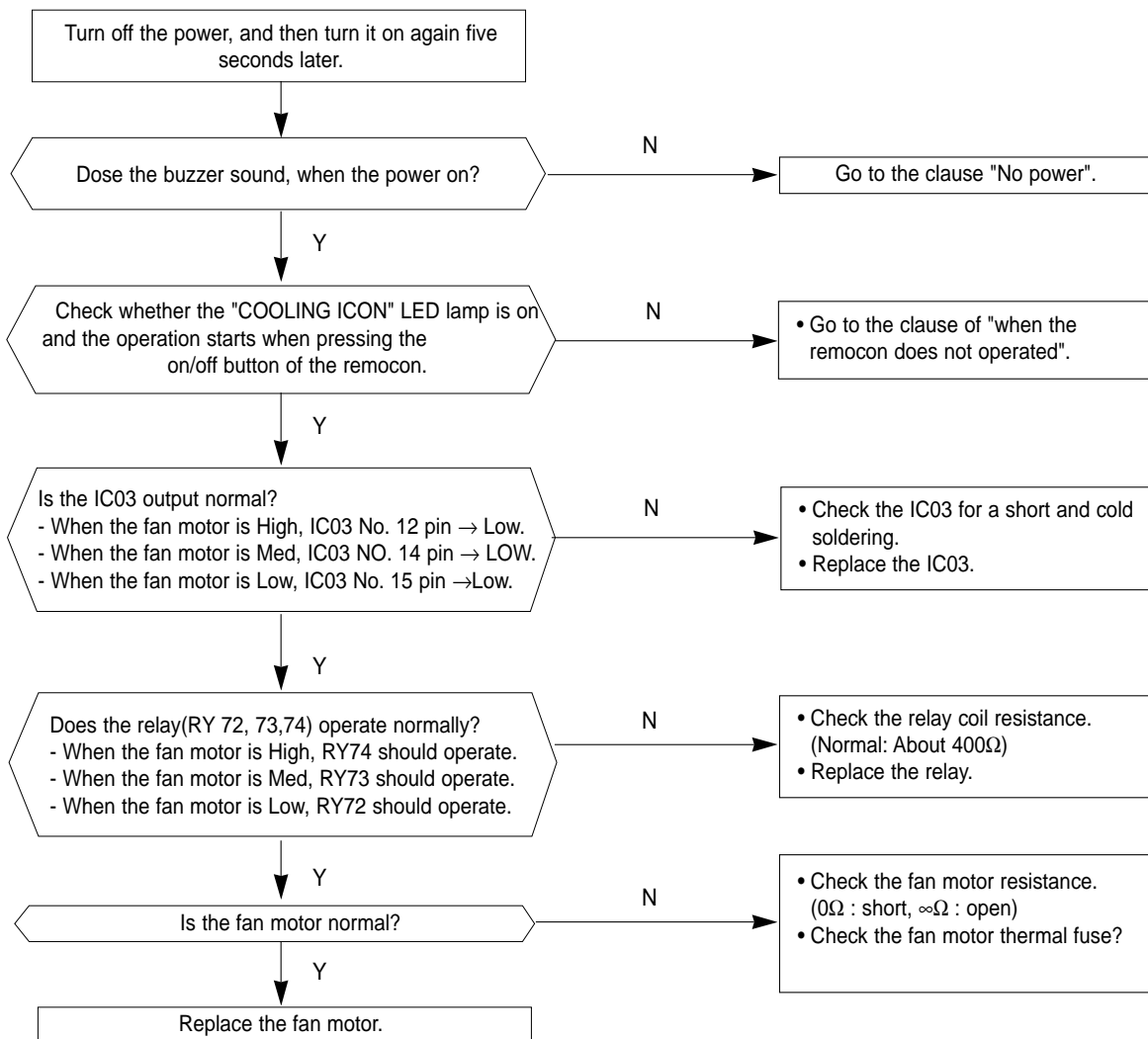
- (1) Is the voltage of the power source normal ? (the rating voltage $\pm 10\%$ range.)
- (2) Is the desired temperature lower than the indoor temperature in the "COOL" mode?
(Compressor stopped)
- (3) Is the starting condenser in good contact?
- (4) Is the electric wire in good contact ? (CN71, RY71)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



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

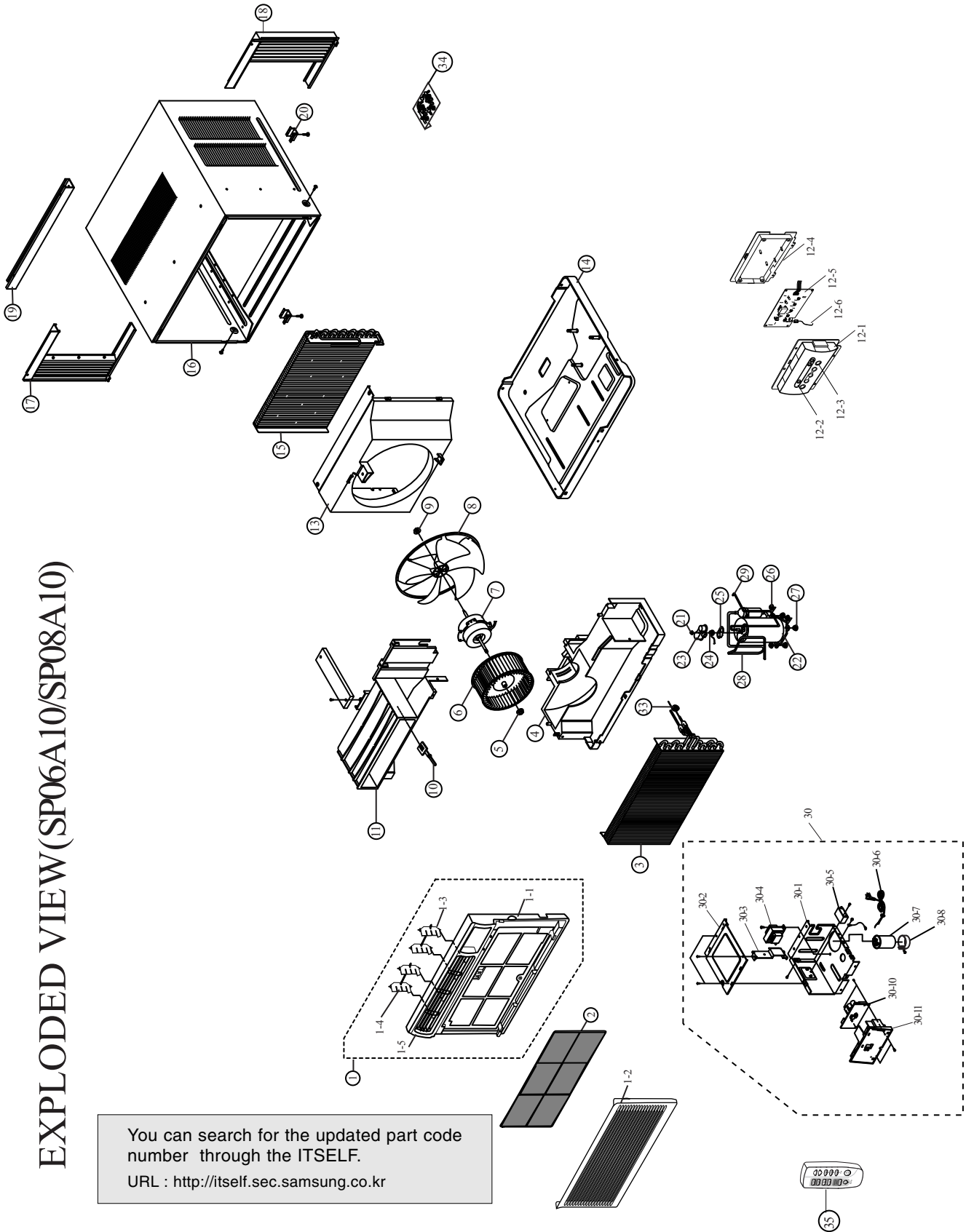
1) Check points

- (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 ?



6. Exploded View and Parts List

6-1 Main unit



EXPLODED VIEW (SP06A10/SP08A10)

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

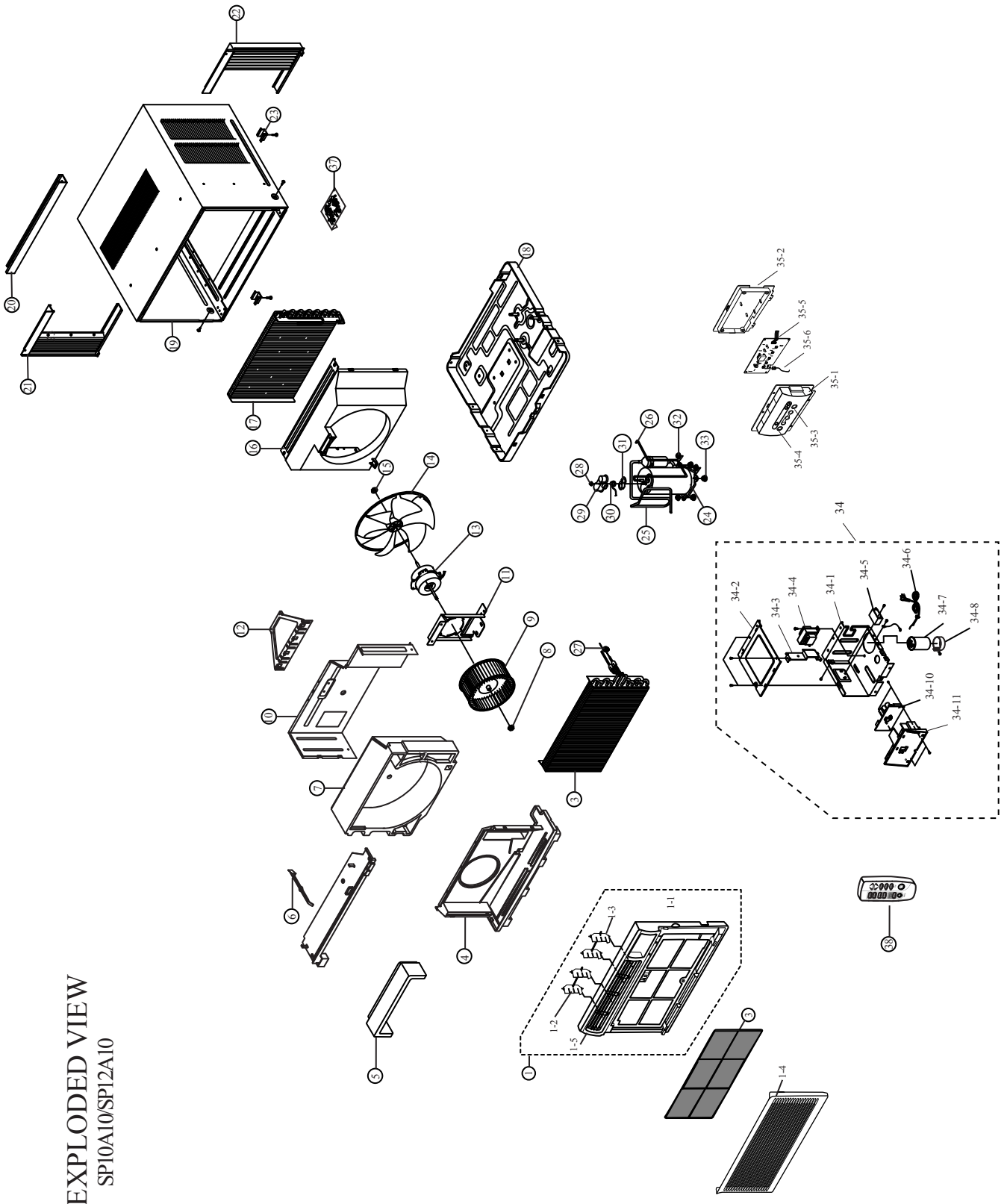
Exploded View and Parts List

■ Part List

No	Description	Code No.	Specification	Q'TY	
				SP06A10	SP08A10
1	ASSY PANEL FRONT	DB92-00398B	ASSY,HIPS	1	1
1-1	PANEL FRONT	DB64-00566A	HIPS,-,W343	1	1
1-2	GRILLE AIR INLET	DB64-00567B	SEA,HIPS	1	1
1-3	BLADE V	DB66-00349A	HIPS,T2.5	4	4
1-4	LINK BLADE	DB66-00165A	PE,L97.5,T1.3	2	2
1-5	FRAME BLADE	DB61-01009A	HIPS	1	1
2	FILTER	DB63-00513A	HIPS,-,W212	1	1
3	EVAPORATOR	DB96-01028A	2R×11S,FP1.2	1	1
4	ASSY FRAME LOW	DB90-00328A	ASSY	1	1
5	NUT-FRANGE	DB60-30004A	2C M6 SM20C NTR	1	1
6	BLOWER	DB67-00099A	ABS	1	1
7	MOTER FAN	DB31-00149B	80/75/70	1	-
		DB31-00149A	1.12/1.05/0.99	-	1
8	FAN-PROPELLER	DB67-50077A	ABS	1	1
9	NUT-FRANGE	DB60-30020A	M6,LEFT	1	1
10	LEVER DAMPER	DB66-00430A	SC-97471R	1	1
11	ASSY FRAME UP	DB90-00293A	ASSY	1	1
12	ASSY PANEL CONTROL	DB92-00395A	ASSY	1	1
12-1	COVER PANEL CONTROL	DB63-00514A	ABS(V5)	1	1
12-2	PANEL DISPLAY	DB64-00565A	ABS(V5)	1	1
12-3	PANEL BUTTON	DB64-00564A	ABS,-,W18,L90	1	1
12-4	COVER MODULE	DB63-00512A	PC,T1,W23	1	1
12-5	ASSY PCB PANEL	DB93-01493A	SEA-PJT,RAC PANEL	1	1
12-6	THERMISTOR	DB32-10051D	10K/25,-,3425K	1	1
13	CASE COND	DB90-00337A	PP	1	1
14	ASSY BASE	DB90-20212F	SGCC-M,SC94445T	1	1
15	ASSY COND	DB96-00995A	2R×15S,FP1.5	1	-
		DB96-01027A	3R×15S,FP1.5	-	1
16	ASSY CABINET	DB90-00133P	ASSY	1	1
17	ASSY SHUTTER-LF	DB92-00113A	SPS-P/J,ASSY	1	1
18	ASSY SHUTTER-RH	DB92-00112A	SPS-P/J,ASSY	1	1
19	SHUTTER-ANGLE UP	DB64-00048B	ASV08FAS2,HIPS,T3.0	1	1
20	BRACKET-INSTALL	DB61-30219F	SGCC-A	2	2
21	NUT-TERMINAL COVER	DB60-30001A	M5,-,SM20C	1	1
22	COMPRESSOR	39A062HS1EA	6200BTU,115V	1	-
		44A076HU1EB	115V 1PHASE 60HZ 7600	-	1
23	COVER-TERMINAL	DB63-10026A	GE,-,NORYL,-,SEI-701	1	1
24	O.L.P	DB35-00006G	MRA12146-12008	1	-
		DB47-20066B	MRA12083-12008	-	1
25	GASKET	DB63-20003A	EPDM,T0.8	1	1
26	NUT WASHER	DB60-30028A	M8,ZPC	3	3
27	GROMMET-ISOLATOR	DB73-00016A	EPDM,-,BLK,OK-PJT	3	3
28	TUBE SUCTION	DB62-01374A	C1220T-0	1	-
		DB62-00484A	C1220T-0	-	1
29	TUBE DISCHARGE	DB62-00675A	OD7.93	1	-
		DB62-00483A	C1220T-0	-	1
30	ASSY CONTROL BOX	DB93-01633A	TOP,ELEC	1	-
		DB93-01633B	TOP,ELEC	-	1
30-1	CASE CONTROL-LOW	DB61-00669A	SGCC-M,T0.7	1	1
30-2	CASE CONTROL-UP	DB61-00670A	SGCC-M,T0.7	1	1
30-3	BRACKET-CONTROL	DB61-00676A	SGCC-M,T0.7	1	1
30-4	TRANSFORMER	DB26-00006G	AC115V,50/60HZ,DC17V	1	1
30-5	C-FILM	2301-001448	8µF,450VAC	1	1
30-6	POWER CORD	DB39-00343D	125V,13A	1	1
30-7	C-OIL	2501-001229	40µF,370VAC	1	-
		2501-001228	35µF,370VAC	-	1
30-8	CLIP CAPACITOR	DB65-00031A	SGCC-M,T0.7	1	1
30-10	ASSY MIAN PCB	DB93-01492A	SEA-PJT	1	1
30-11	PANEL BONTROL	DB63-00511A	ABS(V5),-,W140,L98	1	1
33	TUBE CAPILLARY	DB62-01316A	ID1.3×L600	1	-
		DB62-01288A	ID1.42×L900	-	1
34	ASSY-SCREW	DB97-30156C	ASSY	1	1
35	ASSY REMOCON	DB93-01364X	AS-K410/K610	1	1

6. Exploded view and part list

6-3 Main unit



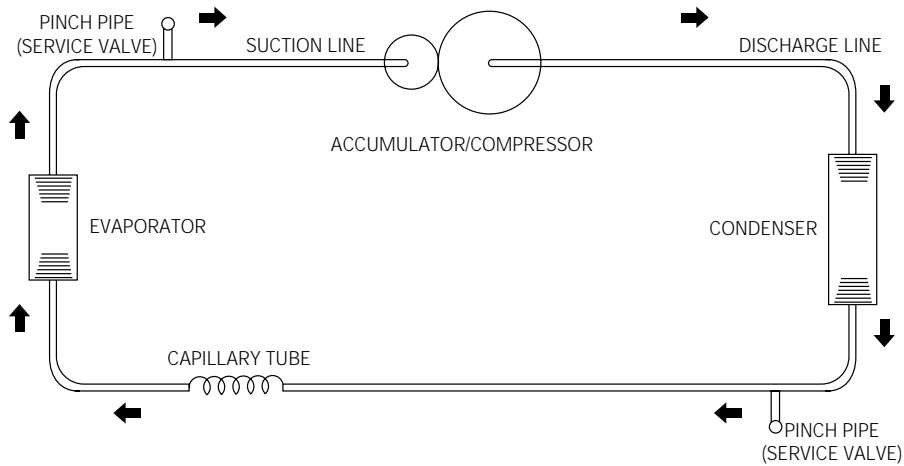
Exploded View and Parts List

■ Part List

No	Description	Code No.	Specification	QTY	
				SP10A10	SP12A10
1	ASSY PANEL FRONT	DB92-00397B	ASSY,HIPS	1	1
1-1	PANEL FRONT	DB64-00694A	HIPS,T2.5	1	1
1-2	GRILLE AIR INLET	DB64-00693B	HIPS	1	1
1-3	BLADE V	DB66-00369A	HIPS,T2.5	4	4
1-4	LINK BLADE	DB66-00259A	PP,97.5,T1.3	2	2
1-5	FRAME BLADE	DB61-01174A	HIPS	1	1
2	FILTER	DB63-00617A	HIPS,T2.5	1	1
3	EVAPORATOR	DB96-01001A	2R×12S,FP1.3	1	-
		DB96-02439A	ASSY	-	1
4	ASSY PLATE EVAP CASING	DB90-00509A	ASSY,PP,T2.0	1	1
5	CASE EVAP UP	DB61-00641A	30FO-PS,T15	1	1
6	LEVER DAMPER	DB66-00258A	HIPS,T2.0	1	1
7	CASE EVAP	DB61-00640A	30FO-PS	1	1
8	NUT-FRANGE	DB60-30004A	2C M6 SM20C NTR	1	1
9	BLOWER	DB67-50073A	ABS,200	1	1
10	PLATE PARTITION	DB71-00077B	SGCC-M,T0.8	1	1
11	MOTOR MOUNTER	DB61-00650A	SGCC-M	1	1
12	PLATE-REINF	DB71-00081A	SGCC-M,T1.0	1	1
13	MOTOR FAN	DB31-00122A	YGN60-6B	1	1
14	FAN-PROPELLER	DB67-00139A	ABS+G.F20%,D352	1	1
15	NUT-FRANGE	DB60-30020A	M6,LEFT	1	1
16	CASE COND	DB61-00647A	PP,T2,515.6,450	1	1
17	ASSY COND	DB96-00982A	2R×17S,FP1.5	1	-
		DB96-00979A	3R×17S,FP1.4	-	1
18	ASSY BASE	DB90-00514A	ASSY	1	1
19	ASSY CABINET	DB90-00364B	ASSY	1	1
20	SHUTTER ANGLE UP	DB64-00048C	HIPS,T3.0	1	1
21	ASSY SHUTTER LF	DB92-00111A	ASSY	1	1
22	ASSY SHUTTER RH	DB92-00110A	ASSY	1	1
23	BRACKET-INSTALL	DB61-30219F	SGCC-A	2	2
24	COMPRESSOR	44B098HX1EF	115V,1Ph,60Hz	1	-
		44B124HX1EL	115V,1Ph,60Hz	-	-
		44B117HX1EL	115V,1Ph,60Hz	-	1
25	TUBE SUCTION	DB62-00712A	OD12.7	1	-
		DB62-00692A	OD12.7	-	1
26	TUBE DISCHARGE	DB62-00327A	C1220T-0,OD9.52,T0.7	1	1
27	TUBE CAPILLARY	DB62-00688B	OD2.75	1	-
		DB62-01563A	ID1.3×L1100	-	1
28	NUT-TERMINAL COVER	DB60-30001A	M5,-,SM20C	1	1
29	COVER-TERMINAL	DB63-10026A	GE,-,NORYL,-,SEI-701	1	1
30	O.L.P	DB35-00011D	MRA12132-12007	1	-
		DB35-00011M	MRA12053-12007	-	1
31	GASKET	DB63-20003A	EPDM,T0.8	1	1
32	NUT WASHER	DB60-30028A	M8,ZPC	3	3
33	GROMMET-ISOLATOR	DB73-00016A	EPDM,-,BLK,OK-PJT	3	3
34	ASSY CONTROL BOX	DB93-01633D	ASSY	1	-
		DB93-01633E	ASSY	-	1
34-1	CASE CONTROL-LOW	DB61-00669A	SGCC-M,T0.7	1	1
34-2	CASE CONTROL-UP	DB61-00670A	SGCC-M,T0.7	1	1
34-3	BRACKET-CONTROL	DB61-00676A	SGCC-M,T0.7	1	1
34-4	TRANSFORMER	DB26-00006G	AC115V,50/60HZ,DC17V	1	1
34-5	C-FILM	2301-001452	15µF,250VAC	1	1
34-6	POWER CORD	DB39-00343E	125V,13A,AWG16	1	1
34-7	C-OIL	2501-001230	45µF,370VAC	1	-
		2501-001231	50µF,370VAC	-	1
34-8	CLIP CAPACITOR	DB65-00031A	SGCC-M,T0.45	1	1
34-10	ASSY MIAN PCB	DB93-01492A	SEA-PJT	1	1
34-11	PANEL BONTRONL	DB63-00511A	ABS(V5)-,W140,L98	1	1
35	ASSY PANEL CONTROL	DB92-00395A	ASSY	1	1
35-1	COVER PANEL CONTROL	DB63-00514A	ABS(V5)	1	1
35-2	PANEL DISPLAY	DB64-00565A	ABS(V5)	1	1
35-3	PANEL BUTTON	DB64-00564A	ABS,-,W18,L90	1	1
35-4	COVER MODULE	DB63-00512A	PC,T1,W23	1	1
35-5	ASSY PCB PANEL	DB93-01493A	SEA-PJT,RAC PANEL	1	1
35-6	THERMISTOR	DB32-10051D	10K/25,-,3425K	1	1
37	ASSY-SCREW	DB97-30156C	ASSY	1	1
38	ASSY REMOCON	DB93-01364X	AS-K410/K610	1	1

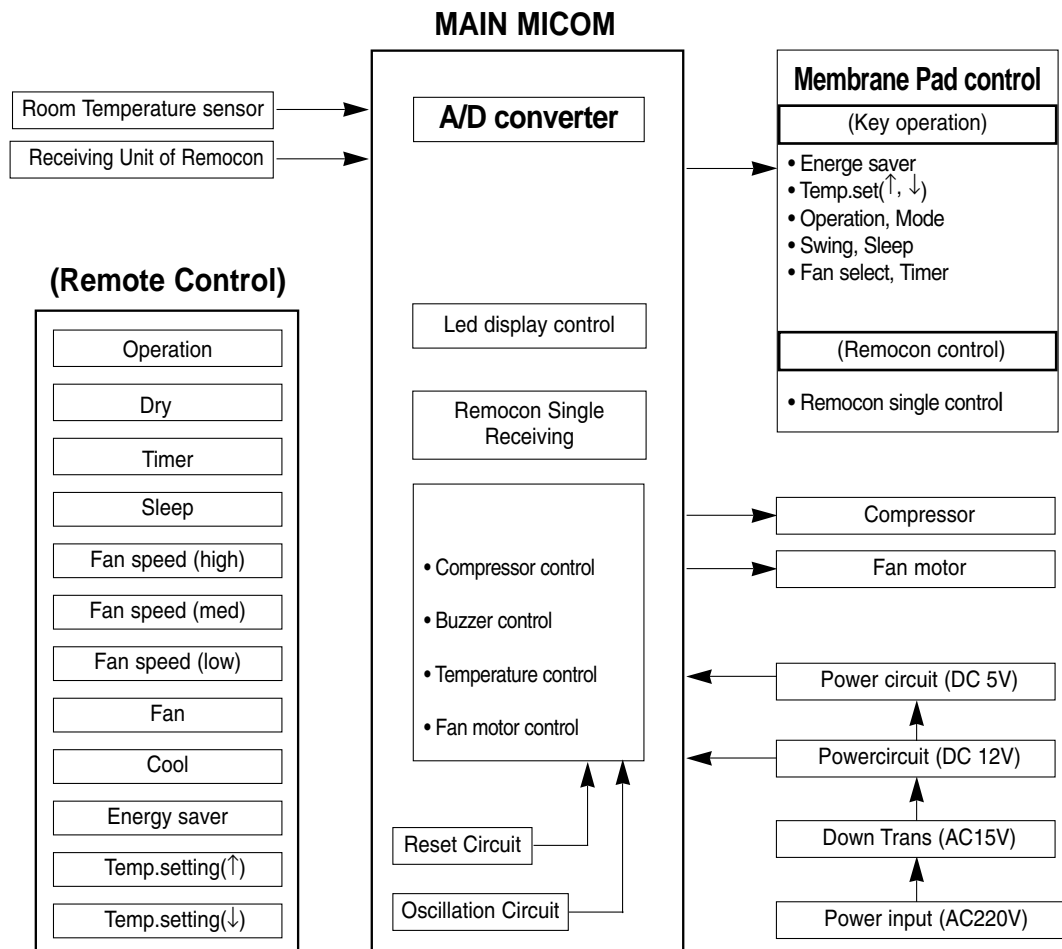
7. Block Diagram

7-1 Refrigerating Cycle Block Diagram



7-2 Basic Structure

7-2-1 Micom Control Diagram



7-2-2 Micom pin assignment

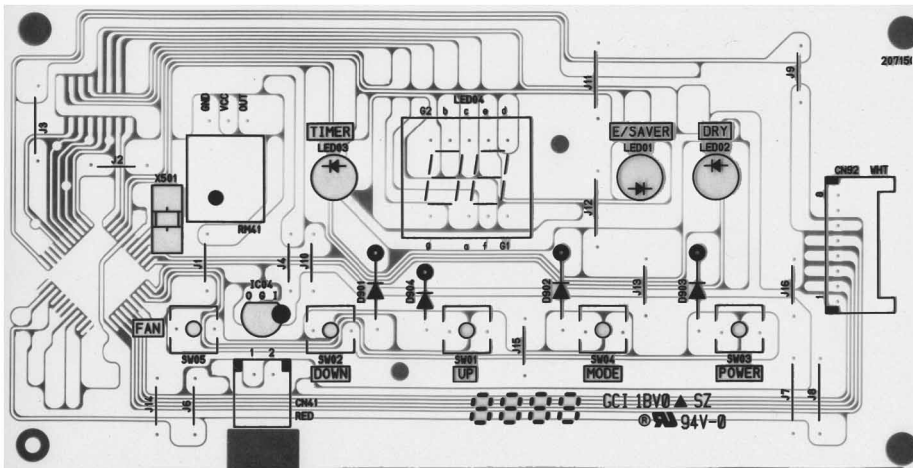
KS88C4716					
SEG-DATA(c)	1	P0.1	P4.4	44	GRID5
SEG-DATA(b)	2	P0.0	P0.2	43	SEG-DATA(d)
GRID4	3	P4.3	P0.3	42	SEG-DATA(e)
GRID3	4	P4.2	P0.4	41	SEG-DATA(f)
Vcc	5	VDD	P0.5	40	SEG-DATA(g)
Vss	6	VSS	P0.6	39	SEG-DATA(h)
10MHz RESONATOR	7	Xout	P0.7	38	SEG-DATA(a)
10MHz RESONATOR	8	Xin	P1.0	37	EEPROM CLK
TEST	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

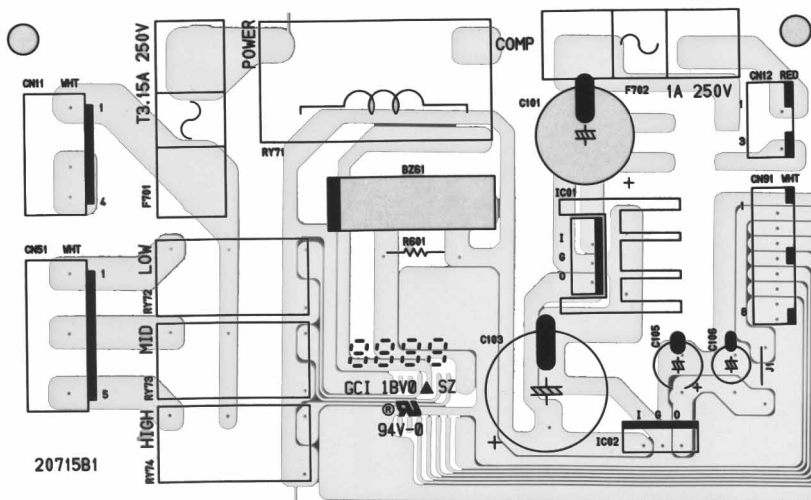
8. PCB Diagram

8-1 ASS Main PCB

Main PCB
DB93-01493A
DB93-01493B



Power PCB
DB93-01492A



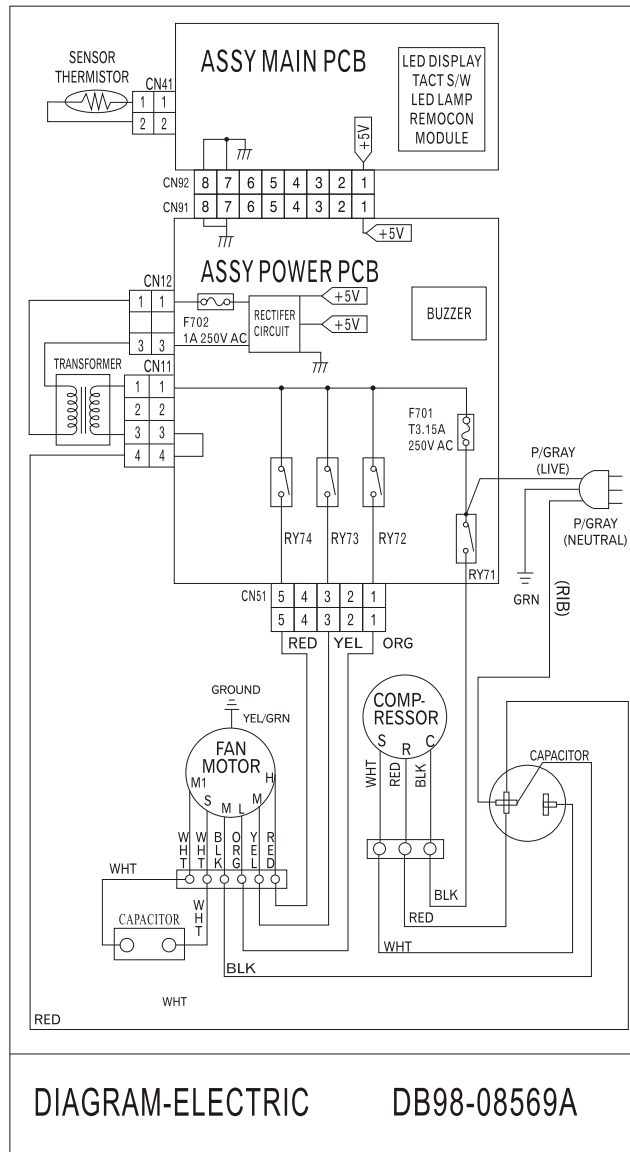
■ Part List

NO.	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
			DB93-01492A	
1	CHIP IC	ULN2003AD	1	IC03
2	BRIDGE DIODE	DF06S	1	BD61
3	REGULATOR	KA7805	1	IC02
4	REGULATOR	KA7812	1	IC01
5	C-AL	100 μ F/10V	1	C105
6	C-AL	1000 μ F/35V	1	C101
7	C-AL	22 μ F/15V	1	C106
8	C-AL	2200 μ F/25V	1	C103
9	C-CHIP	104Z 0805 50V	2	C102, C104
10	R-CARBON	1/2W (SMALL	1	R601
11	BUZZER	PZ-227125	1	BZ61
12	HEAR SINK	L15 W15, H25	1	-
13	CONNECTOR	RED	1	CN12
14	CONNECTOR	VH-4A WHT	1	CN11
15	CONNECTOR	VH-5A WHT	1	CN51
16	HARNESS	DB39-00807A	1	CN91
17	FUSE	250V T3 15A TIME DELAY	1	F701
18	FUSE	250V F1A, FAST ACTING	1	F702
19	FUSE HOLDER	HF-004/J	4	-
20	RELAY POWER	DI1U 12VDC	1	RY71
21	RELAY POWER	JQ1A-12V	3	RY72-RY74
22	SCREW TAPPING	PH3 L10	1	-
23	JUMP WIRE	PH0.6 L7.5MM	1	J1
24	PCB-MAIN	FR-1	1	-

■Part List

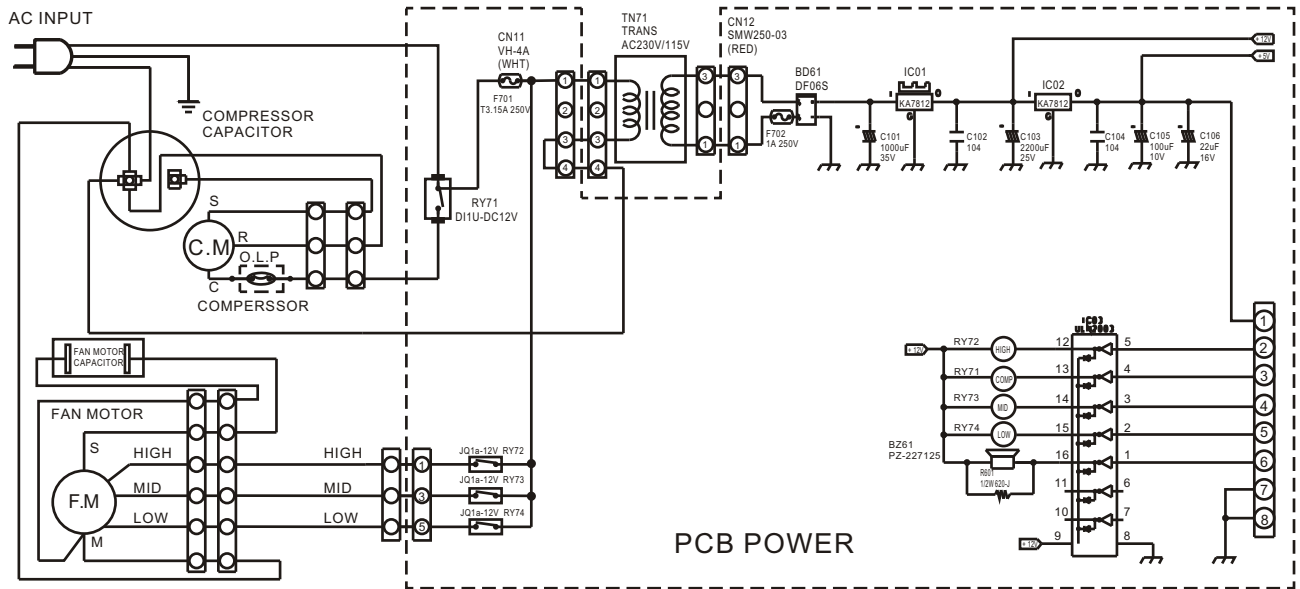
NO.	DESCRIPTION	SPECIFICATION	Q'TY		REMARK
			DB93-01493A	DB93-01493B	
1	CHIP IC	ULN2003AD	1	1	IC06
2	IC	RA7533OZ	1	1	IC04
3	DIODE-SWITCHING	1N4148(SMALL),DO-35	4	4	D901-D904
4	LED	B5054D3,GREEN	3	3	LED01-LED03
5	CHIP TRANSISTOR	KRA226S	4	4	Q901-Q904
6	CHIP TRANSISTOR	KRC246S	1	1	Q905
7	C-CHIP	101k,0805,50V	1	1	C401
8	C-CHIP	102k,0805,50V	3	3	C301,C302,C402
9	C-CHIP	104z,0805,50V	3	3	C701,C702,C801
10	C-CHIP	223z,0805,50V	3	3	C201-C203
11	R-CHIP	1.74k,0805,1%	1	1	R704
12	JUMP WIRE	1206,5%	1	1	J5
13	R-CHIP	1k,0805,5%	2	2	R101,R102
14	R-CHIP	10k,0805,5%	3	3	R403,R501,R701
15	R-CHIP	180,1206,5%	8	8	R901-R908
16	R-CHIP	330,0805,5%	3	3	R401,R402,R802
17	R-CHIP	10k,0805,1%	1	1	R702
18	R-CHIP	4.7k,0805,5%	1	-	R703
	R-CHIP	10k,0805,5%	-	1	R703
19	R-CHIP	6.8k,0805,5%	1	1	R801
20	SWITCH-TACT	TSTB-2,160GF	5	5	SW01-SW05
21	CONNECTOR	SMAW250-02,RED	1	1	CN41
22	HARNESS	DB39-00806A	1	1	CN92
23	JUMP WIRE	PH0.6,L7.5mm	10	10	J1,J2,J4,J6,J9,J10,J13-J16
24	JUMP WIRE	PH0.6,L10mm	5	5	J3,J7,J8,J11,J12
25	PCB-MAIN	FR-1,124*65*1mm	1	1	-
26	LED DISPLAY	CSD-322GLH	1	1	LED04
27	REMOCON MODULE	FRP-4021H6	1	1	RM41
28	CHIP MCU	3P8475*ZZ-OZR5	1	1	IC05
29	CERAMIC RESOATOR	10MHZ,0.5%	1	1	X501

9. Wiring Diagram

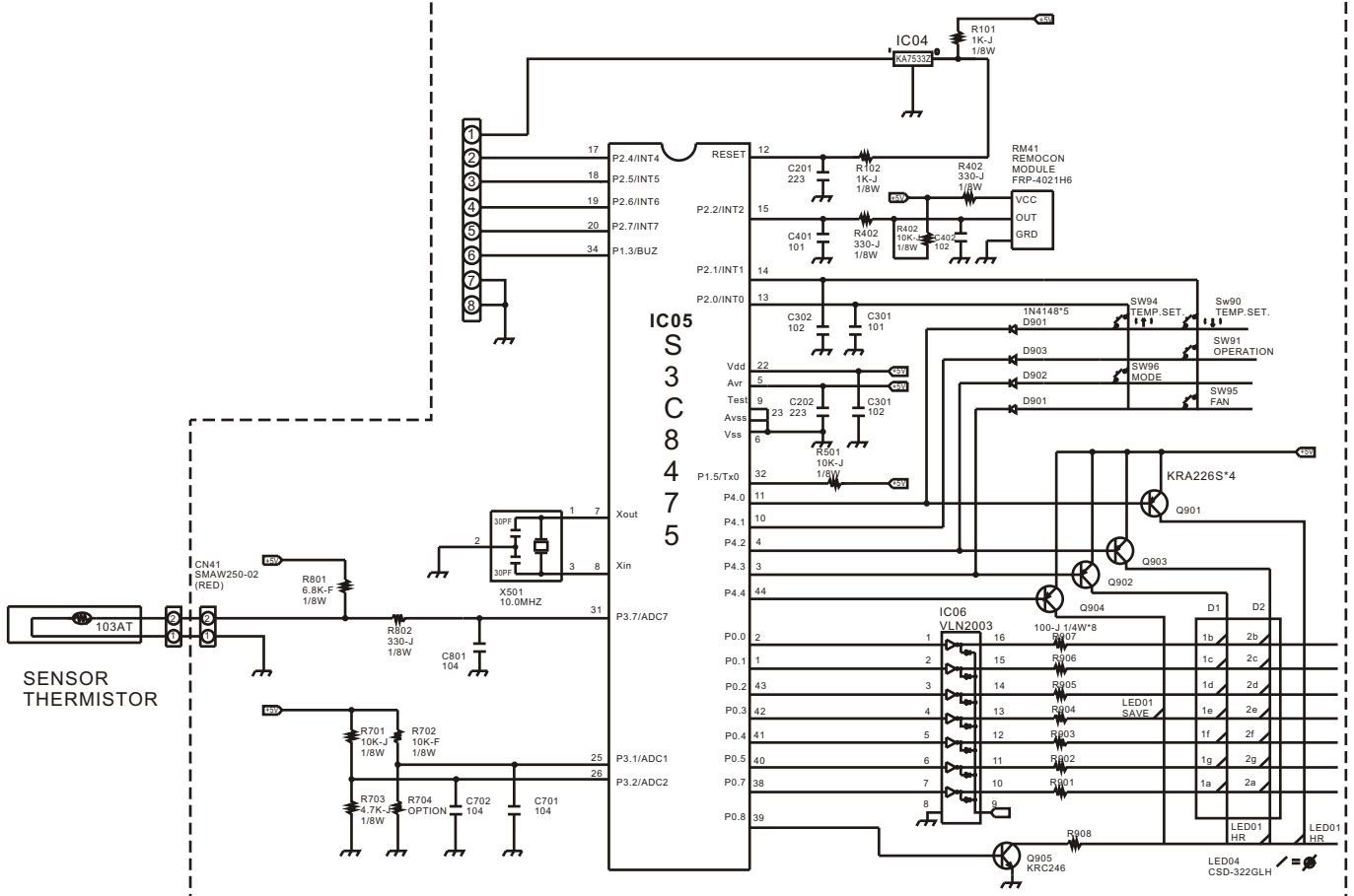


10. Schematic Diagrams

10-1 PCB



PCB MAIN





FRIEDRICH AIR CONDITIONING CO.
Post Office Box 1540 1 San Antonio, Texas 78295-1540
4200 N. Pan Am Expressway 1 San Antonio, Texas 78218-5212
(210) 357-4400 1 FAX (210) 357-4480
www.friedrich.com

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