



ROOM AIR CONDITIONER

INDOOR

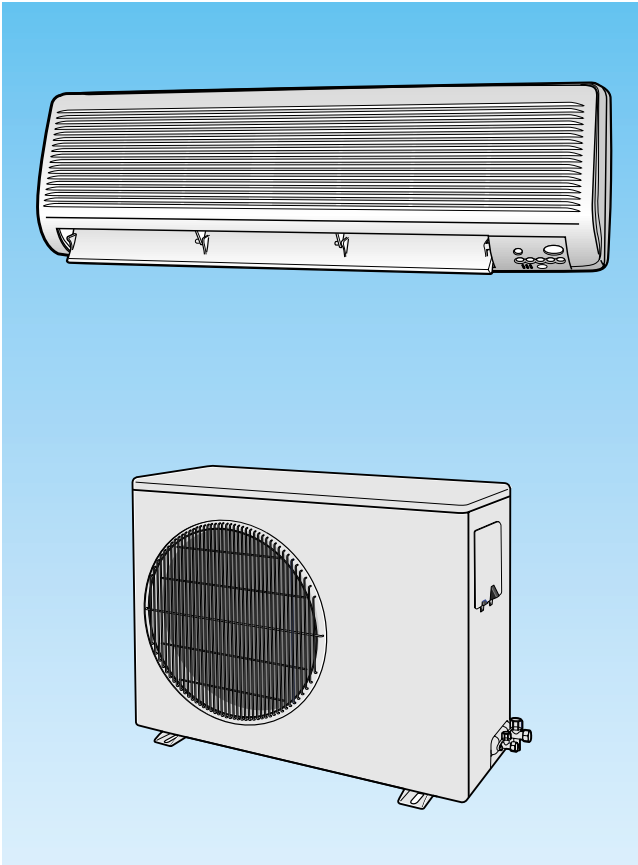
AQT24A(B)5(6)RE/B
AQT18A(B)9(0)RE/B
AQ18A(B)9(0)RE
SH24AT(B)5
SH18ZA(B)9
AQT24A(B)5(6)RED
AQ18A(B)9(0)RE(B)D
SH24TA(B)6D
SH18ZA(B)0D
AQT24C5(6)RE/B
AQT18C9(0)RE/B
AQ24A(B)5(6)RBD
AQT18C9(0)REF

OUTDOOR

UQT24A(B)5(6)RE/B
UQT18A(B)9(0)RE/B
UQ18A(B)9(0)RE
SH24TA(B)5X
SH18ZA(B)9X
UQT24A(B)5(6)RED
UQ18A(B)9(0)RE(B)D
SH24TA(B)6DX
SH18ZA(B)0DX
UQT24C5(6)RE/B
UQT18C9(0)RE/B
UQ24A(B)5(6)RBD
UQT18C9(0)REF

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 them. Using defective tools or test 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.**

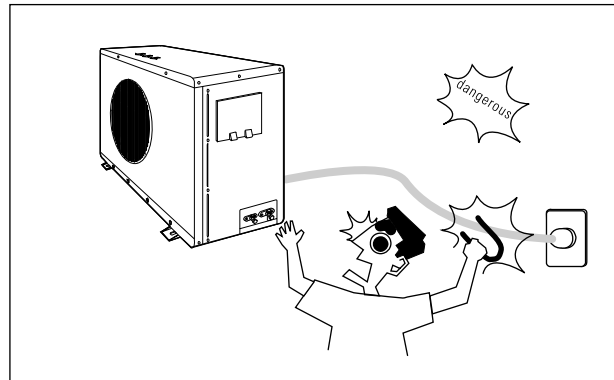


Fig. 1-1 Avoid Dangerous Contact

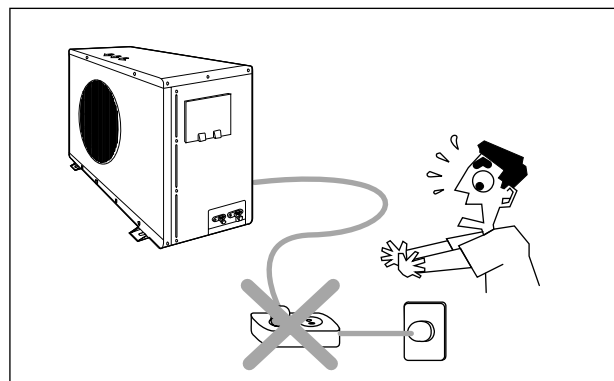


Fig. 1-2 No Tapping and No Extension Cords

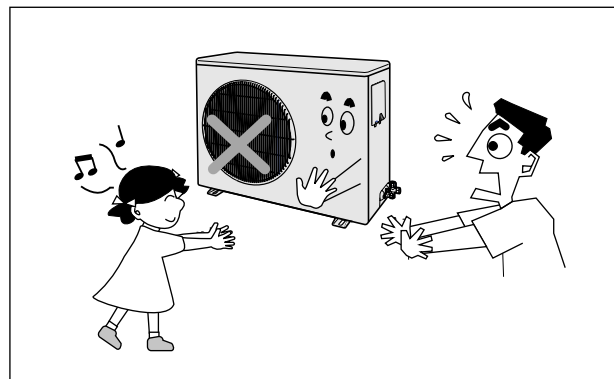


Fig. 1-3 No Kids Nearby!

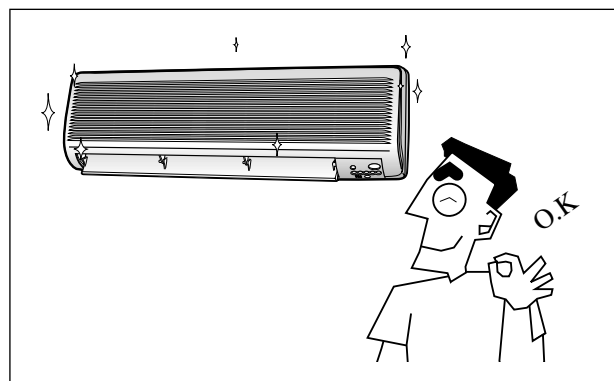


Fig. 1-4 Clean the Unit

MEMO

2. Product Specifications

2-1 Table

Item		Model	AQT24A(B)5RE/AQT24A(B)6RE/SH24TA(B)5/AQT24C5(6)RE				AQT24A(B)5RB/AQT24A(B)6RB/AQT24C5(6)RB				
			Cool		Heat		Cool		Heat		
Power Source			220-240V~, 50Hz				220V~, 60Hz				
Performance	Capacity (ISO/SASO)	kcal/h	BTU	KW	BTU	KW	BTU	KW	BTU	KW	
		BTU/h	24,000BTU/h	6.80KW	24,000BTU/h	6.90KW	24,000BTU/h	-	24,000BTU/h	-	
	Air circulation (High)	m ² /min	14.0	14.0	14.5	14.5	14.0	-	14.5	-	
	Moisture removal (High)	Liters/h	3.0				3.0				
Electrical Rating	Available voltage range		V	198 ~ 264				187 ~ 253			
	Running amperes		A	12.5	12.5	13.0	13.0	13.0	-	13.5	-
	Power input		kw	2.6	2.6	2.7	2.65	2.6	-	2.8	-
	Power factor		%	86.7	86.7	86.5	84.9	90.9	-	94.3	-
	Energy efficiency ratio		BTU/wh	9.2	-	8.9	-	9.2	-	8.6	-
	Compressor locked rotor amperes		A	82				73			
Features	Controls/Temperature control		Microprocessor / I.C Thermistor				Microprocessor / I.C Thermistor				
	Control unit		Wireless remote control				Wireless remote control				
	Timer		24-Hour ON or OFF				24-Hour ON or OFF				
	Fan speed		Indoor/Outdoor	3 Steps and Turbo / 2 Step				3 Steps and Turbo / 2 Step			
	Airflow direction (indoor)		Horizontal	Manual				Manual			
			Vertical	Auto				Auto			
	Compressor		Reciprocating(Tecumseh)				Reciprocating(Tecumseh)				
	Refrigerant/Amount charged at rating		g	R22 / 1,600g				R22 / 1,600g			
	Refrigerant control		Capillary tube				Capillary tube				
	Operation sound		Indoor Hi/Mi/Lo	dB-A		45 / 43 / 41		45 / 43 / 41			
			Outdoor-Hi	dB-A		58		58			
	Refrigerant tubing connections		Flare type				Flare type				
	Max. allowable tubing length at shippint		m	15				15			
	Refrigerant tube diameter		Narrow tube	(in.)		6.35(1/4")		6.35(1/4")			
			Wide tube	(in.)		15.88(5/8")		15.88(5/8")			
Refrigerant tube kit/Accessories		Optional / Hanger-plate				Optional / Hanger-plate					
Dimensions & Weight	Unit dimensions		Indoor unit		Outdoor		Indoor unit		Outdoor		
			Height	mm	275	638	275	638			
			Width	mm	1080	880	1080	880			
	Package dimensions		Depth	mm	204	310	204	310			
			Height	mm	372	704	372	704			
			Width	mm	1151	1023	1151	1023			
	Weight		Depth	mm	277	413	277	413			
			Net	kg	13	63	13	63			
		Shipping	kg	16	67	16	67				

Remarks : Rating Conditions are :

Indoor air temperature ISO(50Hz) : 27°C DB/19.0°C WB, ISO(60Hz) : 27.0°C DB/19.5°C WB

Outdoor air temperature ISO : 35.0°C DB/24.0°C WB

Table (cont.)

Item		Model	AQ24A(B)5(6)RBD				AQT18A(B)9RE/AQT18A(B)0RE/AQT18C9(0)RE				AQT18C0REF							
			Cool		Heat		Cool		Heat		Cool		Heat					
Power Source			220V~, 60Hz				220-240V~, 50Hz				220-240V~, 50Hz							
Performance	Capacity (ISO/SASO)	kcal/h	BTU	KW	BTU	KW	BTU	KW	BTU	KW	BTU	KW	BTU	KW				
		BTU/h	24,000BTU/h	-	24,000BTU/h	-	18,000BTU/h	5.10KW	20,000BTU/h	5.60KW	18,000BTU/h	5.10KW	20,000BTU/h	5.60KW				
	Air circulation (High)	m ² /min	14.0	-	14.5	-	13.0	13.0	13.5	13.5	13.0	13.0	13.5	13.5				
	Moisture removal (High)	Liters/h	3.0				2.5				2.5							
Electrical Rating	Available voltage range	V	187 ~ 253				198 ~ 264				198 ~ 264							
	Running amperes	A	10.0	-	11.3	-	9.5	9.5	10.0	10.0	8.3	8.3	9.0	9.0				
	Power input	kw	2.4	-	2.6	-	2.00	2.00	2.10	2.10	1.88	1.88	2.02	2.02				
	Power factor	%	96.6	-	94.5	-	87.7	87.7	87.5	87.5	98.5	98.5	97.6	97.6				
	Energy efficiency ratio	BTU/wh	10.0	-	9.23	-	9.0	-	9.5	-	9.57	-	9.90	-				
	Compressor locked rotor amperes	A	51				54				53							
Features	Controls/Temperature control		Microprocessor / I.C Thermistor				Microprocessor / I.C Thermistor				Microprocessor / I.C Thermistor							
	Control unit		Wireless remote control				Wireless remote control				Wireless remote control							
	Timer		24-Hour ON or OFF				24-Hour ON or OFF				24-Hour ON or OFF							
	Fan speed		Indoor/Outdoor		3 Steps and Turbo / 2 Step				3 Steps and Turbo / 2 Step				3 Steps and Turbo / 2 Step					
	Airflow direction (indoor)		Horizontal		Manual				Manual				Manual					
			Vertical		Auto				Auto				Auto					
	Compressor		Rotary(SAMSUNG)				Reciprocating(Tecumseh)				Rotary(SAMSUNG)							
	Refrigerant/Amount charged at rating		g		R22 / 1,650g				R22 / 1,500g				R22 / 1,500g					
	Refrigerant control		Capillary tube				Capillary tube				Capillary tube							
	Operation sound		Indoor Hi/Mi/Lo		dB-A		48 / 46 / 44				45 / 42 / 39				47 / 44 / 41			
			Outdoor-Hi		dB-A		61				57				58			
	Refrigerant tubing connections		Flare type				Flare type				Flare type							
	Max. allowable tubing length at shippint		m		15				15				15					
	Refrigerant tube diameter		Narrow tube		(in.)		6.35(1/4")				6.35(1/4")				6.35(1/4")			
			Wide tube		(in.)		15.88(5/8")				12.70(1/2")				12.70(1/2")			
	Refrigerant tube kit/Accessories		Optional / Hanger-plate				Optional / Hanger-plate				Optional / Hanger-plate							
Dimensions & Weight	Unit dimensions		Indoor unit		Outdoor		Indoor unit		Outdoor		Indoor unit		Outdoor					
			Height		mm		275		638		275		620					
			Width		mm		1080		880		1080		787					
	Package dimensions		Depth		mm		204		310		204		320					
			Height		mm		372		704		352		692					
			Width		mm		1151		1023		1511		909					
	Weight		Depth		mm		277		413		277		444					
			Net		kg		13		64.5		13		58					
		Shipping		kg		16		68.5		16		62						

Remarks : Rating Conditions are :
 Indoor air temperature ISO(50Hz) : 27°C DB/19.0°C WB, ISO(60Hz) : 27.0°C DB/19.5°C WB
 Outdoor air temperature ISO : 35.0°C DB/24.0°C WB

AQT18A(B)9RB/AQT18A(B)0RB/AQT18C9(0)RB				AQ18A(B)9RE/AQ18A(B)0RE/SH18ZA(B)9				AQT24A(B)5(6)RED/SH24TA(B)6D			
Cool		Heat		Cool		Heat		Cool		Heat	
220V~, 60Hz				220-240V~, 50Hz				220-240V~, 50Hz			
BTU	KW	BTU	KW	BTU	KW	BTU	KW	BTU	KW	BTU	KW
18,000BTU/h	-	20,000BTU/h	-	18,000BTU/h	5.10	20,000BTU/h	5.60	24,000BTU/h	6.80KW	24,000BTU/h	6.90KW
13.0	-	13.5	-	13.5	13.5	14.0	14.0	14.0	14.0	14.5	14.5
2.5				2.5				3.0			
187 - 253				198 - 264				198 - 264			
10.0	-	10.5	-	8.3	8.3	8.5	8.5	12.0	12.0	12.5	12.5
2.00	-	2.10	-	1.85	1.80	1.95	1.85	2.55	2.55	2.60	2.60
90.9	-	90.9	-	92.8	90.4	95.6	90.7	92.4	92.4	90.4	90.4
9.0	-	9.5	-	9.7	-	10.2	-	9.4	2.66	9.2	-
52				35				82			
Microprocessor / I.C Thermistor				Microprocessor / I.C Thermostat				Microprocessor / I.C Thermistor			
Wireless remote control				Wireless remote control				Wireless remote control			
24-Hour ON or OFF				24-Hour ON or OFF				24-Hour ON or OFF			
3 Steps and Turbo / 2 Step				3 Steps and Turbo / 2 Step				3 Steps and Turbo / 2 Step			
Manual				Manual				Manual			
Auto				Auto				Auto			
Reciprocating(Tecumseh)				Rotary(SAMSUNG)				Reciprocating(Tecumseh)			
R22 / 1,500g				R22 / 1,550g				R22 / 1,250g			
Capillary tube				Capillary tube				Capillary tube			
45 / 42 / 39				45 / 42 / 39				45 / 43 / 41			
57				55				58			
Flare type				Flare type				Flare type			
15				15				15			
6.35(1/4")				6.35(1/4")				6.35(1/4")			
12.70(1/2")				12.70(1/2")				15.88(5/8")			
Optional / Hanger-plate				Optional / Hanger-plate				Optional / Hanger-plate			
Indoor unit		Outdoor		Indoor unit		Outdoor		Indoor unit		Outdoor	
275		620		275		620		275		638	
1080		787		1080		787		1080		880	
204		320		204		320		204		310	
352		692		352		692		352		704	
1511		909		1151		909		1151		1023	
277		444		277		444		277		413	
13		58		13		46		13		63	
16		62		16		50		16		67	

Table (cont.)

Item		Model	AQ18A(B)9(0)RED/SH18ZA(B)0D				AQ18A(B)9(0)RBD						
			Cool		Heat		Cool		Heat				
Power Source			220-240V~, 50Hz				220V~, 60Hz						
Performance	Capacity (ISO/SASO)	kcal/h	BTU	KW	BTU	KW	BTU	KW	BTU	KW			
		BTU/h	18,000BTU/h	5.10	20,000BTU/h	5.60	18,000BTU/h	-	20,000BTU/h	-			
	Air circulation (High)	m ² /min	13.5	13.5	14.0	14.0	13.5	13.5	14.0	14.0			
	Moisture removal (High)	Liters/h	2.5				2.5						
Electrical Rating	Available voltage range	V	198 ~ 264				187-253						
	Running amperes	A	8.1	8.1	7.9	7.9	8.3	-	8.3	-			
	Power input	kw	1.76	1.76	1.70	1.70	1.77	-	1.80	-			
	Power factor	%	94.5	94.5	93.6	93.6	96.9	-	98.6	-			
	Energy efficiency ratio	BTU/wh	10.2	2.90	11.8	-	10.17	-	10.57	-			
	Compressor locked rotor amperes	A	35				35						
Features	Controls/Temperature control		Microprocessor / I.C Thermistor				Microprocessor / I.C Thermistor						
	Control unit		Wireless remote control				Wireless remote control						
	Timer		24-Hour ON or OFF				24-Hour ON or OFF						
	Fan speed		Indoor/Outdoor		3 Steps and Turbo / 2 Step		3 Steps and Turbo / 2 Step						
	Airflow direction (indoor)		Horizontal		Manual		Manual						
			Vertical		Auto		Auto						
	Compressor		Rotary(SAMSUNG)				Rotary(SAMSUNG)						
	Refrigerant/Amount charged at rating		g	R22 / 1,150g				R22 / 1,210g					
	Refrigerant control		Capillary tube				Capillary tube						
	Operation sound		Indoor Hi/Mi/Lo	dB-A		46 / 44 / 42		46 / 44 / 42					
			Outdoor-Hi	dB-A		55		58					
	Refrigerant tubing connections		Flare type				Flare type						
	Max. allowable tubing length at shippint		m	15				15					
	Refrigerant tube diameter		Narrow tube	(in.)		6.35(1/4")		6.35(1/4")					
			Wide tube	(in.)		12.70(1/2")		12.70(1/2")					
	Refrigerant tube kit/Accessories		Optional / Hanger-plate				Optional / Hanger-plate						
Dimensions & Weight	Unit dimensions		Indoor unit		Outdoor		Indoor unit		Outdoor				
			Height	mm		275		620		275		620	
			Width	mm		1080		787		1080		787	
	Package dimensions		Depth	mm		204		320		204		320	
			Height	mm		352		692		352		692	
			Width	mm		1151		909		1151		909	
	Weight		Depth	mm		277		444		277		444	
			Net	kg		13		46		13		46	
		Shipping	kg		16		50		16		50		

Remarks : Rating Conditions are :
 Indoor air temperature ISO(50Hz) : 27°C DB/19.0°C WB, ISO(60Hz) : 27.0°C DB/19.5°C WB
 Outdoor air temperature ISO : 35.0°C DB/24.0°C WB

2-2 Major Component specifications

■ Indoor unit

Model		AQT24A(B)5RE/AQT24A(B)6RE/SH24TA(B)5/AQT24C5(6)RE	AQT24A(B)5RB/AQT24A(B)6RB/AQT24C5(6)RB	
PCB	Part No.	PD-SH30ZC-00	PD-SH30ZC-00	
	Controls	Microprocessor	Microprocessor	
	Control circuit fuse	250V, 3.15A	250V, 3.15A	
Fan & Fan Motor	Type	Cross-Flow	Cross-Flow	
	Dia. and length	mm	mm	
	Fan motor model	IC-9430SKC7A	IC-9430SKC7A	
	Pols,rpm(at 240V)	4P, 1350 RPM	4P, 1350 RPM	
	Normal out	W	W	
	Coil resistance(Ambient temp.20°C)	Ω	MAIN : 137Ω	MAIN : 137Ω
			SUB : 132Ω	SUB : 132Ω
	Safety devices	Type	17AM034A5	17AM034A5
Operating temp. Open °C		135 ± 5°C	135 ± 5°C	
Run capacitor	μF x VAC	2μF x 450VAC	2μF x 450VAC	
S-Motor	Type			
	Model	MSFCC20A03	MSFCC20A03	
	Rating	DC 12V	DC 12V	
	Coil resistance (Ambient temp. 25°C)	Ω	Ω	
Heat Exch.	Coil	AL-FIN/Copper tube	AL-FIN/Copper tube	
	Rows x Steps	2 x 15	2 x 15	
	Fin pitch	mm	mm	
	Face area	m ²	m ²	

■ Outdoor unit

Model		UQT24A(B)5RE/UQT24A(B)6RE/SH24TA(B)5X/UQT24C5(6)RE	UQT24A(B)5RB/UQT24A(B)6RB/UQT24C5(6)RB	
Compressor	Type	Reciprocating	Reciprocating	
	Compressor model	AWG5532EXC	AWG5528EXN	
	Normal output	W	W	
	Compressor oil kind	WITCO LP200 OR EQUIVALENT	WITCO LP200 OR EQUIVALENT	
	Compressor oil	cc	cc	
	Oil Specific gravity	0.92	0.92	
	Coil resistance(Ambient temp.25°C)	Ω	Start winding : 2.49	Start winding : 1.94
			Run winding : 0.81	Run winding : 0.88
	Safety devices	Type	15HM2415-148	15HM2415-148
		Overload relay	Internal Line Break	Internal Line Break
Operating temp. Open °C		°C	120	120
		Close °C	69	69
Operating amp(Ambient temp.)	73.0 AT 2-10 SECOND	73.0 AT 2-10 SECOND		
Run capacitor	μF x VAC	45MF x 370VAC	35MF x 370VAC	
Fan & Fan	Type	Propeller	Propeller	
	Dia. and length	mm	mm	
	Fan motor model	OSME-906SRC	OSM-906SRC	
	Pols, rpm(at240V)	6P, 850/400 RPM	6P, 850/400 RPM	
	Normal output	W	W	
	Coil resistance(Ambient temp.20°C)	Ω	MAIN : 55Ω	MAIN : 55Ω
			SUB : 60Ω	SUB : 65Ω
	Safety devices	Type	17AM037A5	17AM037A5
Operating temp. Open °C		150±5°C	150±5°C	
	Close °C			
Run capacitor	μF x VAC	4μF x 450VAC	4μF x 450VAC	
Heat Exch.	Coil	AL-FIN / Copper tube	AL-FIN / Copper tube	
	Rows x Steps	2 x 24	2 x 24	
	Fin pitch	mm	mm	
	Face area	m ²	m ²	

2-2 Major Component specifications

■ Indoor unit

Model		AQ24A(B)5(6)RBD	AQT18A(B)9RE/AQT18A(B)02RE	AQT18C0REF	
PCB	Part No.	PD-SH30ZC-02	PD-SH30ZC-02	PD-SH30ZC-02	
	Controls	Microprocessor	Microprocessor	Microprocessor	
	Control circuit fuse	250V, 3.15A	250V, 3.15A	250V, 3.15A	
Fan & Fan Motor	Type	Cross-Flow	Cross-Flow	Cross-Flow	
	Dia. and length	mm	ø95/L = 842	ø95/L = 842	
	Fan motor model	IC-9430SKC7A	IC-9430SKC7A	IC-9430SKC7A	
	Pols,rpm(at 240V)	4P, 1350 RPM	4P, 1350 RPM	4P, 1350 RPM	
	Normal out	W	40W	40W	
	Coil resistance(Ambient temp.20°C)	Ω	MAIN : 137Ω	MAIN : 137Ω	MAIN : 137Ω
			SUB : 132Ω	SUB : 132Ω	SUB : 132Ω
	Safety devices	Type	17AM034A5	17AM034A5	17AM034A5
		Operating temp. Open °C	135 ± 5°C	135 ± 5°C	135 ± 5°C
Run capacitor	μF x VAC	2μF x 450VAC	2μF x 450VAC	2μF x 450VAC	
S-Motor	Type				
	Model	MSFCC20A03	MSFCC20A03	MSFCC20A03	
	Rating	DC 12V	DC 12V	DC 12V	
	Coil resistance (Ambient temp. 25°C)	Ω	530Ω	530Ω	
Heat Exch.	Coil	AL-FIN/Copper tube	AL-FIN/Copper tube	AL-FIN/Copper tube	
	Rows x Steps	2 x 15	2 x 15	2 x 15	
	Fin pitch	mm	1.2	1.5	
	Face area	m ²	0.315	0.315	

■ Outdoor unit

Model		UQ24A(B)5(6)RBD	UQT18A9RE/UQT18A0RE	UQT18C0REF	
Compressor	Type	Rotary	Reciprocating	Rotary	
	Compressor model	55A240IUZEM	AWG5524EXC	55A200JT1EM	
	Normal output	W	2220	2030	
	Compressor oil kind	SUNISO-4GSDT	WITCO LP200 OR EQUIVALENT	SUNISO-4GSDT	
	Compressor oil	cc	800	INITIAL : 1125 REFILL : 1066	
	Oil Specific gravity	0.92	0.92	0.92	
	Coil resistance(Ambient temp.25°C)	Ω	Common to main : 1.84	Common to main : 2.98	Common to main : 1.14
			-	Common to sub: 1.42	Common to sub: 4.13
	Safety devices	Type	3HM605-41	15HM2416-148	3HM532-41
		Overload relay	Internal Line Break	Internal Line Break	Internal Line Break
Operating temp. Open °C		135	120	135	
		Close °C	74	69	74
Operating amp(Ambient temp.)	95°F(35°C)	73.0 AT 2-10 SECOND	95°F(35°C)		
Run capacitor	μF x VAC	40μF x 450VAC	35μF x 450VAC	45μF x 450VAC	
Fan & Fan	Type	Propeller	Propeller	Propeller	
	Dia. and length	mm	ø460	ø405	
	Fan motor model	OSM-906SRC	ASS030AVEB	ASS030AVEB	
	Pols, rpm(at240V)	6P, 850/400 RPM	4P, 950/500 RPM	4P, 950/500 RPM	
	Normal output	W	70W	35W	
	Coil resistance(Ambient temp.20°C)	Ω	MAIN : 55Ω	MAIN : 180Ω	MAIN : 180Ω
			SUB : 65Ω	SUB : 200Ω	SUB : 200Ω
	Safety devices	Type	17AM037A5	17AM034A5	17AM034A5
		Operating temp. Open °C	150±5°C	135±5°C	135±5°C
	Close °C	-	-	-	
Run capacitor	μF x VAC	4μF x 450VAC	2.5μF x 450VAC	3.0μF x 450VAC	
Heat Exch.	Coil	AL-FIN / Copper tube	AL-FIN / Copper tube	AL-FIN / Copper tube	
	Rows x Steps	2 x 24	2 x 24	2 x 24	
	Fin pitch	mm	1.7	1.7	
	Face area	m ²	0.5376	0.504	

AQT18A(B)9RB/AQT18A(B)0RB/AQT18C9(0)RB	AQ18A(B)9RE/AQ18A(B)0RE/SH18ZA(B)9	AQ18A(B)9(0)RBD
PD-SH30ZC-00	PD-SH30ZC-00	PD-SH30ZC-00
Microprocessor	Microprocessor	Microprocessor
250V, 3.15A	250V, 3.15A	250V, 3.15A
Cross-Flow	Cross-Flow	Cross-Flow
ø95/L = 842	ø95/L = 842	ø95/L = 842
IC-9430SKC7A	IC-94309KC7A	IC-94309KC7A
4P, 1350 RPM	4P, 1350 RPM	4P, 1350 RPM
40W	40W	40W
MAIN : 137Ω	MAIN : 137Ω	MAIN : 137Ω
SUB : 132Ω	SUB : 132Ω	SUB : 132Ω
17AM034A5	17AM034A5	17AM034A5
135 ± 5°C	135 ± 5°C	135 ± 5°C
2μF x 450VAC	2.0μF x 450VAC	2.0μF x 450VAC
MSFCC20A03	MSFCC20A03	MSFCC20A03
DC 12V	DC 12V	DC 12V
530Ω	530Ω	530Ω
AL-FIN/Copper tube	AL-FIN/Copper tube	AL-FIN/Copper tube
2 x 15	2 x 15	2 x 15
1.5	1.5	1.5
0.315	0.315	0.315

UQT18AB(9)RB/UQT18A(B)0RB/UQT18C9(0)RB	UQ18A(B)9RE/UQ18A(B)0RE/SH18ZA(B)9X	UQ18A(B)9(0)RBD
Reciprocating	Rotary	Rotary
AWG5520EXN	48B180JV1EH	48D190IU1EH
2070	1885	1769
WITCO LP200 OR EQUIVALENT	SUNISO-4GSD-T	SUNISO-4GSD
INITIAL : 1125 REFILL : 1066	600	600
0.92	0.92	0.92
Common to main : 2.72	Common to main : 1.84	Common to main : 1.84
Common to sub : 1.32	Common to sub : -	-
15HM2311-148	RAC12016-9622	RAC12016-9622
Internal Line Break	External Line Break	External Line Break
120	165°C	165°C
69	74°C	74°C
73.0 AT 2-10 SECOND	120°C : 10.7A 130°C : 9.4A	95°F(35°C)
25MF x 370VAC	40μF x 450VAC	40μF x 450VAC
Propeller	Propeller	Propeller
ø405	ø405	ø405
ASS030ZTEC	ASS030AVEB	ASS030ZTEC
4P, 950/500 RPM	4P, 950/500 RPM	4P, 950/500 RPM
35W	35W	35W
MAIN : 160Ω	MAIN : 180Ω	MAIN : 180Ω
SUB : 170Ω	SUB : 200Ω	SUB : 200Ω
17AM034A5	17AM037A5	17AM037A5
135±5°C	135±5°C	135±5°C
2.5μF x 450VAC	2.5μF x 450VAC	2.5μF x 450VAC
AL-FIN / Copper tube	AL-FIN / Copper tube	AL-FIN / Copper tube
2 x 24	2 x 24	2 x 28
1.7	1.7	1.5
0.504	0.504	0.534

Major Component specifications (cont.)

■ Indoor unit

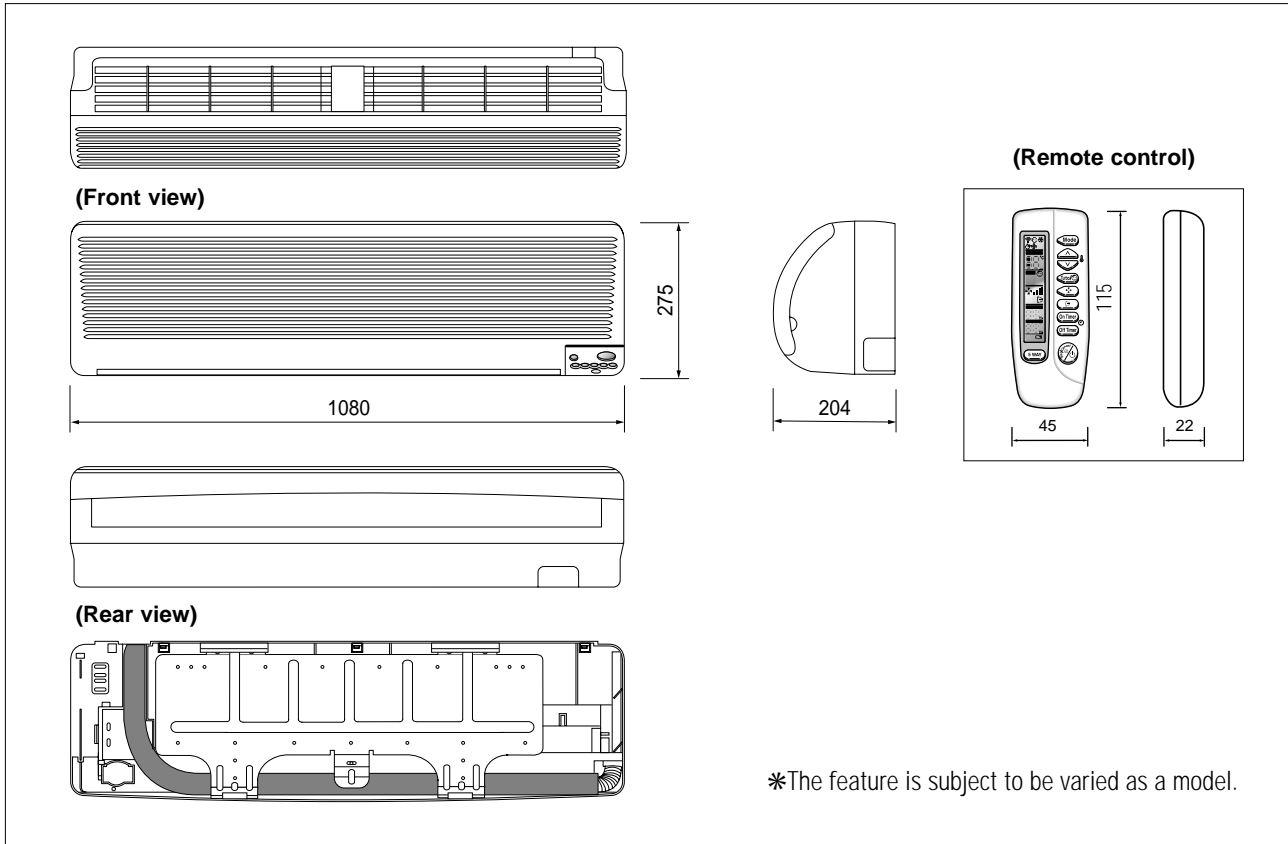
Model		AQT24A(B)5(6)RED/SH24TA(B)6D	AQ18A(B)9(0)RE(B)D/SH18ZA(B)0D	
PCB	Part No.	PD-SH30ZC-00	PD-SH30ZC-00	
	Controls	Microprocessor	Microprocessor	
	Control circuit fuse	250V, 3.15A	250V, 3.15A	
Fan & Fan Motor	Type	Cross-Flow	Cross-Flow	
	Dia. and length	mm	mm	
	Fan motor model	IC-9430SKC7A	IC-94309KC7A	
	Pols,rpm(at 240V)	4P, 1350 RPM	4P, 1350 RPM	
	Normal out	W	W	
	Coil resistance(Ambient temp.20°C)	Ω	MAIN : 137Ω	MAIN : 137Ω
			SUB : 132Ω	SUB : 132Ω
	Safety devices	Type	17AM034A5	17AM034A5
Operating temp. Open °C		135 ± 5°C	135 ± 5°C	
Run capacitor	μF x VAC	2μF x 450VAC	2.0μF x 450VAC	
S-Motor	Type			
	Model	MSFCC20A03	MSFCC20A03	
	Rating	DC 12V	DC 12V	
	Coil resistance (Ambient temp. 25°C)	Ω	Ω	
Heat Exch.	Coil	AL-FIN/Copper tube	AL-FIN/Copper tube	
	Rows x Steps	2 x 15	2 x 15	
	Fin pitch	mm	mm	
	Face area	m ²	m ²	

■ Outdoor unit

Model		UQT24A(B)5(6)RED/SH24TA(B)6DX	UQ18A(B)9(0)RED/SH18ZA(B)0DX	
Compressor	Type	Reciprocating	Rotary	
	Compressor model	AWG5532EXC	48B180JV1EH	
	Normal output	W	W	
	Compressor oil kind	WITCO LP200 OR EQUIVALENT	SUNSO-4GSD-T	
	Compressor oil	cc	cc	
	Oil Specific gravity	0.92	0.92	
	Coil resistance(Ambient temp.25°C)	Ω	Start winding : 2.49	Common to main : 1.84
			Run winding : 0.81	Common to sub : -
	Safety devices	Type	15HM2415-148	RAC12016-9622
		Overload relay	Internal Line Break	External Line Break
Operating temp. Open °C			120	165°C
Close °C		69	74°C	
Operating amp(Ambient temp.)	73.0 AT 2-10 SECOND	120°C : 10.7A 130°C : 9.4A		
Run capacitor	μF x VAC	45MF x 370VAC	40μF x 450VAC	
Fan & Fan	Type	Propeller	Propeller	
	Dia. and length	mm	mm	
	Fan motor model	OSME-906SRC	ASS030AVEB	
	Pols, rpm(at240V)	6P, 850/400 RPM	4P, 950/500 RPM	
	Normal output	W	W	
	Coil resistance(Ambient temp.20°C)	Ω	MAIN : 55Ω	MAIN : 180Ω
			SUB : 60Ω	SUB : 200Ω
	Safety devices	Type	17AM037A5	17AM037A5
		Operating temp. Open °C	150±5°C	135±5°C
Close °C				
Run capacitor	μF x VAC	4μF x 450VAC	2.5μF x 450VAC	
Heat Exch.	Coil	AL-FIN / Copper tube	AL-FIN / Copper tube	
	Rows x Steps	2 x 28	2 x 28	
	Fin pitch	mm	mm	
	Face area	m ²	m ²	

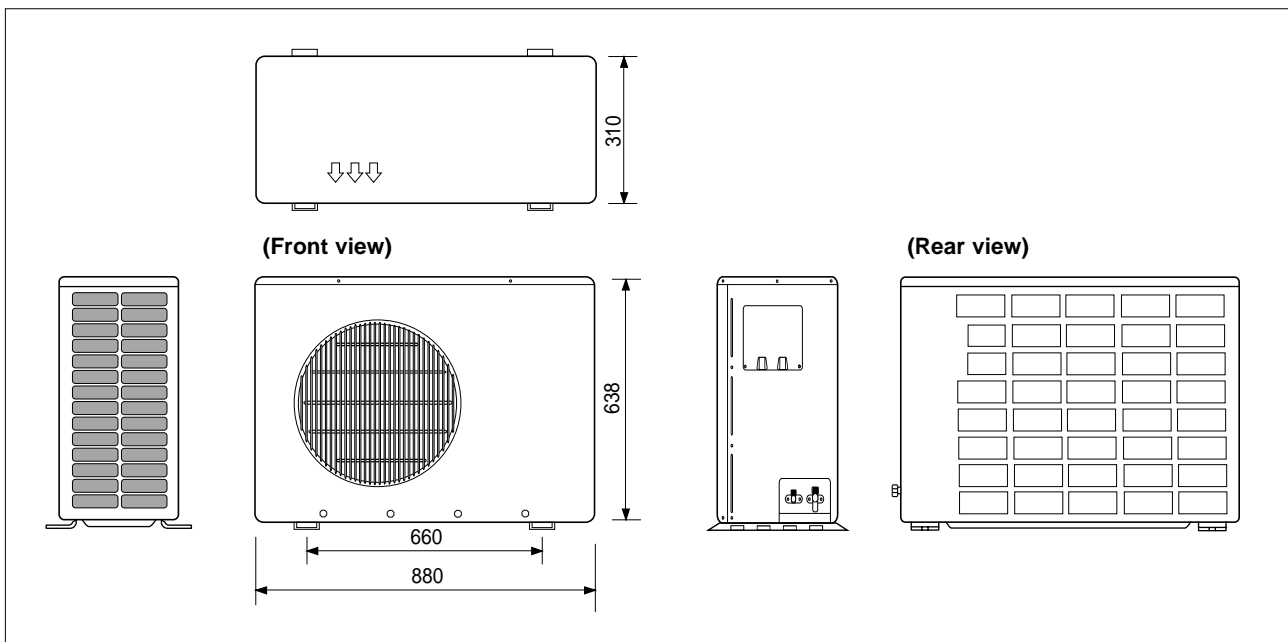
2-3 Dimensions

2-3-1 Indoor Unit

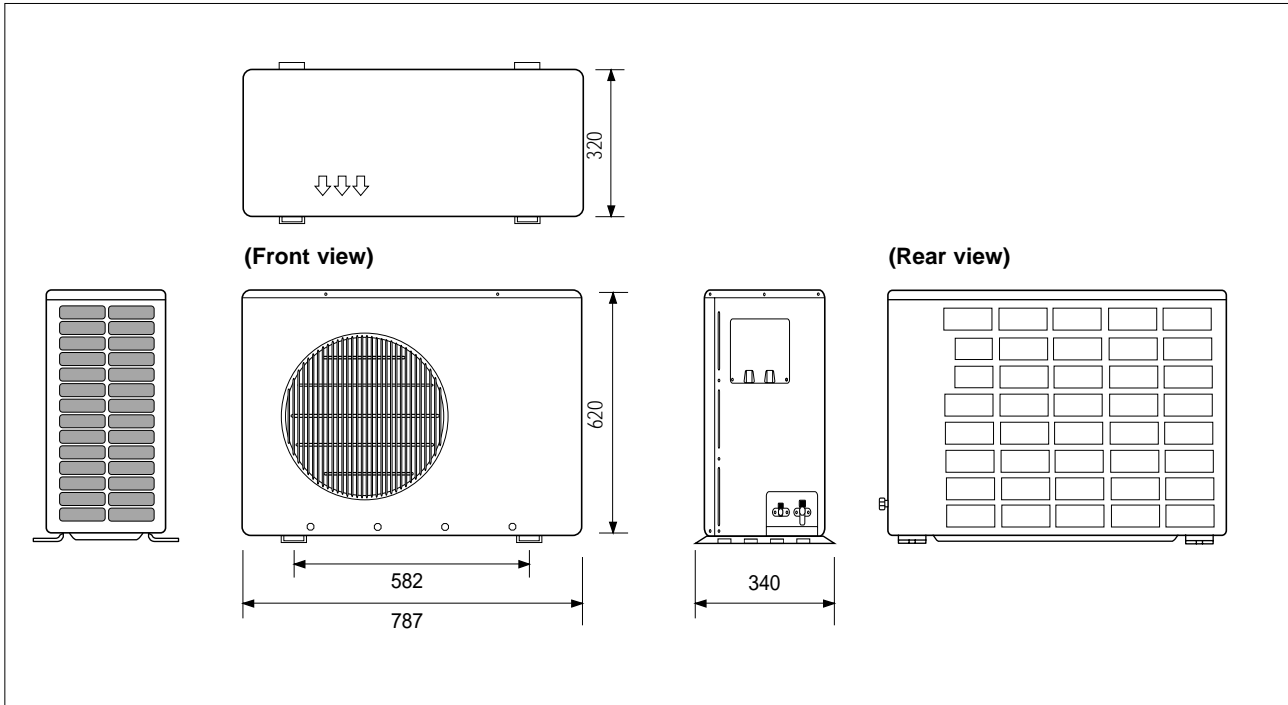


2-3-2 Outdoor Unit

2-3-2(a) 24K BTU

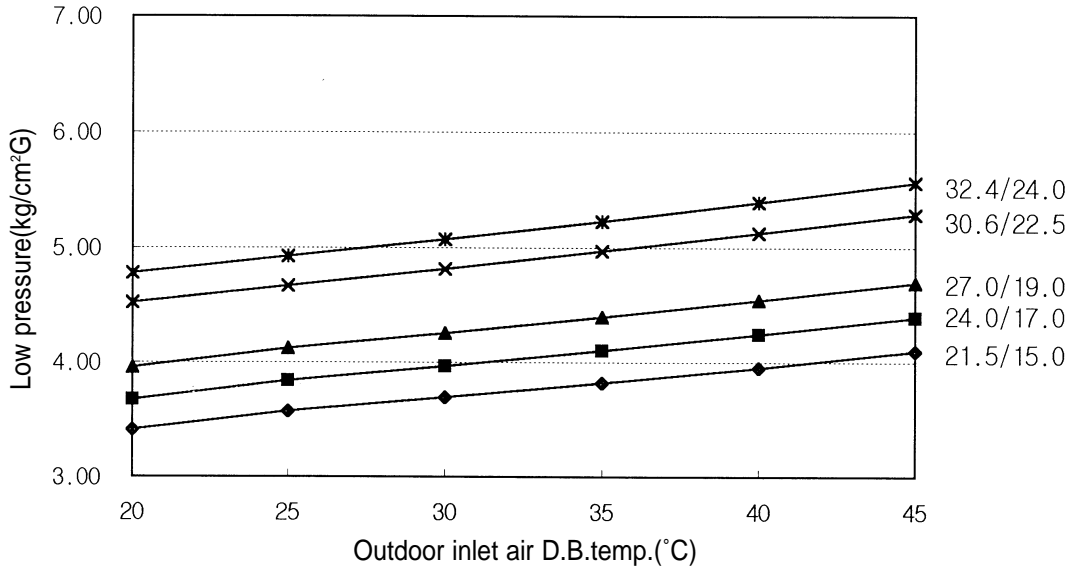


2-3-3(b) 18K BTU

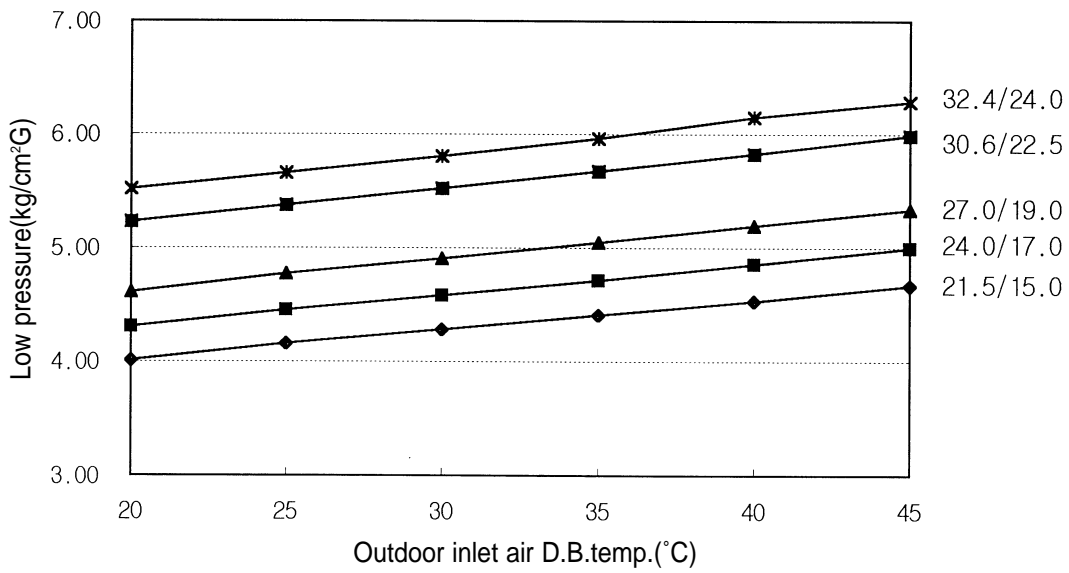


2-4 Pressure Graph

■ 24K BTU



■ 18 BTU














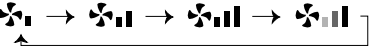









MEMO

3. Operating Instructions and Installation

3-1 Operating Instructions

3-1-1 The Feature of Key in remote controller

NO	NAMED OF KEY	FUNCTION OF KEY
1		Power On/Off button to start and stop airconditioner or timer set up.
2	 (UP)	Temp. up button. To increase the temperatute by the pressing the temperature button.
	 (DOWN)	Temp. down button. To decrease the temperature by the pressing the temperature button.
3		Each time you press this button Mode is changed in the following order   : Auto Mode  : Fan Only  : Cool Mode  : Heat Mode  : Dry Mode
4		Press TURBO until the appearance. the air condition cools or heats the room as quickly as possible. after 30minutes, the air, the airconditioner is reset automatically to the previous mode.
		Press  until the appearance. the sleep timer can be used when you are cooling or heating your room to switch the air conditioner off automatically after a perriod of six hours.
5		Each time you press this button, FAN SPEED is changed in the following order. 
6		Adjust air flow vertically.
7		The ON Timer enables you to switch on the air conditioner automatically after a given period of time that is from 30 minutes to 24 hours. To cancel, press the  (Set/Cancel) button.
8		The Off Timer enables you to switch off the air conditioner automatically after a given period of time that is from 30 minutes to 24 hours. To cancel, press the  (Set/Cancel) button.
9		To select the 5 way function with the remote control, press the 5 way button one or more times until the desired mode is selected. Each time you press the 5 way button  Each 5 way indicator on the indoor unit comes on in order.

3-1-2 Name & Function of Key in remote controller

1. **AUTO MODE** : In this mode, operation mode(COOL, HEAT) is selected automatically by the room temperature of initial operation.

Room Temp	Operation Type
$Tr \geq 21^{\circ}\text{C} + \Delta T$	Cool Operation (Set Temp : $24^{\circ}\text{C} + \Delta T$)
$21^{\circ}\text{C} + \Delta T > Tr$	Heat Operation (Set Temp : $22^{\circ}\text{C} + \Delta T$)

$\Delta T = -1^{\circ}\text{C}, -2^{\circ}\text{C}, 0^{\circ}\text{C} + 1^{\circ}\text{C} + 2^{\circ}\text{C}$

ΔT is controlled by setting temperature up/down key of remote controller

2. **COOL MODE** : The unit operates according to the difference between the setting and room temperature. ($18^{\circ}\text{C} \sim 30^{\circ}\text{C}$)

3. **HEAT MODE** : The unit operates according to the difference between the setting and room temperature. ($16^{\circ}\text{C} \sim 30^{\circ}\text{C}$)

*Prevention against cold wind : For about 3~5 minutes after initial operation, thermo control or "de-ice", the indoor fan will either not operate or operate very slowly, then switch to the selected fan speed. This period is to allow the indoor unit's heat-exchanger to prewarm before emitting warm air.

*High temperature release function : The outdoor unit for and compressor ON/OFF control for safety operation, when the over-heat is heat exchanger of indoor unit.

*De-ice : Deicing operation is controlled by indoor unit's heat exchanger temperature and accumulating time of compressor's operation.

De-ice end by sensing of the processing time by de-ice Condition.

4. **DRY MODE** : Has 3 states, each determined by room temperature.

The unit operates in DRY mode.

*Compressor ON/OFF Time is controlled compulsorily (can not set up the fan speed, always breeze).

*Protective function : Low temperature release. (Prevention against freeze)

5. **TURBO MODE** : This mode is available in AUTO, COOL, HEAT, DRY, FAN MODE. When this button is pressed at first, the air conditioner is operated "powerful" state for 30 minutes regardless of the set temperature, room temperature.

When this button is pressed again, or when the operating time is 30 minutes, turbo operation mode is canceled and returned to the previous mode.

*But, if you press the TURBO button in DRY or FAN mode that is changed with AUTO mode automatically.

6. **SLEEP MODE** : Sleep mode is available only in COOL or HEAT mode.

The operation will stop after 6 hours.

*In COOL mode : The setting temperature is automatically raised by 1°C each 1hour. When the temperature has been raised by total of 2°C , that temperature is maintained.


*In HEAT mode : The setting temperature is automatically dropped by 1°C each 1hour. When the temperature has been dropped by total of 2°C , that temperature is maintained.


7. **FAN SPEED** : Manual (3 step), Auto (4 step) Fan speed automatically varies depending on both the difference between setting and the room temperature.


8. COMPULSORY OPERATION :


For operating the air conditioner without the remote controller.


*AUTO : The operating is the same function that AUTO MODE in the remote controller. And each time you press the button the 5WAY function is changed as follow.
 STD → NATURE → POWER → SAVING → SILENCE → POWER OFF

* STD(standard) () : General operation Mode

* NATURE () : The unit is operated according to health pattern control




* POWER () : The unit is operated in powerful state


* SAVING () : The unit is operated in power saving state


* SILENCE () : The unit is operated quietly

Each mode has Auto, Cool and SLEEP operation designed in advance.

9. SWING : BLADE-H is rotated vertically by the stepping motor.

*Swing Set : Press the  button under the remote control is displayed on LCD the  and the blades move up and down. If the one more time press the  button, blades location is stop.





































10. 24-Hour ON/OFF Real Setting Timer. : The air conditioner is turned ON at a specified time using .



OFF TIMER : The air Conditioner is turned OFF at a specified time using .

*ON TIMER : Only timer LED lights on.

*OFF TIMER : Both timer and operation LED lights on.

11. SELF Diagnosis

Check Point	LED DISPLAY					
	TIMER	STD	NATURE	POWER	SAVING	SILENCE
						
Indoor unit room temperature sensor error(open or short)						
Indoor unit heat exchanger temperature sensor error(open or short)						
Indoor fan mal function						
EEPROM error						
Option error(option wasn't set up or option data error)						

 : LED blinking  : LED off

12. BUZZER SOUND : Whenever the ON/OFF button is pressed or whenever change occurs to the condition which is set up or select, the compulsory operation mode, buzzer is sounded "beep".

3-2 Installation

3-2-1 Selecting Area for Installation

Select an area for installation that is suitable to the customer's needs.

3-2-1(a) Indoor Unit

1. Make sure that you install the indoor unit in an area providing good ventilation. It must not be blocked by an obstacle affecting the airflow near the air inlet and the air outlet.
2. Make sure that you install the indoor unit in an area allowing good air handling and endurance of vibration of the indoor unit.
3. Make sure that you install the indoor unit in an area where there is no source of heat or vapor nearby.
4. Make sure that you install the indoor unit in an area from which hot or cool air is spread evenly in a room.
5. Make sure that you install the indoor unit in an area away from TVs, audio units, cordless phones, fluorescent lighting fixtures and other electrical appliances (at least 1 meter).
6. Make sure that you install the indoor unit in an area which provides easy pipe connection with the outdoor unit, and easy drainage for condensed water.
7. Make sure that you install the indoor unit in an area which is large enough to accommodate the measurements shown in figure on the next page.

3-2-1(b) Outdoor Unit

1. Make sure that you install the outdoor unit in area not exposed to the rain or direct sun light.
(Install a separate sunblind if exposed to direct sun light.)
2. Make sure that you install the outdoor unit in area allowing good air moment, not amplifying noise or vibration, especially to avoid disturbing neighbours.
(Fix the unit firmly if it is mounted in a high place.)

3. Make sure that you install the outdoor unit in area providing good ventilation and which is not dusty. It must not be blocked by any obstacle affecting the airflow near the air inlet and the air outlet.
4. Make sure that you install the outdoor unit in area free from animals or plants.
5. Make sure that you install the outdoor unit in area not blocking the traffic.
6. Make sure that you install the outdoor unit in area easy to drain condensed water from the indoor unit.
7. Make sure that you install the outdoor unit in area which provides easy connection within the maximum allowable length of a coolant pipe(18***: 15meters, 24***: 20meters).

Note

1. Add (18***:30g, 24***:40g) of refrigerant (R-22) for every 1 meter if the pipe length exceeds the standard pipe length of 5 meters.
2. Maintain a height between the indoor and outdoor units of less than 8 meters.

8. Make sure that you install the outdoor unit in an area which is large enough to accommodate the measurements shown in figure on the next page.

3-2-1(c) Remote Control Unit

1. Make sure that you install the remote control unit in an area free from obstacles such as curtains etc, which may block signals from the remote control unit.
2. Make sure that you install the remote control unit in an area not exposed to direct sunlight, and where there is no source of heat.
3. Make sure that you install the remote control unit in an area away from TVs, audio units, cordless phones, fluorescent lighting fixtures and other electrical appliances (at least 1 meter).

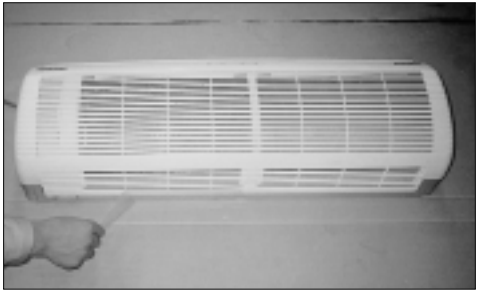


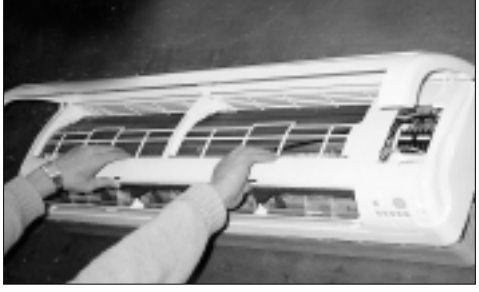

Caution :

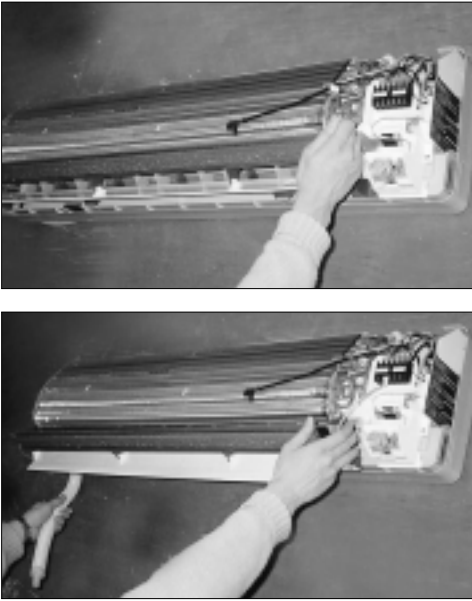
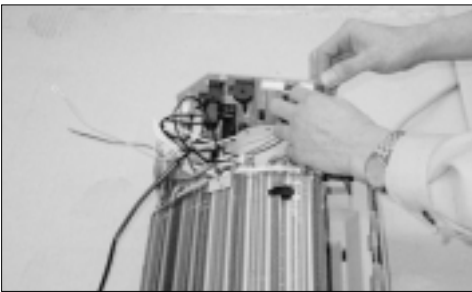
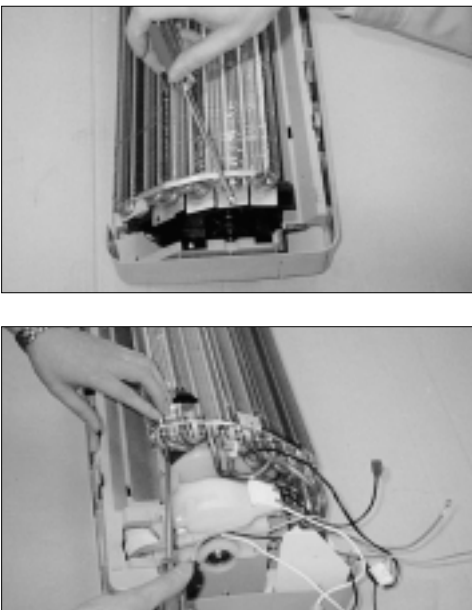
It is harmful to the air conditioner if it is used in the following environments: greasy areas (including areas near machines), salty areas such as coast areas, areas where sulfuric gas is present such as hot spring areas. Contact your dealer for advice.

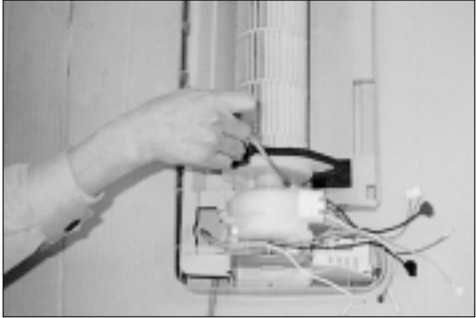
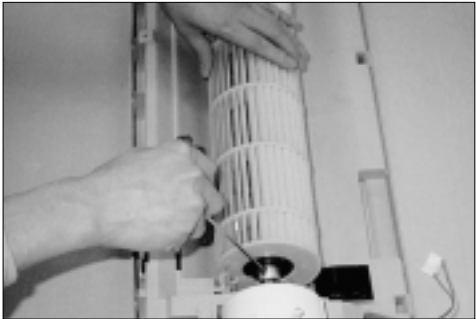
4. Disassembly and Reassembly

Stop operation of the air conditioner and remove the power cord before repairing the unit.

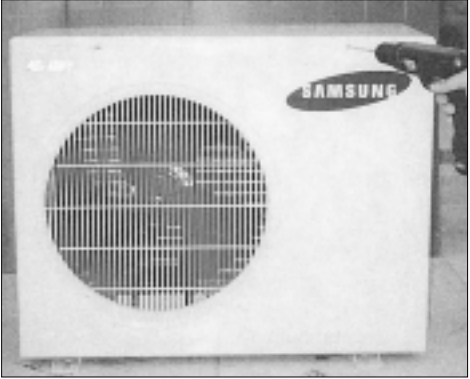
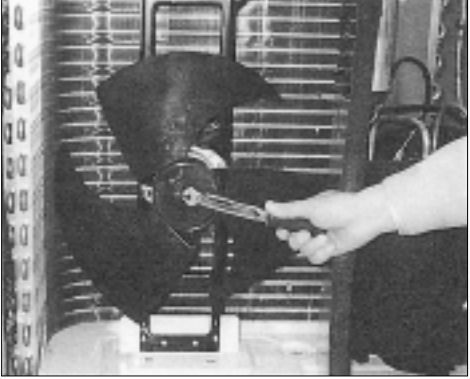
4-1 Indoor Unit

No	Parts	Procedure	Remark
1	Front Grille	<p>1) Stop the air conditioner operation and block the main power.</p> <p>2) Separate tape of front panel upper.</p> <p>3) Contract the second finger to the left, and right handle and pull to open the inlet grille.</p> <p>4) Take the left and right filter out.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>* Take the Deodorizing and Electrostatic filter out. (Optional)</p> </div> <p>5) Loosen one of the right fixing screw and separate the terminal cover.</p> <p>6) Loosen three fixing screws of front grille.</p> <p>7) Pull the upper left, right and Center of discharge softly for the outside cover to be pulled out.</p> <p>8) Pull softly the lower part of discharge and push it up.</p> <p>Caution; Assemble the front panel and fix the hooks of left, right and Center.</p>	    

No	Parts	Procedure	Remark
2	Ass'y Tray Drain.	<ol style="list-style-type: none"> 1) Do "1", above. Separate the drain hose from the extension drain hose. 2) Take the display PCB out. (Right of indoor unit) 3) Pull tray drain out from the back body. 	
3	Electrical Parts (Main PCB)	<ol style="list-style-type: none"> 1) Do "1", "2", above. 2) Take all the connector of PCB upper side out. (Inclusion Earth Wire) 3) Separate the outdoor unit connection wire from the terminal block. 4) If pulling the Main PCB up. it will be taken out. 	
4	Heat Exchanger	<ol style="list-style-type: none"> 1) Do "1" and "2", "3", above. 2) Loosen two fixing earth screws of right side. 3) Separate the connection pipe. 4) Separate the bush body at the upper side and holder at the rearside. 5) Loosen the two fixing screws of left side. 6) Lifting the heat exchanger up a little to push the up side for separation from the indoor unit. 	

No	Parts	Procedure	Remark
5	Fan Motor and Cross Fan	<ol style="list-style-type: none">1) Do "1" "2" "3" "4", above.2) Loosen the fixing three screws and separate the motor holder.3) Loosen the fixing screw of fan motor. (By use of M3 wrench)4) Separate the fan motor from the fan.5) Separate the fan from the left holder bearing.	 




4-2 Outdoor Unit

No	Parts	Procedure	Remark
1	Cabinet	<ol style="list-style-type: none"> 1) Turn off the unit and remove the power cable. 2) Remove the top cover. 3) Remove the control box cover. 4) Unplug the ass'y cable. 5) Remove the cabi-side. 6) Remove the cabi-front. <p>* When you assemble the parts, check if the each parts and electric connectors are fixed firmly.</p>	
2	Fan Motor & Propeller Fan	<ol style="list-style-type: none"> 1) Do Procedure 1 above. 2) Remove the nut flange. (Turn to the right to remove as it is a left turned screw) 3) Disassemble the propeller fan. 	

5. Troubleshooting

5-1 Items to be checked first

- 1) The input voltage should be rating voltage $\pm 10\%$ range.
The airconditioner may not operate properly if the voltage is out of this range.
- 2) Is the link cable linking the indoor unit and the outdoor unit linked properly?
The indoor unit and the outdoor unit shall be linked by 7 cables.
Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables.
Otherwise the airconditioner may not operate properly.
- 3) When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the airconditioner.

NO	Operation of air conditioner	Explanation
1	The STD operation indication LED blinks when a power plug of the indoor unit is plugged in for the first time.	It indicates power is on. The LED stops blinking if the operation ON/OFF button on the remote control unit is pushed.
2	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the IN DOOR FAN should operate. In a HEAT operation mode, the compressor does not operate at a room temperature lower than the setting temperature that indoor fan should operate.	In happens after a delay of 3 minutes when the compressor is reoperated. The same phenomenon occurs when a power is on. As a phenomenon that the compressor is reoperated after a delay of 3 minutes, the indoor fan is adjusted automatically with reference to a temperature of the air blew
3	Fan speed setting is not allowed in AUTO or DRY mode.  	The speed of the indoor fan is set to LL in DRY mode. Fan speed is 5 steps is selected automatically in AUTO mode.
4	Compressor stops operation intermittently in DRY mode. 	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
5	Compressor of the outdoor unit is operating although it is turned off in a HEAT mode.	When the unit is turned off while de-ice is activated, the compressor continues operation for up to 9 minutes (maximum) until the deice is completed.
6	Timer LED only of the indoor unit lights up and the air conditioner does not operate.	Timer is being activated and the unit is in ready mode. The unit operates normally if the timer operation is cancelled.
7	The compressor and indoor fan stop intermittently in HEAT mode.	The compressor and indoor fan stop intermittently if room temperature exceeds a setting temperature in order to protect the compressor from overheated air in a HEAT mode.
8	Indoor fan and outdoor fan stop operation intermittently in a HEAT mode.	The compressor operates in a reverse cycle to remove exterior ice in a HEAT mode, and indoor fan and outdoor fan do not operate intermittently for within 20% of the total heater operation
9	The compressor stops intermittently in a COOL mode or DRY mode, and fan speed of the indoor unit decreases.	The compressor stops intermittently or the fan speed of the indoor unit decreases to prevent inside/outside air frozen depending on the inside/outside air temperature.

- 4) Indoor unit observes operation condition of the air conditioner, and displays self diagnosis details on the display panel.

NO	Display	Self Diagnosis
1	STD LED blinking (1Hz)	Restore from power failure (input initial power)
2	TIMER LED blinking (1Hz)	Indoor unit Room sensor Error (open or short)
3	STD and TIMER LED blinking (1Hz)	Indoor unit heat exchanger temperature sensor Error (open or short)
4	NATURE LED blinking (1Hz)	Indoor fan malfunctioning (for speed is Below 450rpm)
5	STD, NATURE and TIMER LED blinking(1HZ)	EEPROM Error
6	All LED blinking (1Hz)	Option Error (Option wasn't setup or option data error)

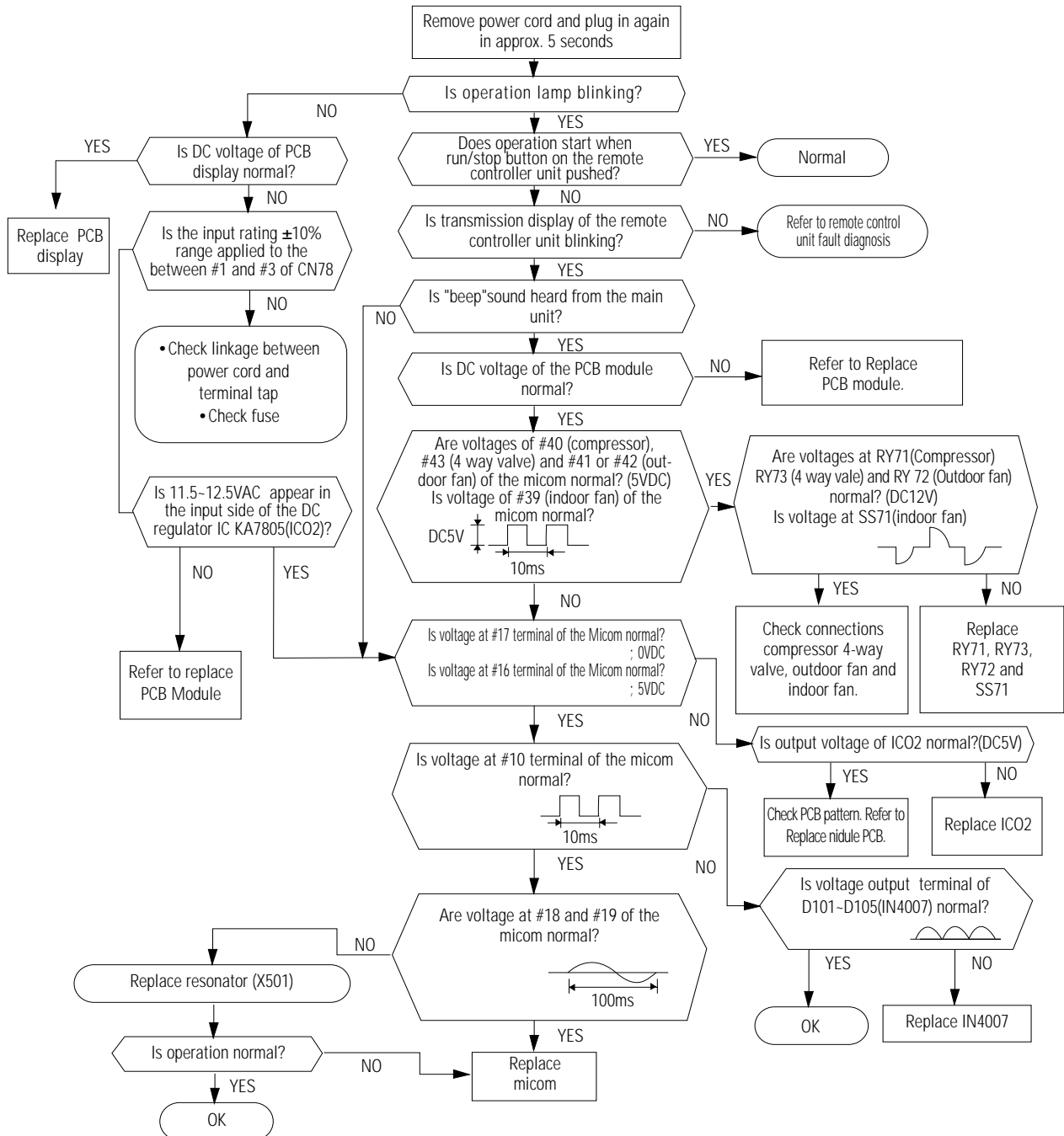
5-2 Fault Diagnosis by Symptom

5-2-1 No Power (completely dead)-Initial diagnosis

1) Checklist :

- (1) Is input voltage normal? (the rating voltage $\pm 10\%$ range)
- (2) Is AC power linked correctly?
- (3) Is input voltage of DC regulator IC KA7805 (IC02) normal? (11.5VDC-12.5VDC)
- (4) Is output voltage of DC regulator IC KA7805 (IC02) normal? (4.5VDC-5.5VDC)

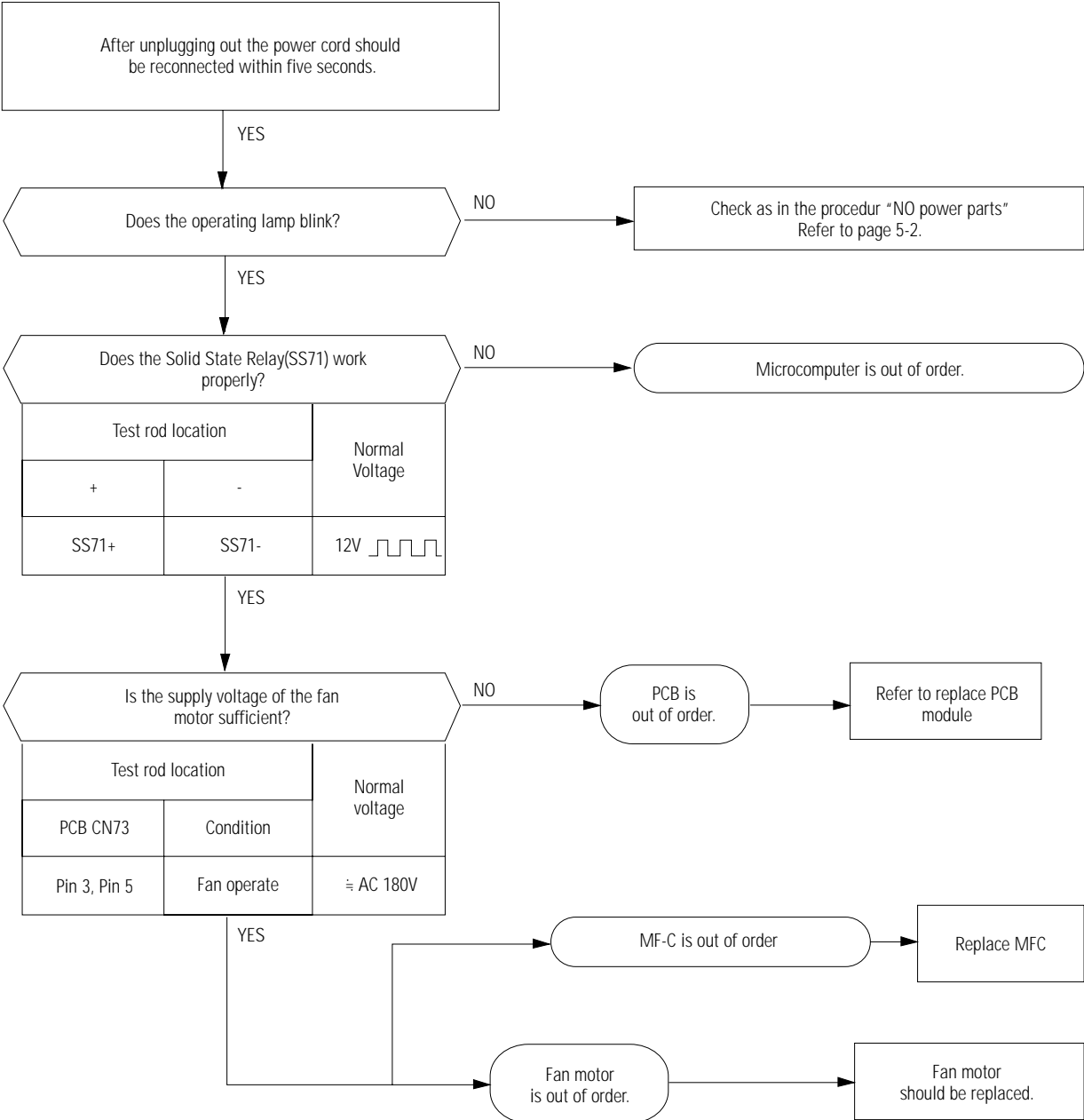
2) Troubleshooting procedure



5-2-2 When the Indoor Unit Fan Does Not Operate. (Initial Diagnosis)

- 1) Checklist :
 - (1) Is the indoor unit fan motor properly connected with the connector (CN73)?
 - (2) Is the AC voltage correct?
 - (3) Is HALL IC in indoor fan motor properly connected with the connector (CN43)?
 - (4) Is the running capacitor properly connected with the solder part of the PCB?

2) Troubleshooting procedure

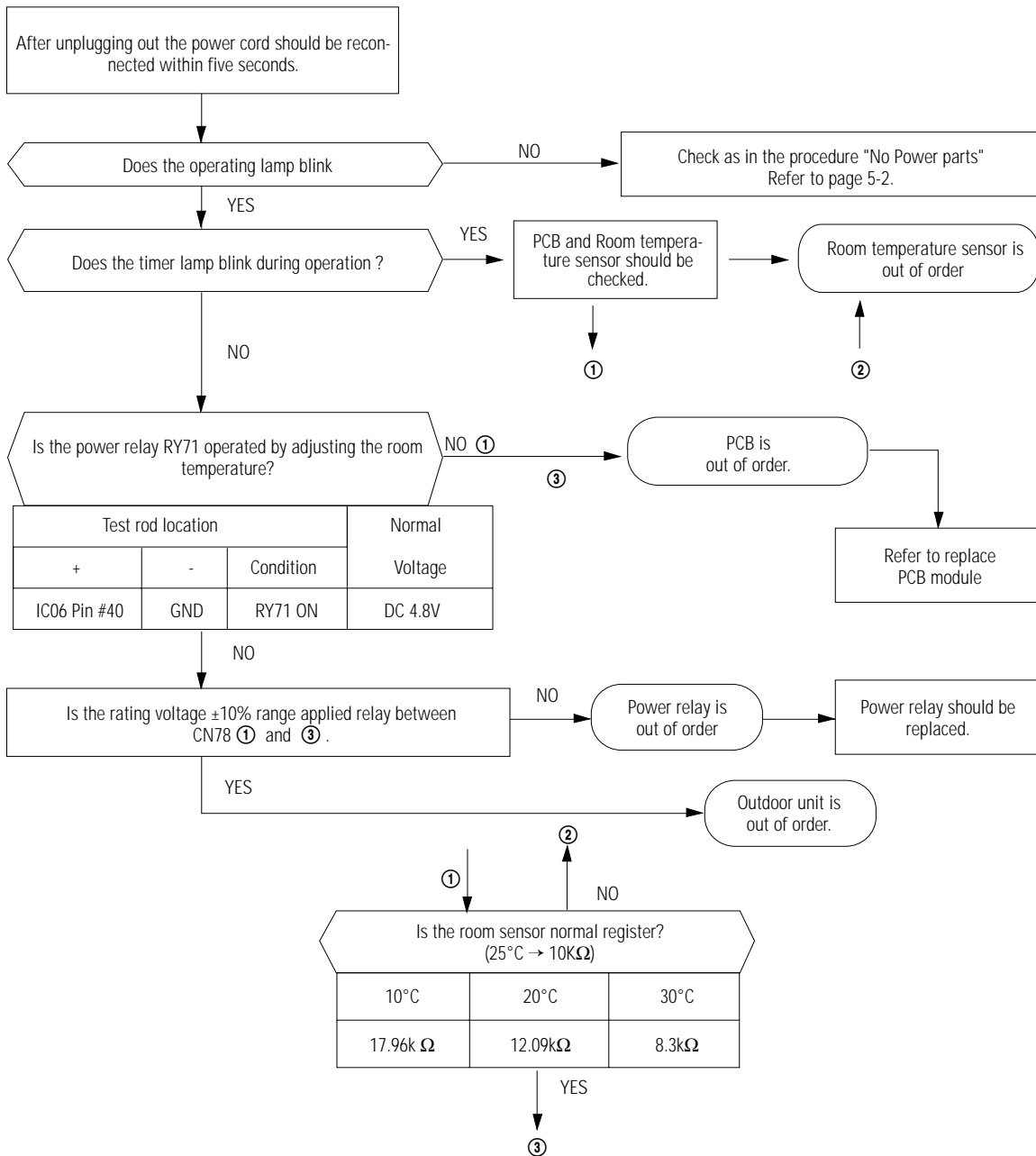


5-2-3 When the Outdoor Unit Does Not Operate. (Initial Diagnosis)

1) Checklist :

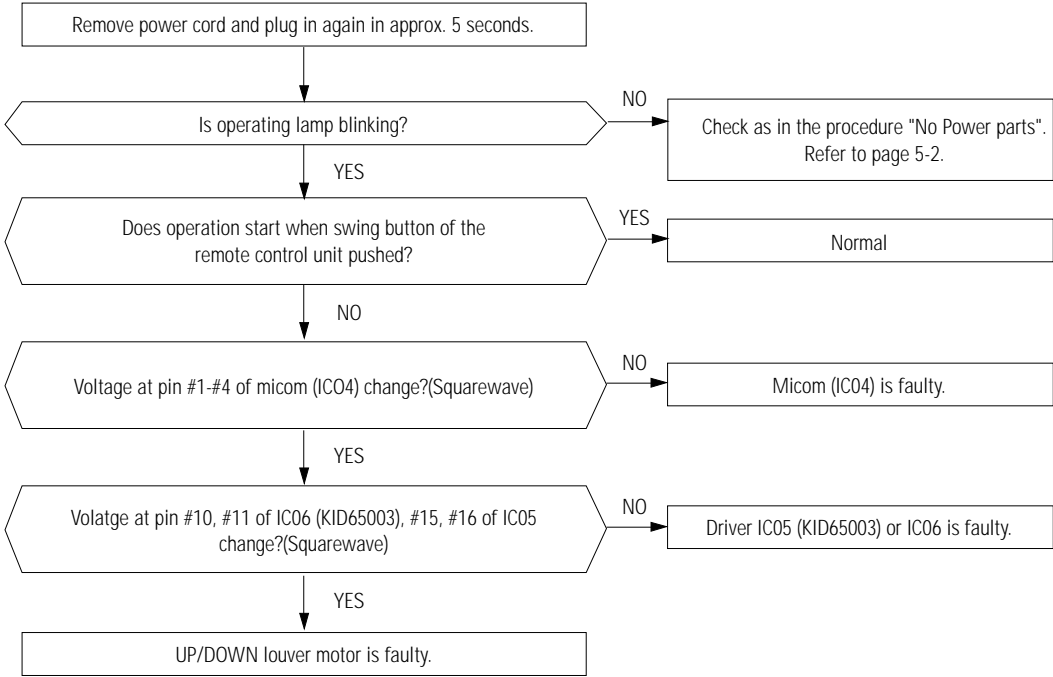
- (1) Is input voltage normal? (the rating voltage $\pm 10\%$ range)
- (2) Is the set temperature of the remote control higher than room temperature in COOL mode?
- (3) Is the set temperature of the remote control lower than room temperature in HEAT mode?
- (4) Is the POWER IN connector (CN78) linked correctly?
- (5) Is the outdoor unit properly connected with the TERMINAL BLOCK connector(7P)?

2) Troubleshooting procedure



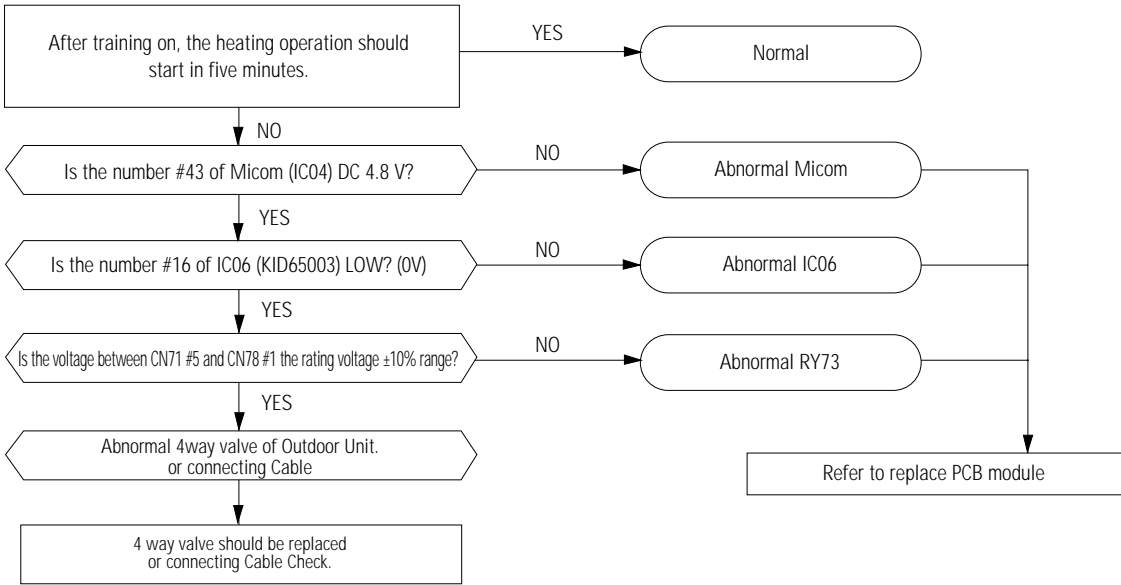
5-2-4 When the UP/DOWN Louver Moter Does Not Operate. (Initial Diagnosis)

- 1) Checklist :
 - (1) Is input voltage normal? (the rating voltage $\pm 10\%$ range)
 - (2) Is the UP/DOWN louver motor properly connected with the connector (CN61)?
- 2) Troubleshooting procedure



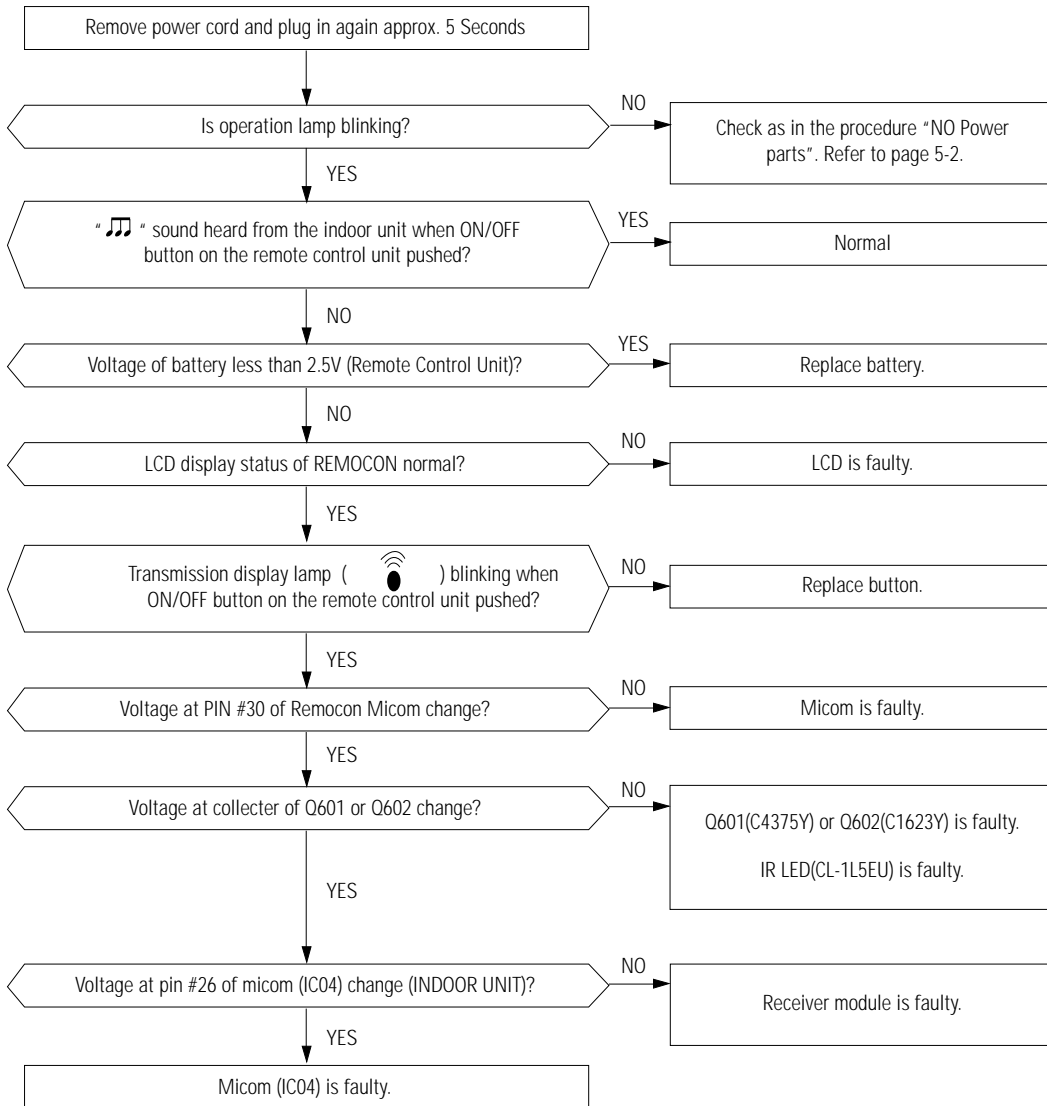
5-2-5 In the Heat mode, When there is no warm air current. Check this first;

- (1) Is the set temperature of Remote Control lower than room temperature in Heat mode?
- (2) Is the Indoor PCB properly connected with the CN71 and CN78 connector?



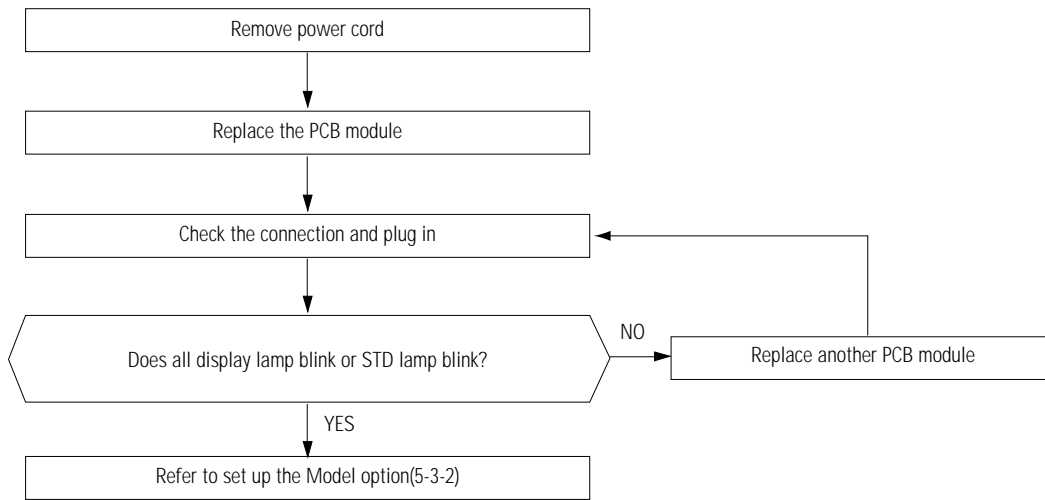
5-2-6 If Operation By Remote Control Unit Is Impossible. (Initial Diagnosis)

1) Troubleshooting procedure



5-3 Replace PCB module

5-3-1 Replace PCB module



5-3-2 Set up the Model option

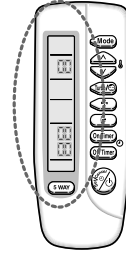
The Method for Setting up the model option with remocon

- It is necessary to set up option code after replacing the main-PBA as a service parts.

Make sure that you can set up the option of code the remote controller after you replace the main PBA otherwise, the unit won't be working properly and all LED lamps on display will be flickering.

Step 1 : Preparing the remocon to main PBA option set

- 1st Remove the battery from the remocon.
- 2nd Press the temperature raise/down button simultaneously and insert the battery again.
- 3rd Make sure the remocon display shown as **□ □ □ □ □ □**.



Step 2 : Second stage preparation of the remocon option set.

※ **Note** ; In case the wrong letter has been selected, continue to press the button until the correct letter appears.

- 1st If the first stage number "□" appears on the display, proceed to the second stage.
- 2nd Every time the ① and ⑦ button, "□" and "I" each continue to appear.
- 3rd Whenever pressing the ②, ③, ④, ⑤, ⑥, ⑧, ⑨, ⑩, ⑪, ⑫ button, the number increase from 0~9(0123456789) and A, b, C, d, E, F each time.

① If the first number is □, it is correct otherwise press **Mode** until □ appear.

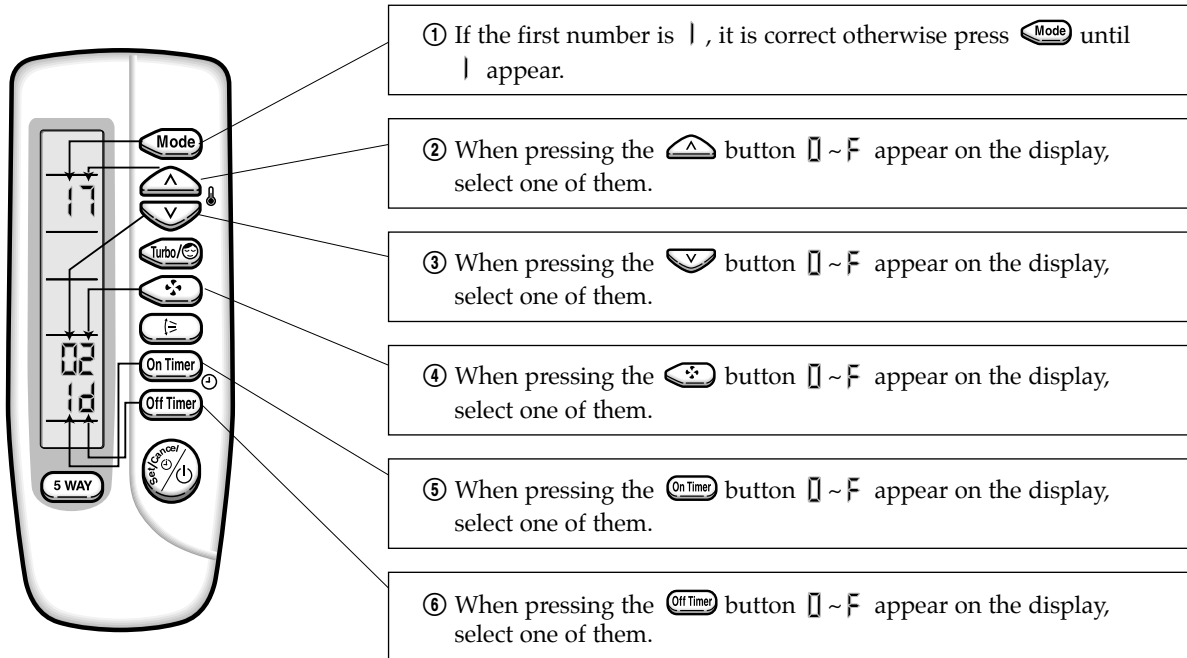
② When pressing the **▲** button □ ~ F appear on the display, select one of them.

③ When pressing the **▼** button □ ~ F appear on the display, select one of them.

④ When pressing the **⦿** button □ ~ F appear on the display, select one of them.

⑤ When pressing the **On Timer** button □ ~ F appear on the display, select one of them.

⑥ When pressing the **Off Timer** button □ ~ F appear on the display, select one of them.



Step 3 : Reconfirming option set after completion

(in case of ex. 017d25-17021d)

After pressing **Mode** selector for the 1 mode, the display shown as 01 7d 25.

After pressing **Mode** selector for the 17 mode, the display shown as 17 02 1d.

Step 4 : Pressing the ON/OFF button (⏻)

When pressing the operation ON/OFF key with the direction of remote controller for unit, the sound “Ding” or “Diriring” is heard and the first LED lamp on the left side is flickering at the same time, then the input of option is completed. (If the diriring sound isn’t heard, try again pressing the ON/OFF button.)

Step 5 : Unit operation test-run

First, Remove the battery from the remote controller.

Second, Re-insert the battery into the remote controller.

Third, Press ON/OFF key with the direction of remote controller for set.

• Error Mode

1st If all lamps of indoor unit are flickering, Plug out and plug in again and pressing ON/OFF key to retry.

2nd If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for it’s model.

■ OPTION ITEMS

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
AQT24A(B)5RE	0	9	4	6	1	7	1	A	0	2	3	F
SH24TA(B)5	0	9	4	6	1	7	1	A	0	2	3	F
AQT24A(B)6RE	0	8	4	6	1	7	1	A	0	2	3	F
AQT24A(B)6RB	0	8	4	6	1	7	1	A	0	2	3	F
AQT18A(B)9RE	0	9	7	4	1	7	1	A	0	0	F	b
AQT18A(B)0RE	0	8	7	4	1	7	1	A	0	0	F	b
AQT18A(B)0RB	0	8	7	4	1	7	1	A	0	0	F	b
AQ18A(B)9RE	0	9	4	4	1	7	1	A	0	2	1	d
SH18ZA(B)9	0	9	4	4	1	7	1	A	0	2	1	d
AQ18A(B)0RE	0	8	4	4	1	7	1	A	0	2	1	d
AQT24A(B)5RED	0	9	6	3	1	4	1	A	0	2	3	F
AQT24A(B)6RED	0	8	6	3	1	4	1	A	0	2	3	F
AQ18A(B)9RED	0	9	6	4	1	7	1	A	0	2	1	d
AQ18A(B)0RED	0	8	6	4	1	7	1	A	0	2	1	d
SH24TA6D	0	8	6	3	1	4	1	A	0	2	3	F
SH18ZA0D	0	8	6	4	1	7	1	A	0	2	1	d
AQT24C6RB	0	8	4	6	1	7	1	A	0	3	4	0
AQT24C6RE	0	8	4	6	1	7	1	A	0	3	4	0
AQT18C0RB	0	8	7	4	1	7	1	A	0	2	0	C
AQT18C0RE	0	8	7	4	1	7	1	A	0	2	0	C
AQT18C0REF	0	8	5	4	1	7	1	A	0	2	3	F
AQ18A9RBD	0	9	4	4	1	5	1	A	0	2	1	d
AQ18A0RBD	0	8	4	4	1	5	1	A	0	2	1	d
AQ24A5RBD	0	9	5	6	9	5	1	d	0	3	5	1
AQ24A6RBD	0	8	5	6	9	5	1	d	0	3	5	1

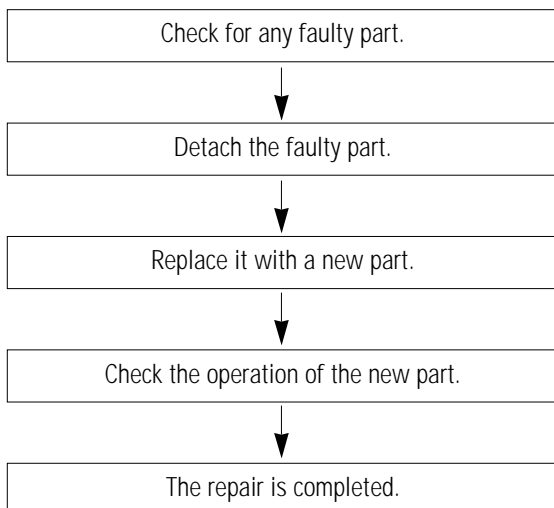
5-4 PCB Inspection

5-4-1 Cautions for Part Replacement

1. The human body carries much static electricity. Before touching a part for repair, replacement or the similar purpose, be sure to touch a grounded metallic portion by hand to let the static electricity go through the metallic portion to the earth. Especially when handling any micro computer or IC, carefully remove such static electricity before touching them.
2. When repairing any part on a work bench, be sure to place an insulative sheet on the bench and always keep the sheet surface neat without any metal fragments. If any such fragment touches a part, a secondary trouble will possibly be caused in the part.
3. Before replacing any parts, be sure to turn off the power supply. If such replacement is done with the power supply kept on, an electric shock, short circuit or destruction of a part may result.
4. During replacement or repair of a part, carefully handle it : The printed circuit board has fine lead wires (jumper wires) and glass-made parts (diode) on its substrate. So if a circuit board is roughly handled, such lead wires and parts will be easily broken or damaged by bending or shock.
5. When soldering the lead wires of any new part, be sure to polish them using an emery paper or the like before soldering them. Since the lead wires of any new part are covered with an oxide film, solder cannot adhere to the lead wires if not polished.
6. When soldering any part, care should be exercised not to apply any high-wattage soldering iron to the part for a long time. Some parts are of so low a heat resistance that they may be broken or have the properties changed if a soldering iron is so applied (Otherwise, the pattern may possibly be separated and raised).
7. The heat of the soldering iron should be transferred to the entire object to be soldered. If the solder pieces are not well fused due to insufficient transfer of the heat from the soldering iron, no satisfactory electrical continuity can be assured even if the soldered objects appear well connected to each other.
8. The solder used should be limited to a minimum. If excessive solder is used, it will cause inter-pattern contact, which may cause malfunction of the circuit.

5-4-2 Procedure

The parts should be replaced in the following procedure.

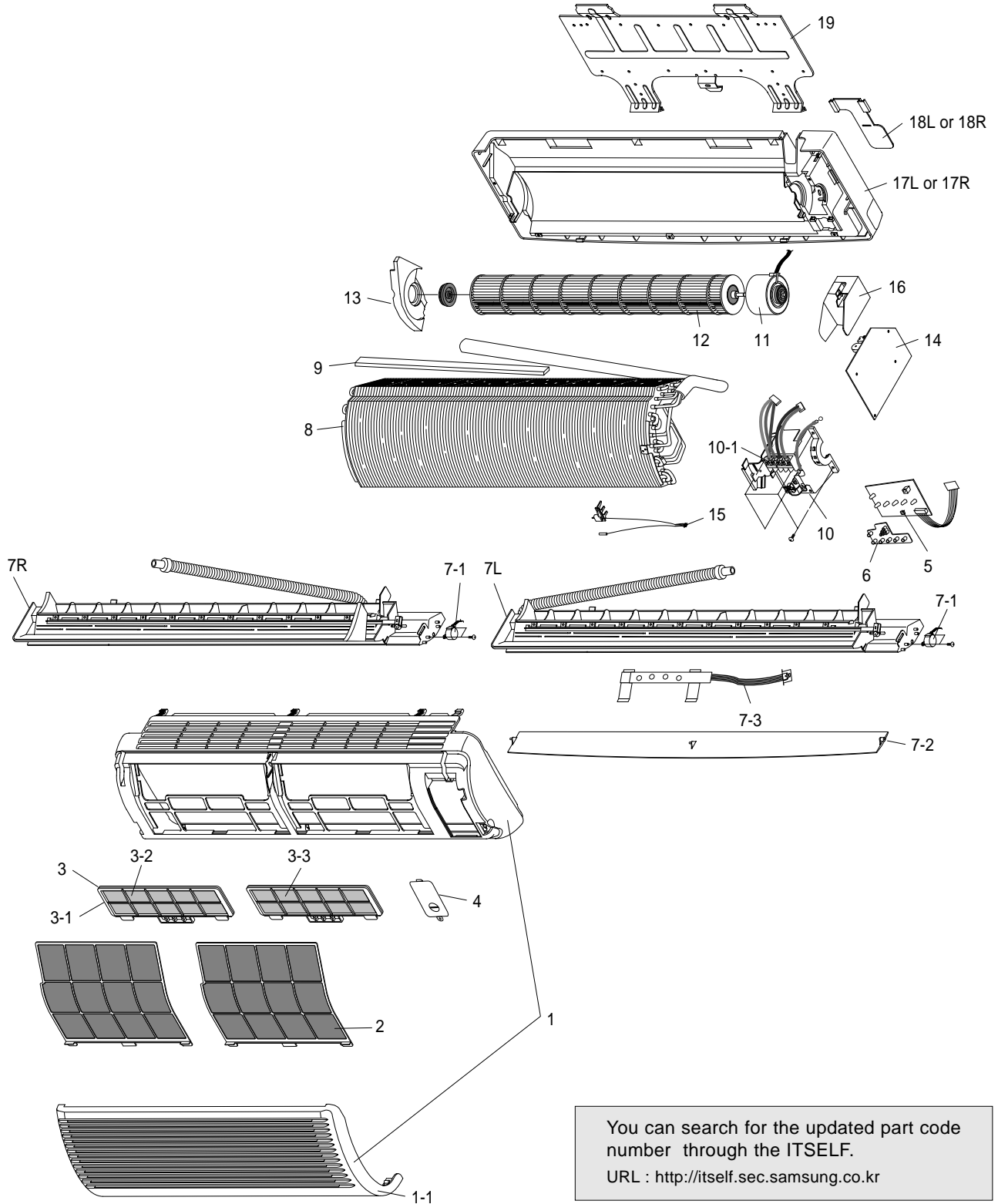


5-4-3 Detailed Procedure

No.	Malfunction	Checking point (symptoms)	Causes
1	Pull out the power plug from the AC terminal and confirm the fuse on the PCB assembly	1. Is the broken(open)?	<ul style="list-style-type: none"> ▷ Voltage over ▷ Indoor unit fan motor short-circuit
2	Turn the power on.	Voltage check	SMPS circuit is faulty
		1. AC voltage at C702? : rating voltage ± 10% range	▷ SMPS circuit is faulty
		2. DC voltage at C101? : about 325[v] ± 10%	
		3. DC voltage at IC02(KA7805) : IN-GND → DC12[v] : OUT-GND → DC5[v]	
		4. Voltage waveform at Q201 : collector-GND → squarewave	▷ PC12, R202, R203
3	Compressor Operating check -Set the TURBO mode	Voltage check(after 3 minute)	
		1. check voltage of IC06 (pin#13, pin#8) : relay on → 0.7[v] : relay off → 12[v]	▷ IC06 is faulty
		2. Voltage at terminal block ((N1) -1) → rating voltage	▷ RY71 is faulty

6. Exploded Views and Parts List

6-1 Indoor Unit



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

■ Parts List

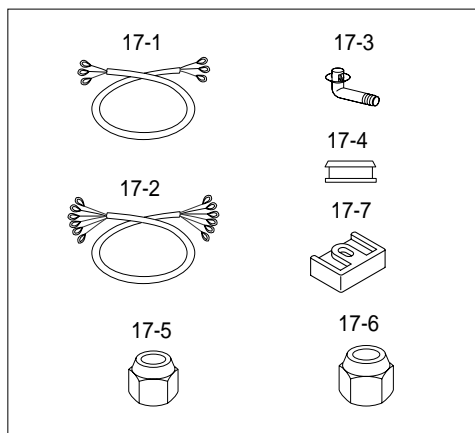
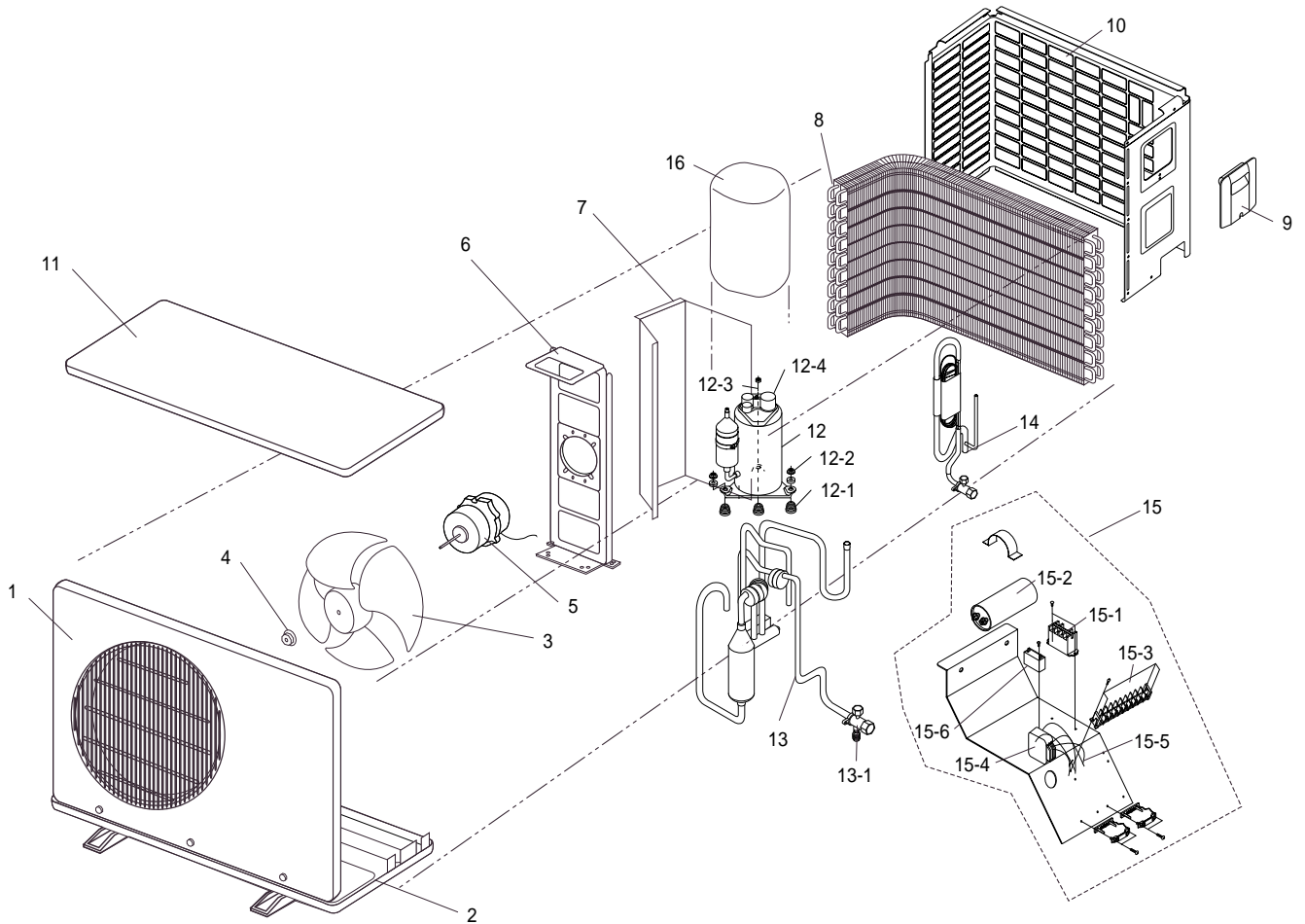
No.	CODE NO	Description	Specification	Q'TY			Remarks
				AQT24*5(6)RE(B) SH24T*5	AQT18C0REF AQT18*9(0)RE(B)	AQ18*9(0)RE SH18Z*9	
1	DB92-00035M	ASSY-FRONT PANEL	ASSY	1	1	1	MODEL:*A*
	DB92-00179B	ASSY-FRONT PANEL	ASSY	1	1	1	MODEL:*B*
	DB92-00265A	ASSY-FRONT PANEL	ASSY	1	1	-	MODEL:*C*
1-1	DB64-00127A	GRILL-AIR INLET	HIPS	1	1	1	MODEL:*A*
	DB64-00278A	GRILL-AIR INLET	HIPS	1	1	1	MODEL:*B*
	DB64-00359A	GRILL-AIR INLET	HIPS	1	1	-	MODEL:*C*
2	DB63-30150C	GUARD AIR FILTER	PP	2	2	2	
3	DB74-10101C	ASSY CLEANER FILTER	ASSY	1	1	1	OPTION
3-1	DB61-10164B	CASE-CLEANER FILTER	PP	1	1	1	OPTION
3-2	DB74-10082A	DEODORIZING FILTER	POLYESTER/CARBON	1	1	1	OPTION
3-3	DB74-10081A	CLEANER FILTER	POLYESTER/COTTON	1	1	1	OPTION
4	DB63-00091A	COVER TERMINAL	ABS(V0)	1	-	1	
	DB63-00289A	COVER TERMINAL	ABS(V0)	-	1	-	
5	DB93-00311C	ASSY DISPLAY PCB	ASSY	1	1	1	
	DB93-00926A	ASSY DISPLAY PCB	ASSY	1	1	-	MODEL:*C*
6	DB63-00115A	COVER DISPLAY	ABS(BLK)	1	1	1	
	DB63-00115A	COVER DISPLAY	ABS(BLK)	-	-	-	MODEL:*C*
7L	DB94-00029G	ASSY-TRAY DRAIN	ASSY	1	1	1	DRAIN: LEFT SIDE
7R	DB94-00099A	ASSY-TRAY DRAIN	ASSY	1	1	1	DRAIN: RIGHT SIDE
	DB94-00099E	ASSY-TRAY DRAIN	ASSY	1	1	-	MODEL:*C*
7-1	DB31-10153B	ASSY STEPING MOTOR	ASSY	1	1	1	
7-2	DB66-00104A	BLADE-H	ABS	1	1	1	
7-3	DB93-00860A	ASSY CENTER DISPLAY	ASSY	1	1	1	MODEL:*C*
8	DB96-01125A	ASSY EVAPORATOR	PLATE 1.2(5/8")	1	-	-	
	DB96-01125D	ASSY EVAPORATOR	SLIT 1.5(1/2")	-	1	1	
9	DB67-30089E	SPACER EVAP	PVC	1	-	1	
	DB67-00058A	SPACER EVAP	PVC	-	1	-	
10L	DB90-00140J	ASSY HOLDER MOTOR	ASSY	1	1	1	DRAIN: LEFT SIDE
10R	DB90-00433A	ASSY HOLDER MOTOR	ASSY	1	1	1	DRAIN: RIGHT SIDE
	DB90-00433Q	ASSY HOLDER MOTOR	ASSY	1	1	-	MODEL:*C*
10-1	DB65-00039A	ASSY TERMINAL BLOCK	6P,25A	1	1	1	
11	DB31-10151C	MOTOR FAN IN	IC-9430SKC7A	1	1	1	
12	DB94-00040J	ASSY CROSS FAN	ASSY	1	1	1	
13	DB90-40135D	ASSY HOLER BEARING	ASSY	1	1	1	DRAIN: LEFT SIDE
	DB90-40135D	ASSY HOLER BEARING	ASSY	-	-	-	DRAIN: RIGHT SIDE
14	PD-SH30ZC-00	ASSY MAIN PCB	ASSY	1	1	1	
	PD-SH30ZC-02	ASSY MAIN PCB	ASSY	1	1	1	
15	DB32-00027B	ASSY THERMISTER	ASSY	1	1	1	
16	DB61-10163A	CASE-CONTROL	ABS(V0)	1	1	1	
17L	DB94-20037H	ASSY BACK BODY	ASSY	1	1	1	DRAIN: LEFT SIDE
17R	DB94-00107A	ASSY BACK BODY	ASSY	1	1	1	DRAIN: RIGHT SIDE
18L	DB90-00163A	HOLER PIPE	PP	1	1	1	DRAIN: LEFT SIDE
18R	DB90-00434A	HOLER PIPE	PP	1	1	1	DRAIN: RIGHT SIDE
19	DB70-10663A	PLATE HANGER	SGCC-M	1	1	1	

■ Parts List

No.	CODE NO	Description	Specification	Q'TY		Remarks
				AQ(T)24**RE(B)D SH24T*6D	AQ18**RE(B)D SH18Z*0D	
1	DB92-00035M	ASSY-FRONT PANEL	ASSY	1	1	MODEL:*A*
	DB92-00179B	ASSY-FRONT PANEL	ASSY	-	-	MODEL:*B*
1-1	DB64-00127A	GRILL-AIR INLET	HIPS	1	1	MODEL:*A*
	DB64-00278A	GRILL-AIR INLET	HIPS	-	-	MODEL:*B*
2	DB63-30150C	GUARD AIR FILTER	PP	2	2	
3	DB74-10101C	ASSY CLEANER FILTER	ASSY	1	1	OPTION
3-1	DB61-10164B	CASE-CLEANER FILTER	PP	1	1	OPTION
3-2	DB74-10082A	DEODORIZING FILTER	POLYESTER/CARBON	1	1	OPTION
3-3	DB74-10081A	CLEANER FILTER	POLYESTER/COTTON	1	1	OPTION
4	DB63-00091A	COVER TERMINAL	ABS(V0)	1	1	
5	DB93-00311C	ASSY DISPLAY PCB	ASSY	1	1	
	DB93-00926A	ASSY DISPLAY PCB	ASSY	1	1	MODEL:*C*
6	DB63-00115A	COVER DISPLAY	ABS(BLK)	1	1	
7L	DB94-00029G	ASSY-TRAY DRAIN	ASSY	-	-	DRAIN: LEFT SIDE
7R	DB94-00099B	ASSY-TRAY DRAIN	ASSY	1	1	DRAIN: RIGHT SIDE
7-1	DB31-10153B	ASSY STEPING MOTOR	ASSY	1	1	
7-2	DB66-00104A	BLADE-H	ABS	1	1	
7-3	DB93-00860A	ASSY CENTER DISPLAY	ASSY	1	1	MODEL:*C*
8	DB96-01125A	ASSY EVAPORATOR	PLATE 1.2(5/8")	1	-	
	DB96-01125D	ASSY EVAPORATOR	SLIT 1.5(1/2")	-	1	
9	DB67-30089E	SPACER EVAP	PVC	1	1	
10L	DB90-00140J	ASSY HOLDER MOTOR	ASSY	1	1	DRAIN: LEFT SIDE
10R	DB90-00433A	ASSY HOLDER MOTOR	ASSY	1	1	DRAIN: RIGHT SIDE
10-1	DB65-00039A	ASSY TERMINAL BLOCK	6P,25A	1	1	
11	DB31-10151C	MOTOR FAN IN	IC-9430SKC7A	1	1	
12	DB94-00040C	ASSY CROSS FAN	ASSY	1	1	
13	DB90-40135D	ASSY HOLER BEARING	ASSY	-	-	
14	PD-SH30ZC-00	ASSY MAIN PCB	ASSY	1	1	
	PD-SH30ZC-02	ASSY MAIN PCB	ASSY	1	1	
15	DB32-00027B	ASSY THERMISTER	ASSY	1	1	
16	DB61-10163A	CASE-CONTROL	ABS(V0)	1	1	
17L	DB94-20037H	ASSY BACK BODY	ASSY	-	-	DRAIN: LEFT SIDE
17R	DB94-00107A	ASSY BACK BODY	ASSY	1	1	DRAIN: RIGHT SIDE
18L	DB90-00163A	HOLER PIPE	PP	-	-	DRAIN: LEFT SIDE
18R	DB90-00434A	HOLER PIPE	PP	1	1	DRAIN: RIGHT SIDE
19	DB70-10663A	PLATE HANGER	SGCC-M	1	1	

6-2 Outdoor Unit

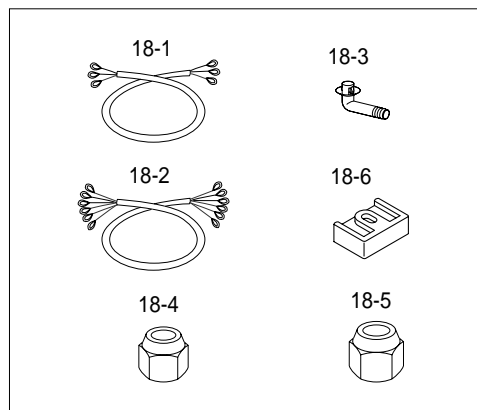
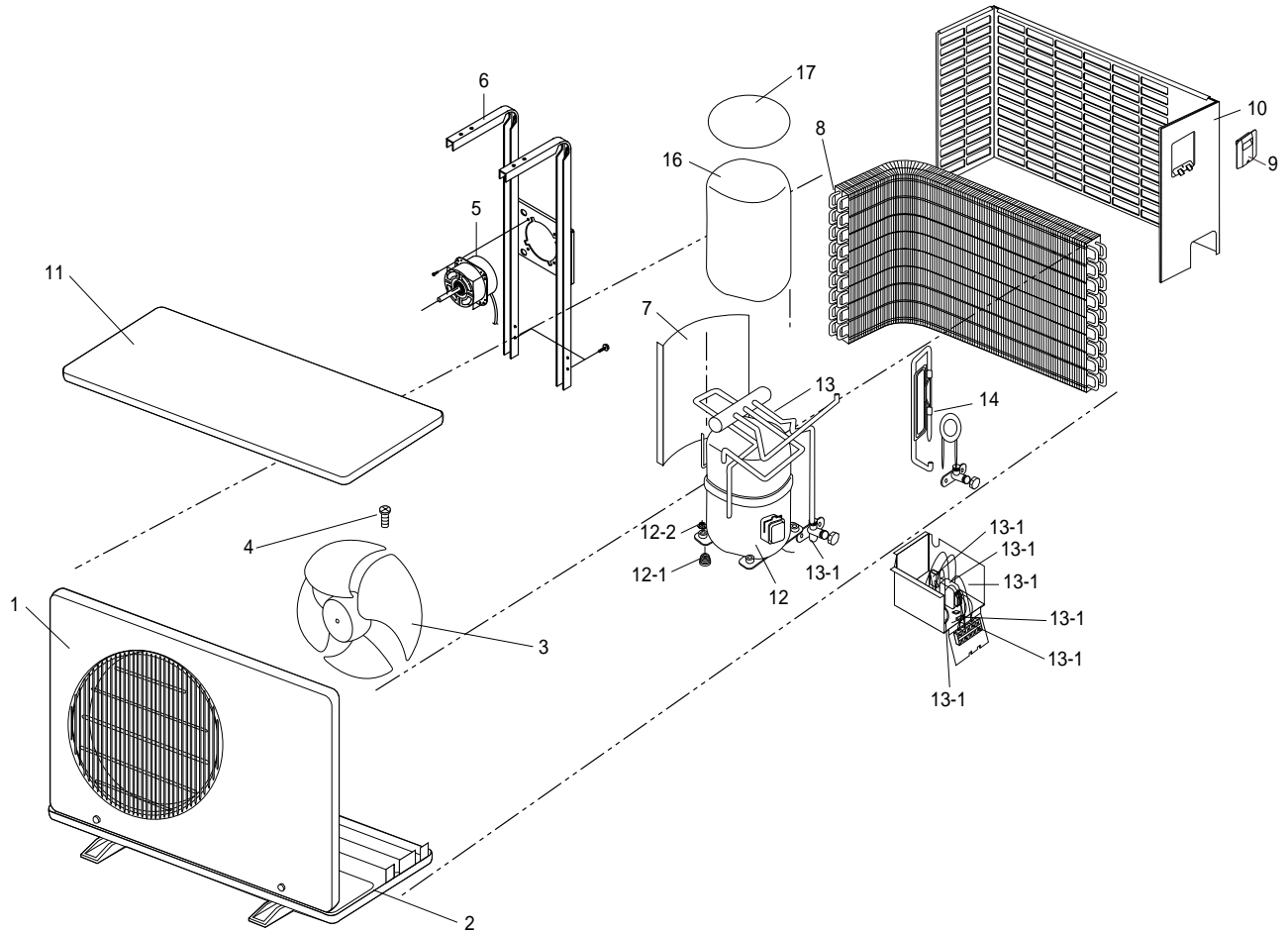
6-2-1 18K BTU



■ Parts List

No.	CODE NO	Description	Specification	Q'TY					
				UQT18*9(0)RE	UQT18C0REF	UQT18*9(0)RB	UQ18A(B)9(0)RE SH18ZA(B)9	UQ18A(B)9(0)RED SH18ZA(B)0DX	UQ18A(B)9(0)RBD
1	DB90-00033A	ASSY-FRONT CABINET	ASSY	1	-	1	1	-	-
	DB90-00653K	ASSY CABI-FRONT	ASSY	-	-	-	-	1	1
	DB90-00653L	ASSY CABI-FRONT	ASSY	-	1	-	-	-	-
2	DB90-20160C	ASSY-BASE OUT	ASSY	1	-	1	-	-	-
	DB90-20160H	ASSY-BASE OUT	ASSY	-	-	-	1	1	1
	DB90-20160G	ASSY-BASE OUT	ASSY	-	1	-	-	-	-
3	DB67-50063A	ASSY-P FAN	ASSY	1	1	1	1	1	1
4	DB60-30020A	NUT-FLANGE	M6,CCW	1	1	1	1	1	1
5	DB31-00056D	MOTOR FAN OUT	ASS-030ZTEC	-	-	1	-	-	1
	DB31-00056C	MOTOR FAN OUT	ASS-030AVEB	1	1	-	1	1	-
6	DB61-20008C	BASE-MOTOR	SGCC-M	1	1	1	1	1	1
7	DB94-50034A	ASSY PARTITION	SGCC-M	1	1	1	1	-	-
	DB94-50034D	ASSY PARTITION	SGCC-M	-	-	-	-	-	-
	DB67-00162A	PARTITION	AGCC-M	-	-	-	-	1	1
	DB67-30014A	PARTITION	AGCC-M	-	1	-	-	-	-
8	DB96-01352A	ASSY-CONDENSER	ASSY	1	1	1	1	-	-
	DB96-01524B	ASSY COND-UNIT	ASSY	-	-	-	-	1	1
9	DB90-40176B	COVER-CONTROL	ABS(V5)	1	1	1	1	1	1
10	DB64-60172A	ASSY-CABINET BACK	SC-90073T	1	1	1	1	-	-
	DB64-60172C	ASSY-CABINET BACK	SC-90073T	-	1	-	-	-	-
	DB64-60172J	CABINET BACK	SC-90073T	-	-	-	-	1	1
11	DB90-40124A	TOP-COVER	SC-90073T	1	1	1	1	-	-
	DB90-10613D	ASSY CABI-UP	SC-90073T	-	1	-	-	1	1
12	DB95-10351C	COMPRESSOR	AWG5524EXC	1	-	-	-	-	-
	DB95-10351G	COMPRESSOR	AWG5520EXN	-	-	1	-	-	-
	48B180JV1EH	COMPRESSOR	ROTARY	-	-	-	1	1	-
	48D190IU1EH	COMPRESSOR	ROTARY	-	-	-	-	-	1
	55A200JT1EM	COMPRESSOR	ROTARY	-	1	-	-	-	-
12-1	DB73-10008A	GROMMET ISOLATOR	EPDM	4	-	4	-	3	-
	DB73-10004A	GROMMET ISOLATOR	EPDM	-	-	-	3	-	-
	DB73-00082A	GROMMET ISOLATOR	NR	-	3	-	-	-	3
12-2	DB60-30028A	NUT-WASHER	M8	4	3	4	3	3	3
12-3	DB60-30018A	NUT-FLANGE	M5	-	1	-	1	1	1
12-4	DB68-10165D	COVER-TERMINAL	NORYL	-	1	-	1	1	1
13	DB99-10133A	ASSY-4WAY VALVE	ASSY	1	-	1	-	-	-
	DB99-00018A	ASSY-4WAY VALVE	ASSY	-	-	-	1	-	-
	DB99-00195A	ASSY VALVE 4WAY	ASSY	-	-	-	-	1	1
	DB90-00260A	ASSY VALVE 4WAY	ASSY	-	1	-	-	-	-
13-1	DB62-40074C	PACKED VALVE	1/2"	1	-	1	-	-	-
	DB62-00898B	VALVE SERVICE	1/2"	-	1	-	-	1	1
14	DB99-10136C	ASSY-CHECK VALVE	ASSY	1	-	-	-	-	-
	DB99-10136D	ASSY-CHECK VALVE	ASSY	-	-	1	-	-	-
	DB99-10136A	ASSY-CHECK VALVE	ASSY	-	-	-	1	-	-
	DB99-00175A	ASSY VALVE CHECK	ASSY	-	-	-	-	1	1
	DB99-00175E	ASSY VALVE CHECK	ASSY	-	1	-	-	-	-
15	DB93-00704A	ASSY-CONTROL OUT	ASSY	1	-	-	-	-	-
	DB93-00704B	ASSY-CONTROL OUT	ASSY	-	-	1	4	-	-
	DB93-00673A	ASSY-CONTROL OUT	ASSY	-	-	-	1	1	1
	DB93-01425A	ASSY-CONTROL OUT	ASSY	-	1	-	-	-	-
15-1	3501-001200	RELAY-POWER	45MA	1	-	-	-	-	-
	3501-001199	RELAY-POWER	45MA	-	-	1	-	-	-
	3501-001184	RELAY-POWER	30mS	-	-	-	1	1	1
	DB34-90054A	MAGNET S/W	41NB21ALT	-	1	-	-	-	-
15-2	2501-001237	CAPACITOR	35/450VAC	1	-	-	-	-	-
	2501-001235	CAPACITOR	25/450VAC	-	-	1	-	-	-
	2501-001238	CAPACITOR	40/450VAC	-	-	-	1	1	1
	2501-001239	CAPACITOR	45/450VAC	-	1	-	-	-	-
15-3	DB65-00040A	ASSY-TERMINAL BLOCK	ASSY	1	1	1	1	1	1
15-4	DB95-90026B	SPARK KILLER	ASSY	1	1	1	1	1	1
15-5	3601-000236	FUSE	2A,250V	1	1	1	1	1	1
15-6	2301-001370	MOTOR CAPACITOR	2.5/450VAC	1	-	1	1	1	1
	2301-001369	MOTOR CAPACITOR	3.0/450VAC	-	1	-	-	-	-
16	DB72-50622A	CLOTH SOUND	FELT	1	-	1	-	-	-
	DB72-50537A	CLOTH SOUND	FELT	-	-	-	1	1	1
OPTION	DB39-00121A	CONNECTOR POWER	3G,2.5mm ²	1	-	1	1	-	1
	DB39-20546B	CONNECT WIRE-POWER	3G, 2.5mm ²	-	1	-	-	1	-
OPTION	DB39-00171A	CONNECTOR WIRE	7G,1.00mm ²	1	-	1	1	-	1
	DB39-00171B	CONNECT WIRE-ASSY	7G, 1.00mm ²	-	1	-	-	1	-
17-3	DB67-20011A	DRAIN PLUG OUT	PP	1	1	1	1	1	1
17-4	DB63-10355C	CAP DRAIN	CR	1	1	1	1	1	1
17-5	DB60-30010A	NUT FRARE 1/4"	C3771BD	2	2	2	2	2	2
17-6	DB60-30010C	NUT FRARE 1/2"	C3771BD	2	2	2	2	2	2
17-7	DB73-20134A	RUBBER-LEG	NR	4	4	4	4	4	4

6-2-2 24K BTU

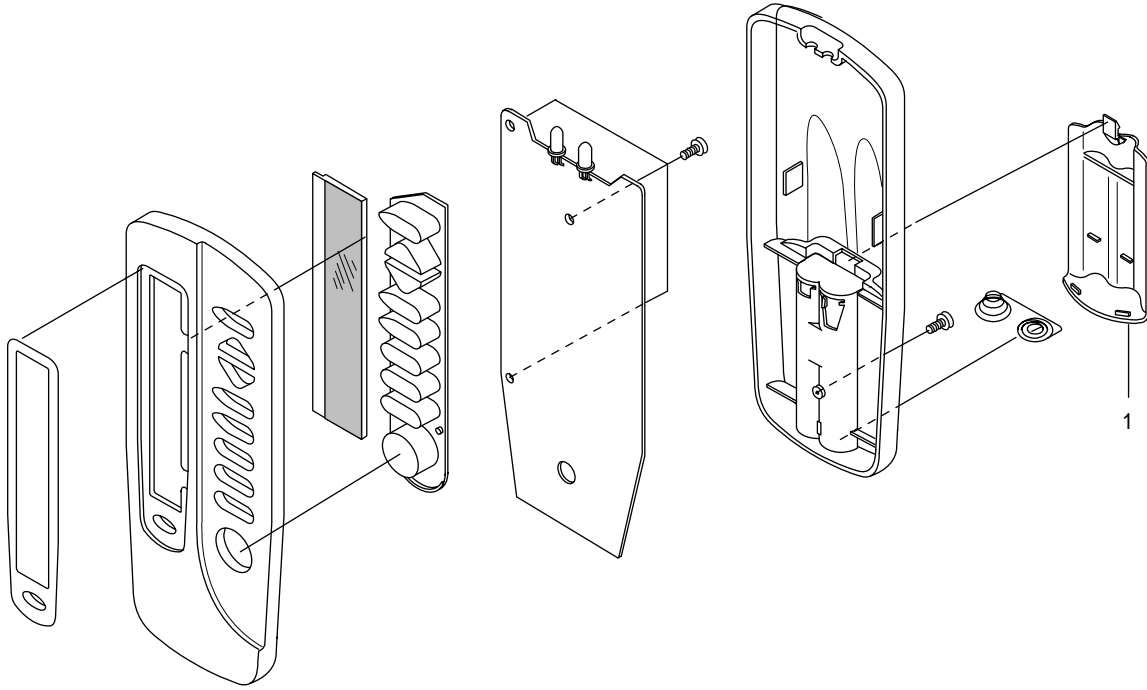


■ Parts List(24K)

No.	CODE NO	Description	Specification	Q'TY			
				UQT24*5(6)RE SH24TA(B)5	UQT24*5(6)RB	UQT24A(B)5(6)RED SH24TA6DX	UQT24A(B)5(6)RBD
1	DB90-10634A	ASS'Y WELD FRONT	SC-90073T	1	1	-	-
	DB90-00652P	ASS'Y CABI-FRONT	SC-90073T	-	-	1	1
2	DB90-20210A	ASS'Y-BASE OUT	SC-90073T	1	1	-	-
	DB90-20210P	ASS'Y BASE OUT	SC-90073T	-	-	1	-
	DB90-20210M	ASS'Y BASE OUT	SC-90073T	-	-	-	1
3	DB67-50074A	ASS'Y-FAN	AS+G/F20%	1	1	1	1
4	DB60-20020A	BOLT SPECIAL	M8 L25	1	1	-	1
5	DB31-00027E	MOTOR FAN OUT	OSME-906SRC	1	-	1	-
	DB31-00027F	MOTER FAN OUT	OSM-906SRC	-	1	-	1
6	DB95-20147A	ASS'Y-MOTOR B/K	SGCC-M	1	1	1	1
7	DB94-50039C	PARTITION	SGCC-M	1	1	-	-
	DB94-00080A	ASS'Y PARTITION	SGCC-M	-	-	1	-
	DB94-50039F	ASS'Y PARTITION	SGCC-M	-	-	-	1
8	DB75-30102F	ASS'Y-CONDENSER	ASS'Y	1	1	-	-
	DB96-01526B	ASSY COND-UNIT	ASS'Y	-	-	1	-
	DB75-30102E	ASSY COND-UNIT	ASS'Y	-	-	-	1
9	DB90-40176B	COVER-CONTROL	ABS(V5)	1	1	1	1
10	DB64-60160C	CABI SIDE OUT	SC-90073T	1	1	-	1
	DB64-60160E	CABINET-SIDE	SC-90073T	-	-	1	-
11	DB90-10616D	TOP COVER	SC-90073T	1	1	1	1
12	DB95-10351A	COMPRESSOR	AWG5532EXC	1	-	1	-
	DB95-10351E	COMPRESSOR	AWG5528EXN	-	1	-	-
	55A240IU2EM	COMPRESSOR	-	-	-	-	1
12-1	DB73-10004A	GROMMET ISOLATOR	EPDM	4	4	-	-
	DB73-10008A	GROMMET-MOUNT	EPDM	-	-	4	-
	DB73-00082A	GROMMET-MOUNT	NR	-	-	-	3
12-2	DB60-00028A	NUT WASHER	M8	4	4	-	-
	DB60-30028A	NUT-WASHER	M8	-	-	4	3
13	DB99-10135A	ASS'Y-4WAY V/V	ASS'Y	1	1	-	-
	DB99-00167A	ASS'Y VALVE 4WAY	ASS'Y	-	-	1	-
	DB99-00232A	ASS'Y VALVE 4WAY	ASS'Y	-	-	-	1
13-1	DB62-40055F	PACKED V/V5/8"	20LT/MIN	1	1	-	-
	DB62-00899B	VALVE SERVICE 5/8"	20LT/MIN	-	-	1	1
14	DB99-10138C	ASS'Y-CHECK V/V	ASS'Y	1	-	-	-
	DB99-10138B	ASS'Y-CHECK V/V	ASS'Y	-	1	-	1
	DB99-00166A	ASS'Y VALVE CHECK	ASS'Y	-	-	1	-
15	DB93-00679A	ASS'Y CONTROL OUT	ASS'Y	1	-	1	-
	DB93-00679B	ASS'Y CONTROL OUT	ASS'Y	-	1	-	-
	DB93-01175A	ASS'Y CONTROL OUT	ASS'Y	-	-	-	1
15-1	3501-001200	SWITCH MAGNET	7-22MS	1	-	-	1
	3501-001199	SWITCH MAGNET	41NB21AG	-	1	-	-
15-2	2501-001239	CAPACITOR	45µF x 450VAC	1	-	-	-
	2501-001237	CAPACITOR	35µF x 450VAC	1	-	-	-
	2501-001238	CAPACITOR	40µF x 450VAC	-	-	-	1
15-3	DB65-00040A	TERMINAL BLOCK	7P	1	1	1	1
15-4	DB95-90026B	SPARK KILLER	-	1	1	1	1
15-5	3601-000236	FUSE	2A,250V	1	1	1	1
15-6	2301-001379	C-FILM, MPE-PPF	4µFx 450VAC	1	1	1	1
16	DB72-50622A	CLOTH SOUND COMP	FELT	1	1	1	-
	DB72-00703A	CLOTH SOUND COMP	FELT	-	-	-	1
17	DB72-50614A	CLOTH SOUND UP	FELT	1	1	1	-
	DB72-00702A	CLOTH SOUND UP	FELT	-	-	-	1
OPTION 18-1	DB39-00121A	CONNECTOR POWER	3G, 2.5mm ²	1	1	-	1
	DB39-20546B	CONNECT WIRE-POWER	3G, 2.5mm ²	-	-	1	-
OPTION 18-2	DB39-00171A	CONNECTOR WIRE	7G, 1.0mm ²	1	1	-	1
	DB39-00171B	CONNECT WIRE-ASSY	7G, 1.0mm ²	-	-	1	-
18-3	DB67-20011A	DRAIN PLUG OUT	PP	1	1	1	1
18-4	DB60-30010A	NUT FLANGE 1/4"	C3771BD	2	2	2	2
18-5	DB60-30010D	NUT FLANGE 5/8"	C3771BD	2	2	2	2
18-6	DB73-20134A	RUBBER-LEG	NR	4	4	4	4

6-3 Remote Control & PCB Box

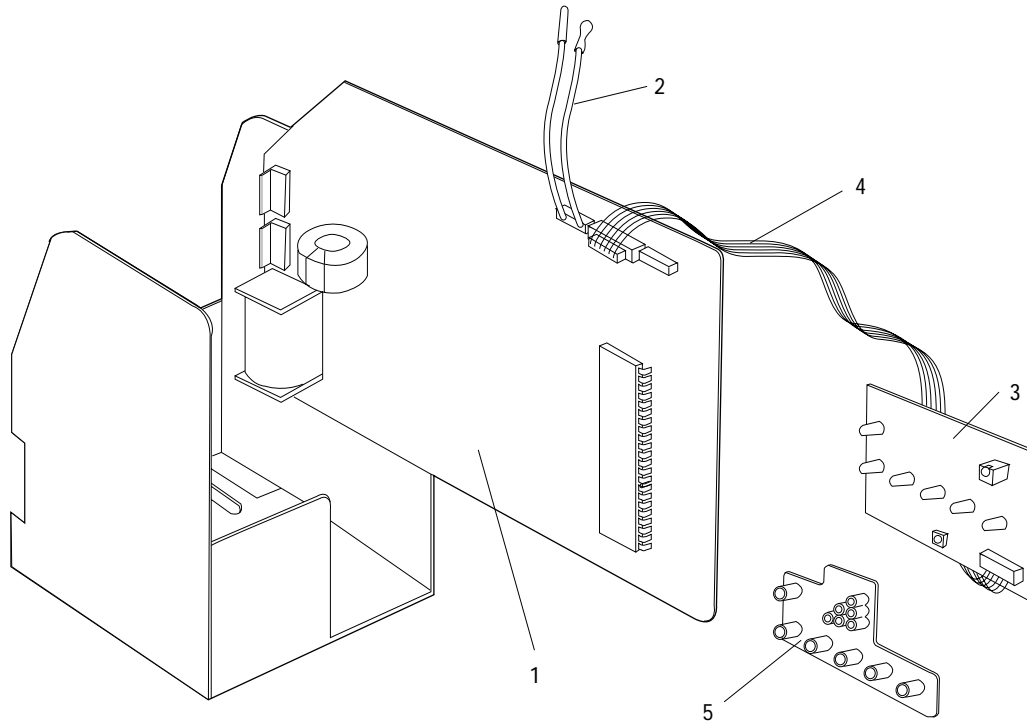
6-3-1 Remote Control



■ Parts List

No	Description	Specification	Q'TY	Remark
1	ASS'Y PCB REMOCON	DB93-00251L	1	
	BATTERY COVER		1	
C	ASS'Y PCB REMOCON	DB93-00861L	1	

6-3-2 PCB Box



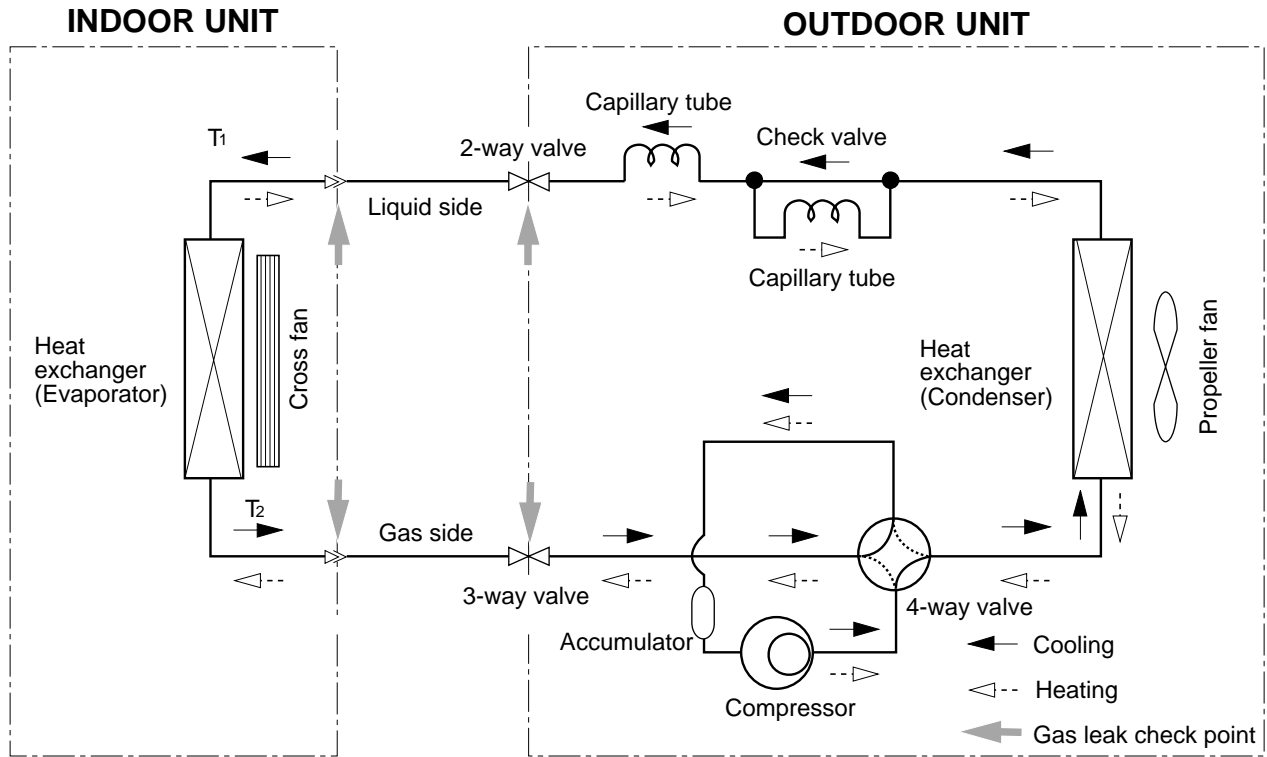
■ Parts List

No	CODE NO	Description	Specification	Q'TY	Remark
1	PD-SH30ZC-00	ASS'Y MAIN PCB	PD-SH30ZC-00	1	
	PD-SH30ZC-02	ASS'Y MAIN PCB	PD-SH30ZC-02	1	
2	DB32-00027B	ASS'Y THERMISTOR	103AT 240/240	1	
3	DB93-00311C	ASS'Y PCB DISPLAY	ASS'Y	1	
4	DB39-00172A	CONNECTOR WIRE DISPLAY	AWG#26	1	
5	DB63-00115A	COVER DISPLAY UP	ABS, BLK	1	

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7. Block Diagrams

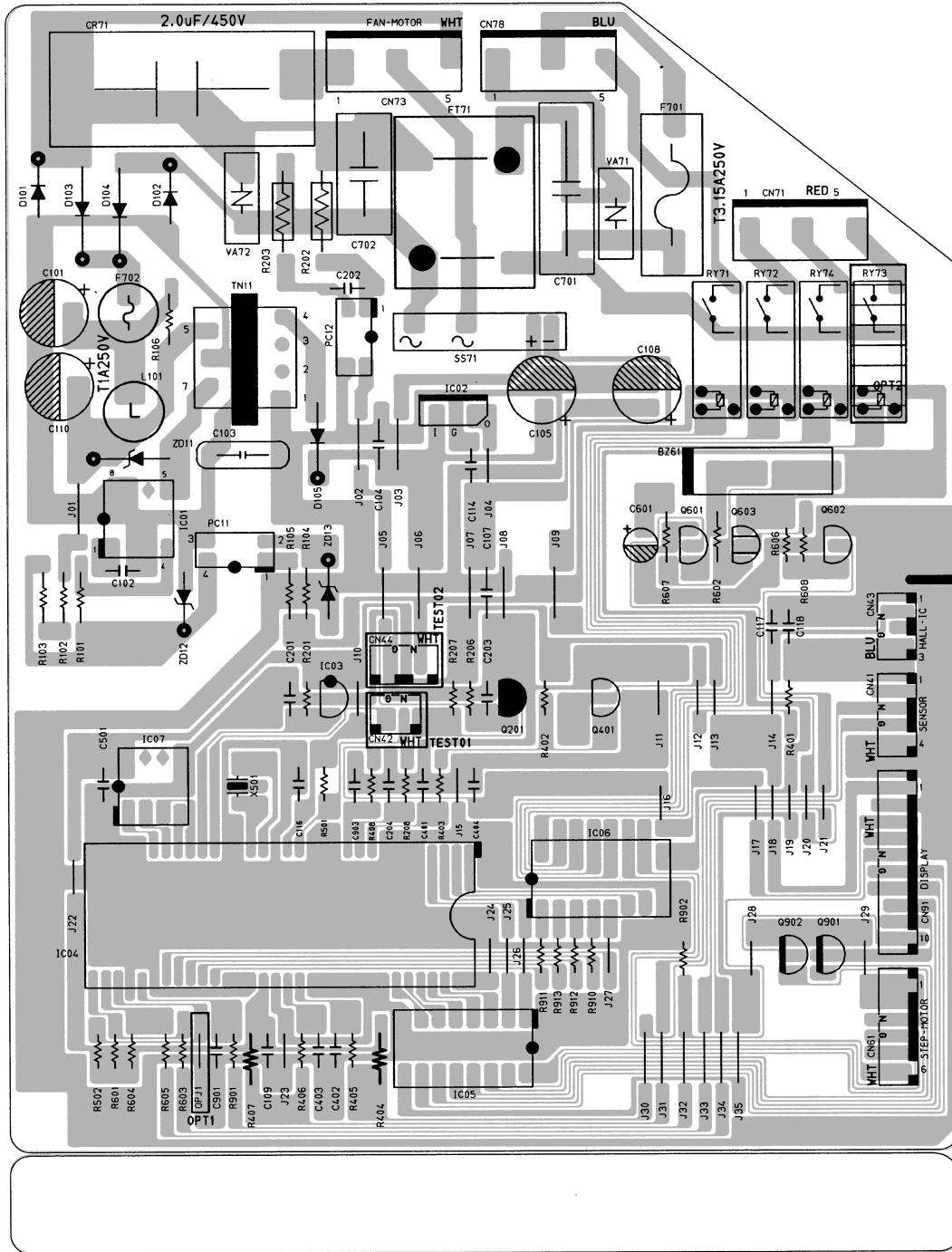
7-1 Refrigerating Cycle Block Diagram



8. PCB Diagrams

8-1 Main PCB

8-1-1 Indoor Unit (PD-SH30ZC-00/PD-SH30ZC-02)



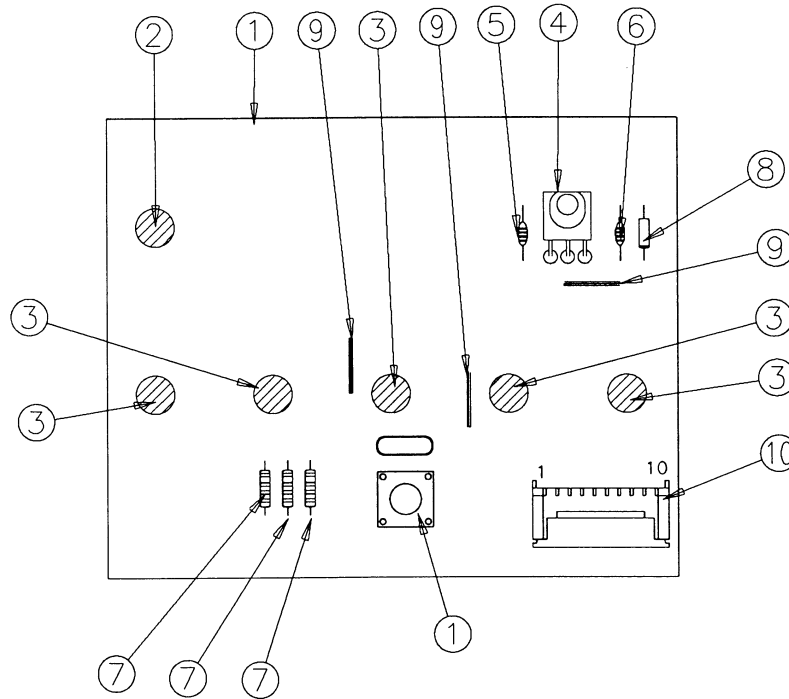
■ Parts List

No	Design-Location	Description	Specification	Q'TY
1	C103	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,TP,12.	1
2	C702	C-FILM,MPPF	100nF,10%,275V,BK,18x6x12,15	1
3	CR71	C-FILM,MPPF	2000nF,+10-5%,450V,BK,38x18x	1
4	C701	C-FILM,MPEF	220NF,10%,275V,BK,26.5X8.5X1	1
5	RY71,72,73,74	RELAY-MINIATURE	12VDC,200MW,3000MA,1FORM	4
6	SS71	SSR	12Vdc,-,2A,1mS,1mS	1
7	IC04	IC MICOM	S3C8469(SDIP)	1
8	IC02	IC-VOLT REGU	KA7805A,TO-220AB,1A,0/125C,	1
9	TN11	TRANS	2UEW0.30/2UEW0.45,1.5KV,1KHz,-,7Pi	1
10	FT71	CHOKE-COIL	LSA-05230P,AC250V,2A,30.5x22x3	1
11	BZ61	BUZZER	CBE2220BA,STICK,-,-,-,-,-,-,-	1
12	F701	FUSE	FST,250V,3.15A,20MM,VDE,50T-03	1
13	F701	HOLDER-FUSE	FH-51H,7.5A,-,-,-,-,-	1
14	D101,102,103,104	DIODE-RECTIFIER	1N4007,1000V,1A,DO-41,TP	4
15	D105	DIODE-RECTIFIER	UG2B,100V,2A,DO-204AC,TP	1
16	ZD12	DIODE-ZENER	DIODE-ZENER;MTZ3.6A,3.6V,3.455-3.695V,50	1
17	ZD13	DIODE-ZENER	DIODE-ZENER;MTZJ11B,11V,10.5-11.05V,500m	1
18	ZD11	DIODE-TVS	DIODE-TVS;ST02D-200,185/200/215V,200W,DO	1
19	Q603	TR-SMALL SIGNAL	TR-SMALL SIGNAL;KSA708-Y,PNP,800mW,TO-92	1
20	Q401,601,602	TR-SMALL SIGNAL	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	3
21	Q901,902	TR-DIGITAL	TR-DIGITAL;KSR2002,PNP,300MW,10K/10K,TO-	2
22	Q201	TR-DIGITAL	TR-DIGITAL;KSR1002,NPN,300MW,10K/10K,TO-	1
23	PC11	PHOTO-COUPLER	PHOTO-COUPLER;TR,50-600%,200mW,DIP-4,ST	1
24	PC12	PHOTO-COUPLER	PHOTO-COUPLER;TR,20-300%,200mW,DIP-4,ST	1
25	IC01	IC-PWM CONTROLLER	IC-PWM CONTROLLER;255,DIP,8P,300MIL,PLAS	1
26	VA71,72	VARISTOR	560V,2500A,17.5x7.5mm,TP	2
27	R405,406	R-CARBON	330ohm,5%,1/8W,AA,TP,1.8x3.2mm	2
28	R104,105	R-CARBON	220OHM,5%,1/4W,AA,TP,2.4X6.4MM	2
29	R101	R-CARBON	470OHM,5%,1/4W,AA,TP,2.4X6.4MM	1
30	R206,501,502,601,604,606,902	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	7
31	R201,207,208,401,403,408,603,605,608	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	9
32	R910,911,912,913	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	4
33	R102,103	R-CARBON	330KOHM,5%,1/4W,AA,TP,2.4X6.4MM	2
34	R106,901	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	2
35	R607	R-CARBON	560OHM,5%,1/4W,AA,TP,2.4X6.4MM	1
36	R402	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1
37	R602	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1
38	R202,203	R-METAL OXIDE(S)	51Kohm,5%,2W,AA,TP,4x12	2
39	R404,407	R-METAL	6.8Kohm,1%,1/8W,AA,TP,1.8x3.2m	2
40	C203,204,401	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V	3
41	C404,903	C-CERAMIC,MLC-AXIAL	1nF,10%,50V,Y5P,TP,1	2
42	C102,104,107,109,114,116,117,118,201, 202,402,403,501,901	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5	14
43	C105	C-AL	1000uF,20%,25V,GP,TP,10x20,5	1
44	C601	C-AL	47uF,20%,50V,GP,TP,6.3x11,2.5	1
45	C108	C-AL	470uF,20%,25V,GP,TP,10x16,5	1
46	C101,110	C-AL	6.8uF,20%,450V,GP,TP,10x16mm,5	2
47	X501	RESONATOR-CERAMIC	4MHz,0.5%,TP,10.0x5.0x	1
48	F702	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x	1
49	CN78	CONNECTOR-HEADER	1WALL,3P/5P,1R,3.96mm,S	1
50	CN71	CONNECTOR-HEADER	1WALL,3P/5P,1R,3.96mm,S	1
51	CN73	CONNECTOR-HEADER	1WALL,3P/5P,1R,3.96mm,S	1
52	CN91	CONNECTOR-HEADER	BOX,10P,1R,2.5mm,STRAIGH	1
53	CN43	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGH	1
54	CN41	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGH	1
55	CN61	CONNECTOR-HEADER	BOX,6P,1R,2.5mm,STRAIGH	1
56	IC07	IC-MASK ROM	93LC56B,8BIT,-,DIP,8P,-,-,-	1
57	IC03	IC-RESET	KA7533,DIP,-,-,-,-,-	1
58	IC06	IC-DRIVE	KID65003AP,DIP,16P,STICK,TR-AR	2
59	L101	COIL CHOKE	5.0mH,-,8.0*11.0,-,-,-,PE-M10	1
60		WIRE-SO COPPER	PI0.6,SN,T,52MM,TAPING_WI	35
61		PCB-MAIN	PD-SH30ZC-00,FR-1,-,-,T1.6,W197	1

8-2 ASS'Y DISPLAY & Module

8-2-1 ALL Model EXCEPT *****C*****

•ASS'Y DISPLAY & MODULE PCB : DB93-00311C

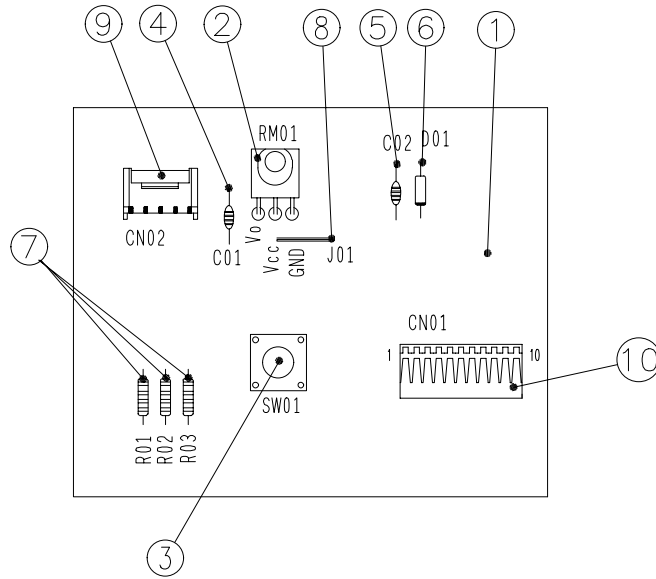


■ Parts List

NO	Description	Specification	Q'TY
1	PCB-DISPLAY	FR-1 T1.6	1
2	LED-LAMP	SY5511(YEL)	1
3	LED-LAMP	S05511(ORG)	5
4	MODULE REMCOON	FRB-4021H6	1
5	C-CERAMIC	CA 0A 50V 102Z	1
6	C-CERAMIC	CA 0A 50V 104Z	1
7	R-CARBON	RD 1/4 TP 471-J	3
8	DIODE SWITCHING	1N4148	1
9	JUMP-WIRE	10mm	3
10	CONNECTOR WAFER	SMAW200-10P	1
11	COVER DISPLAY UP	ABS BLK	1

8-2-2 Model : ***C*******

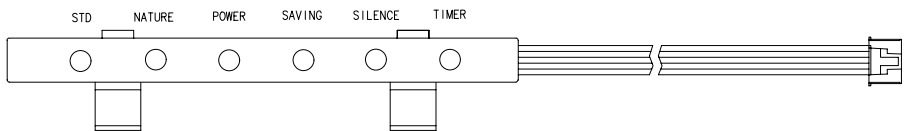
•ASS'Y MODULE PCB : DB93-00926A



■ Parts List

NO	Description	Specification	Q'TY
1	PCB-DISPLAY	FR-1 T1.6	1
2	MODULE REMCOON	FRB-4021H6	1
3	TACT SWITCH	KPT-1105A	1
4	C-CERAMIC	CA 0A 50V 102Z	1
5	C-CERAMIC	CA 0A 50V 104Z	1
6	DIODE SWITCHING	1N4148	1
7	R-CARBON	1/4W, TP, 471-J	3
8	JUMP-WIRE	10mm	1
9	CONNECTOR WAFER	SMAW200-5P(WHT)	1
10	CONNECTOR WAFER	SMAW200-10P(WHT)	1

•ASS'Y CENTER DISPLALY: DB93-00860A

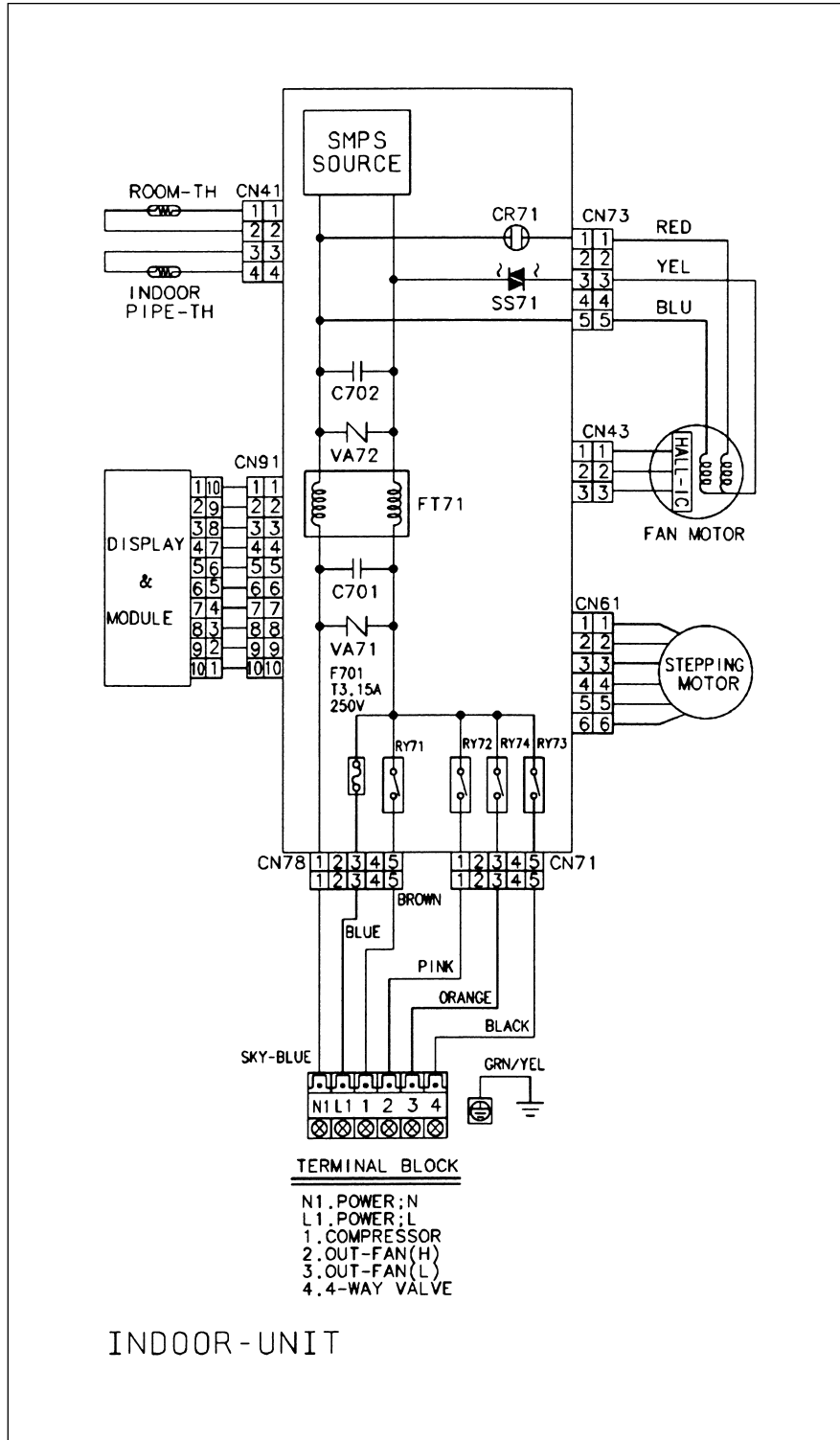


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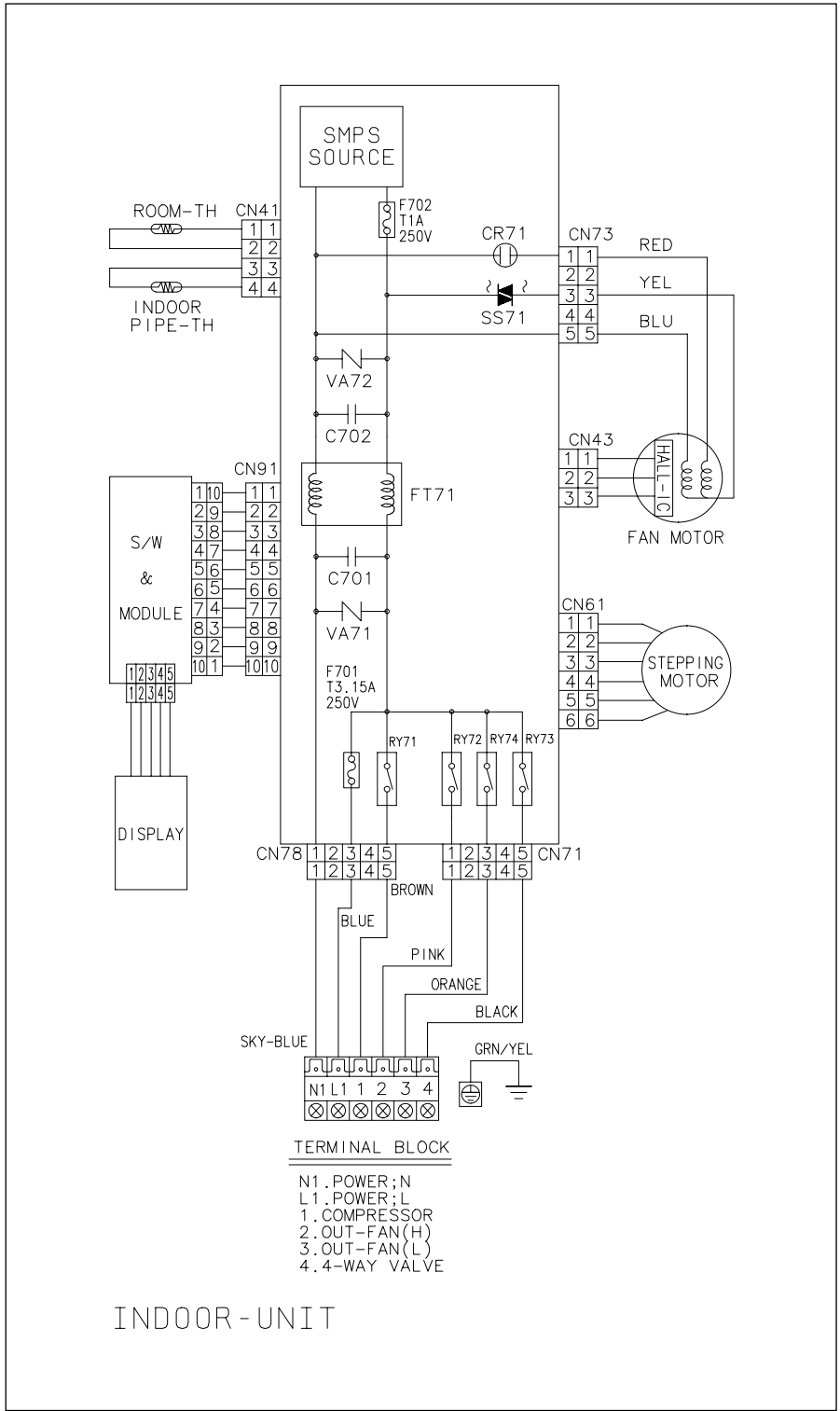
9. Wiring Diagrams

9-1 Indoor Unit

■ ALL MODEL EXCEPT *****C***

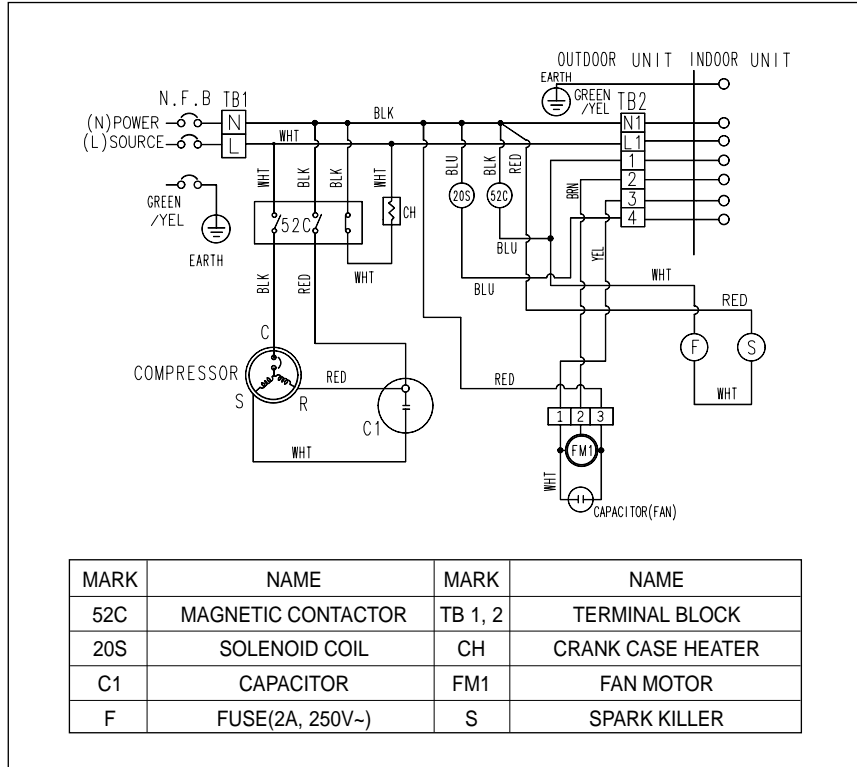


■ *****C***

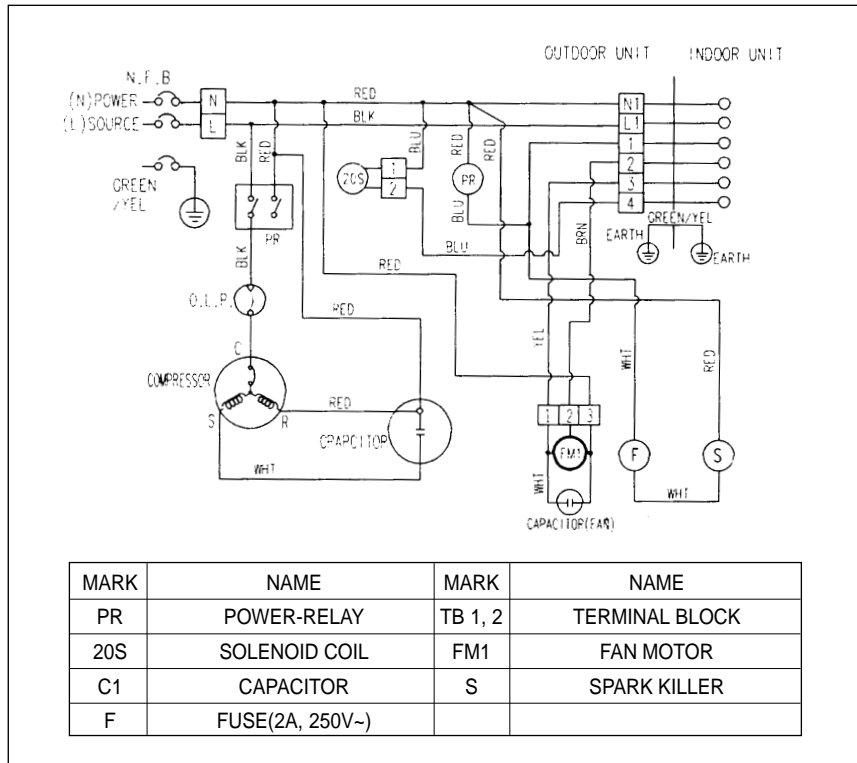


9-2 Outdoor Unit

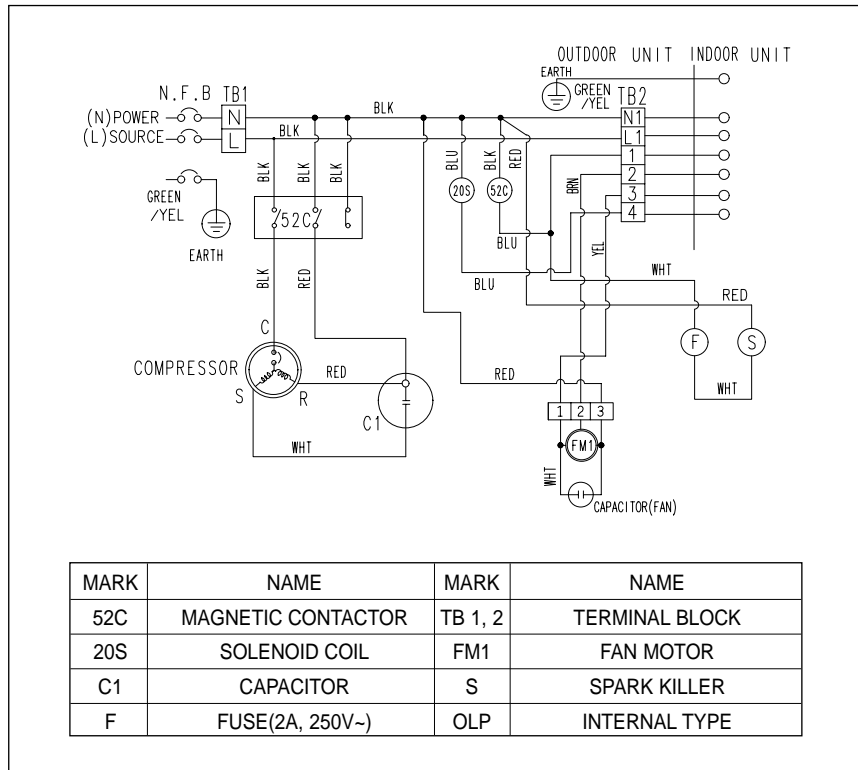
■ UQT24A(B)5(6)RE/B, UQT18A(B)9(0)RE/B, SH24A(B)5X, UQT18C0REF UQT24A(B)5(6)RED, SH24TA(B)6DX, UQT24C5(6)RE/B, UQT18C9(0)RE/B



■ UQ18A(B)9(0)RE, SH18ZA(B)9X UQ18A(B)9(0)RED, SH18ZA(B)0DX, UQ18A(B)9(0)RBD



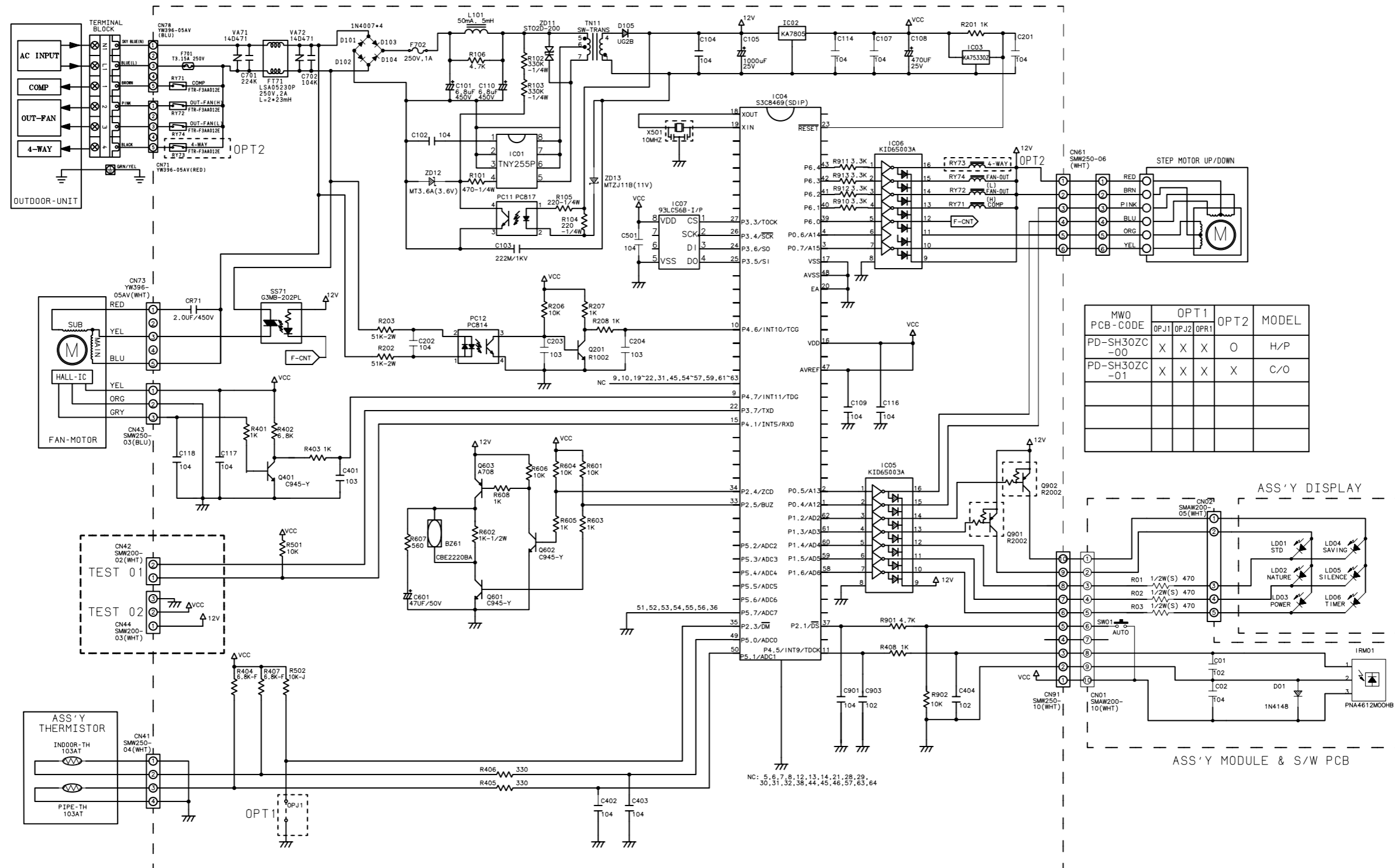
■ UQ24A(B)5(6)RBD



MEMO

10. Schematic Diagrams

10-1 Indoor Unit



MWO PCB-CODE	OPT1			OPT2	MODEL
	OPJ1	OPJ2	OPR1		
PD-SH30ZC-00	X	X	X	O	H/P
PD-SH30ZC-01	X	X	X	X	C/O

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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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