



SAMSUNG

SPLIT-TYPE AIR CONDITIONER

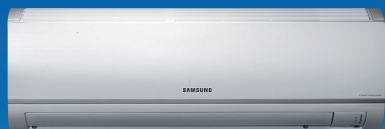
Basic : AQ09NSA/AQ12FC/AQ18FC

Model : AQ09NSA/AQ09NSB/AQ09FD/AQ12FC/
AQ12NSA/AQ12FD/AQ12NSB/AQ18FC/
AQ18NSA/AQ24FC/AQ24NSA

Model Code : AQ09NSAX(N)/AQ09NSBX(N)/
AQ09FDX(N)/AQ12FCX(N)/
AQ12NSAX(N)/AQ12FDX(N)/
AQ12NSBX(N)/AQ18FCX(N)/
AQ18NSAX(N)/AQ24FCX(N)/
AQ24NSAX(N)

SERVICE ***Manual***

AIR CONDITIONER



AQ09NSA/AQ09NSB/AQ09FD/AQ12FC/
AQ12FD/AQ12NSA/AQ12NSB/



AQ18FC/AQ18NSA/AQ24FC/AQ24NSA



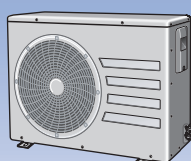
AQ09NSAX
AQ09NSBX
AQ09FDX



AQ18FCX
AQ18NSAX



AQ12FCX
AQ12NSAX
AQ12FDX
AQ12NSBX



AQ24FCX
AQ24NSAX

THE FEATURE OF PRODUCT

- good'sleep Mode
- Catechin Filter
- Silver Nano Evaporator
- Deodorizing Filter
- Anti-Bacterial Cross Fan

Refer to the service manual in the GSPN(see the rear cover) for the more information.

Contents

1. Precautions	1-1
1-1 Installing the air conditioner	1-1
1-2 Power supply and circuit breaker	1-1
1-3 During operation	1-1
1-4 Disposing of the unit	1-2
1-5 Others	1-2
2. Product Specifications	2-1
2-1 The Feature of Product	2-1
2-2 Product Specifications	2-2
2-3 The Comparative Specifications of Product	2-8
2-4 Accessory and Option Specifications	2-10
3. Alignment and Adjustments	3-1
3-1 Test Mode	3-1
3-2 Error Mode and Check Method	3-3
3-3 Setting Option Setup Method	3-7
4. Disassembly and Reassembly	4-1
4-1 Indoor Unit	4-1
4-2 Outdoor Unit	4-4
5. Exploded Views and Parts List	5-1
5-1 Indoor Unit	5-1
5-2 Outdoor Unit	5-3
5-3 Ass'y Control In	5-9
6. Electrical Parts List	6-1
7. Wiring Diagram	7-1
8. Schematic Diagram	8-1
9. Circuit Descriptions	9-1
9-1 PCB Circuit Descriptions	9-1
9-2 Refrigerating Cycle Diagram	9-2
10. PCB Diagram	10-1

Contents

11. Operating Instructions	11-1
11-1 Name of Each Part	11-1
11-2 Main Function	11-3
11-3 Wireless Remote Control-Buttons and Display	11-5
12. Troubleshooting	12-1
12-1 Basic Breakdown Diagnosis Items	12-1
12-2 Trouble check in the initial status	12-2
12-3 Breakdown diagnosis by symptoms	12-3
12-4 PCB Inspection Method	12-10
12-5 Main Part Inspection Method	12-12
13. Block Diagram	13-1
14. Reference Sheet	14-1
14-1 Index for Model Name	14-1
14-2 Refrigerant Pressure during the Charging	14-2
14-3 Pressure & Capacity mark	14-2
14-4 Q & A for Non-trouble	14-3
14-5 Cleaning/Filter Change	14-6
14-6 Installation	14-8
14-7 Installation Diagram of Indoor Unit and Outdoor Unit	14-9

1. Precautions

1-1 Installing the air conditioner

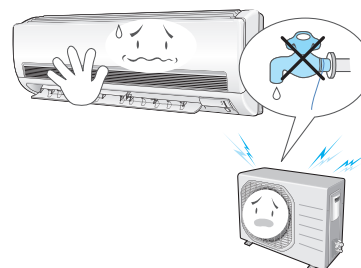
- Users should not install the air conditioner by themselves.
Ask the dealer or authorized company to install the air conditioner except the window-type air conditioner in U.S.A and Canada.
- If you don't install the air conditioner properly, it may cause a fire, a water leakage or an electric shock.
- You must install the air conditioner according to the national wiring regulations and safety regulations.
- Install the indoor unit higher than 2.5m from the floor to avoid the injury caused by the operation of the fan.
(except the window-type air conditioner)
- The manufacturer is not responsible for any accidents or injury caused by an incorrect installation.
- When installing the built-in type air conditioner, keep all electric cables such as the power cable and the connection cord in pipes, ducts, or cable channels to protect them from the danger of impact or any other incidents.

1-2 Power supply and circuit breaker

- If the power cord of the air conditioner is damaged, it must be replaced by the manufacturer or a qualified person in order to avoid a hazard.
- The air conditioner must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker.
An all pole disconnection from the power supply must be incorporated in the fixed wiring with a contact opening of >3mm.
- Do not extend an electric cord to the air conditioner.
- The air conditioner must be plugged in after you complete the installation.

1-3 During operation

- Do not repair the air conditioner at your discretion.
It is recommended to contact a service center directly.
- Never spill any kind of liquid on the air conditioner.
If this happens, turn off the air conditioner and contact an authorized service center.
- Do not insert anything between the airflow blades to prevent damage of the inner fan and consequent injury.
Keep children away from the air conditioner.
- Do not place any obstacles in front of the air conditioner.
- Do not spray any kind of liquid into the indoor unit. If this happens, turn off the air conditioner and contact a service center.
- Make sure that the air conditioner is well ventilated at all times:
Do not place a cloth or other materials over it.
- Remove the batteries if you don't use the remote control for a long time. (If applicable)
- Use the remote control within 7 meters from the indoor unit. (If applicable)

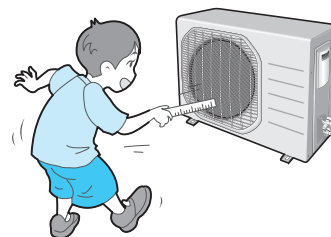


1-4 Disposing of the unit

- Before throwing out the air conditioner, remove the batteries from the remote control.
- When you dispose of the air conditioner, consult your dealer. If pipes are removed incorrectly, refrigerant may blow out and cause air pollution. When it contacts with your skin, it can cause skin injury.
- The package of the air conditioner should be recycled or disposed of properly for environmental reasons.

1-5 Others

- Never store or load the air conditioner upside down or sideways to prevent the damage to the compressor.
- Young children or infirm persons should be always supervised when they use the air conditioner.
- Max current is measured according to IEC standard for safety.
- Current is measured according to ISO standard for energy efficiency.



2. Product Specifications

2-1 The Feature of Product

- **good'sleep Mode**

- **Catechin Filter**

Catechin, extracted from the green tea, is contained in the filter and deactivates captured bacteria and unpleasant odors.

- **Silver Nano Evaporator**

- **Deodorizing Filter**

Activated carbon is incorporated in the filter, efficiently absorbing cigarette smoke, pet odors, and other unpleasant smells, replacing them with clean, refreshing air.

- **Anti-Bacterial Cross Fan**

2-2 Product Specifications

ITEM				MODEL	AQ09NSA		AQ09NSB	
				INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT	
type				WALL MOUNTED		WALL MOUNTED		
performance	Cooling/Heating(ISO)		KW	2.75/2.9		2.75/2.9		
			BTU/h	-		-		
	cooling/heating(SASO)		kcal	-		-		
	Dehumidifying		l/h	-		-		
	Air volume	Cooling	m3/nin(H/M/L)	8.5/6.7/4.8	17	8.5/6.7/4.8	17	
	Noise	Cooling	Db(H/L)	40	55	40	55	
	EER	Cooling/Heating(ISO)	W/W	2.8/3.2		3.2/3.4		
		Cooling/Heating(SASO)	Btu/w.h	-		-		
	Power		ph-v-HZ	220-240/50		220-240/50		
power	Power consumption	Cooling/Heating(ISO)	W	980/900		855/850		
		Cooling/Heating(SASO)	W	-		-		
	OPERATING CURRENT	Cooling/Heating(ISO)	A	4.4/4.1		4.4/4.1		
		Cooling/Heating(SASO)		-		-		
	Power Factor	Cooling	%	96.8/95.4		84.4/90.1		
	Starting current		A	21		21		
	Power CORD	LENGTH	m	5.5		5.5		
		HUMBER OF COREWIRRE		5		5		
		CAPACITY	A	25		25		
Size	OUTER DIMENSION	W*H*D		mm	825*285*189	660*475*242	825*285*189	660*475*242
				inch	-	-	-	-
	Refrigerant	unquid		mm*I(m)	6.35*5		6.35*5	
		Gas		mm*I(m)	9.52*5		9.52*5	
	Drain Hose		d*I(m)	18*2		18*2		
	COMPRESSOR	TYPE		Roto G4A097JUAEP		Roto G4A097JUAEP		
		MOTER	TYPE		INDUCTION MOTOR(PSC)		INDUCTION MOTOR(PSC)	
			TATED OUTPUT		9700		9700	
	oil TYPE			POE(FREONa68ES-T)		POE(FREONa68ES-T)		
	BLOWER	TYPE		CROSS FLOW	PROPELLER	CROSS FLOW	PROPELLER	
		MOTER	TYPE		RESIN/STEEL	STEEL	RESIN/STEEL	STEEL
			TATED OUTPUT		w	37	58	37
Heat exchange				2ROW 10STEP	1ROW20STEP	2ROW 10STEP	1ROW20STEP	
Refrigeraaant Control unit				Capillary Tube		Capillary Tube		
Freezer oil Capicity			cc	280		280		
Refrigeraaant changeer			g	R410A 525		R410A 525		
prodtection Device(olp)				NILET		NILET		
cooling Test Condition				DB27,WB19	DB35,WB24	DB27,WB19	DB35,WB24	
Maximum opteration Condition				DB32,WB23	DB43,WB26	DB32,WB23	DB43,WB26	

MODEL				AQ09FD					
				INDOOR UNIT	OUTDOOR UNIT				
ITEM									
type				WALL MOUNTED					
performance	Cooling/Heating(ISO)		KW	2.75/2.9					
			BTU/h	-					
	cooling/heating(SASO)		kcal	-					
	Dehumidifying		l/h	-					
	Air volume	Cooling	m3/nin(H/M/L)	8.5/6.7/4.8	17				
	Noise	Cooling	Db(H/L)	40	55				
	EER	Cooling/Heating(ISO)	W/W	3.2/3.4					
		Cooling/Heating(SASO)	Btu/w.h	-					
	Power		ph-v-HZ	220-240/50					
power	Power consumption	Cooling/Heating(ISO)	W	855/850					
		Cooling/Heating(SASO)	W	-					
	OPERATING CURRENT	Cooling/Heating(ISO)	A	4.4/4.1					
		Cooling/Heating(SASO)		-					
	Power Factor	Cooling	%	96.8/95.4					
	Starting current		A	21					
	Power CORD	LENGTH	m	5.5					
		HUMBER OF COREWIRRE		5					
		CAPACITY	A	25					
Size	OUTER DIMENSION		W*H*D	mm	825*285*189	660*475*242			
				inch	-	-			
	Refrigerant		unquid	mm*I(m)	6.35*5				
			Gas	mm*I(m)	9.52*5				
	Drain Hose		d*I(m)	18*2					
	COMPRESSOR	TYPE			Roto G4A097JUAEP				
		MOTER	TYPE			INDUCTION MOTOR(PSC)			
			TATED OUTPUT			9700			
	oil TYPE				POE(FREONa68ES-T)				
	BLOWER	TYPE			CROSS FLOW	PROPELLER			
		MOTER	TYPE			RESIN/STEEL	STEEL		
			TATED OUTPUT	w	37	58			
Heat exchange				2ROW 10STEP	1ROW20STEP				
Refrigeraant Control unit				Capillary Tube					
Freezer oil Capicity			cc	280					
Refrigeraant changeer			g	R410A 525					
prodtection Device(olp)				NILET					
cooling Test Condition				DB27,WB19	DB35,WB24				
Maximum opertation Condition				DB32,WB23	DB43,WB26				

ITEM				MODEL		AQ12FC		AQ12NSA		
						INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT	
type				WALL MOUNTED		WALL MOUNTED				
performance	Cooling/Heating(ISO)			KW	3.5/3.8		3.5/3.8			
				BTU/h	-		-			
	cooling/heating(SASO)			kcal	-		-			
	Dehumidifying			l/h	-		-			
	Air volume	Cooling	m3/nin(H/M/L)	13.7/11.9/9.8	25	13.7/11.9/9.8	25			
	Noise	Cooling	Db(H/L)	44	57	44	57			
	EER	Cooling/ Heating(ISO)	W/W	2.82/3.22		2.82/3.22				
		Cooling/ Heating(SASO)	Btu/w.h	-		-				
Power			ph-v-HZ	220-240/50		220-240/50				
power	Power consumption	Cooling/ Heating(ISO)	W	1240/1180		1240/1180				
		Cooling/ Heating(SASO)		-		-				
	OPERATING CURRENT	Cooling/ Heating(ISO)	A	6.2/5.3		6.2/5.3				
		Cooling/ Heating(SASO)		-		-				
	Power Factor	Cooling	%	97.85/97.56		97.85/97.56				
	Starting current		A	21		21				
	Power CORD	LENGTH	m	5.5		5.5				
		CAPACITY	A	25		25				
Size	OUTER DIMENSION	W*H*D	mm	825x285x192.5	720x548x265	825x285x192.5	720x548x265			
			inch	-	-	-	-			
	weight(net)		kg	8.5	37	8.5	37			
	Refrigerant	unquid	mm*I(m)	6.35*5		6.35*5				
		Gas	mm*I(m)	9.52*5		9.52*5				
	Drain Hose		d*I(m)	18*2		18*2				
	COMPRESSOR	TYPE		Roto G4B124JXBEL		Roto 44B102DXCEL				
		MOTER	TYPE		INDUCTION MOTOR(PSC)		INDUCTION MOTOR(PSC)			
			TATED OUTPUT		12900		12900			
	oil TYPE			POE(FREONa68ES-T)		POE(FREONa68ES-T)				
	BLOWER	TYPE			CROSS FLOW	PROPELLER	CROSS FLOW	PROPELLER		
					RESIN/STEEL	STEEL	RESIN/STEEL	STEEL		
		MOTER	TATED OUTPUT		w	37	58	37	58	
Heat exchange				2ROW 10STEP	1ROW24STEP	2ROW 10STEP	1ROW20STEP			
Refrigeraant Control unit				Capillary Tube		Capillary Tube				
Freezer oil Capicity			cc	360		360				
Refrigeraant changeer			g	R410A 800		R410A 800				
prodtection Device(olp)				KA-125-LODN00PB		KA-125-LODN00PB				
cooling Test Condition				DB27,WB19	DB35,WB24	DB27,WB19	DB35,WB24			
Maximum opertation Condition				DB32,WB23	DB43,WB26	DB32,WB23	DB43,WB26			

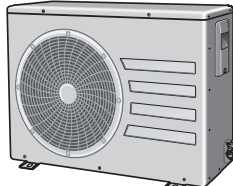
ITEM				MODEL	AQ12FD		AQ12NSB		
				INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT		
type				WALL MOUNTED		WALL MOUNTED			
performance	Cooling/Heating(ISO)		KW	3.5/3.8		3.5/3.8			
			BTU/h			-			
	cooling/heating(SASO)		kcal	-		-			
	Dehumidifying		l/h	-		-			
	Air volume	Cooling	m3/ nin(H/ M/L)	13.7/11.9/9.8	25	13.7/11.9/9.8	25		
	Noise	Cooling	Db(H/L)	44	57	44	57		
	EER	Cooling/ Heating(ISO)	W/W	3.21/3.45		3.21/3.45			
		Cooling/ Heating(SASO)	Btu/w.h	-		-			
Power			ph-v-HZ	220-240/50		220 60			
power	Power consumption	Cooling/ Heating(ISO)	W	1090/1100		1090/1100			
		Cooling/ Heating(SASO)	Kcal/h	-		-			
	OPERATING CURRENT	Cooling/ Heating(ISO)	A	5.7		5.7			
		Cooling/ Heating(SASO)	A	-		-			
	Power Factor		Cooling	%	97.85/97.56		97.85/97.56		
	Starting current			A	21		21		
	Power CORD	LENGTH	m	5.5		5.5			
		HUMBER OF COREWIRRE		5		5			
		CAPACITY	A	25		25			
Size	OUTER DIMENSION		W*H*D	mm	825x285x192.5	720x548x265	825x285x192.5	720x548x265	
			inch	-	-	-	-		
	weight(net)			kg	8.5	38	8.5	38	
	Refrigerant	unquid	mm*(l(m)	6.35*5		6.35*5			
		Gas	mm*(l(m)	12.7*5		12.7*5			
	Drain Hose			d*l(m)	18*2		18*2		
	COMPRESSOR	TYPE		G4B124JXBEL		G4B124JXBEL			
		MOTER	TYPE		INDUCTION MOTOR(PSC)		INDUCTION MOTOR(PSC)		
			TATED OUTPUT		12900		12900		
	oil TYPE				POE(FREONa68ES-T)		POE(FREONa68ES-T)		
	BLOWER	TYPE		CROSS FLOW		PROPELLER		CROSS FLOW	PROPELLER
		MOTER	TYPE		RESIN/STEEL		STEEL		RESIN/STEEL
TATED OUTPUT			w	37	58	37	58		
Heat exchange				2ROW 4STEP	2ROW20STEP	2ROW 4STEP	2ROW20STEP		
Refrigerant Control unit				Capillary Tube		Capillary Tube			
Freezer oil Capacity			cc	360		360			
Refrigerant changeer			g	R410 840		R410 840			
prodtection Device(olp)				KA-125-LODN00PB		KA-125-LODN00PB			
cooling Test Condition				DB27,WB19	DB35,WB24	DB27,WB19	DB35,WB24		
Maximum opertation Condition				DB32,WB23	DB43,WB26	DB32,WB23	DB43,WB26		

ITEM				MODEL		AQ18FC		AQ18NSA	
						INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT
type				WALL MOUNTED		WALL MOUNTED			
performance	Cooling/Heating(ISO)		KW	5.2/5.8		5.2/5.8			
			BTU/h	-		-			
	cooling/heating(SASO)		kcal	-		-			
	Dehumidifying		l/h	-		-			
	Air volume	Cooling	m3/ nin(H/ M/L)	13.7/11.9/9.8	25	13.7/11.9/9.8	25		
	Noise	Cooling	Db(H/L)	48	59	48	59		
	EER	Cooling/ Heating(ISO)	W/W	2.81/3.2		2.81/3.2			
		Cooling/ Heating(SASO)	Btu/w.h	-		-			
	Power			ph-v-HZ	.220-240/50		.220-240/50		
power	Power consumption		Cooling/ Heating(ISO)	W	1810/1800		1810/1800		
			Cooling/ Heating(SASO)	Kcal/h	-		-		
	OPERATING CURRENT		Cooling/ Heating(ISO)	A	8.3/8.1		8.3/8.1		
			Cooling/ Heating(SASO)	A	-		-		
	Power Factor		Cooling	%	94.8/96.6		94.8/96.6		
	Starting current			A	21		21		
	Power CORD		LENGTH	m	5.5		5.5		
			HUMBER OF COREWIRE		5		5		
			CAPACITY	A	25		25		
Size	OUTER DIMENSION		W*H*D	mm	1065x298x218	790x548x285	1065x298x218	790x548x285	
				inch	-	-	-	-	
	weight(net)			kg	12	39	12	39	
	Refrigerant		unquid	mm*(l(m)	6.35*5		6.35*5		
			Gas	mm*(l(m)	12.7*5		12.7*5		
	Drain Hose			d*(l(m)	18*2		18*2		
	COMPRESSOR	TYPE		G8D185JUA EH		G8D185JUA EH			
		MOTER	TYPE		INDUCTION MOTOR(PSC)		INDUCTION MOTOR(PSC)		
			TATED OUTPUT		19300		19300		
	oil TYPE				POE(FREONa68ES-T)		POE(FREONa68ES-T)		
	BLOWER	TYPE			CROSS FLOW	PROPELLER	CROSS FLOW	PROPELLER	
			MOTER	TYPE		RESIN/STEEL	STEEL	RESIN/STEEL	STEEL
				TATED OUTPUT		w	37	58	37
Heat exchange				2ROW 8STEP	2ROW24STEP	2ROW 81STEP	2ROW24STEP		
Refrigeraant Control unit				Capillary Tube		Capillary Tube			
Freezer oil Capicity			cc	600		600			
Refrigeraant changeer			g	R410 1080		R410 1080			
prodtection Device(olp)				NILET		NILET			
cooling Test Condition				DB27,WB19	DB35,WB24	DB27,WB19	DB35,WB24		
Maximum opertation Condition				DB32,WB23	DB43,WB26	DB32,WB23	DB43,WB26		

ITEM				MODEL	AQ24FC		AQ24NSA		
					INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT	
type				WALL MOUNTED		WALL MOUNTED			
performance	Cooling/Heating(ISO)		KW	6.8/7.0		6.8/7.0			
			BTU/h	-		-			
	cooling/heating(SASO)		kcal	-		-			
	Dehumidifying		l/h	-		-			
	Air volume	Cooling	m3/ nin(H/ M/L)	13.7/11.9/9.8	25	13.7/11.9/9.8	25		
	Noise	Cooling	Db(H/L)	48	61	48	61		
	EER	Cooling/ Heating(ISO)	W/W	-		-			
		Cooling/ Heating(SASO)	Btu/w.h	-		-			
	Power			ph-v-HZ	220V-240V/50Hz		220-240/50		
power	Power consumption	Cooling/ Heating(ISO)	W	2420/2490		2420/2490			
		Cooling/ Heating(SASO)	Kcal/h	-		-			
	OPERATING CURRENT	Cooling/ Heating(ISO)	A	10.8/11.2		10.8/11.2			
		Cooling/ Heating(SASO)	A	-		-			
	Power Factor	Cooling	%	97.4/96.7		97.4/96.7			
	Starting current		A	21		21			
	Power CORD	LENGTH	m	5.5		5.5			
		HUMBER OF COREWIRRE		5		5			
		CAPACITY	A	25		25			
Size	OUTER DIMENSION		W*H*D	mm	1065x298x218	880x638x310	1065x298x218	880x638x310	
				inch	-	-	-	-	
	weight(net)			kg	13	56	13	56	
	Refrigerant		unquid	mm*(l(m)	6.35*5		6.35*5		
			Gas	mm*(l(m)	15.8*5		15.8*5		
	Drain Hose			d*l(m)	18*2		18*2		
	COMPRESSOR	TYPE			G5A240JUAEM		G5A240JUAEM		
		MOTER	TYPE		INDUCTION MOTOR(PSC)		INDUCTION MOTOR(PSC)		
			TATED OUTPUT		25000		25000		
	oil TYPE					POE(FREONa68ES-T)		POE(FREONa68ES-T)	
	BLOWER	TYPE			CROSS FLOW	PROPELLER	CROSS FLOW	PROPELLER	
			MOTER	TYPE		RESIN/STEEL	STEEL	RESIN/STEEL	STEEL
				TATED OUTPUT		w	37	58	37
Heat exchange					2ROW 10STEP	2ROW28STEP	2ROW 10STEP	2ROW28STEP	
Refrigeraant Control unit					Capillary Tube		Capillary Tube		
Freezer oil Capicity			cc		600		600		
Refrigeraant changeer			g		R410 1500		R410 1500		
prodtection Device(olp)					NILET		NILET		
cooling Test Condition					DB27,WB19	DB35,WB24	DB27,WB19	DB35,WB24	

2-3 The Comparative Specifications of Product

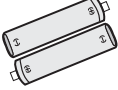
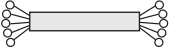
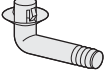
Item		AQ09NSA/AQ09NSB/AQ09FD	AQ12FC/AQ12NSA/AQ12FD/AQ12NSB
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	7.8kg	7.8kg
	Outdoor Unit	25kg	37kg
Outer Dimension (WidthxHeightxDepth)	Indoor Unit	825x285x189mm	825x285x189mm
	Outdoor Unit	660X475X242mm	720x548x265mm
Noise	Indoor Unit	40dB↓	44dB↓
	Outdoor Unit	55dB↓	57 dB↓
Air Purifying System	Filter	Silver Nano Filter Catechin Filter Deodorizing Filter	
Indoor Display		Digital	

Item		AQ18FC/AQ18NSA	AQ24FC/AQ24NSA
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	12kg	13kg
	Outdoor Unit	39kg	56kg
Outer Dimension (WidthxHeightxDepth)	Indoor Unit	1065x298x218mm	1065*298*218mm
	Outdoor Unit	790x548x285mm	880x638x310mm
Noise	Indoor Unit	48dB↓	48dB↓
	Outdoor Unit	59 dB↓	61dB↓
Air Purifying System	Filter	Silver Nano Filter Catechin Filter Deodorizing Filter	
Indoor Display		Digital	

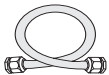
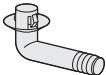
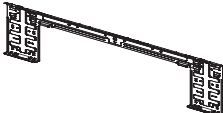
2-4 Accessory and Option Specifications

Operating Instructions and Installation

2-4-1 Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Installation Plate	DB97-02851B	1	Indoor Unit
	Remote Control	DB93-03170M (H/P)	1	
		DB93-03170N (C/O)	1	
	Batteries for Remote Control	DB47-90024A	2	
	Owner's Manual	-	1	
	Installation Manual	-	1	Outdoor Unit
	3-wire Assembly Cable (**18**)	-	1	
	5-wire Assembly Cable (**24**)	-	1	
	Drain Plug	DB67-20011A	1	
	Rubber Leg	DB73-20134A	4	
	Assembly Pipe, ø6.35mm	DB62-02672D	1	Accessory Box
	Assembly Pipe, ø9.52mm (**09**)	DB62-02672E	1	

Accessories(cont.)

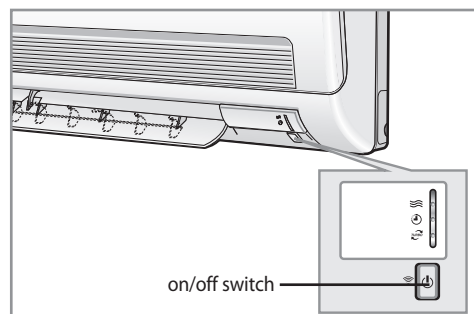
Item	Descriptions	Code-No.	Q'TY	Remark
	Assembly Pipe, ø12.70mm (**12** **18**)	DB62-02672F	1	Accessory Box
	Assembly Pipe, ø12.70mm (**24**)	DB62-02672G	1	
	Vinyl Tape, Width 80mm	DB72-00459A	1	
	Drain Plug	DB67-20011A	1	
	Rubber Leg	DB73-20134A	4	
	Cable-Tie	DB65-10088C	4	
	Cement Nail	-	6	
	M4x16 Tapping Screws	6002-000215	6	
	Drain Hose, length 2m	DB67-00274A	1	
	Putty 100g	DB98-10568A	1	
	Installation Plate	DB97-02738A	1	

3. Alignment and Adjustments

3-1 Test Mode

■ How to Approach Test Mode

You can approach the Test Mode by pressing the on/off switch of indoor unit for 5 seconds.



■ Test Mode Operation Option

After installing the air conditioner, check whether each subordinate is normally operated or not by operating the Test Mode.

- **Temperature Display Part** : Display the set option at one-second intervals. (Only for models having the temperature display part)

ex) 0b0000-1730F8 : 0b→00→00→17→30→F8→0b...(Repeat)

- **When an error occurs, display the Error Mode.**

LED Display				Cause	Follow-up Measures																		
Waiting Operation	LAMP																						
	OPERATION	TIMER	TURBO																				
																							
<i>OFF</i>				Indoor temperature sensor error (OPEN/SHORT)	• Check assembling status of the sensor part's connector on the indoor unit main PCB • Measure the resistance value on both sides – connector no. 1 and no. 2 (E1), no. 3 and no. 4 (E2) – by separating the sensor part's connector																		
<i>OFF</i>				Indoor heat exchanger temperature sensor error (OPEN/SHORT)	<table border="1"><thead><tr><th>Temp. (°C)</th><th>Resistance Value(KΩ)</th><th>Temp. (°C)</th><th>Resistance Value(KΩ)</th><th>Others</th></tr></thead><tbody><tr><td>15</td><td>14.68</td><td>30</td><td>8.31</td><td rowspan="3">The error of DATA is ±2%.</td></tr><tr><td>20</td><td>12.09</td><td>35</td><td>6.94</td></tr><tr><td>25</td><td>10.00</td><td>40</td><td>5.83</td></tr></tbody></table> * If not meet the above DATA, replace sensors.	Temp. (°C)	Resistance Value(KΩ)	Temp. (°C)	Resistance Value(KΩ)	Others	15	14.68	30	8.31	The error of DATA is ±2%.	20	12.09	35	6.94	25	10.00	40	5.83
Temp. (°C)	Resistance Value(KΩ)	Temp. (°C)	Resistance Value(KΩ)	Others																			
15	14.68	30	8.31	The error of DATA is ±2%.																			
20	12.09	35	6.94																				
25	10.00	40	5.83																				
<i>OFF</i>				Indoor fan motor speed detecting error (Occur when it continues for 15 seconds at below 450rpm)	• Check assembling status of the Motor Hall IC output connector (CN44) on the indoor unit main PCB																		
<i>OFF</i>				EEPROM error (Option memory) * Display only for models having the returning function for the power failure	• Reset options • Replace the PCB																		
Blink all lamps				When there is an option related error When options are not set When there is an option data error	• Reset options																		

■ Test Mode Operation Option(cont.)

- **Operation Mode** : Cool mode. Operate the cool mode by operating the compressor by force without the compressor ON/OFF according to the set temperature/indoor temperature. (Do not follow the antifreeze control)
- **Up-down louver** : Up-down swing mode
- **Indoor Fan** : High



• Because the Test Mode operate the cool mode by force not related to the set temperature / indoor temperature, check whether each subordinate is operated normally or not after completing installation and must turn off the power of the air conditioner.

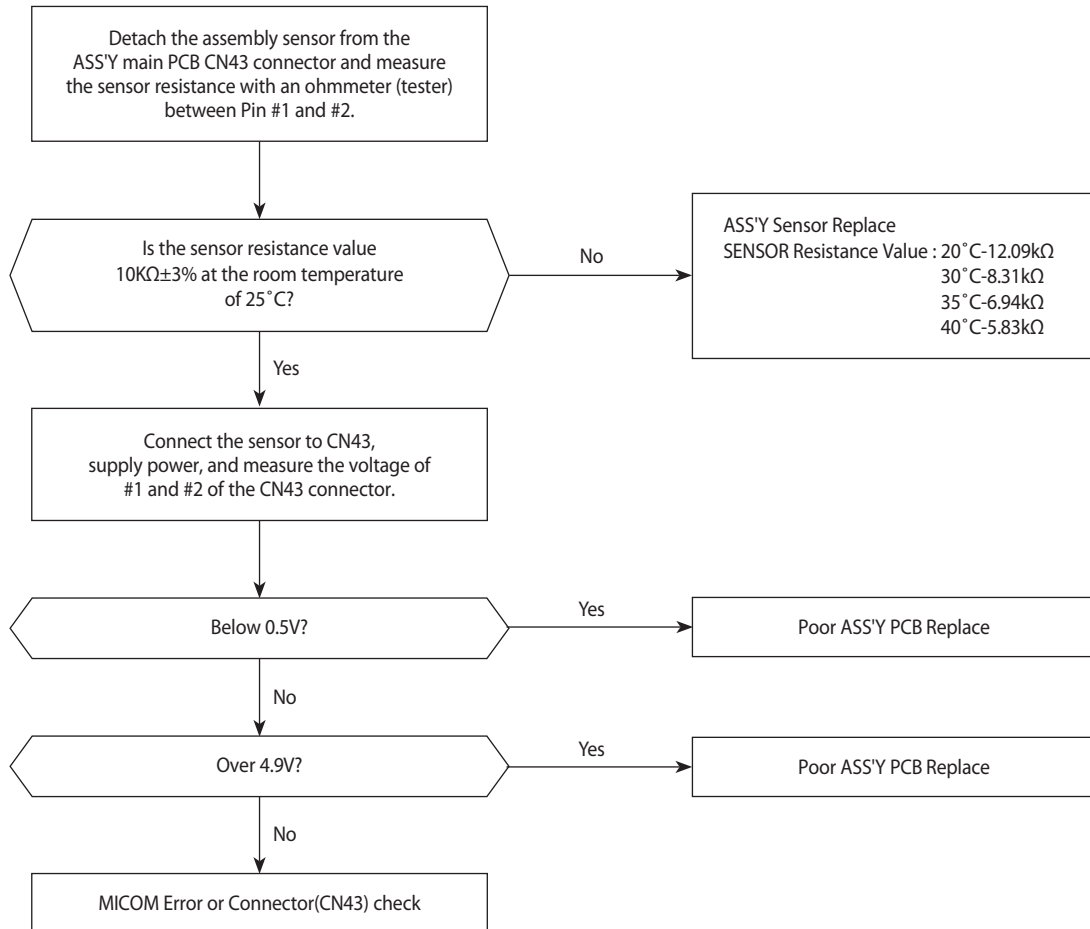
3-2 Error Mode and Check Method

Description	LAMP		
	OPERATION	TIMER	TURBO
			
Indoor unit room temperature sensor error (open or short)	○	◐	○
Indoor unit heat exchanger temperature sensor error (open or short)	◐	◐	○
Indoor fan motor mal function	◐	○	◐
EEPROM error	○	◐	◐
Option error (option wasn't set up or option data error)	◐	◐	◐

○ : Lamp off ◐ : Lamp flickering

3-2-1 Room temperature sensor Error

Description	LAMP		
	OPERATION	TIMER	TURBO
			
Indoor unit room temperature sensor error (open or short)			



3-2-2 Room Pipe sensor Error

Description	LAMP		
	OPERATION	TIMER	TURBO
			
Indoor unit heat exchanger temperature sensor error (open or short)			

1. Check the assembly condition of the sensor connector(CN43) on the indoor unit Main PCB and if not assembled, reassemble the connector accurately.
2. Detach the room pipe sensor connector(CN43) and check the resistance between Pin #3 and #4.

Temperature(°C)	Resistance Value(Kohm)	Temperature(°C)	Resistance Value(Kohm)	Others
15	14.68	30	8.31	The data tolerance is $\pm 3\%$.
20	12.09	35	6.94	
25	10	40	5.83	

If the above data is not met, replace the room pipe sensor.

3. Assemble the room pipe sensor to PCB, plug in, and check the voltage of connector 3 and 4. If the resistance is below 0.5V or over 4.9V, replace the indoor Main PCB. (short or disconnected in the PCB board)

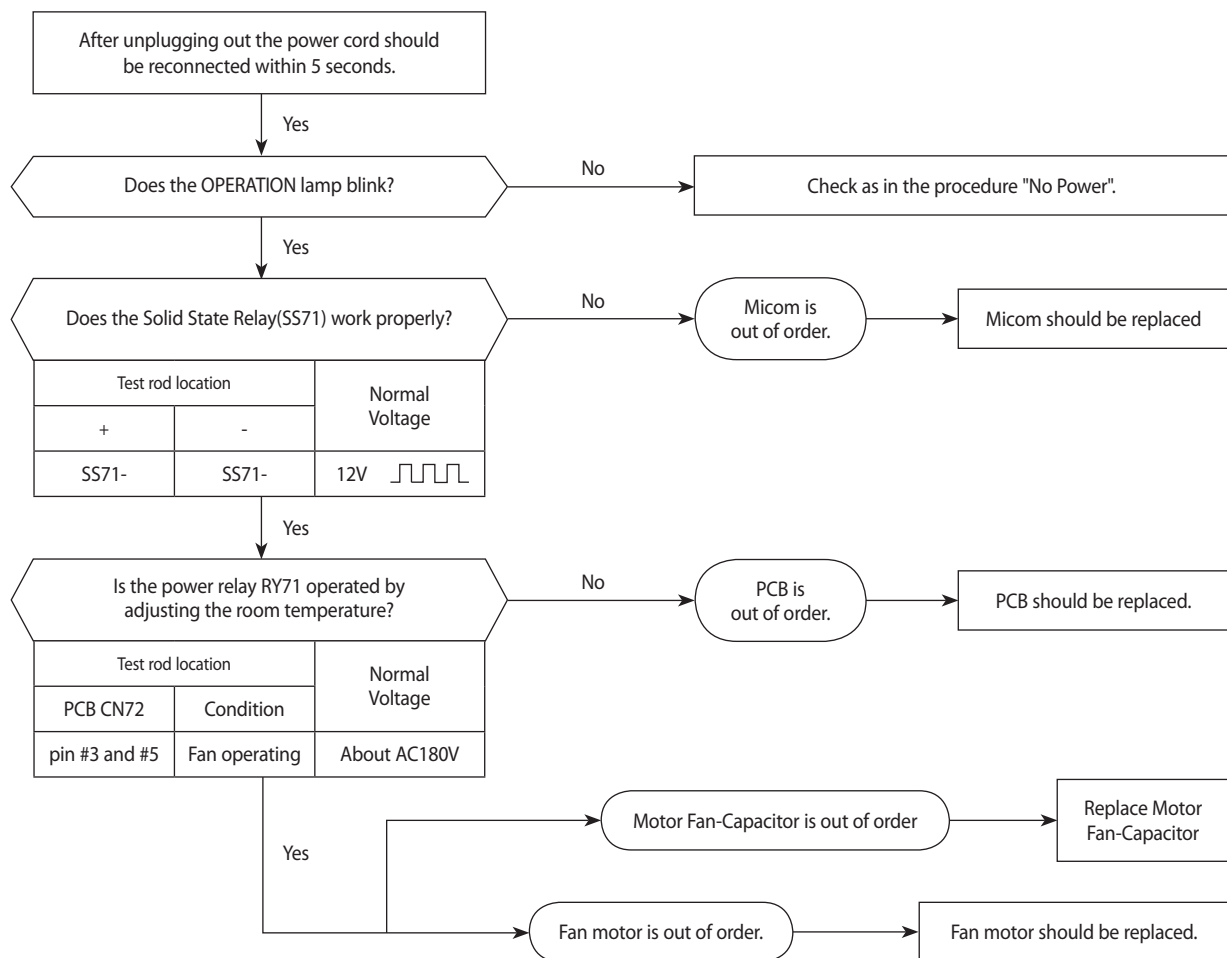
3-2-3 Indoor Unit Fan Motor Error

Description	LAMP		
	OPERATION	TIMER	TURBO
			
Indoor fan motor mal function			

1. Checklist :

- 1) Is the indoor unit fan motor properly connected with the connector (CN72)?
- 2) Is the AC voltage correct?
- 3) Is HALL IC in indoor fan motor properly connected with the connector (CN44)?
- 4) Is the running capacitor (CR71) properly connected with PCB board?

2. Troubleshooting procedure

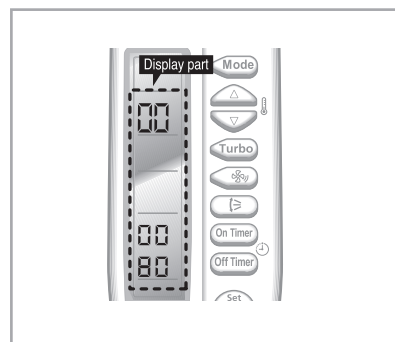


3-3 Setting Option Setup Method

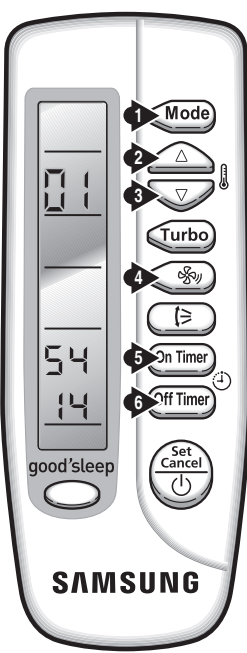
Option No. : 0 154 14- 1c0278

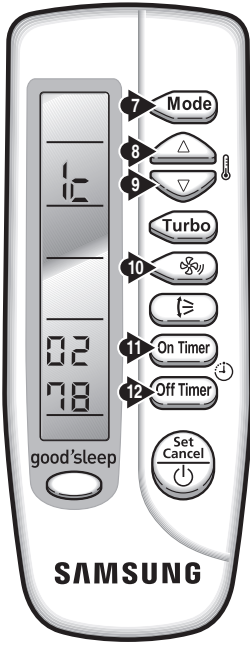
Step 1 : Enter the Option Setup mode.

- 1st Take out the batteries of remote control.
- 2nd Press the temp.  button simultaneously and insert the battery again.
- 3rd Make sure the remote control display shown as .



Step 2 : Enter the Option Setup mode and select your option according to the following procedure.

 SAMSUNG good'sleep Set Cancel ◆ Setting is not required if you must  a value which has a  default.	1 The default value is  . Otherwise, push the  button to  . Every time you push the button, the display panel reads 1 or  repeatedly.
	2 Push the  button to set the display panel to 1. Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
	3 Push the  button to set the display panel to 5. Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
	4 Push the  button to set the display panel to 4. Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
	5 Push the  button to set the display panel to 1. Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
	6 Push the  button to set the display panel to 4. Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.



◆ Setting is not required if you must $\square$ a value which has a $\square$ default.

7	Press Mode button, then the default value is $\square$.
8	Push the Δ button to set the display panel to $\square$. Every time you push the button, the display panel reads $\square \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow \dots 9 \rightarrow A \rightarrow b \rightarrow c \rightarrow d \rightarrow E \rightarrow F$ repeatedly.
9	Push the ∇ button to set the display panel to $\square$. Every time you push the button, the display panel reads $\square \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow \dots 9 \rightarrow A \rightarrow b \rightarrow c \rightarrow d \rightarrow E \rightarrow F$ repeatedly.
10	Push the Fan button to set the display panel to $\square$. Every time you push the button, the display panel reads $\square \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow \dots 9 \rightarrow A \rightarrow b \rightarrow c \rightarrow d \rightarrow E \rightarrow F$ repeatedly.
11	Push the On Timer button to set the display panel to $\square$. Every time you push the button, the display panel reads $\square \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow \dots 9 \rightarrow A \rightarrow b \rightarrow c \rightarrow d \rightarrow E \rightarrow F$ repeatedly.
12	Push the Off Timer button to set the display panel to $\square$. Every time you push the button, the display panel reads $\square \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow \dots 9 \rightarrow A \rightarrow b \rightarrow c \rightarrow d \rightarrow E \rightarrow F$ repeatedly.

Step 3 : Upon completion of the selection, check you made right selections.

Press the Mode Selection key, Mode to set the display part to $\square$ and check the display part.

→ The display part shows $\square$.

Press the Mode Selection key, Mode to set the display part to $\square$ and check the display part.

→ The display part shows $\square$.

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

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound "Ding" or "Diriring" is heard and the OPERATION ICON(⏻) lamp of the display 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 control.

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

Third, Press ON/OFF button(⏻) with the direction of remote control for set.

• Error Mode

1stIf all lamps of indoor unit are flickering, Plug out, plug in power plug again and press ON/OFF key to retry.

2ndIf 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 its model.

■ OPTION ITEMS

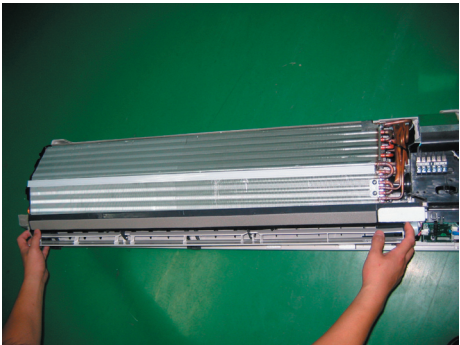
MODEL \ REMOCON	SEG 1	SEG 2	SEG 3	SEG 4	SEG 5	SEG 6	SEG 7	SEG 8	SEG 9	SEG 10	SEG 11	SEG 12
AQ09NSA	0	2	5	0	6	3	1	7	1	3	6	0
AQ09NSB	0	2	5	0	6	3	1	7	1	3	6	0
AQ09FD	0	2	5	0	6	3	1	7	1	3	6	0
AQ12FC	0	2	5	0	2	4	1	7	1	3	6	0
AQ12NSA	0	2	5	0	2	4	1	7	1	3	6	0
AQ12FD	0	2	5	0	2	4	1	7	1	3	6	0
AQ12NSB	0	2	5	0	2	4	1	7	1	3	6	0
AQ18FC	0	4	7	0	1	3	1	7	1	2	4	E
AQ18NSA	0	4	7	0	1	3	1	7	1	2	4	E
AQ24FC	0	4	4	1	D	5	1	D	0	3	6	0
AQ24NSA	0	4	4	1	D	5	1	D	0	3	6	0

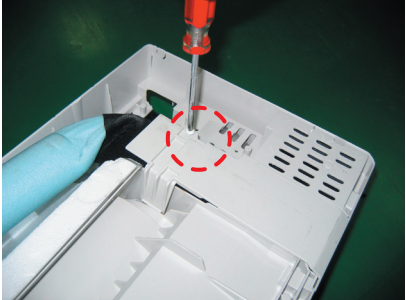
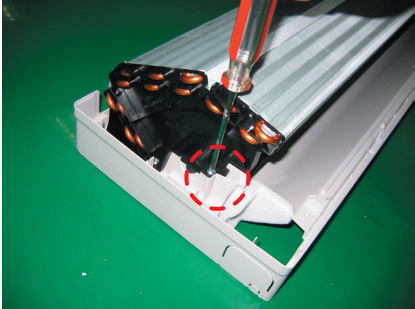
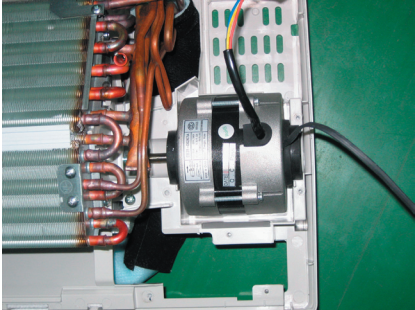
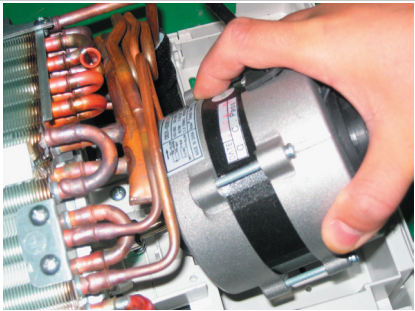
4. Disassembly and Reassembly

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

4-1 Indoor Unit

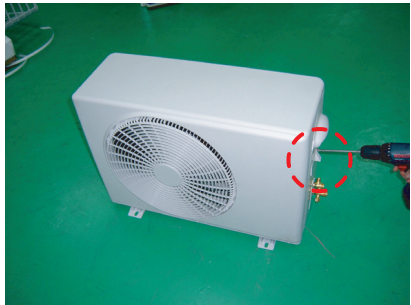
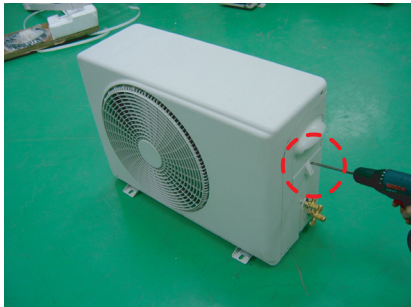
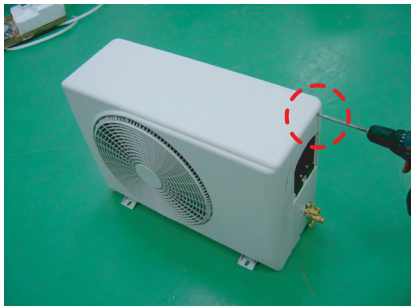
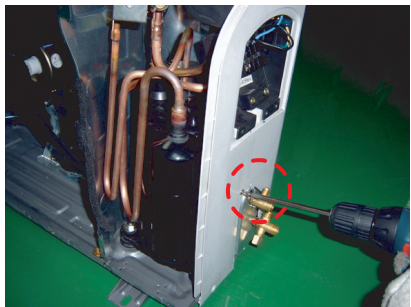
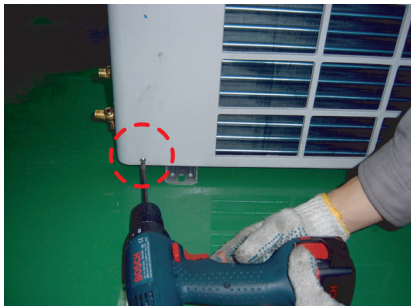
No	Parts	Procedure	Remark
1	Front Grille	1) Stop the air conditioner operation and shut off the main power. 2) Open the Front Grille by pulling right and left sides of the hook. 3) Loosen 1 of the right screw and detach the Terminal Cover. 4) Detach the thermistor from the Front Grille. 5) Loosen 3 fixing screws of Front Grille.	   

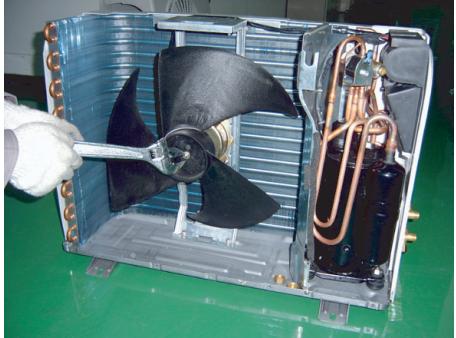
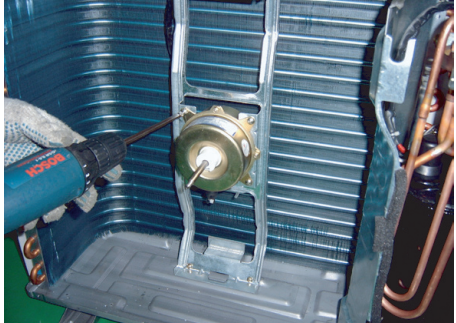
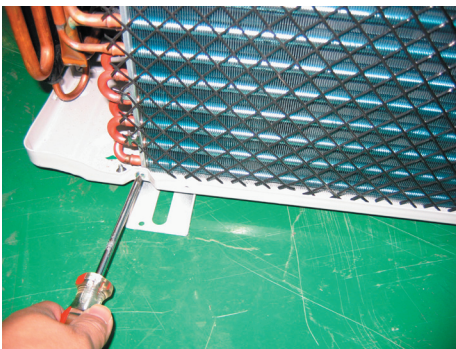
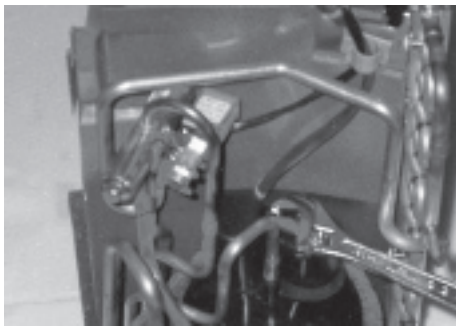
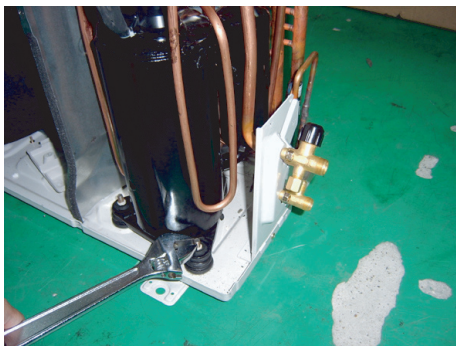
No	Parts	Procedure	Remark
		6) Unlock 3 hooks to fix Panel Front and Tray Drain. 7) Unlock 3 hooks to fix Panel Front and Back-Body.	
2	Control-In (Main PCB)	1) Take all the connector of PCB upper side out. (Inclusion Power Cord) 2) Detach the outdoor unit connection wire from the Terminal Block. 3) Loosen 4 fixing screws of Ass'y Control-In.	
3	Tray Drain	1) Pull Tray Drain out from the Back Body.	

No	Parts	Procedure	Remark
4	Heat Exchanger	1) Loosen 2 fixing earth screws of right side. 2) Detach the Connection Pipe. 3) Detach the Holder Pipe at the rear side.	
		4) Loosen the 4 fixing screws of right and left side. 5) Lifting the Heat Exchanger up a little to push the up side for separation from the indoor unit.	
5	Fan Motor & Cross Fan	1) Loosen the fixing screw. 2) Detach the Fan Motor from the Fan. 3) Detach the Fan From the left Holder Bearing.	
			

4-2 Outdoor Unit

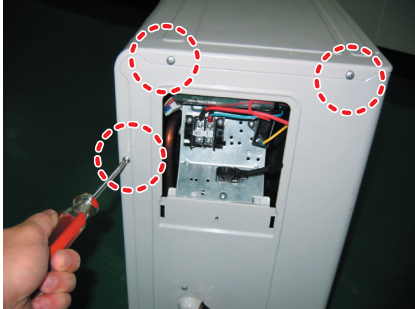
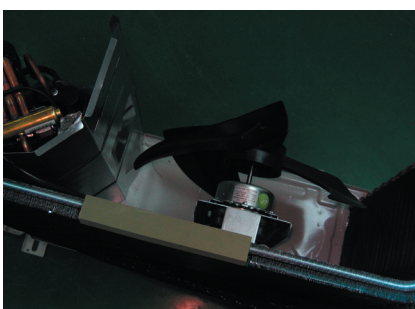
AQ09NSAX/AQ09NSBX/AQ09FDX

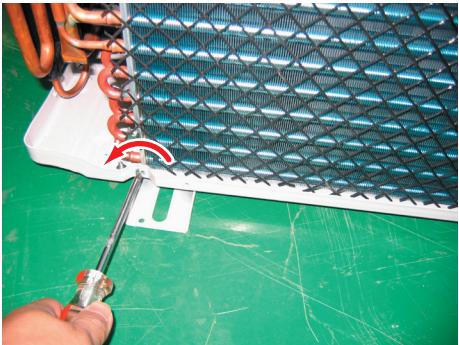
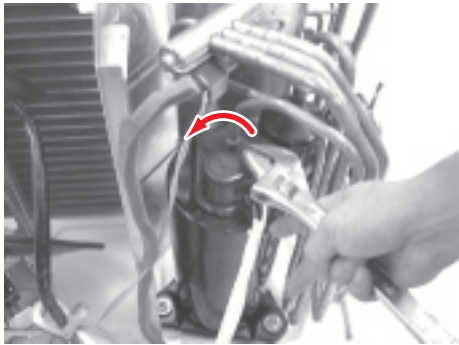
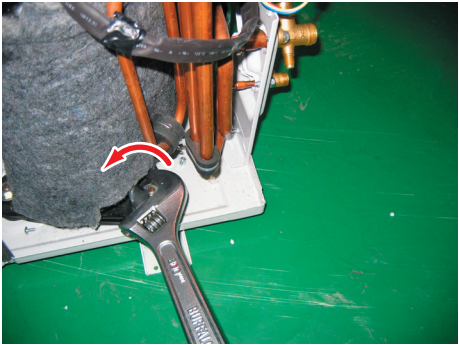
No	Parts	Procedure	Remark
1	Common Work	1) Loosen 2 fixing screws and separate the Cover Terminal. 2) Loosen 2 fixing screws and separate the Cover Control. 3) Separate the connection wire from the Terminal Block. 4) Loosen 6 fixing screws and separate the Cabinet Front. 5) Loosen 1 fixing screw of Ass'y E-part. 6) Loosen 12 fixing screws and separate the Cabinet-Side	    

No	Parts	Procedure	Remark
2	Fan & Motor	1) Remove the Nut Flange. (Turn to the clockwise) 2) Separate the Fan.	
		3) Loosen 4 fixing screws to separate the Motor. 4) Loosen 2 fixing screws and separate the Motor Bracket from the Base.	
3	Heat Exchanger	1) Loosen 2 fixing screws of left and right side. 2) Disassemble the inlet and outlet pipe by welding. 3) Separate the Heat Exchanger.	
4	Compressor	1) Open the Terminal Cover of Compressor and unscrew the Connection Terminal. 2) Disassemble the inlet and outlet pipe of Compressor by welding. 3) Loosen 3 bolts of the lower part. 4) Separate the Compressor.	 

MEMO

AQ12FCX/AQ12NSAX/AQ12FDX/AQ12NSBXAQ18FCX/AQ18NSAX

No	Parts	Procedure	Remark
1	Common Work	1) Loosen the fixing screw of the Cover Control. 2) Loosen the fixing screws on right and left, back Cabinet-Side edge and a fixing screw on the Cabinet-Front lower to detach the Cabinet-Front. 3) Loosen the fixing screws of the Ass'y-Control out. 4) Loosen the fixing screws of the Cabinet-Side RH. 5) Loosen the fixing screws of the Cabinet-Side LF.	    

No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange.(Turn counterclockwise because the screw is right-handed) 2) Detach the Fan. 3) Loosen 4 fixing screws to detach the Motor.	
3	Heat Exchanger	1) Loosen 3 fixing screws of the Bar Steel. 2) Loosen 2 fixing screws on both sides. 3) Disassemble the pipe in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger. ⚠ Before you disassemble the pipes and Condenser, be sure that there should be no refrigerant remained in the unit.	
4	Compressor	1) Loosen the Terminal Cover nut to open the Terminal Cover. 2) Disassemble the cloth sound felt. 3) Disassemble the pipe in both inlet and outlet of the Compressor with welding torch. 4) Loosen the 3 bolts at the bottom. 5) Detach the Compressor.	 

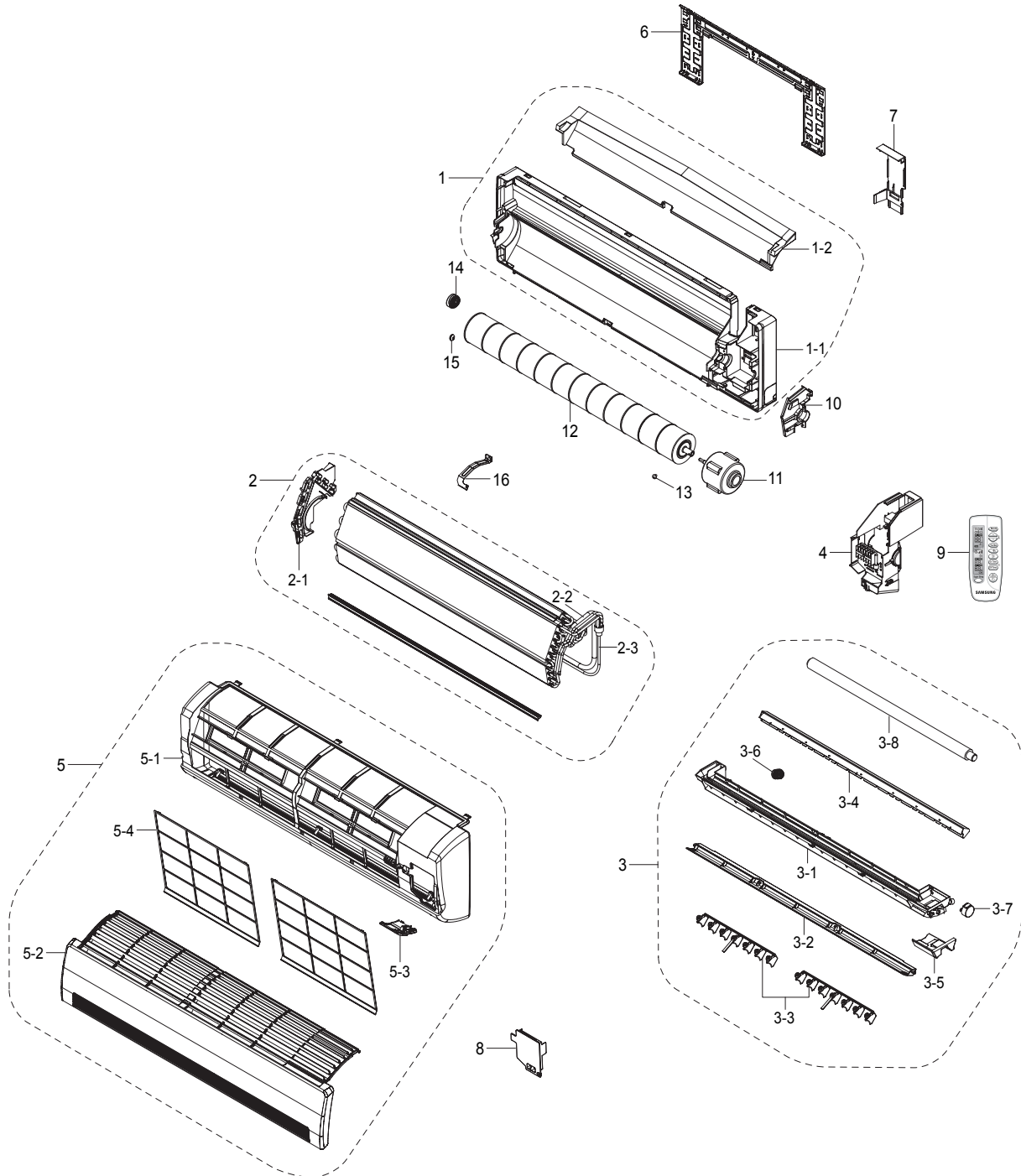
AQ24FCX/AQ24NSAX

No	Parts	Procedure	Remark
1	Common Work	1) Loosen the fixing screw of the Cover Control. 2) Loosen the fixing screws on right and left, back Cabinet-Side edge and a fixing screw on the Cabinet-Front lower to detach the Cabinet-Front. 3) Loosen the fixing screws of the Ass'y-Control out. 4) Loosen the fixing screws of the Cabinet-Side RH. 5) Loosen the fixing screws of the Cabinet-Side LF.	    

No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange.(Turn counterclockwise because the screw is right-handed) 2) Detach the Fan. 3) Loosen 4 fixing screws to detach the Motor.	
3	Heat Exchanger	1) Loosen 3 fixing screws of the Bar Steel. 2) Loosen 2 fixing screws on both sides. 3) Disassemble the pipe in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger.	
4	Compressor	1) Loosen the Terminal Cover nut to open the Terminal Cover. 2) Disassemble the cloth sound felt. 3) Disassemble the pipe in both inlet and outlet of the Compressor with welding torch. 4) Loosen the 3 bolts at the bottom. 5) Detach the Compressor.	 

5. Exploded Views and Parts List

5-1 Indoor Unit



■Part List

AQ09NSAN/AQ09NSBN/AQ09FDN

NO	Code NO	Description	SPEC	Q'TY			SA/ SNA
				AQ09NSAN	AQ09NSBN	AQ09FDN	
1	DB94-00454J	ASSY BACK BODY	ASSY	1	1	1	SA
1-1	DB61-01632D	BODY BACK	HIPS	1	1	1	SA
1-2	DB69-00834A	CUSHION-BODY BACK	EPS	1	1	1	SNA
2	DB96-08657A	ASSY EVAP MAIN	ASSY	1	1	1	SNA
2-1	DB63-00850A	COVER-BEARING	ABS	1	1	1	SNA
2-2	DB96-09756A	ASSY TUBE EVAP IN	ASSY	1	1	1	SNA
2-3	DB96-06899A	ASSY TUBE EVAP OUT	ASSY	1	1	1	SA
3	DB94-00457J	ASSY TRAY DRAIN	ASSY	1	1	1	SA
3-1	DB63-00848A	TRAY DRAIN	ABS	1	1	1	SNA
3-2	DB61-01635C	BLADE-H	HIPS	1	1	1	SA
3-3	DB61-01636A	BLADE-V	PP	2	2	2	SA
3-4	DB63-00849A	TRAY-STABILIZER	ABS	1	1	1	SNA
3-5	DB69-00839A	CUSHION-TRAY RH	EPS	1	1	1	SNA
3-6	DB73-00180A	RUBBER-CAP DRAIN	GUM-EPM	1	1	1	SNA
3-7	DB31-00371A	MOTOR STEP	GSP-24RW-046	1	1	1	SA
3-8	DB94-00458B	ASSY DRAIN-HOSE	ASSY	1	1	1	SA
4	DB93-05732L	ASSY -CONTROL IN	ASSY	1	1	1	SA
5	DB92-01237A	ASSY PANEL FRONT	ASSY	1	1	1	SA
	DB92-00853F			-	-	1	
5-1	DB64-00989E	PANEL FRONT	HIPS	1	1	1	SA
5-2	DB92-01207A	ASSY GRILLE AIR INLET	ASSY	1	1	-	SA
	DB92-00848F			-	-	1	
5-3	DB90-03094A	ASSY COVER-DISPLAY	ASSY	1	1	1	SA
5-4	DB63-01591A	GUARD-AIR FILTER	PP	2	2	2	SA
6	DB97-02851B	ASSY-PLATE HANGER	SGCC,T0.6	1	1	1	SNA
7	DB61-01638B	HOLDER-PIPE	HIPS	1	1	1	SA
8	DB63-00844D	COVER-TERMINAL	HIPS	1	1	1	SA
9	DB93-03170Z	ASSY REMOCON	HP	1	1	1	SA
10	DB96-03149B	ASSY EVAP-SUPPORT RH	HIPS	1	1	1	SA
11	DB31-00219A	MOTOR FAN	50/60Hz	1	1	1	SA
12	DB94-00456A	ASSY-CROSS FAN	ASSY	1	1	1	SA
13	DB97-02075A	ASSY-BOLT SPECIAL	-	1	1	1	SNA
14	DB94-00455A	ASSY BEARING-RUBBER	ASSY	1	1	1	SA
15	DB94-40007A	ASSY BEARING	-	1	1	1	SNA

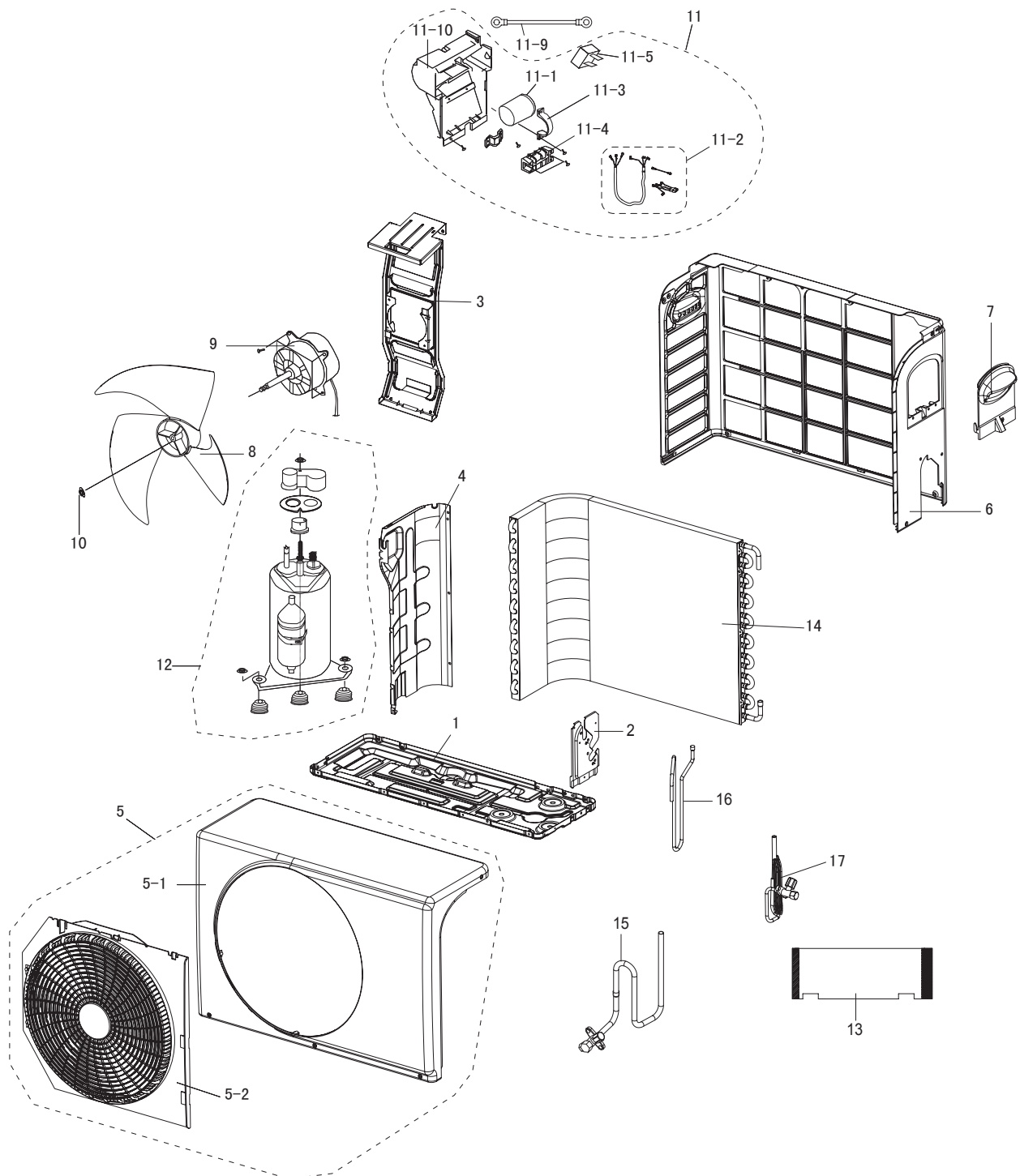
AQ12FCN/AQ12NSAN/AQ12FDN/AQ12NSBN

NO	Code NO	Description	SPEC	Q'TY				SA/ SNA
				AQ12FCN	AQ12NSAN	AQ12FDN	AQ12NSBN	
1	DB94-00454H	ASSY BACK BODY	ASSY	1	1	1	1	SA
1-1	DB61-01632D	BODY BACK	HIPS	1	1	1	1	SA
1-2	DB69-00834A	CUSHION-BODY BACK	EPS	1	1	1	1	SNA
2	DB96-05155B	ASSY EVAP MAIN	ASSY	1	1	1	1	SNA
2-1	DB63-00850A	COVER-BEARING	ABS	1	1	1	1	SNA
2-2	DB96-05153C	ASSY TUBE EVAP IN	ASSY	1	1	1	1	SNA
2-3	DB96-03054K	ASSY TUBE EVAP OUT	ASSY	1	1	1	1	SA
3	DB94-00457J	ASSY TRAY DRAIN	ASSY	1	1	1	1	SA
3-1	DB63-00848A	TRAY DRAIN	ABS	1	1	1	1	SNA
3-2	DB61-01635C	BLADE-H	HIPS	1	1	1	1	SA
3-3	DB61-01636A	BLADE-V	PP	2	2	2	2	SA
3-4	DB63-00849A	TRAY-STABILIZER	ABS	1	1	1	1	SNA
3-5	DB69-00839A	CUSHION-TRAY RH	EPS	1	1	1	1	SNA
3-6	DB73-00180A	RUBBER-CAP DRAIN	GUM-EPM	1	1	1	1	SNA
3-7	DB31-00371A	MOTOR STEP	GSP-24RW-046	1	1	1	1	SA
3-8	DB94-00458B	ASSY DRAIN-HOSE	ASSY	1	1	1	1	SA
4	DB93-05732L	ASSY -CONTROL IN	ASSY	1	1	1	1	SA
5	DB92-01237A	ASSY PANEL FRONT	ASSY	-	1	-	1	SA
	DB92-00853F			1	-	1	-	
5-1	DB64-00989E	PANEL FRONT	HIPS	1	1	1	1	SA
5-2	DB92-01207A	ASSY GRILLE AIR INLET	ASSY	-	1	-	1	SA
	DB92-00848F			1	-	1	-	
5-3	DB90-03094A	ASSY COVER-DISPLAY	ASSY	1	1	1	1	SA
5-4	DB63-01591A	GUARD-AIR FILTER	PP	2	2	2	2	SA
6	DB97-02851B	ASSY-PLATE HANGER	SGCC,T0.6	1	1	1	1	SNA
7	DB61-01638B	HOLDER-PIPE	HIPS	1	1	1	1	SA
8	DB63-00844D	COVER-TERMINAL	HIPS	1	1	1	1	SA
9	DB93-03170Z	ASSY REMOCON	HP	1	1	1	1	SA
10	DB96-03149A	ASSY EVAP-SUPPORT RH	HIPS	1	1	1	1	SA
11	DB31-00219A	MOTOR FAN	50/60Hz	1	1	1	1	SA
12	DB94-00456A	ASSY-CROSS FAN	ASSY	1	1	1	1	SA
13	DB97-02075A	ASSY-BOLT SPECIAL	-	1	1	1	1	SNA
14	DB94-00455A	ASSY BEARING-RUBBER	ASSY	1	1	1	1	SA
15	DB94-40007A	ASSY BEARING	-	1	1	1	1	SNA

AQ18FCN/AQ18NSAN/AQ24FCN/AQ24NSAN

NO	Code NO	Description	SPEC	Q'TY				SA/ SNA
				AQ18FCN	AQ18NSA	AQ24FCN	AQ24NSAN	
1	DB94-00615B	ASSY BACK BODY	ASSY	1	1	1	1	SA
1-1	DB61-01974B	BODY BACK	HIPS	1	1	1	1	SA
1-2	DB69-01039A	CUSHION-BODY BACK	EPS	1	1	1	1	SNA
2	DB96-08482A	ASSY EVAP MAIN	ASSY	1	1	-	-	SNA
	DB96-04040E		ASSY	-	-	1	1	SNA
2-1	DB63-01065A	COVER-BEARING	ABS	1	1	1	1	SNA
2-2	DB96-08483A	ASSY TUBE EVAP IN	ASSY	1	1	-	-	SNA
	DB96-06500A		ASSY	-	-	1	1	SNA
2-3	DB96-08522A	ASSY TUBE EVAP OUT	ASSY	1	1	-	-	SA
	DB96-03756F		ASSY	-	-	1	1	SA
3	DB94-00616E	ASSY TRAY DRAIN	ASSY	1	1	1	1	SA
3-1	DB63-01071A	TRAY DRAIN	ABS	1	1	1	1	SNA
3-2	DB61-01975C	BLADE-H	HIPS	1	1	1	1	SA
3-3	DB61-01976C	BLADE-V	PP	2	2	2	2	SA
3-4	DB63-01066A	TRAY-STABILIZER	ABS	1	1	1	1	SNA
3-5	DB69-01024A	CUSHION	EPS	1	1	1	1	SNA
3-6	DB73-00180A	RUBBER-CAP DRAIN	GUM-EPM	1	1	1	1	SNA
3-7	DB31-00285A	MOTOR STEP	GSP-24RW-046	1	1	1	1	SA
3-8	DB94-00458B	ASSY DRAIN-HOSE	ASSY	1	1	1	1	SA
4	DB93-05771E	ASSY -CONTROL IN	ASSY	1	1	-	-	SA
	DB93-04193P		ASSY	-	-	1	1	SA
5	DB92-00850F	ASSY PANEL FRONT	ASSY	1	-	1	-	SA
	DB92-01235A			-	1	-	1	SA
5-1	DB64-01184C	PANEL FRONT	HIPS	1	1	1	1	SA
5-2	DB64-1630C	ASSY GRILLE AIR INLET	ASSY	1	-	1	-	SA
	DB92-01196A			-	-	-	-	SA
5-3	DB93-02867C	ASSY COVER-DISPLAY	ASSY	1	1	1	1	SA
5-4	DB63-01592A	GUARD-AIR FILTER	PP	2	-	2	-	SA
	DB63-01592B			-	2	-	2	SA
6	DB90-02738A	ASSY-PLATE HANGER	SGCC,T0.6	1	1	1	1	SNA
7	DB61-01981B	HOLDER-PIPE	HIPS	1	1	1	1	SA
8	DB63-01063C	COVER-TERMINAL	HIPS	1	1	1	1	SA
9	DB93-03170Z	ASSY REMOCON	HP	1	1	1	1	SA
10	DB96-03817A	ASSY EVAP-SUPPORT RH	HIPS	1	1	1	1	SA
11	DB31-00267A	MOTOR FAN	50/60Hz	1	1	1	1	SA
12	DB94-01151B	ASSY-CROSS FAN	ASSY	1	1	-	-	SA
	DB94-00456B			-	-	1	1	SA
13	DB97-02075A	ASSY-BOLT SPECIAL	-	1	1	1	1	SNA
14	DB94-00455A	ASSY BEARING- RUBBER	ASSY	1	1	1	1	SA

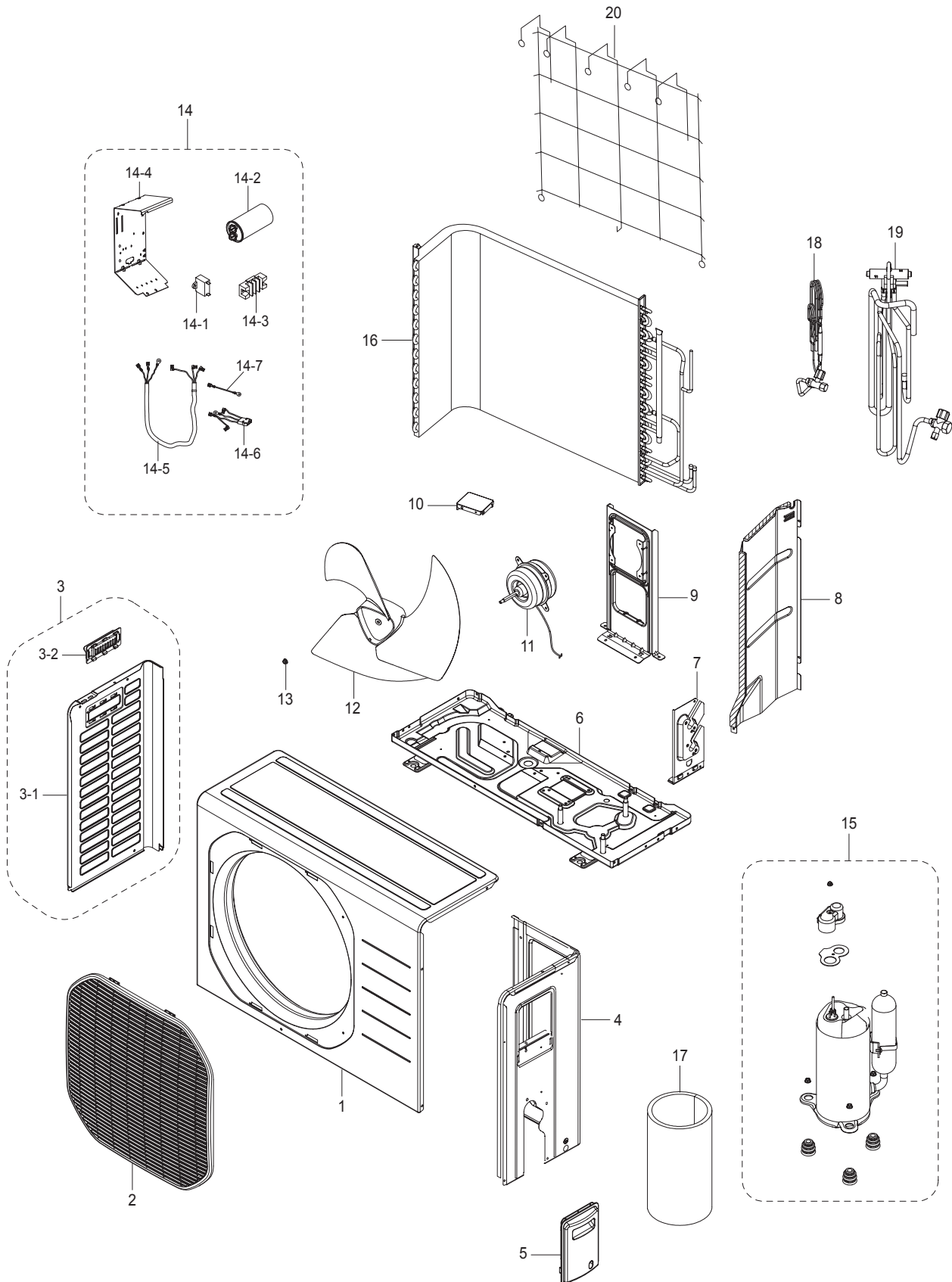
5-2 Outdoor Unit



■Part List

AQ09NSAX/AQ09NSBX/AQ09FDX

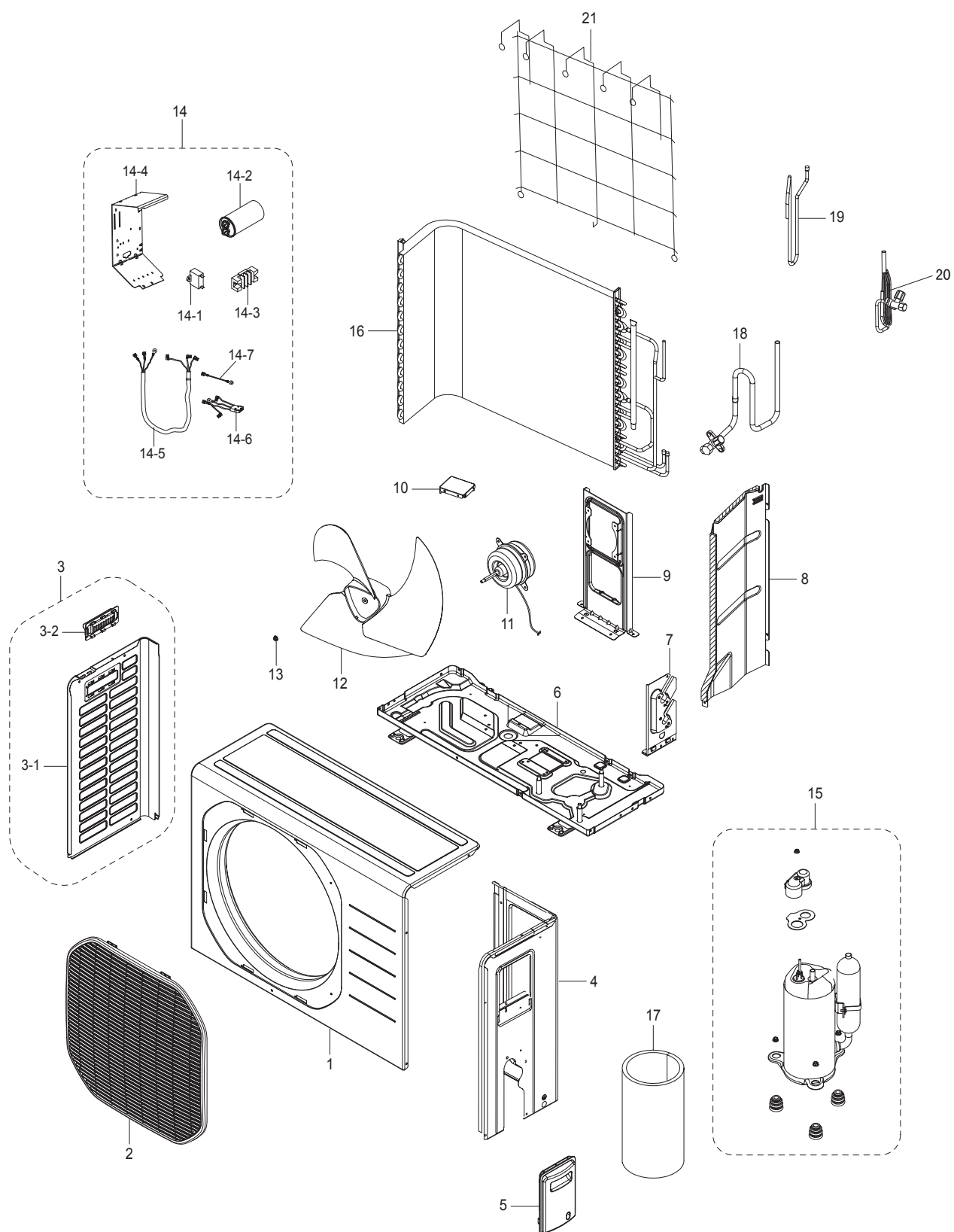
NO	Code NO	Description	SPEC	Q'TY			SA/ SNA
				AQ09NSAX	AQ09NSBX	AQ09FDX	
1	DB90-01875A	ASSY BASE-OUT PAINT	ASSY	1	1	1	SA
2	DB94-00927A	ASSY-BRACKET VALVE	SSEC	1	1	1	SA
3	DB90-03451A	ASSY-BRACKET MOTOR	ASSY	1	1	1	SA
4	DB94-00431D	ASSY PARTITION	25DSG,SSEC	1	1	1	SA
5	DB90-02372E	ASSY CABI FRONT	ASSY	1	1	1	SNA
5-1	DB64-01517A	CABINET FRONT	PP	1	1	1	SNA
5-2	DB81-00650A	BELL MOUSE	PP	1	1	1	SNA
6	DB64-01518B	CABINET-SIDE	PP	1	1	1	SA
7	DB90-03671A	ASSY COVER CONTROL	SMART FORTE,SSEC	1	1	1	SNA
8	DB67-00036A	FAN-PROPELLER	ASSY	1	1	1	SA
9	DB31-00341A	MOTOR FAN	YDK-025S622513-13,	1	1	1	SA
10	DB60-30020A	SCREW-MACHINE	-	1	1	1	SNA
11	DB93-05541N	ASSY CONTROL OUT	ASSY	1	1	1	SNA
11-1	2501-001237	C-OIL	35uF/450V	1	1	1	SA
11-2	DB93-00481C	ASSY LEAD WIRE	ASSY	1	1	1	SNA
11-3	DB65-10046A	CLIP-CAPACITOR	SGCC	1	1	1	SNA
11-4	DB95-01343B	ASSY-TERMINAL BLOCK	ASSY	1	1	1	SNA
11-5	2301-001375	C-FILM,LEAD-OTHER	1.5uF/450V,	1	1	1	SA
11-6	DB61-03189A	CASE CONTROL-OUT	SGCC-M,0.6,	1	1	1	SA
12	G4A097JUAEP	ROTARY COMPRESSOR:	220-240V,50HZ,1PH,R410	1	1	1	
13	DB72-00741A	SPONGE-COMP SIDE	PVC+WOOL,-	1	1	1	SNA
14	DB96-08337A	ASSY COND	ASSY	1	1	1	SA
15	DB96-08338C	ASSY-VALVE 4WAY	HP/R410A	1	1	1	SNA
16	-	-	-	-	-	-	-
17	DB96-08726F	ASSY TUBE CAPILLARY	ASSY	1	1	1	SNA



■Part List

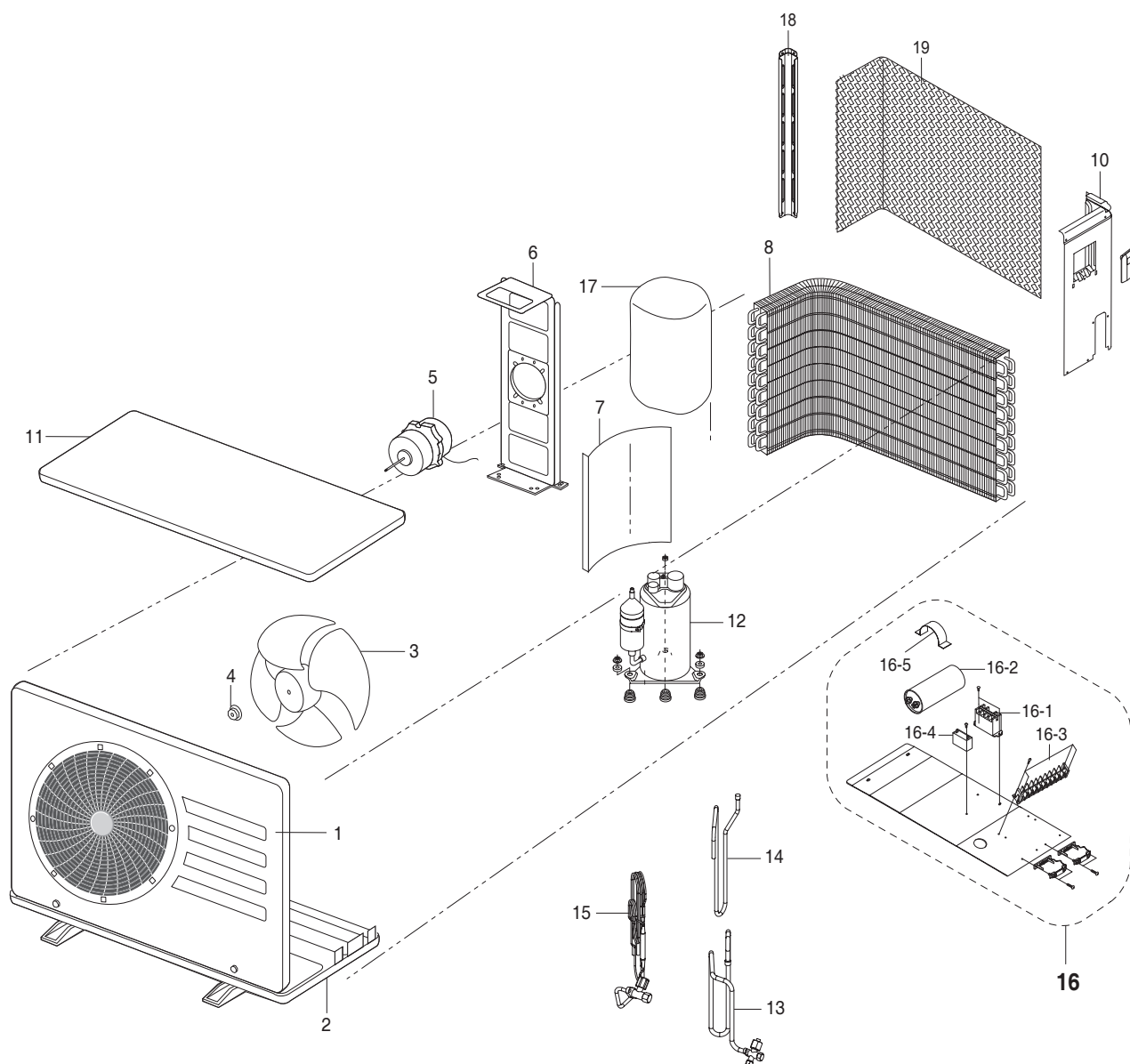
AQ12FCX/AQ12NSAX/AQ12FDX/AQ12NSBX

NO	Code NO	Description	SPEC	Q'TY				SA/ SNA
				AQ12FCX	AQ12NSAX	AQ12FDX	AQ12NSBX	
1	DB90-01341K	ASSY CABI FRONT	ASSY	1	1	1	1	SNA
2	DB63-00847A	GUARD FAN	PP,	1	1	1	1	SA
3	DB90-01332A	ASSY CABINET-SIDE LF	ASSY	1	1	1	1	SC
3-1	DB64-00992A	HANDLE-LF	PP,	1	1	1	1	SA
3-2	DB64-01094A	CABINET-SIDE LF COATING	,SECC-P,T0.8,	1	1	1	1	SNA
4	DB90-01546H	ASSY CABINET-SIDE RH	ASSY	1	1	1	1	SA
5	DB90-03673A	ASSY COVER CONTROL	ASSY	1	1	1	1	SNA
6	DB90-01330B	ASSY BASE	ASSY	1	1	1	1	SA
7	DB99-00401A	ASSY VALVE-BRACKET	ASSY	1	1	1	1	SA
8	DB94-00668C	ASSY PARTITION	ASSY	1	1	1	1	SA
9	DB61-01644A	BRACKET MOTOR	SGCC-M,T0.6,	1	1	1	1	SA
10	DB97-02225B	ASSY-SUPPORT PLATE B/M	ASSY	1	1	1	1	SA
11	DB31-00220A	MOTOR FAN	YDK-020S62213-03	1	1	1	1	SA
12	DB67-00397A	FAN-PROPELLER	AS+G/F20%,	1	1	1	1	SA
13	DB60-30004A	SCREW-MACHINE	-	1	1	1	1	SNA
14	DB93-03914C	ASSY CONTROL OUT	ASSY	1	1	1	1	SA
14-1	2301-001375	C-FILM,LEAD-OTHER	1.5uF/450V	1	1	1	1	SA
14-2	2501-001239	C-OIL	45uF/450V	1	1	1	1	SA
14-3	DB65-40049E	TERMINAL BLOCK	4P-	1	1	1	1	SA
14-4	DB61-02184A	CASE CONTROL-OUT	SGCC-M,0.6,	1	1	1	1	SNA
14-5	DB93-00481K	ASSY LEAD WIRE-COMP	H/P	1	1	1	1	SA
14-6	DB61-00250A	HOLDER-WIRE CLAMP	ABS	1	1	1	1	SNA
14-7	DB33-00050A	SOLENOID-ASSY	ASSY	1	1	1	1	SNA
15	G4B124JXBEL	ROTARY COMPRESSOR	220-240V,50HZ	1	1	1	1	
16	DB96-08744A	ASSY COND	ASSY	1	1	-	-	SNA
	DB96-05976B			-	-	1	1	
17	DB62-03859A	INSULATION-SOUND	FELT	1	1	1	1	SNA
18	DB96-03858J	ASSY TUBE CAPILLARY	ASSY	1	1	-	-	SNA
	DB96-03858K			-	-	1	1	
19	DB96-08746A	TUBE-4WAY VALVE	ASSY	1	1	-	-	SNA
	DB96-06726B			-	-	1	1	
20	DB64-02088G	SCREEN-COND BAR	ASSY	1	1	-	-	SNA



■Part List

NO	Code NO	Description	SPEC	Q'TY		SA/ SNA
				AQ18FCX	AQ18NSAX	
1	DB90-01711D	ASSY CABI FRONT	ASSY	1	1	SNA
2	DB63-00847A	GUARD FAN	PP,	1	1	SA
3	DB90-01713A	ASSY CABINET-SIDE LF	ASSY	1	1	SC
3-1	DB64-00992A	HANDLE-LF	PP,	1	1	SA
3-2	DB64-00982A	CABINET-SIDE LF COATING	,SECC-P,T0.8,	1	1	SNA
4	DB90-02876A	ASSY CABINET-SIDE RH	ASSY	1	1	SA
5	DB90-03673A	ASSY COVER CONTROL	ASSY	1	1	SNA
6	DB90-01681A	ASSY BASE	ASSY	1	1	SA
7	DB61-02068A	ASSY VALVE-BRACKET	ASSY	1	1	SA
8	DB94-00638C	ASSY PARTITION	ASSY	1	1	SA
9	DB61-01644A	BRACKET MOTOR	SGCC-M,T0.6,	1	1	SA
10	DB97-02225B	ASSY-SUPPORT PLATE B/M	ASSY	1	1	SA
11	DB31-00265E	MOTOR FAN	YDK-020S62213-03	1	1	SA
12	DB67-00238A	FAN-PROPELLER	AS+G/F20%,	1	1	SA
13	DB60-30020A	SCREW-MACHINE	-	1	1	SNA
14	DB93-04248C	ASSY CONTROL OUT	ASSY	1	1	SA
14-1	2301-001370	C-FILM,LEAD-OTHER	2.5uF/450V	1	1	SA
14-2	2501-001240	C-OIL	50uF/450V	1	1	SA
14-3	DB65-40049E	TERMINAL BLOCK	4P-	1	1	SA
14-4	DB61-02184A	CASE CONTROL-OUT	SGCC-M,0.6,	1	1	SNA
14-5	DB39-01037G	ASSY LEAD WIRE-COMP	H/P	1	1	SA
14-6	DB39-01033B	HOLDER-WIRE CLAMP	ABS	1	1	SNA
14-7	DB39-01035D	SOLENOID-ASSY	ASSY	1	1	SNA
15	G4D185JUA EH	ROTARY COMPRESSOR	220-240V,50HZ	1	1	
16	DB96-07128C	ASSY COND	ASSY	1	1	SNA
17	DB62-03032A	INSULATION-SOUND	FELT	1	1	SNA
18	DB96-08525A	ASSY TUBE CAPILLARY	ASSY	1	1	SNA
19	DB99-00833A	TUBE-4WAY VALVE	ASSY	1	1	SNA

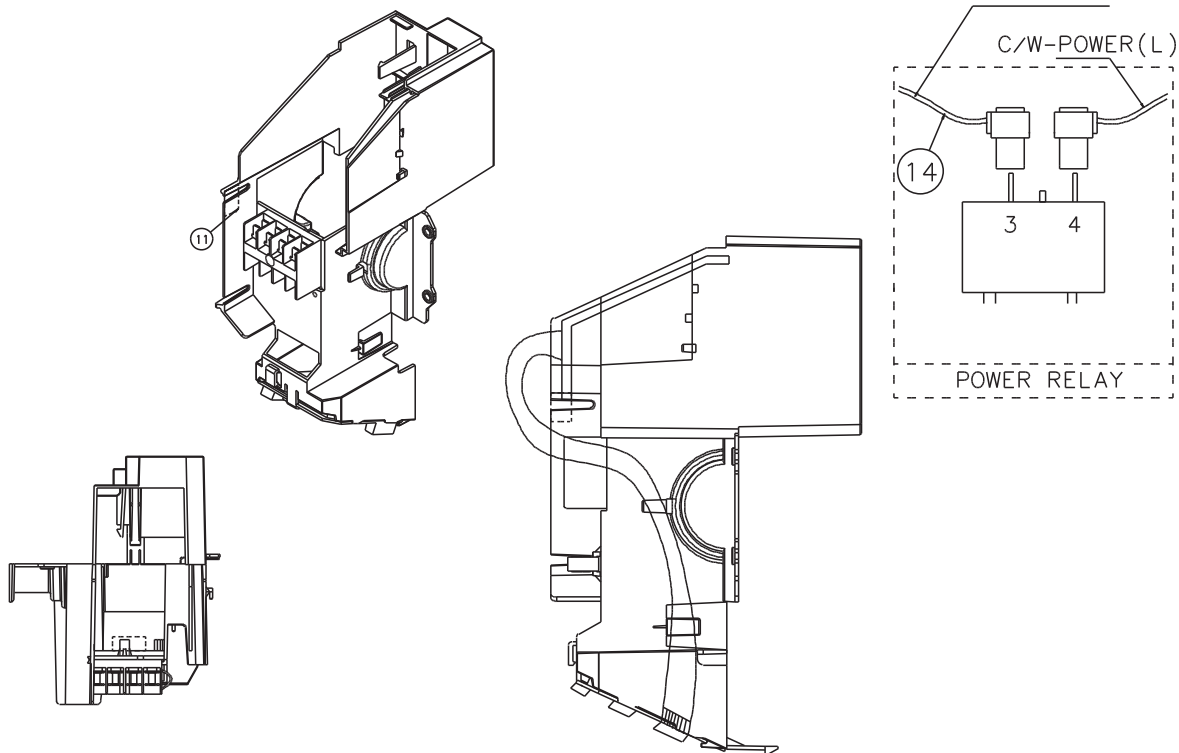
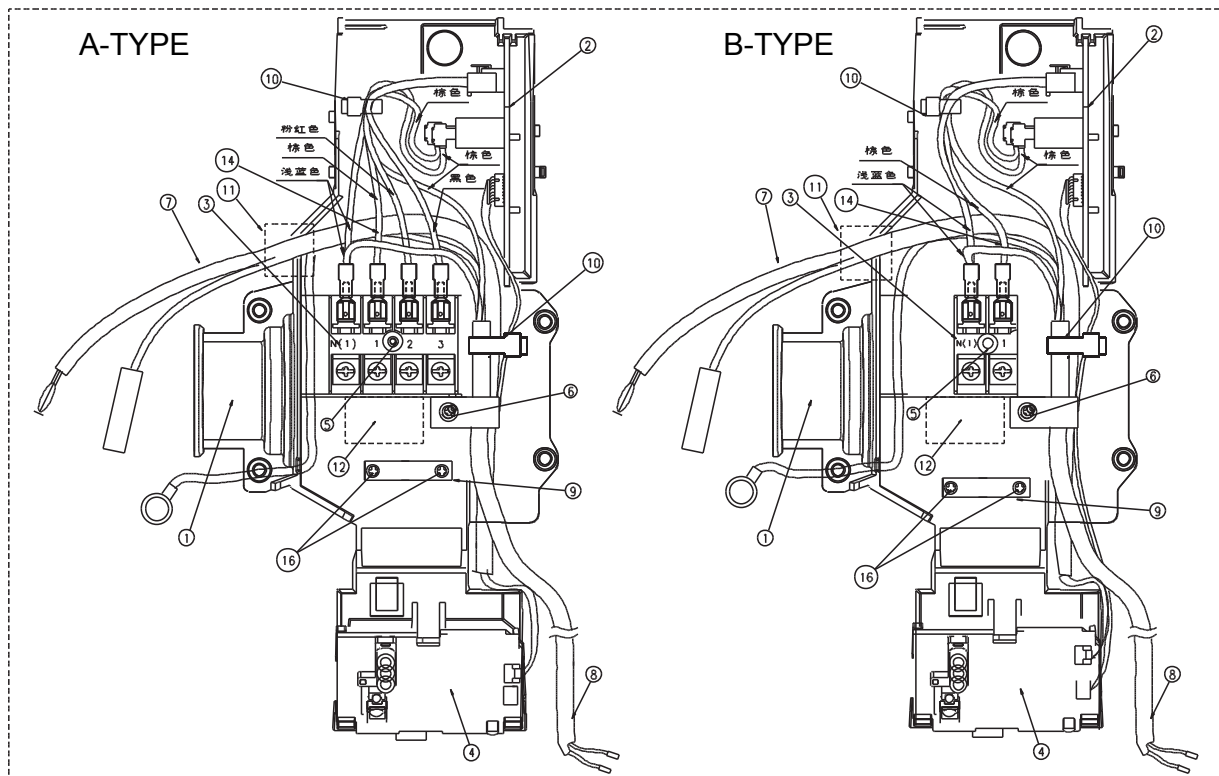


■Part List

NO	Code NO	Description	SPEC	Q'TY		SA/SNA
				AQ24FCX	AQ24NSAX	
1	DB90-01146C	ASSY-CABI FRONT	ASSY	1	1	SA
2	DB90-00970V	ASSY BASE OUT	ASSY	1	1	SA
3	DB67-00142A	FAN-PROPELLER	-	1	1	SA
4	DB60-30020A	SCREW-MACHINE	-	1	1	SNA
5	DB31-00264D	MOTOR FAN	YDK95-60-4-1,	1	1	SA
6	DB61-00686A	BRACKET MOTOR	ASSY	1	1	SA
7	DB94-00649A	ASSY PARTITION	ASSY	1	1	SNA
8	DB96-06018B	ASSY COND	HP	1	1	SA
9	DB90-03652A	ASSY COVER CONTROL	ASSY	1	1	SA
10	DB90-01651A	ASSY CABINET-SIDE RH	ASSY	1	1	SA
11	DB90-10616G	ASSY CABI-UP	ASSY	1	1	SA
12	G5A240JUAEM	ROTARY COMPRESSOR	220-240V,50HZ,1PH,R410	1	1	SA
13	DB96-04133A	ASSY TUBE-4WAY V/V	ASSY	1	1	SA
14	DB99-00787C	ASSY VALVE CHECK	ASSY	1	1	SNA
15	DB93-04383B	ASSY CONTROL OUT	ASSY	1	1	SA
15-1	3501-000305	RELAY-POWER	-	1	1	SA
15-2	2501-001238	C-OIL	40uF,450V	1	1	SA
15-3	DB65-00164A	TERMINAL BLOCK	-	1	1	SNA
15-4	2301-001379	C-FILM,LEAD-OTHER	4uF450V	1	1	SA
15-5	DB69-60008A	PLATE-CLIP CAPACITOR	SGCC-M,T0.8,	1	1	SNA
16	DB72-00630C	INSULATION-SOUND	-	1	1	SNA
17	DB63-00692A	GUARD COND	ASSY	1	1	SA
18	DB61-03150A	GUIDE-SCREEN	ASSY	1	1	SNA

5-3 Ass'y Control In

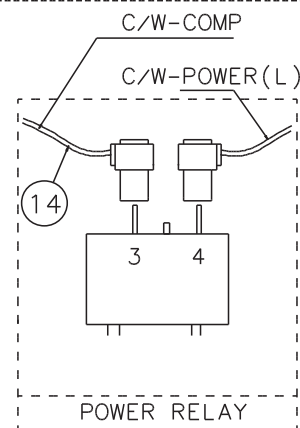
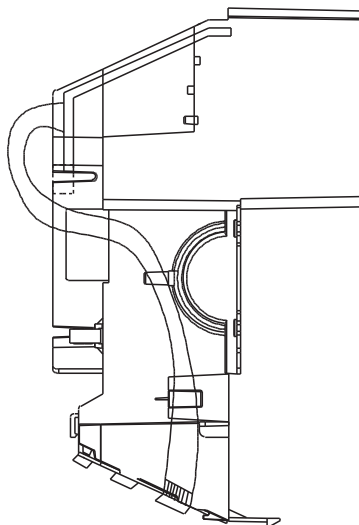
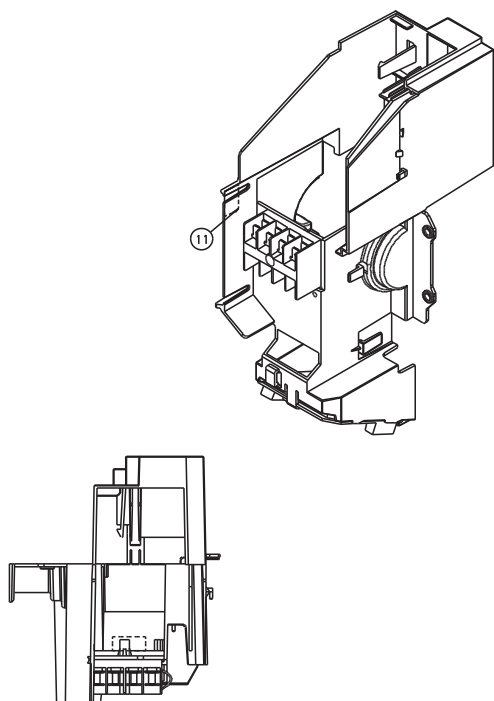
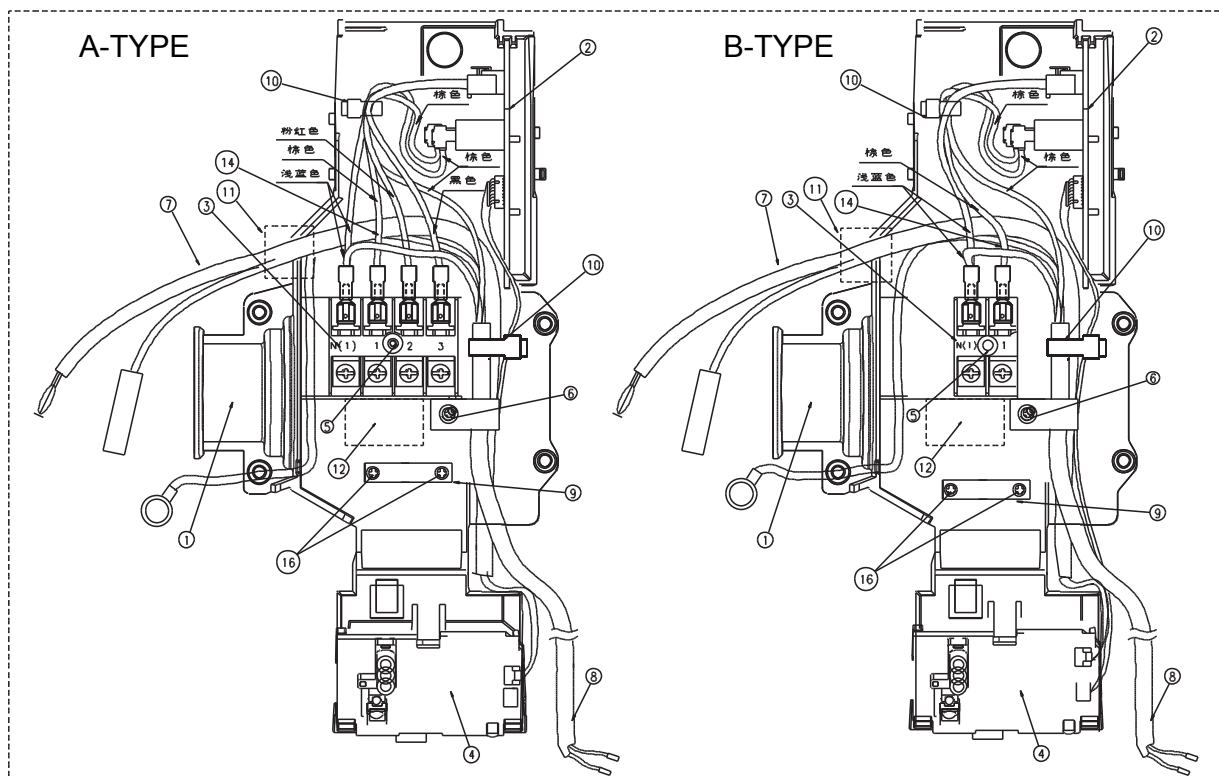
■DB93-05732L



Part List

DB93-0 5732L

No.	Code No.	Description	Specification	Q' TY	SA/SNA
1	6002-000231	SCREW-TAPPING	TH, +, -, 2S, M4, L12, ZPC (YEL), SWRCH18A, -	1	SA
2	6501-000123	CABLE TIE	DACT-140, -, W3. 6, L146, NTR, NYLON66	2	SNA
3	DA02-10017J	TAPE ETC-FILAMENT	3M #8915, -, T0. 15, W18, L55M, -, -	1	SNA
4	DB32-00020E	THERMISTOR-WIRE ASSY	103AT, -, -, -20~+100, -, -, -, SSEC	1	SA
5	DB 93-05803C	CONNECT WIRE	WW2-P/J, #1015 16 AWG, -, 1P, -, BLU, -, 175022-1 (AMP), 175057-1 (AMP), TP, 220V/50Hz, 4mm, 120mm, -, -, TUBE?SSEC	1	SNA
6	DB61-0 0171 A	HOLDER-WIRE CLAMP	AQT24W6WE, ABS, 2. 0, -, -, BLACK, -	1	SA
7	DB61-02618B	CASE CONTROL-IN	FORTE, ABS, 2. 0, 156, 257, BLACK, SSEC	1	SA
8	DB62-03861C	SEAL-CONTROL IN	NEW-WW1, PEB-2, GREEN, 15, 20, 30, SSEC	1	SNA
9	DB63-00851A	COVER-DRAIN	SS-PJT, ABS, -, -, -, -, NO, SSEC	1	SNA
10	DB65-00 247C	TERMINAL BLOCK-TERMINAL	WW1, JXW, 4PIN, 4mm, 36. 4*47, BLK, 600V, 30A	1	SNA
11	DB68-02809A	LABEL BAR CODE	-, -, -, -, W170, L115, -, -, -, FOR PACKING CASE	1	SNA
12	DB91-00309A	ASSY-SCREW TAPPING	WW-INV, M3*20, PH, +, ZPC (YEL)	1	SNA
13	DB93-01 549F	ASSY POWER CORD	NO PLUG, EXPORT, 250V/20A, 2340mm, 13mm, N, MG630591, WHITE, NO, H05VV-F 3*2. 5, WW2-PJT, H05VV-F 3*2. 5	1	SC
14	DB93-0 5744 A	ASSY PCB MAIN	WW2-P/J, EXP, MAIN , SSEC	1	SA
15	DB93-0 5745A	ASSY PCB SUB POWER	W-P/J?H/P?25A, POWER, SSEC	1	SA
16	DB97-02418A	ASSY-SCREW TAPPING	SS-P/J, TH, M4*L14	2	SA



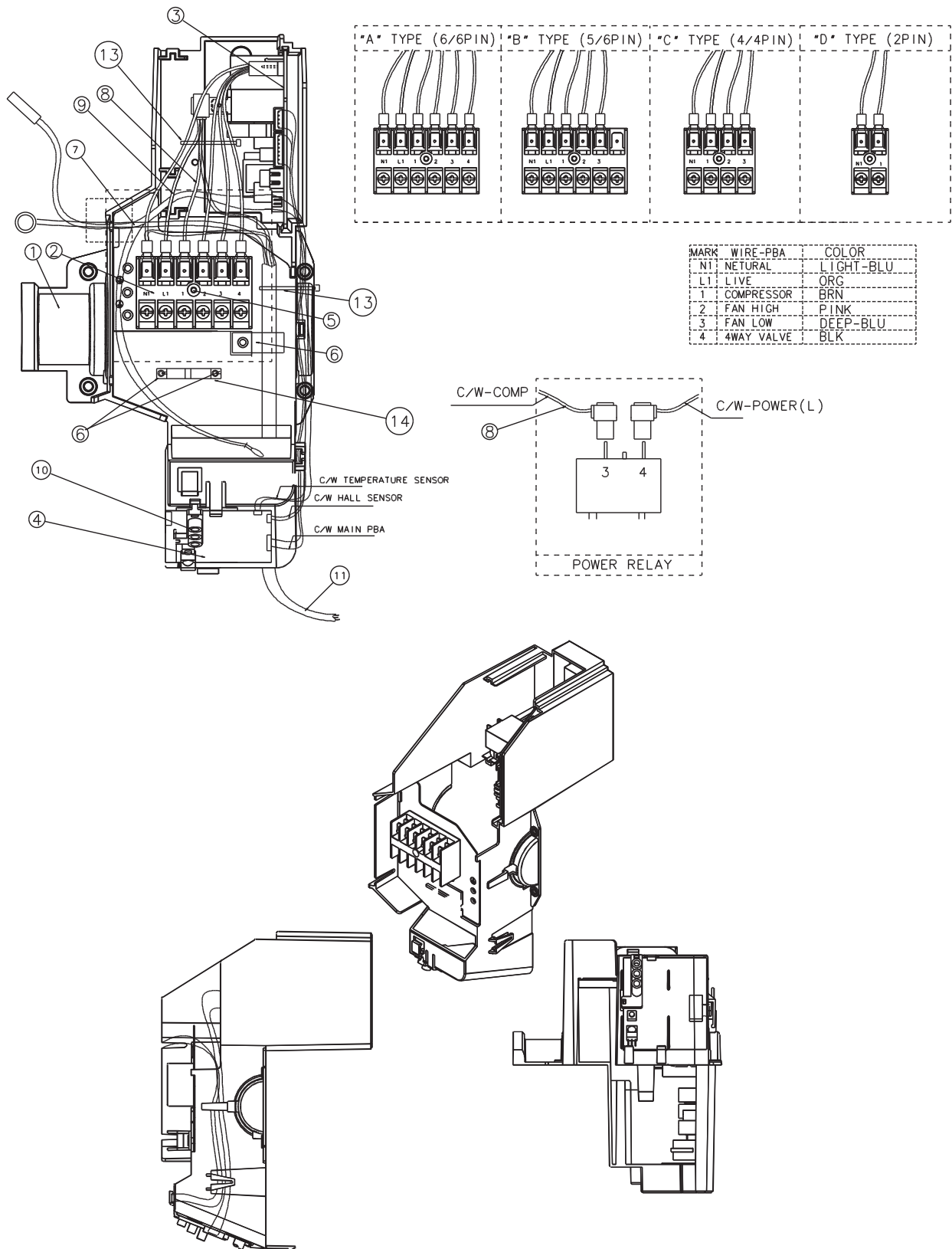
Part List

DB93-0 5771E

No.	Code No.	Description	Specification	Q' TY	SA/SNA
1	6002-000231	SCREW-TAPPING	TH, +, -, 2S, M4, L12, ZPC (YEL), SWRCH18A, -	1	SA
2	6501-000123	CABLE TIE	DACT-140, -, W3. 6, L146, NTR, NYLON66	2	SNA
3	DA02-10017J	TAPE ETC-FILAMENT	3M #8915, -, T0. 15, W18, L55M, -, -	1	SNA
4	DB32-00020E	THERMISTOR-WIRE ASSY	103AT, -, -, -20~+100, -, -, -, SSEC	1	SA
5	DB 93-05803 B	CONNECT WIRE	WW2-P/J, #1015 16 AWG, -, 1P, -, BLU, -, 175022-1 (AMP), 175057-1 (AMP), TP, 220V/50Hz, 4mm, 120mm, -, -, TUBE?SSEC	1	SNA
6	DB61-0 0171 A	HOLDER-WIRE CLAMP	AQT24W6WE, ABS, 2. 0, -, -, BLACK, -	1	SA
7	DB61-02 893A	CASE CONTROL-IN	FORTE, ABS, 2. 0, 156, 257, BLACK, SSEC	1	SA
8	-	SEAL-CONTROL IN	NEW-WW1, PEB-2, GREEN, 15, 20, 30, SSEC		SNA
9	DB63-00851A	COVER-DRAIN	SS-PJT, ABS, -, -, -, -, NO, SSEC	1	SNA
10	DB65-00 247C	TERMINAL BLOCK-TERMINAL	WW1, JXW, 4PIN, 4mm, 36. 4*47, BLK, 600V, 30A	1	SNA
11	DB68-02809A	LABEL BAR CODE	-, -, -, -, W170, L115, -, -, -, FOR PACKING CASE	1	SNA
12	DB91-00309A	ASSY-SCREW TAPPING	WW-INV, M3*20, PH, +, ZPC (YEL)	1	SNA
13	DB93-01 549 C	ASSY POWER CORD	NO PLUG, EXPORT, 250V/20A, 2340mm, 13mm, N, MG630591, WHITE, NO, H05VV-F 3*2. 5, WW2-PJT, H05VV-F 3*2. 5	1	SC
14	DB93-0 5744 A	ASSY PCB MAIN	WW2-P/J, EXP, MAIN, SSEC	1	SA
15	DB93-0 5745A	ASSY PCB SUB POWER	W-P/J?H/P?25A, POWER, SSEC	1	SA
16	DB97-02418A	ASSY-SCREW TAPPING	SS-P/J, TH, M4*L14	2	SA

0

DB93-04193P



■ Part List

■ DB93-04193P

No.	Code No.	Description	Specification	Q'TY	SA/SNA
1	6501-000123	CABLE TIE	DACT-140,-,W3.6,L146,NTR,NYLON66	2	SNA
2	DB32-00020E	THERMISTOR-WIRE ASSY	103AT,-,-,-20~+100,-,-,-,SSEC	1	SA
3	DB39-01165C	CONNECT WIRE	WW2-P/J,#1015 16 AWG,-,1P,-,BLU,-,175022-1 (AMP),175057-1 (AMP),TP,220V/50Hz,4mm,120mm,-,-,TUBE?SSEC	1	SNA
4	DB61-01980A	HOLDER-WIRE CLAMP	AQT24W6WE,ABS,2.0,-,-,BLACK,-	1	SA
5	DB61-02893A	CASE CONTROL-IN	WW2,ABS(V0),2.0,179,269,BLACK,SSEC	1	SA
6	DB63-00851A	COVER-DRAIN	SS-PJT,ABS,-,-,-,-,NO,SSEC	1	SNA
7	DB65-00105H	TERMINAL BLOCK-TERMINAL	WW1,JXW,4PIN,4mm,36.4*47,BLK,600V,30A	1	SNA
8	DB68-02809A	LABEL BAR CODE	-,-,-,-,W170,L115,-,-,-,FOR PACKING CASE	1	SNA
9	DB91-00309A	ASSY-SCREW TAPPING	WW-INV,M3*20,PH,+,ZPC(YEL)	1	SNA
10	DB39-01165C	ASSY POWER CORD	HO5VV-F,-,250V 20A,2,000 ? 20,-,-,-,Gray,-,3G*2.5,WW2,SSEC	1	SA
11	DB93-04128A	ASSY PCB-POWER	WW2-P/J?H/P?1-STEP,POWER,SSEC	1	SA
12	DB93-04181A	ASSY PCB MAIN	WW2-P/J,EXP,MAIN ,SSEC	1	SA
13	DB97-02418A	ASSY-SCREW TAPPING	SS-P/J,TH,M4*L14	3	SA

■ DB93-04193D

No.	Code No.	Description	Specification	Q'TY	SA/SNA
1	6501-000123	CABLE TIE	DACT-140,-,W3.6,L146,NTR,NYLON66	2	SNA
2	DB32-00020E	THERMISTOR-WIRE ASSY	103AT,-,-,-20~+100,-,-,-,SSEC	1	SA
3	DB39-01165E	CONNECT WIRE	WW2-P/J,#1015 16 AWG,-,1P,-,BLU,-,175022-1 (AMP),175057-1 (AMP),TP,220V/50Hz,4mm,120mm,-,-,TUBE?SSEC	1	SNA
4	DB61-01980A	HOLDER-WIRE CLAMP	AQT24W6WE,ABS,2.0,-,-,BLACK,-	1	SA
5	DB61-02893A	CASE CONTROL-IN	WW2,ABS(V0),2.0,179,269,BLACK,SSEC	1	SA
6	DB63-00851A	COVER-DRAIN	SS-PJT,ABS,-,-,-,-,NO,SSEC	1	SNA
7	DB65-00061F	TERMINAL BLOCK	C/O,2P,N(1),1,2TAB,2-SCREW,300V,20A,36.4*24.2,BLACK,N(1),1	1	SNA
8	DB68-02809A	LABEL BAR CODE	-,-,-,-,W170,L115,-,-,-,FOR PACKING CASE	1	SNA
9	DB91-00309A	ASSY-SCREW TAPPING	WW-INV,M3*20,PH,+,ZPC(YEL)	1	SNA
10	DB93-01638D	ASSY POWER CORD	HO5VV-F,-,250V 20A,2,000 ? 20,-,-,-,Gray,-,3G*2.5,WW2,SSEC	1	SA
11	DB93-04128D	ASSY PCB-PAWER FORTE	WW2-P/J?C/O?0-STEP,POWER,SSEC	1	SA
12	DB93-04181A	ASSY PCB MAIN	WW2-P/J,EXP,MAIN ,SSEC	1	SA
13	DB97-02418A	ASSY-SCREW TAPPING	SS-P/J,TH,M4*L14	3	SA

6. Electrical Parts List

■ MAIN PCB : DB93-04128A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D101	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D102	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D103	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D104	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
Q601	0501-000303	TR-SMALL SIGNAL	KSA733,PNP,250mW,TO-92,TP,120-240	1	SNA	
Q101	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q102	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q602	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q603	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
ICO1	1203-000243	IC-POSI.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/12.5V,16W,0TO+125C,1A,-,ST,-	1	SNA	
ICO2	1203-000429	IC-POSI.FIXED REG.	78L05A,TO-92,3P,-,PLASTIC,4.6/	1	SNA	
VA71	1405-000154	VARISTOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
R103	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R104	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R105	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R605	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R606	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R609	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R610	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R102	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R608	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R602	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R603	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R601	2001-000855	R-CARBON	560OHM,5%,1/4W,AA,TP,2.4X6.4MM	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R607	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
C107	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C108	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C102	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C104	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C106	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
CR71	2301-001363	C-FILM,LEAD-PPF	2000nF,+10-5%,450V,BK,38x18x30mm,33	1	SNA	
XC71	2301-001439	C-FILM,LEAD-PPF	220nF,10%,275V,BK,18x10x15.8mm,15	1	SNA	
C101	2401-000173	C-AL	1000uF,20%,35V,GP,TP,13x25,5	1	SNA	
C103	2401-000711	C-AL	2200uF,20%,25V,GP,TP,16x25,7.5	1	SNA	
C601	2401-002300	C-AL	47?F,20%,50V,GP,TP,6.3x11,5mm	1	SNA	
C105	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	SNA	
BZ61	3002-001129	BUZZER-PIEZO	85DB,-,-,2KHZ,-	1	SNA	
RY72	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY73	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY74	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY71	3501-001268	RELAY-POWER	12V,0.9W,25000mA,SPST,20mS,10mS	1	SA	
SS71	3502-000115	SSR	12Vdc,-,2A,1mS,1mS	1	SNA	
F701	3601-000263	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1	SNA	
F702	3601-001209	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x8mm	1	SNA	
CN72	3711-000262	HEADER-BOARD TO CABLE	1WALL,3P,1R,7.92MM,STRAIGHT,SN, WHT	1	SNA	

■ MAIN PCB : DB93-04128A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CN73	3711-003845	HEADER-BOARD TO CABLE	BOX,11P,1R,2mm,STRAIGHT,SN,WHT	1	SNA	
J1	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J2	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J3	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J4	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J5	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J6	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J7	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J8	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
TR-1	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-2	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-3	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-4	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
4-WAY	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(H)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(L)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
POWER(N)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-1	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-2	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-3	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-4	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
ST11	DB26-00066A	TRANS POWER	-,WW2-VE,-,8-PIN,230V/AC,16.5V/ DC,400mA,-,50hz,-,-,-,SSEC	1	SNA	
POWER(N)	DB39-01270E	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLU,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,170mm,-,- ,TUBE?SSEC	1	SNA	
FAN(H)	DB39-01270F	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,RED,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,160mm,-,- ,TUBE?SSEC	1	SNA	
4-WAY	DB39-01270G	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLK,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,160mm,-,- ,TUBE?SSEC	1	SNA	
FAN(L)	DB39-01270H	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLU,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,160mm,-,- ,TUBE?SSEC	1	SNA	
	DB41-00495A	PCB-POWER	WW2-P/J,FR-1,ONE- LAYER,VERSION1,T1.6,-,-,-,SSEC	1	SNA	
F701	DB61-00924A	HOLDER-FUSE	-,FH-51B,-,-,-,SSEC	1	SNA	
	DB62-03085A	HEAT SINK	-,A6063,25,15,15,-,-,SSEC	1	SNA	

MAIN PCB : DB93-04128B

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D101	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D102	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D103	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D104	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
Q601	0501-000303	TR-SMALL SIGNAL	KSA733,PNP,250mW,TO-92,TP,120-240	1	SNA	
Q101	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q102	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q602	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q603	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
ICO1	1203-000243	IC-POSI.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/12.5V,16W,0TO+125C,1A,-,ST,-	1	SNA	
ICO2	1203-000429	IC-POSI.FIXED REG.	78L05A,TO-92,3P,-,PLASTIC,4.6/	1	SNA	
VA71	1405-000154	VARIATOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
R103	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R104	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R105	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R605	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R606	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R609	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R610	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R102	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R608	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R602	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R603	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R601	2001-000855	R-CARBON	560OHM,5%,1/4W,AA,TP,2.4X6.4MM	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R607	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
C107	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C108	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C102	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C104	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C106	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
CR71	2301-001363	C-FILM,LEAD-PPF	2000nF,+10-5%,450V,BK,38x18x30mm,33	1	SNA	
XC71	2301-001439	C-FILM,LEAD-PPF	220nF,10%,275V,BK,18x10x15.8mm,15	1	SNA	
C101	2401-000173	C-AL	1000uF,20%,35V,GP,TP,13x25,5	1	SNA	
C103	2401-000711	C-AL	2200uF,20%,25V,GP,TP,16x25,7.5	1	SNA	
C601	2401-002300	C-AL	47?F,20%,50V,GP,TP,6.3x11,5mm	1	SNA	
C105	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	SNA	
BZ61	3002-001129	BUZZER-PIEZO	85DB,-,2KHZ,-	1	SNA	
RY72	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY74	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY71	3501-001268	RELAY-POWER	12V,0.9W,25000mA,SPST,20mS,10mS	1	SA	
SS71	3502-000115	SSR	12Vdc,-,2A,1mS,1mS	1	SNA	
F701	3601-000263	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1	SNA	
F702	3601-001209	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x8mm	1	SNA	
CN72	3711-000262	HEADER-BOARD TO CABLE	1WALL,3P,1R,7.92MM,STRAIGHT,SN,WHT	1	SNA	
CN73	3711-003845	HEADER-BOARD TO CABLE	BOX,11P,1R,2mm,STRAIGHT,SN,WHT	1	SNA	

MAIN PCB : DB93-04128B(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
J1	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J2	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J3	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J4	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J5	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J6	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J7	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J8	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
TR-1	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-2	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-3	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-4	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
FAN(H)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(L)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
POWER(N)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-1	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-2	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-3	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-4	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
ST11	DB26-00066A	TRANS POWER	-,WW2-VE,-,8-PIN,230V/AC,16.5V/ DC,400mA,-,50hz,-,-,-,-,SSEC	1	SNA	
POWER(N)	DB39-01270E	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLU,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,170mm,-,- ,TUBE?SSEC	1	SNA	
FAN(H)	DB39-01270F	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,RED,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,160mm,-,- ,TUBE?SSEC	1	SNA	
FAN(L)	DB39-01270H	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLU,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,160mm,-,- ,TUBE?SSEC	1	SNA	
	DB41-00495A	PCB-POWER	WW2-P/J,FR-1,ONE- LAYER,VERSION1,T1.6,-,-,-,-,SSEC	1	SNA	
F701	DB61-00924A	HOLDER-FUSE	-,FH-51B,-,-,-,-,SSEC	1	SNA	
	DB62-03085A	HEAT SINK	-,A6063,25,15,15,-,-,SSEC	1	SNA	

■ MAIN PCB : DB93-04128D

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D101	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D102	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D103	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D104	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
Q601	0501-000303	TR-SMALL SIGNAL	KSA733,PNP,250mW,TO-92,TP,120-240	1	SNA	
Q101	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q102	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q602	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q603	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
ICO1	1203-000243	IC-POSI.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/12.5V,16W,0TO+125C,1A,-,ST,-	1	SNA	
ICO2	1203-000429	IC-POSI.FIXED REG.	78L05A,TO-92,3P,-,PLASTIC,4.6/	1	SNA	
VA71	1405-000154	VARIATOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
R103	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R104	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R105	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R605	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R606	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R609	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R610	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R102	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R608	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R602	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R603	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R601	2001-000855	R-CARBON	560OHM,5%,1/4W,AA,TP,2.4X6.4MM	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R607	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
C107	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C108	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C102	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C104	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C106	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
CR71	2301-001363	C-FILM,LEAD-PPF	2000nF,+10-5%,450V,BK,38x18x30mm,33	1	SNA	
XC71	2301-001439	C-FILM,LEAD-PPF	220nF,10%,275V,BK,18x10x15.8mm,15	1	SNA	
C101	2401-000173	C-AL	1000uF,20%,35V,GP,TP,13x25,5	1	SNA	
C103	2401-000711	C-AL	2200uF,20%,25V,GP,TP,16x25,7.5	1	SNA	
C601	2401-002300	C-AL	47?F,20%,50V,GP,TP,6.3x11,5mm	1	SNA	
C105	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	SNA	
BZ61	3002-001129	BUZZER-PIEZO	85DB,-,2KHZ,-	1	SNA	
RY71	3501-001268	RELAY-POWER	12V,0.9W,25000mA,SPST,20mS,10mS	1	SA	
F701	3601-000263	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1	SNA	
F702	3601-001209	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x8mm	1	SNA	
CN72	3711-000262	HEADER-BOARD TO CABLE	1WALL,3P,1R,7.92MM,STRAIGHT,SN, WHT	1	SNA	
CN73	3711-003845	HEADER-BOARD TO CABLE	BOX,11P,1R,2mm,STRAIGHT,SN,WHT	1	SNA	
J1	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm,-,-	1	SNA	
J2	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm,-,-	1	SNA	
J3	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm,-,-	1	SNA	
J4	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm,-,-	1	SNA	

MAIN PCB : DB93-04128D(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
J5	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J6	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J7	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J8	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
TR-1	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-2	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-3	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-4	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
4-WAY	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(H)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(L)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
POWER(N)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-1	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-2	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-3	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-4	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
ST11	DB26-00066A	TRANS POWER	-,WW2-VE,-,8-PIN,230V/AC,16.5V/ DC,400mA,-,50hz,-,-,-,-,SSEC	1	SNA	
POWER(N)	DB39-01270A	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLU,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,170mm,-,- ,SSEC	1	SNA	
	DB41-00495A	PCB-POWER	WW2-P/J,FR-1,ONE- LAYER,VERSION1,T1.6,-,-,-,-,SSEC	1	SNA	
F701	DB61-00924A	HOLDER-FUSE	-,FH-51B,-,-,-,-,SSEC	1	SNA	
	DB62-03085A	HEAT SINK	-,A6063,25,15,15,-,-,SSEC	1	SNA	

MAIN PCB : DB93-04128E

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D101	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D102	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D103	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D104	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
Q601	0501-000303	TR-SMALL SIGNAL	KSA733,PNP,250mW,TO-92,TP,120-240	1	SNA	
Q101	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q102	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q602	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
Q603	0501-000398	TR-SMALL SIGNAL	KSC945-Y,NPN,250mW,TO-92,TP,120-240	1	SNA	
ICO1	1203-000243	IC-POSI.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/12.5V,16W,0TO+125C,1A,-,ST,-	1	SNA	
ICO2	1203-000429	IC-POSI.FIXED REG.	78L05A,TO-92,3P,-,PLASTIC,4.6/	1	SNA	
VA71	1405-000154	VARISTOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
R103	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R104	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R105	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R605	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R606	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R609	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R610	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R102	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R608	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R602	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R603	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R601	2001-000855	R-CARBON	560OHM,5%,1/4W,AA,TP,2.4X6.4MM	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R607	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
C107	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C108	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C102	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C104	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
C106	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
CR71	2301-001363	C-FILM,LEAD-PPF	2000nF,+10-5%,450V,BK,38x18x30mm,33	1	SNA	
XC71	2301-001439	C-FILM,LEAD-PPF	220nF,10%,275V,BK,18x10x15.8mm,15	1	SNA	
C101	2401-000173	C-AL	1000uF,20%,35V,GP,TP,13x25,5	1	SNA	
C103	2401-000711	C-AL	2200uF,20%,25V,GP,TP,16x25,7.5	1	SNA	
C601	2401-002300	C-AL	47?F,20%,50V,GP,TP,6.3x11,5mm	1	SNA	
C105	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	SNA	
BZ61	3002-001129	BUZZER-PIEZO	85DB,-,2KHZ,-	1	SNA	
RY72	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY73	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FormA,10mS,10mS	1	SA	
RY71	3501-001268	RELAY-POWER	12V,0.9W,25000mA,SPST,20mS,10mS	1	SA	
F701	3601-000263	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1	SNA	
F702	3601-001209	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x8mm	1	SNA	
CN72	3711-000262	HEADER-BOARD TO CABLE	1WALL,3P,1R,7.92MM,STRAIGHT,SN,WHT	1	SNA	
CN73	3711-003845	HEADER-BOARD TO CABLE	BOX,11P,1R,2mm,STRAIGHT,SN,WHT	1	SNA	
J1	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm,-,-	1	SNA	
J2	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm,-,-	1	SNA	

MAIN PCB : DB93-04128E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
J3	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J4	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J5	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J6	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J7	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
J8	3812-001283	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/ 0.6mm,-,-	1	SNA	
TR-1	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-2	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-3	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
TR-4	6042-000105	EYELET	ID1.6,OD2.0,L6,NI PLT,C2600BD	1	SNA	
4-WAY	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(H)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
FAN(L)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
POWER(N)	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-1	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-2	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-3	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
RY-4	6042-001009	EYELET	ID1.8,OD2.2,L3,-,BRASS	1	SNA	
ST11	DB26-00066A	TRANS POWER	-,WW2-VE,-,8-PIN,230V/AC,16.5V/ DC,400mA,-,50hz,-,-,-,-,SSEC	1	SNA	
POWER(N)	DB39-01270A	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLU,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,170mm,-,- ,SSEC	1	SNA	
FAN(H)	DB39-01270B	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,PINK,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,170mm,-,- ,SSEC	1	SNA	
4-WAY	DB39-01270C	CONNECT WIRE	WW2-P/J,#1015 18 AWG,-,1P,- ,BLK,-,175022-1 (AMP),ST780400 (KET),TP,220V/50Hz,4mm,170mm,-,- ,SSEC	1	SNA	
	DB41-00495A	PCB-POWER	WW2-P/J,FR-1,ONE- LAYER,VERSION1,T1.6,-,-,-,-,SSEC	1	SNA	
F701	DB61-00924A	HOLDER-FUSE	-,FH-51B,-,-,-,-,SSEC	1	SNA	
	DB62-03085A	HEAT SINK	-,A6063,25,15,15,-,-,SSEC	1	SNA	

MAIN PCB : DB93-04181A

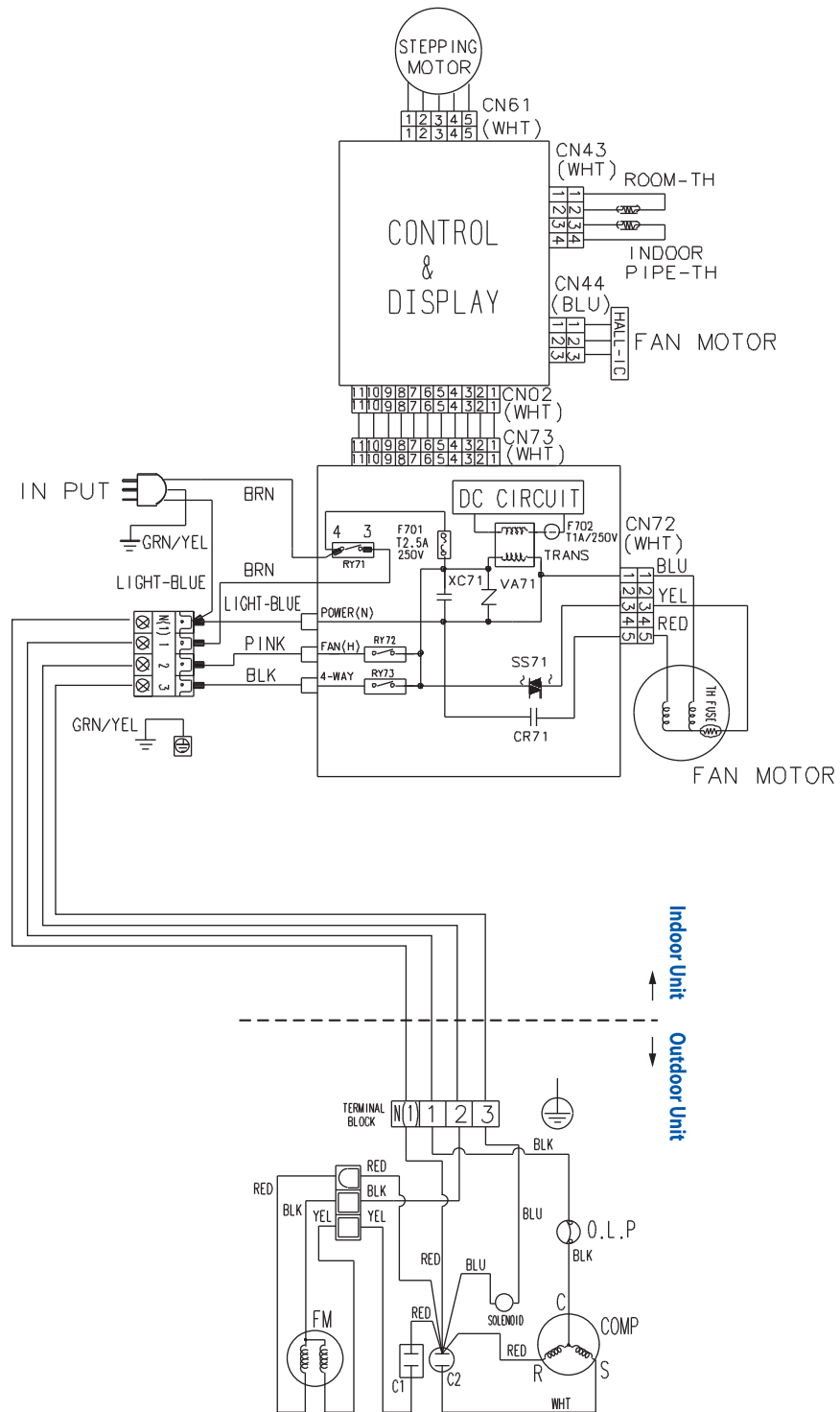
Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D901	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
Q401	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q901	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q902	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
IC05	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC06	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
TURBO1	0601-000360	LED	ROUND,RED,3mm,635nm,3.2x4.5mm	1	SNA	
OPERATION1	0601-001375	LED	ROUND,GRN,3mm,570nm,3.8x5.3mm	1	SNA	
TIMER1	0601-001375	LED	ROUND,GRN,3mm,570nm,3.8x5.3mm	1	SNA	
RM01	0609-001204	Module Remocon	HORIZONTAL,6.5mm,TR	1	SNA	
IC07	1103-001016	IC-EEPROM	93C56,256x8/128x16Bit,SOP,8P,5x4mm,-,2.7/5.5V,-,-,40to+85C,10uA,-,TP	1	SNA	
R-OPTION3	2007-000029	R-CHIP	0ohm,5%,1/8W,TP,2012	1	SNA	
R-OPTION4	2007-000029	R-CHIP	0ohm,5%,1/8W,TP,2012	1	SNA	
R903	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R301	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R401	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R403	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R409	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R501	2007-000477	R-CHIP	1Mohm,5%,1/8W,TP,2012	1	SNA	
R404	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R405	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R902	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R901	2007-000947	R-CHIP	47ohm,5%,1/8W,TP,2012	1	SNA	
R406	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R407	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R402	2007-001071	R-CHIP	6.8Kohm,5%,1/8W,TP,2012	1	SNA	
R905	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R906	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R909	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R910	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
C301	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C402	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C403	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C501	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C503	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C504	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C901	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C904	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C905	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C907	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C401	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C903	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C902	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C906	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C909	2401-003107	C-AL	47uF,20%,16V,GP,TP,5x7,5	1	SNA	
X501	2802-001198	RESONATOR-CERAMIC	10MHZ,0.5%,BK,8X3X5.5MM	1	SNA	
SWO1	3404-001220	SWITCH-TACT	12V,50mA,160gf,6.1x6.1x5.0mm,SPST	1	SNA	
CN61	3711-000992	HEADER-BOARD TO CABLE	BOX,5P,1R,2.5MM,ANGLE,SN,WHT	1	SNA	
CN43	3711-004067	HEADER-BOARD TO CABLE	BOX,4P,1R,2mm,ANGLE,SN,NTR	1	SNA	
CN44	3711-005319	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5MM,ANGLE,TIN,BLU	1	SNA	

MAIN PCB : DB93-04181A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
IC04	DB09-00516A	IC MICOM	S3C848AXZZ-QT8A,- ,64P,+5V,10MHz,STM-0648-OA, ROM Size: 48K bytes,8BIT,8BIT,QFP,QFP,- ,8BIT,-40~+85	1	SA	
	DB41-00510A	PCB-MAIN	WW2-P/J,FR-4,TWO- LAYER,VERSION1,T1.6,65*80,-,-,- ,VE,SSEC	1	SNA	
CN02	DB93-04187A	ASSY-CONNECT WIRE	WW2,,26AWG,12-PIN,250mm	1	SNA	

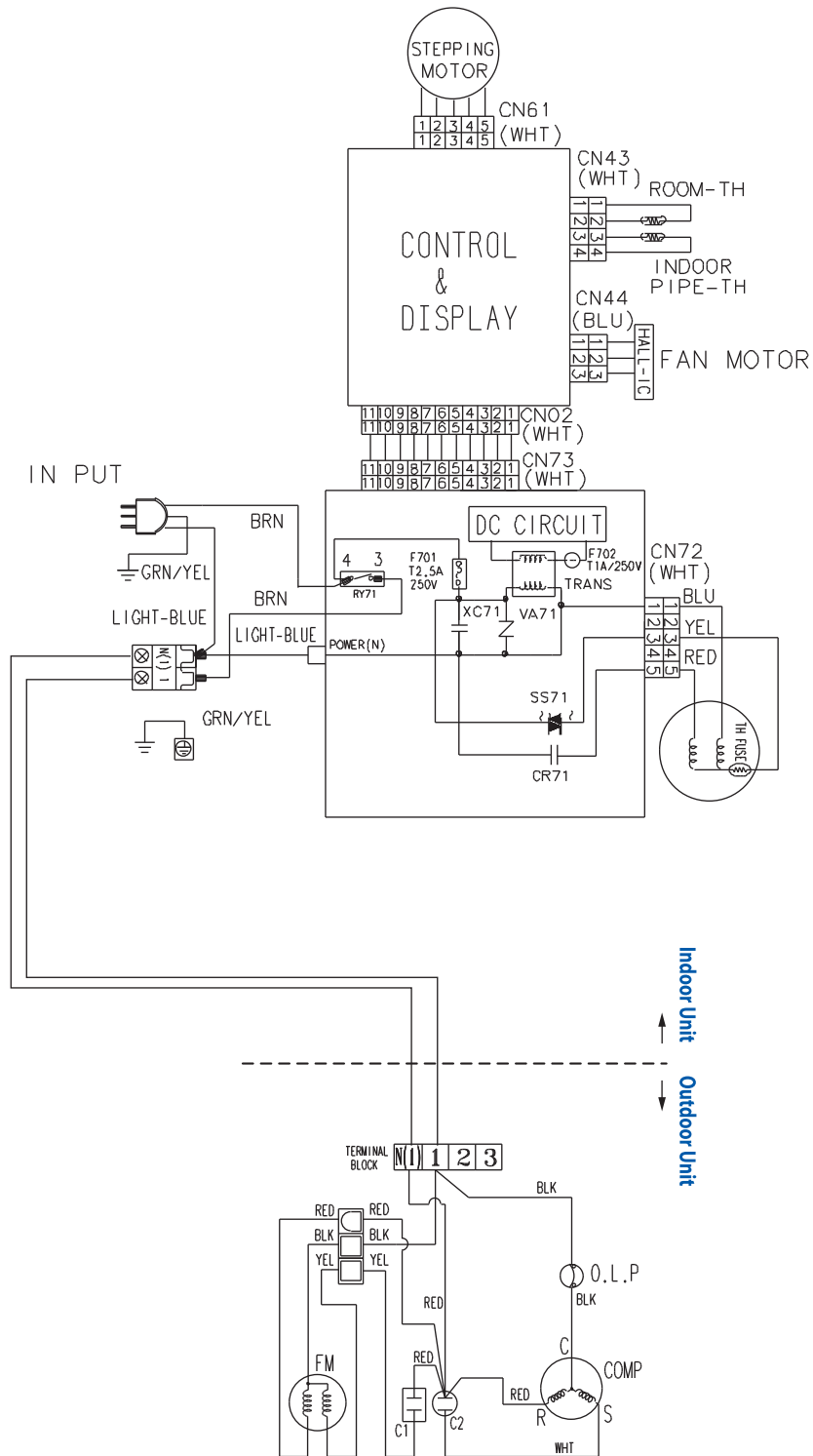
7. Wiring Diagram

■ H/P



This Document can not be used without Samsung's authorization.

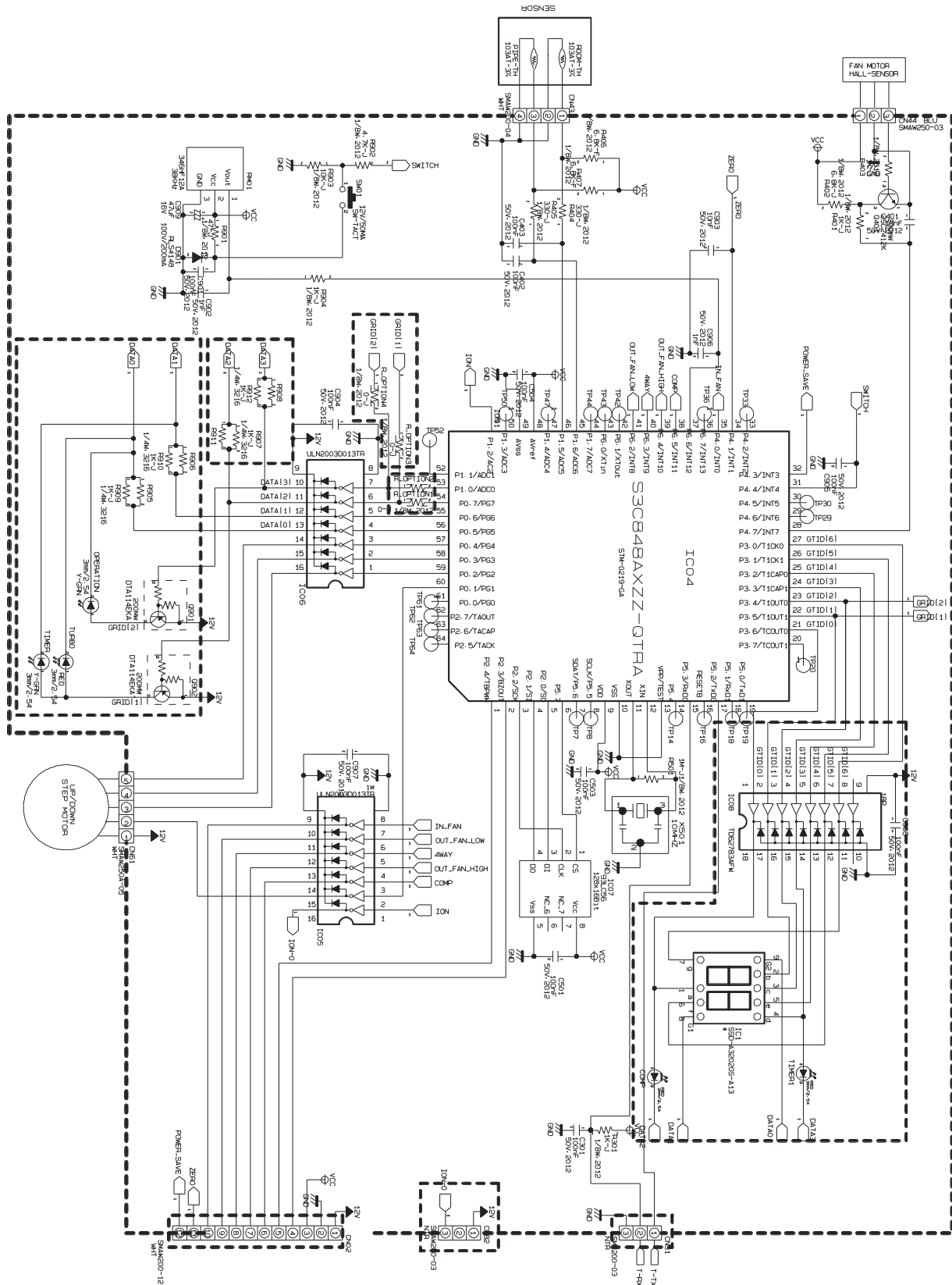
■ C/O



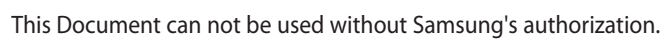
This Document can not be used without Samsung's authorization.

8. Schematic Diagram

8-1. Main PCB



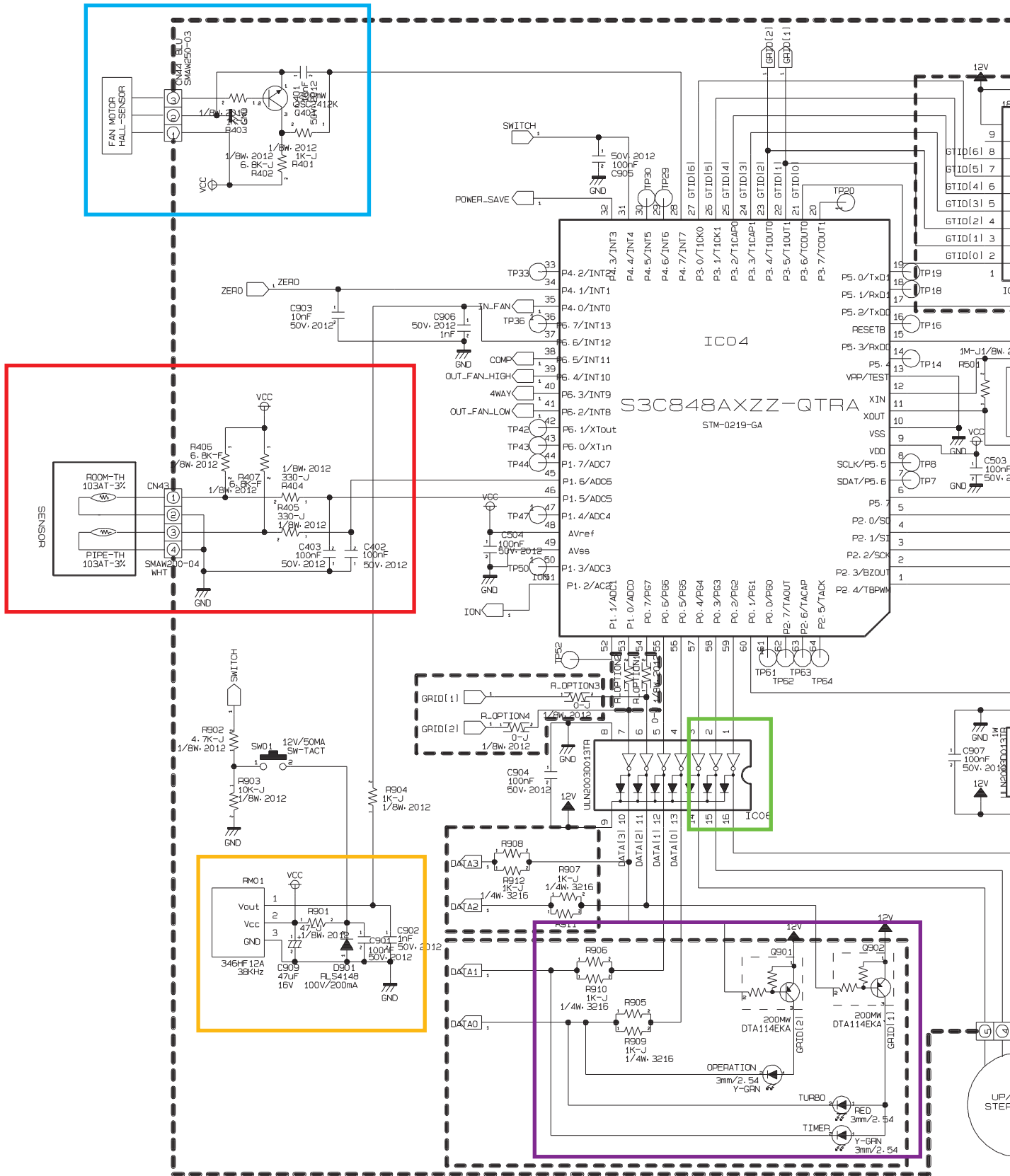
This Document can not be used without Samsung's authorization.

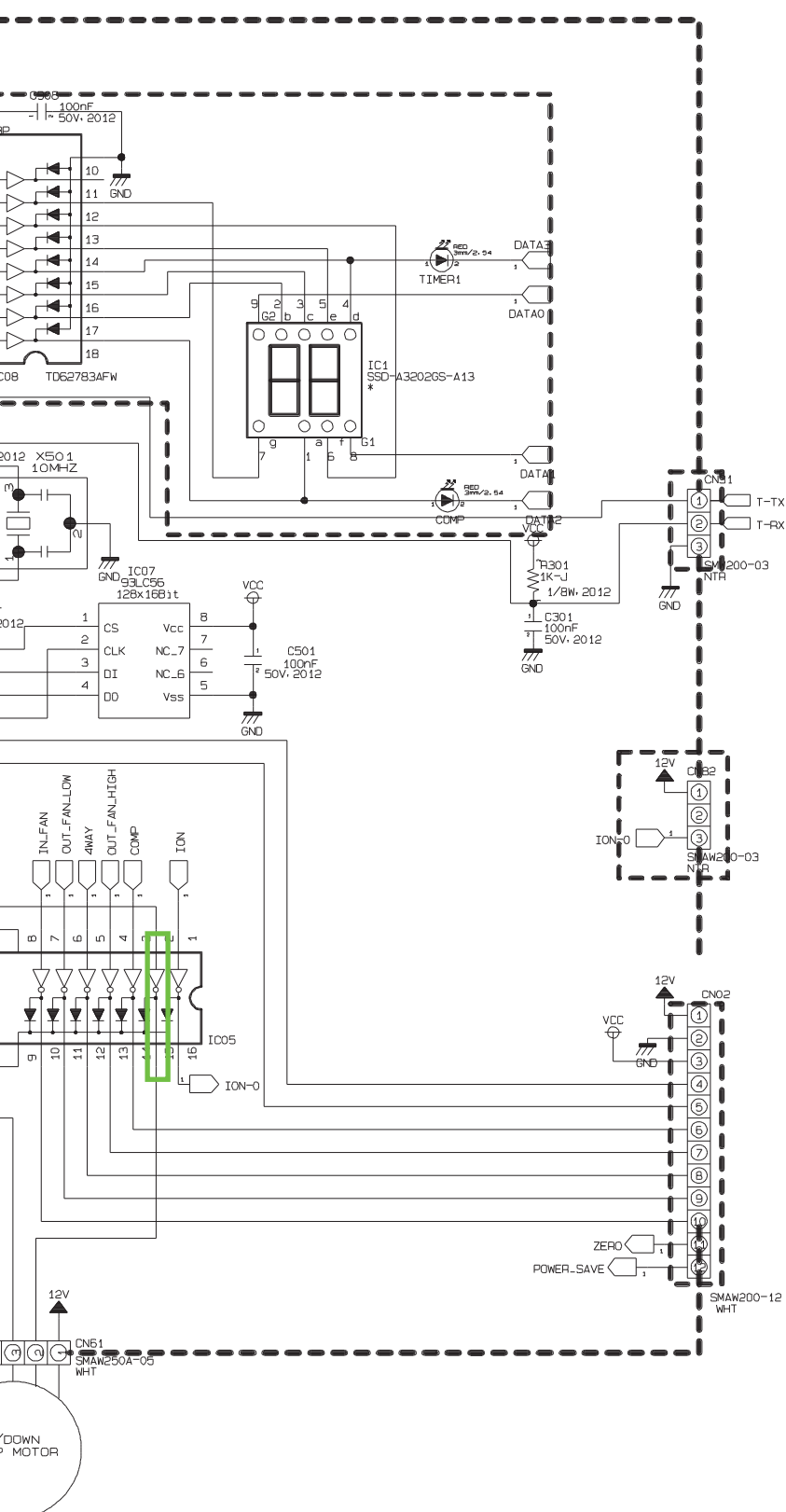


9. Circuit Descriptions

9-1 PCB Circuit Descriptions

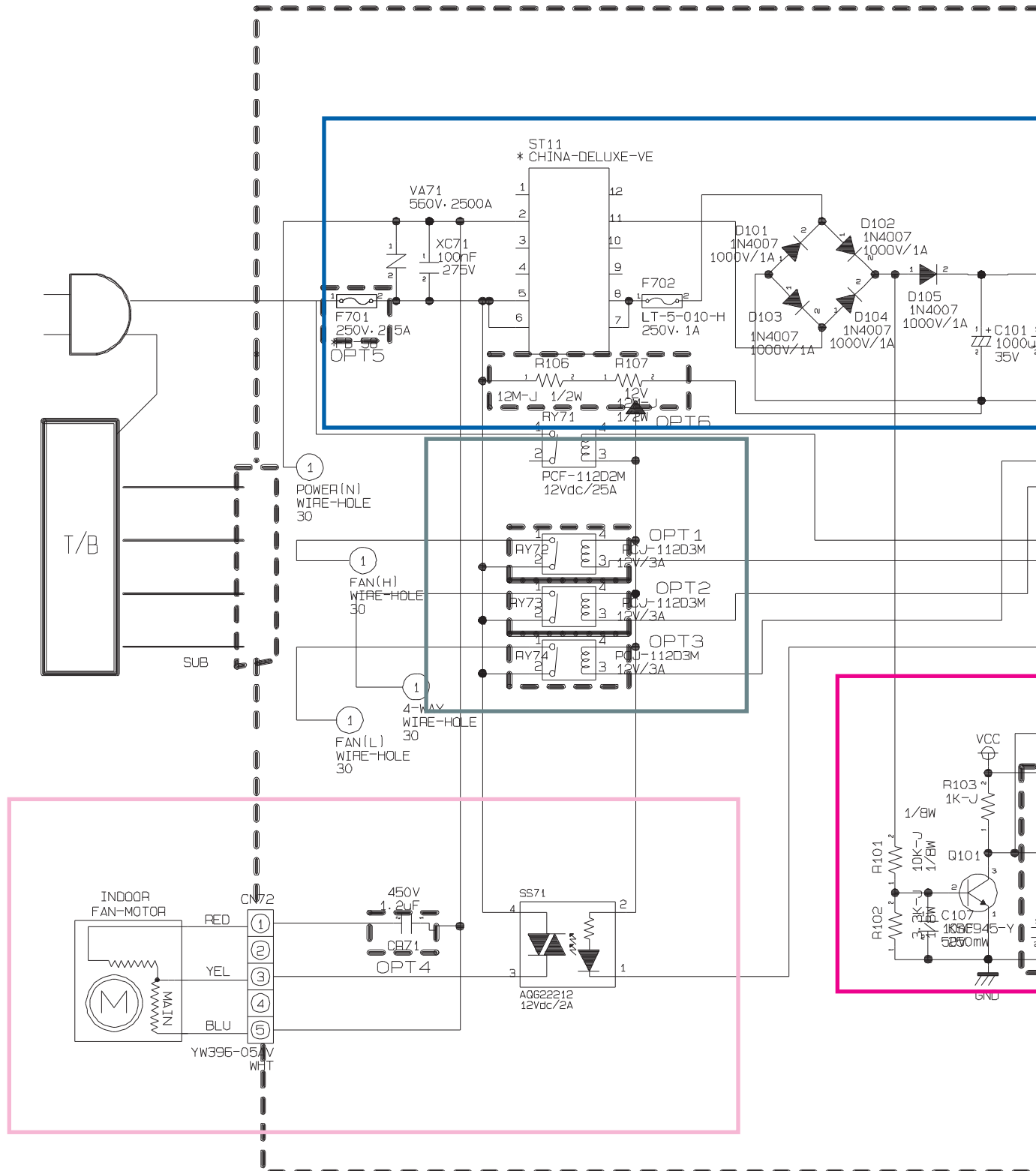
9-1-1 Main PCB

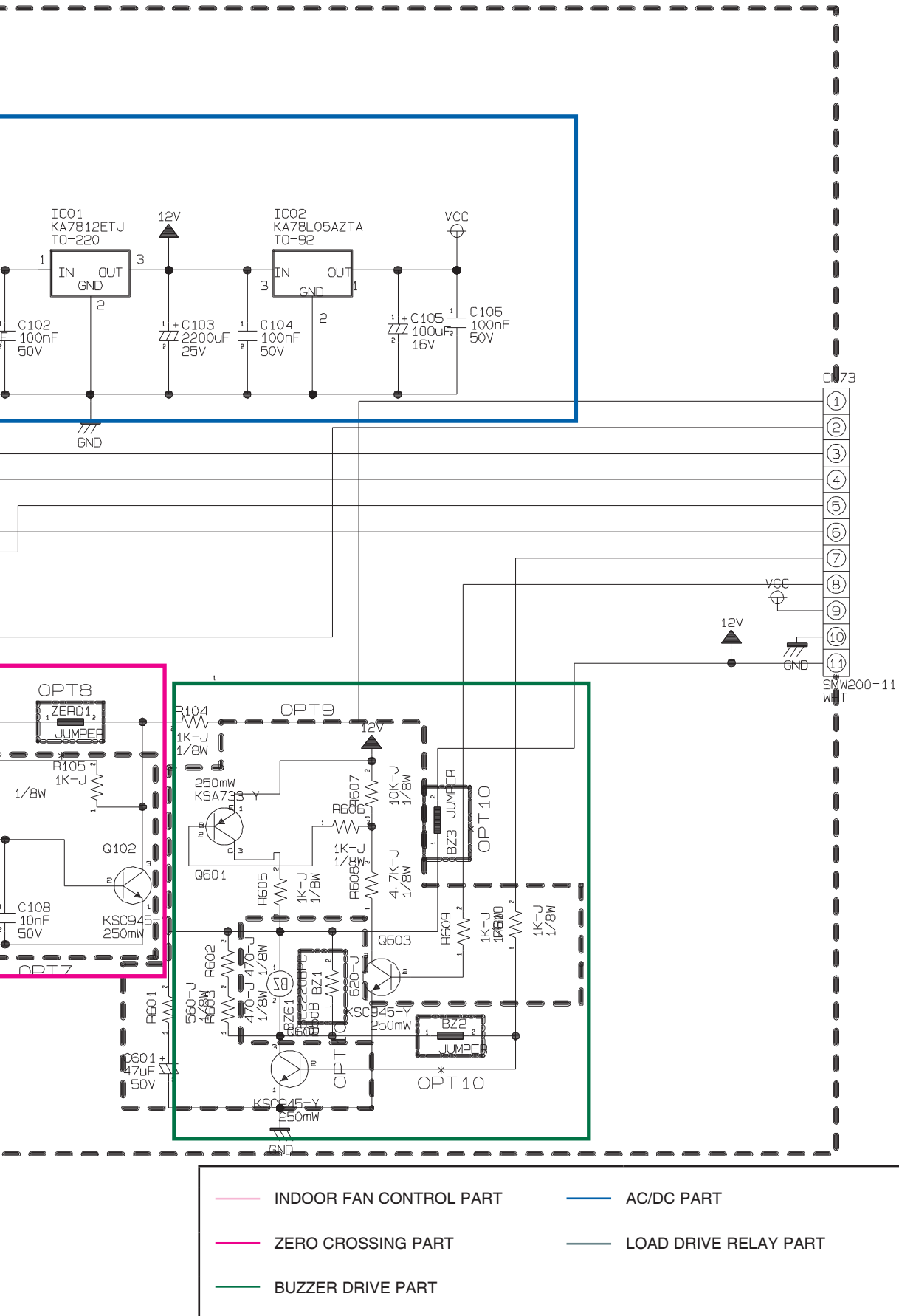




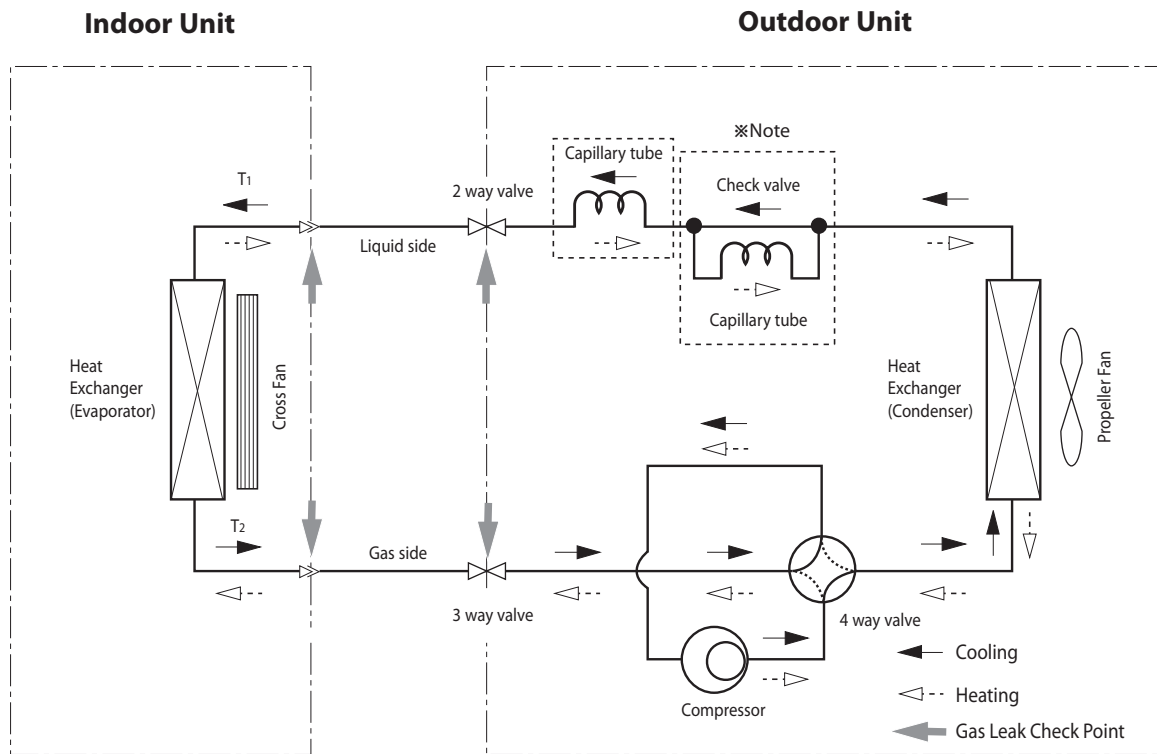
- INDOOR TEMPERATURE SENSOR INPUT PART
- STEP MOTOR CONTROL PART
- REMOTE RECEIVER PART
- DISPLAY CONTROL PART
- MOTOR RPM FEEDBACK

9-1-2 Power PCB



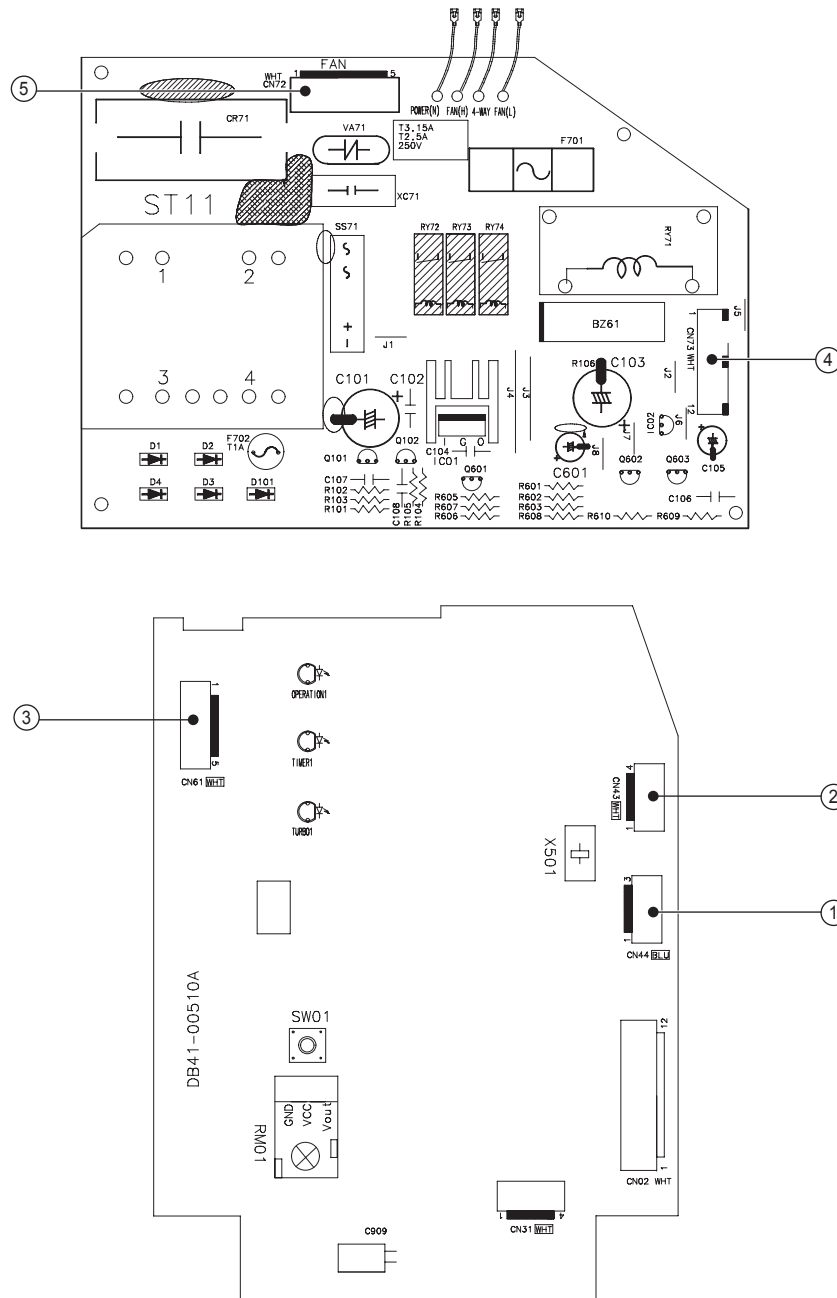


9-2 Refrigerating Cycle Diagram



10. PCB Diagram

⚠ The red number connector is not used.



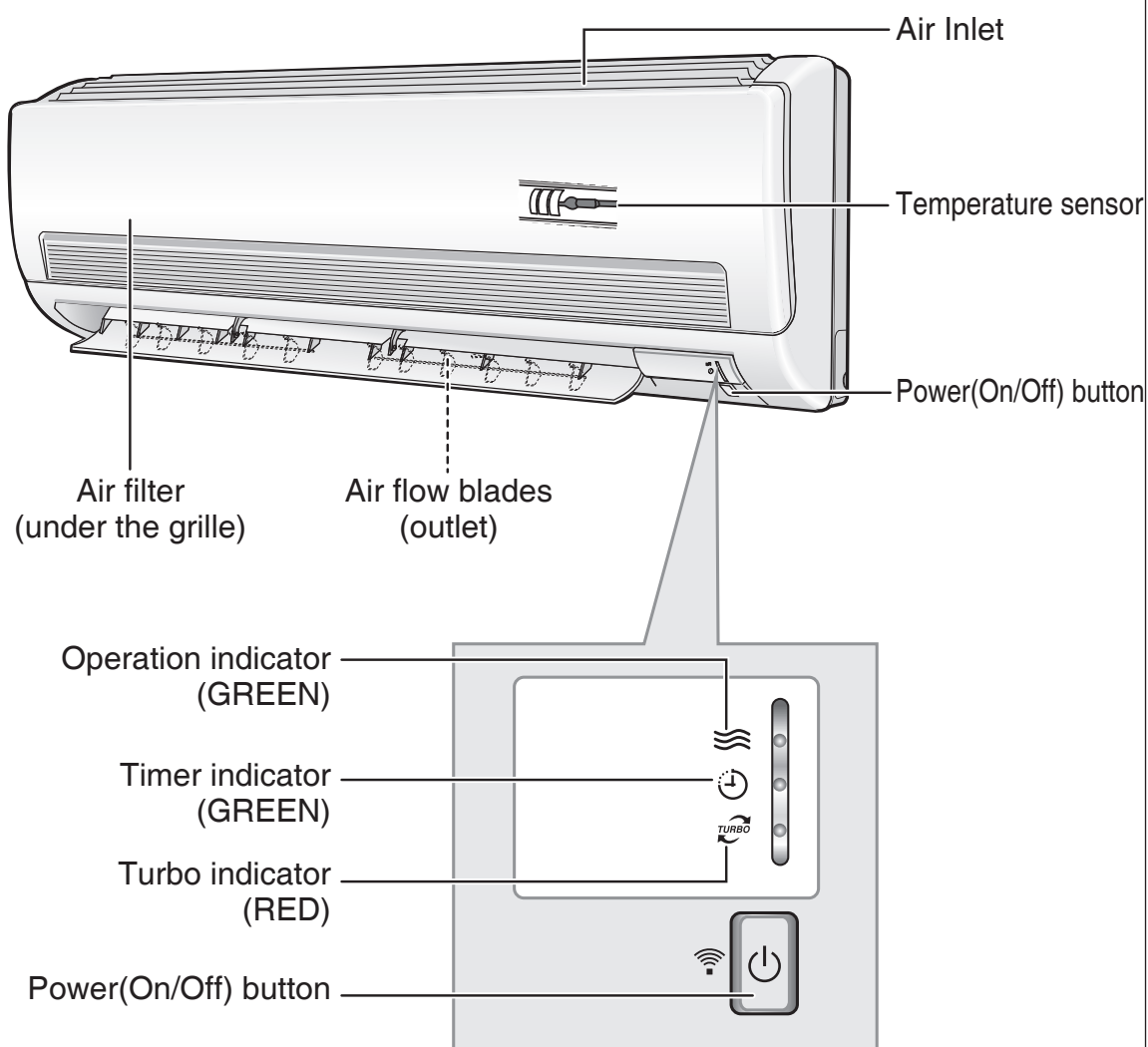
①	Motor RPM Feedback
②	Temperature Sensor
③	BLADE-H Step Motor
④	MAIN PBA CONNECTOR
⑤	Indoor Fan Motor

11. Operating Instructions

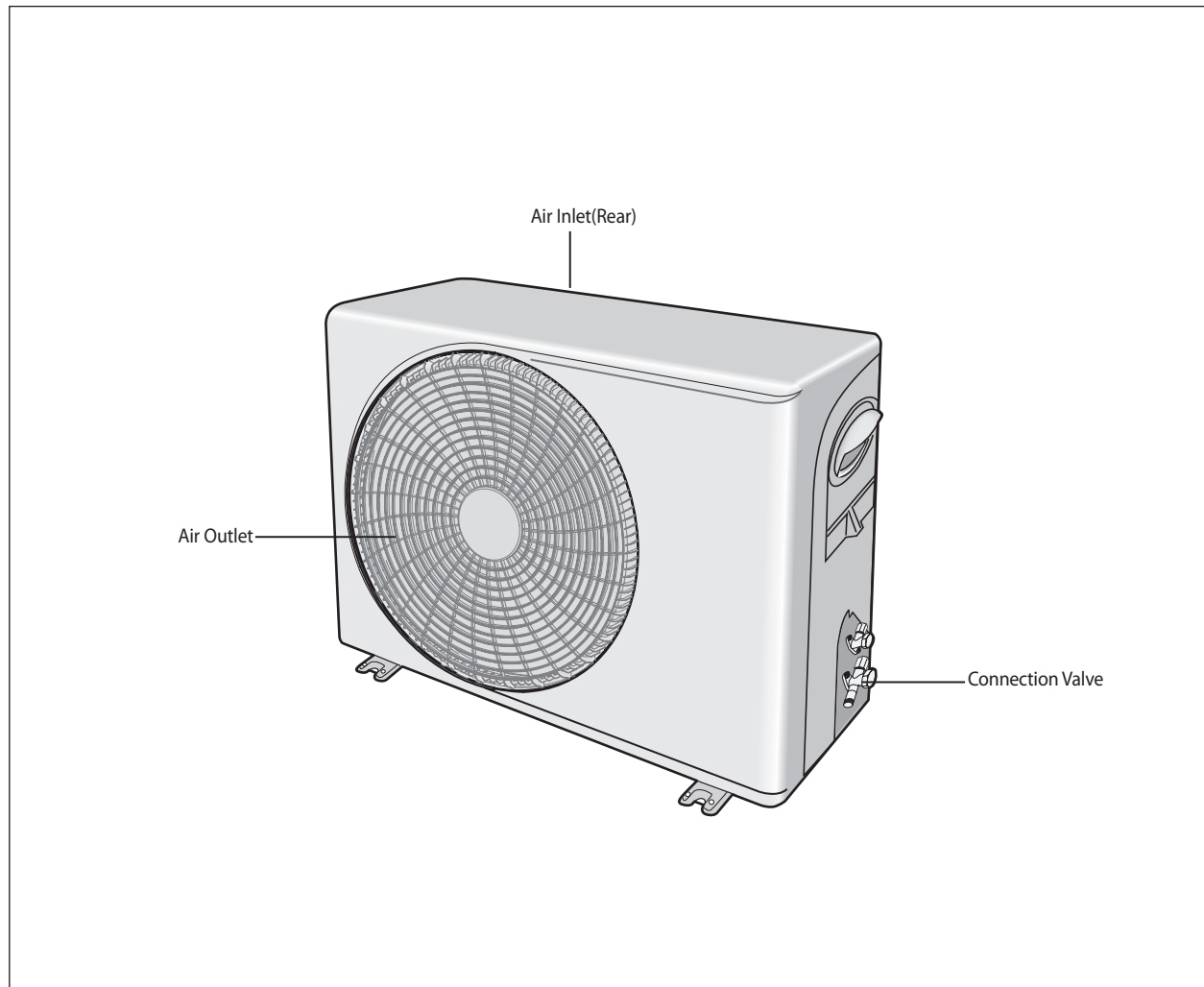
11-1 Name of Each Part

11-1-1 Indoor Unit

The design and shape are subject to change according to the model.

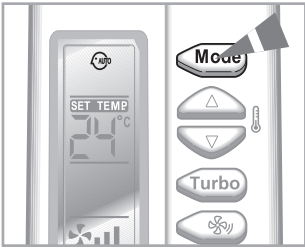
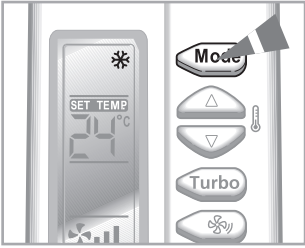
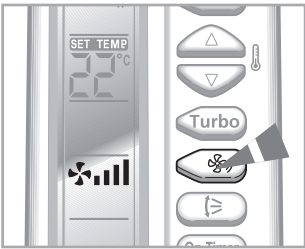
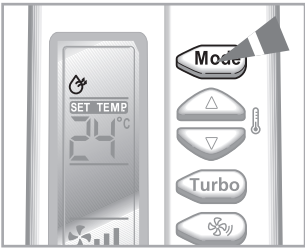
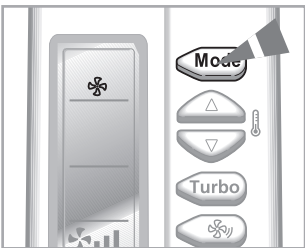


11-1-2 Outdoor Unit

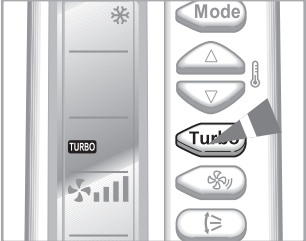


11-2 Main Function

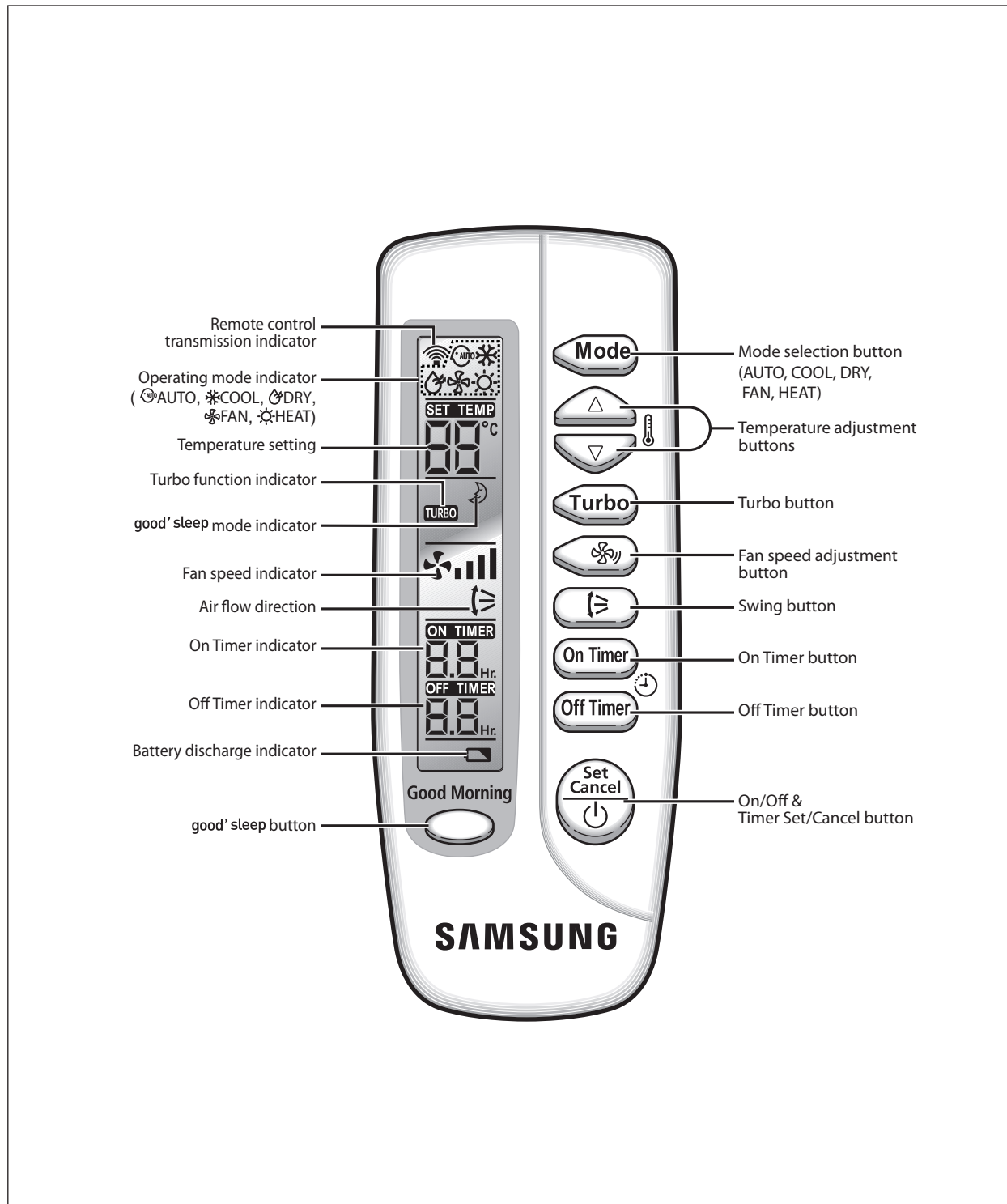
11-2-1 Basic Function

Mode	Explanation	Remark
Auto Mode	Press the  button on the remote control until  is displayed.	
Cool Mode	Press the  button on the remote control until  is displayed. Press the  button to select the fan speed until the required setting is displayed.  Automatic (rotated :  →  → )  Low  Medium  High  Maximum	 
Dry Mode	Press the  button on the remote control until  is displayed.	
Fan Mode	Press the  button on the remote control until  is displayed.	

11-2-2 Applied Function

Mode	Explanation	Remark
Turbo Function	Press the  button. - After 30 minutes, the air conditioner is reset automatically to the previous setting. - You can select the Turbo function in the Auto, Cool and Heat mode. If you select this function in the Dry or Fan mode, the mode changes to the Auto mode.	

11-3 Wireless Remote Control-Buttons and Display



12. Troubleshooting

Check the basic items first to judge if the problem was caused by breakdown or misuse. If none of the basic items are related to the problem, please scrutinize the machine according to the 'Breakdown Diagnosis by Symptoms' method.

12-1 Basic Breakdown Diagnosis Items

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?

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 OPERATION indication LED(GREEN) 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 INDOOR 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 DRY() mode.	The speed of the indoor fan is set to LL in DRY mode. Fan speed 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(GREEN) 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.

12-2 Trouble check in the initial status

12-2-1 Diagnosis and marking of the part in trouble.

Please check the air conditioner operation status and write the check result in the chart in the room.

Description	LAMP		
	OPERATION	TIMER	TURBO
			
Indoor unit room temperature sensor error (open or short)			
Indoor unit heat exchanger temperature sensor error (open or short)			
Indoor fan motor mal function			
EEPROM error			
Option error (option wasn't set up or option data error)			

 : Lamp off  : Lamp flickering

12-2-2 Operation with abnormal motion

No	Abnormal condition	Inspection		Initial Diagnosis
1	No response from the remote control operation signal.	• Plug out and plug in 5 seconds later.	Able to operate the remote control.	OK
			Unable to operate the remote control.	Press the (⏻) button in the indoor unit. • If it operates, the remote control and indoor unit receiver are in trouble. • If not, the indoor unit is in trouble.
2	Unable to operate the outdoor unit	• Press the TURBO button with the remote control. • In 3 minutes, check the voltage between the indoor unit terminal block N1 and 1.	AC200V ~ AC240V	Problem with the outdoor unit or PCB
			No power source displayed.	Problem with the relay (RY71) or PCB

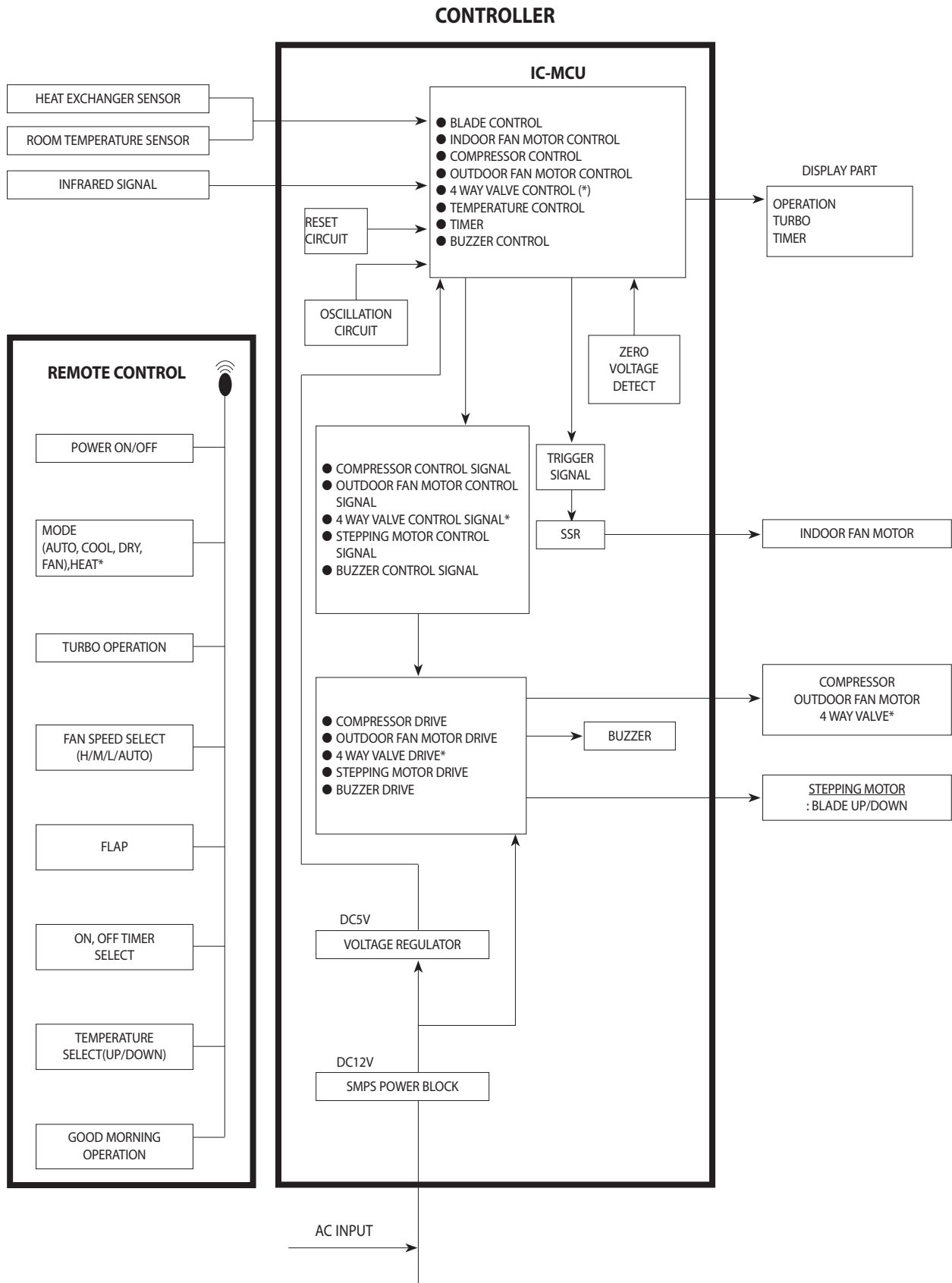
12-3 Breakdown diagnosis by symptoms

12-3-1 No Power (completely dead)-Initial diagnosis

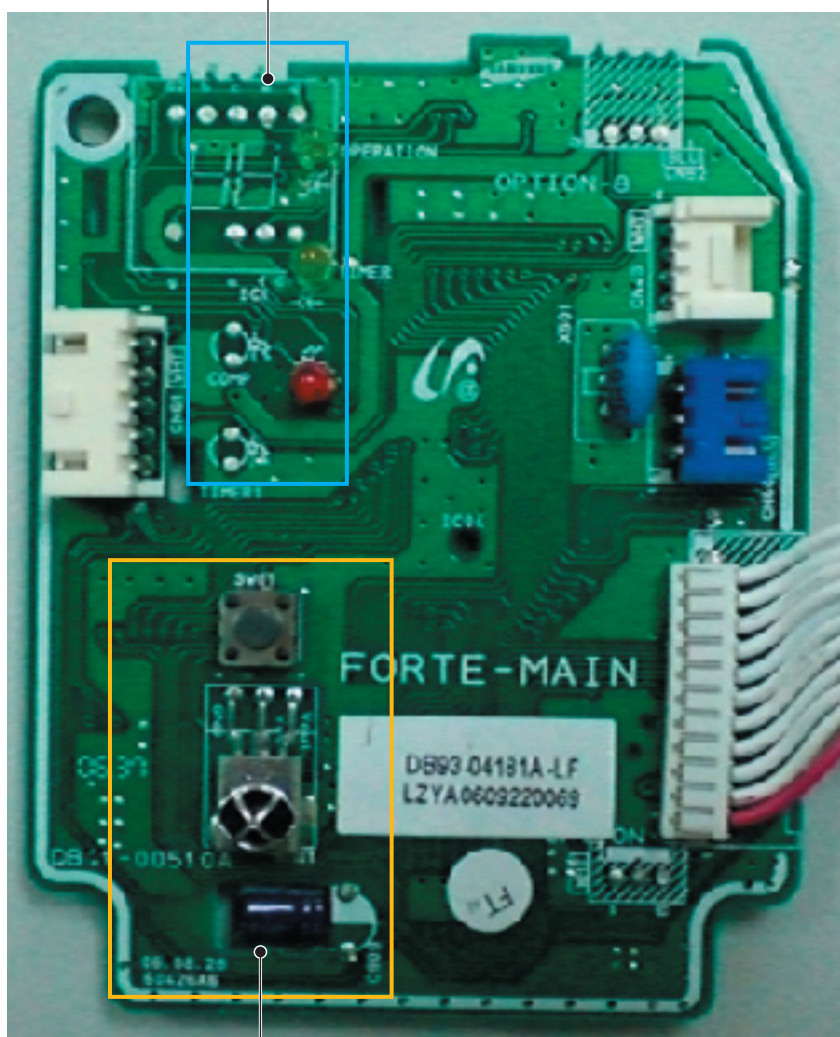
1. Checklist :
 - 1) Is input voltage normal?
 - 2) Is AC power linked correctly?
 - 3) Is input voltage of DC regulator IC KA7812 (IC01) normal? (11.8VDC-12.2VDC)
 - 4) Is output voltage of DC regulator IC KA7805 (IC02) normal? (4.5VDC-5.5VDC)
2. Troubleshooting procedure

13. Block Diagram

* : OPTION

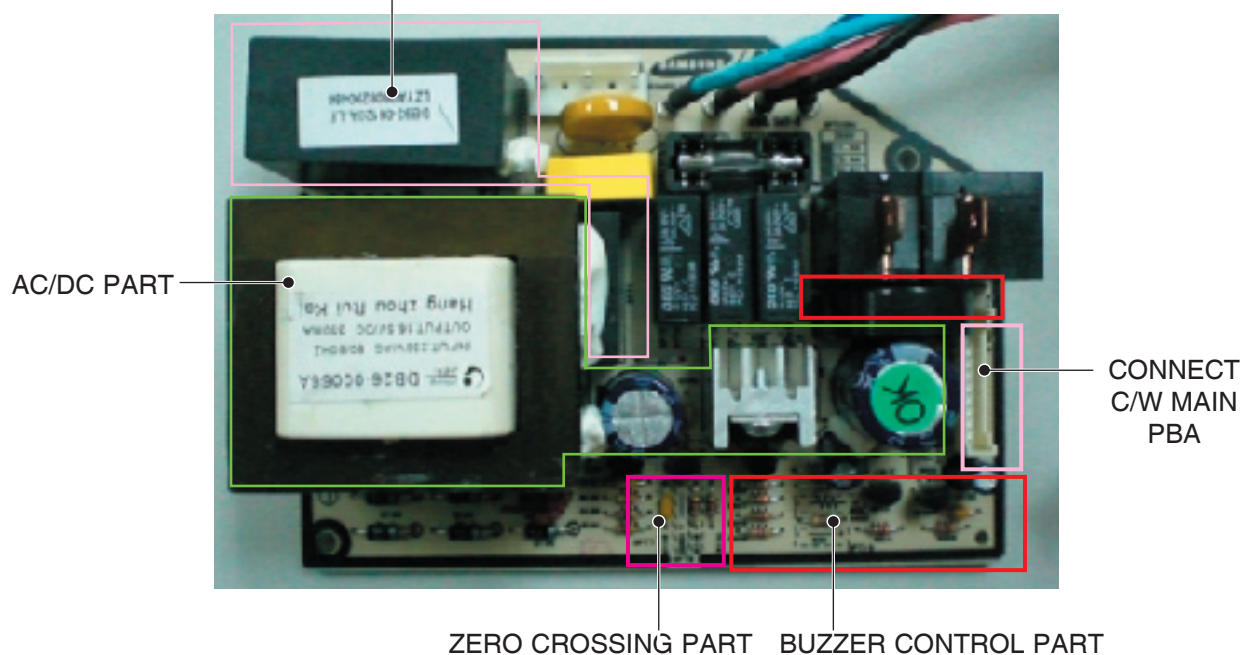


DISPLAY PART



REMOTECONTROL PART

INDOOR FAN CONTROL PART



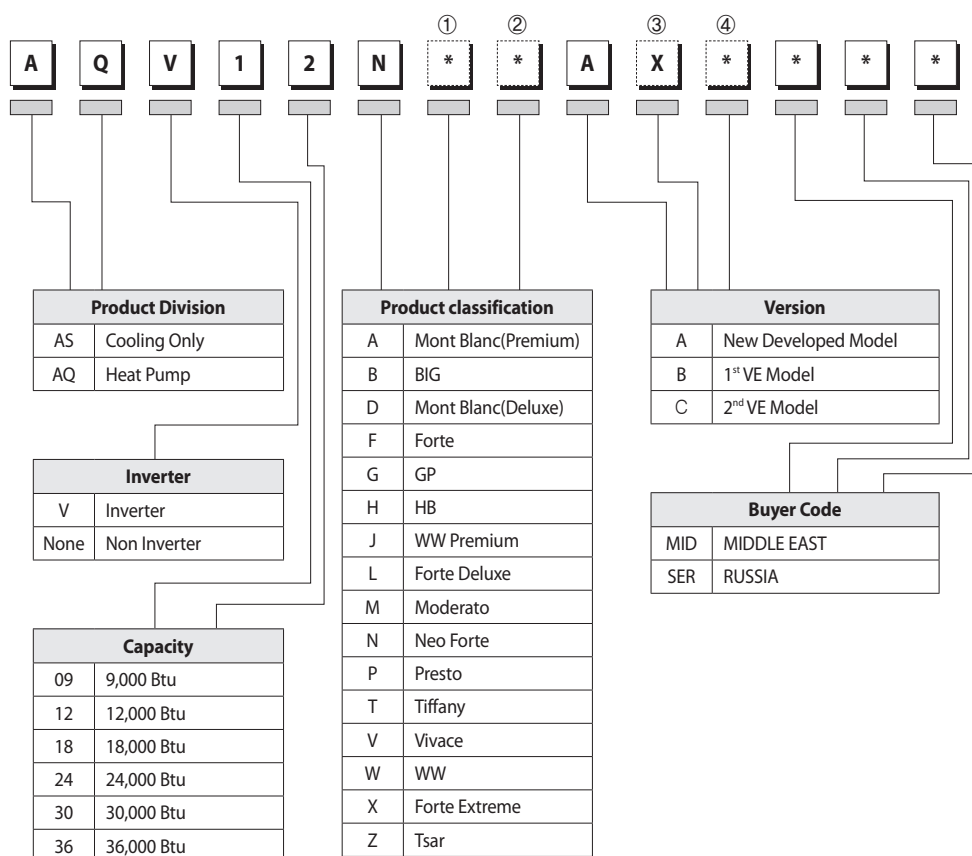
ZERO CROSSING PART BUZZER CONTROL PART

14. Reference Sheet

14-1 Index for Model Name

* Project model code for overseas from 2008(For RAC Export Models)

Model Code



- ① : Use the "①" digit for Grille Color deviation.
 : Don't use the digit for Basic White model.
 ex) Silver : S, Black : B, White : W, etc.
- ② : Use the "②" digit for Electric Source deviation.
 : Only for "XAP", "XAX", "GEM" Buyer.
- ③ : Use the "③" digit for classification between indoor and outdoor.
 Indoor ➡ "N" & Outdoor ➡ "X".
- ④ : Use the "④" digit for KD models.
 "CKD" ➡ "1" & "SKD" ➡ "2".

14-2 Low Refrigerant Pressure Distribution

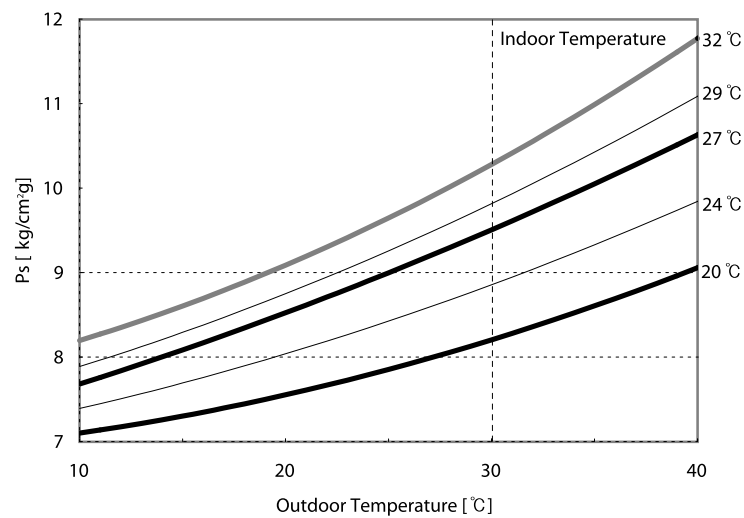
Note : • Please measure the refrigerant pressure after the air conditioner operates on testing cooling mode during more than 10 minutes.

□ Indoor Temp. Variation : 20°C ~ 32°C

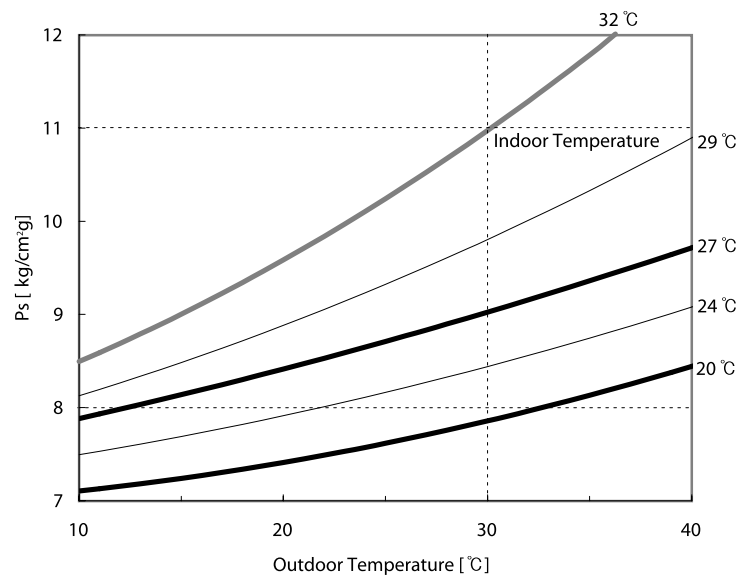
□ Outdoor Temp. Variation : -5°C ~ 45°C

Low Refrigerant Pressure Distribution

09



12



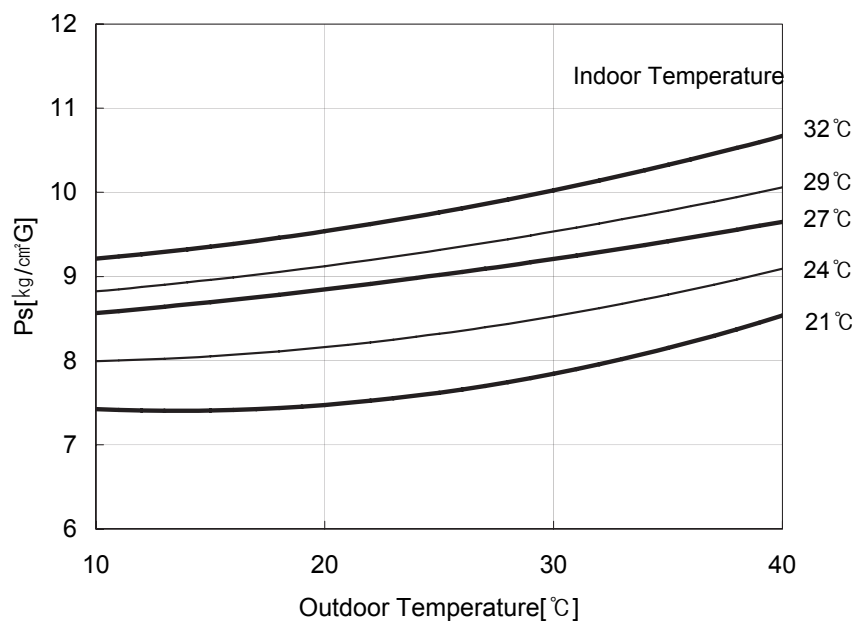
14-2 Low Refrigerant Pressure Distribution

Note : • Please measure the refrigerant pressure after the air conditioner operates on testing cooling mode during more than 10 minutes.

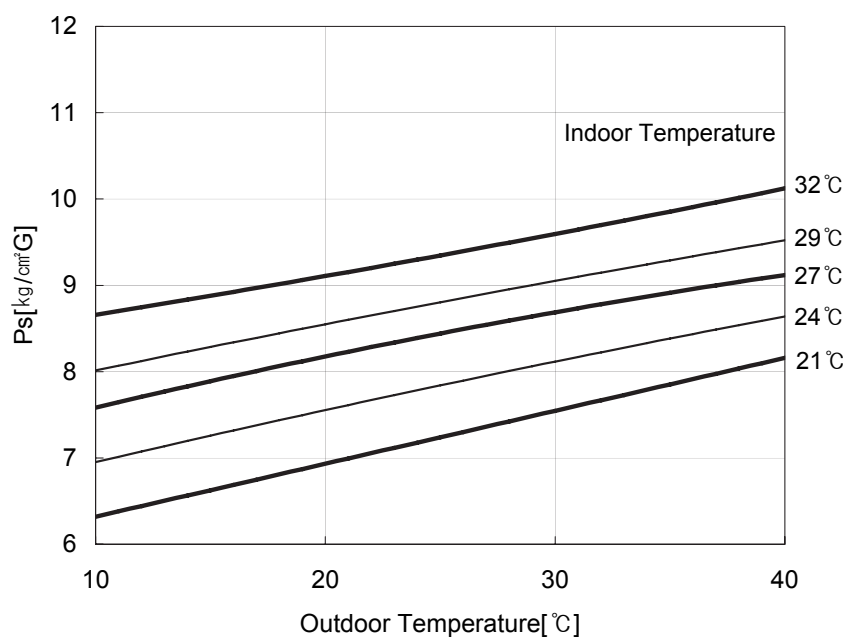
- Indoor Temp. Variation : 20°C ~ 32°C
- Outdoor Temp. Variation : -5°C ~ 45°C

Low Refrigerant Pressure Distribution

****18****



****24****



14-3 Pressure & Capacity mark

Power/Heat

W	cal/s	kcal/h	Btu/h	HP	kg.m/s	lb-m/s
1	0.23885	0.85985	3.4121	0.001341	0.10197	0.73756
4.1868	1	3.6	14.286	0.0056146	0.42693	3.088
1.163	0.27778	1	3.9683	0.0015596	0.11859	0.85778
0.29307	0.06999	0.252	1	3.9302×10^{-4}	0.029885	0.21616
745.7	178.11	641.19	2,544.4	1	76.04	550
9.8067	2.3423	8.4322	33.462	0.013151	1	7.233
1.3558	0.32383	1.1658	4.6262	0.0018182	0.13826	1

14-4 Q & A for Non-trouble

Classification	Class	Description
Cooling	Q	The cooling is weak.
	A	When it is hot outside, its cooling capacity decreases due to the increase of the ambient temperature. When the dust filter gets blocked or warm outside air gets in, the cooling capacity will decrease. So, make sure to clean the dust filter frequently, prevent heat loss by closing the doors and insulate the cooling area by using curtains, blinds, shades or window tinting.
	Q	The cooling is good generally. But, it gets weak when it is considerably hot.
	A	It occurs when the outdoor unit is exposed to direct sun light and heat-up air is not ventilated well. So, set up a sunblind over the outdoor unit and keep stuff away from the unit to increase the ventilation. When the cooling capacity decreases during a heat wave, clean the heat exchanger of the outdoor unit or spray some cold water to the heat exchanger to increase the cooling capability.
	Q	The cooling is weak. Does it need refrigerant charging?
	A	It is not correct charging refrigerant regularly. Except that you have moved in several times or the connection pipes are broken, the refrigerant does not run low. So, when refrigerant is additionally charged, it could be costly and cause a product's failure. When the refrigerant leaks, all of it will escape in a short time resulting in cooling failure and no water coming out of the drain hose. So, if water comes out from the drain hose, it indicates the normal operation of the product and it does not need refrigerant charging.
	Q	It fails to do cooling.
	A	When the air conditioner is set to Ventilation or the desired temperature is set higher than the current temperature, it fails to do cooling. In this case, select Cooling or set the desired temperature lower.
Leakage	Q	It floods the floor.
	A	Place the drain hose properly. When it is not placed properly, the drain water would flow back flooding the floor. So, straighten out the drain hose for the water to be drained well.
	Q	Water drips at the drain connection (service valve) of the outdoor unit.
	A	When a glass bottle is taken out of the refrigerator, moisture gets condensed on its surface due to the temperature differences. The same principle applies to the air conditioner. When cold refrigerant goes through the copper tube, moisture gets condensed on the surface of the tube and the connection areas. To prevent the water condensation, the pipes are insulated. But, the connection areas of the outdoor unit are not insulated for the purpose of maintenance or repair, and water gets condensed due to the temperature differences and drips down. Generally, it evaporates right away. But, when it drips much during muggy days, put a water pan on the floor.
	Q	It leaks even though a drain pump is used.
	A	It occurs when the drain pump is plugged out or it is out of order. Check the power of the drain pump and the position of the drain hose, and when the pump is faulty, contact the drain pump manufacturer. Samsung Electronics do not manufacture drain pumps. So, we are not able to correct the drain pump problems.
Smells	Q	Whenever the air conditioner is turned on, it irritates my eyes and gives me a headache.
	A	There are no components in the air conditioner irritating the eyes and sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So, find and root out the smell sources. Generally, it occurs at a interior renovated place, a pharmacy, a gasoline handling place, a tire shop, a second-hand book shop or an electronic component handling place; when its chemical or musty smells are sucked in and sent out, it can be misled that the air conditioner generates them. So, find and root out the problem or refresh the room frequently.

Q & A for Non-trouble(cont.)

Classification	Class	Description
Smells	Q	Whenever the air conditioner is turned on, it stinks.
	A	There are no components in the air conditioner sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So, find and root out the smell sources. Generally, when the drain hose is taken out to the washing room or there are sources of smells such as a diaper bin, a shoe shelf or a socks bin, bad smells generate. Also, it occurs where glass cleaners or air fresheners are used; when they are sucked in interacting with dusts and moistures inside, bad smells generate. These kinds of organic materials noxious to human bodies. So, we recommend against the use of them.
	Q	Whenever the air conditioner is turned on, it smells sour.
	A	When the room is papered recently, its paste smells would be sucked inside. Also, when the air conditioner is installed in the study room of young boys loving sweat-generating activities such as the basketball, excessive sweats evaporate and get sucked into the air conditioner resulting in bad smells. So, find and root out the problem or refresh the room frequently.
	Q	Whenever the air conditioner is turned on, it smells musty.
	A	It is due to the improper keeping of the product after its use. When keeping the product, dry up the inside with the operation of Ventilation to prevent must. When the product is kept without drying up the inside with Ventilation, mold would grow inside resulting in must. So, open the windows and switch on the Ventilation function to get rid of the saturated smell inside.
	Q	Whenever the air conditioner is turned on, it sends out bad smells such as stale smells.
	A	It occurs generally when there are pet animals in the house. Their smells stay at the same place. But, when the air conditioner is turned on, the air gets circulated resulting in the circulation of the smells. So, find and root out the problem or refresh the room frequently.
	Q	It sends out bad smells.
	A	When the air filter is filthy, it could send out bad smells. So, clean the filter and ventilate the room with the windows open while operating the Ventilation function.
Operation	Q	It won't start.
	A	There is a power failure or it is plugged out. Also, check if the power distribution panel is switched off.
	Q	It goes off during operation.
	A	When the hot air does not escape properly, it goes off during operation. It occurs when it does not ventilate properly because the outdoor unit is covered, the back of the outdoor unit is blocked by a cardboard or a plywood panel, and the front of the outdoor unit is blocked by the closed window or other obstacles. Clear the above obstacles from the outdoor unit.
	Q	It generally works properly. But, when it's considerably hot, it goes off during operation.
	A	It occurs when the outdoor unit is exposed to direct sunlight and the hot air does not escape properly. Set up a sun blind over the outdoor unit and clear the neighboring obstacles from the outdoor unit to provide good ventilation. When it goes off frequently during a heat wave, it would prevent the turn-off and increase the cooling capacity cleaning the outdoor unit or spraying some water to the heat exchanger.

Q & A for Non-trouble(cont.)

Classification	Class	Description
Operation	Q	The remote controller won't operate.
	A	When the batteries run out or the transmitter or receiver of the remote controller is blocked by obstacles, change the batteries or keep the obstacles away from the controlling area. Also, the remote controller may not work under intensive light from a 3-wave length lamp or a neon sign due to the EMI. In this case, take the remote controller closer to the receiver.
Installation	Q	Who installs the air conditioner? (Relocation/Re-installation)
	A	When relocating or re-installing the air conditioner, make sure to contact Samsung Electronics Service Center or Authorized Service Agent and have them to do the job. (If not, it could cause personal injury or product damage.) The cost for the relocation/re-installation of the air conditioner is subject to the customer's expense. There is a cost table. But, our service engineer needs to visit to total up the cost correctly. When you move in, make sure to contact Samsung Electronics Service Center or Authorized Service Agent in advance to streamline the process.
	Q	Is it possible to install the outdoor unit outside?
	A	It is possible to install it at a designated place in the apartment or on the rooftop nearby. But, it's illegal hanging an angle iron case with the outdoor unit in it outside the apartment. Also, it is illegal obstructing passers-by with the outdoor unit installed outside.
	Q	What can be done to install the outdoor unit facing the road because it is a commercial building?
	A	The following is an excerpt from Building Code going into effect from JUNE 1st 2005. "The exhaust pipe of a cooling or ventilation facility installed in a building adjacent to the streets of commercial or residential areas shall be installed higher than 2m to prevent the exhaust air from blowing directly to passers-by and the current facilities shall be corrected by MAY 31st 2005." So, please install it higher than 2m or not to blow the hot exhausting air directly to passers-by.
	Q	What about installing a windscreen during installation not to blow hot air directly to passers-by?
	A	When the hot air from the front of the outdoor unit is blocked, the product's performance will be affected and it will fail to operate properly. So, keep it at least 300mm away from its surrounding walls and give it good ventilation.

14-5 Cleaning/Filter Change

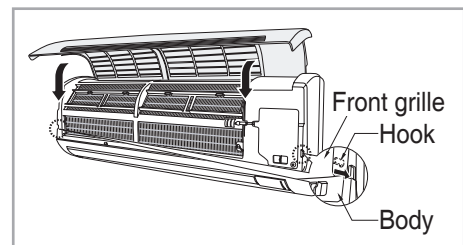
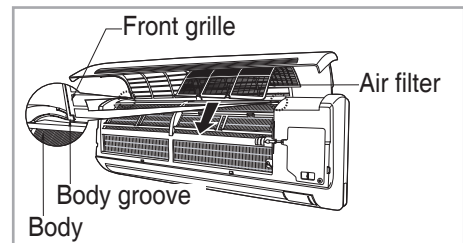
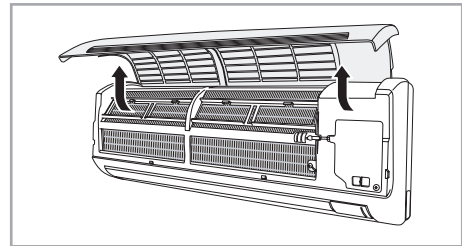
14-5-1 Cleaning Your Air Conditioner

For the best use of your air conditioner, you must clean it every 2 weeks regularly to remove the dust that accumulates on the air filter.



• Before cleaning your air conditioner, ensure that you have switched off the breaker used for the unit.

1. Slide the lower front grille down.
2. Slide the upper front grille up slightly, then open the grille by pulling right and left sides of the grille.
3. Disassemble the upper front grille by opening the grille completely.
4. Lift out the bottom edge of the air filters and pull down to release them.
5. Remove all dust on the air filters with a vacuum cleaner or brush.
6. When you have finished, insert the top part of the filters into their slot and push down on the bottom edge until they click into place.
7. Clean the front grille with a damp cloth and mild detergent (do NOT use benzene, solvents or other chemicals).
8. Fix the left side of grille support, then insert the right side of grille support.



Note : • If you have not used the air conditioner for a long period of time, set the fan going for three to four hours to dry the inside of the air conditioner thoroughly.
• To close the upper front grille completely after cleaning filters, turn on and turn off the air conditioner.

14-5-2 Cleaning Deodorizing and Bio Filters (Option)

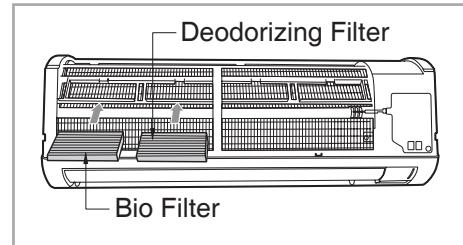
To remove minute dust particles and odors, deodorizing and Bio filters are installed in the air conditioner.

You should clean the filters every 3 months.

1. Open the upper front grille by pulling right and left sides of the grille.
2. Pull out the deodorizing and Bio filters.
3. Wash the filters with clean water, then dry them in the shade.
4. Insert the filters into the original position.

Note : • You can change the position of filters with each other.

5. Close the front grille.



14-6 Installation

14-6-1 Before Installation

Keep the air conditioner outlet and inlet free from its surroundings.

In case of installation, keep the symmetry and fix it to prevent vibration.

The pipe length shall meet the standard as far as possible.

14-6-2 Installation Procedure

■ Location

Install the product in an area to guarantee the best cooling effect, convenience of piping and electric work, and inexistence of vibration or wind.

■ Wall Drilling

Drill the wall downward in a diameter of 60 to 65mm.

■ Fixing Indoor Unit & Outdoor Unit

Fix the air conditioner indoor unit securely to the wall. Secure the outdoor unit in a suitable position.

■ Pipe Spooling & Connecting

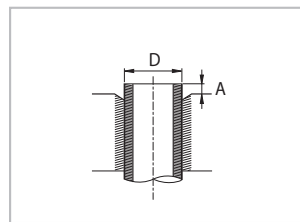
You shall cut the pipe with a pipe cutter and grind all the burrs of the cut surface.

Pipe expansion may continue until the pipe surface becomes uneven or torn apart.

Be sure to use a torque wrench to tighten pipes or flare nuts.

<Torque & Depth>

Outer Diameter(D)	Torque(kgf-cm)	Depth(A)
6.35mm(1/4")	140~170	1.3mm
9.52mm(3/8")	250~280	1.8mm
12.70mm(1/2")	380~420	2.0mm
15.88mm(5/8")	440~480	2.2mm
19.05mm(3/4")	990~1,210	2.2mm



■ Leak Test

Put an inert gas like nitrogen in the outdoor unit pipe and put soap bubbles or other test liquids on the pipe surface for the leak test.

■ Drain Hose Connecting

Install the drain hose downward to drain water naturally. Be sure to pour water into the hose to check if it drains well.

■ Electric & Earth Work

Electric and earth work shall meet the "Electric Facility Technology Standard" and the "Internal Wire Regulation" of the Electric Business Laws.

■ Inspection & Trial Run

Upon completion of the tests, you shall make a trial run while you explain the main functions of the air conditioner to finish the installation.

14-7 Installation Diagram of Indoor Unit and Outdoor Unit

14-7-1 Air-Purge Procedure

- 1) Connect each assembly pipe to the appropriate valve on the outdoor unit and tighten the flare nut.



- 2) Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port (3/8" Packed valve) as shown at the figure.



- 3) Open the valve of the low pressure side of manifold gauge counter-clockwise.



- 4) Purge the air from the system using vacuum pump for about 30 minutes.
 - After that, please recheck that pressure is stabilized.
 - Close the valve of the low pressure side of manifold gauge clockwise.
 - Remove the hose of the low pressure side of manifold gauge.



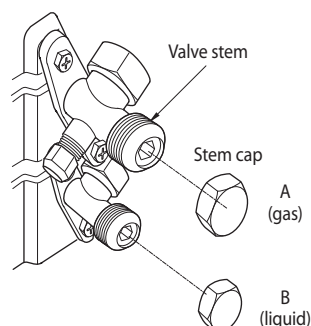
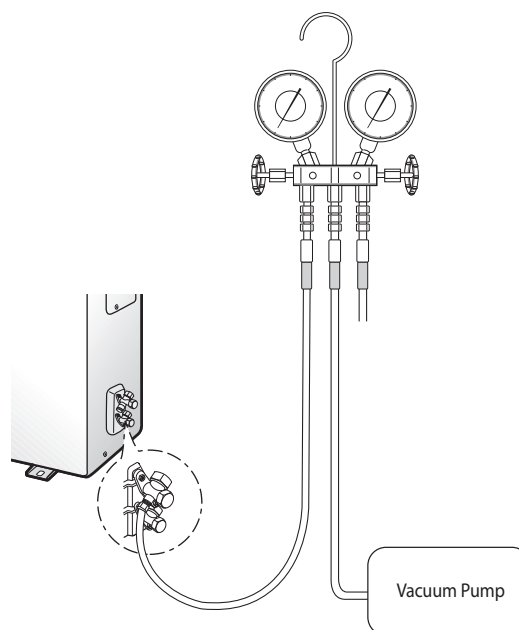
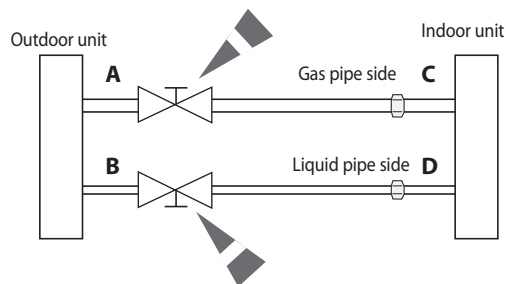
- 5) Set valve cork of both liquid side and gas side of packed valve to the open position.



- 6) Mount the valve stem nuts to the 2 way and 3 way valve. And mount the service port cap to 3 way valve.



- 7) Check for gas leakage.
 - At this time, especially check for gas leakage from the 3 way valve's stem nuts, and from the service port cap.



14-7-2 "Pump down" Procedure

Pump down will be carried out when an evaporator is replaced or when the unit is relocated in another area.

- 1) Remove the caps from the 3 way valve and the 3 way valve.



- 2) Turn the 3 way valve clockwise to close and connect a pressure gauge (low pressure side) to the service valve, and open the 3 way valve again.



- 3) Set the unit to cool operation mode.
(Check if the compressor is operating.)



- 4) Turn the 3 way valve clockwise to close.



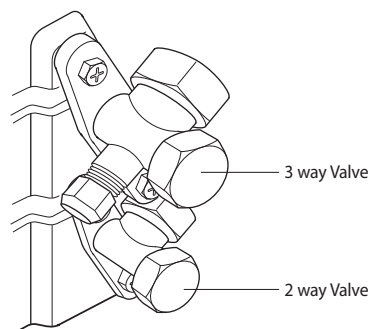
- 5) When the pressure gauge indicates "0" turn the 3 way valve clockwise to close.



- 6) Stop operation of the air conditioner.



- 7) Close the cap of each valve.



Remarks

Relocation of the air conditioner

- Refer to this procedure when the unit is relocated.
- Carry out the pump down procedure (refer to the details of 'pump down').
- Remove the power cord.
- Disconnect the assembly cable from the indoor and outdoor units.
- Remove the flare nut connecting the indoor unit and the pipe.
- At this time, cover the pipe of the indoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Disconnect the pipe connected to the outdoor unit.
At this time, cover the valve of the outdoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Make sure you do not bend the connection pipes in the middle and store together with the cables.
- Move the indoor and outdoor units to a new location.
- Remove the mounting plate for the indoor unit and move it to a new location.



GSPN(Global Service Partner Network)

Area	Web Site
North America	http://service.samsungportal.com
Latin America	http://latin.samsungportal.com
CIS	http://cis.samsungportal.com
Europe	http://europe.samsungportal.com
China	http://china.samsungportal.com
Asia	http://asia.samsungportal.com
Mideast & Africa	http://mea.samsungportal.com

This Service Manual is a property of Samsung Electronics Co., Ltd.
Any unauthorized use of Manual can be punished under applicable
International and/or domestic law.

© Samsung Electronics Co., Ltd. Dec. 2007.
Printed in China.
Code No. DB98-00000A(1)