DAIKIN

SiK011002

Draft

Service Manual

Non-Inverter Pair
Wall Mounted Type H-Series

[Applied Models]
- Non-Inverter Pair : Cooling Only
- Non-Inverter Pair : Heat Pump

Non-Inverter Pair Wall Mounted Type H-Series

●Cooling Only

Indoor Unit
FT18HEVLK
FT24HEVLK
FT30HEVLK

Outdoor Unit
R18HEVLK
R24HEVLK
R30HEVLK

●Heat Pump

Indoor Unit
FTY18HEVLK
FTY24HEVLK
FTY30HEVLK

Outdoor Unit
RY18HEVLK
RY24HEVLK
RY30HEVLK

1. Introduction

1.1 Safety Cautions

Cautions and Warnings

- Be sure to read the following safety cautions before conducting repair work.
- The caution items are classified into "⚠ **Warning**" and "⚠ **Caution**". The "⚠ **Warning**" items are especially important since they can lead to death or serious injury if they are not followed closely. The "⚠ **Caution**" items can also lead to serious accidents under some conditions if they are not followed. Therefore, be sure to observe all the safety caution items described below.
- About the pictograms

△ This symbol indicates the item for which caution must be exercised.
The pictogram shows the item to which attention must be paid.

◯ This symbol indicates the prohibited action.
The prohibited item or action is shown in the illustration or near the symbol.

● This symbol indicates the action that must be taken, or the instruction.
The instruction is shown in the illustration or near the symbol.

- After the repair work is complete, be sure to conduct a test operation to ensure that the equipment operates normally, and explain the cautions for operating the product to the customer.

1.1.1 Cautions Regarding Safety of Workers

⚠ Warning	
Be sure to disconnect the power cable plug from the plug socket before disassembling the equipment for repair. Working on the equipment that is connected to the power supply may cause an electrical shook. If it is necessary to supply power to the equipment to conduct the repair or inspecting the circuits, do not touch any electrically charged sections of the equipment.	
If the refrigerant gas is discharged during the repair work, do not touch the discharged refrigerant gas. The refrigerant gas may cause frostbite.	
When disconnecting the suction or discharge pipe of the compressor at the welded section, evacuate the refrigerant gas completely at a well-ventilated place first. If there is a gas remaining inside the compressor, the refrigerant gas or refrigerating machine oil discharges when the pipe is disconnected, and it may cause injury.	
If the refrigerant gas leaks during the repair work, ventilate the area. The refrigerant gas may generate toxic gases when it contacts flames.	
The step-up capacitor supplies high-voltage electricity to the electrical components of the outdoor unit. Be sure to discharge the capacitor completely before conducting repair work. A charged capacitor may cause an electrical shock.	
Do not start or stop the air conditioner operation by plugging or unplugging the power cable plug. Plugging or unplugging the power cable plug to operate the equipment may cause an electrical shock or fire.	

Warning	
Be sure to wear a safety helmet, gloves, and a safety belt when working at a high place (more than 2 m). Insufficient safety measures may cause a fall accident.	
In case of R-410A refrigerant models, be sure to use pipes, flare nuts and tools for the exclusive use of the R-410A refrigerant. The use of materials for R-22 refrigerant models may cause a serious accident such as a damage of refrigerant cycle as well as an equipment failure.	

Caution	
Do not repair the electrical components with wet hands. Working on the equipment with wet hands may cause an electrical shock.	
Do not clean the air conditioner by splashing water. Washing the unit with water may cause an electrical shock.	
Be sure to provide the grounding when repairing the equipment in a humid or wet place, to avoid electrical shocks.	
Be sure to turn off the power switch and unplug the power cable when cleaning the equipment. The internal fan rotates at a high speed, and cause injury.	
Be sure to conduct repair work with appropriate tools. The use of inappropriate tools may cause injury.	
Be sure to check that the refrigerating cycle section has cooled down enough before conducting repair work. Working on the unit when the refrigerating cycle section is hot may cause burns.	
Use the welder in a well-ventilated place. Using the welder in an enclosed room may cause oxygen deficiency.	

1.1.2 Cautions Regarding Safety of Users

Warning	
Be sure to use parts listed in the service parts list of the applicable model and appropriate tools to conduct repair work. Never attempt to modify the equipment. The use of inappropriate parts or tools may cause an electrical shock, excessive heat generation or fire.	
If the power cable and lead wires have scratches or deteriorated, be sure to replace them. Damaged cable and wires may cause an electrical shock, excessive heat generation or fire.	
Do not use a joined power cable or extension cable, or share the same power outlet with other electrical appliances, since it may cause an electrical shock, excessive heat generation or fire.	
Be sure to use an exclusive power circuit for the equipment, and follow the local technical standards related to the electrical equipment, the internal wiring regulations, and the instruction manual for installation when conducting electrical work. Insufficient power circuit capacity and improper electrical work may cause an electrical shock or fire.	
Be sure to use the specified cable for wiring between the indoor and outdoor units. Make the connections securely and route the cable properly so that there is no force pulling the cable at the connection terminals. Improper connections may cause excessive heat generation or fire.	
When wiring between the indoor and outdoor units, make sure that the terminal cover does not lift off or dismount because of the cable. If the cover is not mounted properly, the terminal connection section may cause an electrical shock, excessive heat generation or fire.	
Do not damage or modify the power cable. Damaged or modified power cable may cause an electrical shock or fire. Placing heavy items on the power cable, and heating or pulling the power cable may damage the cable.	
Do not mix air or gas other than the specified refrigerant (R-410A / R-22) in the refrigerant system. If air enters the refrigerating system, an excessively high pressure results, causing equipment damage and injury.	
If the refrigerant gas leaks, be sure to locate the leaking point and repair it before charging the refrigerant. After charging refrigerant, make sure that there is no refrigerant leak. If the leaking point cannot be located and the repair work must be stopped, be sure to perform pump-down and close the service valve, to prevent the refrigerant gas from leaking into the room. The refrigerant gas itself is harmless, but it may generate toxic gases when it contacts flames, such as fan and other heaters, stoves and ranges.	
When relocating the equipment, make sure that the new installation site has sufficient strength to withstand the weight of the equipment. If the installation site does not have sufficient strength and if the installation work is not conducted securely, the equipment may fall and cause injury.	

Warning	
Check to make sure that the power cable plug is not dirty or loose, then insert the plug into a power outlet securely. If the plug has dust or loose connection, it may cause an electrical shock or fire.	
Be sure to install the product correctly by using the provided standard installation frame. Incorrect use of the installation frame and improper installation may cause the equipment to fall, resulting in injury.	For unitary type only 
Be sure to install the product securely in the installation frame mounted on the window frame. If the unit is not securely mounted, it may fall and cause injury.	For unitary type only 
When replacing the coin battery in the remote controller, be sure to disposed of the old battery to prevent children from swallowing it. If a child swallows the coin battery, see a doctor immediately.	

Caution	
Installation of a leakage breaker is necessary in some cases depending on the conditions of the installation site, to prevent electrical shocks.	
Do not install the equipment in a place where there is a possibility of combustible gas leaks. If the combustible gas leaks and remains around the unit, it may cause a fire.	
Check to see if the parts and wires are mounted and connected properly, and if the connections at the soldered or crimped terminals are secure. Improper installation and connections may cause excessive heat generation, fire or an electrical shock.	
If the installation platform or frame has corroded, replace it. Corroded installation platform or frame may cause the unit to fall, resulting in injury.	
Check the grounding, and repair it if the equipment is not properly grounded. Improper grounding may cause an electrical shock.	

Caution	
Be sure to measure the insulation resistance after the repair, and make sure that the resistance is 1 MΩ or higher. Faulty insulation may cause an electrical shock.	
Be sure to check the drainage of the indoor unit after the repair. Faulty drainage may cause the water to enter the room and wet the furniture and floor.	
Do not tilt the unit when removing it. The water inside the unit may spill and wet the furniture and floor.	
Be sure to install the packing and seal on the installation frame properly. If the packing and seal are not installed properly, water may enter the room and wet the furniture and floor.	For unitary type only 

1.2 Used Icons

Icons are used to attract the attention of the reader to specific information. The meaning of each icon is described in the table below:

Icon	Type of Information	Description
Note:	Note	A “note” provides information that is not indispensable, but may nevertheless be valuable to the reader, such as tips and tricks.
Caution	Caution	A “caution” is used when there is danger that the reader, through incorrect manipulation, may damage equipment, loose data, get an unexpected result or has to restart (part of) a procedure.
Warning	Warning	A “warning” is used when there is danger of personal injury.
	Reference	A “reference” guides the reader to other places in this binder or in this manual, where he/she will find additional information on a specific topic.

Part 1
Specifications

1. Specifications

1.1 18 Class

Model		FT18HEVLK	FTY18HEVLK	
Function		COOLING	COOLING	HEATING
Rated Voltage (V)		220	220	
Rated Frequency (Hz)		60	60	
Total Capacity (W)		5,300	5,300	5,700
Power Input (W)		2,250	2,400	2,250
Rated Input (W)		3,000	3,200	2,900
Rated Current (A)		13.6	16.2	14.6
Air Flow Volume (m^3/h) (SH/H/M/L)		850 / 780 / 650 / 550	850 / 780 / 650 / 550	
Dehumidifying Volume (l/h)		3	3	
EER / COP (W/W)		2.35	2.20 / 2.53	
Energy Class		—	—	
Indoor unit	Fan Motor Speed (r/min) (SH/H/M/L)	1,350 / 1,200 / 1,050 / 900	1,350 / 1,200 / 1,050 / 900	
	Output of Fan Motor (W)	20	20	
	Input of Heater (W)	—	—	
	Fan Motor Capacitor (μF)	1	1.5	
	Fan Motor RLA (A)	0.32	0.32	
	Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1	
	Diameter-Length (mm)	ϕ 98 × 710	ϕ 98 × 710	
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube	
	Pipe Diameter (mm)	ϕ 7	ϕ 7	
	Row-Fin Gap (mm)	2 - 1.4	2 - 1.4	
	Coil length (l) × height (H) × coil width (L)	715 × 304.8 × 25.4	715 × 304.8 × 25.4	
	Swing Motor Model	MP28VB	MP28VB	
	Output of Swing Motor (W)	2.5	2.5	
	Fuse (A)	PCB 3.15 Transformer 0.2	PCB 3.15 Transformer 0.2	
	Sound Pressure Level dB (A) (SH/H/M/L)	47 / 44 / 41 / 37	49 / 45 / 41 / 37	
	Sound Power Level dB (A) (SH/H/M/L)	57 / 54 / 51 / 47	59 / 55 / 51 / 47	
	Dimension (W / H / D) (mm)	940 × 298 × 200	940 × 298 × 200	
	Dimension of Package (L / W / H) (mm)	1,010 × 285 × 380	1,010 × 285 × 380	
	Net Weight / Gross Weight (kg)	13 / 17	13 / 17	

Model			R18HEVLK	RY18HEVLK
Outdoor unit	Compressor Manufacturer / trademark		Shanghai Hitachi Electrical Appliances Co., Ltd	Shanghai Hitachi Electrical Appliances Co., Ltd
	Compressor Model		SH307DG-C7HU	SH336DG-C8LU
	Compressor Type		Rotary compressor	Rotary compressor
	L.R.A. (A)		61	70
	Compressor RLA (A)		9.45	10.7
	Compressor Power Input (W)		2,080	2,275
	Overload Protector		Built in	Built in
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (°C)		-7 ≤ T ≤ 52	-7 ≤ T ≤ 52
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		ϕ 8	ϕ 9.52
	Rows-Fin Gap (mm)		1 - 1.4	1 - 1.6
	Coil length (l) × height (H) × coil width (L)		814.3 × 660 × 19.05	806 × 660 × 22
	Fan Motor Speed (rpm)		780	860
	Output of Fan Motor (W)		68	48
	Fan Motor RLA (A)		0.85	0.85
	Fan Motor Capacitor (μF)		3	3
	Air Flow Volume of Outdoor Unit (m^3/h)		2,900	2,900
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		ϕ 460	ϕ 460
	Defrosting Method		—	Auto defrost
	Climate Type		T3	T3
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side (MPa)		2.5	2.5
	Permissible Excessive Operating Pressure for the Suction Side (MPa)		0.6	0.6
	Sound Pressure Level dB (A)		56	56
	Sound Power Level dB (A)		66	66
	Dimension (W / H / D) (mm)		913 × 378 × 680	913 × 378 × 680
	Dimension of Package (L / W / H) (mm)		994 × 428 × 725	994 × 428 × 725
	Net Weight / Gross Weight (kg)		45 / 50	46 / 51
	Refrigerant Charge (kg)		R22 / 1.08	R22 / 1.3
Connection Pipe	Length (m)		4	4
	Additional refrigerant charge (g/m)		20	50
	Outer Diameter	Liquid Pipe (mm)	ϕ6	ϕ6
		Gas Pipe (mm)	ϕ12	ϕ12
	Max Distance	Height (m)	5	5
		Length (m)	10	10

Note: The above data is subject to change without notice. Please refer to the nameplate of the unit.

1.2 24 Class

Model		**FT24HEVLK**	**FTY24HEVLK**	
Function		COOLING	COOLING	HEATING
Rated Voltage (V)		220	220	
Rated Frequency (Hz)		60	60	
Total Capacity (W)		6,300	6,300	7,000
Power Input (W)		2,500	2,500	2,600
Rated Input (W)		3,500	3,500	3,600
Rated Current (A)		17.7	17.7	18.2
Air Flow Volume (m^3/h) (SH/H/M/L)		900 / 800 / 700 / 600	900 / 800 / 700 / 600	
Dehumidifying Volume (l/h)		2.4	2.4	
EER / COP (W/W)		—	—	
Energy Class		—	—	
Indoor unit	Fan Motor Speed (r/min) (SH/H/M/L)	1,250 / 1,100 / 950 / 800	Cool: 1,250 / 1,100 / 950 / 800; Heat: 1,300 / 1,150/ 1,000 / 850	
	Output of Fan Motor (W)	35	35	
	Input of Heater (W)	—	—	
	Fan Motor Capacitor (μF)	2.5	2.5	
	Fan Motor RLA (A)	0.32	0.32	
	Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1	
	Diameter-Length (mm)	ϕ 98 × 765	ϕ 98 × 765	
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube	
	Pipe Diameter (mm)	ϕ 7	ϕ 7	
	Row-Fin Gap (mm)	2 - 1.5	2 - 1.5	
	Coil length (l) × height (H) × coil width (L)	765 × 342.9 × 25.4	765 × 342.9 × 25.4	
	Swing Motor Model	MP35XX	MP35XX	
	Output of Swing Motor (W)	2.5	2.5	
	Fuse (A)	PCB 3.15 Transformer 0.2	PCB 3.15 Transformer 0.2	
	Sound Pressure Level dB (A) (SH/H/M/L)	46 / 43 / 40 / 35	46 / 43 / 40 / 35	
	Sound Power Level dB (A) (SH/H/M/L)	56 / 53 / 50 / 45	56 / 53 / 50 / 45	
	Dimension (W / H / D) (mm)	1,007 × 315 × 219	1,007 × 315 × 219	
	Dimension of Package (L / W / H) (mm)	1,076 × 398 × 328	1,076 × 398 × 328	
	Net Weight / Gross Weight (kg)	15.5 / 20.5	15.5 / 20.5	

Model			R24HEVLK	RY24HEVLK
Outdoor unit	Compressor Manufacturer / trademark		MITSUBISHI ELECTRIC (Guangzhou)	MITSUBISHI ELECTRIC (Guangzhou)
	Compressor Model		TST33NDAC	TST33NDAC
	Compressor Type		Rotary	Rotary
	L.R.A. (A)		61	61
	Compressor RLA (A)		11.2	11.2
	Compressor Power Input (W)		2,300	2,300
	Overload Protector		Built in	Built in
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (°C)		21 ≤ T ≤ 52	-5 ≤ T ≤ 52
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		ϕ 9.52	ϕ 7
	Rows-Fin Gap (mm)		1 - 1.4	2 - 1.4
	Coil length (l) × height (H) × coil width (L)		853 × 660 × 22	853 × 660 × 38.1
	Fan Motor Speed (rpm)		690	690
	Output of Fan Motor (W)		60	60
	Fan Motor RLA (A)		0.52	0.52
	Fan Motor Capacitor (μF)		3.5	3.5
	Air Flow Volume of Outdoor Unit (m^3/h)		2,900	2,900
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		ϕ 520	ϕ 520
	Defrosting Method		—	Auto defrost
	Climate Type		T3	T3
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side (MPa)		2.5	2.5
	Permissible Excessive Operating Pressure for the Suction Side (MPa)		0.6	0.6
	Sound Pressure Level dB (A)		58	58
	Sound Power Level dB (A)		68	68
	Dimension (W / H / D) (mm)		955 × 700 × 396	955 × 700 × 396
	Dimension of Package (L / W / H) (mm)		1,029 × 458 × 750	1,029 × 458 × 750
	Net Weight / Gross Weight (kg)		48 / 53	52 / 57
	Refrigerant Charge (kg)		R22 / 1.6	R22 / 1.8
Connection Pipe	Length (m)		5	5
	Additional refrigerant charge (g/m)		20	20
	Outer Diameter	Liquid Pipe (mm)	ϕ6	ϕ6
		Gas Pipe (mm)	ϕ16	ϕ16
	Max Distance	Height (m)	10	10
		Length (m)	25	25

Note: The above data is subject to change without notice. Please refer to the nameplate of the unit.

1.3 30 Class

Model		**FT30HEVLK**	**FTY30HEVLK**	
Function		COOLING	COOLING	HEATING
Rated Voltage (V)		220	220	
Rated Frequency (Hz)		60	60	
Total Capacity (W / Btu/h)		8,200 / 28,000	8,200 / 28,000	9,000 / 30,700
Power Input (W)		3,200	3,200	3,200
Rated Input (W)		4,300	4,300	3,900
Rated Current (A)		19.5	19.5	17.7
Air Flow Volume (m^3/h)		1,100	1,100	
Dehumidifying Volume (l/h)		3	3	
EER / COP (W/W)		2.56	2.56 / 2.8	
Energy Class		—	—	
Indoor unit	Fan Motor Speed (r/min) (H / M / L)	1,400 / 1,300 / 1,200	1,400 / 1,300 / 1,200	
	Output of Fan Motor (W)	40	40	
	Input of Heater (W)	—	—	
	Fan Motor Capacitor (μF)	3	3	
	Fan Motor RLA (A)	0.18	0.18	
	Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1	
	Diameter-Length (mm)	ϕ 106 × 890	ϕ 106 × 890	
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube	
	Pipe Diameter (mm)	ϕ 7	ϕ 7	
	Row-Fin Gap (mm)	2 - 1.5	2 - 1.5	
	Coil length (l) × height (H) × coil width (L)	903 × 25.4 × 381	903 × 25.4 × 381	
	Swing Motor Model	MP24GA	MP24GA	
	Output of Swing Motor (W)	2	2	
	Fuse (A)	PCB 3.15 Transformer 0.4 / 0.1	PCB 3.15 Transformer 0.4 / 0.1	
	Sound Pressure Level dB (A) (H / M / L)	49 / 47 / 45	49 / 47 / 45	
	Sound Power Level dB (A) (H / M / L)	59 / 57 / 55	59 / 57 / 55	
	Dimension (W / H / D) (mm)	1,178 × 326 × 239	1,178 × 326 × 239	
	Dimension of Package (L / W / H) (mm)	1,268 × 420 × 348	1,268 × 420 × 348	
	Net Weight / Gross Weight (kg)	17.5 / 24	17.5 / 24	

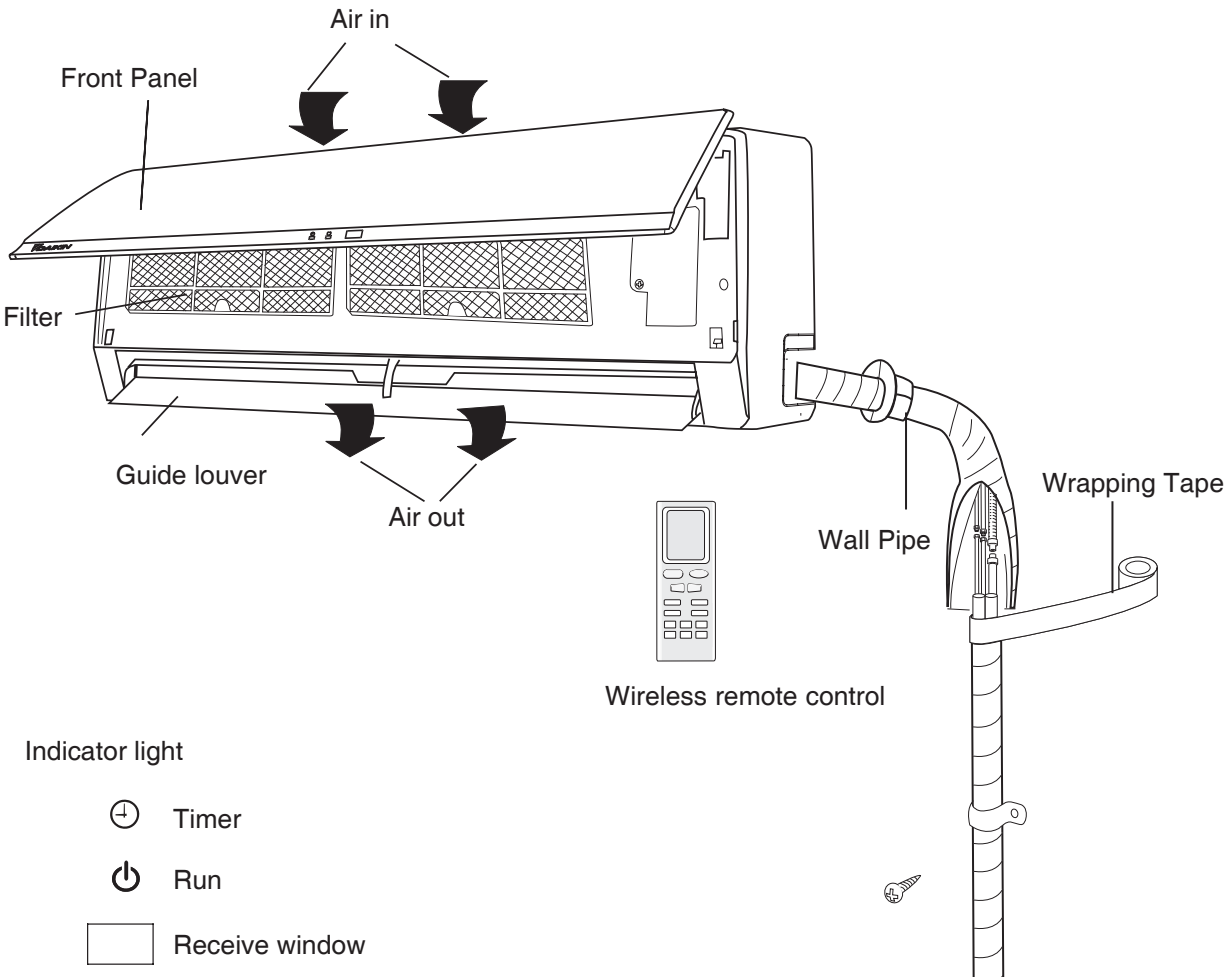
Model			R30HEVLK	RY30HEVLK
Outdoor unit	Compressor Manufacturer / trademark		MITSUBISHI ELECTRIC (Guangzhou)	MITSUBISHI ELECTRIC (Guangzhou)
	Compressor Model		LHT48NBDC	LHT48NBDC
	Compressor Type		Rotary	Rotary
	L.R.A. (A)		95	95
	Compressor RLA (A)		14.8	14.8
	Compressor Power Input (W)		3,250	3,250
	Overload Protector		PUT-IN	PUT-IN
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (°C)		-7 ≤ T ≤ 48	-7 ≤ T ≤ 48
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		ϕ 9.52	ϕ 9.52
	Rows-Fin Gap (mm)		2 - 1.4	2 - 1.4
	Coil length (l) × height (H) × coil width (L)		840 × 813 × 44	840 × 813 × 44
	Fan Motor Speed (rpm)		920	920
	Output of Fan Motor (W)		92	92
	Fan Motor RLA (A)		0.42	0.42
	Fan Motor Capacitor (μF)		3.5	3.5
	Air Flow Volume of Outdoor Unit		—	—
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		ϕ 482	ϕ 482
	Defrosting Method		—	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side (MPa)		3.8	3.8
	Permissible Excessive Operating Pressure for the Suction Side (MPa)		1.2	1.2
	Sound Pressure Level dB (A)		60	60
	Sound Power Level dB (A)		70	70
	Dimension (W / H / D) (mm)		1,018 × 412 × 840	1,018 × 412 × 840
	Dimension of Package (L / W / H) (mm)		1,100 × 450 × 995	1,100 × 450 × 995
	Net Weight / Gross Weight (kg)		90 / 105	90 / 105
	Refrigerant Charge (kg)		R22 / 3.0	R22 / 3.0
Connection Pipe	Length (m)		—	—
	Additional refrigerant charge (g/m)		30g	30g
	Outer Diameter	Liquid Pipe (mm)	ϕ9.52 (3/8")	ϕ9.52 (3/8")
		Gas Pipe (mm)	ϕ16 (5/8")	ϕ16 (5/8")
	Max Distance	Height (m)	15	15
		Length (m)	30	30

Note: The above data is subject to change without notice. Please refer to the nameplate of the unit.

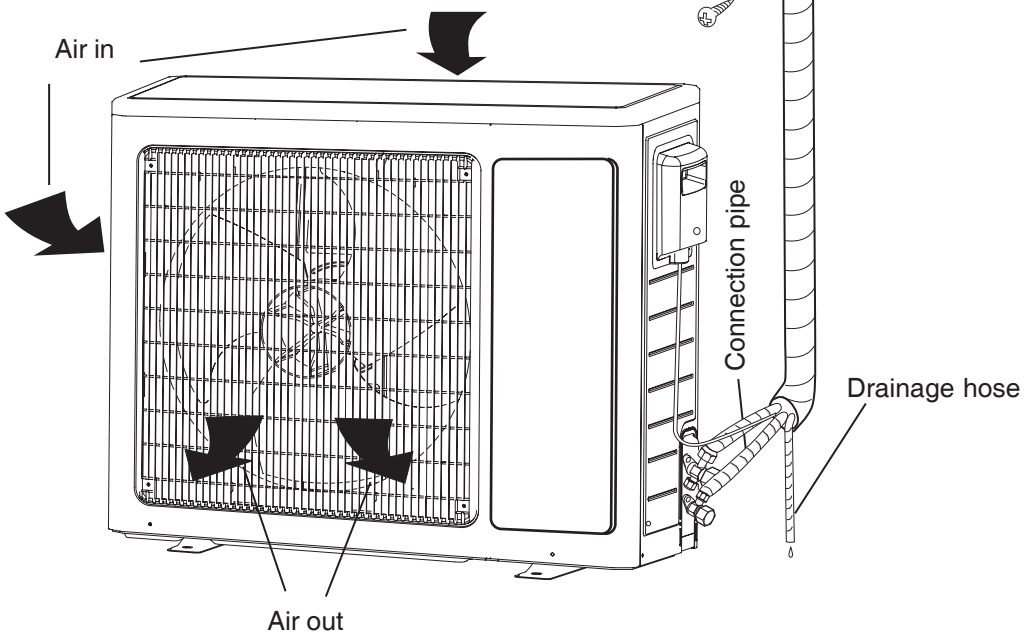
Part 2
Part Outline and Installation Dimension

1. Part Name

■ Indoor Unit

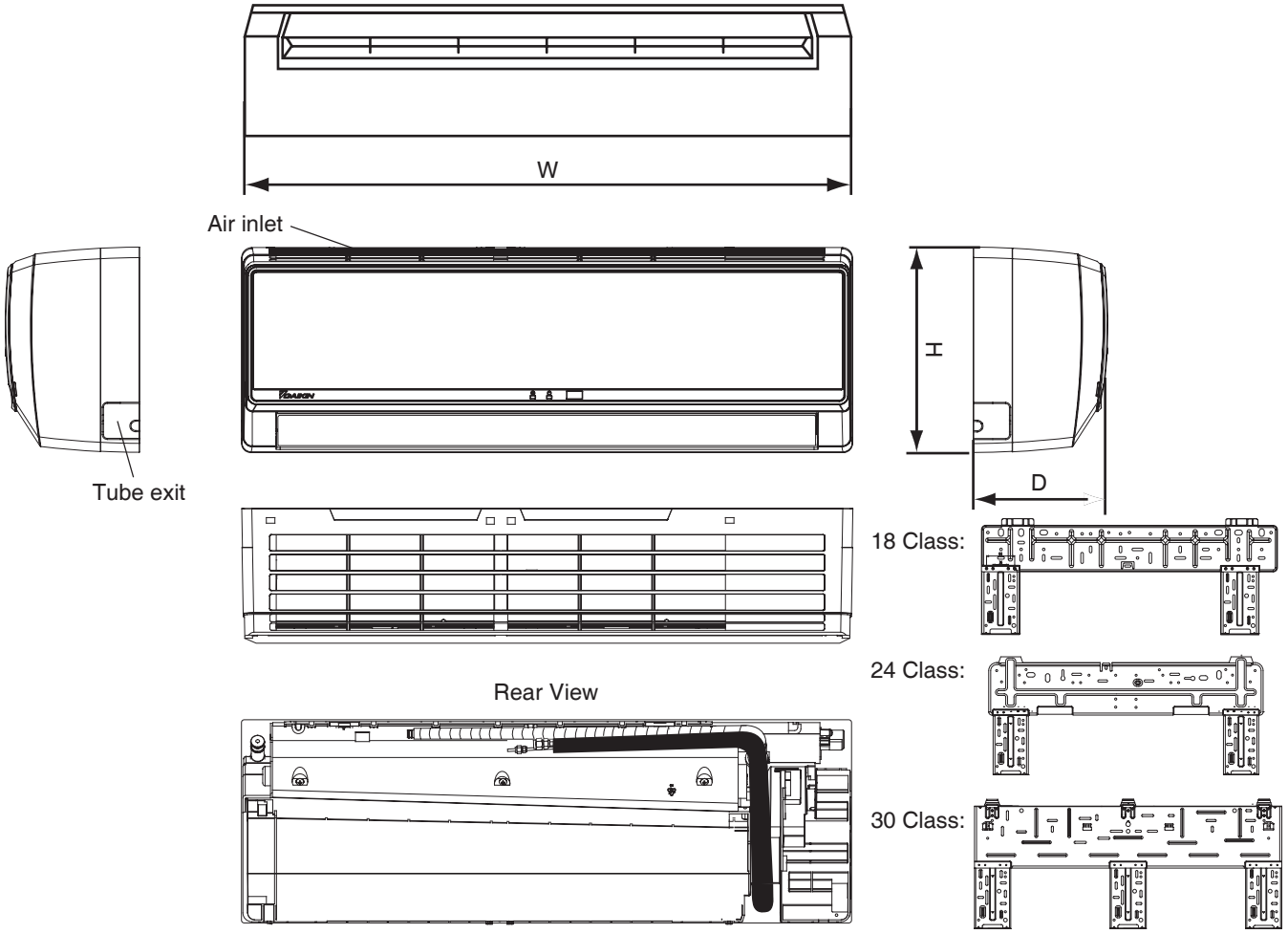


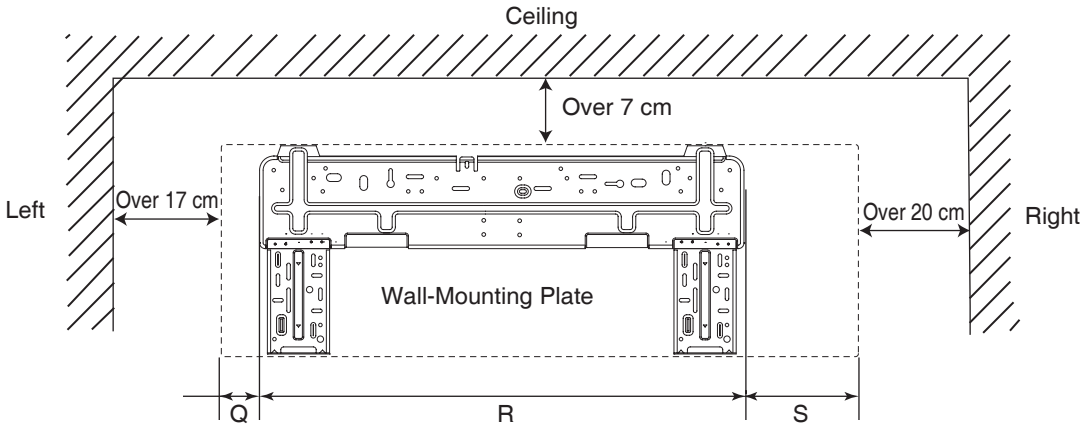
■ Outdoor Unit



2. Outline and Installation Dimension

2.1 Outline and Installation Dimensions of Indoor Unit

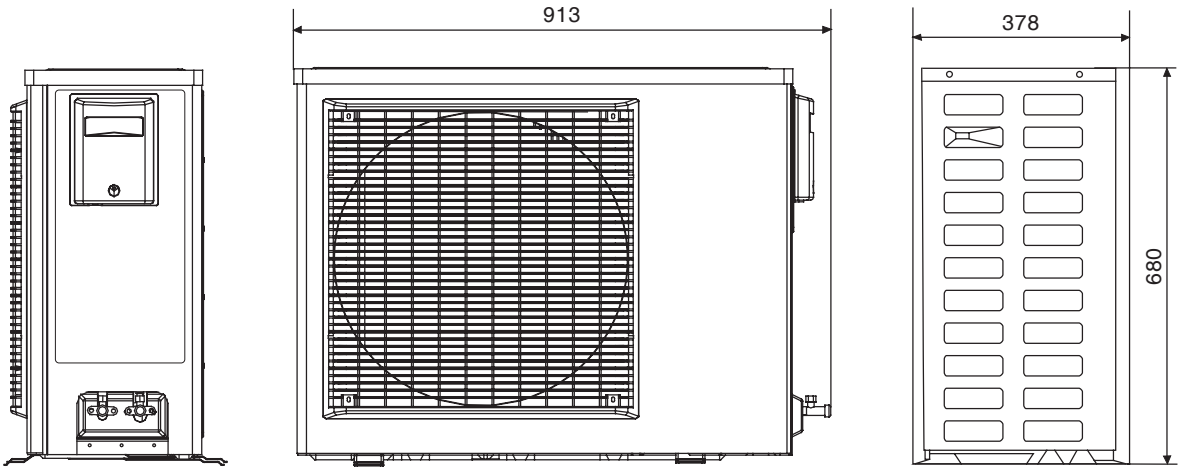


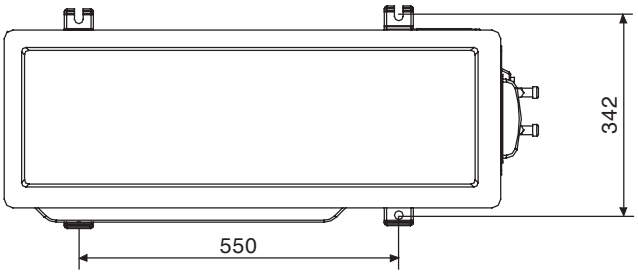


MODEL	W(mm)	H(mm)	D(mm)	Q(mm)	R(mm)	S(mm)
18 Class	940	298	200	54	694	192
24 Class	1,007	315	219	138	685	184
30 Class	1,178	326	239	177	746	255

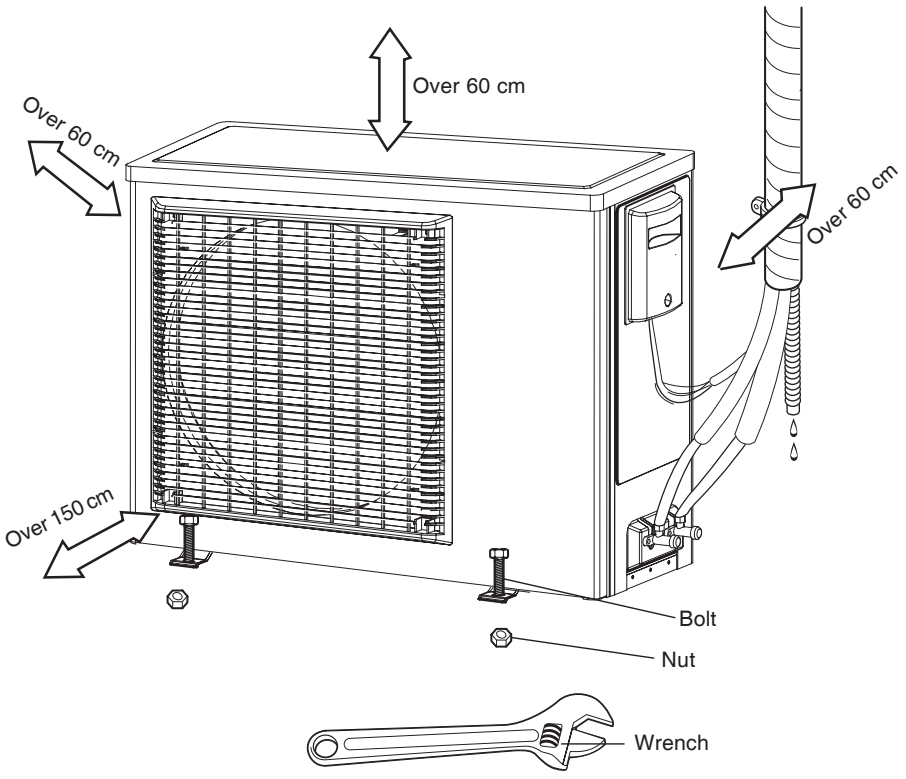
2.2 Outline and Installation Dimensions of Outdoor Unit

2.2.1 18 Class

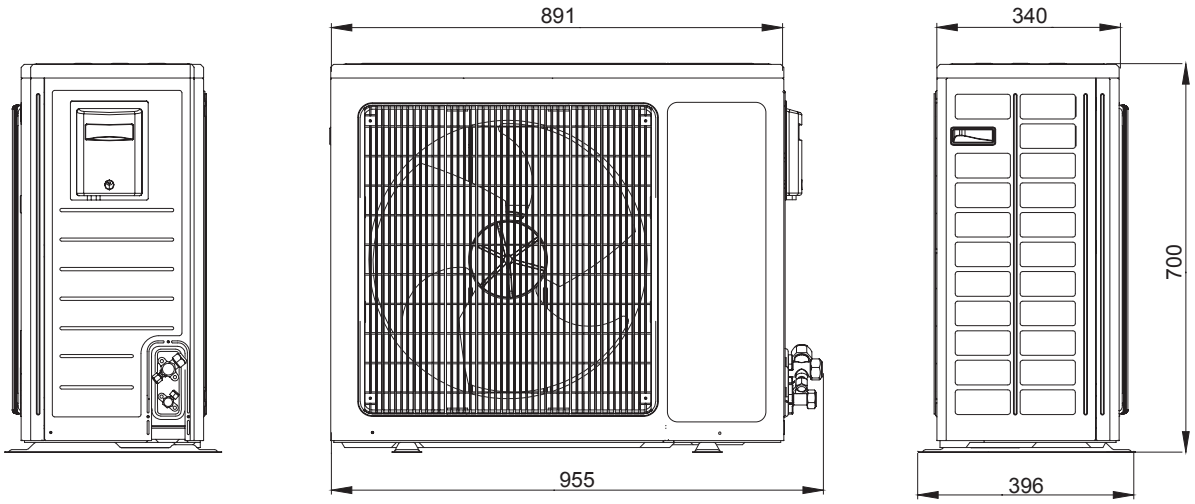


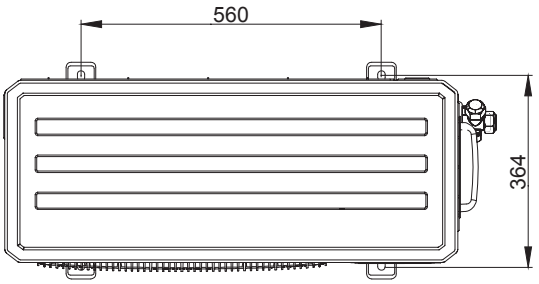


Unit: mm

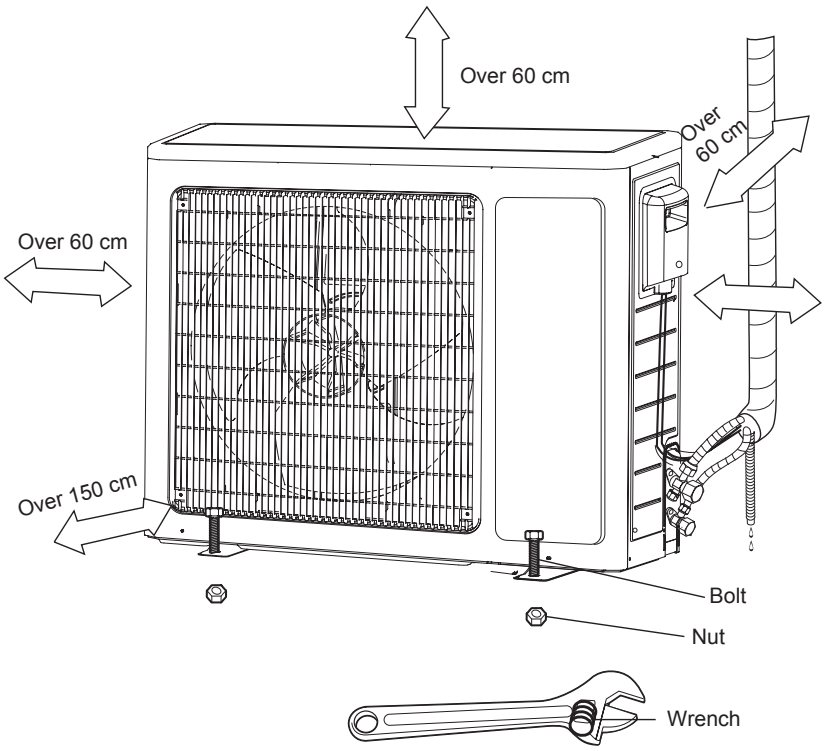


2.2.2 24 Class

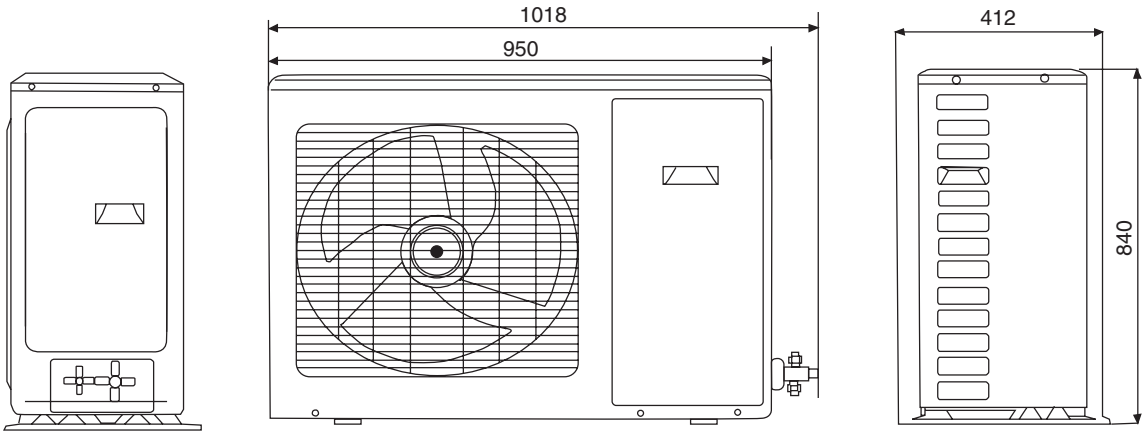




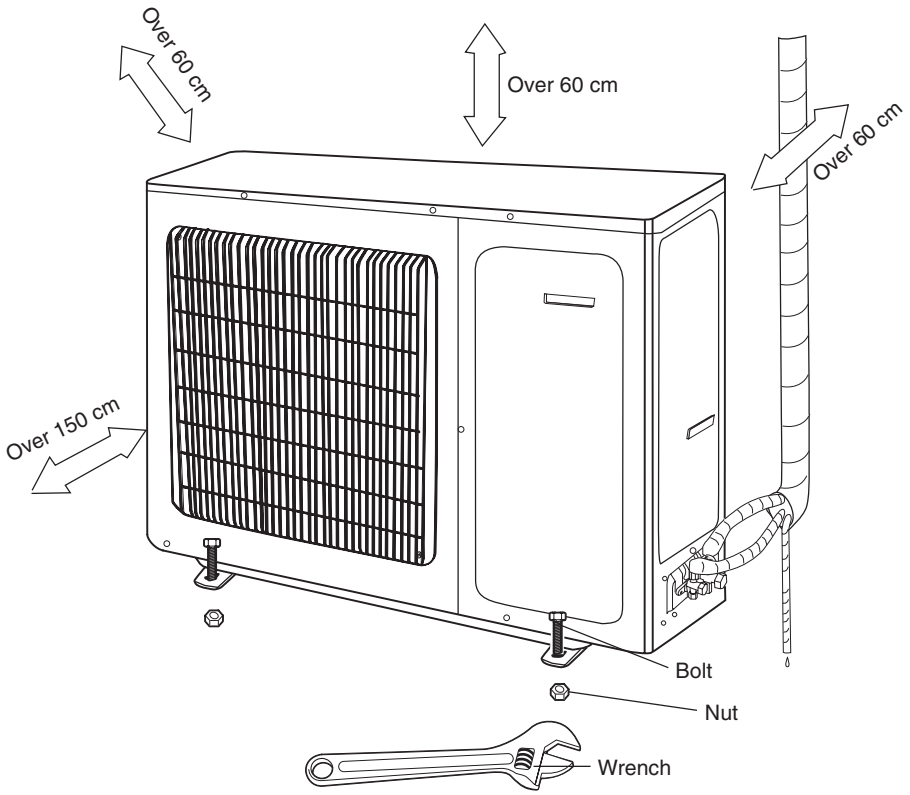
Unit: mm



2.2.3 30 Class



Unit: mm



Part 3
Printed Circuit Board Connector Wiring Diagram

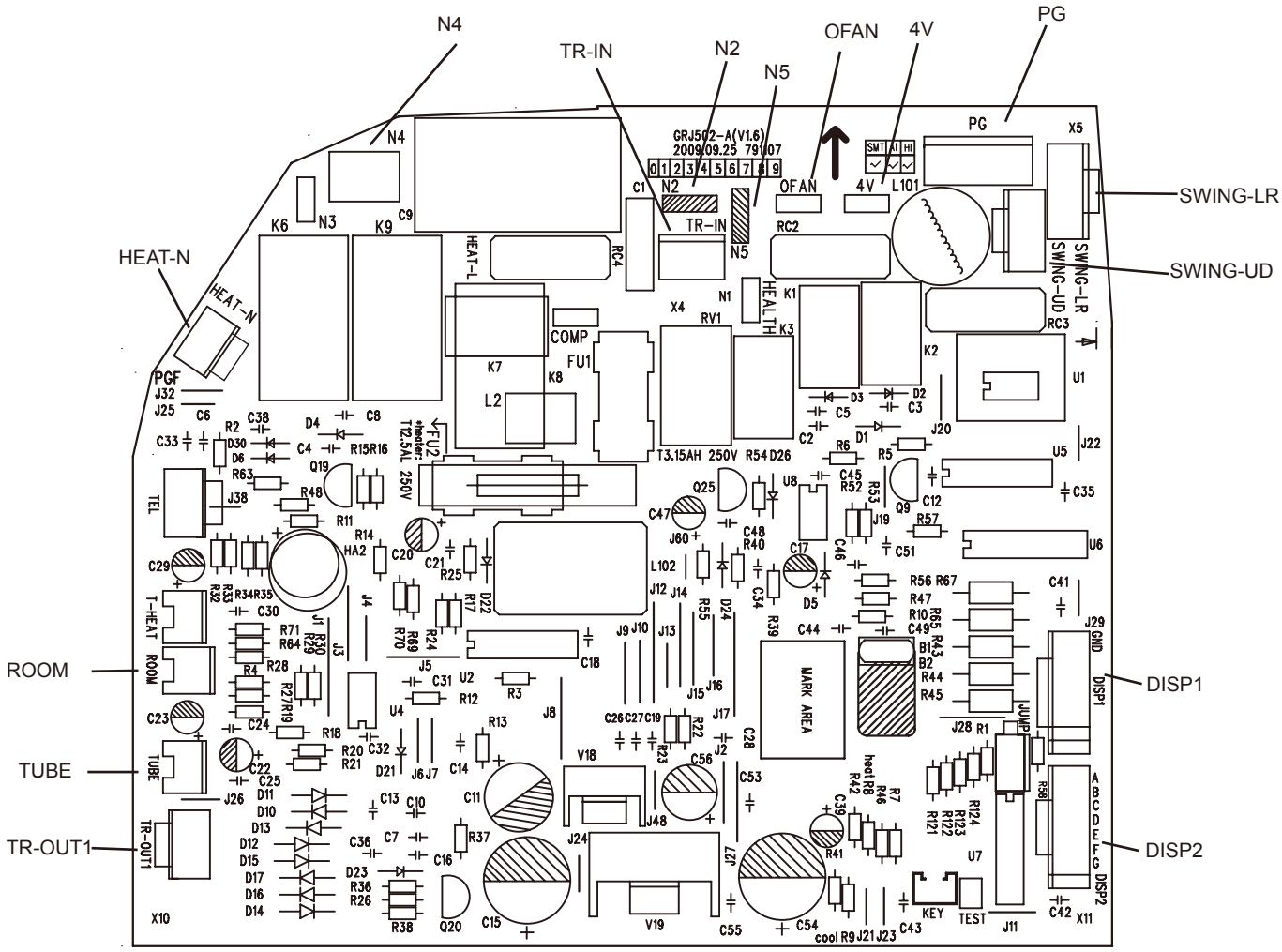
1. Printed Circuit Board Connector Wiring Diagram

1.1 FT(Y)18/24HEVLK

Connectors

1)	ROOM	Connector for Room temperature thermistor
2)	TUBE	Connector for Tube temperature thermistor
3)	TR-OUT1,TR-IN	Connector for Transformer
4)	DISP1/DISP2	Connector for Signal Receiver PCB
5)	SWING-UD	Connector for swing motor(horizontal blades)
6)	SWING-LR	Connector for swing motor (vertical blades)
7)	PG	Connector for Indoor fan motor
8)	4V	Connector for 4-way valve
9)	OFAN	Connector for outdoor fan motor
10)	N2,N4,N5	Connector for neutral wire
11)	HEAT-N	Connector for indoor fan motor(Hall IC)

PCB Detail **PCB : Control PCB**



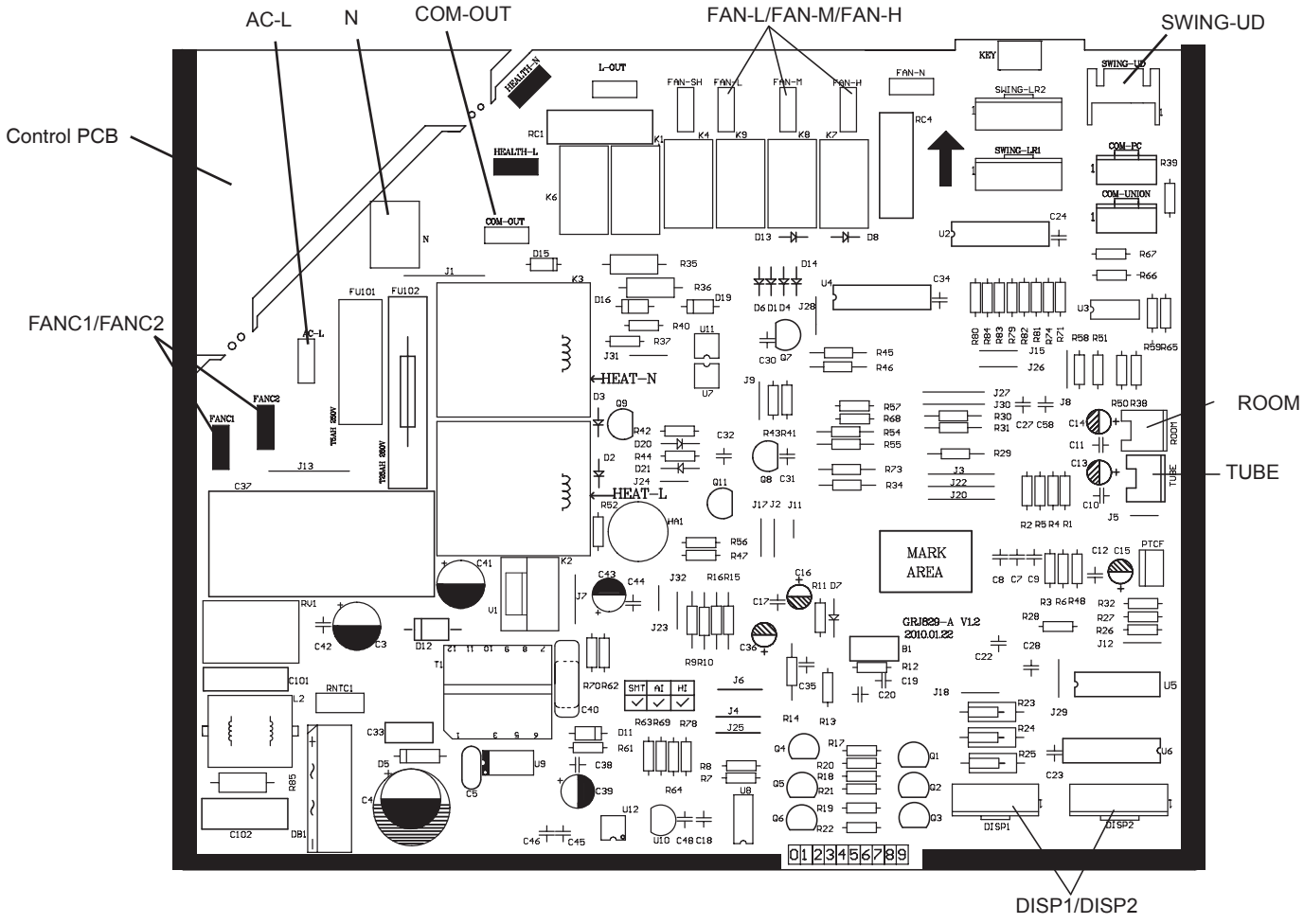
1.2 FT(Y)30HEVLK R(Y)30HEVLK

Connectors

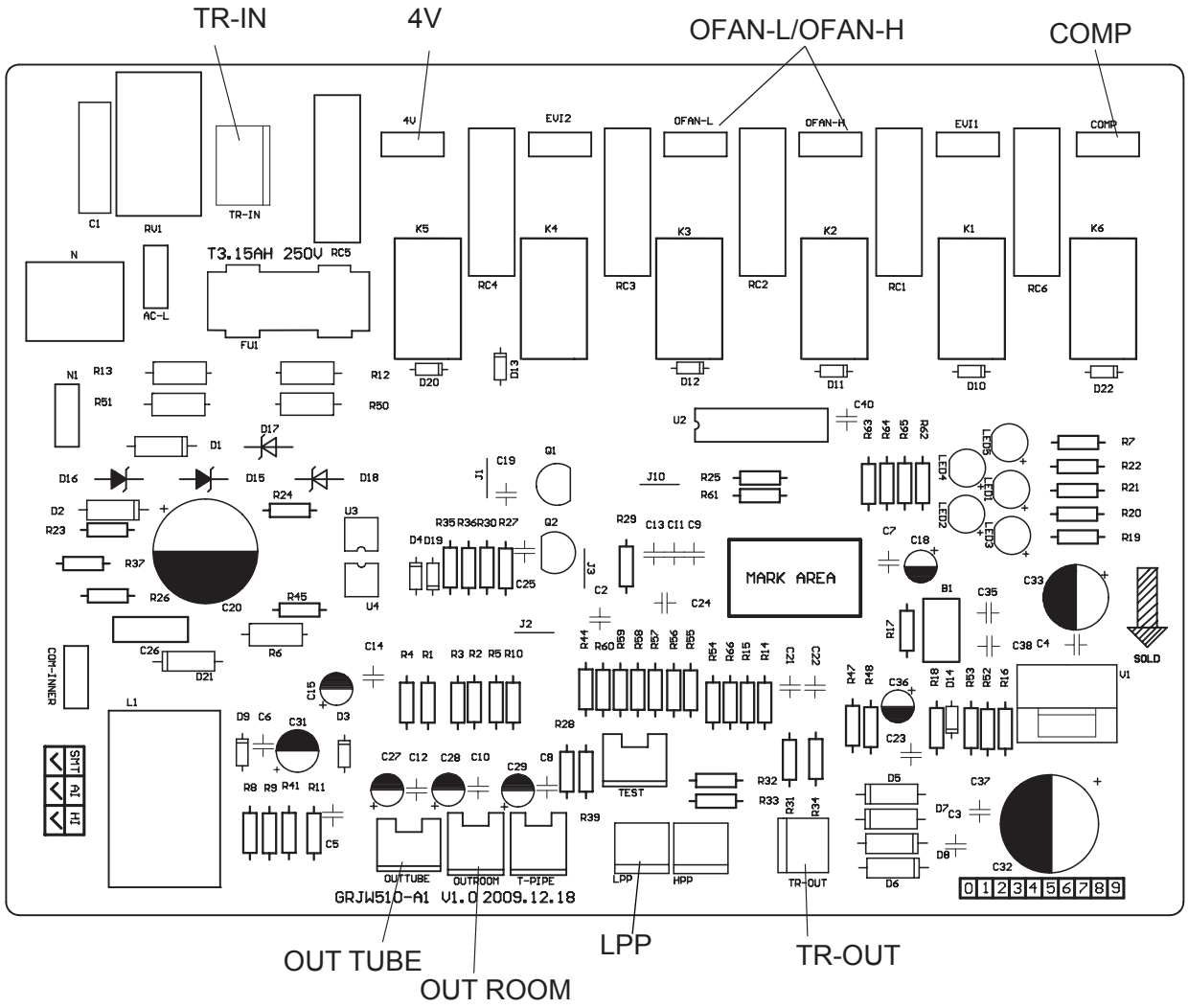
1)	FANC1/FANC2	Connector for fan motor capacitor
2)	DISP1/DISP2	Connector for Signal Receiver PCB
3)	TUBE	Connector for Tube temperature thermistor(Intdoor unit)
4)	ROOM	Connector for Room temperature thermistor heat exchanger)
5)	SWING-UD	Connector for swing motor(horizontal blades)
6)	FAN-L/FAN-M/FAN-H	Connector for fan motor
7)	TR-OUT,TR-IN	Connector for Transformer
8)	COM-OUT	Connector for communication line between indoor unit and outdoor unit
9)	N	Connector for neutral wire
10)	AC-L	Connector for live wire
11)	4V	Connector for 4-way valve
12)	OUT TUBE	Connector for Tube temperature thermistor(Outdoor unit heat exchanger)
13)	OUT ROOM	Connector for Out Room temperature thermistor
14)	LPP	Connector for Low Pressure switch
15)	COMP	Connector for Compressor

PCB Detail

PCB: Control PCB(FT(Y)30HEVLK)



PCB Detail **PCB : Control PCB(R(Y)30HEVLK)**



Part 4
Function and Control

1. Function and Control

Note: Basic functions (the centigrade is used in the following function manual. If there will be Fahrenheit degree, that will be Tf = Tc × 1.8 + 32).

Temperature Parameters

- Indoor preset temperature (Tpreset)
- Indoor ambient temperature (Tamb.)

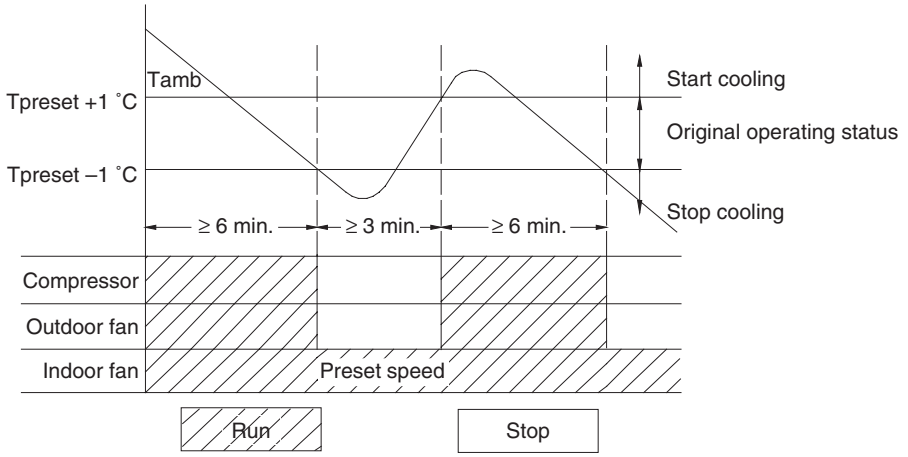
1.1 Basic Functions

Once energized, the compressor shall never be restarted except 3-min interval at least. For the first energization, if the unit with memory function is off before power failure, the compressor can be restarted without 3-min delay. But if the unit is on before power failure, the compressor shall be restarted with 3-min delay. Once started, the compressor won't stop within 6 min with the change of room temp.

1.1.1 Cooling Mode

Cooling conditions and process

When Tamb. ≥ Tpreset + 1 °C, the unit will run in cooling mode. In this case, the compressor and the outdoor fan run and the indoor fan runs at setting speed.
When Tamb. ≤ Tpreset - 1 °C, the compressor and the outdoor fan will stop while the indoor fan will run at setting speed.
When Tpreset - 1 °C < Tamb. < Tpreset + 1 °C, the unit will maintain its previous running state.
In this mode, the four-way valve is de-energizing, and setting temperature range is 16 ~ 30 °C.
Running and cooling marks and setting temperature are displayed.

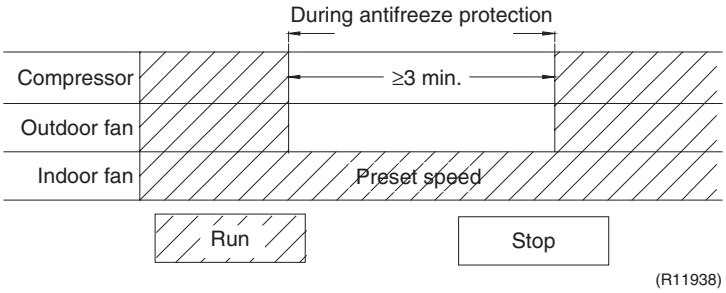


(R11937)

Protection

- Antifreezing Potection

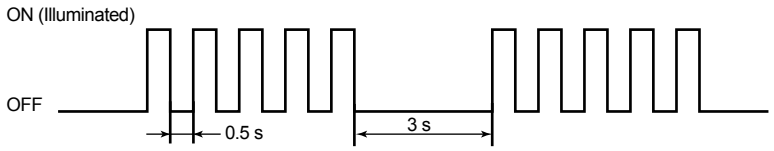
If it is detected that the system is in antifreezing protection, the compressor and the outdoor fan will stop running, and the indoor fan will run at setting speed. If the antifreezing protection is released and the compressor has been stopped for 3 min, the unit will resume its previous running state.



(R11938)

Overcurrent Protection (Applicable to some models)

If it is detected that the system amperage exceeds the specified value in 3 s successively, the outdoor unit will enter into the state that only the fan is running. If the overcurrent protection is released, the complete unit will resume its previous running state. If 6 times of protection successively occur (if the compressor has been running over 6 mins continuously, the protection times will be cleared), the complete unit will stop except the indoor fan is running. In this case, the unit can be normally restarted only after turning off the unit by remote controller. The nixie tube displays error code E5 and the running LED blinks (Blink 5 times and pauses 3 s, Blinking interval is 0.5 s).



(R11939)

1.1.2 Dry Mode

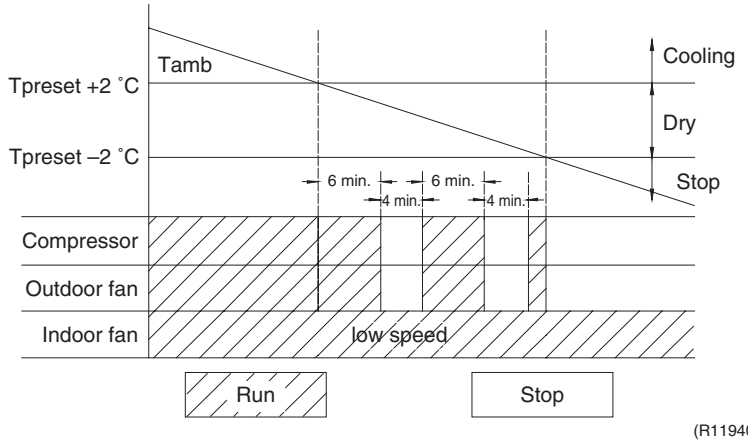
Dry Conditions and Process

When Tamb. > Tpreset + 2 °C, the unit will run in dry and cooling mode. In this case the compressor and outdoor fan will run and the indoor fan will run at low speed.

When Tpreset - 2 °C ≤ Tamb. ≤ Tpreset + 2 °C, the unit will run in dry mode. In this case, the indoor fan will run at low speed, and the compressor and the outdoor fan will be stopped in 6 min. After 4 min, the compressor and the outdoor fan will be restarted. Dry process is cycled as the above.

When Tamb. < Tpreset - 2 °C, the compressor and the outdoor fan will stop working and the indoor fan will run at low speed.

In this mode, the four-way valve is de-energizing, and setting temperature range is 16 ~ 30 °C. Running and cooling marks and setting temperature are displayed.



(R11940)

Protection

■ Antifreezing Potection

If antifreezing protection of the system is detected in dry and cooling mode, the compressor and the outdoor fan will stop running and the indoor fan will run at low speed. When the antifreezing protection is released and the compressor has been stopped for 3 min, the complete unit will resume its previous running state. Upon the condition that the compressor runs for 6 min and stops for 4 min is met and antifreezing protection is detected, the compressor and the outdoor fan will stop running and the indoor fan will run at low speed. When the antifreezing protection is released and the compressor has been stopped for 4 min, the complete unit will resume its previous running state.

Other Protection

Other protections are the same as those in cooling mode.

1.1.3 Heating Mode (Cooling only unit is not available)

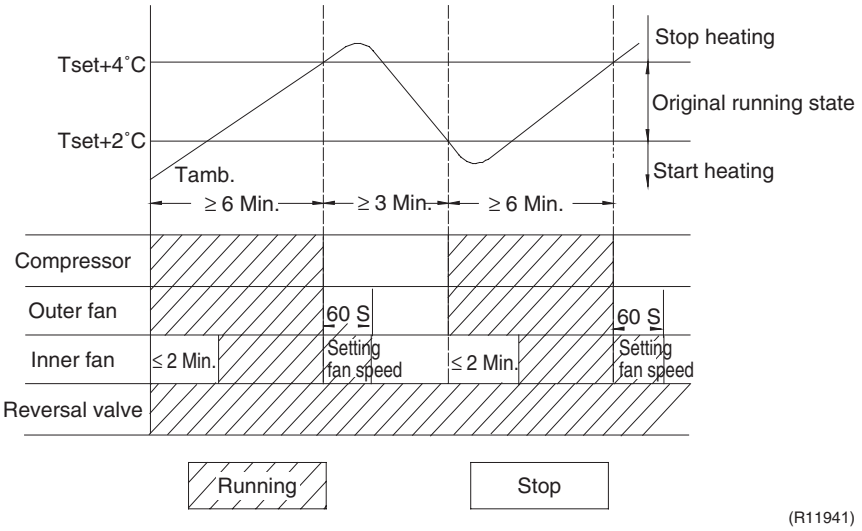
Heating Conditions and Process

When Tamb. ≤ Tpreset + 2 °C, the unit will run in heating mode. In this case, the four-way valve, the compressor and the outdoor fan will run simultaneously. The indoor fan will delay at most 2 mins to run.

When Tamb ≥ Tpreset + 4 °C, the compressor and the outdoor fan will stop while the four-way valve will keep energizing and the indoor fan will blow residual heat.

When Tpreset + 2 °C < Tamb. < Tpreset + 4 °C, the unit will maintain its previous running state.

Under this mode, the four-way valve is energized, and setting temperature range is 16 ~ 30 °C. The screen will display running and heating marks and setting temperature.



Defrosting Conditions and Process

The unit with intelligent defrosting function can defrost according to frosting conditions. Dual-8 displays H1.

Protection Function

■ High Temp Resistant Protection

If it is detected that the evaporator tube temperature is superheating, the outdoor fan will stop working. When the tube temperature resumes to normal condition, the outdoor fan will resume running.

■ Noise Silencing Protection

If the unit is stopped by pressing ON/OFF or during switchover of modes, the reversing valve will be stopped after 2 min.

Overcurrent Protection

This protection is the same as that in cooling mode (but indoor fan will blow residual heat).

1.1.4 Fan Mode

In this mode, indoor fan runs at setting speed, and the compressor, the outdoor fan, the four-way valve and the electric heating tube (will) stop running. In this mode, temperature setting range is 16 ~ 30 °C. The screen displays running marks and the setting temperature.

1.1.5 Auto Mode

In this mode, the air conditioner will automatically select its running mode (cooling, heating or fan) with the change of ambient temperature. The screen will display the running marks, actual running mode mark and setting temperature.

There is 30 s delay protection for mode switching. Protection functions are the same as those in any other mode.

1.2 Other Control

1.2.1 Timer Function

The mainboard combines general timer and clock timer functions. Timer functions are selected by equipping remote controller with different functions.

General Timer

Timer ON can be set under off state of unit. If timer ON reaches, the controller will run under previous setting mode. Timing interval is 0.5 hr and the setting range is 0.5 - 24 hr.
Timer OFF can be set under on state of unit. If timer OFF reaches, the unit is turned off. Timing interval is 0.5 hr within the range of 0.5 - 24 hr.

Clock Timer

If timer on is set under running state of unit, the system will continue running. If timer on is set under off state of unit, the system will run in presetting mode when timer on reaches.
If timer off is set under off state of unit, the system will keep standby state. If timer off is set under on state of unit, the system will stop running when timer off reaches.

- Timer Change

If the system is under timer state, the unit can be turned on/off by ON/OFF button of remote controller. Timing can also be reset and then the system runs according to the final setting.
If timer on and timer off is set at the same time under running state of system, the system will keep current running state till timer off reaches and then it will stop running.
If timer on and timer off are set at the same time under off state of system, the system will keep stopping till timer on reaches and then it will start running.
In the future, the system will run in presetting mode when timer on reaches and stop when timer off reaches every day. If timer on and timer off have the same setting, timer off is prevails.

1.2.2 Auto Button

If press this button, the system will run in auto mode, and the indoor fan motor will run at auto speed; meanwhile, the swing motor will be running. Repress this button to turn off the unit.

1.2.3 Buzzer

Upon energization or operation, the buzzer will give out a beep.

1.2.4 Sleep Function

The mode can provide different selection of the setting temperature curve for sleeping.

1.2.5 Turbo Function

This function can be set in cooling or heating mode.

1.2.6 Dry Function

This function can be set in cooling or dry mode.

1.2.7 Automatic Control of Fan Speed

In this mode, the indoor fan will automatically select high, medium or low speed with the change of ambient temperature.

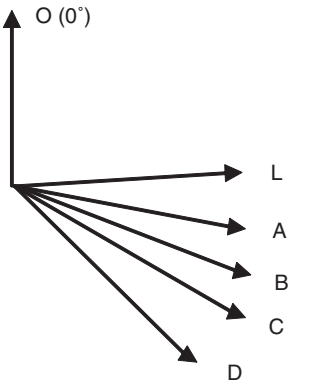
1.2.8 Up & Down Swing

After energization, up & Down swing motor will rotate guide louver anticlockwise to position 0 to close air outlet. After turning on the unit, if swing function has not been set, up & down guide louver will clockwise turn to position D in heating mode, or clockwise turn to level position L in other modes.

If the unit is turned on with swing function setting, the guide louver will swing between W and D. There are 7 kinds of swing states of guide louver: There are position L, A, B, C, D, and it swings and stops between L and D (angle between L and D is equiangular).

Upon stop of unit, the guide louver will close to position O. Swing action is valid only when swing command is set and indoor fan is running.

Note: If the position is set between L and B, A and C or B and D by remote controller, the guide louver will swing between W and D.



(R11942)

1.2.9 Display

Running mark and Mode mark

Upon energization, the unit will display all marks. Under standby state, running indicating mark is displayed in red. If the unit is started by remote controller, running indicating mark gives off light; meanwhile, the current setting running mode mark will be displayed (mode LED: cooling, heating and dry mode). If the light button is turned off, all marks display will be closed.

Dual-8 Screen

After starting the unit for the first time, the nixie tube will default to display the current preset temperature (16 - 30 °C). When displaying setting temperature signal is received, the nixie tube will display setting temp. If displaying ambient temperature signal is received, the nixie tube will display current indoor ambient temperature. If other states are set by remote controller, the display will keep previous. If remote controller receives valid signal during displaying ambient temperature, ambient temperature will be displayed after setting temperature is displayed for 5 s. F1 is displayed for ambient temperature sensor malfunction, F2 for tube temp sensor malfunction of indoor unit and C5 for jumper cap has malfunction.

Some models: The remote controller will display current setting temp when this display is set. The controller will display ambient temp for 5 s and then setting temp only when indoor ambient temp displaying state is switched from other displaying states by remote controller

1.2.10 Locked Protection to PG Motor

When starting the fan, if motor's rotational speed is slow for a period of time, the unit will display Locked and stop running to avoid auto protection for motor. If the unit is on currently, error code H6 will be displayed by the Dual-8 screen. If the unit is off currently, this locked malfunction information won't be displayed.

1.2.11 Power-Off Memory

Memory content includes mode, up & down swing, light, setting temp and setting fan speed. Upon power failure, the unit after power recovery will automatically start to run according to memory content. The system, last remote-control command without timer setting, will memorize the last remote-control signal and run according to it. If the last remote-control command has general timer function and the system is de-energized before setting time, the system will memorize the last timer function in remote controller command after re-energization and time will be recalculated. If there is function in the last remote controller command but setting time has reached, the system will act as timer on/off setting before de-energization. After re-energization, the system memorizes the running states before power failure without timer action. Clock timer can not be memorized.

1.3 Special Functions

1.3.1 Health Function

When the indoor fan motor is running, the Health function is set by pressing remote controller (If there is no Health button on the remote controller, the Health function opening is defaulted).

1.3.2 I Feel Function

If the remote controller receives the I Feel order, the controller will work at the ambient temperature value which is sent by remote controller (Except the defrosting and anti-cool wind, which still adopts the sampling value of AC itself ambient temperature sensor), the remote controller will send ambient temperature value to controller at intervals. If the controller hasn't received the ambient temperature value from the remote controller for long time, then it will run according to the current ambient temperature of AC. If the function has not been set, the ambient temperature will adopt the sensor sampling value of AC itself. If power off happens, this function will not be memorized.

1.3.3 Temperature Sensor Malfunction Detection

F1 is displayed when the indoor ambient sensor malfunction is detected and F2 is displayed when the indoor tube sensor malfunction.

Part 5
Operation Manual

1. System Configuration

After the installation and test operation of the room air conditioner have been completed, it should be operated and handled as described below. Every user would like to know the correct method of operation of the room air conditioner, to check if it is capable of cooling (or heating) well, and to know a clever method of using it.
In order to meet this expectation of the users, giving sufficient explanations taking enough time can be said to reduce about 80% of the requests for servicing. However good the installation work is and however good the functions are, the customer may blame either the room air conditioner or its installation work because of improper handling. The installation work and handing over of the unit can only be considered to have been completed when its handling has been explained to the user without using technical terms but giving full knowledge of the equipment.

2. Operation Manual

2.1 Operation of Wireless Remote Control

2.1.1 Names and Functions of Wireless Remote Control

Note: Be sure that there is no obstruction between receiver and remote control;
Don't drop or throw the remote control; Don't let any liquid flow into the remote control and put it directly under the sunlight or hot place.

Signal transmitter

Remote control

ON/OFF

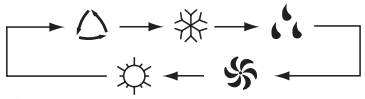
ON/OFF button

- Press this button to turn on the unit. press it once again to turn off the unit.

MODE

MODE button

- Press this button to circularly select among Auto, Cool, Dry, Fan and Heat modes. Auto mode is default while powered on. In auto mode, the temperature will not be displayed; In Heat mode, the initial value is 28˚C (82˚F); Under other modes, the initial value is 25˚C (77˚F).



AUTO
COOL
DRY
FAN
HEAT
(only for heat pump unit)

SLEEP

SLEEP button

- Pressing this button, Sleep On or Sleep Off can be selected. After powered on, Sleep Off is defaulted. After the unit is turned off, the Sleep function is canceled. After Sleep function is set up, the signal of Sleep will be displayed. In this mode, the timer can be be adjusted. Under Fan and Auto modes, this function is not available.

FAN

FAN button

- Pressing this button, Auto, Low, Middle, High speed can be circularly selected. After powered on, Auto fan speed is default.In Dry mode, only Low fan speed can be set up.

Low fan
Middle fan
High fan

CLOCK

CLOCK button

- Pressing this button, the clock can be set up, icon ◴ blinking. Within 5 seconds, the value can be adjusted by pressing "+" or "-" button. If continuously press this button for 2 seconds above, in every 1/2 seconds, one minute will be increased, and if you are still pressing thebutton after ten minutes increased,ten minutes will be increased every 1/2 seconds.Druingblinking,repress the Clock button, icon ◴ will be constantly displayed and it denotes the setting succeeded

LIGHT

LIGHT button

- Press this button to select LIGHT on or off in the screen. When the LIGHT on is set, the icon will be displayed and the indicator light in the screen will be on. When the LIGHT off is set, the icon will be displayed and the indicator light in the screen will be off.

Note:This wireless remote control is universal, and it could be used for many units.
Some buttons on this control are not applicable to the unit.

Remote control

+

+ button

- Press the button to increase the indoor temperature setting.

TEMP

TEMP button

- When pressing "TEMP" button, there may be 3 optional icons display: ⌂ ⌂ ⌂
  But only ⌂ is effective. The display panel will indicate ambient temperature for 5 seconds and then set temperature.

BLOW

BLOW button

- When in cool or dry mode, press "BLOW " button to active or deactive blow function, the icon ✣ will display and the indoor fan fan will continuely run for 10 minutes in order to dry the indoor unit even though you have turned off the unit.

TURBO

TURBO button

- Press this button to activate /deactivate theTurbo function which enables the unit to reach the preset temperature in the shortest time.In cooling mode, the unit will blow strong heating air with super high fan speed.

–

– button

- Press the button to decrease the indoor temperature setting.

Note:This wireless remote control is universal, and it could be used for many units.
Some buttons on this control are not applicable to the unit.

Remote control

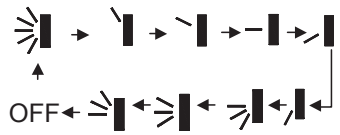
TIMER ON

TIMER ON BUTTON

- Press this button to initiate the auto-on timer. To cancel the auto-timer program, simply press this button again.

SWING UP AND DOWN BUTTON

- Press this button to set up swing angle, and swing range,which circularly changes as below:



which indicates the hozizontal louver will swing up and down automatically.

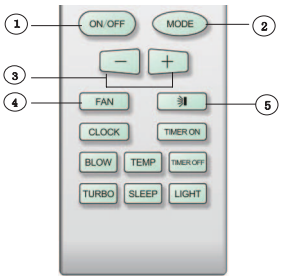
TIMER OFF

TIMER OFF BUTTON

- Press this button to initiate the auto-off timer.To cancel the auto-timer program, simply press the button again.

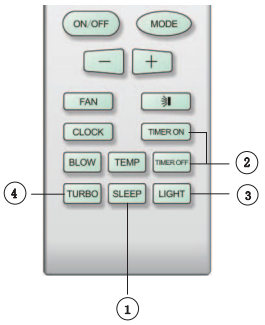
2.1.2 Guide for Operation - General Operation

1. Press ON/Off button to start or stop operation.(Note:When it is powered off, the guide louver of main unit will close automatically.)
2. Press MODE button to select desired running mode, or press COOL or HEAT button into the corresponding operation directly.
3. Pressing +or - button to set the desired temperature. (It is unnecessary to set the temperature in AUTO mode.)
4. Press FAN button to set fan speed among AUTO FAN, LOW, MID and HIGH.
5. Pressing button to select the swing method.



2.1.3 Guide for Operation - Optional Operation

1. Press SLEEP button to set sleep.
2. Press TIMER ON or TIMER OFF button to set the scheduled timer on or or timer off.
3. Press LIGHT button to switch On or Off the display on the main unit.(This function may be not available for some models).
4. Press TURBO button to switch ON and OFF.



2.1.4 Changing Batteries and Notices

★ **About blow function**

This function indicates that moisture on evaporator of indoor unit will be blown after the unit is stopped to avoid mould.

1. Having set blow function : After turning off the unit by pressing ON/OFF button indoor fan will continue running for about 10 min. at low speed. In this period, press blow button to stop indoor fan directly.
2. Having not set blow function : After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.

★ **About AUTO operation**

When AUTO mode is selected, the setting temperature will not be displayed on the LCD.The unit will be in accordance with the room temp. automatically to select the suitable running method to make ambient comfortable.

★ **About Turbo function**

If starting this function, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temp. approaches the preset temp. as soon as possible.

★ **About blowing residual heat (This function is applicable to some models)**

In HEAT or AUTO HEAT mode if the unit is turned off , the outdoor unit stops first and the indoor unit continues to run for 10s for blowing residual heat. After that, the indoor unit stops.

★ **About lock**

Press + and – buttons simultaneously to lock or unlock the keyboard. If the remote controller is locked, the icon will be displayed on it. In this case, pressing any button, the mark will flicker for three times. Repress the combination to unlock.

★ **About switch between Fahrenheit and Centigrade**

Under status of unit off, press "MODE" and "- "buttons simultaneously to switch °C and °F.

★ **About new function of defrosting**

It indicates after starting this function by remote controller and the unit has been under defrost status, if turning off the unit by remote controller, the unit will not stop until defrosting is finished; if changing setting mode by remote controller, the function, which is set last time, won't be carried out until defrosting is finished.

Operation of this function on or off: If remote controller is under off status, press Mode button and Blow button simultaneously in order to enter or cancel this new function. If the unit is under defrost status, dual eight position on remote controller will display H1. If switching to heat mode, this position will display H1, which flickers 5 s. In this case, press +/– button, H1 will disappear and setting temp. will be displayed.

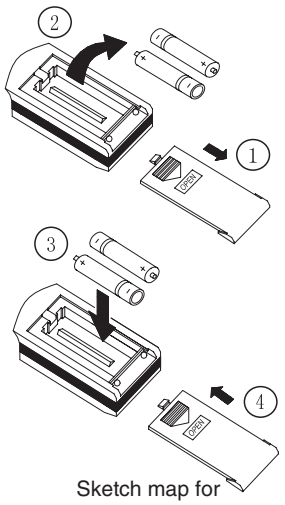
After remote controller is powered on, the defrost function off will be defaulted .

Changing batteries and notices

1. Slightly press the place with , along the arrowhead direction to push the back cover of wireless remote control. (As show in figure)
2. Take out the old batteries. (As show in figure)
3. Insert two new AAA1.5V dry batteries, and pay attention to the polarity. (As show in figure)
4. Attach the back cover of wireless remote control. (As show in figure)

★ **NOTE:**

- When changing the batteries, do not use the old or different batteries, otherwise, it can cause the malfunction of the wireless remote control.
- If the wireless remote control will not be used for a long time, please take them out, and don't let the leakage liquid damage the wireless remote control.
- The operation should be in its receiving range.
- It should be placed at where is 1 m away from the TV set or stereo sound sets.
- If the wireless remote control can not operate normally, please take them out, after 30 s later and reinsert, if they cannot normally run, please change them.



Sketch map for changing batteries

Part 6
Troubleshooting

1. Troubleshooting

1.1 Malfunction Display

If malfunction occurs, corresponding code will display and the will resume normal until protection or malfunction disappears.

1.1.1 Trouble C5

Dual-8 screen displays C5 and running LED blinks 15 times and pauses 3 s.

■ Troubleshooting

Jumper cap is not firmly connected with the controller. Reinsert it or replace it with the same specification of jumper cap.

1.1.2 Trouble E5

Dual-8 screen on display board displays E5 and running LED blinks for 5 times and pauses 3 s.

■ Troubleshooting

When the voltage is too low or the system pressure is abnormal, please check the power supply voltage or the system pressure.

1.1.3 Trouble F1

Dual-8 screen on display board displays F1 and cooling LED blinks once and pause 3 s.

■ Troubleshooting

AC ambient sensor is not firmly connected with the controller. Please reinsert or replace it with an ambient temp sensor.

1.1.4 Trouble F2

Dual-8 screen on display board displays F2, the cooling LED blinks twice and pauses 3 s.

■ Troubleshooting

AC tube temperature sensor is not firmly connected with the controller. Please reinsert or replace it with another tube temperature sensor.

1.1.5 Trouble H1

Dual-8 screen on display board displays H1 and heating LED blinks once and pauses 3 s.

■ Troubleshooting

Because at this time the air conditioner is running in defrosting status, it's normal.

1.1.6 Trouble H6

Dual-8 screen on display board displays H6, and running LED blinks 11 times and pauses 3 s.

■ Troubleshooting

The feedback wire of unit's indoor fan motor hasn't been reliably connected with the controller or the inner fan motor is broken, or the controller mainboard's fan motor has detected that circuit is damaged, please reinsert the inner fan motor's feedback wire or replace the mainboard of control board or replace the motor.

1.1.7 Trouble E1

Dual-8 screen on display board displays E1 and running LED blinks once and pauses 3 s.

■ Troubleshooting

If high-pressure protection occurs and the system pressure is abnormal, please check the system pressure or replace the controller.

1.1.8 Trouble E2

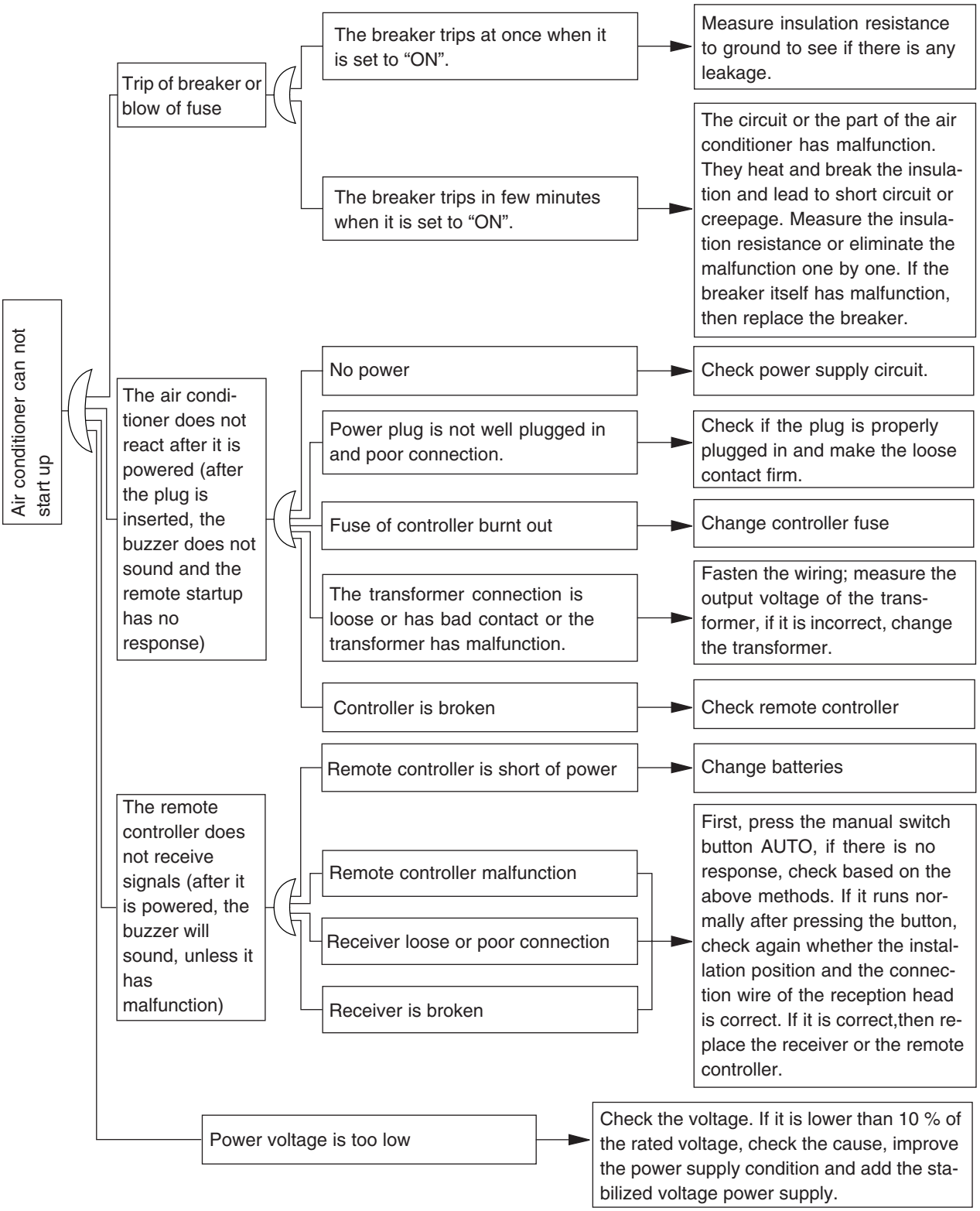
Dual-8 screen on display board will display E2 and running LED blinks twice and pauses 3 s.

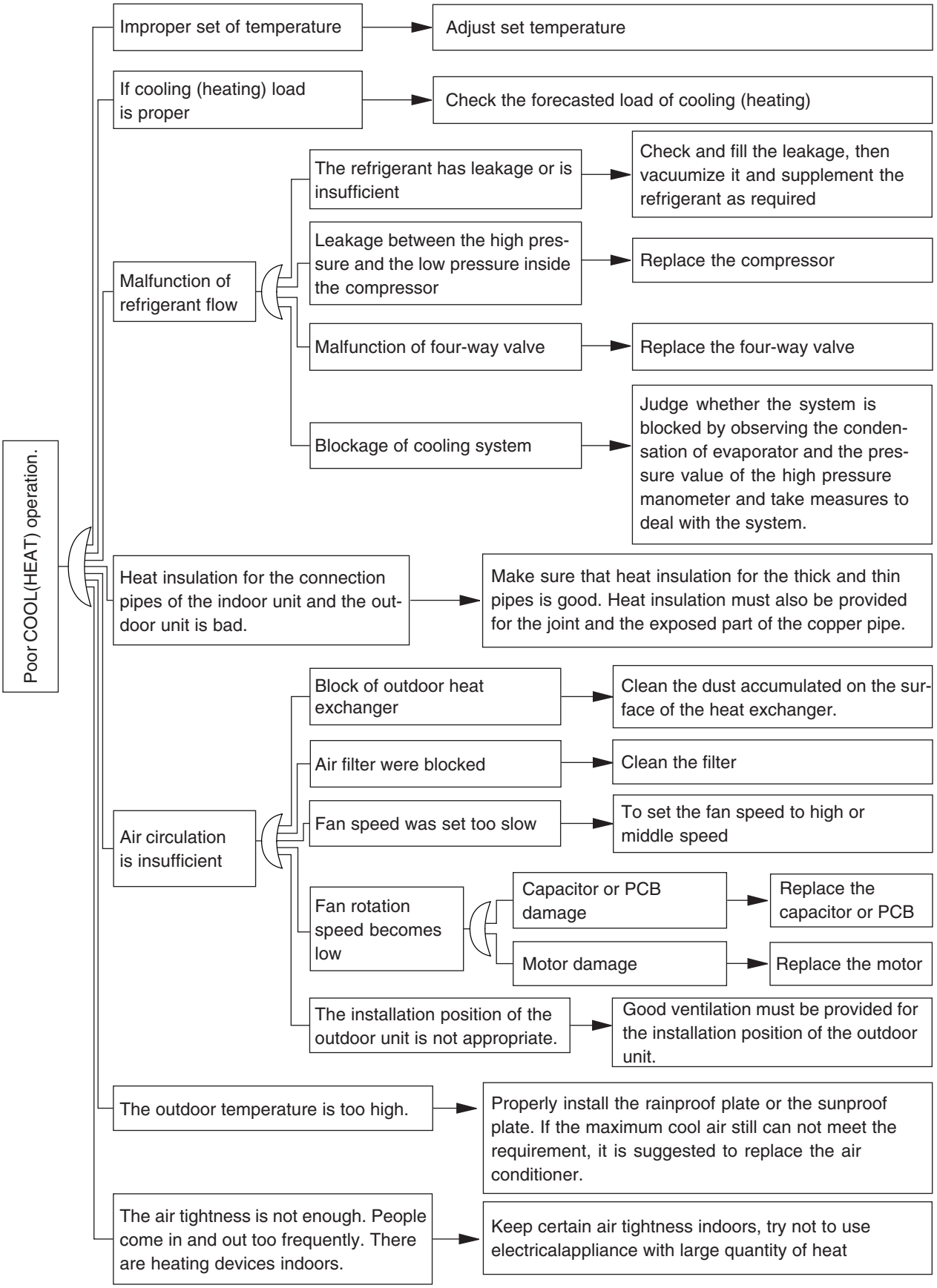
- Troubleshooting

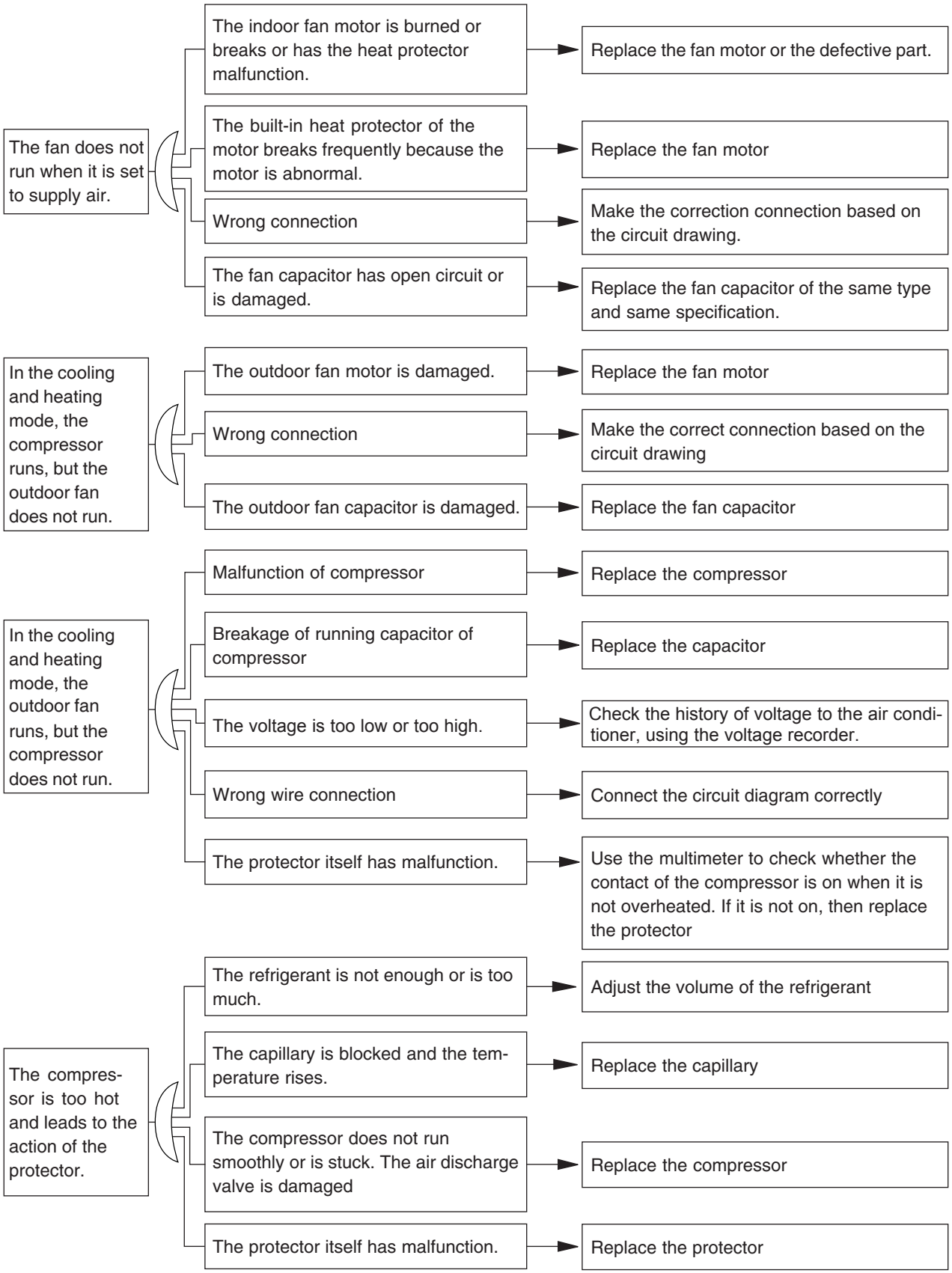
It is normal, at this time, the AC is in Antifreezing status.

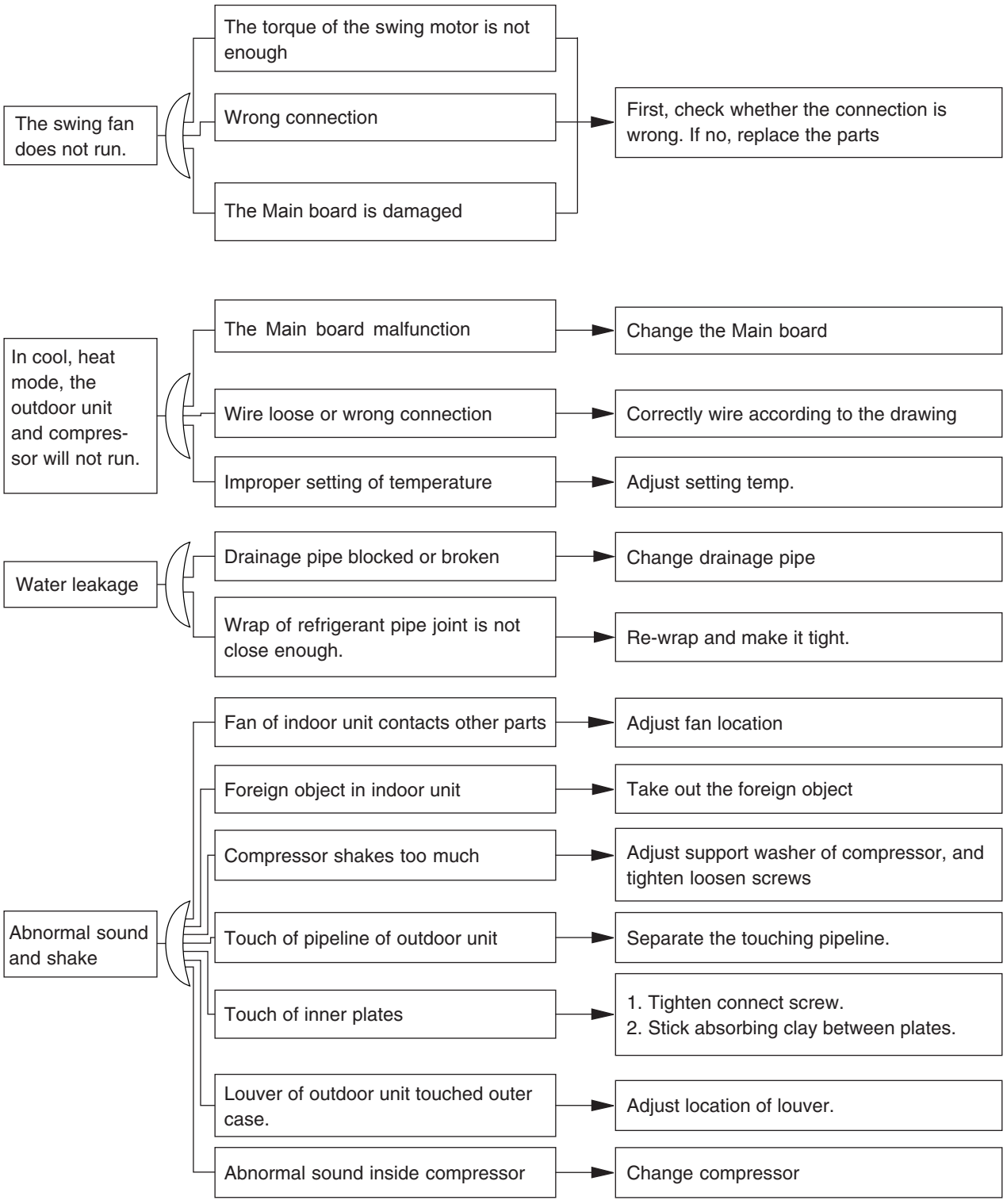
1.2 Common Section

Note: Before analysis, check the unit according to the indicator display on outdoor unit.




Poor COOL(HEAT) operation.
Improper set of temperature
Adjust set temperature
If cooling (heating) load is proper
Check the forecasted load of cooling (heating)
Malfunction of refrigerant flow
The refrigerant has leakage or is insufficient
Check and fill the leakage, then vacuumize it and supplement the refrigerant as required
Leakage between the high pressure and the low pressure inside the compressor
Replace the compressor
Malfunction of four-way valve
Replace the four-way valve
Blockage of cooling system
Judge whether the system is blocked by observing the condensation of evaporator and the pressure value of the high pressure manometer and take measures to deal with the system.
Heat insulation for the connection pipes of the indoor unit and the outdoor unit is bad.
Make sure that heat insulation for the thick and thin pipes is good. Heat insulation must also be provided for the joint and the exposed part of the copper pipe.
Air circulation is insufficient
Block of outdoor heat exchanger
Clean the dust accumulated on the surface of the heat exchanger.
Air filter were blocked
Clean the filter
Fan speed was set too slow
To set the fan speed to high or middle speed
Fan rotation speed becomes low
Capacitor or PCB damage
Replace the capacitor or PCB
Motor damage
Replace the motor
The installation position of the outdoor unit is not appropriate.
Good ventilation must be provided for the installation position of the outdoor unit.
The outdoor temperature is too high.
Properly install the rainproof plate or the sunproof plate. If the maximum cool air still can not meet the requirement, it is suggested to replace the air conditioner.
The air tightness is not enough. People come in and out too frequently. There are heating devices indoors.
Keep certain air tightness indoors, try not to use electricalappliance with large quantity of heat


The fan does not run when it is set to supply air.
The indoor fan motor is burned or breaks or has the heat protector malfunction.
Replace the fan motor or the defective part.
The built-in heat protector of the motor breaks frequently because the motor is abnormal.
Replace the fan motor
Wrong connection
Make the correction connection based on the circuit drawing.
The fan capacitor has open circuit or is damaged.
Replace the fan capacitor of the same type and same specification.
In the cooling and heating mode, the compressor runs, but the outdoor fan does not run.
The outdoor fan motor is damaged.
Replace the fan motor
Wrong connection
Make the correct connection based on the circuit drawing
The outdoor fan capacitor is damaged.
Replace the fan capacitor
In the cooling and heating mode, the outdoor fan runs, but the compressor does not run.
Malfunction of compressor
Replace the compressor
Breakage of running capacitor of compressor
Replace the capacitor
The voltage is too low or too high.
Check the history of voltage to the air conditioner, using the voltage recorder.
Wrong wire connection
Connect the circuit diagram correctly
The protector itself has malfunction.
Use the multimeter to check whether the contact of the compressor is on when it is not overheated. If it is not on, then replace the protector
The compressor is too hot and leads to the action of the protector.
The refrigerant is not enough or is too much.
Adjust the volume of the refrigerant
The capillary is blocked and the temperature rises.
Replace the capillary
The compressor does not run smoothly or is stuck. The air discharge valve is damaged
Replace the compressor
The protector itself has malfunction.
Replace the protector



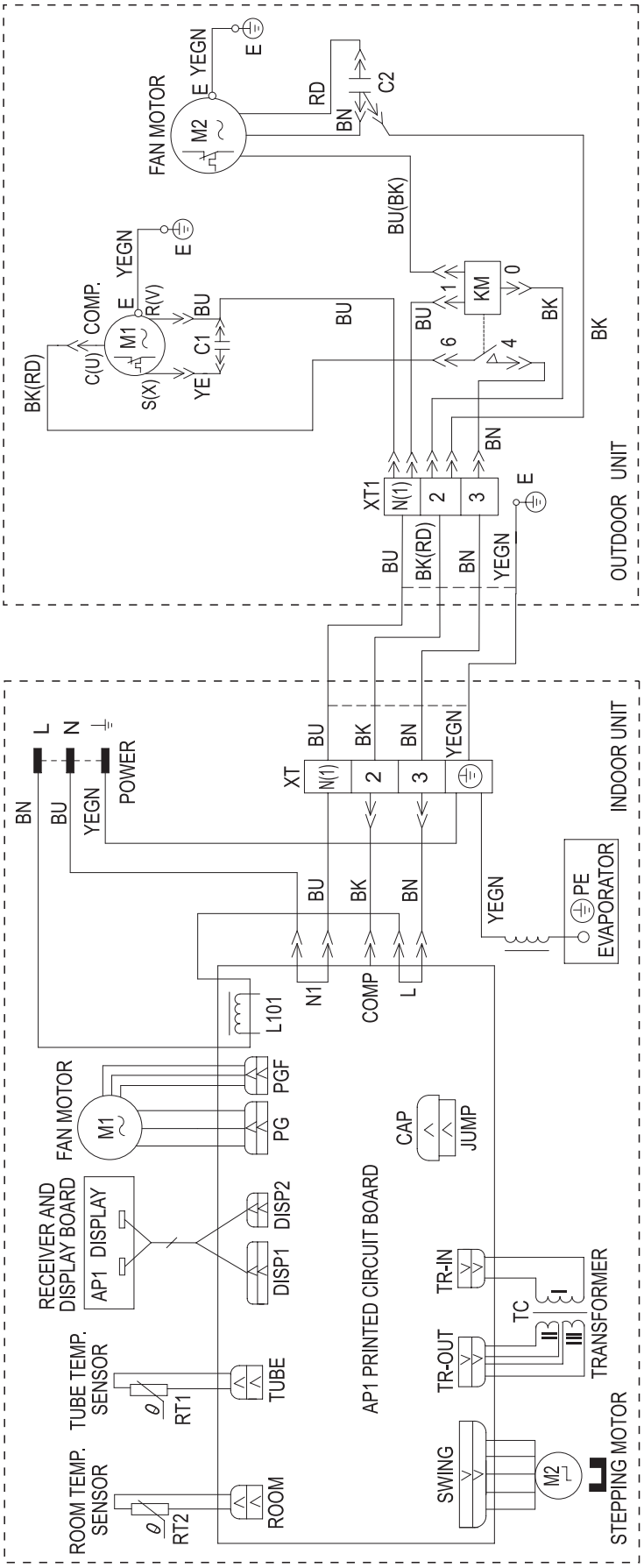
Note: There are no heating malfunctions in the above for the cooling only unit.

Part 7
Appendix

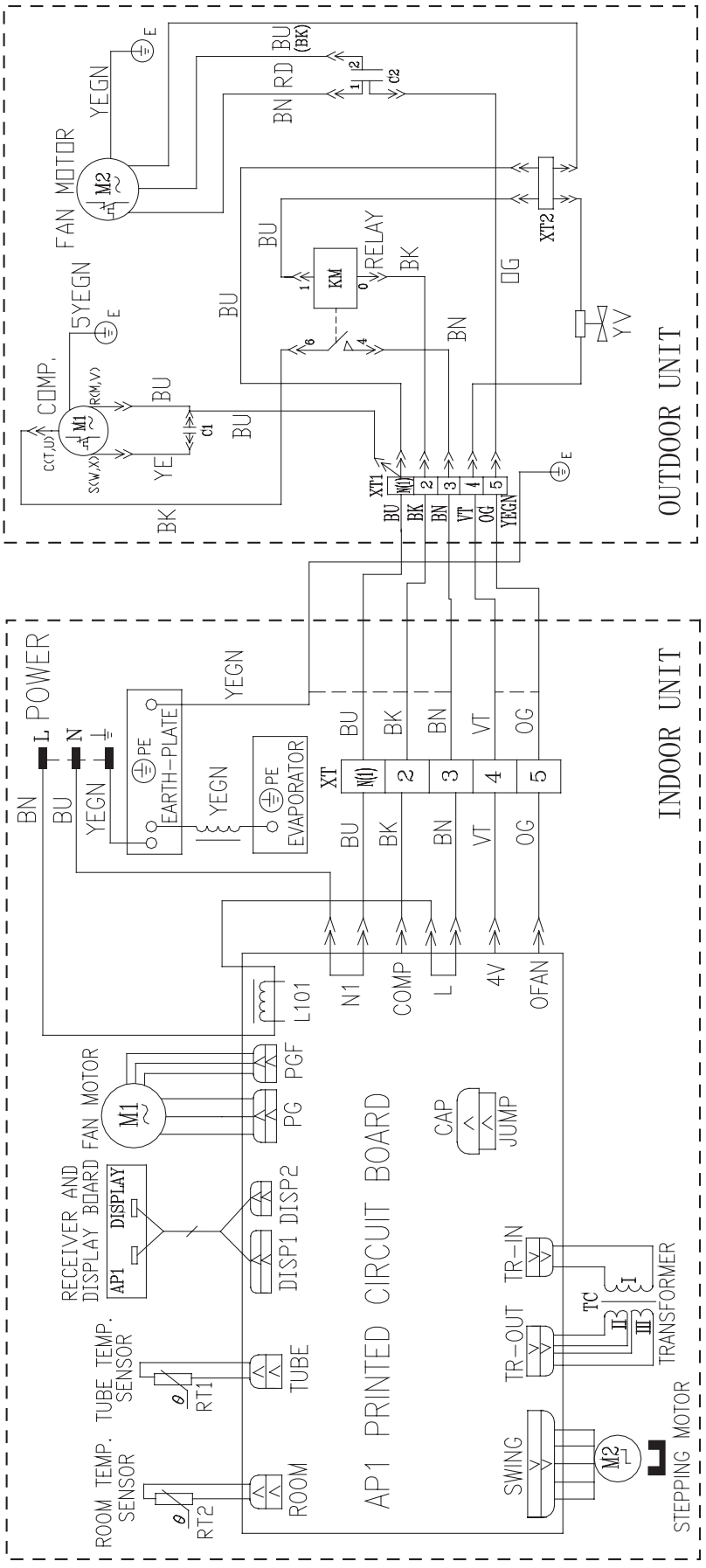
1. Wiring Diagram

1.1 18 Class

FT18HEVLK, R18HEVLK

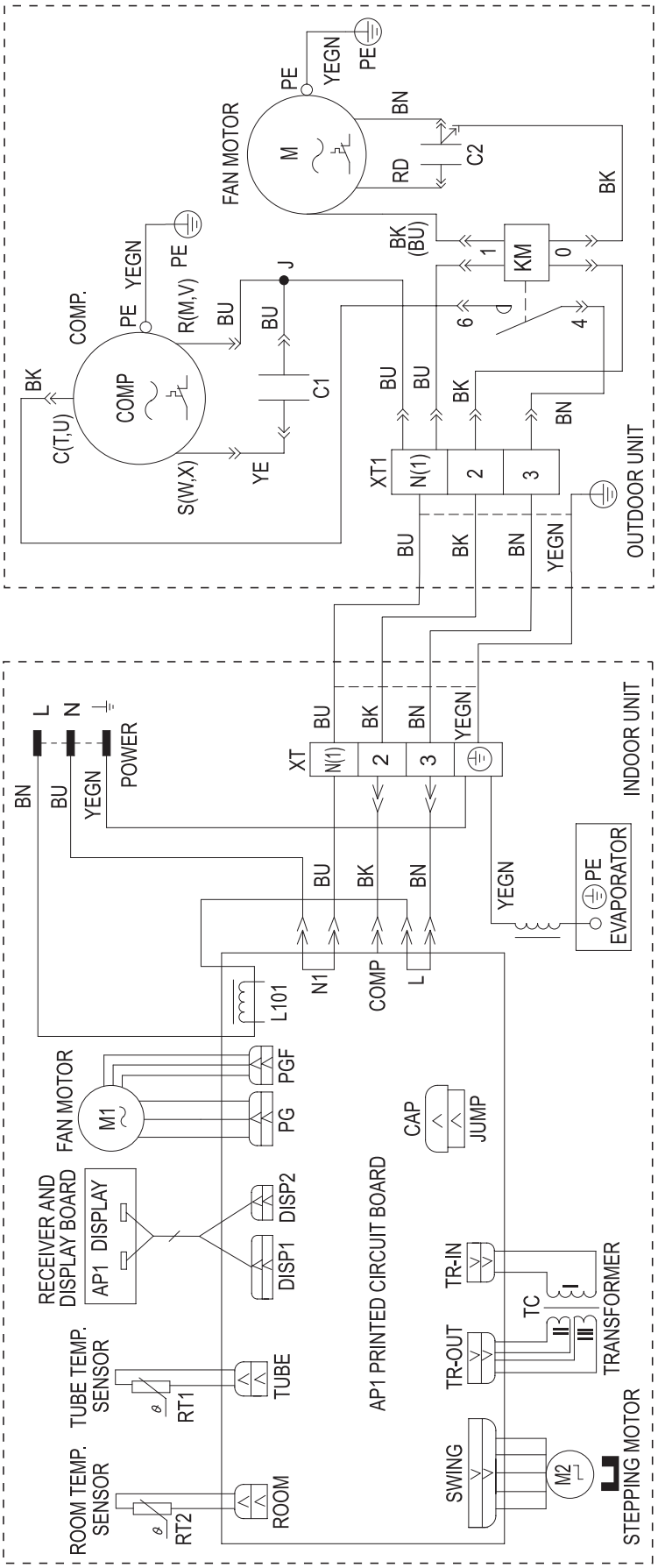


FTY18HEVLK, RY18HEVLK

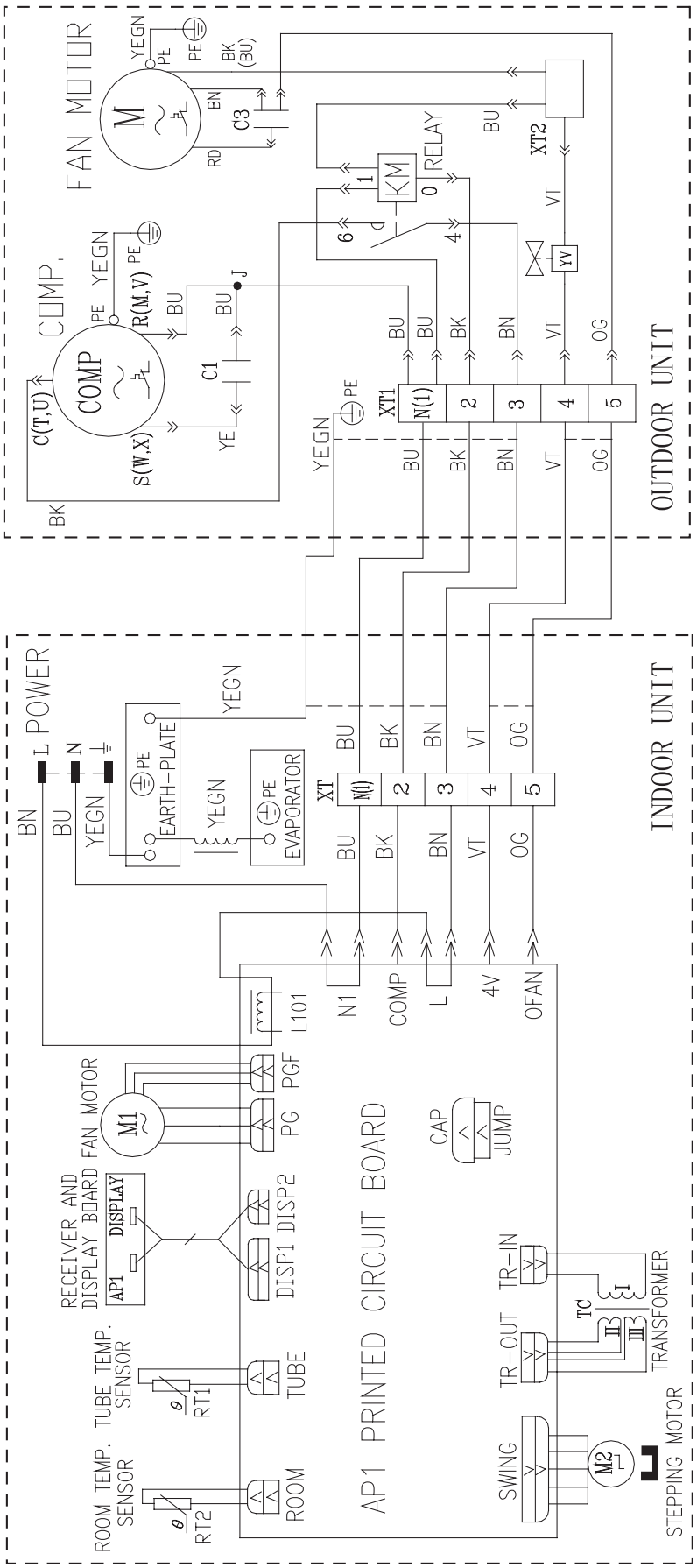


1.2 24 Class

FT24HEVLK, R24HEVLK

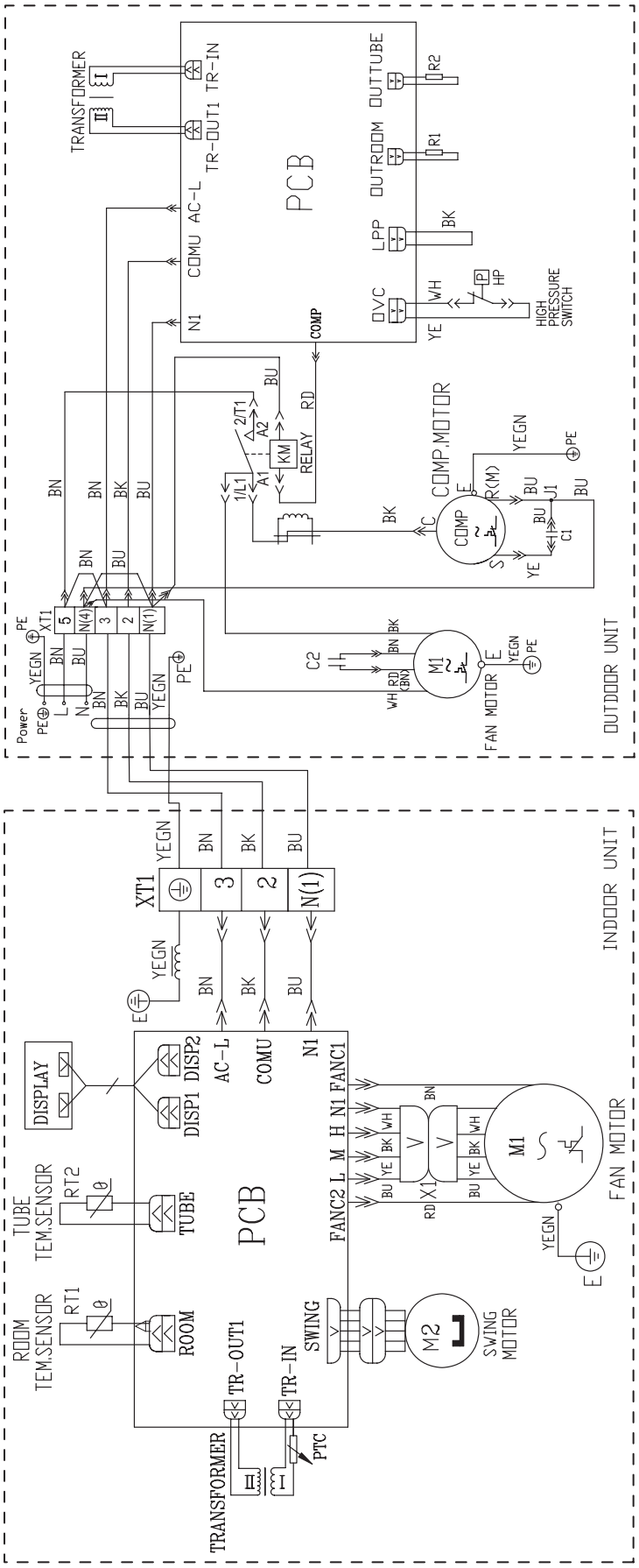


FTY24HEVLK, RY24HEVLK

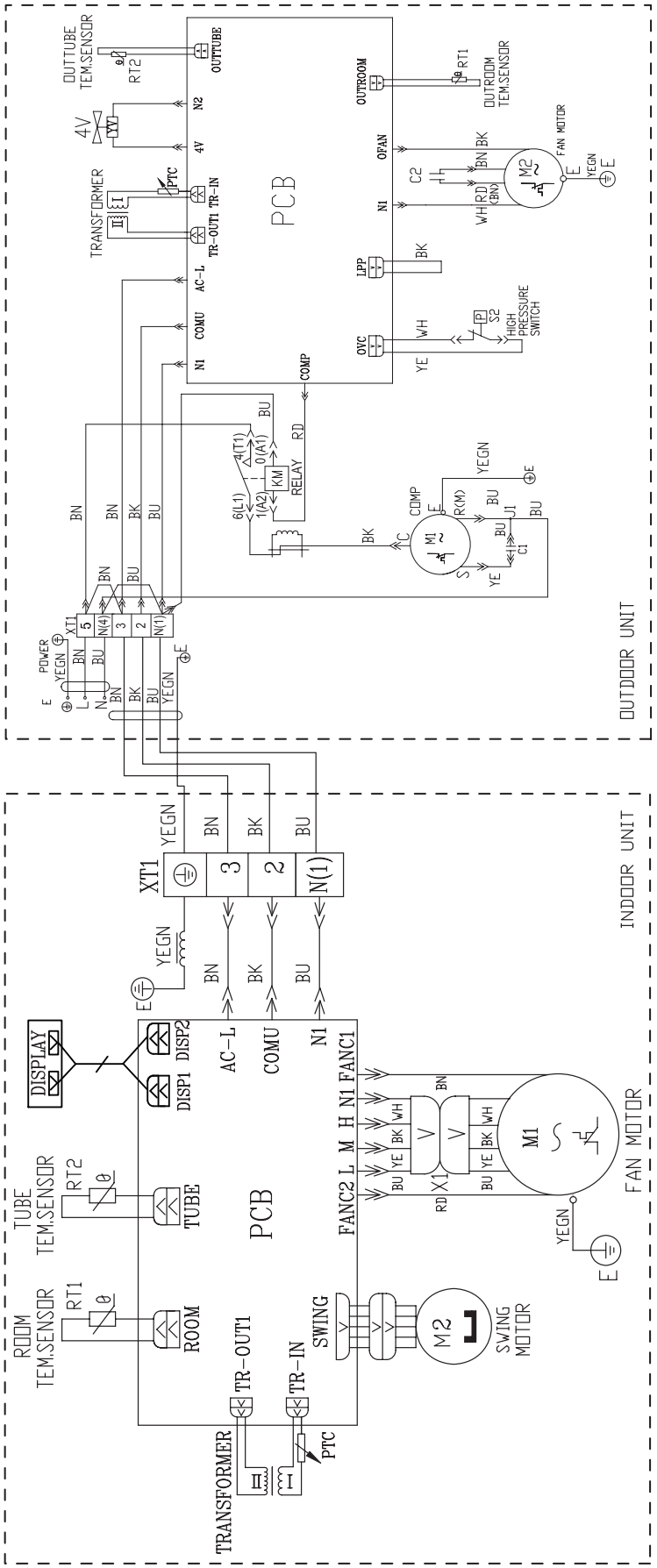


1.3 30 Class

FT30HEVLK, R30HEVLK



FTY30HEVLK, RY30HEVLK



Warning

- Daikin Industries, Ltd.'s products are manufactured for export to numerous countries throughout the world. Daikin Industries, Ltd. does not have control over which products are exported to and used in a particular country. Prior to purchase, please therefore confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

JMI-0107

Organization:
DAIKIN INDUSTRIES, LTD.
AIR CONDITIONING MANUFACTURING DIVISION

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF COMMERCIAL AIR CONDITIONING, HEATING, COOLING, REFRIGERATING EQUIPMENT, COMMERCIAL HEATING EQUIPMENT, RESIDENTIAL AIR CONDITIONING EQUIPMENT, HEAT RECLAIM VENTILATION, AIR CLEANING EQUIPMENT, MARINE TYPE CONTAINER REFRIGERATION UNITS, COMPRESSORS AND VALVES.

JQA-1452

Organization:
DAIKIN INDUSTRIES (THAILAND) LTD.

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF AIR CONDITIONERS AND THE COMPONENTS INCLUDING COMPRESSORS USED FOR THEM

EC99J2044

All of the Daikin Group's business facilities and subsidiaries in Japan are certified under the ISO 14001 international standard for environment management.

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