

HAIER

Cabinet air conditioner

Technical manual

Machine Model No.:

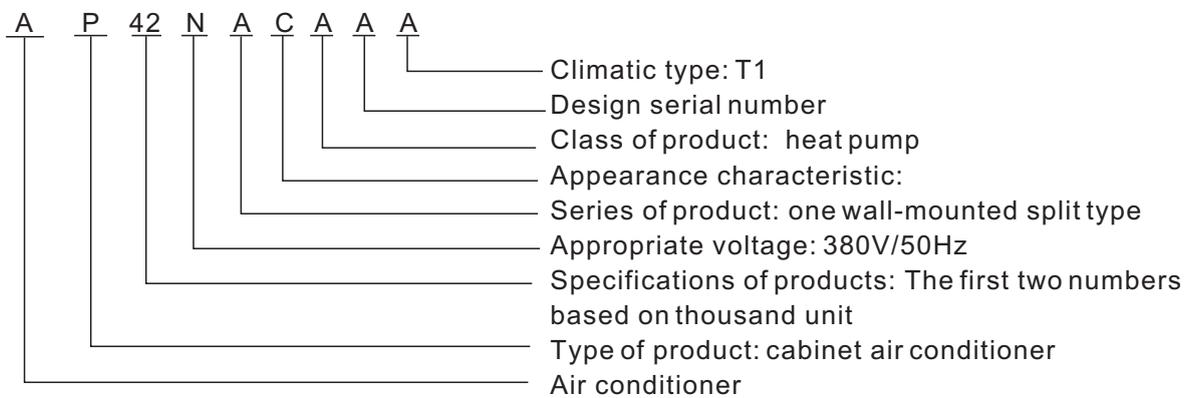
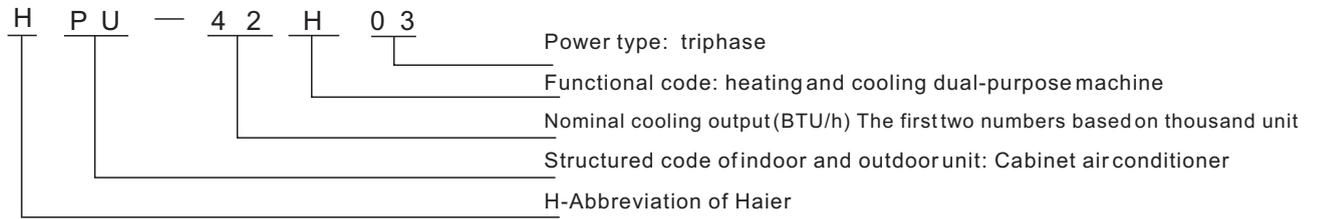
AP242ACAAA/AU242AHAAA (HPU-24H03)
AP42NACAAA/AU42NAIAAA (HPU-42H03)
AP44NACAAA/AU44NAIAAA (HPU-44H03)
AP42NACABA/AU42NAIABA (HPU-42HB03)

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1. Product coding explanation and product series instruction

a. Model coding rule explanation



b. Table 1

Serial number	Running condition	Indoor condition		Outdoor condition	
		Temperature (°C)	Humidity	Temperature (°C)	Humidity
1	Nominal cooling	DB:27	WB:19	DB:35	WB:24
2	Nominal heating	DB:20	WB:15	DB:7	WB:6

C. Brief instruction of series

Serialization of product:

Now our company has the following cabinet air conditioner:

HPU-24H03(AP242ACAAA+AU242AIAAA) HPU-42H03(AP42NACAAA+AU42NAIAAA)
 HPU-44H03(AP44NACAAA+AU44NAIAAA) HPU-42HB03(AP42NACABA+AU42NAIABA)

Product characteristics:

Heat and cool rapidly and sharply

With powerful motion function, forceful and high cyclical air volume, heating and cooling of product is rapid and sharp. Temperature control is homogeneous, rapid, correct and soft, which can rapidly satisfy client and make them more comfortable.

Muting function and low noise

Adopting large diameter centrifugal fan unit and optimum turbine air duct design , air supply is stronger and farther; internationally advanced and reliable compressor reduces the vibration and noise of outdoor unit.

2. Technical parameter of product

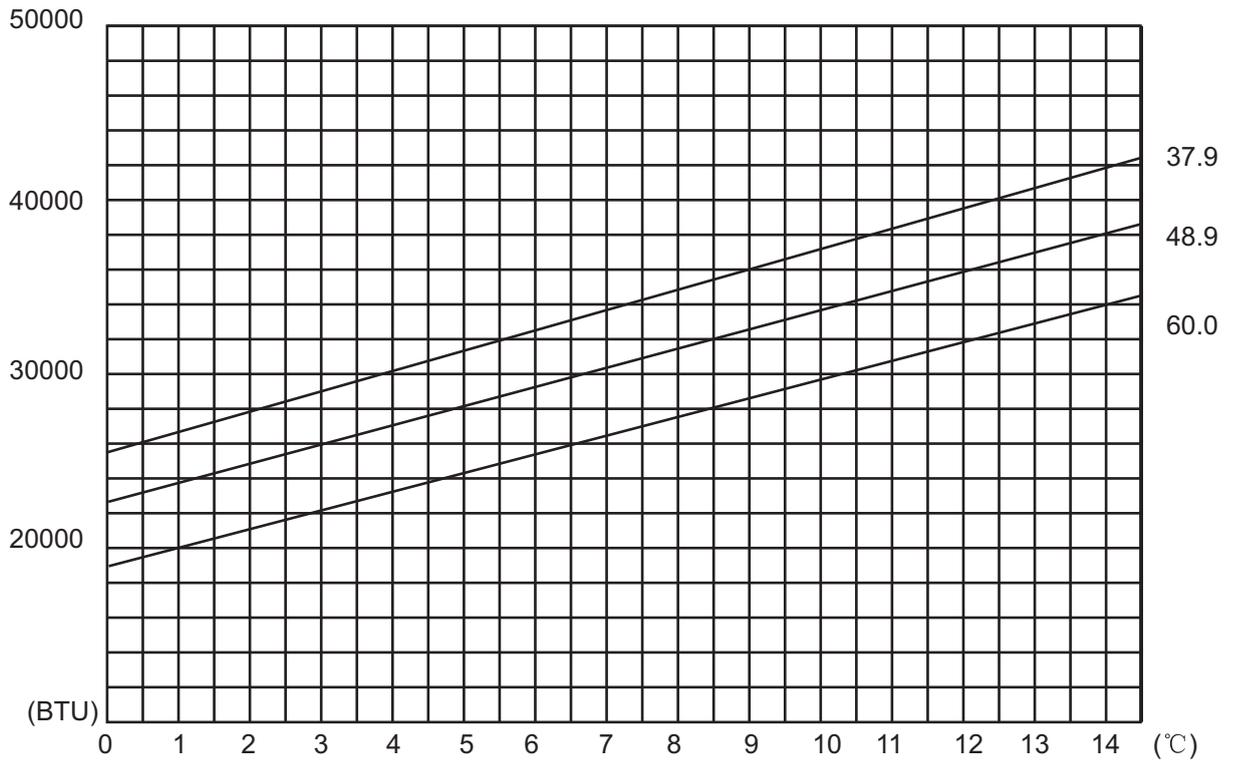
Model:	HPU-24H03	Appearance color (internal/external):	WHITE
Outline dimension of indoor unit:	1820x530x300mm	Outline dimension of outer unit:	948x340x1225mm
Packing dimension of indoor unit:	1952x660x417mm	Packing dimension of outer unit:	1050x440x1375mm
Noise of indoor unit (cooling):	upper/lower 50/38dB(A)	Noise of outer unit (cooling):	upper/lower 58/50 dB(A)
Noise of indoor unit (heating):	upper/lower 50/38dB(A)	Noise of outer unit (heating):	upper/lower 58/50dB(A)
Net/gross weight of indoor unit:	45/47kg	Net/gross weight of outer unit:	74kg
Working voltage range	187-242	Working current range	
Working temperature range	-7-43℃	Workable frequency:	50Hz
Temperature regulating difference:		Type of refrigerant	R22
Maximum mounting drop height:	15	Refrigerant charge:	3520g
Maximum length of connecting pipe:	30	Type of filter:	
Filtering efficiency:		Dimension of filter:	
Model of compressor:	ZR34K4-PFJ-552	Manufacturer of compressor:	Copeland compressor plant
Performance curve of compressor	enclosed hereafter	Performance variation curve of fan motor	enclosed hereafter
Flow figure of two units :	10/8	Type/diameter of pipe of two units:	Φ9.52; Φ15.88
Type of stop valve:	Φ9.52; Φ15.88	Type of 4-way valve:	
Cooling coefficient	2.73	Heating coefficient:	3.14
Cooling power :	2600	Heating power:	2700
Outdoor temperature-dependent performance curve of cooling /heating capacity			enclosed hereafter
Louver size of inlet grill		Anion quantity of anionic unit	
Quantity/spacing of grill louver		Variety of fin material	Light foil
Total area of evaporator:		Coefficient of fin	
Total area of condenser:		Total length of cooling pipeline (liquid/vapor):	
Total /row number of fin:		Thickness/pitch of fins	0.35/1.9
Evaporating temperature range:		Condensing temperature range:	43-60℃
Type of drain pipe:	PVC	Protector model of control panel:	3.15A
Length/diameter of drain pipe:	Φ25(internal); Φ25(interanl)	Protector model of compressor:	
Size of mounting bottom plate:	-	Temperature transducer model:	R25
Air supplying angle/distance	15m	Sheathing material :	Power sprayed Electric zinc plate
New air capacity:		Cleaning frequency of filter:	1/month
Real-time regulating range:		Type of quieter material:	XPE
All attachments type of computer plate	enclosed hereafter	Model of gas-liquid separator:	
Fan speed :		Model of dryer:	
Type /quantity of fan	Indoor :centrifugal; outdoor : tubeaxial	Power consumption:	
Type of capillary tube:	TP2Y	Model of quieter:	
Diameter/length of capillary tube:		Type of vibrating material:	Daub
Swinging frequency of outlet grill louver		Type/dimension of sterilizing net	Resin net
Maximum working pressure of heat side:	2.8MPa	Class of electrostatic prevention:	I
Indoor wet and dry bulb temperature:		Maximum working pressure of cold side:	2.8MPa
Dynamic ratio:	2.73	Outdoor wet and dry bulb temperature:	
Certificate	CE	Piling layer of inner and outer units:	4/2
Function of product:	Enclosed hereafter	Filling capacity of compressor:	
Popularity of product:	1. Low noise; 2. Easy of mounting and simplicity of operator	Appearance characteristics of product's inner and outer unit:	Beautiful and natural

Model:	HPU-42H03	Appearance color (internal/external):	WHITE
Outline dimension of indoor unit:	1820x530x300mm	Outline dimension of outer unit:	948x340x1225mm
Packing dimension of indoor unit:	1952x660x417mm	Packing dimension of outer unit:	1050x440x1375mm
Noise of indoor unit (cooling):	upper/lower 50/38dB(A)	Noise of outer unit (cooling):	upper/lower 58/50 dB(A)
Noise of indoor unit (heating):	upper/lower 50/38dB(A)	Noise of outer unit (heating):	64/-/-
Net/gross weight of indoor unit:	45/47kg	Net/gross weight of outer unit:	85kg
Working voltage range	187-242	Working current range	
Working temperature range	-7-43℃	Workable frequency:	50Hz
Temperature regulating difference:		Type of refrigerant	R22
Maximum mounting drop height:	30	Refrigerant charge:	3520g
Maximum length of connecting pipe:	50	Type of filter:	
Filtering efficiency:		Dimension of filter:	
Model of compressor:	CRNQ-0500-TFD-522	Manufacturer of compressor:	
Performance curve of compressor	enclosed hereafter	Performance variation curve of fan motor	enclosed hereafter
Flow figure of two units :	10/8	Type/diameter of pipe of two units:	Φ9.52; Φ19.05
Type of stop valve:	Φ9.52; Φ19.05	Type of 4-way valve:	
Cooling coefficient	2.73	Heating coefficient:	3.14
Cooling power :	2600	Heating power:	2700
Outdoor temperature-dependent performance curve of cooling /heating capacity			enclosed hereafter
Louver size of inlet grill		Anion quantity of anionic unit	
Quantity/spacing of grill louver		Variety of fin material	Light foil
Total area of evaporator:		Coefficient of fin	
Total area of condenser:		Total length of cooling pipeline (liquid/vapor):	
Total /row number of fin:		Thickness/pitch of fins	0.35/1.9
Evaporating temperature range:		Condensing temperature range:	43-60℃
Type of drain pipe:	PVC	Protector model of control panel:	3.15A
Length/diameter of drain pipe:	Φ25(internal); Φ25(internal)	Protector model of compressor:	
Size of mounting bottom plate:	-	Temperature transducer model:	R25
Air supplying angle/distance	15m	Refrigerant charge:	
New air capacity:		Cleaning frequency of filter:	1/month
Real-time regulating range:		Type of quieter material:	XPE
All attachments type of computer plate	enclosed hereafter	Model of gas-liquid separator:	2.0L
Fan speed :		Model of dryer:	-
Type /quantity of fan	Indoor :centrifugal; outdoor : tubeaxial	Power consumption:	Indoor :130W Outdoor:60X20
Type of capillary tube:	TP2Y	Model of quieter:	Φ40X2
Diameter/length of capillary tube:		Type of vibrating material:	Plaster
Swinging frequency of outlet grill louver		Type/dimension of sterilizing net	Resin net
Maximum working pressure of heat side:	2.8MPa	Class of electrostatic prevention:	I
Indoor wet and dry bulb temperature:		Maximum working pressure of cold side:	2.94MP
Dynamic ratio:	2.73	Outdoor wet and dry bulb temperature:	see table 1
Certificate	CE	Piling layer of inner and outer units:	4/2
Function of product:	Enclosed hereafter	Filling capacity of compressor:	2070cc
Popularity of product:	1. Low noise; 2. Easy of mounting and simple of operator	Appearance characteristics of product's inner and outer unit:	Beautiful and natural

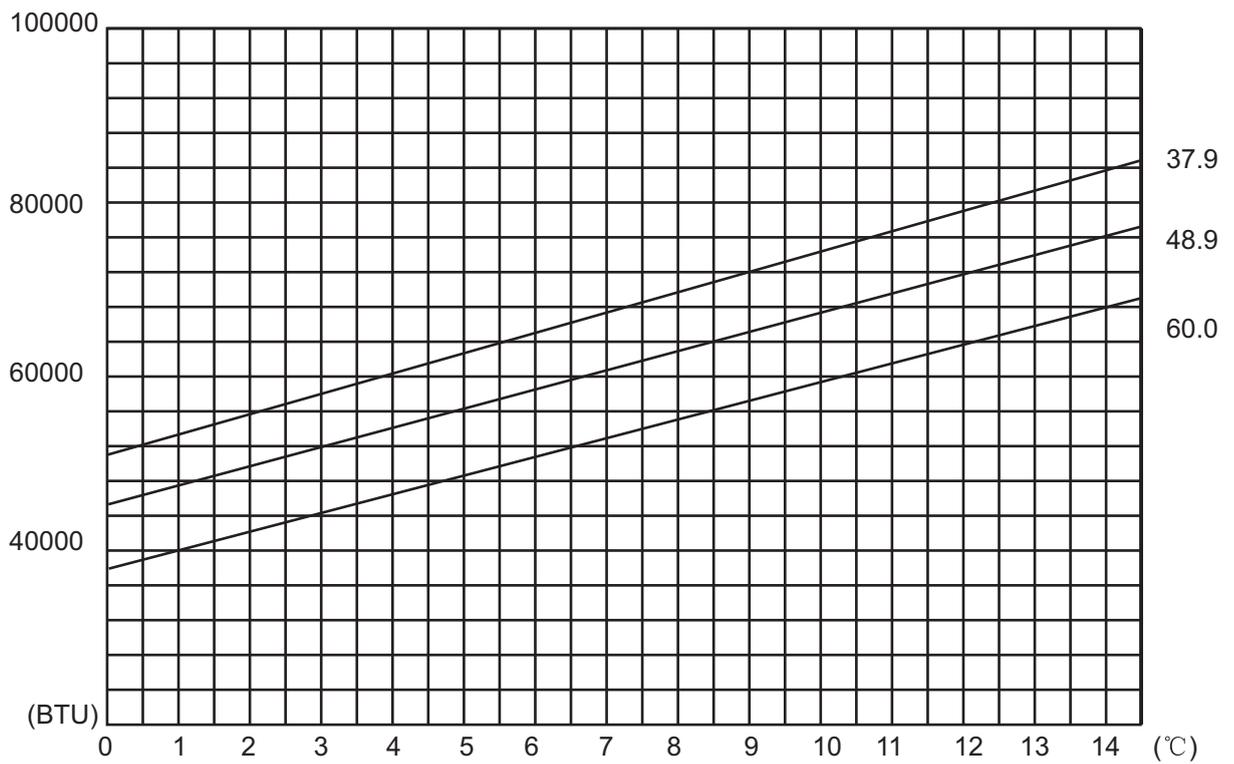
Model:	HPU-42HB03	Appearance color (internal/external):	WHITE
Outline dimension of indoor unit:	1820x530x300mm	Outline dimension of outer unit:	948x340x1225mm
Packing dimension of indoor unit:	1952x660x417mm	Packing dimension of outer unit:	1050x440x1375mm
Noise of indoor unit (cooling):	52/46/40dB(A)	Noise of outer unit (cooling):	upper/lower 58/50 dB(A)
Noise of indoor unit (heating):	50/44/38dB(A)	Noise of outer unit (heating):	64/-/-
Net/gross weight of indoor unit:	60/64kg	Net/gross weight of outdoor unit:	91/116kg
Working voltage range	380-400	Working current range	
Working temperature range	-7-43℃	Workable frequency:	50Hz
Temperature regulating difference:		Type of refrigerant	R22
Maximum mounting drop height:	30	Refrigerant charge:	4000g
Maximum length of connecting pipe:	50	Type of filter:	
Filtering efficiency:		Dimension of filter:	
Model of compressor:	C-SB373H8F	Manufacturer of compressor:	SANYO
Performance curve of compressor		Performance variation curve of fan motor	
Flow figure of two units :	10/8	Type/diameter of pipe of two units:	Φ9.52; Φ19.05
Type of stop valve:	Φ9.52; Φ19.05	Type of 4-way valve:	
Cooling coefficient	2.06	Heating coefficient:	2.5
Cooling power :	4800	Heating power:	5100
Outdoor temperature-dependent performance curve of cooling /heating capacity			
Louver size of inlet grill		Anion quantity of anionic unit	
Quantity/spacing of grill louver		Variety of fin material	Light foil
Total area of evaporator:		Coefficient of fin	
Total area of condenser:		Total length of cooling pipeline (liquid/vapor):	
Total /row number of fin:		Thickness/pitch of fins	0.35/1.9
Evaporating temperature range:		Condensing temperature range:	43-60℃
Type of drain pipe:	PVC	Protector model of control panel:	3.15A
Length/diameter of drain pipe:	Φ25(internal); Φ25(internal)	Protector model of compressor:	
Size of mounting bottom plate:	-	Temperature transducer model:	R25
Air supplying angle/distance	15m	Refrigerant charge:	
New air capacity:		Cleaning frequency of filter:	1/month
Real-time regulating range:		Type of quieter material:	XPE
All attachments type of computer plate	enclosed hereafter	Model of gas-liquid separator:	2.0L
Fan speed :		Model of dryer:	-
Type /quantity of fan	Indoor :centrifugal; outdoor : tubeaxial	Power consumption:	Indoor :130W Outdoor:60X20
Type of capillary tube:	TP2Y	Model of quieter:	Φ40X2
Diameter/length of capillary tube:		Type of vibrating material:	Plaster
Swinging frequency of outlet grill louver		Type/dimension of sterilizing net	Resin net
Maximum working pressure of heat side:	2.8MPa	Class of electrostatic prevention:	I
Indoor wet and dry bulb temperature:		Maximum working pressure of cold side:	2.94MP
Dynamic ratio:	2.73	Outdoor wet and dry bulb temperature:	see table 1
Certificate	CE	Piling layer of inner and outer units:	4/2
Function of product:	Enclosed hereafter	Filling capacity of compressor:	2070cc
Popularity of product:	1. Low noise; 2. Easy of mounting and simple of operator	Appearance characteristics of product's inner and outer unit:	Beautiful and natural

Model:	HPU-44H03	Appearance color (internal/external):	WHITE
Outline dimension of indoor unit:	1820x530x310mm	Outline dimension of outer unit:	1225x960x380mm
Packing dimension of indoor unit:	1952x660x455mm	Packing dimension of outer unit:	1370x1080x440mm
Noise of indoor unit (cooling):	52/46/40dB(A)	Noise of outer unit (cooling):	upper/lower 58/50 dB(A)
Noise of indoor unit (heating):	50/44/38dB(A)	Noise of outer unit (heating):	64/-/-
Net/gross weight of indoor unit:	60/64kg	Net/gross weight of outdoor unit:	91/116kg
Working voltage range	380-400	Working current range	
Working temperature range	-7-43℃	Workable frequency:	50Hz
Temperature regulating difference:		Type of refrigerant	R22
Maximum mounting drop height:	30	Refrigerant charge:	4000g
Maximum length of connecting pipe:	50	Type of filter:	
Filtering efficiency:		Dimension of filter:	
Model of compressor:	C-SB373H8F	Manufacturer of compressor:	SANYO
Performance curve of compressor		Performance variation curve of fan motor	
Flow figure of two units :	10/8	Type/diameter of pipe of two units:	Φ9.52; Φ19.05
Type of stop valve:	Φ9.52; Φ19.05	Type of 4-way valve:	
Cooling coefficient	2.06	Heating coefficient:	2.5
Cooling power :	4800	Heating power:	4000
Outdoor temperature-dependent performance curve of cooling /heating capacity			
Louver size of inlet grill		Anion quantity of anionic unit	
Quantity/spacing of grill louver		Variety of fin material	Light foil
Total area of evaporator:		Coefficient of fin	
Total area of condenser:		Total length of cooling pipeline (liquid/vapor):	
Total /row number of fin:		Thickness/pitch of fins	0.35/1.9
Evaporating temperature range:		Condensing temperature range:	43-60℃
Type of drain pipe:	PVC	Protector model of control panel:	3.15A
Length/diameter of drain pipe:	Φ25(internal); Φ25(internal)	Protector model of compressor:	
Size of mounting bottom plate:	-	Temperature transducer model:	R25
Air supplying angle/distance	15m	Refrigerant charge:	
New air capacity:		Cleaning frequency of filter:	1/month
Real-time regulating range:		Type of quieter material:	XPE
All attachments type of computer plate	enclosed hereafter	Model of gas-liquid separator:	2.0L
Fan speed :		Model of dryer:	-
Type /quantity of fan	Indoor :centrifugal; outdoor : tubeaxial	Power consumption:	Indoor :130W Outdoor:60X20
Type of capillary tube:	TP2Y	Model of quieter:	Φ40X2
Diameter/length of capillary tube:		Type of vibrating material:	Plaster
Swinging frequency of outlet grill louver		Type/dimension of sterilizing net	Resin net
Maximum working pressure of heat side:	2.8MPa	Class of electrostatic prevention:	I
Indoor wet and dry bulb temperature:		Maximum working pressure of cold side:	2.94MP
Dynamic ratio:	2.73	Outdoor wet and dry bulb temperature:	see table 1
Certificate	CE	Piling layer of inner and outer units:	4/2
Function of product:	Enclosed hereafter	Filling capacity of compressor:	2070cc
Popularity of product:	1. Low noise; 2. Easy of mounting and simple of operator	Appearance characteristics of product's inner and outer unit:	Beautiful and natural

(ZR3K4-PFJ-552)



(CRNQ-0500-TFD)

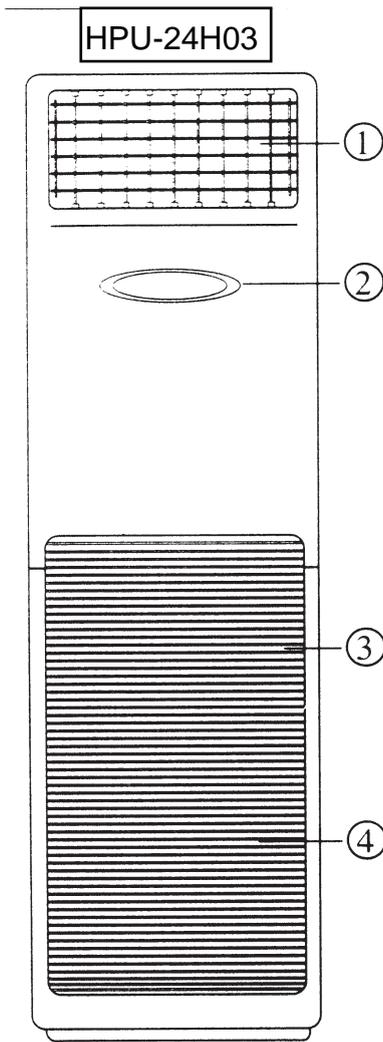


3. Product specification

Specification form of split air conditioner:

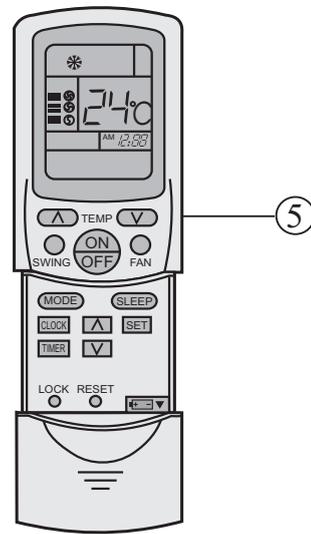
	Picture of product 1	Picture of product 2
Model of product	AP242ACAAA/AU242AHAAA	AP42NACAAA/AC42NAIAAA
Structural characteristic	Split type	Split type
Cooling capacity	24000BTU/h	42000BTH/h
Voltage	220V	380V
Series of product	Cabinet type	Cabinet type
Appearance characteristics	Circular are panel, telephone push key and control panel	Circular are panel, telephone push key and control panel
Certificate	CE	CE
Remote controller	Imitation Sharpen	Imitation Sharpen
Refrigerant	R22	R22
Climatic type	T1	T1
Dimension of indoor unit	1820x530x300	1820x530x340
Dimension of outdoor unit		1225X948X340
Packing dimension of indoor unit	1952x660x417	1952X660X455
Packing dimension of outdoor unit		1375X1110X445
Packing list		

Parts



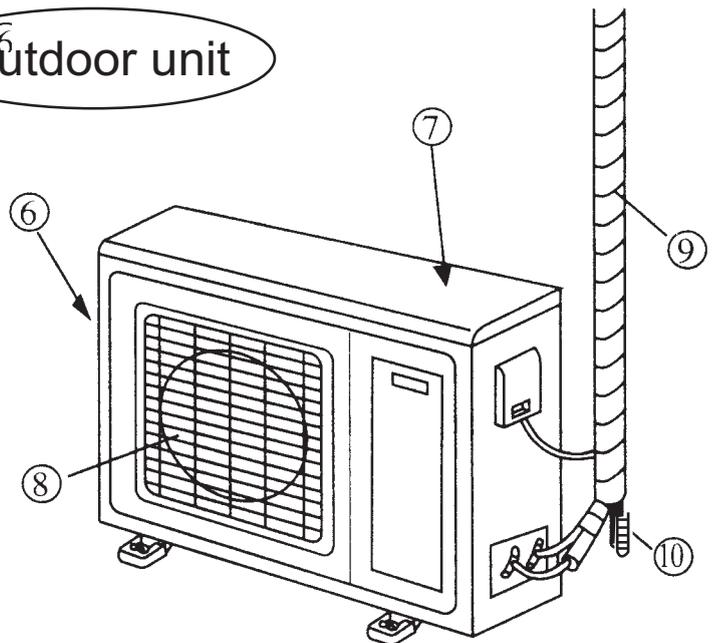
Indoor unit

- ① Outlet grill
- ② Operation panel
- ③ Inlet grill
- ④ Air filter
- ⑤ Remote-controller



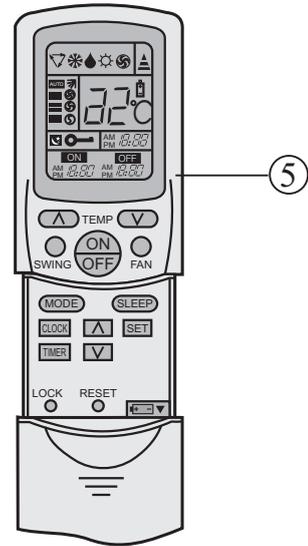
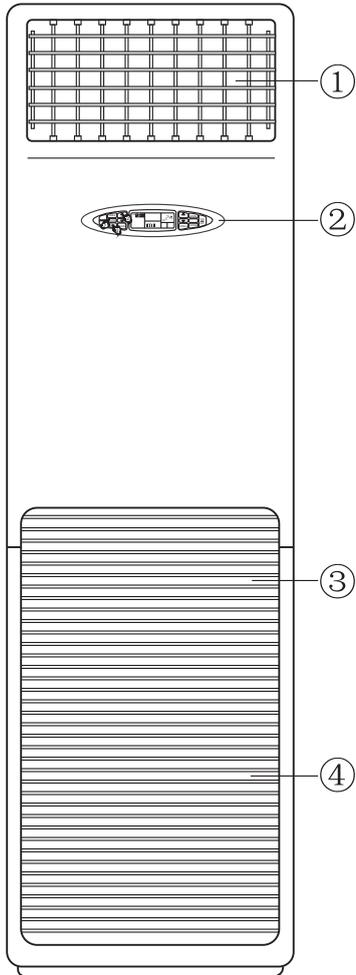
Outdoor unit

- ⑥ Air inlet
[At side and rear]
- ⑦ Compressor
[Inside the unit]
- ⑧ Air outlet
- ⑨ Piping and electric wire
- ⑩ Drain pipe

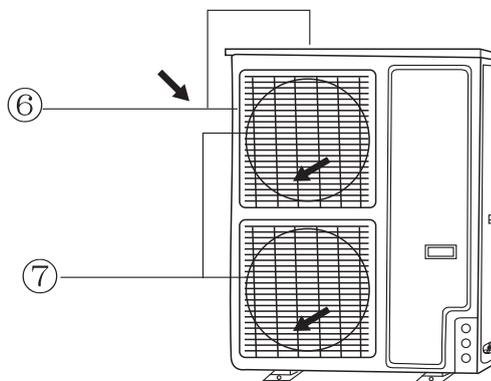


HPU-42H03 HPU-44H03 HPU-42HB03

Indoor unit

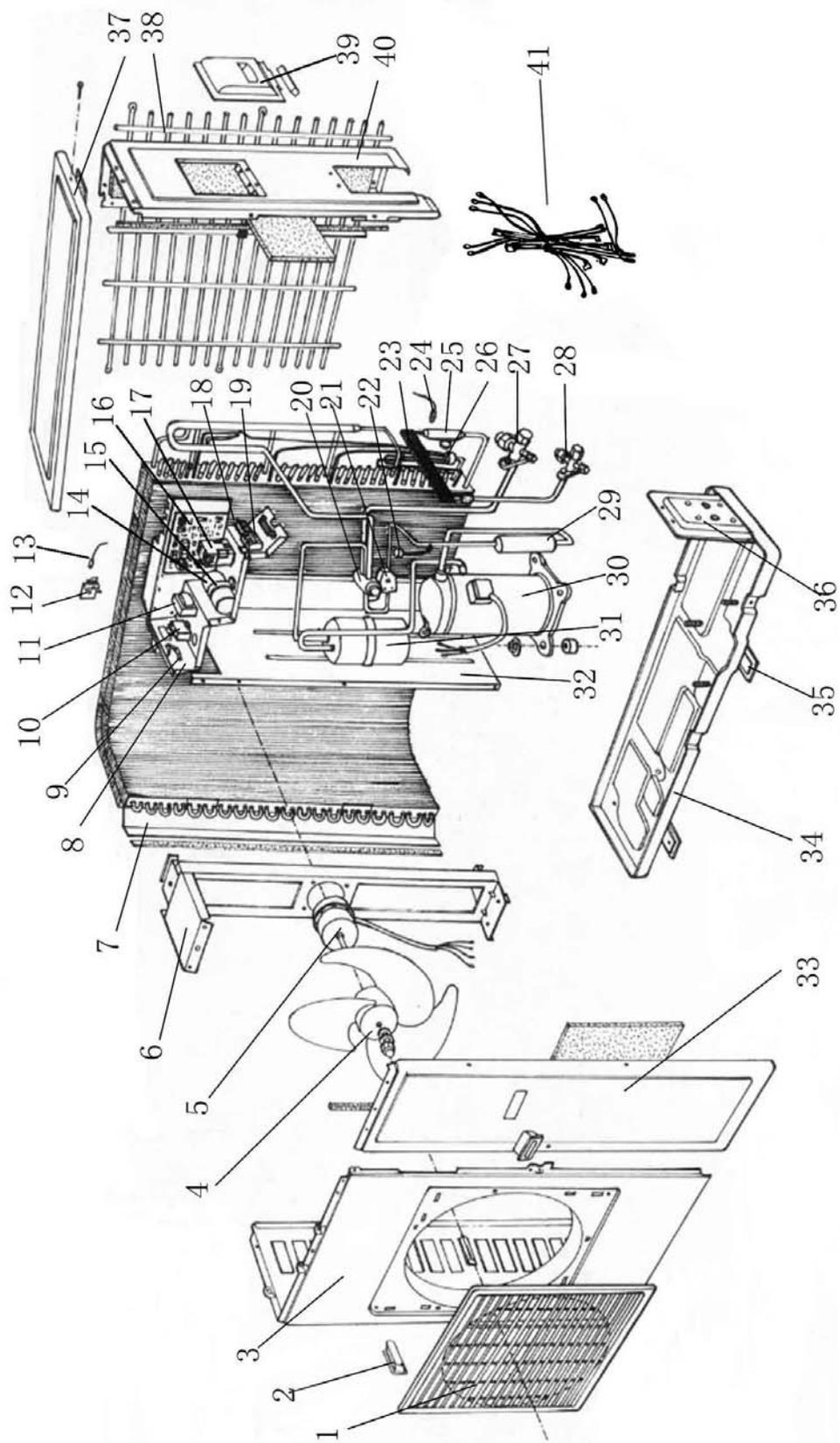


Outdoor unit



- ① Outlet grill
- ② Operation panel
- ③ Inlet grill
- ④ Air filter[Inside the unit]

- ⑤ Remote-controller
- ⑥ Air inlet
[At side and rear]
- ⑦ Air outlet



Parts list

No.	Spare parts number	Spare parts description in english	Qty.	Model	Price list	Failure rate	the proportion of the spare-part stock	Remark
1	001A1236028	Front grille	1	HPU-24H03		0.00%	0.000%	×
2	001A1436160	handle	2	HPU-24H03		0.00%	0.000%	×
3	001A0100261	Front panel	1	HPU-24H03		0.00%	0.000%	×
4	001A5402022	Axial fan	1	HPU-24H03		0.02%	0.024%	*
5	0010450280	Fan motor	1	HPU-24H03		0.02%	0.024%	*
6	001A0100266	Bracket for fan motor	1	HPU-24H03		0.00%	0.000%	×
7	001A0400119	Condenser assy.	1	HPU-24H03		0.01%	0.012%	
8	001A1301453	Electric box	1	HPU-24H03		0.00%	0.000%	×
9	001A5745009	cable clamp	1	HPU-24H03		0.00%	0.000%	×
10	001A3600018	Capacitor for fan motor	1	HPU-24H03		0.04%	0.048%	*
11	001A3800141	Resumable transformer	1	HPU-24H03		0.01%	0.012%	
12	001A5736055	clip for sensor	1	HPU-24H03		0.00%	0.000%	×
13	001A3900153	temp. Sensor (Pipe & environment)	1	HPU-24H03		0.00%	0.000%	×
14	001A3600030	Capacitor for compressor	1	HPU-24H03		0.00%	0.000%	×
15	0010100001	Capacitor clamp	1	HPU-24H03		0.00%	0.000%	×
16	001A3300270	outdoor PCB	1	HPU-24H03		0.02%	0.024%	*
17	001A3900161	AC contactor	1	HPU-24H03		0.03%	0.036%	*
18	001A4000151	Terminal block	1	HPU-24H03		0.00%	0.000%	×
19	001A4000110	electrical source connection block	1	HPU-24H03		0.00%	0.000%	×
20	001A2500081	4-way valve	1	HPU-24H03		0.00%	0.000%	×
21	001A2500076	coil of 4-way valve	1	HPU-24H03		0.00%	0.000%	×
22	001A3400138	High pressure switch	1	HPU-24H03		0.00%	0.000%	×
23	001A2611223	capillary	1	HPU-24H03		0.00%	0.000%	×
24	001A3900153	temp. Sensor (Pipe & environment)	1	HPU-24H03		0.00%	0.000%	×
25	001A2411024	filter	1	HPU-24H03		0.00%	0.000%	×
26	001A0500461	Tube assy.	1	HPU-24H03		0.00%	0.000%	×
27	001A2500083	3-way stop valve	1	HPU-24H03		0.00%	0.000%	×
28	001A2500082	2-way stop valve	1	HPU-24H03		0.00%	0.000%	×
29	001A2111912	muffle	1	HPU-24H03		0.00%	0.000%	×
30	0010700774	Compressor	1	HPU-24H03		0.06%	0.072%	*
31	001A2101857	Accumulator	1	HPU-24H03		0.00%	0.000%	×
32	001A0100350	Partition plate	1	HPU-24H03		0.00%	0.000%	×
33	001A0100524	Front panel	1	HPU-24H03		0.00%	0.000%	×
34	001A0100351	Bottom cover assy.	1	HPU-24H03		0.00%	0.000%	×
35	001A1301117	branch triby	1	HPU-24H03		0.00%	0.000%	×
36	001A1301506	Valve pedestal	1	HPU-24H03		0.00%	0.000%	×
37	001A0100264	Top cover assy.	1	HPU-24H03		0.00%	0.000%	×
38	001A0100109	Back grille	1	HPU-24H03		0.00%	0.000%	×
39	001A0100394	Junction box	1	HPU-24H03		0.00%	0.000%	×
40	001A0100390	Slide plate(right)	1	HPU-24H03		0.00%	0.000%	×

41	001A4400511	wire assy.	1	HPU-24H03		0.00%	0.000%	x
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1,The failer rate and the proportion of the spare-part stock are regarded as the reference of the stock for spare-parts;The first time should be stocked accroded with the proportion of the spare-parts,and it should be adjusted with the actual quantity 3 months later.

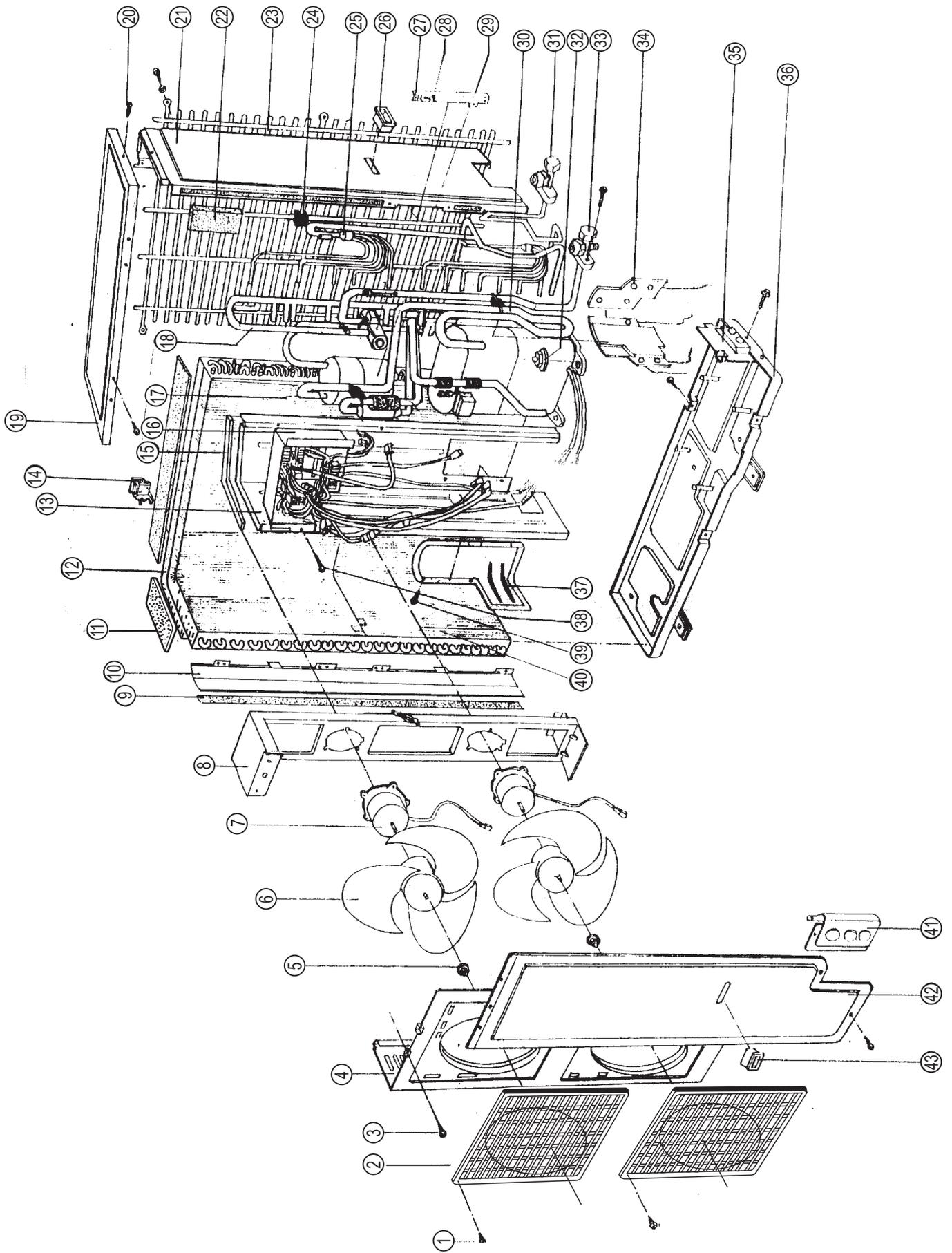
2,easy-damaged;The spare-part which is often damaged and the customer must stock in the spare-parts warehouse,and should be marked with""

3,possible damaged:The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case,should be marked with "

4,not need provided :The spare-part which is seldom damaged or the maintenance man could not maitmains.The spare parts may be air freighted by the factory if they were damaged.The customer nees not stock in the spare-part warehouse,should be marked with " x ".

5,Above should be improved accord with the reply of the market half a year per time.

6.The spare parts price on net is FOB Qingdao term.



Bristol Compressor

Detailed statement of explosion figure					
Model No. AP42NACAAA/AU42NAIAAA outdoor unit					
No.	Specific number	Name	Single consumption	Type of material	Weight of material
1	5002108	Screw	4	Stainless steel	
2	1236028	Front guard web	2	Weather resisting PP	580
3	5002005	Screw	5	Nick treatment	
4	1301640	Left front panel	1	Electro-zincd plate	6040
5	5102027	Cap nut	2	M10	
6	5402022	Tubeaxial fan	2	ABS-fiber glass	1245
7	3000244	Motor	2		
8	1001645	Motor bracket	1	1.5 Heating zinc plate	2550
9	17421215	Vertical strip foam	1	PU	
10	1301469	Vertical strip	1	0.8 Heating zinc plate	255
11	17341207	Damping cushion	1	PE	
12	0400164	Upper heat exchanger assembly	1		
13	1301468	Partition plate	1	0.8 Heating zinc plate	1810
14	5736055	Ambient temperature thermistor clamp	1	Weather resisting PP	
15	17561212	Partition pad	1	Rubber	
16	0600566	Electrical box assembly	1		
17	0500528	Discharge piping assembly	1		
18	0500521	Upper discharge piping assembly	1		
19	1101034	Cover	1	0.8 electro zinc plate	2330
20	5002152	Specific screw	6	Stainless steel	
21	1101197	Right side plate	1	0.8 electro zinc plate	3740
22	17621214	Right side liner	2	Glass wool	
23	1303642	Heat exchanger guard web	1	Steel wire	1610
24	1752285	Rubber block	2	Chloroprene rubber RE610	6
25	0500522	Upper feed pipe assembly	1		
26	1436160	Handle	1	Weather resisting PP	19
27	1301465	Dead plate	1	1.0 Heating zinc plate	7.5
28	2500117	4-way valve	1		
29	2000175	Accumulator	1		
30	0500520	Suction piping assembly	1		
31	2500115	2-way stop valve	1		
32	5102050	Flaring nut	4		
33	2500116	3-way stop valve	1		
34	17621208	Damping cushion sleeve	1	Composite thermal insulation cotton	250
35	1301762	Valve base	1	1.5 electric zinc plate	400
36	0100735	Bottom plate assembly	1		
37	1431952	Bracket	1	Heat-resisting ABS	
38	5002103	Screw	1	Stainless steel	
39	5002103	Screw	3	Stainless steel	
40	0400164	Lower heat exchanger group	1		
41	1301464	Little cover	1	Electric zinc plate	
42	1301707	Servicing plate	1	Electric zinc plate 0.8	1920
43	1436160	Handle	1	Weather resisting PP	19

Parts list

No.	Spare parts number	Spare parts description in english	Qty.	Model	Price list	Failure rate	the proportion of the spare-part stock	Remark
1	001A5002108	Screw	4	HPU-42HB03		0.00%	0.000%	×
2	001A1236028	Front guard web	2	HPU-42HB03		0.00%	0.000%	×
3	001A5002005	Screw	1	HPU-42HB03		0.00%	0.000%	×
4	001A1301640	Left front panel	1	HPU-42HB03		0.00%	0.000%	×
5	001A5102027	Cap nut	1	HPU-42HB03		0.00%	0.000%	×
6	001A5402022	Axial fan	1	HPU-42HB03		0.02%	0.024%	*
7	001A3000244	Motor	1	HPU-42HB03		0.02%	0.024%	*
8	001A1301645	Motor bracket	1	HPU-42HB03		0.00%	0.000%	×
9	001A17421215	Vertical strip foam	1	HPU-42HB03		0.00%	0.000%	×
10	001A1301469	Vertical strip	1	HPU-42HB03		0.00%	0.000%	×
11	001A17341207	Damping cushion	1	HPU-42HB03		0.00%	0.000%	×
12	0010400164	sensor	1	HPU-42HB03		0.01%	0.012%	
13	001A1301468	Partition plate	1	HPU-42HB03		0.00%	0.000%	×
14	001A5736055	Ambient temperature thermistor clamp	1	HPU-42HB03		0.00%	0.000%	×
15	001A17561212	Partition pad	1	HPU-42HB03		0.00%	0.000%	×
16	001A0600566	Electrical box assembly	1	HPU-42HB03		0.00%	0.000%	*
17	001A0500528	assembly	1	HPU-42HB03		0.00%	0.000%	*
18	001A0500521	Upper discharge piping assembly	1	HPU-42HB03		0.00%	0.000%	×
19	001A1101034	Cover	1	HPU-42HB03		0.00%	0.000%	×
20	001A5002152	Specific screw	1	HPU-42HB03		0.00%	0.000%	×
21	001A1101197	Right side plate	1	HPU-42HB03		0.00%	0.000%	×
22	001A17621214	Right side liner	1	HPU-42HB03		0.00%	0.000%	×
23	001A0100767	web	1	HPU-42HB03		0.00%	0.000%	×
24	001A1752289	Rubber block	1	HPU-42HB03		0.00%	0.000%	×
25	001A0500522	assembly	1	HPU-42HB03		0.00%	0.000%	×
26	001A1436160	Handle	1	HPU-42HB03		0.00%	0.000%	×
27	001A1301465	Dead plate	1	HPU-42HB03		0.00%	0.000%	×
28	001A2500117	4-way valve	1	HPU-42HB03		0.00%	0.000%	×
29	001A2000175	Accumulator	1	HPU-42HB03		0.00%	0.000%	×
30	0010750042	assembly	1	HPU-42HB03		0.06%	0.072%	*
31	001A2500115	2-way stop valve	1	HPU-42HB03		0.00%	0.000%	×
32	001A5102050	Flaring nut	1	HPU-42HB03		0.00%	0.000%	×
33	001A2500116	3-way stop valve	1	HPU-42HB03		0.00%	0.000%	×
34	001A17621208	sleeve	1	HPU-42HB03		0.00%	0.000%	×
35	001A1301762	Valve base	1	HPU-42HB03		0.00%	0.000%	×
36	001A0100735	Bottom plate assembly	1	HPU-42HB03		0.00%	0.000%	×
37	001A1431952	Bracket	1	HPU-42HB03		0.00%	0.000%	×
38	001A5002103	Screw	1	HPU-42HB03		0.00%	0.000%	×
39	001A5002103	Screw	1	HPU-42HB03		0.00%	0.000%	×
40	0010751095	Heat exchanger group	1	HPU-42HB03		0.01%	0.012%	
41	001A1301464	Little cover	1	HPU-42HB03		0.00%	0.000%	×
42	001A1301707	Servicing plate	1	HPU-42HB03		0.00%	0.000%	×

43	001A1436160	Handle	1	HPU-42HB03		0.00%	0.000%	x
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Parts list

No.	Spare parts number	Spare parts description in english	Qty.	Model	Price list	Failure rate	the proportion of the spare-part stock	Remark
1	001A5002108	Screw	4	HPU-44H03		0.00%	0.000%	×
2	001A1236028	Front guard web	2	HPU-44H03		0.00%	0.000%	×
3	001A5002005	Screw	1	HPU-44H03		0.00%	0.000%	×
4	001A1301640	Left front panel	1	HPU-44H03		0.00%	0.000%	×
5	001A5102027	Cap nut	1	HPU-44H03		0.00%	0.000%	×
6	001A5402022	Axial fan	1	HPU-44H03		0.02%	0.024%	*
7	001A3000244	Motor	1	HPU-44H03		0.02%	0.024%	*
8	001A1301645	Motor bracket	1	HPU-44H03		0.00%	0.000%	×
9	001A17421215	Vertical strip foam	1	HPU-44H03		0.00%	0.000%	×
10	001A1301469	Vertical strip	1	HPU-44H03		0.00%	0.000%	×
11	001A17341207	Damping cushion	1	HPU-44H03		0.00%	0.000%	×
12	0010400164	assembly	1	HPU-44H03		0.01%	0.012%	
13	001A1301468	Partition plate	1	HPU-44H03		0.00%	0.000%	×
14	001A5736055	Ambient temperature thermistor clamp	1	HPU-44H03		0.00%	0.000%	×
15	001A17561212	Partition pad	1	HPU-44H03		0.00%	0.000%	×
16	001A0600566	assembly	1	HPU-44H03		0.00%	0.000%	*
17	001A0500528	assembly	1	HPU-44H03		0.00%	0.000%	*
18	001A0500521	Upper discharge piping assembly	1	HPU-44H03		0.00%	0.000%	×
19	001A1101034	Cover	1	HPU-44H03		0.00%	0.000%	×
20	001A5002152	Specific screw	1	HPU-44H03		0.00%	0.000%	×
21	001A1101197	Right side plate	1	HPU-44H03		0.00%	0.000%	×
22	001A17621214	Right side liner	1	HPU-44H03		0.00%	0.000%	×
23	001A0100767	web	1	HPU-44H03		0.00%	0.000%	×
24	001A1752289	Rubber block	1	HPU-44H03		0.00%	0.000%	×
25	001A0500522	assembly	1	HPU-44H03		0.00%	0.000%	×
26	001A1436160	Handle	1	HPU-44H03		0.00%	0.000%	×
27	001A1301465	Dead plate	1	HPU-44H03		0.00%	0.000%	×
28	001A2500117	4-way valve	1	HPU-44H03		0.00%	0.000%	×
29	001A2000175	Accumulator	1	HPU-44H03		0.00%	0.000%	×
30	0010750042	assembly	1	HPU-44H03		0.06%	0.072%	*
31	001A2500115	2-way stop valve	1	HPU-44H03		0.00%	0.000%	×
32	001A5102050	Flaring nut	1	HPU-44H03		0.00%	0.000%	×
33	001A2500116	3-way stop valve	1	HPU-44H03		0.00%	0.000%	×
34	001A17621208	sleeve	1	HPU-44H03		0.00%	0.000%	×
35	001A1301762	Valve base	1	HPU-44H03		0.00%	0.000%	×
36	001A0100735	Bottom plate assembly	1	HPU-44H03		0.00%	0.000%	×
37	001A1431952	Bracket	1	HPU-44H03		0.00%	0.000%	×
38	001A5002103	Screw	1	HPU-44H03		0.00%	0.000%	×
39	001A5002103	Screw	1	HPU-44H03		0.00%	0.000%	×
40	0010751095	group	1	HPU-44H03		0.01%	0.012%	
41	001A1301464	Little cover	1	HPU-44H03		0.00%	0.000%	×
42	001A1301707	Servicing plate	1	HPU-44H03		0.00%	0.000%	×

43	001A1436160	Handle	1	HPU-44H03		0.00%	0.000%	x
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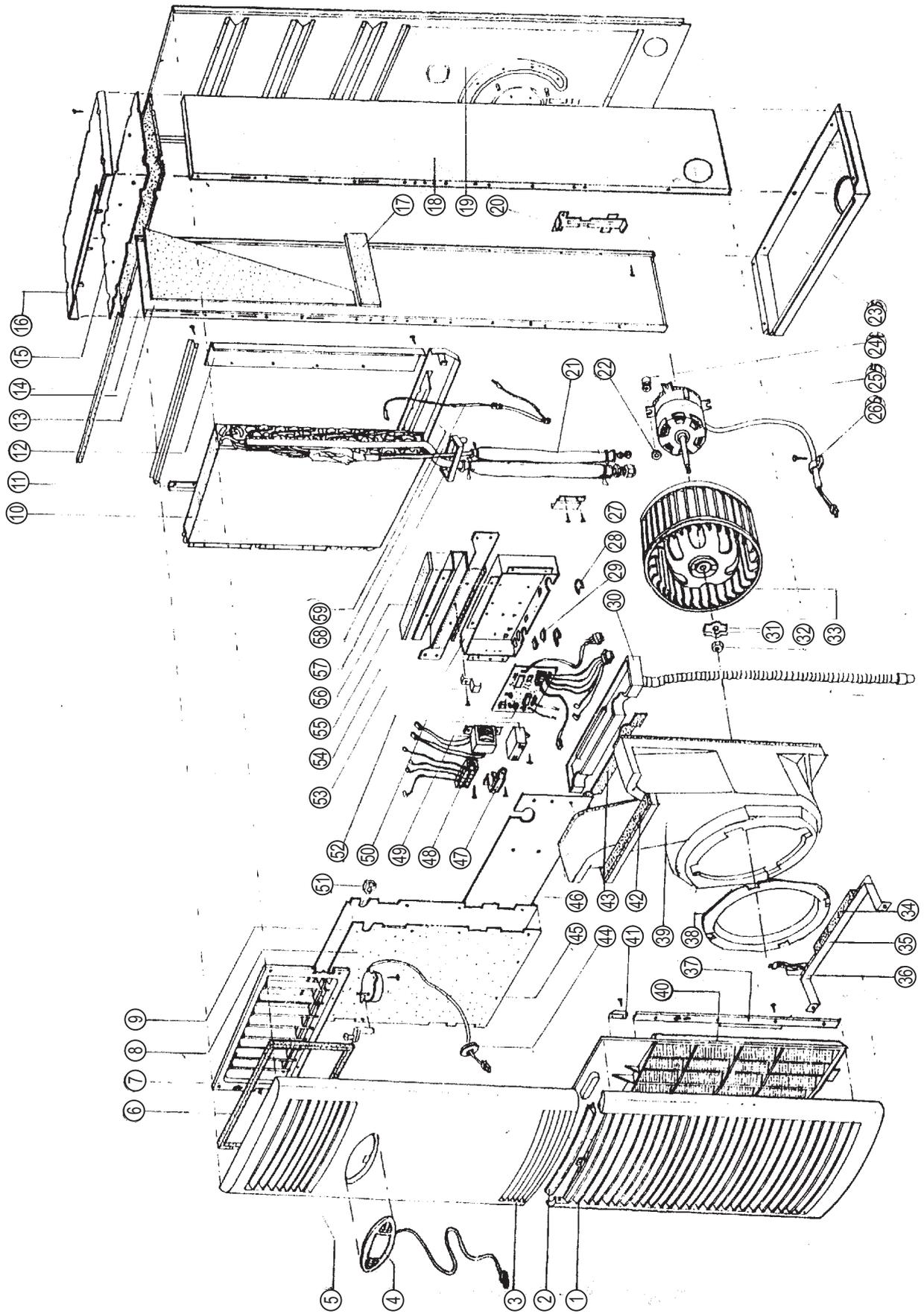
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Parts list

No.	Spare parts number	Spare parts description in english	Qty.	Model	Price list	Failure rate	the proportion of the spare-part stock	Remark
1	001A1231233	Inlet grill	1	HPU-24H03		0.00%	0.000%	×
2	001A1301502	Inlet grill insert	2	HPU-24H03		0.00%	0.000%	×
3	001A0100384	Front panel	1	HPU-24H03		0.00%	0.000%	×
4	001A0600657	Operation panel	1	HPU-24H03		0.00%	0.000%	×
5	001A1432687	Horizontal blade	6	HPU-24H03		0.00%	0.000%	×
6	001A1734970	pad	2	HPU-24H03		0.00%	0.000%	×
7	001A1431689	Vertical blade	1	HPU-24H03		0.00%	0.000%	×
8	001A1734832	Air damper pad	1	HPU-24H03		0.00%	0.000%	×
9	001A1301508	Air damper	1	HPU-24H03		0.00%	0.000%	×
10	001A0400118	assembly	1	HPU-24H03		0.01%	0.012%	
11	001A1301440	Evaporator left mounting plate	1	HPU-24H03		0.00%	0.000%	×
12	001A1301441	Evaporator right mounting plate	1	HPU-24H03		0.00%	0.000%	×
13	0010150192	Left board	1	HPU-24H03		0.00%	0.000%	×
14	001A17341250	Left board pad	1	HPU-24H03		0.00%	0.000%	×
15	001A1301439	Top cover plate	1	HPU-24H03		0.00%	0.000%	×
16	001A1742836	Cover	1	HPU-24H03		0.00%	0.000%	×
17	001A1734023	horizontal pad	1	HPU-24H03		0.00%	0.000%	×
18	0010150193	Right board	1	HPU-24H03		0.00%	0.000%	×
19	001A0100787	Back guard	1	HPU-24H03		0.00%	0.000%	×
20	001A1101145	Wiring plate	1	HPU-24H03		0.00%	0.000%	×
21	001A1734842	pipe	1	HPU-24H03		0.00%	0.000%	×
22	001A5002078	Special nut	1	HPU-24H03		0.00%	0.000%	×
23	001A0100575	Bottom plate	1	HPU-24H03		0.00%	0.000%	×
24	001A1745106	Plastic cushion	1	HPU-24H03		0.00%	0.000%	×
25	0010402372	Motor	1	HPU-24H03		0.02%	0.024%	*
26	001A5739020	clamp	1	HPU-24H03		0.00%	0.000%	×
27	001A1101146	Pipe press plate	1	HPU-24H03		0.00%	0.000%	×
28	001A1752911	Cushion rubber	1	HPU-24H03		0.00%	0.000%	×
29	001A1452695	Cushion rubber	1	HPU-24H03		0.00%	0.000%	×
30	0010250163	Drain pan	1	HPU-24H03		0.00%	0.000%	×
31	001A1452695	Fan pad	1	HPU-24H03		0.00%	0.000%	×
32	001A5102050	Nut	1	HPU-24H03		0.00%	0.000%	×
33	001A2300062	Centrifugal fan	1	HPU-24H03		0.02%	0.024%	*
34	001A1742931	Down shell press plate cushion	1	HPU-24H03		0.00%	0.000%	×
35	001A1301445	plate	1	HPU-24H03		0.00%	0.000%	×
36	001A1431647	(plasticizing)	1	HPU-24H03		0.00%	0.000%	×
37	001A1301437	Filter guide		HPU-24H03		0.00%	0.000%	×

38	0010200026	Air ring	1	HPU-24H03		0.00%	0.000%	×
39	001A0100385	Down shell	1	HPU-24H03		0.00%	0.000%	×
40	001A2400102	Filter	1	HPU-24H03		0.00%	0.000%	×
41	001A0100075	Door lock	1	HPU-24H03		0.00%	0.000%	×
42	001A1734967	Sealing plate	1	HPU-24H03		0.00%	0.000%	×
43	001A17621241	Sealing plate	1	HPU-24H03		0.00%	0.000%	×
44	001A1757833	Cushion rubber	1	HPU-24H03		0.00%	0.000%	×
45	001A3000016A	Synchro-motor	1	HPU-24H03		0.02%	0.024%	*
46	001A1301448	Wring cover	1	HPU-24H03		0.00%	0.000%	×
47	001A1431647	Wire clamp	1	HPU-24H03		0.00%	0.000%	×
48	001A4000151	column)	1	HPU-24H03		0.00%	0.000%	×
49	001A3800141	Transformer	1	HPU-24H03		0.01%	0.012%	
50	001A3600018	Fan capacitor	1	HPU-24H03		0.04%	0.048%	*
51	001A1452695	Cushion rubber	1	HPU-24H03		0.00%	0.000%	×
52	001A0600303	Indoor PCB	1	HPU-24H03		0.02%	0.024%	*
53	/	/		HPU-24H03				
54	001A13011074	Electric box	1	HPU-24H03		0.00%	0.000%	×
55	001A1301444	Mounting beam	1	HPU-24H03		0.00%	0.000%	×
56	001A1734967	Sealing plate	1	HPU-24H03		0.00%	0.000%	×
57	001A1752840	Supporting plate	1	HPU-24H03		0.00%	0.000%	×
58	001A3900006	Pipe temp. sensor	1	HPU-24H03		0.00%	0.000%	×
59	001A0100407	Splint	1	HPU-24H03		0.00%	0.000%	×

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Parts list

No.	Spare parts number	Spare parts description in english	Qty.	Model	Price list	Failure rate	proportion of the spare-part stock	Remark
1	001A1231233	Inlet grill	1	HPU-42HB03		0.00%	0.000%	×
2	001A1301502	Inlet grill insert	2	HPU-42HB03		0.00%	0.000%	×
3	001A0100384	Front panel	1	HPU-42HB03		0.00%	0.000%	×
4	001A0600657	Operation panel	1	HPU-42HB03		0.00%	0.000%	×
5	001A1432687	Horizontal blade	6	HPU-42HB03		0.00%	0.000%	×
6	001A1734970	Vertical air outlet pad	2	HPU-42HB03		0.00%	0.000%	×
7	001A1431689	Vertical blade	1	HPU-42HB03		0.00%	0.000%	×
8	001A1734832	Air damper pad	1	HPU-42HB03		0.00%	0.000%	×
9	001A1301508	Air damper	1	HPU-42HB03		0.00%	0.000%	×
10	001A0400178	assembly	1	HPU-42HB03		0.01%	0.012%	
11	001A1301847	Evaporator left mounting plate	1	HPU-42HB03		0.00%	0.000%	×
12	001A1301848	Evaporator right mounting plate	1	HPU-42HB03		0.00%	0.000%	×
13	0010150194	Left board	1	HPU-42HB03		0.00%	0.000%	×
14	001A17341222	Left board pad	1	HPU-42HB03		0.00%	0.000%	×
15	001A1301846	Top cover plate	1	HPU-42HB03		0.00%	0.000%	×
16	001A1431994	Cover	1	HPU-42HB03		0.00%	0.000%	×
17	001A17561372	pad	1	HPU-42HB03		0.00%	0.000%	×
18	0010150195	Right board	1	HPU-42HB03		0.00%	0.000%	×
19	001A0100787	Back guard	1	HPU-42HB03		0.00%	0.000%	×
20	001A1101145	Wiring plate	1	HPU-42HB03		0.00%	0.000%	×
21	001A1734842	Thermal insulation pipe	1	HPU-42HB03		0.00%	0.000%	×
22	001A5002078	Special nut	1	HPU-42HB03		0.00%	0.000%	×
23	001A0100575	Bottom plate	1	HPU-42HB03		0.00%	0.000%	×
24	001A1745106	Plastic cushion	1	HPU-42HB03		0.00%	0.000%	×
25	001A3000249	Motor	1	HPU-42HB03		0.02%	0.024%	*
26	001A5739020	Mounting wiring clamp	1	HPU-42HB03		0.00%	0.000%	×
27	001A1101146	Pipe press plate	1	HPU-42HB03		0.00%	0.000%	×
28	001A1752911	Cushion rubber	1	HPU-42HB03		0.00%	0.000%	×
29	001A1452695	Cushion rubber	1	HPU-42HB03		0.00%	0.000%	×
30	0010250163	Drain pan	1	HPU-42HB03		0.00%	0.000%	×
31	001A1452695	Fan pad	1	HPU-42HB03		0.00%	0.000%	×
32	001A5102050	Nut	1	HPU-42HB03		0.00%	0.000%	×
33	001A2300095	Centrifugal fan	1	HPU-42HB03		0.02%	0.024%	*
34	001A1742931	Down shell press plate cushion	1	HPU-42HB03		0.00%	0.000%	×
35	001A1301445	Down shell press plate	1	HPU-42HB03		0.00%	0.000%	×
36	001A1431647	(plasticizing)	1	HPU-42HB03		0.00%	0.000%	×
37	001A1301437	Filter guide		HPU-42HB03		0.00%	0.000%	×
38	0010200026	Air ring	1	HPU-42HB03		0.00%	0.000%	×
39	001A0100385	Down shell	1	HPU-42HB03		0.00%	0.000%	×

40	001A2400102	Filter	1	HPU-42HB03		0.00%	0.000%	x
41	001A0100075	Door lock	1	HPU-42HB03		0.00%	0.000%	x
42	001A1734967	Sealing plate	1	HPU-42HB03		0.00%	0.000%	x
43	001A17621241	Sealing plate	1	HPU-42HB03		0.00%	0.000%	x
44	001A1757833	Cushion rubber	1	HPU-42HB03		0.00%	0.000%	x
45	001A3000016A	Synchro-motor	1	HPU-42HB03		0.02%	0.024%	*
46	001A1301448	Wring cover	1	HPU-42HB03		0.00%	0.000%	x
47	001A1431647	Wire clamp	1	HPU-42HB03		0.00%	0.000%	x
48	001A4000151	column)	1	HPU-42HB03		0.00%	0.000%	x
49	001A3800141	Transformer	1	HPU-42HB03		0.01%	0.012%	
50	001A3600134	Fan capacitor	1	HPU-42HB03		0.04%	0.048%	*
51	001A1452695	Cushion rubber	1	HPU-42HB03		0.00%	0.000%	x
52	0010450412	Indoor PCB	1	HPU-42HB03		0.02%	0.024%	*
53	/	/		HPU-42HB03				
54	001A13011074	Electric box	1	HPU-42HB03		0.00%	0.000%	x
55	001A1301444	Mounting beam	1	HPU-42HB03		0.00%	0.000%	x
56	001A1734967	Sealing plate	1	HPU-42HB03		0.00%	0.000%	x
57	001A1752840	Supporting plate	1	HPU-42HB03		0.00%	0.000%	x
58	001A3900006	Pipe temp. sensor	1	HPU-42HB03		0.00%	0.000%	x
59	001A0100407	Splint	1	HPU-42HB03		0.00%	0.000%	x

1, The failer rate and the proportion of the spare-part stock are regarded as the reference of the stock for spare-parts; The first time should be stocked accorded with the proportion of the spare-parts, and it should be adjusted with the actual quantity 3 months later.

2, easy-damaged; The spare-part which is often damaged and the customer must stock in the spare-parts warehouse, and should be marked with "*".

3, possible damaged. The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case, should be marked with " "

4, not need provided : The spare-part which is seldom damaged or the maintenance man could not maintain. The spare parts may be air freighted by the factory if they were damaged. The customer does not stock in the spare-part warehouse, should be marked with " x ".

5, Above should be improved accord with the reply of the market half a year per time.

6. The spare parts price on net is FOB Qingdao term.

Parts list

No.	Spare parts number	Spare parts description in english	Qty	Model	Price list	Failure rate	proportion of the spare-part stock	Remark
1	001A1231233	Inlet grill	1	HPU-44H03		0.00%	0.000%	×
2	001A1301502	Inlet grill insert	2	HPU-44H03		0.00%	0.000%	×
3	001A0100384	Front panel	1	HPU-44H03		0.00%	0.000%	×
4	001A0600657	Operation panel	1	HPU-44H03		0.00%	0.000%	×
5	001A1432687	Horizontal blade	6	HPU-44H03		0.00%	0.000%	×
6	001A1734970	Vertical air outlet pad	2	HPU-44H03		0.00%	0.000%	×
7	001A1431689	Vertical blade	1	HPU-44H03		0.00%	0.000%	×
8	001A1734832	Air damper pad	1	HPU-44H03		0.00%	0.000%	×
9	001A1301508	Air damper	1	HPU-44H03		0.00%	0.000%	×
10	001A0400178	assembly	1	HPU-44H03		0.01%	0.012%	
11	001A1301847	Evaporator left mounting plate	1	HPU-44H03		0.00%	0.000%	×
12	001A1301848	Evaporator right mounting plate	1	HPU-44H03		0.00%	0.000%	×
13	0010150194	Left board	1	HPU-44H03		0.00%	0.000%	×
14	001A17341222	Left board pad	1	HPU-44H03		0.00%	0.000%	×
15	001A1301846	Top cover plate	1	HPU-44H03		0.00%	0.000%	×
16	001A1431994	Cover	1	HPU-44H03		0.00%	0.000%	×
17	001A17561372	pad	1	HPU-44H03		0.00%	0.000%	×
18	0010150195	Right board	1	HPU-44H03		0.00%	0.000%	×
19	001A0100787	Back guard	1	HPU-44H03		0.00%	0.000%	×
20	001A1101145	Wiring plate	1	HPU-44H03		0.00%	0.000%	×
21	001A1734842	pipe	1	HPU-44H03		0.00%	0.000%	×
22	001A5002078	Special nut	1	HPU-44H03		0.00%	0.000%	×
23	001A0100575	Bottom plate	1	HPU-44H03		0.00%	0.000%	×
24	001A1745106	Plastic cushion	1	HPU-44H03		0.00%	0.000%	×
25	001A3000249	Motor	1	HPU-44H03		0.02%	0.024%	*
26	001A5739020	clamp	1	HPU-44H03		0.00%	0.000%	×
27	001A1101146	Pipe press plate	1	HPU-44H03		0.00%	0.000%	×
28	001A1752911	Cushion rubber	1	HPU-44H03		0.00%	0.000%	×
29	001A1452695	Cushion rubber	1	HPU-44H03		0.00%	0.000%	×
30	0010250163	Drain pan	1	HPU-44H03		0.00%	0.000%	×
31	001A1452695	Fan pad	1	HPU-44H03		0.00%	0.000%	×
32	001A5102050	Nut	1	HPU-44H03		0.00%	0.000%	×
33	001A2300095	Centrifugal fan	1	HPU-44H03		0.02%	0.024%	*
34	001A1742931	Down shell press plate cushion	1	HPU-44H03		0.00%	0.000%	×
35	001A1301445	plate	1	HPU-44H03		0.00%	0.000%	×
36	001A1431647	(plasticizing)	1	HPU-44H03		0.00%	0.000%	×
37	001A1301437	Filter guide		HPU-44H03		0.00%	0.000%	×

38	0010200026	Air ring	1	HPU-44H03		0.00%	0.000%	×
39	001A0100385	Down shell	1	HPU-44H03		0.00%	0.000%	×
40	001A2400102	Filter	1	HPU-44H03		0.00%	0.000%	×
41	001A0100075	Door lock	1	HPU-44H03		0.00%	0.000%	×
42	001A1734967	Sealing plate	1	HPU-44H03		0.00%	0.000%	×
43	001A17621241	Sealing plate	1	HPU-44H03		0.00%	0.000%	×
44	001A1757833	Cushion rubber	1	HPU-44H03		0.00%	0.000%	×
45	001A3000016A	Synchro-motor	1	HPU-44H03		0.02%	0.024%	*
46	001A1301448	Wring cover	1	HPU-44H03		0.00%	0.000%	×
47	001A1431647	Wire clamp	1	HPU-44H03		0.00%	0.000%	×
48	001A4000151	column)	1	HPU-44H03		0.00%	0.000%	×
49	001A3800141	Transformer	1	HPU-44H03		0.01%	0.012%	
50	001A3600134	Fan capacitor	1	HPU-44H03		0.04%	0.048%	*
51	001A1452695	Cushion rubber	1	HPU-44H03		0.00%	0.000%	×
52	001A0600303	Indoor PCB	1	HPU-44H03		0.02%	0.024%	*
53	/	/		HPU-44H03				
54	001A13011074	Electric box	1	HPU-44H03		0.00%	0.000%	×
55	001A1301444	Mounting beam	1	HPU-44H03		0.00%	0.000%	×
56	001A1734967	Sealing plate	1	HPU-44H03		0.00%	0.000%	×
57	001A1752840	Supporting plate	1	HPU-44H03		0.00%	0.000%	×
58	001A3900006	Pipe temp. sensor	1	HPU-44H03		0.00%	0.000%	×
59	001A0100407	Splint	1	HPU-44H03		0.00%	0.000%	×

1,The failer rate and the proportion of the spare-part stock are regarded as the reference of the stock for spare-parts;The first time should be stocked accroded with the proportion of the spare-parts,and it should be adjusted with the actual quantity 3 months later.

2,easy-damaged;The spare-part which is often damaged and the customer must stock in the spare-parts warehouse,and should be marked with"*"

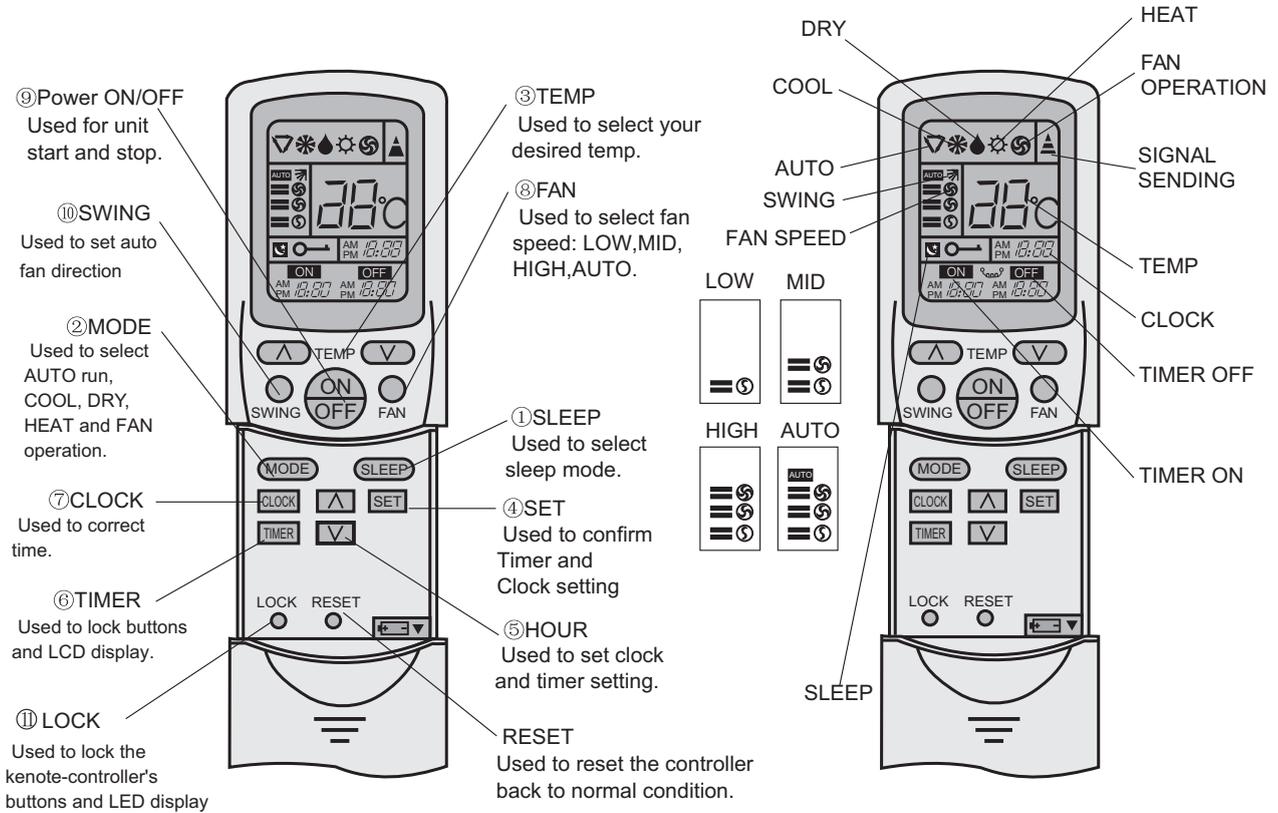
3,possible damaged:The spare-part which is not often damaged like the easy damaged one and the customer may stock in the spare-part warehouse accord with the actual case,should be marked with " ".

4,not need provided :The spare-part which is seldom damaged or the maintenance man could not maitmains.The spare parts may be air freighted by the factory if they were damaged.The customer nees not stock in the spare-part warehouse,should be marked with " x ".

5,Above should be improved accord with the reply of the market half a year per time.

6.The spare parts price on net is FOB Qingdao term.

Remote controlled operation



Operation

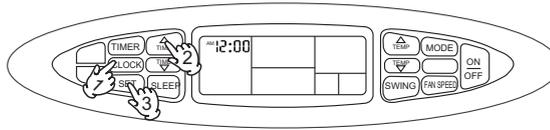
Clock set

When unit is started for the first time and after replacing batteries in remote controller, clock should be adjusted as follows:

Press CLOCK button, "AM" or "PM" flashes.

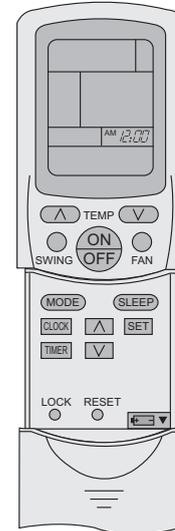
Press Δ or ∇ to set correct time. Each press will increase or decrease 1min. If the button is kept depressed, time will change quickly.

After time setting is confirmed, press SET, "AM" and "PM" stop flashing, while clock starts working.



Remote controller's operation

- When in use, put the signal transmission head directly to the receiver hole on the indoor unit.
- The distance between the signal transmission head and the receiver hole should be within 7m without any obstacles as well.
- Don't throw the controller, prevent it from being damaged.
- When electronic-started type fluorescent lamp or change-over type fluorescent lamp or wireless telephone is installed in the room, the receiver is apt to be disturbed in receiving the signal so the distance to the indoor unit should be shorter.



Loading of the battery

Slightly press " \blacktriangledown " and push down the cover.

Load the batteries as illustrated.

2 R-03 dry batteries. (cylinder)

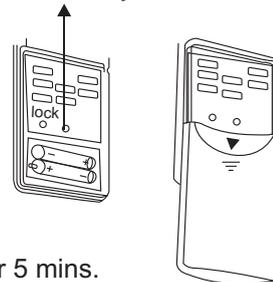
Be sure that the loading is in line with the "+" / "-" pole request as illustrated.

Put on the cover again

Confirmation indicator:

In disorderation, reload the batteries or load the new batteries after 5 mins.

reset key



THE MACHINE IS ADAPTIVE IN FOLLOWING SITUATION

Applicable ambient temperature range:

Cooling	Indoor	Maximum: D.B/W.B	32°C/23°C
		Minimum: D.B/W.B	18°C/14°C
	Outdoor	Maximum: D.B/W.B	43°C/26°C
		Minimum: D.B	18°C
Heating	Indoor	Maximum: D.B	27°C
		Minimum: D.B	15°C
	Outdoor	Maximum: D.B/W.B	24°C/18°C
		Minimum: D.B/W.B	-7°C/-8°C

- 1.If the supply cord is damaged it must be replaced by the manufacturer or its service agent or a similar qualified person.
2. If the fuse on PC board is broken please change it with the type of 50F.3.15A/250V.
- 3.The waste batteries should be disposed properly.

Note:Use two new same-typed batteries when loading.

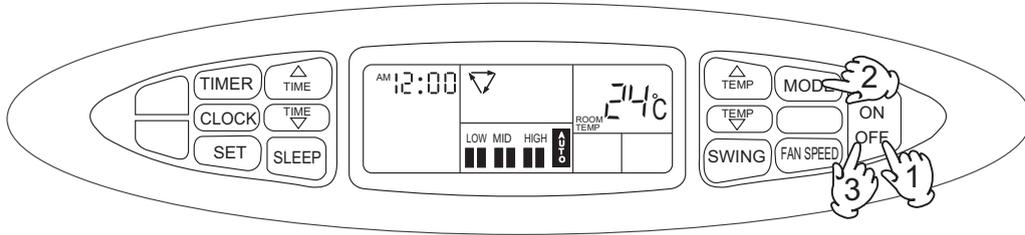
If the remote controller can't function normally or doesn't work at all, use a sharp-pointed item to press the reset key.

Hint:Remove the batteries in case unit won't be in usage for a long period.

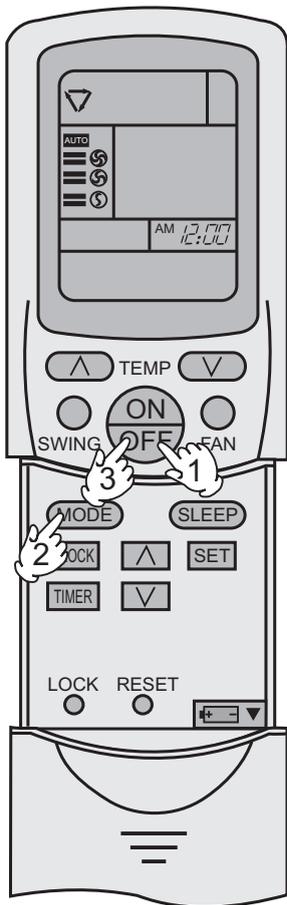
If there are any displays after taking-out just need to press reset key. The waste batteries should be disposed properly.

Operation

Manual Operation

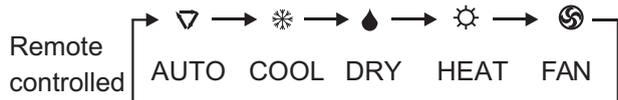


Remote-controlled Operation



① Press ON/OFF button
Unit starts running.
The previous status appears on the display
(except. TIMER, SLEEP and SWING mode)

② Press MODE button. For each press, operation mode changes as follows:



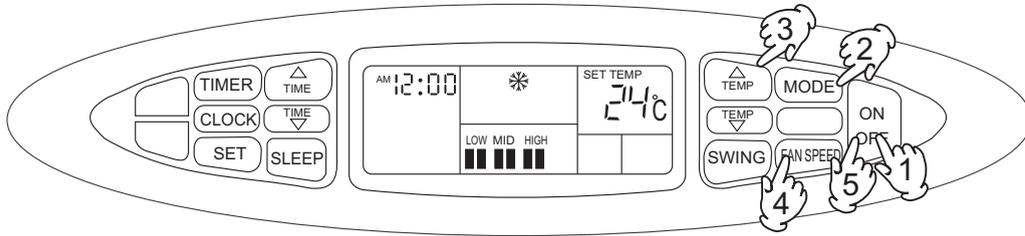
Select Auto run,
" ▽ " appears and auto run starts.

③ Press ON/OFF button
Unit stops running.

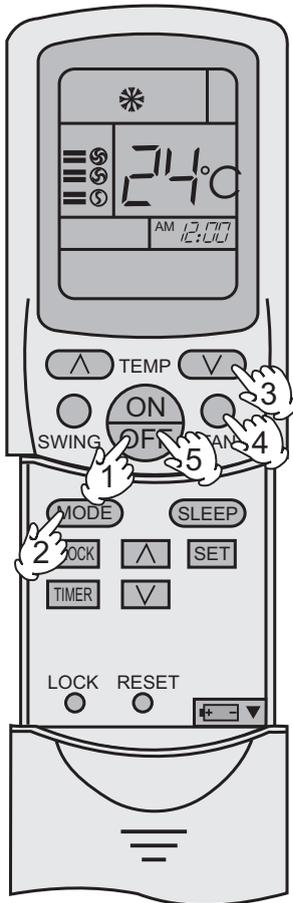
Note:

During Auto run operation, temp. Setting will not be shown in LCD display, unit will select heating, cooling or fan operation according to the room temp.

Manual Operation

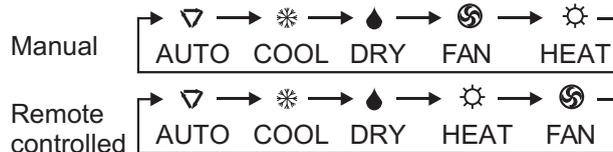


Remote-controlled Operation



- ① Press ON/OFF button
Unit starts running.
The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

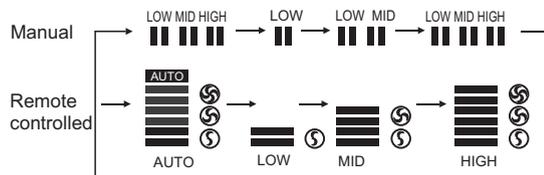
- ② Press MODE button. For each press, operation mode changes as follows:



Select cooling operation shows " * "
Cooling operation starts.

- ③ Select temp. button
Press TEMP button
 ▽ Every time the button is pressed, temp. setting increases 1°C
 ▲ Every time the button is pressed, temp. setting decreases 1°C
 If the button is kept pressed, setting will increase or decrease quickly.

- ④ Press FAN button. For each press, fan speed changes as follows:

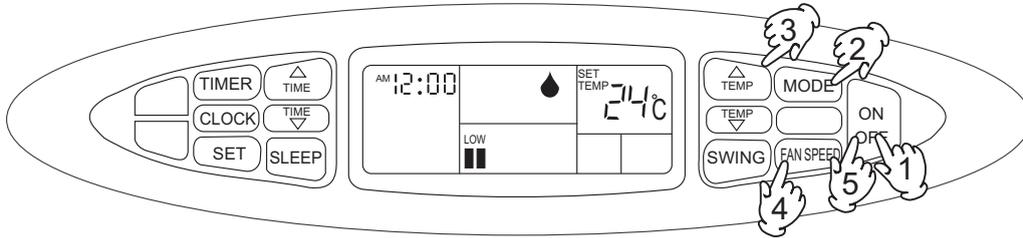


Unit runs at the speed displayed on LCD.

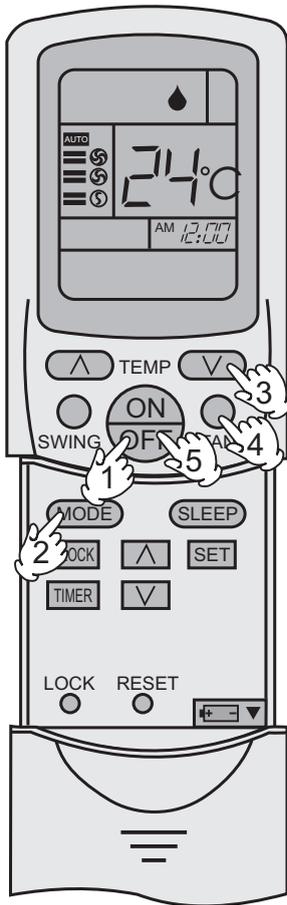
- ⑤ Press ON/OFF button
Unit stops running, and when entering this mode for the next time, it will show the previous setting.

Operation

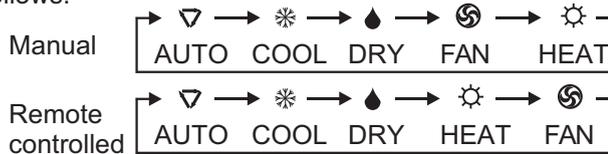
Manual Operation



Remote-controlled Operation

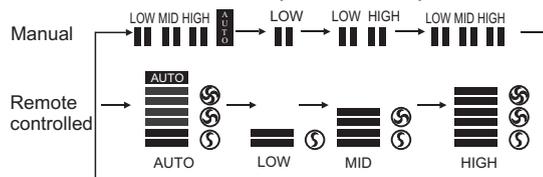


- ① Press ON/OFF button
Unit starts running.
The previous status appears on the display (except. TIMER, SLEEP and SWING mode)
- ② Press MODE button. For each press, operation mode changes as follows:



Select Drying operation shows " "
Dry operation starts

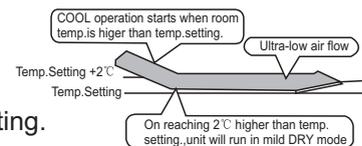
- ③ Select temp. button
Press TEMP button
 - △ Every time the button is pressed, temp. Setting increases 1°C
 - ▽ Every time the button is pressed, temp. setting decreases 1°C
 If the button is kept pressed, setting will increase or decrease quickly.
- ④ Press FAN button. For each press, fan speed changes as follows:



Unit runs at the speed displayed on LCD.

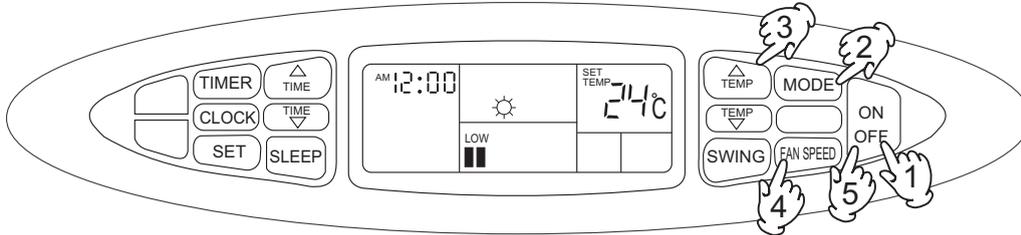
In DRY mode, when room temp. Becomes 2°C higher than temp. setting, unit will run intermittently at LOW speed regardless of FAN setting.

- ⑤ Press ON/OFF button
Unit stops running, and when entering this mode for the next time, it will show the previous setting.



Note: For cooling only type, this function is invalid.

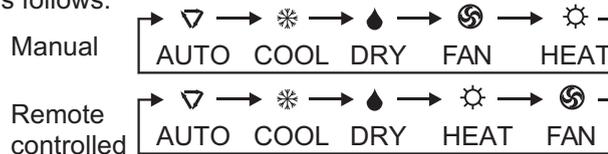
Manual Operation



Remote-controlled Operation

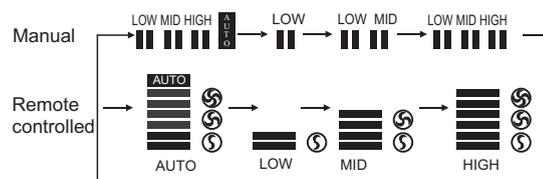
- ① Press ON/OFF button
Unit starts running.
The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:



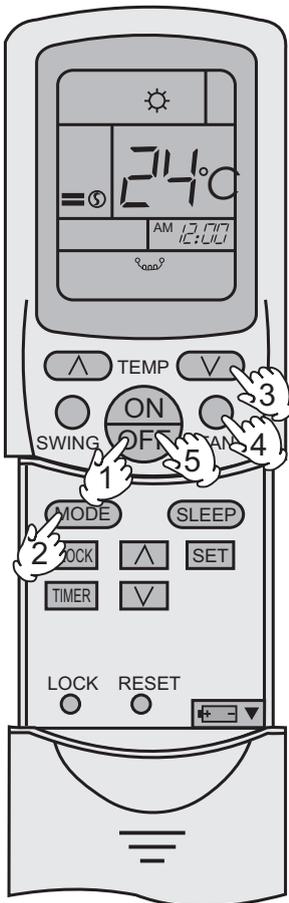
Select Heating operation " " appears and Heating operation starts.

- ③ Select temp. Button
Press TEMP button
 ▲ Every time the button is pressed, temp. setting increases 1°C
 ▼ Every time the button is pressed, temp. setting decreases 1°C
 If the button is kept pressed, setting will increase or decrease quickly.
- ④ Press FAN button. For each press, fan speed changes as follows:



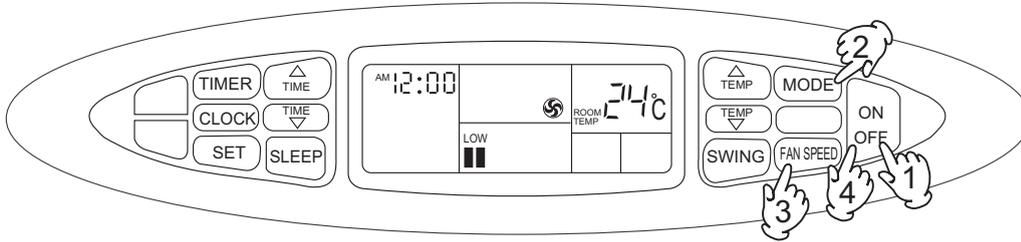
In heat mode, warm air will blow out after a short period of time due to cold-draft prevention function.
 In auxiliary heat function, the air condition can not operate in low fan speed.

- ⑤ Press ON/OFF button
Unit stops setting when entering this mode next time.

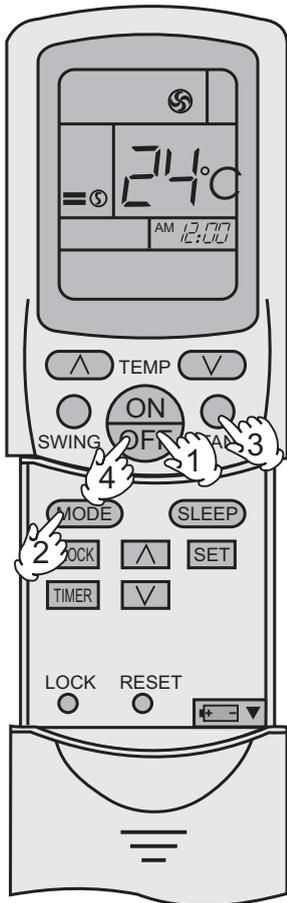


Operation

Manual Operation

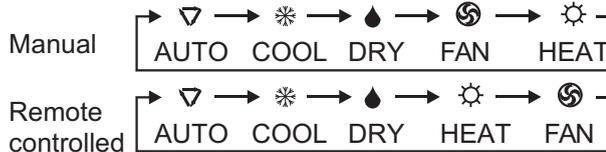


Remote-controlled Operation



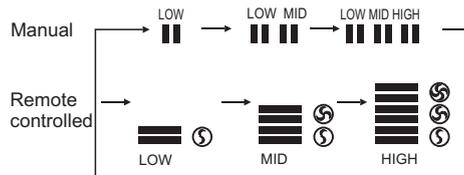
- ① Press ON/OFF button
Unit starts running.
The previous status appears on the display (except. TIMER, SLEEP and SWING mode)

- ② Press MODE button. For each press, operation mode changes as follows:



Select Fan operation shows " ", Fan operation starts

- ③ Press FAN button. For each press, fan speed changes as follows:

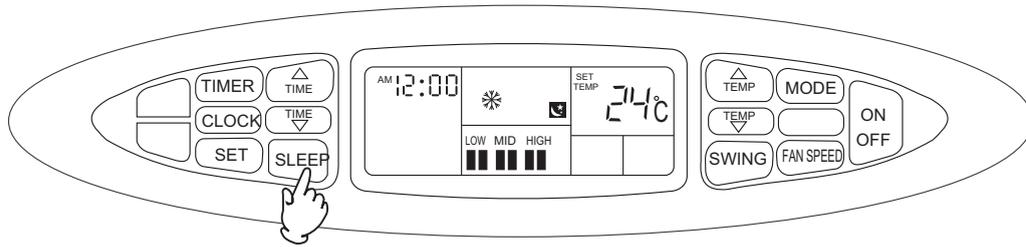


- ④ Press ON/OFF button
Unit stops running, and when entering this mode for the next time, it will show the previous setting.

Note:

In this mode, temp. can't be selected. temp. setting will not be shown in LCD display. In Fan operation mode, "AUTO" fan speed is not available. Operation cycles are as follows:





Remote-controlled operation

Before sleeping you can press the Sleep button. The conditioner will run under comfort sleep mode, and give you a comfort sleep.

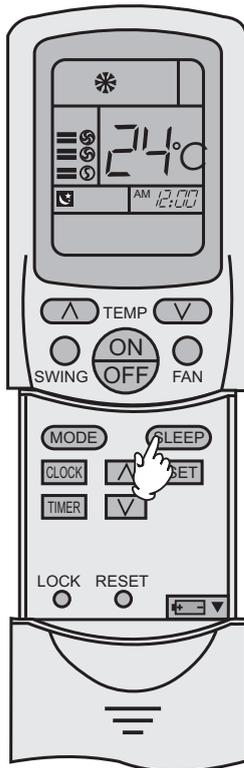
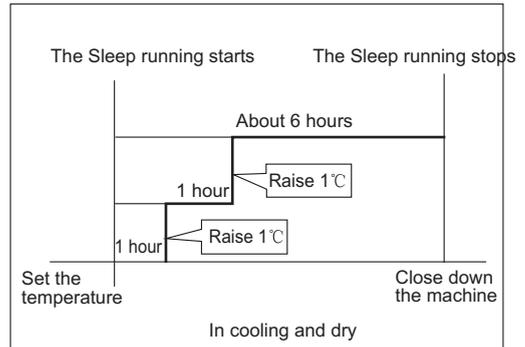
Usage of the sleep function

After starting, set the Run mode and press the Sleep button.

Run mode

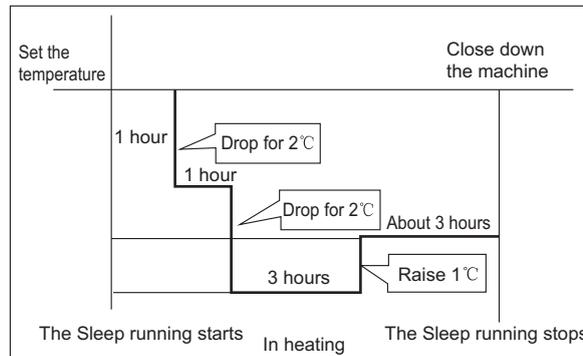
1. In cooling and dry

After starting of the Sleep operation, the temperature will be raised for 1°C higher than the set temperature 1 hour later, and be raised for 1°C after another hour. It continues under that condition for 6 hours, then the machine will be switched off. The temperature is higher than the set temperature so as to avoid catching cold in sleeping.



2. In heating (the single-cooling conditioners do not have the function)

After the Sleep running starts, the temperature will drop for 2°C after another one hour. The temperature will raise for 1 after 3 hours running under the above temperature, and the conditioner will be closed down after running for 3 hours. The temperature is lower than the set temperature so as to avoid uneasiness in sleeping.



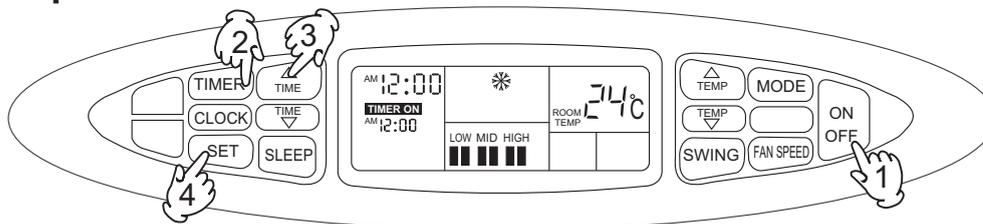
3. In automatic running

The conditioner will run under automatically selected working mode of sleeping.

4. In Fan running

The Sleep function is invalid.

Manual Operation



Remote controlled operation

TIMER operation

Set Clock correctly before starting Timer operation(refer to page 3)

You can let unit start or stop automatically at following times: Before you wake up in the morning, or get back from outside or after you fall asleep at night.

TIMER ON/OFF

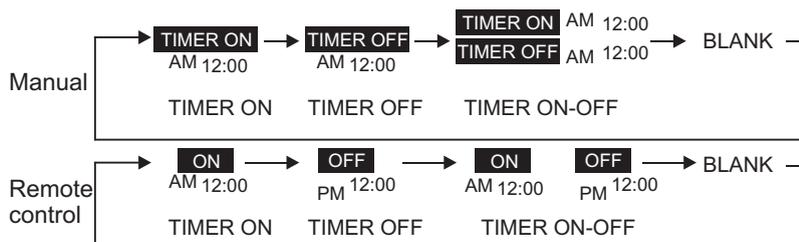
(1) After unit start,select your desired operation mode.

Operation mode will be displayed on LCD.

(2)TIMER mode selection

Press TIMER button to change TIMER mode.

Every time the button is pressed, display changes as follows:



Select your desired TIMER mode (TIMER ON or TIMER OFF) ON or OFF will flash.

(3)Timer setting

Press HOUR Δ / ∇ button.

Δ Every time the button is pressed, time increases 10 min. If button is kept pressed, time will change quickly.

∇ Every time the button is pressed, time decreases 10 min. If button is kept pressed, time will change quickly. Time will be shown on LCD.It can be adjusted within 24 hours.

(4)Confirming your setting

After setting correct time,press SET button to confirm," ON " or " OFF " stops flashing.

Time displayed: Unit starts or stops at hour min(TIMER ON or TIMER OFF)

Timer mode indicator on indoor unit lights up.

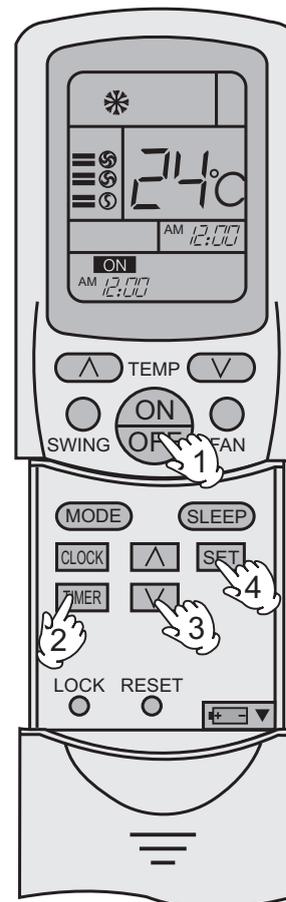
To cancel TIMER mode

Just press TIMER button several times until TIMER mode disappears.

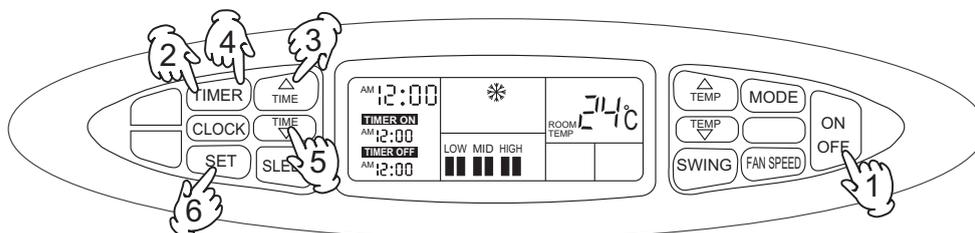
Hints

After replacing batteries or a power failure happens, Time setting should be reset.

Remote controller possesses memory function when use TIMER mode next time,just press SET button after mode selecting if timer setting is the same as previous one.



Manual Operation



Remote controlled operation

TIMER ON-OFF

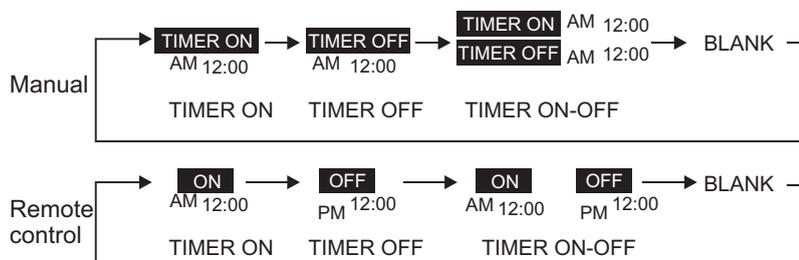
(1) After unit start, select your desired operation mode.

Operation mode will be displayed on LCD.

(2) **TIMER mode selection**

Press TIMER button to change TIMER mode.

Every time the button is pressed, display changes as follows:



(3) **Timer setting for TIMER ON**

Press HOUR button.

△ Every time the button is pressed, time increases 10 min. If button is kept pressed, time will change quickly.

▽ Every time the button is pressed, time decreases 10 min. If button is kept pressed, time will change quickly.

Time will be shown on LCD.

It can be adjusted within 24 hours.

AM refers to morning and PM to afternoon.

(4) **Time confirming for TIMER ON**

After time setting, press TIMER button to confirm,

"ON" stops blinking, while "OFF" starts blinking.

Time displayed: Unit starts or stops at × hour × min

(5) **Time confirming for TIMER OFF**

Follow the same procedure in "Time setting for TIMER ON".

(6) **Time setting for TIMER OFF**

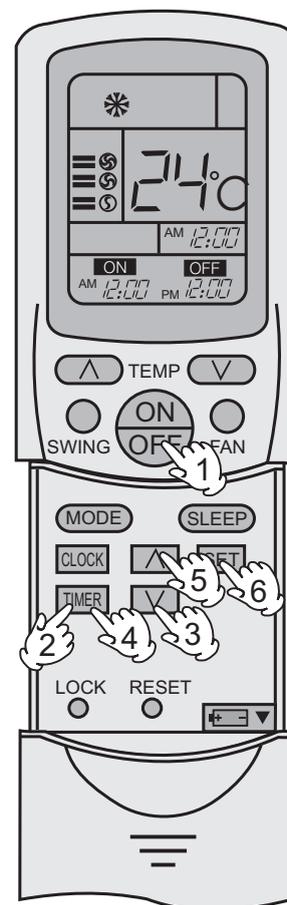
After time setting, press SET button to confirm, "OFF" stops flashing.

Time displayed: Unit stops at × hour × min

TO cancel TIMER mode

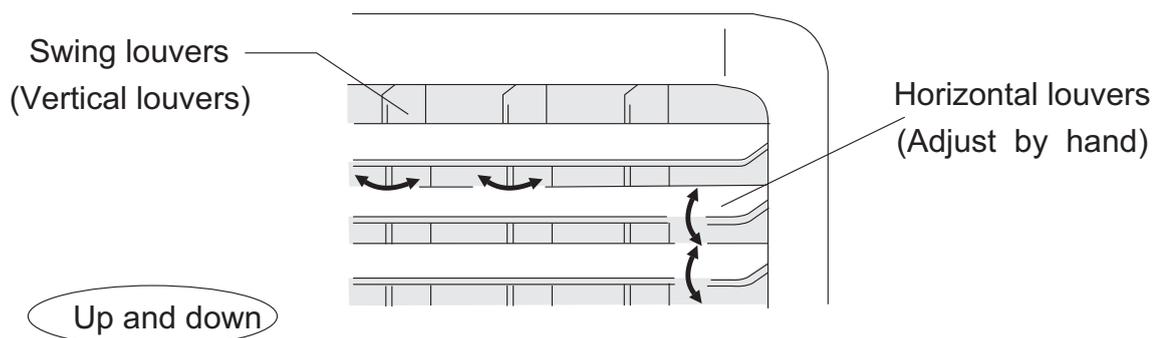
Just press TIMER button several times until TIMER mode disappears.

According to the Time setting sequence of TIMER ON or TIMER OFF, either ON-OFF or OFF-ON can be achieved.



■ Operation

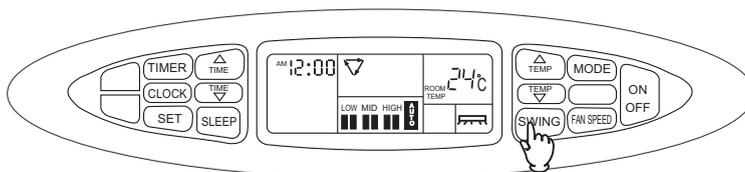
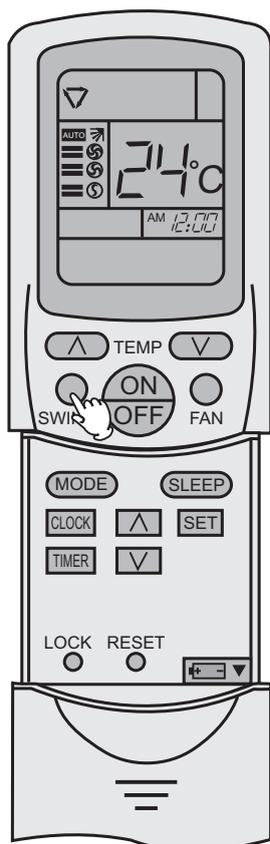
Air flow adjustment



- Adjust the louvers by hand to proper position.

Note: Put louvers at up position in cooling and down position in heating mode.
This will be helpful to keep an even room temp.

Notice: In cooling or dry operation, don't put horizontal louvers at downward position for a long time, or outlet grill might get frosted. Don't expose your skin to cool or warm air for a long time.



Side from side

Swing

- Press SWING "  " or "  "
appears on the display, the vertical louvers move from side to side.

Fixed position

- Press the SWING again to fix the vertical louvers at your desired position.

7. Electric controllable function instruction

Describe serial air conditioner model and electric controllable function.

(Note: Outdoor fan motor of cabinet air conditioner 5P is single speed)

7.1 Brief instruction of electric controllable function

(1) Automatic running (Applies to cooling and heating model)

After starting the machine, system changes over automatic mode. Before running, system will determine firstly operation mode according to present room temperature.

Tr is room temperature in the following selectable conditions:

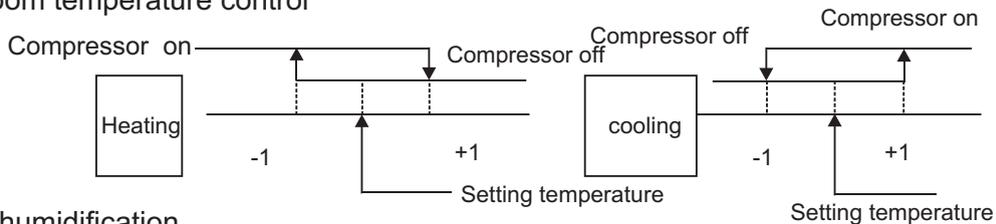
$Tr \geq 24^\circ\text{C}$, start cooling operation mode, equivalent to cooling mode at setting temperature 26°C .

$20^\circ\text{C} < Tr < 24^\circ\text{C}$, start air supply condition, run in air supply mode.

$Tr \leq 20^\circ\text{C}$, start heating condition, operation mode is equivalent to heating mode at setting temperature 18°C .

Operation mode will switch over from cooling, air supply to heating as the room temperature changes.

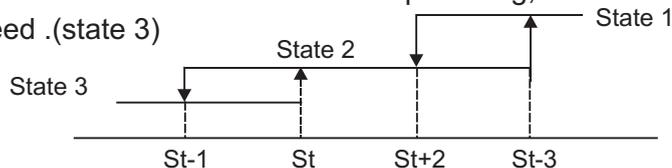
(2) Room temperature control



(3) Dehumidification

According to the following operational rules, compressor, indoor and outdoor fan motor realize dehumidified cooling function (Tr is room temperature, St is setting temperature in the following selectable conditions):

- ① $Tr > St + 2^\circ\text{C}$, compressor, outdoor fan motor run continuously and indoor fan motor run at setting speed. (state 1)
- ② $St + 2^\circ\text{C} \geq Tr \geq St$, compressor, outdoor fan motor run interruptedly, 10 minutes on and 6 minutes off, (compressor and outdoor fan motor run synchronously) indoor fan motor run at setting low fan speed. (State 2)
- ③ $Tr < St$, compressor and outdoor fan motor stop running, indoor fan motor run at low fan speed. (state 3)



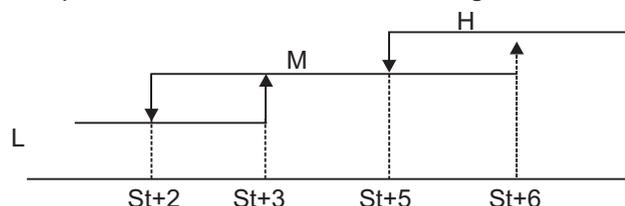
When dehumidification function is on, running rules of indoor fan motor at automatic fan speed are as follows:

$Tr > St + 5^\circ\text{C}$, fan motor is at high speed;

$St + 5^\circ\text{C} \geq Tr > St + 2^\circ\text{C}$, fan motor is at medium speed;

$Tr \leq St + 2^\circ\text{C}$, fan motor is at low speed

Note: At automatic state, the fan speed shall not switch over frequently, change from low to high shall spend three minutes and from high to low without time lapse.



(4) Warm start (avoid of cool air at the beginning of heating , applies to cooling and heating model)

At the just beginning of heating, indoor fan motor will delivery air as follows:

- ① if indoor coiled temperature 28°C , start low fan speed;
- ② if indoor coiled temperature $\geq 38^{\circ}\text{C}$ or operation of compressor ≥ 4 minutes, change to setting fan speed.

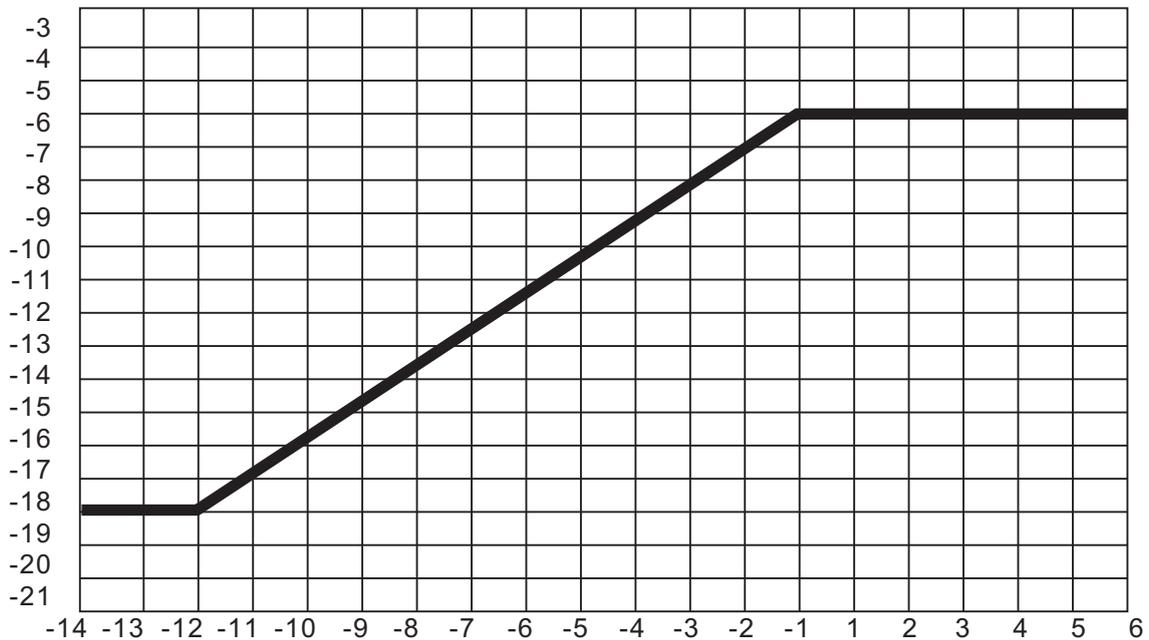
(5) Indoor fan motor control at heating stopped state (applies to cooling and heating model)

At heating state, if only compressor stops, fan motor will stop after a run of 30S at low speed.

(6) Defrost control (applies to cooling and heating model)

- ① Defrost starting condition:
 - a. When machine starts heating and after 35 minutes continuous operation of compressor;
 - b. Accumulated heating time of compressor is 45 minutes and compressor run continuously more than 5 minutes;

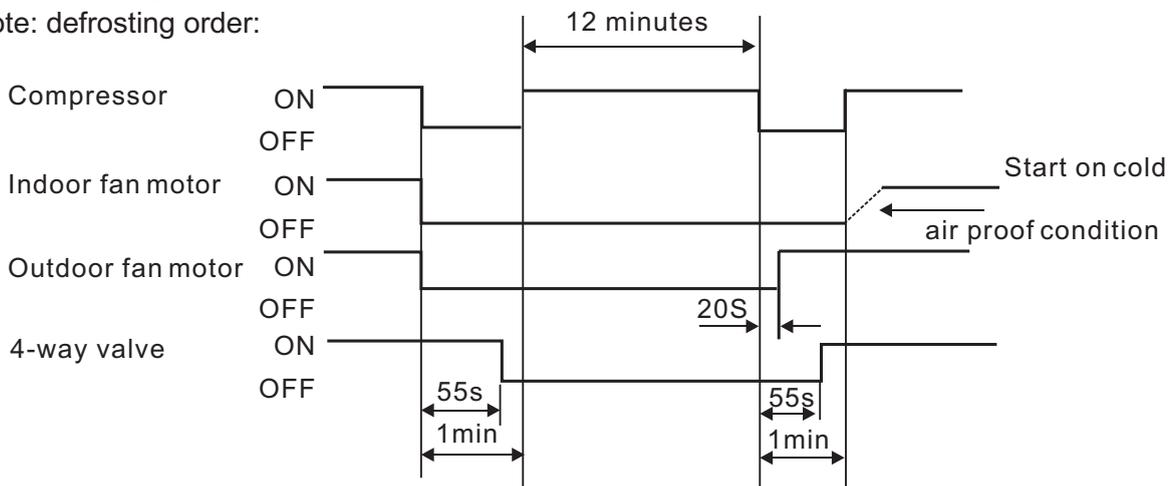
If one of the above conditions is meet and maintain 2 minutes below curve in the following figure, defrost will start .



② Termination condition of defrost:

When outdoor coiled temperature is equal to or more than 14°C or defrosting time exceeds 12 minutes, original heating state will be returned.

Note: defrosting order:



(7) Auxiliary electric heater control

Auxiliary electric heater starts work on condition that the following conditions are met simultaneously (Tr is room temperature, St is setting temperature in the following selectable conditions):

- a. $Tr \leq 23^{\circ}\text{C}$
- b. $Tr \leq St - 2^{\circ}\text{C}$

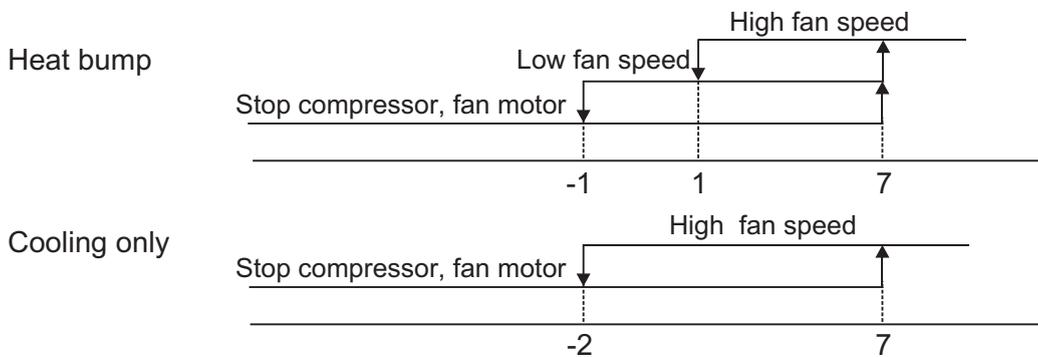
Note: after starting electric heater, fan motor won't run at low speed.

In case that one of the following conditions is met ,close auxiliary electric heater:

- a. $Tr > 23^{\circ}\text{C}$
- b. Receive closing signal of electric heater
- c. Compressor or indoor fan motor stop working
- d. $Tr \geq St - 1^{\circ}\text{C}$

(8) Anti-freezing function

At cooling state, according to indoor coiled temperature, air conditioner control the operation of outdoor fan motor and compressor on the following conditions:



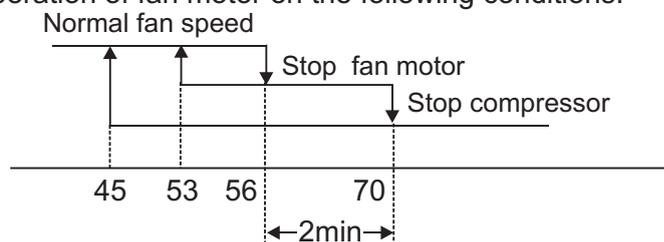
(9) Stand by for three minutes

When compressor stops running caused by sensor off, open and shut machine or breakdown, compressor will maintain at stop position for three minutes. If power fail is no more than 3 minutes, compressor will maintain also at stop position for three minutes after remaking current.

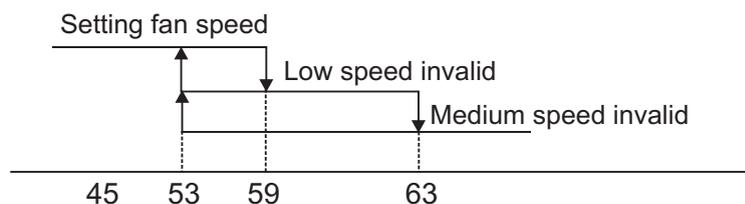
(10) Overload protection for heating running

Anti-overloading protection: at heating state, according to indoor coiled temperature, air conditioner control the operation of fan motor on the following conditions.

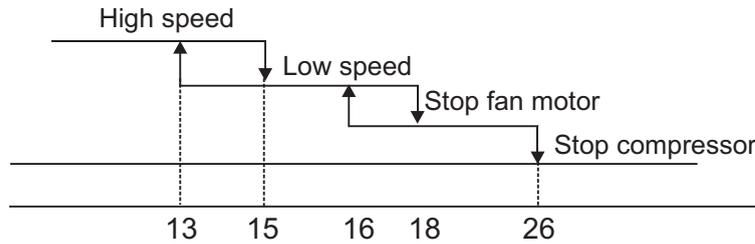
Outdoor fan motor:



Indoor fan motor



Over-current protection: at heating state, according to system working current measured by current transformer, air conditioner control outdoor fan motor and compressor on the following conditions:



(11) Power failure compensating function

In the case that power failure, down maintenance or troubleshooting occurs during operating of machine, if only the current is remade, machine will restart on the original condition.

Note: 1. Function setting: push 10 times sleeping button with remote controller, panel buzzer shall give 4 buzzes.

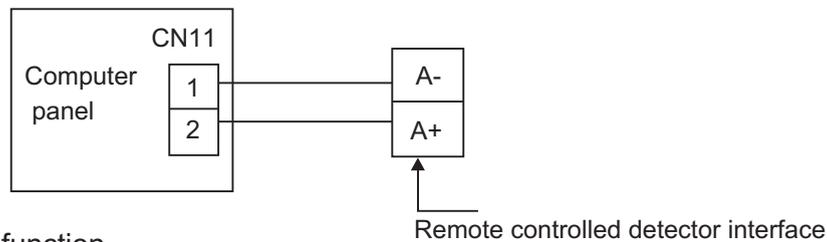
2. Memory: operational mode, setting fan speed, setting temperature, sleeping state, swing state, electric heating state, health state, locking signal, filter cleaning time.

3. Cancellation of function: push 10 times sleeping button with remote controller, panel buzzer shall give 2 buzzes.

(12) Remote network monitoring function (only for which model No. includes E)

Through the medium of prepared interface on main panel, air conditioner is connected with remote controlled detector (made by Haier) by a two-core line and through the medium of remote controlled detector air conditioner executes command issued by computer or centralized-control unit, at the same time transmit it's current running state and failure information to remote controlled detector.

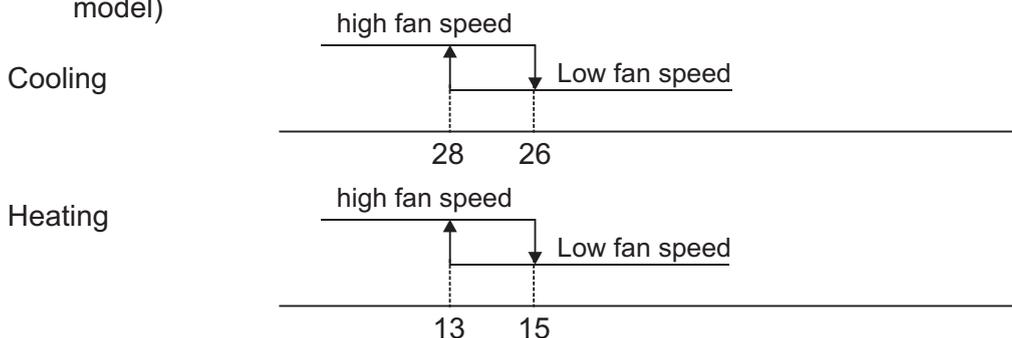
Connecting method between air conditioner and remote controlled detector:



(13) Running-in function

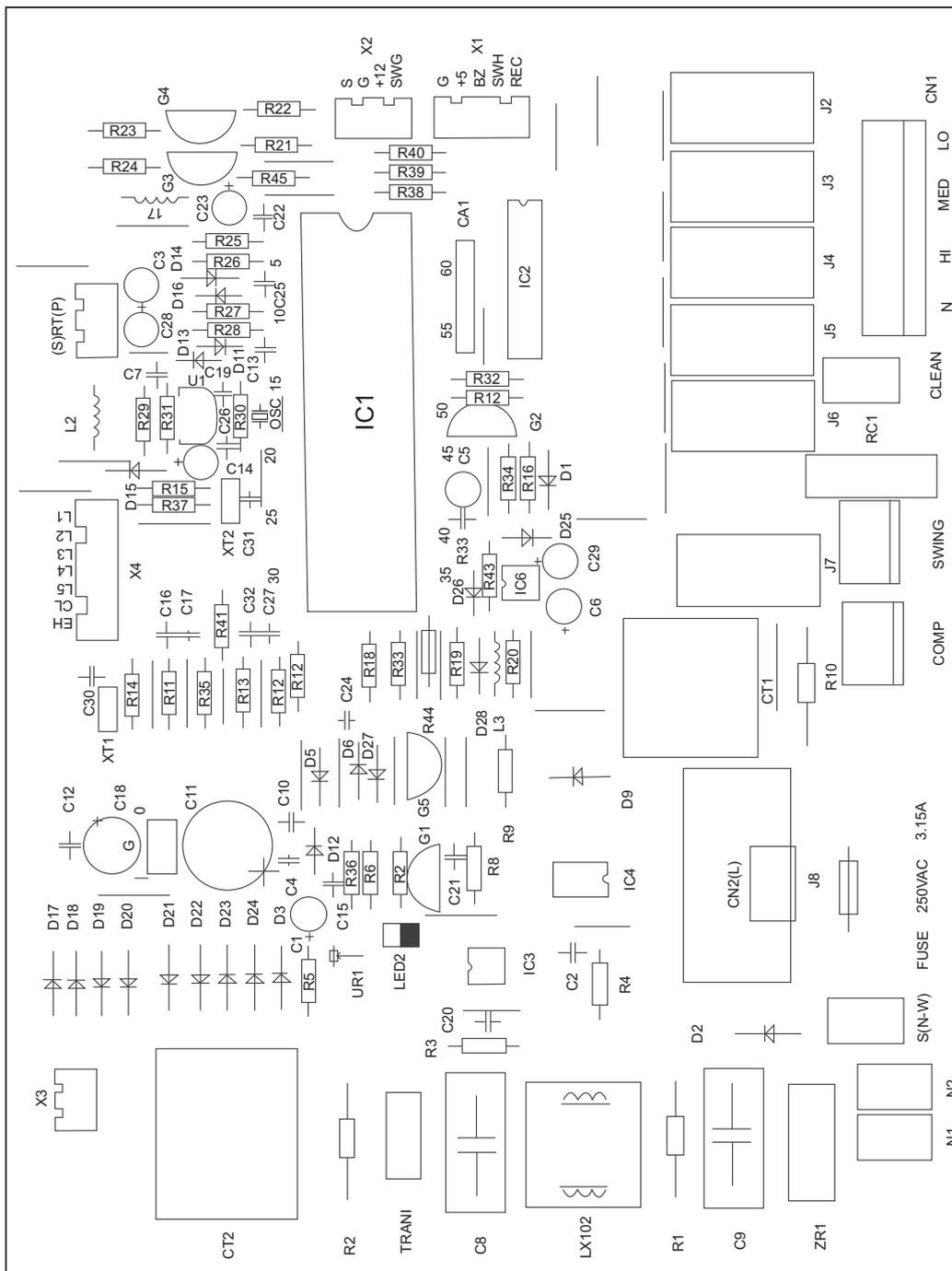
At cut-off state, push control panel for a period of 5S, running-in function starts after two "beep", main engine cools and indoor and outdoor fan motor run at high speed for a period of 5 minutes. During the 5 minutes, main engine is free from all protection and environmental temperature limitation, but compressor is under timing protection for a period of 3 minutes.

(14) Outdoor temperature control outdoor fan motor (applies to cooling and heating model)

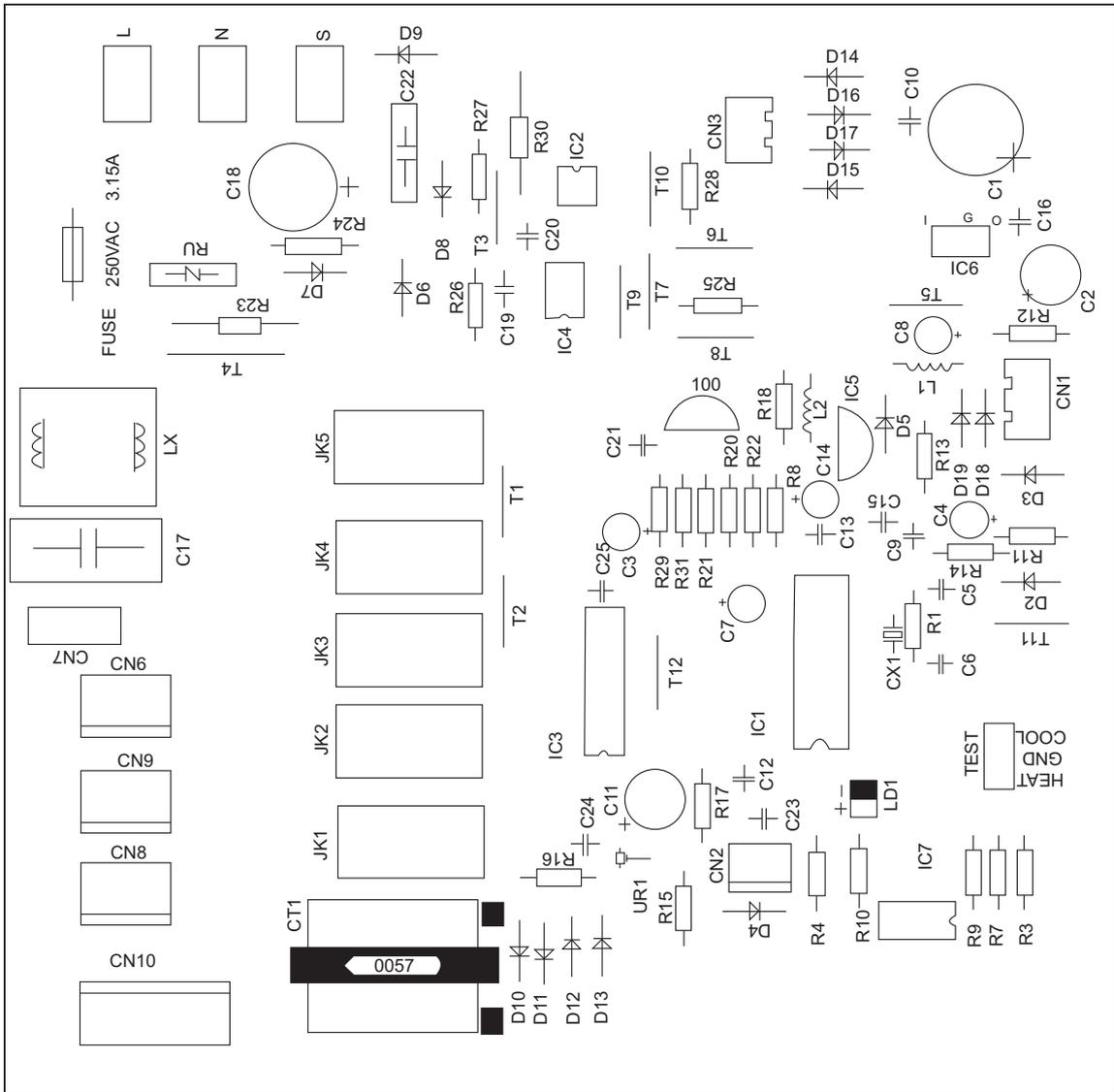


7.2 Element layout and main element parameter list of printed-wiring board

Element layout of indoor printed-wiring board



Element layout of outdoor printed-wiring board

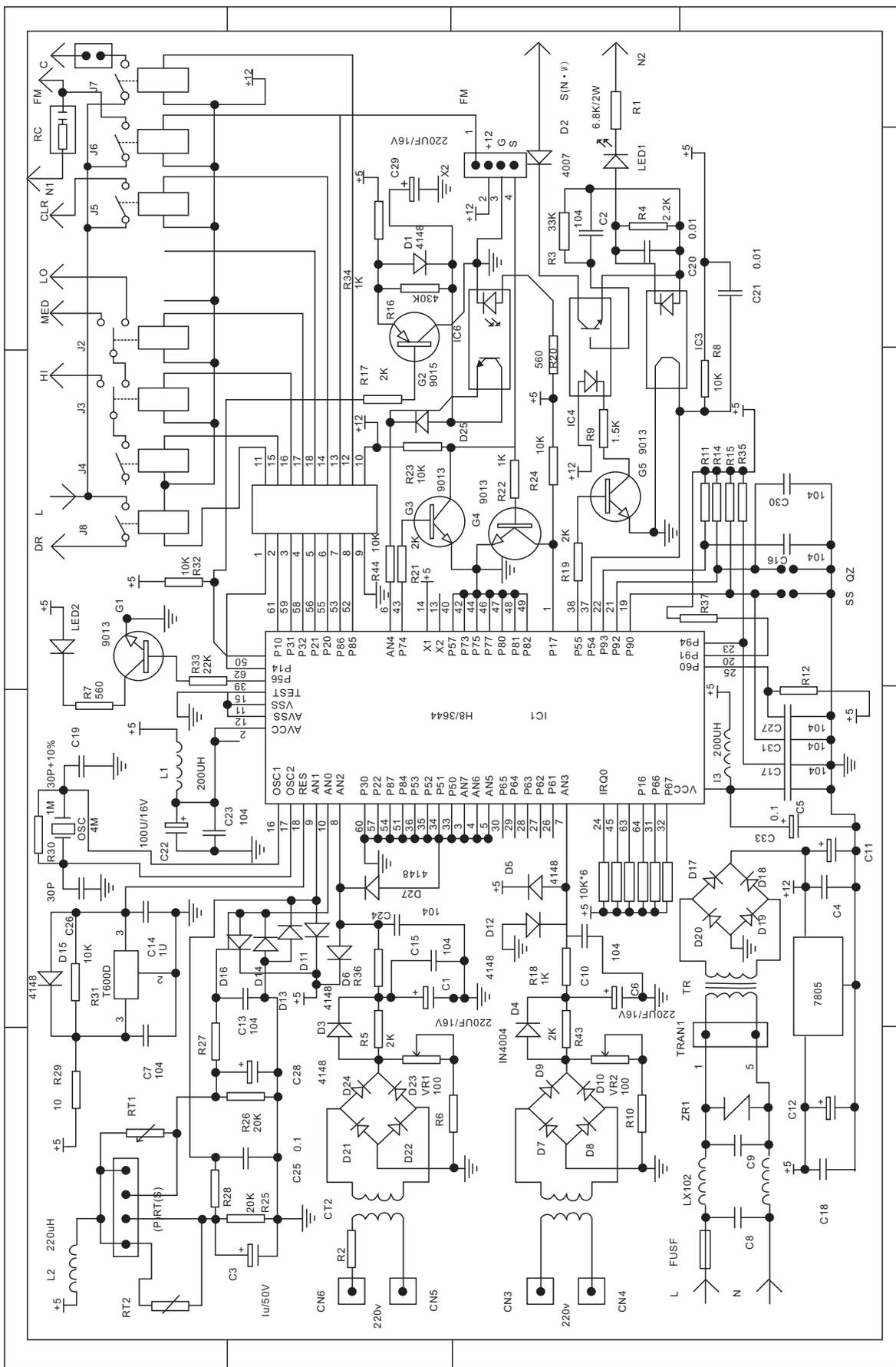


Main element parameter list of indoor printed-wiring board

No.	Name	Element model No.	Unit	Quantity	Label	Remarks
1	Power resistor	RJ17-6.8K- $\pm 5\%$		1	R1	Philipe
2	Power resistor	RJ17-100K- $\pm 5\%$		1	R2	Philipe
3	Capacity	Cis-0.1K-250V		2	C8,C9	
4	Ceramic resonator	4MHZ		1	OSC	Mulata
5	Optical coupler	TLP521-1		2	IC3, IC6	Toshiba
6	Optical coupler	TLP371		1	IC4	Toshiba
7	Stabilizing block	7805		1	7805	American ST
8	Piezoresistor	550NR-10D(jacket)		1	ZR1	Northland
9	Fuse	RF1-20-5*20-3.15A		1	FUSE	
10	Relay	JQ1P-12V		2	J2,J3	Machushiba
11	Relay	JQ1aP-12V,OJE-SS-112LM		3	J4~J6	Machushiba
12	Relay	G4A-1A		1	J8	OMRON

Main element parameter list of indoor printed-wiring board

No.	Name	Element model No.	Unit	Quantity	Label	Remarks
1	Power resistor	RJ17-6.8K- $\pm 5\%$		1	R23	Philipe
2	Power resistor	RJ16-200K- $\pm 5\%$		1	R24	Philipe
3	Power resistor	RJ17-11K- $\pm 5\%$		1	R30	Philipe
4	Piezoresistor	550NR-10D(jacket)		1	RV	Northland
5	Capacity	250VAC100nJ		1	C17	
6	Ceramic resonator	4MHz		1	CX1	Mulata
7	Optical coupler	TLP 371		1	IC4	Toshiba
8	Optical coupler	TLP 521-1		1	IC2	Toshiba
9	Stabilizing block	7805		1	IC6	American ST
10	Current transformer	0057W		1	CT1	
11	Wave filter	LX102		1	LX	
12	Cartridge fuse	RF1-20-5*20-3.15A		1	FUSE	
13	Relay	JQ1P-12V		1	JK1	Machushiba
14	Relay	JQ1aP-12V,OJE-SS-112LM		3	JK2, JK4, JK5	Machushiba



9. Fault diagnosis

In the case of abnormal conditions, fault analysis shall be conducted referencing to the following table:

Fault coding	Fault cause	Resolution	Remarks
E1	<ol style="list-style-type: none"> Indoor ambient temperature sensor get out of order, short circuit or shutdown Indoor computer plate L1 get out of order 	Replace indoor ambient temperature sensor of computer plate	
E2	<ol style="list-style-type: none"> Indoor coiled temperature sensor get out of order, short circuit or shutdown Indoor computer plate L1 get out of order 	Replace indoor coiled temperature sensor of computer plate	
E3	<ol style="list-style-type: none"> outdoor ambient temperature sensor get out of order, short circuit or shutdown outdoor computer plate L1 get out of order 	Replace outdoor ambient temperature sensor of computer plate	
E4	<ol style="list-style-type: none"> outdoor coiled temperature sensor get out of order, short circuit or shutdown outdoor computer plate L1 get out of order 	Replace outdoor coiled temperature sensor of computer plate	
E5	<ol style="list-style-type: none"> Compressor current exceed protection point Current transformer of outdoor computer plate get out of order Outdoor computer plate C11 get out of order 	<ol style="list-style-type: none"> Remake current after power fail Replace outdoor computer plate 	
E6	<ol style="list-style-type: none"> Pressure switch of outdoor unit trip Pressure switch pin isn't well inserted 	Remake current after power-fail	
E7	<ol style="list-style-type: none"> Voltage is too low Indoor computer plate R2 get out of order Indoor computer plate TV-01 get out of order 	<ol style="list-style-type: none"> Remake current after power-fail Replace indoor computer plate 	
E8	<ol style="list-style-type: none"> Connection between panel and main plate isn't firm Triode for communication between panel and main plate get out of order 	<ol style="list-style-type: none"> Remake current after power-fail Replace indoor computer plate Replace panel 	
E9	<ol style="list-style-type: none"> Current of indoor and outdoor plate L, N isn't correspondent. Triode for communication of indoor plate get out of order Outdoor plate C18 is at fault Outdoor plate optical coupler P521 get out of order Outdoor plate optical coupler TLP371 get out of order 	<ol style="list-style-type: none"> Remake current after power-fail Replace outdoor computer plate 	

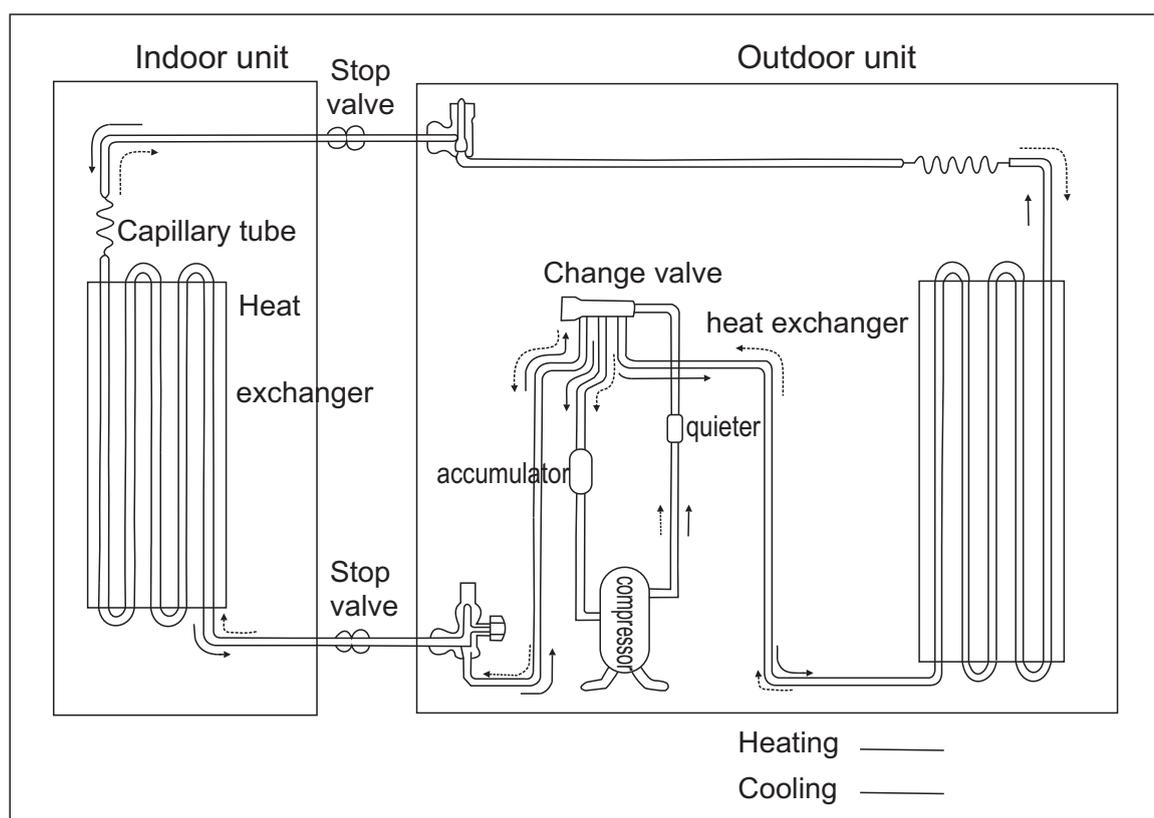
(1) Usage of refrigerant

Take fleon R22 as refrigerant, factory filling quantity is 3520g. If the length of connecting line is less than or equal to 5m, additional refrigerant is unnecessary. If the length of connecting line is more than 5m, 50g refrigerant shall be added for every 1 m more.

(2) System vacuum pumping

After connecting indoor and outdoor units, pump air and moisture from indoor unit and connecting line with vacuum pump, vacuum degree of system shall be below 200Pa.

(3) Piping system diagram:



(4) Form and characteristics of compressor

Copeland CRNQ-1500-TFD-522

Piston compressor

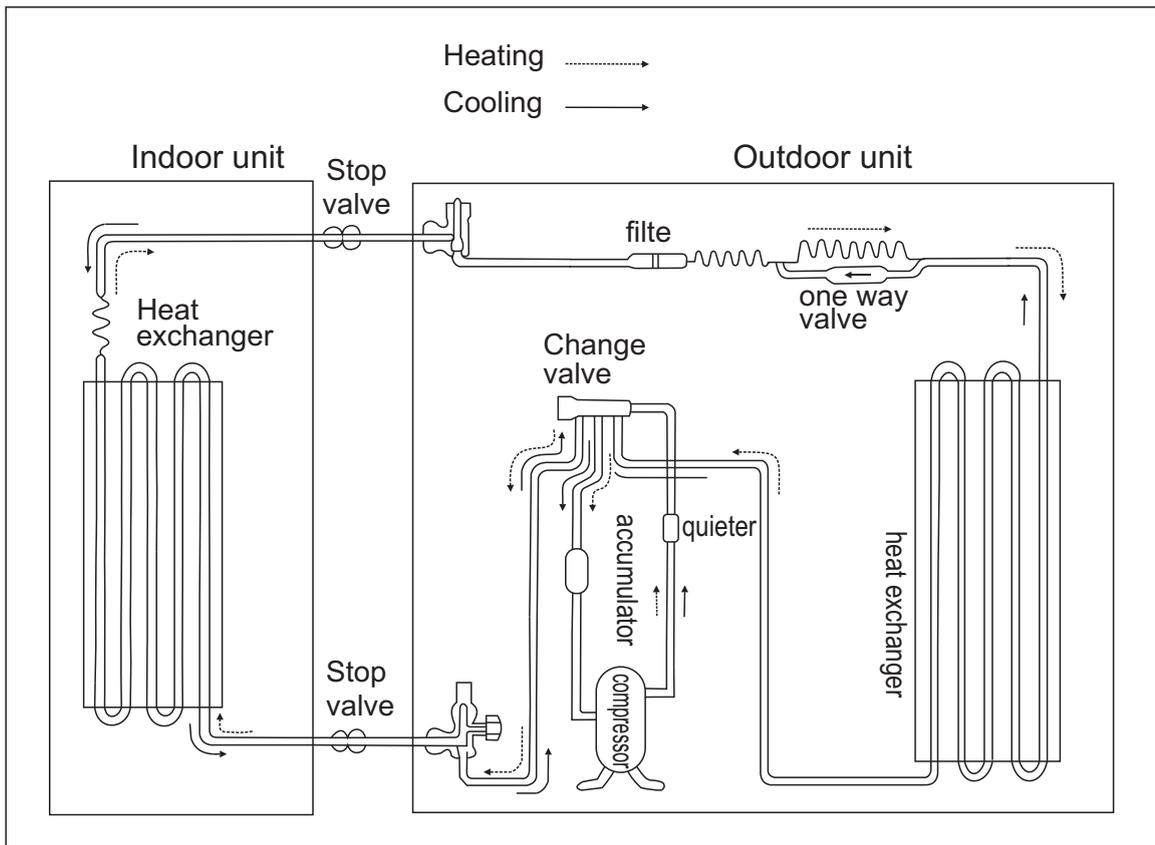
(1) Usage of refrigerant

Take fleon R22 as refrigerant, factory filling quantity is 2380g. If the length of connecting line is less than or equal to 5m, additional refrigerant is unnecessary. If the length of connecting line is more than 5m, 50g refrigerant shall be added for every 1 m more.

(2) System vacuum pumping

After connecting indoor and outdoor units, pump air and moisture from indoor unit and connecting line with vacuum pump, vacuum degree of system shall be below 200Pa.

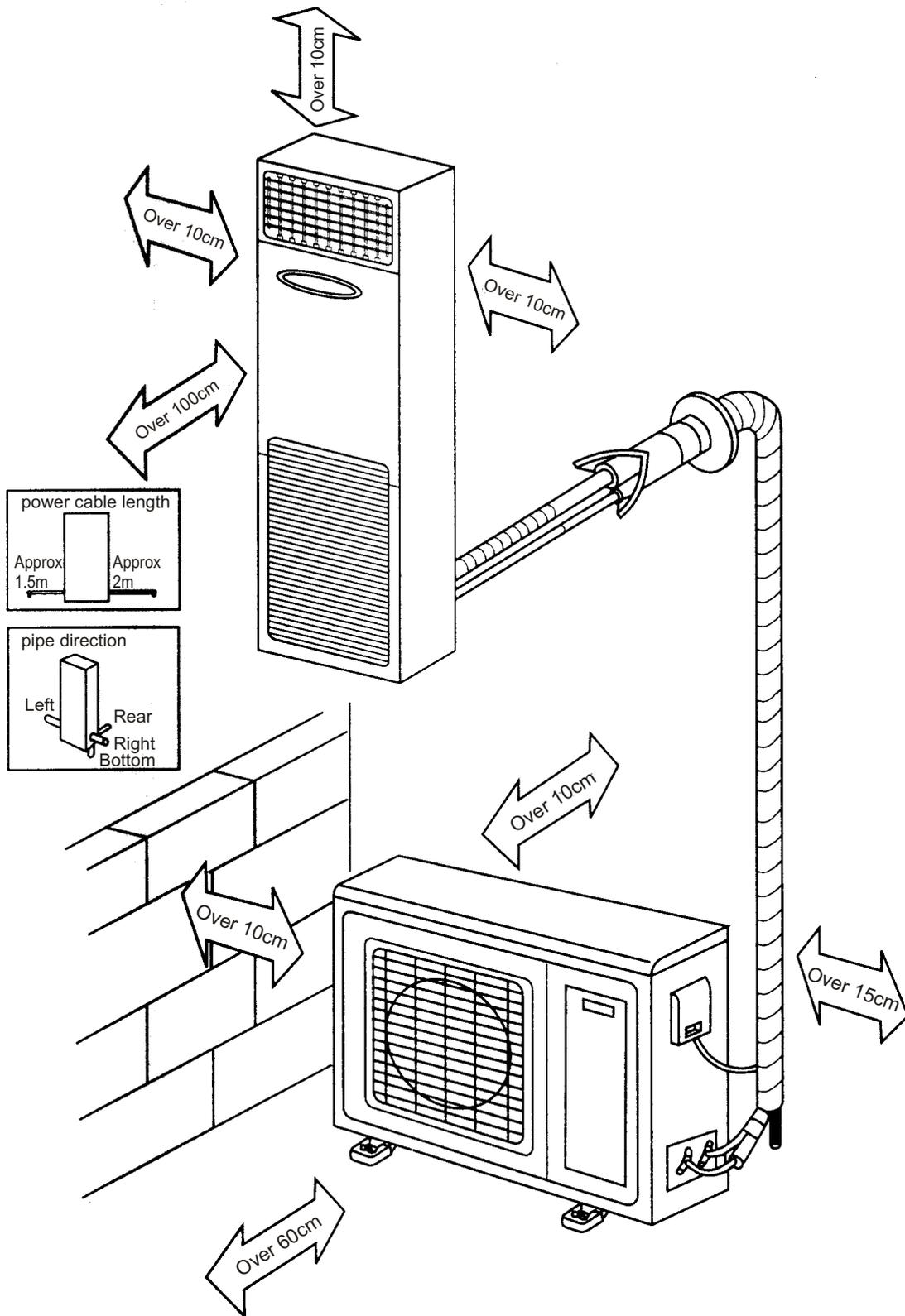
(3) Piping system diagram:



(4) Form and characteristics of compressor

Copeland ZR34K3-PFJ-522 Eddy compressor

Indoor & outdoor unit connection



Tools necessary

Tools necessary

1. Screw driver
2. Hacksaw
3. 70mm dia. hole core drill
4. Spanner (dia.17,27mm)
5. Spanner (14,17,27mm)
6. Pipe cutter
7. Flaring tool
8. Knife
9. Nipper
10. Gas leakage detector
or soap water
11. Measuring tape
12. Reamer
13. Refrigerant oil

Standard accessories

Following parts shall be field supplied

Mark	Parts name
Ⓐ	Adhesive tape
Ⓑ	Pipe clip
Ⓒ	Connecting hose
Ⓓ	Insulation material
Ⓔ	Putty
Ⓕ	Drain hose

Parts in the following list are accessories for the unit installation which can be used if necessary.

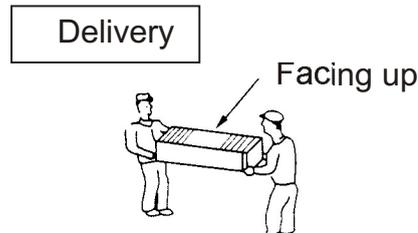
NO.	Shape and description	QTY
①	 Remote controller	1
②	 Cement nail	3
③	 Drain hose	1
④	 Heat-insulation pipe	2
⑤	 L-shaped metal	2
⑥	 Fall-prevention fitting metal	1
⑦	 Wire clip	4
⑧	 Drain elbow	1
⑨	 Self-tapping screw	3
⑩	 Rubber pad	4
⑪	 Hexagon wrench	1
⑫	 Wall hole cover	1
⑬	 Piping hole cover	1
⑭	Dry battery 7#	2
⑮	 Putty	1
⑯	 Plastic clamp	6
⑰	 Refrigerant oil	1

For cooling only type, the ⑧ Drain elbow is not available.

Installation procedures

Display of whole unit

- Try to bring the packed unit to the installation place.
- When it is inevitable to unpack the unit, be careful not to damage the unit. Wrap it with nylon etc.
- After unpacking, be sure to put it with the front side of the unit facing up.



- Note: When delivering, don't hold plastic parts like inlet and outlet grill etc.

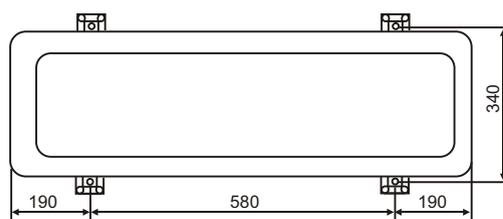
Installation of outdoor unit

Selection of installation place

- Place strong enough to support the unit and will not cause vibration and noise.
- Place where discharged wind and noise doesn't cause a nuisance to the neighbors.
- Place where is less affected by rain or direct sunlight and is sufficiently ventilated, or to install a shield.
- Place with enough space for smooth air flow.

Fixing of the unit

- Fix outdoor unit using M10 bolt to concrete floor horizontally.
- If installed on the wall or on top of a roof, bracket should be fixed securely to resist earthquake or storms.
- Use rubber pad during installation against unit vibration.



Installation dimension of outdoor unit

Installation procedures

Installation of indoor unit

Selection of installation place

Place where it is easy to route drainage pipe and outdoor piping.

Place away from heat source and with less direct sunlight.

Place where cool and warm air could be delivered evenly to every corner of the room.

Place near power supply socket. Leave enough space around the unit (refer to installation drawings).

Fixing of the unit

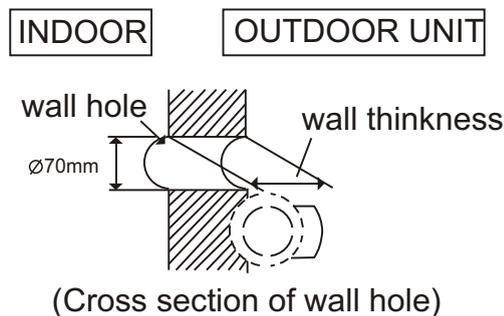
1. Position of the wall hole

Wall hole should be decided according to installation place and piping direction. (refer to installation drawings)

2. Making a wall hole

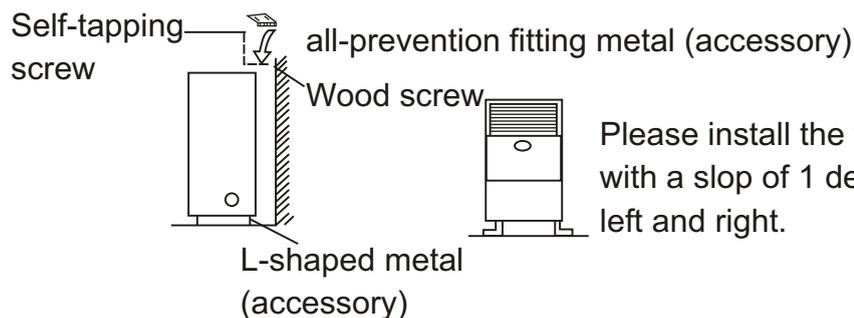
Drill a hole of 70mm dia. with a little slope towards outside.

Install piping hole cover and seal it with putty after installation.



Fixing of indoor unit

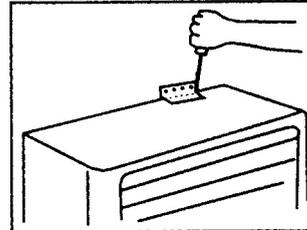
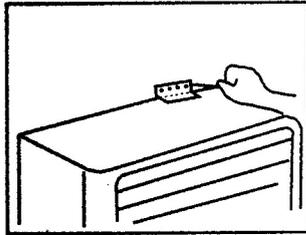
To prevent it from fall off, please fix the unit with fall-prevention fitting at wall and L-shaped metal at floor.



Please install the whole unit horizontally, with a slop of 1 degree at front and rear, left and right.

Installation of fall-prevention fitting metal:

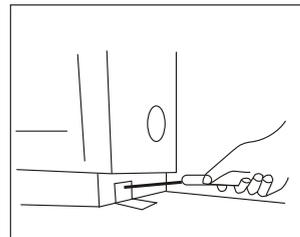
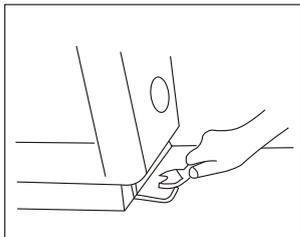
Fix the fitting metal to the wall by screws so that there is no clearance between them. With the unit set up vertically, fix the fitting metal to the unit with screws while making an adjustment at the long portion of the hole so that there is no clearance between the upper surface and the fitting metal.



Installation of L-shaped metal

Fix to the unit by screws so that there is no clearance between the fitting metal and the unit.

After confirming that the unit has been set up vertically to the floor, fix it to the floor by bolt.



Piping connection

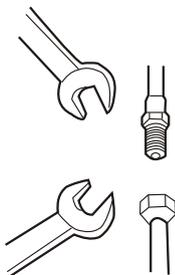
1. Connecting method

Apply refrigerant oil at half union and flare nut.

To bend a pipe, give the roundness as large as possible not to crash the pipe.

When connecting pipe, hold the pipe centre to centre then screw nut on by hand, refer to Fig.

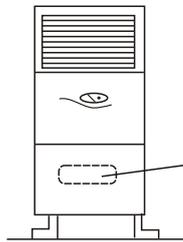
Be careful not to let foreign matters, such as sands enter the pipe.



Forced fastening without centering may damage the threads and cause a gas leakage.

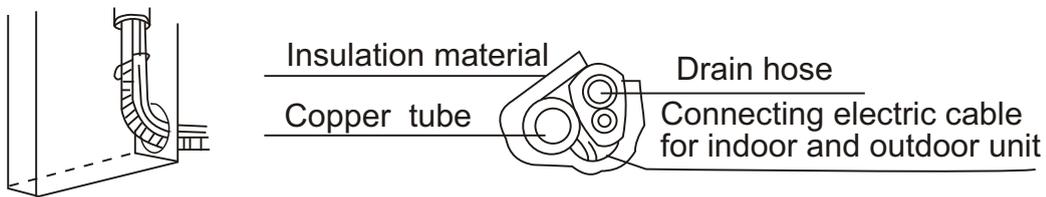
Pipe dia	Fastening torque
Liquid pipe 9.52mm(3/8")	42N.m
Gas pipe 15.88mm(5/8")	60N.m

2. Piping connection of indoor unit
Arrangement of piping and drainage pipe



After opening inlet grill, you will see a control box as shown in the Fig.
Remove the cover before working.

Cut away, with a hammer or a saw, the lid for piping according to piping direction.



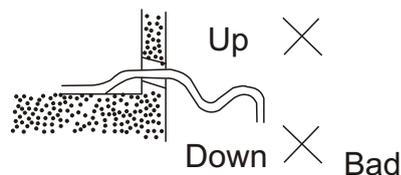
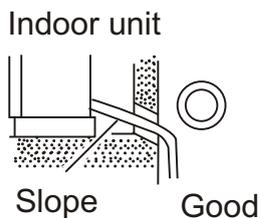
According to the piping method, connect the piping on indoor unit with union of connecting pipe.

Arrange the piping as per the wall hole and bind drain hose connecting electric cable and piping together with polyethylene tape.

Insert the bound piping connecting electric cable and drain hose through wall hole to connect with outdoor unit.

Arrangement of drain hose

- Drain hose shall be placed in under place.
- There should be a slope when arrange drain hose. Avoid up and down waves in drain hose.



If humidity is high, drain pipe (especially in room and indoor unit) must be covered with insulation material.

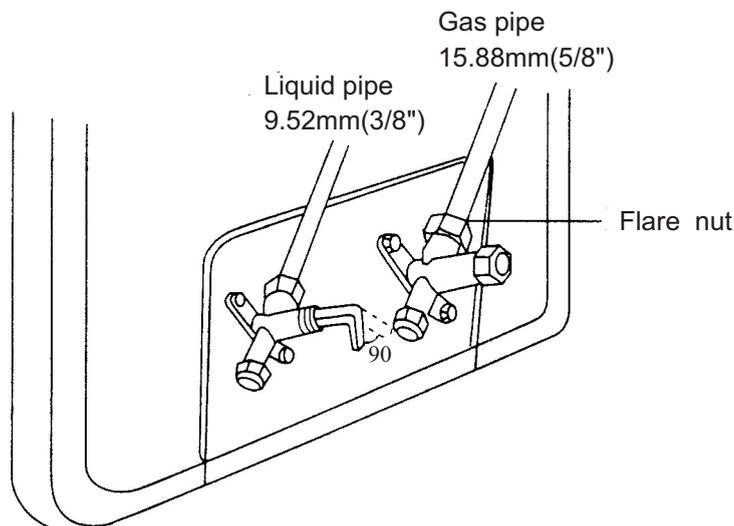
3. Piping connection of outdoor unit.

Connect the connecting pipe and inlet and outlet liquid pipe according to the piping method.

Purging method

Purge air out of indoor unit and piping as shown in the Fig.

- (1) Remove the valve cap on 2-way valve in outdoor unit.
- (2) Loosen by 1-1.5 turn the flare nut of gas pipe, which is connected to 3-way valve.
- (3) Loosen the valve rod of 2-way valve by 90 degrees (use a hexagon wrench) for about 15 seconds, air will be pushed out from flare nut on gas pipe.
- (4) Open 2-way and 3-way valves using specified torque.
- (5) Tighten the caps on the valves with specified torque.
- (6) Conduct gas leakage using gas leakage detector or soap water.



Note: When additional refrigerant piping is necessary, first purge air out of connecting pipe by external gas, then drive out the excessive refrigerant by purging method.

Brand new unit is charged 80g more refrigerant than spec. This is only for first installation to purge air in the indoor unit and connecting pipe.

When piping is longer than 5 m, charge additional refrigerant specified in this list.

Pipe length	5m	10m	15m	20m
Refrigerant charge(g)	—	250	500	750

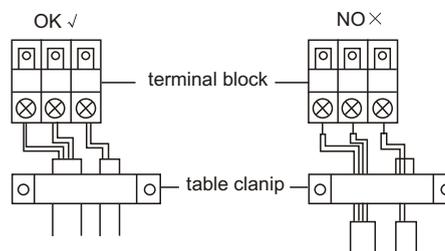
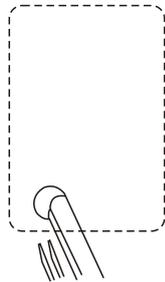
Electric wiring

Note:

- Electric wiring must be done by qualified person.
- Use copper wire only, the parameter of connecting cable is H07RN-F4×0.75mm².

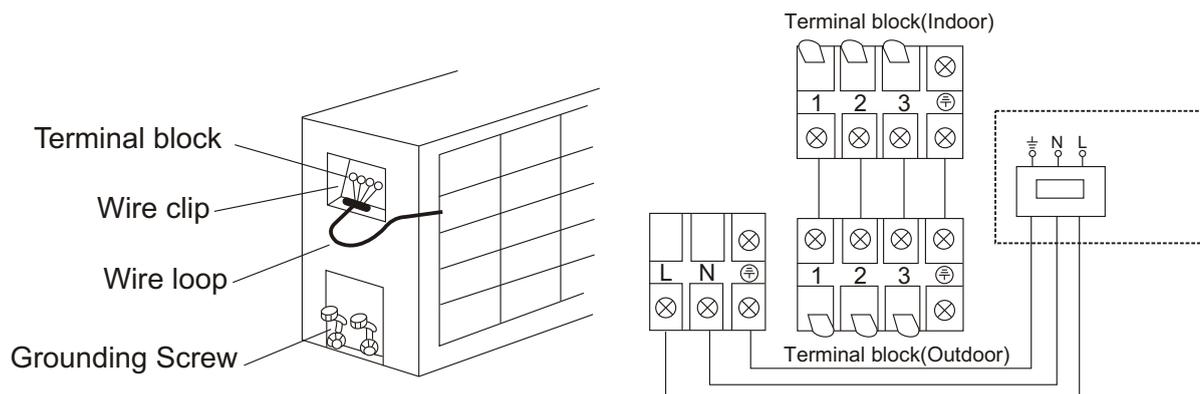
Wiring of indoor unit

- Insert the cable from outside the wall hole where piping already exist.
- Pull it out from front.
- Loosen terminal screws and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



Wiring of outdoor unit

- Insert the cable from inside the wall hole where piping already exists.
- Pull it out from front.
- Loose terminal screw and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



Note:

- When connecting indoor and outdoor wire, check the number on indoor and outdoor terminal blocks. Terminals of same number and same color shall be connected by the same wire.
- Incorrect wiring may damage air conditioner's controller or cause operation failure.

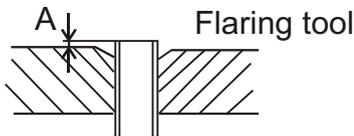
Others

1. Power supply

- Air conditioner must use an exclusive line (over 30A)
- When installation air conditioner in a wet place, try to use a circuit breaker against Current leakage.
- For installation in other places, use circuit breaker as far as possible.

2. Pipe cutting and flaring

- Be sure to carry out deburring after pipe cutting with a pipe cutter.
- Insert flaring tool to make a flare.



	Pipe dia.	Dimension A(mm)
Liquid pipe	∅ 9.52mm(3/8")	1.0~1.2
Gas pipe	∅ 15.88mm(5/8")	1.4~2.2

Correct	Incorrect.				
	Lean	Damaged flare	Crack	Partial	Too outside

Installation inspection and test run:

Please operate unit according to this Manual.

Items to be checked during test run. Please made a "√" in "□"

- Are there any gas leakage?
- How is insulation at piping connection carried out?
- Are electric wires of indoor and outdoor unit firmly inserted into terminal block?
- Is electric wiring of indoor and outdoor securely fixed?
- Is drainage securely carried out ?
- Is earth line (grounding) securely connected?
- Is power supply voltage abided by the code?
- Is there any noise?
- Is control display normal?
- Is cooling operation normal?
- Is room temp. regulator normal?

3.Piping connection of outdoor unit.

Connect the connecting pipe and inlet and outlet liquid pipe according to the piping Method.

Purging method

Discharge the air out of the indoor unit and the refrigerant pipe by vacuumizing.

- (1) Fasten all the nuts of the indoor and outdoor pipes to make these parts out of leakage.
- (2) Under the condition of the complete close of the indoor and outdoor valve center(both liquid and gas side), dismount the repair valve cap. Vacuumizing through the charge mouth of the repair valve.
- (3) After vacuumizing fasten the repair valve, and dismount the cap of the big and small stop valve,then loosen the stop valve center completely and fasten the big and small stop valve.

Extra charging amount of the refrigerant

When piping is longer than 5 m, charge additional refrigerant specified in this list.

Pipe length	5 m	10 m	15 m	20 m	25 m	30 m
Refrigerant charge(g)	—	250	500	750	1000	1250

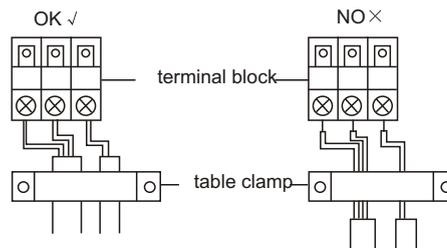
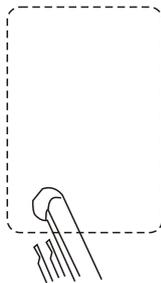
Electric wiring

Note:

- Electric wiring must be done by qualified person.
- Use copper wire only, the parameter of connecting cable is H07RN-F 4×0.75 mm.
- Power supply:380-400V.3N~.50Hz. The power supply connects from the outdoor side.

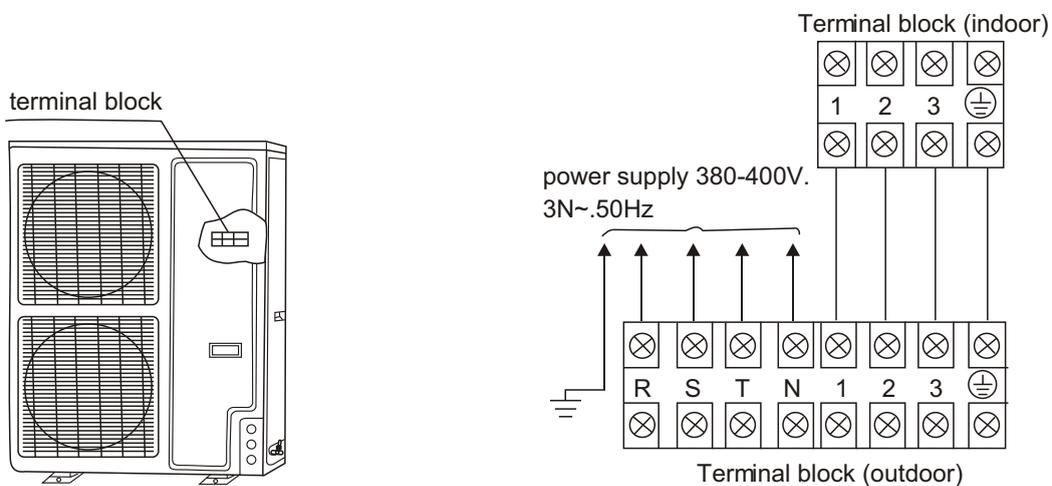
Wiring of indoor unit

- Insert the cable from outside the wall hole where piping already exist.
- Pull it out from front.
- Loosen terminal screws and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



Wiring of outdoor unit

- Insert the cable from inside the wall hole where piping already exists.
- Pull it out from front.
- Loose terminal screw and insert cable end fully into terminal block, then tighten it.
- Pull the cable gently to make sure it is tight.
- Replace cover after wiring.



Note:

- When connecting indoor and outdoor wire, check the number on indoor and outdoor terminal blocks. Terminals of same number and same color shall be connected by the same wire.
- Incorrect wiring may damage air conditioner's controller or cause operation failure.

Failure	Inspection result	Possible failure cause	Corresponding resolution
Failure of sensor	Display E1	Indoor ambient temperature sensor short out or shutdown	Check if sensor is well connected or broken
	Display E2	Indoor coiled temperature sensor short out or shutdown	Check if sensor is well connected or broken
	Display E3	Outdoor ambient temperature sensor short out or shutdown	Check if sensor is well connected or broken
	Display E4	Outdoor coiled temperature sensor shout out or shutdown	Check if sensor is well connected or broken
Display E7, but current is normal	Resisting value of electric resistance R2 isn't 100	R2 is broken	Change for qualified R2
Indoor fan motor don't run	CT2 didn't output	CT2 is broken	Change for qualified CT2
	2803 on indoor plate didn't output	2803 is broken	Change for qualified 2803
Indoor fan motor is absent of low speed	Output of relay J2, J3, J4 is normal	Connecting line isn't well connected with CN1 on indoor plate	Insert connector
	Foot 17 of 2803 on indoor plate didn't output	2803 is broken	Change for qualified 2803
	COM terminal of relay J2 on indoor plate has no voltage	Relay J2 is broken	Change for qualified relay
	Relay J2 on indoor plate didn't output	Relay J2 is broken	Change for qualified relay
Indoor fan motor is absent of medium speed	Foot 16 of 2803 on indoor plate didn't output	2803 is broken	Change for qualified 2803
	COM terminal of relay J3 on indoor plate has no voltage	Relay J3 is broken	Change for qualified relay
	Relay J3 on indoor plate didn't output	Relay J3 is broken	Change for qualified relay
	Foot 15 of 2803 on indoor plate didn't output	2803 is broken	Change for qualified 2803
Indoor fan motor is absent of high speed	Relay J4 on indoor plate didn't output	Relay J4 is broken	Change for qualified relay

Failure	Inspection result	Possible failure cause	corresponding resolution
Without response after making current	Power input on breadboard has no voltage	Power circuit isn't well inserted	Insert power line
	Without voltage behind fuse	Filter circuit device is broken	
	Without input on transformer-secondary	Fuse is broken Transformer isn't well inserted or broke	Change for qualified fuse Insert transformer of replace it
Without response after making current	Output of 7805 is abnormal	Power device on indoor plate is broken	Return to collector manufacturer for repair
	Without voltage on current inlet of panel	Connecting piece between panel and indoor plate isn't well inserted	Insert connecting piece
	Output of +5V is abnormal	7805 and input-output filter capacitor broke or other circuit short out	Return to collector manufacturer for repair
Buzzer doesn't buzz on pushing button	Reset level is low level	Reset slug T600D broke	Change for qualified reset slug T600D
	Two ends of buzzer has no square-wave signal	Triode Q1 broke	Change for qualified triode
	Two ends of buzzer has square-wave signal	Main slug broke	Return to collector manufacturer for repair
	Outlet terminal of panel air door has no signal	Buzzer broke	Change for qualified buzzer
Air door doesn't swing	Without air door controlling signal on indoor plate	Triode Q4 broke	Change for qualified triode
	Foot 13 of 2903 didn't output	Main slug broke	Return to collector manufacturer for repair
	Socket SWING on indoor plate didn't output	Panel and indoor plate isn't well connected	Insert properly connecting piece or replace connecting line
		2803 broke Relay J6 broke	Change for qualified 2803 Change for qualified relay
Individual key block		Mounting of panel is improper	Remount panel
Failure of communication between panel and main display plate, E8	Communication line between panel and indoor plate isn't good	Butt joint of connecting lines is improper Connecting line is at fault	Connect properly butt joint Replace connecting line
		Plug-in card S on indoor plate isn't well inserted	Insert S
		It's possible that 3 triodes in communication circuit broke	Return to collector manufacturer for repair

Failure	Inspection result	Possible failure cause	Corresponding resolution
Communication failure between indoor and outdoor plate, display E9	Signal S of indoor and outdoor fault	Indoor and outdoor connector isn't properly inserted	Insert connector
	Current of outdoor plate is abnormal	Power cord isn't properly inserted	Insert power cord
		Fuse on outdoor plate broke	Change it for qualified fuse
		Transformer isn't properly inserted	Change it for qualified transformer
Communication indicator of outdoor plate don't flash	Power circuit on outdoor plate is at fault	Return to controller manufacturer for repair	
	Foot 14 of 2003 on outdoor plate don't output	Communication circuit is at fault	Return to controller manufacturer for repair
		JK4 on outdoor plate don't output	Change it for qualified 2003
		JK4 on outdoor plate output	Change it for qualified relay
In heating, 4-way valve don't output	JK4 on outdoor plate output	Connecting line isn't well inserted in socket CN9 on outdoor plate	Insert connecting line
		Compressor is under protection for 3 minutes	Restore after a wait of 3 minutes
	Foot 12 of 2003 on outdoor plate don't output	Indoor coiled temperature is too low, over-cooling protection	Restore automatically when coiled temperature attain 8℃
		Relay JK5 on outdoor plate don't output	Change it for qualified 2003
In cooling, compressor don't start at appropriate temperature condition	Relay JK5 on outdoor plate don't output	Change it for qualified relay	
	Relay JK5 on outdoor plate output	Insert connecting line	

Failure	Inspection result	Possible failure cause	Corresponding resolution
In heating compressor doesn't start on appropriate temperature condition		3 minutes protection for compressor	Restore after a wait of 3 minutes
		Indoor coiled temperature is too high,overheating protection	Restore automatically when coiled temperature drop to 48 °C
	Foot 12 of 2003 on outdoor plate has no output	2003 is broken	Change it for qualified 2003
	Relay JK5 on outdoor plate has no output	Relay JK5 is broken	Change it for qualified relay
In cooling, compressor run but outdoor fan motor doesn't run	Relay JK5 on outdoor plate has output	Connecting line isn't well inserted in socket CN6 on outdoor plate	Insert connecting line
		Indoor coiled temperature is too low,over-cooling protection	Restore automatically when coiled temperature rise to 8 °C
	Foot 15 or 16 of 2003 on outdoor plate has no output	2003 is broken	Change it for qualified 2003
	Relay JK1 or JK2 on outdoor plate has no output	Relay JK1 or JK2 is broken	Change it for qualified relay
In heating, compressor run but outdoor fan motor doesn't run	Relay on outdoor plate has output	Connecting line isn't well inserted in socket CN10 on outdoor plate	Insert connecting line
		Indoor coiled temperature is too high,overheating protection	Restore automatically when coiled temperature drop to 48 °C
	Foot 15 or 16 of 2003 on outdoor plate has no output	2003 is broken	Change it for qualified 2003
	Relay JK1 or JK2 on outdoor plate has no output	Relay JK1 or JK2 is broken	Change it for qualified relay
Pipeline pressure is normal but display E6	Relay on outdoor plate has output	Connecting line isn't well inserted in socket CN10 on outdoor plate	Insert connecting line
		Connecting line isn't well inserted in socket CN10 on outdoor plate	Insert connecting line
	Two pins of socket CN2 on outdoor plate are low level	Pressure inspecting circuit is at fault	Return to controller manufacturer for repair