PANASONIC SERVICE MANUAL

WALL MOUNTED SPLIT-TYPE AIR CONDITIONERS

Models

CS/CU-YA09RKE-7 CS/CU-YA12RKE-7 CS/CU-YA18RKE-7 CS/CU-YA24RKE-7



CONTENTS

1. IMPORTANT NOTICE	 2
2. OPERATION DETAILS	 3
3. WIRING DIAGRAM	 11
4. EXPLOSION VIEW	 14
5. PARTS LIST	 16

IMPORTANT NOTICE

This service manual is intended for use by individuals possessing adequate backgrounds of electrical, electronic and mechanical experience. Any attempt to repair the appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

The information, specifications and parameter are subject to change due to technical modification or improvement without any prior notice. The accurate specifications are presented on the nameplate label.

How to order spare parts

To have your order filled promptly and correctly, please furnish the following information:

- 1. Model No. with Indoor or Outdoor
- 2. No. in the Explosion View
- 3. Part Name
- 4. The quantity you ordered

Technical Specifications

Model No.		CS/CU-YA9RKE-7	CS/CU-YA12RKE-7	CS/CU-YA18RKE-7	CS/CU-YA24RKE-7	
Туре		Heating Pump (Hot & Cold)	Heating Pump (Hot & Cold)	Heating Pump (Hot & Cold)	Heating Pump (Hot & Cold)	
Control type		Remote control	Remote control	Remote control	Remote control	
Rated cooling capacity		Btu/h;W	9000;2640	12000;3520	18000;5275	22000;6450
Rated heating capacity		Btu/h;W	9500;2780	12500;3660	18500;5420	22500;6600
EER for cooling		w/w	3.08	3.04	3.08	3.08
COP for heating		w/w	3.12	3.03	3.08	3.20
Moisture removal		L/h	1.0	1.5	2.0	2.5
	High	dB(A)	40	44	52	53
Indoor noise level at	Med.	dB(A)	36	40	48	48
cooling	Low	dB(A)	32	36	44	44
Outdoor noise level		dB(A)	52	55	57	63
Electrical Data						
Power supply		Rating		230V~	/50Hz/1Φ	
[*Power cord w/o Top pl	ug]	Type / Source	Indoor	Indoor	Indoor	Outdoor
Voltage Range		V	198~264	198~264	198~264	198~264
Reted Input Dower	Cooling	w	860	1160	1710	2095
Rated input Power	Heating	w	890	1210	1760	2060
Annual energy consump	otion	kwh (cooling)	430	580	855	1048
Refrigerating System						
Pofrigoropt		Туре	R410A	R410A	R410A	R410A
Reingerant		Amount (g)	670	850	1300	1570
Comprospor		Manufacturer	RECHI	GMCC	GMCC	GMCC
Compressor		Model	44A203BJ&FJKC	ASM140V1VDZ	PA196G2C-4MUL	PA250G2CS-4MUL
		Fin Color	Blue	Blue	Blue	Blue
Evaporator		Specification (Length, FPI)	544, 17	604, 17	705, 18	797, 17
		Fin Color	Blue	Blue	Blue	Blue
Condenser		Specification (Length, FPI)	717, 17	717, 17	780, 17	879, 17
Fan System						
Indoor air circulation(Co	oling/Heating)	m³/h	520/500	550/550	800/820	1200/1200
	Cooling	rpm	1270/1170/1000	1350/1250/1150	1350/1250/1150	1350/1130/980/830
Indoor fan speed H/M/L	Heating	rpm	1250/1150/1050	1250/1150/1000	1250/1150/1000	1350/1130/980/830
		Maker	Welling	Board-Ocean	Tongde Electric	Welling
Indoor fan motor		Insulation Class	E	E	E	E
Outdaar Far Mater		Maker	Board-Ocean	Welling	Welling	Board-Ocean
Outdoor Part Motor		Insulation Class	В	В	В	В
Connections		-				
	Gas	Inches	3/8" (Φ9.52)	3/8" (Φ9.52)	1/2'' (Φ12.7)	5/8" (Φ 15.88)
Connecting Pipe	Liquid	Inches	1/4" (Ф 6.35)	1/4" (Ф 6.35)	1/4" (Ф6>Ф6.35)	1/4" (Ф 6.35)
	Length	m	3	3	3	3
Connecting Wiring	Size x Core nur	nber	1.0x3; 0.75x2	1.0x3; 0.75x2	1.5x3; 0.75x2	0.75x4; 0.75x2
Others						
Unit dimensions (W x H x D) Indoor		mm	718×240×190	770x240x190	900x280x215	1033×313×220
Unit dimensions (W x D x H) Outdoor		mm	700×256×552	700×256×552	820x605x300	902×315×650
Net weight	Indoor	kg	7	8	10	14
	Outdoor	kg	27	28	42	50
Packing dimensions (W x H x D)	Indoor	mm	805×305×260	860×305×260	985x365x300	1105×400×300
Packing dimensions (W x D x H)	Outdoor	mm	805×365×630	805×365×630	950x655x430	1015×435×740
Gross weight	Indoor	kg	9	10	13	18
อาบรอ พยเยาเ	Outdoor	kg	30	31	45	55

REMOTE CONTROL

No.	Button	Function
1	(TEMP UP)	Increase the temperature or time by 1 unit
2	▼ (TEMP DN)	Decrease the temperature or time by 1 unit
3	ON/OFF	To switch the conditioner on and off.
4	FAN	To select the fan speed of auto/low/mid/high
5	TIMER	To set automatic switching-on/off
6	SLEEP	To activate the function "SLEEP"
7	ECO	In cooling mode, press this button , the temperature will increase $2^{\circ}C$ on the base of setting temperature In heating mode, press this button, the temperature will decrease $2^{\circ}C$ on the base of setting temperature
8	MODE	To select the mode of operation
9	SUPER	In cooling mode, press this button, the unit will give the maximum cooling temperature with 16° C In heating mode, press this button, the unit will give the maximum heating temperature with 31° C
10	SWING	To activate or deactivate of the movement of the "DEFLECTORS".
11	CLOCK	When you press this button, the time will be flic- kering; then through " and " , you can adjust the time (one time you press, one minute you ad- just; and if you continue to press, the time change rapidly), after adjusting to your required time, please press this button again to fix the time.
12	DISPLAY	To switch on/off the LED display (if present)
13	HEALTHY	To switch - on /off HEALTHY funtion. It is a button which controls the ionizer or plasma generator only for inverter type.
14	3D	This button is useless for wall-mounted type. When you press "3D", the horizontal and vertical vanes will swing together at the same time.
15	RESET	To restart REMOTE CONTROL
16	ANTI-MILDEW	To activate the function ANTI-MILDEW



3

2

ONOFF

8

(MODE)

The outlooking and some function of remote control may vary according to the model.

 \triangle The shape and position of buttons and indicators may vary according to the model, but their function is the same.

The unit confirms the correct reception of each press button with a beep.

Electronic controller:

1.Automatic mode

1) Initial RT determines the working mode and ST, the mode is determined effective only once unless A/C shut-down then re-started. If from other modes switches to autoamatic mode (including mode conversion after shutdown), it should be that the compress stop more than 3 min then temperature judgement and automatic mode are conducted (it can conduct immediately from fan mode switched to automatic, the indoor fan stops, three minutes later the response is made and start up). Within 3 min, the output as: Showing the room temperature, indoor fans starts (or anti-cold airflow), the outdoor fan stops;

2) With memory controller, once being turned off or in case of an accidently power cut, the A/C is able to retain and restore the original mode when being turned on or the power supply is resumed, if the auto restart function activated. power-down after power-on; while if the auto restart function isn't activated, the A/C enters standby state.

Heat pump

Mode	Initial RT	Initial ST
Cooling	RT≥26℃	23 °C
Dehumifying	26°C>RT≥20°C	18 ℃
Heating	RT<20℃	23 ℃

Cooling-only

Mode	Initial RT	Initial ST			
Cooling	RT≥26 ℃	23 ℃			
Dehumifying	26℃>RT≥20℃	18 ℃			
Ventilating	RT<20 ℃	_			

Under automatic mode (including from automatic converted into dehumidifying Dry mode), when the temperature up and down signals from the remote controller is received, the setting temperature ST adjusts correspondingly to the current room temperature plus or minus 1°C, the automatic regulating temperature range is ± 2 °C.

2. Cooling mode

1) The control of the compressor

a. When $RT-ST \ge 1^{\circ}C_{\circ}$, the compressor is running.

b. When RT-ST<-1°C, the compressor is off.

c. When $-1^{\circ}C \leq RT - ST \leq 1^{\circ}C$, the compressor keeps its original state.

2) Outdoor fan motor and the compressor run simultaneously (except for defrosting).

3) The control of indoor fan motor:

a. Indoor fan motor can operate by automatic, low, middle, and high airflow speed circularly.

b. Indoor fan motor's the automatic airflow speed control Indoor fan motor can operate by automatic, as shown in Figure 1:



Figure 1 Cooling automatic airflow

When the temperature changes lead to changes in airflow speed, the switch can only be made orderly, and every grade of air flow speed runs 1 minute at least.

3. Dry mode

running into this mode, the Air cond. firstly operates for 3 minutes according to cooling mode (set temperature is 16° C or 18° C), and then takes the detected backflow air temperature minus 2° C as a new set temperature (the minimum value of 16° C) and runs according to cooling mode, indoor fan operates at low-speed, at this moment the setting operation of Fan speed is invalid but Swing is adjustable.

4. Heating mode

On the Heating mode, the room temperature is repaired. After repaired, the room temperature display on the LED CRT=RT-3 $^\circ\!C$.

1) The control of the compressor

a. When ST-CRT≥1℃, the compressor is running.

b. When ST-CRT<-1°C, the compressor is off.

c. When $-1^{\circ}C \leq ST - CRT < 1^{\circ}C$, the compressor keeps its original state

2) Outdoor fan motor and the compressor run simultaneously (except for defrosting)

3) The control of indoor fan motor:

a. Indoor fan motor can operate by automatic, low, middle, and high airflow speed circularly.

b. indoor fan motor's the automatic airflow speed control Indoor fan motor can operate by automatic, as shown in Figure 2:



Figure 2 Heating automatic airflow

When the temperature changes lead to changes in airflow speed, the switch can only be made orderly, and every grade of air flow speed runs 1 minute at least.

4) Vane motor control: run as set state.

5) 4-way valve control:

a. Under heating mode, the four-way valve maintains well-connected status (including the compressor stops on set condition, but except for the defrosting process)

b. When the mode switches into the heating mode or start-up, four-way valves will open 5 Seconds before the compressor starts; while the mode exits from the heating mode or turn off, the four-way valve will close 2min after after the shut-down the compressor.

6) Defrosting function:

During defrosting, once mode switch, temperature setting signals received, and the buzzer and display make response immediately, but the other operations won't implemented until defrosting finished;

During defrosting, the signals of on-off, timing, sleep, airflow speed ans swing will be responded, but the airflow speed and swing should be in accordance with anti-cold air rules.

Except the above signal processing during defrosting, no other signals will be dealt with, but only a loud buzz.

During defrosting, electrical heating stops compulsively.

Defrosting enter and exit pragram:

Option 1: with jumper JC

The condition of enter defrosting: run into defrosting once any of condition 1, 2, and 3 met.

Condition 1: As shown in figure 3

Defination:

The followings are all required to meet:

a. IPT1 settles for IPT1=IPTmax−△IPT(8℃)

b. t5 \geq 50min (running time t5 \geq 50min (the compressor runs cumulatively), t5 is removable, and could be less than t1)

c. IPT<40°C, and lasts $2min_{\circ}$

Running into defrosting on condition 1, the first running time of set defrosting is F (8min); after running a defrosting cycle, the defrosting time should be determined and adjusted.



Figure 3

Condition 2: When running time is more than or equal to 120 min (compressor is running accumulatively), the indoor temperature is less than $35 \degree C$ for 2 min sustained. Running into defrosting under condition 2, defrosting time set is 8 min.

Condition 3: after the compressor is operating for 20min continuously, the indoor temperature is less than 23 ° C which is anti-cold wind temperature when the fan stops running(including temperature droping when compressor operating, not including the compressor's starting course), and the machine runs into defrosting according to any one condiciton as below) Running into defrosting under condition 3, defrosting time set is 10 min.

a) Running into the first defrosting in 20 min after start-up.

b) The interval from last defrosting equivalent to or more than 50 min (stopping the compressor or the machine in standby is allowed in the meantime).

Option 2: No Jumper JC, and no OPT outdoor sensor

when the compressor runs for 45 min, if the indoor coil temperature is less than 40 ° C for 2 min, the machine runs into defrosting, and lasts for 3min, otherwise when the compressor runs for 120 min, the machine runs into defrosting automatically and last for 10 min.

Option 3: No jumper JC, but with OPT outdoor sensor

When heating, when the temperature of outdoor unit under heat-exchange is lower than E $^{\circ}$ C (-4 $^{\circ}$ C), and the compressor runs for 45 min, then the machine runs into defrosting and last for 10 min.

Option 4. When heating, when the outdoor fan motor stopped but the compressor not stopped accumulative total 30min, then the machine runs into defrosting and last for 8 min. if the accumulative total less than 30min, but accord with one of the condition option 1-3 them the machine runs into defrosting at the option 1-3 and the accumulative tota time restarts from 0.

Conditions for quitting defrostng

(1) The quitting conditions for option 1 and option 2, the machine quits from defrosting if any one below condition met.

a. Defrosring time is over.

b.When it runs in defrosting for three minutes, the IPT indoor coil temperature rises 15 $^{\circ}$ C or above from the bottom point.

(2) The quitting conditions for option 3.

When OPT \geq 20 ° C or defrosting for more than 10 min, then quit from defrosting.

(3) Defrosting process shown in Figure 4



The indoor fan runs in anti-cold wind mode

Figure 4 Defrosting process

7) Auxiliary Electric heating function

(1)The default condition is automatic on/off the electric heating function.

(2) The conditions of auxiliary electric heating(all the following conditions must be met)

a. the compressor runs for more than 3min;

b. indoor fan runs normally;

c. not in defrosting state;

d. auxiliary electric heating is turned off for more than 30s.

e. ST-RT≥3°C;

f. RT < 22°C;

g. IPT≤43°C;

(3) The conditions of stopping auxiliary electric heating(any one of the following conditions met, the state stops)

a. the compressor stops

b. RT≥24°C;

c. IPT≥48°C

d. indoor fan stops.

e. running into sleeping function

5. Fan mode

1) Indoor fan motor control:

indoor fan motor is running at setting speed (the speed is same as that of heating).

2) Vane motor control: running according to the setting.

3) The outdoor unit is not working under fan mode.

6. Sleeping mode

1) Under sleep mode, the indoor fan motor is running at a low-airflow speed, except that the power light and sleep light are on, timer light is on/off according to the setting state, running light is off. LED is off after displaying 5min.

2) Temperature control:

(1) From cool mode to sleep mode, one hour later, the operates Temp.=ST+1, another one hour later, the operates Temp.=ST+2, after then unchanged.

(2) From heating mode to sleep mode, one hour later, the operates Temp.= ST-1, another one hour later, the operates Temp.=ST-2, after then unchanged.

3) the machine will automatically shut up after running 8 hours under sleep mode.

Timer on start-up and sleep mode are implemented at the same time, and the sleep mode can not be functioned.

7. Timing fuction

The timing scale is between 10min to 24h, when the time fixed is less than "10" hours, the displayed time is shown by 0.5 hour as the unit, when the time fixed is more than or equal to "10" hours, the displayed time is shown by 1 hour as the unit.

8. Emergency switch (ON/OFF)

1) When stand-by, to operate by pressing the emergency switch as follows:

To Press the emergency switch in three seconds, the buzzer rings once, and to release, the machine runs into cooling mode; if to holding on, the buzzer rings twince, then the machine runs into heating mode, while when the machine is on, to press the emergency Switch, the buzzer rings once and then the machine shut down.

2) The machine is running mandatorily as the selected mode within 30min after emergency operation, indoor fan motor is running in high-speed, and vane board is swinging. The machine runs into automatic mode 30min later, the selected mode unchanged, the set temperature is 23° C ,the rotate speed of indoor fan motor is automatic, and vane board is swinging too.

3) To press the emergency button when the machine operating, then the machine runs into stand-by state.

4) Under emergency operation, the Compressor's time-lapse protection, anti-frosting protection in cooling, Overheating protection in heating and sensor fault protection and defrost operate are effective.

5) Under emergency operation, once effective signal from remote controller is received, then the machine exits form the emergency mode, and operate according to the setting from remote controller.

9. Auto-restart function

1) The PCB retains the setting parameters in case of power off. When the power supply is resumed, the machine, which has been started up the power-off memory function, is able to restore into the original running state automatically.

2) To press the emergency button and power on, and hold on 10 seconds, exit from the power-off memory function, buzzer rings four tomes.(default: no this function)

10. Protection/ Troubleshooting functions

1) Compressor's protection function:

a. The PCB which has Power-off memory function, once this function is started up,the compressor goes along 3min delay protection when power on. If the PCB hasn't been started up this function, even when the PCB is power-on, the compressor doesn't process 3 min delay function.

b. Compressor's 3 min interval protection: the compressor can't start-up until 3 min later(except for defrosting process).

c. After the compressor started, the compressor's state isn't subject to the changes on ST,RT in 3min.2) Anti-frosting protection of indoor evaporator:

If IPT ≤ 0 °C detected in consecutive 5 min, compressor and outdoor motor stoped, indoor fan motor runs at high-speed forcibly; IPT ≥ 5 °C detected 3min later, then outdoor fan is activated. And the compressor, indoor fan motor restores the original state.

3) Overheating protection:

IPT $\geq 55^{\circ}$ C, the outdoor fan stops, IPT $\geq 65^{\circ}$ C, the compressor stops, indoor fan motor runs at high-speed forcibly. When IPT $\leq 48^{\circ}$ C, outdoor fan motor and the compressor open, indoor fan motor restores the original state.

4) Anti-cold wind control in heating:

a. When runing into the heating mode, once the compressor fails to comply with the start-up conditions, the wind speed is regulated according to the coil temperature in 2 min(including stopping the indoor fan motor), 2 min later the indoor fan motor stops. If the compressor starts up within 2 min, then operating by Figure 6.

Under heating process, to close the compressor (including the downtime protection), the wind speed is regulated according to the coil temperature in 1min(including stopping the indoor fan), 1min later the fan is stoped forcibly.

b. When the indoor fan motor running at a low-speed wind and in anti-cold wind operation, once electric heating opens, the vane immediately withdraws from the anti-cold windy location and turn back to normal vane angle. When electric heating closes, indoor fan motor go on to run at low-speed wind, accordingly, the vane turns to anti-cold windy location.





2) The following table shows the fault protections. When failures happens, the PCB alarms and

buzzer rings three times. Failure code appears, and the PCB operates protection procedures. Failure code: For the machine has LED, the code displays on LED, for no LED machine, the code reflects by the running light.

Failure	Running Light Flash	LED Display
RT Sensor Failure	Once / Period	E1
IPT Sensor Failure	Twice / Period	E2
Indoor Fan Motor Failure	6 times / Period	E6

When there is LED displaying failure code, the code is displayed statically, if there are several failure codes should be reported at the same time, then failure codes appears one by one every eight seconds correspondingly.

a. Sensor's failure protection: when the sensor's temperature is out of the range $-50 \le T \le 110$ °C, then sensor failue is determined. Once RT, IPT sensor failures appear, the compressor stops and indoor and outdoor fan motors shut off. Remote controller deesn't response to any signal except for shutdown. During failure the machine can run in fan mode. After the failure is settled, the PCB restores to standby status.

b. Failure protection of Indoor PG fan motor: If there is no feedback signal of rotate speed within 5, the indoor fan motor stops, at the same time, the compressor, outdoor fan moto, four-way valve and auxiliary electric heater etc cut downn. 10 seconds later, the indoor fan motor restarts, once there is no feedback signal of rotate speed within 5 seconds either, then the machine stops and goes into indoor fan motor failure protection, buzzer rings three times, and running light flashes at 6 times per 8 seceonds. When the failure is confirmed, once there is feedback signal, the failue is relieved automatic.

WIRING DIAGRAM

INDOOR UNIT: 9K, 12K, 18K



WIRING DIAGRAM

INDOOR UNIT: 24k



OUTDOOR UNIT: 24k



INDOOR UNIT: 9K、12K、18K





EXPLOSION VIEW

INDOOR UNIT: 24K



Air Conditioner Service Manual

Part List

INDOOR UNIT: 9K

No.	Part No.	Part Name	Q'ty	Remarks
1	1080030003	Installation Plate	1	
2	1210250103AK	Base	1	
3	1070020017AA	Cross Fan	1	
4	1070100010	Bearing Mount	1	
5	1070321035C	Evaporator	1	
6	1070251833AX	Water Drainage Assembly	1	
7	1070321035C	Vertical Vane Assembly	2	
8	1070251841AM	Face Frame	1	
9	1070321022AG	Screw Cover	2	
10	210900944	Display PCB(Digital)	1	
11	1070321023	Display PCB Box	1	
12	1070250106	Air Filter	2	
13	214109338F	Front Panel	1	
14	1170120042	Power Supply Cord	1	W/O Top Plug
15	1070251837AM	Vane	1	
16	1070110011	Drainage Hose	1	
17	1070040001	Cable Clamp	1	
18	210900994C	Main PCB(Digital)	1	
19	210705987	Electrical Box	1	
20	1170020011	Vane Motor	1	
21	1073010501	Sensor Holder	1	
22	1170030047	Indoor Motor	1	
23	1070320111	Indoor Motor Cover	1	
24	1170240023AB	Transformer	1	
25	1170230001 I	ndoor Sensor Assembly	1	
26	1080320818AF	In And Out Pipe Fixer	1	
27	1090051057DN	Remote Controller	1	
28	1190060827BDQ	Indoor Carton	1	
29	211310246	Left Foam	1	
30	211310247	Right Foam	1	

OUTDOOR UNIT: 9K

No.	Part No.	Part Name	Q'ty	Remark
1	1071990039	Back Grille	1	
2	210800539	Top Cover	1	
3	211203410	Condenser	1	
4	1080050004	Outdoor Motor Supporter	1	
5	1170040058	Outdoor Motor	1	
6	1070030060	Propeller Fan	1	
7	1080050001	Left Grille Supporter	1	
8	210800537	Front Plate	1	
9	210703269	Fan Guard	1	
10	211202989	Compressor	1	
11	1120110016	4-way Valve	1	
12	211203073	4-way Valve Assembly	1	
13	210800659	Base	1	
14	210800541	Right Plate	1	
15	1120120021	Two-way Valve	1	
16	1080050003	Valve Supporter	1	
17	1120130083	Three-way Valve	1	
18	1070350971	Electrical Box Cover	1	
19	1070040001	Cable Clamp(φ6)	1	
20	1070040002	Cable Clamp(φ8)	1	
21	1170500131	Terminal	1	
22	1170100026A	Compressor Capacitor	1	
23	1080010006	Capacitor Strip	1	
24	1081990010	Electrical Parts Box	1	
25	1170100010AB	Fan Motor Capacitor	1	
26	211205734	Capillary Assembly	1	
27	1081990314	Partition plate	1	
28	211336182	Base Carton	1	
29	211336181K	Cabinet Carton	1	
30	1151990014	Base Foam	1	
31	211308588	Cover Foam	1	

INDOOR UNIT: 12K

No.	Part No.	Part Name	Q'ty	Remarks
1	1080030008	Installation Plate	1	
2	1080320806AE	Base	1	
3	1070020026AA	Cross Fan	1	
4	1070100010	Bearing Mount	1	
5	211230948A	Evaporator	1	
6	1070321032AR	Water Drainage Assembly	1	
7	1070321035	Vertical Vane Assembly	1	
8	1070321440A	Face Frame	1	
9	1070321022AG	Screw Cover	3	
10	210900944	Display PCB(Digital)	1	
11	1070321023	Display PCB Box	1	
12	1070320109	Air Filter	1	
13	210703891E	Front Panel	1	
14	1170120042	Power Supply Cord	1	W/O Top Plug
15	1070321034AJ	Vane	1	
16	1070110011	Drainage Hose	1	
17	1070040001	Cable Clamp	1	
18	210900994D	Main PCB(Digital)	1	
19	210705987	Electrical Box	1	
20	1170020011	Vane Motor	2	
21	1073010501	Sensor Holder	1	
22	1170030067	Indoor Motor	1	
23	1070320111	Indoor Motor Cover	1	
24	1170240023AB	Transformer	1	
25	1170230001	Indoor Sensor Assembly	1	
26	1080320818AF	In And Out Pipe Fixer	1	
27	1090051057DN	Remote Controller	1	
28	1070060003	Remote Controller Supporter	1	
29	1190060828DEC	Indoor Carton	1	
30	211310246	Left Foam	1	
31	211310247	Right Foam	1	

OUTDOOR UNIT: 12K

No.	Part No.	Part Name	Q'ty	Remarks
1	1071990039	Back Grille	1	
2	210800539	Top Cover	1	
3	211202145	Condenser	1	
4	1080050004	Outdoor Motor Supporter	1	
5	1170040058	Outdoor Motor	1	
6	1070030060	Propeller Fan	1	
7	1080050001	Left Grille Supporter	1	
8	210800537	Front Plate	1	
9	210703269	Fan Guard	1	
10	211205915	Compressor	1	
11	1120110016	4-way Valve	1	
12	211203369	4-way Valve Assembly	1	
13	210800659	Base	1	
14	210800541	Right Plate	1	
15	1120120021	Two-way Valve	1	
16	1080050003	Valve Supporter	1	
17	1120130083	Three-way Valve	1	
18	1070350971	Electrical Box Cover	1	
19	1070040001	Cable Clamp(φ6)	1	
20	1070040002	Cable Clamp(φ8)	1	
21	1170500131	Terminal	1	
22	1170100004A	Compressor Capacitor	1	
23	1080010006	Capacitor Strip	1	
24	1081990010	Electrical Parts Box	1	
25	1170100010AB	Fan Motor Capacitor	1	
26	211204931	Capillary Assembly	1	
27	1081990314	Partition plate	1	
28	211336182	Base Carton	1	
29	211336181L	Cabinet Carton	1	
30	1151990014	Base Foam	1	
31	211308588	Cover Foam	1	

INDOOR UNIT: 18K

No.	Part No.	Part Name	Q'ty	Remarks
1	1080030021	Installation Plate	1	
2	1070350872AL	Base	1	
3	1070020042AA	Cross Fan	1	
4	1070100010	Bearing Mount	1	
5	211230695	Evaporator	1	
6	1070450385AQ	Water Drainage Assembly	1	
7	1070350141	Vertical Vane Assembly	1	
8	1070450390AL	Face Frame	1	
9	1070350135AH	Screw Cover	3	
10	210900944	Display PCB(Digital)	1	
11	1070321023	Display PCB Box	1	
12	1070450397	Air Filter	1	
13	214126673F	Front Panel	1	
14	1170120043	Power Supply Cord	1	W/O Top Plug
15	1070450387AU	Vane	1	
16	1070110011	Drainage Hose	1	
17	1070040003	Cable Clamp	1	
18	210900574D	Main PCB(Digital)	1	
19	1070451353A	Electrical Box	1	
20	1170020041A	Vane Motor	2	
21	1073010501	Sensor Holder	1	
22	1170030101	Indoor Motor	1	
23	1070350152	Indoor Motor Cover	1	
24	1170240024AB	Transformer	1	
25	1170230001	Indoor Sensor Assembly	1	
26	1070350245AF	In And Out Pipe Fixer	1	
27	1090051057DN	Remote Controller	1	
28	1190470001DCK	Indoor Carton	1	
29	1190060803	Left Foam	1	
30	1190060804	Right Foam	1	
31	211310757	Middle Pasteboard Supporter	1	

Air Conditioner Service Manual

Part List

OUTDOOR UNIT: 18K

No.	Part No.	Part Name	Q'ty	Remarks
1	210705926	Back Grille	1	
2	1081990056	Top Cover	1	
3	211204422	Condenser	1	
4	1080050130	Outdoor Motor Supporter	1	
5	210900175	Outdoor Motor	1	
6	1070030054AA	Propeller Fan	1	
7	1081990053	Left Grille Supporter	1	
8	1081990258	Front Plate	1	
9	1071990096	Fan Guard	1	
10	211201711	Compressor	1	
11	1120500226D	4-way Valve	1	
12	211202582	4-way Valve Assembly	1	
13	210800567	Base	1	
14	1081990054	Right Plate	1	
15	1120120021	Two-way Valve	1	
16	1081990055	Valve Supporter	1	
17	1120130085	Three-way Valve	1	
18	1070350971	Electrical Box Cover	1	
19	1070040001	Cable Clampφ6	1	
20	1070040003	Cable Clampφ8	1	
21	1170500131	Terminal	1	
22	1170100027A	Fan Motor Capacitor	1	
23	1170100033A	Compressor Capacitor	1	
24	1080010006	Capacitor Strip	1	
25	1081990010	Electrical Parts Box	1	
26	211205069	Capillary Assembly	1	
27	1174561802	Outdoor sensor	1	
28	1191990197A	Base Carton	1	
29	1190042086BQQ	Cabinet Carton	1	
30	1150300007	Base Foam	1	
31	211323998	Cover Foam	1	

INDOOR UNIT: 24K

No.	Part No.	Part Name	Q'ty	Remarks
1	1080030001	Installation Plate	1	
2	1080320810AE	Base	1	
3	1070020014AA	Cross Fan	1	
4	1070100010	Bearing Mount	1	
5	211205916	Evaporator	1	
6	1070701048AK	Water Drainage Assembly	1	
7	1070701050	Vertical Vane Assembly A	1	
	1070701051B	Vertical Vane Assembly B	1	
8	1070701060AP	Face Frame	1	
9	1073073232B	Screw Cover	3	
10	210900945	Display PCB (Digital)	1	
11	1070321023	Display PCB Box	1	
12	1070190058	Left Air Filter	1	
	1070190059	Right Air Filter	1	
13	210706048B	Front Panel	1	
14	1070701059AE	Electrical Box Cover	1	
15	1070701052AJ	Vane A	1	
16	1070701053AG	Vane B	1	
17	1070110011	Drainage Hose	1	
18	1070040003	Cable Clamp	1	
19	1170020041	Vane Motor	2	
20	1073010501	Sensor Holder	1	
21	210900337U	Main PCB(Digital)	1	
22	210705201	Indoor Motor Cover	1	
23	210900087	Indoor Motor	1	
24	210704914	Electrical Box	1	
25	1173090107AA	Transformer	1	
26	1170230001	Indoor Sensor Assembly	1	
27	1090051057DN	Remote Controller	1	
28	1070060003	Remote Controller Supporter	1	
29	1190060003BHD	Indoor Carton	1	
30	211338523	Left Foam	1	
31	211338524	Right Foam	1	
32	1190060002	Middle Pasteboard Supporter	1	
33	1190060021	Middle Foam Supporter	1	

OUTDOOR UNIT : 24K

No.	Part No.	Part Name	Q'ty	Remarks
1	1071990041	Back Grille	1	
2	1080020023	Top Cover	1	
3	211202935A	Condenser	1	
4	1080050106	Outdoor Motor Supporter	1	
5	210900028	Outdoor Motor	1	
6	1070030059	Propeller Fan	1	
7	1081990040	Left Grille Supporter	1	
8	1080050103	Front Plate	1	
9	1080050105	Fan Guad	1	
10	211202912	Compressor	1	
11	1120110017	4-way Valve	1	
12	211202917	4-way Valve Assembly	1	
13	1080080047	Base	1	
14	1080050104	Right Plate	1	
15	1120120045	Two-way Valve	1	
16	1080050114	Valve Supporter	1	
17	211201228	Three-way Valve	1	
18	1070350971	Electrical Box Cover	1	
19	1074060118	Cable Clamp	1	
20	1170200054	Terminal	1	
21	1170100030A	Fan Motor Capacitor	1	
22	1170100007B	Compressor Capacitor	1	
23	1080010006	Capacitor Strip	1	
24	1080050107	Electrical Parts Box	1	
25	1174561801	AC Contactor	1	
26	211202913	Capillary Assembly	1	
27	1080050109	Partition plate	1	
28	1174561802	Outdoor sensor	1	
29	1190042096PE	Cabinet Carton	1	
30	1190030009A	Base Carton	1	
31	1151990016	Base Foam	1	
32	1151990018	Cover Foam	1	