



# Service Manual

GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI

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## Models List:

Models	Product Code	Models	Product Code
GWH(07)MA-K3DNA3E/I(Cold Plasma)	CB171N08600	GWH(12)MB-K3DNA3E/I(Cold Plasma)	CB171N08701
GWH(07)MA-K3DNA4E/I(Cold Plasma)	CB161N05301	GWH(12)MB-K3DNA4E/I(Cold Plasma)	CB161N05501
GWH(07)MA-K3DNA5E/I(Cold Plasma)	CB162N07100	GWH(12)MB-K3DNA5E/I(Cold Plasma)	CB162N07000
GWH(07)MA-K3DNB3E/I(Cold Plasma)	CB163N05700	GWH(12)MB-K3DNB3E/I(Cold Plasma)	CB163N06000
GWH(07)MA-K3DND3E/I(Cold Plasma)	CB405N03300	GWH(12)MB-K3DND3E/I(Cold Plasma)	CB405N03400
GWH(07)MA-K3DNA5E/I	CB162N07101	GWH(12)MB-K3DNA2E/I	CB181N06201
GWH(07)MA-K3DNE1E/I	CB143N01500	GWH(12)MB-K3DNA3E/I	CB171N08700
GWH(07)MA-K3DNA4E/I	CB161N05302	GWH(12)MB-K3DNA5E/I	CB162N07001
GWH(07)MA-K3DNA3E/I	CB171N08601	GWH(12)MB-K3DNE1E/I	CB143N01700
GWH(07)MA-K3DNA2E/I	CB181N06300	GWH(12)MB-K3DNE3E/I	CB404N02800
GWH(09)MA-K3DNA2E/I(Cold Plasma)	CB181N06101	GWH(12)MB-K3DNA4E/I	CB161N05500
GWH(09)MA-K3DNA3E/I(Cold Plasma)	CB171N08501	GWH(12)MB-K3DNA2E/I	CB181N06202
GWH(09)MA-K3DNA4E/I(Cold Plasma)	CB161N05401	GWH(18)MC-K3DNA2E/I(Cold Plasma)	CB181N06001
GWH(09)MA-K3DNA5E/I(Cold Plasma)	CB162N07200	GWH(18)MC-K3DNA3E/I(Cold Plasma)	CB171N08401
GWH(09)MA-K3DNB3E/I(Cold Plasma)	CB163N05800	GWH(18)MC-K3DNA4E/I(Cold Plasma)	CB161N05601
GWH(09)MA-K3DND3E/I(Cold Plasma)	CB405N03500	GWH(18)MC-K3DNA5E/I(Cold Plasma)	CB162N07300
GWH(09)MA-K3DNE2E/I(Cold Plasma)	CB401N01000	GWH(18)MC-K3DNB3E/I(Cold Plasma)	CB163N05900
GWH(09)MA-K3DNA2E/I	CB181N06100	GWH(18)MC-K3DND3E/I(Cold Plasma)	CB405N03200
GWH(09)MA-K3DNA3E/I	CB171N08500	GWH(18)MC-K3DNA2E/I	CB181N06000
GWH(09)MA-K3DNA5E/I	CB162N07201	GWH(18)MC-K3DNA3E/I	CB171N08400
GWH(09)MA-K3DNE1E/I	CB143N01600	GWH(18)MC-K3DNA5E/I	CB162N07301
GWH(09)MA-K3DNE3E/I	CB404N02600	GWH(18)MC-K3DNE3E/I	CB404N02700
GWH(09)MA-K3DNA2E/I	CB181N06102	GWH(18)MC-K3DNA2E/I	CB181N06002
GWH(12)MB-K3DNA2E/I(Cold Plasma)	CB181N06200	/	/





Model		1.GWH(12)MB-K3DNA2E/I(Cold Plasma) 2.GWH(12)MB-K3DNA3E/I(Cold Plasma) 3.GWH(12)MB-K3DNA4E/I(Cold Plasma) 4.GWH(12)MB-K3DNA5E/I(Cold Plasma) 5.GWH(12)MB-K3DNB3E/I(Cold Plasma) 6.GWH(12)MB-K3DND3E/I(Cold Plasma) 7.GWH(12)MB-K3DNA2E/I 8.GWH(12)MB-K3DNA3E/I 9.GWH(12)MB-K3DNA5E/I 10.GWH(12)MB-K3DNE1E/I 11.GWH(12)MB-K3DNE3E/I 12.GWH(12)MB-K3DNA4E/I 13.GWH(12)MB-K3DNA2E/I	1.GWH(18)MC-K3DNA2E/I(Cold Plasma) 2.GWH(18)MC-K3DNA3E/I(Cold Plasma) 3.GWH(18)MC-K3DNA4E/I(Cold Plasma) 4.GWH(18)MC-K3DNA5E/I(Cold Plasma) 5.GWH(18)MC-K3DNB3E/I(Cold Plasma) 6.GWH(18)MC-K3DND3E/I(Cold Plasma) 7.GWH(18)MC-K3DNA2E/I 8.GWH(18)MC-K3DNA3E/I 9.GWH(18)MC-K3DNA5E/I 10.GWH(18)MC-K3DNE3E/I 11.GWH(18)MC-K3DNA2E/I
Product Code		1.CB181N06200 2.CB171N08701 3.CB161N05501 4.CB162N07000 5.CB163N06000 6.CB405N03400 7.CB181N06201 8.CB171N08700 9.CB162N07001 10.CB143N01700 11.CB404N02800 12.CB161N05500 13.CB181N06202	1.CB181N06001 2.CB171N08401 3.CB161N05601 4.CB162N07300 5.CB163N05900 6.CB405N03200 7.CB181N06000 8.CB171N08400 9.CB162N07301 10.CB404N02700 11.CB181N06002
Rated Voltage	V~	220-240	220-240
Rated Frequency	Hz	50	50
Phases		1	1
Cooling Capacity	KW	3.5	5.3
Heating Capacity	KW	3.8	5.8
Air Flow Volume (SH/H/M/L)	m <sup>3</sup> /h	630/500/420/350	850/780/650/550
Dehumidifying Volume	L/h	1.4	1.8
Fan Type		Cross-flow	Cross-flow
Fan Diameter-height	mm	Φ92X645	Φ98X710
Fan Motor Speed (SH/H/M/L) Cool	rpm	1260/1070/880/730	1350/1150/1050/900
Fan Motor Speed (SH/H/M/L) Heat	rpm	1280/1080/1000/920	1420/1250/1150/1050
Fan Motor Power Output	W	20	20
Fan motor running current	A	0.22	0.31
Fan Motor Capacitor	μF	1	1.5
Evaporator Material		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
Evaporator Pipe Diameter	mm	7	7
Evaporator Number of Rows		2	2
Evaporator Fin Pitch	mm	1.4	1.4
Evaporator Length(L)XHeight(H)XWidth(W)	mm	690X25.4X267	715X25.4X304.8
Motor Model		FN20J-PG	FN20V-PG
Overload Protector		3.15	3.15
Motor Full Load Amp(FLA)	A	0.22	0.31
Sound Pressure Level (SH/H/M/L)	dB (A)	38/34/32/30	46/43/40/36
Sound Power Level (SH/H/M/L)	dB (A)	53/49/47/45	61/58/55/51
Outline Dimension (WXHXD)	mm	845X180X275	940X200X298
Package Carton Dimension (LXWXH)	mm	915X255X355	1010X285X380
Package Dimension (LXWXH)	mm	918X258X370	1013X288X395
Net Weight	kg	10	13
Gross Weight	kg	12.5	16
Liquid pipe	mm	Φ6	Φ6
Gas Pipe(to indoor unit)	mm	Φ9.52	Φ12.7

Note: The connection pipe applies metric diameter.

The above data is subject to change without notice; please refer to the nameplate of the unit.







## 5. Electrical Part

### 5.1 Wiring Diagram

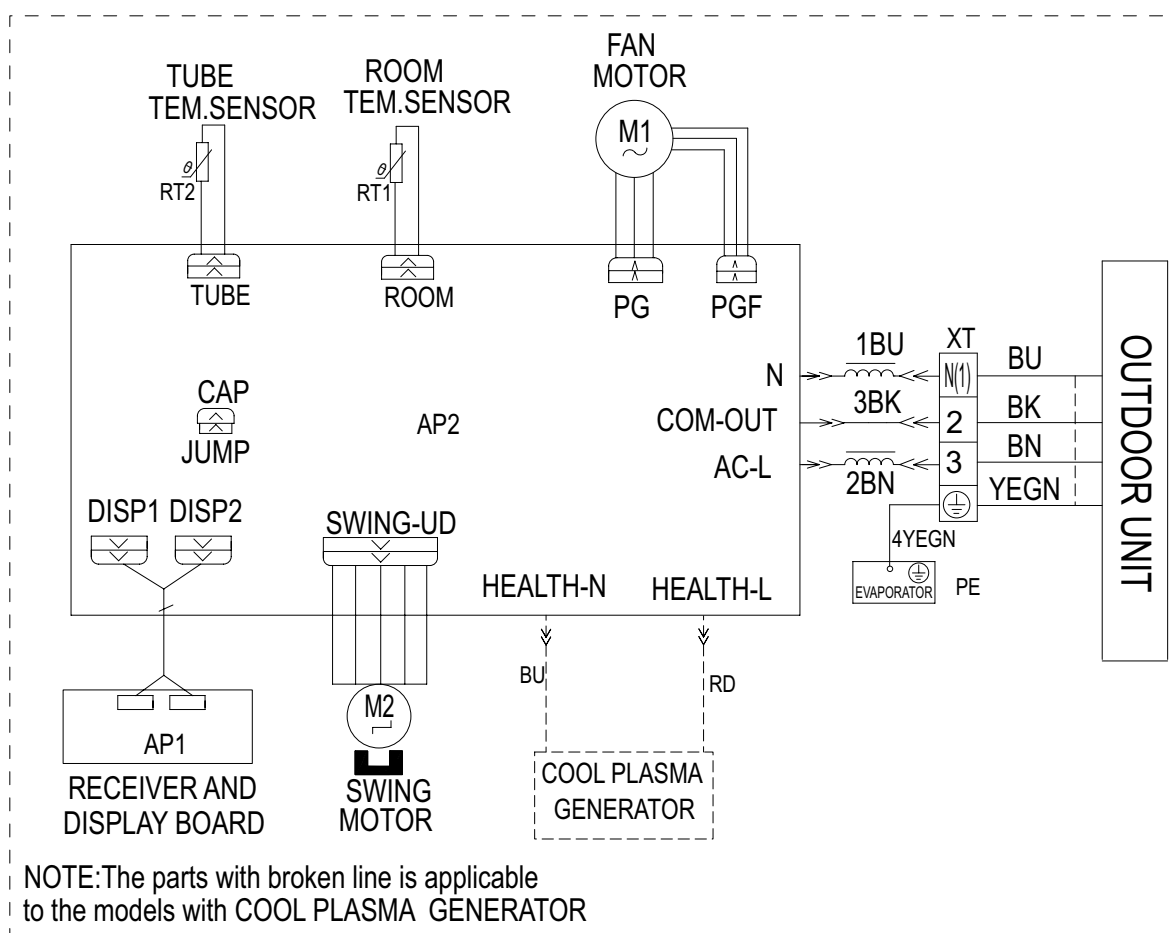
● **Instruction**

Symbol	Symbol Color	Symbol	Symbol Color	Symbol	Name
WH	White	GN	Green	CAP	Jumper cap
YE	Yellow	BN	Brown	COMP	Compressor
RD	Red	BU	Blue	⊕	Grounding wire
YEGN	Yellow/Green	BK	Black	/	/
VT	Violet	OG	Orange	/	/

Note: Jumper cap is used to determine fan speed and the swing angle of horizontal lover for this model.

● **Indoor Unit**

(1)07/09/12K Units

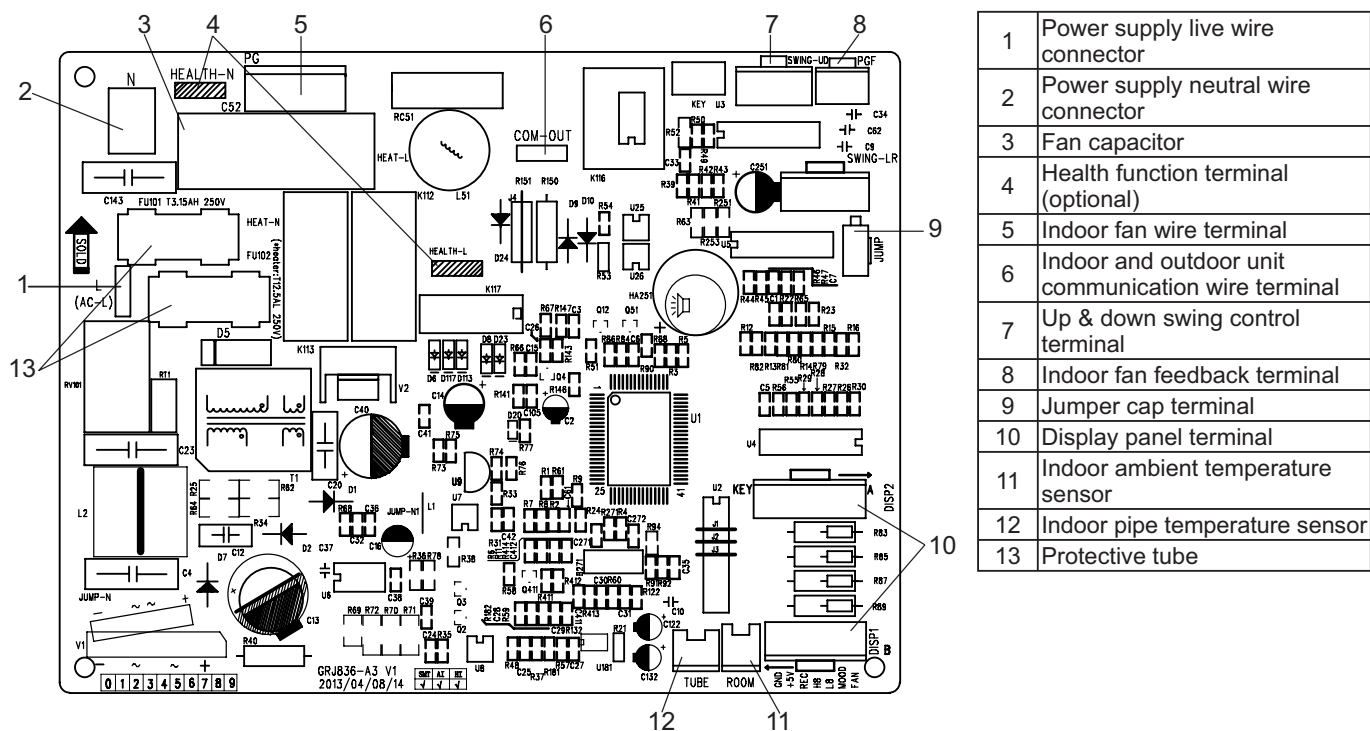




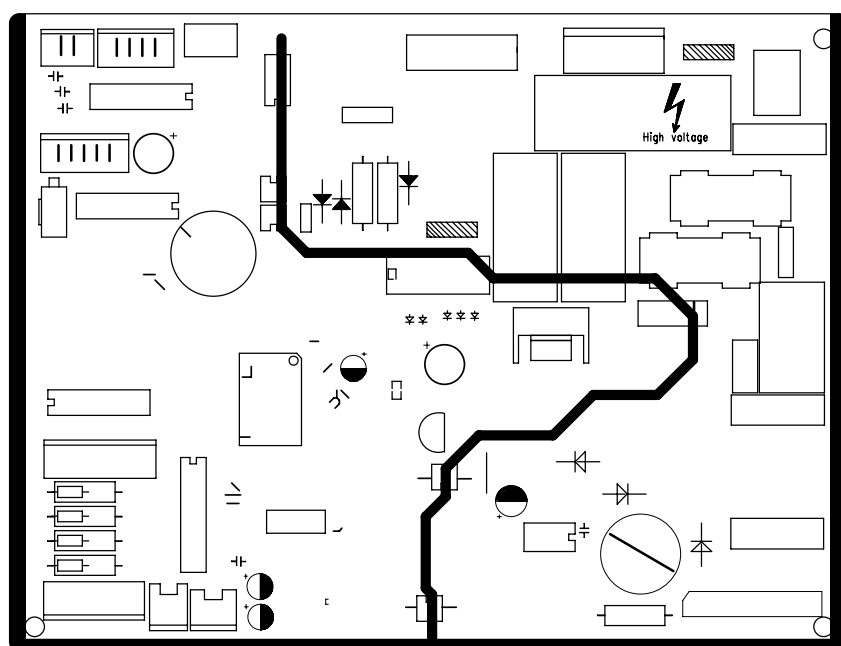
## 5.2 PCB Printed Diagram

(1)07/09/12K Units

### • Top view



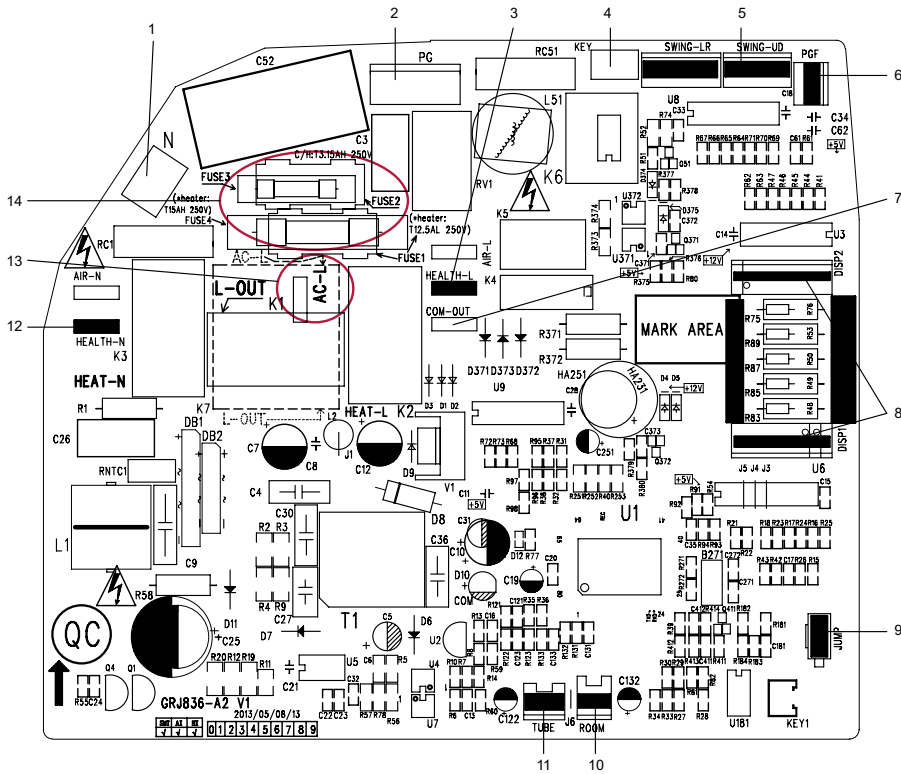
### • Bottom view





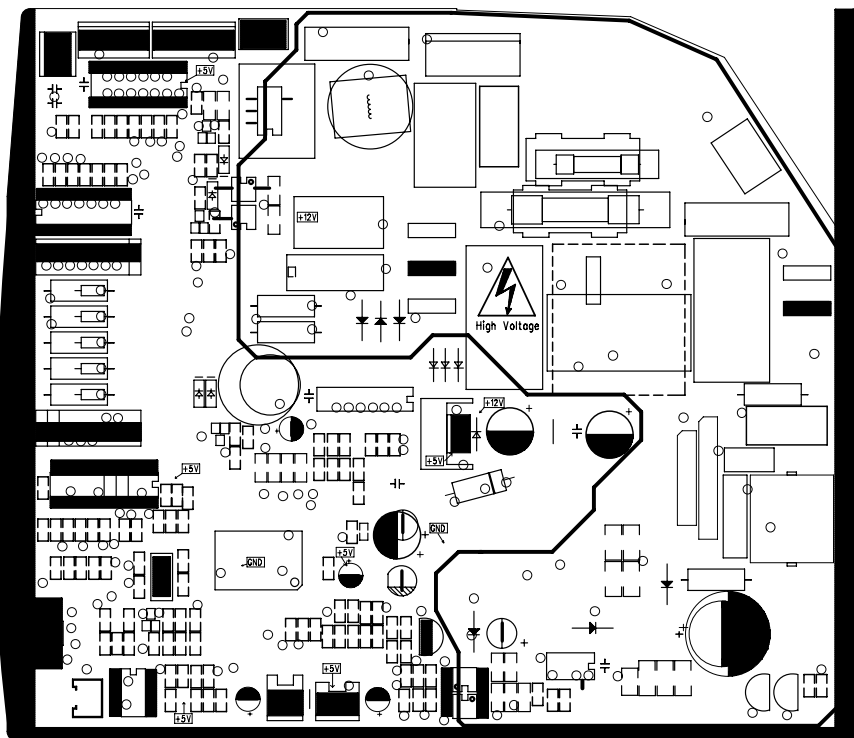
(2)18K Units

• Top view



1	Interface of neutral wire
2	Interface of PG motor
3	Interface of health function live wire
4	Interface of auto button
5	Interface of up and down swing
6	Interface of PG feedback
7	Interface of indoor and outdoor unit communication
8	Interface of display
9	Interface of jumper cap
10	Interface of ambient temperature sensor
11	Interface of tube temperature sensor
12	Interface of health function neutral wire
13	Interface of live wire
14	Interface of fuse

• Bottom view



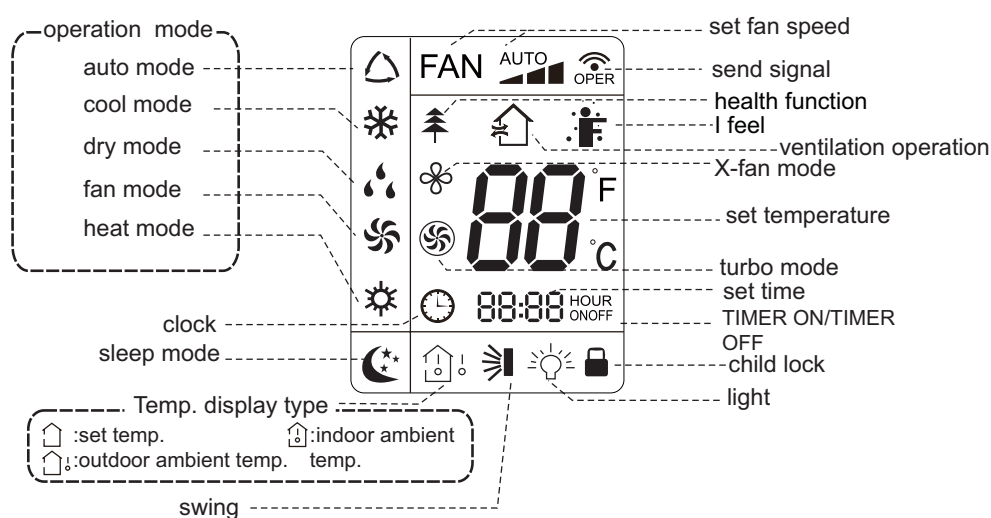
## 6. Function and Control

### 6.1 Remote Controller Introduction

#### Buttons on Remote Controller



#### Introduction for Icons on Display Screen



#### Introduction for Buttons on Remote Controller

**Caution:** After putting through the power, the air conditioner will give out a sound. Operation indicator "⏻" is ON (red indicator). After that, you can operate the air conditioner by using remote controller.

##### 1. ON/OFF button

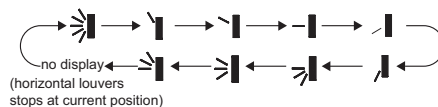
Pressing this button can turn on or turn off the air conditioner. After turning on the air conditioner, operation indicator "⏻" on indoor unit's display is ON (green indicator). The colour is different for different models), and indoor unit will give out a sound.














- After starting up TIMER ON or TIMER OFF, set the constant circulating valid. After that, air conditioner will be turned on or turned off according to setting time. ON/OFF button has no effect on setting. If you don't need this function, please use remote controller to cancel it.

#### 10. button

Press this button can select up&down swing angle. Fan blow angle can be selected circularly as below:





- When selecting "", air conditioner is blowing fan automatically. Horizontal louver will automatically swing up & down at maximum angle.
- When selecting ", , , , , , air conditioner is blowing fan at fixed position. Horizontal louver will stop at the fixed position.
- When selecting ", , , air conditioner is blowing fan at fixed angle. Horizontal louver will send air at the fixed angle.
- Hold "" button above 2s to set your required swing angle. When reaching your required angle, release the button.

Note:

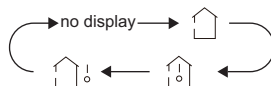
", , " may not be available. When air conditioner receives this signal, the air conditioner will blow fan automatically.


#### 11. X-FAN button


Press this button under cool and dry mode to start up x-fan function, and "" icon on remote controller will be displayed. Press this button again to cancel x-fan function, and "" icon will disappear.

#### 12. TEMP button

By pressing this button, you can see indoor set temperature, indoor ambient temperature or outdoor ambient temperature on indoor unit's display. The setting on remote controller is selected circularly as below:




When selecting "" or no display with remote controller, temperature indicator on indoor unit displays set temperature;

When selecting "" with remote controller, temperature indicator on indoor unit displays indoor ambient temperature;

When selecting "" with remote controller, temperature indicator on indoor unit displays outdoor ambient temperature.



Note:

- Outdoor temperature display is not available for some models. At that time, indoor unit receives "" signal, while it displays indoor set temperature.
- It's defaulted to display set temperature when turning on the unit. There is no display in the remote controller.
- Only for the models whose indoor unit has dual-8 display



#### 13. TURBO button

Under COOL or HEAT mode, press this button to turn to quick COOL or quick HEAT mode. "" icon is displayed on remote controller. Press this button again to exit turbo function and "" icon will disappear.

#### 14. SLEEP button


Under COOL, HEAT mode, press this button to start up sleep function. "" icon is displayed on remote controller. Press this button again to cancel sleep function and "" icon will disappear.

#### 15. LIGHT button

Pressing this button to turn off display light on indoor unit. "" icon on remote controller disappears. Press this button again to turn on display light. "" icon is displayed.

## Function Introduction for Combination Buttons


#### Child lock function:

Press "+" and "-" simultaneously to turn on or turn off child lock function. When child lock function is on, "" icon is displayed on remote controller. If you operate the remote controller, it won't send signal.

#### Temperature display switchover function:

Under OFF status, press "-" and "MODE" buttons simultaneously to switch temperature display between °C and °F.

## Operation Guide

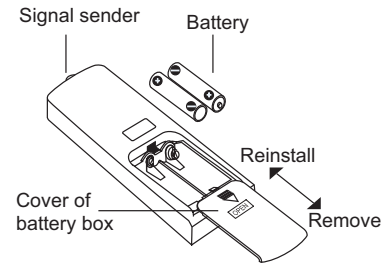
1. After putting through the power, press "ON/OFF" button on remote controller to turn on the air conditioner.
2. Press "MODE" button to select your required mode: AUTO, COOL, DRY, FAN, HEAT.
3. Press "+" or "-" button to set your required temperature. (Temperature can't be adjusted under auto mode).
4. Press "FAN" button to set your required fan speed: auto, low, medium and high speed.
5. Press "" button to select fan blowing angle.

## Replacement of Batteries in Remote Controller

1. Press the back side of remote controller marked with "OPEN" as shown in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "+" polar and "-" polar are correct.
3. Reinstall the cover of battery box.

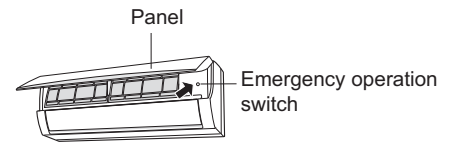
### Note:

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.



## Emergency Operation

If remote controller is lost or damaged, please use auxiliary button to turn on or turn off the air conditioner. The operation in details are as below: As shown in the fig. Open panel, press aux. button to turn on or turn off the air conditioner. When the air conditioner is turned on, it will operate under auto mode.



## 6.2 Brief Description of Modes and Functions

### I Basic mode

1. Cooling; 2. Drying; 3. Heating; 4. Auto; 5. Fan

### II Basic function

#### 1. Cooling mode

(1) Under cooling mode, fan and swing operate at setting status. Temperature setting range is 16~30°C.

(2) During malfunction of outdoor unit or stop operation, indoor unit keeps original operation status. Dual-8 nixie tube display error code.

(3) Indoor fan stops operation during mode shock.

#### 2. Drying mode

(1) Under drying mode, fan operates at low speed and swing operates at setting status. Temperature setting range is 16~30°C.

(2) During malfunction of outdoor unit or stop operation, indoor unit keeps original operation status. Dual-8 nixie tube display error code.

(3) Protection status is same as that under cooling mode.

#### 3. Heating mode

(1) Under heating mode, temperature setting range is 16~30°C.

(2) Operation condition and process for heating mode

① After turning on the unit under heating mode, indoor unit operates according to cold air prevention condition;

② During heating process, after room temperature is increased to set temperature, the complete unit stops operation. Indoor fan will blow residual heat and delay 1min to stop operation.

③ During heating operation, after turning off the unit by remote controller, indoor fan will blow residual heat to delay 10s to stop operation.

(3) Protection function

When compressor stops operation due to malfunction (include malfunction of temperature sensor) during heating mode, indoor fan will blow residual heat to delay 1min to stop operation.

(4) Defrosting

After receiving oil-return signal of heating from outdoor unit, heating indicator is ON 10s and OFF 0.5; When received defrosting signal from outdoor unit, defrosting indicator is ON.

#### 4. Auto mode

① Operation condition and process for auto mode

Under this mode, system will select operation mode (cooling, heating, fan) automatically according to the change of indoor ambient temperature. There's 30s auto delay protection for mode switchover.

◆ When Tindoor amb.  $\geq 26^{\circ}\text{C}$ , the system will operate under cooling mode; Ex-factory set temperature: Tpreset=25°C.

◆ Heat pump unit: When Tindoor amb.  $\leq 22^{\circ}\text{C}$ , the system operates under heating mode. Ex-factory set temperature: Tpreset=20°C.

◆ Cooling only unit: When Tindoor amb.  $\leq 22^{\circ}\text{C}$ , the system operates under fan mode. Ex-factory set temperature: Tpreset=25°C.

◆ When  $22^{\circ}\text{C} < \text{Tindoor amb.} < 26^{\circ}\text{C}$ : The unit will operate under fan mode when entering into auto mode after turning on the unit.

If switch to auto mode from cooling, heating or fan mode, the unit will keep original operation mode. If switch to auto mode from drying mode, the unit will operate under fan mode.

② Display: operation icon, actual operation mode icon. Display set temperature, but it can't be adjusted.

③ Protection function is same as that under other modes. (refer to the section of system function protection)

#### 5. Fan mode

Under fan mode, indoor fan operates at set fan speed, while compressor and outdoor fan stops operation. 4-way valve is de-energized (4-way valve is not available for cooling only unit). Temperature setting range is 16~30°C.

### III Other control

#### 1. Buzzer

Upon energization or pressing button (emergency switch on air conditioner) or receiving signal from remote controller, the buzzer will give out a beep.

#### 2. Auto button

When pressing this button under OFF status, the complete unit will operate under auto mode and indoor unit will operate at auto fan speed. Swing mode will operate when indoor fan is operating.

Press this button under ON status to turn off the unit.

#### 3. Auto fan

① Auto fan speed under heating mode

When Tindoor amb.  $\leq \text{Tpreset} + 1^{\circ}\text{C}$ , indoor fan will operate at high fan speed;

When  $\text{Tpreset} + 1^{\circ}\text{C} < \text{Tindoor amb.} < \text{Tpreset} + 3^{\circ}\text{C}$ , indoor fan operate at medium fan speed;

When Tindoor amb.  $\geq \text{Tpreset} + 3^{\circ}\text{C}$ , indoor fan operates at low fan speed;

② Auto fan speed under cooling mode and fan mode

When Tamb.  $\geq \text{Tpreset} + 3^{\circ}\text{C}$ , indoor fan operates at high fan speed;

When  $T_{\text{preset}} + 1^{\circ}\text{C} < T_{\text{amb.}} < T_{\text{preset}} + 3^{\circ}\text{C}$ , indoor fan operates at medium fan speed;

When  $T_{\text{amb.}} \leq T_{\text{preset}} + 1^{\circ}\text{C}$ , indoor fan operates at low fan speed;

③ Auto fan speed under drying mode is defaulted at low fan speed.

Note: Under auto fan speed, during switchover between high speed and medium speed, medium speed and low speed, and high speed and low speed, there should at least 3min and 30s operation time.

#### 4. Sleep

Sleep mode is only valid under cooling mode and heating mode;

Cooling mode: Basing on the set temperature of remote controller, after turning on the sleep function for a few hours, set temperature will increase properly and automatically according to human body's comfort.

Heating mode: Basing on the set temperature of remote controller, after turning on the sleep function for a few hours, set temperature will decrease properly and automatically according to human body's comfort.

#### 5. Timer function

Controller is with general timer function and clock timer function simultaneously. When you selecting the remote controller with general timer, you can only activate the general timer function of controller; when you selecting the remote controller with clock timer, you can only activate the clock timer function of controller.

##### (1) General timer

Timer precision for general timer is 0.5hour, and 24hours circulating timer can't be set.

◆ Timer ON can be set at unit OFF. If selected ON time is reached, the system will start to operate according to previous setting status by remote controller. Time setting range is 0.5-24hr in 30-minute increments.

◆ Timer OFF can be set at unit ON. If selected OFF time is reached, the unit will stop operation. Time setting range is 0.5-24hr in 30-minute increments.

##### (2) Clock timer

Timer precision for clock timer is 1min, and 24hours circulating timer can be set.

◆ Timer ON: If timer ON is set during operation of the unit, the unit will continue to operate. If timer ON is set at unit OFF, upon ON time reaches the unit will start to operate according to previous setting status by remote controller.

◆ Timer OFF: If timer OFF is set at unit OFF, the system will keep OFF status. If timer OFF is set at unit ON, upon OFF time reaches the unit will stop operation.

◆ Timer change

Under timer status of system, you can set timer ON and timer OFF by pressing ON/OFF button on remote controller. You can also set timer setting again and the system will operate according to the last setting status.

If timer ON and timer OFF are set at the same time during operation of the unit, the unit will keep operating at current status till OFF time reaches. When ON time reaches, the unit will be turned on automatically. The unit will circulate like that every 24hours.

If timer ON and timer OFF are set at the same time at OFF status, the unit will OFF status till ON time reaches. When OFF time reaches, the unit will be turned off automatically. The unit will circulate like that every 24hours.

#### 6. Memory function

① Memory when power failure upon turning on the unit

◆ Memory content: ON status, mode, up&down swing, light, set temperature, set fan speed, general timer, Fahrenheit/ Centigrade

◆ General timer can be memorized. Timer will be recalculated from the time of energization.

◆ Clock timer can't be memorized.

② Memory when power failure upon turning off the unit

◆ Memory content: ON status, mode, up&down swing, light, set temperature, set fan speed, general timer, Fahrenheit/ Centigrade

◆ General timer can be memorized. Timer will be recalculated from the time of energization.

◆ Clock timer can't be memorized.

#### 7. Health function

During operation of the indoor fan, press health button on the remote controller to start health function (If there is not health button on the remote controller, the unit defaults health function ON).

When the fan stops operation or press health button on remote controller again, health function will be turned off.

#### 8. I FEEL function

When I FEEL command is received, the controller will operate according to the ambient temperature sent by the remote controller (For defrosting and cold blow prevention, the unit operates according to the ambient temperature sensed by the air conditioner). The remote controller will regularly send ambient temperature data to the controller. When the data has not been received for a long time, the controller will operate according to the temperature sensed by the air conditioner. If I FEEL function hasn't been started up, the ambient temperature will be that sensed by the air conditioner.

#### 9. Reserve Fahrenheit display function



- ① If the signal of remote controller is set at Fahrenheit temperature, set temperature display by dual-8 nixie tube is Fahrenheit temperature. Set temperature range is 61~86°F.
- ② If it needs to display indoor ambient temperature, indoor ambient temperature sent by remote controller will be display and then temperature range is 0~60°C(32~99°F). Display will keep the set temperature no change if received outdoor ambient temperature signal. After displaying ambient temperature for 3s, or receiving other valid remote control signal within 3s, the unit will turn back to display set temperature.

#### 10. Cold plasma function

After selecting cold plasma function by remote controller and indoor fan is operating, cold plasma function will be turned on. After turning off cold plasma function by remote controller and indoor fan stops operation, cold plasma will be turned off.

#### 11. Turbo function

After turbo function is started, indoor fan operate at super-high fan speed. Outdoor fan operates at high frequency under cooling or heating mode.

#### 12. Compulsory defrosting function

(1)Start up compulsory defrosting function

Under ON status, set heating mode with remote controller and adjust the temperature to 16°C. Press "+, -, +, -, +,-" button successively within 5s and the complete unit will enter into compulsory defrosting status. Meanwhile, heating indicator on indoor unit will ON 10s and OFF 0.5s successively. (Note: If complete unit has malfunction or stops operation due to protection, compulsory defrosting function can be started up after malfunction or protection is resumed.

(2)Exit compulsory defrosting mode

After compulsory defrosting is started up, the complete unit will exit defrosting operation according to the actual defrosting result, and the complete unit will resume normal heating operation.

#### 13.Refrigerant recovery function (applicable for moving the unit or maintaining the unit)

(1)Start up refrigerant recovery function

Set cooling mode with remote controller within 5min after energization, adjust temperature at 16°C and press light button on remote controller for 3 times successively to any one indoor unit within 3s and then the complete unit will enter into refrigerant recovery status. All indoor units display Fo. Maintenance person close all liquid valves. After 5min, withstand the thimble of all checking valves with tools one by one. If there's no refrigerant spraying out, close corresponding valve immediately, turn off the unit with remote controller and then remove the connection pipe.

(2)Exit refrigerant recovery function

During refrigerant recovery process, if any one indoor unit receives any remote control signal or refrigerant recovery function has operates for about 25min, refrigerant recovery function will be exited automatically. If the complete unit is at standby status before refrigerant recovery, the complete unit will still at standby status after refrigerant recovery. If the complete unit is at ON status, the unit will operate according to original operation mode.

(3)After entering refrigerant recovery function: Indoor unit operates at cooling mode. Fan speed is super-high speed and set temperature is 16°C. Horizontal will open at the minimum operation angle.

#### 14. Dry and mildew-proof function

After setting dry function with remote controller under cooling or drying mode and then turn off the unit, indoor fan delay 2min to stop operation to dry the fan. Horizontal louver will stop at horizontal position.

#### 15. 8°C heating function (this function is realized by setting 8°C heating signal with remote controller. Please refer to corresponding part of remote controller in instruction manual)

① 8°C heating function is only valid under heating mode. After setting is succeeded, indoor unit displays 8°C.

② Turbo function can't be set after setting 8°C heating function. Fan speed is adjusted according to below condition:

When  $T_{\text{indoor amb.}} \leq T_{\text{preset}} + 1^{\circ}\text{C}$ , indoor fan operates at high speed;

When  $T_{\text{preset}} + 1^{\circ}\text{C} < T_{\text{indoor amb.}} < T_{\text{preset}} + 3^{\circ}\text{C}$ , indoor fan operate at medium speed;

When  $T_{\text{indoor amb.}} \geq T_{\text{preset}} + 3^{\circ}\text{C}$ , indoor fan operates at low speed;

There should be at least 3min and 30s operation time for the switchover among high speed, medium speed and low speed.

③ 8°C heating mode can't be coexisted with sleeping mode (realized by remote controller). Eg:

When you have set 8°C heating mode, if you continue to set sleeping mode with remote controller, 8°C heating mode will be canceled and the unit operates at sleeping mode. Meanwhile, the set temperature value is the set temperature before entering into 8°C heating mode. On the contrary, when you have set sleeping mode, if you continue to set 8°C heating mode with remote controller, sleeping mode will be canceled and the unit will operates under 8°C heating mode.

④ Other requirement and protection is same as that under heating mode.

⑤ If set 8°C heating function again under 8°C heating mode, it will exit 8°C heating mode.

#### 16. Comfortable and energy-saving function (this function is realized by setting energy-saving signal with remote controller. Please refer to corresponding part of remote controller in instruction manual)



- ① Comfortable and energy-saving function is only valid under cooling mode. After setting is succeeded, set temperature of indoor unit is 27°C and indoor unit displays “SE”.
- ② After setting is succeeded and compressor operates, fan speed is adjusted automatically according to below condition:  
 When  $T_{amb} \geq 32^{\circ}\text{C}$ , indoor fan operates at super-high speed;  
 When  $32^{\circ}\text{C} > T_{amb} \geq T_{preset} + 2^{\circ}\text{C}$ , indoor fan operates at high speed;  
 When  $T_{preset} < T_{amb} < T_{preset} + 2^{\circ}\text{C}$ , indoor fan operates at medium speed;  
 When  $T_{amb} \leq T_{preset}$ , indoor fan operates at low speed.  
 After setting is succeeded and compressor operates, the unit operates at low speed.
- ③ There should be at least 3min and 30s operation time for the switchover among high speed, medium speed and low speed.
- ④ After entering into energy-saving mode and When  $T_{amb} \geq 28^{\circ}\text{C}$ , horizontal louver operates at fix-angle position 4. 10min later or  $T_{amb} < 28^{\circ}\text{C}$  or after receiving the changing order for swing angle, horizontal louver will operate the angle set by remote controller.
- ⑤ Other requirement and protection is same as that under cooling mode.
- ⑥ If set energy-saving function again under energy-saving mode, it will exit energy-saving mode.

**17. Mode shock**

When there's indoor unit under operation, if start up other indoor unit and the setting mode is inconsistent with that indoor unit, mode shock will occur. The indoor with mode shock displays “E7” and indoor fan stops operation. Corresponding relationship for mode shock and operation status after shock is as below:

Mode relationship table for mode shock:

Mode		Indoor unit with mode shock	Operation status after mode shock	
Indoor unit A	Indoor unit B		Indoor unit A	Indoor unit B
Cooling/drying	heating	Indoor unit B	Cooling/drying	Indoor fan stops operation
Heating	Cooling, drying, fan	Indoor unit B	Heating	Indoor fan stops operation
Fan	Heating	Indoor unit A	Indoor fan stops operation	Heating

- Note: (1) Indoor unit A: The indoor unit under operation currently
- (2) Indoor unit B: The indoor unit is tuned on latter
- (3) If set auto mode with remote controller, the complete unit will judge according to actual operation mode under auto mode.

Mode relationship table for mode shock					
Mode		Whether alarm mode shock “E7”		Operation status after mode shock	
The indoor unit under operation currently	The indoor unit's turned on latter	The indoor unit under operation currently	The indoor unit's turned on latter	The indoor unit under operation currently	The indoor unit's turned on latter
Cooling/drying	Heating	No	Yes	Cooling/drying	Indoor fan stops operation
Heating	Cooling, drying, fan	No	Yes	Heating	Indoor fan stops operation
Fan	Heating	Yes	No	Indoor fan stops operation	Heating

Note: If set auto mode with remote controller, the complete unit will judge according to actual operation mode under auto mode.

# Part II : Installation and Maintenance

## 7. Notes for Installation and Maintenance

### Safety Precautions: Important!

Please read the safety precautions carefully before installation and maintenance.

The following contents are very important for installation and maintenance.

Please follow the instructions below.

- The installation or maintenance must accord with the instructions.
- Comply with all national electrical codes and local electrical codes.
- Pay attention to the warnings and cautions in this manual.
- All installation and maintenance shall be performed by distributor or qualified person.
- All electric work must be performed by a licensed technician according to local regulations and the instructions given in this manual.
- Be caution during installation and maintenance. Prohibit incorrect operation to prevent electric shock, casualty and other accidents.



### Warnings

#### Electrical Safety Precautions:

1. Cut off the power supply of air conditioner before checking and maintenance.
2. The air condition must apply specialized circuit and prohibit share the same circuit with other appliances.
3. The air conditioner should be installed in suitable location and ensure the power plug is touchable.
4. Make sure each wiring terminal is connected firmly during installation and maintenance.
5. Have the unit adequately grounded. The grounding wire can't be used for other purposes.
6. Must apply protective accessories such as protective boards, cable-cross loop and wire clip.
7. The live wire, neutral wire and grounding wire of power supply must be corresponding to the live wire, neutral wire and grounding wire of the air conditioner.
8. The power cord and power connection wires can't be pressed by hard objects.
9. If power cord or connection wire is broken, it must be replaced by a qualified person.

10. If the power cord or connection wire is not long enough, please get the specialized power cord or connection wire from the manufacture or distributor. Prohibit prolong the wire by yourself.

11. For the air conditioner without plug, an air switch must be installed in the circuit. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

12. Make sure all wires and pipes are connected properly and the valves are opened before energizing.

13. Check if there is electric leakage on the unit body. If yes, please eliminate the electric leakage.

14. Replace the fuse with a new one of the same specification if it is burnt down; don't replace it with a cooper wire or conducting wire.

15. If the unit is to be installed in a humid place, the circuit breaker must be installed.

#### Installation Safety Precautions:

1. Select the installation location according to the requirement of this manual.(See the requirements in installation part)
2. Handle unit transportation with care; the unit should not be carried by only one person if it is more than 20kg.
3. When installing the indoor unit and outdoor unit, a sufficient fixing bolt must be installed; make sure the installation support is firm.
4. Ware safety belt if the height of working is above 2m.
5. Use equipped components or appointed components during installation.
6. Make sure no foreign objects are left in the unit after finishing installation.

#### Refrigerant Safety Precautions:

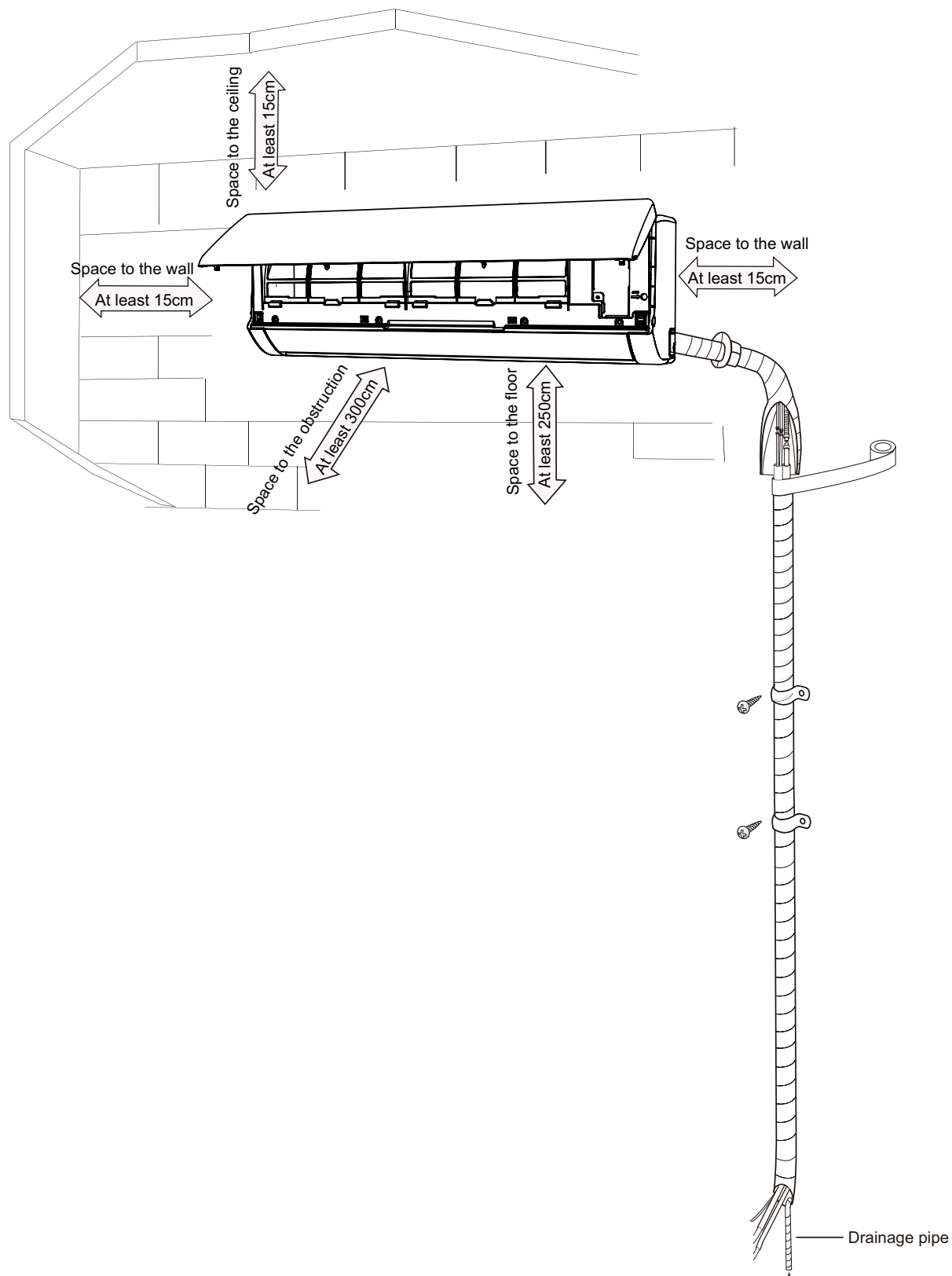
1. Avoid contact between refrigerant and fire as it generates poisonous gas; Prohibit prolong the connection pipe by welding.
2. Apply specified refrigerant only. Never have it mixed with any other refrigerant. Never have air remain in the refrigerant line as it may lead to rupture or other hazards.
3. Make sure no refrigerant gas is leaking out when installation is completed.
4. If there is refrigerant leakage, please take sufficient measure to minimize the density of refrigerant.
5. Never touch the refrigerant piping or compressor without wearing glove to avoid scald or frostbite.

Improper installation may lead to fire hazard, explosion, electric shock or injury.



## 8. Installation

### 8.1 Installation Dimension Diagram





## 8.2 Installation Parts-checking

No.	Name	No.	Name
1	Indoor unit	8	Sealing gum
2	Outdoor unit	9	Wrapping tape
3	Connection pipe	10	Support of outdoor unit
4	Drainage pipe	11	Fixing screw
5	Wall-mounting frame	12	Drainage plug(cooling and heating unit)
6	Connecting cable(power cord)	13	Owner's manual, remote controller
7	Wall pipe		

### ⚠ Note:

1. Please contact the local agent for installation.
2. Don't use unqualified power cord.

## 8.3 Selection of Installation Location

### 1. Basic Requirement:

Installing the unit in the following places may cause malfunction. If it is unavoidable, please consult the local dealer:

- (1) The place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
- (2) The place with high-frequency devices (such as welding machine, medical equipment).
- (3) The place near coast area.
- (4) The place with oil or fumes in the air. in the air.
- (5) The place with sulfureted gas.
- (6) Other places with special circumstances.

### 2. Indoor Unit:

- (1) There should be no obstruction near air inlet and air outlet.
- (2) Select a location where the condensation water can be dispersed easily and won't affect other people.
- (3) Select a location which is convenient to connect the outdoor unit and near the power socket.
- (4) Select a location which is out of reach for children.
- (5) The location should be able to withstand the weight of indoor unit and won't increase noise and vibration.
- (6) The appliance must be installed 2.5m above floor.
- (7) Don't install the indoor unit right above the electric appliance.
- (8) The appliance shall not be installed in the laundry

## 8.4 Electric Connection Requirement

### 1. Safety precaution

- (1) Must follow the electric safety regulations when installing the unit.
- (2) According to the local safety regulations, use qualified power supply circuit and air switch.
- (3) Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring may result in electric shock, fire hazard or malfunction. Please install proper power supply cables before using the air conditioner.
- (4) Properly connect the live wire, neutral wire and grounding wire of power socket.
- (5) Be sure to cut off the power supply before proceeding any work related to electricity and safety.
- (6) Do not put through the power before finishing installation.
- (7) For appliances with type Y attachment, the instructions shall contain the substance of the following. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- (8) The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.

### 2. Grounding requirement:

- (1) The air conditioner is first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
- (2) The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
- (3) The grounding resistance should comply with national electric safety regulations.
- (4) The appliance must be positioned so that the plug is accessible
- (5) An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- (6) Including an air switch with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload. (Caution: please do not use the fuse only for protect the circuit)

## 8.5 Installation of Indoor Unit

### 1. Choosing Installation location

Recommend the installation location to the client and then confirm it with the client.

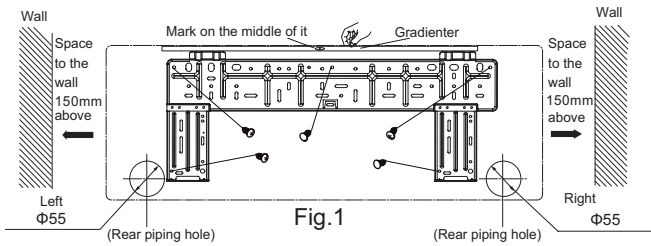
### 2. Install Wall-mounting Frame

- (1) Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.
- (2) Drill the screw fixing holes on the wall with impact drill (the specification of drill head should be the same as the plastic expansion particle) and then fill the plastic expansion particles in the holes.
- (3) Fix the wall-mounting frame on the wall with tapping screws (ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

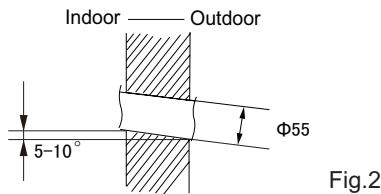


### 3. Install Wall-mounting Frame

(1) Choose the position of piping hole according to the direction of outlet pipe. The position of piping hole should be a little lower than the wall-mounted frame. (As show in Fig.1)



(2) Open a piping hole with the diameter of 55 on the selected outlet pipe position. In order to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with the gradient of 5-10°. (As show in Fig.2)

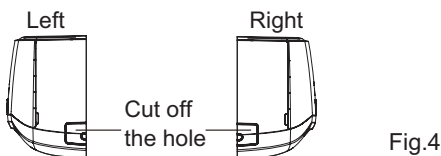
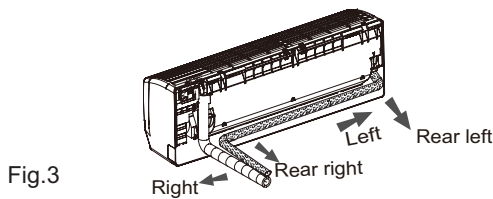


**⚠ Note:**

- (1) Pay attention to dust prevention and take relevant safety measures when opening the hole.
- (2) The plastic expansion particles are not provided and should be bought locally.

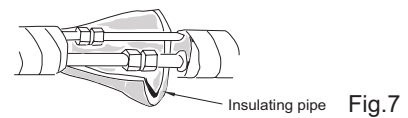
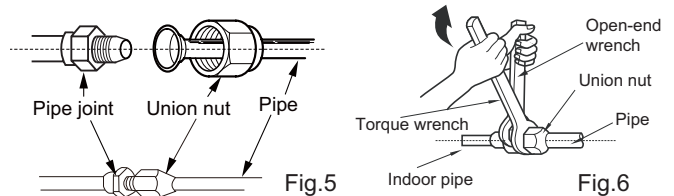
### 4. Outlet pipe

- (1) The pipe can be led out in the direction of right, rear right, left or rear left. (As show in Fig.3)
- (2) When selecting leading out the pipe from left or right, please cut off the corresponding hole on the bottom case. (As show in Fig.4)



### 5. Connect the Pipe of Indoor Unit

- (1) Aim the pipe joint at the corresponding bellmouth. (As show in Fig.5)
- (2) Pretightening the union nut with hand.
- (3) Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench. (As show in Fig.6)
- (4) Wrap the indoor pipe and joint of connection pipe with insulating pipe, and then wrap it with tape. (As show in Fig.7)

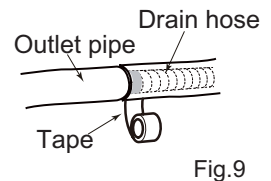
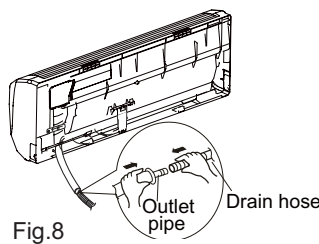


Refer to the following table for wrench moment of force:

Hex nut diameter(mm)	Tightening torque(N.m)
Φ6	15~20
Φ9.52	30~40
Φ12	45~55
Φ16	60~65
Φ19	70~75

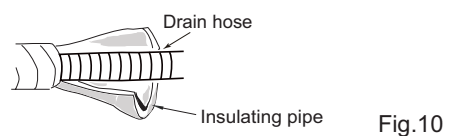
### 6. Install Drain Hose

- (1) Connect the drain hose to the outlet pipe of indoor unit. (As show in Fig.8)
- (2) Bind the joint with tape. (As show in Fig.9)



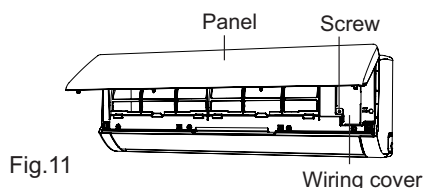
**⚠ Note:**

- (1) Add insulating pipe in the indoor drain hose in order to prevent condensation.
- (2) The plastic expansion particles are not provided. (As show in Fig.10)

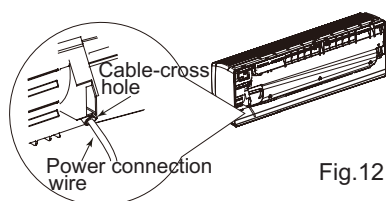


### 7. Connect Wire of Indoor Unit

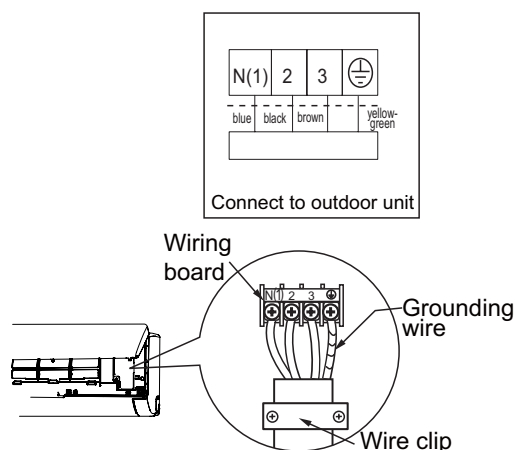
(1) Open the panel, remove the screw on the wiring cover and then take down the cover.(As show in Fig.11)



(2) Make the power connection wire go through the cable-cross hole at the back of indoor unit and then pull it out from the front side.(As show in Fig.12)



(3) Remove the wire clip; connect the power connection wire to the wiring terminal according to the color; tighten the screw and then fix the power connection wire with wire clip.(As show in Fig.13)



Note: The wiring connect is for reference only, please refer to the actual one

Fig.13

(4) Put wiring cover back and then tighten the screw.  
(5) Close the panel.

#### ⚠ Note:

- (1) All wires of indoor unit and outdoor unit should be connected by a professional.
- (2) If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
- (3) For the air conditioner with plug, the plug should be reachable after finishing installation.
- (4) For the air conditioner without plug, an air switch must be installed in the line. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

### 8. Bind up Pipe

- (1) Bind up the connection pipe, power cord and drain hose with the band.(As show in Fig.14)
- (2) Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.(As show in Fig.15)
- (3) Bind them evenly.
- (4) The liquid pipe and gas pipe should be bound separately at the end.

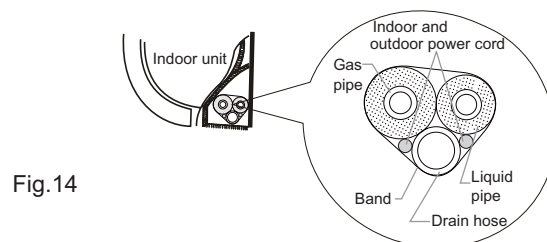


Fig.14

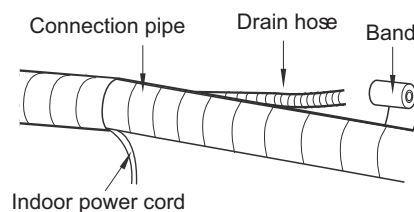


Fig.15

#### ⚠ Note:

- (1) The power cord and control wire can't be crossed or winding.
- (2) The drain hose should be bound at the bottom.

### 9. Hang the Indoor Unit

- (1) Put the bound pipes in the wall pipe and then make them pass through the wall hole.
- (2) Hang the indoor unit on the wall-mounting frame.
- (3) Stuff the gap between pipes and wall hole with sealing gum.
- (4) Fix the wall pipe.
- (5) Check if the indoor unit is installed firmly and closed to the wall.(As show in Fig.17)

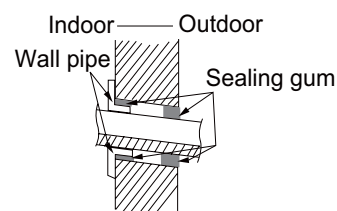


Fig.16

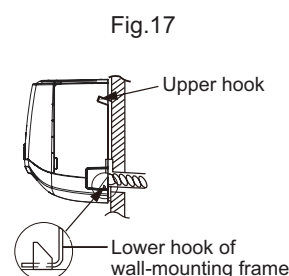


Fig.17

#### ⚠ Note:

Do not bend the drain hose too excessively in order to prevent blocking.



## 8.6 Check after Installation and Test Operation

### 1. Check after Installation

Check according to the following requirement after finishing installation.

NO.	Items to be checked	Possible malfunction
1	Has the unit been installed firmly?	The unit may drop, shake or emit noise.
2	Have you done the refrigerant leakage test?	It may cause insufficient cooling (heating) capacity.
3	Is heat insulation of pipeline sufficient?	It may cause condensation and water dripping.
4	Is water drained well?	It may cause condensation and water dripping.
5	Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damage the parts.
6	Is electric wiring and pipeline installed correctly?	It may cause malfunction or damage the parts.
7	Is the unit grounded securely?	It may cause electric leakage.
8	Does the power cord follow the specification?	It may cause malfunction or damage the parts.
9	Is there any obstruction in air inlet and air outlet?	It may cause insufficient cooling (heating).
10	The dust and sundries caused during installation are removed?	It may cause malfunction or damaging the parts.
11	The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.

### 2. Test operation

(1) Preparation of test operation

- The client approves the air conditioner installation.
- Specify the important notes for air conditioner to the client.

(2) Method of test operation

- Put through the power, press ON/OFF button on the remote controller to start operation.
- Press MODE button to select AUTO, COOL, DRY, FAN and HEAT to check whether the operation is normal or not.
- If the ambient temperature is lower than 16°C , the air conditioner can't start cooling.

## 9. Maintenance

### 9.1 Error Code

#### 1. Malfunction display requirement

When there are several malfunctions, they will be displayed circularly.

#### 2. Malfunction display method

(1) Hardware malfunction: immediate display; refer to “error code list”;

(2) Operation state: immediate display; refer to “error code list”;

(3) Other malfunctions: it is displayed after the compressor stops for 200s; refer to “error code list”.

**Note: when the compressor is restarted, the malfunction display delay time (200s) is cleared.**

#### 3. Malfunction display control

The indicator lamp and dual 8 nixie tube displays shall be synchronized. That is when the indicator lamp blinks, the dual 8 nixie tube displays the corresponding malfunction code.

#### 4. Display control viaremote controller

Enter display control: press light button successively for 6 times within 3s to display the corresponding malfunction code;

Exit display control: pressing light button successively for 6 times within 3s or after display is shown for 5min, the display will terminate.

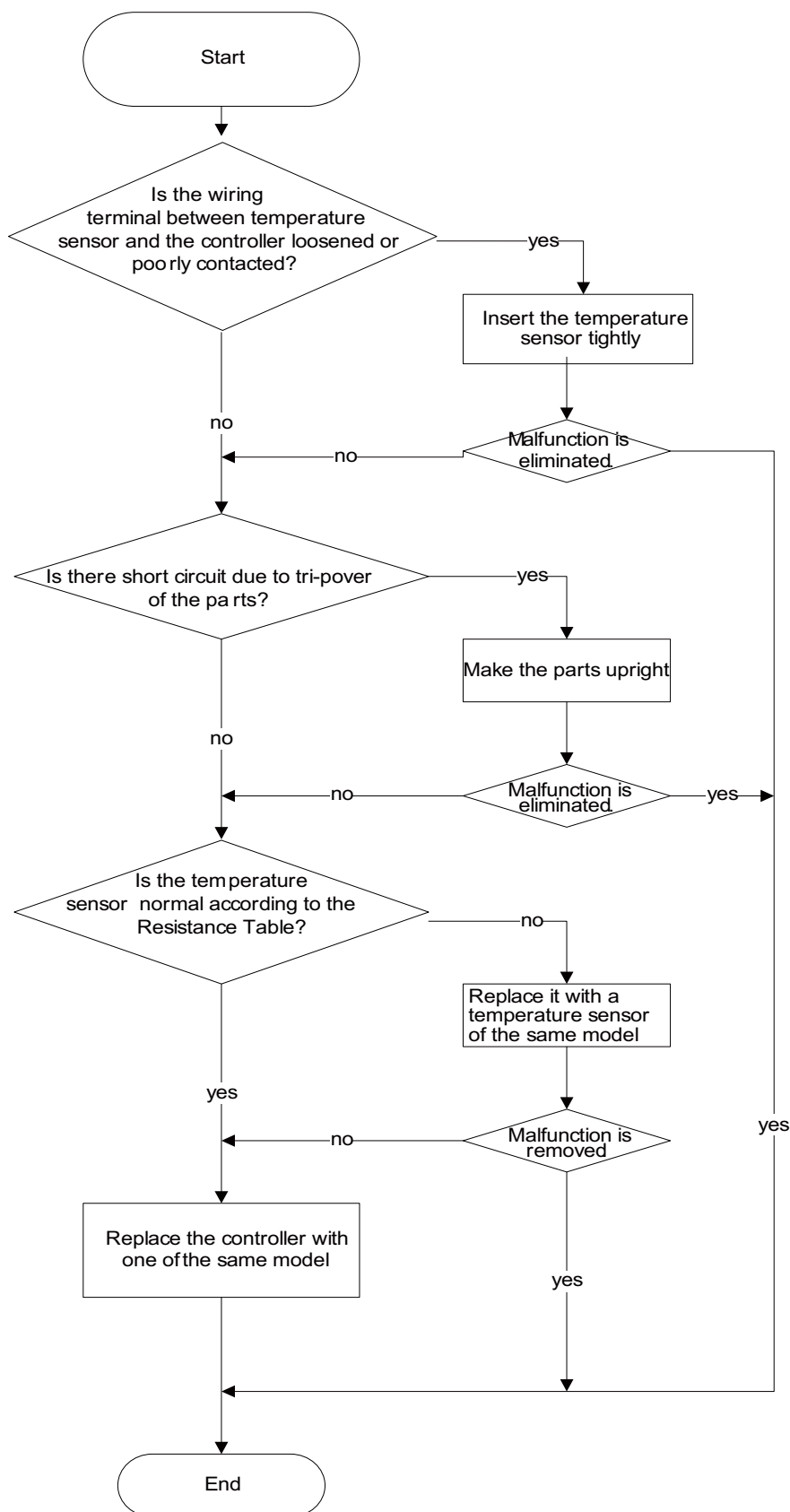
#### Error Code List

Malfunction Name	Malfunction types	Dual-8 Nixie Tube	Indicator Display		
			Operation indicator	Cooling indicator	Heating indicator
Fault in input power zero	Hardware malfunction	U8	blink 17 times		
Jumper cap malfunction protection	Hardware malfunction	C5	blink 15 times		
No feedback of indoor fan motor	Hardware malfunction	H6	blink 11 times		
Indoor ambient sensor open or short circuit	Hardware malfunction	F1		blink once	
Indoor tube sensor open or short circuit	Hardware malfunction	F2		blink twice	
Inlet tube sensor malfunction	Hardware malfunction	b5		blink 19 times	
Outlet tube sensor malfunction	Hardware malfunction	b7		blink 22 times	
IPM sensor circuit malfunction	Hardware malfunction	P7			blink 18 times
Outdoor ambient sensor open or short circuit	Hardware malfunction	F3		blink 3 times	
Inlet pipe temperature sensor of outdoor condenser is open-circuit/short circuit(commercial air con)	Hardware malfunction	A5			
Outdoor tube sensor open or short circuit	Hardware malfunction	F4		blink 4 times	
outlet pipe temperature sensor of outdoor condenser is open-circuit/short circuit(commercial air con)	Hardware malfunction	A7			
Exhaust sensor open or short circuit	Hardware malfunction	F5		blink 5 times	
Communication failure between indoor unit and outdoor unit	Hardware malfunction	E6	blink 6 times		
Compressor phase current detection circuit malfunction	Hardware malfunction	U1			blink 12 times
Compressor demagnetization protection	It can be displayed through remote controller within 200s and displayed directly after 200s	HE			blink 14 times
PN voltage drop protection		U3			blink 20 times
IPM high temperature protection		P8			blink 19 times
Refrigerant-lacking or blockage protection		F0		blink 10 times	
Capacitor charge malfunction	Hardware malfunction	PU			blink 17 times
Refrigerant system high pressure protection	Hardware malfunction	E1	blink once		
system low-pressure protection (reserved)	Hardware malfunction	E3	blink 3 times		
Compressor over load protection	It can be displayed through remote controller within 200s and displayed directly after 200s	H3			blink 3 times
Fault in matching	Hardware malfunction	LP	blink 19 times		
Loading EEPROM malfunction	Hardware malfunction	EE			blink 15 times
AC current detect circuit malfunction	Hardware malfunction	U5		blink 13 times	
Outdoor DC fan motor malfunction	Hardware malfunction	L3	blink 23 times		

Mode conflict	operation status	E7	blink 7 times			
Recovery refrigerant mode	operation status	Fo	blink once	blink once		
X-fan	operation status			ON for 0.5s and OFF for 10s		
Defrosting or oil return in heating	operation status				OFF for 0.5s and ON for 10s	
Startup failure	It can be displayed through remote controller within 200s and displayed directly after 200s	Lc			blink 11 times	
Compressor exhaust high temperature protection		E4	blink 4 times			
Anti-high temperature protection		E8	blink 8 times			
AC over-current protection		E5	blink 5 times			
Over compressor phase current protection		P5				blink 15 times
Compressor loss step protection		H7				blink 7 times
Compressor loss of phase protection		Ld				
IPM protection		H5				blink 5 times
Low PN voltage protection		PL				blink 21 times
Over voltage protection for PN		PH			blink 11 times	
PFC protection		HC				blink 6 times
4-way valve reversal abnormal		U7			blink 20 times	

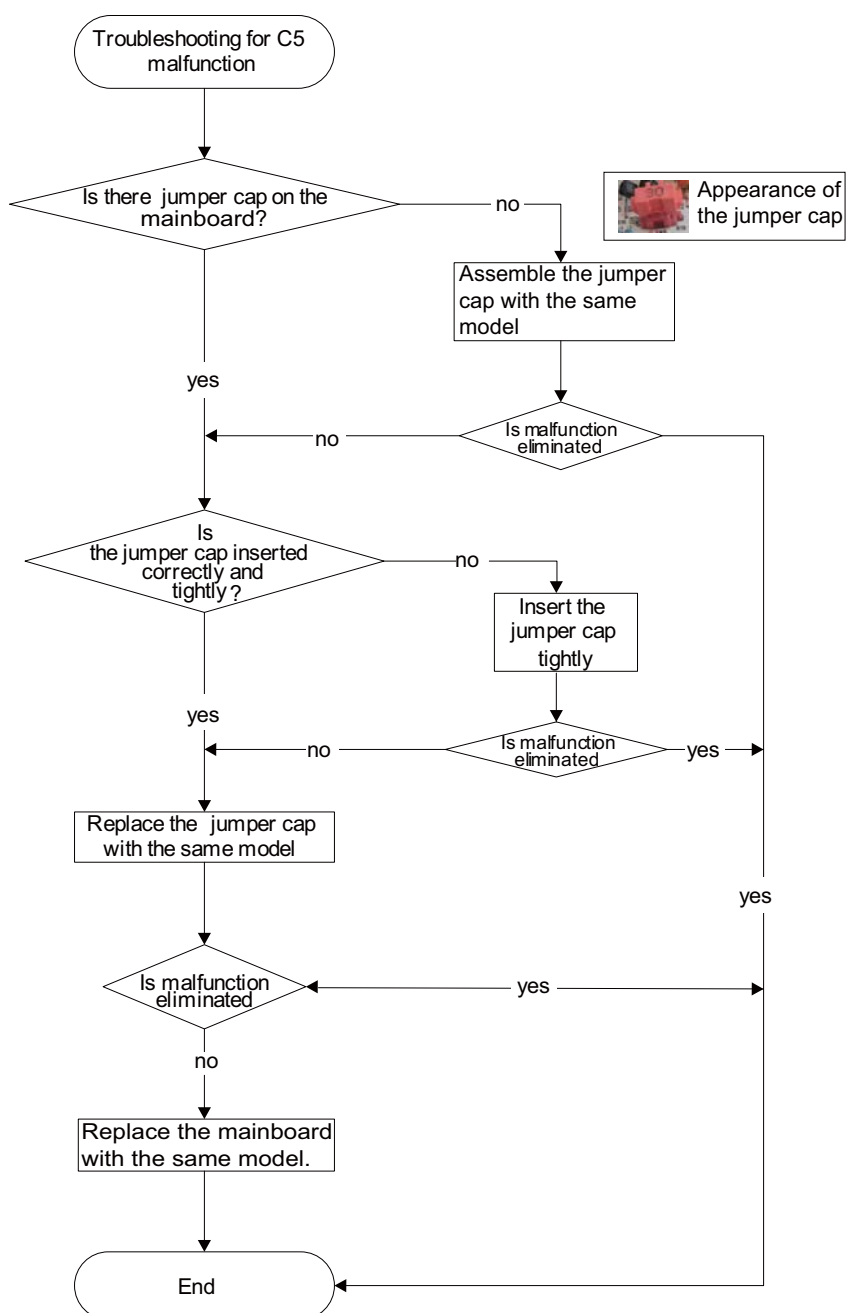
## 9.2 Procedure of Troubleshooting

### 1. Malfunction of Temperature Sensor F1, F2

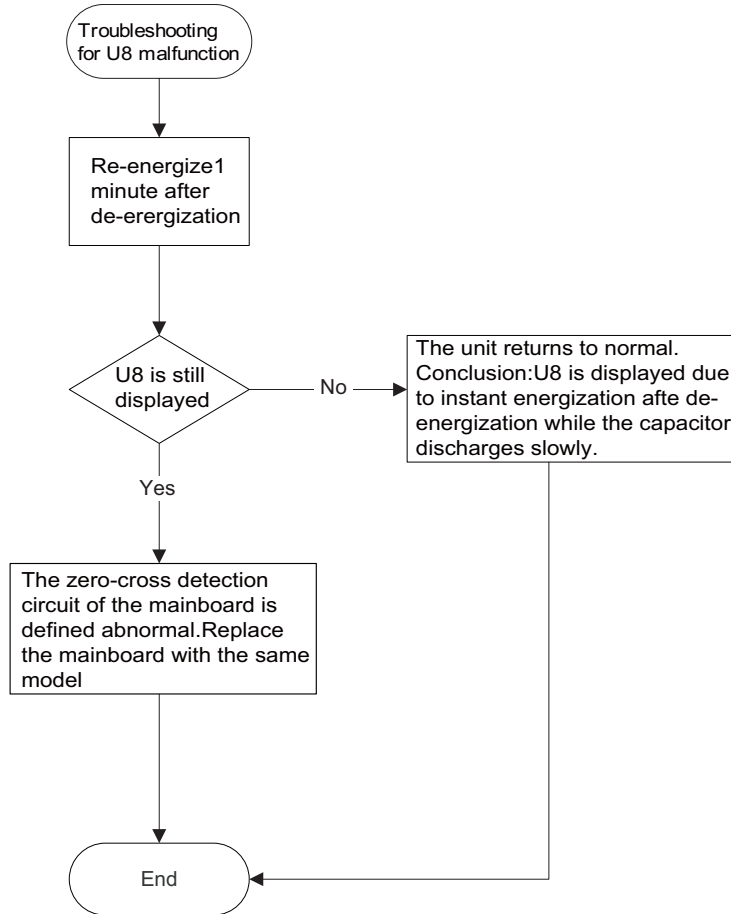




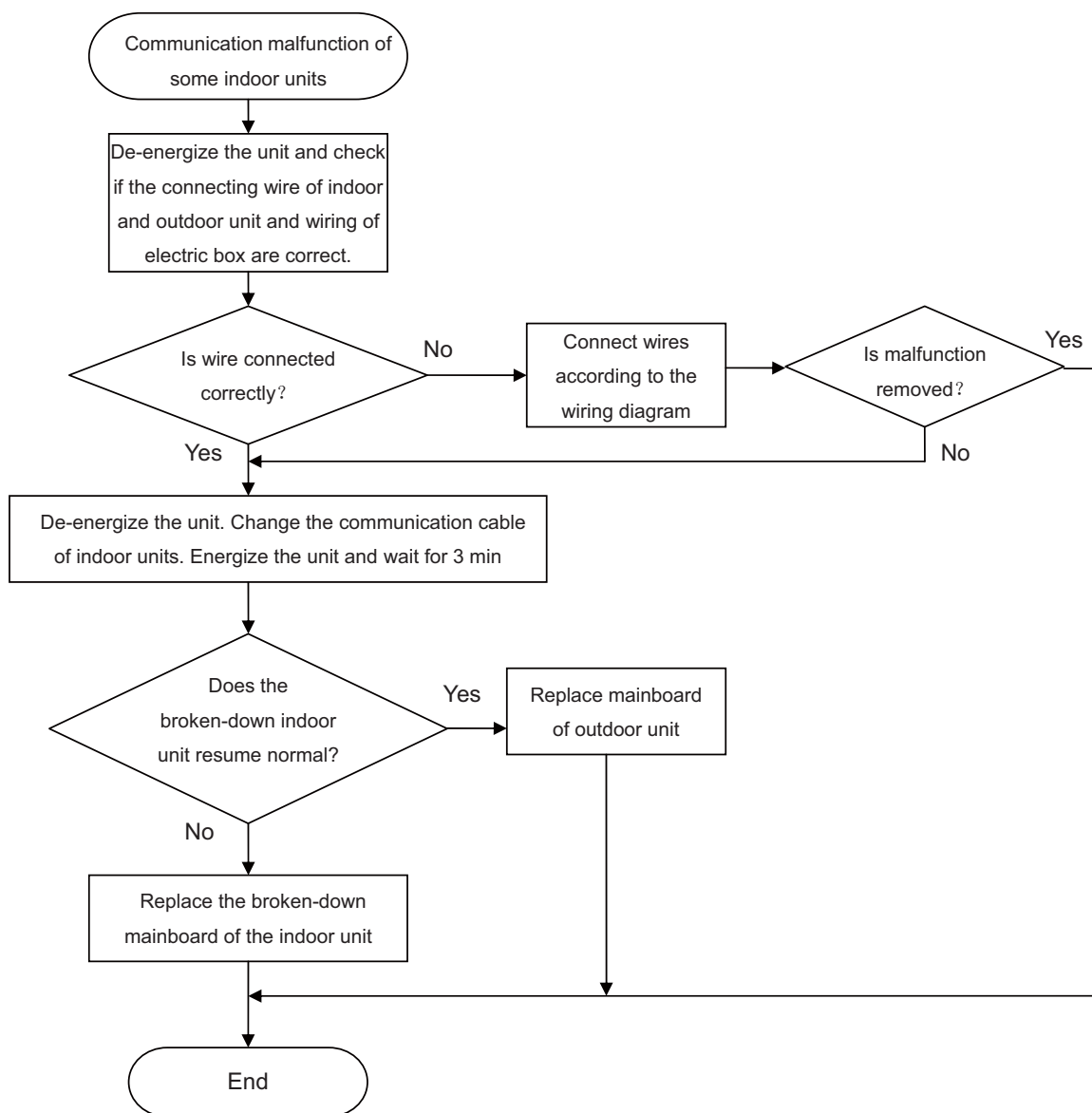
### 3. Malfunction of Protection of Jumper Cap C5



#### 4. Malfunction of Zero-crossing Inspection Circuit Malfunction of the IDU Fan Motor U8



5. E6 Malfunction

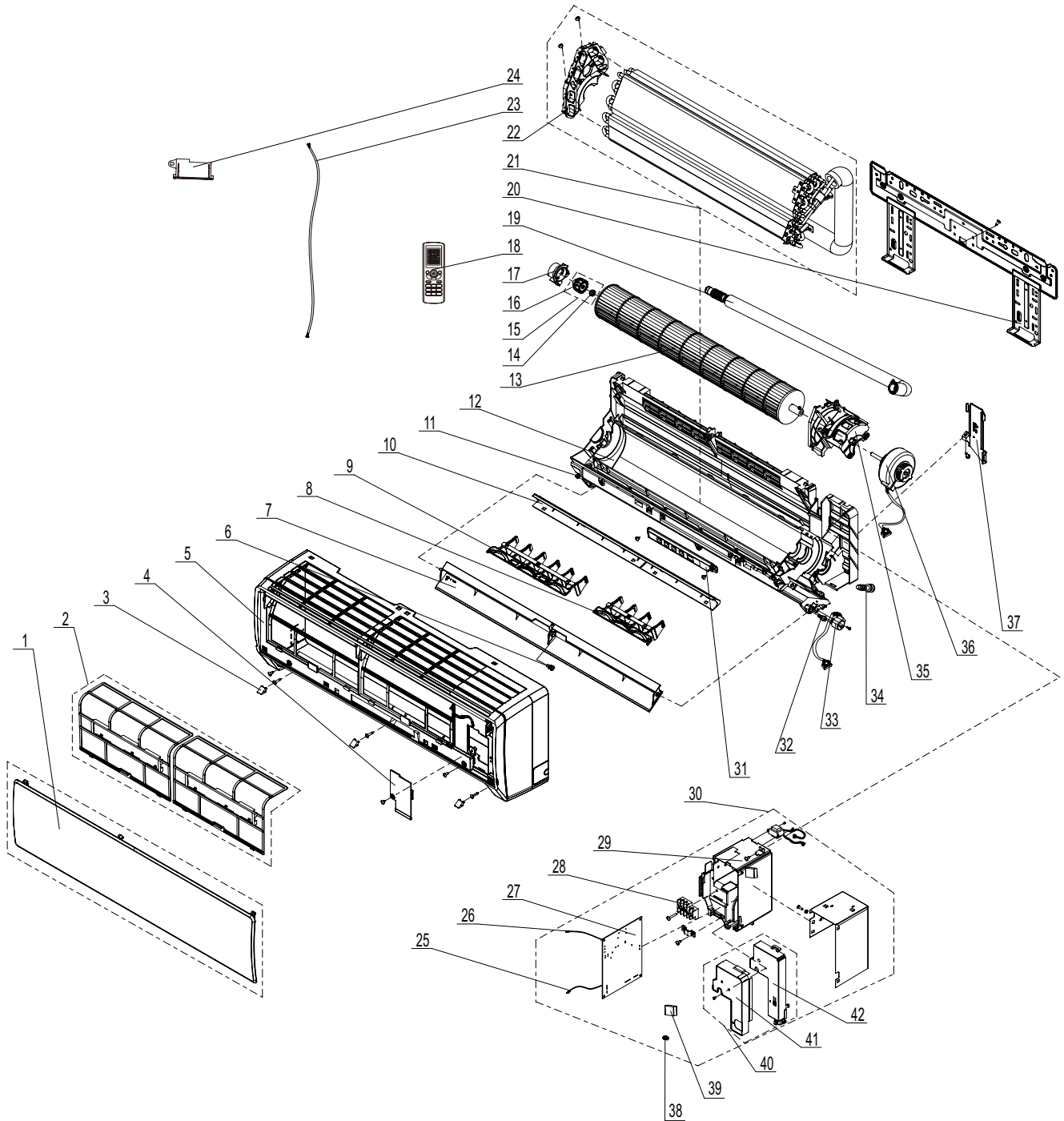






# 10. Exploded View and Parts' List

(1)07/09K Units



No.	Description	Part Code		Qty
		GWH(07)MA-K3DNA3E/(Cold Plasma)	GWH(07)MA-K3DNA4E/(Cold Plasma)	
		Product Code	Product Code	
		CB171N08600	CB161N05301	
1	Front Panel Assy	20012241	2001217601	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	1114001602	1114001602	1
25	Temperature Sensor	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148874	30148874	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20402999	20402551	1
31	Display Board	30565007	30565012	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(07)MA-K3DNA5E/I	GWH(07)MA-K3DNA5E/I(Cold Plasma)	
		Product Code	Product Code	
		CB162N07101	CB162N07100	
1	Front Panel Sub-Assy	20012287	20012287	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210101	2220210101	1
13	Cross Flow Fan	10352018	10352018	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	/	1114001602	1
25	Temperature Sensor	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148875	30148874	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20102000110	20402891	1
31	Display Board	30565073	30565073	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

Above data is subject to change without notice.

No.	Description	Part Code			Qty
		GWH(07)MA-K3DNB3E/ I(Cold Plasma)	GWH(07)MA-K3DND3E/ I(Cold Plasma)	GWH(07)MA-K3DNE1E/I	
	Product Code	CB163N05700	CB405N03300	CB143N01500	
1	Front Panel Assy	2001227802	20012967	20012681	1
2	Filter Sub-Assy	11122081	11122081	11122081	2
3	Screw Cover	24252016	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	20122075	1
5	Front Case	20012179C	20012179C	2001212007C	1
6	Axile Bush	10542036	10542036	10542036	1
7	Guide Louver	10512111	10512111	10512111	1
8	Air Louver 1	10512113	10512113	10512113	1
9	Air Louver 2	10512114	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	26112162	1
11	Axile Bush	10542704	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	2220210101	1
13	Cross Flow Fan	10352043	10352043	10352018	1
14	Fan Bearing	7651221001	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	26152022	1
18	Remote Controller	305100492	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	4002052317	0
24	Cold Plasma Generator	1114001602	1114001602	/	1
25	Temperature Sensor	390000599	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	390000453	1
27	Main Board	30148874	30148874	30148875	1
28	Terminal Board	42011233	42011233	42011233	1
29	Electric Box	2011216701	2011216701	2011216701	1
30	Electric Box Assy	20402918	20403001	20402890	1
31	Display Board	30565037	30565145	30565007	1
32	Crank	10582070	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	26112160	1
36	Fan Motor	15012115	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	26112164	1
38	Jumper	4202300101	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(09)MA-K3DNA2E/I	GWH(09)MA-K3DNA2E/I(Cold Plasma)	
		Product Code	CB181N06100	
1	Front Panel Sub-Assy	20012919	2001216401	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	/	1114001602	1
25	Temperature Sensor	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148875	30148874	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20402950	2040295001	1
31	Display Board	30565054	30565056	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code			Qty
		GWH(09)MA-K3DNA4E/ I(Cold Plasma)	GWH(09)MA-K3DNB3E/ I(Cold Plasma)	GWH(09)MA-K3DNE1E/I	
	Product Code	CB161N05401	CB163N05800	CB143N01600	
1	Front Panel Assy	2001217601	2001227802	20012681	1
2	Filter Sub-Assy	11122081	11122081	11122081	2
3	Screw Cover	24252016	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	20122075	1
5	Front Case	20012120C	20012179C	2001212007C	1
6	Axile Bush	10542036	10542036	10542036	1
7	Guide Louver	10512111	10512111	10512111	1
8	Air Louver 1	10512113	10512113	10512113	1
9	Air Louver 2	10512114	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	26112162	1
11	Axile Bush	10542704	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	10352043	1
14	Fan Bearing	7651221001	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	26152022	1
18	Remote Controller	305100492	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	4002052317	0
24	Cold Plasma Generator	1114001602	1114001602	/	1
25	Temperature Sensor	390000599	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	390000453	1
27	Main Board	30148874	30148874	30148875	1
28	Terminal Board	42011233	42011233	42011233	1
29	Electric Box	2011216701	2011216701	2011216701	1
30	Electric Box Assy	20402551	20402917	20402890	1
31	Display Board	30565012	30565037	30565007	1
32	Crank	10582070	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	26112160	1
36	Fan Motor	15012115	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	26112164	1
38	Jumper	4202300101	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(09)MA-K3DNA3E/I	GWH(09)MA-K3DNA3E/I(Cold Plasma)	
		Product Code	CB171N08500	
1	Front Panel Sub-Assy	20012241	20012241	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210101	1
13	Cross Flow Fan	10352043	10352018	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	/	1114001602	1
25	Temperature Sensor	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148875	30148874	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20402890	20402999	1
31	Display Board	30565007	30565007	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code			Qty
		GWH(09)MA-K3DND3E/ I(Cold Plasma)	GWH(09)MA-K3DNE2E/ I(Cold Plasma)	GWH(09)MA-K3DNE3E/I	
		Product Code CB405N03500	CB401N01000	CB404N02600	
1	Front Panel Assy	20012967	20012816	20012963	1
2	Filter Sub-Assy	11122081	11122081	11122081	2
3	Screw Cover	24252016	24252016	242520172	3
4	Electric Box Cover2	20122075	20122075	2010249602	1
5	Front Case	20012179C	20012179C	2001217906C	1
6	Axile Bush	10542036	10542036	1054203602	1
7	Guide Louver	10512111	10512111	1051211101	1
8	Air Louver 1	10512113	10512113	1051211301	1
9	Air Louver 2	10512114	10512114	1051211401	1
10	Helicoid tongue	26112162	26112162	2611216201	1
11	Axile Bush	10542704	10542704	10542704	1
12	Rear Case assy	2220210101	2220210101	2220210108	1
13	Cross Flow Fan	10352018	10352018	10352043	1
14	Fan Bearing	7651221001	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	26152022	1
18	Remote Controller	305100492	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	4002052317	0
24	Cold Plasma Generator	1114001602	1114001602	/	1
25	Temperature Sensor	390000599	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	390000453	1
27	Main Board	30148874	30148874	30148875	1
28	Terminal Board	42011233	42011233	42011233	1
29	Electric Box	2011216701	2011216701	2011216701	1
30	Electric Box Assy	20403001	20402997	20102000042	1
31	Display Board	30565145	30565126	30565144	1
32	Crank	10582070	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	26112160	1
36	Fan Motor	15012115	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	2611216401	1
38	Jumper	4202300101	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(09)MA-K3DNA5E/I	GWH(09)MA-K3DNA5E/I(Cold Plasma)	
		Product Code	Product Code	
		CB162N07201	CB162N07200	
1	Front Panel Sub-Assy	20012287	20012287	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210101	2220210101	1
13	Cross Flow Fan	10352018	10352018	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100492	305100492	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	/	1114001602	1
25	Temperature Sensor	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148875	30148874	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20102000110	20402891	1
31	Display Board	30565073	30565073	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH(07)MA-K3DNA4E/I	GWH(07)MA-K3DNA3E/I	
		Product Code	Product Code	
		CB161N05302	CB171N08601	
1	Front Panel Assy	2001217601	20012241	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100491	305100491	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	/	/	/
25	Temperature Sensor	390000599	390000599	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148875	30148875	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20102000275	20402890	1
31	Display Board	30565012	30565007	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(07)MA-K3DNA2E/I	GWH(09)MA-K3DNA2E/I	
	Product Code	CB181N06300	CB181N06102	
1	Front Panel Assy	2001216401	2001216401	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120C	20012120C	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542036	10542036	1
12	Rear Case assy	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	1
14	Fan Bearing	7651221001	7651221001	1
15	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100491	305100491	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100274301	0100274301	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	4002052317	4002052317	0
24	Cold Plasma Generator	/	/	/
25	Temperature Sensor	390000453	390000453	1
26	Temperature Sensor	390000453	390000453	1
27	Main Board	30148875	30148875	1
28	Terminal Board	42011233	42011233	1
29	Electric Box	2011216701	2011216701	1
30	Electric Box Assy	20102000382	20102000382	1
31	Display Board	30565056	30565056	1
32	Crank	10582070	10582070	1
33	Stepping Motor	1521212901	1521212901	1
34	Rubber Plug (Water Tray)	76712012	76712012	1
35	Motor Press Plate	26112160	26112160	1
36	Fan Motor	15012115	15012115	1
37	Connecting pipe clamp	26112164	26112164	1
38	Jumper	4202300101	4202300101	1
39	Capacitor CBB61	33010002	33010002	1
40	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
41	Shield cover of Electric Box	0141203601	0141203601	1
42	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNA2E/I	GWH(12)MB-K3DNA2E/I(Cold Plasma)	
	Product Code	CB181N06201	CB181N06200	
1	Front Panel Sub-Assy	20022148	2001216801	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Screw Cover	24252016	24252016	1
4	Front Case Sub-Assy	2001213908	2001213908	1
5	Axile Bush	10542036	10542036	1
6	Guide Louver	10512157	10512157	1
7	Air Louver 2	10512155	10512155	1
8	Helicoid tongue	26112163	26112163	1
9	Display Board	30565054	30565056	1
10	Left Axile Bush	10512037	10512037	1
11	Rear Case assy	2220210301	2220210301	1
12	Cross Flow Fan	10352017	10352017	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	Ring of Bearing	26152022	26152022	1
15	Remote Controller	305100492	305100492	1
16	Drainage hose	0523001401	0523001401	1
17	Cold Plasma Generator	/	1114001602	1
18	Evaporator Support	24212091	24212091	1
19	Evaporator Assy	0100274401	0100274401	1
20	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
21	Electric Box Cover2	20122075	20122075	1
22	Jumper	4202300104	4202300104	1
23	Temperature Sensor	390000453	390000453	1
24	Main Board	30148875	30148874	1
25	Temperature Sensor	390000599	390000599	1
26	Terminal Board	42011233	42011233	1
27	Air Louver 1	10512156	10512156	1
28	Electric Box	2011216701	2011216701	1
29	Capacitor CBB61	33010002	33010002	1
30	Electric Box Assy	20403012	20402983	1
31	Crank	10582070	10582070	1
32	Stepping Motor	1521212901	1521212901	1
33	Rubber Plug (Water Tray)	76712012	76712012	1
34	Fan Motor	1501208904	1501208904	1
35	Motor Press Plate	26112161	26112161	1
36	Connecting pipe clamp	26112164	26112164	1
37	Wall Mounting Frame	01252021	01252021	1
38	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNA3E/I	GWH(12)MB-K3DNA3E/I(Cold Plasma)	
	Product Code	CB171N08700	CB171N08701	
1	Front Panel Sub-Assy	20012548	20012548	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Screw Cover	24252016	24252016	1
4	Front Case Sub-Assy	2001213908	2001213908	1
5	Axile Bush	10542036	10542036	1
6	Guide Louver	10512157	10512157	1
7	Air Louver 2	10512155	10512155	1
8	Helicoid tongue	26112163	26112163	1
9	Display Board	30565007	30565007	1
10	Left Axile Bush	10512037	10512037	1
11	Rear Case assy	2220210301	2220210301	1
12	Cross Flow Fan	10352017	10352017	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	Ring of Bearing	26152022	26152022	1
15	Remote Controller	305100492	305100492	1
16	Drainage hose	0523001401	0523001401	1
17	Cold Plasma Generator	/	1114001602	1
18	Evaporator Support	24212091	24212091	1
19	Evaporator Assy	0100274401	0100274401	1
20	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
21	Electric Box Cover2	20122075	20122075	1
22	Jumper	4202300104	4202300104	1
23	Temperature Sensor	390000453	390000453	1
24	Main Board	30148875	30148874	1
25	Temperature Sensor	390000599	390000599	1
26	Terminal Board	42011233	42011233	1
27	Air Louver 1	10512156	10512156	1
28	Electric Box	2011216701	2011216701	1
29	Capacitor CBB61	33010002	33010002	1
30	Electric Box Assy	20402947	20403018	1
31	Crank	10582070	10582070	1
32	Stepping Motor	1521212901	1521212901	1
33	Rubber Plug (Water Tray)	76712012	76712012	1
34	Fan Motor	1501208904	1501208904	1
35	Motor Press Plate	26112161	26112161	1
36	Connecting pipe clamp	26112164	26112164	1
37	Wall Mounting Frame	01252021	01252021	1
38	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNA5E/I	GWH(12)MB-K3DNA5E/I(Cold Plasma)	
	Product Code	CB162N07001	CB162N07000	
1	Front Panel Assy	20012830	20012830	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Screw Cover	24252016	24252016	1
4	Front Case Sub-Assy	2001213908	2001213908	1
5	Axile Bush	10542036	10542036	1
6	Guide Louver	10512157	10512157	1
7	Air Louver 2	10512155	10512155	1
8	Helicoid tongue	26112163	26112163	1
9	Display Board	30565073	30565073	1
10	Left Axile Bush	10512037	10512037	1
11	Rear Case assy	2220210301	2220210301	1
12	Cross Flow Fan	10352017	10352017	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	Ring of Bearing	26152022	26152022	1
15	Remote Controller	305100492	305100492	1
16	Drainage hose	0523001401	0523001401	1
17	Cold Plasma Generator	/	1114001602	1
18	Evaporator Support	24212091	24212091	1
19	Evaporator Assy	0100274401	0100274401	1
20	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
21	Electric Box Cover2	20122075	20122075	1
22	Jumper	4202300104	4202300104	1
23	Temperature Sensor	390000453	390000453	1
24	Main Board	30148875	30148874	1
25	Temperature Sensor	390000599	390000599	1
26	Terminal Board	42011233	42011233	1
27	Air Louver 1	10512156	10512156	1
28	Electric Box	2011216701	2011216701	1
29	Capacitor CBB61	33010002	33010002	1
30	Electric Box Assy	20102000084	20402887	1
31	Crank	10582070	10582070	1
32	Stepping Motor	1521212901	1521212901	1
33	Rubber Plug (Water Tray)	76712012	76712012	1
34	Fan Motor	150120874	150120874	1
35	Motor Press Plate	26112161	26112161	1
36	Connecting pipe clamp	26112164	26112164	1
37	Wall Mounting Frame	01252021	01252021	1
38	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNB3E/I(Cold Plasma)	GWH(12)MB-K3DND3E/I(Cold Plasma)	
	Product Code	CB163N06000	CB405N03400	
1	Front Panel Assy	2002210401	20012966	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Screw Cover	24252016	24252016	1
4	Front Case Sub-Assy	2001213915	2001213915	1
5	Axile Bush	10542036	10542036	1
6	Guide Louver	10512157	10512157	1
7	Air Louver 2	10512155	10512155	1
8	Helicoid tongue	26112163	26112163	1
9	Display Board	30565037	30565145	1
10	Left Axile Bush	10512037	10512037	1
11	Rear Case assy	2220210301	2220210301	1
12	Cross Flow Fan	10352017	10352017	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	Ring of Bearing	26152022	26152022	1
15	Remote Controller	305100492	305100492	1
16	Drainage hose	0523001401	0523001401	1
17	Cold Plasma Generator	1114001602	1114001602	1
18	Evaporator Support	24212091	24212091	1
19	Evaporator Assy	0100274401	0100274401	1
20	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
21	Electric Box Cover2	20122075	20122075	1
22	Jumper	4202300104	4202300104	1
23	Temperature Sensor	390000453	390000453	1
24	Main Board	30148874	30148874	1
25	Temperature Sensor	390000599	390000599	1
26	Terminal Board	42011233	42011233	1
27	Air Louver 1	10512156	10512156	1
28	Electric Box	2011216701	2011216701	1
29	Capacitor CBB61	33010002	33010002	1
30	Electric Box Assy	20402903	20403007	1
31	Crank	10582070	10582070	1
32	Stepping Motor	1521212901	1521212901	1
33	Rubber Plug (Water Tray)	76712012	76712012	1
34	Fan Motor	150120874	1501208904	1
35	Motor Press Plate	26112161	26112161	1
36	Connecting pipe clamp	26112164	26112164	1
37	Wall Mounting Frame	01252021	01252021	1
38	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNA4E/(Cold Plasma)	GWH(12)MB-K3DNA4E/I	
	Product Code	CB161N05501	CB161N05500	
1	Front Case Sub-assy	2001213908	2001213908	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Screw Cover	24252016	24252016	1
4	Front Case Sub-Assy	2001213908	2001213908	1
5	Axile Bush	10542036	10542036	1
6	Guide Louver	10512157	10512157	1
7	Air Louver 2	10512155	10512155	1
8	Helicoid tongue	26112163	26112163	1
9	Display Board	30565012	30565012	1
10	Left Axile Bush	10512037	10512037	1
11	Rear Case assy	2220210301	2220210301	1
12	Cross Flow Fan	10352017	10352017	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	Ring of Bearing	26152022	26152022	1
15	Remote Controller	305100492	305100491	1
16	Drainage hose	0523001401	0523001401	1
17	Cold Plasma Generator	1114001602	/	1
18	Evaporator Support	24212091	24212091	1
19	Evaporator Assy	0100274401	0100274401	1
20	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
21	Electric Box Cover2	20122075	20122075	1
22	Jumper	4202300104	4202300104	1
23	Temperature Sensor	390000453	390000453	1
24	Main Board	30148874	30148875	1
25	Temperature Sensor	390000599	390000599	1
26	Terminal Board	42011233	42011233	1
27	Air Louver 1	10512156	10512156	1
28	Electric Box	2011216701	2011216701	1
29	Capacitor CBB61	33010002	33010002	1
30	Electric Box Assy	20402556	20102000285	1
31	Crank	10582070	10582070	1
32	Stepping Motor	1521212901	1521212901	1
33	Rubber Plug (Water Tray)	76712012	76712012	1
34	Fan Motor	150120874	150120874	1
35	Motor Press Plate	26112161	26112161	1
36	Connecting pipe clamp	26112164	26112164	1
37	Wall Mounting Frame	01252021	01252021	1
38	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNE1E/I	GWH(12)MB-K3DNE3E/I	
		Product Code		
		CB143N01700	CB404N02800	
1	Front Panel	20012656S	2001288801P	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Screw Cover	24252016	242520172	1
4	Front Case Sub-Assy	2001213933	2220210311	1
5	Axile Bush	10542036	1054203602	1
6	Guide Louver	10512157	1051215701	1
7	Air Louver 2	10512155	1051215501	1
8	Helicoid tongue	26112163	2611216301	1
9	Display Board	30565007	30565144	1
10	Left Axile Bush	10512037	10512037	1
11	Rear Case assy	2220210301	2220210311	1
12	Cross Flow Fan	10352017	10352017	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	Ring of Bearing	26152022	26152022	1
15	Remote Controller	305100492	305100492	1
16	Drainage hose	0523001401	0523001401	1
17	Cold Plasma Generator	/	/	/
18	Evaporator Support	24212091	24212091	1
19	Evaporator Assy	0100274401	0100274401	1
20	Shield cover of Electric Box sub-assy	0159207301	0159207301	1
21	Electric Box Cover2	20122075	2010249602	1
22	Jumper	4202300104	4202300104	1
23	Temperature Sensor	390000453	390000453	1
24	Main Board	30148875	30148875	1
25	Temperature Sensor	390000599	390000599	1
26	Terminal Board	42011233	42011233	1
27	Air Louver 1	10512156	1051215601	1
28	Electric Box	2011216701	2011216701	1
29	Capacitor CBB61	33010002	33010002	1
30	Electric Box Assy	20402947	20102000078	1
31	Crank	10582070	10582070	1
32	Stepping Motor	1521212901	1521212901	1
33	Rubber Plug (Water Tray)	76712012	76712012	1
34	Fan Motor	1501208904	1501208904	1
35	Motor Press Plate	26112161	26112161	1
36	Connecting pipe clamp	26112164	2611216402	1
37	Wall Mounting Frame	01252021	01252021	1
38	Electric Box Cover1	22242135	22242135	1

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No.	Description	Part Code		Qty
		GWH(12)MB-K3DNA2E/I		
	Product Code	CB181N06202		
1	Front Panel	20012123C		1
2	Filter Sub-Assy	1112220403		2
3	Screw Cover	24252016		1
4	Front Case Sub-Assy	2001213908		1
5	Axile Bush	10542036		1
6	Guide Louver	10512157		1
7	Air Louver 2	10512155		1
8	Helicoid tongue	26112163		1
9	Display Board	30565056		1
10	Left Axile Bush	10512037		1
11	Rear Case assy	2220210301		1
12	Cross Flow Fan	10352017		1
13	O-Gasket of Cross Fan Bearing	76512203		1
14	Ring of Bearing	26152022		1
15	Remote Controller	305100491		1
16	Drainage hose	0523001401		1
17	Cold Plasma Generator	/		/
18	Evaporator Support	24212091		1
19	Evaporator Assy	0100274401		1
20	Shield cover of Electric Box sub-assy	0159207301		1
21	Electric Box Cover2	20122075		1
22	Jumper	4202300104		1
23	Temperature Sensor	390000453		1
24	Main Board	30148875		1
25	Temperature Sensor	390000453		1
26	Terminal Board	42011233		1
27	Air Louver 1	10512156		1
28	Electric Box	2011216701		1
29	Capacitor CBB61	33010002		1
30	Electric Box Assy	20102000383		1
31	Crank	10582070		1
32	Stepping Motor	1521212901		1
33	Rubber Plug (Water Tray)	76712012		1
34	Fan Motor	150120874		1
35	Motor Press Plate	26112161		1
36	Connecting pipe clamp	26112164		1
37	Wall Mounting Frame	01252021		1
38	Electric Box Cover1	22242135		1

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No.	Description	Part Code		Qty
		GWH(18)MC-K3DNA2E/I	GWH(18)MC-K3DNA2E/I(Cold Plasma)	
	Product Code	CB181N06000	CB181N06001	
1	Front Panel Assy	20012861	20012283	1
2	Filter Sub-Assy	1112208901	1112208901	2
3	Screw Cover	24252016	24252016	3
4	Front Case Sub-assy	20022172	20022172	1
5	Guide Louver	10512115	10512115	1
6	Air Louver 1	10512116	10512116	1
7	Helicoid Tongue	26112238	26112238	1
8	Left Axile Bush	10512037	10512037	1
9	Rear Case assy	12312214	12312214	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Ring of Bearing	26152022	26152022	1
13	Evaporator Support	24212133	24212133	1
14	Evaporator Assy	01002774	01002774	1
15	Wall Mounting Frame	01252218	01252218	1
16	Cross Flow Fan	10352019	10352019	1
17	Motor Press Plate	26112494	26112494	1
18	Fan Motor	15012146	15012146	1
19	Connecting pipe clamp	26112164	26112164	1
20	Drainage Hose	05230014	05230014	1
21	SteppingMotor	15012086	15012086	1
22	Crank	10582070	10582070	1
23	Display Board	30565061	30565039	1
24	Air Louver 2	10512117	10512117	1
25	Electric Box Assy	20402915	20402557	1
26	Electric Box	2011210801	2011210801	1
27	Axile Bush	10542036	10542036	1
28	Terminal Board	42011233	42011233	1
29	Jumper	4202300108	4202300108	1
30	Electric Box Cover2	20112081	20112081	1
31	Temperature Sensor	390000599	390000599	1
32	Main Board	30138000014	30148877	1
33	Temperature Sensor	390000453	390000453	1
34	Shield Cover of Electric Box	01592092	01592092	1
35	Electric Box Cover1	20122154	20122154	1
36	Cold Plasma Generator	/	1114001602	1
37	Connecting Cable	4002052317	4002052317	0
38	Remote Controller	305100492	305100492	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH(18)MC-K3DNA3E/I	GWH(18)MC-K3DNA3E/I(Cold Plasma)	
		Product Code		
		CB171N08400	CB171N08401	
1	Front Panel Assy	20012260	20012260	1
2	Filter Sub-Assy	1112208901	1112208901	2
3	Screw Cover	24252016	24252016	3
4	Front Case Sub-assy	20022172	20022172	1
5	Guide Louver	10512115	10512115	1
6	Air Louver 1	10512116	10512116	1
7	Helicoid Tongue	26112238	26112238	1
8	Left Axile Bush	10512037	10512037	1
9	Rear Case assy	12312214	12312214	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Ring of Bearing	26152022	26152022	1
13	Evaporator Support	24212133	24212133	1
14	Evaporator Assy	01002774	01002774	1
15	Wall Mounting Frame	01252218	01252218	1
16	Cross Flow Fan	10352019	10352019	1
17	Motor Press Plate	26112494	26112494	1
18	Fan Motor	15012146	15012146	1
19	Connecting pipe clamp	26112164	26112164	1
20	Drainage Hose	05230014	05230014	1
21	SteppingMotor	15012086	15012086	1
22	Crank	10582070	10582070	1
23	Display Board	30565038	30565038	1
24	Air Louver 2	10512117	10512117	1
25	Electric Box Assy	20402916	20402962	1
26	Electric Box	2011210801	2011210801	1
27	Axile Bush	10542036	10542036	1
28	Terminal Board	42011233	42011233	1
29	Jumper	4202300108	4202300108	1
30	Electric Box Cover2	20112081	20112081	1
31	Temperature Sensor	390000599	390000599	1
32	Main Board	30138000014	30148877	1
33	Temperature Sensor	390000453	390000453	1
34	Shield Cover of Electric Box	01592092	01592092	1
35	Electric Box Cover1	20122154	20122154	1
36	Cold Plasma Generator	/	1114001602	1
37	Connecting Cable	4002052317	4002052317	0
38	Remote Controller	305100492	305100492	1

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No.	Description	Part Code		Qty
		GWH(18)MC-K3DNA5E/I	GWH(18)MC-K3DNA5E/I(Cold Plasma)	
	Product Code	CB162N07301	CB162N07300	
1	Front Panel Assy	20012286	20012286	1
2	Filter Sub-Assy	1112208901	1112208901	2
3	Screw Cover	24252016	24252016	3
4	Front Case Sub-assy	20022172	20022172	1
5	Guide Louver	10512115	10512115	1
6	Air Louver 1	10512116	10512116	1
7	Helicoid Tongue	26112238	26112238	1
8	Left Axile Bush	10512037	10512037	1
9	Rear Case assy	12312214	12312214	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Ring of Bearing	26152022	26152022	1
13	Evaporator Support	24212133	24212133	1
14	Evaporator Assy	01002774	01002774	1
15	Wall Mounting Frame	01252218	01252218	1
16	Cross Flow Fan	10352019	10352019	1
17	Motor Press Plate	26112494	26112494	1
18	Fan Motor	15012146	15012146	1
19	Connecting pipe clamp	26112164	26112164	1
20	Drainage Hose	05230014	05230014	1
21	SteppingMotor	15012086	15012086	1
22	Crank	10582070	10582070	1
23	Display Board	30565093	30565093	1
24	Air Louver 2	10512117	10512117	1
25	Electric Box Assy	20102000059	20402896	1
26	Electric Box	2011210801	2011210801	1
27	Axile Bush	10542036	10542036	1
28	Terminal Board	42011233	42011233	1
29	Jumper	4202300108	4202300108	1
30	Electric Box Cover2	20112081	20112081	1
31	Temperature Sensor	390000599	390000599	1
32	Main Board	30138000014	30148877	1
33	Temperature Sensor	390000453	390000453	1
34	Shield Cover of Electric Box	01592092	01592092	1
35	Electric Box Cover1	20122154	20122154	1
36	Cold Plasma Generator	/	1114001602	1
37	Connecting Cable	4002052317	4002052317	0
38	Remote Controller	305100492	305100492	1

Above data is subject to change without notice.



No.	Description	Part Code		Qty
		GWH(18)MC-K3DNA4E/I(Cold Plasma)	GWH(18)MC-K3DNB3E/I(Cold Plasma)	
	Product Code	CB161N05601	CB163N05900	
1	Front Panel Assy	20012280	20012467	1
2	Filter Sub-Assy	1112208901	1112208901	2
3	Screw Cover	24252016	24252016	3
4	Front Case Sub-assy	20022172	20022205	1
5	Guide Louver	10512115	10512115	1
6	Air Louver 1	10512116	10512116	1
7	Helicoid Tongue	26112238	26112238	1
8	Left Axile Bush	10512037	10512037	1
9	Rear Case assy	12312214	12312214	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Ring of Bearing	26152022	26152022	1
13	Evaporator Support	24212133	24212133	1
14	Evaporator Assy	01002774	01002774	1
15	Wall Mounting Frame	01252218	01252218	1
16	Cross Flow Fan	10352019	10352019	1
17	Motor Press Plate	26112494	26112494	1
18	Fan Motor	15012146	15012146	1
19	Connecting pipe clamp	26112164	26112164	1
20	Drainage Hose	05230014	05230014	1
21	SteppingMotor	15012086	15012086	1
22	Crank	10582070	10582070	1
23	Display Board	30565039	30565037	1
24	Air Louver 2	10512117	10512117	1
25	Electric Box Assy	20402557	20402895	1
26	Electric Box	2011210801	2011210801	1
27	Axile Bush	10542036	10542036	1
28	Terminal Board	42011233	42011233	1
29	Jumper	4202300108	4202300108	1
30	Electric Box Cover2	20112081	20112081	1
31	Temperature Sensor	390000599	390000599	1
32	Main Board	30148877	30148877	1
33	Temperature Sensor	390000453	390000453	1
34	Shield Cover of Electric Box	01592092	01592092	1
35	Electric Box Cover1	20122154	20122154	1
36	Cold Plasma Generator	1114001602	1114001602	1
37	Connecting Cable	4002052317	4002052317	0
38	Remote Controller	305100492	305100492	1

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No.	Description	Part Code		Qty
		GWH(18)MC-K3DND3E/I(Cold Plasma)	GWH(18)MC-K3DNE3E/I	
		Product Code	Product Code	
		CB405N03200	CB404N02700	
1	Front Panel Assy	20012926	20012962	1
2	Filter Sub-Assy	1112208901	1112208901	2
3	Screw Cover	24252016	242520172	3
4	Front Case Sub-assy	20022205	2001281201	1
5	Guide Louver	10512115	1051211501	1
6	Air Louver 1	10512116	1051211601	1
7	Helicoid Tongue	26112238	2611223801	1
8	Left Axile Bush	10512037	10512037	1
9	Rear Case assy	12312214	20022564	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Ring of Bearing	26152022	26152022	1
13	Evaporator Support	24212133	24212133	1
14	Evaporator Assy	01002774	01002774	1
15	Wall Mounting Frame	01252218	01252218	1
16	Cross Flow Fan	10352019	10352019	1
17	Motor Press Plate	26112494	26112494	1
18	Fan Motor	15012146	15012146	1
19	Connecting pipe clamp	26112164	2611216402	1
20	Drainage Hose	05230014	05230014	1
21	SteppingMotor	15012086	15012086	1
22	Crank	10582070	1058207002	1
23	Display Board	30565145	30565144	1
24	Air Louver 2	10512117	1051211701	1
25	Electric Box Assy	20402958	20102000046	1
26	Electric Box	2011210801	2011210801	1
27	Axile Bush	10542036	10542036	1
28	Terminal Board	42011233	42011233	1
29	Jumper	4202300108	4202300108	1
30	Electric Box Cover2	20112081	2011208101	1
31	Temperature Sensor	390000599	390000599	1
32	Main Board	30148877	30138000014	1
33	Temperature Sensor	390000453	390000453	1
34	Shield Cover of Electric Box	01592092	01592092	1
35	Electric Box Cover1	20122154	20122154	1
36	Cold Plasma Generator	1114001602	/	1
37	Connecting Cable	4002052317	4002052317	0
38	Remote Controller	305100492	305100492	1

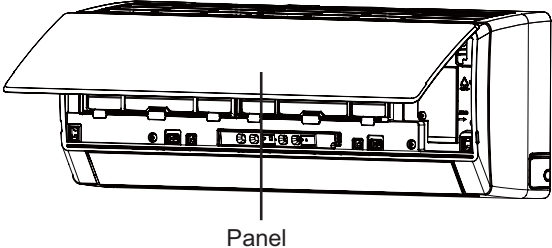
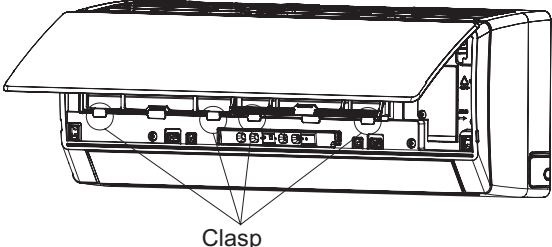
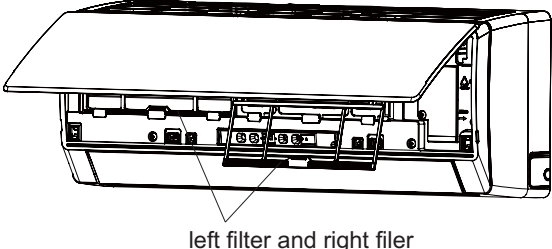
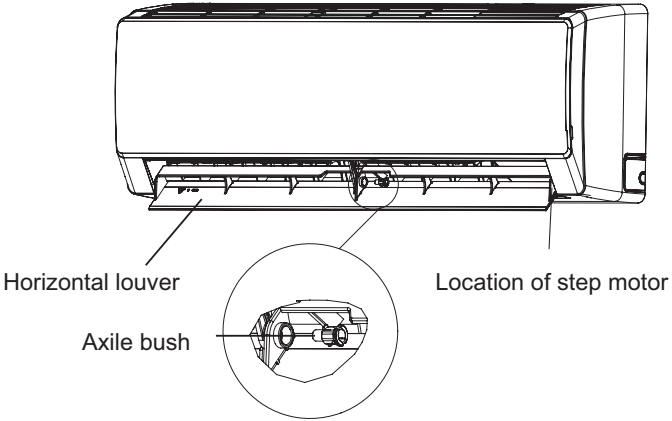
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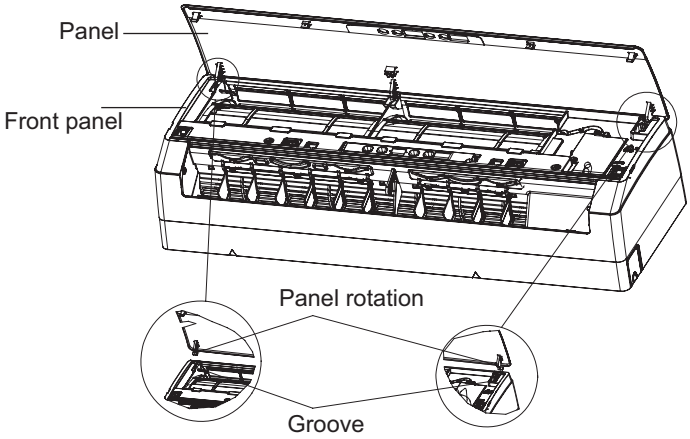
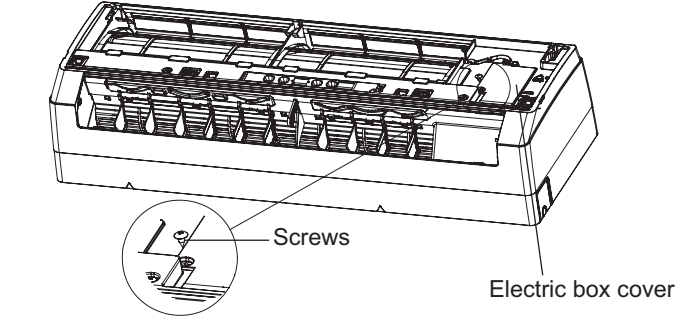
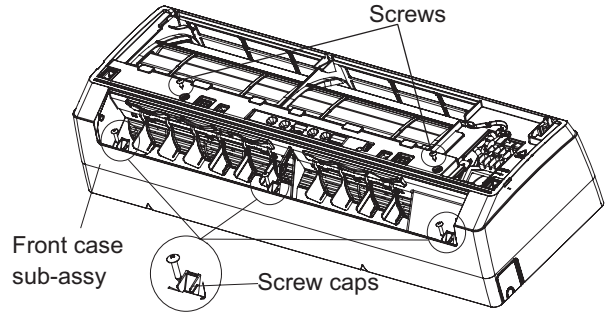
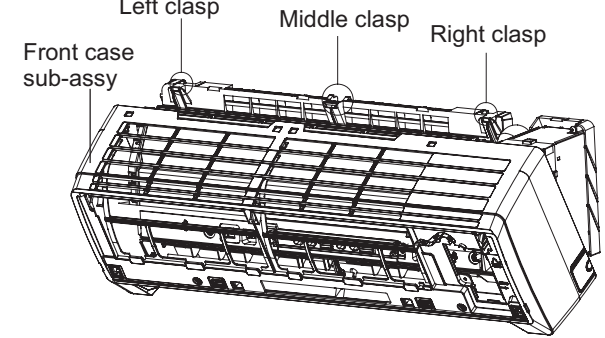
No.	Description	Part Code		Qty
		GWH(18)MC-K3DNA2E/I		
		CB181N06002		
1	Front Panel Assy	20012283		1
2	Filter Sub-Assy	1112208901		2
3	Screw Cover	24252016		3
4	Front Case Sub-assy	20022172		1
5	Guide Louver	10512115		1
6	Air Louver 1	10512116		1
7	Helicoid Tongue	26112238		1
8	Left Axile Bush	10512037		1
9	Rear Case assy	12312214		1
10	Rubber Plug (Water Tray)	76712012		1
11	O-Gasket of Cross Fan Bearing	76512203		1
12	Ring of Bearing	26152022		1
13	Evaporator Support	24212133		1
14	Evaporator Assy	01002774		1
15	Wall Mounting Frame	01252218		1
16	Cross Flow Fan	10352019		1
17	Motor Press Plate	26112494		1
18	Fan Motor	15012146		1
19	Connecting pipe clamp	26112164		1
20	Drainage Hose	05230014		1
21	SteppingMotor	15012086		1
22	Crank	10582070		1
23	Display Board	30565039		1
24	Air Louver 2	10512117		1
25	Electric Box Assy	20102000273		1
26	Electric Box	2011210801		1
27	Axile Bush	10542036		1
28	Terminal Board	42011233		1
29	Jumper	4202300108		1
30	Electric Box Cover2	20112081		1
31	Temperature Sensor	390000453		1
32	Main Board	30138000014		1
33	Temperature Sensor	390000453		1
34	Shield Cover of Electric Box	01592092		1
35	Electric Box Cover1	20122154		1
36	Cold Plasma Generator	/		/
37	Connecting Cable	4002052317		0
38	Remote Controller	305100491		1

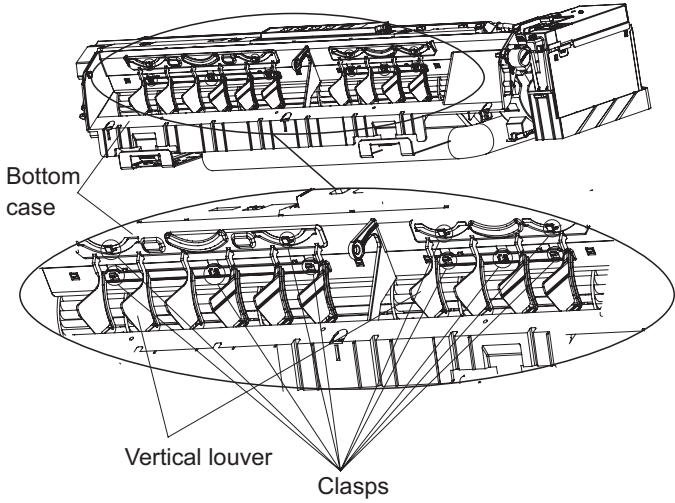
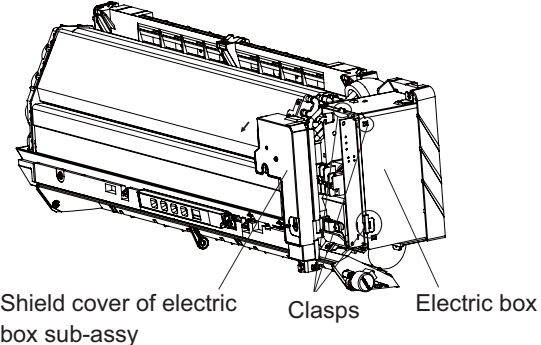
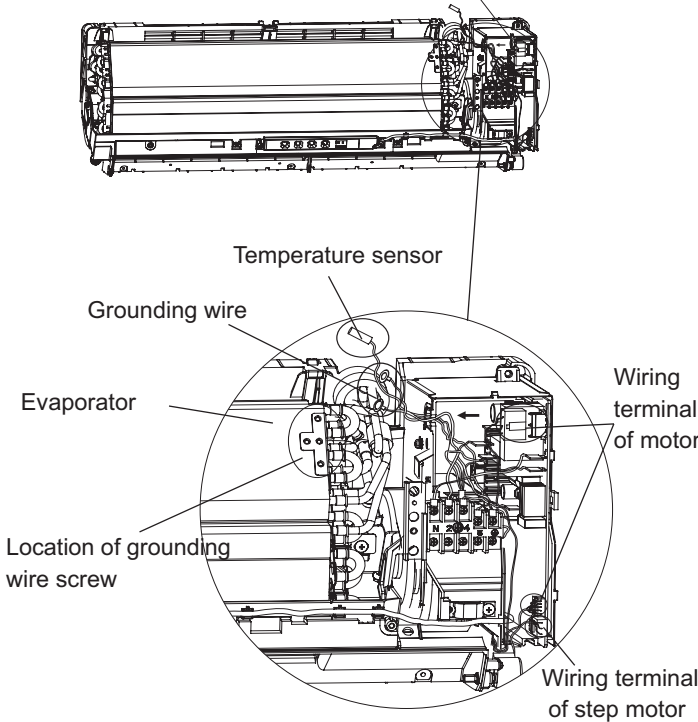
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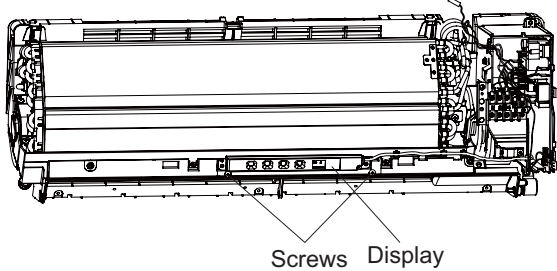
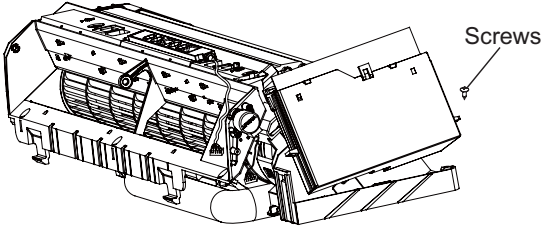
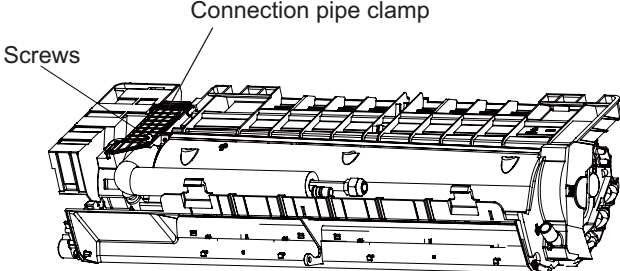
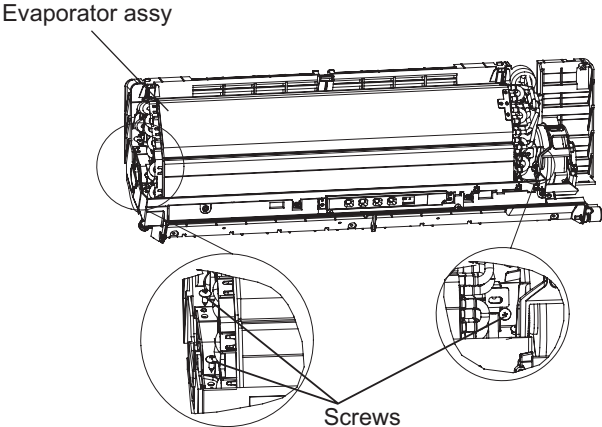
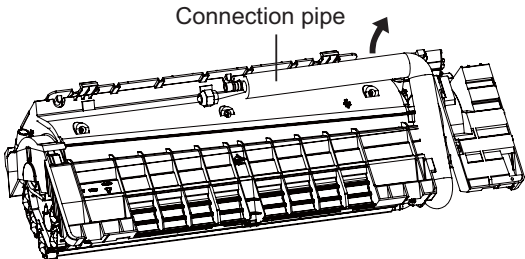
# 11. Removal Procedure

**!** Caution: discharge the refrigerant completely before removal.

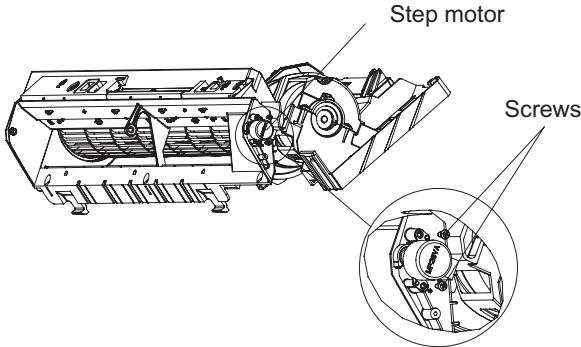
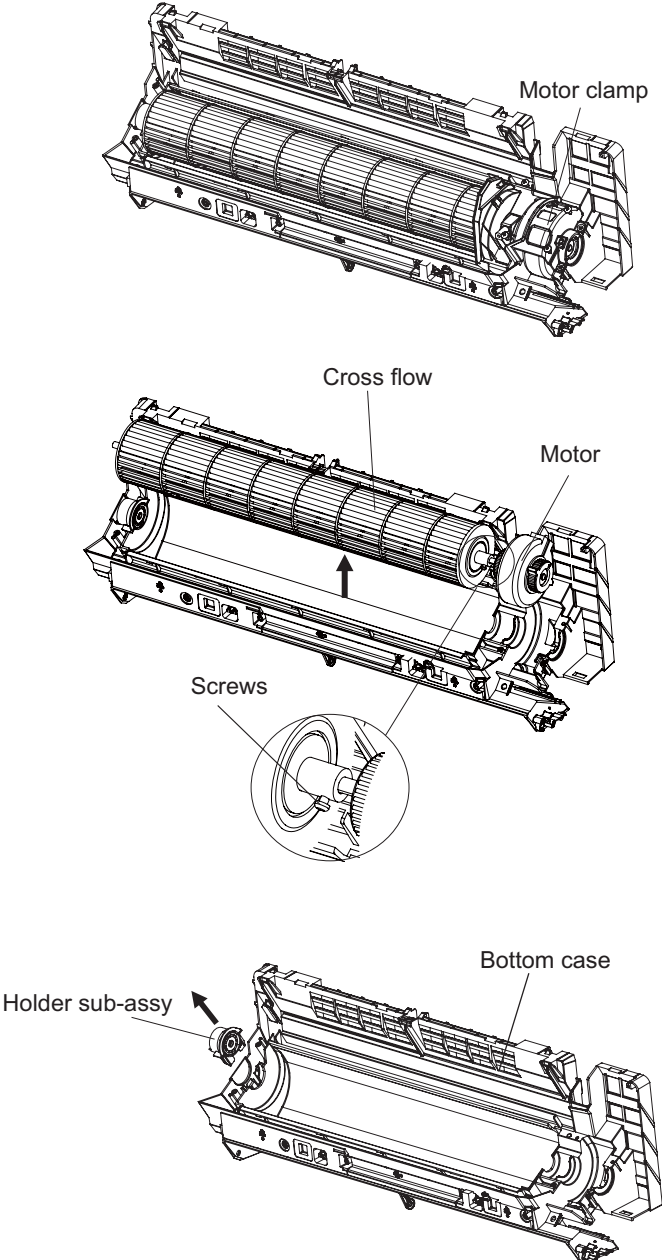
Step	Procedure	
1. Remove filter		
a	Open the panel.	 <p style="text-align: center;">Panel</p>
b	Loosen the clasp shown in the fig and then pull the left filter and right filter outwards to remove them.	 <p style="text-align: center;">Clasp</p>  <p style="text-align: center;">left filter and right filter</p>
2. Remove horizontal louver		
	Push out the axle bush on horizontal louver. Bend the horizontal louver with hand and then separate the horizontal louver from the crankshaft of step motor to remove it.	 <p style="text-align: center;">Horizontal louver</p> <p style="text-align: center;">Axile bush</p> <p style="text-align: center;">Location of step motor</p>

Step	Procedure	Procedure
3. Remove panel		
	<p>Open the front panel; separate the panel rotation shaft from the groove fixing the front panel and then removes the front panel.</p> <p>Note: The display of some models is fixed on the panel; unscrew the screws fixing the display on the panel before removing the panel.</p>	
4. Remove electric box cover		
	<p>Remove the screws on the electric box cover to remove the electric box cover.</p>	
5. Remove front case sub-assy		
a	<p>Remove the screws fixing front case.</p> <p>Note: 1.Open the screw caps before removing the screws around the air outlet. 2.The quantity of screws fixing the front case sub-assy is different for different models.</p>	
b	<p>Loosen the clasps at left, middle and right sides of front case. Lift the front case sub-assy upwards to remove it.</p>	

Step	Procedure	
6. Remove vertical louver	<p data-bbox="252 383 699 472">Loosen the connection clasps between vertical louver and bottom case to remove vertical louver.</p> 	
7. Remove electric box assy	<p data-bbox="140 999 699 1122">a Loosen the connection clasps between shield cover of electric box sub-assy and electric box, and then remove the shield cover of electric box sub-assy.</p>  <p data-bbox="140 1357 699 1693">b Cut off the tieline which binding the temperature sensor and grounding wire on the evaporator, and then pull out the indoor tube temperature sensor from the evaporator. Remove the screws at the connection place between grounding wire and evaporator. Pull out the wiring terminal of motor and wiring terminal of step motor from the mainboard.</p> <p data-bbox="240 1731 699 1944">Note: 1. Location of tube temperature sensor and tieline on the evaporator is different for different models. 2. When pulling out the wiring terminal, pay attention to loose the clasp and don't pull it so hard.</p> 	

Step	Procedure	Procedure
c	<p>Remove two screws fixing display.</p> <p>Note: The display of some models is fixed on the panel; unscrew the screws fixing the display on the panel before removing the panel.</p>	 
8. Remove evaporator assy		
a	<p>At the back of the unit, remove the screw fixing connection pipe clamp and then remove the connection pipe clamp.</p>	
b	<p>Remove 3 screws fixing evaporator assy.</p>	
c	<p>Adjust the position of connection pipe on evaporator slightly and then lift the evaporator upwards to remove it.</p>	



Step	Procedure	Procedure
9. Remove stepping motor	Remove the screw fixing step motor and then remove the step motor.	
10. Remove motor and cross flow blade	<p>a Remove the screws fixing motor clamp and then remove the motor clamp.</p> <p>b Remove the screws at the connection place of cross flow blade and motor; lift the motor and cross flow blade upwards to remove them.</p> <p>c Remove the bearing holder sub-assy.</p>	



# Appendix:

## Appendix 1: Reference Sheet of Celsius and Fahrenheit

Conversion formula for Fahrenheit degree and Celsius degree:  $T_f = T_c \times 1.8 + 32$

### Set temperature

Fahrenheit display temperature (°F)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit display temperature (°F)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit display temperature (°F)	Fahrenheit (°F)	Celsius (°C)
61	60.8	16	69/70	69.8	21	78/79	78.8	26
62/63	62.6	17	71/72	71.6	22	80/81	80.6	27
64/65	64.4	18	73/74	73.4	23	82/83	82.4	28
66/67	66.2	19	75/76	75.2	24	84/85	84.2	29
68	68	20	77	77	25	86	86	30

### Ambient temperature

Fahrenheit display temperature (°F)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit display temperature (°F)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit display temperature (°F)	Fahrenheit (°F)	Celsius (°C)
32/33	32	0	55/56	55.4	13	79/80	78.8	26
34/35	33.8	1	57/58	57.2	14	81	80.6	27
36	35.6	2	59/60	59	15	82/83	82.4	28
37/38	37.4	3	61/62	60.8	16	84/85	84.2	29
39/40	39.2	4	63	62.6	17	86/87	86	30
41/42	41	5	64/65	64.4	18	88/89	87.8	31
43/44	42.8	6	66/67	66.2	19	90	89.6	32
45	44.6	7	68/69	68	20	91/92	91.4	33
46/47	46.4	8	70/71	69.8	21	93/94	93.2	34
48/49	48.2	9	72	71.6	22	95/96	95	35
50/51	50	10	73/74	73.4	23	97/98	96.8	36
52/53	51.8	11	75/76	75.2	24	99	98.6	37
54	53.6	12	77/78	77	25			

## Appendix 2: Configuration of Connection Pipe

- Standard length of connection pipe
  - 5m, 7.5m, 8m.
- Min. length of connection pipe is 3m.
- Max. length of connection pipe and max. high difference.
- The additional refrigerant oil and refrigerant charging required after prolonging connection pipe
  - After the length of connection pipe is prolonged for 10m at the basis of standard length, you should add 5ml of refrigerant oil for each additional 5m of connection pipe.
  - The calculation method of additional refrigerant charging amount (on the basis of liquid pipe):

Cooling capacity	Max length of connection pipe	Max height difference
5000 Btu/h(1465 W)	15 m	5 m
7000 Btu/h(2051 W)	15 m	5 m
9000 Btu/h(2637 W)	15 m	10 m
12000 Btu/h(3516 W)	20 m	10 m
18000 Btu/h(5274 W)	25 m	10 m
24000 Btu/h(7032 W)	25 m	10 m
28000 Btu/h(8204 W)	30 m	10 m
36000 Btu/h(10548 W)	30 m	20 m
42000 Btu/h(12306 W)	30 m	20 m
48000 Btu/h(14064 W)	30 m	20 m

- When the length of connection pipe is above 5m, add refrigerant according to the prolonged length of liquid pipe. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See the following sheet.
- Additional refrigerant charging amount = prolonged length of liquid pipe X additional refrigerant charging amount per meter

Additional refrigerant charging amount for R22, R407C, R410A and R134a			
Diameter of connection pipe		Outdoor unit throttle	
Liquid pipe(mm)	Gas pipe(mm)	Cooling only(g/m)	Cooling and heating(g/m)
Φ6	Φ9.5 or Φ12	15	20
Φ6 or Φ9.5	Φ16 or Φ19	15	20
Φ12	Φ19 or Φ22.2	30	120
Φ16	Φ25.4 or Φ31.8	60	120
Φ19	/	250	250
Φ22.2	/	350	350

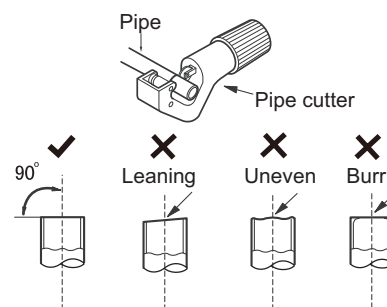
## Appendix 3: Pipe Expanding Method

**⚠ Note:**

Improper pipe expanding is the main cause of refrigerant leakage. Please expand the pipe according to the following steps:

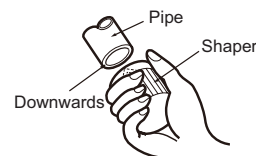
**A: Cut the pip**

- Confirm the pipe length according to the distance of indoor unit and outdoor unit.
- Cut the required pipe with pipe cutter.



**B: Remove the burrs**

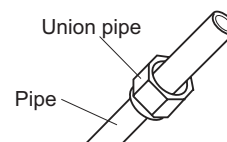
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.



**C: Put on suitable insulating pipe**

**D: Put on the union nut**

- Remove the union nut on the indoor connection pipe and outdoor valve; install the union nut on the pipe.



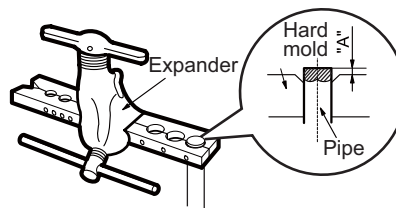
**E: Expand the port**

- Expand the port with expander.

**⚠ Note:**

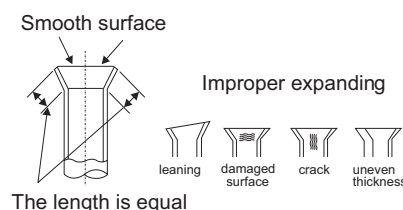
- "A" is different according to the diameter, please refer to the sheet below:

Outer diameter(mm)	A(mm)	
	Max	Min
Φ6 - 6.35 (1/4")	1.3	0.7
Φ9.52 (3/8")	1.6	1.0
Φ12 - 12.70 (1/2")	1.8	1.0
Φ16 - 15.88 (5/8")	2.4	2.2



**F: Inspection**

- Check the quality of expanding port. If there is any blemish, expand the port again according to the steps above.



## Appendix 4: List of Resistance for Ambient Temperature Sensor

Appendix 1: Resistance Table of Ambient Temperature Sensor for Indoor and Outdoor Units(15K)

Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)
-19	138.1	20	18.75	59	3.848	98	1.071
-18	128.6	21	17.93	60	3.711	99	1.039
-17	121.6	22	17.14	61	3.579	100	1.009
-16	115	23	16.39	62	3.454	101	0.98
-15	108.7	24	15.68	63	3.333	102	0.952
-14	102.9	25	15	64	3.217	103	0.925
-13	97.4	26	14.36	65	3.105	104	0.898
-12	92.22	27	13.74	66	2.998	105	0.873
-11	87.35	28	13.16	67	2.896	106	0.848
-10	82.75	29	12.6	68	2.797	107	0.825
-9	78.43	30	12.07	69	2.702	108	0.802
-8	74.35	31	11.57	70	2.611	109	0.779
-7	70.5	32	11.09	71	2.523	110	0.758
-6	66.88	33	10.63	72	2.439	111	0.737
-5	63.46	34	10.2	73	2.358	112	0.717
-4	60.23	35	9.779	74	2.28	113	0.697
-3	57.18	36	9.382	75	2.206	114	0.678
-2	54.31	37	9.003	76	2.133	115	0.66
-1	51.59	38	8.642	77	2.064	116	0.642
0	49.02	39	8.297	78	1.997	117	0.625
1	46.6	40	7.967	79	1.933	118	0.608
2	44.31	41	7.653	80	1.871	119	0.592
3	42.14	42	7.352	81	1.811	120	0.577
4	40.09	43	7.065	82	1.754	121	0.561
5	38.15	44	6.791	83	1.699	122	0.547
6	36.32	45	6.529	84	1.645	123	0.532
7	34.58	46	6.278	85	1.594	124	0.519
8	32.94	47	6.038	86	1.544	125	0.505
9	31.38	48	5.809	87	1.497	126	0.492
10	29.9	49	5.589	88	1.451	127	0.48
11	28.51	50	5.379	89	1.408	128	0.467
12	27.18	51	5.197	90	1.363	129	0.456
13	25.92	52	4.986	91	1.322	130	0.444
14	24.73	53	4.802	92	1.282	131	0.433
15	23.6	54	4.625	93	1.244	132	0.422
16	22.53	55	4.456	94	1.207	133	0.412
17	21.51	56	4.294	95	1.171	134	0.401
18	20.54	57	4.139	96	1.136	135	0.391
19	19.63	58	3.99	97	1.103	136	0.382

Appendix 1: Resistance Table of Ambient Temperature Sensor for Indoor and Outdoor Units(20K)

Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)
-19	181.4	20	25.01	59	5.13	98	1.427
-18	171.4	21	23.9	60	4.948	99	1.386
-17	162.1	22	22.85	61	4.773	100	1.346
-16	153.3	23	21.85	62	4.605	101	1.307
-15	145	24	20.9	63	4.443	102	1.269
-14	137.2	25	20	64	4.289	103	1.233
-13	129.9	26	19.14	65	4.14	104	1.198
-12	123	27	18.13	66	3.998	105	1.164
-11	116.5	28	17.55	67	3.861	106	1.131
-10	110.3	29	16.8	68	3.729	107	1.099
-9	104.6	30	16.1	69	3.603	108	1.069
-8	99.13	31	15.43	70	3.481	109	1.039
-7	94	32	14.79	71	3.364	110	1.01
-6	89.17	33	14.18	72	3.252	111	0.983
-5	84.61	34	13.59	73	3.144	112	0.956
-4	80.31	35	13.04	74	3.04	113	0.93
-3	76.24	36	12.51	75	2.94	114	0.904
-2	72.41	37	12	76	2.844	115	0.88
-1	68.79	38	11.52	77	2.752	116	0.856
0	65.37	39	11.06	78	2.663	117	0.833
1	62.13	40	10.62	79	2.577	118	0.811
2	59.08	41	10.2	80	2.495	119	0.77
3	56.19	42	9.803	81	2.415	120	0.769
4	53.46	43	9.42	82	2.339	121	0.746
5	50.87	44	9.054	83	2.265	122	0.729
6	48.42	45	8.705	84	2.194	123	0.71
7	46.11	46	8.37	85	2.125	124	0.692
8	43.92	47	8.051	86	2.059	125	0.674
9	41.84	48	7.745	87	1.996	126	0.658
10	39.87	49	7.453	88	1.934	127	0.64
11	38.01	50	7.173	89	1.875	128	0.623
12	36.24	51	6.905	90	1.818	129	0.607
13	34.57	52	6.648	91	1.736	130	0.592
14	32.98	53	6.403	92	1.71	131	0.577
15	31.47	54	6.167	93	1.658	132	0.563
16	30.04	55	5.942	94	1.609	133	0.549
17	28.68	56	5.726	95	1.561	134	0.535
18	27.39	57	5.519	96	1.515	135	0.521
19	26.17	58	5.32	97	1.47	136	0.509

Appendix 1: Resistance Table of Ambient Temperature Sensor for Indoor and Outdoor Units(50K)

Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)	Temp(°C)	Resistance(kΩ)
-29	853.5	10	98	49	18.34	88	4.75
-28	799.8	11	93.42	50	17.65	89	4.61
-27	750	12	89.07	51	16.99	90	4.47
-26	703.8	13	84.95	52	16.36	91	4.33
-25	660.8	14	81.05	53	15.75	92	4.20
-24	620.8	15	77.35	54	15.17	93	4.08
-23	580.6	16	73.83	55	14.62	94	3.96
-22	548.9	17	70.5	56	14.09	95	3.84
-21	516.6	18	67.34	57	13.58	96	3.73
-20	486.5	19	64.33	58	13.09	97	3.62
-19	458.3	20	61.48	59	12.62	98	3.51
-18	432	21	58.77	60	12.17	99	3.41
-17	407.4	22	56.19	61	11.74	100	3.32
-16	384.5	23	53.74	62	11.32	101	3.22
-15	362.9	24	51.41	63	10.93	102	3.13
-14	342.8	25	49.19	64	10.54	103	3.04
-13	323.9	26	47.08	65	10.18	104	2.96
-12	306.2	27	45.07	66	9.83	105	2.87
-11	289.6	28	43.16	67	9.49	106	2.79
-10	274	29	41.34	68	9.17	107	2.72
-9	259.3	30	39.61	69	8.85	108	2.64
-8	245.6	31	37.96	70	8.56	109	2.57
-7	232.6	32	36.38	71	8.27	110	2.50
-6	220.5	33	34.88	72	7.99	111	2.43
-5	209	34	33.45	73	7.73	112	2.37
-4	198.3	35	32.09	74	7.47	113	2.30
-3	199.1	36	30.79	75	7.22	114	2.24
-2	178.5	37	29.54	76	7.00	115	2.18
-1	169.5	38	28.36	77	6.76	116	2.12
0	161	39	27.23	78	6.54	117	2.07
1	153	40	26.15	79	6.33	118	2.02
2	145.4	41	25.11	80	6.13	119	1.96
3	138.3	42	24.13	81	5.93	120	1.91
4	131.5	43	23.19	82	5.75	121	1.86
5	125.1	44	22.29	83	5.57	122	1.82
6	119.1	45	21.43	84	5.39	123	1.77
7	113.4	46	20.6	85	5.22	124	1.73
8	108	47	19.81	86	5.06	125	1.68
9	102.8	48	19.06	87	4.90	126	1.64

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