



**FAN COIL UNIT
WALL MOUNTED TYPE
SERVICE MANUAL**

GREE ELECTRIC APPLIANCES INC. OF ZHUHAI





CONTENTS



PRODUCT	1
1. MODELS LIST	2
2. NOMENCLATURE OF THE UNIT	3
3. FUNCTION	4
CONTROL	6
1. OPERATION FLOWCHART	7
1.1 Cool/Dry Operation	8
1.2 Heat Operation	9
1.3 Fan Operation	10
2. MAIN LOGIC	11
2.1 Cooling Operation	11
2.2 Heating Operation	11
2.3 Dehumidifying Operation	11
2.4 Fan Operation	11
3. WIRELESS REMOTE CONTROLLER	12
3.1 ON/OFF	12
3.2 MODE	12
3.3 SLEEP	12
3.4 FAN	12
3.5 CLOCK	13
3.6 LIGHT	13
3.7 BLOW	13
3.8 TURBO	13
3.9 EMP	14
4. WIRED REMOTE CONTROLLER (This is optional)	17
4.1 Operation and Display View	17
4.2 Dimension	18
4.3 Installation	18
5. MINI CENTRALIZED CONTROLLER	19
5.1 Function	19
5.2 Operation View	20
5.3 Instruction to functions of buttons (Table 2.1)	20
5.4 Display View	21
5.5 Connection between Controller and Unit	22
INSTALLATION	24
1. INSTALLATION OF THE UNIT	25
1.1 Important Notices	25
1.2 Basic Requirements For Installation Position	25
1.3 Indoor Unit Installation Position Selection	25
1.4 Safety Requirements For Electric Appliances	25
1.5 Earthing requirements	26
2. INSTALLATION DIMENSION DIAGRAM	27

2.1	Installation dimension diagram	27
3.	INSTALL THE UNIT	28
3.1	Install the rear panel	28
3.2	Install the piping hole.....	28
3.3	Install the water drainage pipe	28
3.4	Install the unit.....	29
3.5	Install the connection pipe	29
3.6	Check after installation and test operation	29
MAINTENANCE		35
1.	TROUBLESHOOTING	37
1.1	CAUTION.....	37
2.	MAINTENANCE INSTRUCTIONS.....	38
2.1	Cleaning and Maintenance	38
2.2	Service Life	38
3.	WIRING DIAGRAM.....	40
4.	EXPLODED VIEWS AND SPARE PART LISTS.....	41

PRODUCT

1. MODELS LIST

Model	Cool Cap (Air (m ³ /h)	Power Supply (V,Ph,Hz)	Remarks
FP-34BA	2100	360	220-240V~-1Ph-50Hz	
FP-51BA	2700	550		
FP-68BA	3600	680		
FP-85BA	4200	850		
FP-51B	1500	450		
FP-85B	2500	650		
FP-34BA	2100	360		
FP-51BA	2700	550		
FP-68BA	3600	680		
FP-85BA	4200	850		
FP-34BB	2100	360		
FP-51BB	2700	550		
FP-68BB	3600	680		
FP-85BB	4200	850		
FP-34BA	2100	360		
FP-51BA	2700	550		
FP-68BA	3600	680		
FP-85BA	4200	850		

				
FP-34BA	2100	360		
FP-51BA	2700	550		
FP-68BA	3600	680		
FP-85BA	4200	850		
FP-51B	1500	450		
FP-85B	2500	650		
FP-85BA	5400	1000		
			208-230V~1Ph-60Hz	

Note:

1. The water working temperature is from 7℃(44.6℉) to 60℃(140℉).
2. The temperature exchange efficiency and enthalpy exchange efficiency are tested under these testing conditions as below:
 (1)Cooling efficiency: air 27℃(80.6℉) DB, 19.5℃(67.1℉) WB, water temperature in 7℃(44.6℉), water out 12℃(53.6℉).
 (2)Heating efficiency: air 21℃(69.8℉) DB, Water temperature: 60℃(140℉).

Note:

$$1\text{Ton} = 12000\text{Btu/h} = 3517\text{W}$$

2. NOMENCLATURE OF THE UNIT

FP	-	□	□	□	/	□	-	□
1		2	3	4		4		6

NO.	Description	Options
1	Fan coil	
2	Air flow volume	Number×10 m ³ /h
3	Structure type	mounted-B Wall; mounted with water valve-BW
4	Front panel code	One letter +one number
5	Design Sequence	Arranged by A, B,C...
6	Power code	K-220-240V~,50Hz

3. FUNCTION

Function		Fan Coil Unit Service Manual for Evaluation
For Comfortable Air Conditioning	Auto Restart	●
	Fan operation Mode	●
	Auto Swing Controller	-
	Timer Selector	●
	Auto Mode Operation	-
	Cool Mode Operation	●
	Heat Mode Operation	●
	Dry Mode Operation	●
	Fan Mode Operation	●
	Sleep mode setting	-
	Hot Start	●
	Drain Pump	-

●: Function available

- : Function unavailable

4. PRODUCT DATA

Model			FP-34BA2/A-K FP-34BA3/A-K FP-34BA4/A-K FP-34BA5/A-K FP-34BB3/A-K	FP-51BA2/A-K FP-51BA3/A-K FP-51BA4/A-K FP-51BA5/A-K FP-51BB3A-K	FP-68BA2/A-K FP-68BA3/A-K FP-68BA4/A-K FP-68BA5/A-K FP-68BB3A-K	FP-85BA2/A-K FP-85BA3/A-K FP-85BA4/A-K FP-85BA5/A-K FP-85BB3/A-K	
Air flow volume		High	m ³ /h	360	550	680	850
			CFM	212	324	400	500
		Medium	m ³ /h	322	413	591	708
			CFM	189	242	347	416
		Low	m ³ /h	282	367	532	616
			CFM	166	215	312	362
Capacity	Cooling	W	2100	2700	3600	4200	
	Heating	W	3150	4050	5400	6300	
Power system	Type	V-Ph-Hz	220-240V~~1Ph-50Hz				
	Input	W	50	50	60	60	
Water system	Water flow volume	m ³ /h	0.4	0.45	0.6	0.7	
		GPM	1.76	1.98	2.64	3.08	
	Pressure drop	kPa	13	24	44	45	
		Ft-WG	4.3	7.9	14.5	14.8	
Coil	Type		Aluminum fin-copper tube				
	Operating pressure	MPa	≤1.5MPa	≤1.5MPa	≤1.5MPa	≤1.5MPa	
Motor	Type		FN20J-PG		FN20V-PG		
	Capacitor	uF	1	1	1.5	1.5	
	Power output	W	20				
Sound pressure level		dB(A)	35	40	43	48	
Connection pipe size	Water inlet &outlet	inch	1/2"				
	Condensing water drain	mm	15.6				
Outline dimension (W × D × H)		mm	845×180×275		940×200×298		
Package dimension (W × D × H)		mm	915×255×355		1010×285×380		
Net weight		kg	11		13		
Gross weight		kg	14		17		
Loading quantity		20'GP	365		290		
		40'GP	765		595		
		40'HQ	850		671		
Standard wireless remote controller			YB1FA				

Note:

- The water working temperature is from 7℃(44.6℉) to 60℃(140℉).
- The temperature exchange efficiency and enthalpy exchange efficiency are tested under these testing conditions as below:
 - (1)Cooling efficiency: air 27℃(80.6℉) DB, 19.5℃(67.1℉) WB, water temperature in 7℃(44.6℉), water out 12℃(53.6℉).
 - (2)Heating efficiency: air 21℃(69.8℉) DB, Water temperature: 60℃(140℉).
- The operating water pressure of the models above is no more than 1.5MPa.

Model			FP-51BWA2/A-K FP-51BWA5/A-K	FP-85BWA2/A-K FP-85BWA5/A-K	
Air flow volume		High	m ³ /h	450	650
			CFM	265	382
		Medium	m ³ /h	383	560
			CFM	225	329
		Low	m ³ /h	323	490
			CFM	190	288
Capacity	Cooling	W	1500	2400	
	Heating	W	2250	3600	
Power system	Type	V-Ph-Hz	220-240V~~1Ph-50Hz		
	Input	W	50	60	
Water system	Water flow volume	m ³ /h	0.28	0.38	
		GPM	1.23	1.67	
	Pressure drop	kPa	37	60	
		Ft-WG	12.2	19.7	
Coil	Type		Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.5MPa	≤1.5MPa	
Motor	Type		FN20J-PG	FN20V-PG	
	Capacitor	uF	1	1.5	
	Power output	W	20	20	
Sound pressure level		dB(A)	42	50	
Connection pipe size	Water inlet &outlet	inch	1/2"		
	Condensing water drain	mm	15.6		
Outline dimension (W × D × H)		mm	845×180×275	940×200×298	
Package dimension (W × D × H)		mm	915×255×355	1010×285×380	
Net weight		kg	11	13	
Gross weight		kg	14	17	
Loading quantity		20'GP	365	290	
		40'GP	765	595	
		40'HQ	850	671	
Standard wireless remote controller			YB1FA		

Note:

- The water working temperature is from 7°C (44.6°F) to 60°C (140°F).
- The temperature exchange efficiency and enthalpy exchange efficiency are tested under these testing conditions as below:
 - (1)Cooling efficiency: air 27°C (80.6°F) DB, 19.5°C (67.1°F) WB, water temperature in 7°C (44.6°F), water out 12°C (53.6°F).
 - (2)Heating efficiency: air 21°C (69.8°F) DB, Water temperature: 60°C (140°F).
- The operating water pressure of the models above is no more than 0.25MPa.

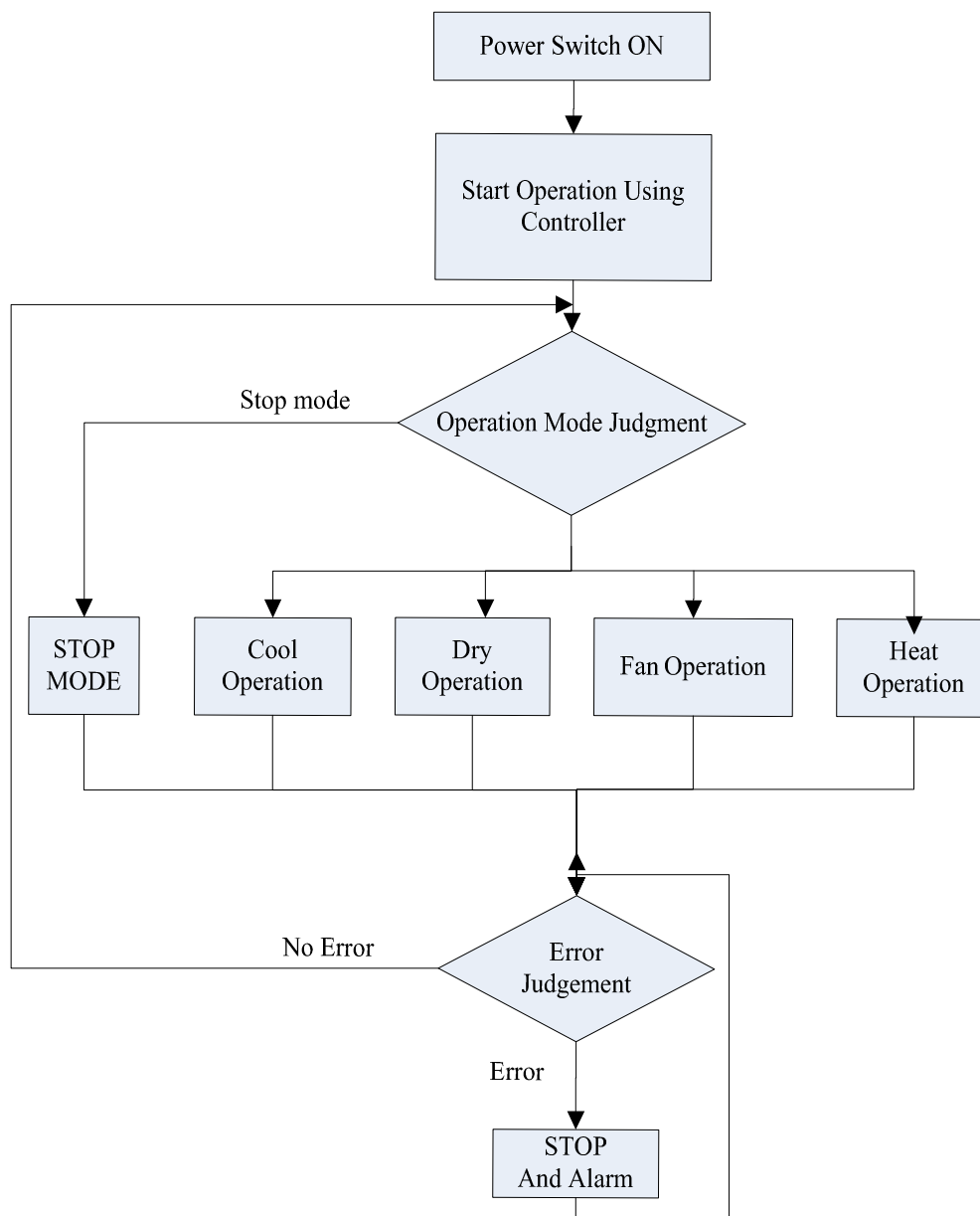
Model			FP-85BA2/A-D	
Air flow volume		High	m ³ /h	1000
			CFM	588
		Medium	m ³ /h	840
			CFM	493
		Low	m ³ /h	720
			CFM	423
Capacity	Cooling	W	5400	
	Heating	W	8500	
Power system	Type	V-Ph-Hz	208-230V~~1Ph-60Hz	
	Input	W	70	
Water system	Water flow volume	m ³ /h	0.88	
		GPM	3.87	
	Pressure drop	kPa	63	
		Ft-WG	20.7	
Coil	Type		Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.5MPa	
Motor	Type		FN20W-PG	
	Capacitor	uF	1.5	
	Power output	W	20	
Sound pressure level		dB(A)	49	
Connection pipe size	Water inlet &outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension (W × D × H)		mm	940×200×298	
Package dimension (W × D × H)		mm	1010×285×380	
Net weight		kg	13	
Gross weight		kg	17	
Loading quantity		20'GP	290	
		40'GP	595	
		40'HQ	671	
Standard wireless remote controller			YB1FA	

Note:

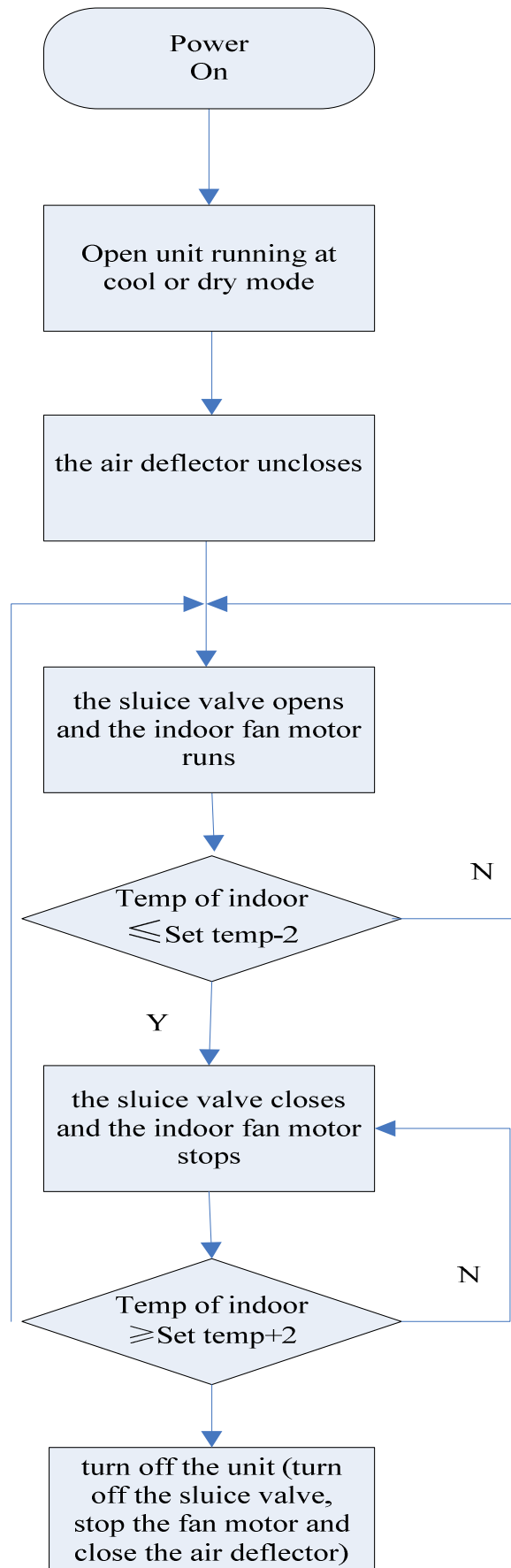
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 - (1) Cooling efficiency: air 27°C (80.6°F) DB, 19.5°C (67.1°F) WB, water temperature in 7°C (44.6°F), water out 12°C (53.6°F).
 - (2) Heating efficiency: air 21°C (69.8°F) DB, Water temperature: 60°C (140°F).
- The operating water pressure of the models above is no more than 1.5MPa.

CONTROL

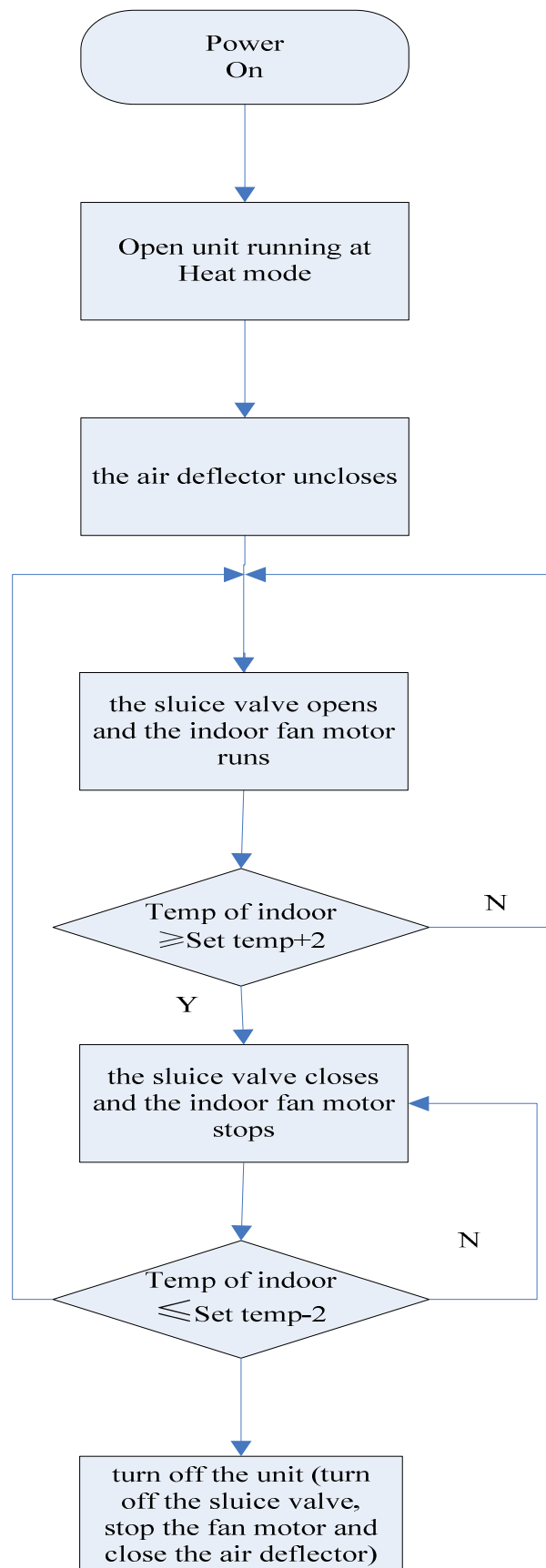
1. OPERATION FLOWCHART



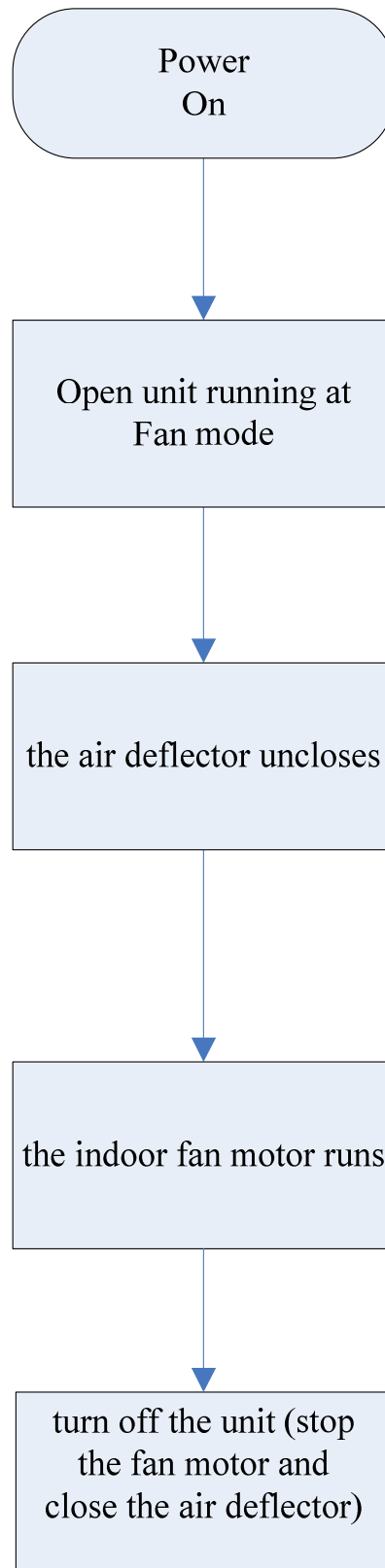
1.1 Cool/Dry Operation



1.2 Heat Operation



1.3 Fan Operation



2. MAIN LOGIC

Te——environment temperature

Ts——setting temperature

2.1 Cooling Operation

- When open unit, the sluice valve opens and the indoor fan motor runs as the way setting before.
- If set high or middle files before, until thirty seconds the unit while check the environment temperature.
- If set low file before, until thirty minutes the unit while check the environment temperature.
- When $T_e \geq T_s + 1^\circ$, in the cooling operation, When open unit, the sluice valve opens and the indoor fan motor runs as the way setting before.
- When $T_e \leq T_s$, the sluice valve closes ,then fan motor while runs 1 minute and stops 5 minutes ,until it check $T_e \geq T_s + 1^\circ$.
- When $T_s < T_e < T_s + 1^\circ$, keep the state.

Function of prevention against heat blast

In the “Cooling” mode, if surface temperature of cool water coil is detected $> 28^\circ$ for durative 5 seconds, the fan will stop; if surface cooler sensor detects $T_e \leq 25^\circ$ for durative 5 seconds, the fan, regardless what detected ambient temperature is, will operate 60 seconds at the speed at which the fan was running just before stop, and after 60 seconds, ambient temperature and surface temperature T_e of hot water coil will be detected again, then the fan will decide operation state based on the two temperatures.

2.2 Heating Operation

1. When open unit, the sluice valve opens and the indoor fan motor runs as the way setting before.
If set high or middle files before, until thirty seconds the unit while check the environment temperature.
If set low file before, until thirty minutes the unit while check the environment temperature.
2. When $T_e \leq T_s - 1^\circ$, in the heating operation, When open unit, the sluice valve opens and the indoor fan motor runs as the way setting before.
3. When $T_e \geq T_s$, the sluice valve closes ,then fan motor while runs 1 minute and stops 5 minutes ,until it check $T_e \leq T_s - 1^\circ$.
4. When $T_s - 1^\circ < T_e < T_s$, keep the state.

Function of prevention against cold blast

In the “Heating” mode, if surface temperature of hot water coil is detected $< 32^\circ$ for durative 5 seconds, the fan will stop; if surface cooler sensor detects $T_{\text{surface}} \geq 35^\circ$ for durative 5 seconds, the fan, regardless what detected ambient temperature is, will operate 60 seconds at the speed at which the fan was running just before stop, and after 60 seconds, ambient temperature and surface temperature T_e of hot water coil will be detected again, then the fan will decide operation state based on the two temperatures.

2.3 Dehumidifying Operation

1. When open unit, the indoor fan motor runs as the low files.
2. When $T_e \geq T_s + 2^\circ$, in the Dehumidifying operation, When open unit, the sluice valve opens and the indoor fan motor runs as the low files.
3. When $T_e \leq T_s - 2^\circ$, the sluice valve closes ,then fan motor while runs 1 minute and stops 5 minutes ,until it check $T_e \geq T_s + 2^\circ$.
4. When $T_s - 2^\circ < T_e < T_s + 2^\circ$, keep the state.

In dehumidifying Operation, the range of the setting temperature is from 16° to 30° .

2.4 Fan Operation

When open unit, the sluice valve opens and the indoor fan motor runs as the way setting before.

3. WIRELESS REMOTE CONTROLLER

Names and functions of wireless remote control

Note: Be sure that there are no obstructions between receiver and remote controller; Don't drop or throw the remote control; Don't let any liquid in the remote control and put the remote control directly under the sunlight or any place where it is very hot.

3.1 ON/OFF

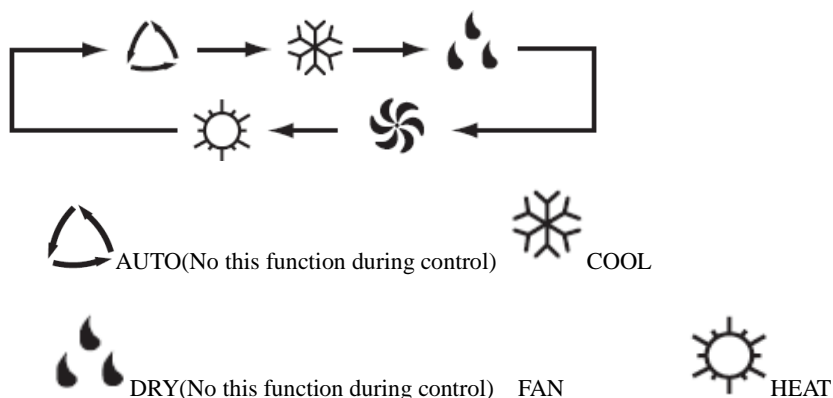
ON/OFF button

Press this button, the unit will be turned on, press it once more, the unit will be turned off. When turning on or turning off the unit, the Timer, Sleep function will be canceled, but the presetting time is still remained.

3.2 MODE

MODE button

Press this button, Auto, Cool, Fan, Heat mode can be selected circularly. Fan mode is default while power on. Under Fan mode, the temperature will not be changed, it shows 24 °(75°). Under Heat mode, the initial value is 28° (82°) ; Under other modes, the initial value is 25° 77°) .



3.3 SLEEP

SLEEP button

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

3.4 FAN

FAN button

Press this button, Auto, Low, Middle, High speed can be circularly selected. After powered on, Auto fan speed is default.





Under Dehumidify mode, Low fan speed only can be set up.



Note: Under the Dry mode, the fan speed isn't adjustable, low fan speed is imperative, but when operating this button, the wireless adjustable, low fan speed is imperative,



3.5 CLOCK

CLOCK button

Press this button, the clock can be set up, signal  blink and display. Within 5 seconds, the value can be adjusted by pressing + or - button, if continuously press this button for 2 seconds above, in every 0.5 seconds, the value on ten place of Minute will be increased 1. During blinking, repress the Clock button, signal  will be constantly displayed and it denotes the setting succeeded. After powered on, 12:00 is defaulted to display and signal  will be displayed. If there is signal  be displayed that denotes the current time value is Clock value, otherwise is Timer value.

3.6 LIGHT

LIGHT button

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

3.7 BLOW

BLOW button

Press this button, can turn on or turn off the drying. In Cool and Dehumidifying mode, this button, "BLOW" will be concealed, at this time the Blow function is turned off. After powered on, Blow OFF is defaulted. When operating the ON/OFF button, or switching mode to Cool or Dehumidifying mode, the Blow function will keep the original status. If unit is turned off, Blow OFF only can be set up and send the signal. In Auto, Fan as well as Heat mode, Blow function can not be set up and there is no "BLOW" displaying. No this function during control in this unit.


3.8 TURBO

TURBO button

In Cool or Heat mode, press this button can turn on or turn off the Turbo function. After turned on the Turbo function, its signal will be displayed. When switching the mode or changing fan speed, this function will be canceled automatically.

+

★ + button

For presetting temperature increasing. Press this button, can set up the temperature, when unit is on. Continuously press and hold this button for more than 2 seconds, the corresponding contents will be changed rapidly, until press the button  laying all along. In Auto mode, the temperature can not be set up, but operate this button can send the signal. Centigrade setting range: 16-30; Fahrenheit scale setting range 61-86.




-

★ -button

Presetting temperature can be decreased. Press this button, the temperature can be set up, continuously press this button and hold for two seconds, the relative contents can quickly change, until hold this button and send the order that the □ (□) signal will be displayed all the time. The temperature adjustment is unavailable under the Auto mode, but the order can be sent by if pressing this button.

3.9 EMP

TEMP button

After powered on, the setting temperature displaying is defaulted, (according to customers requirements to display, if there is no requirement that will default to display the presetting temperature and there is no icon displayed on wireless remote control). Press this button, (When displaying ) , will display presetting temperature; (when displaying ) will display indoor ambient temperature,  current displaying status will not be changed. If current displays indoor ambient temperature, if received the other remote control signal, it will display presetting temperature, 5s later, will back to display the ambient temperature.



3.10 SWING UP AND DOWN BUTTON

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



This is an universal use remote controller. If remote controller sends the following three kinds of status that the swing status of main unit will be:




When the guide louver start to swing up and down, if turn off the Swing, the air guide louver will stop at current position.



which indicates the guide louver swings up and down between that all five positions.

TIMER ON

a) TIMER ON BUTTON

Timer On setting: Signal “ON” will blink and display, signal  will conceal, the numerical section will become the timer on setting status. During 5 seconds blink, by pressing + or - button to adjust the time value of numerical section, every press of that button, the value will be increased or decreased 1 minute. Hold pressing + or - button, 2 seconds later, it quickly change, the way of change is: During the initial 2.5 seconds, ten numbers change in the one place of minute, then the one place is constant, ten numbers change in the tens place of minute at 2.5 seconds speed and carry. During 5s blink, press the Timer button, the timer setting succeeds. The Timer On has been set up, repress the timer On button, the Timer On will be canceled. Before setting the Timer, please adjust the Clock to the current actual time.

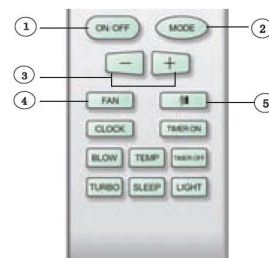
TIMER OFF

b) TIMER OFF BUTTON

Once press this key to enter into TIMER OFF setup, in which case the TIMER OFF icon will blink. The method of setting is the same as for TIMER ON. Operation of wireless remote control

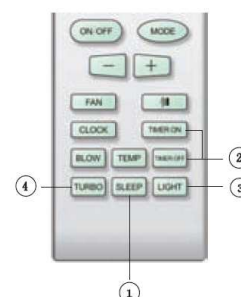
Guide for operation- General operation

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




Guide for operation- Optional operation

1. Press SLEEP button, to set sleep.
2. Press TIMER ON and TIMER OFF button, can set the scheduled timer on
3. Press LIGHT button, to control the on and off of the displaying part of the unit (This function may be not available for some units).



Operation of wireless remote control



c) About lock

Press + and - buttons simultaneously to lock or unlock the keyboard. If the remote controller is locked, the icon  will be displayed on it, in which case, press any button, the mark will flicker for three times. If the keyboard is unlocked, the mark will disappear.


d) About swing up and down

1. Press swing up and down button continuously more than 2s, the main unit will swing back and forth from up to down, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.
2. Under swing up and down mode, when the status is switched from off to , if press this button again 2s later, status will switch to off status directly; if press this button again within 2s, the change of swing status will also depend on the circulation sequence stated above.

e) About switch between Fahrenheit and Centigrade

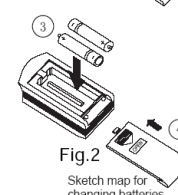
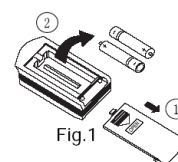
Under status of unit off, press MODE and - buttons simultaneously to switch  and .

Changing batteries and notices

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

NOTE:

1. When changing the batteries, do not use the old or different batteries, otherwise,




Sketch map for changing batteries

it can cause the malfunction of the wireless remote control.

2. If the wireless remote control will not be used for a long time, please take them out, and don't let the leakage liquid damage the wireless remote control.
3. The operation should be in its receiving range.
4. It should be placed at where is 1m away from the TV set or stereo sound sets.
5. If the wireless remote control can not operate normally, please take them out, after 30s later and reinsert, if they cannot normally run, please change them.

Displayer indicator light control of the unit

It's a special selective button for the users, who are not accustomed to the light at sleeping.

- 1) Get the displayer indicator light on: When setting the light function, the mark  will display on the remote controller screen by pressing this button. In which case, the displayer indicator light will be on if the AC receives this signal.
- 2) Get the displayer indicator light off: If cancelling the light function, the mark will disappear on the remote controller screen by pressing this button. In which case, the displayer indicator light will be off if the AC receives this signal.

Emergency operation

If the wireless remote control is lost or broken, please use the manual switch button. At this time, the unit will run at the Fan mode, but the temperature and fan speed cannot be changed. The operation was shown as below:

- 1) Turn on the unit: At unit turned off, press the button, the unit will run at Fan mode immediately. The microcomputer will accord to the indoor temperature to select (Cooling, Heating, Fan) and obtain the comfortable effect.
- 2) Turn off the unit: At unit turned on, press the button, the unit will stop working.

4. WIRED REMOTE CONTROLLER (This is optional)

4.1 Operation and Display View

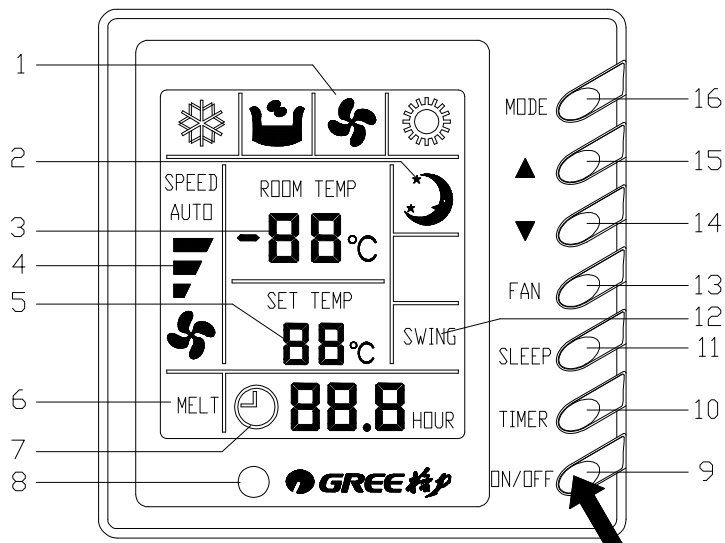


Fig.4.1

Various Components of Wired Remote Controller			
1	Operating mode display (Cool, Dry, Fan, Heat)	9	On/Off button
2	Sleep mode display	10	Timer button
3	Environmental temp. display /Malfunction display	11	Sleep button
4	Fan control display (automatic, high, media, low)	12	Swing display
5	Set Temp. display	13	Fan control button
6	Defrosting display	14	Temp./ Timer decrease button
7	Timer display	15	Temp./ Timer increase button
8	Signal receptor	16	Mode button

4.2 Dimension

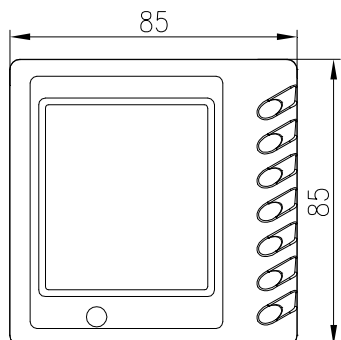
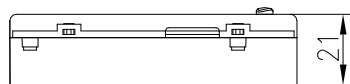


Fig.4.3.1 Overall Dimension of Wired Controller

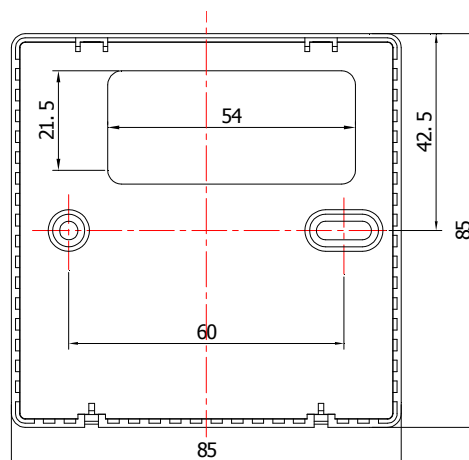


Fig.4.3.2 Installing Dimension of Wired Controller

4.3 Installation

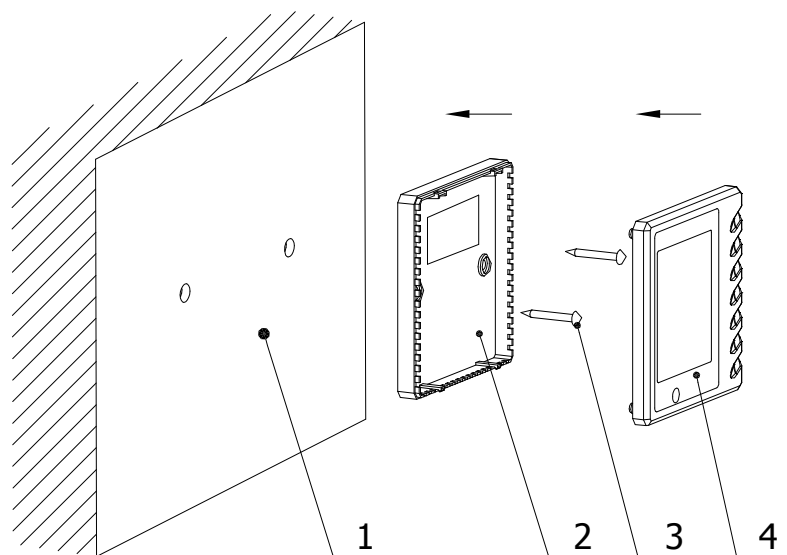


Fig.4.4 Installation of wire remote controller

SN	1	2	3	4
Name	Casing base, installed into the wall	Controller Soleplate	Screw M4X25	Controller Panel

Notice for installation under the guidance of Fig.10

1. Cut off power supply before installing the electrical components. It is forbidden to carry out the installation with power on;
2. Get one end of the 4 core communication cable; put it through the rectangular hole on the base board on the wire remote controller;
3. Hold the base board of controller on the wall, and then fix it to the wall with M4x25 screw;
4. Plug the 4 core communication cable into the slot on the wired remote controller, then fix the controller panel with base board together;

5. MINI CENTRALIZED CONTROLLER

5.1 Function

Region monitoring control and region wired control are the two main control functions for mini centralized controller (region controller).

Region monitoring controller can monitor or control 16 indoor units of a group for inquiry and single or centralized control.

Region wired controller can replace 1-16 selected wired controllers to uniformly set or control the indoor units.

Refer to Fig.1.1, Fig.1.2 about the Sketch map to the relation among the mini centralized controller (region controller), region monitoring controller and region wired controller.

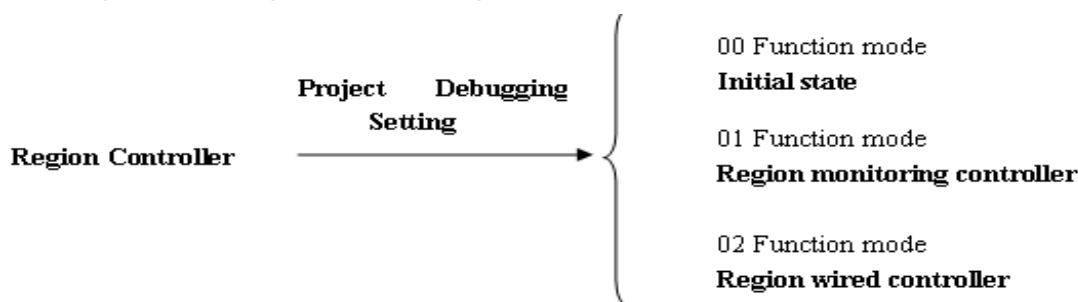


Fig.1.1

Before using, the controller functions must be selected by the personnel who perform the installation with the requirements of users. Please refer to **Project Debugging Setting** section for the details.

Note: If the controller is set to be region wired controller, the wired controller of the selected indoor unit must be removed.

The mini centralized controller (region controller) can be matched with long-distance monitor. As a region monitoring controller, its control is subject to that of the long-distance monitor. In the same group, one of the mini centralized controllers (region controllers) can be used as region monitoring controller and matches one or more region wired controller which replace(s) one or more wired controller, in which case, the region monitoring controller can also monitor or control the region wired controller.

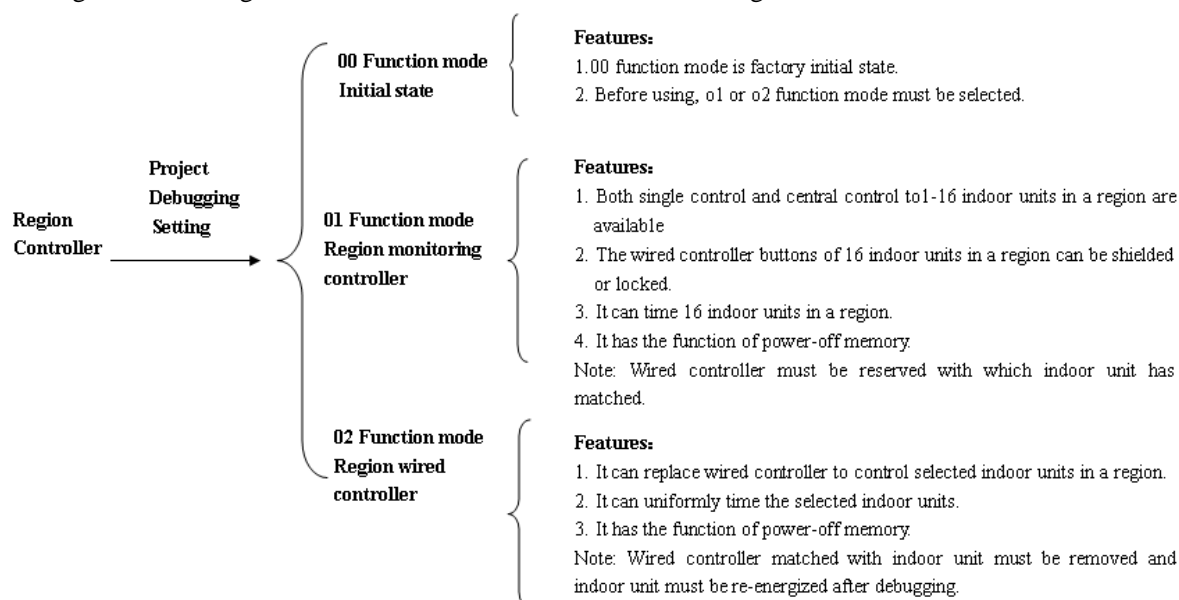
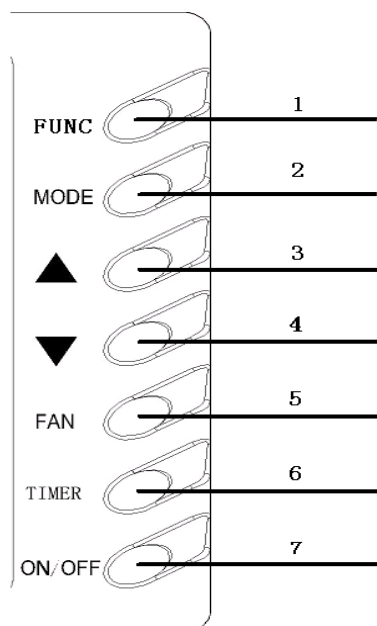


Fig.1.2 Sketch map to the relation among the mini centralized controller (region controller), region monitoring controller and region wired controller

5.2 Operation View

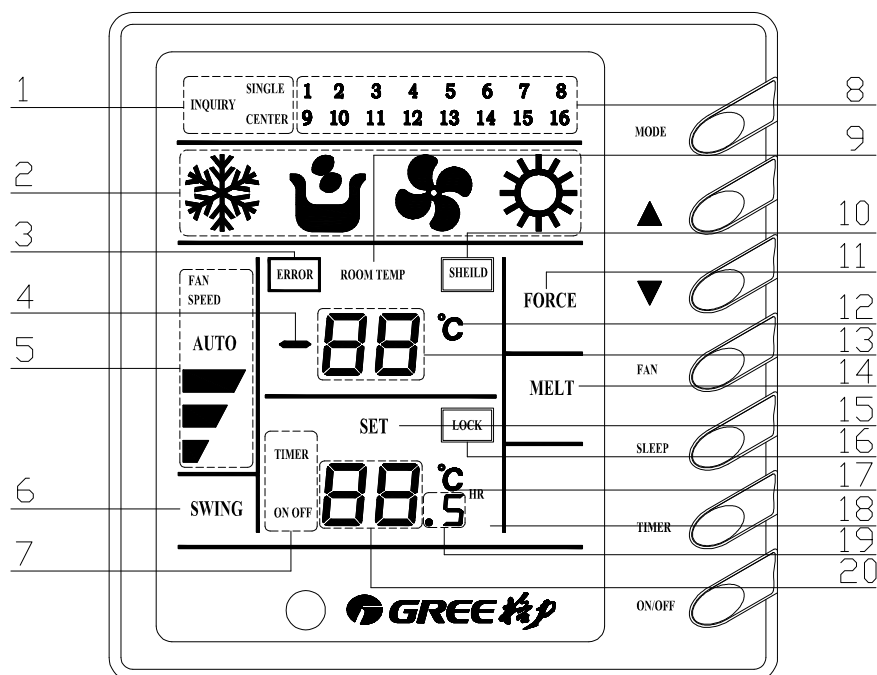


(Fig.2.2)

5.3 Instruction to functions of buttons (Table 2.1)

No.	Name	Function
1	FUNC (FUNCTION)	A. Switch the control mode of inquiry/single/ central control. B. In central control status, give the central order by successively pressing FUNC button.
2	MODE	Set cooling/heating/fan/dry mode for indoor unit
3	▲	A. Inquiry status: cycle, increase or decrease No. of indoor units to easily inquire the status of each indoor unit. B. Single/Central control status: set running temp. of indoor unit, maximum is 30℃ and minimum is 16℃. C. Timer setting status: increase or decrease the timer on/off time, maximum is 24hr and minimum is 0.
4	▼	
5	FAN	A. Set the indoor fan speed of hi/mid/low/auto. B. Successively press FAN button to set on/off swing.
6	TIMER	A. Under single/central control mode, set on /off timer of selected indoor unit B. Under inquiry status, inquire the timer setting of the indoor unit with current address.
7	ON/OFF	Set ON/OFF of the indoor unit.
2MODE and 7 ON/OFF	Lock	Under single/central control, press MODE and ON/OFF buttons simultaneously to start/ stop the lock of operation to buttons of wired controller for selected indoor units.
2 MODE and 6 TIMER	Shield mode	Under single/central control, press MODE and TIMER simultaneously to start/ stop the shield of operation to MODE button of wired controller for selected indoor unit.
4 ▼and 6 TIMER	Shielding Temp.	Under single/central control, press ▼ and TIMER simultaneously to start/ stop the shield of operation to Temp button of wired controller for selected indoor unit.
7 ON/OFF and 6 ON/OFF	Shielding ON/OFF	Under single/central control, press ON/OFF and TIMER simultaneously to start/ stop the shield of operation to ON/OFF button of wired controller for selected indoor unit.
2 MODE and 3 ▲	Memory mode	Refer to power-off memory function about the details.
4 ▼and 7 ON/OFF	Selection of function	A. Check the control mode of region monitoring controller / region wired controller B. Set the control mode of region monitoring controller / region wired controller
Note: 1. The characters with gray back ground indicate buttons. Following part is the same to it. 2. The time of single press of the button is more than 3s, which means successively-press. 3. There isn't the function that the region wired controller shields other indoor wired controller.		

5.4 Display View



(Fig.2.3)

No.	Display name	Instruction to display
1	Control mode	Inquiry state, "INQUIRY" is displayed. Single control state, "SINGLE" is displayed. Centralized control state, "CENTER" is displayed.
2	Running mode	Each indoor unit running mode is displayed.
3	Error	"ERROR" is displayed during any malfunction to indoor or outdoor unit in a group.
4	—	"—" is displayed when there is no malfunction to selected indoor unit and the ambient temp. is below zero.
5	Fan speed display	Hi, mid, low or auto speed of indoor fan is displayed.
6	Swing	Swing running of indoor unit is displayed.
7	Timer	"TIMER ON/OFF" is displayed when setting timer or inquiring timer state.
8	No. of indoor unit	Under inquiry state, No. of online indoor units are displayed and No. of selected indoor unit will blink. Under single control state, only No. of selected indoor unit is displayed. Under centralized state, No. of all online indoor units are displayed.
9	Room temp.	"ROOMTEMP" is displayed for no malfunction, but isn't for malfunction.
10	Shield	Centralized controller A. Under inquiry state, "SHIELD" will be displayed when selected indoor unit is shielded. B. Under control state, "SHIELD" will be displayed during setting or giving the shield order. Region wired controller: "SHIELD" will be displayed when selected units are shielded during long-distance monitoring.

11	Force	“FORCE” is displayed when indoor unit is forced to run.
12	□ (room temp.)	“□” is displayed when there is no malfunction.
13	Room temp. or error code	Room temp. value is displayed during no malfunction to selected indoor or outdoor unit. Error code is displayed during malfunction to selected indoor or outdoor unit.
14	Melt	“Melt” is displayed during defrosting.
15	Lock	Region monitoring controller A: Inquiry state: “LOCK” is displayed when selected indoor unit is locked. B: Control state: “LOCK” is displayed during setting or giving the lock order. Region wired controller: “LOCK” is displayed when selected unit is locked in long-distance monitoring.
16	Set	“SET” blinks when the unit is on and commanded. “SET” is displayed when the unit is on without command.
17	□ (set temp.)	Set temp. value is displayed when the selected indoor unit is on and not in timer inquiry or setting status.
18	HR (hour)	“HR” is displayed during timer inquiry or setting.
19	.5	“.5” is displayed when the timer time value includes 0.5 hr and the unit is during timer inquiry or setting.
20	Setting temp. and timer time	During timer inquiry, integer of setting time of timer is displayed. During timer setting, integer of setting time of timer is displayed. Set temp. value is displayed when the unit is not during timer inquiry or setting.
Note: 1. Contents in the double quotation marks indicate the display in LCD. Following part is the same to it. 2. Online indoor units to Mini Centralized Controller indicate that in a region. Following part is the same to it. 3. No signal control function for region wired controller, and “SINGLE” won’t be displayed either.		

5.5 Connection between Controller and Unit

Insert the 4-core twisted pair line to wired controller, if which is with the indoor unit, into mini centralized controller (region controller) wiring terminal CN1 (or CN2), and then connect the other wiring terminal CN2 (or CN1) with the main board of indoor unit.

If there is no wired controller with indoor unit, introduce a 4-core twisted pair line to indoor unit main board and connect it with mini centralized controller (region controller) wiring terminal CN1 (or CN2).

Note: Any main board of the indoor unit controlled by the mini centralized controller (region controller) can be connected. If the mini centralized controller (region controller) is used as a region wired controller, wired controller with the indoor unit must be removed.

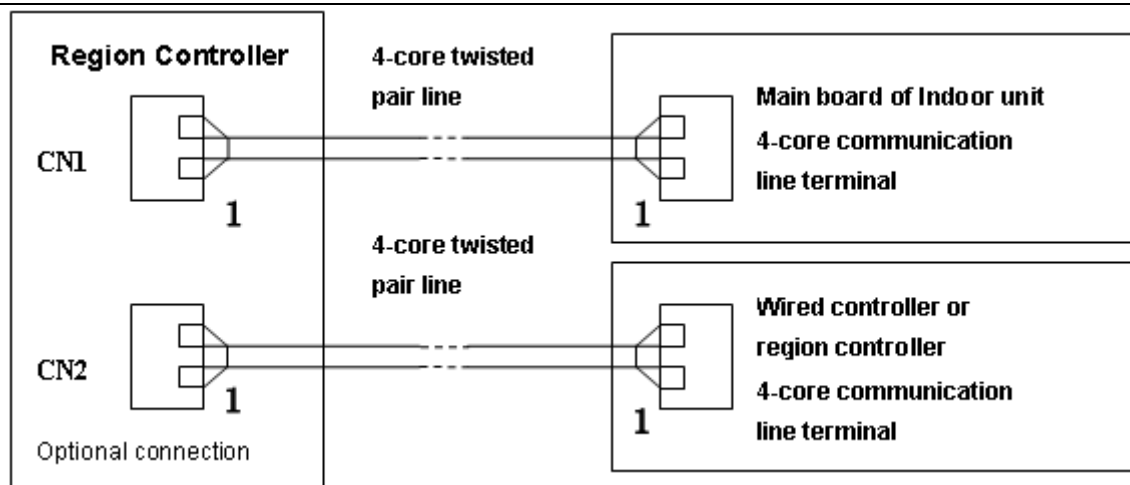


Fig2.1 Power cords and communication lines for mini centralized controller (region controller)

Before installation and connection, make sure the power supply is off. After installation and connection, check the connection result again to prevent loose or short.

There are 4 connection lines (included in the 4-core twisted pair line) to the controller, from CN1 or the upper and right CN2 to the upper they respectively are: Ground line (GND), communication line A (A), communication line B(B) and power cord (+12 v).



Note:

During following connection of wirings, pay special attention to them to avoid malfunction of units for electromagnetic interference.

1. Keep the signal lines or wirings (communication) of mini centralized controller (region controller) or wired controller at least 20 cm from the power cords or connecting lines between indoors and outdoors to prevent abnormal communication.

2. Shielding twisted pair line must be adopted as signal line or wiring (communication) once the unit is installed in the place where there is serious electromagnetic interfere.

INSTALLATION

1. INSTALLATION OF THE UNIT

1.1 Important Notices

1. The unit installation work must be done by qualified personnel according to the local rules and this manual.
2. Before installing, please contact with local authorized maintenance center, if unit is not installed by the authorized maintenance center, the malfunction may not be solved, due to discommodious contacts.
3. When removing the unit to the other place, please firstly contact with the authorized Maintenance Center in the local area.

1.2 Basic Requirements For Installation Position

Install in the following place may cause malfunction. If it is unavoidable contact with service center please:

1. Place where strong heat sources, vapors, flammable gas or volatile object are emitted.
2. Place where high-frequency waves are generated by radio equipment, welders and medical equipment.
3. Place where a lot of salinities such as coast exists.
4. Place where the oil (machine oil) is contained in the air.
5. Place where a sulfured gas such as the hot spring zones is generated.
6. Other place with special circumstance.

1.3 Indoor Unit Installation Position Selection

1. The air inlet and outlet vent should be far away from the obstruction.
2. Select a position where the condensing water can be easily drained out.
3. Select a location where the children can not reach.
4. Select the place that is strong enough to withstand the full weight and vibration of the unit. And will not increase the noise.
5. Be sure to leave enough space to allow access for routine maintenance. The height of the installed location should be 250cm or more from the floor.
6. Select a place about 1m or more away from TV set or any other electric appliances.
7. Select a place where the filter can be easily taken out.
8. Make sure that the unit installation should accord with installation dimension diagram requirements.
9. Do not use the unit in the immediate surroundings of a laundry a bath a shower or a swimming pool.

1.4 Safety Requirements For Electric Appliances

1. The power supply should be used the rated voltage and AC exclusive circuit, the power cable diameter should be satisfied.
2. Don't drag the power cable emphatically.
3. It should be reliably earthed, and it should be connected to the special earth device, the installation work should be operated by the professional.
The air switch must have the functions of magnetic tripping and heat tripping, in order to protect the short circuit and overloading.
4. The min. distance from the unit and combustive surface is 1.5m.
5. The appliance shall be installed in accordance with national wiring regulations.
6. An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.

Note:

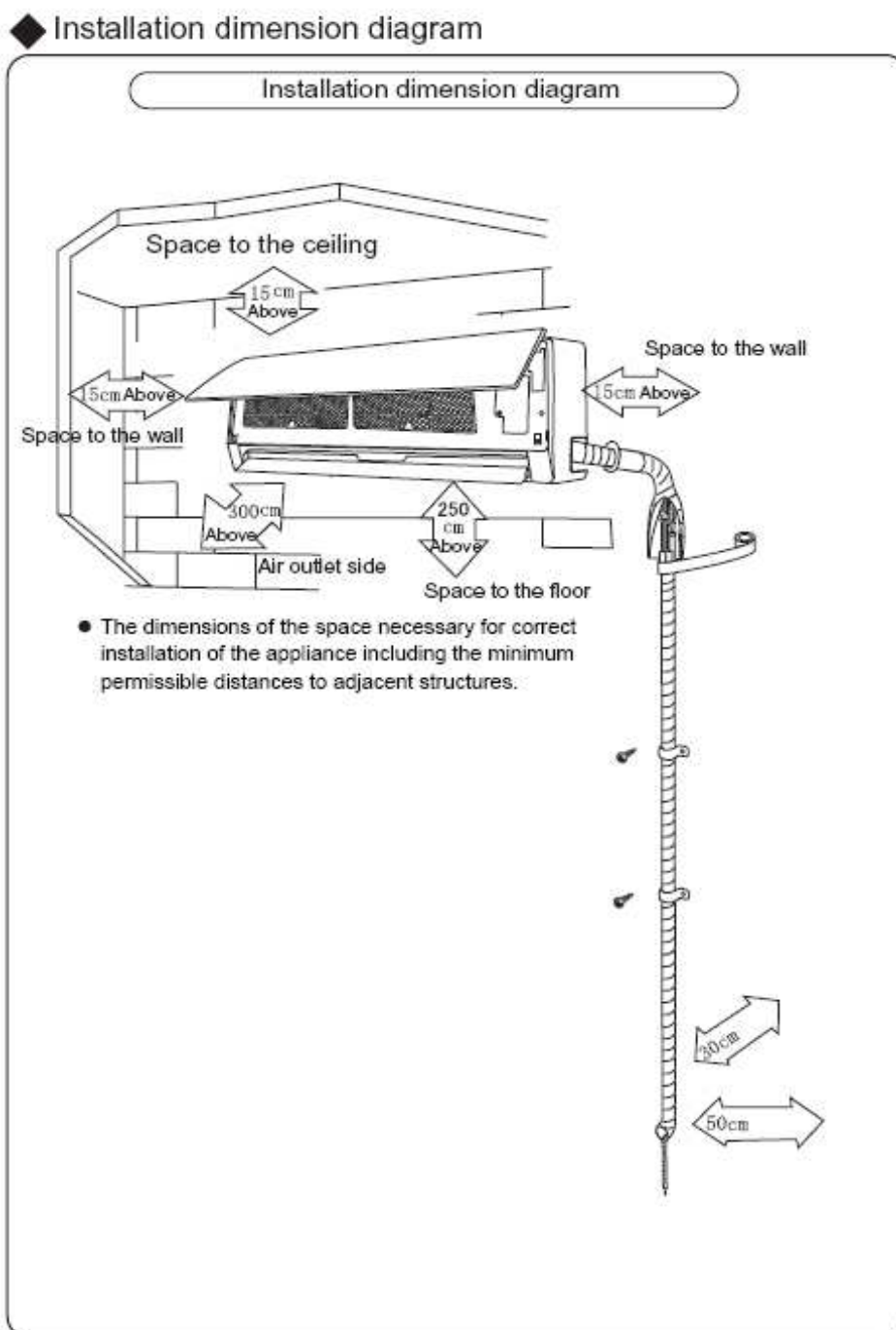
- ★ Make sure that the Live wire or Zero line as well as the earth wire in the family power socket can not be wrong connected, there should be reliable and no short circuit in the diagram.
- ★ Wrong connection may cause fire.

1.5 Earthing requirements

1. Air conditioner is type I electric appliance, thus please do conduct reliable earthing measure.
2. The yellow-green two-color wire in air conditioner is earthing wire and cannot be used for other propose. It cannot be cut off and be fix it by screw, otherwise it would cause electric shock.
3. The earth resistance should accord to the National Criterion.
4. The user power must offer the reliable earthing terminal. Please don't connect the earthing wire with the following place:
 - ☐ Tap water pipe. ☐ Gas pipe. ☐ Contamination pipe.
 - ☐ Other places that professional personnel consider them unreliable.
5. The model and rating values for fuses according the silk print on fuse cover or related PCB board.

2. INSTALLATION DIMENSION DIAGRAM

2.1 Installation dimension diagram



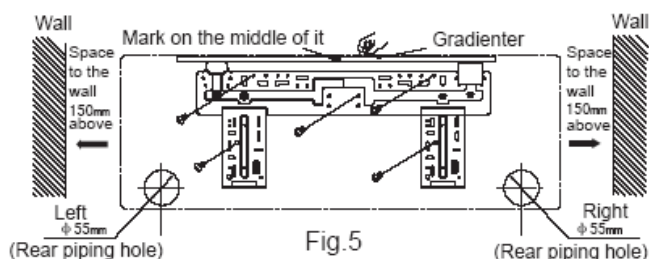
3. INSTALL THE UNIT

3.1 Install the rear panel

1. Always mount the rear panel horizontally. Due to the water tray of indoor unit has been adopted the both-way drainage design, the outlet of water tray should be adjusted slightly down when installing, that is taking the outlet of the water tray as the center of a circle, the included angle between the evaporator and level should be 0 or more, that is good for condensing water drainage.

2. Fix the rear panel on the wall with screws. (Where is pre-covered with plastic granula)

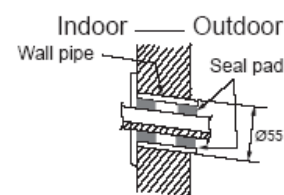
3. Be sure that the rear panel has been fixed firmly enough to withstand the weight of an adult of 60kg, further more, the weight should be evenly shared by each screw.



3.2 Install the piping hole

4. Make the piping hole ($\Phi 55$) in the wall at a slight downward slant to the outdoor side.

5. Insert the piping-hole sleeve into the hole to prevent the connection piping and wiring from being damaged when passing through the hole.

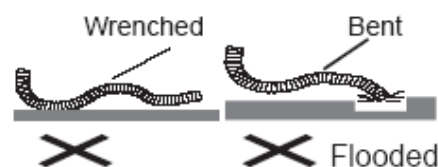


3.3 Install the water drainage pipe

1. For well draining, the drain hose should be placed at a downward slant.

2. Do not wrench or bend the drain hose or flood its end by water.

3. When the long drainage hose passing through indoor, should wrap the insulation materials.



Note:

When connecting the electric wire if the wire length is not enough, please contact with the authorized service shop to buy a exclusive electric wire that is long enough and the joint on the wire are not allowed.

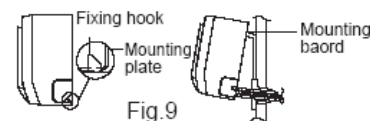
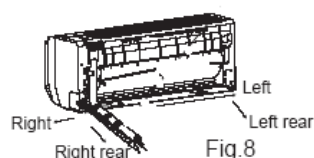
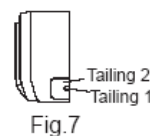
- The electric wiring must be correctly connected, wrong connection may cause spare parts malfunction.

- Tighten the terminal screw in order to prevent loose.

- After tighten the screw, slight pull the wire and confirm whether is it firm or not.

- If the earth wire is wrong connection, that may cause electric shock.

- The cover plate must be fixed, and tighten the connection wire, if it is poor installed, that the dust, moisture may enter in or the connection terminal will be affected by outside force, and will cause fire or electric shock.



3.4 Install the unit

- The piping can be lead out from right, right rear, left ,left rear.

1. When routing the piping and wiring from the left or right side of indoor unit, cut off the tailings from the chassis in necessary(Show in Fig.7)

□Cut off the tailings 1 when routing the wiring only;

□Cut off the tailings 1 and tailings 2 when routing both the wiring and piping.

2. Take out the piping from body case, wrap the piping electric wire, water pipe with tape and pull them through the piping hole (As show in Fig.8)

3. Hang the mounting slots of the unit on the upper tabs of the rear panel and check if it is firm enough.(As show in Fig.9)

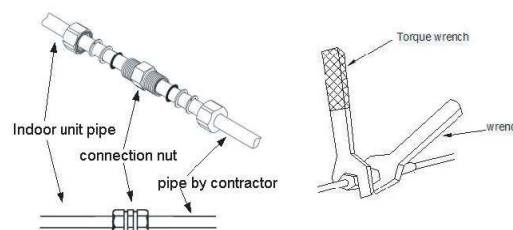
4. The height of the installed location should be 2.5 m or more from the floor.

3.5 Install the connection pipe

1. Align the center of the piping flare with the relevant valve.

2. Screw in the flare nut by hand and then tighten the nut with spanner and torque wrench refer to the following:

Hex nut diameter	Tightening torque (N·m)
Φ6	15~20
Φ 9.52	31~35
Φ 12	50~55
Φ 16	60~65
Φ 19	70~75



3.6 Check after installation and test operation

3.6.1 Check after installation

Items to be checked	Possible malfunction
Has it been fixed firmly?	The unit may drop, shake or emit noise.
Is heat insulation sufficient?	It may cause condensation and dripping.
Is water drainage well?	It may cause condensation and dripping.
Is the voltage in accordance with the rated voltage marked on the nameplate?	It may cause electric malfunction or damage the part.
Is the electric wiring and piping connection installed correctly and securely?	It may cause electric malfunction or damage the part.
Has the unit been connected to a secure earth connection?	It may cause electrical leakage.
Is the power cord specified?	It may cause electric malfunction or damage the part.
Is the inlet and outlet been covered?	It may cause insufficient cooling(heating) capacity.

3.6.2 Test Operation

1. Before test operation

(1)Do not switch on power before installation is finished completely.

(2)Electric wiring must be connected correctly and securely.

(3)All the impurities such as scraps and thrums must be cleared from the unit.

2. Test operation method

(1)Switch on power, press "ON/OFF" button on the wireless remote control to start the operation.

(2) Press MODE button, to select the COOL, HEAT, FAN to check whether the operation is normal or not.

MAINTENANC

1. TROUBLESHOOTING

1.1 CAUTION

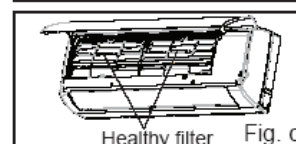
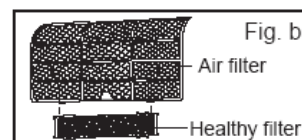
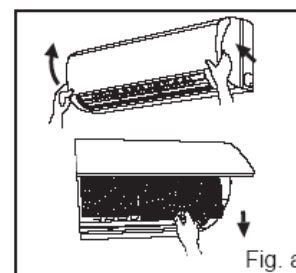
Don't attempt to repair the air conditioner by yourself. It can cause an electric shock or fire. Please check the following items before asking for repair, it can save your time and money.

Phenomenon	Troubleshooting
Not operate immediately when the air conditioner is restarted.	Once the air conditioner is stopped, it will not operate in approximately 3minutes to protect itself
There's unusual smell blowing from the outlet after operation is started.	The unit has no peculiar smell by itself. If has, that is due to the smell accumulated in the ambient. Solution method: Cleaning the filter. If problem still has, so need to clean air conditioner. (Please contact with the authorized maintenance center.)
Sound of water flow can be heard during the operation.	The sound is due to water flowing they are not malfunctions.
In COOL mode, sometimes the mist emitted from the air outlet vent.	When the indoor temperature and humidity are very high, this phenomenon would happen. This is caused by the room air is swiftly cooled down. After running for a while, indoor temperature and humidity will fall down, the mist will die away.
Creaking noise can be heard when start or stop the unit.	This is caused by the deformation of plastic due to the changes of temperature.
The unit can not run.	Has the power been shut down? Is power plug loosed? Is the circuit protection device tripped off or not? Is voltage higher or lower? (Tested by professionals) Is the TIMER correctly used?
Cooling(Heating) efficiency is not good.	Is Temp setting suitable? Were inlet and outlet vents obstructed? Is filter dirty? Are the windows and doors clothed? Did Fan speed set at low speed? Is there any heat sources in the room?
Wireless remote control is not available.	The unit is interfered by abnormal or frequent functions switchover occasionally the controller cannot operate. At this time, you need to pull out of the plug, and reinsert it. Is it in its receiving range? Or obstructed? To check the voltage in wireless remote control inside is charged, otherwise to replace the batteries. Whether the wireless remote control is damaged.
If water leakage in the room.	The air humidity is on the high side. Condensing water over flowed. The connection position of indoor unit drainage pipe is loosed
Indoor unit cannot deliver air.	In HEAT mode, when the temperature of indoor heat exchanger is very low, that will stop deliver air in order to prevent cool air. (Within 2min) In COOL mode, when the temperature of indoor heat exchanger is very high, that will stop deliver air in order to prevent heat air. (Within 2min)
Moisture on air outlet vent.	If unit is running under the high humidity for a long time, the moisture will be condensed on the air outlet grill and drip off.
Cooling LED blinks, display F0	F0: Ambient temperature sensor is open or short-circuit. Please cut off power at first and then check whether the wires of ambient temperature sensor have been disconnected with the main board. If there are disconnected, please insert the ambient temperature sensor and then check whether it can run normally after power on. If it still can't run normally; please replace the ambient temperature sensor.
Cooling LED blinks, display F1	F1: Aluminum fin-copper tube temperature sensor is open or short-circuit. Please cut off power at first and then check whether the wires of tube temperature sensor have been disconnected with the main board. If there are disconnected, please insert the tube temperature sensor and then check whether it can run normally after power on. If it still can't run normally, please replace the tube temperature sensor.
Running LED blinks, displays C5	C5: Malfunction protection of the jumper cap. Please cut off power at first and then check whether the cap jumper has been inserted well.
Running LED blinks, displays H6	H6: No motor feed back. Please cut off power at first and then restart the unit to check whether it can run normally or not.

- ★ Immediately stop all operations and plug out, contact the dealer in following situations.
- ★ There is harsh sound during operation.
- ★ The terrible odors emitted during operation.
- ★ Water is leaking in the room.
- ★ Air switch or protection switch often breaks.
- ★ Carelessly splash water or something into the unit.
- ★ There is an abnormal heat in power supply cord and power plug.

2. MAINTENANCE INSTRUCTIONS

- ★ Forcibly pull the panel for a specific angle from the two ends of the front panel according to the arrow direction. Then pull the air filter downwards to remove it. (See Fig. a)
- ★ Mount the healthy filter onto the air filter,(as shown in Fig. b). If the air filter cannot be installed, please mount the healthy filter on the front case. (as shown in Fig. c)
- ★ Mount the air filter properly along the arrow direction in Fig. d, and then close the panel cover.



2.1 Cleaning and Maintenance

Take out the healthy filter before cleaning and reinstall it after cleaning according to the installation instruction. Pay special attention to that silver ion filter can't be cleaned with water, while active carbon, photocatalyst, low temperature conversion (LTC) catalyst, formaldehyde eliminator, catechin or mite killing filter can, but can't with brush or hard things. Dry it in the shade or sun after cleaning, but not by wiping.

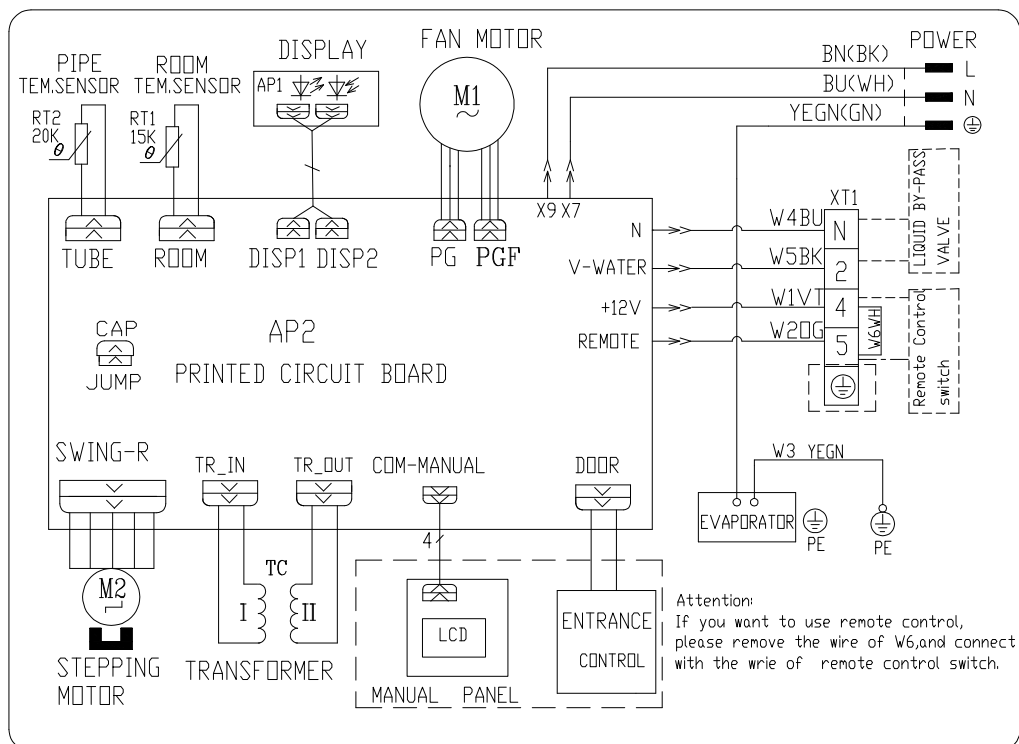
2.2 Service Life

The healthy filter commonly has its usage lifetime for one year under normal condition. As for silver ion filter, it is invalid when its surface becomes black (green).

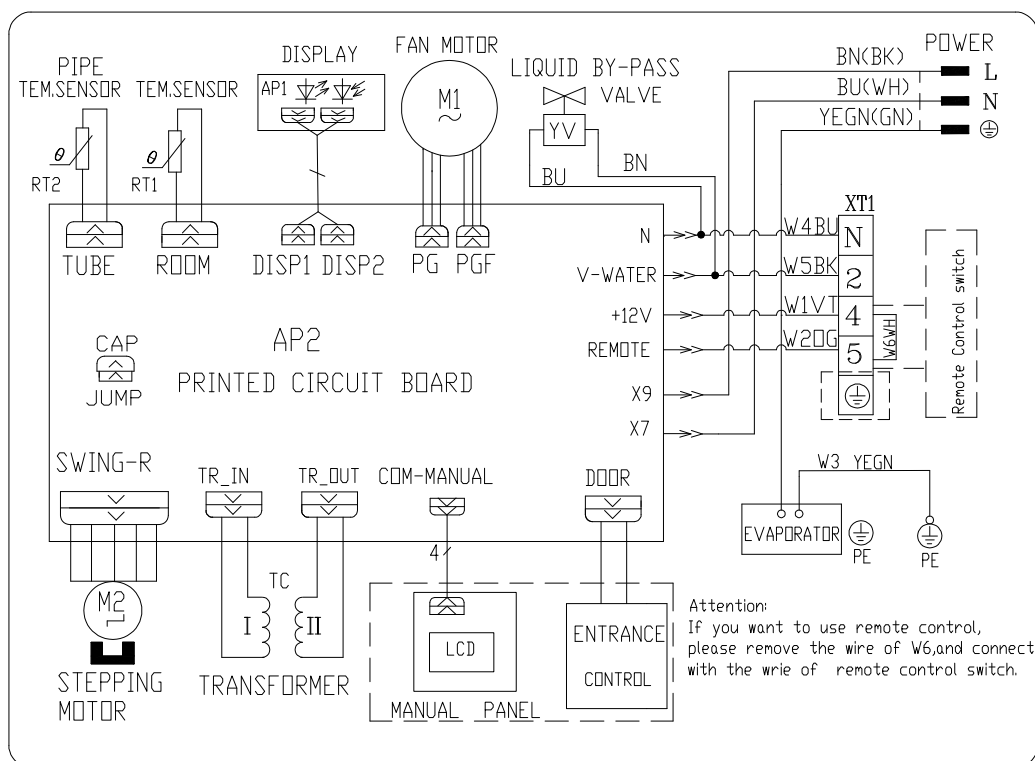
This supplementary instruction is provided for reference to the unit with healthy filter. If the graphics provided herein is different from the physical goods, the latter one shall prevail. The quantity of healthy filters shall be based on the actual delivery.

3. WIRING DIAGRAM

Model: FP-34BA2/A-K、FP-51BA2/A-K、FP-68BA2/A-K、FP-85BA2/A-K
 FP-34BA3/A-K、FP-51BA3/A-K、FP-68BA3/A-K、FP-85BA3/A-K
 FP-34BB3/A-K、FP-51BB3/A-K、FP-68BB3/A-K、FP-85BB3/A-K
 FP-34BA4/A-K、FP-51BA4/A-K、FP-68BA4/A-K、FP-85BA4/A-K
 FP-34BA5/A-K、FP-51BA5/A-K、FP-68BA5/A-K、FP-85BA5/A-K



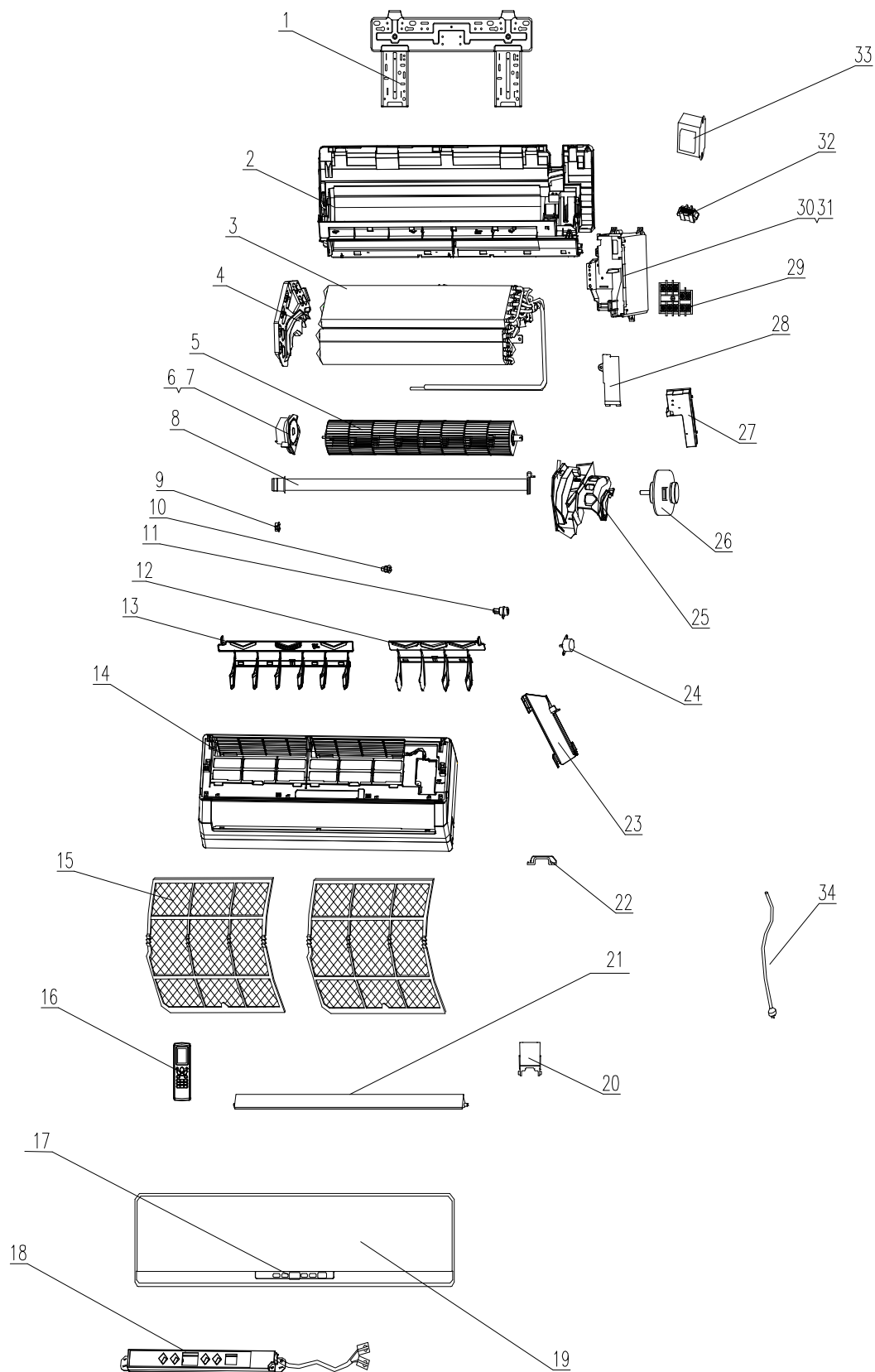
Model: FP-51BWA2/A-K、FP-85BWA2/A-K、FP-51BWA5A-K、FP-85BWA5A-K



4. EXPLODED VIEWS AND SPARE PART LISTS

Model: FP-34BA2/A-K; FP-51BA2/A-K; FP-34BA3/A-K; FP-51BA3/A-K; FP-34BA4/A-K; FP-51BA4/A-K;
FP-34BA5/A-K; FP-51BA5/A-K; FP-34BB3/A-K; FP-51BB3/A-K

Exploded Views:

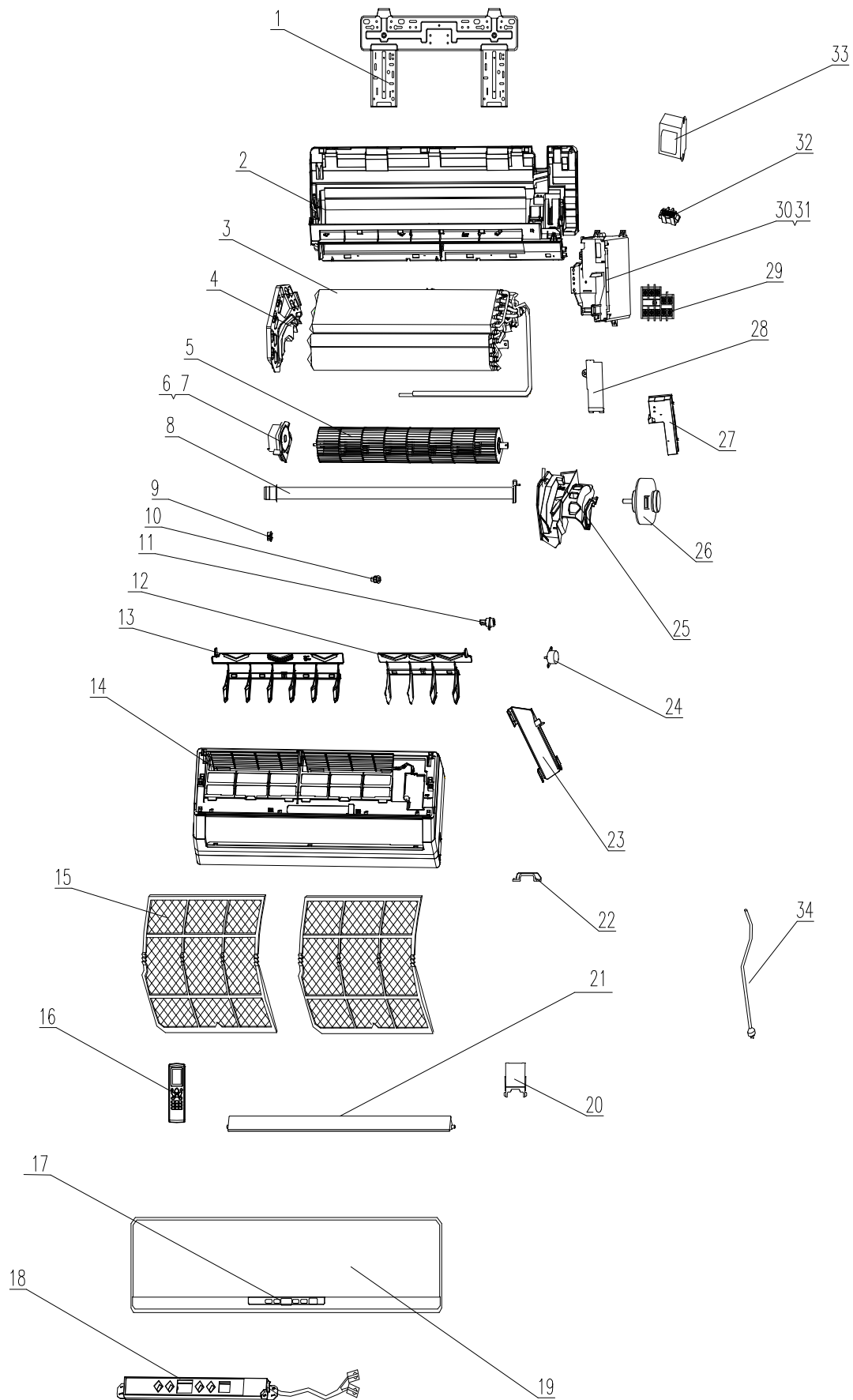


Parts List:

No.	Name of part	Part code	Quantity	No.	Name of part	Part code	Quantity
1	Wall-Mounting Frame	01252021	1	18	Display Board	30565056 ① ②	1
						30565007 ③ ④	
						30565012 ⑤ ⑥	
						30565026 ⑦ ⑧	
						30565037 □ ○,10	
2	Rear Case	2220245401	1	19	Front Panel	20012150S ① ②`	1
						20012122S ③ ④	
						20012153S ⑤ ⑥	
						20012199S ⑦ ⑧	
						20012202 □ ○,10	
3	Evaporator Assy	01126406	1	20	Screw Cover	24252016	1
4	Evaporator Support	24212091	1	21	Guide Louver	10512157	1
5	Cross Flow Fan	10352017	1	22	Wire Clamp	71010003	1
6	Ring of Bearing	26152022	1	23	Rear Clamp	26112164	1
7	Bearing cushion rubber base	76512203	1	24	Motor MP24AA	1521210801	1
8	Volute tongue	26112163	1	25	Motor Clamp	26112161	1
9	Left Axile Bush	10512037	1	26	Motor FN20J-PG	150120874	1
10	Crank	10582070	1	27	Electric Box Cover 1	20122103	1
11	Axile Bush	10542008	1	28	Covering Plate2	20122075	1
12	Swing Louver1	10512156	1	29	Terminal Board	42010262	1
13	Swing Louver2	10512155	1	30	Electric Box	20112082	1
14	Front Case	20012123	1	31	Main PCB Z5P251A	30225043	1
15	Filter	1112220401	2	32	Jumping Connector	4202300117 ① ③,⑤ ⑦ □	1
16	Remote Control YB1FA	30510041	1			4202300125 ② ④ ⑥ ⑧ ○,10	
17	Decorate Piece	20192265 ① ②	1	33	Transformer 48X26G	43110233	1
		22432230 ③ ④					
		2019223601 ⑤ ⑥					
		20192247 ⑦ ⑧					
		27219900310 □ ○,10					
				34	Power Cable	400220112	1

Note: ① is part of FP-34BA2/A-K
 ② is part of FP-51BA2/A-K
 ③ is part of FP-34BA3/A-K .
 ④ is part of FP-51BA3/A-K
 ⑤ is part of FP-34BA4/A-K
 ⑥ is part of FP-51BA4/A-K
 ⑦ is part of FP-34BA5/A-K
 ⑧ is part of FP-51BA5/A-K
 □ is part of FP-34BB3/A-K、
 ○,10 is part of FP-51BB3/A-K

Model:FP-51BWA2/A-K; Model:FP-51BWA5/A-K;
Exploded Views:



Parts List:

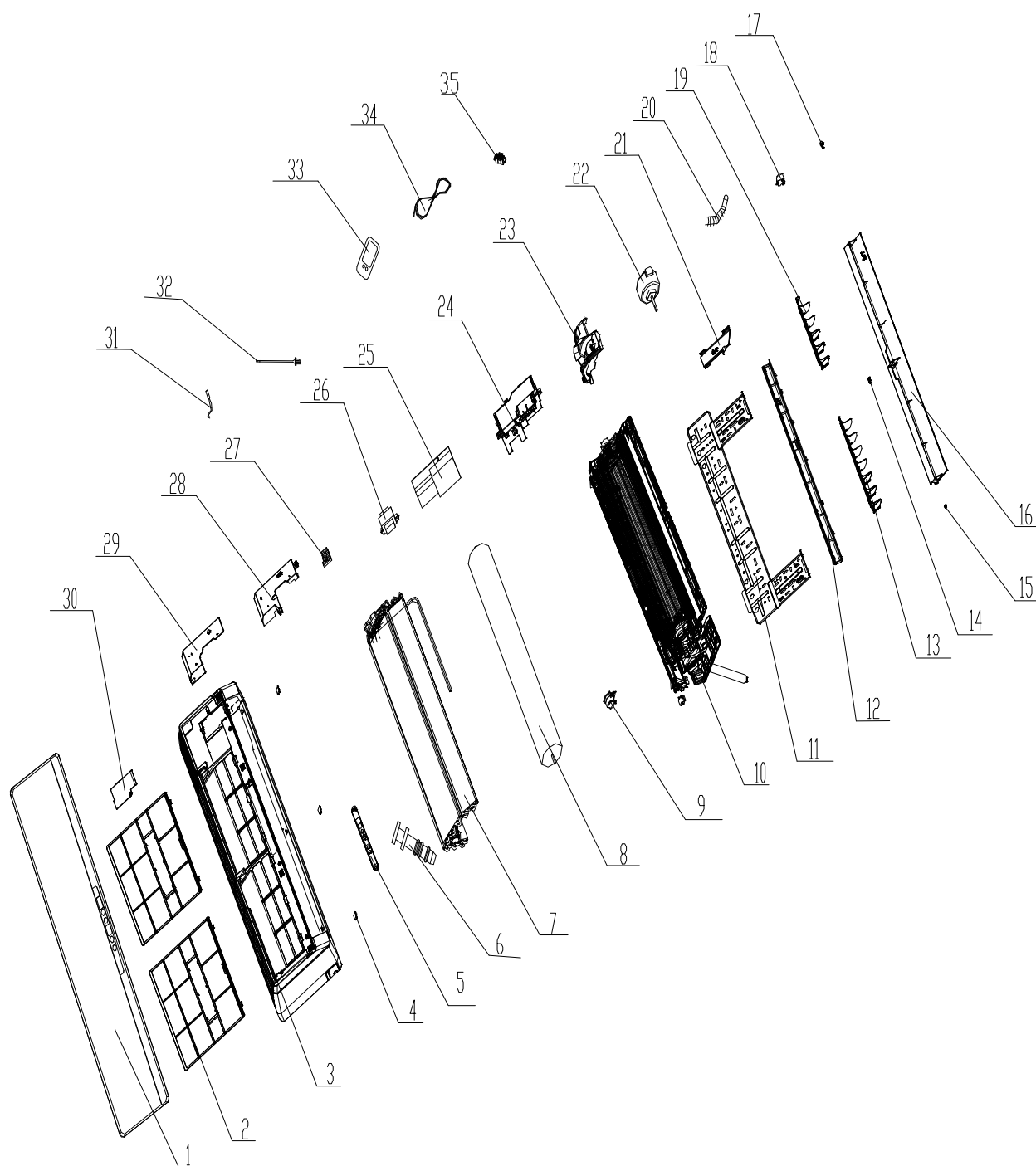
No.	Name of part	Part code	Quantity	No.	Name of part	Part code	Quantity
1	Wall-Mounting Frame	01252013 □	1	19	Front Panel	20012150S	1
		01252021 □					
2	Rear Case	2220245401	1	20	Screw Cover	24252016	1
3	Sufer Cooler Assy	1126406	1	21	Guide Louver	10512157	1
4	Evaporator Support	24212091	1	22	Wire Clamp	71010003	1
5	Cross Flow Fan	10352017	1	23	Rear Clamp	26112164	1
6	Ring of Bearing	26152022	1	24	Motor MP24AA	1521210801	1
7	Bearing cushion rubber base	76512203	1	25	Motor Clamp	26112161	1
8	Volute tongue	26112163	1	26	Motor FN20J-PG	150120874	1
9	Left Axile Bush	10512037	1	27	Electric Box Cover 1	20122103	1
10	Crank	10582070	1	28	Covering Plate2	20122075	1
11	Axile Bush	10542008	1	29	Terminal Board	42010262	1
12	Swing Louver1	10512156	1	30	Electric Box	20112082	1
13	Swing Louver2	10512155	1	31	Main PCB Z5P251A	30225043	1
14	Front Case	20012123	1	32	Jumping Connector	4202300129	1
15	Filter	1112220401	2	33	Transformer 48X26G	43110233	1
16	Remote Control YB1FA	30510041	1	34	Power Cable	400220112	1
17	Decorate Piece	20192265 □	1				
		20192247 □					
18	Receiver Board	30565056 □	1				
		30565026 □					

Note: □ is part of FP-51BWA2/A-K only

□ is part of FP-51BWA5/A-K only

Model:FP-68BA2/A-K; FP-85BA2/A-K; FP-68BA3/A-K; FP-85BA3/A-K; FP-68BA4/A-K; FP-85BA4/A-K;
FP-68BA5/A-K; FP-85BA5/A-K; FP-85BA2/A-D; FP-68BB3/A-K; FP-85BB3/A-K

Exploded Views:



Parts List:

No.	Name of part	Part code	Quantity	No.	Name of part	Part code	Quantity
1	Front Panel Assy	20012283 ① ② ⑨	1	19	Air Louver 2	10512117	1
		20012260 ③ ④					
		20012280 ⑤ ⑥					
		20012286 ⑦ ⑧					
		20012467 ○,10 ○,11					
2	Filter Sub-Assy	1112208901	2	20	Drainage hose	05230014	1
3	Front Case	20012250	1	21	Pipe Clamp	26112164	1
4	Screw Cover	24252016	1	22	Fan Motor	15012116 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ○,10 ○,11	1
						1501211601 ⑨	
5	Display Board	30565039 ① ② ⑤ ⑥ ⑨	1	23	Motor Press Plate	26112178	1
		30565038 ③ ④					
		30565038 ⑦ ⑧					
		30565037 ○,10					
		○,11					
6	Rubber Plug (Water Tray)	76712012	1	24	Electric Box	20112108	1
7	Evaporator Assy	24212100	1	25	Main Board	30225045	1
8	Cross Flow Fan	10352019	1	26	Transformer	43110237	1
9	Ring of Bearing	26152022	1	27	Terminal Board	42010268	1
10	Rear Case Assy	12312214	1	28	Electric Box Cover1	20122128	1
11	Wall Mounting Frame	01252218	1	29	Shield cover of Electric Box	01592092	1
12	Helicoid tongue	26112238	1	30	Electric Box Cover2	20112081	1
13	Air Louver 1	10512116	1	31	Tube Sensor	390000592	1
14	Axile Bush	10542008	1	32	Ambient Temperature Sensor	390000451	1
15	Left Axile Bush	10512037	1	33	Remote Controller	30510041	1
16	Guide Louver	10512115	1	34	Power Cord	400220112	1
17	crank	10582070	1	35	Jumping Connector	4202300126 ① ③ ⑤ ⑦ ○,10	1
18	Step Motor	15012086	1			4202300120 ② ④ ⑥ ⑧ ⑨ ○,11	

Note: ① is part of FP-68BA2/A-K

② is part of FP-85BA2/A-K

③ is part of FP-68BA3/A-K.

④ is part of FP-85BA3/A-K

⑤ is part of FP-68BA4/A-K .

⑥ is part of FP-85BA4/A-K

⑦ is part of FP-68BA5/A-K

⑧ is part of FP-85BA5/A-K

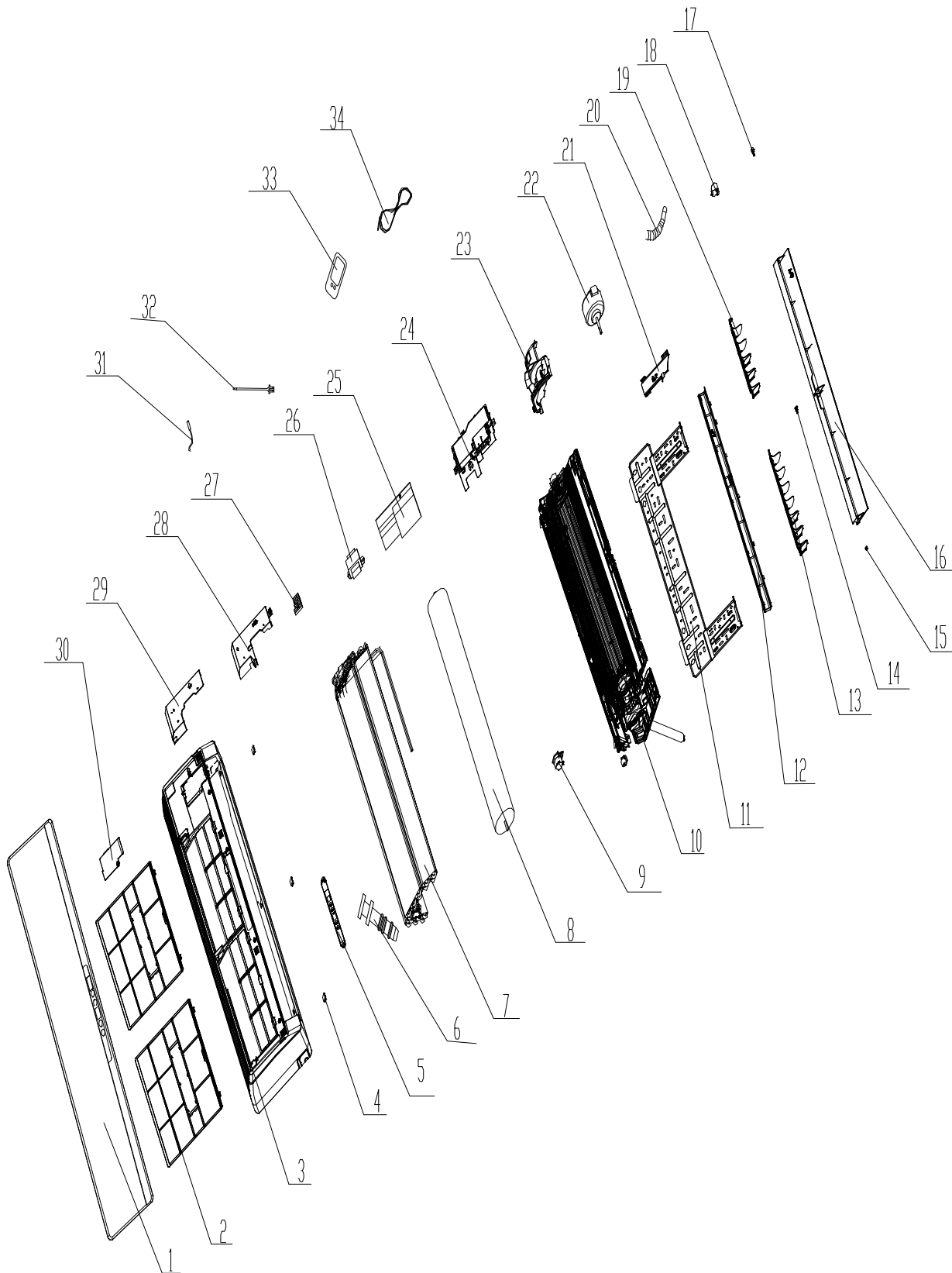
⑨ is part of FP-85BA2/A-D

○,10 is part of FP-68BB3/A-K .

○,11 is part of FP-85BB3/A-K

Model: FP-85BWA2/A-K; FP-85BWA5/A-K;

Exploded Views:



Parts List:

No.	Name of part	Part code	Quantity	No.	Name of part	Part code	Quantity
1	Front Panel Assy	20012283 □	1	18	Stepping Motor	15012086	1
		20012286 □					
2	Filter Sub-Assy	1112208901	2	19	Air Louver 2	10512117	1
3	Front Case	20012250	1	20	Drainage hose	05230014	1
4	Screw Cover	24252016	1	21	Pipe Clamp	26112164	1
5	Display Board	30565039 □	1	22	Fan Motor	15012113 □	1
		30565038 □				15012116 □	
6	Rubber Plug (Water Tray)	76712012	1	23	Motor Press Plate	26112178	1
7	Evaporator Assy	24212100	1	24	Electric Box	20112108	1
8	Cross Flow Fan	10352019	1	25	Main Board	30225045	1
9	Ring of Bearing	26152022	1	26	Transformer	43110237	1
10	Rear Case Assy	12312214	1	27	Terminal Board	42010268	1
11	Wall Mounting Frame	01252218	1	28	Electric Box Cover1	20122128	1
12	Helicoid tongue	26112238	1	29	Shield cover of Electric Box	01592092	1
13	Air Louver 1	10512116		30	Electric Box Cover2	20112081	1
14	Axile Bush	10542008	1	31	Tube Sensor	390000592	1
15	Left Axile Bush	10512037	1	32	Ambient Temperature Sensor	390000451	1
16	Guide Louver	10512115	1	33	Remote Controller	30510041	1
17	crank	10582070	1	34	Power Cord	400220112	1

Note: □ is part of FP-85BWA2/A-K only

□ is part of FP-85BWA5/A-K only