

**1 Introduction and Features**



**Model**

- GWHD (07) AANK3A1B I
- GWHD (09) AANK3A1B I
- GWHD (12) ABNK3A1B I
- GWHD (18) ACNK3A1A I

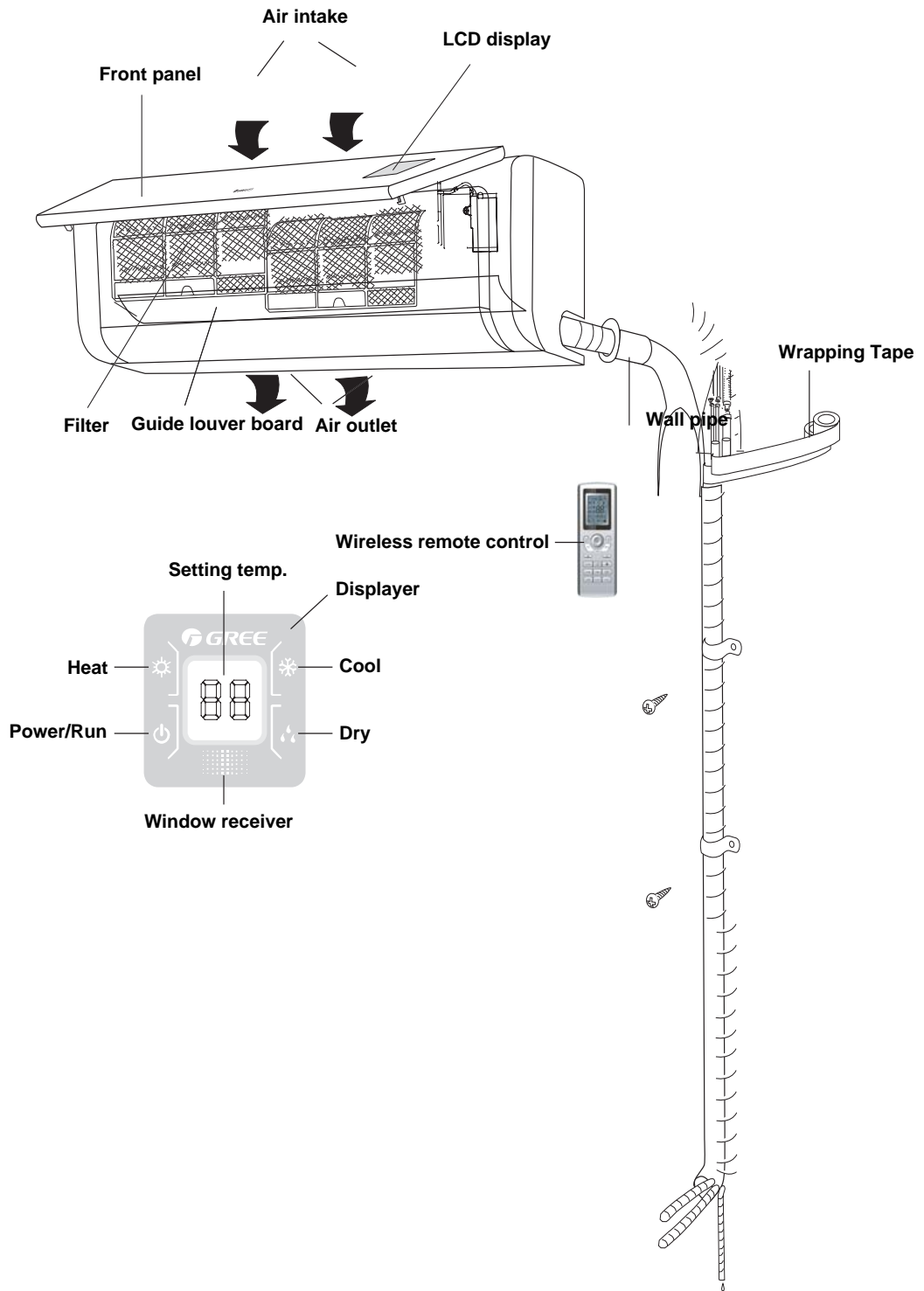
## 2 Specifications and Technical Parameters

Model	GWHD(07)AANK3A1BI	GWHD(09)AANK3A1BI	GWHD(12)ABNK3A1BI	GWHD(18)ACNK3A1AI
Rated Voltage	1PH—220~240V	1PH—220~240V	1PH—220~240V	1PH—220~240V
Frequency(Hz)	50	50	50	50
Cooling Capacity(W)	2100	2600	3500	5300
Heating Capacity(W)	2600	2800	3800	5800
Cooling Air Flow Volume (m3/h) (SH/H/ML)	450/390/320/280	450/390/320/280	510/430/380/330	800/680/600/550
Heating Air Flow Volume (m3/h) (SH/H/ML)	470/420/340/290	470/420/340/290	570/540/480/400	840/720/660/600
Fan Motor				FN20C-PG
Fan Motor Speed (r/min) (SH/H/ML)	1250/1150/1000/850	1250/1150/1000/850	1350/1150/1050/900	制冷: 1380/1150/1050/950 ; 制热: 1400/1200/1100/1000
Output of Fan Motor (w)	10	10	10	20
Input Power of Heater (w)	/	/	/	/
Fan Motor Capacitor (uF)	1	1	1	1
Fan Motor RLA(A)	0.23	0.23	0.23	0.19
Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1	Cross flow fan – 1	Cross flow fan – 1
Diameter-Length (mm)	Ø85 X 615	Ø85X615	Ø85X668	Ø98 X 733
Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube	Aluminum fin-copper tube	Aluminum fin-copper tube
Pipe Diameter (mm)	Ø7	Ø7	Ø7	Ø7
Row-Fin Gap(mm)	2-1.6	2-1.6	2-1.5	2-1.5
Coil length (l) x height (H) x coil width (L)	603X264X25.4	603X264X25.4	657X285X25.4	740X301X25.4
Swing Motor Model	MP28VB	MP28VB	MP28VB	MP28VB
Output of Swing Motor (W)	2	2	2	2
Fuse (A)	PCB 3.15A Transformer 0.2A	PCB 3.15A Transformer 0.2A	PCB 3.15A Transformer 0.2A	PCB 3.15A Transformer 0.2A
Sound Pressure Level dB (A) (SH/H/ML)	38/35/32/29	38/35/32/29	40/35/33/30	46/43/38/34
Sound Power Level dB (A) (SH/H/ML)	48/45/42/39	48/45/42/39	50/45/43/40	56/53/48/44
Dimension (W/H/D) (mm)	815X267X165	815X267X165	872X283X178	960X300X195
Dimension of Package (L/W/H)( mm)	890X344X260	890X344X260	935X374X260	1035X390X280
Net Weight /Gross Weight (kg)	11/13	11/13	12/15	13/18

The above parameters are subject to change without notices, please refer to nameplate for reference.

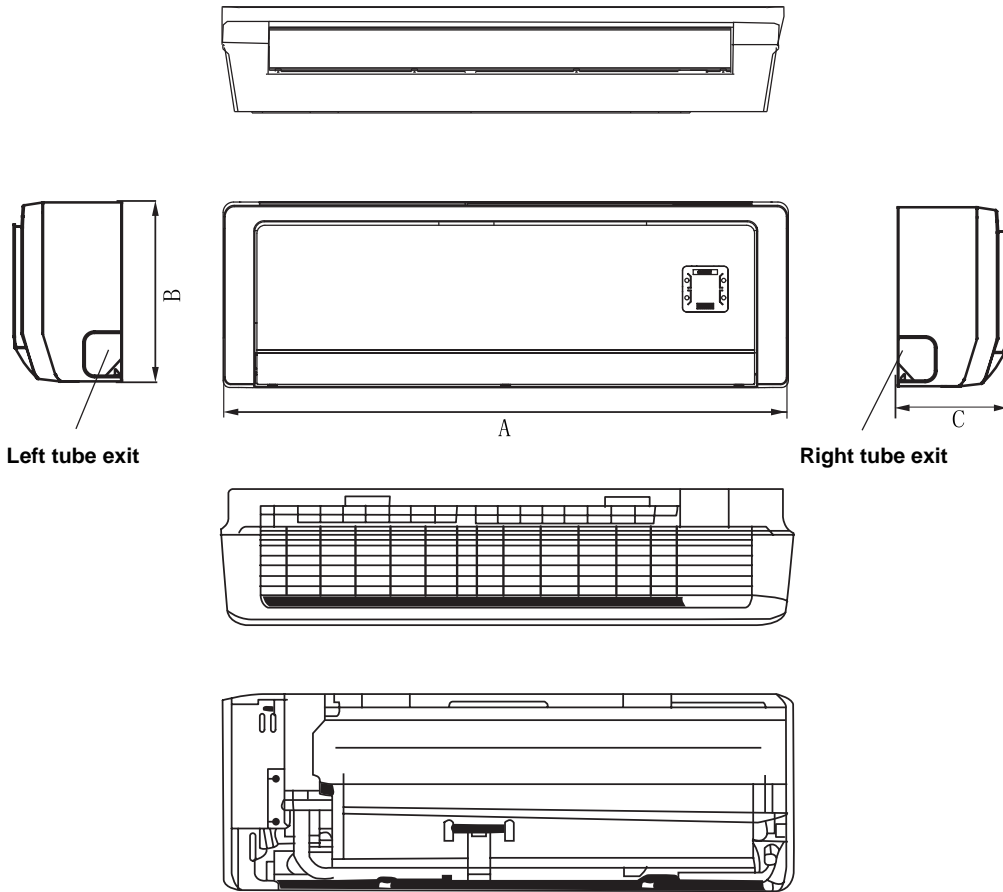
3 Part name

Indoor unit



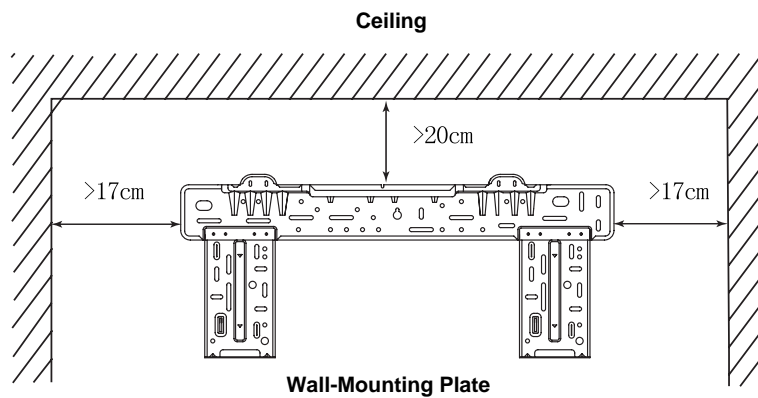
# 4 Outline and installation dimension

## 4.1 Outline and dimension



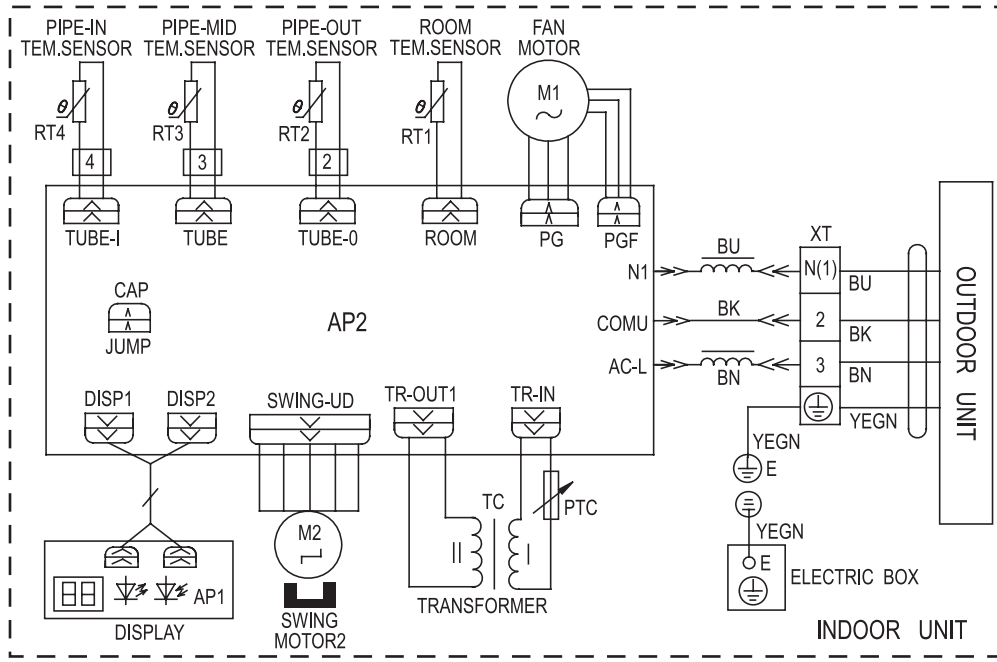
Unit: mm

Dimension			Applicable models
A	B	C	
815	267	165	07K、09K
872	283	178	12K
960	300	195	18K

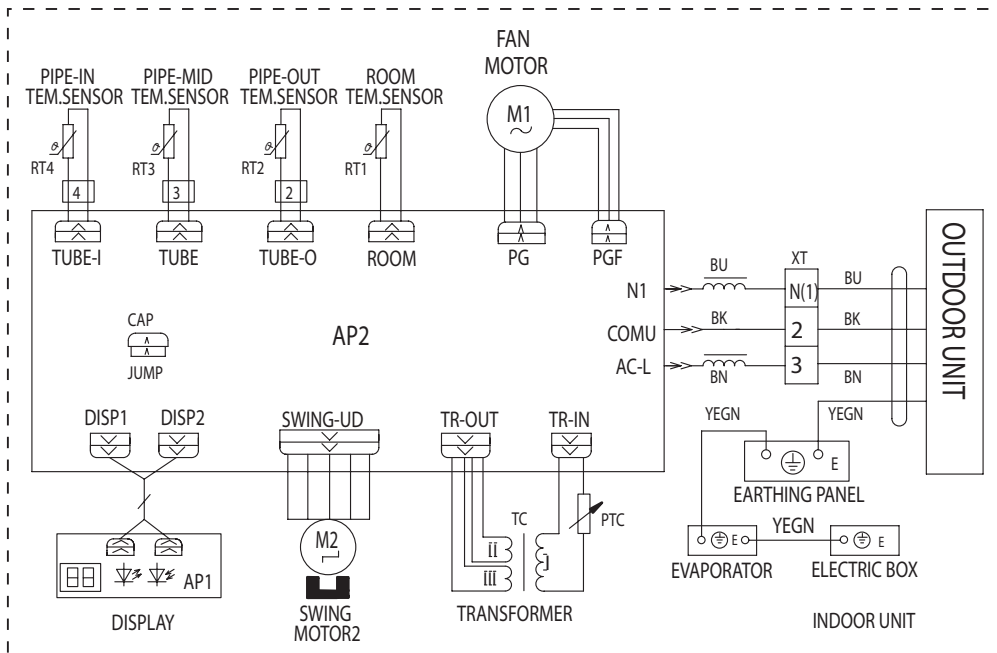


5 Wiring diagram

GWHD (07) AANK3A1B1    GWHD (09) AANK3A1B1    GWHD (12) ABNK3A1B1



GWHD (18) ACNK3A1A1



The circuit diagrams are subject to change without notice, please refer to the one supplied with the unit.

# 6

## Manual of functions of remote controller and operation method

### 6.1 Manual of functions of remote controller

The following function manual, the temperature unit is centigrade, if there is Fahrenheit, there will be  $TF=TC \times 1.8+32$ .

#### 1 Temperature parameter

- ◆ Room ambient temperature (Tamb)
- ◆ Evaporator inlet tube temp (Tinlet)
- ◆ Indoor unit copper tube surface temp. (Tcopper)
- ◆ Evaporator outlet tube temp (Tout)

#### 2 Basic Functions

##### 2.1 Cooling Mode

- (1) Fan motor, swing motor run at presetting status.
- (2) Outdoor unit malfunction or protection unit will stop, indoor unit will keep original running status, LCD malfunction indicates.
- (3) Modes conflict indoor unit will stop to run.
  - Under this mode, the setting temperature range is 16-30 °C .

##### 2.2 DRY Modes

- (1) Fan motor will run at low fan speed, swing motor will run at its presetting status.
- (2) Outdoor unit malfunction or protection unit stop, indoor unit will keep original running status, and display the malfunction indication.
  - Under this mode, the setting temperature range is 16-30 °C .

##### 2.3 Fan Mode

Under Fan mode, only the indoor fan runs. in Auto mode, it will run in Cool condition. It will run at Cool Auto fan condition.

##### 2.4 Heating Mode

- (1) At Heat mode, the unit enters into opening status, the indoor unit enters into anti-cool wind; when the unit enters into stopping status, and indoor fan will start up and enters into blowing surplus heat.
- (2) Protection function, at Heat mode, due to the malfunction the compressor stops running (including any sensor malfunction), indoor unit blows surplus heat.
- (3) Anti-cool wind: indoor fan will run after 2mins delayed.  
Blowing surplus heat: Indoor fan will stop running after 60s and running at the speed before it stop, the fan speed can not be changed.  
Blowing surplus heat, the guide board opened at minimum angle.
- (4) When defrosting, oil return, indoor unit will stop do not blow surplus heat. During defrosting, oil return procedure and quit 3mins will not detect all the sensor malfunction.
  - Under this mode, the setting temperature range is 16-30 °C .

##### 2.5 Auto mode

In this mode, the system selects COOL, HEAT and FAN mode automatically according to the change of ambient temperature. The protection function is the same with that of COOL/HEAT mode.

##### 2.6 Modes confliction

If indoor received the information modes confliction position 1 of outdoor unit, indoor unit overload will stop (Indoor fan motor, swing), malfunction indication will be displayed, the mode sent to outdoor unit is still the mode that received by the remote control.

If timer on has arrived, if indoor received the information modes confliction position 1 of outdoor, indoor overload(indoor fan motor,swing) , the malfunction display, the mode sent to outdoor unit is still the mode that received by the remote control.

#### 3 Others

##### 3.1 Buzzer

The air conditioner will send out Hua alert when it is energized or receives a control command.

##### 3.2 Auto button

When turn off the unit, press this button, the whole unit will run at auto mode, indoor fan motor will run in auto fan speed, turn on the swing. At unit turns on, press the Auto button that the unit will turns off.

##### 3.3 Auto fan speed control

Under Cool, Heat, Fan modes, indoor fan will accord to the ambient temperature select Hig, Mid, Low three speeds, the dehumidifying mode auto fan speed is low. The switch of each fan mode should be 3mins and 30s.

##### 3.4 Sleep

When unit is running in cooling and dehumidifying mode, after sleep set up 1hr later, Tset will be increased 1°C; 2hrs later, Tset will be increased 2°C, the Tset will not be exceeded 30°C ; In heating mode, after sleep procedure set up 1hr later, Tset declined 1°C, 2hrs later, Tset will be declined 2°C; the Tset will not be exceed 16°C , under Fan and Auto modes, the setting temperature will not be changed.

### 3. 5 Timer function

The common setting for Timer:

- a. Timer on: At unit off, can set up the Timer On function, when Timer On act, the controller will run at original setting mode, the Timer interval is 0.5hr, setting range is 0.5-24hrs.
- b. Timer off: At unit on, can set up the Timer Off function, when Timer Off act, the unit will turn off, the Timer interval is 0.5hr, setting range is 0.5-24hrs.

Hours setting for Timer:

- a. Timer on: If unit is running then to set up the Timer On, the unit will go on running, if the unit is off to set up the Timer On, when Timer On act, the unit will run at the presetting modes.
- b. Timer off: If unit is off then to set up the Timer Off, when setting the Timer off, the unit stand by, if unit is turned on to set up Timer Off, when the Timer Off act, the system will stop to work.
- c. Timer change: When unit is running in Timer mode, by operate the On/Off of remote controller to turn on or turn off the unit, can reset up the Timer function, the unit will run at the mode of last setting.

If unit is running, at the same time to set up Timer On and Timer Off, the system will keep the present setting status, after the Timer Off When system is running, at the same time to set up Timer On and Timer Off, the unit will keep the current presetting working status, if Timer Off act, the unit will stop working.

When unit is stop running, at the same time to set up the Timer On and Timer Off, the unit will keep stop running, until Timer On act, the unit will start to work, after this when Timer On of every day act, it will run at presetting modes, when Timer Off act, the unit will stop to work. If the setting for the Timer Off and Timer On are the same, the Timer Off will act.

### 3. 6 Memory function

Contents of memory: Modes, Up and Down Swing, Light, Setting Temp. Setting fan speed, Common setting for Timer (Hours will not memorized). After Timer Off, when repower on, the unit will automatically turn on and run at memorized contents.

There is no Timer Setting in the remote control order that the unit will memorize the remote control order of last setting and it will run at that mode.

There is common setting for Timer of last setting by remote controller, before the Timer act, if power off and after powered on, the unit will memorize the timer of last setting by remote control, the timer will recalculate after powered on.

There is Timer function at last setting by remote control, if Timer function has act, the power off after Timer On or Timer Off, after powered on, the unit will memorize the running mode before power off, under Hours setting for Timer, the memory is invalid.

### 3. 7 I Feel function

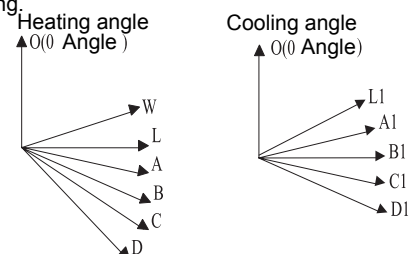
When controller received the orders that the controller will work according to ambient temperature which is sent by remote control (Except Defrost and Anti-cool wind, it will still adopt the air conditioner self ambient sensor sampling value), the remote control in every 10mins, to sent the ambient temperature value to controller. 11mins later, the controller haven't received the ambient temperature value from the remote control that the air conditioner will run itself ambient temperature. If there is no setting function that the ambient temperature will adopt the AC sensor sampling value. Power off will not memorize this function.

### 3. 8 TURBO function

Only in Cool or Heat mode, the Turbo setting is available, when controller received this order, the indoor fan will run at super high, sent the outdoor unit Turbo signal and sent the high fan speed.

### 3.9 Up\Down swing fan function

After powered on, the up and down swing motor will firstly rotate the air guide board to position O in anticlockwise, turn off the air vent. After unit is turned on, if there is no swing function set up, under the Heat mode or Auto Heat mode, the up and down air guide board will rotate to position D in clockwise; In other modes, the up and down guide board will rotate to horizontal position L1 clockwise. When turning on the unit to set up swing function synchronously. If unit is turned on to set up the swing function that the guide louver will swing between L and D. There are 7 kinds of status of swing for guide louver: Position L, Position A, Position B, Position C, Position D, Position L and Position D, Position L to Position D to stop swing ( the inclination between L-D is conformal). When unit is off the air guide louver will close and turn to position O. The swing is only valid while setting swing order and indoor fan motor is running.



## 4 Displayer

### 4. 1 Basic display

(1) After powered on, the displaying fure will fully displayed then only power indicator light on.

(2) Remote control to turn on the unit, the running indicator and cooling indicator will light on; Heat mode: the running indicator and heating indicator will light on; In Heat mode, running indicator and dehumidifying indicator light on; Fan mode, running indicator light on; Auto mode: running indicator and actual running mode indicator will light on.

(3) If turns off the Light button, that all display will be turned off (still valid at unit off)

(4) After set up the SLEEP function, the displayer will keep original displaying status that is Sleep function will not affect the light on and off.

#### 4. 2 Dual 8 display

The nixie tube will display current setting temperature that the setting temperature range is 16-30 °C. In Auto mode, the Cool and Fan will display 25 °C, in Heat will display 20 °C, cooling only controller only display 25 °C Display indoor temperature, the temperature setting range is 0 °C to 60 °C

#### 4. 3 Adhered display

When unit is running and light function was set up as Open that will display four pcs of decoration frame.

#### 4. 4 Indoor unit malfunction display

Malfunction	Dual 8 display	Running light	Heating light	Cooling light
System abnormal (anti-high temp, unit will stop, cooling overload)	H4		Blink 4 times	
Compressor overload protection	H3		Blink 3 times	
Modes protection	H5		Blink 5 times	
High pressure protection	E1	Blink once		
Anti-freeze protection unit will stop	E2	Blink twice		
Air exhaust tempeature protection	E4	Blink 4 times		
Low voltage overcurrent protection	E5	Blink 5 times		
Modes conffliction	E7	Blink 7 times		
Communication malfunction	E6	Blink 6 times		
Defrost or heating oil return	H1		Blink once	
Indoor ambient temp sensor opened, short circuit	F1			Blink once
Any of indoor evaporator sensor opened, short circuit	F2			Blink twice
Outdoor ambient sensor opened, short circuit	F3			Blink 3 times
Outdoor condensor sensor opened, short circuit	F4			Blink 4 times
Outdoor air exhaust sensor opened, short circuit	F5			Blink 5 times
Start up failure	H7		Blink 7 times	
PFC malfunction	HC		Blink 6 times	
Compressor demagnetization protection	HE		Blink 14 times	
The following malfunction need to use remote control for transfer, within 3s continuously press SLEEP button for 6 times will display, 5min will automatically quit detection status (invalid in Auto mode) or within 3s continuously press SLEEP button for 6 times will quit.				
Over current frequency decline	F6			Blink 6 times
Whole unit over current frequency decline	F8			Blink 8 times
Compressor air exhaust frequency decline	F9			Blink 9 times
Whole unit AC current voltage decline frequency decline	E0	Blink 10 times		
Heating anti-high temperature frequency decline	H0		Blink 10 times	
Anti-cool wind protection	E9	Blink 9 times		
Cooling oil return	F7			Blink 7 times

Note: if several malfunction exist synchronously, the malfunction code will display circularly. Indicator will blink 0.5s and extinguish 0.5s. Defrosting, oil return procedure, and quit within 3mins, will not detect indoor unit all sensor malfunction.



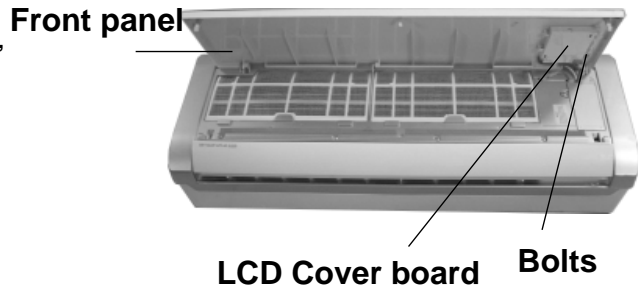
## 7 Disassembly Procedures

### 7.1 Disassembly Procedures of Indoor Unit

#### Operating Procedures / Photos

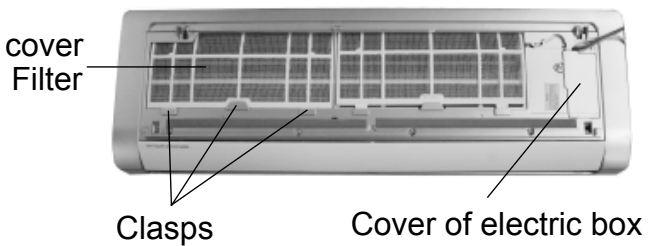
#### 7.1.1 Disassemble Front Panel

To push the raised parts of front panel left and right sides, open the front panel, screw off the screws which fix on the LCD cover board, take off the joint, to lift up the panel, to make the front panel get clear of the clasps, can take down the front panel.



#### 7.1.2 Disassemble Filter and top cover

Push the filter inward, and then pull it upward to remove it. Unscrew the screw fixing the top cover of electric box to remove the top cover.



#### 7.1.3 Disassemble Guide Louver

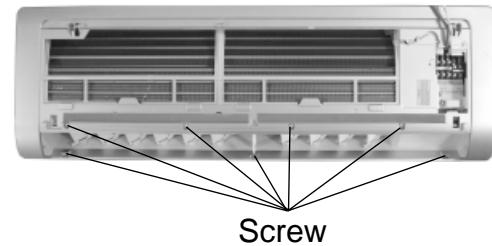
Manually bend the guide louver to loose the clasp at the guide louver. Remove the guide louver.



## Operating Procedures / Photos

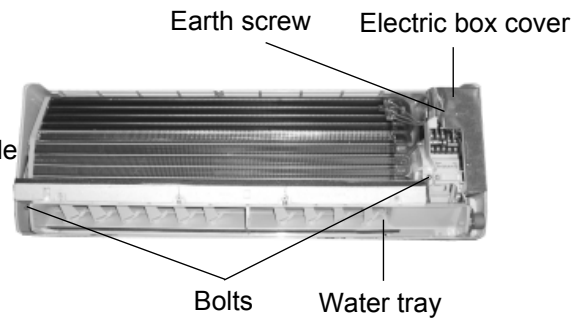
### 7. 1. 4 Disassemble Front Case

Unscrew the seven screws, pull open the clasp at the front case, and remove the front case.



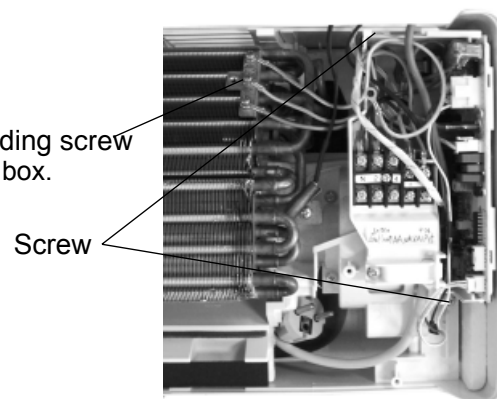
### 7. 1. 5 Disassemble Water Tray

Firstly to screw off earth screw of electric box cover, loosen clasp, disassemble the electric box cover, then take off the wire terminal of air guide motor, to screw off 2pcs screw from water tray to disassemble it.



### 7. 1. 6 Disassemble electric box

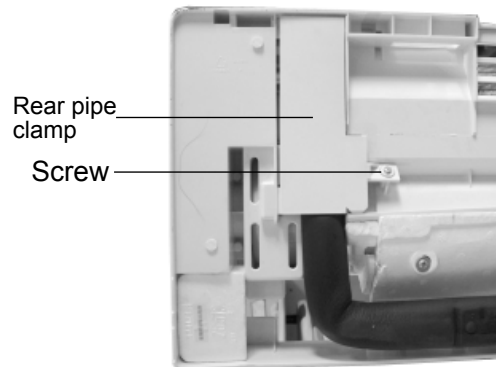
Firstly screw off 2pcs screw from electric box. Then pull out the wire terminal of motor, screw off 3pcs earth screw, lift it up can take down the electric box.



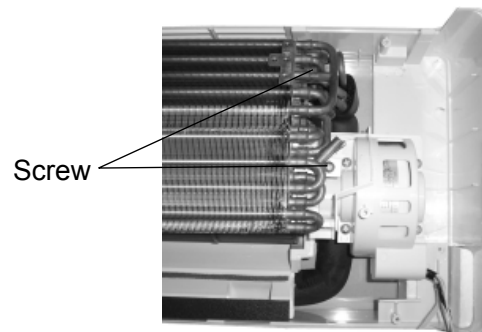
Operating Procedures / Photos

**7.1.7** ||||| Disassemble Evaporator

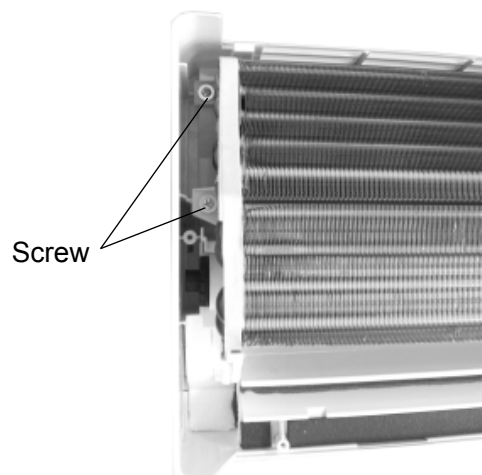
Unscrew the screw to remove the rear pipe clamp.



Remove the left two screws at the evaporator,



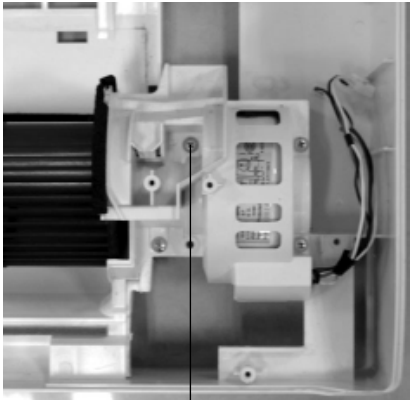
Remove the left two screws at the evaporator, turn the evaporator with certain angle, then move the evaporator



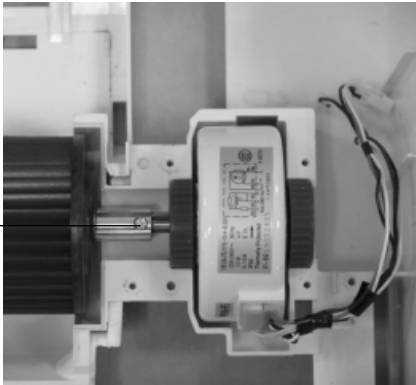
**Operating Procedures / Photos**

**7. 1. 8** ||||| **Disassemble Motor and cross flow fan**

Unscrew the three screws fixing the motor clamp, loosen the screws holding on the motor and cross flow fan, then you can remove motor and cross flow fan.



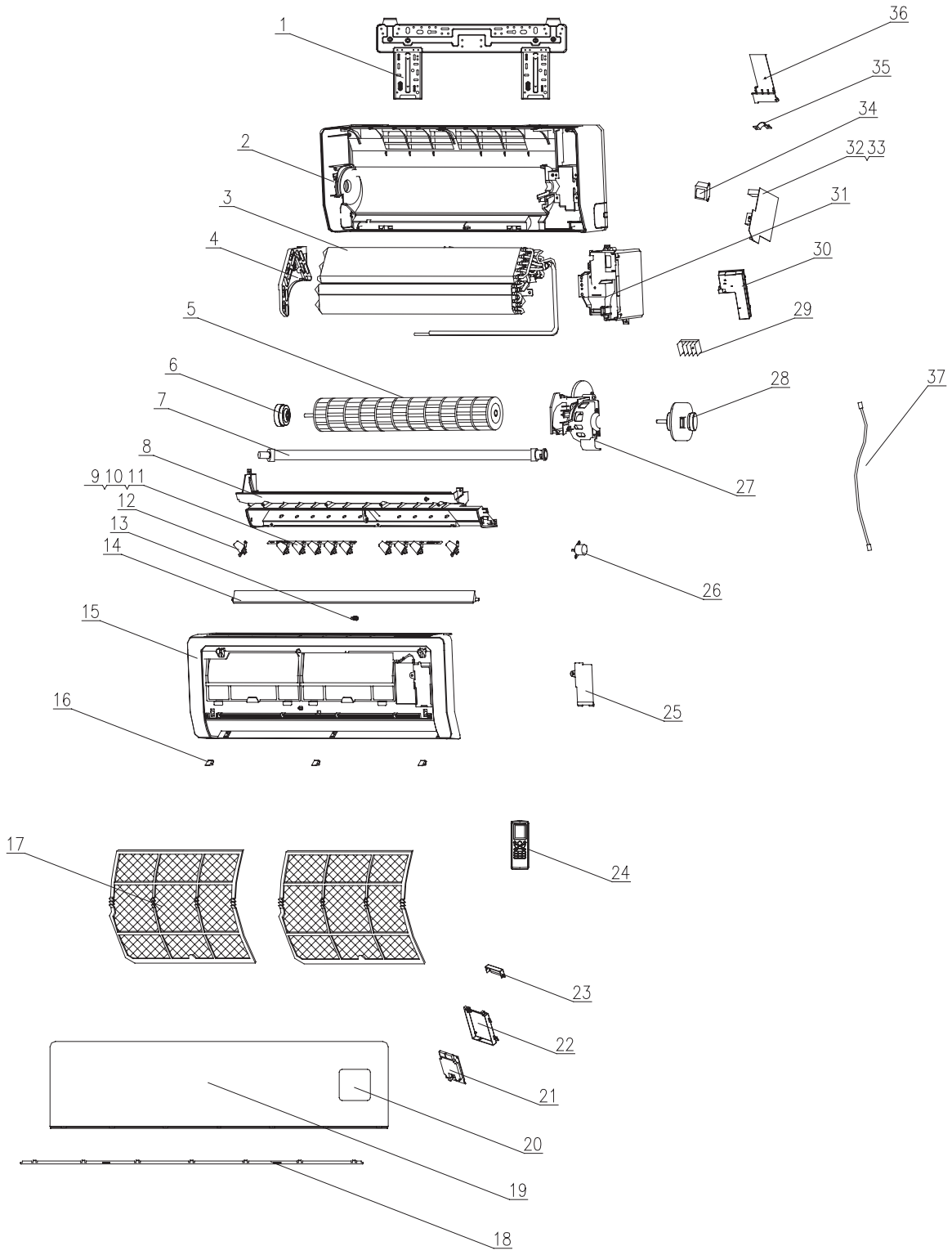
Screw



Screw

# 8 Explosive view and parts list for indoor unit

## 8.1 Explosive view for indoor unit

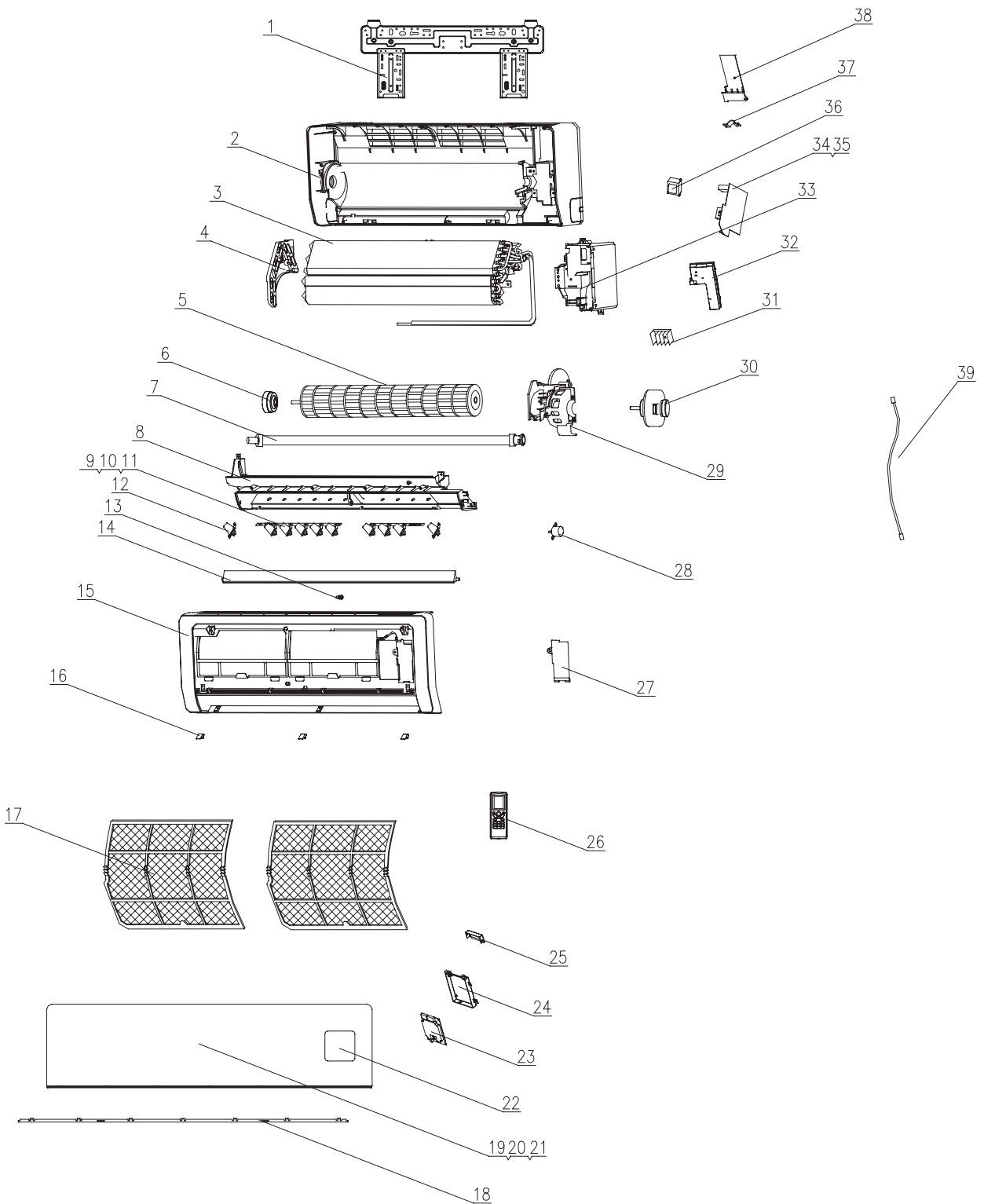


## 8. 2 Spare parts list for indoor unit

No	Description	Part Code		Qty
		GWHD(07)AANK3A1BI	GWHD(09)AANK3A1BI	
1	Wall-Mounting Frame	01252006	01252006	1
2	Rear Case	22200092	22200092	1
3	Evaporator Assy	01002548	01002548	1
4	Evaporator Support	24212075	24212075	1
5	Cross Flow Fan	10352422	10352422	1
6	Ring of Bearing	76512203	76512203	1
7	Drainage Pipe	0523001401	0523001401	1
8	Water Tray	20182075	20182075	1
9	Swing Louver	10512099	10512099	8
10	Swing Linkage 1	10582071	10582071	1
11	Swing Linkage 2	10582072	10582072	1
12	Swing Louver	10512097	10512097	2
13	Axle Bush	10542008	10542008	1
14	Guide Louver	10512095	10512095	1
15	Front Case	20002720	20002720	1
16	Screw Cover	24252016	24252016	3
17	Filter	11122056	11122056	2
18	Decorative Strip	20192104	20192104	1
19	Front Panel	200027185	200027185	1
20	Transparent Mirror	22432262	22432262	1
21	Receiver Board D5003C	30565002	30565002	1
22	Display Box	20122041	20122041	1
23	Display Box Cover	20122042	20122042	1
24	Remote Control YT1F	30510049	30510049	1
25	Covering Plate 2	20122075	20122075	1
26	Motor MP28VB	15012086	15012086	1
27	Motor Clamp	26112116	26112116	1
28	Motor FN10A-PG	15012078	15012078	1
29	Terminal Board	42011233	42011233	1
30	Electric Box Cover 1	20102848	20102848	1
31	Electric Box	20112061	20112061	1
32	Main PCB M514F2CJ	30055060	30055060	1
33	Jumping Connector	4202300104	4202300104	1
34	Transformer 48X26M	43110283	43110283	1
35	Wire Clamp	26112121	26112121	1
36	Rear Clamp	26112117	26112117	1
37	Connecting Cable	400204056	400204056	1

**The above data are subject to be changed without notice.**

8.3 Explosive view of parts for indoor unit



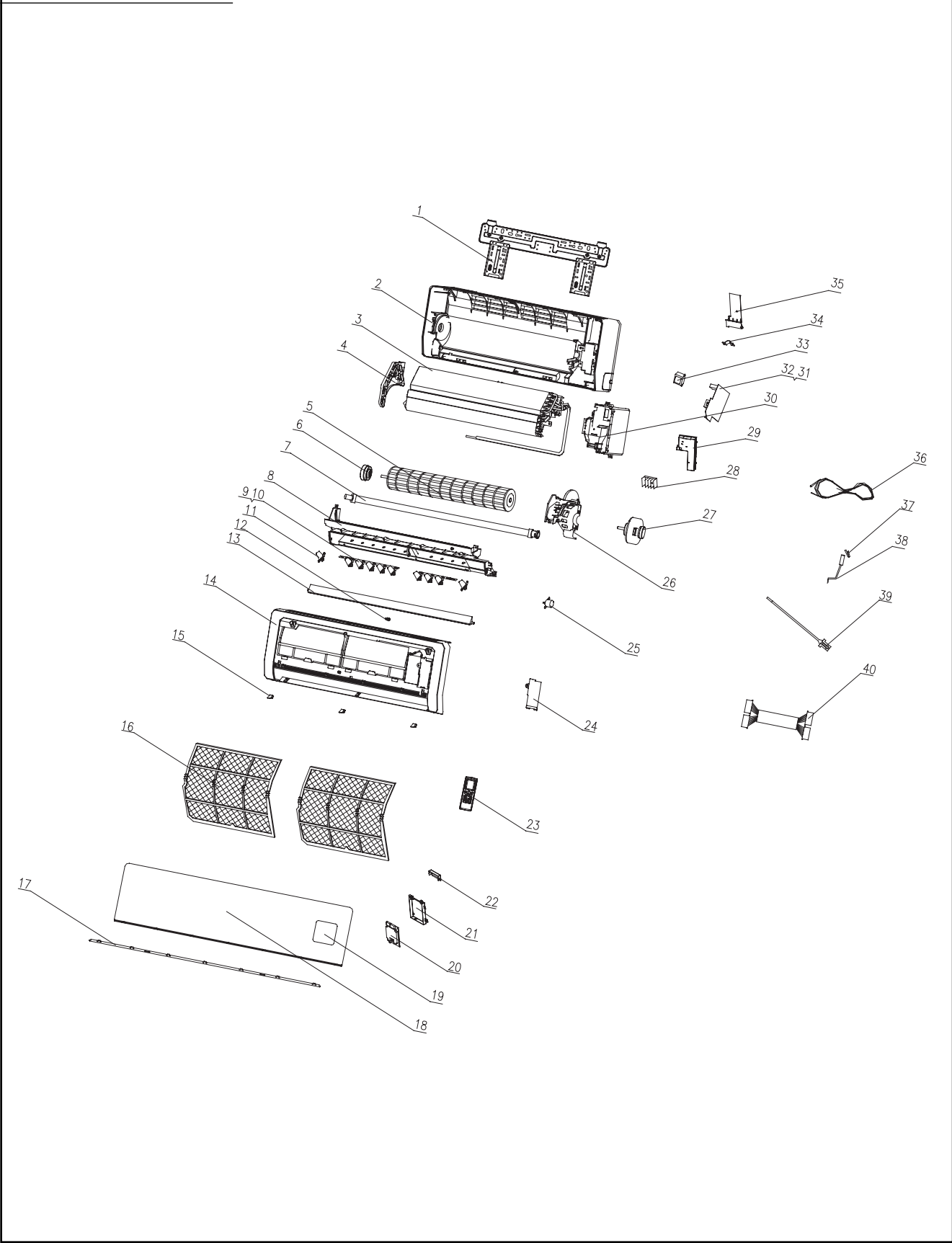
## 8. 4 Parts list of indoor unit

No	Description	Part Code	Qty
		GWHD(12)ABNK3A1BI	
1	Wall-Mounting Frame	01252008	1
2	Rear Case	22200092	1
3	Evaporator Assy	01002549	1
4	Evaporator Support	24212076	1
5	Cross Flow Fan	10352023	1
6	Ring of Bearing	76512203	1
7	Drainage Pipe	0523001401	1
8	Water Tray	20182080	1
9	Swing Louver	10512099	8
10	Swing Linkage	10582450	1
11	/	/	/
12	Swing Louver	10512097	2
13	Axle Bush	10542008	1
14	Guide Louver	10512102	1
15	Front Case	20002760	1
16	Screw Cover	24252019P	3
17	Filter	11122059	2
18	Decorative Strip	20192109	1
19	Front Panel	2000276104	1
20	Clamp	02112013	3
21	Magnet	70840001	3
22	Transparent Mirror	22432262	1
23	Receiver Board D5003C	30565002	1
24	Display Box	20122041	1
25	Display Box Cover	20122042	1
26	Remote Control YT1F	30510049	1
27	Covering Plate	20122074	1
28	Motor MP28VB	15012086	1
29	Motor Clamp	26112123	1
30	Motor FN10A-PG	15012078	1
31	Terminal Board	42011233	1
32	Electric Box Cover 1	20102848	1
33	Electric Box	20112061	1
34	Main PCB M514F2CJ	30055060	1
35	Jumping Connector	4202300106	1
36	Transformer 48X26M	43110283	1
37	Wire Clamp	26112121	1
38	Rear Clamp	26112124	1
39	Connecting Cable	400204056	1

**The above data are subject to be changed without notice.**



8.5 Explosive view of parts for indoor unit



## 8. 6 Parts list of indoor unit

No	Description	Part Code	Qty
		GWHD(18)ACNK3A1AI	
1	Wall-Mounting Frame	01252218	1
2	Rear Case	22204002	1
3	Evaporator Assy	01002914	1
4	Evaporator Support	24214080	1
5	Cross Flow Fan	10352016	1
6	Ring of Bearing	76512203	1
7	Drainage Pipe	0523001401	1
8	Water Tray	20184074	1
9	Swing Louver	10512099	8
10	Swing Linkage	10584085	1
11	Swing Louver	10512097	2
12	Axle Bush	10542704	1
13	Guide Louver	10514096	1
14	Front Case	20004299P	1
15	Screw Cover	24252017	3
16	Filter	11124096	2
17	Decorative Strip	20194036D	1
18	Front Panel	20004298	1
19	Decorate Piece	22432269	1
20	Receiver Board D5003C	30565002	1
21	Clamp	20122041	1
22	Clamp	20122042	1
23	Remote Control YT1F	30510049	1
24	Covering Plate	20114009P	1
25	Motor MP28VB	15012086	1
26	Motor Clamp	26114094	1
27	Motor FN20C-PG	15012077	1
28	Terminal Board	42011233	1
29	Electric Box Cover	20114008	1
30	Electric Box	20114007	1
31	Main PCB M514F2HJ	30035286	1
32	Jumping Connector	4202300107	1
33	Transformer 57X25C	43110237	1
34	Wire Clamp	71010103	1
35	Rear Clamp	26114095	1
36	Connecting Cable	400204056	1
37	Sensor Insert	42020063	3
38	Tube Sensor 20k	3900019814	1
		3900019815	1
		3900019816	1
39	Room Sensor 15k	390001912	1
40	Plank Cable	4003004201	1

The above data are subject to be changed without notice.