Packaged Terminal Air Conditioner Technical Service Manual

Classic Series

Ⅰ Summary and Features 2

Ⅱ Specification and Technical Parameter 3

Ⅲ Parts' Name 6

Ⅳ Controller Function Manual and Operating Method 6

Ⅴ Electric Circuit Diagram 11

VI Refrigerant System Diagram 14

Ⅶ Malfunction Analysis 15

VIII. Removal Procedure 18

IX. Explosive views and part list 26

Ⅰ Summary and Features

Features of PTAC:

Location of installation: The unit is installed in the hole pre-embedded in the wall, which is different from traditional installation and prettifies the room, without occupying the space.

Easy installation: Install the drainage pipe at first, and then push the unit into the installed cabinet assy. At last, turn the safety clamp for 90 degrees to finish.

Easy cleaning: Pull the unit out and unscrew the 6 screws used for fixing the cover plate to remove it. In this case, condenser can be cleaned with water. At last, lift the unit slightly to drain the water.

Model	Remarks
GC-07ENR1F-C /GCHP-07ANR1F-C	1PH 230/208V 60HZ R410A
GC-09ENR1F-C / GCHP-09ANR1F-C	
GC-12ENR1F-C / GCHP-12ANR1F-C	
GC-15ENR1F-C / GCHP-15ANR1F-C	
GCHP-07ENR1-C/GCUHP-07ANR1-C	
GCHP-09ENR1-C/GCUHP-09ANR1-C	
GCHP-12ENR1-C/GCUHP-12ANR1-C	
GCHP-15ENR1-C/GCUHP-15ANR1-C	

Ⅱ Specification and Technical Parameter

（1）R410A 208/230V-60Hz Cooling with E-heater（F series）

Sale Model			**GC-07ENR1F-C**	**GC-09ENR1F-C**	**GC-12ENR1F-C**	**GC-15ENR1F-C**
Power supply		V-Ph-Hz	230/208-1-60	230/208-1-60	230/208-1-60	230/208-1-60
Cooling	Capacity	Btu/h	7400/7200	9500/9300	12200/12000	14700/14500
	Input	W	620/605	835/815	1140/1120	1470/1450
	EER	Btu/h.W	11.9/11.9	11.4/11.4	10.7/10.7	10.0/10.0
Indoor air flow (Hi/Lo)		m3/h	720/620	700/620	800/700	800/700
		CFM	424/365	412/365	471/412	471/412
Indoor sound level		dB(A)	48/39	48/39	52/46	51/48
Outdoor air flow		m3/h	1200	1200	1200	1200
Outdoor sound level (sound pressure level)		dB(A)	66	66	66	66
Unit	Dimension(W*H*D)	inch	42*21*16	42*21*16	42*21*16	42*21*16
	Packaging (W*H*D)	inch	45*25*19	45*25*19	45*25*19	45*25*19
	Net/Gross weight	Kg	43.5/48.5	43.5/48.5	46/51	48.5/53.5
Charged refrigerant type		g	560	550	750	970
		oz	19	19.4	26.5	34.2
Throttle type			Capillary	Capillary	Capillary	Capillary

（2）R410A 208-230V 60Hz Heat Pump with E-heater（F series）

Sale Model			**GCHP-07ANR1F-C**	**GCHP-09ANR1F-C**	**GCHP-12ANR1F-C**	**GCHP-15ANR1F-C**
Power supply		V-Ph-Hz	230/208-1-60	230/208-1-60	230/208-1-60	230/208-1-60
Cooling	Capacity	Btu/h	7200/6800	9200/9000	12000/11800	14700/14500
	Input	W	605/570	805/790	1130/1110	1470/1450
	EER	Btu/h.W	11.9/11.9	11.4/11.4	10.6/10.6	10.0/10.0
Heating	Capacity	Btu/h	6000/5800	8300/8100	10800/10500	13600/13400
	Input	W	520/500	715/700	960/930	1245/1210
	COP	Btu/h.W	3.4/3.4	3.4/3.4	3.3/3.3	3.2/3.2
Indoor air flow (Hi/Lo)		m3/h	720/620	700/620	800/700	800/700
		CFM	424/365	412/365	471/412	471/412
Indoor sound level (sound pressure level)		dB(A)	48/39	48/39	52/46	51/48
Outdoor air flow		m3/h	1200	1200	1200	1200
Outdoor sound level (sound pressure level)		dB(A)	66	66	66	66
Unit	Dimension(W*H*D)	inch	42*21*16	42*21*16	42*21*16	42*21*16
	Packing (W*H*D)	inch	45*25*19	45*25*19	45*25*19	45*25*19
	Net/Gross weight	Kg	44/49	44/49	46.5/51.5	49/54
Charged refrigerant type		g	540	550	750	970
		oz	19	19.4	26.5	34.2
Throttle type			Capillary	Capillary	Capillary	Capillary

（3）R410A 208-230V 60Hz Heat Pump with E-heater（C series）

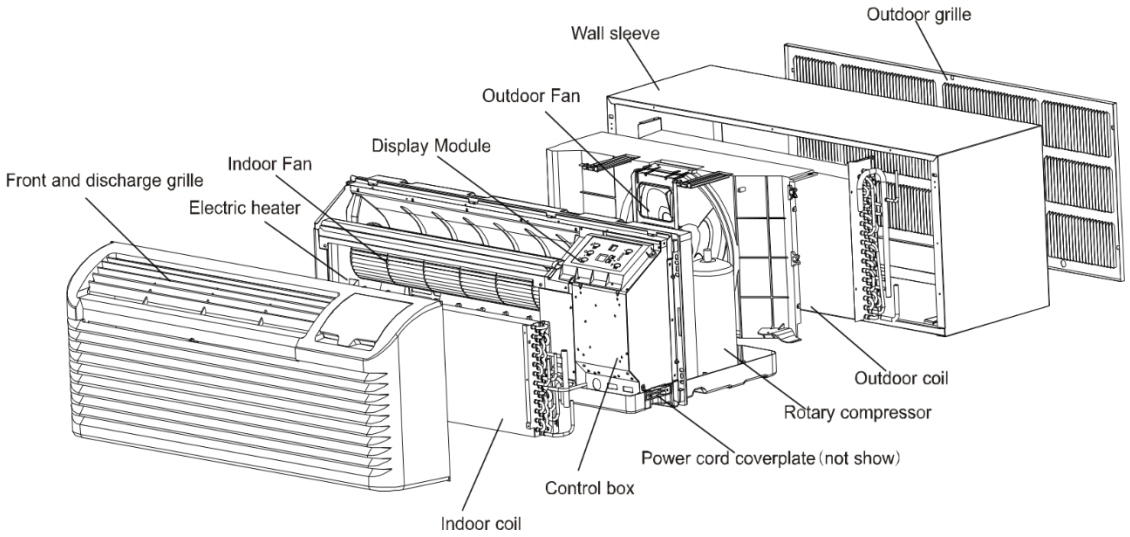
Model name			GCHP-07ENR1-C/ GCUHP-07ANR1-C	GCHP-09ENR1-C/ GCUHP-09ANR1-C	GCHP-12ENR1-C/ GCUHP-12ANR1-C	GCHP-15ENR1-C/ GCUHP-15ANR1-C
Power supply		V/Ph/Hz	208/230V/1/60	208/230V/1/60	208/230V/1/60	208/230V/1/60
Cooling	Capacity	Btu/h	6800/7200	9300/9500	11800/12000	14300/14500
	EER	Btu/w.h	11.9/11.9	11.7/11.4	10.7/10.5	10.2/10.2
Heating	Capacity	Btu/h	6100/6400	8300/8500	10800/11000	13200/13600
	COP	W/W	3.35/3.34	3.55/3.51	3.51/3.39	3.35/3.38
Indoor air flow (Hi/Lo)		CFM	352/250	352/250	405/333	405/370
Indoor noise level (Hi/Lo)		dB(A)	45/35	45/35	48/42	48/45
Outdoor noise level		dB(A)	66	66	66	66
Net dimension (W*D*H)		mm	1066*535*408	1066*535*408	1066*535*408	1066*535*408
Packaging dimension (W*D*H)		mm	1150*630*480	1150*630*480	1150*630*480	1150*630*480
Unit weight	Net	LBS	99	104	110	112
	Gross	LBS	112	117	123	122
Refrigerant	Type		R410A	R410A	R410A	R410A
	Charge	g	840	910	870	970
Outdoor Operation temp. range	Cooling	℃	12-48	12-48	12-48	12-48
		℉	53.6-118	53.6-118	53.6-118	53.6-118
	Heat pump	℃	3-27	3-27	3-27	3-27
		℉	37.4-80.6	37.4-80.6	37.4-80.6	37.4-80.6

（4）R410A 208-230V 60Hz Cooling only with E-heater（C series）

Model name			GC-07ENR1-C/ PCNTW07K3C6TU	GC-09ENR1-C/ PCNTW09K3C6TU	GC-12ENR1-C/ PCNTW12K3C6TU	GC-15ENR1-D/ GCUHP-15ANR1-C
Power supply		V/Ph/Hz	208/230V/1/60	208/230V/1/60	208/230V/1/60	208/230V/1/60
Cooling	Capacity	Btu/h	6800/7200	9300/9500	11800/12000	14300/14500
	EER	Btu/w.h	11.9/11.9	11.7/11.4	10.7/10.5	10.2/10.2
Indoor air flow (Hi/Lo)		CFM	352/250	352/250	405/333	405/370
Indoor noise level (Hi/Lo)		dB(A)	45/35	45/35	48/42	48/45
Outdoor noise level		dB(A)	66	66	66	66
Net dimension (W*D*H)		mm	1066*535*408	1066*535*408	1066*535*408	1066*535*408
Packaging dimension (W*D*H)		mm	1150*630*480	1150*630*480	1150*630*480	1150*630*480
Unit weight	Net	LBS	99	104	110	112
	Gross	LBS	112	117	123	122
Refrigerant	Type		R410A	R410A	R410A	R410A
	Charge	g	840	910	870	970

Outdoor Operation temp. range	Cooling	℃	12-48	12-48	12-48	12-48
		°F	53.6-118	53.6-118	53.6-118	53.6-118

Ⅲ Parts' Name



Wall sleeve: all our sleeves have industry standard dimensions of 42'' wide x 16'' high. The 14'' depth is the industry standard. Sleeves may be shipped separately to allow for installation during construction.

Outdoor grill: available in stamped aluminum louvered for application with wall sleeve.

Condensated drain kit: attaches to the wall sleeve base pan for controlled internal or external disposal of condensate.

Ⅳ Controller Function Manual and Operating Method

Controller Function Manual

This function manual is applicable to PTAC. The unit for temperature is centigrade. If there's Fahrenheit, their transition relations is T Fahrenheit =T centigrade *1.8+3.2.

1. Temperature Parameter

   - Indoor setting temperature (T_{peset})
   - Indoor ambient temperature (T_{amb})

2. System Basic Function

   In any circumstances, the compressor will delay 3 mins for protection once it's started up. Once the compressor is started up, the compressor won't stop with the change of the indoor temperature. While once the compressor is stopped, it can be started up only after 3mins delayed. (The compressor can be stopped immediately at the time of mode switchover, turning off the unit, adjusting setting temperature and turning to protection functions.)

   1) Cooling Mode

      Working conditions and process for cooling:

      When Tamb≥T_{preset}+2℉(1℃), the unit is running in cooling mode. Meanwhile, the compressor is running and the fan is running at the setting fan speed; When T_{amb}≦T_{preset}-2℉(1℃), the unit is turn to OFF status. Meanwhile, the compressor will stop, while the fan will run at the setting fan speed for 15s delay; When T_{preset}-2℉(1℃)<T_{amb}<T_{preset}+2℉(1℃), the unit keeps previous running status.

      ◇In this mode, the dual 8 nixietube displays the setting temperature and the cooling LED is bright. The setting temperature range is 60~90℉(16~32℃).

   2) Fan Mode

      In this mode, the compressor won't run and the temperature can't be adjusted (UP and DOWN are invalid). The fan can select high, and low fan speed to run. The dual 8 nixietube displays ambient temperature (32~99℉, when ambient temperature is higher than 99℉, it will display 99; when ambient temperature is lower than 32 ℉, it will display 32), and the fan LED is bright.

   3) Auto Mode

      Working conditions and process is auto adjusted by the indoor ambient temperature. When Tamb＞78℉(26℃), the unit is running in cooling mode. Meanwhile, the compressor is running and the fan is running at the setting fan speed. When Tamb ＜ 70℉(21℃), the unit is running in heating mode; If 70℉(21℃)≤ Tamb≤78℉(26℃), the unit is running in fan mode.

      If the unit is cooling only unit, it will run in fan mode when Tamb≤78℉(26℃).

   4) Heating Mode

      Working condition and process for heating:

      When Tamb≤Tpreset-2℉(1℃), the unit is running in heating mode. Meanwhile, the compressor is running and the fan is running at the setting fan speed; When Tamb≥Tpreset+2℉(1℃), the unit is turn to OFF status. Meanwhile, the compressor will stop, while the fan will run at the setting fan speed for 15s delay; When Tpreset-2℉(1℃)<Tamb<Tpreset+2℉(1℃), the unit keeps previous running status.

Electric heater can't work with compressor at the same time. When T3＜44℉(7℃), unit will run with Electric-heater, when T_{amb}≥44℉(7℃), unit will run with compressor.

5) Low Temperature Resistant Protection

This is valid in standby cooling and fan mode.

Entry condition: If dial-up chooses the low temperature resistant protection and it's detected that the indoor ambient temperature is lower than 50℉(10℃) for 3mins successively .

Quitting condition: When the indoor ambient temperature is raising more than 55 ℉ (13℃), the low temperature resistant protection will be stopped

After entering into the low temperature resistant protection, it can't be quitted by pressing any buttons ;(except the heating mode) others: In the low temperature resistant protection, the dual 8 displays "L0'".

6) Open circuit and short circuit of temperature sensor

If the temperature sensor is open circuit or short circuit, it must send the error signal. The error signal is displayed by the displayer "dual 8"(it won't display when turning off the unit, while the malfunction LED will display it). If the malfunction of temperature sensor is detected in continuous 30s, unit will turn off.

3. Buttons and Display

1) Buttons

There are ON/OFF, UP, DOWN, HEAT, COOL, FAN and FAN SPEED seven buttons in all...

In ON status, all the buttons are in valid.

①ON/OFF: After pressing the ON/OFF button, the unit can be switched between ON and OFF.

②COOL, HEAT, FAN: In ON status, after pressing the any one of the three buttons, the unit can be running in the mode you have choice; In standby mode, after pressing the MODE button, the controller will run at the running status.

③FAN SPEED: In ON status, after pressing the FAN SPEED button, you can select the high, low and auto fan speed.

④UP, DOWN: Adjust the setting temperature (60-90℉)(16~32℃) by pressing the UP and FAN SPEED buttons and you can also select other setting temperature range through configuration.

2) Dual 8 Display and LED Display

Two 8 segment nixitube and 7 LEDs (ON/OFF, HIGH, LOW, AUTO, HEAT, COOL, FAN).

①Mode LED display: when the A/C is running in a certain kind of mode, the corresponding LED is bight.

②ON/OFF LED: In ON status, the controller is in green color.

③Fan speed display: when the A/C is running at high, low and auto fan speed, the corresponding LED is bright.

④Dual 8 displays: In cooling and heating mode, it is default to the display the indoor ambient temperature.

⑤Malfunction Display

After energization, STATUS LED is bright, while when there's malfunction or protection, STATUS LED will display in any circumstances. The details are as below: priority is decreasing from 1 to 8.

1	Indoor ambient temp sensor failure	Dual 8 displays "E2 "
2	Indoor coil temp sensor failure	Dual 8 displays "E3"
3	High temperature protection of air outlet	Dual 8 displays "E4"
4	Outdoor coil temp sensor failure	Dual 8 displays "E5"
5	Air outlet temp sensor failure	Dual 8 displays "E7"
6	Overheating protection/defrosting	Dual 8 displays "E8"
7	High temp protection of outdoor coil	Dual 8 displays "E9"

4.Special Functions

1) Configuration that is easy for hotel personnel to repair (8 DIP switch, the configuration is valid only after power failure)

① Heat with hydronic

ON- heat with water; OFF- normal heating mode; default-OFF, this function is only applicable to unit with hot water coil.

② Heat pump

ON- Heat pump function is valid; OFF-other heat function

③ E-heater

ON-electric heater is valid; OFF- other heat function

④ Heat with gas

ON-gas heat is valid; OFF-other heat function

Remarks: IF A、B、C、D above are all OFF, the unit is cooling only.

⑤ Low temperature resistant is prohibited

ON- valid; OFF- invalid; default—ON

⑥ Auto-restart

ON- it's valid. OFF- it's invalid. Default-ON

⑦ FAN CONTINUOUS /CYCLE FOR HEAT

ON-fan is constantly running; OFF-fan will be stopped according to the loads (HEAT. COMP); Default-OFF.

⑧ FAN CYCLE/CONTINUOUS FOR COOL

ON- fan will be stopped according to the loads (COOL. COMP); OFF- fan is constantly running; default-OFF.

2) Configuration mode

After the unit is turned on, we could change the modes blow by pressing different buttons:

Mode one: Fahrenheit / Centigrade display mode

Fahrenheit and Centigrade display mode can be switched by pressing Set point up or Set point down button for 3s.

Mode two: Display switchover between setting temperature and ambient temperature in heating and cooling mode

Press the Set point up button or Set point down button to display the set temperature, after finish setting, the dual 8 will flash for 5s, then display back to indoor ambient temperature.

Mode three: Display switch for different temperature set range.

Press up and Fan Speed button at the same time, dual 8 will circulatory display R1—R8, default is R8.

Mode four: exchange between 24V universal wire controller and control board.

Press the "HEAT" and "+" buttons for 5 seconds at the same time, the digital display tube will display "r" and buzzer will ring twice when it changes to 24V universal wire controller; it will display "p" and buzzer will ring once when it changes to control board.

1) Memory Function

Energizing after power failure, the controller is running according to the status before power failure.

2) Restore factory settings

Change the dipswitch 6 to OFF status, and then cut off the power supply, and then switch on the power supply, the unit will come back the default status except that temperature setting range.

5. Protection Functions

1) Indoor Coil Frost Protection in cooling mode

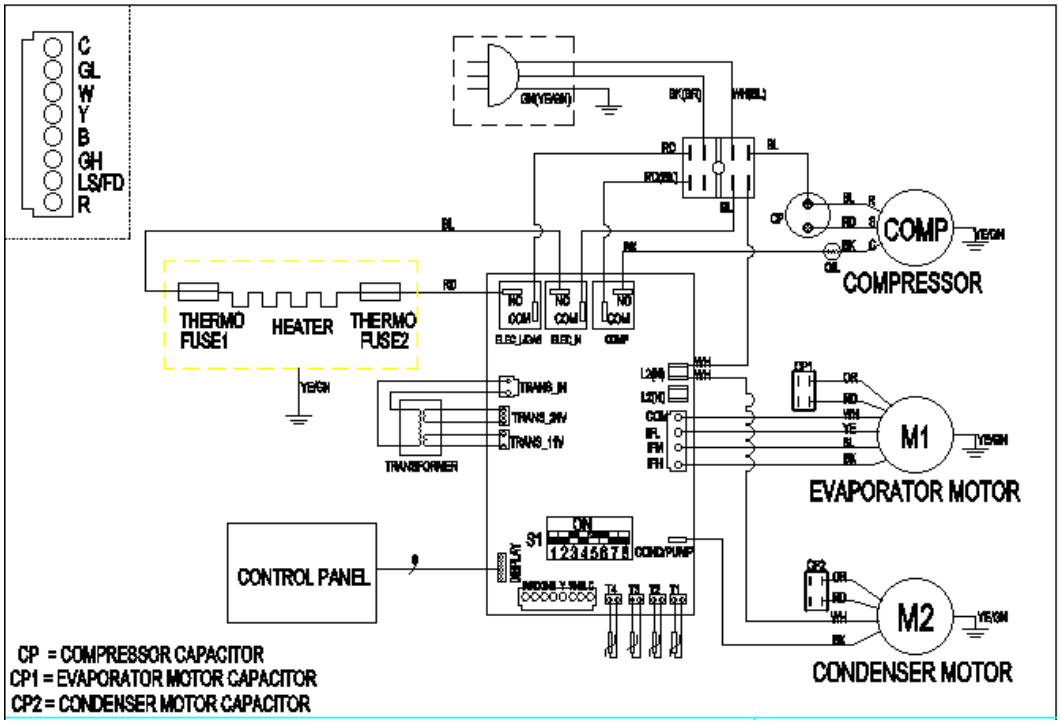
When compressor has run for 12 mins, and indoor coil temperature≤33℉（1℃），compressor and outdoor fan stop, and indoor fan keep running. When indoor coil temperature≥59℉（15℃）for 5 mins, or ambient temperature≤set temperature or unit OFF or mode switch, it will quit protection mode.

2) High pressure protection

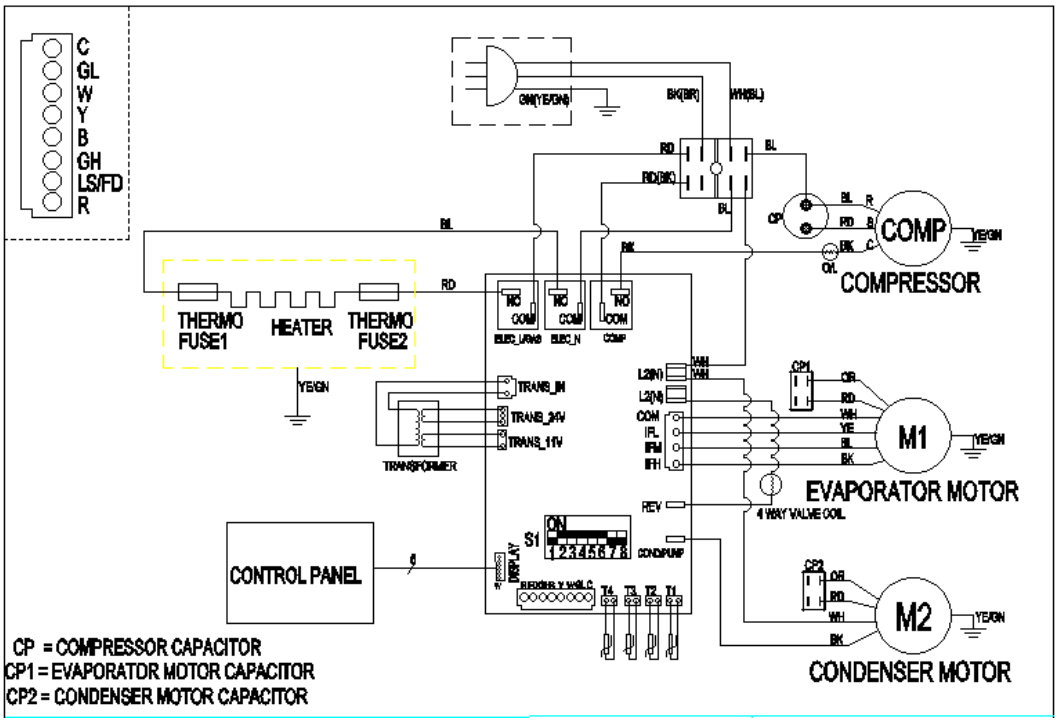
When pressure is higher than normal condition, high pressure switch open for 3s, compressor、outdoor fan、4-way valve are in protection mode, if after 10 mins that compressor has stopped, the system comes back to normal pressure condition, units quit protection mode.

V Electric Circuit Diagram

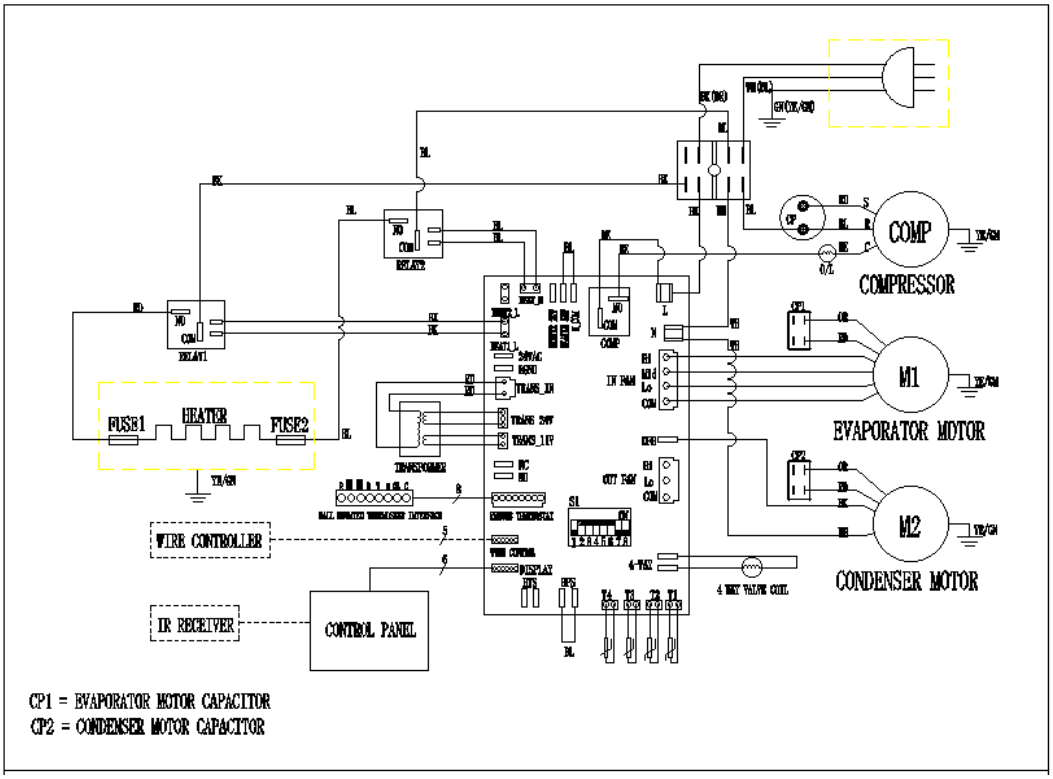
(1) GC-07/09/12/15ENR1F-C



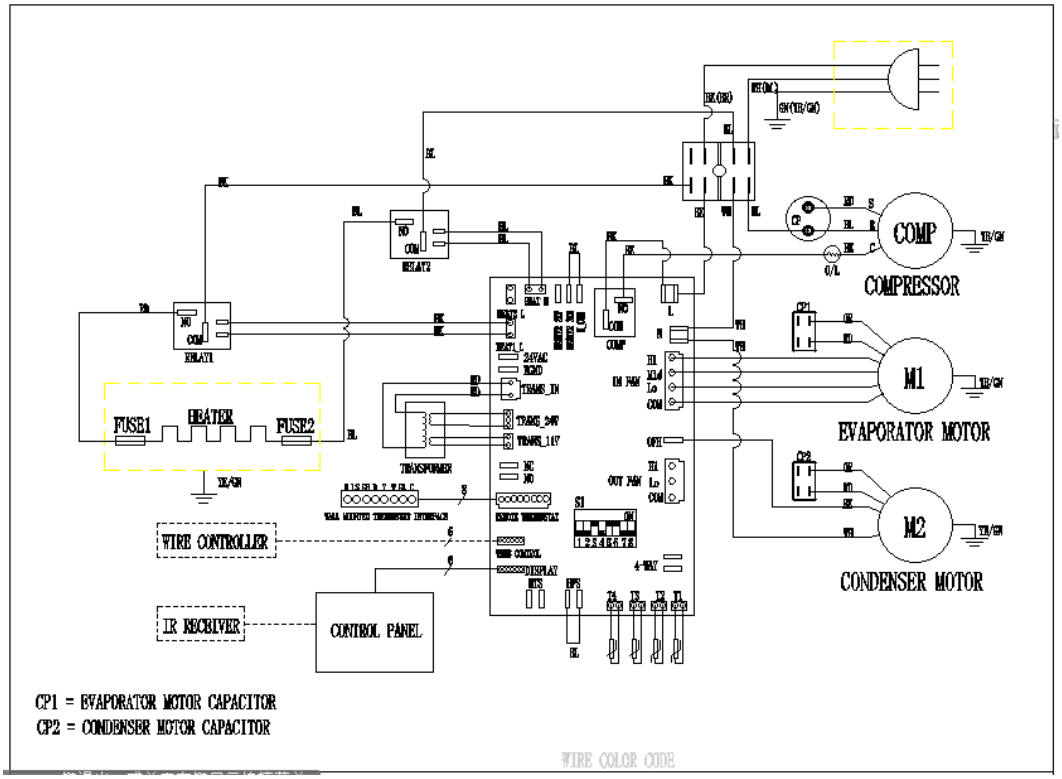
（2）GCHP-07/09/12/15ANR1F-C



（3）GCHP-07/09/12/15ENR1-C、GCUHP-07/09/12/15ANR1-C



（4）GC-07/09/12ENR1-C、GC-15ENR1-D、PCNTW07/09/12/15K3C6TU



SELECTOR SWITCH		WIRE COLOR CODE			
S1.1	Hydronic Heat Enable/Disable(Default)	BL	BLUE	WH	WHITE
S1.2	Heat Pump Enable(Default)/Disable	BR	BROWN	RD	RED
S1.3	Electric Heat Enable(Default)/Disable	GN	GREEN	BK	BLACK
S1.4	Heat Pump Prior(Default)/Electric Heat Prior	OR	ORANGE	YE	YELLOW
S1.5	Room Freeze Protection Enable(Default)/Disable				
S1.6	Electric Memory Enable(Default)/Disable				
S1.7	Fan CON./CYC. (Default)for heating				
S1.8	Fan CYC./CON. (Default)for cooling				

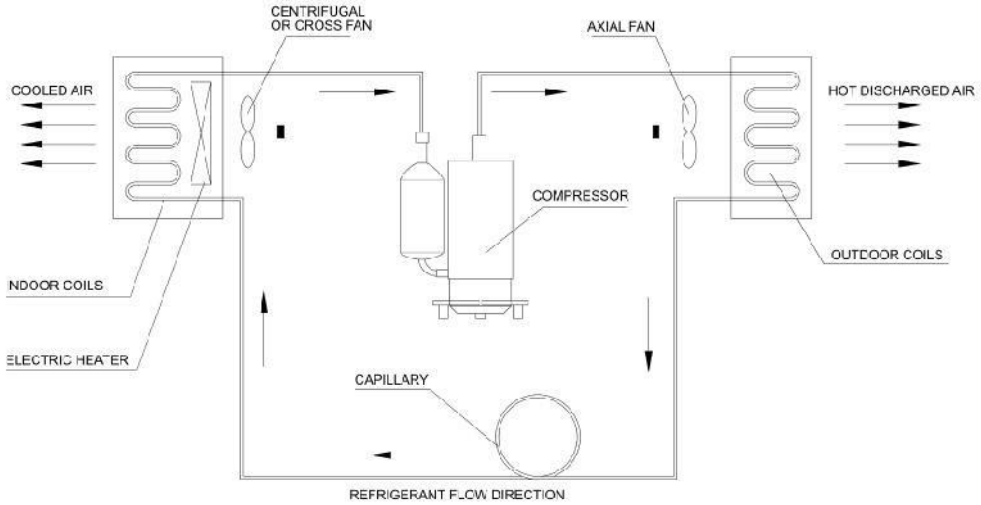
If the above electric circuit diagram has changed, please refer to it on the unit body.

Remarks: LS agreement: It's a switching signal that when terminal "R" and "LS" close-break-close or break-close-break; five seconds is a cycle, if the switching signal appears once in one cycle, the unit will start. If the switching signal appears twice in one cycle, the unit will stop. If LS and R closing has lasted for about five second, the unit will be forced to stop.

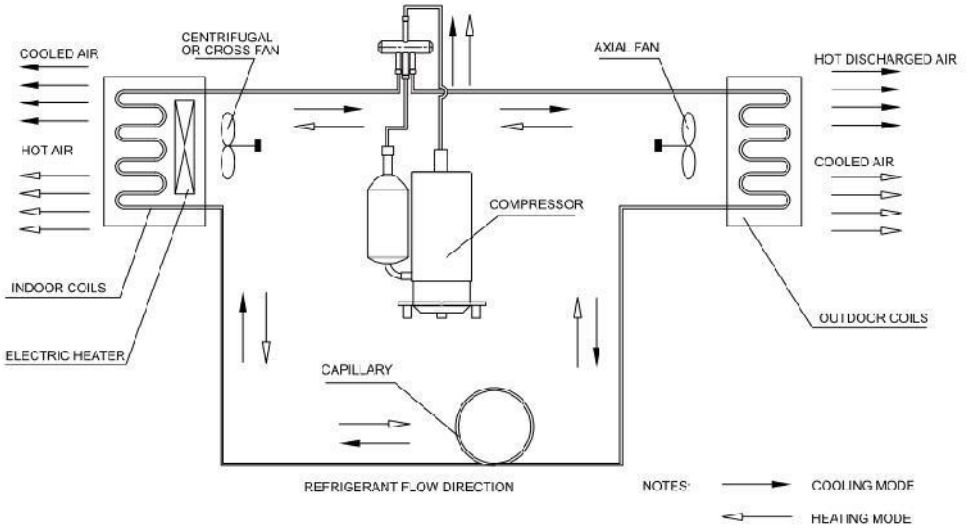
And this function can't be stored.

VI Refrigerant System Diagram

Modes: GC-07ENR1F-C /GC-09ENR1F-C/ GC-12ENR1F-C/ GC-15ENR1F-C
GC-07/09/12ENR1-C、GC-15ENR1-D、PCNTW07/09/12/15K3C6TU



Modes: GCHP-07ANR1F-C / GCHP-09ANR1F-C / GCHP-12ANR1F-C / GCHP-15ANR1F-C
GCHP-07ENR1-C/ GCHP-09ENR1-C/ GCHP-12ENR1-C / GCHP-15ENR1-C
GCUHP-07ANR1-C / GCUHP-09ANR1-C / GCUHP-12ANR1-C/ GCUHP-15ANR1-C



Ⅶ Malfunction Analysis

Malfunction	Reasons	Solve
Start Failure	Power line bad, units don't have power supply	Check the voltage on the output side, push the RESET button, if still don't have voltage, but power grid has output, you need to change the power line.
	Power line isn't fixed well	Check that whether power line is fixed well.
	PCB/power line fuse break	exchange the PCB fuse/power line
	Bad contact between PCB and control board	Check the contact, make sure that contact well
	Compressor delay start	It's normal, compressor will start after 3 mins
	Power cut	When power on, because of auto-restart, unit will start in 120~240s
	Power line protection trip	Check the wires that whether it comes cross plate or other metal, push the RESET button on the power line.
	Unit in protection mode	Please check the code in the manuals
	PCB or Control board is bad	Replace the PCB or control board
Control board/remote control not functioned	Connect wire controller, control board and remote controller, unit not functioned	If you need to use control board and remote controller, you need to unplug the wire controller
remote controller is not sensitive	Battery has been used for a long time; control board signal receiver is not assembled well; remote controller signal is blocked.	Replace new battery; check the signal receiver is well assembled, and no things block the remote controller.
Indoor fan/outdoor fan not functioned or run slowly	fan is locked by something or the connection wire is not fixed well, fan capacitor is not fixed well; fan capacitor is out of service life.	Check that whether fan can running normal, whether motor wire is fixed well; for the slowly running speed, you could change a new capacitor.
Not well cooling/heating	Something is blocked at the indoor air outlet.	Make sure that there are not anything at the indoor air outlet.
	Something is blocked at the outdoor air outlet.	Make sure that the grill is suitable for the unit, wrong grill will cause the compressor being protected; make sure that the grill has more than 70% turnover

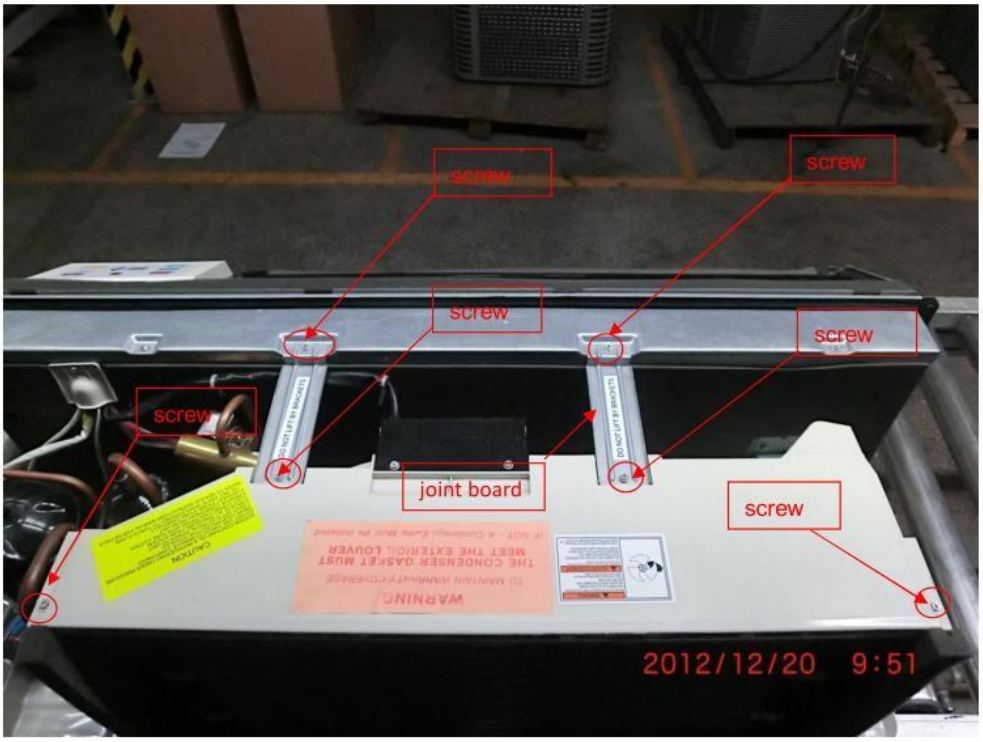
	Set not suitable temperature	Set higher/lower temperature by the control board, remark: temperature setting restriction will restrict the setting temperature.
	Indoor air return filter is blocked.	Should clean the filter every month at least.
	Room is hot/cold	Let unit run a little longer that room temperature will be lower/higher
	Heat leakage between indoor and outdoor	Block the leakage place
	Indoor coil not cold/heat	Charge the refrigerant
Unit has noise	Fan blow to plate or something in the air flue	Make sure that all the fan assembly are fixed well, and nothing is in the air flue
Bad smell when heating	The dust on the E-heater is heating	The bad smell will disappear a little later
Outlet temperature is not always cooling/heating	Outlet temperature is not high enough when heating by compressor	It's normal phenomenon, it blows comfortable air when heating.
	Fan stops when cooling/heating.	It's normal phenomenon that fan stops when get to setting temperature (In new control board, could choice the different running status by the dipswitch)
Air outlet temperature is not high enough when heating.	Air outlet temperature is not high enough.	Change to E-heater mode.
Outdoor is dripping water.	Not install the drain pipe assembly.	Install the drain pipe assembly.
Indoor is dripping water.	Wall sleeve is installed incorrectly.	Install the wall sleeve according to the installation manual.
Indoor coil freeze.	Outdoor temperature is too low.	When outdoor temperature is low to 12.8℃（55℉）or lower than this point, it will cause that indoor coil freeze, open the fresh air, and running at fan mode.
	Filter is blocked.	Clean the filter.
E2 Indoor temperature sensor failure	Indoor temperature sensor open circuit or short circuit	Check the sensor by multi-meter.
E3 Indoor coil temperature sensor failure.	Indoor coil temperature sensor open circuit or short circuit	Check the sensor by multi-meter.
E4 High temperature protection of air outlet		

E5 Outdoor coil temperature sensor failure.	Outdoor coil temperature sensor open circuit or short circuit	Check the sensor by multi-meter.
E7 Air outlet temp sensor failure	Air outlet temp sensor open circuit or short circuit	Check the sensor by multi-meter.
E8 Overheating protection/defrosting	Indoor fan failure/refrigerating system failure/indoor coil temperature sensor failure.	Check the indoor fan/refrigerating pipe/indoor coil sensor.
E9 High temperature protection of outdoor coil	Outdoor fan failure/refrigerating system failure/high pressure switch failure.	Check outdoor fan/refrigerating pipe system

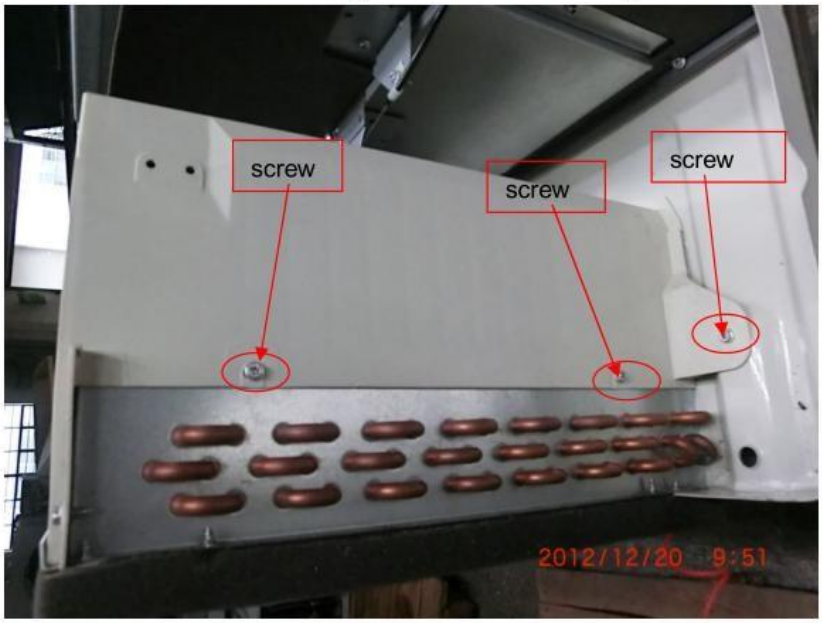
VIII. Removal Procedure

Disassembly of the whole outdoor side

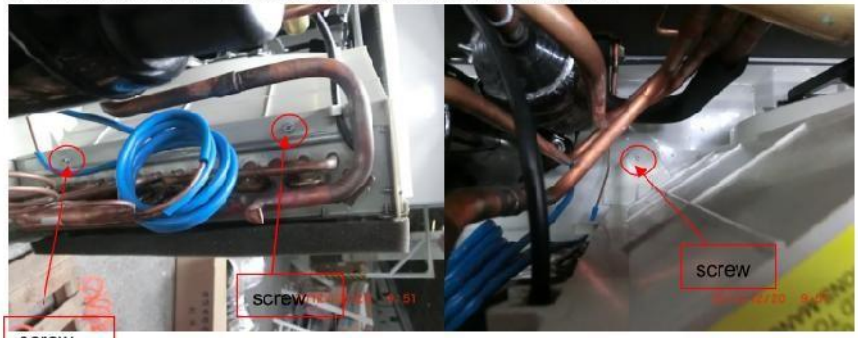
1、Remove the six screws on the top . Then remove the two connecting plate after remove the screws (noted in the pic).



2、Remove the three screws on the right side of the wind inlet guide.

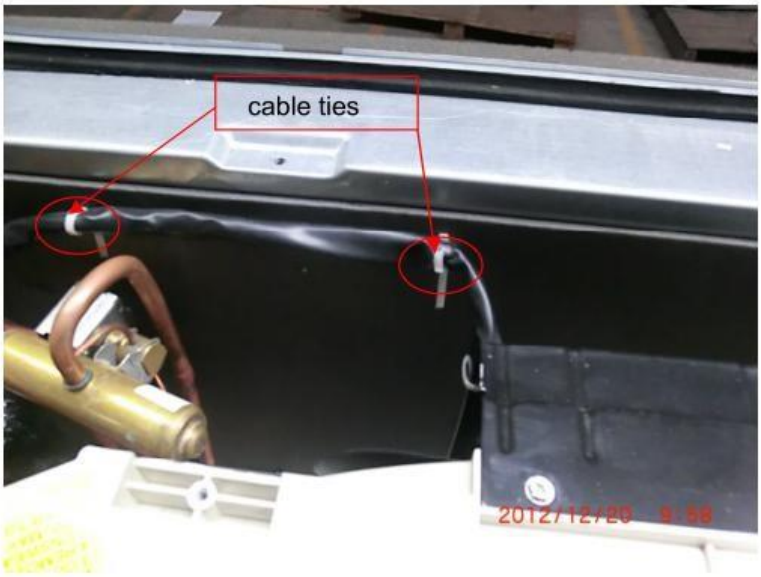


3、Remove the three screws on the left side of the wind inlet guide.



4、Then remove the two screws around the motor bracket.

5、Cut the two fixed outer motor ties,the cable ties is shown in the pic.



6、Take out the outside of the integral .

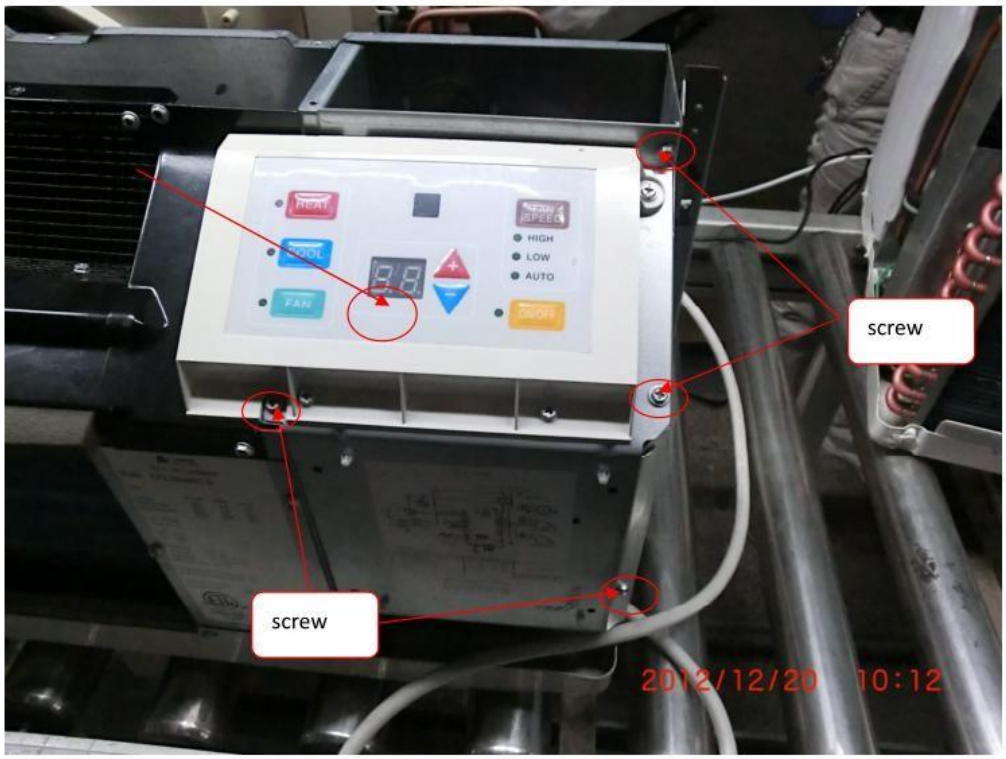
while installation, you can reverse the above steps , pay attention to making the screws firm.

Disassembly of the whole indoor side

1、First remove the top cover plate，10 screws need to be removed。(Note that one screw on each left and right side of the top cover plate)After that can remove the

top cover plate

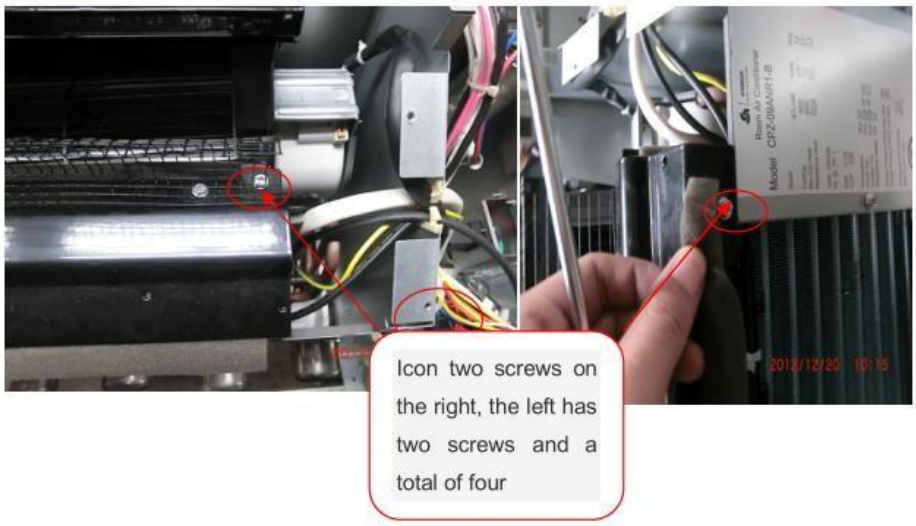
2、Open the electrical control box, you need to remove the four screws. As shown



3、Remove the seal plate (black small sheet metal), three screws need to be removed.

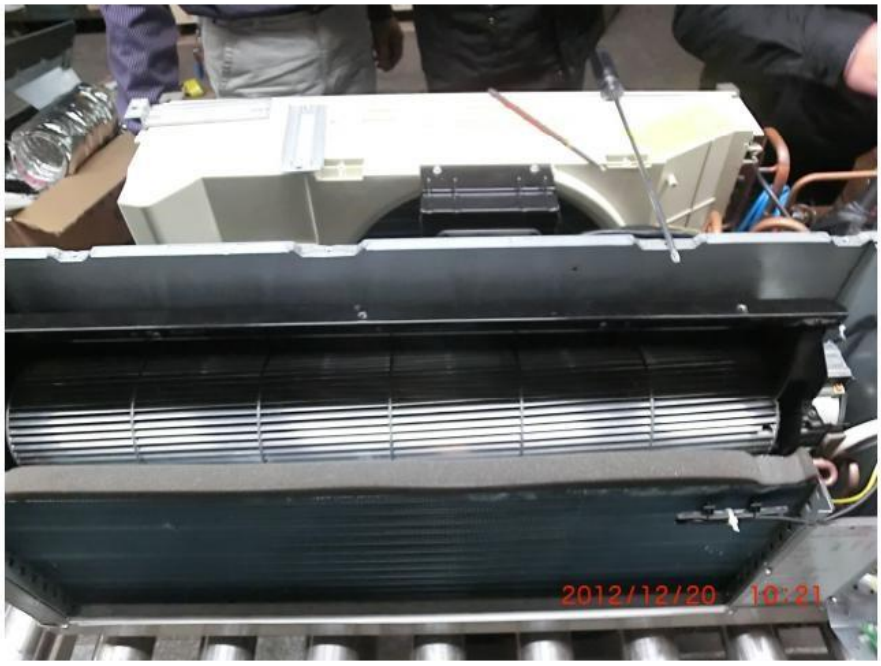
4、Remove air out the main components（First remove the retaining net screws , and then remove air out the main components）.nine screws need to be removed.

Then remove the four screws on the air out the main components



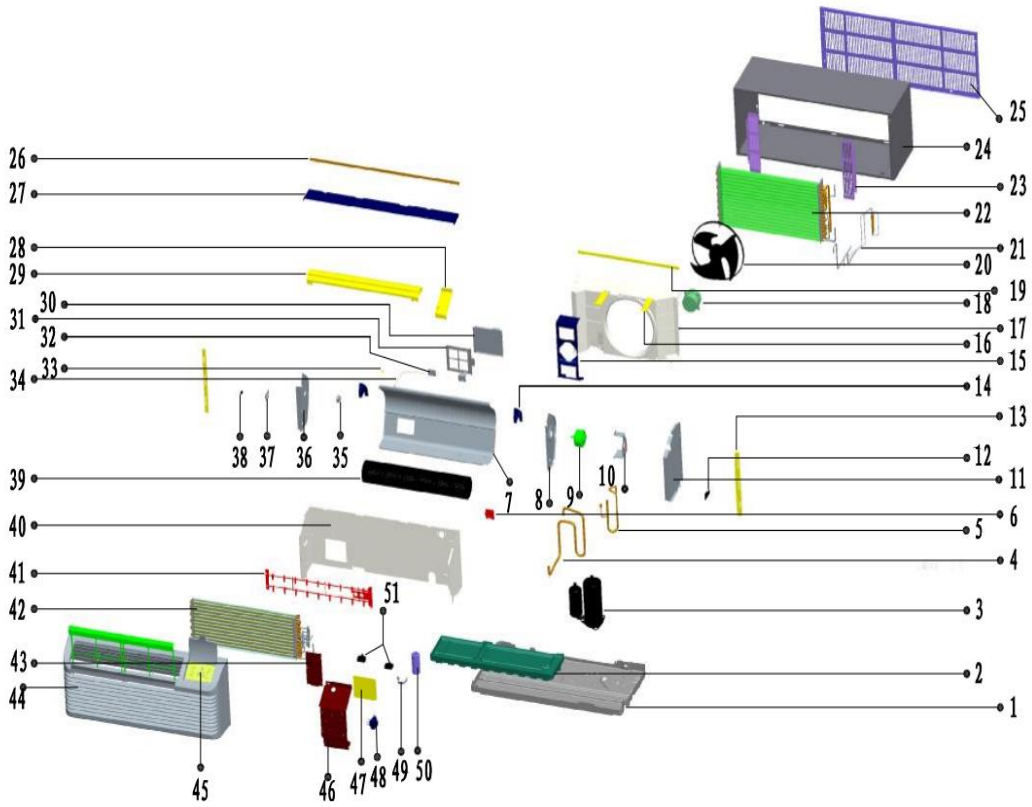
5、Remove fixing 2 screws of the left side of the partition wall (the whole left side).

6、Lift all indoor side vertically.




Notice
Flip here sheet metale will help you easy to lift overall indoor side vertically .
2012/12/20

IX. Explosive views and part list



Modes: GC-07ENR1F-C /GC-09ENR1F-C/ GC-12ENR1F-C/ GC-15ENR1F-C

No.	Part Name	Quantity
1	Chassis assembly	1
2	Foam drain tray	1
3	Compressor	1
4	Air return pipe assy	1
5	Discharge pipe assy	1
6	Line press plate	1
7	The main duct	1
8	Right side board assy of air duct	1
9	Indoor fan motor	1
10	Indoor fan motor bracket	1
11	Cable harness assy for left side panel of E-box	1
12	Crimp buckle	1
13	Left fixing buckle part / Right fixing buckle part	1
14	Left/Right duct deflector	1
15	Outdoor fan motor bracket	1

16	Connecting plate for outdoor air guide ring	2
17	Air guide ring	1
18	Outdoor fan motor	1
19	Fixing plate of air guide ring	1
20	Axial-flow fan blade	1
21	Capillary assy	1
22	Condenser assy	1
23	Air grid	2
24	Wall sleeve	1
25	Outdoor grille assy	1
25.1	Installation buckle of grille	5
25.2	Outdoor grille	1
26	Panel board support	1
27	Top cover	1
28	Seal board #2 assy	1
29	Air outlet assy	1
30	Fresh air inlet assy	1
31	Fresh air inlet filter	1
32	Fresh air inlet support	2
33	Fresh air inlet clamp	1
34	Fresh air inlet spring / tube	1
35	Bearing / Bearing fixed plate	1
36	Left side board assy of air duct	1
37	Fresh air inlet rail	1
38	Fresh air inlet lever	1
39	Cross-flow fan blade	1
40	Septum plate assy	1
41	Electric heater	1
42	Evaporator assy	1
43	Seal board #1 assy	1
44	Panel assy	1
44.1	Front panel	1
44.2	Panel fixing buckle	2
44.3	Filter	2
44.4	Filter rail	1
44.5	Outlet air grille	1
44.6	Cover of panel	1
45	Operation board assy	1
45.1	Electronic control box	1
45.2	Mask control panel	1
45.3	Operation panel	1
46	Electric control box flip	1

47	Mainboard	1
48	Transformer	1
49	Capacitor clip	1
50	Compressor capacitor	1
51	Fan motor capacitor (Indoor) / (Outdoor)	1
52	Outlet protection net	1
53	Condenser temp. sensor	1
54	Evaporator temp. sensor	1
55	Air return temp. sensor	1
56	LCDI power cord	1
57	Compressor connecting wire	1

GC-07、09、12、
15ENR1F-C.xlsx

Modes: GCHP-07ANR1F-C / GCHP-09ANR1F-C / GCHP-12ANR1F-C / GCHP-15ANR1F-C

No.	Part Name	Quantity
1	Chassis assembly	1
2	Drain valve	1
3	Foam drain tray	1
4	Compressor	1
5	4-way valve welding assembly	1
5.1	4-way valve	1
5.2	Coil of 4-way valve	1
6	Crimping plate	1
7	The main duct	1
8	Patch cotton component on the right side of the air duct	1
9	Indoor fan motor	1
10	Indoor fan motor bracket	1
11	Cable harness assembly for left side panel of E-box	1
12	Crimp buckle	1
13	Left fixing buckle part / Right fixing buckle part	1
14	Left/Right duct deflector	1
15	Outdoor fan motor bracket	1
16	Connecting plate for outdoor air guide ring	2
17	Air guide ring	1
18	Outdoor fan motor	1
19	Fixing plate of air guide ring	1
20	Axial-flow fan blade	1
21	Check valve assembly	1
21.1	Check valve	1
22	Condenser assembly	1
23	Air grid	2
24	Wall sleeve	1
25	Outdoor grille assembly	1
25.1	Installation buckle of grille	5
25.2	Outdoor grille	1
26	Panel board support	1
27	Top cover	1
28	Seal board #2 assy	1
29	Air outlet assy	1
30	Fresh air door cover paste cotton components	1
31	Fresh air door filter	1
32	Fresh air door support	2
33	Fresh air door crimp buckle	1
34	Fresh air door spring wire/ wire casing	1
35	Bearing / Bearing fixed plate	1

36	Left side board assy of air duct	1
37	Fresh air door guide rail	1
38	Fresh air door lever	1
39	Cross-flow fan blade	1
40	Middle partition sticking cotton assembly	1
41	Electric heater	1
42	Evaporator assy	1
43	Seal board #1 assy	1
44	Panel assy	1
44.1	Front panel	1
44.2	Panel fixing buckle	2
44.3	Filter	2
44.4	Filter rail	1
44.5	Outlet air grille	1
44.6	Cover of panel	1
45	Operation board assy	1
45.1	Electronic control box	1
45.2	Mask control panel	1
45.3	Operation panel	1
46	Electric control box flip	1
47	Mainboard	1
48	Transformer	1
49	Capacitor clip	1
50	Compressor capacitor	1
51	Fan motor capacitor (Indoor) / (Outdoor)	1
52	Outlet protection net	1
53	Condenser temp. sensor	1
54	Evaporator temp. sensor	1
55	Air return temp. sensor	1
56	LCDI power cord	1
57	Compressor connecting wire	1

GCHP-07，09，12，15ANR1F-C.xls

Modes: GCHP-07ENR1-C/ GCHP-09ENR1-C/ GCHP-12ENR1-C / GCHP-15ENR1-C
GCUHP-07ANR1-C / GCUHP-09ANR1-C / GCUHP-12ANR1-C/ GCUHP-15ANR1-C

No.	Part Name	Quantity
1	Chassis assembly	1
2	Drain valve	1
3	Foam drain tray	1
4	Compressor	1
5	4-way valve welding assembly	1
5.1	4-way valve	1
5.2	Coil of 4-way valve	1
6	Crimping plate	1
7	The main duct	1
8	Patch cotton component on the right side of the air duct	1
9	Indoor fan motor	1
10	Indoor fan motor bracket	1
11	Cable harness assembly for left side panel of E-box	1
12	Crimp buckle	1
13	Left fixing buckle part / Right fixing buckle part	1
14	Left/Right duct deflector	1
15	Outdoor fan motor bracket	1
16	Connecting plate for outdoor air guide ring	2
17	Air guide ring	1
18	Outdoor fan motor	1
19	Fixing plate of air guide ring	1
20	Axial-flow fan blade	1
21	Check valve assembly	1
21.1	Check valve	1
22	Condenser assembly	1
23	Air grid	2
24	Wall sleeve	1
25	Outdoor grille assembly	1
25.1	Installation buckle of grille	5
25.2	Outdoor grille	1
26	Panel board support	1
27	Top cover	1
28	Seal board #2 assy	1
29	Air outlet assy	1
30	Fresh air door cover paste cotton components	1
31	Fresh air door filter	1
32	Fresh air door support	2
33	Fresh air door crimp buckle	1
34	Fresh air door spring wire/ wire casing	1

35	Bearing / Bearing fixed plate	1
36	Left side board assy of air duct	1
37	Fresh air door guide rail	1
38	Fresh air door lever	1
39	Cross-flow fan blade	1
40	Middle partition sticking cotton assembly	1
41	Electric heater	1
42	Evaporator assy	1
43	Seal board #1 assy	1
44	Panel assy	1
44.1	Front panel	1
44.2	Panel fixing buckle	2
44.3	Filter	2
44.4	Filter rail	1
44.5	Outlet air grille	1
44.6	Cover of panel	1
45	Operation board assy	1
45.1	Electronic control box	1
45.2	Mask control panel	1
45.3	Operation panel	1
46	Electric control box flip	1
47	Mainboard	1
48	Transformer	1
49	Capacitor clip	1
50	Compressor capacitor	1
51	Fan motor capacitor (Indoor) / (Outdoor)	1
52	Outlet protection net	1
53	Condenser temp. sensor	1
54	Evaporator temp. sensor	1
55	Air return temp. sensor	1
56	Air outlet temp. sensor	1
57	LCDI power cord	1
58	Compressor connecting wire	1

GCHP-07(09,12,1
5)ENR1-C, GCUHP

Model: GC-07/09/12ENR1-C、GC-15ENR1-D、PCNTW07/09/12/15K3C6TU

No.	Part Name	Quantity
1	Chassis assembly	1
3	Bubble water tray	1
4	Compressor	1
5	Capillary assembly	1
6	Line press plate	1
7	The main air duct	1
8	Right side board assy of air duct	1
9	Indoor single-axle motor	1
10	Indoor motor support	1
11	E-box left side board assy	1
12	groove clamp	1
13	Fixing clamp components	1
14	Left and right parts of air duct	1
15	Outdoor motor support	1
16	Connection plate	2
17	Wind inlet guide	1
18	Outdoor single-axle motor	1
19	Wind inlet guide plate	1
20	Propeller fan	1
22	Condenser pre-welded components	1
23	Grill	2
24	Wall sleeve	1
25	Back grid ass'y	1
25.1	Back grid installation clamp	5
25.2	Back grid	1
26	Panel board support	1
27	Top cover	1
28	Seal board 2	1
29	Air outlet	1
30	Fresh air inlet cover	1
31	Fresh air inlet filter	1
32	Fresh air inlet support	2
33	Fresh air inlet groove clamp	1
34	Fresh air door spring wire/Fresh air door wire casing	1
35	Bearing / bearing fixed plate	1
36	Left side board assy of air duct	1
37	Fresh air inlet rail	1
38	Fresh air inlet lever	1
39	Cross-flow fan	1
40	Septum plate assy	1

41	Electric heating	1
42	Evaporator pre-welded components	1
43	Seal board 1	1
44	Panel components	1
44.1	Front panel	1
44.2	Fixing panel clamp	2
44.3	Filter net	2
44.4	Filter net rail	1
44.5	Outlet air grille	1
44.6	Panel cover	1
45	Control panel assy	1
45.1	Electrical box	1
45.2	control mask	1
45.3	Control board	1
46	Electrical box flip	1
47	Mainboard	1
48	Transformer	1
49	Capacitor clamp	1
50	Compressor capacitor	1
51	Indoor/Outdoor fan capacitor	1
52	Outlet grille	1
53	Condenser temp. sensor	1
54	Evaporator temp. sensor	1
55	Air return temp. sensor	1
56	Air outlet temp. sensor	1
56	LCDI power cord	1
57	Compressor power supply wire	1

2.EXP-CPS-07（0
9、12、15）ENR1