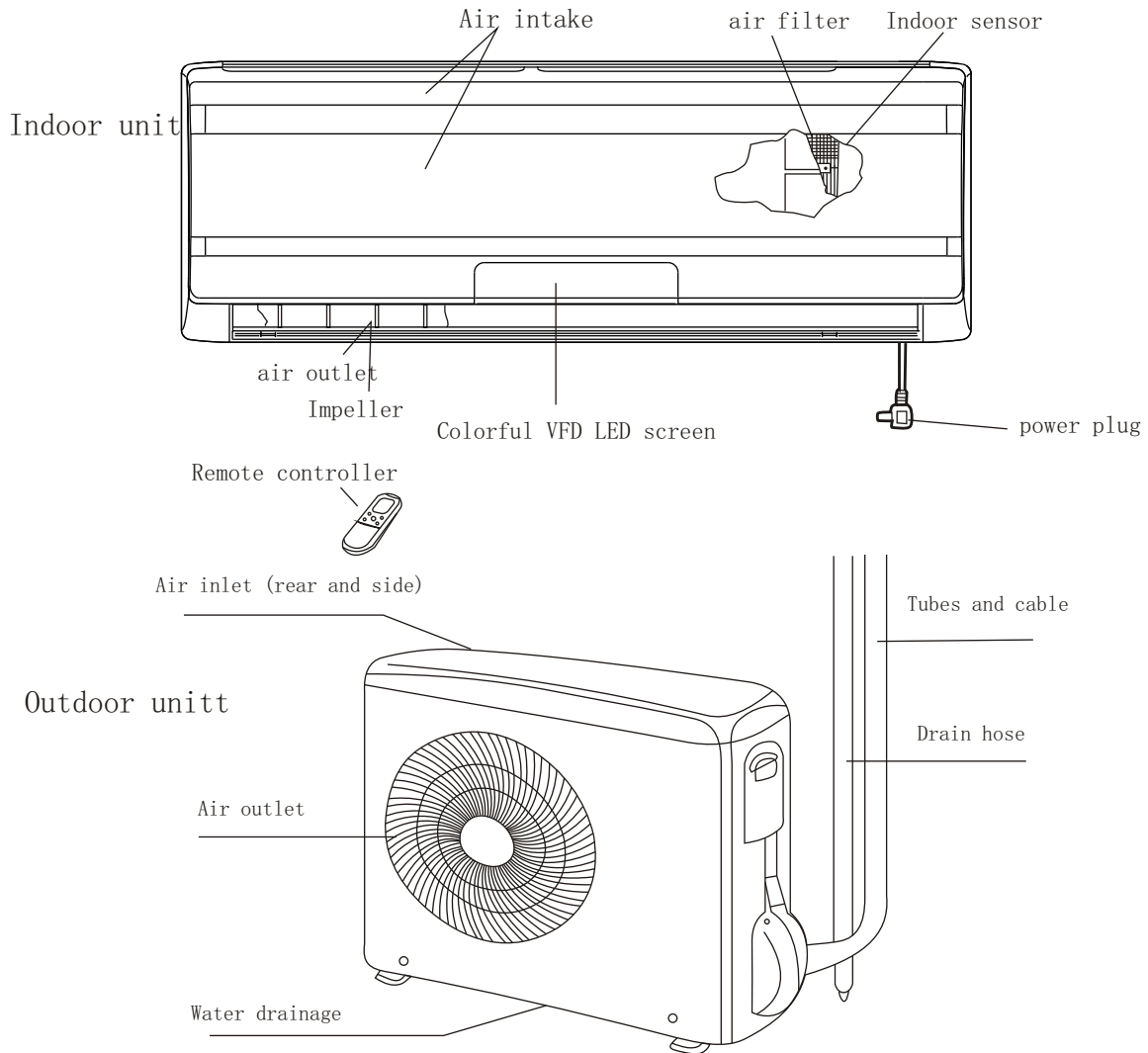


1. PART NAMES AND FUNCTIONS

Diagram of Structure



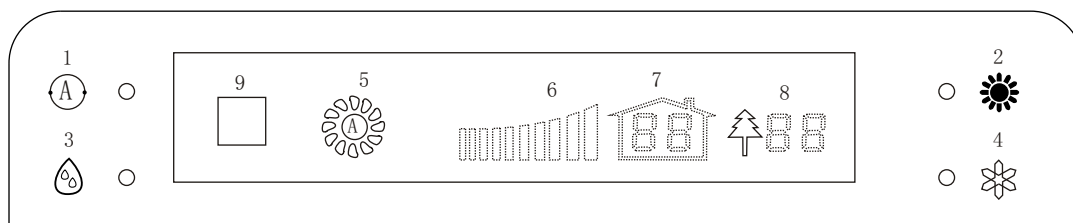
NOTE

This air conditioner consists of an indoor unit and an outdoor unit. You can control the air conditioner with the remote control unit.

Air Intake	Air from the room is drawn into this section and passes through air filters which remove dust.
Air Outlet	Conditioned air is blown out of the air conditioner through the air outlet.
Remote Control Unit	The wireless remote control unit controls power ON/OFF, operation mode selection, temperature, fan speed, timer setting, and air sweeping.
Refrigerant Tubes	The indoor and outdoor units are connected by copper tubes through which refrigerant gas flows.
Outdoor (Condensing) Unit	The outdoor unit contains the compressor, fan motor, heat exchanger coil, and other electrical components.
Drain Hose	Moisture in the room condenses and drains off through this hose

1. PART NAMES AND FUNCTIONS

Indoor unit LCD screen



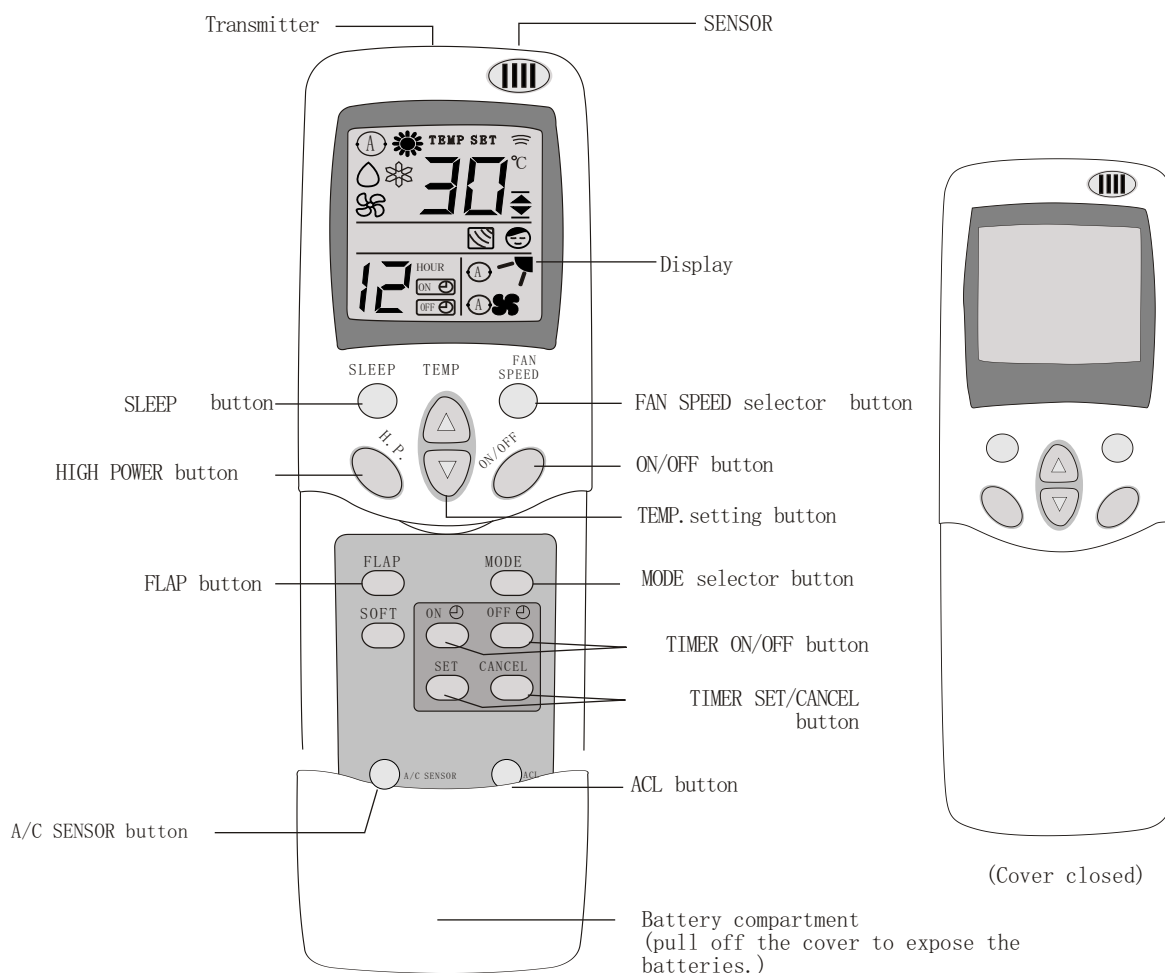
After change the setting content of remote control unit, the displaying content of screen can be changed.

Each part stands for:

1. AUTOMATIC OPERATION SYMBOL. The air conditioner in automatic mode.
2. HEATING SYMBOL. The air conditioner in heating mode
3. DEHUMIDIFICATION SYMBOL. The air conditioner in dehumidification mode
4. COOLING SYMBOL. The air conditioner in cooling mode.
5. FAN MODE AND WIND SPEED SYMBOL. When the impellers of symbol rotate in high speed, it means wind speed is high; When the impellers of symbol rotate in low speed, it means wind speed is low; When the symbol A lights in the meanwhile, it means wind speed is in auto mode; When among the symbol 1,2,3,4,5 only 5 lights, it means air conditioner is in fan mode.
6. RUNNING FREQUENCY DISPLAY SYMBOL: When outdoor unit works, it illuminates.
7. INDOOR TEMPERATURE SYMBOL: display the room temperature.
8. OUTDOOR TEMPERATURE SYMBOL: display outdoor temperature only when outdoor unit words in normal condition.
9. REMOTE CONTROL RECEIVER: receive the signal from remote control unit.

1. PART NAMES AND FUNCTIONS

Introduction of the Remote control Unit



NOTE

The illustration above pictures the remote control unit after the cover has been lowered and removed.

Transmitter	When you press the buttons on the remote control unit, the  mark appears in the display to transmit the setting changes to the receiver in the air conditioner.
SENSOR	A temperature sensor inside the remote control unit senses the room temperature.
Display	Information on the operating conditions is displayed while the remote control unit is switched on. If the unit is turned off, only the mode that was set previously is still displayed.
SLEEP button	For details, see "Night Setback Mode". When you press this button, in the HEAT, DRY or COOL mode, the  mark appears in the display, the remote control unit will automatically adjust the set temperature to save energy.
TEMP. Setting buttons	Press the  button to increase the set temperature. Press the  button to reduce the set temperature.
ON/OFF operation button	This button is for turning the air conditioner on and off.

2. SPECIFICATION

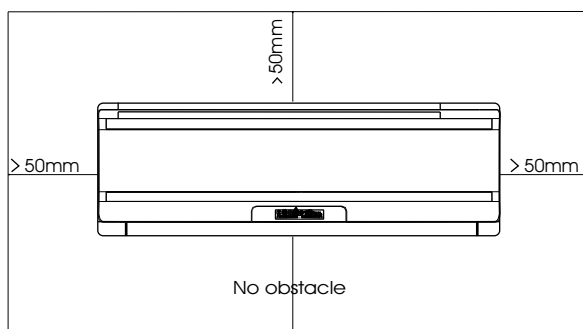
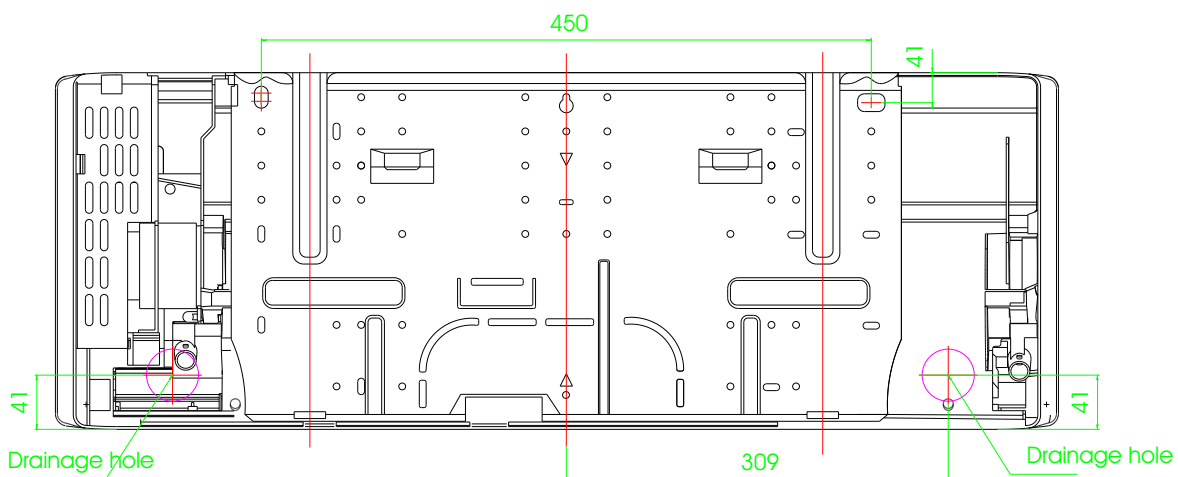
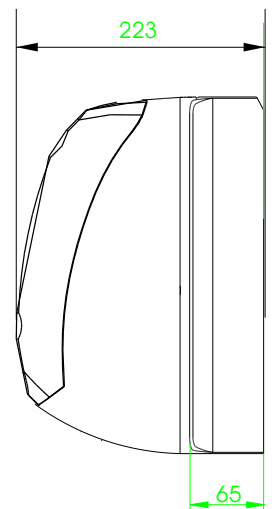
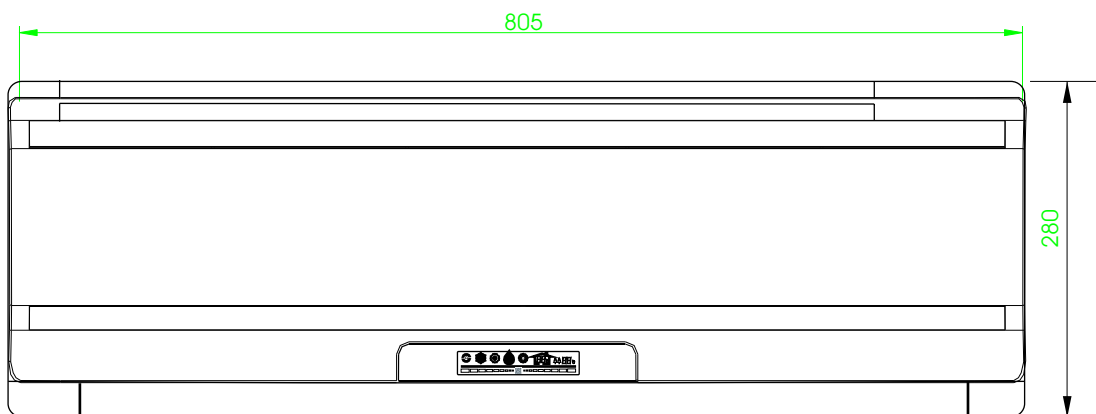
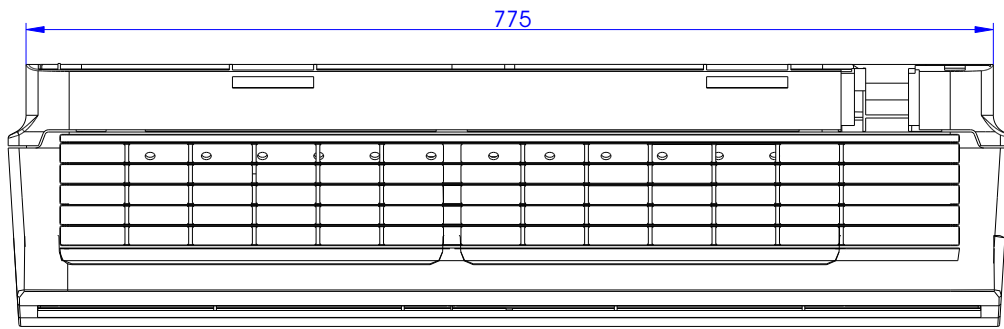
Model				KFR-3529GW/BPE	
Function				Cooling	Heating
Power supply				a.c 220V~230V/50Hz	
Capacity	Capacity	kW		3.5	4.5
	Dehumidification	l/h		1.5	—
	Air flow	m ³ /h		630	660
Electrical data	Running current	A		6.18	7.41
	Rated input	kW		1.25	1.5
	Auxiliary heater	A(KW)		—	
	Power factor	%		—	
	Starting current	A		—	
SEER/HSPE				3.40	2.80
Compressor	Model			SHV130FGEC	
	Winding resistance (at20)	Ω		T-R:0.87 T-S:0.87 R-S:0.87	
Indoor fan motor	Model			YYW16-4-415	
	Winding resistance (at20)	Ω		--	
Outdoor fan motor	Model			YDK29-6I-3	
	Winding resistance (at20)	Ω		M:179Ω/A:177Ω	
Net size	Indoor unit	L × W × H	cm	81 × 22 × 28	
	Outdoor unit	L × W × H	cm	80 × 26 × 57	
Package size	Indoor unit	L × W × H	cm	86 × 35 × 28	
	Outdoor unit	L × W × H	cm	94 × 36 × 61	
Net weight	Indoor unit / Outdoor unit		kg	11/36.0	
Refrigerant piping	Liquid pipe		mm	6.35	
	Gas pipe		mm	12.7	
	Connection method			Flared	
Special remarks	Air direction			6	
	Sound level (Hi)	Indoor unit	dB	42	
		Outdoor unit	dB	51	
	Fan speed (Hi)	Indoor unit	rpm	1250	
		Outdoor unit	rpm	780	
	Fan speed regulator	Indoor unit		3	
		Outdoor unit		3	
	Refrigerant filling capacity(R22)		kg	1.15	
	Throttle mode			Capillary	

NOTE :Test conditions :

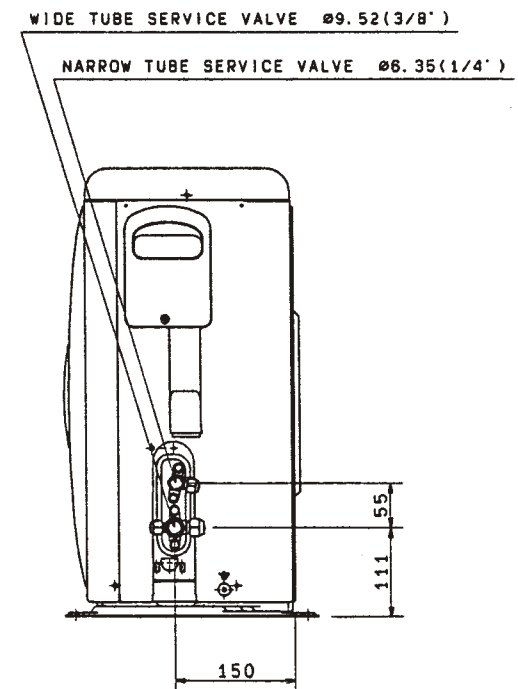
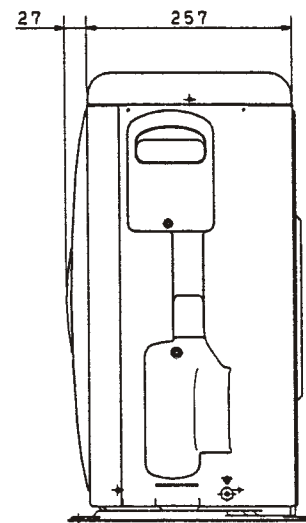
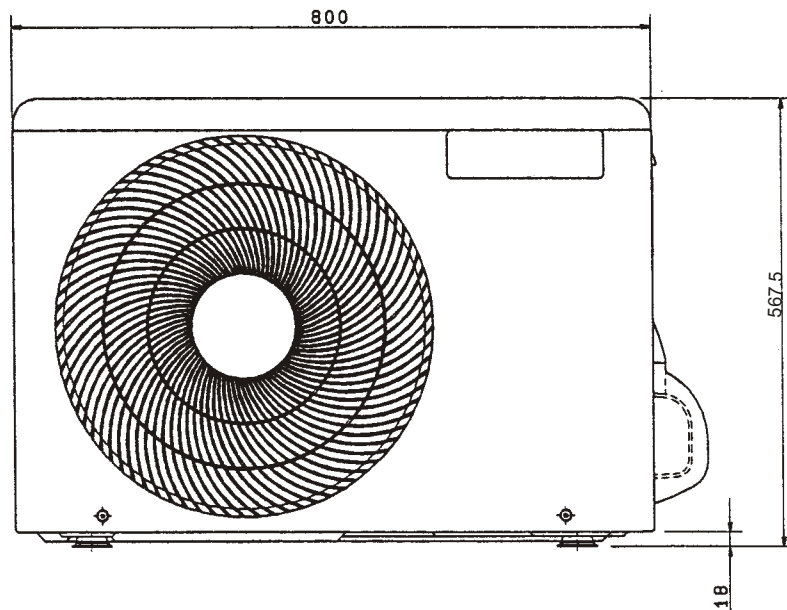
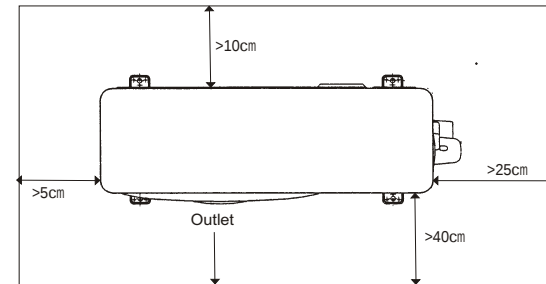
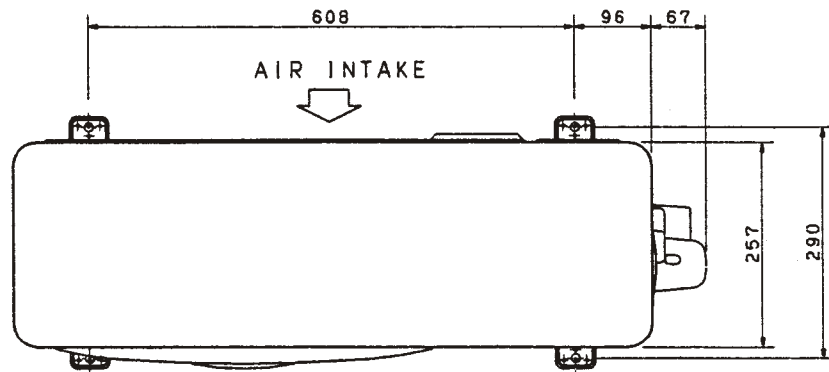
Cooling : Indoor: DB27 / WB19 Outdoor: DB35 / WB24

Heating: Indoor: DB20 / WB15 Outdoor: DB7 / WB 6

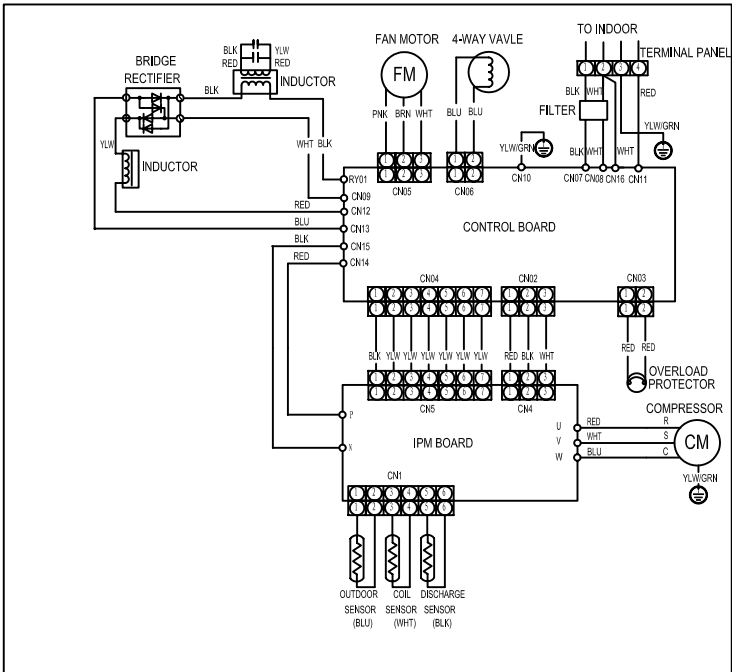
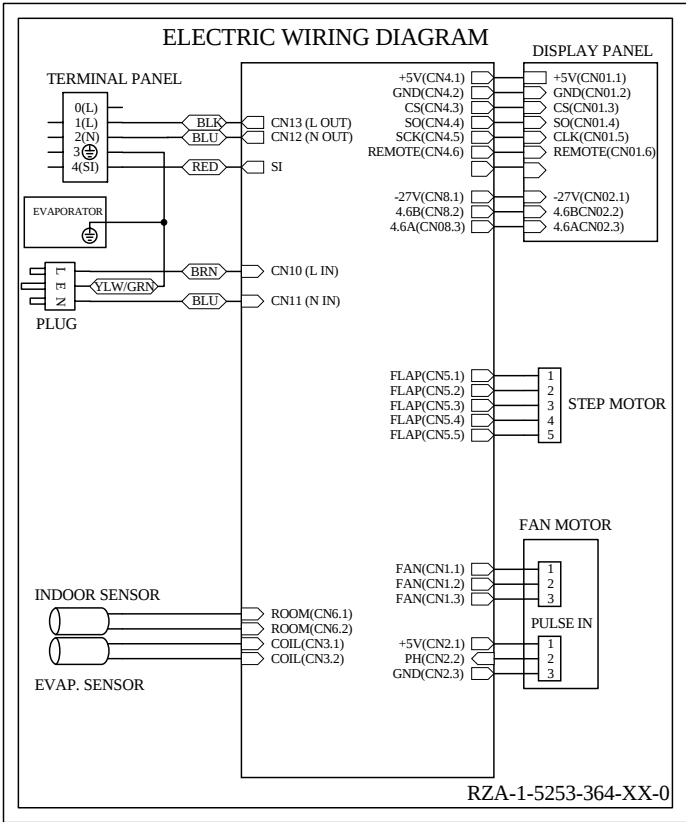
3.OUTLINES AND DIMENSIONS



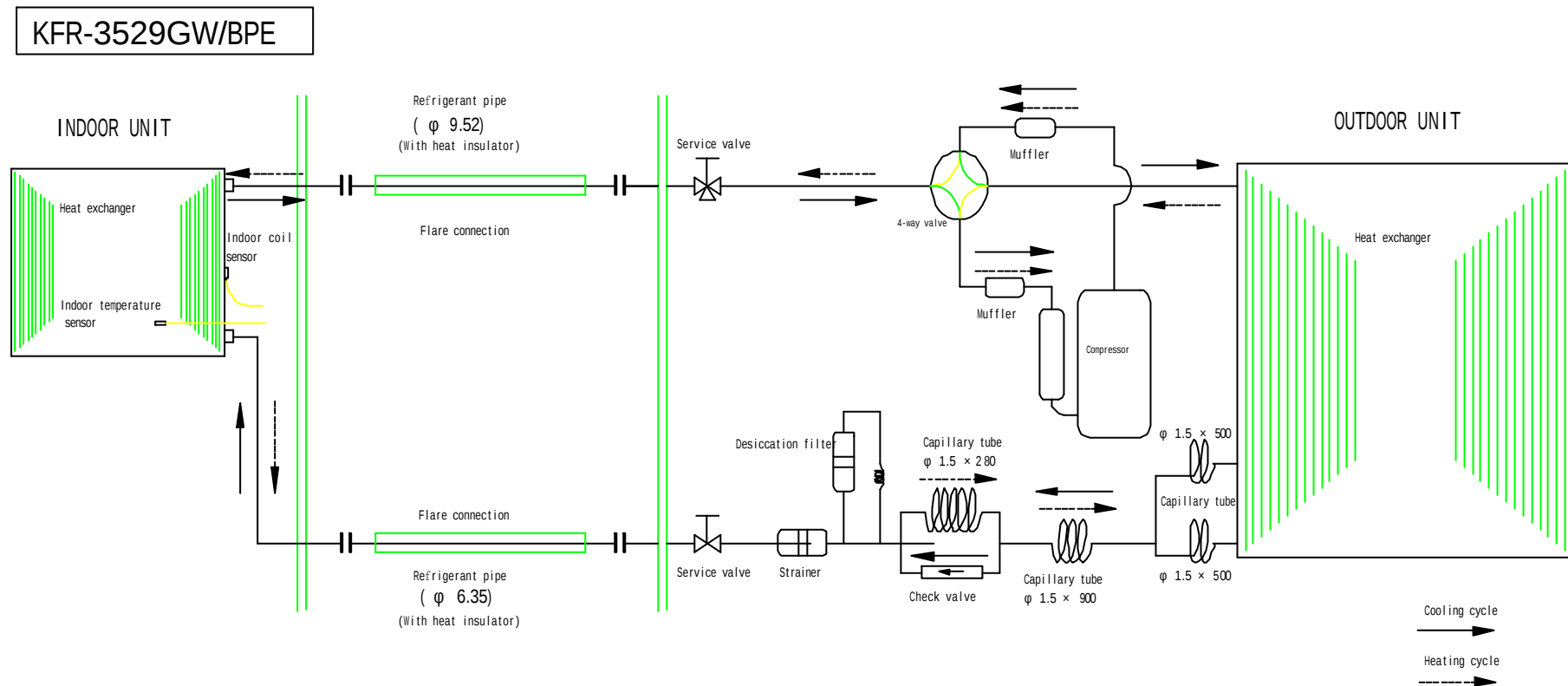
3.OUTLINES AND DIMENSIONS



4. WIRING DIAGRAM



5. REFRIGERANT SYSTEM DIAGRAM

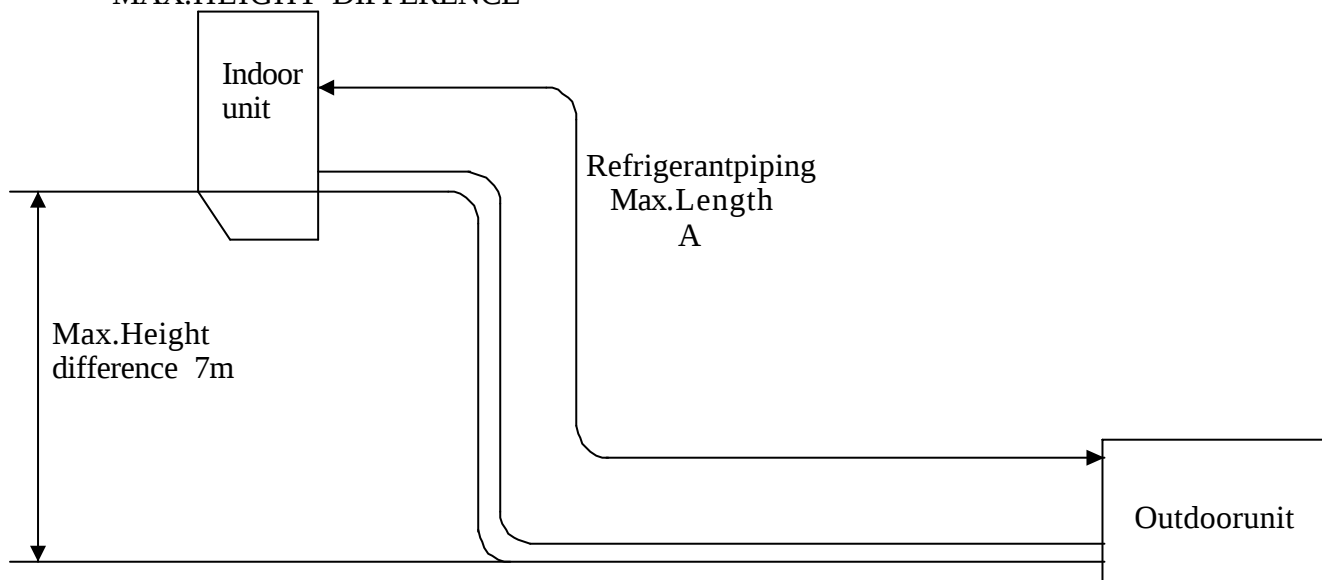


5.REFRIGERANT SYSTEM DIAGRAM

MAX.REFRIGERANT PIPING LENGTH

Modles	Refrigerant Piping Max.Length:m A	Piping size (OD):mm		Lengthofconnectingpipe:m	
		Gas	Liquid	Indoor unit	Outdoorunit
KFR-3529GW/BPE	15	12.7	6.35		

MAX.HEIGHT DIFFERENCE



ADDITIONAL:REFRIGERANT CHARGE(R-410A: g)

Modles	Outdoor unitprecharged (up to 7m)	Refrigerant piping length (one way)		
		7m	10m	15m
KFR-3529GW/BPE	1150	0	75	200

Cancellation: $Xg=25g/m \times (A-7)m$

5. REFRIGERANT SYSTEM DIAGRAM

EVACUATION PROCEDURES

Connect the refrigerant pipes (both the liquid and gas pipes) between the indoor and the outdoor units.

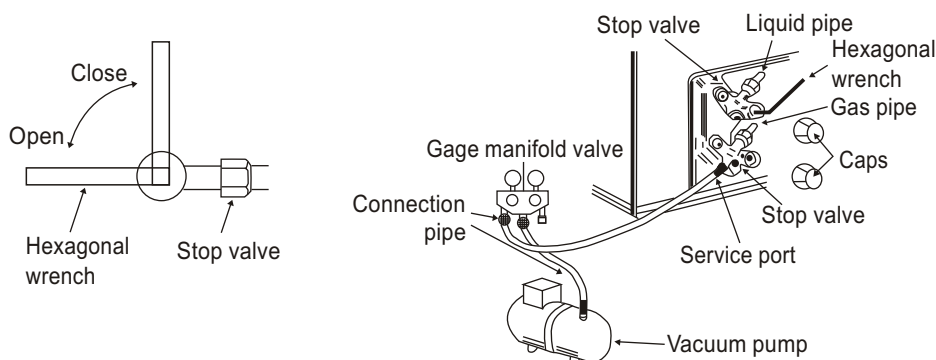
Remove the service port cap of the stop valve on the side of the outdoor unit gas pipe. (The stop valve will not work in its initial state fresh out of the factory (totally closed with cap on).

Connect the gage manifold valve and the vacuum pump to the service port of the stop valve on the gas pipe side of the outdoor unit.

Run the vacuum pump for more than 15 minutes and at this time confirm that the pressure gage indicates -0.1 Mpa (-76 cmHg).

Check the vacuum with the gage manifold valve, then close the gage manifold valve, and stop the vacuum pump.

Leave it as is for one or two minutes. Make sure the pointer of the gage manifold valve remains in the same position.



Remove the gage manifold valve quickly from the service port of the stop valve.

After refrigerant pipes are connected and evacuated, fully open all stop valves on gas and liquid pipe sides.
Operating without fully opening lowers the performance and causes trouble.

Pipe length
7m maximum
No gas charge is
needed.

Pipe length
exceeding 7m
Charge the prescribed
amount of gas.

Tighten the cap to the service port to obtain the initial status.

Retighten the cap.

Leak test

6.CONTROL MODE

KFR-3529GW/FBPE

Main control functions

I. Control functions of the remote controller (See operating and installation manual)

II. Display of the indoor unit

2.1 LED Display

The display screen consists of 4 LEDs, indicating the auto, cooling, heating and dehumidifying.

2.2 VFD Display

2.2.1 Frequency Display: indicates the compressor' s frequency with the high efficiency being displayed with a full light.

Step 1:	00 Hz - 29 Hz	Step 6:	70 Hz - 79 Hz
Step 2:	30 Hz - 39 Hz	Step 7:	80 Hz - 89 Hz
Step 3:	40Hz - 49 Hz	Step 8:	90 Hz - 99 Hz
Step 4:	50 Hz - 59Hz	Step 9:	100 Hz - 109 Hz
Step 5:	60 Hz - 69 Hz	Step10:	upwards of 110 Hz

2.2.2 Both the room and outdoor temperatures can be displayed (the outdoor temperature is not displayed during ventilation) within the range of -19 - 99 . When there is a change of the temperature setting, the room temperature displaying section changes to display the set temperature, and 5 seconds later it restores to display the room temperature; After pressing the shift key for temperature sensor on the remote controller for two times, the outdoor temperature displaying section displays the test results for the current status of the air conditioner with the zero being displayed when there isn't trouble or a corresponding trouble code when there is a trouble.

2.2.3 Airflow speed display: The VFD blade indicates the high, medium and low airflow speed with blade circumrotate speeds. The auto-icon on the center of blade indicates the auto airflow speed.

2.2.4 Run-mode display:

The auto, cooling, heating and dehumidifying are indicated with the LED icons on the panel; the ventilation is indicated with the running VFD blade.

III. Emergency switch

The emergency switch is used to turn on and off the air-conditioner without a remote controller.

The specific control scheme is as follows:

$T_{\text{room}} \geq 26$, cooling, temperature setting: 26 ; air direction and speed: automatic.

6.CONTROL MODE

$T_{\text{room}} < 23$, heating, temperature setting: 26 ; air direction and speed: automatic.

$23 \leq T_{\text{room}} < 26$, air supply

In addition, if recovery of cooling agent is required under low room temperature, the service people may press the emergency switch for over 5 seconds when the air-conditioner is turned off to start “forced cooling”, irrespective of the room temperature and the set temperature.

4. How to start the outdoor unit without the indoor unit:

First, short-circuit the two terminals of CN6 on IPM board of the outdoor unit and then switch on the power, the air conditioner is now in heating operation and the outdoor fan is running; disconnect the short circuit to actuate cooling run (compressor starts after a delay of 50 seconds) and the fan is still running; turn off the power, the outdoor unit stops.

IV. Operating modes of the air conditioner

Five running modes (automatic, heating, cooling, dehumidifying and air freshening) can be set with the remote control.

1. Automatic

- 1) When $T_{\text{room}} \geq T_{\text{set}}$, cooling run;
- 2) When $T_{\text{room}} < T_{\text{set}}$, heating run.

Once a running mode is set, it cannot be changed within 30 minutes, except for the following conditions:

When $T_{\text{room}} < T_{\text{set}} - 3$ during Auto cooling, the air conditioner will start heating run immediately; when $T_{\text{room}} < T_{\text{set}} + 3$ during Auto heating, the air conditioner will start cooling run immediately.

2. Cooling

- 1) The indoor fan works according to the settings of the remote controller:

Soft: 750rpm Lo: 950rpm Mid: 1100rpm Hi: 1250rpm Efficient: 1250rpm

Automatic

	$T_{\text{set}} - T_{\text{room}}$	Fan Speed		$T_{\text{set}} - T_{\text{room}}$	Fan Speed
Direction	1	Lo	Direction	1	Lo
	2	Lo		2	Mid
	3	Mid		3	Mid

6.CONTROL MODE

↓	4	Mid	↑	4	Hi
	≥ 5	Hi		≥ 5	Hi

- 2) Indoor stepper motor is controlled by the settings of the remote controller (See the Operation and Installation Manual).
- 3) Control of the compressor

The target frequency of the compressor is determined by the temperature difference between the set temperature and the actual room temperature: the larger the temperature difference, the higher the frequency. The voltage can be obtained from the V/F curve of the compressor. The compressor stops operation when the room temperature is lower than the set value (the compressor must be running for over 5 minutes).

Min	Max	Rated frequency
30	100	76

- 4) Control of the four-way valve

The 4-way valve is always “OFF”.

- 5) Outdoor fan

The fan runs at a constant speed, synchronous with the compressor.

- 6) Cooling overload

When $T_{\text{outdoor tube}} \geq 70$, compressor stops. When $T_{\text{outdoor tube}} \leq 50$, unit starts operation automatically in 3 minutes.

- 7) Anti-freezing function, the anti-freezing and frequency-restricting functions of the evaporator is active:

When $T_{\text{indoor tube}} > 10$, no frequency restriction;

When $T_{\text{indoor tube}} < 7$, frequency down;

When $T_{\text{indoor tube}} < -1$ for 3 minutes, compressor stops while indoor fan runs normally.

When $T_{\text{indoor tube}} \geq 7$ and compressor stops operation for 3 minutes, compressor will restart.

- 8) Current protection:

I_N (9A) is the normal current setting in E²ROM and I_{max} (13.5A) is the maximum running current in E2ROM.

6.CONTROL MODE

$I < I_o - 1.5A$	No restriction
$I > I_o + 1.5A$	Frequency down
$I \geq I_{max}$	Unit Shutdown

3. Dehumidifying

- 1) When $T_{room} - T_{set} \leq 2$, dehumidifying operation will start.

The indoor fan is forced to run at a constant speed and the compressor runs with high and low frequencies alternately, while the outdoor fan is running.

- 2) When $T_{room} - T_{set} > 2$, cooling run.

- 3) When $T_{set} - T_{room} \geq 1$, compressor and outdoor fan stop operation while indoor fan runs at 600 rpm (soft air).

4. Heating

- 1) If $T_{indoor\ tube} \geq 38$, the indoor fan runs according to the remote controller settings:

Soft: 750rpm Lo: 950rpm Mid: 1100rpm Hi: 1250rpm Efficient: 1250rpm

Automatic

	$T_{set} - T_{room}$	Fan Speed		$T_{set} - T_{room}$	Fan Speed
Direction ↓	1	Lo	Direction ↑	1	Lo
	2	Mid		2	Lo
	3	Mid		3	Mid
	4	Mid		4	Mid
	5	Hi		5	Mid
	≥ 6	Hi		≥ 6	Hi

- 2) The indoor stepper motor is controlled by the settings of the remote controller (See the Operation and Installation Manual).

- 3) Control of the compressor

Min	Max	Rated frequency
30	120	90

The target frequency of the compressor is decided by the temperature difference between the set temperature and the actual room temperature: the larger the temperature different, the higher the frequency. The voltage can be obtained from the V/F curve of the compressor. The compressor stops operation when the room

6.CONTROL MODE

temperature is higher than the set value (the compressor must be running for over 5 minutes).

4) Control of the four-way valve

The 4-way valve is always “ON” (except in defrosting run).

5) Outdoor fan motor

Single speed fan and running simultaneously with compressor.

6) i. Defrosting is in the mode of reverse cycle heating;

ii. Defrosting starting conditions:

- a) When operation lasts for 20 minutes and $T_{\text{outdoor}} \geq 5$ and $T_{\text{heat exchange}} \leq -3$ for 5 minutes.
- b) When operation lasts for 20 minutes and $T_{\text{outdoor}} < 5$ and $T_{\text{heat exchange}} \leq -7$ for 5 minutes.
- c) When operation lasts for 20 minutes and $T_{\text{outdoor}} < -3$ and $T_{\text{heat exchange}} \leq -10$ for 5 minutes.
- d) When $T_{\text{outdoor}} \leq -15$ and the compressor runs for a total of 3 hours, forced defrosting will start.

iii. Defrosting process:

The frequency of the compressor drops and the outdoor fan motor stops.

→ The 4-way valve turns off.

→ When $T_{\text{outdoor tube}} > 12$ or the compressor runs for over 8 minutes, the compressor stops.

→ The 4-way valve and the outdoor fan turn on in 50 seconds.

→ The compressor turns on in 5 seconds.

→ Defrosting finishes.

7) Anti-cold-air function:

When $T_{\text{indoor tube}} < 23$, indoor fan stops.

When $T_{\text{indoor tube}} \geq 28$, indoor fan runs at low speed.

When $T_{\text{indoor tube}} \geq 38$, indoor fan runs at preset speed.

If the indoor tube temperature fails to reach 38 in 4 minutes, forced operation at preset speed will start in 4 minutes.

8) $T_{\text{tube}} < 48$, no restriction

When $T_{\text{tube}} > 63$, frequency down.

When $T_{\text{tube}} > 70$, compressor stops.

When $T_{\text{tube}} \leq 58$ for 3 minutes, compressor restarts.

9) Current protection:

6.CONTROL MODE

I_0 (9.5A) is the normal current setting in E²ROM and I_{max} (14.5A) is the maximum running current setting in E2ROM.

$I < I_0 - 1.5A$	No restriction
$I > I_0 + 1.5A$	Frequency down
$I \geq I_{max}$	Unit shutdown

5. Air freshening:

The outdoor unit stops and the indoor unit is under cooling run.

. Protection functions of the air-conditioner

1. Sensor error:

When a short circuit or an open circuit occurs to the indoor or outdoor sensor, the compressor stops operation.

2. IPM error:

When an error occurs in the IPM, such as overheat (100 °C), over current and low driving voltage (12V), the compressor and the outdoor fan stop operation and the error code is displayed.

3. Compressor exhaust temperature protection:

When exhaust temperature ≤ 93 °C, there is no frequency restriction.

When 93 °C < exhaust temperature < 115 °C, frequency is restricted.

When 115 °C < exhaust temperature, unit stops.

When exhaust temperature ≤ 90 °C, operation resumes.

4. Abnormal power voltage protection

When the input voltage is over 260V or below 160V, compressor stops and the corresponding error code is displayed.

5. Delay start protection

After turning off, the compressor cannot be restarted until 3 minutes later. But it starts immediately when the power is switched on for the first time.

6. Communication error

When the indoor unit cannot receive signals from the outdoor unit for over 30 seconds, the indoor unit will cut off power supply to the outdoor unit.

6.CONTROL MODE

If the outdoor unit cannot receive effective signals from the indoor unit for over 20 seconds during operation, the outdoor unit will stop operation.

7. Indoor fan motor error

According to the rotor status signal of the indoor motor, if the indoor CPU detects any signal of stop, locked rotor or abnormal vibration, it will cut off the driving signal of the indoor fan. The indoor unit will stop operation and restart in 3 minutes.

8. No-load protection

When the total current of the outdoor unit is less than 0.15A, the air-conditioner will stop operation and a no-load error will be displayed.

9. Economical run

During economical run (set this function using the remote controller), the air conditioner will limit the maximum running current (50% of the maximum current).

VII. Trouble alarm

There is an LED indicator on the outdoor IPM board. During operation of the compressor, the following frequency restricting factors of the compressor can be displayed by way of flashing.

1. Normal operation, without frequency restriction.
2. Power voltage restriction.
3. Condenser temperature restriction.
4. Total current restriction.
5. Exhaust temperature restriction.
6. Indoor unit heat exchange restriction during cooling run.
7. Indoor fan speed restriction.
8. AD frequency modulation restriction.

6.CONTROL MODE

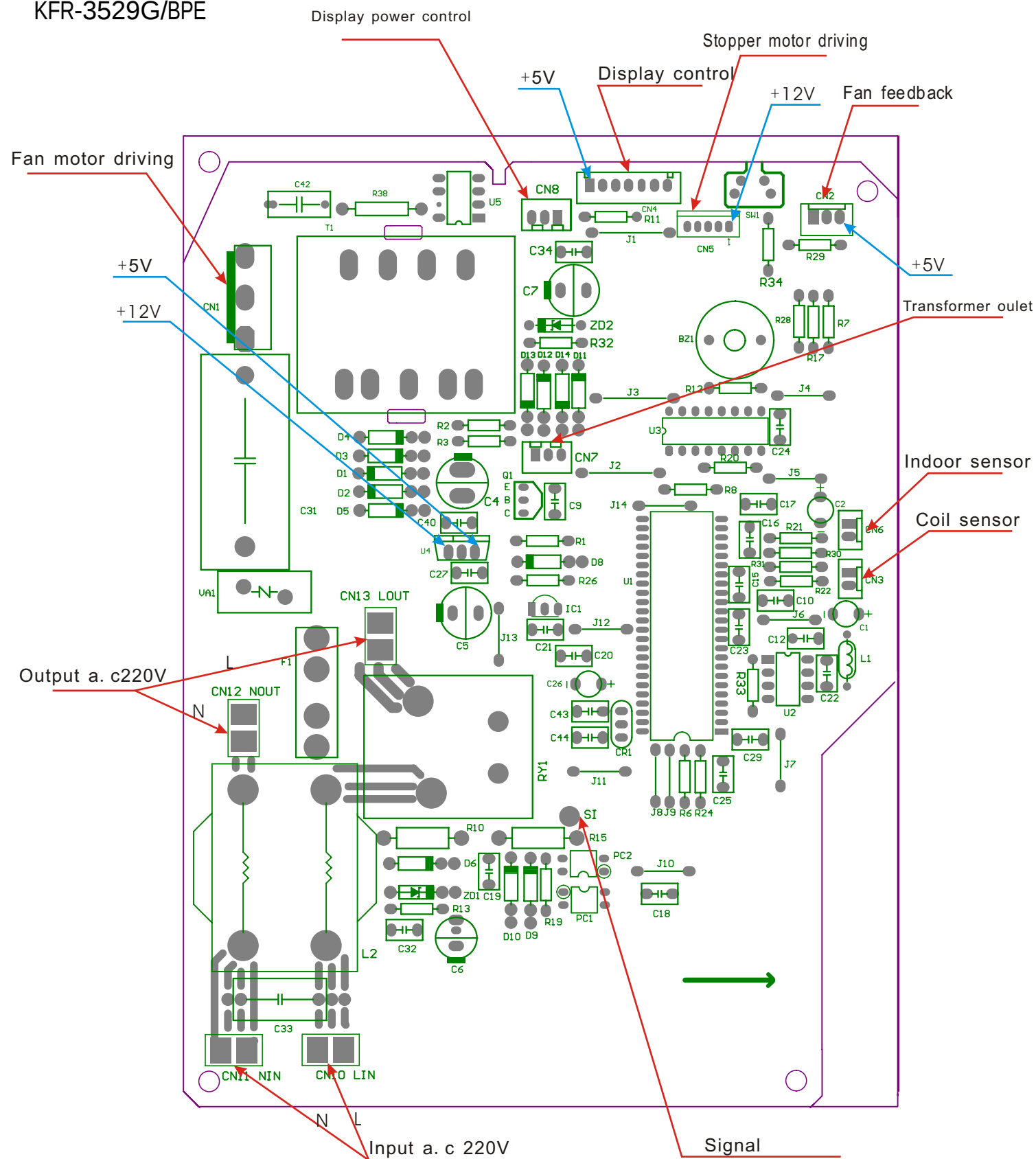
When the air conditioner works in the abnormal condition, please press the sensor button of the remote controller one time and then press this button continuously two time, the trouble will be displayed on the display panel.

Symbols for indicators:

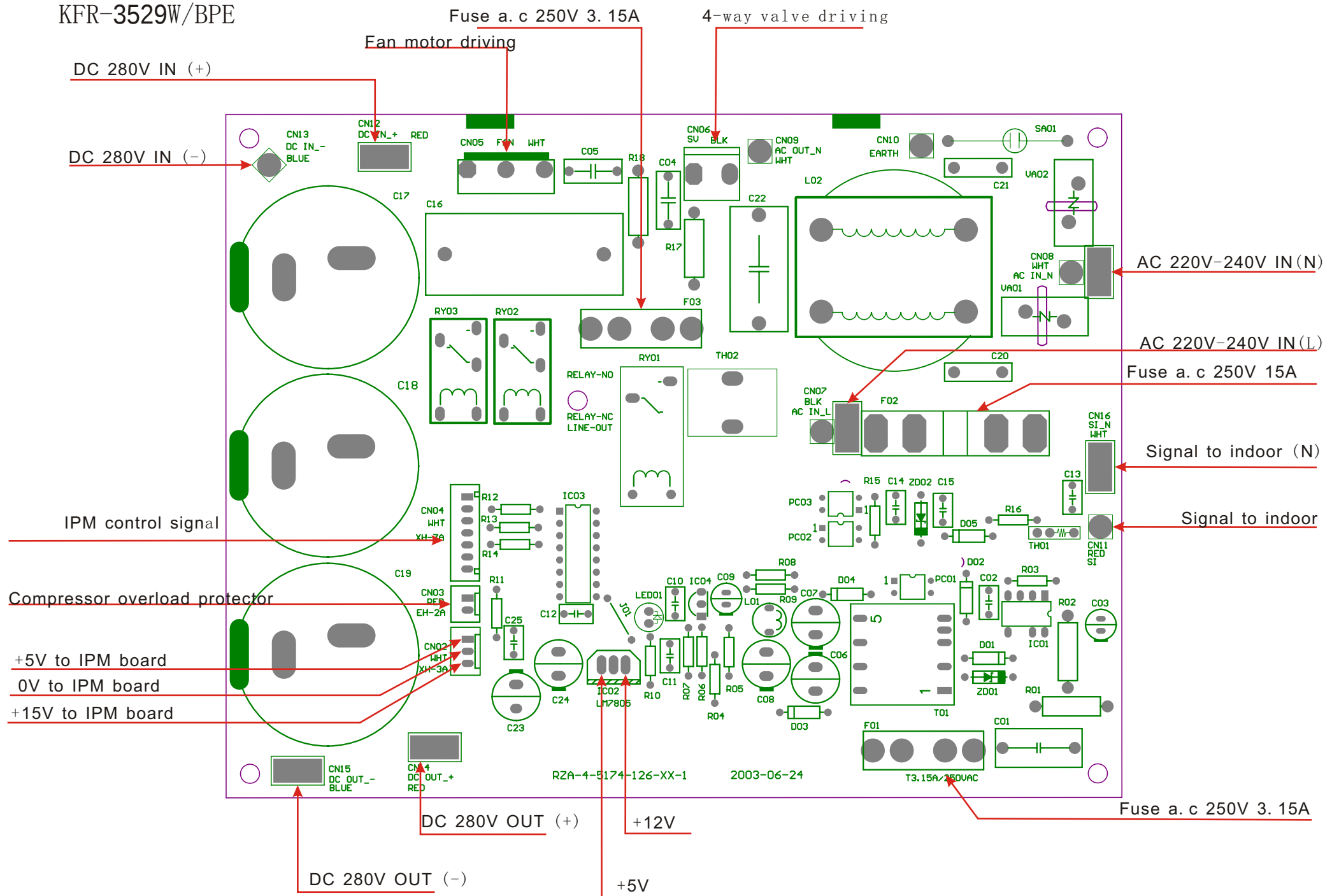
Troubles	number				
Indoor sensor troubler	1				
Evaporator sensor trouble	2				
Evaporator freezing	3				
Overheating of indoor heat exchanger	4				
Communication Trouble	5				
Momentary power failure	6				
Indoor Fan motor trouble	8				
Indoor unit E2PROM trouble	13				
Outdoor sensor trouble	91				
Condenser sensor trouble	92				
Exhaust over hot of compressor	93				
Communication Trouble	95				
Over current	96				
No load	97				
Over and under -voltage protection	98				
Over hot of heat exchanger	60				
Defrosting	61				
IPM trouble	62				
Data failure of outdoor E2PROM	63				

8.ELECTRIC CONTROL BOARD

KFR-3529G/BPE

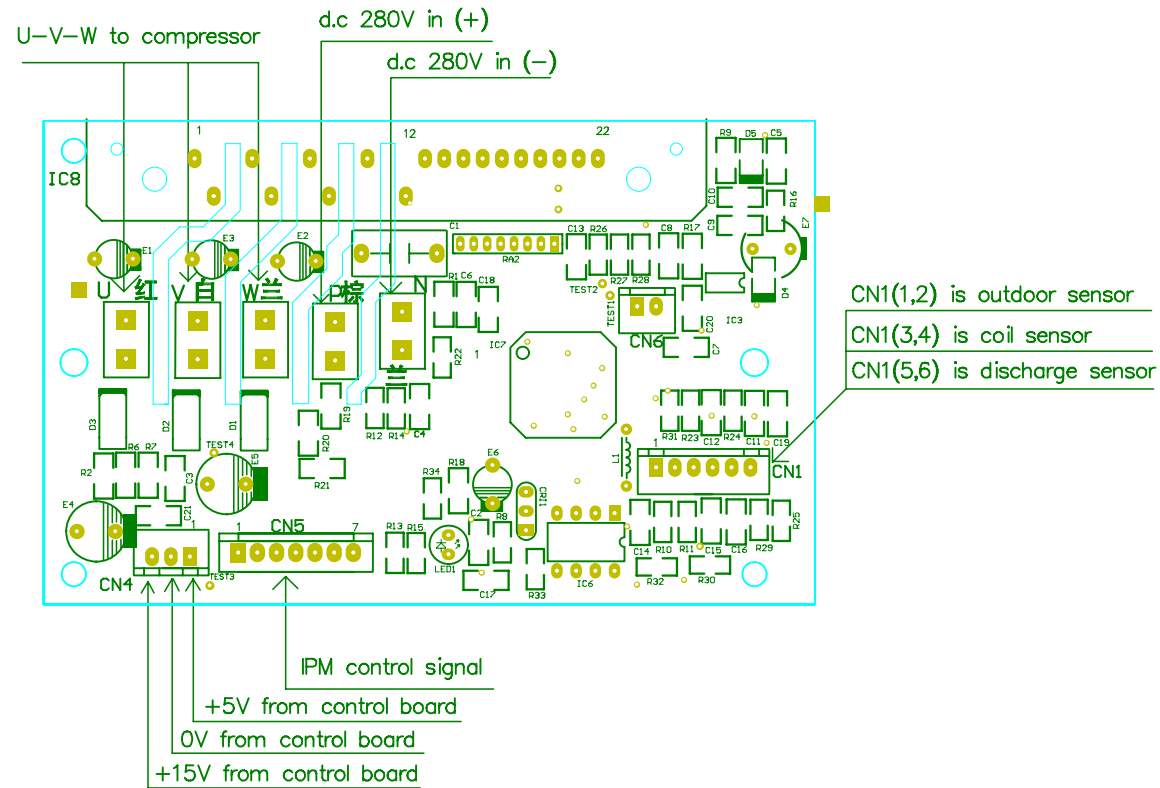


KFR-3529W/BPE



8.CONTROL BOARD

IPM BOARD



9.SENSOR PARAMETER

THE PARAMETER OF THE COIL AND INDOOR AND OUTDOOR SENSOR

T('c)	R(Ko)	V(v)	T('c)	R(Ko)	V(v)	T('c)	R(Ko)	V(v)
-20	39.58	0.5307	9	10.1	1.5878	38	3.265	2.9504
-19	37.58	0.5558	10	9.684	1.6338	39	3.151	2.9932
-18	35.69	0.5818	11	9.284	1.6805	40	3.041	3.0358
-17	33.91	0.6087	12	8.903	1.7276	41	2.936	3.0775
-16	32.23	0.6363	13	8.54	1.7749	42	2.835	3.1188
-15	30.65	0.6648	14	8.194	1.8226	43	2.739	3.159
-14	29.15	0.6942	15	7.864	1.8704	44	2.646	3.199
-13	27.74	0.7244	16	7.549	1.9185	45	2.556	3.2387
-12	26.4	0.7556	17	7.249	1.9667	46	2.471	3.2771
-11	25.14	0.7875	18	6.962	2.0151	47	2.388	3.3155
-10	23.95	0.8202	19	6.688	2.0636	48	2.309	3.3528
-9	22.82	0.8539	20	6.427	2.112	49	2.233	3.3896
-8	21.75	0.8885	21	6.178	2.1603	50	2.159	3.4262
-7	20.74	0.9237	22	5.939	2.2089	51	2.089	3.4615
-6	19.79	0.9596	23	5.712	2.257	52	2.021	3.4965
-5	18.88	0.9966	24	5.494	2.3053	53	1.956	3.5306
-4	18.02	1.0343	25	5.286	2.3533	54	1.893	3.5644
-3	17.2	1.0731	26	5.086	2.4014	55	1.832	3.5977
-2	16.43	1.1122	27	4.896	2.4489	56	1.774	3.6299
-1	15.7	1.152	28	4.714	2.4963	57	1.718	3.6616
0	15	1.1929	29	4.539	2.5436	58	1.664	3.6926
1	14.34	1.2342	30	4.372	2.5904	59	1.612	3.7231
2	13.71	1.2765	31	4.212	2.6369	60	1.562	3.7528
3	13.11	1.3195	32	4.059	2.683	61	1.513	3.7824
4	12.55	1.3623	33	3.912	2.7288	62	1.467	3.8106
5	12.01	1.4063	34	3.772	2.7738	63	1.422	3.8386
6	11.5	1.4506	35	3.637	2.8188	64	1.379	3.8658
7	11.01	1.4959	36	3.508	2.8631	65	1.337	3.8927
8	10.55	1.541	37	3.384	2.907			

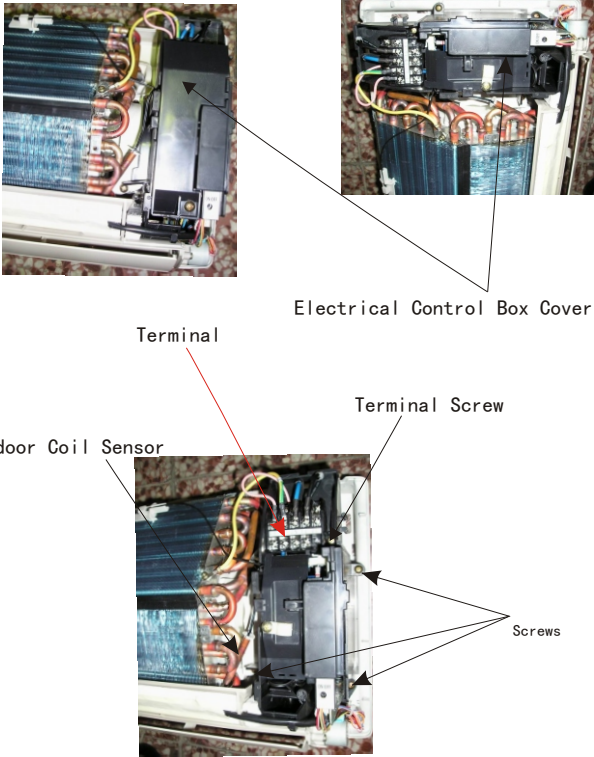
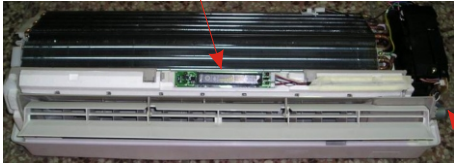
9.SENSOR PARAMETER

THE PARAMETER OF THE DISCHARGE SENSOR

T('C)	R(O)	V(v)	T('C)	R(O)	V(v)	T('C)	R(O)	V(v)
-10	313.4	0.3	31	44.74	1.545	71	9.659	3.372
-9	297.2	0.315	32	42.89	1.59	72	9.331	3.409
-8	281.9	0.331	33	41.13	1.636	73	9.016	3.446
-7	267.5	0.348	34	39.44	1.682	74	8.712	3.483
-6	253.9	0.365	35	37.84	1.729	75	8.421	3.519
-5	241.1	0.383	36	36.3	1.776	76	8.14	3.554
-4	229	0.402	37	34.84	1.823	77	7.869	3.588
-3	217.6	0.421	38	33.44	1.871	78	7.609	3.622
-2	206.8	0.441	39	32.11	1.919	79	7.359	3.655
-1	196.6	0.462	40	30.83	1.967	80	7.118	3.688
0	186.9	0.483	41	29.61	2.016	81	6.885	3.72
1	177.8	0.506	42	28.45	2.064	82	6.662	3.751
2	169.2	0.529	43	27.34	2.112	83	6.446	3.781
3	161	0.552	44	26.27	2.161	84	6.239	3.811
4	153.3	0.577	45	25.25	2.21	85	6.039	3.84
5	146	0.602	46	24.28	2.258	86	5.846	3.869
6	139	0.629	47	23.35	2.307	87	5.661	3.897
7	132.5	0.656	48	22.46	2.355	88	5.482	3.924
8	126.3	0.684	49	21.6	2.404	89	5.309	3.951
9	120.4	0.712	50	20.79	2.452	90	5.143	3.977
10	114.8	0.742	51	20.01	2.499	91	4.982	4.003
11	109.5	0.772	52	19.26	2.547	92	4.827	4.028
12	104.4	0.804	53	18.54	2.595	93	4.678	4.052
13	99.66	0.836	54	17.85	2.642	94	4.534	4.076
14	95.13	0.869	55	17.19	2.689	95	4.395	4.099
15	90.82	0.902	56	16.56	2.735	96	4.261	4.122
16	86.74	0.937	57	15.96	2.781	97	4.132	4.144
17	82.85	0.972	58	15.38	2.826	98	4.007	4.165
18	79.16	1.008	59	14.82	2.872	99	3.886	4.187
19	75.65	1.045	60	14.29	2.916	100	3.77	4.207
20	72.32	1.083	61	13.78	2.96	101	3.658	4.227
21	69.15	1.122	62	13.28	3.005	102	3.549	4.246
22	66.13	1.161	63	12.81	3.048	103	3.444	4.265
23	63.27	1.201	64	12.36	3.09	104	3.343	4.284
24	60.54	1.242	65	11.93	3.132	105	3.15	4.32
25	57.94	1.283	66	11.51	3.174	106	3.059	4.337
26	55.46	1.325	67	11.11	3.214	107	2.97	4.354
27	53.11	1.368	68	10.73	3.254	108	2.884	4.37
28	50.86	1.411	69	10.36	3.294	109	2.802	4.386
29	48.72	1.455	70	10	3.333	110	2.721	4.401
30	46.68	1.5						

10. DISASSEMBLY INSTRUCTIONS

KFR-3529G/BPE

OPERATION PROCEDURE	PHOTOS
1. Remove the grille 1) Open the screw cover in the grille. 2) Take out the screws of the grille. 3) Hold the both sides of the front panel and drag it towards oneself, shown the switching board of the indoor unit. 4) Remove the grille.	 Front panel Grille Grille Screws
2. Remove the electrical control box 1) Remove the electrical control box cover. 2) Remove the indoor coil sensor from the sensor bracket. 3) Take out the screws of the terminal and remove the terminal board. 4) Disconnect all connectors on the printed circuit board. 5) Remove the printed circuit board and check-up it. 6) Disconnect the circuitry in the electrical control box. 7) Take out the screws of the electrical control box and remove the electrical control box.	 Terminal Electrical Control Box Cover Indoor Coil Sensor Terminal Screw Screws
3. Remove the air outlet frame 1) Take out the screws of the stepper motor, disconnect the stepper motor and the air outlet frame. 2) Remove the stepper motor. 3) Disconnect the drainage hose and the air outlet frame. 4) Take out the screws of the air outlet frame. 5) Remove the air outlet frame.	 Display Board Stepper Motor

10. DISASSEMBLY INSTRUCTIONS

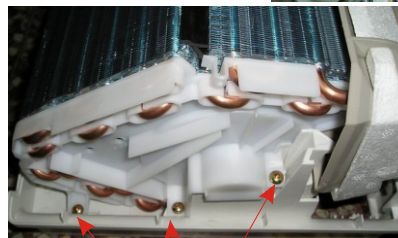
• KFR-3529G/BPE

4. Remove the evaporator

- 1) Disconnect the evaporator and the other parts, take out the screws of the evaporator.
- 2) Remove the evaporator.



Evaporator Screws



Evaporator Screws

5 Remove the fan motor and the cross-flow fan

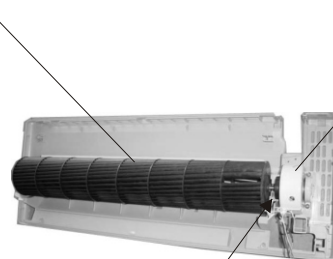
- 1) Take out the screw of the rubber cover and remove the rubber cover.
- 2) Remove the screw connecting the fan motor and the cross-flow fan.
- 3) Remove the fan motor and the bearing ass'y.
- 4) Remove the cross-flow fan.



Rubber Cover

Cross-Flow Fan

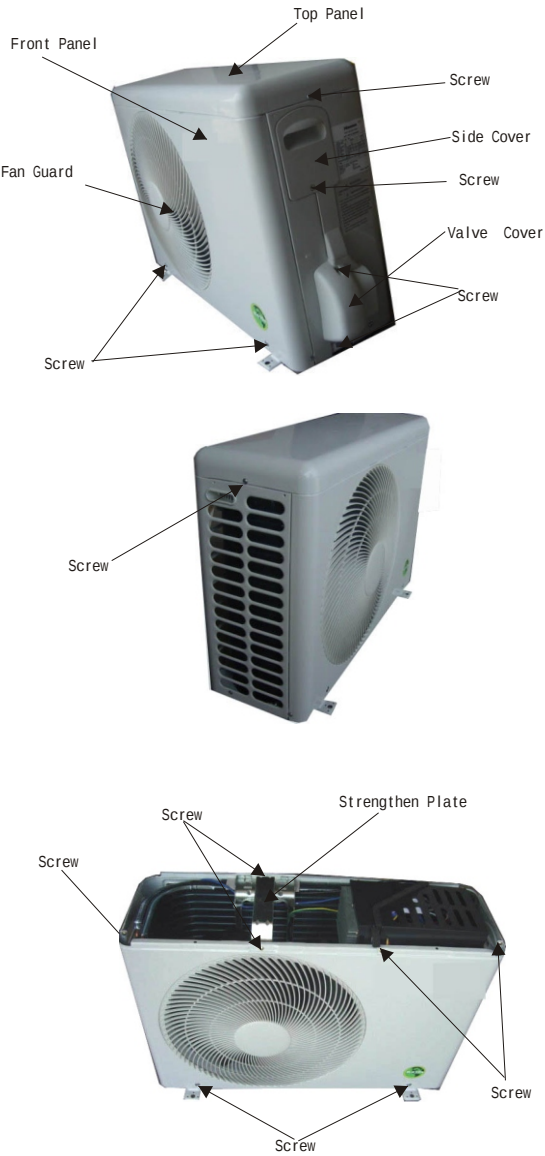
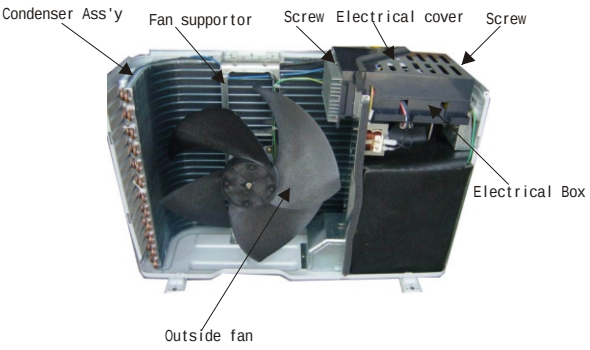
Fan Motor



Cross-Flow Fan Screws

10. DISASSEMBLY INSTRUCTIONS

● KFR-3529W/BPE

OPERATION PROCEDURE	PHOTOS
1. Remove the top panel and the front panel 1) Take out the screws of the top panel and remove the top panel. 2) Take out the screws of the strengthen plate and remove it. 3) Take out the screws of the front panel and remove the panel.	
2. Remove the electrical control box 1) Take out the screws of the valve cover and remove the valve cover. 2) Take out the screws of the side cover and remove the cover. 3) Take out the screws of the electrical box cover and remove it. 4) Disconnect all the wires in the electrical control box and the other parts. 4) Take out the screws of the electrical control box and remove electrical control box.	

10. DISASSEMBLY INSTRUCTIONS

● KFR-3529W/BPE

3.Remove the back panel

1) Take out the screws of the back panel.

2) Remove the back panel.

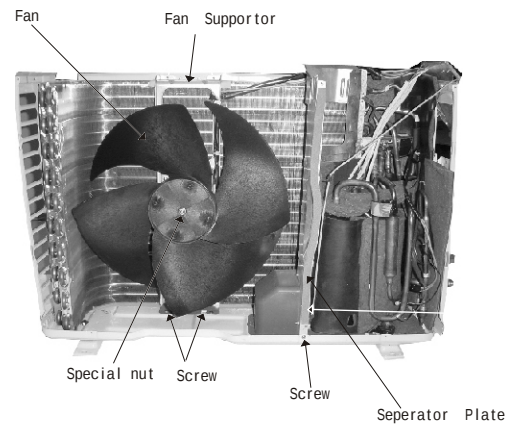
4.Remove the fan ,fan motor,fan supportor and the separate plate.

1) Take out the special nut of the fan and remove the fan.

2) Take out the screws of the fan motor and remove the fan motor.

3) Take out the screws of the fan supportor and remove the fan supporter.

4) Take out the screws of the partition plate and remove the partition plate.



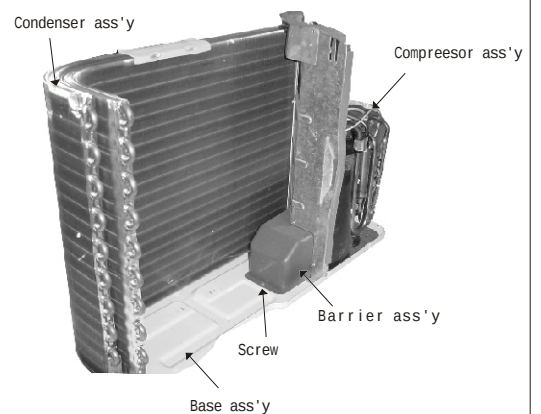
5 .Check-up the other parts of the outdoor units

1) Check-up the condenser ass'y.

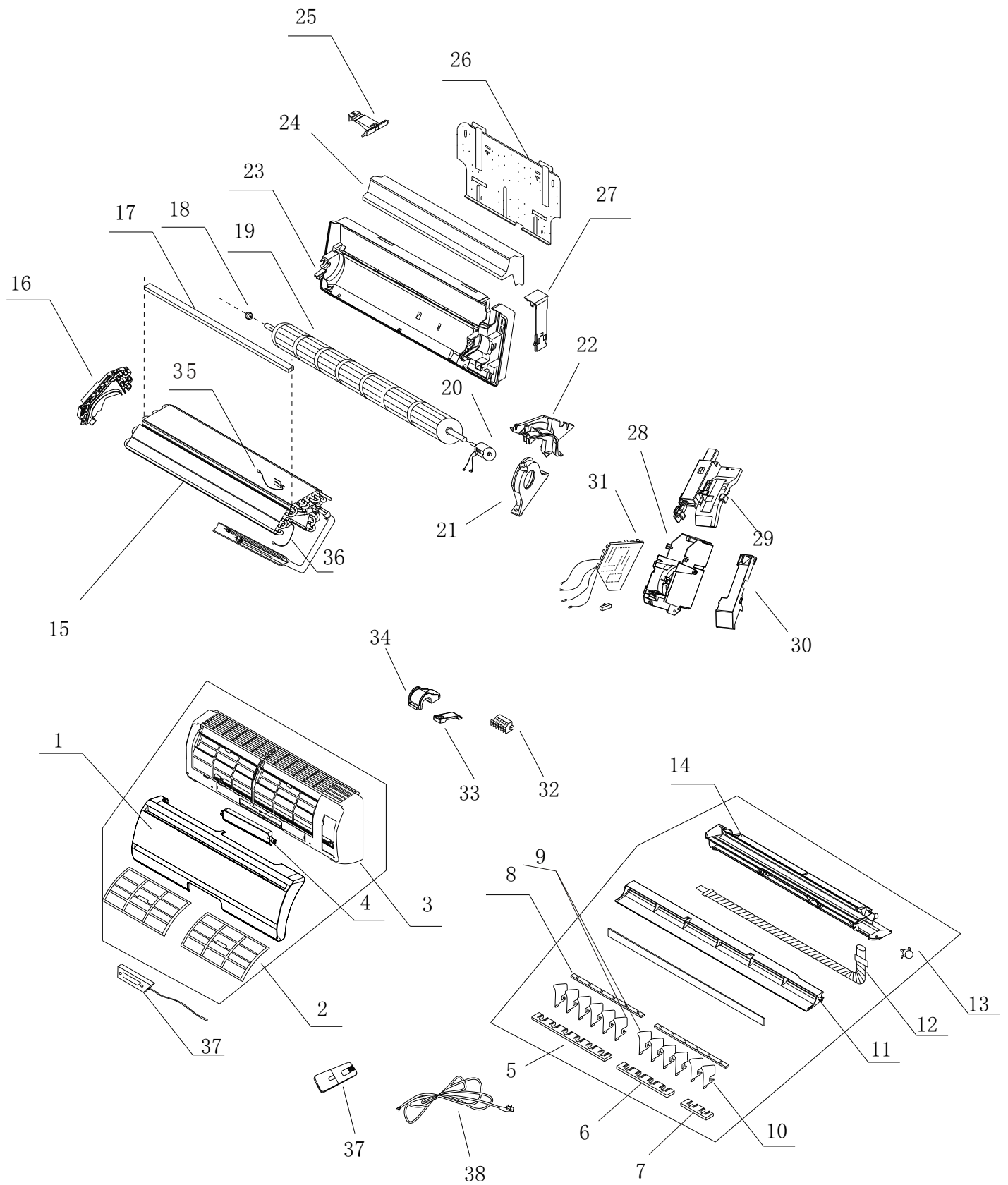
2) Check-up the compreesor ass'y.

3) Check-up the barrier ass'y.

4) Check-up the base ass'y.



11. PARTS LIST



ATTENTION !

INDOOR UNIT

To ensure correct parts supply, please let us know followings. When you make service parts order:

1.Part NO. 2.Description

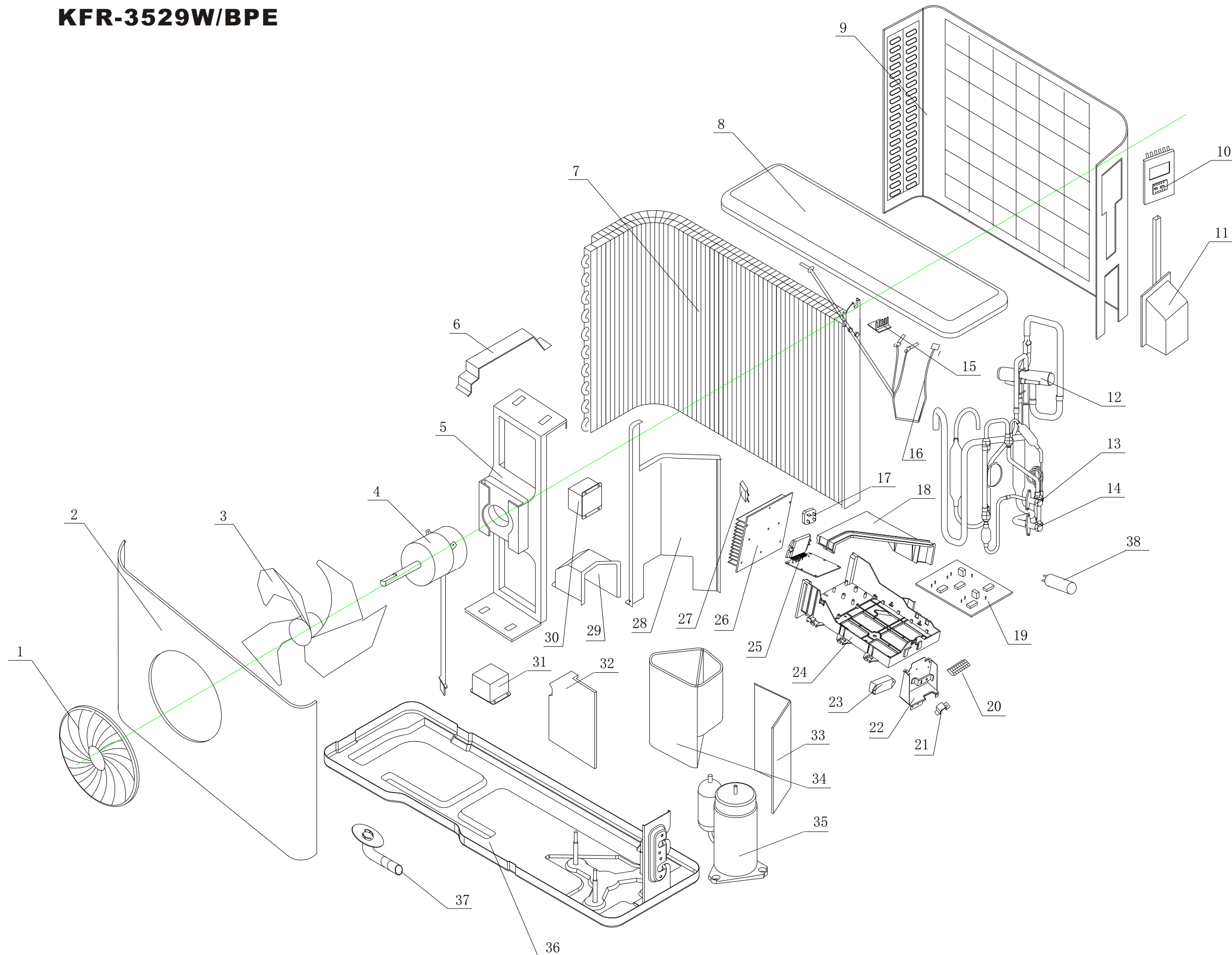
Key	Part No.	Description	Qty
No.	RZA-2-1601-062-XX-0	Front Pane	1
2	RZA-0-2305-007-XX-0	Air Filter	1
3	RZA-2-1501-052-XX-0	Grill	1
4	RZA-2-2258-038-XX-A	Display Panel	1
5	RZA-2-2478-102-XX-0	Blade Mounting Plate	1
6	RZA-2-2478-103-XX-0	Blade Mounting Plate	1
7	RZA-2-2478-104-XX-0	Blade Mounting Plate	1
8	RZA-2-1514-027-XX-0	Blade Lever	2
9	RZA-2-1523-015-XX-0	Auto Blade	2
10	RZA-2-1523-014-XX-0	Blade	10
11	RZA-2-1523-057-XX-0	Flap	1
12	RZA-0-1303-106-XX-0	Drain Hose Assy	1
13	529-0-0000-062-0A-0	Stepper Motor	1
14	RZA-2-1504-022-XX-0	Expel Frame	1
15	RZA-0-4116-177-XX-0	Evaporator Assy	1
16	RZA-2-2219-019-01-1	Evaporator Supportor	1
17	RZA-2-2326-105-XX-0	Water Plate	1
18	RZA-0-2510-128-00-1	Bearing Housing Assy	1
19	RZA-0-2509-104-XX-0	Cross-Flow Fan Assy	1
20	RZA-0-0000-055-XX-0	Fan Motor	1
21	RZA-2-1514-020-01-0	Motor Supporter	1
22	RZA-2-2514-104-01-1	Motor Cover	1
23	RZA-0-2201-126-XX-0	Base Assy	1
24	RZA-2-2405-022-XX-0	Base Foam	1
25	RZA-2-2487-005-XX-0	Mounting Plate	1
26	RZA-2-2230-119-XX-0	Installation Plate	1
27	RZA-2-2362-020-01-0	Mounting Plate	1
28	RZA-0-5301-032-01-0	Electrical Control Box	1
29	RZA-2-2369-013-01-1	Electrical Control Box cover	1
30	RZA-2-2369-015-01-2	Electrical Control Box cover	1
31	RZA-0-5172-639-XX-0	Control Board	1
32	RZA-0-5306-063-XX-0	Terminal Board	1
33	3-9030-005-07-0	Wire Clip	1
34	3-9030-005-09-0	Wire Clip	1
35	RZA-0-5259-080-XX-0	Temperature Sensor	1
36	RZA-0-5259-081-XX-0	Coil Sensor	1
37	RZA-0-5152-051-XX-0	Display Board	1
38	RZA-0-0054-102-XX-B	Remote Controller	1
39	4-5250-315-03-C	Remote Controller	1

NOTE:1.Metal and plastic parts will be supplied basically with necessary heat insulation pads or packing.

2.Each key number with an asterisk(*)means the recommended service parts.

11. PARTS LIST

KFR-3529W/BPE



12. PARTS LIST

ATTENTION !

KFR-3529W/BPE OUTDOOR UNIT

To ensure correct parts supply, please let us know followings. When you make service parts order:

1. Part NO. 2.Description 3.Q'ty

Key No.	Part No.	Description	Q ty
1	852-2-1321-156-01-0	Fan Guard	1
2	RZA-2-1112-024-XX-0	Front Panel	1
3	852-2-2502-136-01-0	Propeller Fan	1
4	RZA-0-0000-128-XX-0	Fan Motor	1
5	RZA-2-2354-023-XX-0	Fan Supporter	1
6	RZA-2-2285-030-XX-0	Strengthen Panel	1
7	RZA-0-4102-292-XX-0	Condenser Ass' y	1
8	RZA-0-2309-040-XX-0	Top Cover Ass' y	1
9	RZA-0-1108-183-00-0	Back Panel Ass' y	1
10	852-0-5302-161-00-0	Side Cover Ass' y	1
11	852-2-2369-329-01-1	Valve Cover	1
12	RZA-0-4525-131-XX-1	4-Way Valve Ass' y	1
13	RZA-0-4515-01A-41-0	1/4 Valve Ass' y	1
14	RZA-0-4522-01A-41-0	1/2 Valve Ass' y	1
15	852-0-5310-105-00-0	Sensor Mount Ass' y	1
16	RZA-0-5259-066-XX-0	Sensor Ass'y	1
17	DDD-B-A250-G---No	Bridge Rectifier	1
18	RZA-0-5302-011-XX-1	Electrical Box Ass' y	1
19	RZA-0-5172-803-XX-0	PCB Ass'y	1
20	RZA-0-5306-026-XX-0	Terminal Panel	1
21	RZA-0-5304-022-XX-0	Clip Ass' y	1
22	RZA-0-5306-053-XX-5	Terminal Borad Ass' y	1
23	RZA-0-5220-005-XX-0	Filter Ass' y	1
24	RZA-2-5307-053-XX-0	Electrical Box	1
25	RZA-0-5172-640-XX-0	IPM Ass' y	1
26	RZA-2-4127-012-XX-0	Radiator	1
27	RZA-4-2239-061-XX-0	Capacitor	1
28	RZA-0-2209-060-XX-0	Separator Support Plate	1
29	RZA-0-5315-016-XX-0	Cover Ass' y	1
30	RZA-4-2649-027-XX-0	Inductance	1
31	RZA-4-2649-064-XX-0	Low Frequency Filter	1
32	RZA-2-2476-063-XX-0	Noise Defending Cover	1
33	RZA-2-2476-064-XX-0	Noise Defending Cover	1
34	852-2-2476-336-00-3	Noise Defending Cover	1
35	RZA-0-4526-055-XX-0	Compressor Ass' y	1
36	RZA-0-2202-162-XX-0	Base Ass' y	1
37	852-2-2228-132-02-0	Drainage Hose	1
38	RZA-4-2239-061-XX-0	Capacitor	1

NOTE:1.Metal and plastice parts will be supplied basically with necessary heat insulation pads or packing.

2.Each key number with an asterisk(*)means the recommended service parts.