

## R410A DC INVERTER AIR TO WATER UNIT

### Installation and Maintenance Instruction Manual

- ※ All the product information has been carefully checked, our company will be free from printing error.
- ※ The actual products may be slightly different from those images shown in this manual.
- ※ Specifications are subject to change without notice for further improvement. Please refer to the name plate on the unit for the updated specifications.

*Good quality brings you good enjoyment!*

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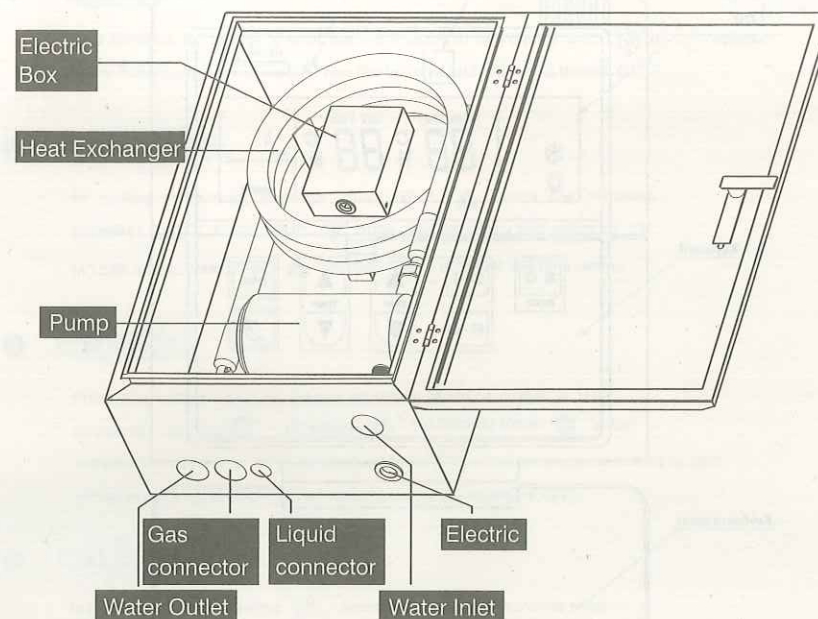


## 1. FEATURES

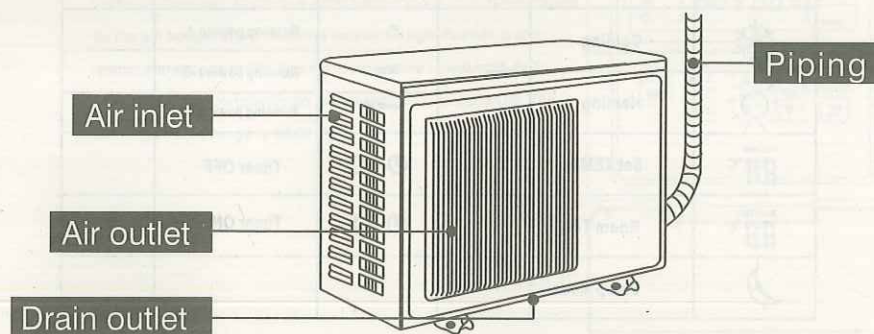
- ① Our DC inverter type air conditioners use environmentally friendly refrigerant R410A, which also provides one of the highest energy efficiency ratings in the industry. Output of the compressor and therefore the energy input requirements are constantly monitored and adjusted at the most optimum level for the given indoor and outdoor environmental conditions and the users' desired demands from the system.
- ② Microprocessor control system contains several enhanced software features to make the operation of the system most advantageous and pleasing, under varying environmental conditions.
- ③ Special vibration absorbers on the compressor allow operation of the system with ultra low noise from both the indoor and outdoor units.
- ④ Operational indicators allow the users to monitor the system working status.
- ⑤ Microprocessor is programmed to allow operation under wide range of input voltages from 175V~260V and soft starting with lower current draw at each compressor start-up.
- ⑥ Optimized Sleep Mode provides ultra pleasant operation while sleeping.
- ⑦ Auto-restart function keeps all settings in memory and automatically resumes the operation after a power failure.
- ⑧ Compressor crankcase heaters and outdoor heat exchanger heaters are available as options for extreme Nordic conditions, enabling the unit to work in very low ambient temperatures with much lessened defrost frequencies. Both these optional heaters are electronically controlled based on the outdoor ambient temperatures and a sophisticated logic.
- ⑨ Self learning defrost logic constantly monitors the defrosting requirements and automatically adjusts the intervals between defrosts for optimum operation.
- ⑩ Programmable TIME ON ☉—| and TIME OFF ☉—○ function provides unattended operation of the system.
- ⑪ Acrylic coated enhanced aluminum fins on the outdoor heat exchanger extends the fin life against corrosion and allows easier rainwater wash-down as well as faster defrosts.
- ⑫ Copper tubing in all heat exchangers are made by using the latest developments in the technology of inner grooved tubing by extending the area of heat exchange in a more compact coil, therefore increasing the operational efficiency.
- ⑬ Various optional installation accessories, such as the piping kits, line cover kits, condenser brackets, electronic voltage monitors, etc. allow quick, well presented and trouble free installation and operation. Some models are equipped with pre-charged self installation kits and contain quick connector fittings, which allow the end users to install their own equipment with maximum ease.

## 2.NAME OF EACH PART

### Indoor unit

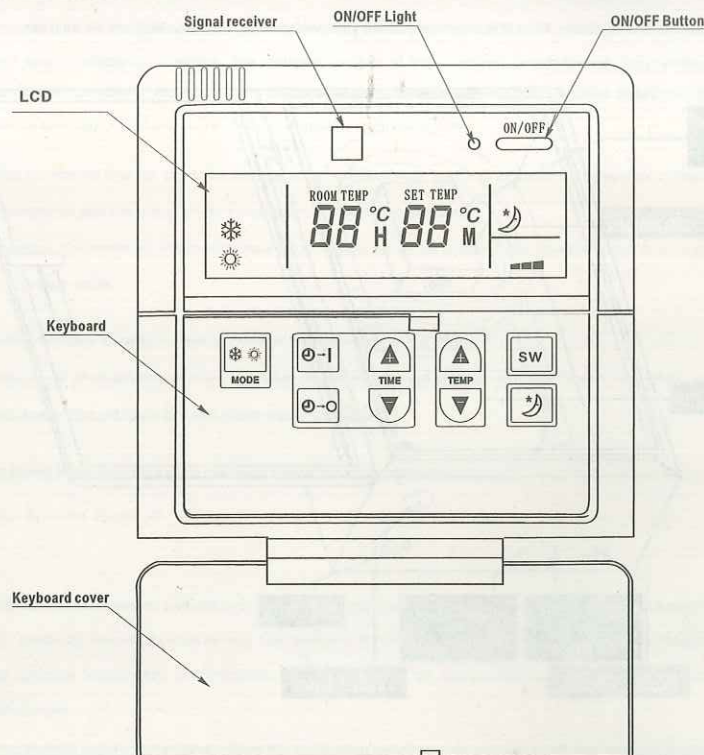


### Outdoor unit



### 3. WIRED CONTROLLER FUNTIONS

Wired controller



I. Inverter wired controller Displays

LCD Display	Meaning	Remarks	LCD Display	Meaning	Remarks
	Cooling			Running powers -L	
	Heating			Running powers -M	
	Set TEMP			Running powers -H	
	Room TEMP			Timer OFF	
	Sleep Mode			Timer ON	

### 3. WIRED CONTROLLER FUNCTIONS

#### 1 ON/OFF:

This button is for turning on or off the unit. Press it to turn on the unit.. "❄" or "☀" appear in the display of wired controller. Press the button again, the unit is turned off.

#### 2 TEMP/TIME:

In cooling or Heating operation, press TEMP "▲" once, the set temp. increases by 1°C; Press TEMP "▼" once, the set temp. decreases by 1°C.

In TIME Mode Press TIME "▲" or TIME "▼" to adjust the time setting

#### 3 MODE:

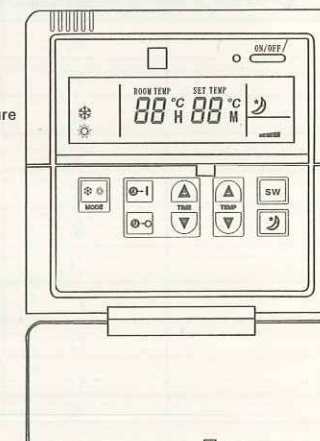
Press this button to choose the unit operation Mode, it comes in the sequence : Cooling "❄" → HEATING "☀" ; In Cooling Mode "❄" initial temperature setting is 25°C; In Heating Mode "☀", initial temperature setting is 25°C (When in water temperature mode initial temperature setting is 42°C)

#### 4 SLEEP:

In Cooling "❄" or Heating "☀" operation, press this button to enter Sleep Mode, indicated by "🌙". When in Sleep Mode, after you set the room temperature, the unit will fine-adjust the temp. Press "🌙" button again to quit this mode

#### 5 SW:

Switch button(sw) To choose water temperature or air temperature as the set temperature when the indication light flasher, water temperature mode is ON, The set temperature range is 25-60°C. when the light is constantly on, air temperature mode is ON, The set temperature range is 16-31°C





### 3. WIRED CONTROLLER FUNCTIONS

#### 6 TIME ON:

To set ON Timer, press "⏸-I" button, both "⏸-I" and the preset time "0H:1M" flash. Press "▲" button once, the time advances by 1 minute. Press "▼" button once, the time decreases by 1 minute. Keep pressing "▲" button for over 3 seconds, the time advances continuously by 1 hour, press "▼" button. The same thing happens, on the contrary.

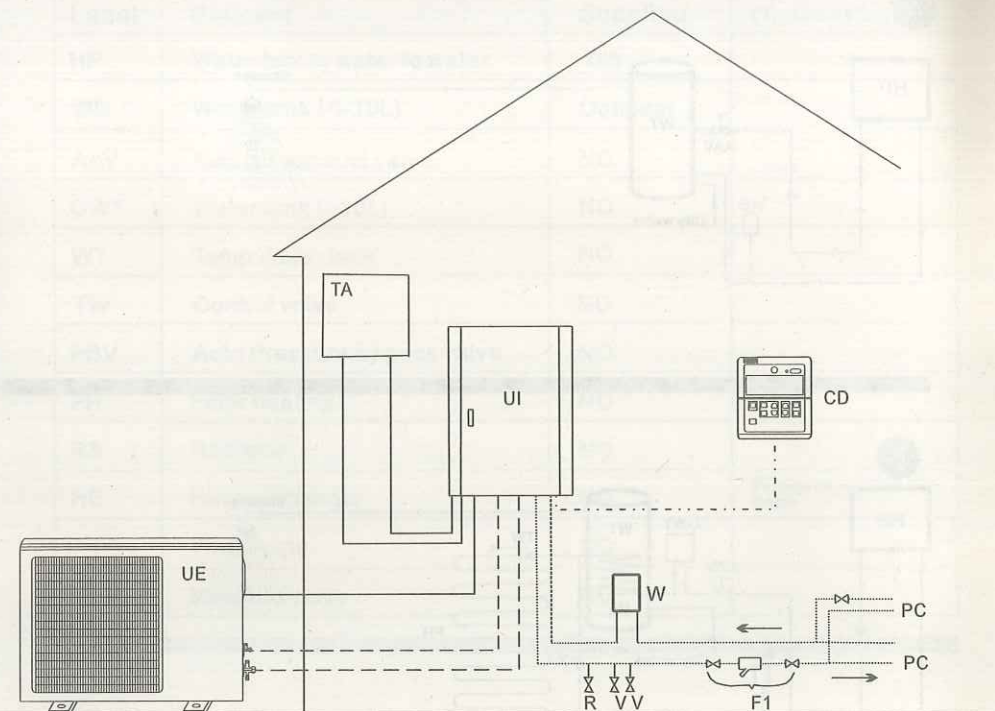
TIME time is 24 hours system, After adjusting time, wait ten more seconds to save the into memory, Press "⏸-I" button again to cancel on time. "⏸-I" disappears.

#### 7 TIME OFF:

To set OFF Timer, press "⏸-O" button, both "⏸-O" and the preset time "0H:1M" flash. Press "▲" button once, the time advances by 1 minute. Press "▼" button once, the time decreases by 1 minute. Keep pressing "▲" button for over 3 seconds, the time advances continuously by 1 hour, press "▼" button. The same thing happens, on the contrary.

TIME time is 24 hours system, After adjusting time, wait ten more seconds to save the into memory, Press "⏸-O" button again to cancel on time. "⏸-O" disappears.

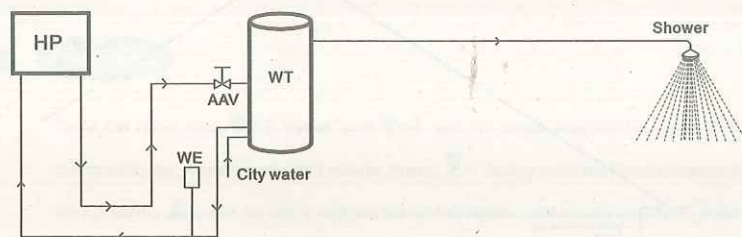
### 4. INSTALLATION INSTRUCTIOIN



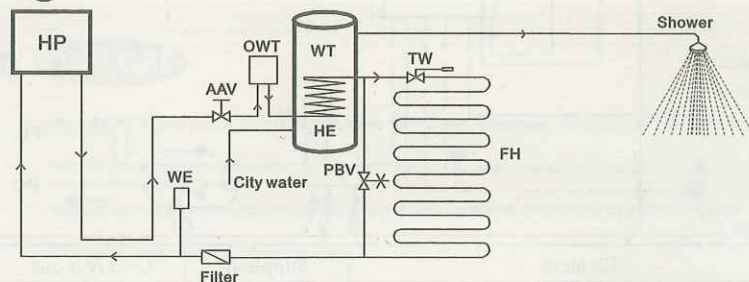
Label	Element	Supplied	Observations
CD	Wired controller	Y	
F1	800 μ m filter with 2 isolation valves	N	
PC	Heating floor pipe	N	
R	filling	N	
TA	Building electric box	N	
UE	Outdoor unit	Y	
UI	indoor unit	Y	
V	water draining	N	
---	water pipe	N	
----	Refrigerant pipe	O	
———	Power connection	O	
.....	Control connection	O	
W	Water tank (10-200L)	N	

## 4.INSTALLATION INSTRUCTOIN

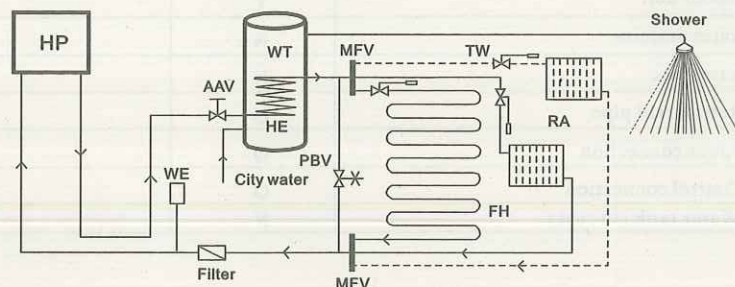
A



B



C



## 4.INSTALLATION INSTRUCTOIN

Label	Element	Supplied	Observations
HP	Water box or water to water	Yes	
WE	Water tank ( 5-10L)	Optional	
AAV	Auto air exhaust valve	NO	
OWT	Water tank (>30L)	NO	
WT	Temp Water tank	NO	
TW	Control valve	NO	
PBV	Auto Pressure by pass valve	NO	
FH	Floor heating	NO	
RA	Radiator	NO	
HE	Heat exchanger	NO	$\frac{3}{4}$ " pipe no less than 15m length
—	Water pipe	NO	
MFV	Manifold valve	NO	

● Application on left is recommended

● Application A :

This kind of installation, is suitable to shower or need to use the hot water.

● Application B :

If you use like application B, you need to install a small water tank "OWT" to avoid unit stop and start frequently .

● Application C :

This Application ,you can use manifold valve to set a multi- system ,floor heating , radiator ect. ,if you set many of equipments ,maybe you need to install an extra water pump in main pipe .



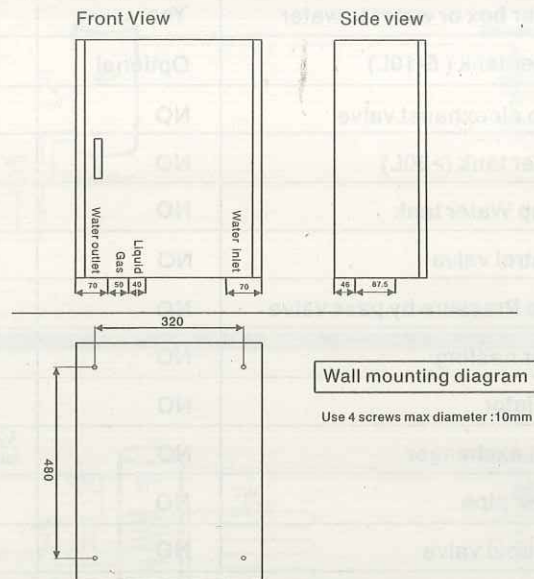
- 1.Use any kind of installation, the "WE" must be need .
- 2.You must fully exhaust air in the system before you start to run unit.

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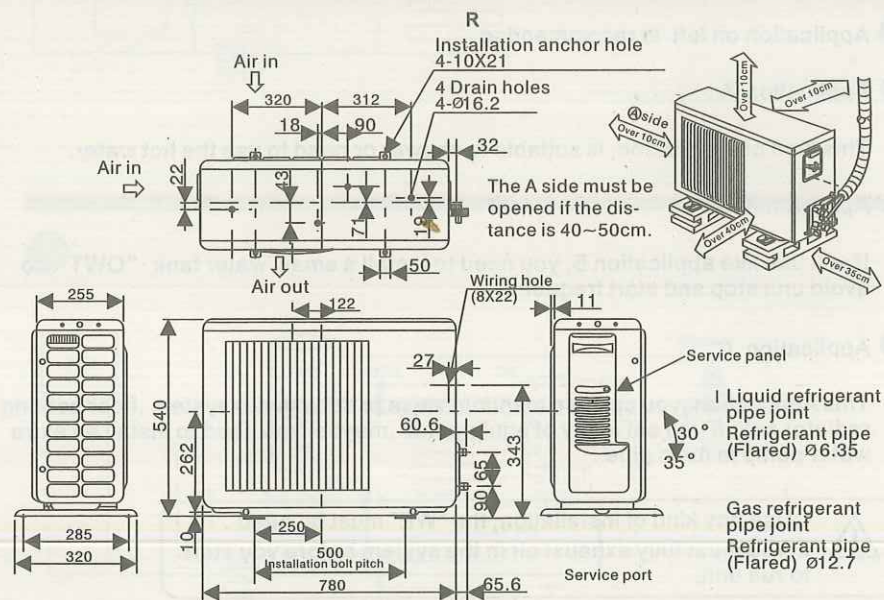


## 5.OUTLINES AND DIMENSIONS

### Indoor unit



### Outdoor unit



## 6.SPECIFICATION

Type		VVS Wyn015	
Function		Cooling	Heating
Power supply		Single phase 220V-240V/50Hz	
Capacity	Cooling(heating)capacity	KW/h	3.3(1.3--4.2)
		BTU/h	12000(4400-15000)
Electric data	Maximum current allowable	A	16
	Operation current	A	4.4(1.6--8.2)
	Input power	W	1000(410--1800)
	Efficiency of power supply	%	99
	Current of compressor motor	A	5.8
Compressor	Current of fan motor	A	Indoor:0.43 Outdoor:0.33;
	Coil resistance(20℃)	Ω	C-R 0.98 C-S 0.98
Dimension	Indoor unit	Width	mm
		Height	mm
		Depth	mm
	Outdoor unit	Width	mm
		Height	mm
		Depth	mm
Weight	Indoor unit	kg	20
	Outdoor unit	kg	36
Others	Noise	Indoor unit	dB
		Outdoor unit	dB
	Fan speed	Outdoor unit	rpm
	Refrigerant	kg	1.18/R410A
	Room Temp sensor	KΩ	5K(25℃)
	Indoor coil temp sensor	KΩ	5K(25℃)
	Outdoor temp sensor	KΩ	5K(25℃)
	Outdoor coil temp sensor	KΩ	5K(25℃)

### 1.Rated condition of test:

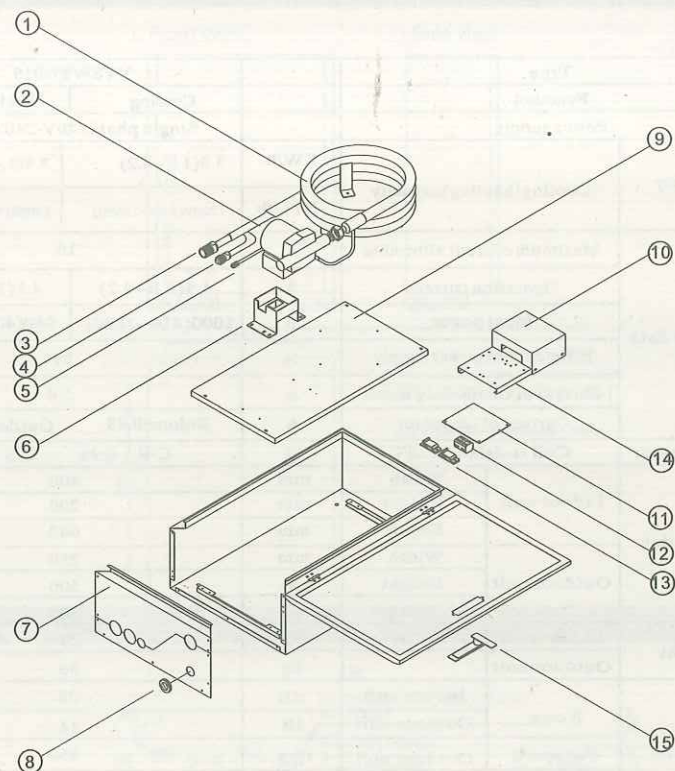
Cooling: indoor dry bulb 27℃ Wet bulb 19℃  
 outdoor dry bulb 35℃ Wet bulb 24℃  
 Heating: indoor dry bulb 20℃ Wet bulb 15.5℃  
 outdoor dry bulb 7℃ Wet bulb 6℃

### 2.The specifications are subject to change without prior notice.

For actual specifications of the unit, please refer to the specification stickers on the unit.

## 7.PARTS LIST

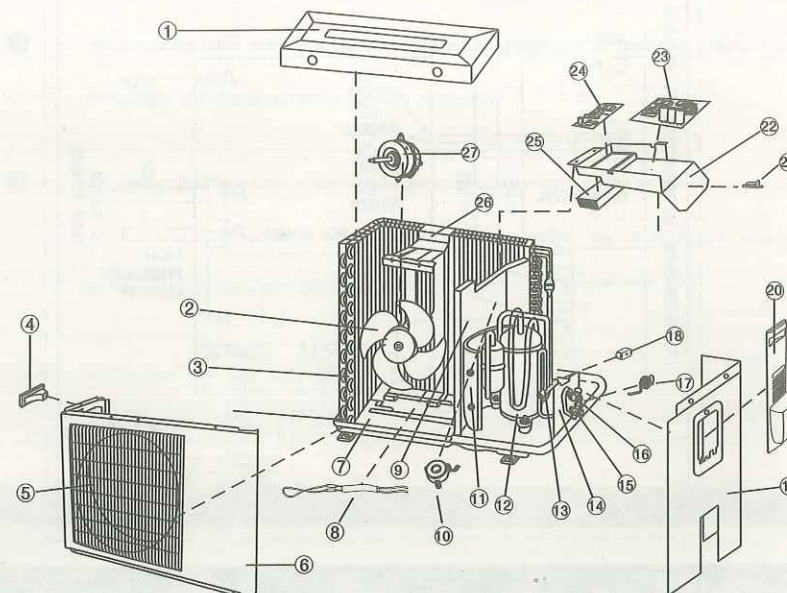
Indoor unit



NO.	NAME	QTY	NO.	NAME	QTY
1	Heat Exchanger	1	10	Elec.Cover	1
2	Pump	1	11	PCB	1
3	Water Outlet	1	12	Terminal	1
4	Gas Connection	1	13	Wires Clamp	2
5	Liquid Connection	1	14	PCB Mounting Plate	1
6	Pump Support	1	15	Lock	1
7	Bottom plate	1			
8	Bushing	2			
9	Backboard	1			

## 7.PARTS LIST

Outdoor unit



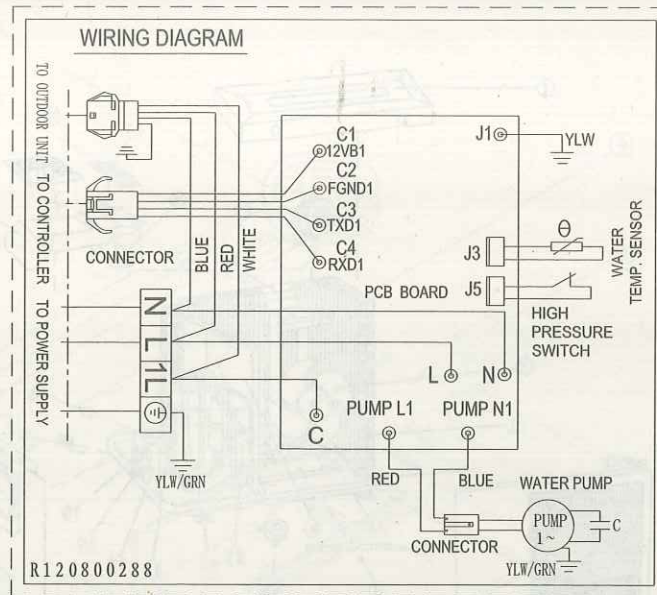
NO.	NAME	QTY
1	Top panel	1
2	Outdoor fan	1
3	Condenser	1
4	Handle	1
5	Front grill	1
6	Front panel	1
7	Bottom plate	1
8	Condenser heater	1
9	Partition board	1
10	Reactor	1
11	Compressor jacket	1
12	Compressor	1
13	Reversing valve	1
14	Valve plate	1
15	Gas valve	1
16	Liquid valve	1

NO.	NAME	QTY
17	Capillary	1
18	Rev valve coil	1
19	Side panel	1
20	Access plate	1
21	Wire clip	1
22	Electric box	1
23	Outdoor pcb	1
24	Module	1
25	Radiator	1
26	Motor bracket	1
27	Outdoor motor	1

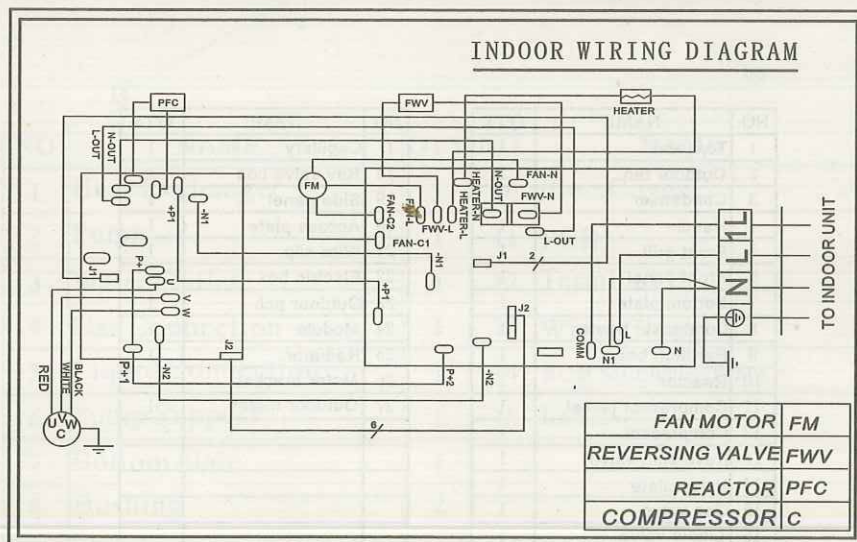


## 8.WIRING DIAGRAM

A. Indoor unit



### B. Outdoor unit



## 9. Operation features and precaution

## Operation features

- ① When heating in low outdoor temperature, the air conditioner will automatically defrost in every 50 minutes, and defrosting time is about 3-10 minutes.
- ② Do not run HEAT operation at ambient temperature of above 26°C, or the air conditioner will be damaged. When it runs HEAT operation at too high ambient temperatures, the air conditioner may stop for self-Protection, and the user should avoid it.

### Precaution

- The following symptoms may not be the air conditioner failures, if they cannot be fixed after careful check, please contact the local specialist to maintain. Maintenance can not be done by the user.
- 1 No operation: When the unit restarts, the compressor will start 3 minutes later (It is compressor protection, not the failure). Please check if the electric-leak switch is cut or fused, or if the wired controller batteries are exhausted.
- 2 Noise: When air conditioner operates, the sound of water flowing may be heard from the piping. It is the sound of internal refrigerant flowing, not a failure.
- 3 Not so good capacity: Check if the air inlet and outlet of outdoor unit is blocked. Check if the set temperature is too high in cooling or too low in heating, and if there is other heating source or the room contains too many people or the area is too large.
- 4 Compressor can't start-up and the wired controller displays E4, means that water pump water shortage or water pressure shortage

## 9. Operation features and precaution

- ⑤ Make sure the ground wire is connected correctly and securely, or a serious accident may be caused.
- ⑥ Do not pull out the power plug while it is running, or the danger may be caused. Pull the power wires in strength will break the wire and cause danger.
- ⑦ Keep a good ventilation for the outdoor unit.
- ⑧ Regularly check if the outdoor bracket is well installed.
- ⑨ Disconnect the main power switch before clean the indoor unit.
- ⑩ Set appropriate temperature. Too low temperature is not good for the health and will increase the electric consumption.

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