



**DELTA**

**VRF Compact Four Way Cassette Indoor Units  
80CM SERIES**

# **INSTRUCTION MANUAL**

**WARNING!**

Read and follow all safety precautions in Instruction Manual - improper use can cause serious injury.

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# 1 Safety Precautions

 <b>WARNING!</b>	This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user.
 <b>CAUTION!</b>	This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property.

## **WARNING !**

Installation should be left to the dealer or another professional. Improper installation may cause water leakage, electrical shock, or fire.

Install the air conditioner according to the instructions given in this manual. Incomplete installation may cause water leakage, electrical shock, or fire.

Be sure to use the supplied or specified installation parts. Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.

Install the air conditioner on a solid base that can support the weight of the unit. An inadequate base or incomplete installation may cause injury in the event the unit falls off the base.

Electrical work should be carried out in accordance with the installation manual and the national electrical wiring rules or code of practice. Insufficient capacity or incomplete electrical work may cause electrical shock or fire.

Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.

For wiring, use a cable length enough to cover the entire distance with no connection. Do not use an extension cord. Do not put other loads on the power supply, use a dedicated power circuit. (Failure to do so may cause abnormal heat, electric shock or fire.)

Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the interconnecting wires so their terminals receive no external stresses. Incomplete connections or clamping may cause terminal overheating or fire.

After connecting interconnecting and supply wiring be sure to shape the cables so that they do not put undue force on the electrical covers or panels. Install covers over the wires. Incomplete cover installation may cause terminal overheating, electrical shock, or fire.

If any refrigerant has leaked out during the installation work, ventilate the room. (The refrigerant produces a toxic gas if exposed to flames.)

After all installation is complete, check to make sure that no refrigerant is leaking out. (The refrigerant produces a toxic gas if exposed to flames.)

When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air. (Any presence of air or other foreign substance in the refrigerant circuit causes an abnormal pressure rise or rupture, resulting in injury.)

During pump-down, stop the compressor before removing the refrigerant piping. If the compressor is still running and the stop valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.

During installation, attach the refrigerant piping securely before running the compressor. If the compressor is not attached and the stop valve is open during pump-down, air will be sucked in when the compressor is run, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.

Be sure to establish an earth. Do not earth the unit to a utility pipe, arrester, or telephone earth. Incomplete earth may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.

Be sure to install an earth leakage breaker. Failure to install an earth leakage breaker may result in electric shocks, or fire.

 **CAUTION !**

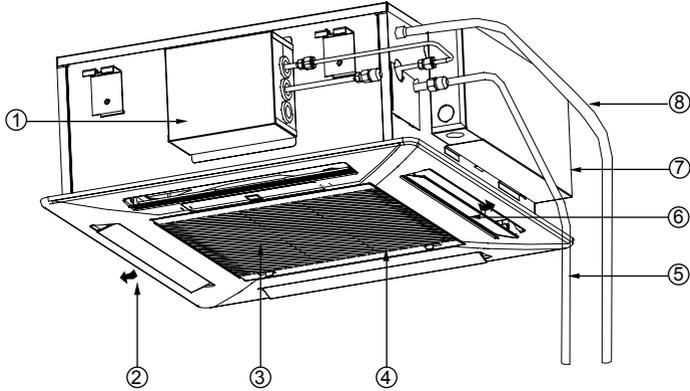
Do not install the air conditioner in a place where there is danger of exposure to inflammable gas leakage. If the gas leaks and builds up around the unit, it may catch fire.

Establish drain piping according to the instructions of this manual. Inadequate piping may cause flooding.

Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is tightened too hard, the flare nut may crack after a long time and cause refrigerant leakage.

## 2 Product Introduction

### 2.1 Outline of the Unit and Main Parts



No.	Part Name	No.	Part Name
①	Electric Box	⑤	Connecting Pipe
②	Air Outlet Vent	⑥	Guide Louver
③	Air Filter	⑦	Electric Box
④	Air Inlet Grille	⑧	Drain Pipe

### 2.2 Nominal Operating Condition

Item	Indoor Condition		Outdoor Condition	
	DBTemperature°C	WBTemperature°C	DBTemperature°C	WBTemperature°C
Rated Cooling	27	19	35	24
Rated Heating	20	15	7	6

### 2.3 Functions of the Unit

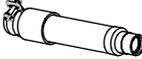
Functions of the Wired Controller	
Mode Setting	Lock
Temperature Setting	Shielding
Fan Setting	Memory
Timer Setting	Keycard Control
Swing Setting	Error Display
Sleep Setting	Wired Controller Address Viewing
Save Setting	Cooling-only/Heat Pump Type Viewing

Functions of the Wireless Controller	
Mode Setting	Fan Setting
Temperature Setting	Light
Temperature Setting Function	Up/Down Swing

### 3 Preparative for Installation

#### 3.1 Standard Accessory Parts

The standard accessory parts listed below are furnished and should be used as required.

No.	Name	Appearance	Q'ty	Usage
1	Wired Controller		1	To control the indoor unit
2	Corrugated Tube		1	To connect the connection pipe and the outdoor unit (56 or above)
3	Drain Hose		1	To connect with the hard PVC drain pipe
4	Special Nut		1	To be used for connecting the refrigerant pipe
5	M10 Washer		10	To be used together with the hanger bolt for installing the unit
6	Wireless Controller		1	To control the indoor unit
7	Insulation		1	To insulate the gas pipe
8	Insulation		1	To insulate the liquid pipe
9	Fastener		8	To fasten the sponge
10	Paper Template		1	To determine the location of the mounting hole
11	Tapping Screw with Washer ST4.8X13 TC		4	To fix the paper template
12	Communication Line (four-wire)		1	To be used with the wired controller

### 3.2 Selection of the Installation Location

#### 3.2.1 Selecting Installation Site

Select an installation site where the following conditions are fulfilled and that meets your customer's approval .

- (1) Obstruct should put away from the intake or outlet vent of the indoor unit so that the airflow can be blown though all the room.
- (2) Make sure that the installation had accord with the requirement of the schematic diagram of installation spaces.
- (3) Select the place where can stand 4 times of the weight of the indoor unit and would not increase the operating noise and oscillate.
- (4) The horizontally of the installation place should be guaranteed.
- (5) Select the place where easy drain condensated coagulated water, and easy connect with outdoor unit.
- (6) Make sure that there are enough space for care and maintenance. Make sure that the weight between the indoor unit and ground is above 1800mm.
- (7) When installing the steeve bolt, check if the install place can stand the weight 4 times of the unit's. If not, reinforce before installation. (Refer to the install cardboard and find where should be reinforced)

#### 3.2.2. Installation Space Requirements

The space around the unit is adequate for ventilation

Unit:mm

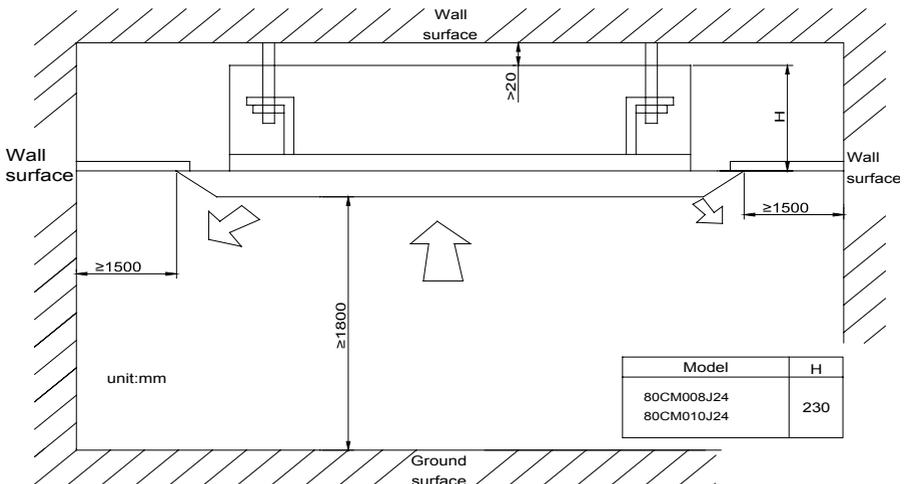


Fig.1

### 3.3 Electrical Requirement

(1) Electric wire size and fuse capacity:

Model	Power Supply	Fan Motor FLA	Fuse/Breaker Capacity	Min. Power Supply Cord
	V/Ph/Hz	A	A	mm <sup>2</sup>
80CM008J24	208-230V~ 60Hz	0.192	6	1.0
80CM010J24		0.192	6	1.0
80CM013J24		0.192	6	1.0
80CM016J24		0.192	6	1.0

FLA: Full Load Amps

- (2) Install the disconnect device with a contact gap of at least 3mm in all poles nearby the units.  
(Both indoor unit and outdoor unit).

## 4 Installation Instruction

### 4.1 Installation of the Indoor Unit

#### 4.1.1 Dimensions Data

Dimension of ceiling opening and location of the hoisting screw (M10). The drilling of holes in the ceiling must be done by the professional personnel. Unit:mm

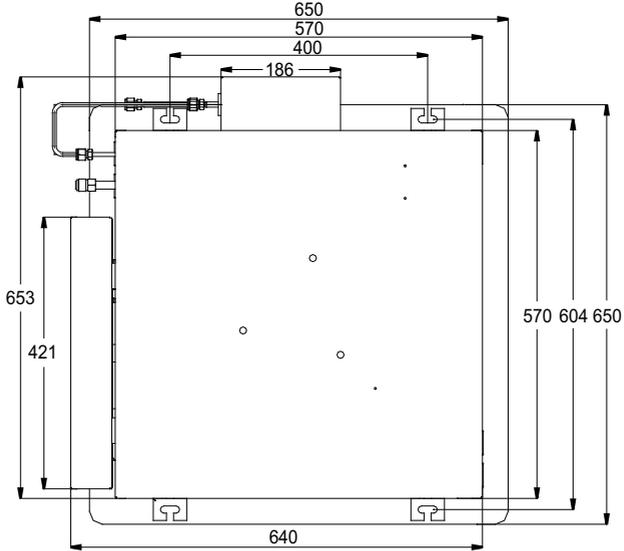


Fig.2

The dimension for the ceiling openings with \* marks can be as large as 910mm. But the overlapping sections of the ceiling and the decorated surface boards should be maintained at no less than 20mm.

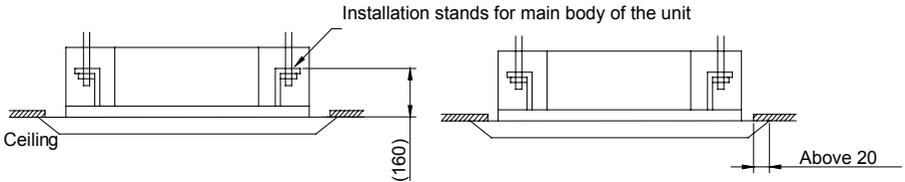


Fig.3

#### 4.1.2 Installing the Main Body Unit

##### (1) Primary Step for Installing the Indoor Unit

When attaching the hoisting stand on the hoisting screw, do use nuts and gaskets individually at the upper and lower of the hoisting stand to fix it. The use of the gasket anchor board can prevent the gasket from breaking off.

##### (2) Use of the Installation Reference Cardboard

Please refer to the reference cardboard about the dimensions of the ceiling opening. The center of the ceiling opening is marked on the reference cardboard.

Install the reference cardboard on the unit by bolts (3 pieces), and fix the corners of the drainage pipe at the outlet vent by bolts.

(3) Adjust the unit to the suitable installation place. (As shown in the figure below)

(4) Check if the unit is horizontal.

The inner drainage pump and the float switch are included in the indoor unit. Check if 4 corners of every unit are horizontal to water level. (If the unit is slant toward the opposite of the condensate water flow, the float switch may malfunctions and may cause water drop.)

Backout the gasket anchor board used to prevent the gasket from breaking off and tighten the nut on it.

(5) Backout the reference cardboard.

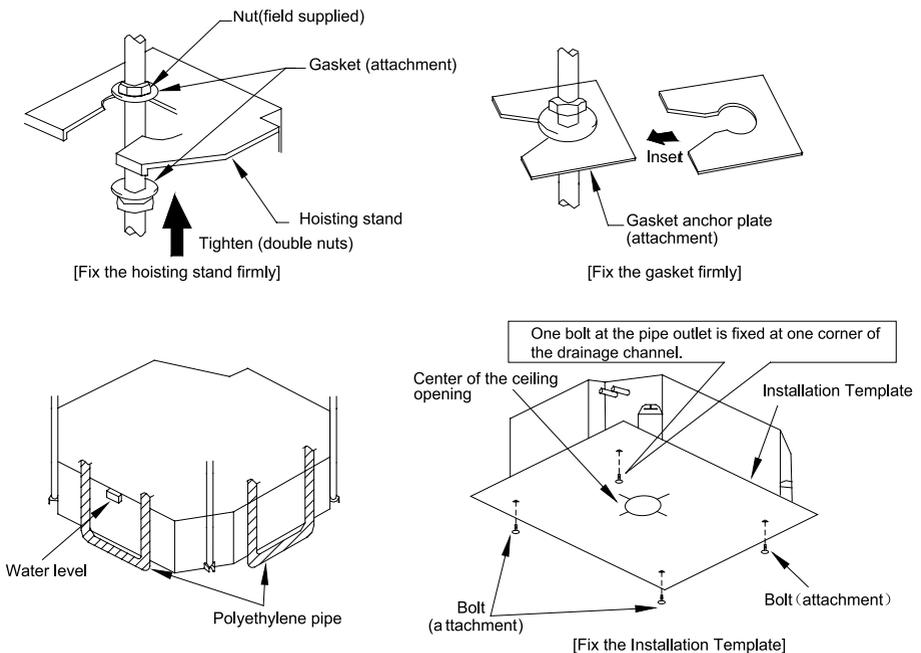


Fig.4

## 4.2 Installation of the Connection Pipe

(1) When connecting the pipe to the unit or backout it from the unit, please do use both the spanner and the torque wrench, as shown in the figure below.

(2) When connecting, smear both inside and outside of the flare nut with refrigeration oil, screw it hand tight and then tighten it with the spanner.

(3) Refer to table 1 to check if the wrench has been tightened properly (too tight would mangle the nut and lead to leakage).

(4) Examine the connection pipe to see if it leaks, then take the treatment of heat insulation, as shown in the figure below.

(5) Only use the medium-sized sponge to entwine the connector of the gas pipe and heat

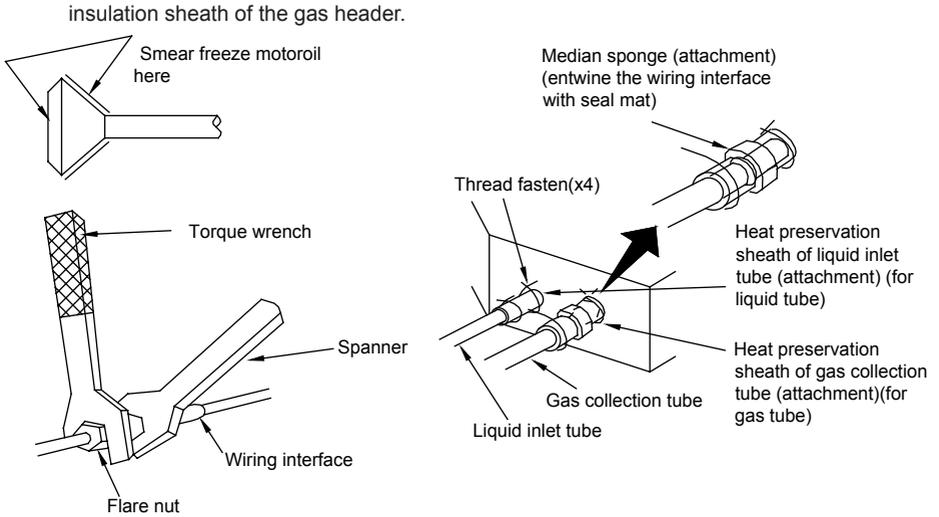


Fig.5

Table 1: Tightening Torques Needed for Tightening Nut

Diameter(Inch)	Surface thickness(mm)	Tightening torque (N·m)
φ1/4"	≥0.5	15-30 (N·m)
φ3/8"	≥0.71	30-40 (N·m)
φ1/2"	≥1	45-50 (N·m)
φ5/8"	≥1	60-65 (N·m)
φ3/4"	≥1	70-75 (N·m)

Refer to the owner's manual of the outdoor unit for more details.

### 4.3 Installation and Test of Drain Pipe

#### 4.3.1 Precautions When Doing the Piping Work

- (1) Keep piping as short as possible and slope it downwards at a gradient of at least 1/100 so that air may not remain trapped inside the pipe.
- (2) Keep pipe size equal to or greater than that of the connecting pipe.
- (3) Install the drain piping as shown and take measures against condensation. Improperly rigged piping could lead to leaks and eventually wet furniture and belongings.

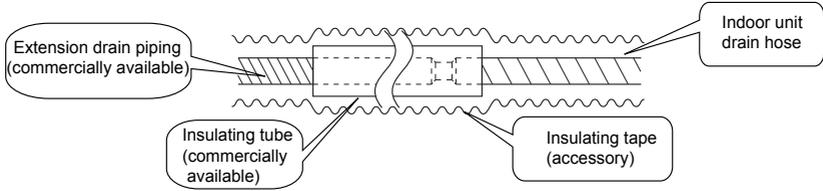
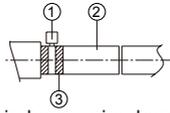


Fig.6

#### 4.3.2 Installing the Drain Pipes

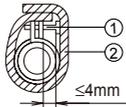
- (1) Insert the drain hose into the drain socket up to the base, and tighten the clamp securely with the tape.
- (2) Insert the drain hose into the drain outlet, and tighten the clamp securely with tape. Tighten the clamp until the screw head is less than 4mm from the hose.

- ① - Metal clamp (accessory)
- ② - Drain hose (accessory)
- ③ - Grey tape (accessory)



Insulate the pipe clamp and the drain hose using heat insulation sponge.

- ① - Metal clamp (accessory)
- ② - Insulation sponge (accessory)



- (3) When unifying multiple drain pipes, install the pipes as shown below. Select converging drain pipes whose gauge is suitable for the operating capacity of the unit. (take the cassette type unit for example)

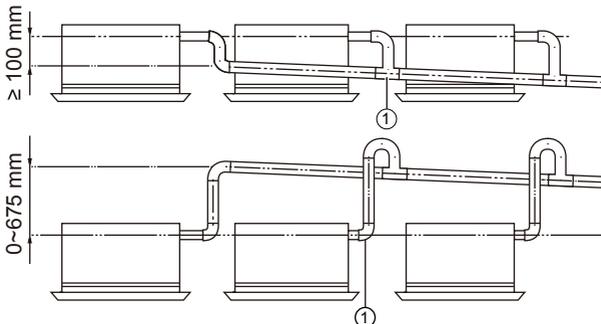


Fig.7

- ① - T-joint converging drain pipes

- (4) When the drain hose cannot keep a sufficient gradient, it is necessary to fit a riser pipe (field supplied) to it.
- (5) If the air flow of indoor unit is high, this might cause negative pressure and result in return suction of outdoor air. Therefore, U-type water trap shall be designed on the drainage side of each indoor unit.

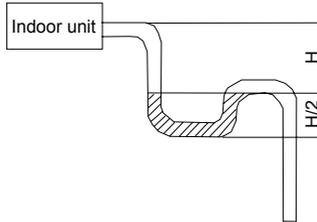


Fig.8

- (6) Install water trap as shown below.
- (7) Install one water trap for each unit.
- (8) Installation of water trap shall consider easy cleaning in the future.

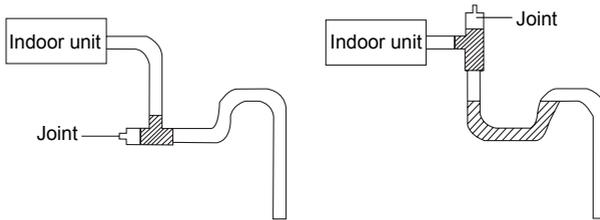


Fig.9

- (9) Connection of drainage branch pipe to the standpipe or horizontal pipe of drainage main pipe

The horizontal pipe cannot be connected to the vertical pipe at a same height. It can be connected in a manner as shown below.

NO1:3-way connection of drainage pipe joint.(Fig.10)

NO2: Connection of drain elbow.(Fig.11)

NO3: Connection of horizontal pipe.(Fig.12)

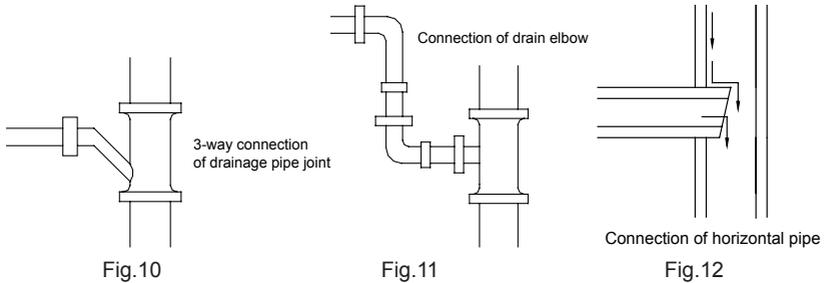


Fig.10

Fig.11

Fig.12

### 4.3.3 Precautions When Doing Riser Piping Work

- (1) Make sure that heat insulation work is executed on the following 2 spots to prevent any possible water leakage due to dew condensation.
  - 1) Connect the drain hose to the drain raiser pipe, and insulate them.
  - 2) Connect the drain hose to the drain outlet on the indoor unit, and tighten it with the clamp.

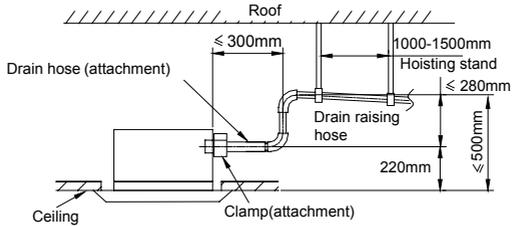


Fig. 13

- (2) Make sure the raiser piping is at most 280mm.
- (3) Stand the raiser piping horizontally, and make sure it is not further than 300mm from the base of the drain outlet.
- (4) Secure a downward gradient of 1/100 or more for the drain pipe. To accomplish this, mount supporting brackets at an interval of 1000 - 1500mm.

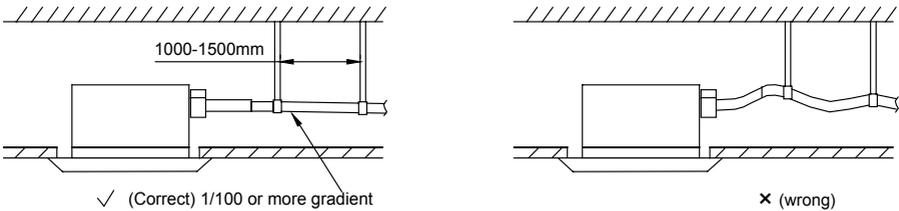


Fig. 14

- (5) The incline of attached drain hose should be 75mm or less so that the drain outlet does not have to withstand additional force.

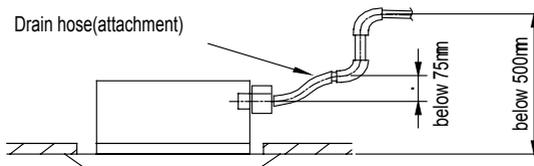


Fig. 15

### 4.3.4 Testing of Drain Piping

After piping work is finished, check if drainage flows smoothly.

As shown in the figure below, Add approximately 1liter of water slowly into the drain pan and check drainage flow during COOL running.

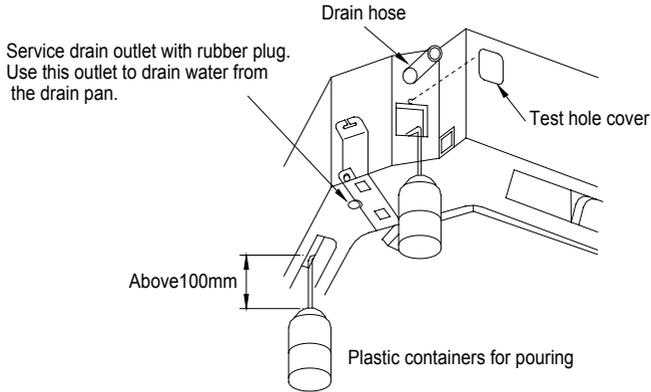


Fig.16

### 4.4 The Panel Installation

#### 4.4.1 Precautions When Installing the Panel

(1) Improper screwing of the screws may cause the troubles as shown in the figure below.

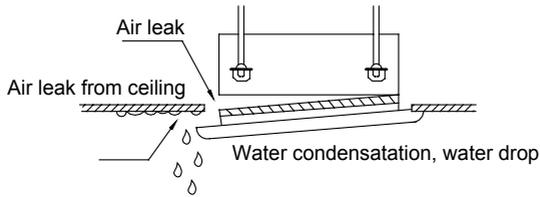


Fig.17

(2) If the gap still exists between the ceiling and the decoration panel after tightening the screws, readjust the height of the indoor unit. (As shown in the figure below)

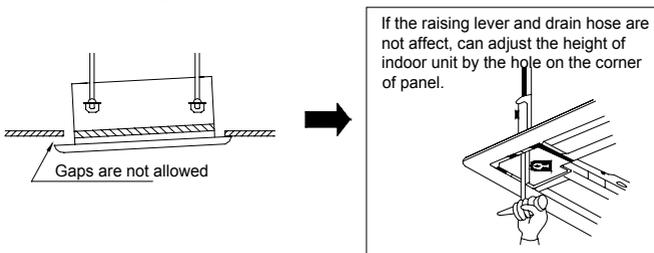


Fig.18

### (3) Wiring of the Decoration Panel

Connect the joints for the swing flap motor lead wire (at 2 places) installed on the panel.

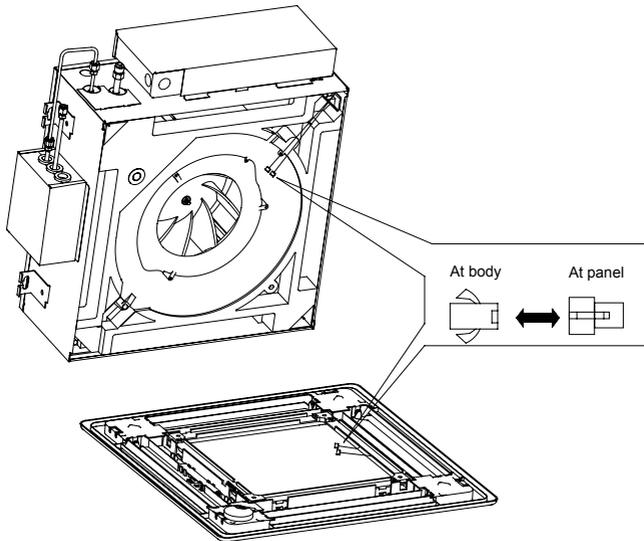
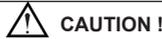


Fig.19

## 5 Introduction of DIP Switch

### 5.1 Function DIP Switch S7



**CAUTION !**

Functional DIP switch S7 is located on the mainboard of the indoor unit. It is operated when the user needs to change the default setting.

Functional DIP switch S7			
DIP switch	Functional description:	DIP switch setting	
		0 (ON Position)	1
1(S / R)	Setting of memory mode	Standby (S)	Restore (R)
2(L / I)	Setting of control mode	Wired control (L)	Remote control (I)
3(M / S)	Setting of master/Slave indoor unit	Master indoor unit (M)	Slave indoor unit (S)

Functional description of function DIP switch:

DIP switch 1 (S/R):

Setting of memory mode, including the standby mode and restoration mode. The standby mode refers to that the previous parameters will be kept but the unit will not run automatically after the power supply is resumed. This DIP switch is factory defaulted to be at the “ON” position. For example, if the parameters of an indoor unit set before power shutdown are High Fan and 24°C, the unit will be under standby state after the power supply is resumed and after the unit is manually started, the parameters will remain as High Fan and 24°C. The restoration mode refers to that not only the previous parameters will be kept, but also that the unit can start automatically after the power supply is resumed. But if the unit is under STOP state before power failure, it will be also under STOP state after the power supply is resumed.

DIP switch 2 (L/I):

Setting of the control mode through either the wired controller or the remote controller. When it is under the wired controller mode, the “Setting of Memory Mode” of switch 1 and the “Setting of Master/Slave Unit” of switch 3 can only be set through the wired controller. when it is under the remote controller, both two settings can still be set through this function DIP switch S7.

DIP switch 3 (M/S):

The setting of master/save indoor unit is intended to set which units as the master units and which as the slave units, mainly used to meet the needs of special people given priority (eg. leaders, patients, etc.). All indoor units are factory defaulted to be master units, with this switch set to the “ON” position.

When all indoor units are set as the slave units, the mode of that who start first will always takes precedence. If its mode conflicts with that of the unit started later, then the unit started later will raise a conflict mode error and stop working. In this case, it is easily understood that the mode of the unit which starts first always takes precedence.

When only one indoor unit is set as the master unit, no matter if it is firstly started or not, if its mode conflicts with that of any slave unit, then this slave unit will raise a mode conflict error and stop working. In this case, it is easily understood that the mode of the master unit always takes

precedence.

When several indoor units are set as master, the mode of master indoor unit with a lower address code will be taken as the master run mode of the unit. when the master indoor unit with the lowest address code is changed from STOP state to RUN state, the mode of other master indoor units or slave indoor units shall be kept identical to its mode. otherwise the system will give out mode conflict error. Therefore, when there are several master indoor units, the address code of the unit shall be set from lower to higher according to priority level.

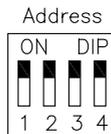
## 5.2 Address Code

The address DIP switch must be set properly for the multi VRF indoor units, otherwise it would lead to communication trouble. The address code consists of 4 binary bits and is related to the address ranging from 1-16.

 **NOTE!**

To use multiple indoor units in parallel, make sure to change the setting of address code before installation and guarantee that the address code of each indoor unit must be different (The address code is located on the mainboard of indoor unit). If wired controller is used, make sure to set the address of wired controller to the position same as the address code on corresponding indoor unit. (The address of wired controller is located on the back of wired controller)

◆ Below is factory default setting:



The default address code is 0000, that is, the address is 1, shown as the figure above.

### ◆ Address Code

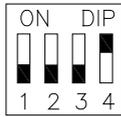
The address code of the address DIP switch is in binary format. When the switch is set to “ON”, it indicates “1” of the binary system, and “0” when set to the opposite side.

Address	1				2				3				4				5				6				7				8											
Address Code	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Code Value	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	1	0	1	1	1	0				
Address	9				10				11				12				13				14				15				16											
Address Code	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Code Value	0	0	0	1	1	0	0	1	0	1	0	1	1	1	0	1	0	0	1	1	1	0	1	1	0	1	1	0	1	1	1	1	0	1	1	1				

Example 1: If the address code is “1110”, that is, switch 4 is set to “ON”, and switch 3,2 and 1 are all set to the opposite side, in this case, the address is “8”.

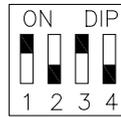
Example: If the address code is “0101”, that is, the switch 3 and 1 are set to “ON” while switch 4 and 2 are set to the opposite side, in this case, the address is “11”.

Refer to the following figure.



Address

Address 8, Address Code 0111



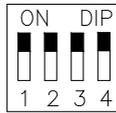
Address

Address 11, Address Code 1010

### 5.3 Capacity Code

On the main board of the indoor unit, two 4-position switches are used to set the address and capacity of the indoor unit. The one (marked with "Capacity" below) is factory set and sealed so that it is not allowed to be modified by the user.

◆ Below is factory default setting:



Capacity

The default setting of the capacity DIP switch, as shown above, is related to the maximum capacity of the indoor unit.

◆ Capacity Code

The capacity code of the capacity DIP switch is in binary format. When the switch is set to "ON", it indicates "1" of the binary system, and "0" when set to the opposite side.

Capacity	20				25				30				35				40				45				50				60											
Capacity Code	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Code Value	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	1	0	1	1	1	0				
Capacity	224				70				80				90				100				112				140				280											
Capacity Code	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Code Value	0	0	0	1	1	0	0	1	0	1	0	1	1	1	0	1	0	0	1	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1				

## 6 Usage of Remote Receiver

When the remote receiver is adopted, set 2(L/I) position on the S7 functional DIP switch to the "OFF" side, then connect the remote receiver to the main board.

For indoor units, there are two options: work with remote receiver or wired controller. If the remote receiver is used, the wired controller can not be put into effect at the same time.

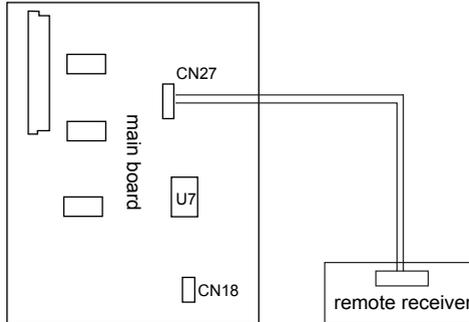


Fig.20 Connection between main board and remote receiver

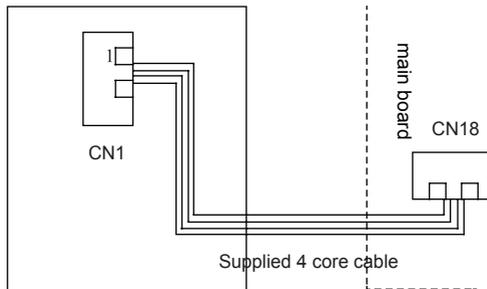


Fig.21 Power/communication Wiring illustration of wired controller

When connect wired controller to main board, use a 4 cores cable to set up a communication wiring from CN18 terminal on the main board to CN1 terminal on the wire controller. Make sure the power is shut off before the wiring. check if the wiring is firmly and prevent any circuit shortage after finishing this step one more time. There are 4 pieces of wires in the cable of controller. (all included in the 4 cores cable), count from upper right direction of wiring terminal are the name of the wires: Earthed wire (GND), communication wire A (A), communication B(B), power wire (+12V).

## 7 Wiring of Power Cord

### 7.1 Wiring Precautions

 **WARNING !**

Specification of power supply: 208-230V 60Hz (for “-D”).

Before turning on, verify that the voltage is within 188~253 V range(for “-D”).

Always use a special branch circuit and install a special receptacle to supply power to the air conditioner.

Use a special branch circuit breaker and receptacle matched to the capacity of the air conditioner.

The special branch circuit breaker is installed in the permanent wiring. Always use a circuit that can trip all the poles of the wiring and has an isolation distance of at least 3 mm between the contacts of each pole.

Perform wiring work in accordance with standards so that the air conditioner can be operated safely and positively.

Install a leakage special branch circuit breaker in accordance with the related laws and regulations and electric company standards.

 **CAUTION !**

The power source capacity must be the sum of the air conditioner current and the current of other electrical appliances. When the current contracted capacity is insufficient, change the contracted capacity.

When the voltage is low and the air conditioner is difficult to start, contact the power company to raise the voltage.

## 7.2 Electrical Wiring

### 7.2.1 How to Connect Wiring to the Terminals

(1) For solid core wiring

- 1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation about 25 mm (15/16") .
- 2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
- 3) Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
- 4) Shape the loop wire properly, place it on the terminal board and tighten securely with the terminal screw using a screwdriver.

(2) For strand wiring

- 1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation about 10 mm (3/8") .
- 2) Using a screwdriver, remove the terminal screw (s) on the terminal board.
- 3) Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.
- 4) Position the round terminal wire, and replace and tighten the terminal screw with a screwdriver.

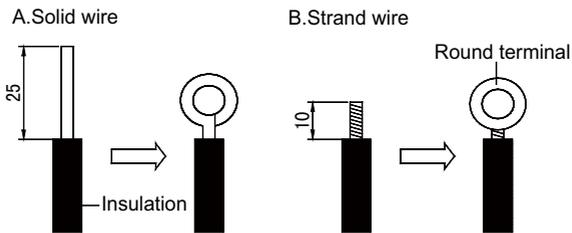


Fig.22

### 7.2.2 How to Fix Connection Cord and Power Cord at the Cord Clamp

After passing the connection cord and power cord through the insulation tube, fasten it with the cord clamp.

 <b>WARNING!</b>
Before starting work, check that power is not being supplied to the indoor unit and outdoor unit.
Match the terminal block numbers and connection cord colors with those of the indoor unit side. Erroneous wiring may cause burning of the electric parts.
Connect the connection cords firmly to the terminal block. Imperfect installation may cause a fire.
Always fasten the outside covering of the connection cord with cord clamps. (If the insulator is not clamped, electric leakage may occur.)
Always connect the ground wire.
Select power cable matched to the fuse capacity.
Use VW-1, 12mm diameter, 0.5 to 1.0mm thick, PVC tube as the insulation tube.

## 8 Emergency Operation

When wireless controller is lost or damaged, the following method could be adopted to control cassette type indoor unit.

When the unit is turned off, press AUTO button located at the corner of the panel, then the unit begins to run under cooling with high fan speed. The temperature will be set to 26°C automatically.

When the unit is turned off, press TEST button located at the corner of the panel, then the unit begins to run under heating mode with high fan speed. The temperature will be set to 20°C automatically.

When the unit is running under cooling mode, press AUTO button, then the unit stops running. under heating mode, press TEST button, then the unit stops running.

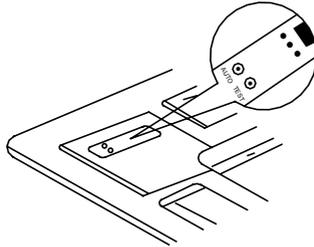


Fig.23



Never adopt emergency operation when the wireless remote controller could be used in normal. There are 3 lights on the panel, red for power, green for running, and yellow for timer.

## 9 Routine Maintenance



Do not clean with hot water.

Do not dry over fire.

Do not run the air conditioner without the air filter.

Do not use water above 45°C to wash the panel to prevent fade or deformation.

### 9.1 Cleaning Air Filter

(1) Open the suction grille.

Screwing the two screws by screwdrivers.

Slide both knobs simultaneously as shown and then pull them downward slowly.

(2) Remove the air filters.

Slide knobs on the back of the suction grille outward and remove the air filter.

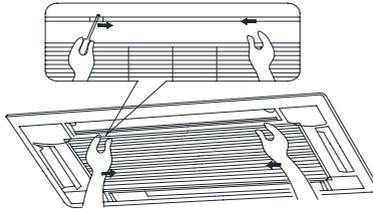


Fig.24

(3) Clean the air filter

Use vacuum or wash the air filter with water when the air filter is very dirty, use neutral detergent and water, let the filter dry naturally at shady place.

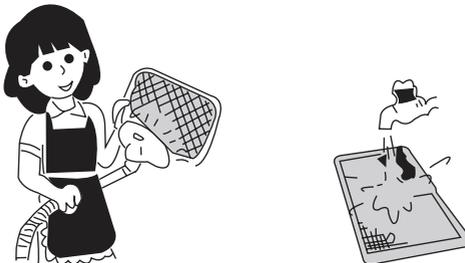


Fig.25

(4) Fix the air filters

Fix the air filter to the suction grille by hanging it to the projected portion above suction grille.

Set air filter by sliding the knob on the back of the suction grills inward.

Shut the suction grille.

## 9.2 Cleaning Air Inlet Grille

- (1) Open air inlet grille.
- (2) Remove the air filters.
- (3) Open the inlet grille for an angle of 45° and then lift.
- (4) Clean it by pubescence brush, water and neutral cleaning, then throw water or dry it.

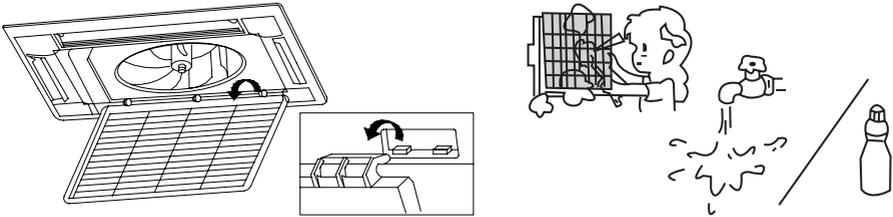


Fig.26

- (5) Fix the inlet grille.
- (6) Fix the air filter.
- (7) Close the inlet grille.

## 9.3 Maintenance Before or After Usage Season

### ◆ Check before the usage season

- (1) Check if there is blockage in inlet or outlet vent of air conditioner.
- (2) Check if the earthing wire had earthed reliably.
- (3) Check if the air filter had been installed well.
- (4) In order to start up the air conditioner smoothly after long time's turned off, turn on the main power supply 8 hours before turning on the air conditioner.

### ◆ Maintenance after usage season

- (1) Clean filter and body of air conditioner.
- (2) Cut off the main power supply of air conditioner.
- (3) The above performance parameter is measured according to the standard of GB/T 18837-2002, and its cooling or heating capacity and sound level are tested before leaving factory.
- (4) If the parameter changed, refer to the data offered on nameplate.



**WARNING!**

Pull out the power plug before cleaning.

Doing not splash water directly to the unit.

## 10 Troubleshooting

If your conditioning unit runs abnormally, please check the following items before contact the maintenance serviceman.

Error	Possible Causes
The unit could not be started.	<ul style="list-style-type: none"> <li>① The unit is energized.</li> <li>② The circuit breaker trips due to the electric leakage.</li> <li>③ The circuit voltage is too low.</li> </ul>
The unit could run but would stop before long.	The air inlet/outlet of the indoor/outdoor unit is blocked.
The cooling effect is good.	<ul style="list-style-type: none"> <li>① The air filter screen is dirty or is clogged.</li> <li>② There are too many heat sources or people in the room</li> <li>③ The door or window is open</li> <li>④ There is an obstacle at the air inlet/outlet.</li> <li>⑤ The set temperature is too high.</li> </ul>
The heating effect is not good.	<ul style="list-style-type: none"> <li>① The air filter screen is dirty or is clogged.</li> <li>② The door or window is not closed fully.</li> <li>③ The set temperature is too low.</li> </ul>
The remote controller is useless.	<ul style="list-style-type: none"> <li>① If the remote controller crashes even if the batteries have been replaced, please open the back cover of it and press the button "ACL" to let it back to the normal condition.</li> <li>② Is the remoter controller in the signal receiving range? Or is it blocked by obstacles?</li> <li>③ For the duct type unit, operate the remote controller pointing at the wired controller.</li> <li>④ Check if the voltage of the batteries of the wired controller is enough. or change them.</li> </ul>



**NOTE !**

If the air conditioner still runs abnormally after the above check and handling, please contact the maintenance serviceman at the local appointed service center.

## ● Parameters of compact four-way cassette type indoor unit

Model	80CM008J24	80CM010J24	80CM013J24	80CM016J24
Function	Cooling and heating	Cooling and heating	Cooling and heating	Cooling and heating
Cooling Capacity (kBtu/h)	7.5	9.6	12.3	15.4
Heating Capacity (kBtu/h)	8.5	10.9	13.6	17.1
Air Flow Rate (m <sup>3</sup> /h)	600	600	600	600
Sound Level(dB(A))	47	47	47	47
Input of Motor (kW)	0.05	0.05	0.05	0.05
Power Supply	208-230V/phase/60Hz			
Anti-electric Shock Protect Type	I			
Dimensions (mm) (W×D×H)	Main body: 570×570×230 Panel: 650×650×50			
Net Weight (kg) (Main body/Panel)	20/2.5			

- ☆ The above performance parameter is measured according to the standard of GB/T18837-2002, and its cooling or heating capacity and sound level are tested before leaving factory.
- ☆ If the parameters are changed, refer to the data provided on nameplates .

Thank you for Choosing



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