



## **Multi Variable Air Conditioners Compact Cassette Type Indoor Unit**

### **Owner's Manual Air Conditioners**

Models:

ACCMI-22VRDC1A

ACCMI-28VRDC1A

ACCMI-36VRDC1A

ACCMI-45VRDC1A

ACCMI-50VRDC1A

ACCMI-56VRDC1A

- Thank you for choosing Air Conditioners, please read this owner's manual carefully before operation and retain it for future reference.

## Preface

For correct installation and operation, please read all instructions carefully. Before reading the instructions, please be aware of the following items:

- (1) For the safe operation of this unit, please read and follow the instructions carefully.
- (2) During operation, total capacity of indoor units should not exceed the total capacity of outdoor units. otherwise, poor effect of cooling or heating may result.
- (3) Direct operators or maintainers should well keep this manual.
- (4) If this unit fails to operate normally, please contact our service center as soon as possible and provide the following information:
  - ◆ Content on the nameplate(model number,cooling capacity,production code,ex-factory date.
  - ◆ Malfunction details(before and after the malfunction occurs.
- (5) Each unit has been strictly tested and proved to be qualified before ex-factory. In order to prevent units from being damaged or operating normally because of improper disassembly. please do not disassemble the unit by yourself. If you need to disassemble and check units, please contact our service center. We will send specialists to guide the disassembly.
- (6) Under the standby status, the unit will consume a little power for ensuring reliability of complete unit, maintaining normal communication and preheating refrigerant. When the unit won't be used for a long time, cut off the power of the complete unit. However, please preheat it when operating the unit next time.
- (7) All graphics in this manual is only for your reference. For sales or production reasons,these graphics are subject to change by manufacturer without prior notice.
- (8) These instructions shall also be available in an alternative format, e.g. on a website.

## User Notice

- ◆ This appliance can be used by children aged from 8 years and above and persons with reduced physical ,sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instrction concerning use of the appliance in a safe way and understand the hazards involved .Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

	<p>Correct Disposal of this product</p> <p>This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.</p>
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# Contents

1 Safety Precautions .....	1
2 Product Introduction .....	3
2.1 Names of Key Components.....	3
2.2 Rated Working Condition.....	3
2.3 Unit Functions .....	3
3 Preparations for Installation.....	4
3.1 Standard Fittings.....	4
3.2 Installation Position Selection.....	4
3.3 Requirements of communication wire selection .....	5
3.4 Wiring Requirements .....	6
4 Installation Instructions.....	7
4.1 Indoor unit installation.....	7
4.2 Refrigerant Pipe Connection .....	9
4.3 Drainage Pipe Installation and Drainage System Testing.....	10
4.4 Panel installation .....	12
4.5 Installation of Wired Controller .....	14
5 Wiring Work.....	14
5.1 Connection of Wire and Patch Board Terminal.....	15
5.2 Power Cord Connection .....	16
5.3 Connection of Communication Wire between Indoor Unit and Outdoor Unit (or indoor unit) .....	16
5.4 Connection of Communication Wire for Wired Controller.....	17
5.5 Wiring Instructions of Wired Controller and Indoor Units Network .....	17
6 Routine Maintenance .....	19
6.1 Cleaning of Filter .....	19
6.2 Maintenance before the Seasonal Use .....	19
6.3 Maintenance after the Seasonal Use .....	19
7 Table of Error Codes for Indoor Unit .....	19
8 Troubleshooting.....	20

## 1 Safety Precautions

⊘ means items that must be forbidden! Otherwise, it may lead to personal injury or death or serious damage.

! means items that must be followed! Otherwise, it may lead to personal injury or property loss.



Please install the unit according to instructions in this manual. Read this manual carefully before starting up or checking the machine.



Installation should be performed by dealer or qualified technicians. Do not install the product by yourself. Improper installation may result in water leakage, electric shock or fire hazard.



Make sure the local power supply is in accordance with units before installation, and check the power supply carefully.



This air conditioner must be properly grounded through the receptacle to avoid electric shock. The grounding wire shouldn't be connected with gas pipe, water pipe, lightning arrester or telephone line.



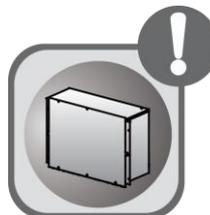
Please use specialized accessories or parts to carry out installation, or water leakage, electric shock, fire hazard may result.



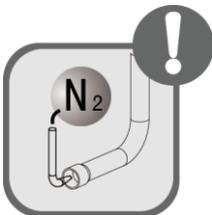
R410A refrigerant can produce poisonous gas once it meets fire, so please ventilate the room immediately if refrigerant leaks out during installation.



Diameter of power cord must be large enough. Damaged power cord and connecting wire must be replaced by specialized electric cable.



After the power cord is connected, please install the cover of electric box to avoid danger.



Nitrogen must be charged according to technical requirements.



Short circuit is forbidden. Do not cancel the pressure switch in case the unit may be damaged.



For units with wired controller, do not connect power supply until the wired controller is well installed. Otherwise, the wired controller cannot be used.



When the installation is finished, please check and make sure the drain pipe, pipeline and electric wire are all well connected in order to avoid water leakage, refrigerant leakage, electric shock or fire hazard.

## Multi Variable Air Conditioners Cassette Type Indoor Unit



Do not extend fingers or objects into air outlet or air return grille.



If you use gas heater or petroleum heater in the same room, please open the door or window to maintain good air circulation in case the room may lack of oxygen.



Never start or stop the air conditioner by inserting or removing the power cord.



Do not turn off the air conditioner until it runs for at least 5 minutes. Otherwise, oil-return of the compressor will be affected.



Children are not allowed to operate the air conditioner.



Do not operate the air conditioner with wet hands.



Please turn the unit off and unplug your air conditioner before cleaning. Otherwise, it may cause electric shock or personal injury.



Do not spray water on the air conditioner or it will cause malfunction or electric shock.



Do not expose the air conditioner directly to water or place it in a damp or corrosive environment.



Connect power supply 8 hours before operation. Do not disconnect power if you want to stop the unit in a short period of time, e.g. in one night. (This is for protecting the compressor.)



Volatile liquid like thinner or gasoline will damage the appearance of air conditioner. (Please use soft dry cloth and wet cloth with mild detergent to clean the outer case of air conditioner.)



During Cooling mode, indoor temperature should not be set too low. Keep the difference between indoor temp and outdoor temp within 5°C.



If abnormal condition occurs (e.g. unpleasant smell), please turn off the unit at once and disconnect power supply. Then contact ALPICAIR service center. If the air conditioner continues to operate despite of abnormal condition, the unit may be damaged and it may cause electric shock or fire hazard.)



Do not repair the air conditioner by yourself. Improper repair will cause electric shock or fire hazard. Please contact ALPICAIR service center and have it repaired by professional technicians.

Any personal injury or property loss caused by improper installation, improper debug, unnecessary repair or not following the instructions of this manual should not be the responsibility of ALPICAIR Electric Appliances, Inc. of Zhuhai.

## 2 Product Introduction

### 2.1 Names of Key Components

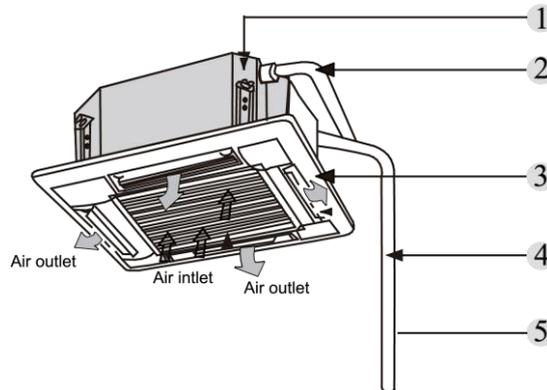


Fig 2.1

No.	①	②	③	④	⑤
Name	the hanger bracket	Drainage Pipe	Louver	Connection Pipe	Air Inlet Grille (With Filter)

### 2.2 Rated Working Condition

	Indoor Side Condition		Outdoor Side Condition	
	Dry Bulb Temp °C(°F)	Wet Bulb Temp °C(°F)	Dry Bulb Temp °C(°F)	Wet Bulb Temp °C(°F)
Rated Cooling	27(80.6)	19(66.2)	35(95)	24(75.2)
Rated Heating	20(68.0)	15(59.0)	7(44.6)	6(42.8)

Indoor Unit Working Temperature Range: 16°C~ 32°C.

### 2.3 Unit Functions

Unit Functions	Wired Controller XK46(Standard)	Wired Controller XK49(Optional)	Remote Controller YAP1F (Standard)	Remote Controller YV1L1 (Optional)
Operation Mode (Cooling, Heating, Fan, Dehumidifying)	✓	✓	✓	✓
Fan Speed Adjustment	✓	✓	✓	✓
Temperature Adjustment	✓	✓	✓	✓
X-fan Function	✓	✗	✓	✓
Quiet Function	✓	✗	✗	✓
Sleep Function	✓	✗	✓	✓
Save Function	✓	✗	✗	✓
E-heater Function	✗	✗	✗	✗
Memory Function	✓	✓	✗	✗
Absence Function	✓	✗	✓	✓
Timer Function	✓	✗	✓	✓
Low Temp Dehumidify Function	✓	✗	✗	✓

Filter Cleaning Reminding Function	✓	X	X	X
I Feel	X	X	✓	✓
Light Function	✓	X	✓	✓
Swing	✓	✓	✓	✓

**⚠ Note!**

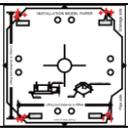
- ① ✓: included, X: not included.
- ② Please refer to the user manual of Wired Controller or Remote Controller for function details.

### 3 Preparations for Installation

Note: this picture is for reference only, please refer to the actual product; the unit of dimension is mm.

#### 3.1 Standard Fittings

Please use the supplied standard fittings listed below as instructed.

No.	Name	Appearance	Q'ty	Usage
1	Drainage hose assembly		1	To connect the drainage pipe
2	Special Nut		1	To be used for connecting the refrigerant pipe
3	Insulation		1	To insulate the gas pipe
4	Insulation		1	To insulate the liquid pipe
5	Sponge		2	To insulate the drain pipe
6	Fastener		4	To fasten the sponge
7	paper pattern for installation		1	Locate the drill hole on ceiling
8	Tapping screw with washer		4	Fix paper pattern
9	Remote controller		1+2	To control the indoor unit
10	Washer fixing plate		4	Prevent the washer from falling off

#### 3.2 Installation Position Selection

- (1) The location should be able to withstand the weight of unit.
- (2) The water can be drained conveniently from drainage pipe.

- (3) There should be no obstruction near air inlet and air outlet.
- (4) Follow the installation distance required in the fig below to ensure sufficient space for maintenance.
- (5) The installation location should be far from heat sources, flammable or explosive gas, or smog spread in the air..
- (6) The appliance shall not be installed in the laundry.
- (7) Appliances are not accessible to general public.
- (8) The indoor unit, outdoor unit, power cord and connection electricity wire should be at least 1m from television and radio in order to prevent interference and noise. (Even though 1m distance is ensured, there may be noise if the electric wave is too strong.)

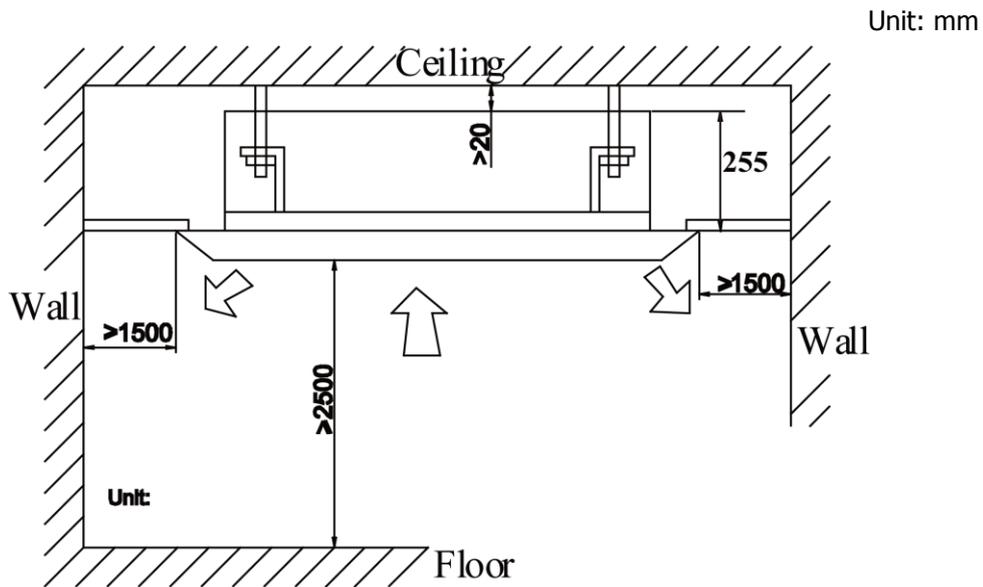


Fig 3.2

**Notes:**

- ① The unit shall be installed in accordance with national standards or local regulations.
- ② Only qualified personnel can carry out installation work, please contact with local dealer before installation..
- ③ Make sure all the installation work completed before energizing.

### 3.3 Requirements of communication wire selection

**Note!**

If air conditioner used under strong electronic-magnetic interference circumstance, STP(shielded twisted pair) communication cable must be adopted.

#### 3.3.1 Selection of communication wire between indoor unit and wired controller

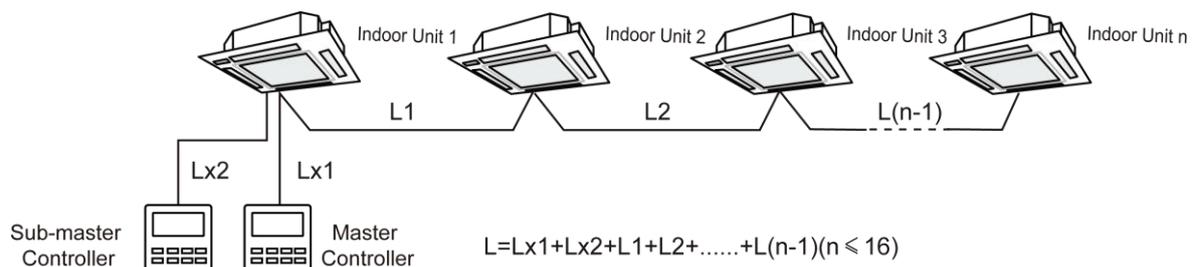


Fig 3.3.1

## Multi Variable Air Conditioners Cassette Type Indoor Unit

Wire type	Total length of communication wire between indoor unit and wired controller (m)	Wire diameter (mm <sup>2</sup> )	Wire standard	Remark
Light/Ordinary polyvinyl chloride sheathed cord.(60227 IEC 52 /60227 IEC 53)	L≤250	2×0.75~2×1.25	IEC 60227-5:2007	1.Total length of communication cable can't exceed 250m . 2.The cord shall be Circular cord (the cores shall be twisted together). 3. If unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.

### 3.3.2 Selection of communication wire between indoor unit and indoor unit (or outdoor unit)

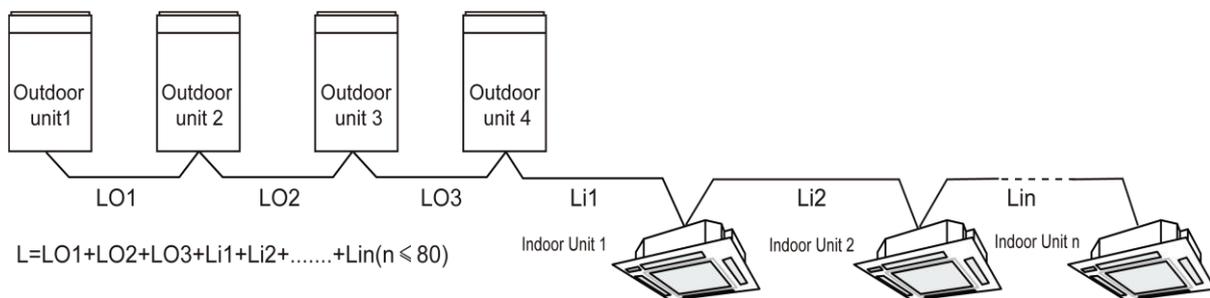


Fig 3.3.2

Wire type	Total length of communication wire between indoor unit and indoor unit(outdoor unit) (m/feet)	Wire diameter (mm <sup>2</sup> )	Wire standard	Remark
Light/Ordinary polyvinyl chloride sheathed cord.(60227 IEC 52 /60227 IEC 53) (60227 IEC 52 /60227 IEC 53)	L≤1000	≥2×0.75	IIEC 60227-5:2007	1.If the wire diameter is enlarged to 2 × 1 mm <sup>2</sup> , the total communication cable length can reach 1500m. 2.The cord shall be Circular cord (the cores shall be twisted together). 3.If unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.

### 3.4 Wiring Requirements

(1) Dimension of power cord and capacity of air switch



Notes:

- ① The circuit breaker and power cord specification in above sheet are based on max power (max current) of the unit.
- ② The power cord specification in above sheet is based on ambient temperature of 40°C.
- ③ The circuit breaker specification in above sheet is based on ambient temperature of 40°C.
- ④ If the working condition is different, please adjust it according to the specification sheet of

circuit breaker.

Model	Power Supply	Air Switch Capacity (A)	Minimum Sectional Area of Grounding Wire(mm <sup>2</sup> )	Minimum Sectional Area of Power Cord (mm <sup>2</sup> )
ACCOMI-22VRDC1A	220~240V-1ph-50Hz 208~230V-1ph-60Hz	6	1	1
ACCOMI-28VRDC1A		6	1	1
ACCOMI-36VRDC1A		6	1	1
ACCOMI-45VRDC1A		6	1	1
ACCOMI-50VRDC1A		6	1	1
ACCOMI-56VRDC1A		6	1	1

## 4 Installation Instructions

### 4.1 Indoor unit installation

#### 4.1.1 Indoor unit dimension and suspension bolt position

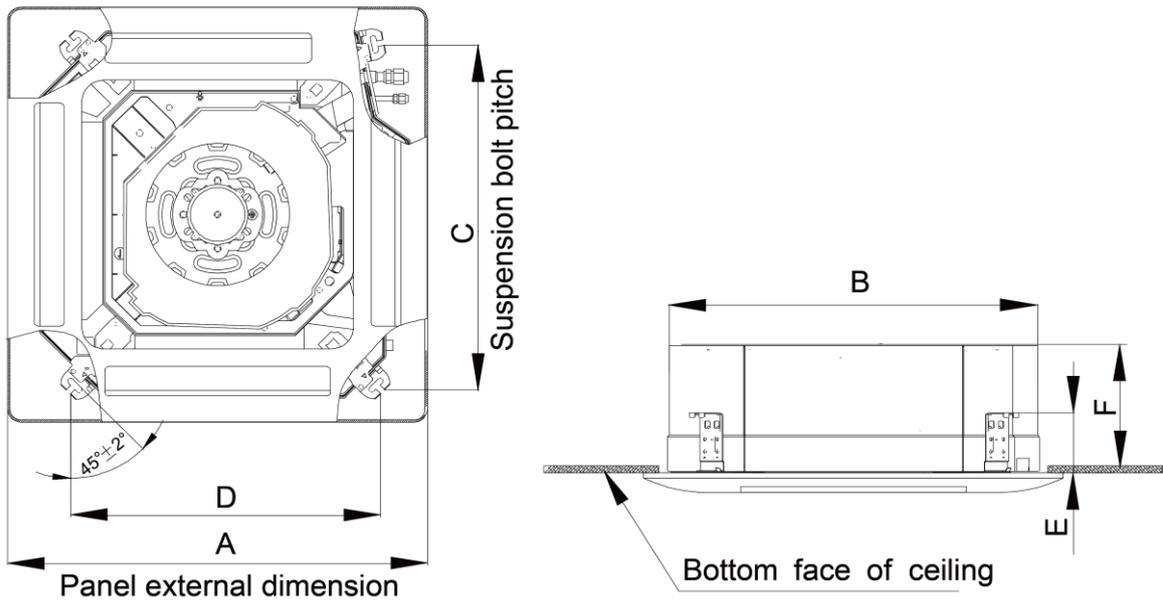


Fig 4.1.1

Below are dimensions of A, B, C, etc. for different models:

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Drainage Pipe(Outer Diameter× wall thickness) (mm)	Unit: mm/inch	
								Outer Diameter of Connection Pipe(mm)	
								Liquid pipe	Gas pipe
ACCOMI-22VRDC1A	670	596	592	571	145	240	φ25×2.5	6.35	9.52
ACCOMI-28VRDC1A								6.35	9.52
ACCOMI-36VRDC1A								6.35	12.7
ACCOMI-45VRDC1A								6.35	12.7
ACCOMI-50VRDC1A								6.35	12.7
ACCOMI-56VRDC1A								9.52	15.9

Important: The drilling work and installation of unit must be carried out by qualified personnel.

#### 4.1.2 Suspend the indoor unit

(1) Drill bolt holes and install bolts

- 1) Stick the paper pattern on the installation position; drill 4 holes according to the hole site on the cardboard as shown in fig 4.1.2; diameter of drilling hole is according to the diameter of expansion bolt and the depth is 60-70mm, as shown in fig 4.1.3.

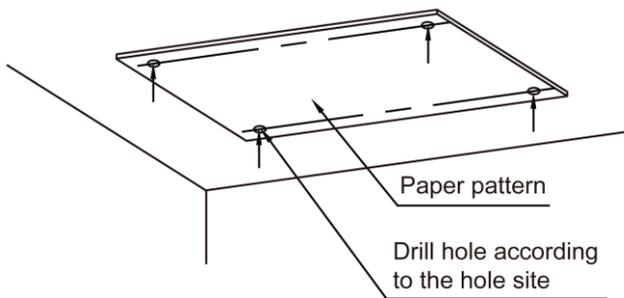


Fig 4.1.2

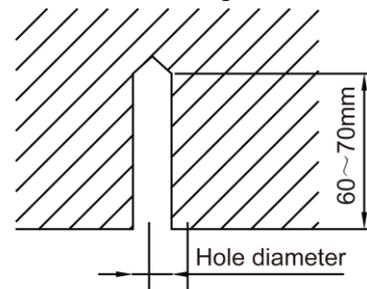


Fig 4.1.3

- 2) Insert the M10 expansion bolt into the hole and then knock the nail into the bolt, as shown in fig 4.1.4.



The length of bolt depends on the installation height of the unit, bolts are field supplied.

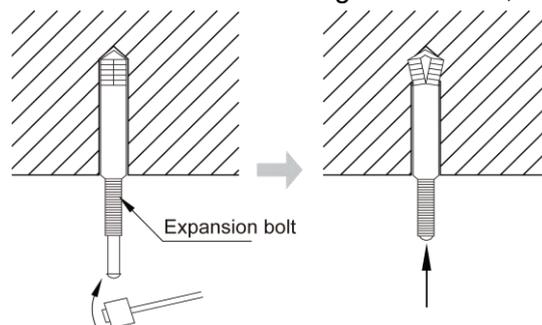


Fig 4.1.4

(2) Install the indoor unit temporarily

Assemble suspension bolt on the expansion bolt, attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer from upper and lower sides of the hanger bracket. The washer fixing plate will prevent the washer from falling.

(3) The usage of paper pattern

Refer to paper pattern of installation for ceiling opening dimension. The center of ceiling opening is indicated on the paper pattern. Fix the paper pattern to the unit with 4 screws and fix the corners of the waterspout at the drainage pipe by screws.

(4) Adjust the unit to the right position.

(5) Check the level of the unit. The indoor unit is equipped with build-in water pump and float switch, verify the levelness of 4 directions by level gauge or vinyl tube (filled with water) respectively.

(6) Remove the washer locating plate and then tighten the nut on it.

(7) Remove the paper pattern.

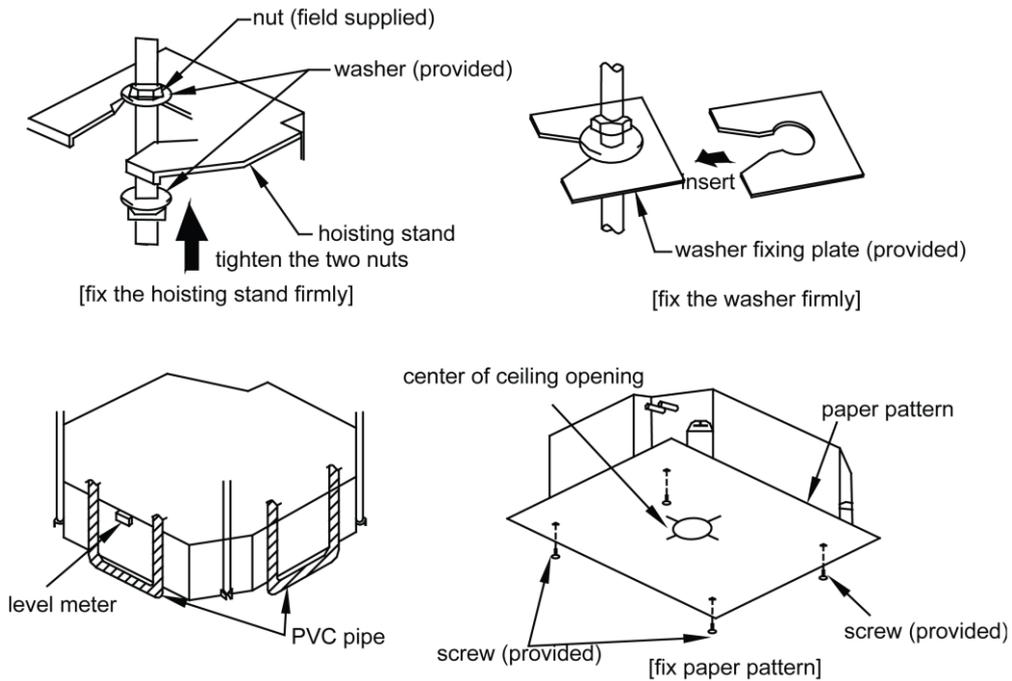


Fig 4.1.5

## 4.2 Refrigerant Pipe Connection

- (1) Aim the flaring port of copper pipe at the center of screwed joint and then tighten the flaring nut with hand as shown in fig 4.2.
- (2) Use a torque wrench to tighten up the flaring nut until the wrench gives out a click sound.

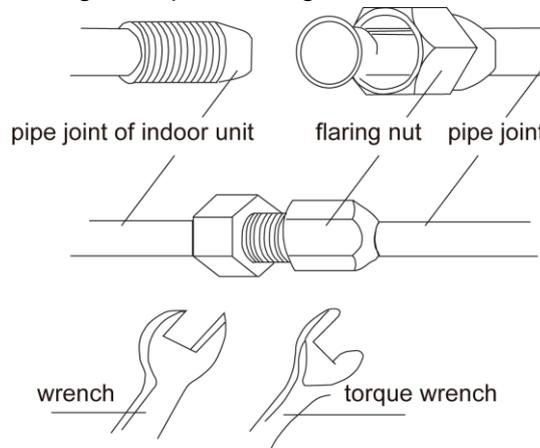


Fig.4.2

### Torque for tightening nut

Pipe diameter (mm)	Torque (N·m)
φ6.35	15~30
φ9.52	35~40
Φ12.7	45~50
φ15.9	60~65

- (3) The pipe should not be bent too much or it may crack. Use a pipe bender when bending the pipe.

- (4) Wrap the connection pipe and joint with sponge and then tie them firmly with tape.

### 4.3 Drainage Pipe Installation and Drainage System Testing

#### 4.3.1 Notice for Installation of Drainage Pipe

- (1) The drainage pipe should be short and the gradient downwards should be at least 1%~2% in order to drain condensation water smoothly.
- (2) The diameter of drainage hose should be bigger or equal to the diameter of drainage pipe joint.
- (3) Install drainage pipe according to the following fig and arrange insulation to the drainage pipe. Improper installation may lead to water leakage and damp the furniture and other things in the room.
- (4) You can buy normal hard PVC pipe used as the drainage pipe. During connection, insert the end of PVC pipe into the drainage hole and then tighten it with drainage hole and wire binder. Never connect the drainage hole and drainage hose with glue.
- (5) When the drainage pipelines are used for several units, the position of pipeline should be about 100mm(4 inch) lower than the drainage port of each unit. In this case, thicker pipes should be applied.

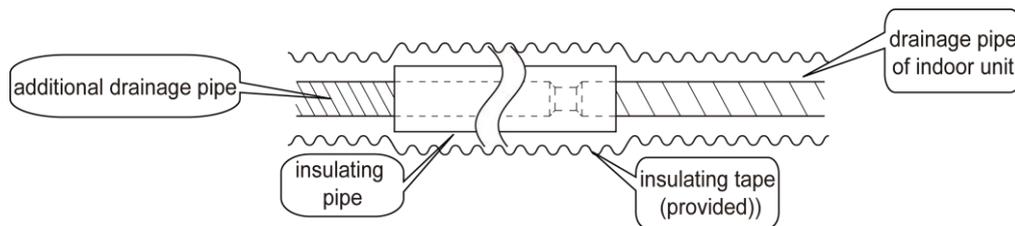


Fig 4.3.1

#### 4.3.2 Installation of Drainage pipe

- (1) Drainage pipe should have the same diameter or larger diameter than the connection pipes(PVC pipe, outside diameter 25mm, thickness  $\geq 1.5$ mm).
- (2) Keep drainage pipe short and sloping downwards at a gradient of at least 1% for preventing forming air bubbles.
- (3) Insert the drainage hose into drain socket and then tighten the metal clamp securely.
- (4) Warp the sealing pad over drainage hose and metal clamp for heat insulation.
- (5) Make sure to perform insulation work for all drainage hoses in the room in order to prevent any possible water dropping due to dew condensation.
- (6) Apply the suitable diameter for converging drainage pipe according to the operating capacity of the unit, as show in Fig. 4.3.2.

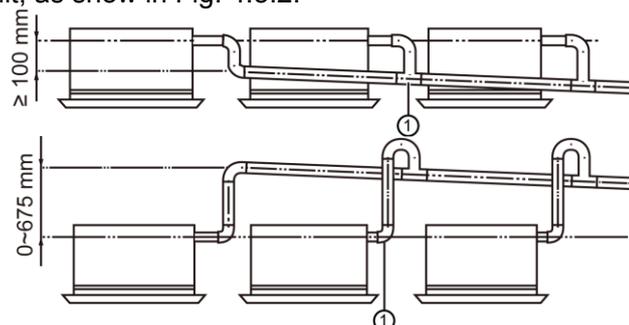


Fig 4.3.2

①-Drainage pipes assembled by T-shaped joints

(7) The horizontal pipe can't be connected to vertical pipe in the same level; please select the connection way as shown in following fig.

NO1: Three-way connection of drainage pipe joints (Fig 4.3.2.2)

NO2: Connection of downspout elbow (Fig 4.3.2.3)

NO3: Inserting horizontal pipe connection (Fig 4.3.2.4)

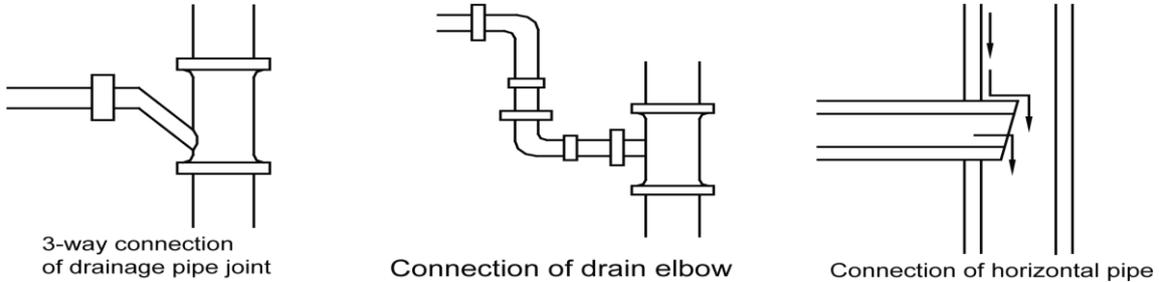


Fig 4.3.2.2

Fig 4.3.2.3

Fig 4.3.2.4

(8) Drainage pipes should have a downward slope of at least 1%~2%, in order to prevent pipes from sagging; install hanger bracket at intervals of 1000~1500mm.

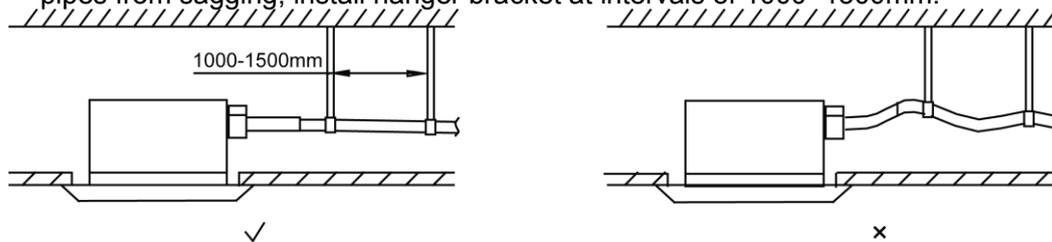
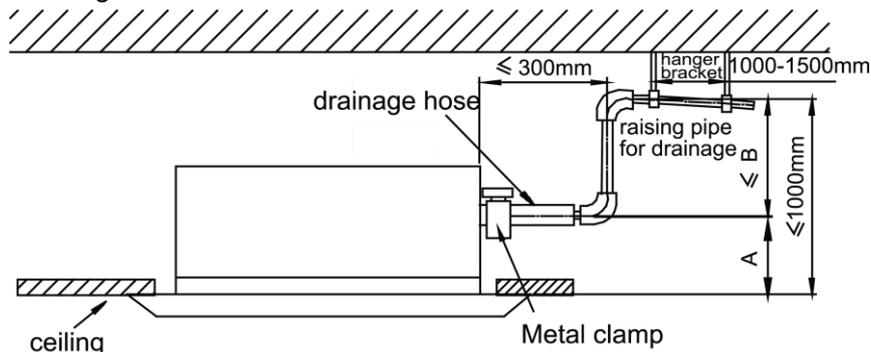


Fig 4.3.4

(9) The installation height of raising pipe for drainage should be lower than 850mm. The gradient from raising pipe towards drainage direction should be at least 1%~2%. If the raising pipe is vertical with the unit, the raising height should be less than 800mm., as shown in Fig 4.3.2.6.



model	A(mm)	B(mm)
ACCMI-22VRDC1A ACCMI-28VRDC1A ACCMI-36VRDC1A ACCMI-45VRDC1A ACCMI-50VRDC1A ACCMI-56VRDC1A	170	830

Fig 4.3.6

(10) If the raising pipe is vertical with the unit, the distance between raising pipe and unit

should be less than 300mm.

#### 4.3.3 Test of Drainage System

(1) Please test drainage system after electric work is finished.

Inject approximately 1L purified water to drain pan from air vent, ensure that not to splash the water over the electrical components (e.g. water pump. etc).

1) In case of commissioning finished, please energize the IDUs and switch to cooling or dry mode, meanwhile, the water pump operates, you can check the draining through the drain socket.

2) If communication wire is not connected, communication malfunction "C0" will occur after 60s of energizing. In this case, the water pump operates automatically. Check if the water pump drains normally through drainage port. The water pump will stop automatically after running for 10mins.

(2) During the test, please carefully check the drainage joint, make sure no any leakage occur.

(3) It's strongly recommend to do the drain test before ceiling decoration.

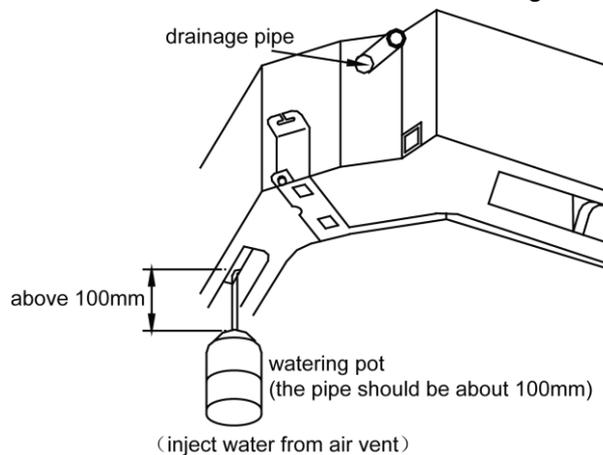


Fig 4.3.5

### 4.4 Panel installation

#### 4.4.1 Notices for installation

(1) Improper decorative panel installation could cause the following problems.

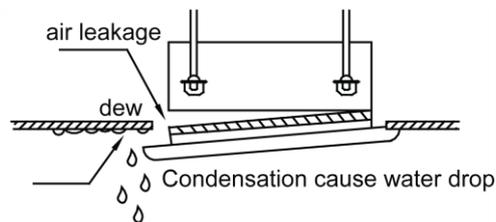


Fig 4.4.1

(2) Ensure that its clearance-free between decoration panel and ceiling board after installation, if not, please adjust the body position.

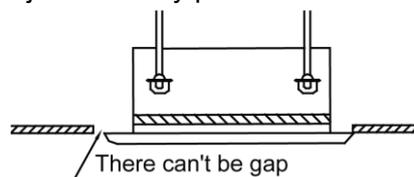


Fig 4.4.2

- (3) Connect the decoration panel terminals (Female) to body terminals (male) as shown in figure 4.4.3.

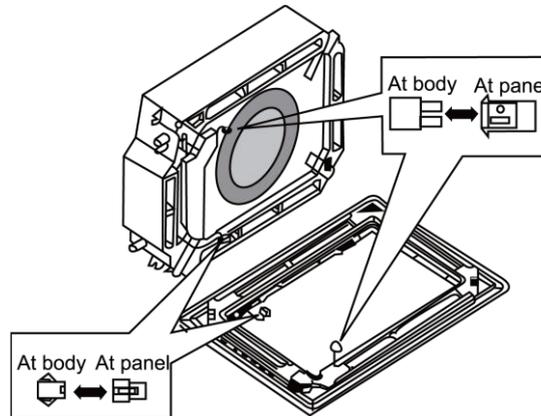


Fig 4.4.3

### 4.4.2 Panel installation

- (1) Detach the panel's Corner Cap, there is a mark "piping side" on one of the 4 corners, adjust the panel direction so as to keep the mark and fittings on the same corner, as shown in fig 4.4.4

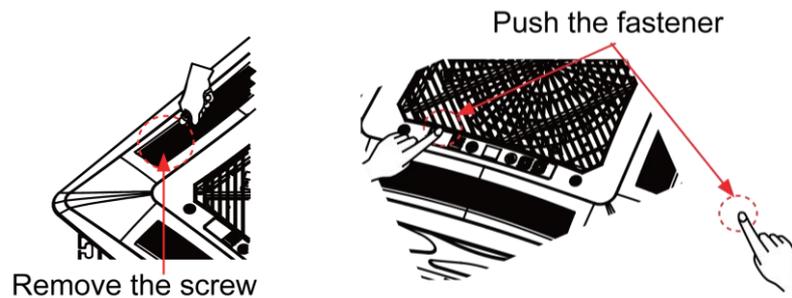


Fig 4.4.4

- (2) Temporarily hang the panel to body (there are four hangers on each corner of the panel, hang the hangers to corresponding hooks on the body), as shown in fig 4.4.5.
- (3) Detach the air inlet grille from panel, make a wiring connection of signal receiver. Notice that the connection wire not stuck in the middle of body and panel, or may cause air leakage and lead to condensation water drop.
- (4) Tighten 4 screws at each corner of panel respectively, fix the panel on the body firmly.
- (5) After tightening screws, reinstall the air inlet grille.

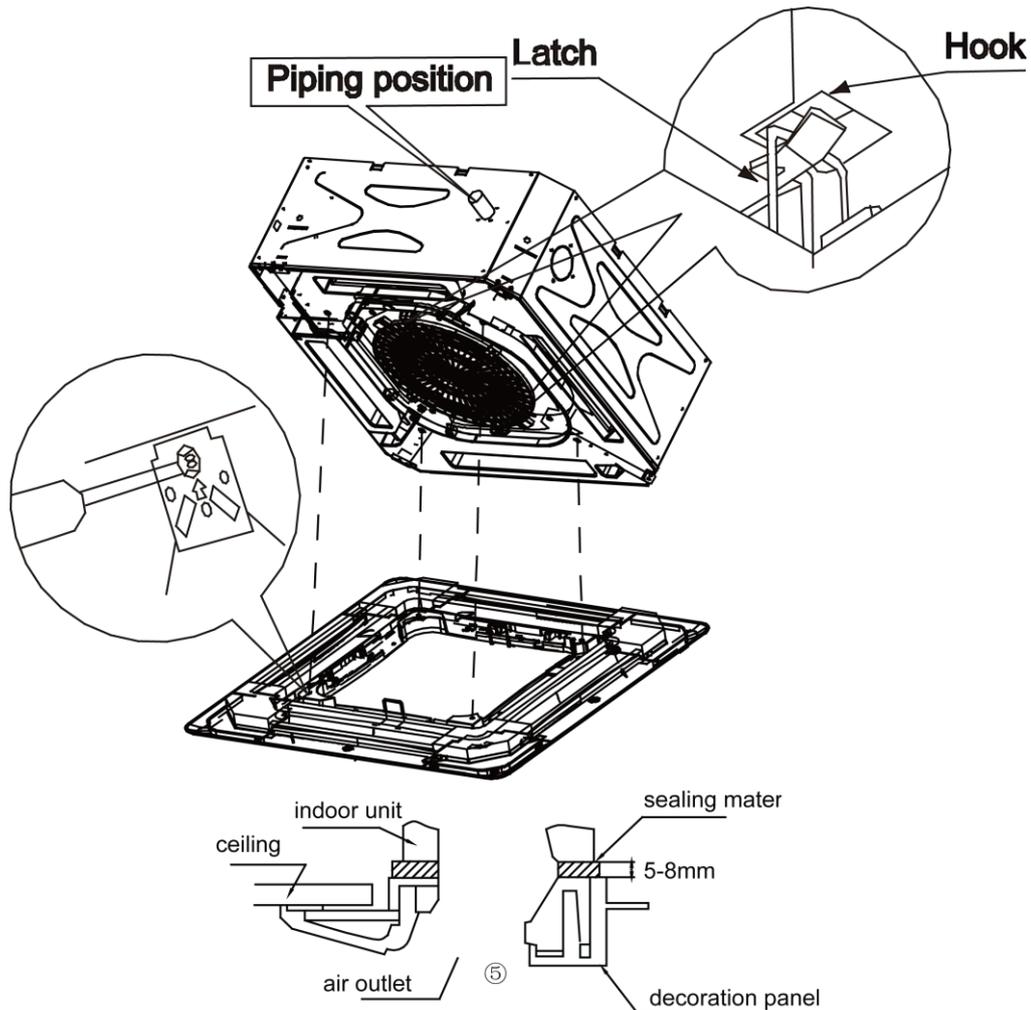


Fig 4.4.5

## 4.5 Installation of Wired Controller

Wired controller is optional accessory. If wired controller is needed, please contact your local dealer and install the wired controller according to the instruction manual.

### **⚠️ Note!**

Do perform the commissioning operation before first use; automatic addressing or other settings, please refer to the manual of ODU.

## 5 Wiring Work

### **⚠️ Note!**

- ◆ Units must be grounded securely, or it may cause electric shock.
- ◆ Please carefully read the nameplate and the wiring diagram before carry out the wiring work, incorrect wiring could cause malfunction or even damage the unit.
- ◆ The capacity of power supply must be sufficient and the sectional area of wires in the room should be above 2.5mm<sup>2</sup>.
- ◆ The unit should be powered by independent circuit and specific socket.
- ◆ The wiring should be in accordance with related regulations in order to ensure the units operate reliably.

- ◆ Install circuit breaker for branch circuit according to related regulations and electrical standards.
- ◆ All wiring must use pressure terminal or single wire. Multi-twisted wire that connects directly to the wiring board may cause fire hazard.
- ◆ Keep cable away from refrigerant piping, compressor and fan motor.
- ◆ Do not alter the inner wires of air conditioner. Manufacturer does not assume responsibility for damage or abnormal operation due to this reason.
- ◆ If the unit is installed in places with strong electromagnetic interference, it's recommended to use twin-twisted shield wire. During wire connection, please pay attention that the metal shield layer of the twin-twisted wire must be grounded(outer case) in order to prevent the unit from electromagnetic interference.
- ◆ The communication wires should be separated from power cord and connection wire between indoor unit and outdoor unit.
- ◆ If the project needs higher static pressure, you can set it through the wired controller.
- ◆ The appliance must be fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III conditions, and these means must be incorporated in the fixed wiring in accordance with the wiring rules.

### 5.1 Connection of Wire and Patch Board Terminal

#### (1) Connection of single branch wire (as shown in Fig 5.1.1)

- 1) Use a stripper to strip away about 25mm of the insulation layer at the end of single branch line so that the single-core wire can be exposed.
- 2) Remove the wiring screws on the terminal board.
- 3) Shape the tail of wire into ring by needle nose plier, and keep the gauge of ring in accordance with screw.
- 4) Lead the screw across the circle of the single branch line and fix it on the wiring board.

#### (2) Connection of multi-twisted wire (as shown in Fig 5.1.2)

- 1) Use a wired stripper to strip away about 10mm of the insulation layer at the end of multi-twisted wire.
- 2) Loosen the wiring screws on patch board..
- 3) Use a round terminal fastener or a plier to securely fasten the round terminal with each core wire of the multi-core wire.
- 4) Confirm the position of each core wire on the round terminal and then use a screwdriver to tighten the terminal screw.

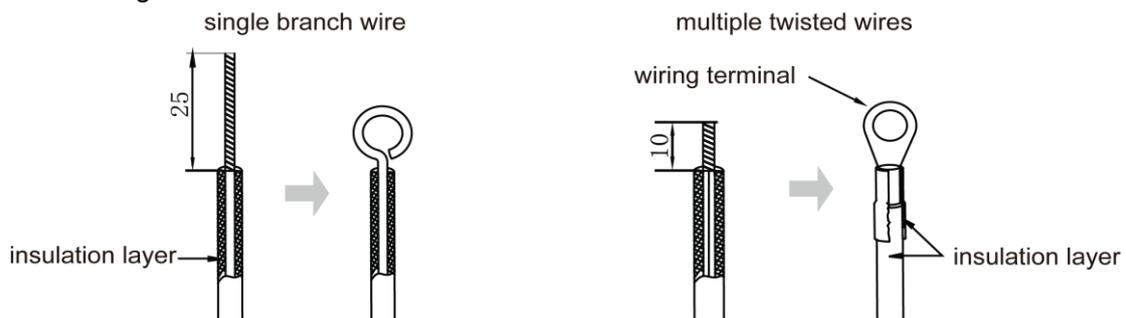


Fig 5.1.1

Fig 5.1.2

## 5.2 Power Cord Connection



**Note!**

- ① All indoor units must be unified of power supply so that they can be powered ON/OFF at the same time.
- ② If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

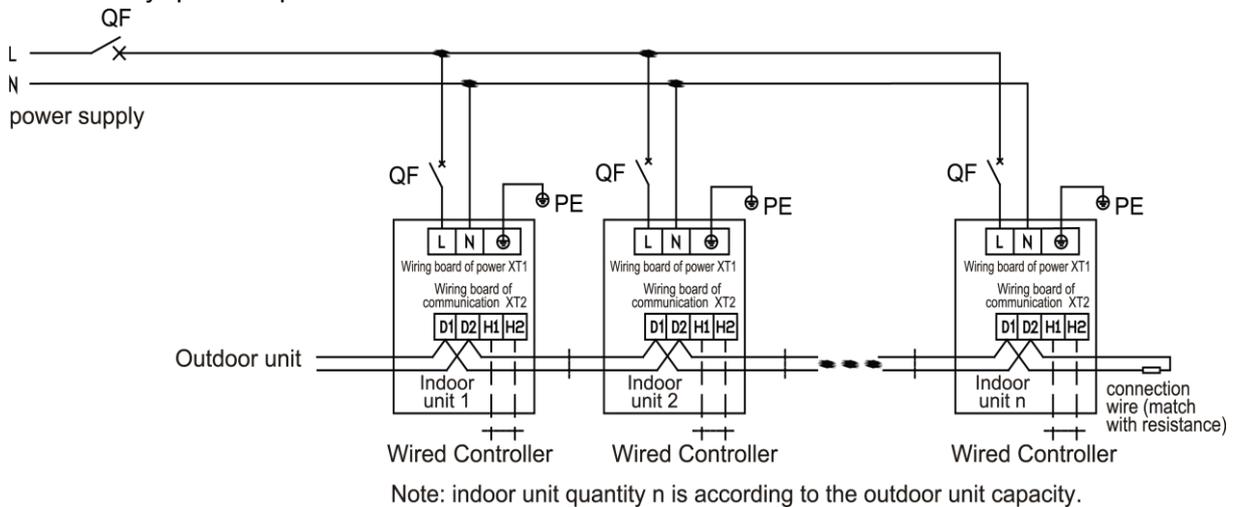


Fig 5.2

For units with single-phase power supply.

- (1) Detach the electric box cover.
- (2) Let the power cord pass through the wiring through-holes.
- (3) Connect the power cord to terminal "L, N, Ⓧ".
- (4) Fix the power card with wiring clamp.

## 5.3 Connection of Communication Wire between Indoor Unit and Outdoor Unit (or indoor unit)

- (1) Detach the electric box cover..
- (2) Let the Communication cable pass through the wiring through-holes.
- (3) Connect the communication wire to terminal D1 and D2 of indoor 4-bit wiring board, as shown in Fig5.3.1.

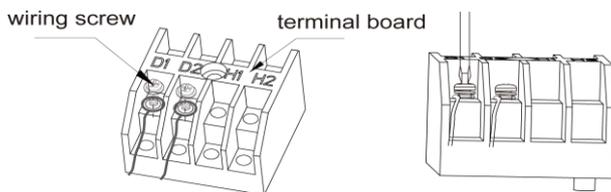


Fig 5.3.1

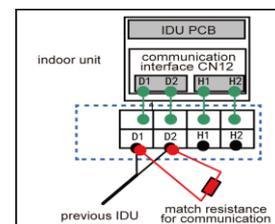


Fig 5.3.2

- (4) Fix the communication cable with clamp of electric box.
- (5) In order to ensure the reliability of communication between IDU and ODU and the communication among each IDU, add a matched resistance(supplied in a package before ex-factory) on the wiring board of the last indoor unit in a series connection. The matched resistance should be connected in parallel between terminal screw D1 and D2, as shown in Fig 5.3.2..

## 5.4 Connection of Communication Wire for Wired Controller

- (1) Detach the electric box cover.
- (2) Let the communication wire pass through the wiring through-holes.
- (3) Connect the communication wire to terminal H1 and H2 of indoor 4-bit wiring board.
- (4) Fix the communication wire with clamp.
- (5) Wiring instructions of signal receiver and wired controller.

1) Wired controller (standard) is shown as Fig.5.4.1, wireless controller (optional) is shown as Fig.5.4.2, signal receiver is provided with panel as standard accessory.

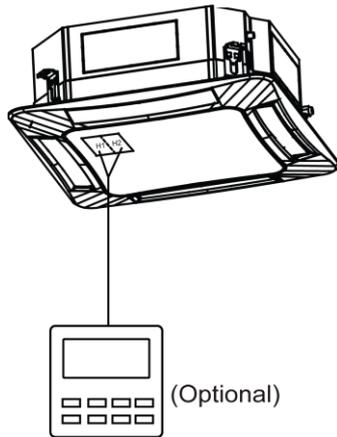


Fig 5.4.1

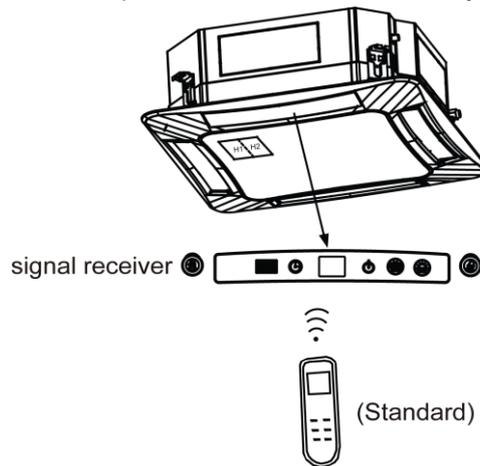


Fig 5.4.2

2) Both IDU and wired controller are equipped with signal receiver, and available for wireless control respectively.

## 5.5 Wiring Instructions of Wired Controller and Indoor Units Network

- (1) Communication wire of indoor unit and outdoor unit (or indoor unit) is connected to D1, D2.
- (2) Wired controller is connected to H1, H2.
- (3) One indoor unit can connect two wired controllers that must be set as master one and slave one.
- (4) One wired controller can control 16 indoor units in maximum at the same time. (as shown in Fig5.5) top using it immediately and contact local service center for assistance.

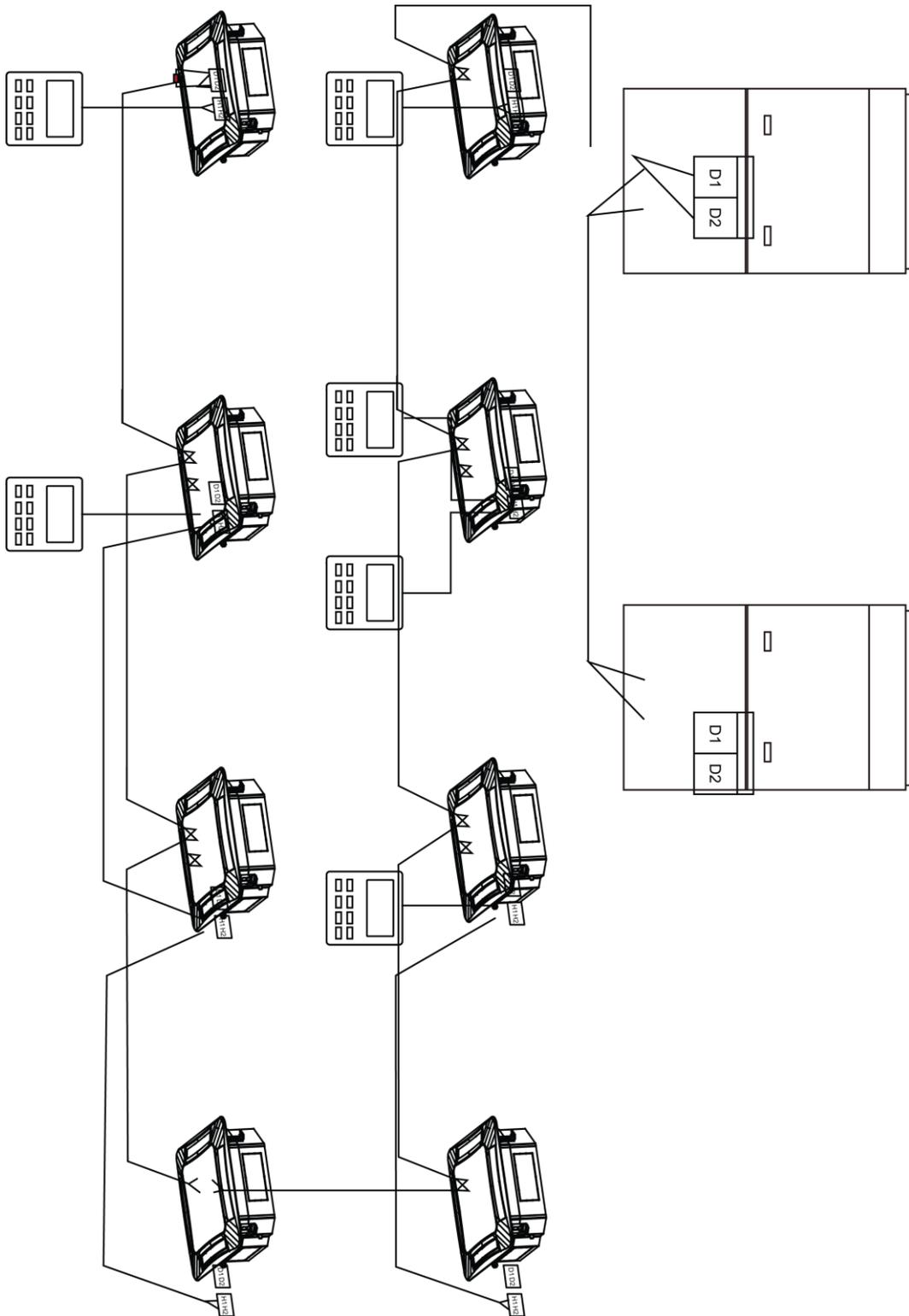


Fig 5.5

**⚠ Note:**

- ① The type of indoor units must be the same if they are controlled by the same wired controller.
- ② When the indoor unit is controlled by two wired controllers, the addresses of the two wired controllers should be different through address setting. Address 1 is for main wired controller; Address 2 is for slave wired controller. Detailed setting please refer to the owner's manual of wired controller.

## 6 Routine Maintenance

### Warning:

- ① Do not turn off the unit and cut off the main power supply when cleaning the air conditioner to avoid electric shock or injury.
- ② Stand at solid table when cleaning the unit.
- ③ Do not clean the unit using hot water of over 45°C to prevent the unit from losing color or deforming.
- ④ Do not dry the filters by fire, or it may catch fire or become deformed.
- ⑤ Clean the filter with a wet cloth dipped in neutral detergent.
- ⑥ Please contact after-sales service staff if there is abnormal situation.

### 6.1 Cleaning of Filter

- (1) Remove the air filter on the air inlet for cleaning. Use a dust catcher or water to clean it. If the filter is very dirty (e.g. greasy), you can clean it using warm water (below 45°C) that is mixed with mild detergent. Then let it dry naturally in cool places;
- (2) If the air conditioner is used in dusty place, please clean the air filter regularly (generally once every 2 weeks).

### 6.2 Maintenance before the Seasonal Use

- (1) Check if the air inlet and air outlet of indoor and outdoor unit are blocked.
- (2) Check if the grounding wire is in good condition.
- (3) Check if all the power cord and communication cable are securely connected.
- (4) Check if any error code displayed after energized.

### 6.3 Maintenance after the Seasonal Use

- (1) Set the unit in fan mode for half a day in a sunny day to dry the inner part of unit;
- (2) When the unit won't be used for a long time, please cut off power supply for energy saving; the characters on the wired controller screen will disappear after cutting off the power supply.

## 7 Table of Error Codes for Indoor Unit

Error Code	Content	Error Code	Content	Error Code	Content
L0	Indoor Unit Error	LA	Indoor Units Incompatibility Error	d9	Jumper Cap Error
L1	Indoor Fan Protection	LH	Low Air Quantity Warning	dA	Indoor Unit Network Address Error
L2	E-heater Protection	LC	ODU-IDU Incompatibility Error	dH	Wired Controller PCB Error
L3	Water Full Protection	d1	Indoor Unit PCB Error	dC	Capacity DIP Switch Setting Error.
L4	Wired Controller Power Supply Error	d3	Ambient Temperature Sensor Error	dL	Indoor Unit CO2 Sensor Error
L5	Freeze protection	d4	Inlet Pipe Temperature Sensor Error	dE	Capacity DIP Switch Setting Error.
L7	No Master Indoor Unit Error	d6	Outlet Pipe Temperature Sensor Error	db	Special Code: Field Debugging Code
L8	Power Insufficiency Protection	d7	Humidity Sensor Error	C0	Communication Error

L9	Quantity Of Group Control Indoor Units Setting Error	d8	Water Temperature Sensor Error	AJ	Filter Cleaning Reminder
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## 8 Troubleshooting

The air conditioner is not expected to be serviced by users. Incorrect repair may cause electric shock or fire, so please contact an authorized service center for professional service. The following checks prior to contact may save your time and money.

Phenomenon	Troubleshooting
The unit can't start	<ul style="list-style-type: none"> <li>① Power supply is not connected.</li> <li>② Circuit breaker tripping caused by leakage of electricity.</li> <li>③ Input voltage is too low.</li> <li>④ Operation button is closed.</li> <li>⑤ Control loop is abnormal</li> </ul>
The unit stops after running for a while.	<ul style="list-style-type: none"> <li>① The inlet or outlet of ODU or IDU are blocked by obstacle.</li> <li>② Control loop is abnormal</li> <li>③ Set the unit in cooling mode when outdoor ambient temperature is higher than 43°C.</li> </ul>
Poor cooling effect	<ul style="list-style-type: none"> <li>① The filter is dirty or blocked.</li> <li>② Too heavy heat load of room(e.g. too many people)</li> <li>③ Door or windows is open.</li> <li>④ Inlet and outlet of IDU are blocked.</li> <li>⑤ Setting temperature is too high or refrigerant leaks.</li> <li>⑥ The performance of room temperature sensor is getting worse.</li> </ul>
Poor heating effect	<ul style="list-style-type: none"> <li>① The filter is dirty or blocked.</li> <li>② Door or window is open.</li> <li>③ Setting temperature is too low.</li> <li>④ Refrigerant leakage.</li> <li>⑤ Outdoor ambient temperature is lower than -5°C.</li> <li>⑥ Abnormality of control circuit.</li> </ul>
Indoor fan doesn't start up during heating	<ul style="list-style-type: none"> <li>① Placing position of tube temperature sensor head is not suitable.</li> <li>② Tube temperature sensor head isn't inserted well.</li> <li>③ Wiring of tube temperature sensor head is broken</li> <li>④ Capacitor is leaking electricity</li> </ul>

 **Note:**

If air conditioner still fails to work normally after checking and handling as described above, please stop using it immediately and contact local service center for assistance.



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