

NORTEK GLOBAL HVAC, LLC

Multi Variable Heat Pump Cassette Type Indoor Unit

Owner's Manual

Heat Pump




Models:


BD4W-2.2(07)SAK
BD4W-2.8(09)SAK
BD4W-3.6(12)SAK
BD4W-5.0(18)SAK
BD4W-7.1(24)SAK
BD4W-9.0(30)SAK
BD4W-11.2(36)SAK
BD4W-12.5(42)SAK
BD4W-14.0(48)SAK

Please read this owner's manual carefully before operation and retain for future reference.
Specifications & illustrations subject to change without notice or incurring obligations.

Preface

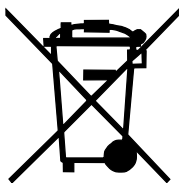
For correct installation and operation, please read all instructions carefully. Before reading the instructions, please be aware of the following items:

 WARNING	WARNING!: Failure to comply may result in property damage, serious personal injury or death.
 CAUTION	CAUTION!: Failure to comply may result in property damage or personal injury.
 NOTICE	NOTICE is used to address practices not related to personal injury.

 WARNING	
(1)	Instructions for installation and use of this product are provided by the manufacturer.
(2)	Installation must be performed in accordance with the requirements of NEC and CEC by authorized personnel only.
(3)	For the safe operation of this unit, please read and follow the instructions carefully.
(4)	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.
(5)	Direct operators or maintaince staff should keep this manual for future reference.
(6)	If this unit malfunctions, please contact a qualified service technician as soon as possible and provide the following information: 1) Content on the nameplate(model number, cooling capacity, serial number, production date). 2) Malfunction details(before and after the malfunction occurred).
(7)	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.
(8)	Illustrations in this manual are for reference only. Manuals are subject to change by manufacturer without prior notice.

User Notice

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge. Children should not be allowed to play on or near the appliance.
- **DISPOSAL:** Do not dispose this product as unsorted household waste. Collection of such waste separately for special treatment is necessary. Please recycle responsibly.



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1 Safety Precautions

 **WARNING**

- (1) Follow this instruction to complete the installation work. Please read this manual carefully before unit startup and service.
- (2) Wire size of power cord should be sized correctly. If damaged, power cord and connection wire should be replaced by approved cable.
- (3) After connecting the power cord, please secure the electric box cover properly.
- (4) Never fail to comply with the nitrogen charge requirements. Charge nitrogen when welding pipes.
- (5) Never short-circuit or cancel the pressure switch to prevent unit damage.
- (6) Connect the wired controller before energization; otherwise wired controller could be damaged.
- (7) Before using the unit, please check if the piping and wiring are correct to avoid water leakage, refrigerant leakage, electric shock, or fire etc..
- (8) Do not insert fingers or objects into air outlet/inlet grille.
- (9) Open the door and window and keep good ventilation in the room to avoid oxygen deficit when the gas/oil heating equipment is used.
- (10) Never start up or shut off the air conditioner by plugging or unplugging the power cord.
- (11) Let the unit run for at least five minutes after startup; otherwise it will affect oil return of the compressor.
- (12) Do not allow children operate this unit.
- (13) Do not operate this unit with wet hands.
- (14) Turn off the unit or cut off the power supply before cleaning the unit, otherwise electric shock or injury may occur.
- (15) Never spray or flush water towards unit, otherwise malfunction or electric shock may occur.
- (16) Do not expose the unit to the wet or corrosive circumstances.
- (17) Under cooling mode, please don't set the room temperature too low. Keep the temperature difference between indoor and outdoor unit within 5°C (9°F).
- (18) User is not allowed to repair the unit. Faulty service may cause electric shock or fire. Please contact a qualified service technician for help.
- (19) Before installation, please check if the power supply matches the requirements specified on the nameplate.
- (20) Installation should be conducted by dealer or qualified personnel. Please do not attempt to install the unit by yourself. Improper handling may result in water leakage, electric shock or fire etc.
- (21) Be sure to use the appropriate accessories and parts to prevent the water leakage, electric shock and fire.
- (22) Make sure the unit can be grounded properly and securely to avoid electric shock. Please do not connect the ground wire to gas pipe, water pipe, lightning rod or telephone line.
- (23) Connect power to the unit 8 hours before operation. Do not cut off the power when it will not be used for a short period of time, i.e. overnight (to protect the compressor).

(24) If refrigerant leakage occurs during installation, please ventilate immediately. Toxic fumes will result from refrigerant meeting spark or open flame.

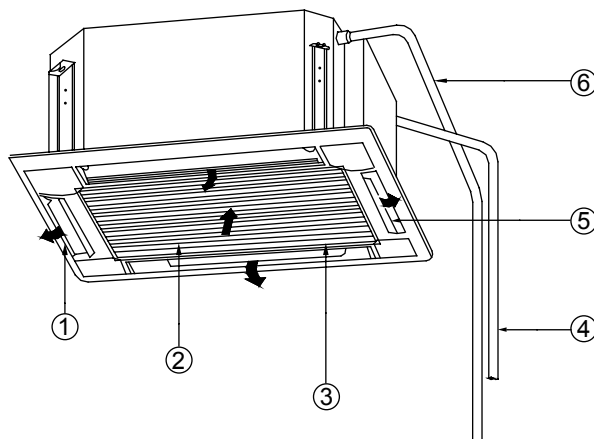
(25) Volatile liquid such as paint thinner or gasoline will damage the appearance of the air conditioner. Only use dry cloth or damp cloth with mild detergent to clean outer case.

(26) If unit begins to operate unusually (such as a burning odour or other unpleasant smell), disconnect main power supply, and contact a qualified technician. Failure to turn off main power could result in electrical shock, fire, or other personal injury.

Manufacturer is not responsible for any personal injury or property loss caused by improper installation, improper debugging, unnecessary repair or not following the instructions of this manual

2 Product Introduction

2.1 Names of Key Components



No.	①	②	③	④	⑤	⑥
Name	Air Outlet	Filter	Air Inlet Grille	Fittings	Louver	Drainage Pipe

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(60.8 °F)~32°C(89.6 °F).

2.3 Unit Functions

Unit Functions	Wired Controller WRC1(Optional)	Remote Controller RC(Standard)
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	✓	✗
I Feel	✗	✓
Light Function	✓	✓
Swing	✓	✓

Note!

① ✓: included, ✗: not included


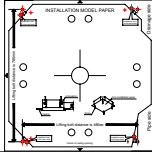

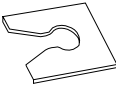
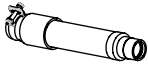









② Please refer to the user manual of Wired Controller or Remote Controller for function details.

3 Preparations for Installation

Note! Illustrations are for reference only, please refer to the actual product; the unit of dimension is inch.

3.1 Standard Fittings

Use the following provided accessories according to the requirement.

No.	Name	Appearance	Q'ty	Usage
1	wireless controller		1	To control the indoor unit
2	paper pattern (template) for installation		1	To locate the drill hole on ceiling
3	Tapping screw with washer		4	To secure paper pattern
4	Washer fixing plate		4	Prevent the washer from falling off
5	Drain Hose Assembly		1	To connect with the hard PVC drain pipe
6	Special nut		1	To connect gas pipe
7	Special nut		1	To connect liquid pipe
8	M10X8 Nut with Washer		4	To be used with the hanger bolt for installing the unit.
9	M10 Nut (M10X8.4 Nut)		4	To be used with the hanger bolt for installing the unit.
10	M10 Washer (Spring Washer M10X2.6)		4	To be used with the hanger bolt for installing the unit.
11	Insulation		1	To insulate the gas pipe
12	Insulation		1	To insulate the liquid pipe
13	Sponge		1	To insulate the drain pipe
14	Fastener		4	To secure the sponge

3.2 Installation Position Selection

- (1) The appliance shall not be installed in the laundry.
- (2) The location should be able to withstand the weight of unit.
- (3) The water can be drained conveniently from drainage pipe.
- (4) There should be no obstruction near air inlet and air outlet.
- (5) Follow the installation clearance requirement in the Fig. below to ensure sufficient space for maintenance.
- (6) The installation location should be far from heat sources, flammable or explosive gas, or other pollutants in the air.
- (7) The indoor unit, outdoor unit, power cord and connection electricity wire should be at least 1m (39 inch) from television and radio in order to prevent interference and noise. (If the electromagnetic field is especially strong, equipment will need more than 1m clearance.)

Unit:mm(inch)

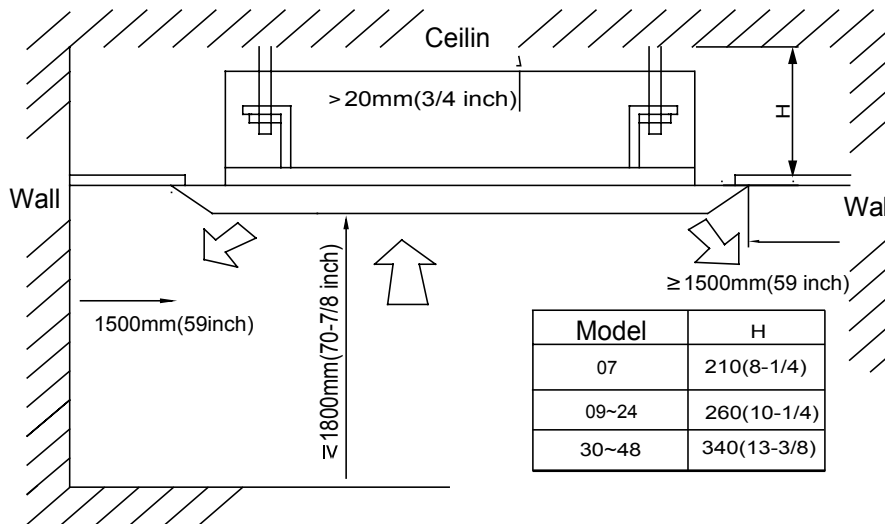


Fig. 3.2

NOTICE

- (1) The unit shall be installed in accordance with national standards and local regulations.
- (2) Only qualified personnel are allowed to install air conditioner. Please hire professional technician for installation.
- (3) Make sure all the installation work completed before starting up system.

3.3 Requirements of communication wire selection

Note:

If air conditioner used near strong electromagnetic field, STP(shielded twisted pair) communication cable must be used.

3.3.1 Selection of communication wire between indoor unit and wired controller

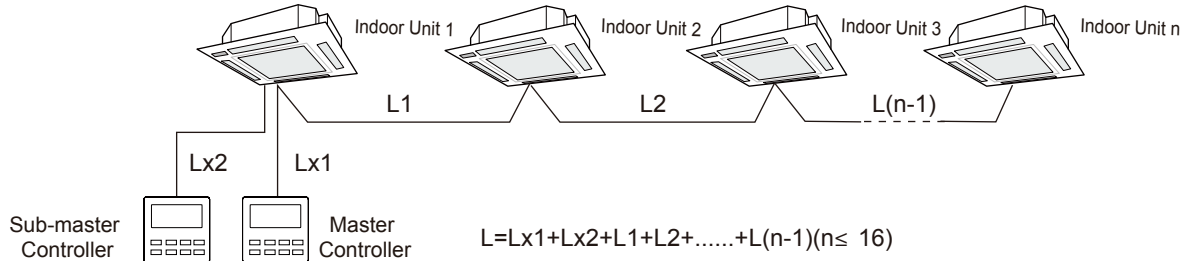


Fig. 3.3.1

Wire type	Total length of communication wire between indoor unit and wired controller (m/feet)	Wire diameter (AWG)	Wire standard	Remark
Light/normal PVC hose	$L \leq 250(850)$	$2 \times 18 \sim 2 \times 16$	IEC 60227-5:2007	1. Total length of communication cable can't exceed 250m (850feet). 2. The cord shall be Circular cord (the cores shall be twisted together). 3. If unit is installed near electromagnetic field, it is necessary to use shielded wire.

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

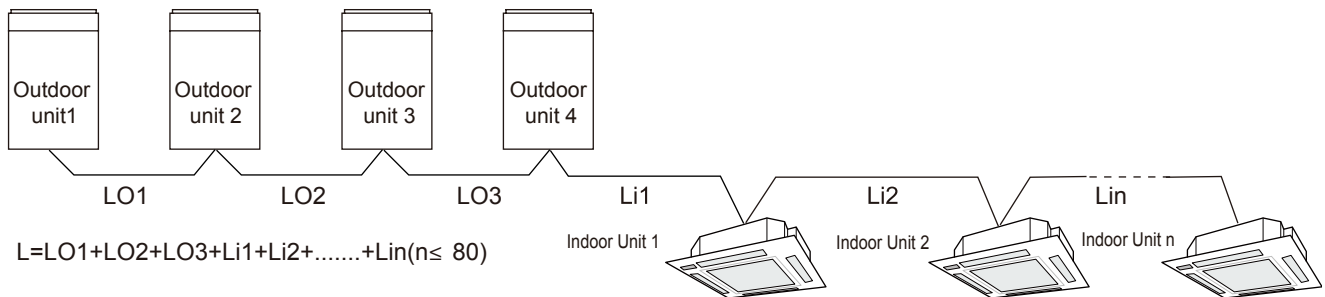


Fig 3.3.2

Wire type	Total length of communication wire between indoor unit and indoor unit(outdoor unit) (m/feet)	Wire diameter (AWG)	Wire standard	Remark
Light/Ordinary polyvinyl chloride sheathed cord. (60227 IEC 52 /60227 IEC 53)	$L \leq 1000(3280)$	$\geq 2 \times 18$	IEC 60227-5:2007	1. If the wire diameter is enlarged to 18AWG, the total communication cable length can reach 1500m(4920 feet). 2. The cord shall be Circular cord (the cores shall be twisted together). 3. If unit is installed near electromagnetic field, it is necessary to use shielded wire.

3.4 Electric Installation

Model	Power Supply	MOP(A)	MCA(A)
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Multi Variable Cassette Type Indoor Unit

BD4W-2.2(07)SAK	208~230V-1ph-60Hz	0.45	0.25
BD4W-2.8(09)SAK		0.56	0.31
BD4W-3.6(12)SAK		0.56	0.31
BD4W-5.0(18)SAK		0.56	0.31
BD4W-7.1(24)SAK		0.56	0.31
BD4W-9.0(30)SAK		0.79	0.44
BD4W-11.2(36)SAK		0.79	0.44
BD4W-12.5(42)SAK		0.79	0.44
BD4W-14.0(48)SAK		0.79	0.44

NOTICE

- (1) An all-pole disconnection switch having a contact separation of at least 3mm (1/8 inch) in all poles should be connected in fixed wiring.
- (2) The circuit breaker and power cord specification above is based on max power (max current) of the unit.
- (3) The power cord specification above is based on ambient temperature of 40°C(104°F).
- (4) The circuit breaker specification above is based on ambient temperature of 40°C(104°F). If the working condition is different, please adjust it according to the specification sheet of circuit breaker.

4 Installation Instructions

4.1 Indoor unit installation

4.1.1 Ceiling opening Dimension and suspension bolt position.

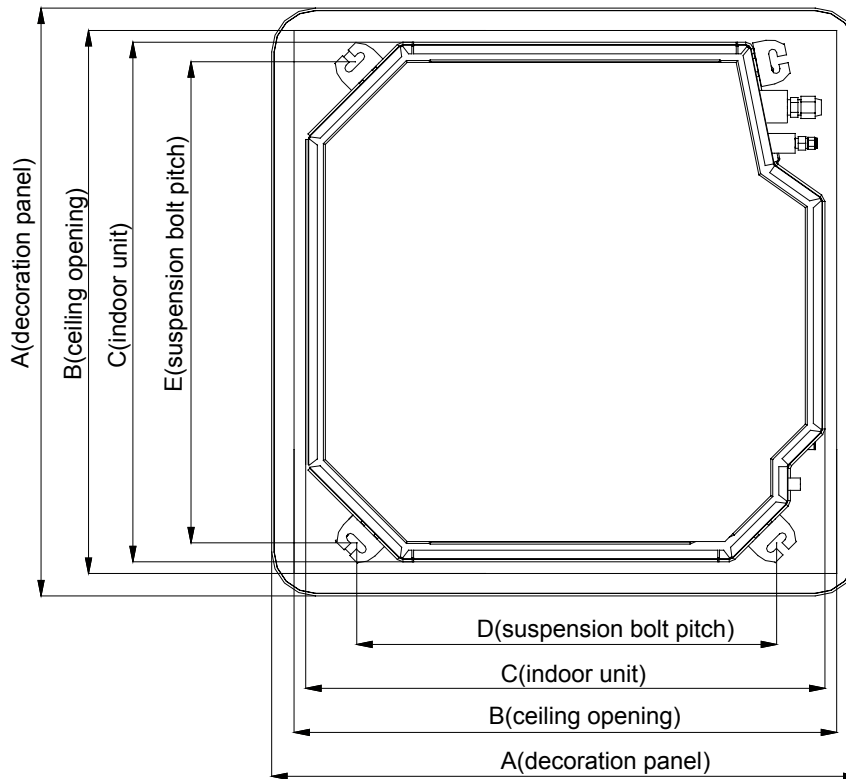


Fig 4.1.1

Unit: mm(inch)

Model	A	B	C	D	E
07~48	950 (37-3/8)	890 (35-1/16)	840 (33-1/16)	680 (26-3/4)	780 (30-11/16)

4.1.2 Suspending the indoor unit

(1) Drill bolt holes and install bolts

- 1) Attach the paper pattern (template) on the installation position. Drill 4 holes as shown on the cardboard (see Fig. 4.1.2). Diameter of drilling hole should match the diameter of expansion bolt, and the depth should be 60~70mm (2-3/8~2-3/4 inch), as shown in Fig. 4.1.3

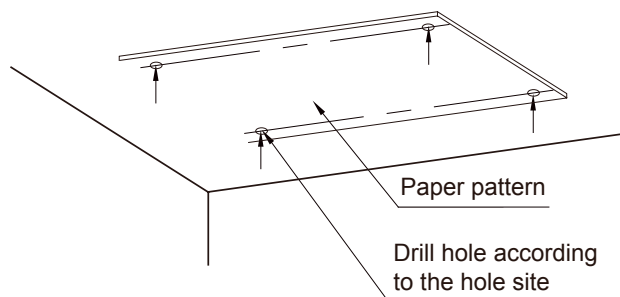


Fig. 4.1.2

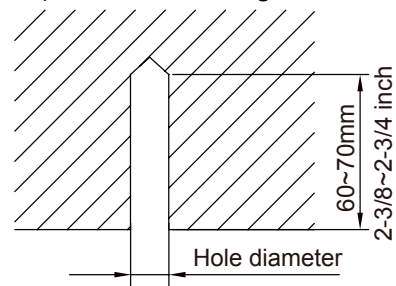


Fig. 4.1.3

- 2) Insert the M10 expansion bolt into the hole, and drive the nail into the bolt, as shown in Fig. 4.1.4.

Note:

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

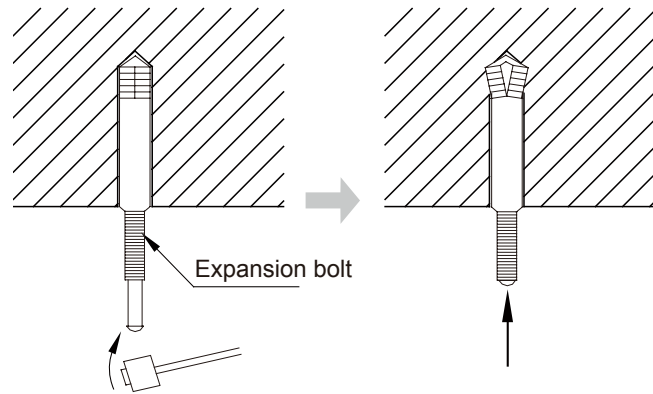


Fig. 4.1.4

(2) Install the indoor unit temporarily (it will be permanently mounted later)

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) How to use paper pattern (template)

Refer to paper pattern 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 that the unit is level

The indoor unit is equipped with a built-in water pump and float switch. Verify the unit is level in 4 directions with level gauge or vinyl tube (filled with water).

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

(7) Remove the paper pattern.

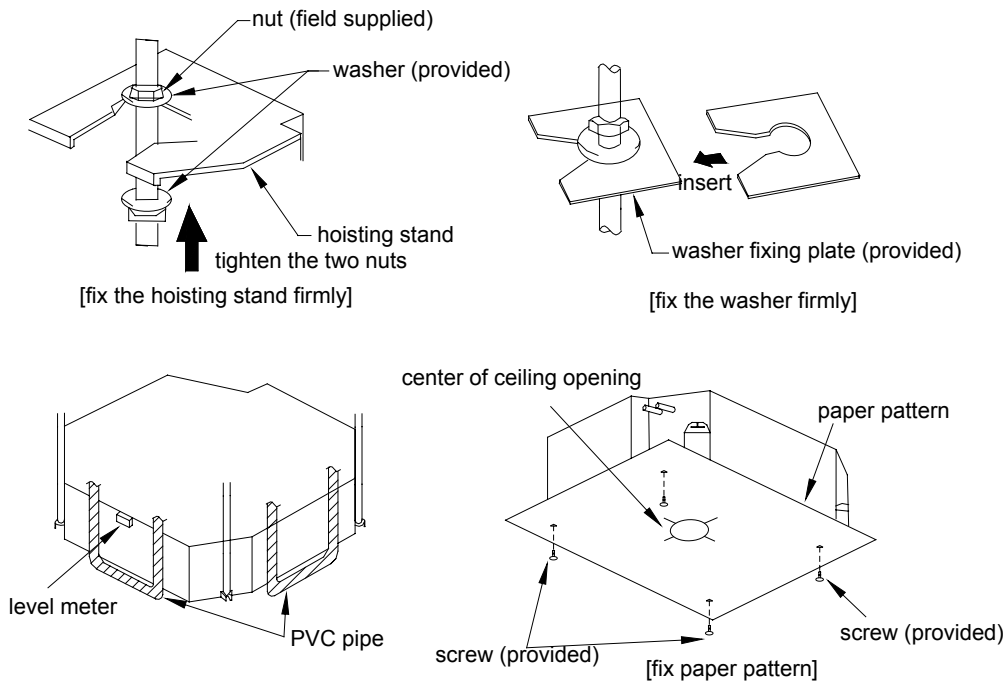
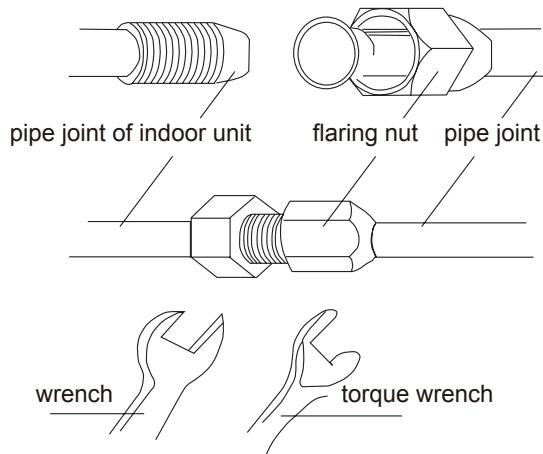


Fig. 4.1.5

4.2 Refrigerant Pipe Connection

(1) Align the flaring port of copper pipe with the center of screwed joint and then tighten the flaring nut by hand.

(2) Tighten the flaring nut with torque wrench as shown in Fig. 4.2.



Torque for tightening nut

Pipe diameter mm(inch)	Torque (N·m)
6.35(1/4)	15~30
9.52(3/8)	35~40
12.7(1/2)	45~50
15.9(5/8)	60~65

Fig. 4.2

- (3) Use pipe bender when bending the pipe. The bending angle should not be too small.
- (4) Wrap the connection pipe and joint with sponge and then secure it with tape.

4.3 Drainage Pipe Installation and Testing

4.3.1 Notice for Installation of Drain Pipe

- (1) The drainage pipe should be as short as possible and the downward slope should be at least 1%~2% in order to drain condensation water smoothly.
- (2) The diameter of drainage hose should be larger than 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.
- (4) You can use normal hard PVC pipe used for the drainage pipe. During connection, insert the end of PVC pipe into the drainage hole and then tighten it with drainage hose and wire binder. Don't 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 used.

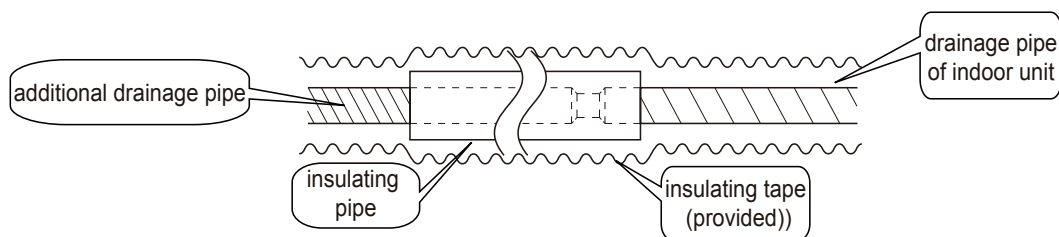


Fig. 4.3.1

4.3.2 Drainage pipe installation

- (1) Drainage pipe diameter should be larger than or equal to the connecting pipes (PVC pipe, outside diameter 25mm (1 inch), thickness $\geq 1.5\text{mm}$ (1/16 inch))
- (2) Keep drainage pipe as short as possible and sloping downwards at a gradient of at least 1% to prevent forming air bubbles.
- (3) If the slope of drainage pipe does not meet the installation requirements, raising pipe should be applied.
- (4) Insert the drainage hose into drain socket, tighten the metal clamp securely.
- (5) Wrap the sealing pad over drain hose and metal clamp for heat insulation.
- (6) Make sure to perform insulation work for all drainage piping in order to prevent any possible water dripping due to condensation.

- (7) Apply the suitable diameter for converging drainage pipe according to the operating capacity of the unit.

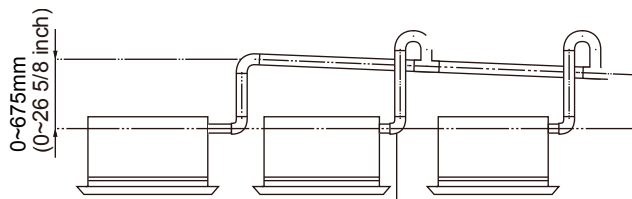


Fig. 4.3.2

① - drainage pipes assembled with T-shaped joints

- (8) The installation height of raising pipe for drainage should be less than 850mm (33 inch). The downward slope of raising pipe towards should be at least 1%~2%. If the raising pipe is vertical with the unit, the raising height should be less than 800mm (31 inch).
- (9) If the raising pipe is vertical with the unit, the distance between raising pipe and unit should be less than 300mm (12 inch).

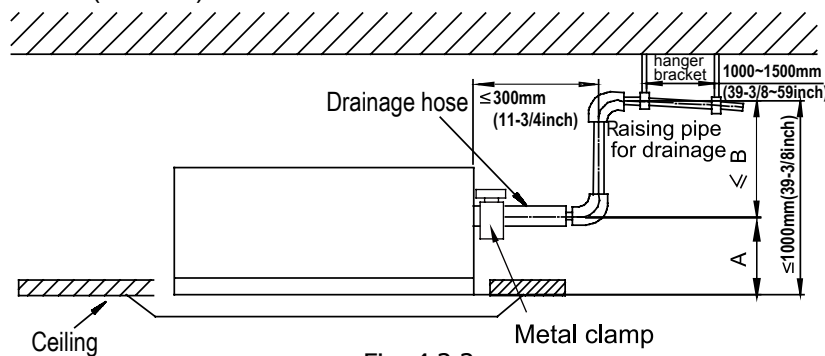


Fig. 4.3.3

Model	A (mm/inch)	B (mm/inch)
07	170(6-3/4)	830(32-5/8)
09~48	220(8-5/8)	780(30-3/4)

- (10) Drain 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(39~59 inch).

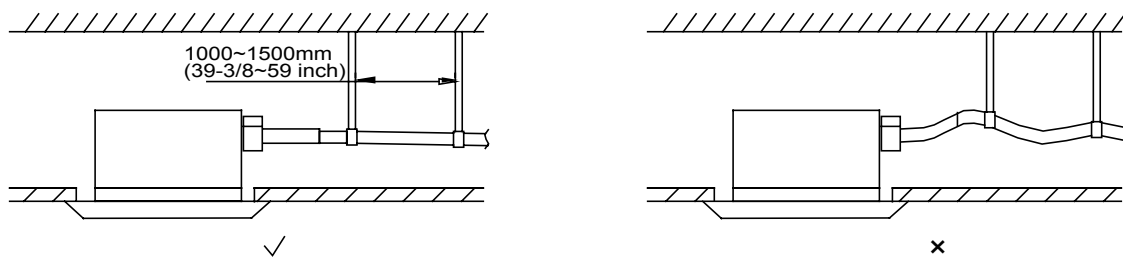


Fig 4.3.4

4.3.3 Test of Drainage System

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

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

- 1) When commissioning is finished, please energize the IDUs and switch to cooling or dry mode. The water pump will operate. You should be able to see water drain through the transparent part of drain socket.
- 2) If communication wire is not connected, communication malfunction "CO" 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 10 min.
- (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 any ceiling decoration.

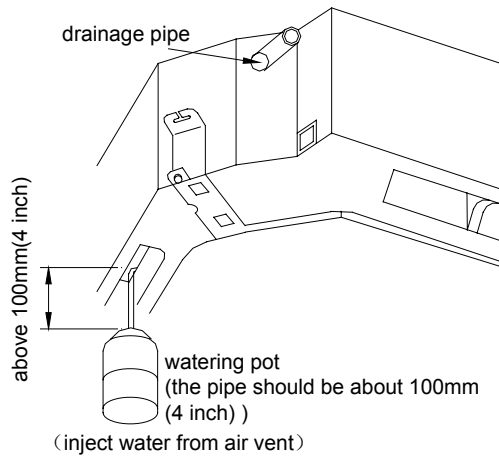


Fig. 4.3.5

4.4 Panel installation

4.4.1 Notices for installation

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

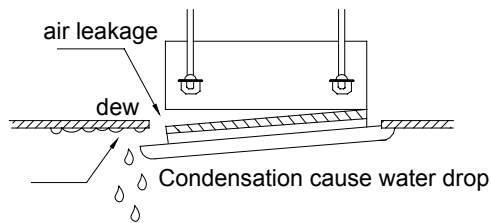


Fig. 4.4.1

- (2) Ensure that there is no gap between decoration panel and ceiling board after installation. If there is, please adjust the body position accordingly.

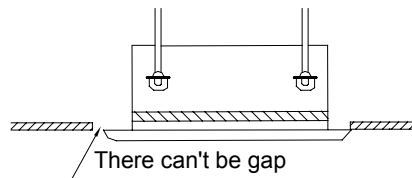


Fig. 4.4.2

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

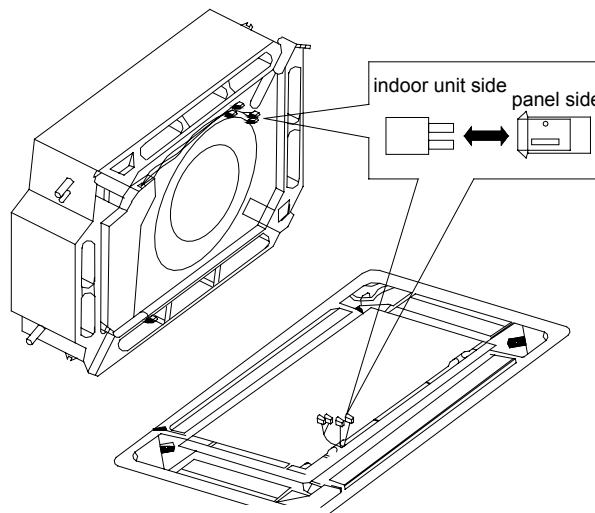
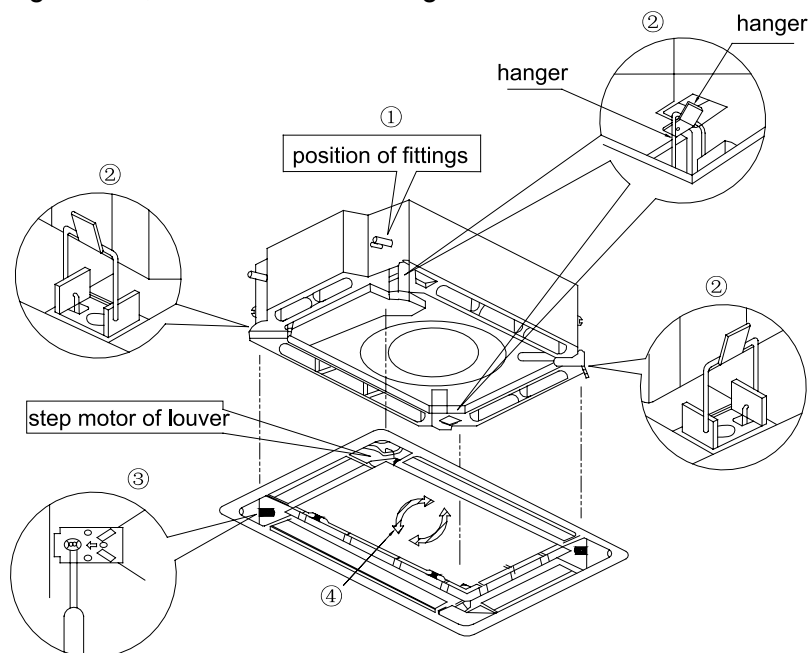


Fig. 4.4.3

4.4.2 Panel installation

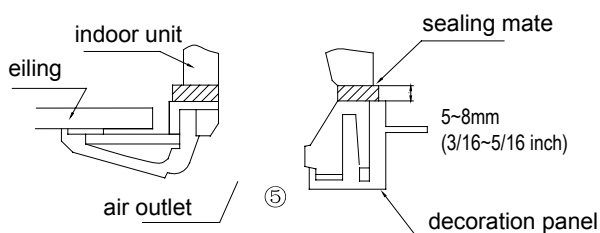
- (1) Detach the panel's Corner Cap, there is a mark "piping side" on one of the 4 corners, adjust the panel direction so as to keep the mark and fittings on the same corner.
- (2) Temporarily hang the panel to body (there is four hangers on each corner of the panel, arrange the hangers to corresponding hooks on the body), as shown in Fig. 4.4.4.
- (3) Detach the air inlet grille from panel, make a wiring connection of signal receiver. Notices that the connection wire not stuck in the middle of body and panel, or it may cause air leakage and lead to condensation.
- (4) Tighten 4 screws at each corner of panel respectively. Firmly secure the panel on the body.
- (5) After tightening screws, reinstall the air inlet grille.



4.5 Wired controller installation

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

NOTICE! Perform the commissioning operation before first use for automatic addressing or other settings. Please refer to the manual of ODU.



5 Wiring Work

WARNING

Before obtaining access to terminals, all supply circuits must be disconnected.

NOTICE

(1) Units must be grounded securely, or it may cause electric shock.
(2) Please carefully read the wiring diagram before carrying out the wiring work. Improper wiring could cause malfunction or damage the unit.
(3) The unit should be powered by dedicated circuit and specific socket.
(4) The wiring should be in accordance with related regulations.
(5) Install circuit breaker for branch circuit according to related regulations and electrical standards.
(6) Keep cable away from refrigerant pipings, compressor and fan motor.
(7) The communication wires should be separated from power cord and connection wire between indoor unit and outdoor unit.
(8) Adjust the static pressure with wired controller according to site circumstance.

5.1 Connection of Wire and Patch Board Terminal

(1) The connection of wire (as shown in Fig. 5.1.1)

- 1) Strip about 25mm (1 inch) insulation of the wire end with wire stripper.
- 2) Remove the wiring screws on the terminal board.
- 3) Shape the tail of wire into ring by needle nose pliers. Ring should match the size of the terminal screw.
- 4) Use the screwdriver to tighten to the terminal.

(2) The connection of stranded wire (as shown in Fig. 5.1.2)

- 1) Strip about 10mm (3/8 inch) insulation of the end of stranded wire with wire stripper.
- 2) Loosen the wiring screws on terminal board.
- 3) Insert the wire into the ring tongue terminal and tighten with crimping tool.
- 4) Use the screwdriver to tighten to the terminal.

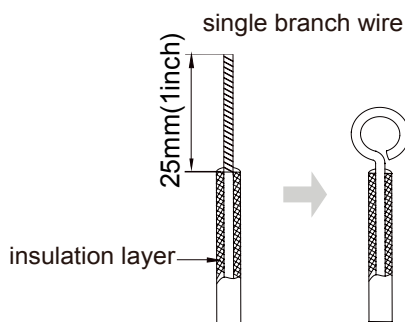


Fig. 5.1.1

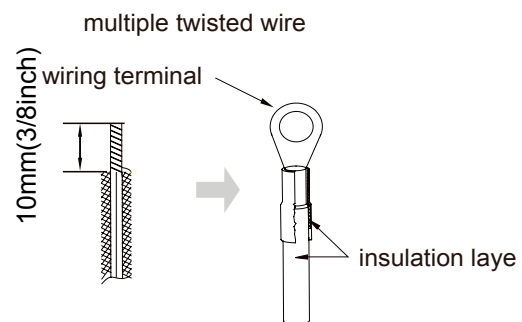
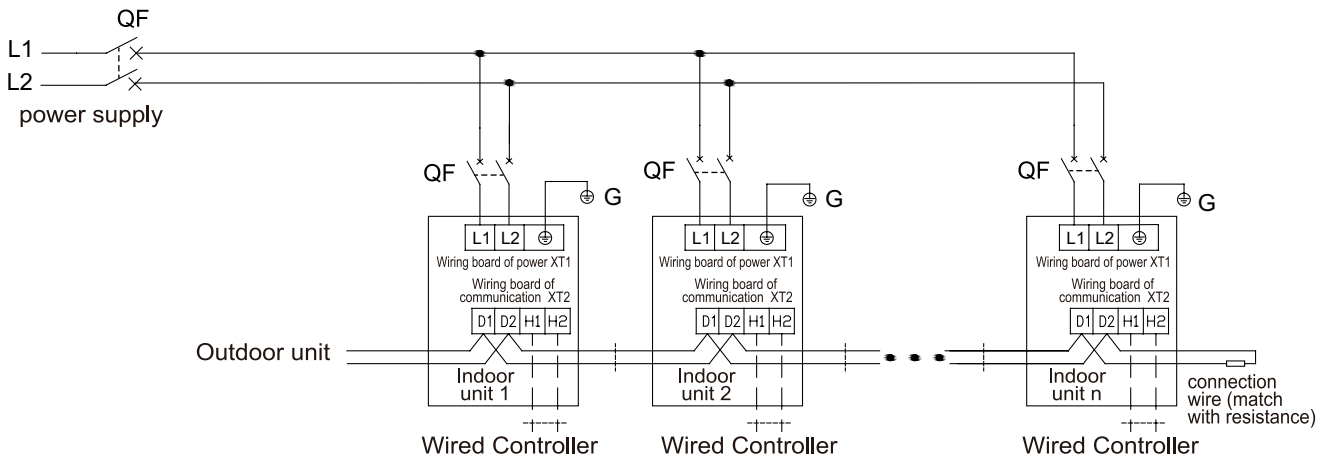


Fig. 5.1.2

5.2 Power Cord Connection

NOTICE! All indoor units must have a dedicated power supply so that they can be powered ON/OFF at the same time.

Multi Variable Cassette Type Indoor Unit



Note: indoor unit quantity n is according to the outdoor unit capacity.

Fig 5.2

- (1) For units with single-phase power supply.
 - 1) Detach the electric box lid.
 - 2) Lead the power cord through the wiring holes.
 - 3) Connect the power cord to terminal "L1, L2, ⊕".
 - 4) Secure the power cord with wiring clamp.

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

- (1) Detach the electric box lid.
- (2) Lead the Communication cable through the wiring holes.
- (3) Connect the communication wire to terminal D1 and D2 of indoor 4-bit wiring board, as shown in Fig. 5.3.1.

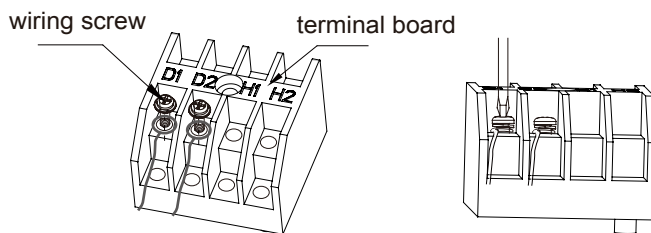


Fig. 5.3.1

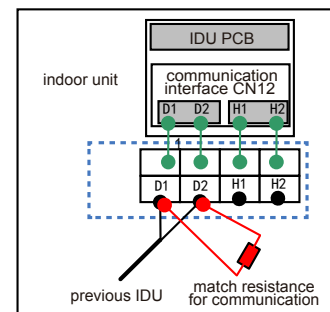


Fig. 5.3.2

- (4) Secure the communication cable with clamp of electric box.
- (5) For more reliable communication, make sure connect the terminal resistor to the most downstream IDU of the communication bus (terminal D1 and D2), as shown in Fig. 5.3.2, terminal resistor is provided with each ODU.

5.4 Connection of Communication Wire for Wired Controller

- (1) Detach the electric box lid.
- (2) Lead the communication wire through the wiring holes.
- (3) Connect the communication wire to terminal H1 and H2 of indoor 4-bit wiring board.
- (4) Secure 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.

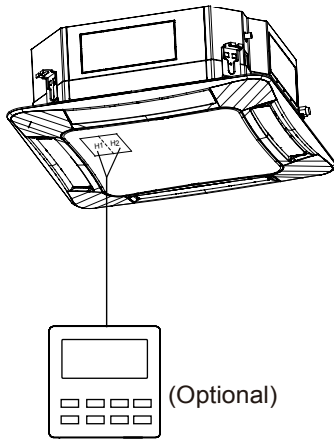


Fig 5.4.1

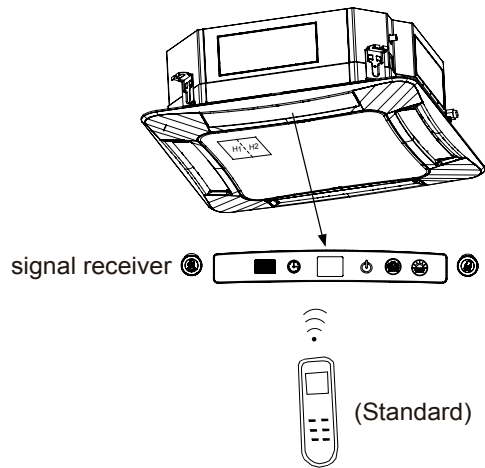


Fig 5.4.2

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

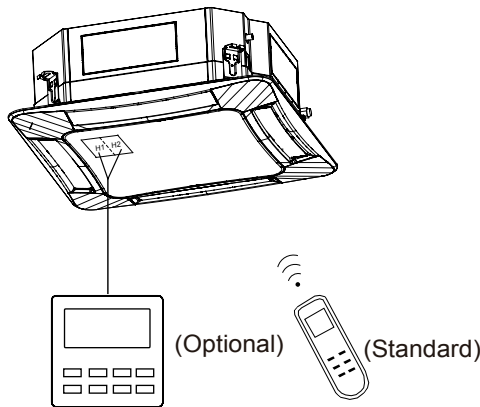


Fig 5.4.3

5.5 Connection of Wired Controller and Indoor Units Network

- (1) Communication wire of indoor unit to 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. One must be set as master and on as a slave.
- (4) One wired controller can control 16 indoor units in maximum at the same time (as shown in Fig. 5.5).

NOTICE

- (1) The indoor units must be the sametype if they are controlled by a single wired controller.
- (2) When the indoor unit is controlled by two wired controllers, the addresses of the two wired controllers should have different address settings. Address 1 is for main controller. Address 2 is for slave controller. Setting details found in the instruction manual of wired controller.

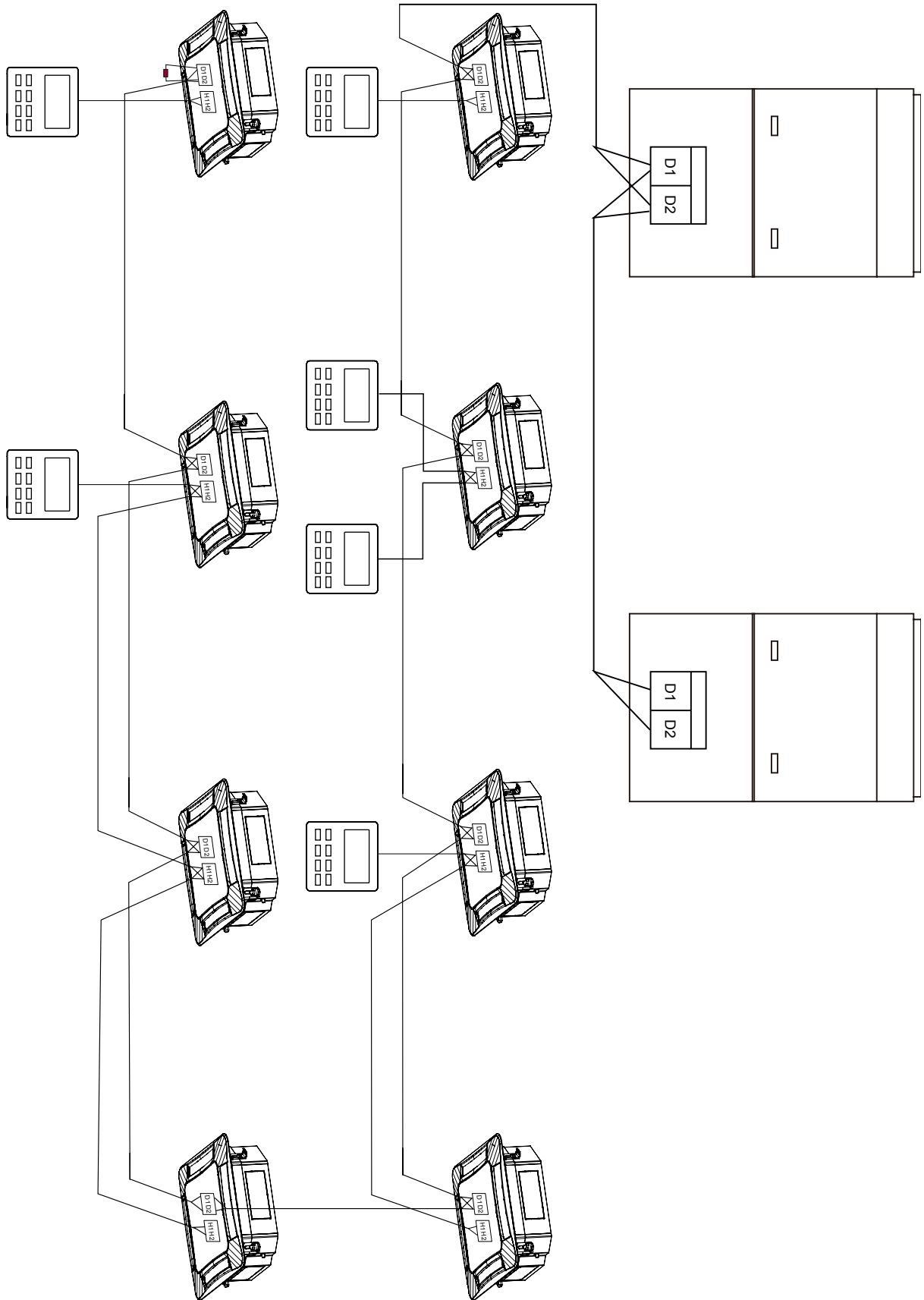


Fig. 5.5

6 Routine Maintenance

NOTICE

- | |
|--|
| (1) Turn off the unit and cut off the main power supply when cleaning to avoid electric shock or injury. |
| (2) Use ladder or other stable platform when cleaning the unit. |
| (3) Do not clean the unit with water hotter than 45°C (113°F) to prevent fading or warping. |
| (4) Do not dry the filters over open flame to avoid warping. |
| (5) Clean the filter with a damp cloth dipped in mild detergent. |
| (6) Please contact a qualified service technician if there is a malfunction. |

6.1 Cleaning of Filter

- (1) Remove the filters from inlet of IDU. Use a vacuum cleaner to remove dust. If the filters are dirty, wash them with warm water and mild detergent, and dry the filters in the shade.
- (2) If the unit is used in a very dusty environment, please clean it more frequently. (about every two weeks).

6.2 Preseason Maintenance

- (1) Check if the air inlet and air outlet of indoor and outdoor unit are blocked.
- (2) Check if securely grounded.
- (3) Check if all the power cords and communication cables are securely connected.
- (4) Check if any error code displayed after turning on power.

6.3 Post-Seasonal Maintenance

- (1) Set the unit in fan mode for half a day on a sunny day to dry the inner parts of unit.
- (2) When the unit won't be used for a long period of time, please cut turn power supply to save energy. The characters on the wired controller screen will disappear after turning 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	L9	Quantity Of Group Control Indoor Units Setting Error	d8	Water Temperature Sensor Error
L1	Indoor Fan Protection	LA	Indoor Units Incompatibility Error	d9	Jumper Cap Error
L2	E-heater Protection	LH	Low Air Quality Warning	dA	Indoor Unit Hardware Address Error
L3	Water Full Protection	LC	Outdoor-Indoor Incompatibility Error	dH	Wired Controller PC-Board Error
L4	Wired Controller Power Supply Error	d1	Indoor Unit PC-Board Error	dC	Capacity DIP Switch Setting Error.
L5	Anti-Frosting Protection	d3	Ambient Temperature Sensor Error	dL	Outlet Air Temperature Sensor Error
L7	No Master Indoor Unit Error	d4	Inlet Pipe Temperature Sensor Error	dE	Indoor Unit CO ₂ Sensor Error
L8	Power Insufficiency Protection	d6	Outlet Pipe Temperature Sensor Error	db	Special Code: Field Debugging Code

8 Troubleshooting

The air conditioner is not expected to be serviced by users. Faulty repair may cause electric shock or fire. Please contact an authorized service center for professional service. If your air conditioner is not working, check the following before calling for service help.

Phenomenon	Troubleshooting
The unit won't start	<ul style="list-style-type: none"> ① Power supply is not connected. ② Circuit breaker tripping caused by electrical short. ③ Input voltage is too low. ④ Defect of main PC-board.
The unit runs for a short while, then stops	<ul style="list-style-type: none"> ① The inlet or outlet of ODU or IDU are blocked by obstacle.
Poor cooling effect	<ul style="list-style-type: none"> ① The filter is dirty. ② Too heavy heat load of room (e.g. too many people) ③ Doors or windows are open. ④ Inlet or outlet of IDU are blocked. ⑤ Thermostat setting is too high. ⑥ Refrigerant is low (e.g. refrigerant leakage)
Poor heating effect	<ul style="list-style-type: none"> ① The filter is dirty. ② Doors or windows are open. ③ Thermostat setting is too low. ④ Refrigerant is low (e.g. refrigerant leakage)
Indoor fan doesn't start up during heating	<ul style="list-style-type: none"> ① At starting, the IDU fan could not operate till the heat exchange become hot, for preventing delivering the cool air. ② At defrosting, the IDU fan stopped due to system switch to cooling mode. for preventing delivering the cool air, and resume operating after defrosting.

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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