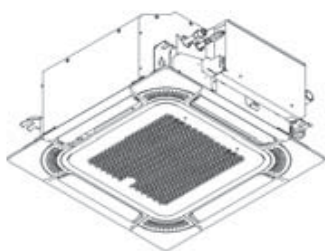


说明书归档首页

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编制说明 (首版编制时请填写)	☒ 全新编制		适用产品序列:	Mini 4-way Cassette Type Indoor Unit		
			适用机型系列:			
	☐ 衍生机型		衍生产品序列:			
			衍生机型系列:			
			源产品序列:			
			源机型系列:			
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			源说明书编号:		版本号:	
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批准		宋振兴(代)		2018.09.03		
变更履历 (变更说明书时请填写)	标记	管理编号:	日期:	更改:	审核:	批准:
	△×1	BZ/KF-1809-058	2018.09.06	牛世波	陈卫星	宋振兴(代)
	△×1	BZ/KF-1812-009	2018.12.03	苑志超	宋振兴	李虎
本次变更内容简述	变更内容简要描述				涉及页码	
	对Fig. 4.3图进行了修正				P2	
	冷媒拨码指示改为DSW5, 地址改为N0.5				P10	
备注 (必填)	担当联络方式		80879981			
	邮 箱		yuanzhichao@hisensehitachi.com			

Operation, Installation & Maintenance Manual

MINI 4-WAY CASSETTE TYPE



AVC-05HJFA
AVC-07HJFA
AVC-09HJFA
AVC-12HJFA
AVC-15HJFA
AVC-17HJFA
AVC-19HJFA

IMPORTANT:

THANK YOU FOR PURCHASING
HISENSE CENTRAL AIR
CONDITIONER. PLEASE READ AND
UNDERSTAND THIS MANUAL
BEFORE USING THE AIR
CONDITIONER. KEEP THIS MANUAL
FOR FUTURE REFERNECE.

M00131Q

ORIGINAL INSTRUCTIONS



Declaration of Conformity (Manufacturer's Declaration)



Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.

Add: 218, Qianwangang Road, Economic & Technical Development Zone, Qingdao, P.R. China
declares under its sole responsibility that the air conditioning models to
which this declaration relates:

AVC-05HJFA, AVC-07HJFA, AVC-09HJFA, AVC-12HJFA,
AVC-15HJFA, AVC-17HJFA, AVC-19HJFA

are in conformity with the following standard(s) or other normative document(s), provided that these
are used in accordance with our instructions:

EN 60335-1
EN 60335-2-40
EN 62233
EN 55014-1
EN 61000-3-2
EN 61000-3-3
EN 55014-2

following the provisions of:

2014/35/EU
2014/517/EU
2009/125/EC
2010/30/EU
2006/1907/EC

Directives, as amended.

Manufacturing number and manufacturing year: refer to model Nameplate.

Notes:

This declaration becomes invalid, if technical or operational modifications are introduced
without the manufacturers consent.

Hisense Italia S.r.l. is authorised to Compile the Technical Construction File.

Ad. : Via Montefeltro 6A, 20156 Milano.

Hisense

Name, Surname :

Li Hu

Position/ Title :

Director

Date :

June 15,2018

Dear user:

Thank you for choosing and using our product. To better understand and use this product, please be sure to read and observe the following related issues before use.

IMPORTANT NOTICE

Signal words (DANGER, WARNING and CAUTION) are used to indicate hazard seriousness. Definitions of the hazard levels are provided below with respective signal words.

 DANGER	: Immediate hazard that WILL result in severe personal injury or death.
 WARNING	: Hazards or unsafe practices that COULD result in severe personal injury or death.
 CAUTION	: Hazards or unsafe practices which COULD result in minor personal injury or damage to property damage.
NOTE	: Useful information for operation and/or maintenance.

- This manual should be considered as a permanent part of the air conditioning equipment. Please keep it properly.
- This manual describes and introduces this heat pump air conditioner in a unified manner, so it's applicable for your and other air conditioners.
- Hisense pursues a policy of continuous improvement in design and performance of products. The right is therefore reserved to change specifications without notice.
- Our company shall not be held responsible for any occasional damage to the air conditioner that arises during its operation in specific environment. This air conditioner is designed for standard air conditioning only. Do not use it for other purposes such as drying cloth, refrigerating foods or for any other cooling or heating processes. Please don't install the air conditioner in the following environments. Otherwise, fire, machine deformation or failure may arise.

- * Places with spatter of oil (including machine oil).
- * Places with inflammable gases.

- * Places with sulfurated gases or silicon (e.g. hot spring, etc.).
- * Coastal areas with much salt or places exposed to strong acids or bases that may cause corrosion to machine.

- Do not have the air outlet directly faced towards animals or plants, since this may bring about an adverse effect thereon.
- The installation and service engineering have to comply with local standards, laws and regulations.
- As an "appliance inaccessible to the public", the installation height of indoor unit of the air conditioner shall be at least 2.5m.
- This air conditioner can only be installed by dealers or professionals. The installation by user may lead to water leakage, electric shock or fire.
- In case of any question, please consult the dealer or the service center designated by our company.
- For environmental protection, please don't dispose of the product casually. Our company can provide recycling service based on relevant regulations of China, and provide replacement parts according to Chinese national standards.
- This heat pump air conditioner has been designed for the following temperatures. Be sure to operate the heat pump air conditioner within this range.

Temperature(°C)	-	Maximum	Minimum
Cooling Operation	Indoor	23 WB	15 WB
	Outdoor	43 DB*	-5 DB*
Heating Operation	Indoor	27 DB	15 DB
	Outdoor	15 WB*	-20 WB*

* This temperature may vary with outdoor unit.

DB: Dry Bulb, WB: Wet Bulb

- Refer to the instruction manual for complete machine (outdoor unit) for information about the product standards to which the indoor unit is subject.
- 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 instruction 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.



DANGER

- Please don't perform installation works such as refrigerant piping connection, drain pipe connection, and wiring connection. Violations may result in system leakage, electrical failure or fire. In the case of fire, please turn off the power immediately; please don't touch electrical parts with the hands, or electric shock may arise.
- Do not pour water into the indoor or outdoor unit. This machine is an electric product that may develop serious electric failure when exposed to water.
- Do not open the service cover of indoor or outdoor units without turning OFF the main power supply; otherwise, this may bring about serious safety accident.
- Do not touch or adjust safety devices inside the indoor or outdoor units. If they are touched or readjusted, serious accident may arise.
- Refrigerant R410A is non-flammable, non-toxic, and odorless, and may produce toxic gases when exposed to open flame. Since this refrigerant gas is heavier than air, it may result in lack of oxygen, thereby leading to breathing difficulties when the area near the ground is filled with this gas. If that's the case, please turn off the main switch immediately, cut off the power supply, and open the doors and windows for ventilation. Put out any open flame, and contact your service dealer. Performing leak detection and gas tightness test with oxygen, acetylene or other flammable and toxic gases may cause explosion, so nitrogen is recommended for this test.
- The standards for safe refrigerant leakage in construction and system operation are determined based on local regulations or standards.
- Use ELB with medium or higher sensing speed (ELB with an operating time of 0.1 seconds or less), or electric shock or fire may arise.
- For installation, the refrigerant piping must be firmly connected before the operation of compressor. For repair, the refrigerant piping must be moved, handled and removed after the stop of compressor.
- Please don't short-circuit the protective device (e.g., the pressure switch, etc.) during operation, since this may cause fire or explosion.



WARNING

- Do not use any sprays such as insecticide, lacquer, hair spray or other flammable gases within approximately one (1) meter from the system.
- If the earth leakage breaker (ELB) is frequently activated, please stop the system and contact your local dealer or customer services.
- Make sure the ground wire is securely connected. The improper grounding of machine may lead to electrical failure. Please don't connect the ground wire to gas pipes, tap water pipes, lightning rods or phone ground wires.
- Make sure there are no flammable materials around during brazing operation. Please wear leather gloves to prevent frostbite when filling refrigerant.
- Prevent rats or other small animals damaging the wiring and electrical components. Bitten unprotected parts may cause a fire.
- Firmly fix the connection wires. The external force of terminal may result in looseness of terminal that may cause a fire.
- Make sure the air conditioner is installed with enough strength of fixation; otherwise, the air conditioner may fall or topple over, which may bring about machine damage or personal injury.
- Please follow the installation instructions and related regulations and standards for electrical construction; otherwise, electrical failure or fire may occur due to inadequate capacity or inconsistent specifications.
- Never fail to use specified wiring and select correct wiring, since failure to do so may cause electrical failure or fire.
- Please make sure the outdoor unit is not covered with snow or ice before use.
- The A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A).

IMPORTANT NOTICE



Correct Disposal of this product

This marking indicates that this product should not be disposed with other household wastes. 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.

CHECKING PRODUCT RECEIVED

- Upon receipt of this product, check it for any shipping damage. Claims for damage, either apparent or concealed, should be filed immediately with the shipping company.
- Check the model number, electrical parameters (power supply, voltage, and frequency) and accessories to determine if they are correct. Please contact your local dealer in case of problem.

Our company shall not be held responsible for any consequence arising from the modification to equipment without our written consent.

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1. Safety Precautions



WARNING

- Do not perform installation work, refrigerant piping work, drain piping and electrical wiring connection without referring to the installation manual.
- Check that the ground wire is securely connected.
- Connect a fuse of specified capacity.



CAUTION

Do not install the indoor unit, outdoor unit, remote control switch and cable within approximately 3 meters from strong electromagnetic wave radiators such as medical equipment.

2. Tools & Instruments for Installation

No.	Tool	No.	Tool
1	Handsaw	11	Spanner
2	Screwdriver	12	Charging Cylinder
3	Vacuum Pump	13	Multi-purpose Measuring Instrument
4	Refrigerant Gas Hose	14	Cutter for Wires
5	Megohmmeter	15	Gas Leak Detector
6	Copper Pipe Bender	16	Leveller
7	Water Pump	17	Clamper for Solderless Terminals
8	Pipe Cutter	18	Hoist (for Indoor Unit)
9	Brazing Kit	19	Ammeter
10	Hexagon Wrench	20	Voltage Meter

Note: When in immediate contact with refrigerant, please use the installation tools and instruments dedicated to the new refrigerant.

DANGER

Since the pressure of new refrigerant R410A is 1.4 times that of traditional refrigerant, its performance is susceptible to impurities like moisture, scale and grease, etc. It's essential to remove the moisture, dust, other refrigerants or refrigerant oils from the refrigeration system. Hence, the failure to use specified materials and tools may result in explosion, personal injury, refrigerant leakage, electrical failure or fire.

3. Instructions for Transportation & Handling 4. Installation of Indoor Unit

3.1 Transportation

Transport the product as close to the installation location as practical before unpacking.



CAUTION

Do not put any material on the product.

3.2 Instructions for Handling



WARNING

Do not put any foreign material into the indoor unit and check to ensure that none exists in the indoor unit before the installation and test run. Otherwise, a fire or failure, etc. may occur.



CAUTION

Be careful not to cause damage to insulation materials of the unit surface when it's lifted.

Install the indoor unit as per national standard



DANGER

Do not install the indoor unit in a flammable environment since this may cause fire or an explosion.



WARNING

Do not install the indoor unit outdoors. If installed outdoors, an electric hazard or electric leakage will occur.

4.1 Factory-Supplied Accessories

Check to ensure that the following accessories are packed with indoor unit.

Please refer to the packing list on the end page of this manual for standard accessories.



CAUTION

If any of these accessories are not packed with the unit, please contact your dealer.

4.2 Initial Check

- Install the indoor unit in a space for easy operation and maintenance as shown in Fig. 4.1.
- Provide a service access door near the unit piping connection area on the ceiling.
- Check to ensure that the ceiling is strong enough to hang the indoor unit.
- Check if the ceiling surface is flat for the air panel installation.

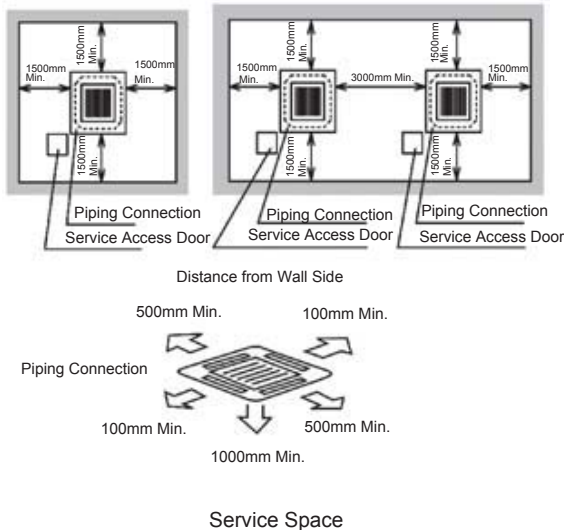


Fig. 4.1 Space around Indoor Unit

Select the installation location as follows:

- (A) Minimum Space
- (B) Down Slope Pitch of Drain Pipe: 1/25~1/100

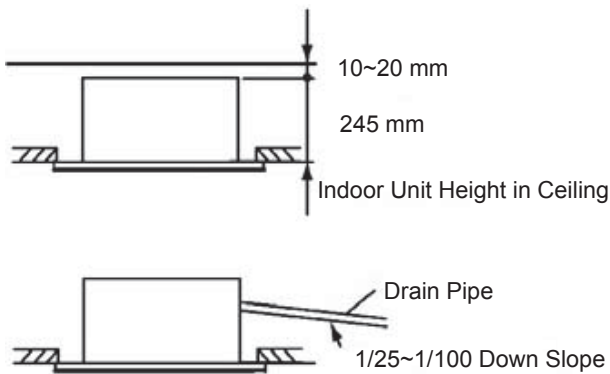


Fig. 4.2 Installation Location of Indoor Unit

- The indoor unit must be installed at an appropriate location so that the indoor temperature can be evenly distributed.
- There should be no obstruction of air flow at the vent.

- Do not install the indoor unit in a machinery shop or kitchen where vapor from oil or its mist flows to the indoor unit. Once the oil deposits on the heat exchanger, it may impair the performance of indoor unit and cause damage to plastic parts therein.
- Pay attention to the following points when the indoor unit is installed in a hospital or other facilities where there are electronic waves from medical equipment, etc.
 - (A) Do not install the indoor unit where the electromagnetic wave is directly radiated to the electrical box, remote control cable or remote control.
 - (B) Install the indoor unit and components as far as practical or at least 3 meters from the electromagnetic wave radiator.
 - (C) Install the remote control switch in an iron box. Arrange the remote control cable in an iron tube. Ground the iron box and iron tube.
 - (D) Install a noise filter when the power supply emits harmful noises.
- To avoid any corrosive action to the heat exchangers, do not install the indoor unit in an acid or alkaline environment.

4.3 Installation

4.3.1 Opening of False Ceiling and Suspension Bolts

- (1) Select appropriate location and direction for installation of indoor unit, and determine its location. Pay careful attention to the space for the piping, wiring and maintenance.
- (2) Cut out the area for the indoor unit in the false ceiling and install suspension bolts, as shown in Fig. 4.2.

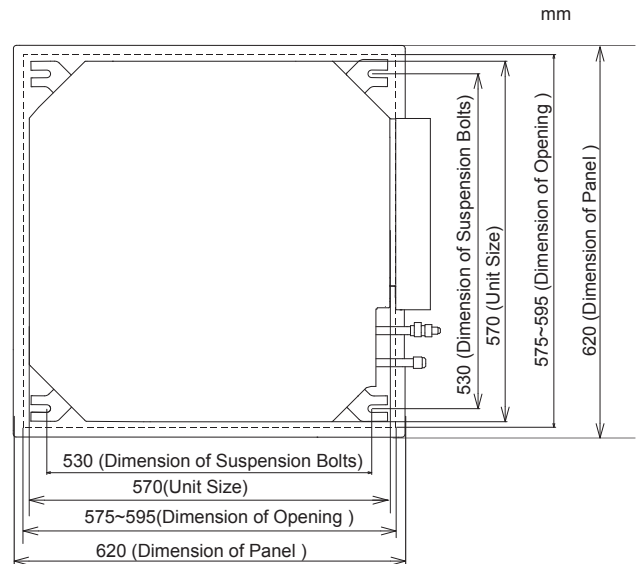
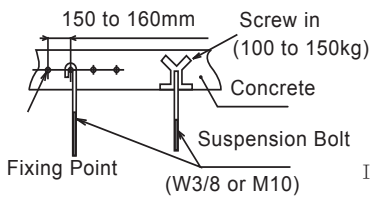


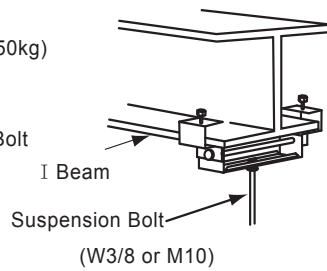
Fig. 4.3 Opening of False Ceiling and Suspension Bolts

- (3) Ensure that the ceiling is horizontally level; otherwise, proper drainage flow would be impossible.
- (4) Strengthen the opening parts of the ceiling.
- (5) Mount suspension bolts, as shown in the figure.

- For Concrete Slab



- For Steel Beam



- For Wooden Beam
Suspension
Wooden Rib
(60mm to 90mm
lumber)

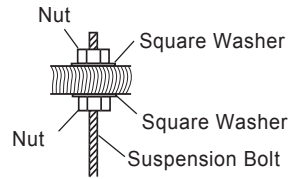
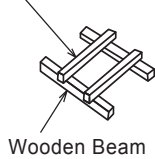
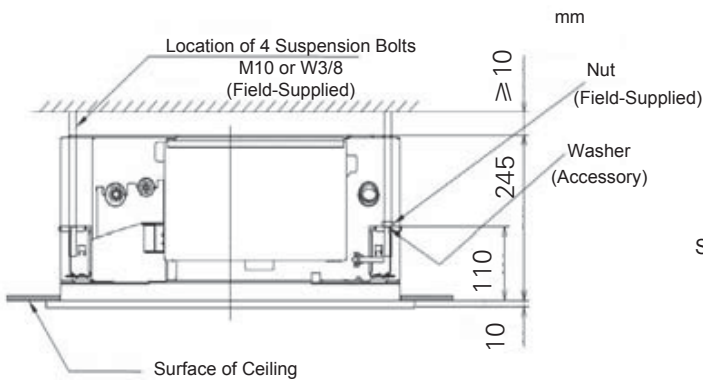


Fig. 4.4 Mounting the Suspension Bolts

4.3.2 Connection Points of Suspension Bolts and Pipes



* Confirm the distance between the bottom surface of indoor unit and the surface of ceiling.

Fig. 4.5 Mounting Suspension Bracket

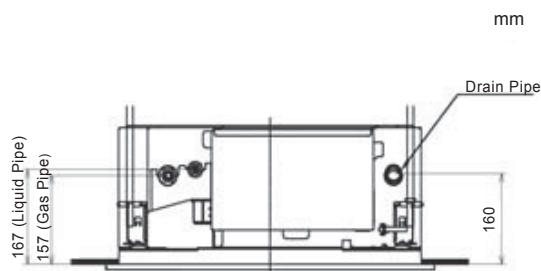


Fig. 4.6 Indoor Unit and Air Panel

4.3.3 Mounting the Indoor Unit

Mount the indoor unit as shown in Fig. 4.4.

Mount field-supplied parts

Suspension bolt	4-M10 or W3/8
Nut	8-M10 or W3/8
Washer	8-M10 or W3/8

(1) Mount nuts and washers to the suspension bolts.

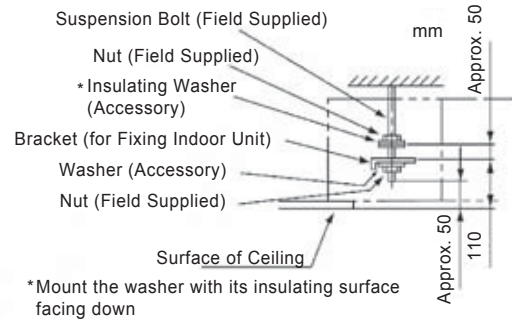


Fig. 4.7 Mounting Nuts and Washers

(2) Lift the indoor unit by hoist, and do not put any force on the water pan.

(3) Secure the indoor unit using the nuts and washers.

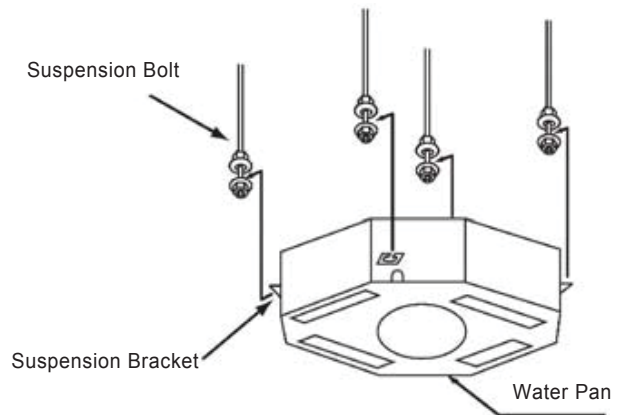


Fig. 4.8 Mounting the Indoor Unit

Note: If a false ceiling has already been installed, be sure to complete all piping and wiring works inside the ceiling before hooking-up the indoor unit.

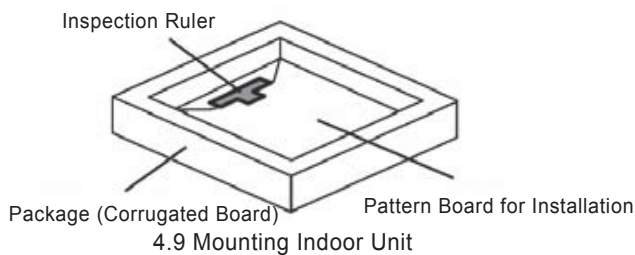
4.3.4 Adjust the Distance between Indoor Unit and Ceiling

CAUTION

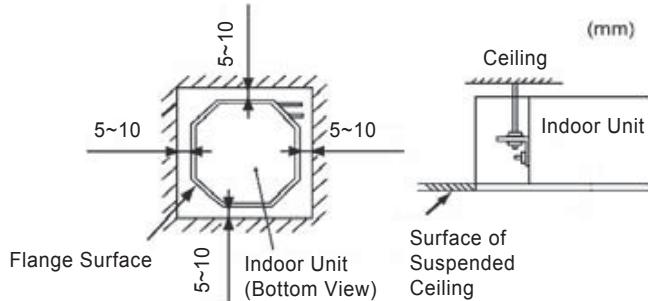
Please cover the machine with plastic cloth to keep it clean during installation.

- Check the level of water pan using a water level to avoid incorrect installation of drain discharge mechanism.
The drain pipe side must be approximately 5mm lower than other parts.
- Tighten the nuts of the suspension brackets after the adjustment is completed. Apply LOCK-TIGHT paint* to the bolts and nuts in order to prevent them loosening. Otherwise, abnormal noise or sounds may occur and the indoor unit may fall down.

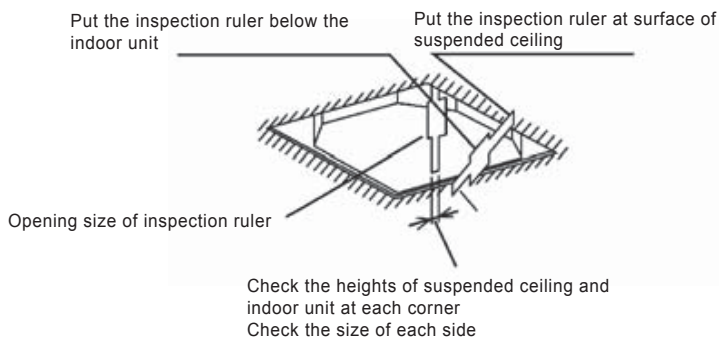
(1) The pattern board for installation is in the packing carton. Please cut it off.



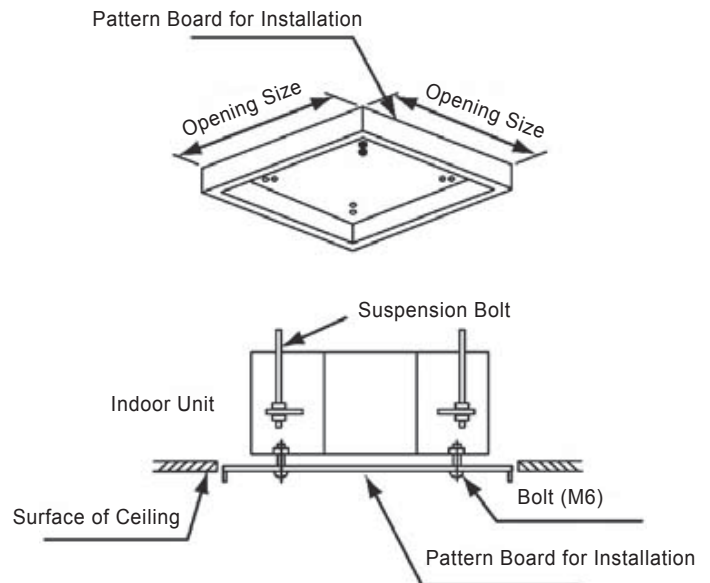
(2) Adjust the indoor unit to the correct position using the factory-supplied inspection ruler



(a) For suspended ceiling with panel installed



(b) For ceiling without panel



Installation Details for Air Panel

- The details of installation work for air panel shall be according to the Installation Manual.
- Check to ensure the proper connection of connectors between the indoor unit and air panel.

5. Refrigeration Piping

DANGER

Use refrigerant R410A in the refrigerant cycle. Do not charge oxygen, acetylene or other flammable and poisonous gases into the refrigerant cycle when performing a leakage test or an air-tight test. These gases are extremely dangerous and can cause an explosion. It is recommended nitrogen be used for those tests.

5.1 Piping Materials

- (1) Prepare locally-supplied copper pipes.
- (2) Select clean copper pipes. Make sure there is no dust and moisture inside. Blow the inside of the pipes with nitrogen or dry air, to remove any dust or foreign matters before connecting pipes.
- (3) Select copper pipes based on Fig. 5.2.

5.2 Piping Connection

- (1) The connection point and diameter of piping are shown in Figs. 5.1 and 5.2.

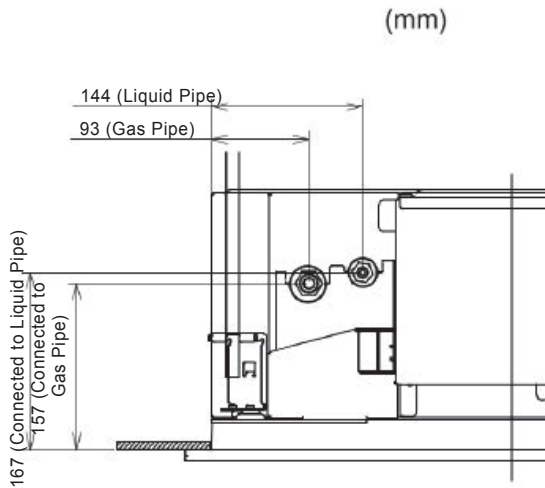


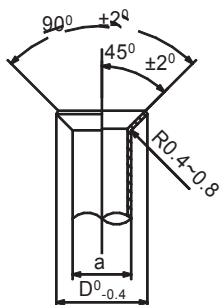
Fig. 5.1 Pipe Connection Points

Unit: mm (in.)

Capacity of Indoor Unit (10 ³ BTU)	Gas Pipe	Liquid Pipe
05~19	Φ12.7(1/2) ※	Φ6.35(1/4)

Fig. 5.2 Pipe Diameter

※ Since the nut cap connected at gas pipe is designed exclusively for R410A, the piping flaring connected for off-factory installation is adjusted as compared with R22 and R407C. Please perform the processing operation based on the dimensions shown below: (See Fig. 5.3)

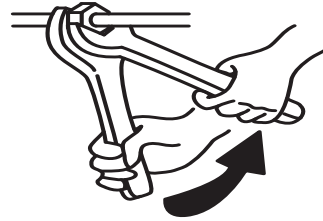


Unit: mm (in.)

Outside Diameter of Piping (a)		Φ12.7 (1/2)	Φ15.88 (5/8)
Outside Diameter of Flaring (D)	R410A	16.6	19.7

Fig. 5.3 Flaring

- (2) As shown in Fig. 5.4, two spanners shall be used for tightening the nut



Pipe Size	Tightening Torque (N.m)
Φ6.35	20
Φ9.53	40
Φ12.7	60
Φ15.88	80
Φ19.05	100

Fig. 5.4 Nut tightening torque

- (3) Insulate the refrigeration piping with field-supplied insulating pipe upon completion of refrigerant pipe connection. See Fig. 5.5.

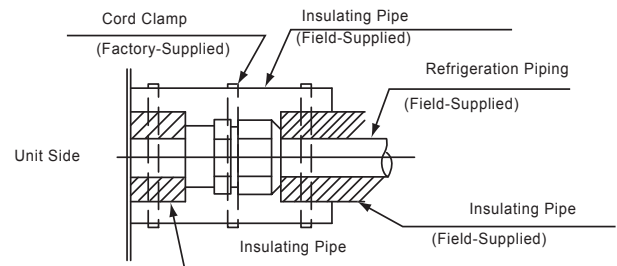
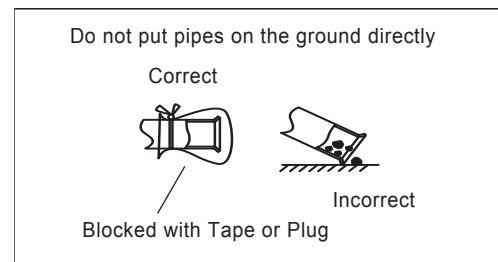


Fig. 5.5 Insulation on Pipes



CAUTION

- Cap the end of the pipe when the pipe is to penetrate a hole.
- Do not put pipes on the ground directly without a cap or vinyl tape arranged at the end of the pipe.



- (4) Discharging and Charging Refrigerant

Follow the Installation & Maintenance Manual for outdoor unit.



CAUTION

Excessive and inadequate refrigerant is a leading cause of system anomaly.
Please inject the right amount of refrigerant.

6. Drain Pipe

- (1) The position of the drain pipe connection is shown in Fig. 6.1.
- (2) Prepare a polyvinyl chloride pipe with a 32mm outer diameter.
- (3) Fasten the tubing to the drain hose with the adhesive agent and the factory-supplied clamp. The drain pipe must be performed with a down-slope pitch of 1/25 to 1/100.

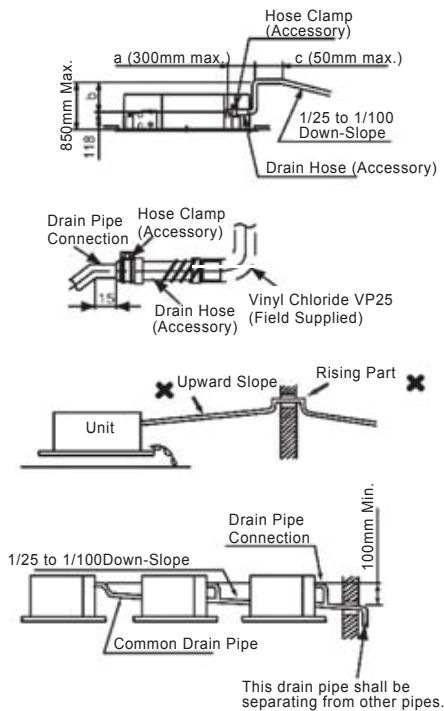
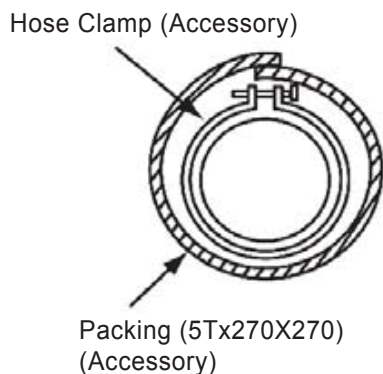


Fig. 6.1 Drain Pipe

*The total length a+b+c shall be ≤1,100mm.

*In case of lifting the drain pipe at the outlet part, perform the drain piping work as shown in the figure above.

- (4) Insulate the drain pipe after connecting the drain hose.



CAUTION

Where the relative humidity of air inlet or ambient air exceeds 80%, an auxiliary water pan shall be fabricated at installation site and placed under the indoor unit, as shown in Fig. 6.2.

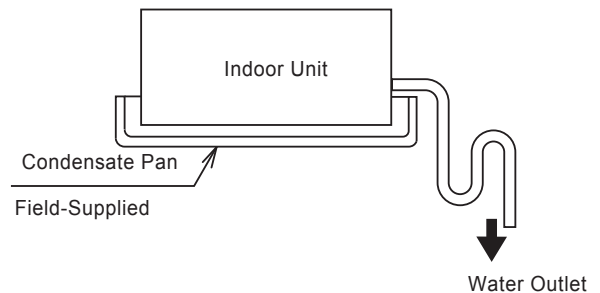


Fig. 6.2 Auxiliary Water Pan

CAUTION

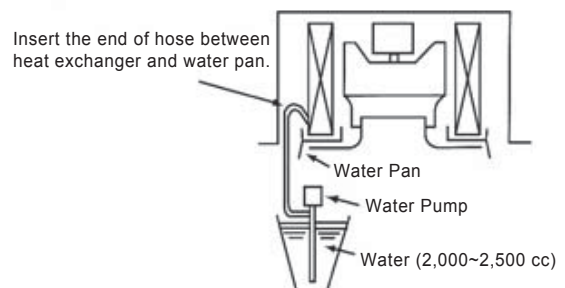
- (1) The drain pipe installed shall slope down; otherwise, the condensate may flow back and leak into the room when the indoor unit is turned off.
- (2) The drain pipe shall not be connected with sewage pipe or other drain pipes.
- (3) Where the main drain is connected to other indoor units, each indoor unit must be higher than the main. Select drain pipes in ample size depending on the refrigerating capacity and quantity of indoor units.
- (4) Check if water flows without obstruction following the procedure shown below after the proper connection of wires and drain pipes.

a. Turn on the power.

b. Fill the water pan with 1.5L or 2L of water.

c. Check and ensure the water flows without obstruction and no leakage exists. Pour 1.5L of water if no water flows out of pipe end.

- Inject water via air outlet.



7. Wiring



WARNING

- Turn OFF the main power switches to the indoor unit and outdoor unit before electrical wiring or periodical check, and wait for at least three minutes.
- Check to ensure the indoor and outdoor fans have stopped before electrical wiring or periodical check.
- Protect the wires, drain pipes, electrical parts, etc. from rats or other small animals. If not protected, rats may gnaw at unprotected parts, which may lead to a fire.
- Avoid the contact of wires with the refrigerant piping, sheet metal edges and electrical components in unit. Otherwise, the wires may get damaged or even cause a fire.
- Use ELB with medium sensing rate (earth leakage breaker with action time being equal to 0.1 seconds or less). The failure to do so may result in electric shock or fire.
- The wires must be firmly secured. External force applied to terminals may cause a fire.
- Never connect the power terminal block for air conditioner to power cord. At the indoor unit side of air conditioner, power wiring can be extended through a power distribution box. Be sure to calculate the wiring capacity carefully, since excessively low wiring capacity may frequently cause fire.
- Do not start the system before all check points are thoroughly checked.



CAUTION

- Wrap the wires with adhesive tape or other materials and plug the wiring connection hole with seal material to protect the product from any condensate water or insects.
- The electrical box entrance hole shall be designed with wire clamp that must be tightened to address tension requirements when penetrated by wires.
- Secure the remote controller wire in electrical box with wire tie.
- Tighten screws to the following torques.

M4: 1.0~1.3 N·m

M5: 2.0~2.4 N·m

M6: 4.0~5.0 N·m

M8: 9.0~11.0 N·m

M10: 18.0~23.0 N·m

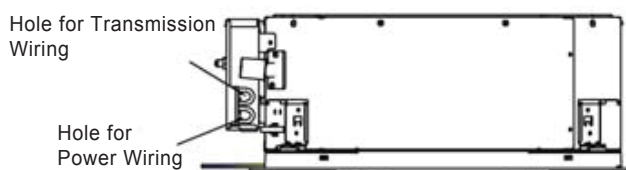
7.1 General Check

- (1) Make sure that the field-selected electrical components (main power switches, circuit breakers, wires, conduit connectors and wire terminals) comply with the National Electrical Code.
- (2) Check to ensure that the power supply voltage is within $\pm 10\%$ of the rated voltage. The system can't be started in the case of excessively low supply voltage.
- (3) Check the power capacity.
- (4) Ensure the ground wire is connected.
- (5) Install the main switch with a space of 3.5mm or more between phases.

7.2 Electrical Wiring Connection

The electrical wiring connection for indoor unit is shown in Fig. 7.1.

- (1) Connect transmission wiring to the PBC in electrical box through the connection hole on electrical box.
- (2) Connect the power wiring and earth wires to the terminals in the electrical box.
- (3) Connect the wires between the indoor unit and the outdoor unit to the terminals in electrical box.
- (4) Tightly clamp the wires with wire tie in the electrical box.
- (5) Upon completion of wiring connection, seal the wire interface with sealing material to keep condensate water and insects off.



For the minimum size of field-supplied power cord, please refer to Section 7.3.

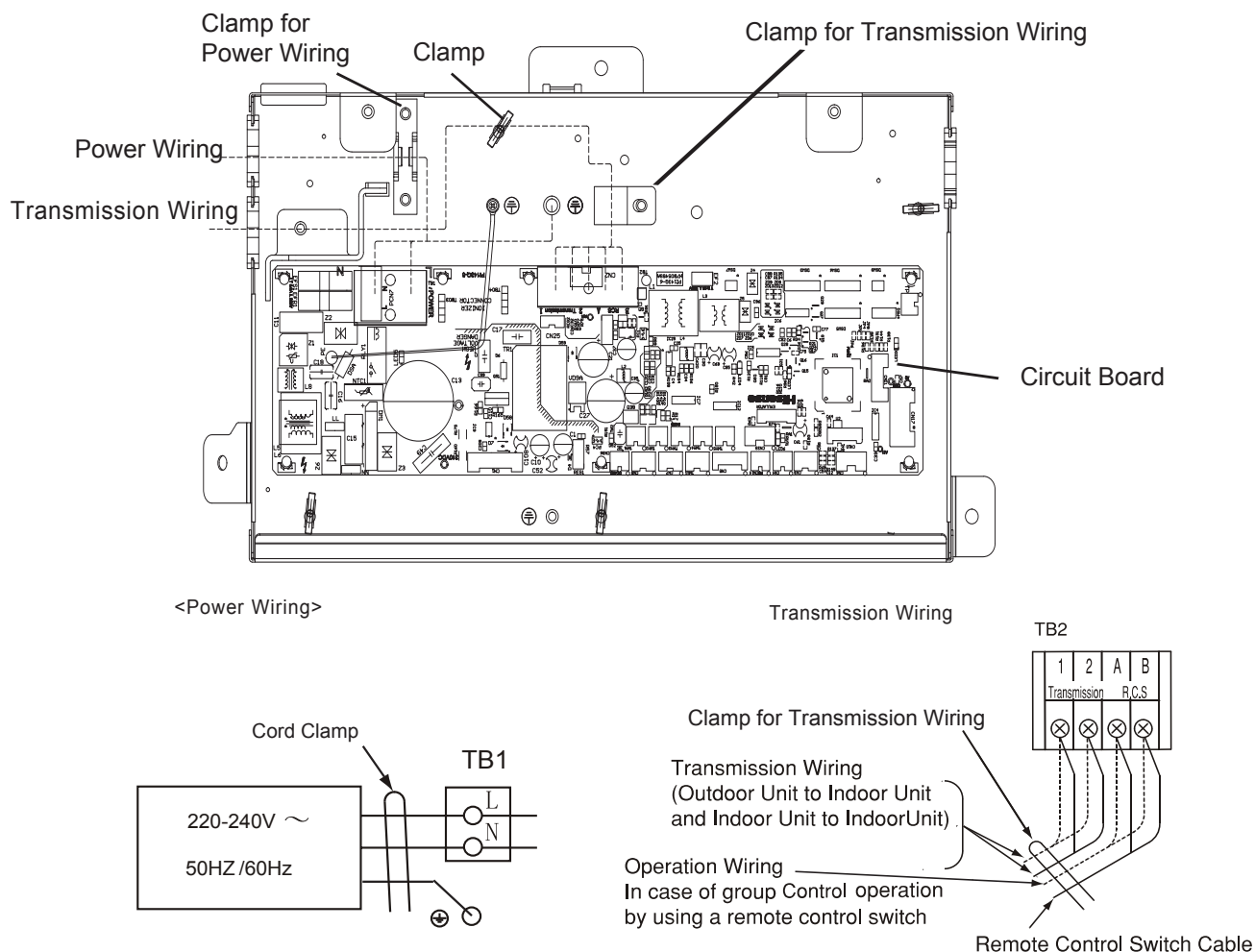


Fig. 7.1 Electrical Wiring Connection for Indoor Unit

7.3 Specifications of Power Cords for Field Connection, Electrical Parameters of Indoor Unit, and Wire Size

Capacity of indoor Unit(10 ³ BTU)	Power Source	Maximum Current	Power Cord Size	Communication Wire Size
05~09	220V-240V~50/60HZ	0.15A	2.5mm ²	0.75mm ²
12		0.16A		
15		0.23A		
17		0.3A		
19		0.39A		
Totle Current(A)		Power Cord(mm ²)		※1 In the case that current exceeds 63A,do not connect cables in series
I≤ 6		2.5		
6<I≤ 10		2.5		
10<I≤ 16		2.5		
16<I≤ 25		4		
25<I≤ 32		6		
32<I≤ 40		10		
40<I≤63		16		
63<I		※1		

Note:

- (1) Field wiring shall be in conformity to local laws and regulations, and all wiring operations must be performed by qualified professionals.
- (2) Refer to relevant standards for above-noted power cord size.
- (3) Where power cord is connected through junction box in series, be sure to determine the total current and choose wires based on the table above.
- (4) As a minimum, the chosen power cord shall be compliant with requirements on neoprene sheathed wire #57 as stated in IEC60245-1, while the power cord shall be made from copper conductor.
- (5) The wiring specifications for weak-current communication circuit shall not be lower than that for RVV(S)P shielded wires or equivalent, and the shielding layer shall be grounded.

- (6) A switch that can ensure all-pole disconnection shall be installed between power supply and air conditioning unit in such a manner that the contact spacing shall not be less than 3mm.
- (7) Once the power cord is damaged, the dealer or the professionals from designated maintenance department must be contacted in a timely manner for repair and replacement.
- (8) For the installation of power cord, the ground wire must be longer than the current-carrying conductor.

8. Test Run

Test run should be performed according to the Installation & Maintenance Manual.



- Do not operate the system until all the check points are cleared.
 - (A) Check to ensure the electrical resistance between terminal and ground is more than 1 MΩ. If this is not the case, do not operate the system until the electrical leakage is found and repaired.
 - (B) Check to ensure the stop valves of outdoor unit are fully opened, and then start the system.
 - (C) Check to ensure the switch on main power source has been ON for more than 4 hours to warm the compressor by heater.
- Pay attention to the following items while the system is running.
 - (A) Do not touch any of the parts by hand at the discharge gas side, since the temperatures of compressor chamber and the pipes at the discharge side are higher than 90°C.
 - (B) DO NOT PUSH THE BUTTON OF THE AC CONTACTOR. It will cause a serious accident.

9. Protection & Control Devices

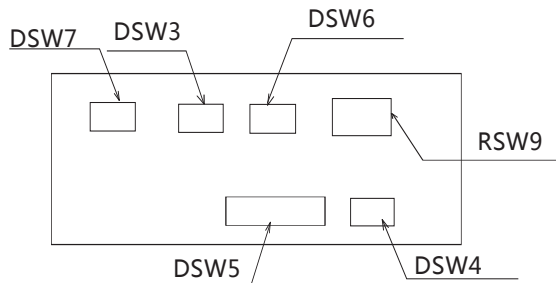
Indoor Unit

Capacity of Indoor Unit (10 ³ BTU)		05~19
Capacity of Fuse on Indoor Unit Control Circuit	A	5
Freeze Protection Temperature	°C	0
Cut-out Cut-in	°C	14
Set Temperature Difference	°C	2

10. Field Operation

10.1 Setting of Dip Switches

- (1) DIP switch must be set with power sources of the indoor and outdoor units in OFF state. Otherwise, the settings are invalid.
- (2) The DIP switches are located as shown in the figure below.



- (3) 6 dip switches are arranged on the PCB of indoor unit, and must be set based on the following instructions before test run. The system shall not be started before the completion of dip switch setup.

- (a) Address of indoor units (DSW6): All indoor units must be numbered in sequence based on the diagram below. Outdoor units must be numbered from "0".

Setting Method	DSW6 (Setting 0~63)	Ex.) Set address No.16
	 Note: 8421 coding method	 No.16 is ON

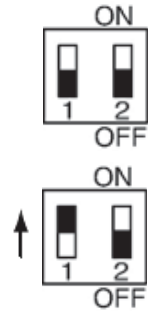
- (b) Refrigeration system cycle No. (DSW5) is required to be set. All are set to OFF before shipment.

Setting Method 2	DSW5 (Setting 0~63)	Ex.) Set system No.5
	 Note: 8421 coding method	 No.5 is ON

- (c) Safety reset (DSW7)

* Factory settings

Once strong current is accidentally connected to Terminals 1 and 2 of TB2, the PCB fuse will be blown. In such a case, it's essential to correct the wiring and then to set switch No. 1 to ON position.



Note:

Symbol "■" indicates the location of DIP switch. The position indicated in the diagram is in the factory-set state.

CAUTION

The power supply shall be turned off before the setup of DIP switch. Otherwise, the settings will be invalid.

10.2 Setting of Fan Speed

The air volume can be changed by performing external static pressure setup ("C5") on wired controller. Please refer to the wired controller Installation & Maintenance Manual.

Height of Ceiling	Setting of Wire Controller
05~19	
2.7m max.	C5=00
2.7~3.0m	C5=01
3.0~3.5m	C5=02

Packing List

Details	Remarks
Indoor Unit: 1 Set	
Operation Installation & Maintenance Manual: 1	
Fixing Washer: 8 pcs	
Bolt: 2 pcs	
Pipe Clamp: 1 pc	
Drain Pipe: 1 pc	
Wire Tie (Big): 6 pcs	
Wire Tie (Small): 2 pcs	
Insulating Pipe (Big): 1 pc	
Insulating Pipe (Small): 1 pc	
Sealing Gasket (Big): 1 pc	
Sealing Gasket (Small): 1 pc	



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