

CN-XMi D71 - D280

Duct type heat pump indoor unit



Dear Customer,

We congratulate you on choosing this product

For many years Clivet has been offering systems that provide maximum comfort, together with high reliability, efficiency, quality and safety.

The aim of the company is to offer advanced systems, that assure the best comfort, reduce energy consumption and the installation and maintenance cost for the life cycle of the system.

The purpose of this manual is to provide you with information that is useful from reception of the equipment, through installation, operational usage and finally disposal so that this advanced system offers the best solution.

Yours faithfully.

CLIVET Spa

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This manual is for VRF SYSTEM.

To get complete and clear information, please also consider following issues:

1. please consider only 50 Hz electric supply mode
2. water pump box is an option; SBH-04 for size D71 to D160 and SBH-05 for size D200 to D280
3. wireless remote controller is an option
4. model identification

CN-XMi D71 - D280				
Size	Power supply		Reference kW	Factory code
D71	230V	1-phase	7.1	MI-71T1/DHN1-B
D80	230V	1-phase	8	MI-80T1/DHN1-B
D90	230V	1-phase	9.0	MI-90T1/DHN1-B
D112	230V	1-phase	11.2	MI-112T1/DHN1-B
D140	230V	1-phase	14	MI-140T1/DHN1-B
D160	230V	1-phase	16	MI-160T1/DHN1-B
D200	230V	1-phase	20	MI-200T1/DHN1-B
D250	230V	1-phase	25	MI-250T1/DHN1-B
D280	230V	1-phase	28	MI-280T1/DHN1-B

For 1 outdoor unit connected to 1 indoor unit applications please consider the following instructions..

- Standard wired controller is KJR-29B1/BK-E
- Option wireless remote controller is RM05/BG(T)E-A

Installation manual

MD14I-041DW

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1. INSTALLATION PRECAUTION

- To install properly, please read this manual at first.
- The air conditioner must be installed by qualified persons.
- When installing the indoor unit or its tubing, please follow this manual as strictly as possible.
- When all the installation work is finished, please turn on the power only after a thorough check.
- No further announcement if there is any change of this manual caused by product improvement.



NOTE

The installer should illustrate to users how to correctly use and maintain the air-conditioner, as well as remind users to carefully read and keep both Installation Manual and Owner's Manual well.



CAUTION

- **DISPOSAL:** Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.



- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Disconnect the power supply before cleaning and maintenance.
- The appliance must be installed 2,3m above floor.
- The appliance shall not be installed in the laundry.
- The appliance shall be installed keep away from quiet place, such as bedroom.

- Disassembling, replacement and maintenance of filter should be carried out by qualified person.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- The appliance shall be installed in accordance with national wiring regulations.
- The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
- An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device(RCD) with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rule.
- The power cord type designation is H05RN-R/H07RN-F or above.

2. INSTALLATION PLACE

- Indoor Unit
 - Enough room for installation and maintenance.
 - The ceiling is horizontal and it can afford the weight of the indoor unit.
 - The air inlet and outlet are not impeded and does not affected by outdoor air too much.
 - The air flow can reach every part of the room.
 - The connecting pipe and drainpipe can be easily extracted out.
 - There is no direct radiation from heat source.
- Outdoor Unit
 - Enough room for installation and maintenance.
 - The air inlet and outlet are not impeded and does not affected by outdoor air too much.
 - Dry and well ventilated place.
 - The supporter is flat and horizontal and can afford the weigh of outdoor unit, without noise and vibration.
 - The noise and the outlet air will not influence your neighbor.
 - No combustible gas.
 - Place convenient for piping and wiring.

Please keep away from the following places, or malfunction may be caused.(if unavoidable, please consult the professionals):

- There is mineral oil like the oil of cutting machine.
- There is much salty air. (Near the coast)
- There is caustic gas such as sulfuric gas. (Near the hot spring.)
- Factory where the voltage fluctuate greatly.
- In the car or in the cabin.
- In the kitchen or a place full of oil steam.
- There is strong electromagnetic wave.

- There is combustible gas or materials.
- There is much evaporating acid or alkaline gas.
- Other special areas.
- Notes Before Installation
- Select the correct carry-in path.
- Move this unit as originally packaged as possible.
- If the air conditioner is installed on a metal part of the building, it must be electrically insulated according to the relevant standards to electrical appliances.
- Avoid installing it in a narrow sapce which has a high requirement to noise.



NOTE

- Remark per EMC Directive 89/336/EEC
- For to prevent flicker impressions during the start of the compressor (technical process), following installation conditions apply.
- The power connection for the air conditioner has to be done at the main power distribution. The distribution has to be of a low impedance, normally the required impedance reaches at a 32A fusing point.
- No other equipment has to be connected with this power line.
- For detailed installation acceptance, please refer to your contract with the power supplier if restrictions do apply for products like washing machines, air conditioners or electrical ovens.
- For power details of the air conditioner, refer to the rating plate of the product.

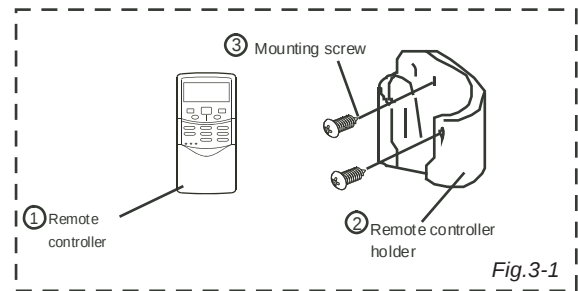
3. ACCESSORIES

Table.3-1

Name of Accessories	Q'ty	Outline	Usage
Installation manual	1	(This manual)	_____
Wire controller	1		Wire control the air-conditioner
Pipe insulation material	7.1-16kw	2	 Heat insulation
	20-28kw	4	
Water outlet joint		1	 For drainage
Clasp	7.1-16kw	1	Chucking the joint which connect the drain hose and the outlet of indoor unit
Water connecting pipe	20-28kw	2	 To connect drain pipe
Adhesive tape for seal		2	 To connect drain pipe
Network matching wire	7.1-16kw	1	 The indoor unit which at the terminal of communication system should connect a impedance between port P and port Q
	20-28kw	2	
Copper nut	7.1-16kw	1	 Use for pipe connection of engineering installation
	20-28kw	2	
Electric throttle connect part A	20-28kw	1	 Connect electric throttle part A
Electric throttle connect part B	20-28kw	1	 Connect electric throttle part B
Spring	20-28kw	1	_____ To fix display box

The following are selectable accessories

Remote controller & Its Frame	
1. Remote controller.....	1
	
2. Remote controller holder.....	1
	
3. Mounting screw (ST2.9x10-C-H).....	2
	
4. Alkaline dry battery(AM4).....	2
	



- Cautions on remote controller installation
- Never throw or beat the controller.
- Before installation, operate the remote controller to determine its location in a reception range.
- Keep the remote controller at least 1m apart from the nearest TV set or stereo equipment. (It is necessary to prevent image disturbances or noise interferences.)
- Do not install the remote controller in a place exposed to direct sunlight or close to a heating source, such as a stove. Note that the positive and negative poles are in right positions when loading batteries.

4. INDOOR UNIT INSTALLATION

Installing Φ10 Hanging Screw Bolts (4 Bolts)

- Please refer to the following figure for the distance measurement between the screw bolts.
- Please install with screw bolts.
- The handling to the ceiling varies from the constructions, consult the construction personnels for the specific procedures.
- The size of the ceiling to be handled. Do keep the ceiling flat. Consolidate the roof beam for possible vibration.
- Cut off the roof beam.
- Strengthen the place cut off, and consolidate the roof beam.
- Carry out the pipe and line operation in the ceiling after finishing the installation of the main body. While choosing where to start the operation, determine the direction of the pipes to be drawn out. Especially in case there is a ceiling, position the refrigerant pipes, drain pipes, indoor & outdoor lines to the connection places before hanging up the machine.
- The installation of hanging screw bolts.

Wooden construction

Put the square timber transversely over the roof beam, then install the hanging screw bolts. (Refer to Fig.4-1)

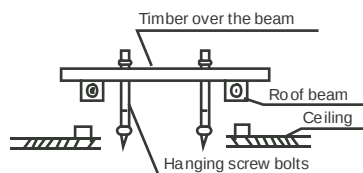


Fig.4-1

New concrete bricks

Inlaying or embedding the screw bolts (Refer to Fig.4-2)



Fig.4-2

For original concrete bricks

Use embedding screw bolt, crock and stick harness (refer to Fig.4-3)

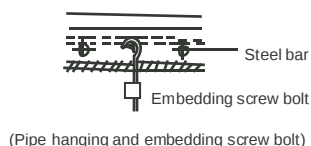


Fig.4-3

Steel roof beam structure

Install and use directly the supporting angle steel. (refer to Fig.4-4)

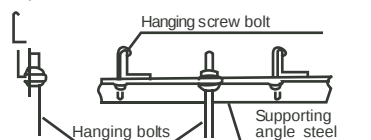


Fig.4-4

- Overhanging the indoor unit
- Overhang the indoor unit onto the hanging screw bolts with block.
- Position the indoor unit in a flat level by using the level indicator, unless it may cause leakage.

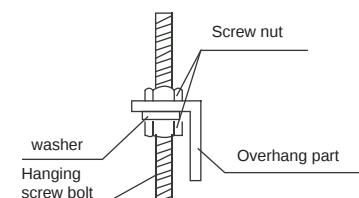


Fig.4-5

- Install the main body
 - Installing the dust proof net and canvas air passage
- ① Open the air-in grill
Anti-clockwise the bolts as indicated in follow figure sketch. Then pull down the air-in grill.

- ② Take out the air-in grill.
- ③ Dismantle the air filter
- ④ Clean the air filter (Vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place).
- ⑤ The air-in side should face down when using water. (See Fig.4-7)
- ⑥ The air-in side should face up when using vacuum cleaner. (See Fig.4-8)

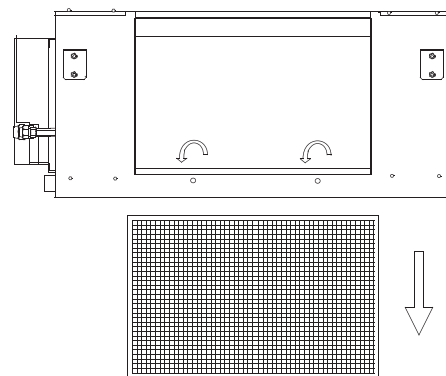


Fig.4-6

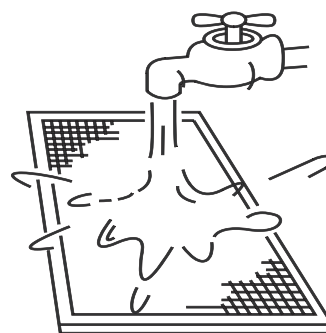


Fig.4-7

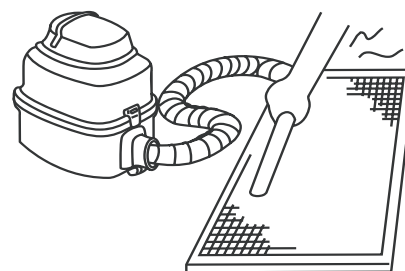


Fig.4-8

- Pipe Connection
- The static pressure outside the unit is 200Pa, the length of the air pipe attached is determined by this parameter.
- The positioning of ceiling hole and indoor unit and hanging screw bolts
- ① Routine method of installation: the size of installation for indoor unit following Fig.4-9
- ② Please install with $\Phi 10$ hanging screw bolts.
- ③ Carry out the pipe and line operation in the ceiling after finishing the installation of the main body. While choosing where to start the operation, determine the direction of the position the refrigerant pipes, drain pipes, indoor & outdoor lines and line-controlled lines to the connection places before.

■ The positioning of ceiling hole and indoor unit and hanging screw bolts

routine method of installation: the size of installation for indoor unit following the Fig.4--9 and Fig.4-10

Unit: mm

7.1~11.2KW

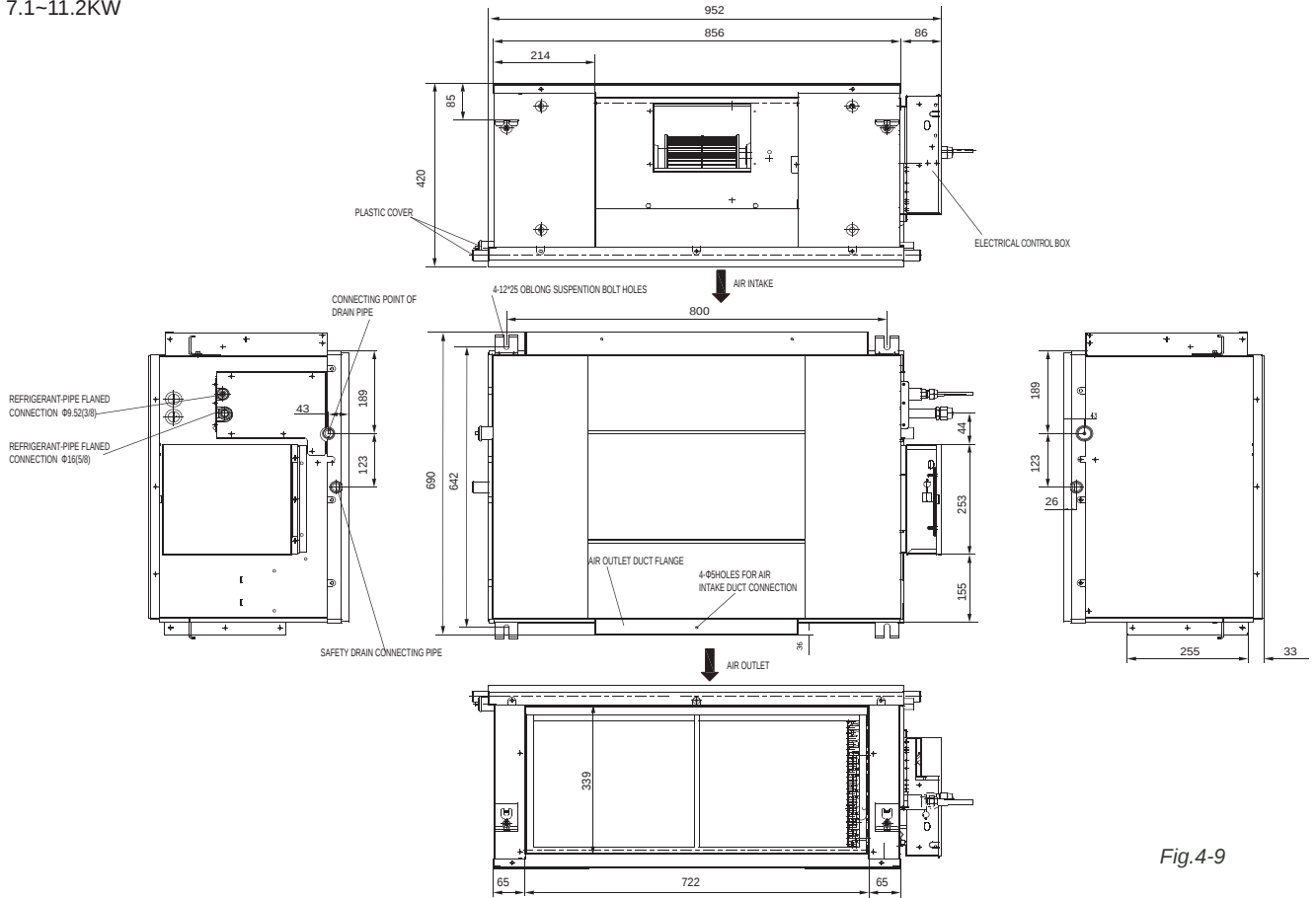


Fig.4-9

14~16KW

Unit: mm

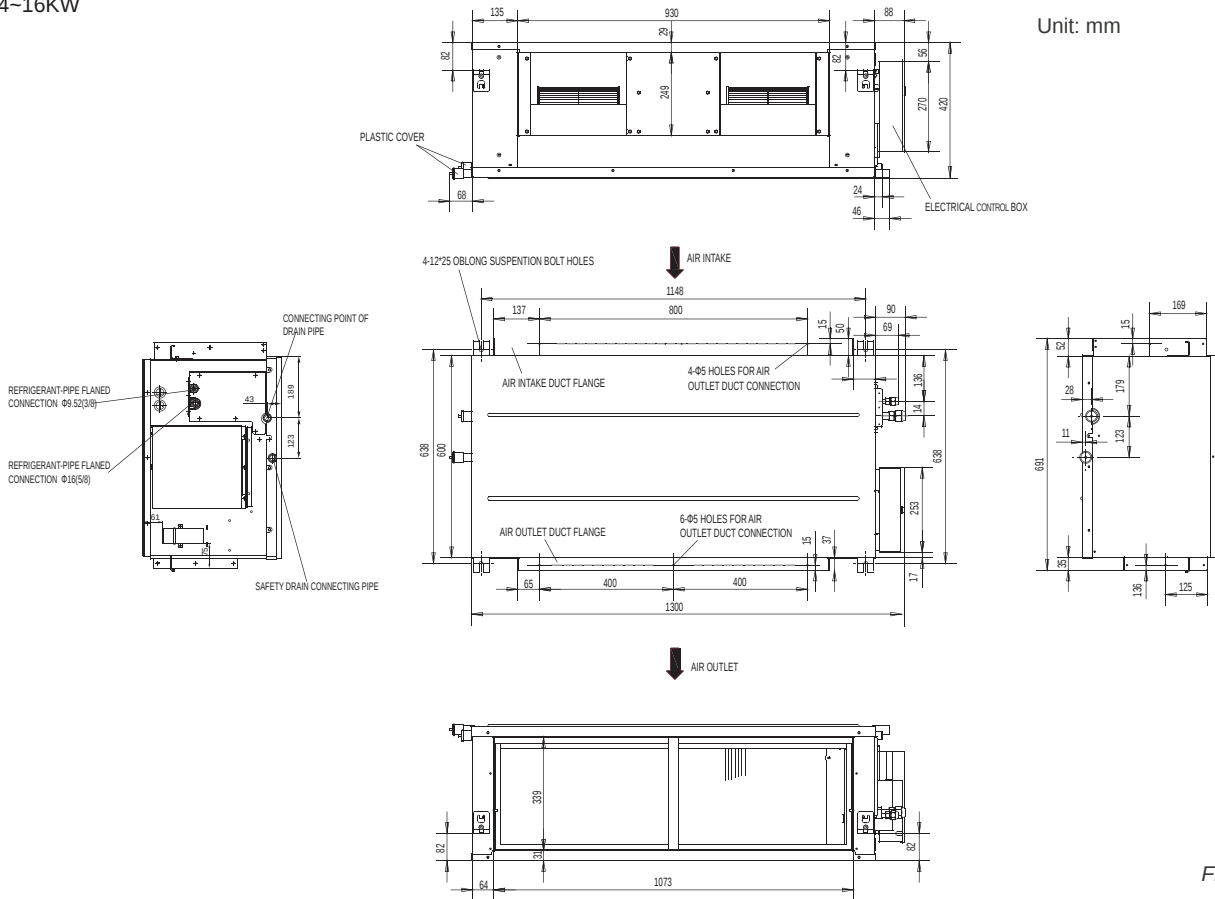


Fig.4-10

The method of installation: Adopt following method if the air-conditioning's size of installationsite is limited and the indoor unit can't put into the installtionsite.

7.1~11.2KW

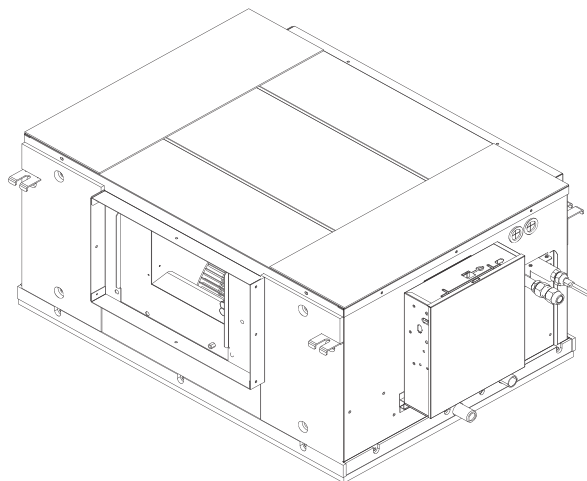


Fig.4-11

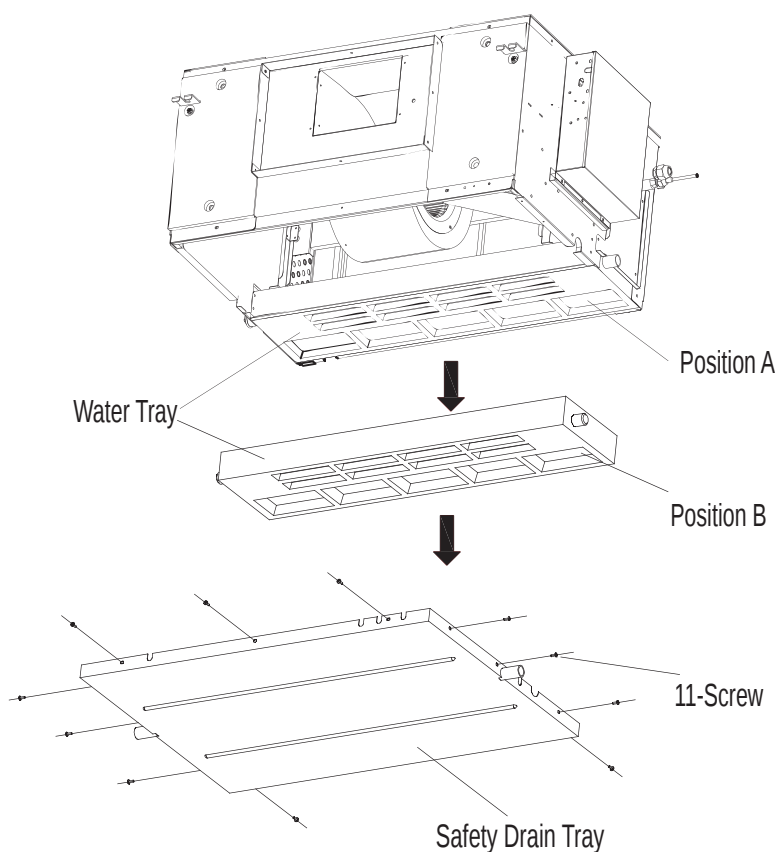


Fig.4-12

1. The whole unit status show as Fig.4-11
2. Remove the all 11 SCREW from fixed Safety Drain Tray, and then take off the tray as figure showed in Fig.5-11.
3. Take off the tray along the direction of the arrow show in Fig.4-12
4. Clean the tray and evaporator.
5. Re-install the unit follow the reverse above orders.



CAUTION

1. Please shut down the unit and cut off power cable before maintain the motor.
2. Don't heavy pull the foam tray, when dismounting; otherwise the foam tray would break.

maintenance of motor:

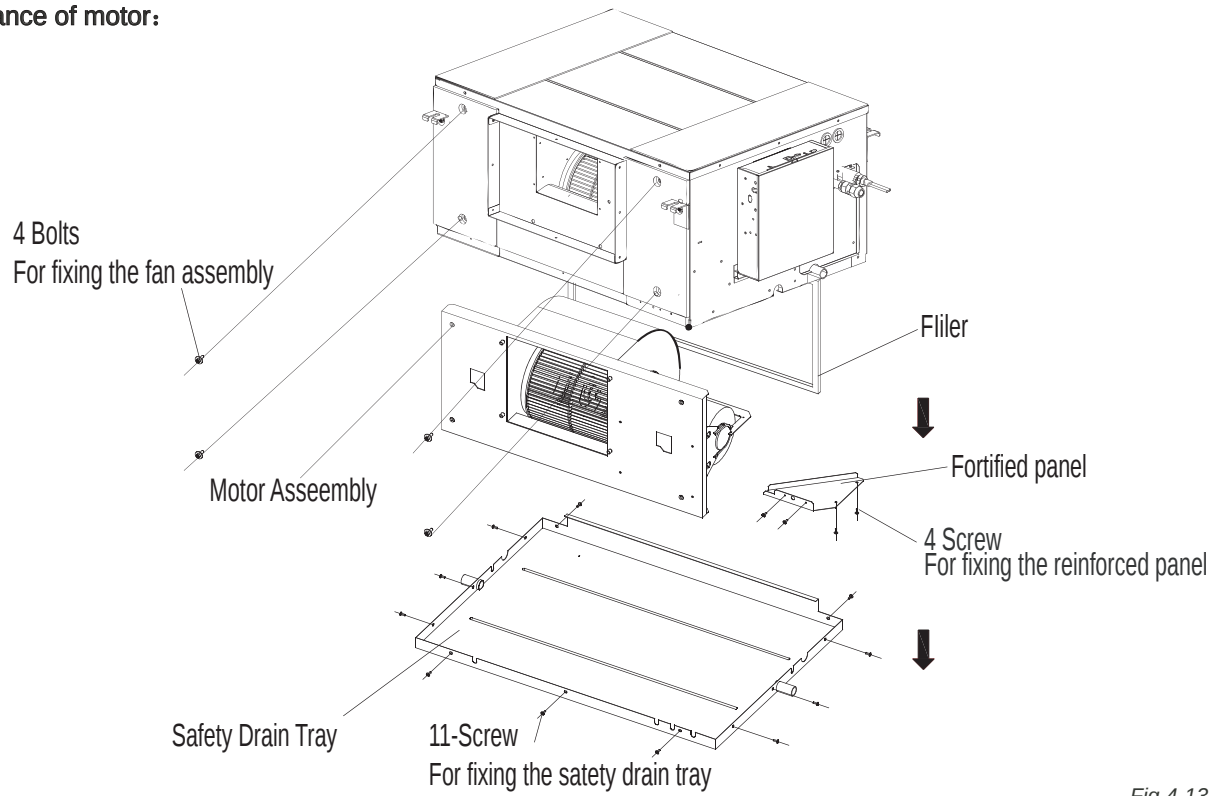


Fig.4-13

Inside of structure

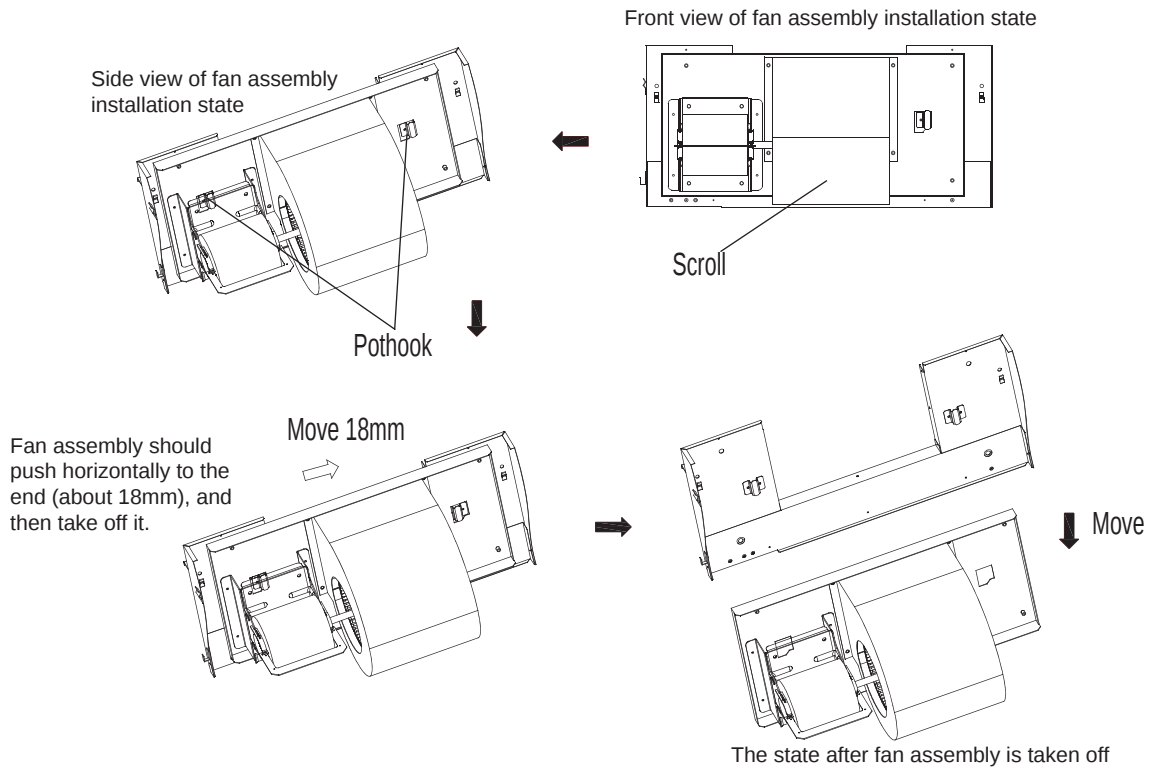


Fig.4-14

1. Refer to Fig.4-13, remove all 11 bolts from safety drain tray, and take off the safety drain tray.
2. Refer to Fig.4-13, remove all 4 bolts from reinforced panel, and take off the panel.
3. Refer to Fig.4-13, remove all 4 bolts from fan assembly, see Fig.4-14, according to which orders to take off the fan assembly.
4. Refer to Fig.4-14, horizontal pushing the fan assembly, until it cannot not move any further, and then lift up slightly and take down to remove it.
5. After motor maintenance, reinstall the fan assemblies as per the reverse above orders. And connect the motor with electric control box, as motor with power cable of capacity.



CAUTION

1. Please shut down the unit and cut off power cable before maintain the motor.
2. Before dismount the fan assembly, you must remove the motor and electric control box, as well as connective wires between motor and capacity assembly.
3. Fan subassembly is very heavy, please be careful during maintaining, otherwise physical injury would be caused.

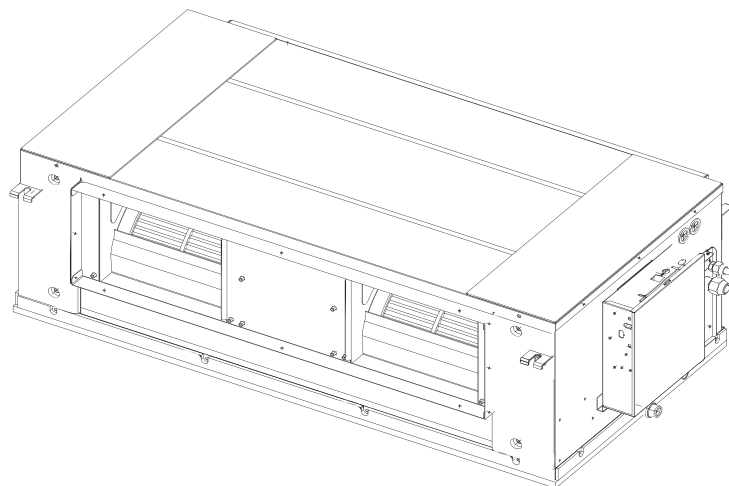


Fig.4-15

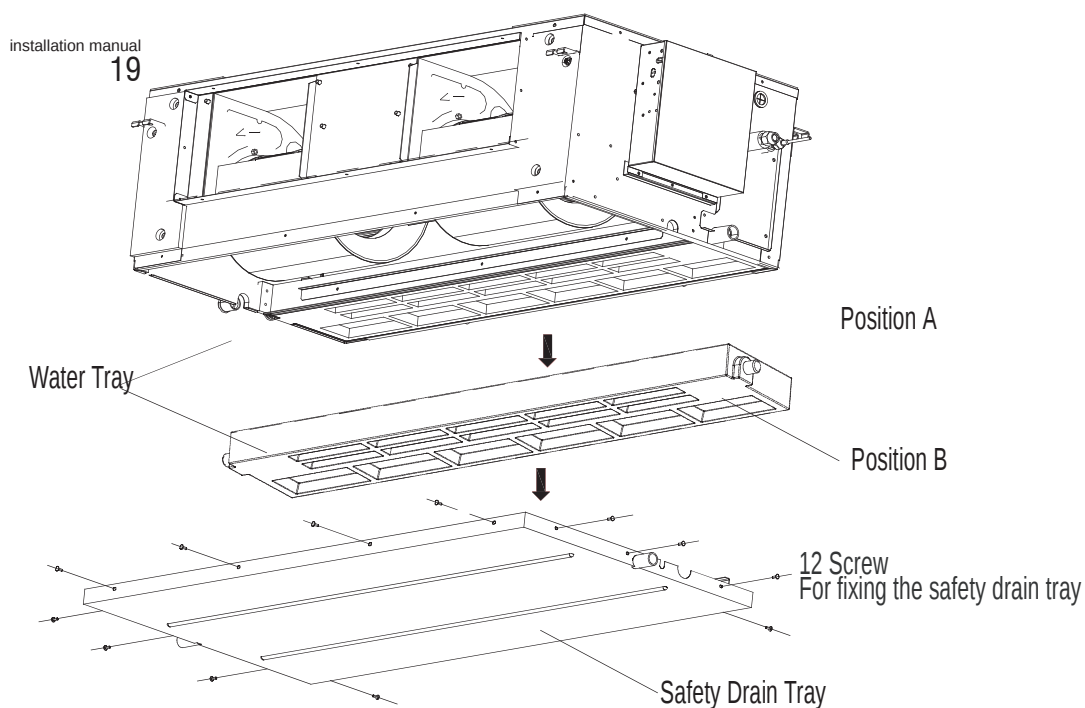


Fig.4-16

1. The whole unit status show as Fig.4-15.
2. Remove the all 11 screw from fixed Safety Drain Tray, and then take off the tray as figure showed in Fig.4-16.
3. Take off the tray along the direction of the arrow show in Fig.4-16.
4. Clean the tray and evaporator.
5. Re-install the unit follow the reverse above orders.



CAUTION

1. Please shut down the unit and cut off power cable before maintain the motor.
2. Don't heavy pull the foam tray, when dismounting; otherwise the foam tray would break.

maintenance of motor:

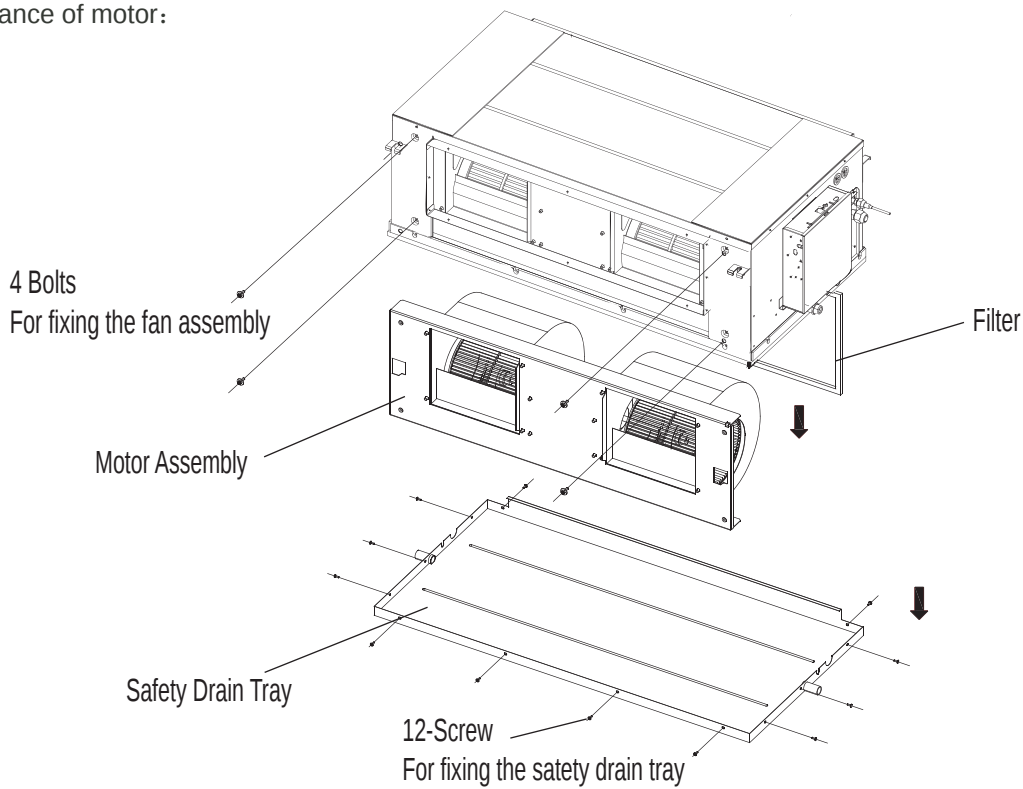


Fig.4-17

Inside of structure

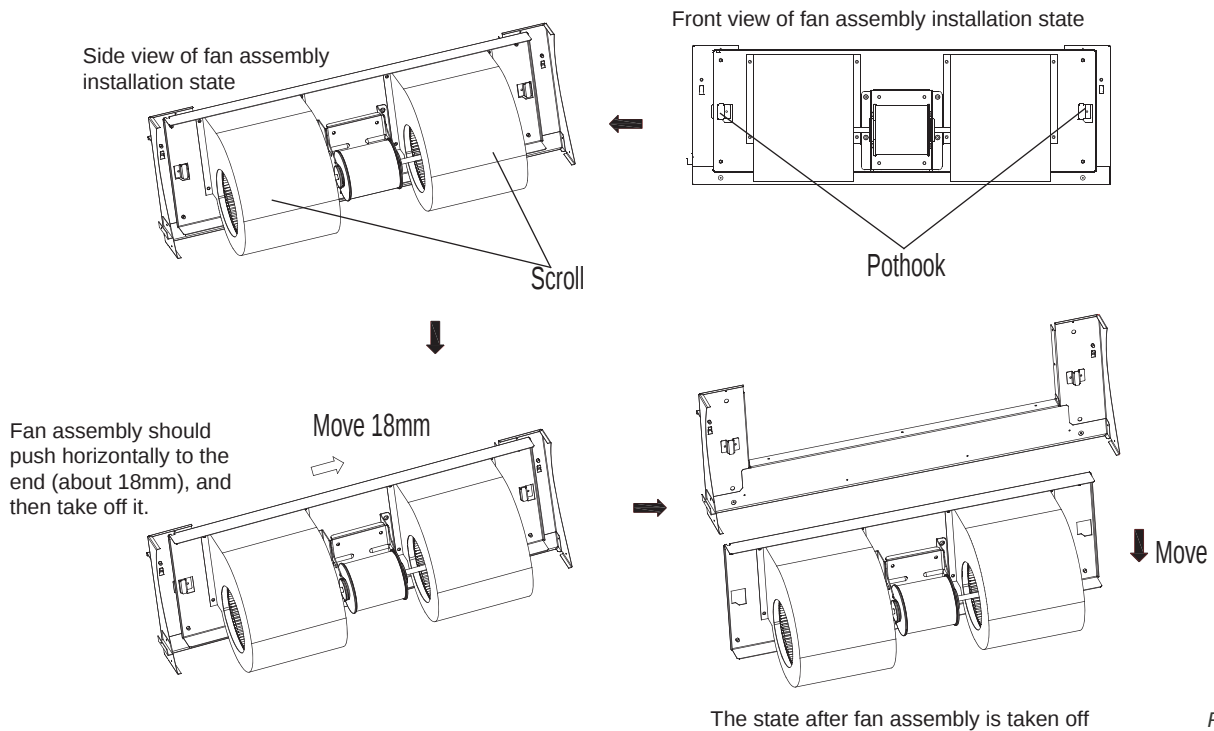


Fig.4-18

1. Refer to Fig.4-17, remove all 11 SCREW from safety drain tray, and take off the safety drain tray.
3. Refer to Fig.4-17, remove all 4 bolts from fan assembly, see Fig.4-18, according to which orders to take off the fan assembly.
3. Refer to Fig.4-18, horizontal pushing the fan assembly, until it cannot not move any further, and then lift up slightly and take down to remove it.
4. After motor maintenance, reinstall the fan assemblies as per the reverse above orders. And connect the motor with electric control box, as well as motor with power cable of capacity.



CAUTION

1. Please shut down the unit and cut off power cable before maintain the motor.
2. Before dismount the fan assembly, you must remove the motor and electric control box, as well as connective wires between motor and capacity assembly.
3. Fan subassembly is very heavy, please be careful during maintaining, otherwise physical injury would be caused.

20KW
25KW
28KW

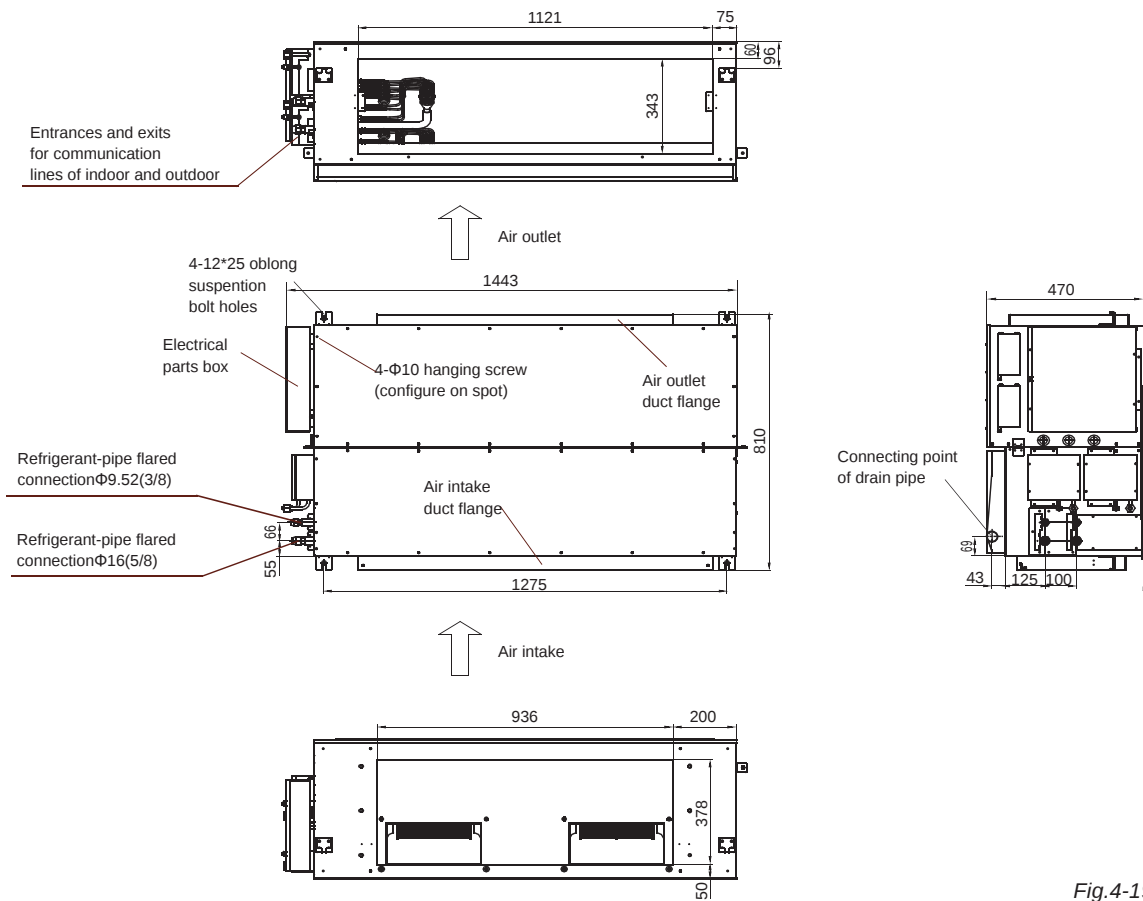


Fig.4-19

The method of installation: adopt following method if the air-conditioning's size of installation site is limited and the indoor unit can't put into the installation site.

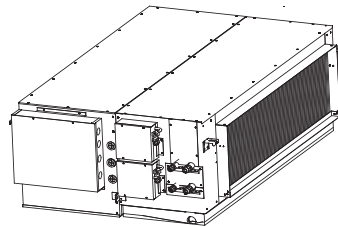


Fig.4-20

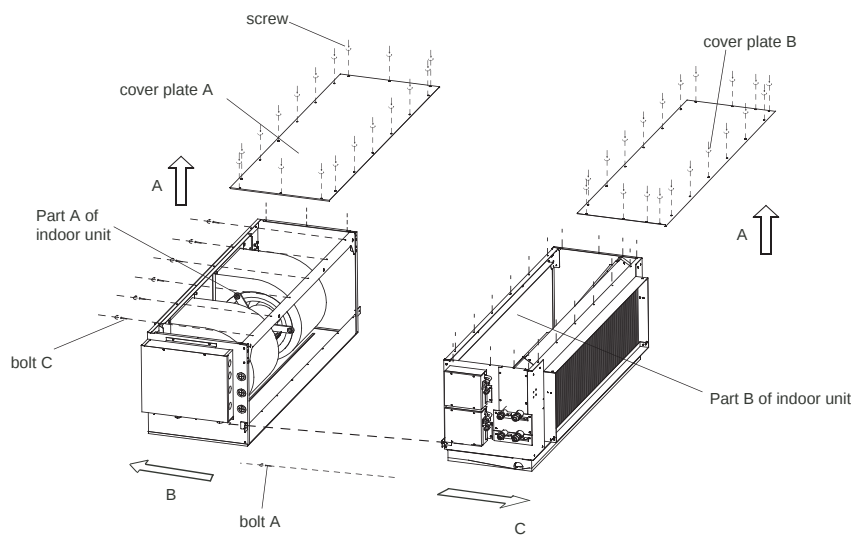
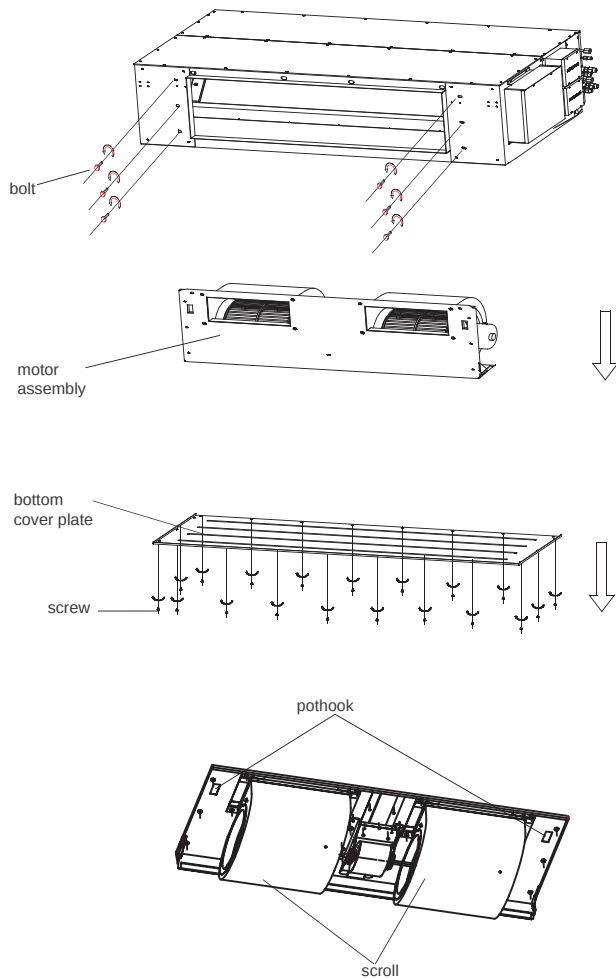


Fig.4-21

- 1 The indoor unit show as Fig.4-20
 - 2 Following Fig.4-21 twist-off the screws, along the direction of A get off the cover plate A and cover plate B.
 - 3 Dismounting bolt A
 - 4 Dismounting bolt C
 - 5 Along the direction of B and C divided the part B and part C of indoor unit.
 - 6 The part A and part B of indoor unit individual put into the positionsite, then install the indoor unit following the reverse order of step 2,3,4 and 5.
- Maintenance of motor



- 1 As figure dismounting the bolt of bottom,get down the bottom cover plate.
- 2 As figure dismounting 6 bolts in the front plate.
- 3 Support the fan subassembly from the bottom, then litter up, get down fan subassembly.
- 4 After finished maintenance of motor, then install the motor assembly in the reverse order of step 1,2 and 3.
- 5 During this process,the indoor unit don't need dismounted.

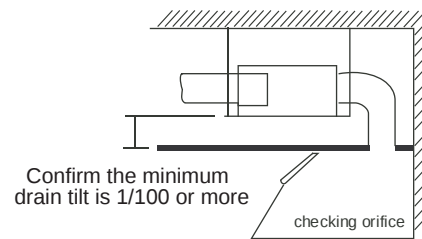
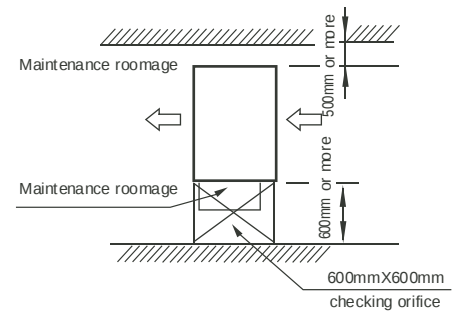


NOTE

- During teardown and installation, the scroll was allowed direct support by hand
- Fan subassembly is more weightiness, please take careful during teardown and installation, and keep from hurt by fan subassembly.

5. INSTALLATION SPACE

Confirm that there is enough room for installation and maintenance.



6. REFRIGERANT PIPE

Cover the pipe before connecting to keep rubbish, dust or other impurities out.

Table.6-1

Piping material		Copper special for air conditioner
Capaticyl(KW)		7.1/8/9/11.2/14/16/20/25/28
Piping	Gas side	Φ16mm
	Liquid side	Φ9.52mm

7. DUCT DESIGN

- Cover the pipe before connecting to keep rubbish, dust or other impurities out.
- As there is no dust filter on the indoor unit, other places which are easy to maintaining such as inhalant dust should be installed with dust filter. (Without dust filter, dust adherent on the air heat exchanger may cause failure and water-leak.
- Key points of duct connection

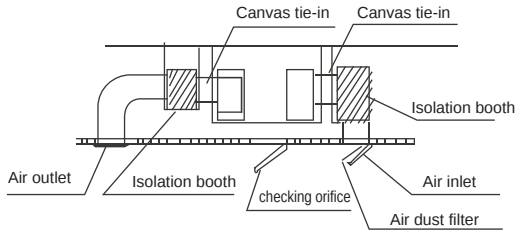


Fig.7-1



NOTE

Other assemblies should be prepared on spot except air conditioner main body.

- High Static Pressure Type

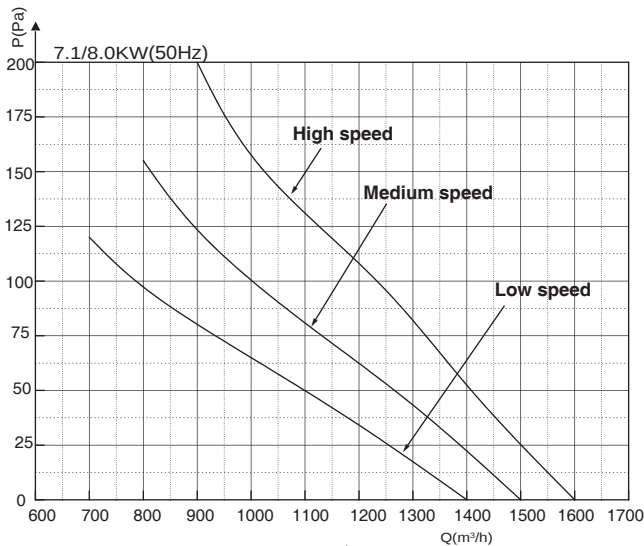


Fig.7-2

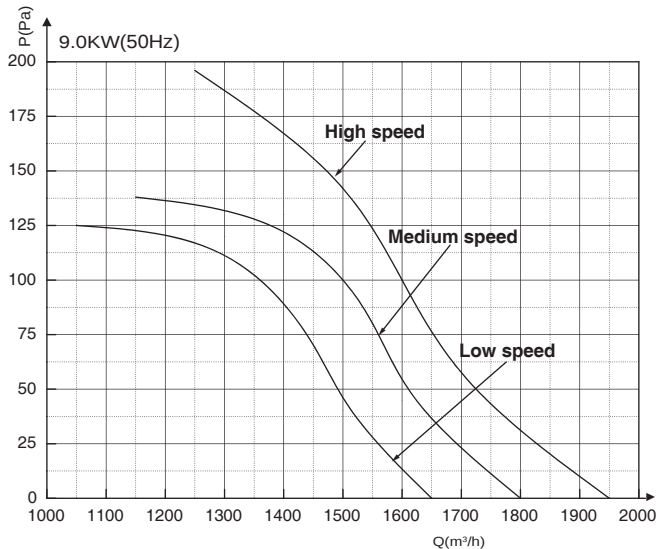


Fig.7-3

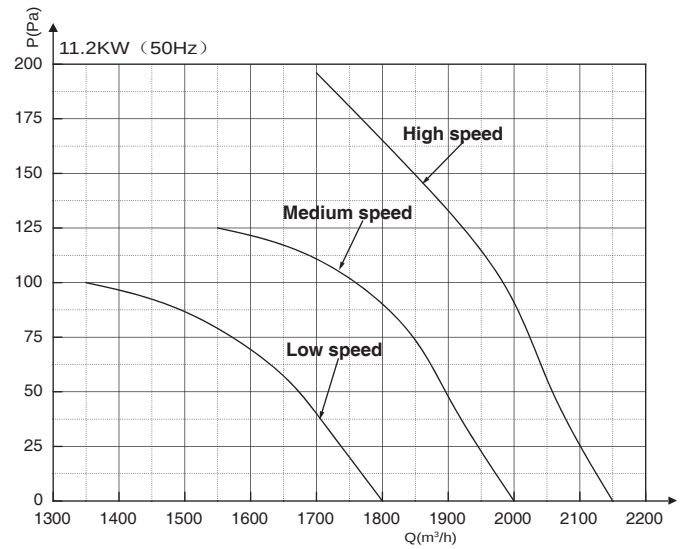


Fig.7-4

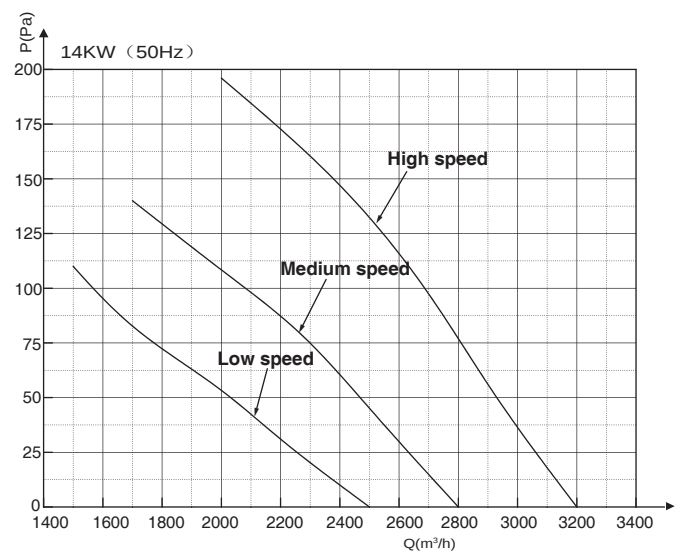


Fig.7-5

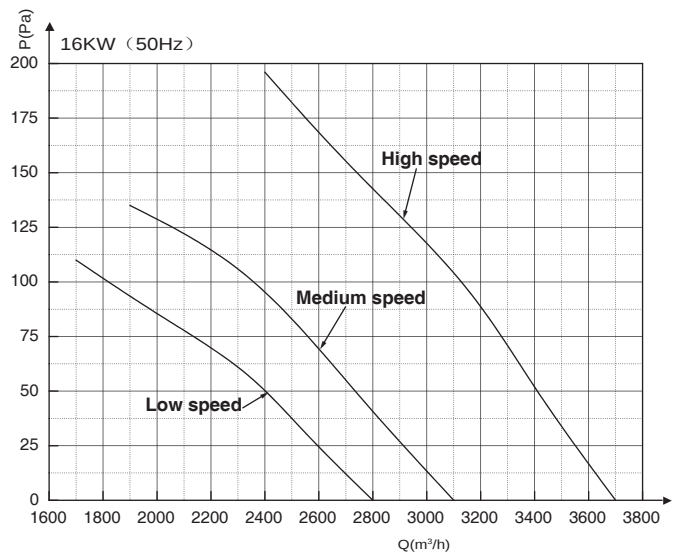


Fig.7-6

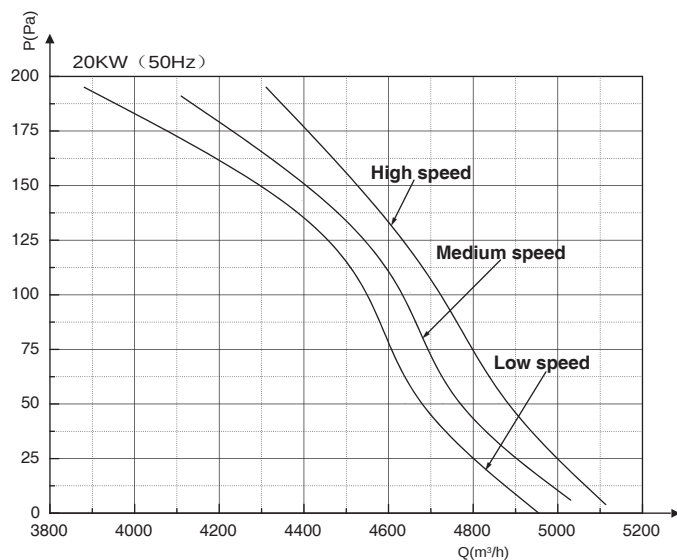


Fig. 7-7

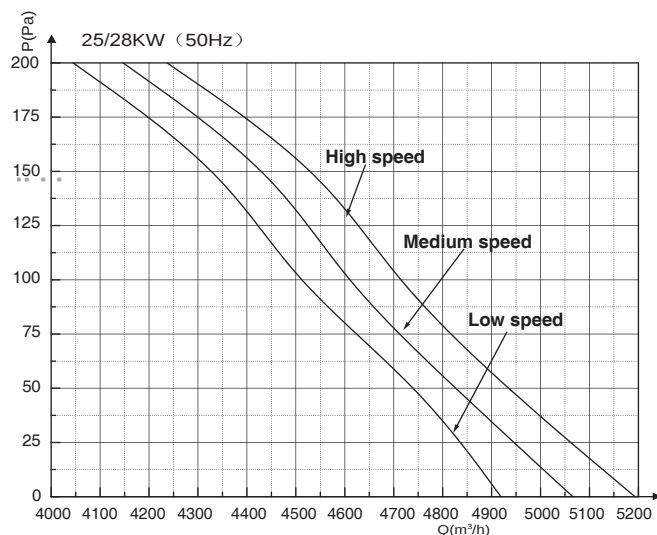


Fig. 7-8

- Heating capacity and cooling capacity are tested under the standard allowable min. static pressure; the 71 test static pressure is 25Pa, 80/90/112 test static pressure is 37Pa, 140/160 test static pressure is 50Pa, the 200/250/280 test pressure is 62Pa.

- The static pressure refer to Table.12-2.

■ Panel installation

- Unload inner frame.
Slide the knob, release the buckle from the outside frame hole, then unload the inner frame.

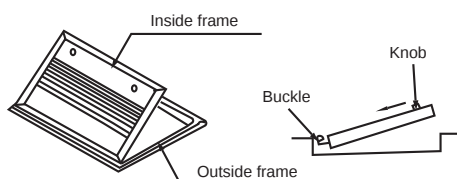


Fig. 7-11

- Hang the outside frame on the main body with face down. (4 places at 4 corners).
Hang the belt on the hook of the main body.

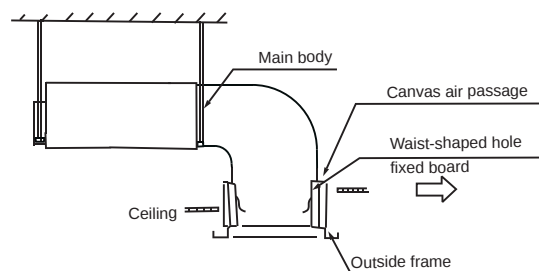


Fig. 7-12

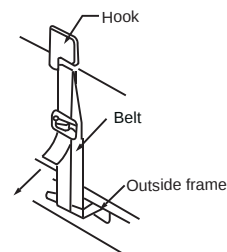


Fig. 7-13



NOTE

The signal wire of the remote control receiver must be drawn out through the canvas air passage.

- Fix the outside frame and the canvas air passage with screws. Screw must be fixed on from the bottom to the top.

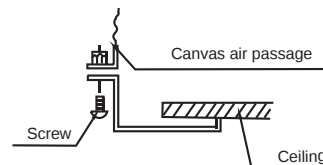


Fig. 7-14

- Hang up the outside frame until it sticks to the ceiling tightly.

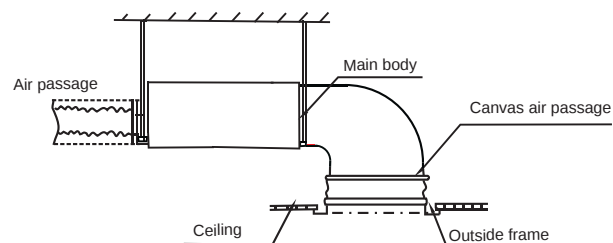


Fig. 7-15

- Fix the main body and the outside frame with the fix board of waist-shape hole (in two places).
 - ① Hang one side of the fix board of the waist-shaped hole on the hook of the main body.
 - ② Tighten the other side of the board with screw to the outside frame.
 - ③ Cut off the surplus part of the board with pliers.
 - ④ Bend the top of the broken end.



NOTE

When hanging up the outside frame with the fix board of waist-shaped hole and the belt, stick the outside frame tightly to the ceiling and fix it.

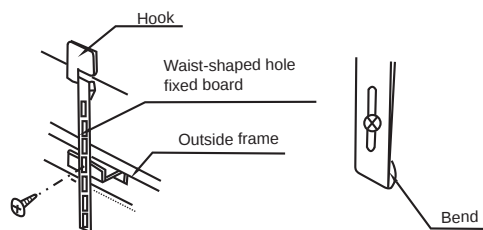


Fig. 7-16

- Install the inner frame on the outside frame (the inverse sequence of unloading the inner frame).

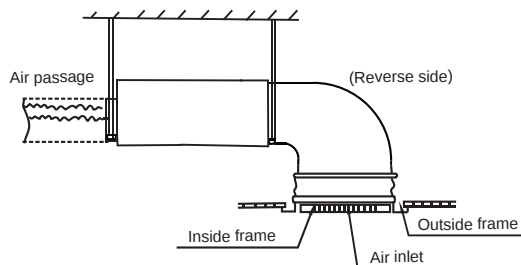


Fig. 7-17



NOTE

Connect the remote control receiver with the indoor unit signal wires and fix it.

- Install remote controller.

8. INSTALL THE CONNECTING PIPE

- Check whether the height drop between the indoor unit and outdoor unit, the length of refrigerant pipe, and the number of the bends meet the following requirements:

- The max height drop and The length of refrigerant pipe depending on the outdoor unit. (If the height drop is more than 10m, you had better put the outdoor unit over above the indoor unit.)
- The number bends fewer than 15.
- Do not let air, dust, or other impurities fall in the pipe system during the time of installation.
- The connecting pipe should not be installed until the indoor and outdoor units have been fixed already.

- Keep the connecting pipe dry, and do not let moisture in during installation.

- The Procedure of Connecting Pipes
Measure the necessary length of the connecting pipe, and make it by the following way.

- Connect the indoor unit at first, then the outdoor unit.
- ① Bend the tubing in proper way. Don't harm them.
- ② Daub the surfaces of the flare pipe and the joint nuts with frozen oil, and wrench it for 3~4rounds with hands before fasten the flare nuts. (Refer to Fig.8-1)
- ③ Be sure to use two wrenches simultaneously when you connect or disconnect the pipes.

- The stop valve of the outdoor unit should be closed absolutely (as original state). Every time you connect it, first loosen the nuts at the part of stop valve, then connect the flare pipe immediately (in 5 minutes). If the nuts have been loosened for a long time, dusts and other impurities may enter the pipe system and may cause malfunction later. So please expel the air out of the pipe with refrigerant before connection.

- Expel the air (refer to the "Expel The Air") after connecting the refrigerant pipe with the indoor unit and the outdoor unit. Then fasten the nuts at the repair-points.

- Notices For Benable pipe.

- The bending angle should not exceed 90°C
- Bending position is preferably in the bendable pipe. The larger the better it is .

- Do not bend the pipe more than three times.

- Bend the connecting pipe of small wall thickness.

- Cut out a desired concave at the bending part of the insulating pipe.

- Then expose the pipe (cover it with tapes after bending).

- To prevent collapsing of deforming, please bend the pipe at its biggest radius.

- Use bender to get a small radius pipes.

- Use the market brass pipe.
Be sure to use the same insulating materials when you buy the brass pipe. (More than 9mm thick)

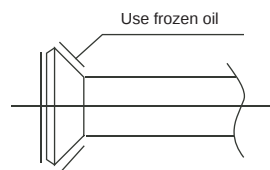


Fig. 8-1

Bend the pipe with thumb



Fig. 8-2

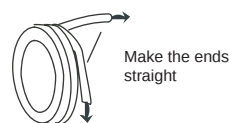


Fig. 8-3

- Locate The Pipe

- Drill a hole in the wall (suitable just for the size of the wall conduit, 90mm in general), then set on the fittings such as the wall conduit and its cover.
- Bind the connecting pipe and the cables together tightly with binding tapes. Do not let air in, which will cause water leakage by condensation.
- Pass the bound connecting pipe through the wall conduit from outside. Be careful of the pipe all ocation to do no damage to the tubing.

- Pass the bound connecting pipe through the wall conduit from outside. Be careful of the pipe all ocation to do no damage to the tubing.
- Connect the pipes.
- Then, open the stem of stop valves of the outdoor unit to make the refrigerant pipe connecting the indoor unit with the outdoor unit fluently flow.
- Be sure of no leakage by checking it with leak detector or soap water.
- Cover the joint of the connecting pipe to the indoor unit with the sound proof/insulating sheath (fittings), and bind it well with the tapes to prevent leakage.

9. REFRIGERANT PIPE CONNECTION

9.1 Expel The Air

- Flaring
 - Cut a pipe with a pipe cutter.
 - Insert a flare nut into a pipe and flare the pipe.

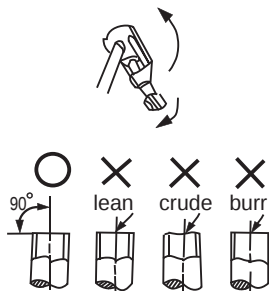


Fig.9-1

9.2 Check The Leakage

- Check all the joints with the leak detector or soap water. (See Fig.9-6 as a reference illustration)

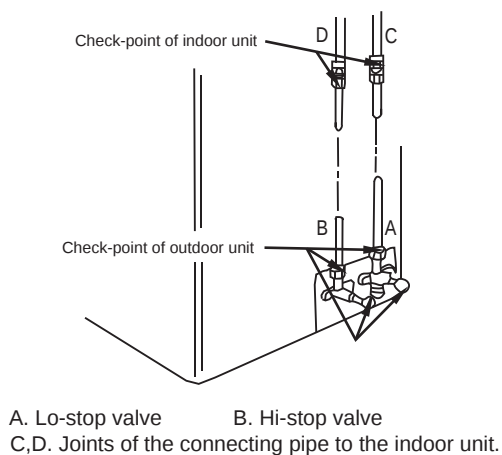


Fig.9-2

9.3 Insulation

- Be sure to with insulating materials cover all the exposed parts of the flare pipe joints and refrigerant pipe on the liquid-side and the gas-side. Ensure that there is no gap between them.
- Incomplete insulation may cause water condensation.

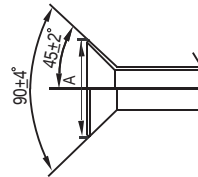


Fig.9-3

Table.9-1

Outside diameter	A(mm)	
	Max	Min
Φ6.4mm	8.7	8.3
Φ9.5mm	12.4	12.0
Φ12.7mm	15.8	15.4
Φ15.9mm	19.0	18.6
Φ19.1mm	23.3	22.9

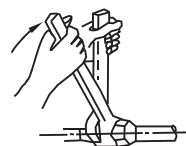


Fig.9-4

Table.9-2

Tubing size	Torque
Φ6.4mm	14.2~17.2N.m(144~176kgf.cm)
Φ9.5mm	32.7~39.9N.m(333~407kgf.cm)
Φ12.7mm	49.5~60.3N.m(504~616kgf.cm)
Φ15.9mm	61.8~75.4N.m(630~770kgf.cm)
Φ19.1mm	97.2~118.6N.m(990~1210kgf.cm)

- Fasten the nut
 - Put the connecting tubing at the proper position, wrench the nuts with hands then fasten it with a wrench. (Refer to Fig.9-4)
 - Too large torque will harm the bellmouthing and too small will cause leakage. Please determine the torque according to Table.9-2.
- The necessary filling amount of refrigerant
 - Refrigerant volume to be added is calculated according to outdoor unit installation manual .Be sure to add refrigerant measuring by a scale. L: The length of the pipe
 - Please record the quantity added and store it carefully for future maintenance.
- Expel the air with a vacuum pump (Refer to Fig.9-4) (Please refer to its manual for the way of using manifold valve)
- Loosen and remove the maintenance nuts of stop valves A and B, and connect the charge hose of the manifold valve with the maintenance terminator of stop valve A. (Be sure that stop valves A and B are both closed)

- Connect the joint of the charge hose with the vacuum pump.
- Open the Lo-lever of the manifold valve completely.
- Turn on the vacuum pump. At the beginning of pumping, loosen the maintenance terminator nut of stop valve B a little to check whether the air comes in (the sound of the pump changes, and the indicator of compound meter turns below zero). Then fasten the nut.
- When the pumping has finished, close the Lo-lever of the manifold valve completely and turn off the vacuum pump.
- When you have pumped for over 15 minutes, please confirm that the indicator of multimeter is on $-1.0 \times 10^5 \text{Pa}$ (-76cmHg)
- Loosen and remove the quadrangle cover of stop valves A and B to open stop valve A and B completely, then fasten them.
- Disassemble the charge hose from the repair-mouth of stop valve A, and fasten the nut.

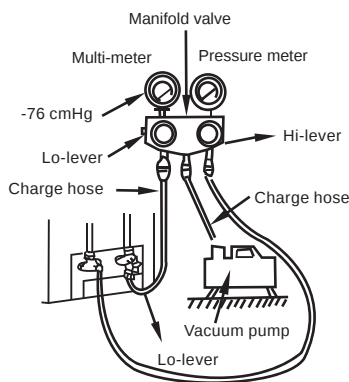


Fig.9-5

- All the stop valves should be opened before test operation. Each air conditioner has two stop valves of different sizes on the side of the outdoor unit which operate as Lo-stop valve, respectively. (Refer to Fig.9-6)

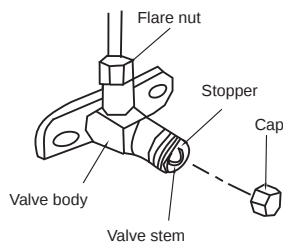


Fig.9-6

10. CONNECT THE DRAIN PIPE

- Install indoor unit drain pipe
The outlet has PTI screw thread. For 71T1 to 160T1 indoor unit, please use sealing materials and pipe sheath (fitting) when connecting PVC pipes. For 200T1 to 280T1 indoor unit, please use Water connecting pipe and Adhesive tape for seal when connecting drain pipes.



CAUTION

- The drain pipe of indoor unit must be heat insulated, or it will condense dew, as well as the connections of the indoor unit.
- Hard PVC binder must be used for pipe connection, and make sure there is no leakage.
- With the connection part to the indoor unit, please be noted not to impose pressure on the side of indoor unit pipes.
- When the declivity of the drain pipe downwards is over 1/100, there should not be any winding.
- The total length of the drain pipe when pulled out transversely shall not exceed 20m, when the pipe is over long, a prop stand must be installed to prevent winding.
- The height difference between drain pipe end to ground or drain channel should be more than 50mm, and the drain pipe cannot put in water. If the drain water was discharged to ditch directly, the drain pipe must be upward bent into a U type water seal to avoid odor into the interior through the drain pipe.
- If the negative pressure of drain pan outlet is high, there must be a water elbow in drain pipe to avoid poor drain or blow water for negative pressure. Please install the water elbow as figure 4.4 shown, each unit should install a water elbow. There should be a plug in water elbow for convenient cleaning.
- Refer to the figures on the right for the installation of the pipes.

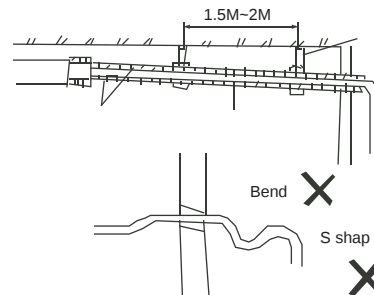


Fig.10-1

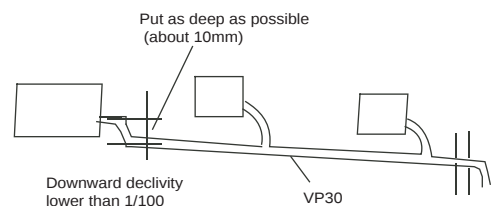


Fig.10-2

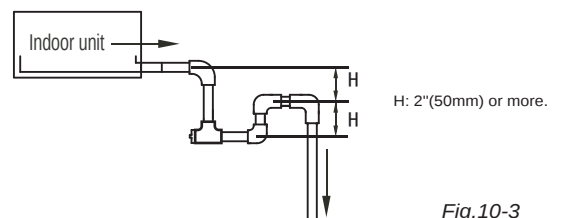


Fig.10-3

Caution: While connecting the drain pipe, please use the drain pipe connect to the secondary water holder simultaneously, for avoiding there are little condensate water deposit in the unit when the machine is running under the high humidity working condition.

11. WIRING

■ Attaching wiring

- The air conditioner should use separate power supply with rated voltage.
- The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring of the indoor and outdoor unit.
- The wiring work should be done by qualified persons according to circuit drawing.
- A leakage protector should be installed according to the National Standard concerning electrical appliance.
- Be sure to locate the power wiring and the signal wiring well to avoid cross-disturbance and their contact with connecting pipe or stop valve body.
- The wiring attached to this air conditioner is 10m long. Be sure to prolong it with wiring of the same type and proper length if necessary. Generally, do not twist two wiring together unless the joint is soldered well and covered with insulator tape.
- Do not turn on the power until you have checked carefully after wiring.

■ The Specification of Power

Table.11-1

Capacity(KW)		71/80/90/112/140/160	200/250/280
Power	Phase	1-Phase	
	Frequency and volt	220-240V~ 50/60Hz	
Circuit breaker/fuse (A)		10/10	16/10
Indoor unit power wiring (mm ²)		2.5(<20 m)-4.0(<50 m)	
Indoor/outdoor connecting wiring(mm ²)	Ground wiring	2.0	
	Weak electric signal	0.75(<1200 m)	



CAUTION

A disconnection device having an air gap contact separation in all active conductors should be incorporated in the fixed wiring according to the National Wiring Regulation.

■ Communication Wiring Chart

Communication wiring will be different according to the horsepower of air-conditioners. The wiring of 71T1 to 160T1 indoor unit, please refer to Fig.11-1, and Fig.11-2 is the communication wiring for 200T1, 250T1 and 280T1 indoor unit.

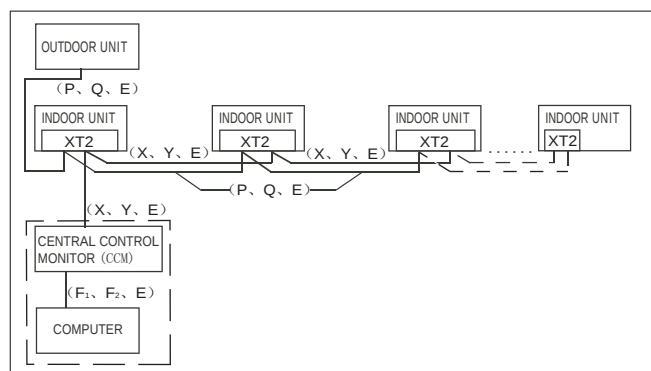


Fig.11-1

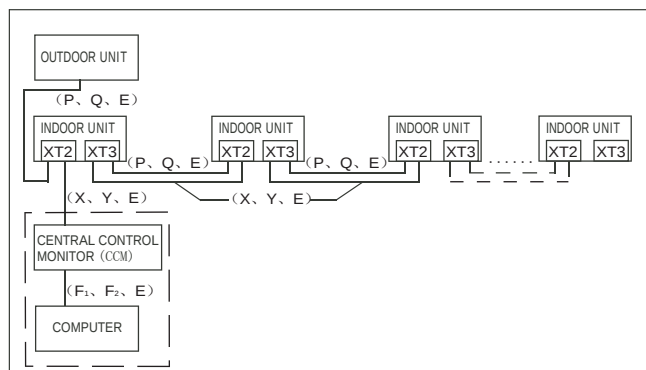


Fig.11-2



CAUTION

The reserved function is indicated in broken line table, users can select it when necessary.

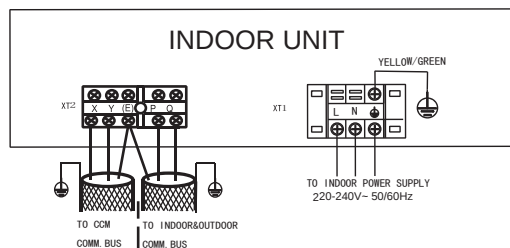
■ Terminal board diagram

Please refer to the indoor unit wiring diagram for the detailed wiring. In accord with the communication wiring, terminal board wiring is different according to the horsepower of air-conditioners. The wiring of 71T1 to 160T1 indoor unit, please refer to Fig.11-3, and Fig.11-4 is the wiring for 200T1, 250T1 and 280T1 indoor unit.



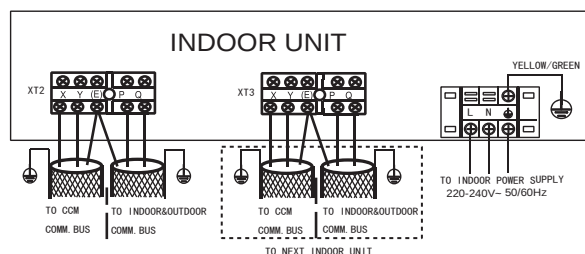
NOTE

The air-conditioners can connect with Central Control Monitor (CCM). Before operation, please wiring correctly and set system address and network address of indoor units.



Please use 3-core shielding wire, and ground the shielding layer.

Fig.11-3

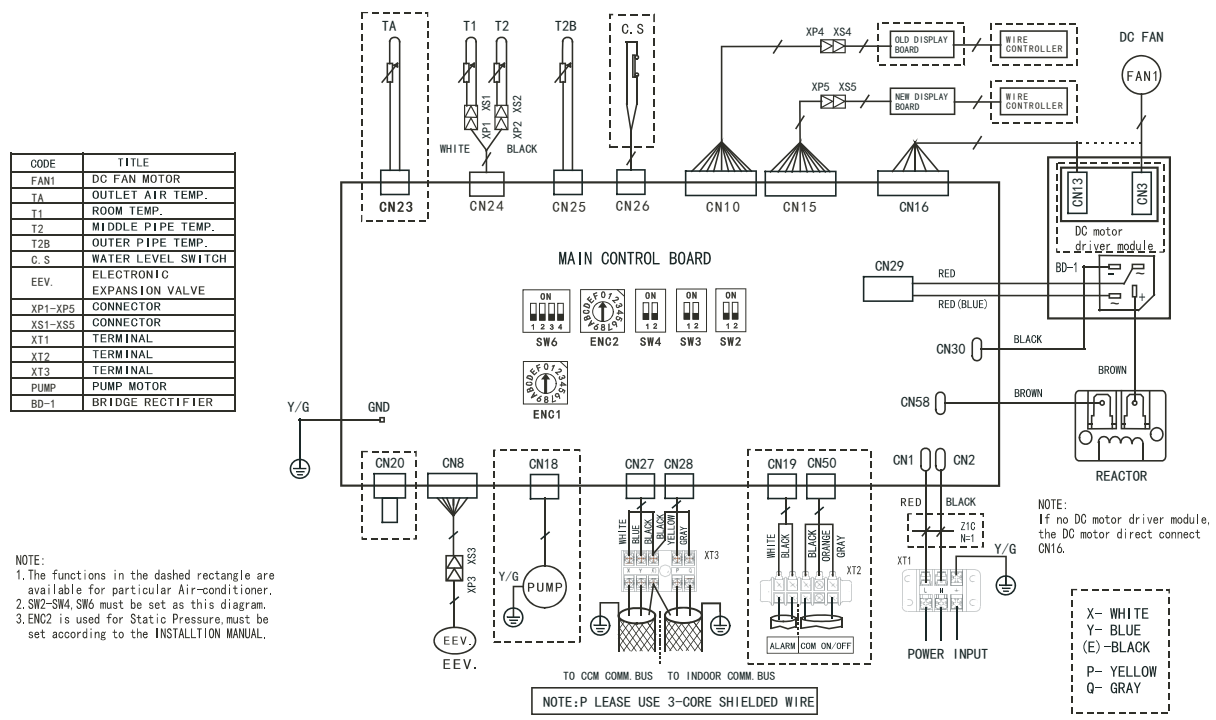


Please use 3-core shielding wire, and ground the shielding layer.

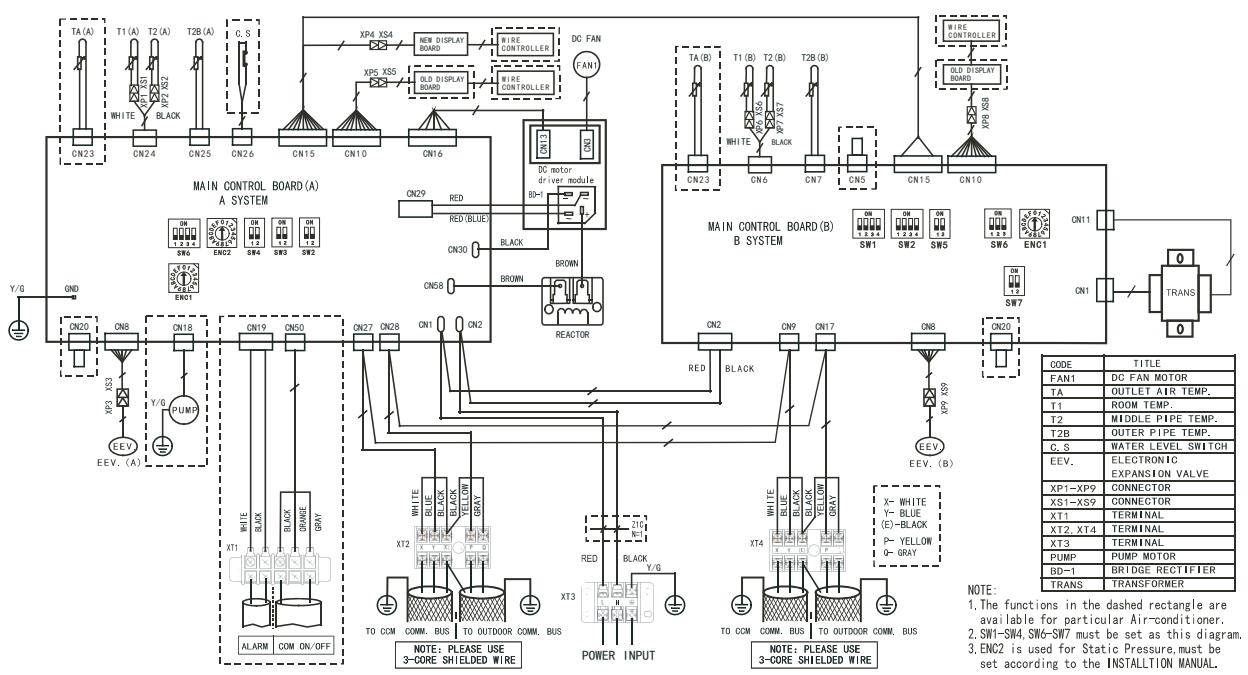
Fig.11-4

12. CONTROL

- Mainboard
- For 71/80/90/112/140/160 models



- For 200/250/280 models



■ Horsepower set

Base on different purposes to set the switch codes on the main boards of indoor unit, Once finish the setting, please cut off the main power, and then switch on the power again. Otherwise, setting functions could not work.

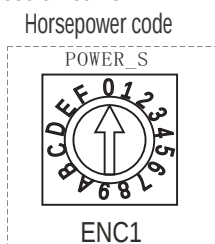


Fig.12-1

ENC1 is used for setting the refrigeration capacity(refer to Table.12-1 for different indoor unit) of the indoor unit.

Table.12-1

ENC1(system A)	Toggle switch	For set horsepower
Note: The horsepower has been set before leaving the factory, anyone can't modify it except the maintenance person.	Code	Capacity(Horsepower)
	0	2200W(0.8HP)
	1	2800W(1.0HP)
	2	3600W(1.2HP)
	3	4500W(1.5HP)
	4	5600W(2.0HP)
	5	7100W(2.5HP)
	6	8000W(3.0HP)
	7	9000W(3.2HP)
	8	10000W(4.0HP)
	9	11200W(4.0HP)
	9	12500W(5.0HP)
	9	14000W(5.0HP)
	A	16000W(6.0HP)



NOTE

- 200T1(8.0HP): Please dial switch ENC1 to B for system A and 8 for system B.
- 250T1(9.0HP): Please dial switch ENC1 to C for system A and 9 for system B.
- 280T1(10.0HP): Please dial switch ENC1 to D for system A and 9 for system B.

■ Static Pressure set

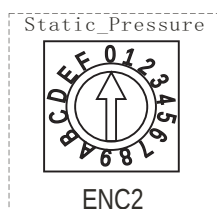


Fig.12-2

ENC2 is used for setting the static pressure (refer to Table.12-2 for different indoor unit) of the indoor unit.

- The static pressure in below table is the optimal static pressure range which means the airflow, noise, and dehumidification are all in the best state.

Table.12-2

ENC2	7.1kw	8.0kw	9.0kw	11.2kw	14kw	16kw	20kw	25kw	28kw
0	0~20Pa						40~60Pa		
1	21~80Pa						61~120Pa		
2	81~120Pa						121~170Pa		
3	121~170Pa						171~200Pa		
4	171~200Pa						\		

■ Network Address Setting

- When V4+ outdoor unit set the code to be found address automatically, the new V4+ indoor unit do not need to set the indoor unit address, at this time the V4+ outdoor unit will distribute different addresses for indoor units automatically.
- When V4+ outdoor unit set the code to be found address non-automatically, all the indoor units must set the system addresses by remote controller first (For the setting system address of indoor unit which has two or more main boards, it has to separate use the display board connected with ten-core connecting wire to set address for each mainboard, and the address should be continuous).
- The setting of network address is through the communication of indoor and outdoor units, its address is the same as the indoor unit system address, and not need to set separate.
- When all indoor units are V4+ series indoor unit, the central controlling of indoor unit can be finished in the outdoor unit, and not need to make central control in the indoor unit, the detail please refers to the V4+ outdoor unit instruction manual;.
- For the previous indoor unit's central control function, can use (X, Y, E) terminal to connect and form the central control group, at this time there is not need to set the network address, and also can use outside setting network module, mainboard (CN20) to form network.

■ Mainboard codes indication label

■ For 71/80/90/112/140/160 models

SW2 Difinition

ON SW2 1 2	● 00 means shutting down the unit to "stop cold air" at 15℃
ON SW2 1 2	● 01 means shutting down the unit to "stop cold air" at 20℃
ON SW2 1 2	● 10 means shutting down the unit to "stop cold air" at 24℃
ON SW2 1 2	● 11 means shutting down the unit to "stop cold air" at 26℃

SW3 Difinition

ON SW3 1 2	● 00 means the time of stopping TERMAL fan is 4 mintues
ON SW3 1 2	● 01 means the time of stopping TERMAL fan is 8 mintues
ON SW3 1 2	● 10 means the time of stopping TERMAL fan is 12 mintues
ON SW3 1 2	● 11 means the time of stopping TERMAL fan is 16 mintues

SW4 Difinition

ON 	● 00 means temp.compensation value is 6°C under heat mode
ON 	● 01 means temp.compensation value is 2°C under heat mode
ON 	● 10 means temp.compensation value is 4°C under heat mode
ON 	● 11 means temp.compensation value is 8°C under heat mode

SW6 Difinition

ON 	● 1 means old display penal ● 0 means new display penal
ON 	● 1means DC fan is chosen ● 0means AC fan is chosen
ON 	● 1means factory test mode ● 0means auto addressing mode (default setting)
ON 	● reserved

■ For 200/250/280 models

• For A SYSTEM

SW2 Difinition

ON 	● 00 means shutting down the unit to "stop cold air" at 15°C
ON 	● 01 means shutting down the unit to "stop cold air" at 20°C
ON 	● 10 means shutting down the unit to "stop cold air" at 24°C
ON 	● 11 means shutting down the unit to "stop cold air" at 26°C

SW3 Difinition

ON 	● 00 means the time of stopping TERMAL fan is 4 mintues
ON 	● 01 means the time of stopping TERMAL fan is 8 mintues
ON 	● 10 means the time of stopping TERMAL fan is 12 mintues
ON 	● 11 means the time of stopping TERMAL fan is 16 mintues

SW4 Difinition

ON 	● 00 means temp.compensation value is 6°C under heat mode
ON 	● 01 means temp.compensation value is 2°C under heat mode
ON 	● 10 means temp.compensation value is 4°C under heat mode
ON 	● 11 means temp.compensation value is 8°C under heat mode

SW6 Difinition

ON 	● 1 means old display penal ● 0 means new display penal
ON 	● 1means DC fan is chosen ● 0means AC fan is chosen
ON 	● 1means factory test mode ● 0means auto addressing mode (default setting)
ON 	● reserved

• For B SYSTEM

SW1 Difinition

ON 	● 1means factory test mode ● 0means auto addressing mode (default setting)
ON 	● 1means DC fan is chosen ● 0means AC fan is chosen
ON 	● reserved
ON 	● reserved

SW2 Difinition

ON 	● 00 means shutting down the unit to "stop cold air" at 15°C
ON 	● 01 means shutting down the unit to "stop cold air" at 20°C
ON 	● 10 means shutting down the unit to "stop cold air" at 24°C
ON 	● 11 means shutting down the unit to "stop cold air" at 26°C
ON 	● 00 means the time of stopping TERMAL fan is 4 mintue
ON 	● 01 means the time of stopping TERMAL fan is 8 mintue
ON 	● 10 means the time of stopping TERMAL fan is 12 mintue
ON 	● 11 means the time of stopping TERMAL fan is 16 mintue

SW5 Dification

ON 	00 means temp.compensation value is 6℃ under heat mode
ON 	01 means temp.compensation value is 2℃ under heat mode
ON 	10 means temp.compensation value is 4℃ under heat mode
ON 	11 means temp.compensation value is 8℃ under heat mode

SW6 Dification

ON 	1 means old display panel 0 means new display panel
ON 	1 means auto air blow under auto mode 0 means auto air blow under non-auto mode
ON 	reserved

SW7 Dification

ON 	standard configuration
ON 	last unit of the network

■ For both T1

J1, J2 Dification

	without jumper "J1" for auto restart function
	with jumper "J1" for non-auto restart function
	reserved

0/1 Dification

ON 	means 0
ON 	means 1



CAUTION

- Please adjust the code ENC1 to the suitable position (both system A and B should be adjusted for 200T1, 250T1 and 280T1 indoor unit).

- Then expose the pipe(cover it with tapes after bending).

- To prevent collapsing of deforming, please bend the pipe at its biggest radius.
- Use bender to get a small radius pipes.
- Use the market brass pipe.
Be sure to use the same insulating materials when you buy the brass pipe. (More than 9mm thick)
- For 200T1 unit, a mainboard in the electric control should set the code ENC1 to B; the other one should set the code ENC1 to 9;
- For 250T1 unit, a mainboard in the electric control should set the code ENC1 to C; the other one should set the code ENC1 to 9;
- For 280T1 unit, a mainboard in the electric control should set the code ENC1 to D; the other one should set the code ENC1 to 9;
- When using central controller to control the indoor unit, please pay attention to the address setting, as the 220T1, 250T1 and 280T1 units have two or more mainboards. We suggest setting the neighbor address for the mainboards in the same indoor unit. When using a central controller for controlling, mainboards in the same unit must be opened and closed at the same time, for avoiding the unexpected incident.

13. TROUBLE SHOOTING

Table.13-1

NO.	Error code	Indication
1	Timer LED and run LED flash together,or show "FE"	No address when first time power on
2	Defrost LED flash or show "E0"	Mode conflict
3	Timer LED flash or show "E1"	Communication error between indoor and outdoor unit
4	Run LED flash or show "E2"	Temp.sensor (T1) error
5	Run LED flash or show "E3"	Temp.sensor (T2) error
6	Run LED flash or show "E4"	Temp.sensor (T2B) error
7	Timer LED flash slowly or show "E6"	DC FAN error
8	Defrost LED flash slowly or show "E7"	EEPROM error
9	Alarm LED flash slowly or show "Ed"	Outdoor unit error
10	Alarm LED flash or show "EE"	Water level alarm

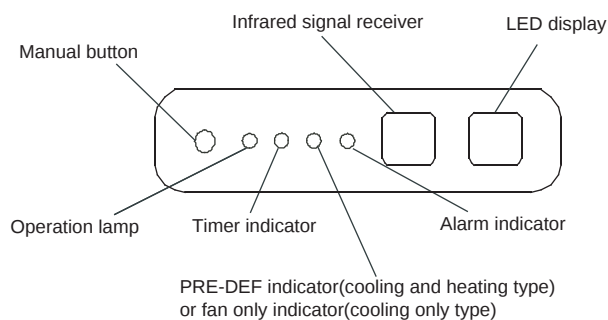


Fig.13-1

14. INSTALL ELECTRIC THROTTLE PART

- Please refer to the following figures to install.

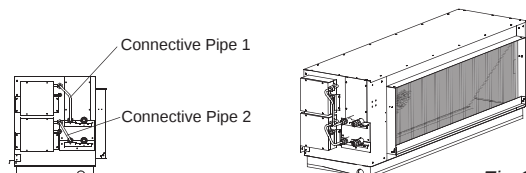


Fig.14-1

15. INSTALL BRANCH PIPE

For 7.1KW~16KW models

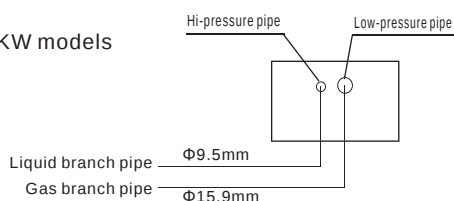


Fig.15-1

For 20KW~28KW models

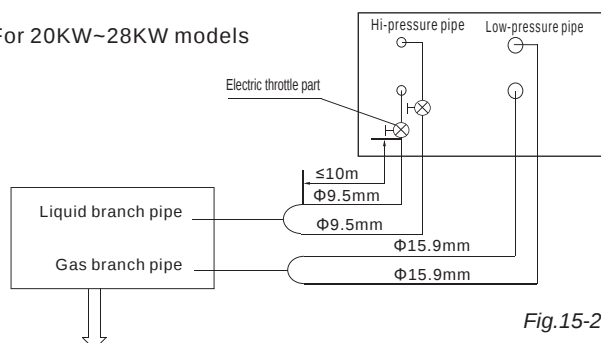


Fig.15-2

The piping diameter please refer to the manual of the outdoor unit you choose.

- Branch Part should be installed in horizontal mode or vertical mode.

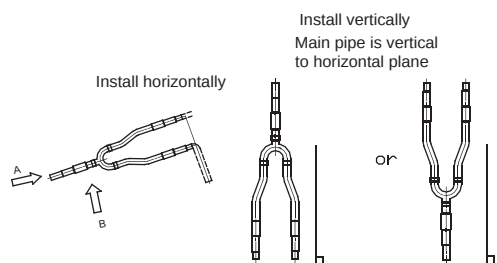


Fig.15-3

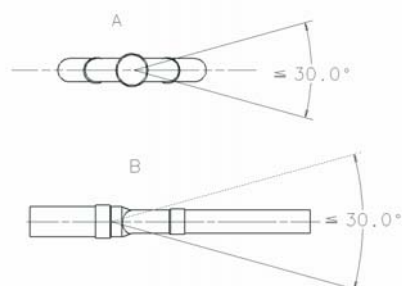


Fig.15-4

16. TEST OPERATION

- The test operation must be carried out after the entire installation has been completed.
- Please confirm the following points before the test operation:
 - The indoor unit and outdoor unit are installed properly.
 - Tubing and wiring are correctly completed.
 - The refrigerant pipe system is leakage-checked.
 - The drainage is unimpeded.
 - The heating insulation works well.
 - The ground wiring is connected correctly.
 - The length of the tubing and the added storage capacity of the refrigerant have been recorded.
 - The power voltage fits the rated voltage of the air conditioner.
 - There is no obstacle at the outlet and inlet of the outdoor and indoor and indoor units
 - The gas-side and liquid-side stop valve are both opened.
 - The air conditioner is pre-heated by turning on the power.
- According to the user's requirement, install the remote controller frame where the remote controller's signal can reach the indoor unit smoothly.
- Test operation
 - Set the air conditioner under the mode of "COOLING" with the remote controller, and check the following points per the "Owner's Manual". If there is any malfunction, please resolve it through chapter "Troubles And Causes" in the "Owner's Manual".
 - The indoor unit
 - Whether the switch on the remote controller works well.
 - Whether the buttons on the remote controller works well.
 - Whether the air flow louver moves normally.
 - Whether the room temperature is adjusted well.
 - Whether the indicator lights normally.
 - Whether the temporary buttons works well.
 - Whether the drainage is normal.
 - Whether there is vibration or abnormal noise during operation.
 - Whether the air conditioner heats well in the case of the HEATING/COOLING type.
 - The outdoor unit
 - Whether there is vibration or abnormal noise during operation.
 - Whether the generated wind, noise, or condensed water by the air conditioner have influenced your neighborhood.
 - Whether any of the refrigerant is leaked.



CAUTION

Protection function will delay the startup of compressor for 3 minutes in case the unit is turned on immediately after power on or restarted after shutdown.

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Wired remote controller Installation manual

MD12I-034DW

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WIRED REMOTE CONTROLLER INSTALLATION MANUAL

Version: MD12I-034DW

202055100900

Thank you very much for purchasing our product.
Before using your unit, please read this manual carefully and keep it for future reference.

SAFETY PRECAUTION

- Read the safety precautions carefully before installing the unit.
- Stated below are important safety issues that must be obeyed.
- Conform there is no abnormal phenomena during test operation after complete, then hand the manual to the user.
- Meaning of marks:

	WARNING	Means improper handling may lead to personal death or severe injury.
	CAUTION	Means improper handling may lead to personal injury or property loss.



WARNING

Please entrust the distributor or professionals to install the unit.
Installation by other persons may lead to imperfect installation, electric shock or fire.

Strictly follow this manual.
Improper installation may lead to electric shock or fire.

Reinstallation must be performed by professionals.
Improper installation may lead to electric shock or fire.

Do not disassemble your air conditioner at will.
A random disassembly may cause abnormal operation or heating, which may result in fire.



CAUTION

Do not install the unit in a place vulnerable to leakage of flammable gases.
Once flammable gases are leaked and left around the wire controller, fire may occur.

The wiring should adapt to the wire controller current.
Otherwise, electric leakage or heating may occur and result in fire.

The specified cables shall be applied in the wiring. No external force may be applied to the terminal.
Otherwise, wire cut and heating may occur and result in fire.

Do not place the wired remote controller near the lamps, to avoid the remote signal of the controller to be disturbed. (refer to the right figure)



OTHER PRECAUTIONS

Installation Location

Do not install the unit in a place with much oil, steam, sulfide gas. Otherwise, the product may deform and fail.

Preparation before installation

1. Check whether the following assemblies are complete.

No.	Name	Qty.	Remarks
1	Wire controller	1	
2	Cross round head wood mounting screw	3	GB950-86 M4X20 (For Mounting on the Wall)
3	Cross round head mounting screw	2	M4X25 GB823-88 (For Mounting on the Electrical Switch Box)
4	Installation Manual	1	
5	Owner's Manual	1	
6	Plastic expansion pipe	3	For Mounting on the Wall
7	Plastic screw bar	2	For fixing on the 86 electrician box
8	Switching wires for signal receiving board	1	For connecting the signal receiving board and 4-core shielding wire
9	Switching wires for wire controller signal	1	(If needed) For connecting the main control panel and 4-core shielding wire

2. Prepare the following assemblies on the site.

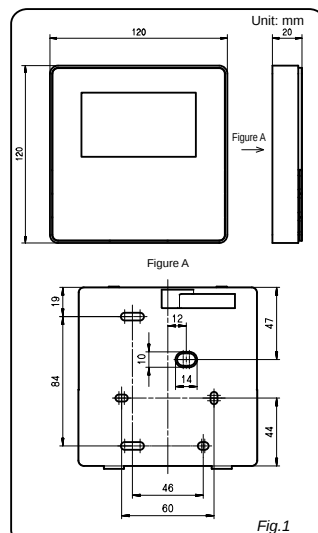
No.	Name	Qty.(embedded into wall)	Specification (only for reference)	Remarks
1	4-core shielded cable	1	RVVP-0.5mm ² x4	The longest is 15m
2	86 Electrician box	1		
3	Wiring Tube(Insulating Sleeve and Tightening Screw)	1		

Note to installation of wire controller:

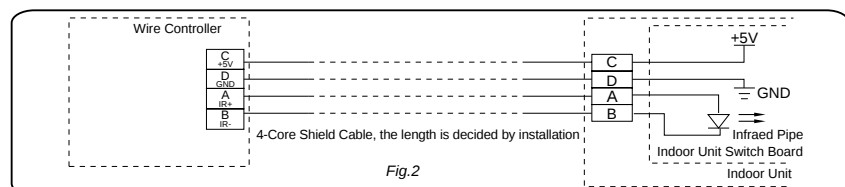
1. This installation manual contains information about the procedure of installing Wired Remote Controller. Please refer to Indoor Unit Installation Manual for connecting between Wired Remote Controller and Indoor Unit.
2. Circuit of Wired Remote Controller is low voltage circuit. Never connect it with a standard 220V/380V circuit or put it into a same Wiring Tube with the circuit.
3. The shield cable must be connected stable to the ground, or transmission may fail.
4. Do not attempt to extend the shield cable by cutting, if it is necessary, use Terminal Connection Block to connect.
5. After finishing connection, do not use Megger to have the insulation check to the signal wire.

INSTALLATION PROCEDURE

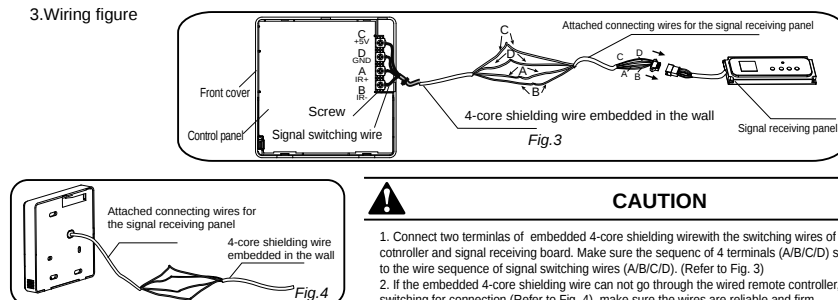
1.Wired remote controller structure size figure



2.Wiring Principle Sketch:



3.Wiring figure



CAUTION

1. Connect two terminals of embedded 4-core shielding wire with the switching wires of wired remote controller and signal receiving board. Make sure the sequence of 4 terminals (A/B/C/D) should correspond to the wire sequence of signal switching wires (A/B/C/D). (Refer to Fig. 3)
2. If the embedded 4-core shielding wire can not go through the wired remote controller, it can use signal switching for connection (Refer to Fig. 4), make sure the wires are reliable and firm.
3. The tightening torque range of screw is: 0.8-1.2N·m (8-12 kgf·cm).

INSTALLATION PROCEDURE

4. Back cover installation

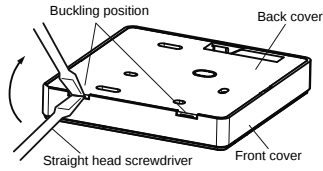


Fig.5

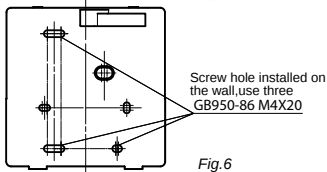


Fig.6

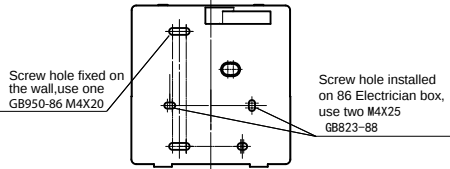


Fig.7.1

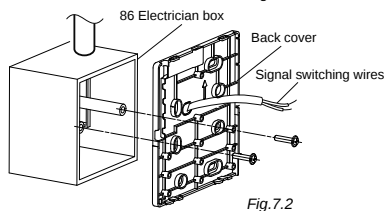


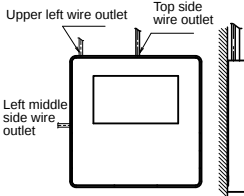
Fig.7.2



CAUTION

1. Use straight head screwdriver to insert into the bucking position in the bottom of wire controller, and spin the screwdriver to take down the back cover. (Pay attention to spinning direction, otherwise will damage the back cover!) (Fig.5)
2. Use three GB950-86 M4X20 screws to directly install the back cover on the wall. (Fig.6)
3. Use two M4X25 GB823-88 screws to install the back cover on the 86 electrician box, and use one GB950-86 M4X20 screws for fixing on the wall. (Fig.7.1)
4. Adjust the length of two plastic screw bars in the accessory to be standard length from the electrical box screw bar to the wall. Make sure when install the screw bar to the electrical box screw bar, make it as flat as the wall. (Fig.7.2)
5. Use cross head screws to fix the wire controller bottom cover in the electric control box through the screw bar. Make sure the wire controller bottom cover is on the same level after installation, and then install the wire controller back to the bottom cover.
6. Over fasten the screw will lead to deformation of back cover.

5. Wiring



A. Wiring, three outletting positions

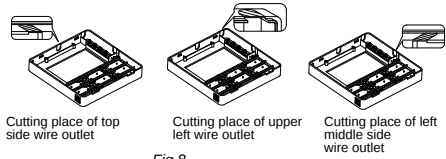


Fig.8

B. Shielded wiring

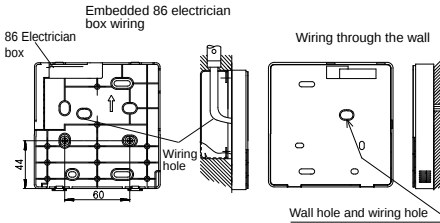


Fig.9

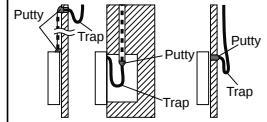


Fig.10



CAUTION

Avoid the water enter into the wired remote controller, use trap and putty to seal the connectors of wires during wiring installation. (Fig.10)

When under installation, reserve certain length of the connecting wire for convenient to take down the wired remote controller while during maintenance.

6. Front cover installation

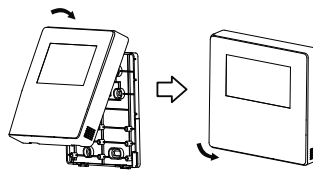


Fig.11

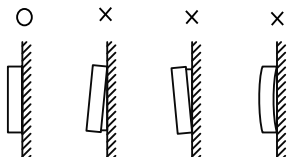


Fig.12



CAUTION

After adjusting the front cover and then buckle the front cover; avoid clamping the communication switching wire during installation. (Fig.11)

Correct install the back cover and firmly buckle the front cover and back cover, otherwise will make the front cover drop off. (Fig. 12)

WIRED REMOTE CONTROLLER INITIAL PARAMETER SETTING

Wired remote controller initial parameters setting:

1. Change the related functions of the controller through adjusting the initial parameters, details refer to table 1.
2. The wired remote controller initial parameter include two codes "XY", the first code "X" means function class, the second code "Y" means detailed configuration of this function.
3. Setting method:
 - ① Simultaneously long press "Mode" and "Fan" button of the wired remote controller for 5 seconds to enter the parameter setting state;
 - ② The value of this first code "X" is "0", press the temperature setting button and to adjust the second code value;
 - ③ After setting the second code value, press button to switch the first code to the next value;
 - ④ When the first code value is "6", press button again to exit the parameters setting.
4. The parameters setting function only under the situation which need to adjust the default functions' setting states; otherwise there is no need to do the setting.

Table 1

First code	Function	Second code				
		0	1	2	3	4
0	Cool-only/ Cool-Heat selection	Cool-Heat (Default)	Cool-only	/	/	/
1	Indoor unit communication address setting	Yes (Default)	None	/	/	/
2	Power-off memory	Yes (Default)	None	/	/	/
3	Filter cleaning reminding	Cancel the reminding function	1250 hours	2500 hours (Default)	5000 hours	10000 hours
5	Remote receiving function	Yes (Default)	None	/	/	/
6	Centigrade/ Fahrenheit display	Centigrade (Default)	Fahrenheit	/	/	/

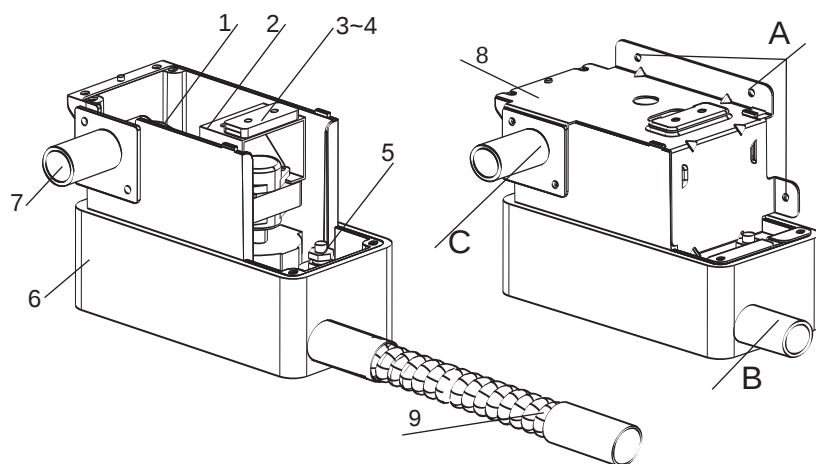
Water pump box Installation guide

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Water Pump Box (SBH-04) Installation Guide

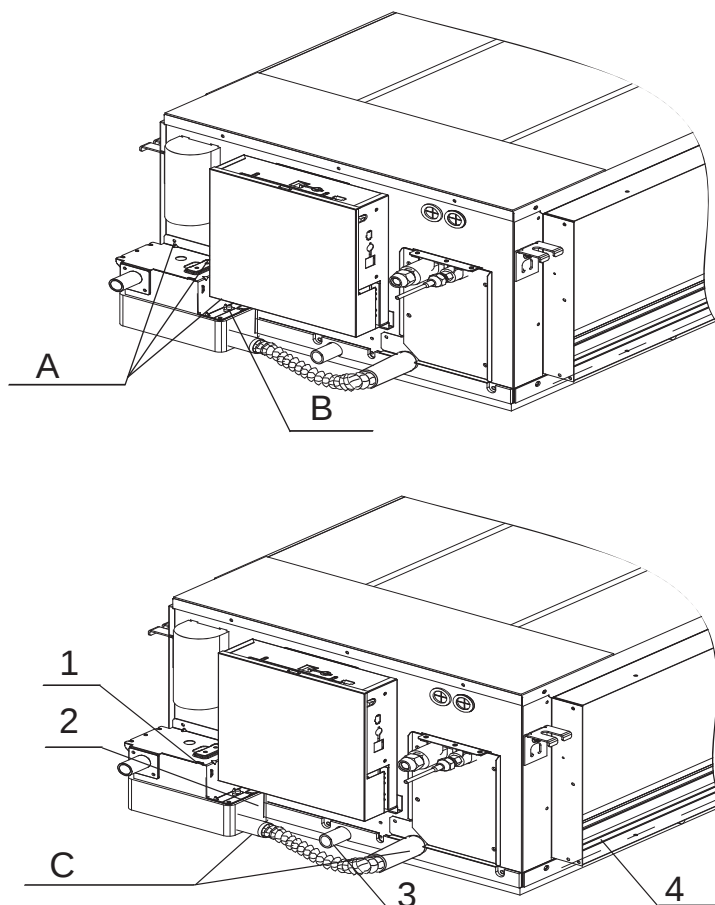
MDV10IU-045BW
202000171617

Water Pump Box Constitutional Diagram



Name	
1	Drain pipe
2	Draining pump
3~4	Draining pump rubber mat I component, draining pump rubber mat II
5	Liquid level sensor component
6	Water pump box component
7	Drain pipe connecting pipe
8	Water pump box cover
9	Water outlet pipe
A	Connect to the body
B	Water outlet pipe joint, connecting to the outlet of unit body.
C	Watering hose joint (According to the installation and purchase watering hose by yourself, the diameter is 25mm)

Water Pump Box Installation Schematic Diagram



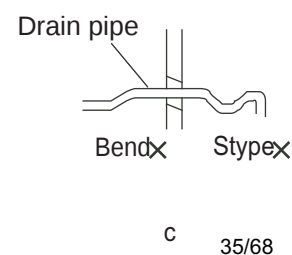
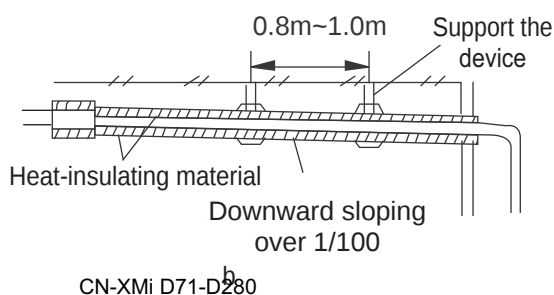
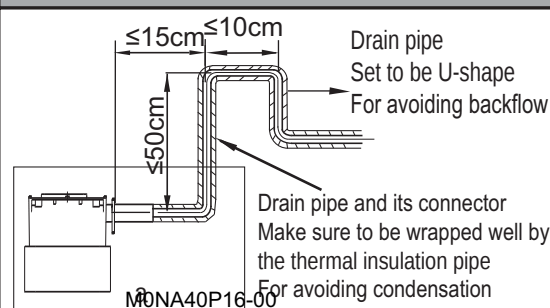
Installation Guide

When installing, check the screw in (A) place of the water pump box (B) whether reliable and fasten to the unit body; Before connect the water outlet pipe, wrap raw materials in the (C)place for avoiding water leakage, and connect the water outlet pipe.

Name

1	Water pump box
2	Water pump power line and liquid levelsensor controlling wire
3	Water outlet pipe (Accessory)
4	Indoor unit
	PVC drain pipe (Referto the following display) (φ25, purchase by yourself)

Drain Pipe Connecting Installation Schematic Diagram

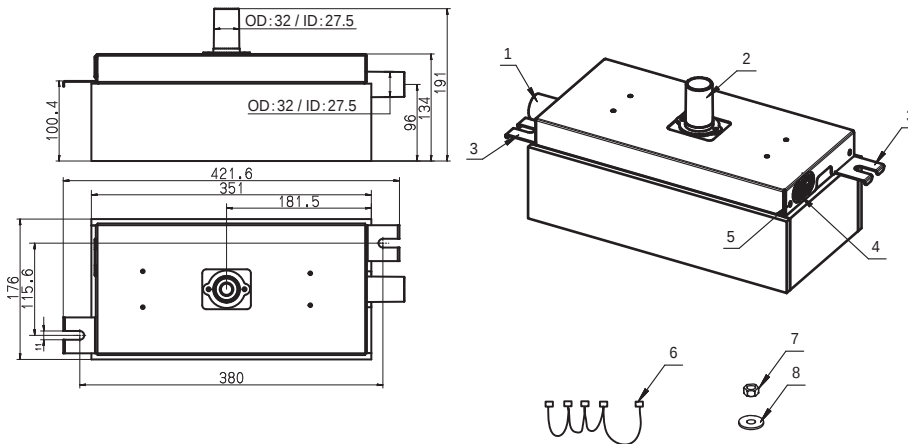


Water Pump Box (SBH-05) Installation Guide

16010700000064 V1.0

Water Pump Box Constitutional Diagram

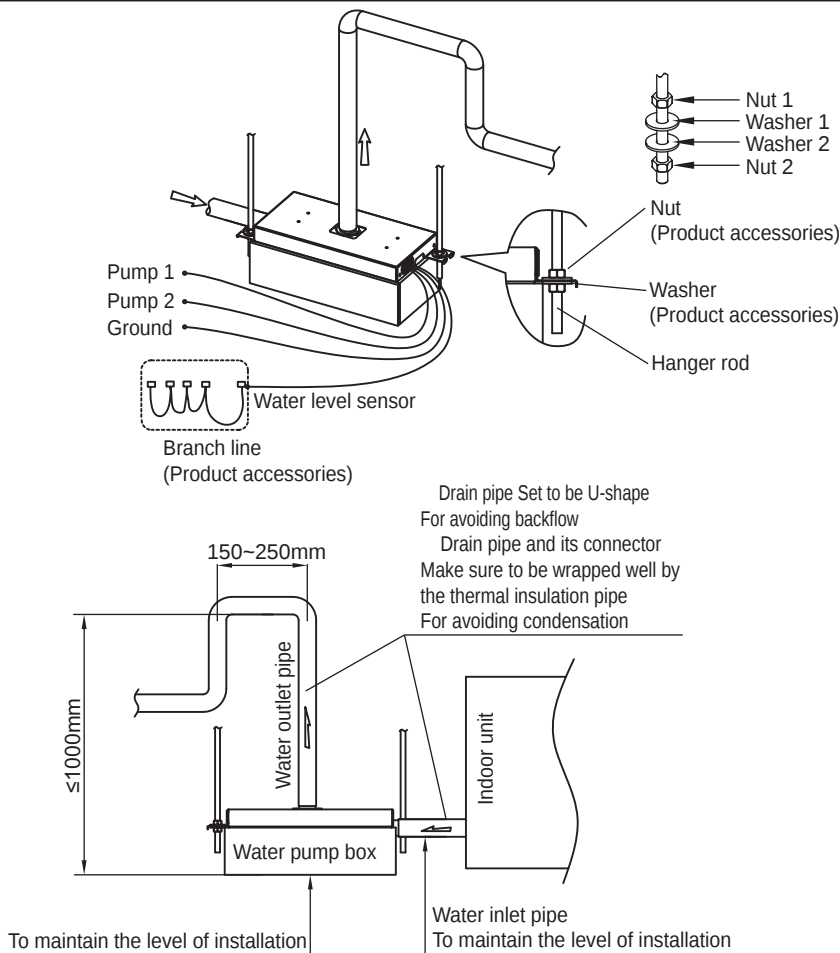
Unit :mm



Name

- | | |
|---|-----------------------------------|
| 1 | Inlet pipe interface |
| 2 | Outlet pipe interface |
| 3 | Lifting lug |
| 4 | Wire through hole |
| 5 | Maintenance screw(4 pieces) |
| 6 | Branch line (Product accessories) |
| 7 | Nut (Product accessories) |
| 8 | Washer (Product accessories) |

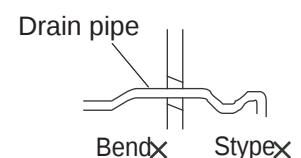
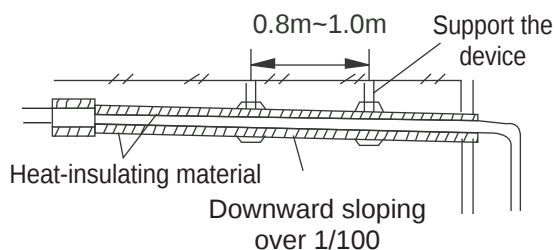
Water Pump Box Installation Schematic Diagram



Installation Guide

- The box installation should be same as the diagram , and the box must be installed horizontally.
- The height of indoor unit should be equal to (or higher)the pump box's to ensure the drainage water flow into the pump box. And then fasten the nuts to fix the pump box.
- The PVC connection pipe is recommended, the connection pipe should be good insulation to avoid the condensate water on the surface. The thickness of the insulation material should be least 8mm.
- There are 4 group cables in the box, two group cables are used to drive the pump, one group cable is used for the water level sensor , one group cable is connect with the earth.
- The pump cables should be connected to the "PUMP" port on the indoor unit PCB .
Noted: If there are 4 PCBs in the indoor unit control box , connect with any 2 PCBs is ok.
- The ground wire should be connected to indoor unit's earth wiring terminal.
- The water level sensor wire should be connected with the branch line firstly , and then connect to the "water " port on the indoor unit PCB .
Noted : For the units with 2PCB , any 2 cables should be connected .The other two cables should be fixed on the box .
- When it needs maintenance or clean ,it is not necessary to disconnect all the ducts and wires. you can only remove the maintenance screws (each hanger rod side has 2 screws) to do the maintenance or clean the inner parts.

Drain Pipe Connecting Installation Schematic Diagram



a

CN-XMi D71-D280

b

36/68

Owner's manual

WP-MDV03U-011RW

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CONTENTS	PAGE
IMPORTANT SAFETY INFORMATION.....	1
PARTS NAMES.....	2
AIR CONDITIONER OPERATIONS AND PERFORMANCE.....	5
ADJUSTING AIR FLOW DIRECTION.....	6
MAINTENANCE.....	10
POTENTIAL PROBLEMS.....	13
TROUBLESHOOTING.....	14

1. IMPORTANT SAFETY INFORMATION

To prevent injury or property damage from mis-operations, follow these instructions.

There are two types of safety precautions - please read both carefully.



WARNING

Failure to observe a warning may result in serious injury or death. The appliance must be installed in accordance with national wiring regulations.



CAUTION

Failure to observe a caution may result in injury or damage to the equipment.



WARNING

The appliance should not be used by children without supervision.

Children under 8 or those with a disability that prevents safe use should not use the air conditioner. Other children should be supervised when cleaning or using the unit.

Ask your dealer to install the air conditioner.

If you install the unit incorrectly yourself, you risk water leaks, electric shock, and fires.

Ask your dealer for information about upgrades, repairs, and maintenance.

To avoid electric shocks, fires, and injury, power the unit off and contact your dealer if the unit becomes faulty.

If you perform these tasks yourself, you risk water leaks, electric shock, and fires.

Do not let the indoor unit or remote controller come into contact with water.

Contact with water increases the risks of electric shocks or fires.

Do not press the remote controller buttons with a hard, pointed object.

The remote controller may be damaged.

Never replace a blown fuse with another that has a different current rating.

Using wire or copper wire may cause the unit to break down or cause a fire.

Avoid excessive direct exposure to the air flow.

Never use flammable sprays such as hair spray, lacquers, or paint near the unit because doing so may result in a fire.

It may cause a fire.

Never touch the air outlet or horizontal blades while the swing flap is in use because your fingers may become trapped or you might damage the unit.

Never put any objects into the air inlet or outlet.

Do not touch the fan with any object.

Do not inspect or service the unit yourself.

Ask a qualified service person to perform these tasks.

Do not dispose this product as unsorted waste. It must be separately collected and processed.



Do not dispose of electrical appliances as unsorted waste. They must be separately collected and processed.

Contact your local government for details.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and thus enter the food chain.

For information about refrigerant leaks, contact your dealer.

When the system is installed in a small room, keep the refrigerant below the limit; otherwise, if there's a leak, the oxygen in the room may be affected, causing a serious accident.

The refrigerant in the unit is safe and should not leak.

If it does and comes into contact with fire, a harmful gas will result.

Turn off any combustible heating devices, ventilate the room, and contact the dealer you purchased the unit from.

Do not use the unit until a technician instructs you that it's safe to do so.



CAUTION

The heating function of the indoor unit is available only when the indoor unit connected to the outdoor unit for cooling and heating.

Only use the air conditioner for its prescribed purpose.

Do not use it for cooling precision instruments, food, plants, animals, or art, or you may damage the unit.

Power the unit off before cleaning it to avoid electric shocks.

Otherwise, an electric shock and injury may result.

To avoid electric shocks or fires, install an earth leak detector.

Ensure the unit is grounded.

To avoid electric shocks, ensure the unit is grounded and that the earth wire is not connected to a gas or water pipe, lightning conductor, or telephone earth wire.

To avoid injury, do not remove the fan guard on the outdoor unit.

Do not use the unit if your hands are wet.

Doing so puts you at risk of an electric shock.

Do not touch the heat exchanger fins.

These fins are sharp and you could cut you.

Do not place items which might be damaged by moisture under the indoor unit.

Condensation may form if the humidity is above 80 percent, if the drain outlet is blocked or if the filter is polluted.

Check the unit stand and fitting for damage after the unit has been running for a long time.

If the stand is damaged, the unit may fall and cause an injury.

To avoid oxygen deficiency, ventilate the room sufficiently if equipment with a burner is used at the same time as the air conditioner.

Arrange the drainage hose to ensure smooth drainage.

Incomplete drainage may cause water leaks.

Do not touch the internal parts of the controller.

Do not remove the front panel. Some internal parts may cause injury or be damaged.

Never expose little children, plants or animals directly to the air flow.

Never expose children, plants or animals directly to the air flow.

Do not allow a child to mount on the outdoor unit and don't place objects on it to avoid injury.

Falling or tumbling may result in injury.

Do not run the air conditioner when fumigating a room with insecticide as chemicals could get in the unit, causing respiratory problems for people affected.

Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.

Do not place appliances that produce open fire in places in the path of the air flow from the unit or under the indoor unit due to the risk of combustion or warping.

It may cause incomplete combustion or deformation of the unit due to the heat.

To avoid fire, do not install the air conditioner where flammable gas may leak from.

If the gas leaks out and stays around the air conditioner, a fire may break out.

Children and the elderly should not operate the unit.



NOTE

The figures show in this manual are for reference only, and the actual product may be different.

2. PART NAMES

■ Four-way cassette type

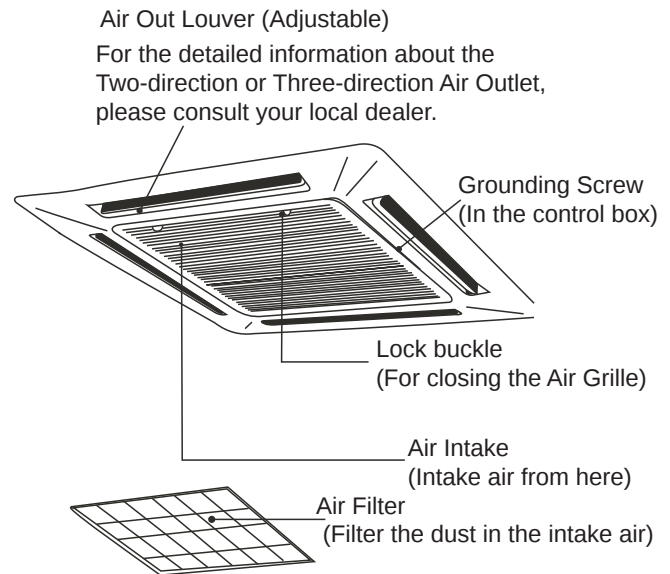


Fig.2-1

■ Ceiling-floor type

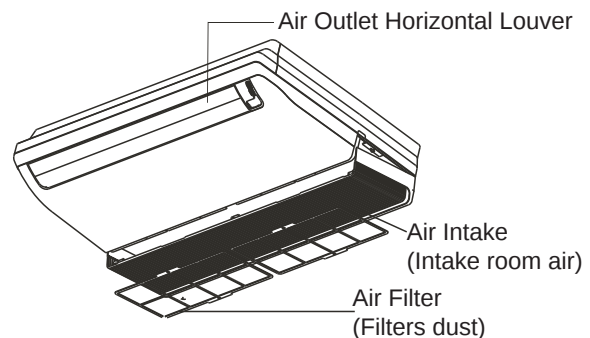


Fig.2-2

■ One-way cassette type

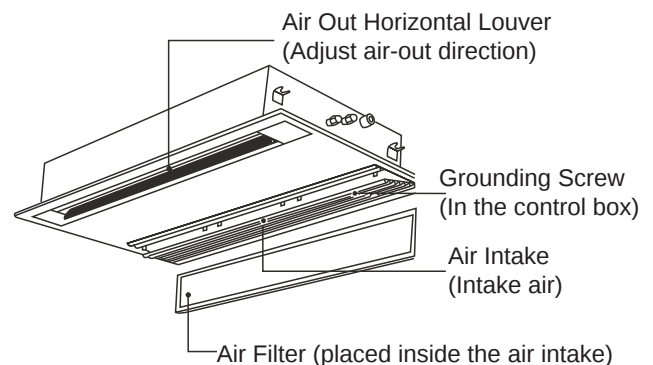


Fig.2-3

■ Small one-way cassette type

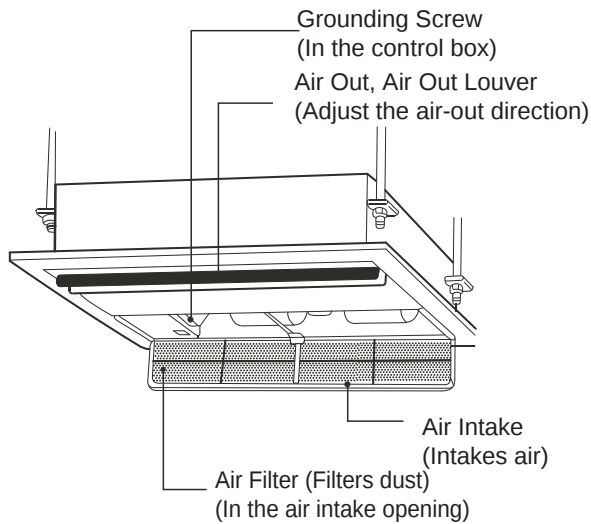


Fig.2-4

■ Small one-way cassette type (Second generation 18-36 model)

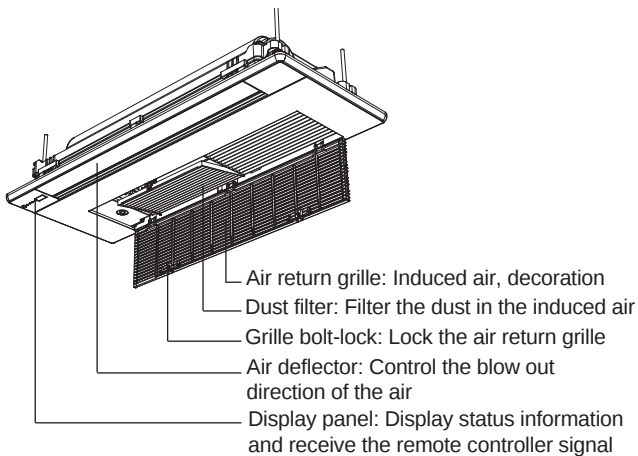


Fig.2-5

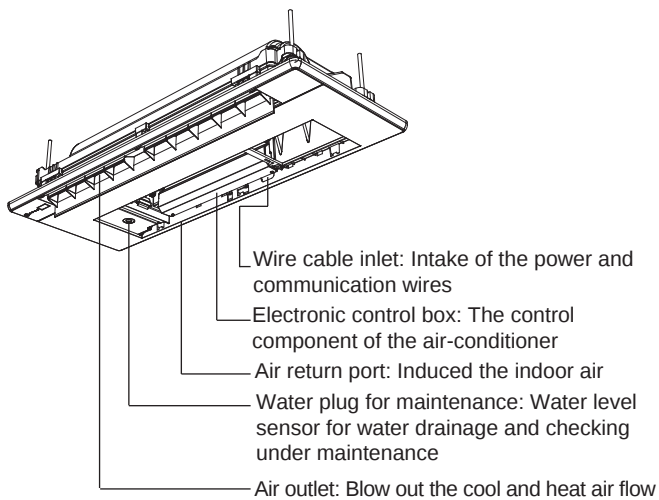


Fig.2-6

■ Wall-mounted type

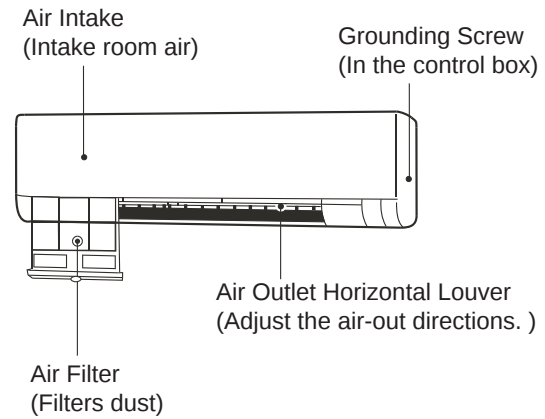


Fig.2-7

■ Duct/ceiling type

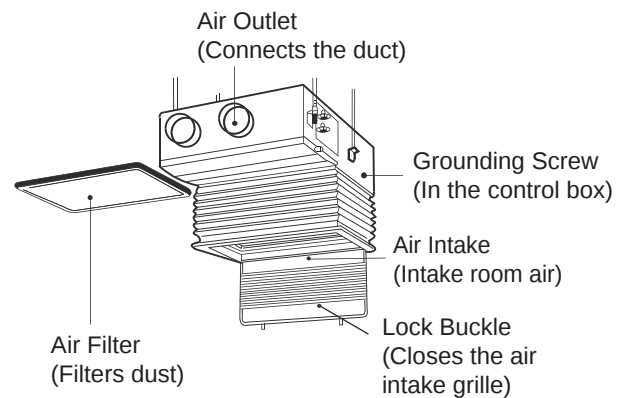


Fig.2-8

■ High static pressure duct type

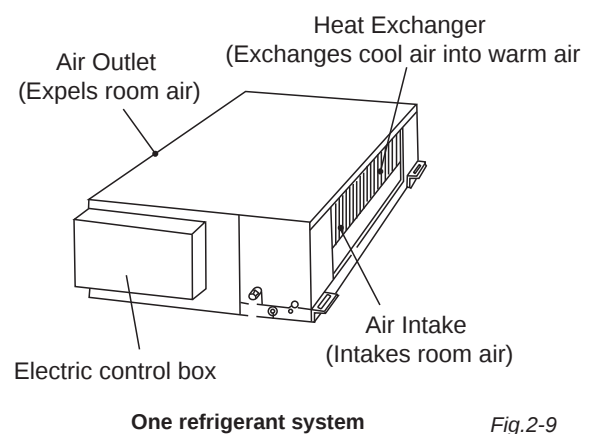


Fig.2-9

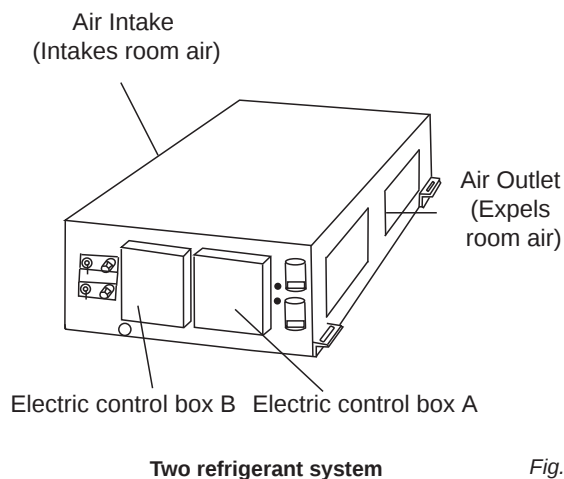


Fig.2-10

■ Middle static pressure duct type

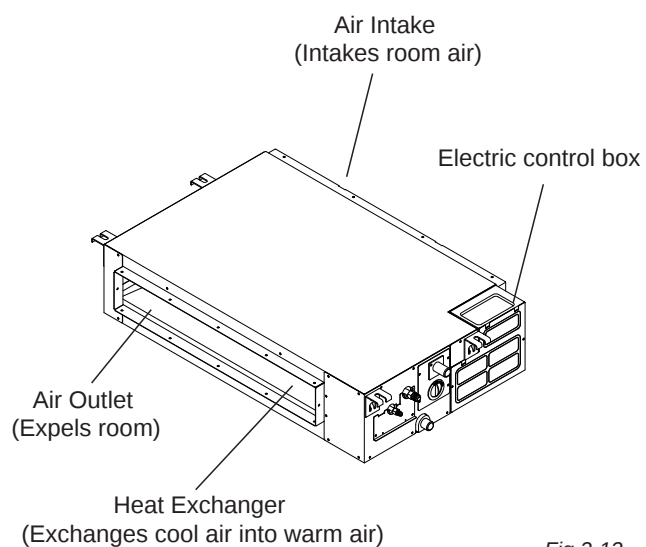


Fig.2-13

■ (Thin) Duct/ceiling type

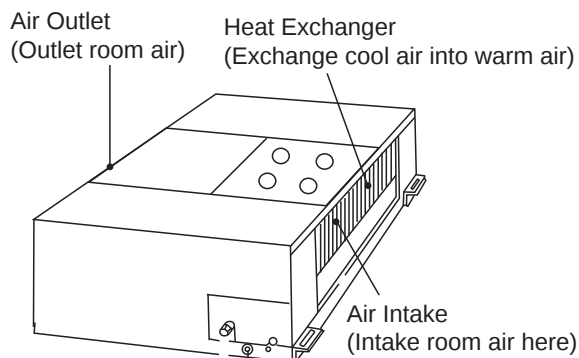


Fig.2-11

■ Low static pressure type

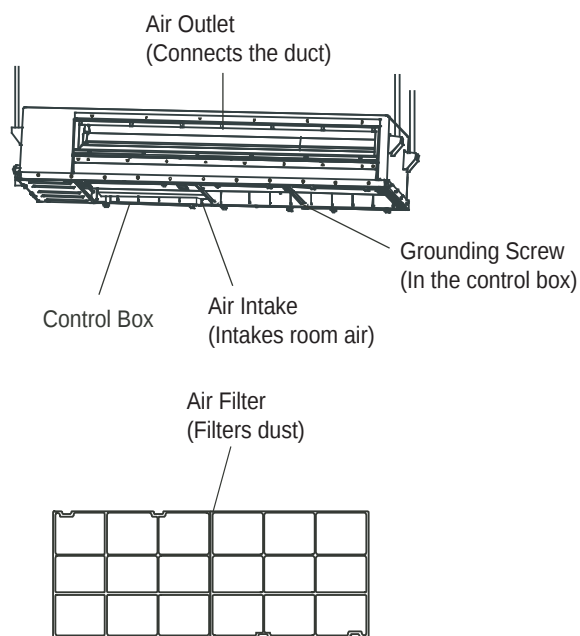


Fig.2-14

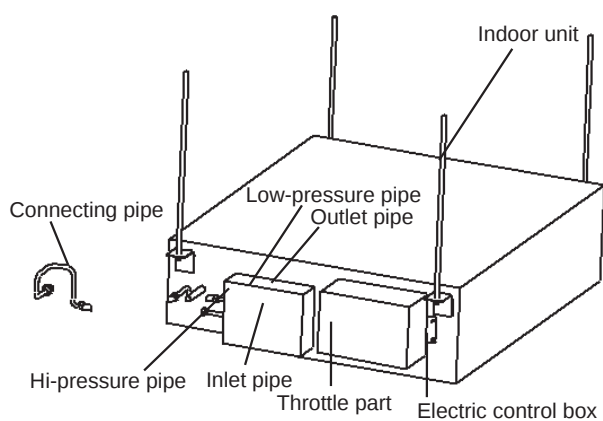


Fig.2-12

■ Console type

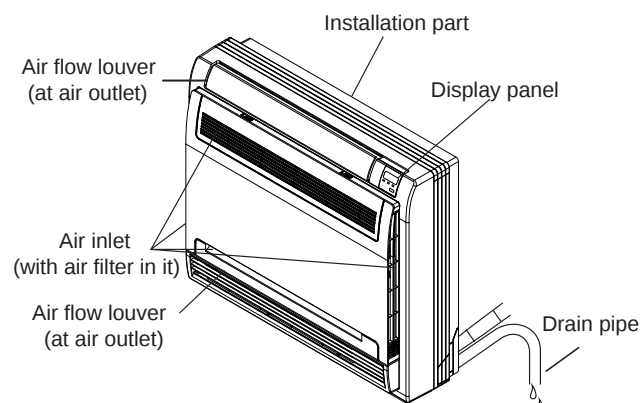


Fig.2-15

■ Floor standing type

● Version I

Vertical unit with casing. The air intake is on the front and the air outlet on top for installing on a wall or with feet on the floor.

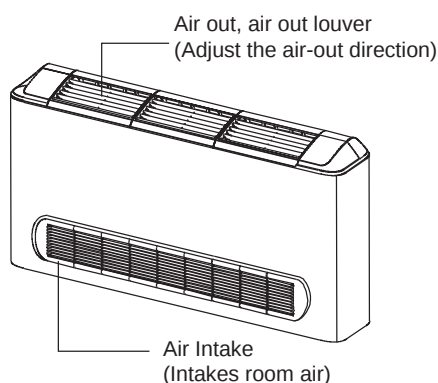


Fig.2-16

● Version II

Vertical unit with casing. The air intake is on the front and the air outlet on top for installing on a wall or with feet on the floor.

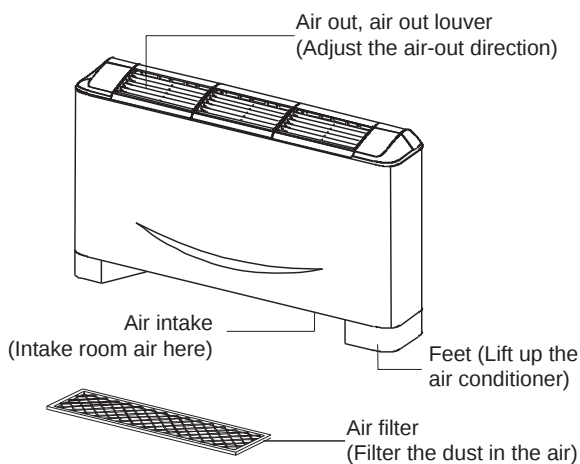


Fig.2-17

● Version III

The vertical unit is concealed in the wall after installation, with air intake from the bottom and air delivery at the top.

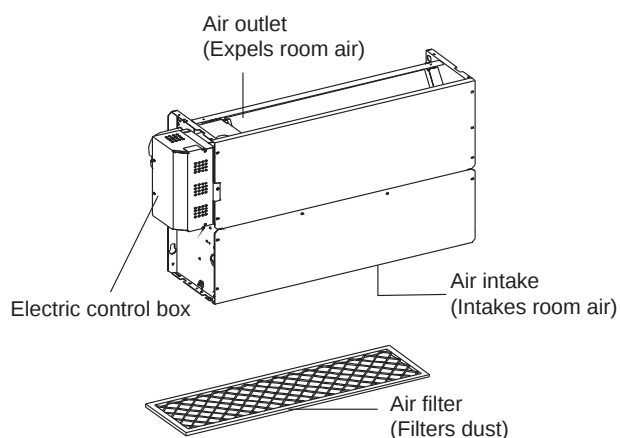


Fig.2-18

■ Two-way cassette type

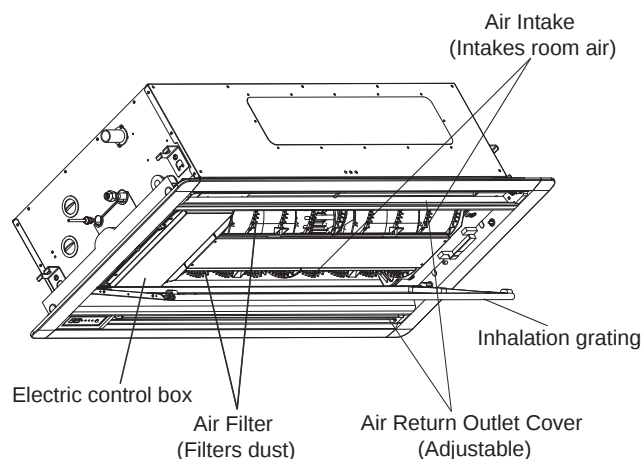


Fig.2-19

3. AIR CONDITIONER OPERATIONS AND PERFORMANCE

Use the system in the following temperature range. The max temperature for the air conditioner.(Cooling/Heating)

Table 3-1

Temperature Mode	Indoor temperature
Cooling operation	17°C ~ 32°C
	Indoor Humidity Below 80%. Condensation will form on the surface with 80% humidity or above.
Heating operating (cooling only type without)	≤27°C

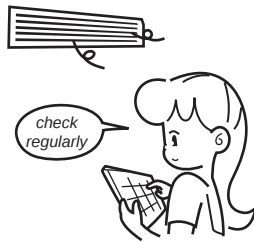


NOTE

- 1 Using the unit outside of the accepted range may affect how it runs.
- 2 Please close doors and windows if outside is humid to prevent condensation from forming on the unit.
- 3 The unit performs best in this temperature range.
- 4 The protection system is activated if abnormal conditions apply.

- Please note the following correct operation for saving energy and achieve the quick and comfortable cooling/heating effect.

- If the air filter is blocked, the cooling/heating effect is diminished.



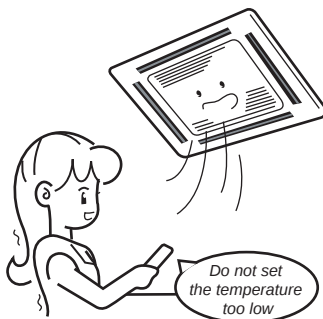
- **Close the door/window**

Do not let hot or cool air leak from the doors and windows.



- **Do not overcool or overheat.**

Avoid excessive exposure to cold air as it is not healthy. This applies especially to children, the elderly, and those with disabilities.



- **To maintain a comfortable temperature.**

Adjust the air-out direction using the air-out louver.



4. ADJUSTING AIR FLOW DIRECTION.

Because cold air flows down and hot air flows up, you can improve the cooling or heating and dispersal effect by adjusting the air flow louver direction.



NOTE

- 1 The heating operation with horizontal air outlet increases the difference of the room temperature.
- 2 The louver direction :
Choose horizontal outlet mode for cooling. Note the downward air flow will cause condensation on the air outlet and louver surface.

■ Four-way cassette type

- **Cooling operation**

Adjust the louver horizontally .



Fig.4-1

- **Heating operation**

Adjust the louver down.

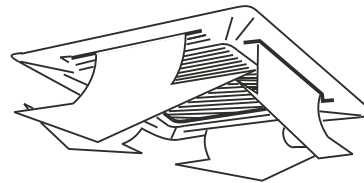


Fig.4-2

When using the panel with the auto louver, press SWING for the auto louver to swing automatically and achieve the best cooling (heating) effect.

■ One-way cassette type

- **Adjust the air direction up and down**

- **Auto-swing**

Press SWING for the louver to swing up and down.

Maximum air circulation area

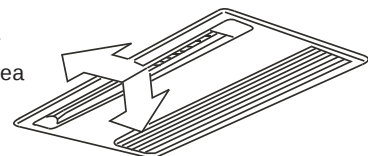


Fig.4-3

● **When cooling**

Adjust the louver horizontally.

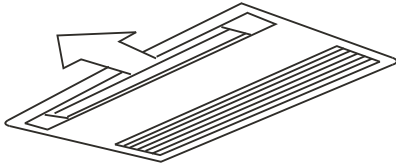


Fig.4-4

● **When heating**

Adjust the louver down(vertically).

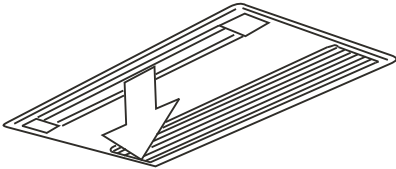


Fig.4-5

■ **Adjust the air direction left and right**

Adjust the blade inside the air outlet louver to the required direction.

When the air flow sideways and the air flow parts must be used (sold separately), please refer to the following figures to adjust the air flow direction.

■ **Adjust the air flow up and down**

● **Cooling operation**

Adjust the louver horizontally .

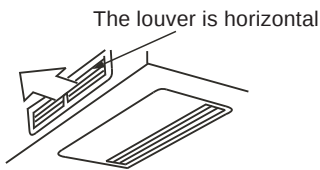


Fig.4-6

● **When heating**

Adjust the louver down(vertically).

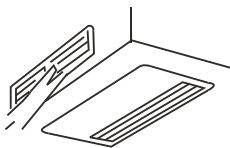
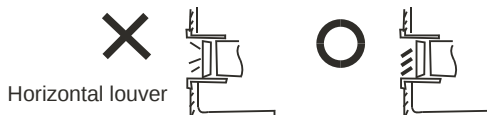


Fig.4-7



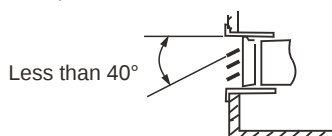
NOTE

- 1 Adjust the horizontal louver down when the air flow is down.

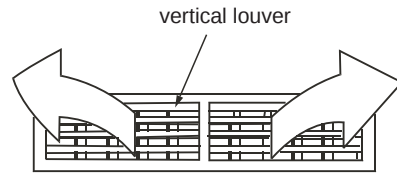


Horizontal louver

- 2 The slant angle of horizontal louver must be less than 40° or water will drip from the unit.



■ **Adjust left and right**



vertical louver

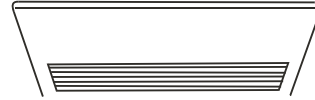


Fig.4-8



NOTE

When adjusting air flow left/right, refer to the following figures to turn the vertical louver to certain angles. Avoid angles that are too steep or water will drip from the unit.



vertical louver

■ **Duct-ceiling type**

The following section explains how to adjust the direction of air flow direction when the air outlet parts (sold separately) is used with the indoor unit.

● **When cooling**

To cool the bottom of the room, set the louver downwards. (Fig.4-9)

● **When heating**

To heat the bottom of the room, set the louver downwards. (Fig.4-10)

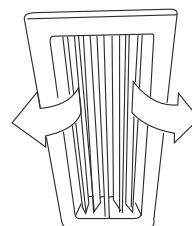


Fig.4-9

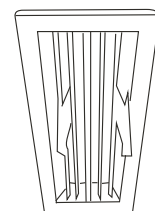


Fig.4-10

■ Wall-Mounted type

Adjust the Air Flow Direction Up and Down

- **Auto-swing**

Press SWING for the louver will swing up and down automatically.

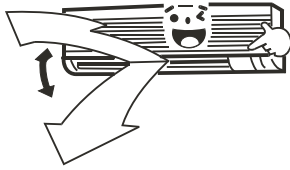


Fig.4-11

- **Manual swing**

Adjust the louver to improve the cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.

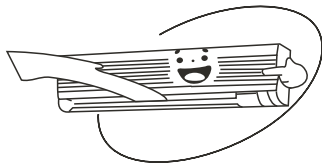


Fig.4-12

- **When heating**

Adjust the louver downwards (vertically).

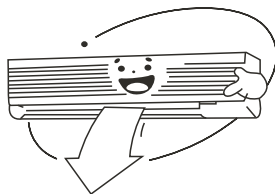


Fig.4-13



CAUTION

- 1 Water may drip from the surface of the unit or horizontal louver when cooling if the expel-air direction is vertically down.
- 2 The indoor temperature will not be even in heating mode when the air-out direction is horizontal.
- 3 Do not move the horizontal louver with hands or a malfunction may occur. Adjust it with the swing button on the wire controller.

■ Ceiling-floor type

- **Auto-swing**

Press SWING for the louver to swing up and down (left and right) automatically.

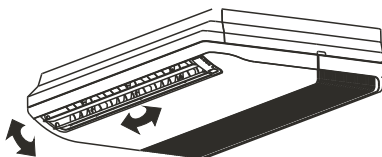


Fig.4-14

- **Manual swing**

Adjust the louver to improve the cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.

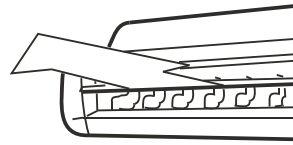


Fig.4-15

- **When heating**

Adjust the louver downwards (vertically).

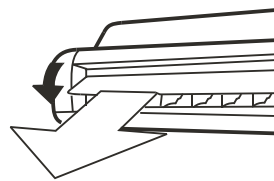


Fig.4-16

■ Console type

- **Adjust the air direction up and down**

- **Auto-swing**

Press SWING for the louver will swing up and down automatically.

- **Manual swing**

Press Air Direction to fix the louver at the desired angle. The louver swing will move up or down with each press.

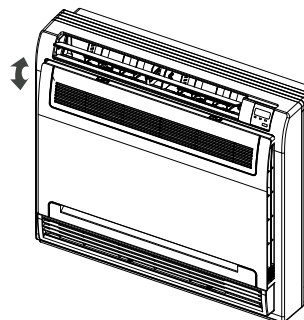


Fig.4-17

- **When cooling**

Adjust the louver horizontally.(Refer to Fig.4-18)

- **When heating**

Adjust the louver downwards (vertically).(Refer to Fig.4-19)

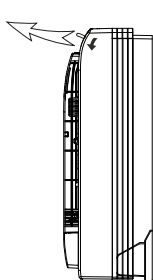


Fig.4-18

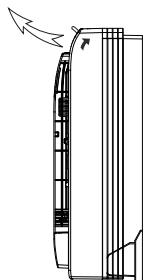


Fig.4-19



CAUTION

Do not adjust the horizontal louver by hand.
When adjusting by hand, the mechanism may not operate properly or condensation may drip from the air outlets.

■ Adjust the air direction left and right

To change the air direction to the left or right, adjust the left and right louvers to appropriate positions.

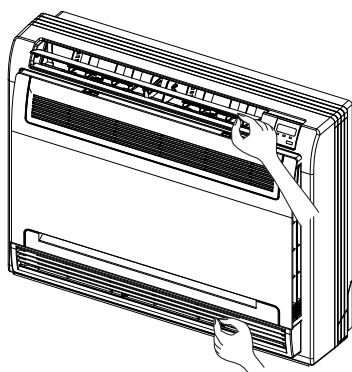


Fig.4-20

■ Air flow selection

Open the front panel.
How to open the front panel:(Refer to Fig.5-4).



CAUTION

Before opening the front panel, turn the machine off and turn the breaker to OFF.
Do not touch the metal parts on the inside of the indoor unit, as it may cause injury.

- Select the air flow as desired. (Please refer to Fig. 7-2 for the positions)
- When setting the air flow selection switch to .
Air conditioner automatically decides the appropriate blowing pattern depending on the operating mode/ situation.

Table 4-1

Operating mode	COOL mode		HEAT mode	
Situation	When the room is cool or after running the air conditioner for one hour.	At the start of the operation or other times when the room is not fully cooled.	At times except those below. (Normal time.)	At the start or when air temperature is low.
Blowing pattern	Air is blown via the upper air outlet to equalize the room temperature and so the air doesn't directly blow onto people.		 Air is blown from the upper and lower air outlets for high-speed cooling in cooling mode and for warming the air in heating mode.	
			Air is blown via the upper air outlet so it doesn't directly blow onto people.	

Air is blown via the upper air outlet so it doesn't directly blow onto people in Dry mode.

- When setting the air outlet selection switch to .

In all modes, air is expelled from the upper air outlet.

Use this switch if you do not want air coming out of the lower air outlet (when sleeping etc).

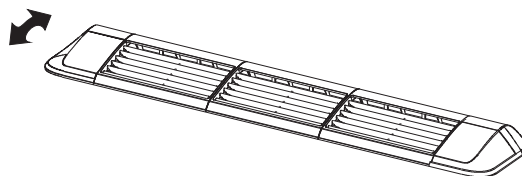


CAUTION

To switch between the Auto and Manual mode on the lower air outlet, turn off and restart the unit for mode renewing.

■ Digital scroll floor standing type

Adjust the louver to improve the cooling or heating effect.



■ Two-way cassette type

Fig.4-21

- **Auto-swing**

Press SWING for the louver to swing up and down automatically.

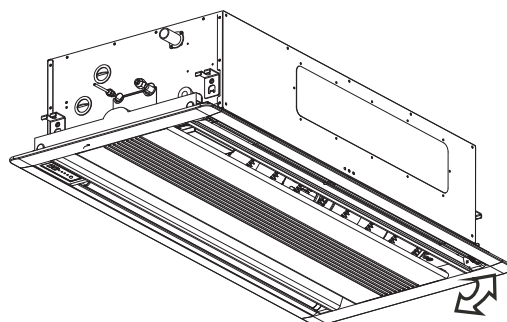


Fig.4-22

- **Manual swing**

Adjust the louver to improve cooling or heating.

- **When cooling**

Adjust the louver horizontally.

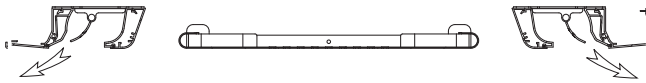


Fig.4-23

- **When heating**

Adjust the louver downwards (vertically).

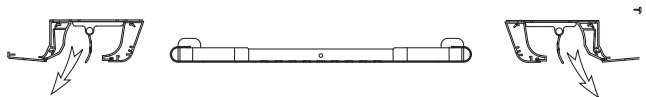


Fig.4-24



CAUTION

Do not try to adjust the louver by hand.
When adjusting it by hand, the mechanism may not work properly or condensation may drip from air outlets.

5. MAINTENANCE



CAUTION

- 1 Before you clean the air conditioner, ensure it is powered off.
- 2 Check that the wiring is undamaged and connected.
- 3 Use a dry cloth to wipe the indoor unit and remote controller.
- 4 A wet cloth may be used to clean the indoor unit if it is very dirty.
- 5 Never use a damp cloth on the remote controller.
- 6 Do not use a chemically-treated duster on the unit or leave this type of material to the unit to avoid damaging the finish.
- 7 Do not use benzene, thinner, polishing powder, or similar solvents for cleaning.
These may cause the plastic surface to crack or warp.

Method for cleaning the air filter

- The air filter can prevent the dust or other particles from entering the unit. If the filter is blocked, the unit will not work very well. Clean the filter every two weeks when you use it regularly.
- If the air conditioner is positioned in a dusty place, clean the filter more often.
- Replace the filter if it is too dusty too clean (the replaceable air filter is an optional fitting).

1. Take out the air-in grill

- **For Four-Way Cassette Type**

Push the grill switches towards the middle simultaneously as indicated in Fig.5-1. Then pull down the air-in grill. Take out the air-in grill (together with the air filter, as shown in Fig.5-2). Pull the air-in grill down to 45°, and lift it up to remove the grill.

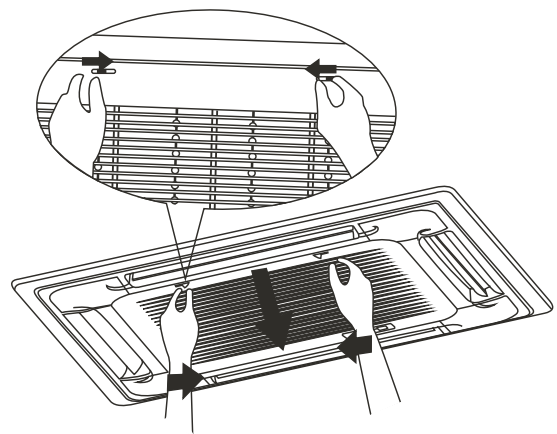


Fig.5-1

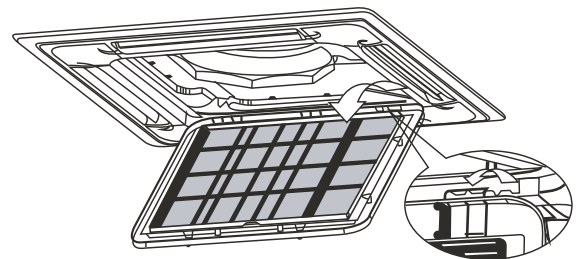


Fig.5-2



CAUTION

The control box cables originally connected to the electrical terminators on the main body must be removed, as indicated above.

- **For Duct/Ceiling Type**

Push the grill switches in the directions of the arrows. Then, open the air-in grill downwards. Turn the air filter fixing block backwards, and remove the air-in grill.

- **For One-Way Cassette Type**

Remove the air-in grille, hold the air-in buckle with two hands and open the grille downwards. Pull it to the inside, and push the filter buckle to remove the grille.

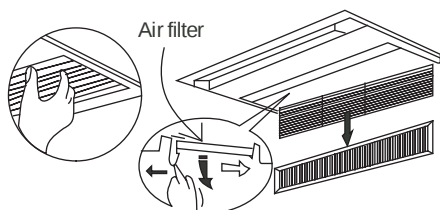


Fig.5-3

- **For One-Way Cassette Type**

(The second generation 18-36 model)

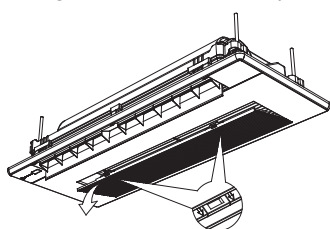


Fig.5-4

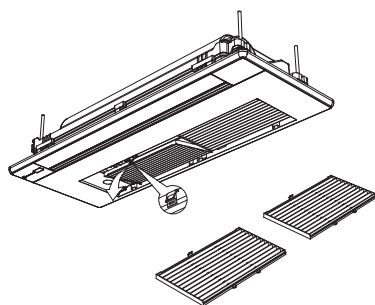


Fig.5-5

- **For Console Type**

Push the grill switches in the directions of the arrows. Then, open the air-in grill downwards. Press the claws on the right and left of the air filter down slightly, then pull upwards.

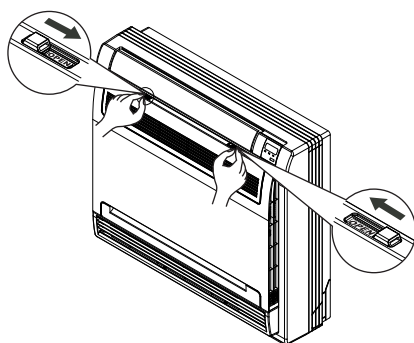


Fig.5-6

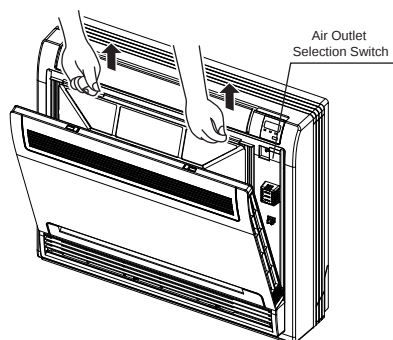


Fig.5-7

Hold the tabs of the frame, and remove the claws in the four places. (The special function filter can be maintained by washing it with water once every six months. We recommend replacing it once every three years.)

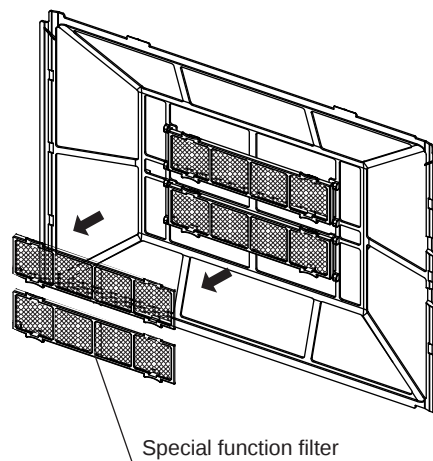


Fig.5-8

- **For digital scroll floor standing type**

The filter is housed in the lower part of the unit in versions II and III to take in air from below or from the rear. To remove the filter in versions II and III, do as follows.

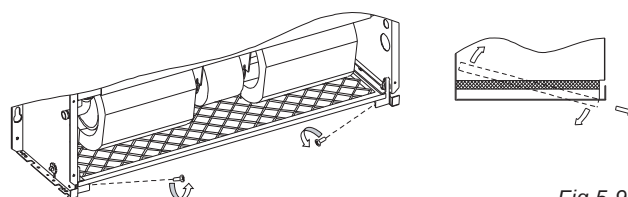


Fig.5-9

It is housed in the front cowl in version I to take in air from the front.

To remove the filter in version I, do as follows.

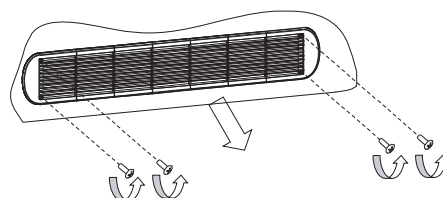


Fig.5-10

■ Two-way cassette type

■ Take off the inhalation grating from the panel.

- 1) Upright row (non-directional) one side of the inhalation grating, and putdown the other side, and then slide follow the arrow's direction refers to Fig.5-9
- 2) Loosen the hanger of the putdown side refers to Fig.5-10
- 3) Open the inhalation grating (about 45°), and remove the other side, refers to Fig.5-11

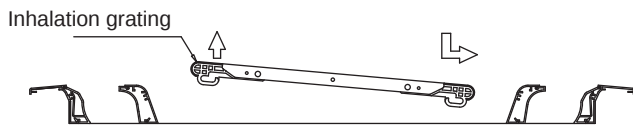


Fig.5-11

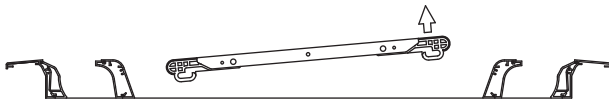


Fig.5-12

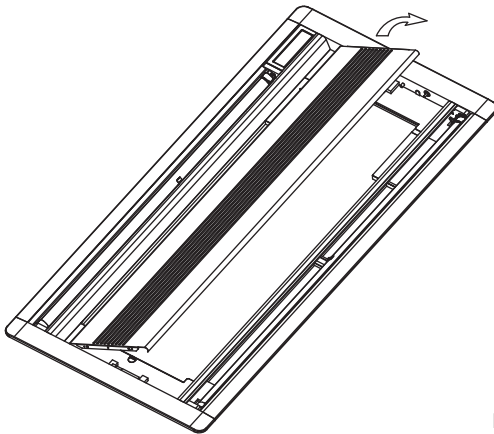


Fig.5-13

- According to the figure shown in the position and direction of the arrow, press the filter and take it down. In the same way, take down the filter on the other side, and put it back after cleaning.

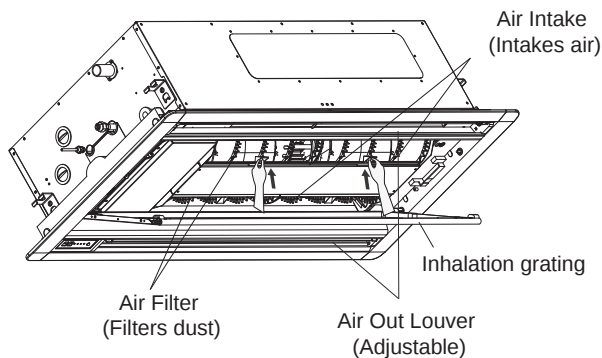


Fig.5-14

2. Dismantle the air filter.

3. Clean the air filter

The air filter blocks dust. If the filter is blocked, the air conditioner will not work as well.

Clean the filter every two weeks when you use the unit in regular use.

Clean the air filter with a vacuum cleaner or water.

- The air-in side should face up when using a vacuum cleaner. (Refer to Fig.5-13)
- The air-in side should face down when using clean water. (Refer to Fig.5-14)

For excessive dust, use a soft brush and natural detergent to clean it and dry in the cool place.

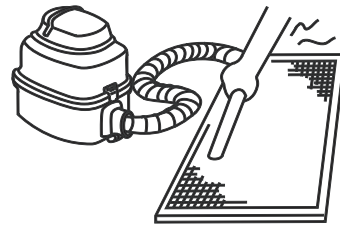


Fig.5-15

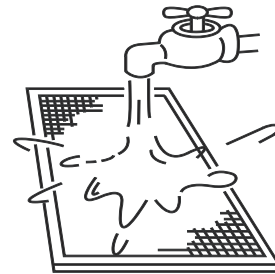


Fig.5-16



CAUTION

- Do not dry out the air filter under direct sunshine or with fire.
- For the one-way cassette type, the air filter should be installed before the unit body.

4. Re-install the air filter.

- Install and close the air-in grill by reversing step 1 and 2, and connect the control box cables to the corresponding terminators of the main body.

■ Maintenance before stopping using the unit for a long time (e.g., at the end of a season)

Let the indoor units run in fan only operation for about half a day to dry the interior of the unit.

Clean the air filter and indoor unit casing.

Refer to "Cleaning the air filter" for details on how to proceed, and make sure you install cleaned air filters back in the same position.

Turn off the unit with the ON/OFF button on the remote controller, and then unplug it.



NOTE

When the power switch is connected, some energy will be consumed, even if the unit is not in operation. So please disconnect the power to save the energy.

A degree of dirt will be after several rounds of use so maintain carefully.

Take out of the batteries from the remote controller.

■ Maintenance after a long period of non-use.

(e.g., at the beginning of the season)

Check and remove everything that might be blocking the inlet and outlet vents of indoor units and outdoor units.

Clean air filters and casings of indoor units.

Refer to "Cleaning the air filter" section for details on how to proceed and make sure you reinstall the cleaned air filters in the same position.

Turn on the power at least 12 hours before you want to use the unit to ensure it works properly. As soon as the power is turned on, the remote controller displays appear.

■ Digital scroll central air conditioning auxiliary heating equipment

In winter, purchase the indoor unit with auxiliary heating to enlarge the capacity.

When turning to the heat mode the air conditioner with auxiliary heating will run at the set term.

Do not install the 4-way cassette type and duct/ceiling type (with auxiliary heating).

6. POTENTIAL PROBLEMS

Symptom 1: The system does not work

- The air conditioner does not start immediately after pressing the ON/OFF button on the remote controller.
If the operation lamp lights, the system is in normal condition. To prevent the compressor motor from overloading, the air conditioner starts three minutes after it is turned on.
- Heating mode is running when the following lights are on: operation and the "PRE-DEF indicator (cooling and heating type) or the fan only indicator (cooling only type)". When it starts but the compressor does not, the indoor unit activates protective measures because of the outlet temperature.

Symptom 2: Running fan mode during cooling mode

- To prevent the indoor evaporator frosting, the system will change into fan mode automatically before resuming cooling mode.
- When the room temperature drops to the set temperature, the compressor goes off and the indoor unit changes to fan mode. When the temperature increases, the compressor starts again. It is same as in heating mode.

Symptom 3: White mist is expelled from the unit

Symptom 3.1: Indoor unit

- When humidity is high during the cooling operation. If the interior of the indoor unit is extremely contaminated, the temperature distribution inside a room becomes uneven. It is necessary to clean the interior of the indoor unit. Ask your dealer for details on cleaning the unit, because a technician is required.

Symptom 3.2: Indoor unit, outdoor unit

- When the system is changed over to the heating operation after defrost operation. Moisture generated by defrost becomes steam and is exhausted.

Symptom 4: The air conditioner is noisy in cooling mode

Symptom 4.1: Indoor unit

- A continuous sound is heard when the system is in cooling mode or has stopped.
The drain pump (optional accessory) makes this sound.
- A squeaking sound is heard when the system stops after heating operation.
The expansion and contraction of plastic parts caused by temperature change make this noise.

Symptom 4.2: Indoor unit, outdoor unit

- A continuous low hissing sound is heard when the system is in operation.
This is the sound of refrigerant gas flowing through both indoor and outdoor units.
- A hissing sound which is heard at the start or immediately after stopping or defrosting.
This is the noise of refrigerant caused by a flow stop or flow change.

Symptom 4.3: Outdoor unit

- The running noise may change due to a change in frequency.

Symptom 5: Dust comes out of the unit

- When the unit is used for the first time in a long time.
This is because dust has gotten into the unit.

Symptom 6: The unit gives off a strange odor

- The unit can absorb the smell of rooms, furniture, and cigarette smoke, and then emit it.

Symptom 7: The outdoor unit fan does not spin.

- During operation. The speed of the fan is controlled to optimize how the product runs.

7. TROUBLESHOOTING

7.1 Troubles and causes of air conditioner

If one of the following faults occur, power the unit off and contact your dealer.

- The remote controller receives malfunction or the button does not work well.
- A safety device such as a circuit breaker frequently trips.
- Obstacles and water enter the unit.
- Water is leaking from the indoor unit.
- Other malfunctions.

If the system does not run properly due to a reason other than those mentioned above, check the system as follows. (See in Table 7-1)

Table 7-1

Symptoms	Causes	Solution
Unit does not start	- Power failure. - Power switch is off. - The power switch fuse may have burned out - The remote controller's batteries are dead.	- Wait for the power to resume. - Switch on the power. - Replace the fuse. - Replace the batteries or check the controller.
Air flows normally but doesn't cool	- Temperature is not set correctly. - The three-minute compressor for protection is activated	- Set the temperature properly. - Wait.
Unit starts or stops frequently	- There is too much or too little refrigerant. - There is no gas in the refrigerating circuit. - Compressor is malfunction. - Voltage is too high or too low. - System circuit is blocked.	- Check leakage, and rightly recharge the refrigerant. - Vacuum and recharge the refrigerant. - Maintenance or the change compressor. - Install manostat. - Find reasons and the solution.
Low cooling effect	- The outdoor unit and indoor unit of the heat exchanger are dirty. - The air filter is dirty. - Inlet/outlet of the indoor/outdoor unit is blocked. - Doors and windows are open. - Sunlight is directly shining on the unit. - Too much heat resource. - Outdoor temp. is too high. - Leakage of refrigerant or lack of refrigerant.	- Clean the heat exchanger. - Clean the air filter. - Eliminate all dirt and to make the air flow smoothly. - Close doors and windows. - Install curtains to provide shelter from the sun. - Reduce heat sources. - AC cooling capacity reduces (normal). - Check leakage and add refrigerant.
Low heating effect	- Outdoor temperature is lower than 7°C. - Doors and windows are not completely closed. - Refrigerant is leaking or there's not enough.	- Use a heating device. - Close doors and windows. - Check leakage and add refrigerant.

7.2 Troubles and causes of remote controller

Before asking for service or repairs, check the following points. (See in Table 7-2)

Table 7-2

Symptoms	Causes	Solution
The fan speed cannot be adjusted.	● Check whether the MODE indicated on the display is "AUTO"	In automatic mode, the air conditioner will automatically change the fan speed.
	● Check whether the MODE indicated on the display is "DRY"	When dry operation is selected, the air conditioner automatically adjusts the fan speed. The fan speed can be selected during "COOL", "FAN ONLY", and "HEAT".
The remote controller signal is not transmitted even when the ON/OFF button is pushed.	● Check whether the batteries in the remote controller are exhausted.	The power supply is off.
The TEMP. indicator does not come on.	● Check whether the MODE indicated on the display is FAN ONLY	The temperature cannot be set during FAN mode.
The indication on the display disappears after a certain time.	● Check whether the timer operation has come to an end when the TIMER OFF is indicated on the display.	The air conditioner operation will stop up to the set time.
The TIMER ON indicator goes off after a certain time.	● Check whether the timer operation is started when the TIMER ON is indicated on the display.	Up to the set time, the air conditioner will automatically start and the appropriate indicator will go off.
No receiving tone sounds from the indoor unit when the ON/OFF button is pressed.	● Check whether the signal transmitter of the remote controller is properly directed to the infrared signal receiver of the indoor unit when the ON/OFF button is pressed.	Directly transmit the signal transmitter of the remote controller to the infrared signal receiver of the indoor unit, and then press the ON/OFF button twice.

7.3 Fault information and codes

Fault information is only available for indoor units with a panel, and only the panel with digit displays shows the fault code, otherwise just four LED lamps. The LED and digit display the following faults.

Table.7-3

The fault indication of LED

NO.	Type	Contents	LED flash	Remarks
1	Malfunction	The evaporator sensor check point is abnormal or room temp. sensor is abnormal.	The run LED flashes fast	After the fault ends, the unit resumes automatically.
2	Malfunction	Indoor/outdoor unit communication is abnormal	The timer LED flashes fast	After the fault ends, the unit resumes automatically.
3	Malfunction	Outdoor unit is abnormal	The alarm LED flashes slowly	After the fault ends, the unit resumes automatically.
4	Malfunction	The water level switch is abnormal	The alarm LED flashes fast	After the fault ends, the unit resumes automatically.
5	Alarm	Mode conflict	The defrost LED flashes fast	When the indoor unit enters heating mode or is turned off, the alarm will turn off.
6	Alarm	M_Home mismatching	4 LED flash together	When the indoor unit is replaced with the correct one or is turned off, the alarm will disappear.
7	Malfunction	EEPROM error	Defrost LED flash slowly	After the fault ends, the unit resumes automatically.
8	Alarm	No address when powered on the first time	Timer LED and run LED flash together	After the fault ends, the unit resumes automatically.

Table.7-4

The fault Indication Of Digit Displays

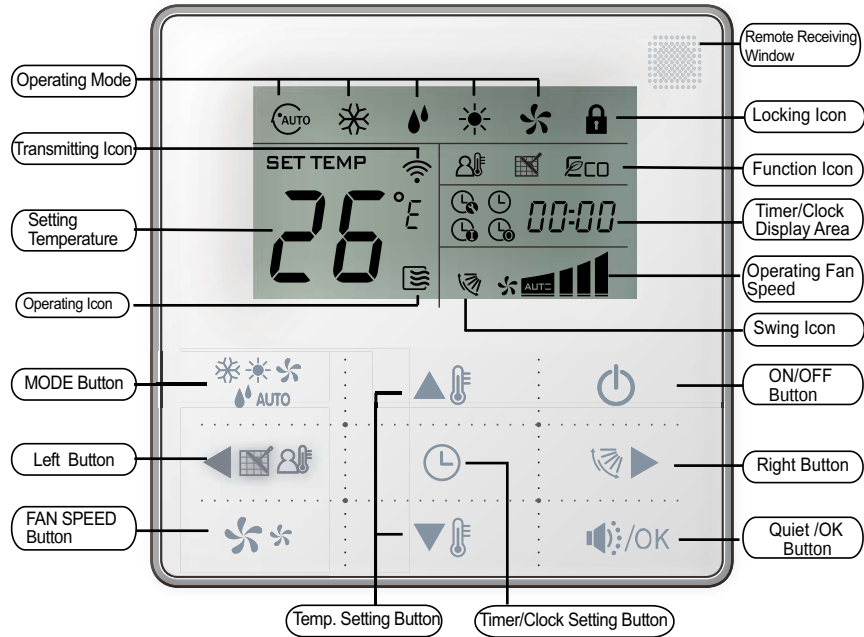
NO.	Type	Contents	Display content	Remarks
1	Malfunction	Room temp. sensor is abnormal.	E2	After the malfunctions disappear, it restores automatically.
2	Malfunction	Indoor/outdoor unit communication is abnormal	E1	After the malfunctions disappear, it restores automatically.
3	Malfunction	Outdoor unit is abnormal	Ed	After the malfunctions disappear, it restores automatically.
4	Malfunction	Water level switch is abnormal	EE	After the malfunctions disappear, it restores automatically.
5	Alarm	Mode conflict	E0	When the indoor unit turns to heating mode or is turned off, the alarm will disappear.
6	Alarm	M_Home mismatch	H0	When the indoor unit is replaced with a correct one or is turned off, the alarm will turn off
7	Malfunction	EEPROM error	E7	After the malfunctions disappear, it restores automatically.
8	Alarm	No address when powered on for the first time	FE	After the malfunctions disappear, it restores automatically.
9	Malfunction	The evaporator temp. sensor is abnormal.	E3	After the malfunctions disappear, it restores automatically.
10	Malfunction	The evaporator outlet temp. sensor is abnormal.	E4	After the malfunctions disappear, it restores automatically.

Wired remote controller Operation manual

Thank you very much for purchasing our product.
Before using your unit, please read this manual carefully and keep it for future reference.

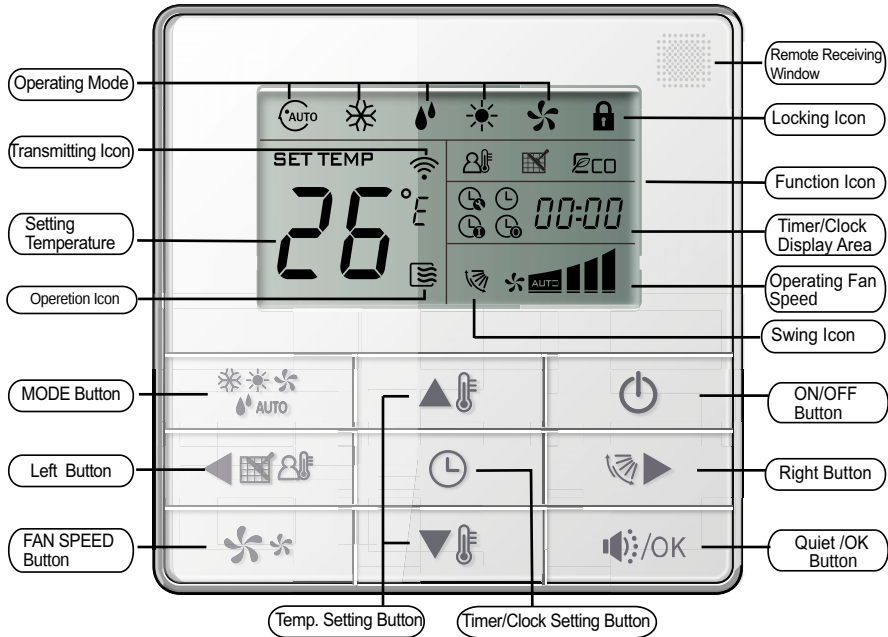
III.Wired remote controller outlook

KJR-29B/BK-E、KJR-29B1/BK-E、KJR-29C/BK-E、KJR-29C1/BK-E



CAUTION
This controller has not economic operating function.

KJR-29A/B-E、KJR-29A1/B-E



CAUTION
This controller has not economic operating function.

V.TECHNIQUE CERTIFICATION AND REQUIREMENT

MD12U-013EW

- EMC should conform to the CCC certification.

Table of Contents

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the wired remote controller please read this manual carefully before using the unit.
- For convenience of future reference, keep this manual after reading it.

I. Safety precautions.....1

II. Main parameters and functions.....2

III. Wired remote controller outlook.....3

IV. Operation instructions.....5

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- Timer on and Timer off setting6
- Clock setting7
- 26°C operation shortcut setting and 26°C operation lock.....7
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- Air filter cleanning reminding function.....7
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- Follow Me Function.....8

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IV.Operation instructions

• Remote signal receiving function

The wired remote controller can be a remote signal receiving device, you can use the wireless remote controller to control the air-conditioner through the wired remote controller when the system have been powered on.



CAUTION

The wired remote controller will not receive the swing controlling instruction. For the indoor unit with swinging function, you can directly use the wireless remote controller to control swinging through the display panel of the indoor unit, or use the swing button on the wired remote controller to control the indoor unit for swinging.

• On and Off the air-conditioner

Press the On/Off button to control the indoor unit on and off status.

When the unit is turned off, press the ON/OFF button, the unit will be turned on and the operating icon lights up.

When the unit is turned on, press the ON/OFF button, the unit will be turned off and the operating icon lights off.

• Set the operating mode

Press the mode button to set the operating mode, after each button press the operation mode will circle as follow:
AUTO→COOL→DRY→HEAT→FAN→AUTO

When the controller has been set to cool-only, then there is no HEAT mode.

• Fan speed setting

Under COOL, HEAT and FAN modes, press the fan speed button can adjust the fan speed setting.

After each fan speed button press will circle as follow:
AUTO→LOW→MID→HIGH→AUTO.

Under AUTO and DRY modes the fan speed is not adjustable and the default fan speed is auto.

• Temperature setting

Under AUTO, COOL, DRY, HEAT modes, press the temperature setting buttons and to set the temperature, the adjusting range is 17°C~30°C (or 62°F~88°F).

The setting temperature cannot be adjusted under FAN mode.

• Timer on and Timer off setting

Press the timer/clock setting button, then enter into the timer on setting status, and the screen will display and 0-9h.

Press and buttons to adjust the timer. when the timer setting is less than 10 hours, each press or will increase or decrease 0.5 hour. When the timer setting is more than 10 hours, each press or will increase or decrease 1 hour, the

maximun timer setting is 24 hours.

After finish adjusting the timer on setting, press the button or wait for 5 seconds to confirm and exit the timer on setting.

Under the timer on setting status, press the timer/clock setting button, then enter into the timer off setting status, and the screen will display and 0-9h.

The setting method of timer off is the same as the timer on.

Under timer setting state, set the timer on and timer off to be 0.0h can cancel timer on and timer off.



CAUTION

If the wired remote controller has been set timer on/ off, press the ON/OFF to turn on/ turn off the unit then the timer will be canceled simultaneously.

I. Safety precautions

The following contents are stated on the product and the operation manual, including usage, precautions against personal harm and property loss, and the methods of using the product correctly and safely. After fully understanding the following contents (identifiers and icons), read the text body and observe the following rules.

■ Identifier description

Identifier	Meaning
 Warning	Means improper handling may lead to personal death or severe injury.
 Caution	Means improper handling may lead to personal injury or property loss.
[Note]: 1. "Harm" means injury, burn and electric shock which need long-term treatment but need no hospitalization 2. "Property loss" means loss of properties and materials.	

■ Icon description

Icon	Meaning
	It indicates forbidding. The forbidden subject-matter is indicated in the icon or by images or characters aside.
	It indicates compulsory implementation. The compulsory subject-matter is indicated in the icon or by images or characters aside.

1

● Clock setting

Long press the timer/clock setting button for 3 seconds, then enter into the clock setting status.

The hour position of the clock will flash, and can press  and  to adjust the hour value.

After finishing the hour setting, press left button  or right button  to switch to minute position setting, then the minute position will flash, press  and  to adjust the minute value.

After finish the clock setting, press the  button or wait for 5 seconds to confirm and exit the setting state.

● Quiet operation

Under COOL, HEAT, FAN modes, press the  button to set into the quiet operation, it is used to reduce the running noise through setting the fan speed to low.

Under AUTO, DRY mode, the fan speed is auto and the  button

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doesn't work.

● Lock the wired remote controller

Press the temperature adjusting buttons  and  simultaneously, the wired remote controller enters into locking state, and the locking icon  will be lighted up.

Under the locking state, the wired remote controller will not respond to the buttons pressing and the control instruction from the wireless remote controller.

Simultaneously press the temperature adjusting buttons  and  again can cancel the locking state.

● Air filter cleaning reminding function

The wired remote controller records the total running time of the indoor unit, when the accumulated running time reaches the pre-setted value, the air filter cleaning reminding icon  will be lighted up, to remind that

■ Warning

 Warning	Delegate installation	Please entrust the distributor or professionals to install the unit. The installers must have the relevant know-how. Improper installation performed by the user without permission may cause fire, electric, shock, personal injury or water leakage.
--	-----------------------	--

 Usage Warning	Forbid	Do not spray flammable aerosol to the wired remote controller directly. Otherwise, fire may occur.
	Forbid	Do not operate with wet hands or let water enter the wired remote controller. Otherwise, electric shock may occur.

II. Main parameters and functions

● Main parameters

Table 2-1

Input voltage	DC +5V
Ambient temperature	-5~43°C
Ambient humidity	RH40%~RH90%

● Functions

Main functions of this wired remote controller as follows:

- 1.Connect with indoor unit via the four ports of A, B, C, D.
- 2.Set operation mode via buttons.
- 3.Provided with LCD display function.
- 4.Provided with timing function.

2

the air filter of the indoor unit need to be cleaned.

Long press  for 3 seconds, and reset the reminding icon and the wired remote controller will re-accumulate the total running time of the indoor unit.

 CAUTION
The default setting value of the reminding function is 2500 hours, and it can change to be 1250 hours, 5000 hours or 10000 hours. The setting methods please refer to the installation manual.

● Swing Function

If the indoor unit supports swing function, press the right button  to adjust the air outlet direction of the indoor unit. Long press this button for 3 seconds can turn on or turn off the auto swing function, the swing icon  will be lighted up when the auto swing function is turned on.

● Follow Me function

When the system is running and the operating mode is AUTO, COOL or HEAT, press the  button will activate the Follow Me function, press this button again to deactivate the function. Operating mode changeover will deactivate the function as well. when the Follow Me function is activated, the icon  will be light up, the wired remote controller will display room temperature read from the local sensor, and transmit the temperature value to the indoor unit every 3 minutes.

8

Remote controller Owner's manual

MD14I-049BW

NOTE

1. The outline figure on cover is for reference only, which may differ from what you purchased.
2. Make sure to read chapter PRECAUTIONS before you operate the air conditioner.
3. This manual is available for model R05/BGE , RM05/BG(T)E-A and RM05/BGE(T).
4. R05/BGE, RM05/BG(T)E-A and RM05/BGE(T) can be applicable for cool only type and cool&heat type air conditioners.

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OPERATION INSTRUCTIONS.....	6
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PRECAUTIONS

- Curtain, door or the like objects will prevent the remote signal from being received by air conditioner.
- Do not get the interior of remote controller wet. It is forbidden to expose it to direct sunlight or locate it in the place with high temp.
- Malfunction may occur if infrared signal receiver on air conditioner is exposed to sunlight. Please shelter the signal receiver from sunlight with curtain.
- Please remove the nearby electronic device for they may affect the performance of remote controller.
- Do not put the used or different batteries into the remote controller, otherwise remote controller will fail to send signal.
- Please remove the batteries before long period unused, otherwise the remote controller may be damaged.
- If pressing the button reset the remote controller, which indicates low battery, please replace the batteries.
- If no receiving sound is heard from indoor unit or  on remote controller does not flash, please replace the batteries.
- Effective transmitting distance of remote controller is 8m, please aim the signal sending part to the receiver on air conditioner.

MODEL AND SPECIFICATION

Model	R05/BGE RM05/BGE(T) RM05/BG(T)E-A
Rated voltage	3.0V(2 pieces of LR03 7#batteries)
Min voltage for sending signal of CPU	2.4V
Effective receiving distance	8m~11m
Operation condition	-5~60°C

☛ Set TIME ON and TIME OFF simultaneously

1. Set TIME ON according to procedures 1 and 2 specified in **TIME ON operation**.

2. Set TIME OFF as the procedures 1 and 2 specified in **TIME OFF operation**.

3. If both the set time of TIME ON and TIME OFF not exceed 10 hours, time OFF operation will activated 0.5 hour later than time ON operation. If both the set time of TIME ON and TIME OFF exceed 10 hours, time OFF operation will be activated 1 hour later than time ON operation.
4. 0.5s after setting, remote controller will send TIME ON command to the unit.

☛ Modification of timer operation

Press corresponding button and readjust the time of time ON and time OFF. Adjust the time figure to 0.00 to cancel the timer operation.

NOTE: The time set in timer operation is the relative figure based on the clock on remote controller. Adjusting clock is unavailable when TIME ON or TIME OFF is activated.

202055090766
R05/BGE-20

NOTE: On FAN mode, temp is nonadjustable and ECO is ineffective. Procedure 2 is omitted.

DRY operation

1. Press MODE to select DRY.
2. Adjust temp via ▲ and ▼ . Generally the range is 17 °C~30 °C.
3. Press ON/OFF and running indicator light on indoor unit is lightened. Air conditioner will work on DRY mode. Turn off the unit via ON/OFF.
4. On DRY mode, ECO and FAN SPEED are unavailable.

Timer operation

TIMER ON and TIMER OFF are used to turn on and turn off the unit at the set time respectively.

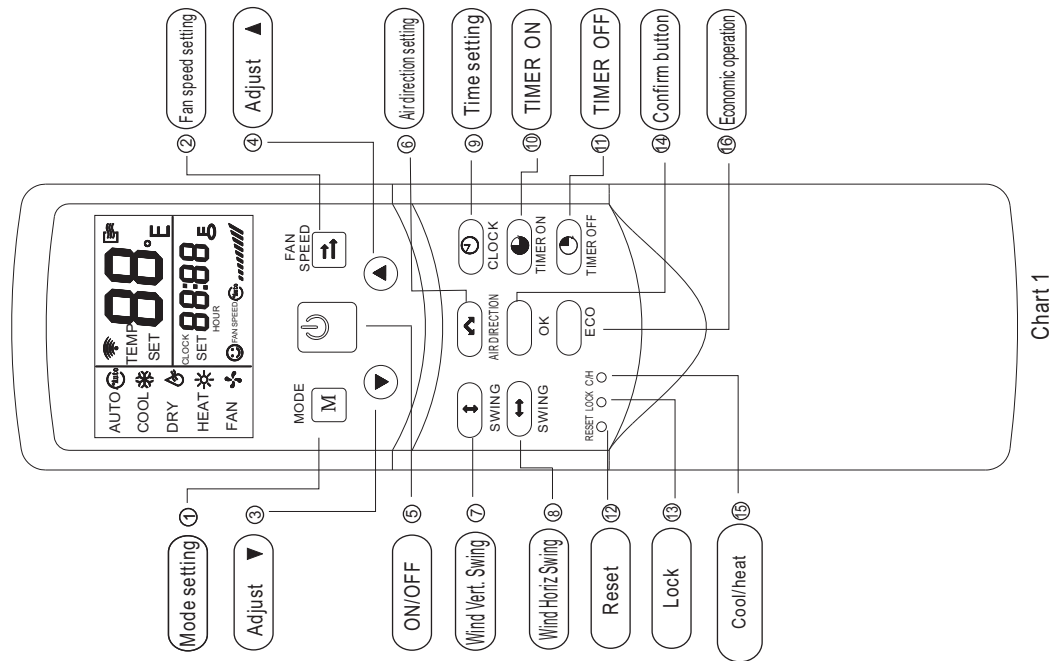
TIME ON operation

1. Press TIMER ON, icon SET, HOUR and ON are lightened.
2. Press TIMER ON again and adjust the time.
3. Keep pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour.
4. 0.5s after setting, remote controller will send TIME ON command to the unit.

TIME OFF operation

1. Press TIME OFF, icon SET, HOUR and OFF are lightened.
2. Press TIME OFF again and adjust the time.
3. Keep pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour.
4. 0.5s after setting, remote controller will send TIME OFF command to the unit.

BUTTONS AND THEIR FUNCTIONS



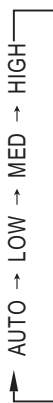
- ① MODE: Once pressing, running mode will be selected in the following sequence:



NOTE: No heating mode for cool only type unit.

- ② FAN SPEED: Fan speed will be selected in following

sequence once pressing this button:



- ③ Adjust▼ : Decrease the set temp. Keeping pressing will decrease the temp with 1℃ per 0.5s.
- ④ Adjust▲ : Increase the set temp. Keeping pressing will increase the temp with 1℃ per 0.5s.
- ⑤ ON/OFF: For turning on or turning off the air conditioner.
- ⑥ AIR DIRECTION: Activate swing function of air deflector. Once pressing, air deflector will turn 6℃. For normal operation and better cooling and heating effect, deflector will not turn to the degree which is the state of deflector when the unit is turned off (Only available when remote controller is used with corresponding unit.)
- ⑦ Wind Vert Swing: Activate or turn off wind vertical swing function. (Only available when remote controller is used with corresponding unit.)
- ⑧ Wind Horiz Swing: Activate or turn off wind horizontal swing function. (Only available when remote controller is used with corresponding unit.)
- ⑨ CLOCK: Display the current time. (12:00 is displayed when resetting or electrifying for the first time.) Press CLOCK for 5s, icon indicating hour will flash with 0.5s. Press it again, icon indicating minute will flash with 0.5s. ▼ and▲ are used

- ⑧ Fan speed: Press FAN SPEED to display the current wind speed. AUTO, LOW, MED and HIGH can be selected. The default state is high fan speed for the unit without medium fan speed.

- ⑨ Economic operation: This icon will be lightened or off when pressing ECO button.

NOTE: All the above icons will be displayed only when the remote controller is electrified for the first time or reset.

OPERATION INSTRUCTIONS

Install and replace batteries

- Install 2 pieces of 7# alkaline batteries.
- Slide the cover to install batteries and make sure to place them in right pole.

AUTO operation

Switch on the power and running indicator light on indoor unit flashes.

1. Press MODE to select AUTO.
2. Adjust temp via▲ and▼. Generally the range is 17℃~30℃.
3. Press ON/OFF and running indicator light on indoor unit is lightened. Air conditioner will work on AUTO mode and fan speed is AUTO which is nonadjustable.
4. ECO is effective on AUTO operation.

COOL/HEAT/FAN operation

1. Press MODE to select COOL, HEAT or FAN.
2. Adjust temp via▲ and▼. Generally the range is 17℃~30℃.
3. Press FAN SPEED to select AUTO, LOW, MED or HIGH.
4. Press ON/OFF and running indicator light on indoor unit is lightened. Air conditioner will work on the set mode. Stop operation via ON/OFF.

to adjust the figure. Setting or modification is effective only by pressing OK button to make confirmation.

⑩ **TIME ON:** For time ON setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour. Adjusting the figure to 0.00 will cancel time ON setting.

⑪ **TIME OFF:** For time OFF setting. Once pressing this button, the time will increase by 0.5 hour. When the set time exceeds 10 hours, pressing the button will increase the time by 1 hour. Adjust the figure to 0.00 will cancel time ON setting.

⑫ **RESET** (inner located): Press this button with a needle of 1mm to cancel the current setting and reset remote controller.

⑬ **LOCK** (inner located): Press this button with a needle of 1mm to lock or unlock the current setting.

⑭ **OK:** Used to confirm the time setting and modification.

⑮ **COOL/HEAT** (inner located): Press this button with a needle of 1mm to shift mode between COOL only and COOL&HEAT. During setting, back light will be lightened. Factory default mode is COOL & HEAT.

⑯ **ECO:** Activate or turn off economic operation mode. It is suggested to turn on this function when sleeping. (Only available when remote controller is used with corresponding unit.)

INDICATORS AND FUNCTIONS

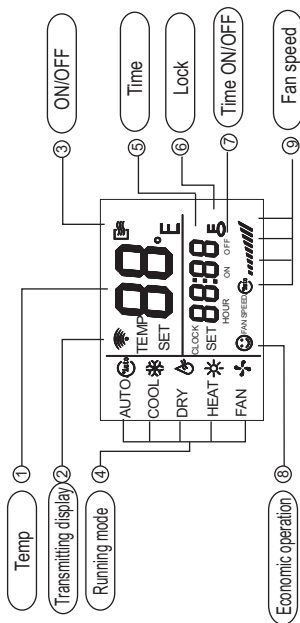


Chart 2

① **Temp:** Display the set temperature. Adjust temperature via ▲ and ▼. No display in this area if the unit is on FAN mode.

② **Transmitting display:** The icon will flash once when the signal is sent by remote controller.

③ **ON/OFF:** Icon is displayed when the remote controller is turned on, or vice versa.

④ **Running mode:** Press MODE to display current running mode. AUTO, COOL, DRY, HEAT and FAN can be selected. (HEAT function is invalid for cool only type unit.)

⑤ **Time:** Display the current set time. Press CLOCK for 5s, icon indicating hour will flash. Press this button again, icon indicating minute will flash. ▲ And ▼ are used to adjust the figure. Setting or modification is effective only by pressing OK button to make confirmation.

⑥ **Lock:** The icon will be lightened or off when pressing LOCK. In locked state, all the buttons are ineffective except button LOCK.

⑦ **Time ON/OFF:** In the state of time ON, icon ON will be lightened, which is the same to the state of time OFF. Setting timer ON and OFF simultaneously, both icons ON and OFF are displayed.

Certifications

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WE DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE MACHINEDICHIARIAMO SOTTO LA NOSTRA SOLA RESPONSABILITÀ CHE LA MACCHINA
WIR ERKLÄREN EIGENVERANTWORTLICH, DASS DIE MASCHINE
NOUS DÉCLARONS SOUS NOTRE SEULE RESPONSABILITÉ QUE LA MACHINE
EL FABRICANTE DECLARA BAJO SU EXCLUSIVA RESPONSABILIDAD QUE LA MÁQUINA

CATEGORY	DIRECT EXPANSION TERMINALS - Heat pump
CATEGORIA	TERMINALI AD ESPANSIONE DIRETTA - Pompa di calore
KATEGORIE	DIREKTVERDAMPFUNGSGERÄTE - Wärmepumpe
CATEGORIE	TERMINAUX À DÉTENTE DIRECTE - Pompe à chaleur
CATEGORIA	TERMINALES POR EXPANSIÓN DIRECTA - Bomba de calor

TYPE / TIPO / TYP / TYPE / TIPO

MODEL	MODEL
CN-XMi D71	CN-XMi D160
CN-XMi D80	CN-XMi D200
CN-XMi D90	CN-XMi D250
CN-XMi D112	CN-XMi D280
CN-XMi D140	

- **COMPLIES WITH THE FOLLOWING EC DIRECTIVES, INCLUDING THE MOST RECENT AMENDMENTS, AND THE RELEVANT NATIONAL HARMONISATION LEGISLATION CURRENTLY IN FORCE:**
- RISULTA IN CONFORMITÀ CON QUANTO PREVISTO DALLE SEGUENTI DIRETTIVE CE, COMPRESSE LE ULTIME MODIFICHE, E CON LA RELATIVA LEGISLAZIONE NAZIONALE DI RECEPIMENTO:
- DEN IN DEN FOLGENDEN EG-RICHTLINIEN VORGESEHENEN VORSCHRIFTEN, EINSCHLIEßLICH DER LETZTEN ÄNDERUNGEN, SOWIE DEN ANGEWANDTEN LANDESGESETZEN ENTSPRICHT:
- EST CONFORME AUX DIRECTIVES CE SUIVANTES, Y COMPRIS LES DERNIÈRES MODIFICATIONS, ET À LA LÉGISLATION NATIONALE D'ACCUEIL CORRESPONDANTE:
- ES CONFORME A LAS SIGUIENTES DIRECTIVAS CE, INCLUIDAS LAS ÚLTIMAS MODIFICACIONES, Y A LA RELATIVA LEGISLACIÓN NACIONAL DE RECEPCIÓN:

- | | | |
|-------------------------------------|-------------------|--|
| ☒ | 2006/42/EC | machinery directive
direttiva macchine
Maschinenrichtlinie
directive sur les machines
directiva máquinas |
| ☒ | 2014/30/UE | electromagnetic compatibility
compatibilità elettromagnetica
Elektromagnetische Verträglichkeit
compatibilité électromagnétique
compatibilidad electromagnética |
| ☒ | 2011/65/UE | RoHS |

-Unit manufactured and tested according to the followings Standards:
-Unità costruita e collaudata in conformità alle seguenti Normative:
-Unité construite et testée en conformité avec les Réglementations suivantes
-Unidad construida y probada de acuerdo con las siguientes Normativas
- Gebautes und geprüftes Gerät nach folgenden Normen

EN 60335-1 :2012/A11 :2014 EN 60335-2-40 :2003/A13 :2012
EN 62233 :2008 EN 61000-6-1 :2007 EN 61000-6-3 :2007/A1 :2011
EN 62321-1 :2013 EN 62321-2 :2014 EN 62321-3-1 :2014
EN 62321-4 :2014 EN 62321-5 :2014 EN 62321-6 :2015
EN 62321 :2009

-Responsible to constitute the technical file is the company n°00708410253 and registered at the Chamber of Commerce of Belluno Italy
-Responsabile a costituire il fascicolo tecnico è la società n° 00708410253 registrata presso la Camera di Commercio di Belluno Italia
-Verantwortliche für die technischen Unterlagen zusammenstellen n°00708410253 ist das Unternehmen bei der Handelskammer von Belluno Italien registriert
-Responsable pour compiler le dossier technique est la société n°00708410253 enregistrée à la Chambre de Commerce de Belluno en Italie
-Encargado de elaborar el expediente técnico es la empresa n° 00708410253 registrada en la Cámara de Comercio de Belluno Italia

FELTRE, <u>29/06/2018</u>	NAME / NOME / VORNAME / PRÉNOM / NOMBRE SURNAME / COGNOME / ZUNAME / NOM / APELLIDOS COMPANY POSITION / POSIZIONE / BETRIEBSPOSITION / FONCTION / CARGO	 STEFANO BELLO AMMINISTRATORE DELEGATO
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