Floor Standing Split

TMFS & TMFE & TMFV Series

TRUST AIR CONDITIONING EQUIPMENT CO.
Prepared By: Engineering & R & D Department.

Shiraz- AUG 2015

Installation

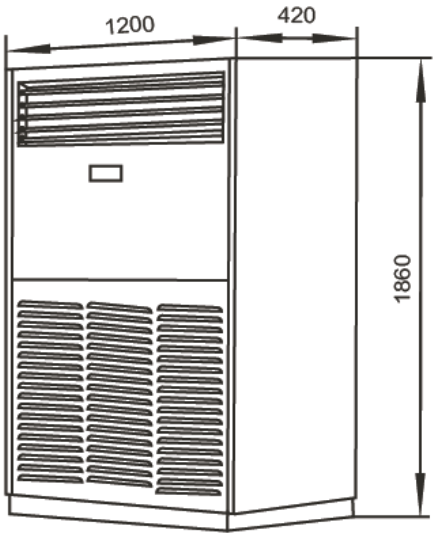
توجه:

شرکت تراست حق تغییر مشخصات دستگاه ها را در جهت بهبود و ارتقای کیفیت برای خود محفوظ می دارد.

1 Installation Of Indoor Unit

1.2 Installation of Floor-standing

1.2.1 Outline of the unit (Fig-1)



(Unit:mm)

Fig-1

1.2.1 Installation Space

For ensure the proper installation
Select the enough solid and level sites.
Ensure enough space required for installation and maintenance. (**Fig-2** and **Fig-3**)

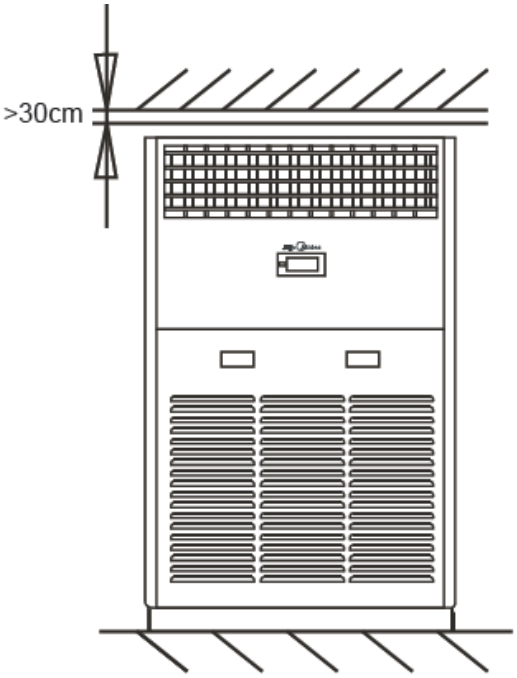


Fig-2

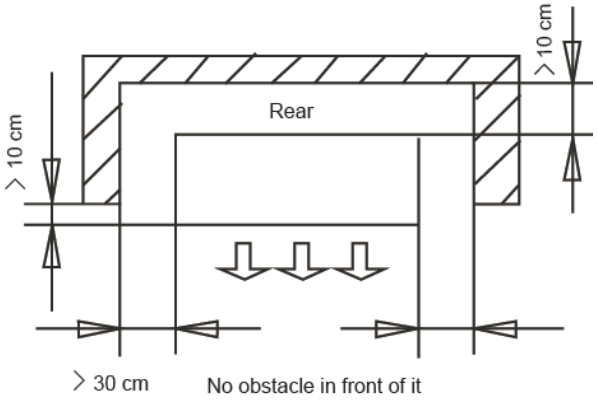


Fig-3

For anti-fall down, please conduct the follow measures:

※ See Fig-15 to fix the feet on the floor after select a proper place for installation, since the height of this unit casing is very high.

※ The right and left sides as well as rear can be fixed, please select the unit fixed measure as per to your actual installing ambient.

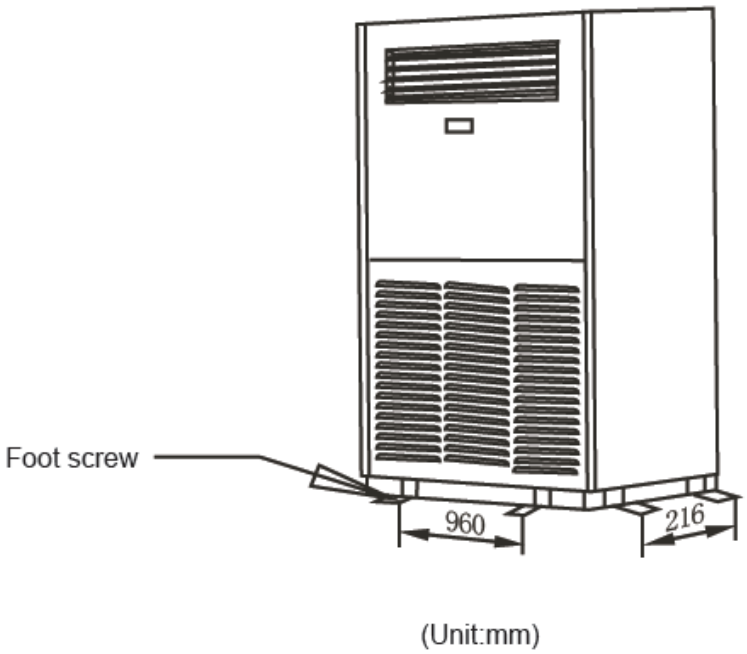


Fig-4

Put down the air intake panel, before electric connection:

※ Uncover the screw-cap in the air intake panel, and then lessen the screws.

※ Take off the air intake panel; ensure which place secure enough will not make risk to the other people.

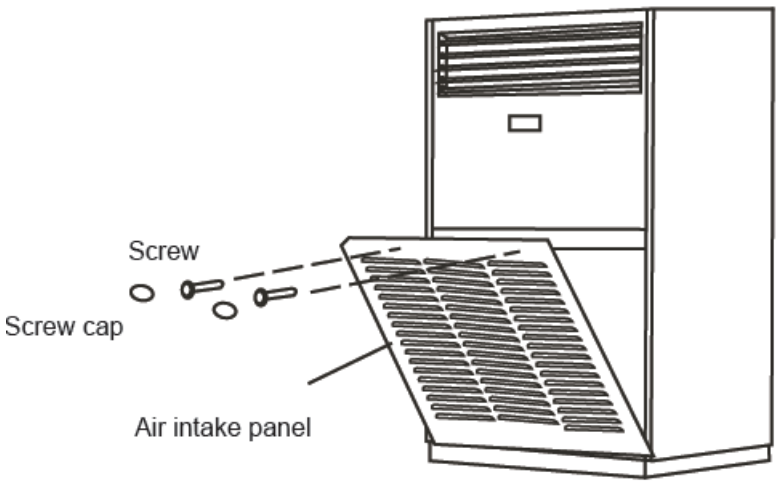


Fig-5

NOTE:
Please beware of the foot screw, which may be hurt for the pass-by people, make sure enough security of that, prevent accident occurs.

2. Installation of Outdoor Units

2.1 Important: Construction Checkpoints

1). Installation
Check the model and name to avoid mistaken installation.

2). Refrigerant pipe

※ The refrigerant pipes must have the specified diameter.

※ Nitrogen of a certain pressure must be filled into the refrigerant pipe before welding.

※ The refrigerant pipe must undergo heat insulation treatment.

※ After the refrigerant pipe is installed completely, the indoor unit cannot be powered on before performing the airtight test and creating a vacuum.

3). Refrigerant pipe
The refrigerant pipe must undergo the airtight test [with 2.94MPa (30kgf/cm^{2}G) nitrogen].

4). Creating a vacuum
Be sure to use the vacuum pump to create a vacuum of the connective pipe at both air side and liquid side concurrently.

5). Refrigerant replenishment

※ If the pipe is longer than the reference pipe, the refrigerant replenishment quantity for each outdoor unit should be calculated through the formula obtained according to the actual length of the pipe.

※ Record the refrigerant replenishment quantity, actual length of pipe and the height difference of the indoor & outdoor units onto the operation confirmation table (on the electric control box) of the outdoor unit in advance for future reference.

6). Electric wiring

※ Select the power supply capacity and wire size according to the design manual. The power wire size of the air conditioner should be greater than that of ordinary motors.

※ In order to prevent disoperation of the air conditioner, do not interleave or entwine the power cable (380V-415V 3N~ 50Hz) with the connection wires (low-voltage wires) of the indoor/outdoor unit.

※ Power on the indoor unit after performing the airtight test and making a vacuum.

7). Trial run
Perform the trial run only after the outdoor unit has been powered on for over 12 hours.

2.2 Installation Space

※ When installing the unit, leave a space for maintenance shown in the following figure. Install the power supply at the side of the outdoor unit.

※ Ensure enough space for installation and maintenance. (**Fig-6** and **Fig-7**)

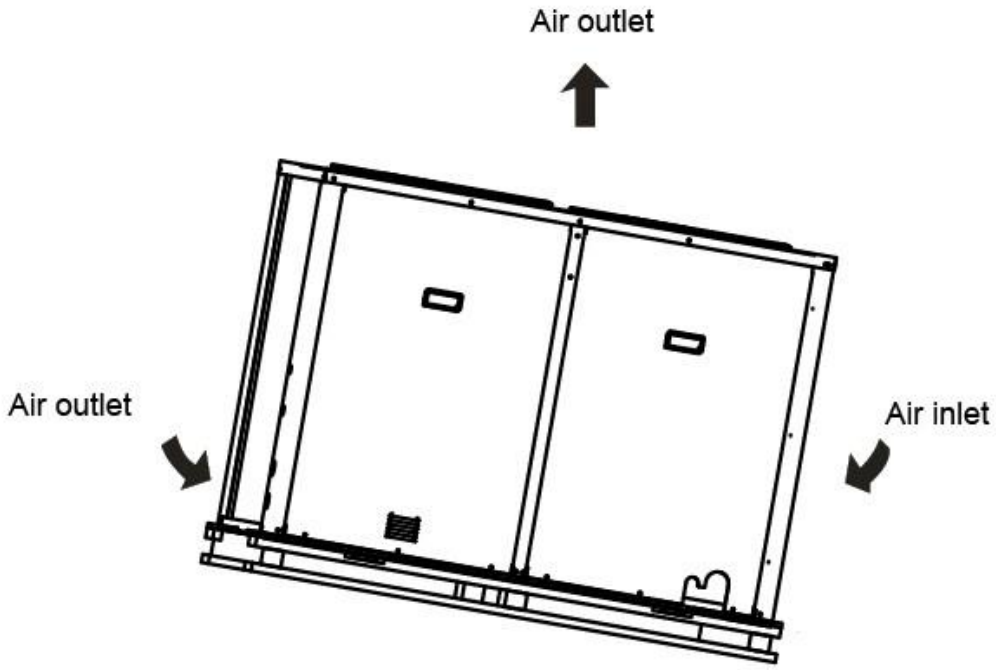


Fig-6

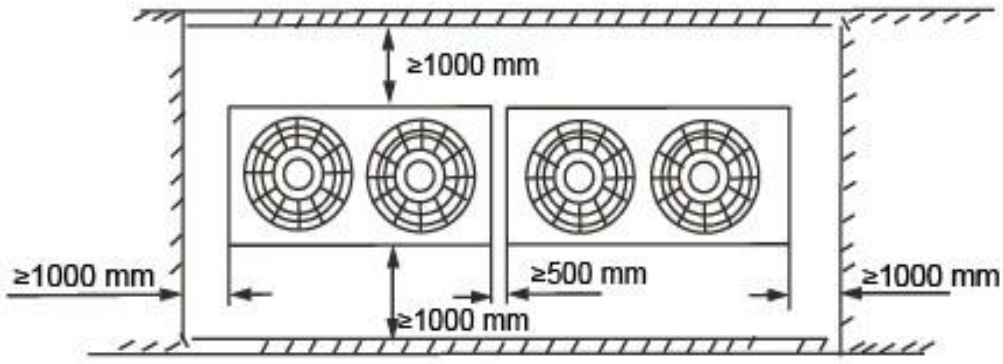


Fig-7

NOTE:
1. In case any obstacles exist above the outdoor unit, such obstacles must be 2000mm above the outdoor unit.
2. If miscellaneous articles are piled around the outdoor unit, such articles must be 400mm below the top of the outdoor unit.

As shown in Fig-8, leave an interval of 200mm between the outdoor units.

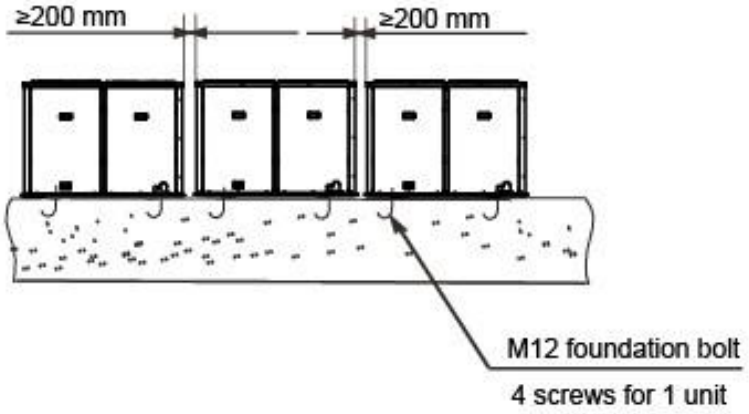


Fig-8

The distance of the foundation bolt is shown in Fig-9.

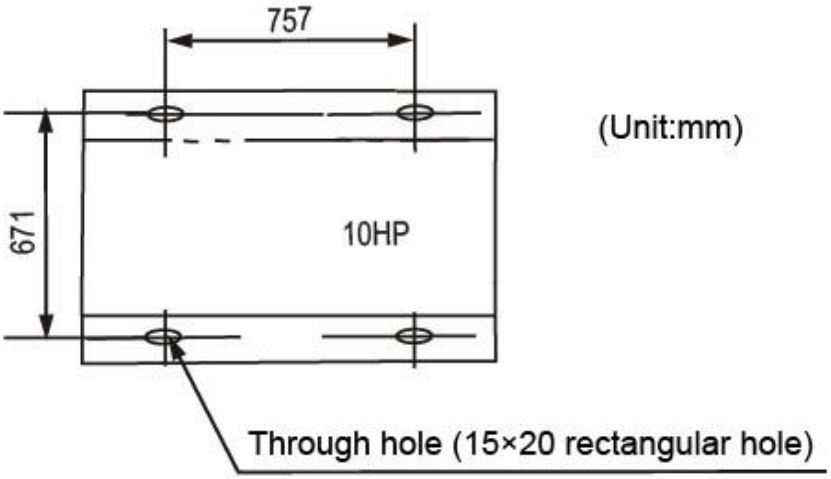


Fig-9

2.3 Convey Outdoor Unit

※ Use 4 steel ropes of a Φ6mm or bigger size to hoist the outdoor unit and convey it into the room.

※ In order to prevent scratch and deformity the outdoor unit, apply a guard board to the surface of contact between the steel wire and the air conditioner.

※ Remove the cushion for use in the transport after finishing the transport. (**Fig-10**)

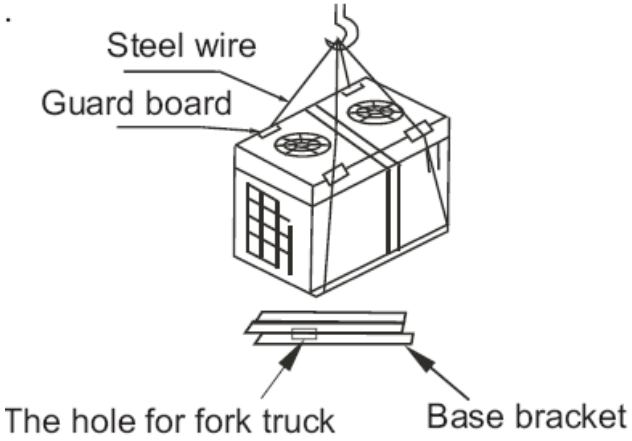


Fig-10

Snow protection facilities must be installed in the snowfall areas.(See the **fig-11**)
In case the snow protection facilities are incomplete, faults may occur). In order to prevent influence caused by snow, set up raised pavilion, and install snow protection sheds at the air inlet and air outlet.

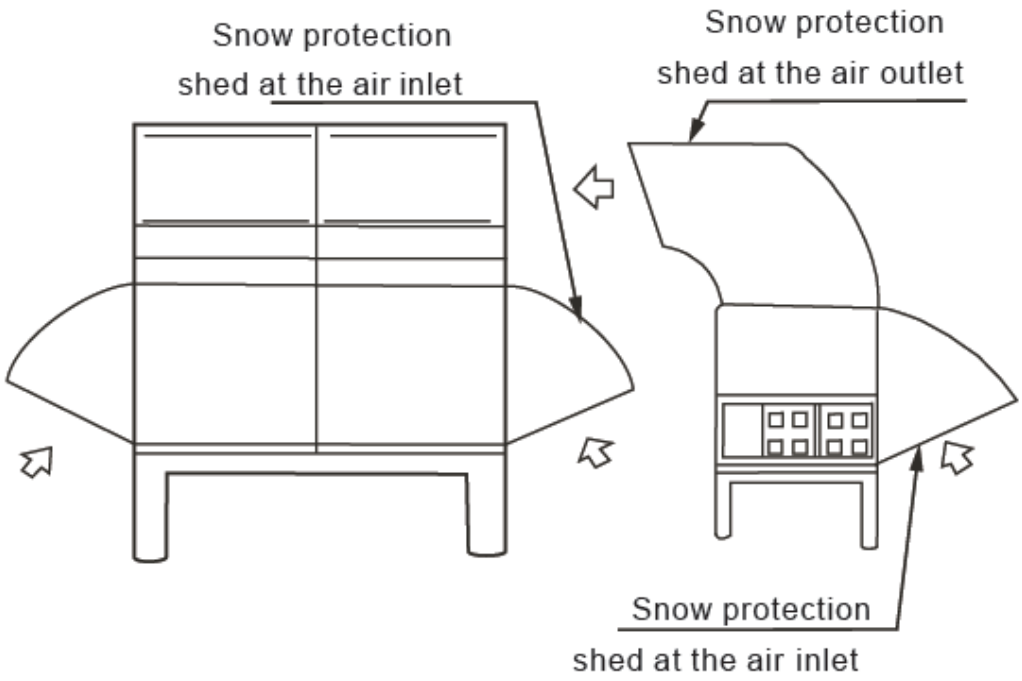


Fig-11

2.5 Installation of Refrigerant Pipe

The refrigerant pipe adapter is located inside the outdoor unit. When the pipe is connected from the front side ,the pipe can be let out through the right front board.(**Fig-12** and **Fig-13**)
So remove the left front board first. (Three M5 screws)
The pipe can be connected from the front left lower side or the bottom notch of the outdoor unit.
When the pipe is connected from the front side, the pipe can be led out through the pipe & wire panel.
In case the pipe is connected from the bottom notch, install it leftward, rightward or backward after leading it out.
When the pipe is led from the front, use a cover plate to seal the bottom notch in order to prevent intrusion of dust or trash.

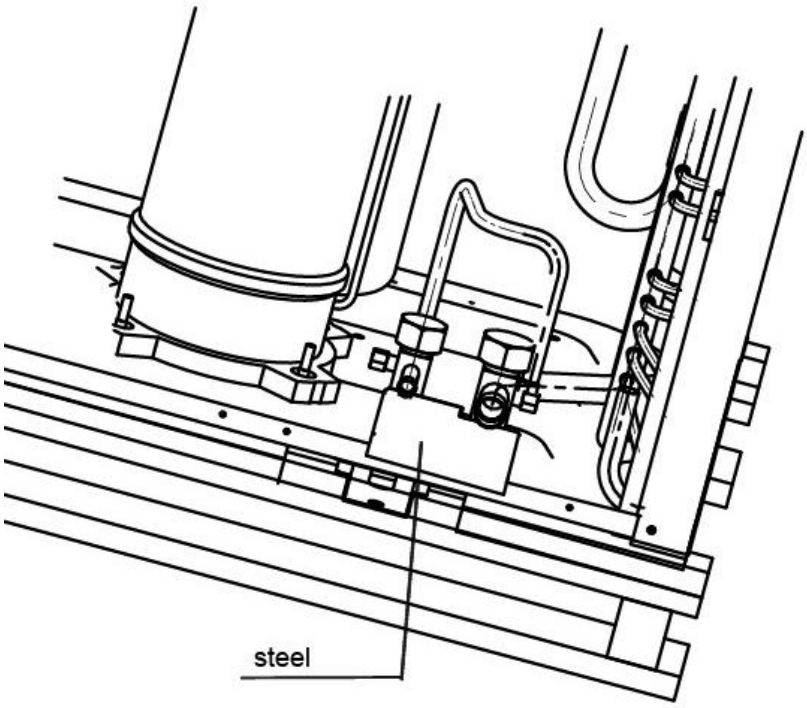


Fig-12

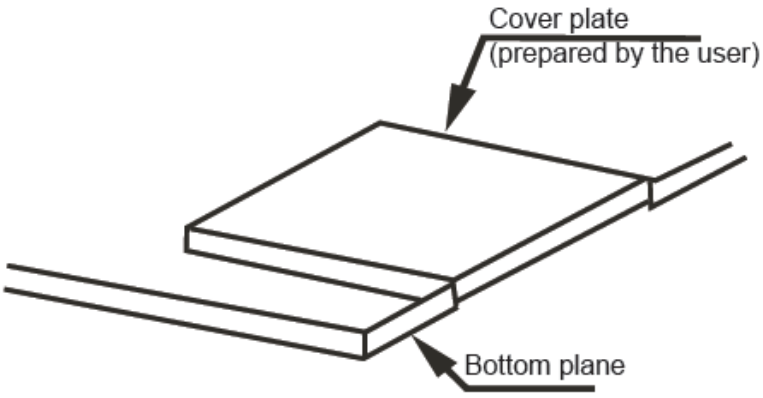


Fig-13

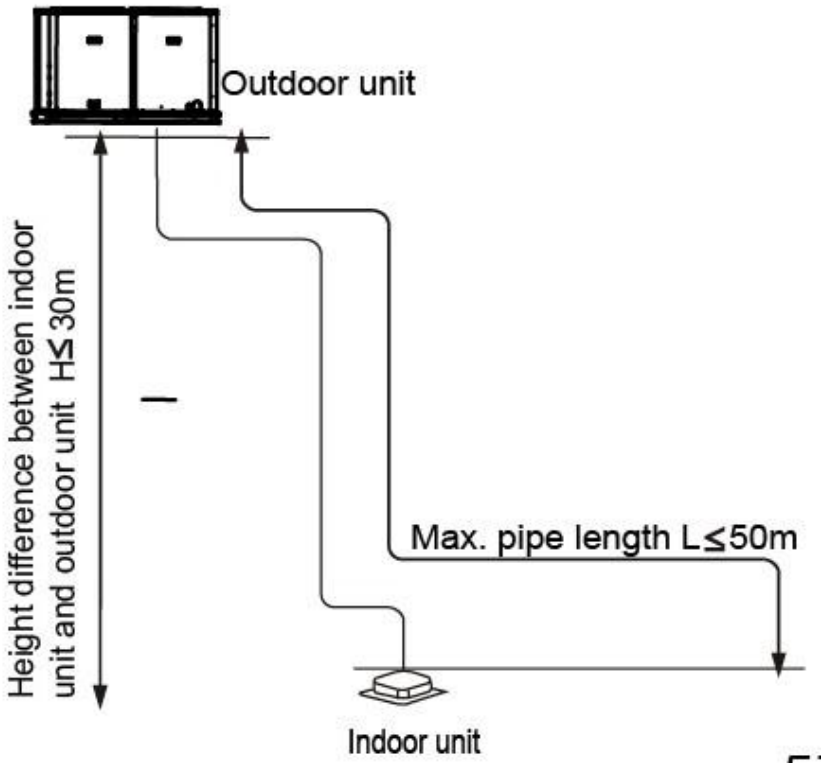
NOTE:
When welding the refrigerant pipe, in order to prevent internal oxidation of the pipe, nitrogen must be filled in. Otherwise, the oxidized chips may block refrigerating circulatory system.

2.5.1 Size of Outdoor Unit Pipes and Piping Methods

1) Size of outdoor unit pipes and piping methods

Model	Gas side	Liquid side
TMFV-100CT3	φ25	φ12.7
	φ28 (pipe length L≥30m)	
TMFV-100HT3	φ25	φ12.7
	φ28 (pipe length L≥30m)	

2) Allowed length of refrigerant pipe and height difference (Fig-14)



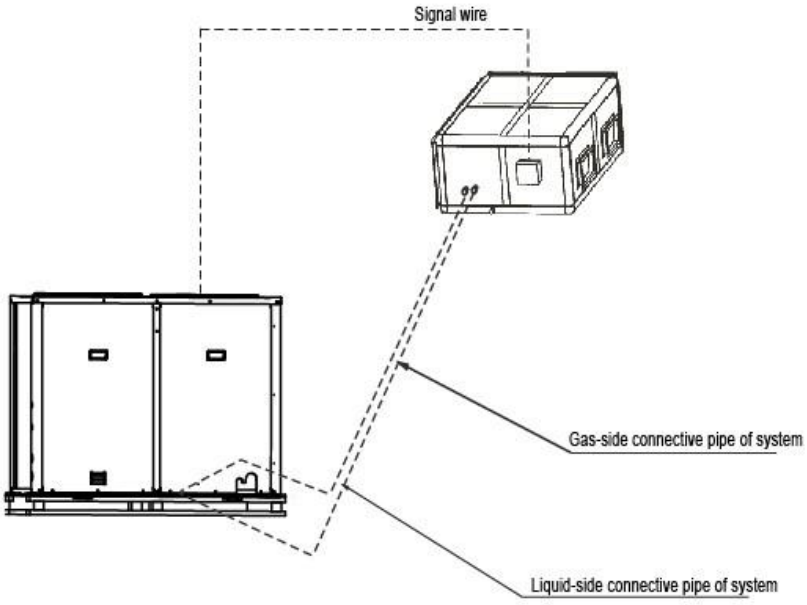


Fig 14 - 100000 Btu/h

Table 1:

			100000 Btu/h
Max. actual length of pipe (L)			50m
Max. height difference	Height difference between indoor unit and outdoor unit (H)	Outdoor upper	30m
		Outdoor ower	30m

2.6 Airtight Test

After the pipes between the indoor unit and the outdoor unit are connected, replenish compressed nitrogen to perform airtight test.

NOTE:
1. The airtight test is performed by using the compressed nitrogen [2.94MPa (30kg/cm^{2}G)].
2. Tighten the spool of the gas valve and liquid valve before compressing the nitrogen.
3. Compress the nitrogen at the air vent of the gas valve.
4. The gas valve and liquid valve are closed in the process of compressing the nitrogen.
5. Do not use oxygen, flammable gas or toxic gas in the airtight test.

2.7 Vacuumize

Use a vacuum pump to make a vacuum. Do not use refrigerant gas to expel air.
When making the vacuum, start from the air side.

2.8 Open All Valves

2.9 Additional Charge of Refrigerant

According to the diameter and length of the connective liquid side pipe of the outdoor unit and indoor unit, calculate the refrigerant replenishment quantity. The refrigerant for replenishment is R22.

Table 2:

Diameter of liquid side of pipe	Quantity of refrigerant replenished for 1m pipe length
φ 12.7 (96000)	0.115kg

2.10 Remove Trash and Moist In the Pipe

※ Trash and foreign matters may come into the pipe in the process of installing the refrigerant pipe. Be sure to blow them off with nitrogen before connecting the pipe to the outdoor units.

※ Use high-pressure nitrogen to clean the pipelines. Do not use the refrigerant of the outdoor unit for cleaning.

2.11 Refrigerant Leak Precautions

This air conditioner uses refrigerant R22. The R22 is safe refrigerant which is harmless and non-flammable. The room for placing the air conditioner should have a proper space. Even if refrigerant leakage occurs, the density threshold will not be crossed. Additional measures may also be taken.

1) Density threshold: Density of the Freon gas that does not harm the human body. Density threshold of R22: 0.3 [kg/m3]

※ Calculate the total quantity of refrigerant to be replenished (A [kg]). Total refrigerant quantity for 10HP = refrigerant replenishment quantity upon shipment (11[kg]) + additional refrigerant replenishment corresponding to the pipe length

※ Calculate out the indoor volume (B [m3]) (according to the minimum volume)

※ Calculate out the refrigerant density:

$$\frac{A[kg]}{B[m^3]} \leq \text{Density threshold: } 0.3\ [kg/m^3]$$

2) Measures against crossing of the refrigerant density threshold

※ In order to keep the refrigerant density below the threshold value, please install a mechanic ventilation device. (Perform ventilation often)

※ In case frequent ventilation is impossible, please install the leakage detection alarm device linked with the

mechanical ventilation device.

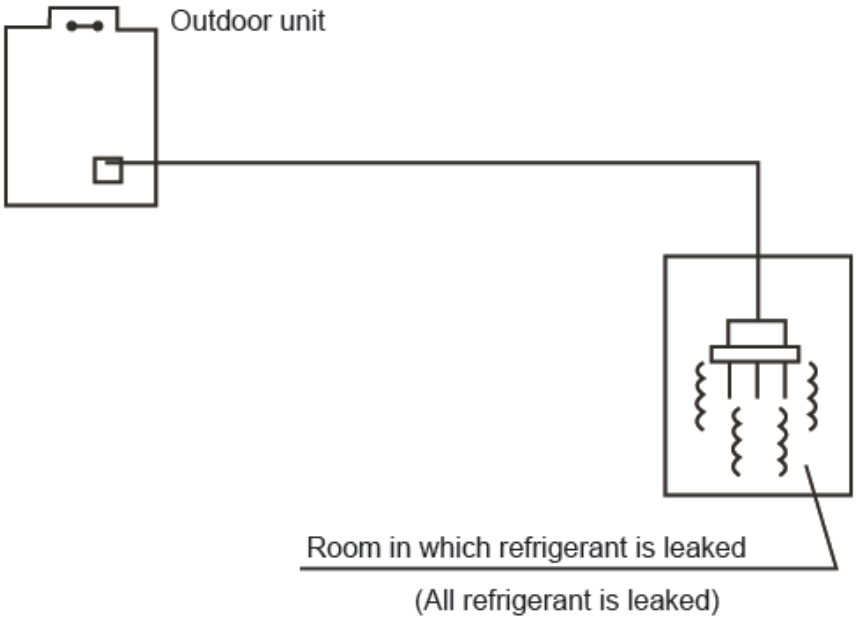


Fig-15

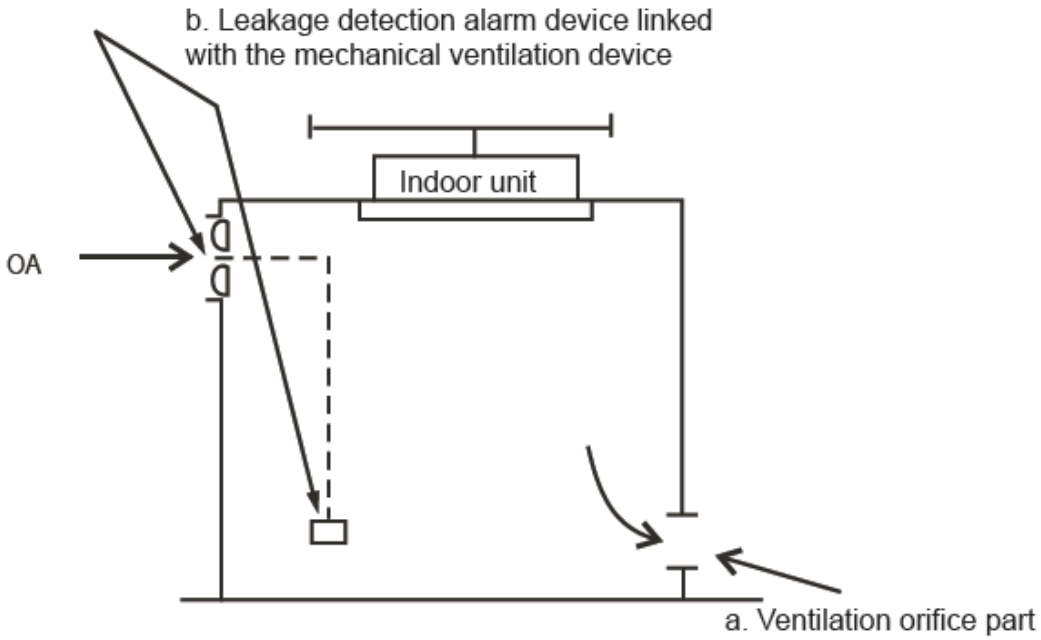


Fig-16

2.12 Completing the Connection System Name

In case multiple systems are set, in order to identify the connection system of the indoor unit and outdoor unit, it is necessary to give name to each system, and mark it onto the nameplate on the electric control box cover of the outdoor unit.

NOTE:

The indoor unit and outdoor unit are categorized into system A and system B. When installing and connecting the indoor unit and outdoor unit, identify the label carefully, and make sure that indoor unit corresponds to the outdoor unit exactly. Otherwise, it may lead to fault of the air conditioner.

3. Heat Insulation of the Pipe

3.1 Heat Insulation of the Pipe

In order to prevent faults caused by condensate of the refrigerant pipe and drain pipe, perform condensate prevention and heat insulation properly.

CAUTION:

If it is forecast that high humidity/temperature environment (condensate temperature is over 23℃) may exist in the ceiling, e.g., inside the ceiling with slab, ceiling which is in the same environment as the outdoor air), it is necessary to apply 10mm or thicker adiabatic wool (16~20kg/m2) to the refrigerant pipe and the drain pipe in addition to applying the general heat insulation materials. Enough heat insulation materials should also be applied to the refrigerant joint and the pipe joint.

3.2 Heat Insulation of the Drain Pipe

※ Be sure to entwine heat insulation materials round the drain pipe which runs through the room.

※ Carry through heat insulation for the drain pipes thoroughly.

3.3 Heat Insulation of the Refrigerant Pipe

※ Please use heat-resistant materials as heat insulation materials of the air-side pipe. (e.g., EPT)

※ Cover heat insulation materials separately at the liquid side and the air side. Moreover, perform heat insulation thoroughly for the air-side pipes of the indoor unit, and prevent water from dripping outside the unit.

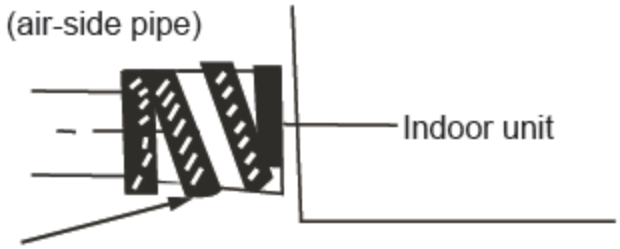


Fig-17

※ After applying the auxiliary heat insulation materials, use vinyl resin tape to seal it lest water leak.

4. Installation of Connective Pipe

4.1 Preparation before Installation

※ Check the height difference between the indoor unit and the outdoor unit, and check the length and number of bends of the refrigerant pipeline, which must meet the following requirements:
Max. Height difference....20m (If the height difference is greater than 5m, it is best to put the outdoor unit above the indoor unit)
Max. Pipeline length.....30m
Max. Number of bends....15

※ In the process of installing the connective pipe, do not lemmas the air, dust or foreign substance intrudes into the pipeline system.

※ Install the connective pipe only after fixing the indoor and outdoor units.

※ Keep dry when installing the connective pipe. Do not let moist intrude into the pipeline system.

4.2 Procedure of Connecting Pipes

4.2.1 Measure the required length of the connective pipe, and make the connective pipes in the following procedure.

4.2.1.1 Connect the indoor unit first, and then connect the outdoor unit.
The pipe bend should be handled carefully, without damaging the pipe.

NOTE:

1. Before screwing up the flared nut, apply refrigerant oil at the outer surface of the pipeline flare and the taper surface of the connection nut. Screw up the nut for 3~4 circles beforehand.

2. When connecting or disconnecting the pipeline, be sure to use two spanners concurrently.

3. Do not rest the weight of the connective pipe on the adapter of the indoor unit. Too heavy load on the adapter of the indoor unit may deform the pipe and thus affect the cooling/heating effect.

4.2.1.2 The valve of the outdoor unit should be closed completely (as in the factory status). Every time when connecting the pipe, screw off the nut at the valve, and connect the flared pipe (within 5 minutes). If the nut is put away for a long time after being screwed off the valve, dust and other foreign substance may intrude into the pipeline system and lead to fault. Before connecting the pipe, use the refrigerant to expel air out of the pipe.

4.2.1.3 After the refrigerant pipe is connected to the indoor and outdoor units, expel air as instructed in the “Expel air” section. After expelling the air, screw up the nut at the maintenance orifice.

4.2.1.4. Precautions for the flexible part of the pipeline

The bend angle shall not exceed 90°.
The bend shall be preferably in the middle of the pipe length, and higher bend radiuses are preferred. Do not bend the flexible pipe for over 3 times.

4.2.1.5 Bend the thin-wall connective pipe

When bending the pipe, cut out a notch of the desired size at the bend of the adiabatic pipe, and then expose the pipe (wrap the pipe with the wrapping tape after bending it).
The radio of the elbow pipe should be as large as possible to prevent flattening or crush.
Use the pipe bender to make close elbow pipe.

4.2.1.6 Use purchased copper pipe

When the cooper pipe is purchased from the market, be sure to use the heat insulation materials of the same type (with a thickness of over 9mm).

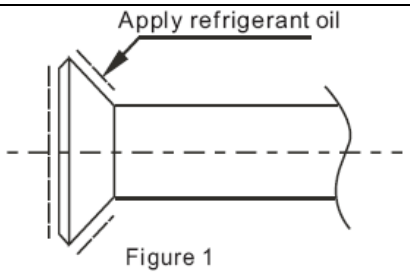


Figure 1

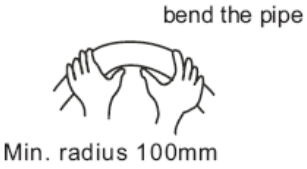


Figure 2

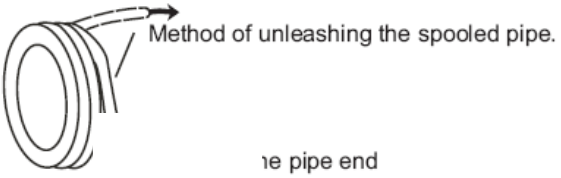


Fig-18

4.2.2 Deploy the pipelines

※ Drill a porthole on the wall, and put the hole sheath and hole cover through the wall.

※ Place the connective pipe together with the indoor & outdoor connection wires. Use wrapping tape to tie them tight. Do not let air penetrate into it lest condensation and drips of moist.

※ Pull the connective wrapped connective pipe from outdoor through the sheath which gets through the wall, and lead it into the room. Lay out the pipelines carefully lest damage to the pipes.

4.2.3. Make a vacuum of connective pipeline.

4.2.4. After the above steps are completed, the spool of the valve of the outdoor unit should be completely open, and the refrigerant pipeline of the indoor unit and the outdoor unit should be smooth.

4.2.5. Use leak detector or soap water detect leak carefully to prevent leakage.

4.2.6. Put on an adiabatic envelope (accessory) at connective pipe adapter of the indoor unit, and wrap it tight with the wrapping tape lest condensate and leakage.

Flare

a. Use a pipe cutter to cut off the pipe.

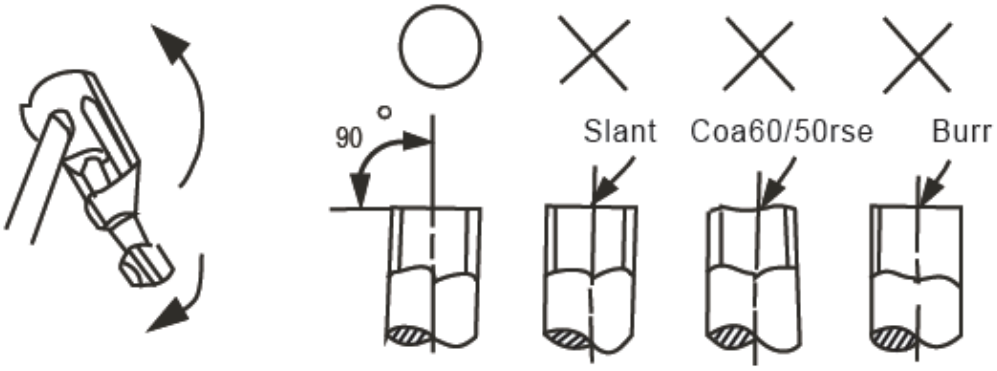


Fig-19

b. Pull the pipe into the rear flare of the connective nut.

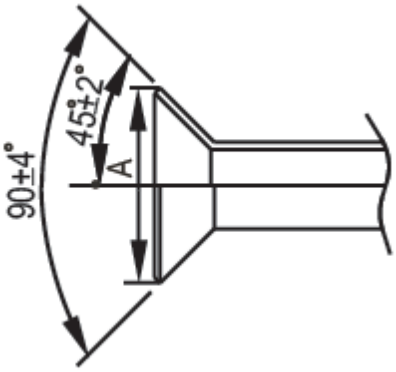


Fig-20

※ Tighten the nut

Align with the connective pipe

Screw up the connection pipe nut manually, and use a spanner to tighten it as shown in Fig-21

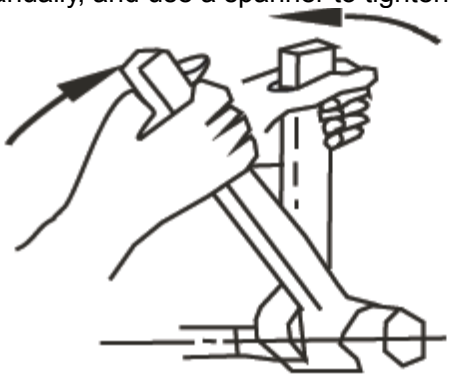


Fig-21

NOTE:

According to the installation conditions, too large torque will damage the flaring, and too small torque will lead to looseness and leakage. Determine the tightening torque by reference to the following table.

※ Replenishment quantity of refrigerant required for air conditioner

The single-pass pipe is shorter than 5 m, and no additional length is required (note: The unit has been replenished before being shipped).

If the single-pass pipe length is 5 m or more, the quantity of fluorine required to be replenished is 0.065X (L-5). (Unit: kg)
Record the replenishment quantity of the refrigerant and keep the record properly for reference in future maintenance.

Table 3:

Pipe diameter	Torque
φ6.35	1420~1720N.cm (144~176kgf.cm)
φ9.53	3270~3990N.cm (333~407kgf.cm)
φ12.7	4950~6030N.cm (504~616kgf.cm)
φ16.0	6180~7540N.cm (630~770kgf.cm)
φ19.0	9720~11860N.cm (990~1210kgf.cm)

4.3 Expelling Air

4.3.1. From the following table, select a method of expelling air.

Table 4:

Length of connective pipe (single pass)	Procedure of expelling air
Less than 5m	Use refrigerant in the outdoor unit
5～15m	Use vacuum pump or refrigerant tank.

If the air conditioner is relocated, be sure to use a vacuum pump or refrigerant tank to expel air.

4.3.1.2. Use the refrigerant in the outdoor unit to expel air (**see Fig-22** and **Fig-23**)

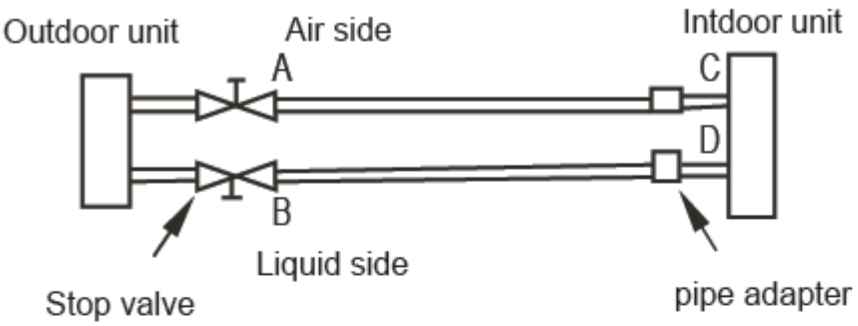


Fig-22

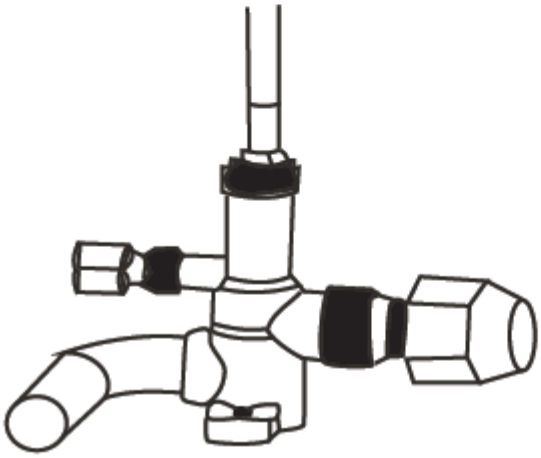


Fig-23

※ Screw up the pipe nuts at A, B, C and D completely.

※ Loosen and remove the square-head cover of valves A and B, rotate the square-head spool of valve B counterclockwise for 45 degrees and stay for about 10 seconds, and then close the spool of valve B tightly.

※ Detect leak for all adapters at A, B, C and D. After making sure that no leak exists, open the maintenance orifice nut of valve A. After all air is expelled, tighten the maintenance orifice nut of valve A.

※ Open the spools of valves A and B completely.

※ Tighten the square-head cover of valves A and B completely.

4.3.1.3. Use refrigerant tank to expel air)

※ Screw up the pipe nuts at A, B, C and D completely.

※ Loosen and remove the square-head cover and the maintenance orifice nut of valves A and B.

※ Connect the filler hose of the refrigerant tank with the maintenance orifice of valve A.

※ Loosen the valve of the refrigerant tank, continue filling refrigerant for 6 seconds to expel the air, and

tighten the nut of valve B quickly.

※ Loosen the valve of the refrigerant tank again, and fill the refrigerant for 6 seconds. Detect leak for all adapters at A, B, C and D. After making sure that no leak exists, screw off the filler hose. After all the filled refrigerant is expelled, screw up the maintenance orifice nut of valve A quickly.

※ Open the square-head spools of valves A and B completely.

※ Tighten the square-head cover of valves A and B.

4.3.1.4. Use a vacuum pump to expel the air (**Fig-24**) (For method of using the manifold valve, see the operation manual of manifold valve)

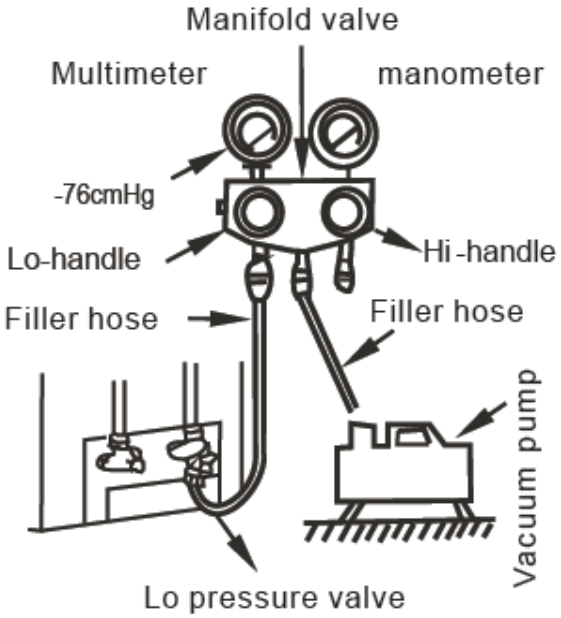


Fig-24

※ Loosen and remove the maintenance orifice nut of valve A, and connect the filler hose of the manifold valve to the maintenance orifice of valve A (tighten both valve A and valve B).

※ Connect the filler hose adapter to the vacuum pump.

※ Open the low pressure (Lo) handle of the manifold valve completely.

※ Start the vacuum pump to extract air. At the beginning of extracting air, slightly loosen the maintenance orifice nut of valve

※ B, check whether any air enters it (the vacuum pump noise changes and the multimeter indicate from negative to 0). Then tighten this maintenance orifice nut.

※ Upon completion of vacuuming, tighten the low pressure (Lo) handle of the manifold valve completely and stop the vacuum pump. Keep extracting air for over 15 minutes. Check whether the multimeter points at -1.0X10 Pa (-76cmHg).

※ Loosen and remove the square-head cover of valves A and B. After opening valves A and B completely, tighten the square head cover of valves A and B.

※ Remove the filler hose off the maintenance orifice of valve A, and then tighten the nut.

4.3.1.5. Procedure of using stop valve

※ Open the spool until it touches the stop block. Do not attempt to open further.

※ Use a spanner or a similar tool to tighten the bonnet. The bonnet tightening torque is shown in Table 3 “Tightening torque”.

※ Upon completion of installation, open all valves before trial run. Each unit has two valves of different sizes located at the outdoor unit side. Of the two valves, one is gas valve and the other is liquid valve. The procedure of opening/closing the valve is shown in the right figure (Fig-25).

※ Procedure of opening the valve: Open the square-head cover, use a spanner to capture the square head

and open it thoroughly. Then tighten the square-head cover.

※ Procedure of closing the valve: Same as the procedure of opening the valve, but rotate the spanner clockwise thoroughly.

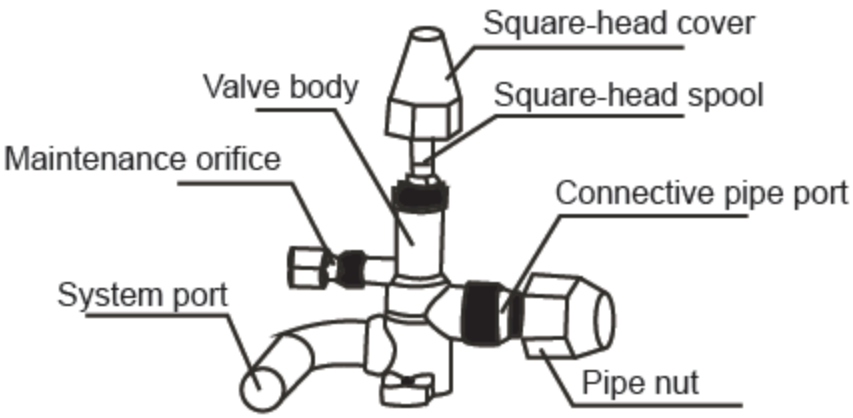


Fig-25

4.4 Leak Detection

Use soap water or a leak detector to check whether gas leakage exists at the adapters.

4.5 Heat Insulation

※ Use heat insulation materials to wrap the part protruding outside the flared pipe joint and the refrigerant pipe of the liquid pipe and the gas pipe, and ensure that no gap exists between them.

※ Imperfect heat insulation may lead to condensate drips.

5. Installation of Drain Pipe

5.1 Install the drain pipe of the indoor unit

※ In order to prevent drain overflow, install a drainage controller at place 1 of the drain pipe. (The drainage controller is designed to smoothen the drainage when the static pressure outside the unit is high, especially at the air inlet, in addition to remove stink through the drain pipe.)

※ The drain of water is natural. In the construction, the external pipe of the outdoor unit slants downward at a gradient of 1/50~1/100.

※ The number of bends and folds of the drain pipe should not exceed 2. Try to avoid bends in order to prevent trash accumulation.

※ In the construction, do not drop trash into the drip tray or drain pipe of the indoor unit.

※ Upon completion of installing the drain pipe, remove the inspection panel. Put water into the drip tray to check whether the water can be drained levelly and steadily.

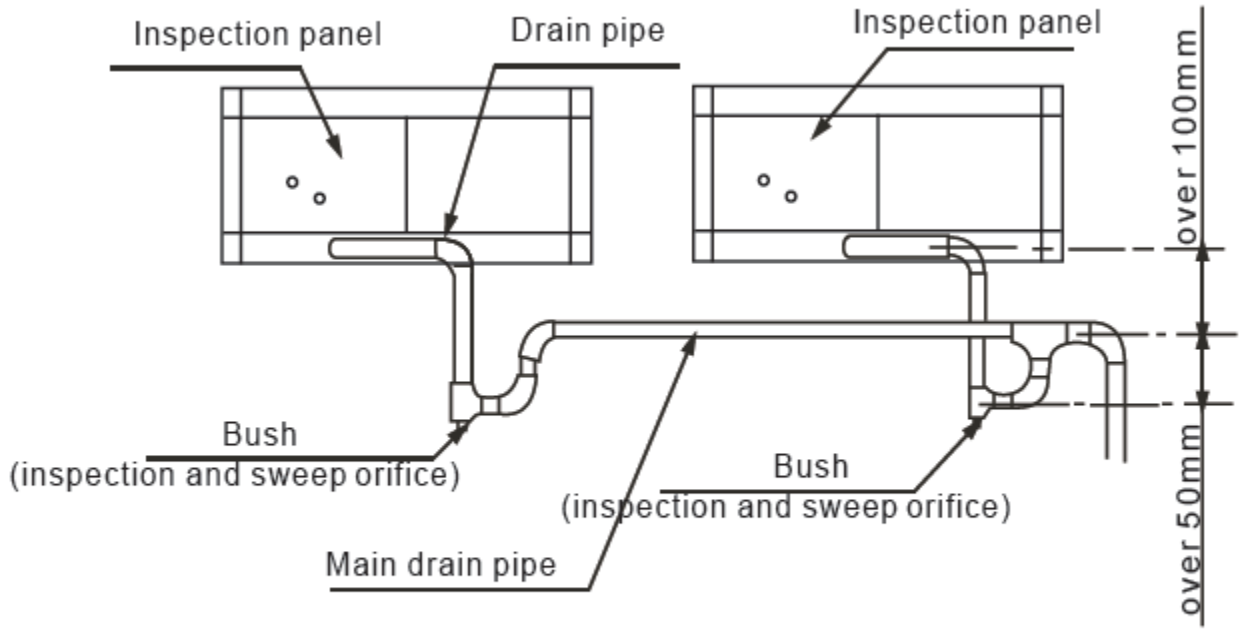


Fig-26

NOTE:
Drain pipe trash gains easily at the drainage controller. Be sure to install a stopper and a structure that cleans up trash easily.

5.2. Trial draining of the drain pipe

Open the side panels of the indoor unit, fill water inward, and check whether the water can be drained smoothly. Check water leak at the joint.

5.3. Heat insulation of drain pipe

After making sure that the water drains smoothly and no water is leaked, use adiabatic wool bushes to preserve heat of the drain pipe. Otherwise, condensate will occur.

6. Electric Connection

6.1 Electric wiring

CAUTION:

※ Use special power supply for the air conditioner. Design power supplies specific to the indoor unit and outdoor unit. The supply voltage must comply with the nominal voltage.

※ The external supply circuit of the air conditioner must have a ground wire, and the power supply ground wire of the indoor unit must be connected with the external ground wire firmly.

※ The wiring must be performed by professional technicians according to the circuit diagram labels.

※ Distribute the wires according to the relevant electric technical standards promulgated by the State, and set the Residual Current-operated Circuit Breaker (RCCB) properly.

※ The power wire and the signal wire shall be laid out neatly and properly, without mutual interference or contacting the connection pipe or valve.

※ No power cable is attached to this equipment. The user can select the power cable by reference to the stipulated power supply specifications. No joint of wires is allowed.

※ Upon completion of wire connection, double check it and then connect the power supply.

6.2 Specifications of power supply

Table 4:

	Indoor unit	Outdoor unit
Capacity(Btu/h)	100000	100000
Power	220-240V~ 50Hz	380~415V 3N~ 50Hz
Switch capacity of the main power suppliy/fuse(A)	20/10	60/40
Size of power supply cable (mm^2)	RVV-300/500 2×2.5 mm^2	YCW-450/750 4×6.0 mm^2
Size of power ground wire (mm^2)	RVV-300/500 2.5 mm^2	YCW-450/750 6.0 mm^2
connective wire of indoor/outdoor unit	RVV-300/500 4×1.0 mm^2	

6.3 Power wires

The power wires are as follows: (schematic diagram)

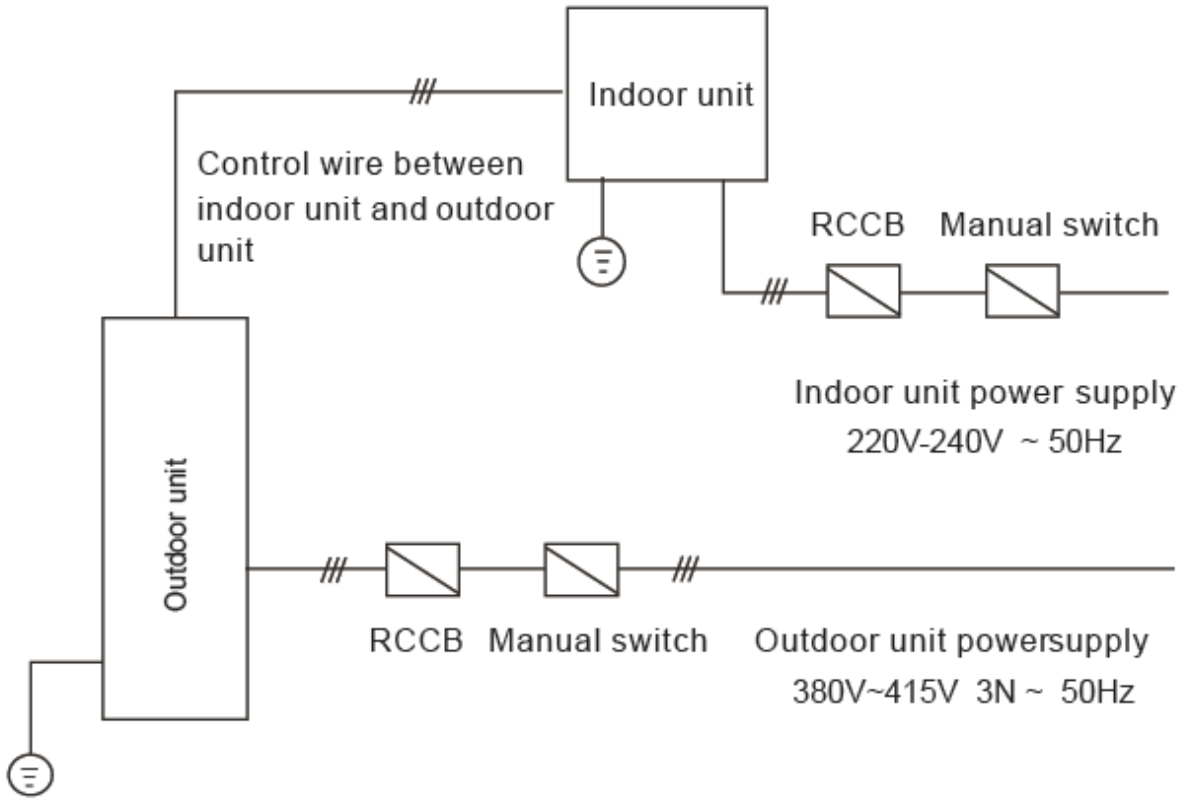
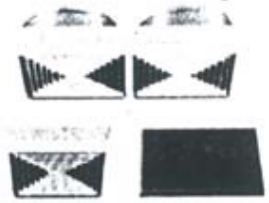
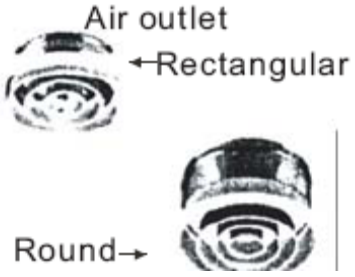


Fig-27

7. Methods of configuring and selecting installation

	Material name	Characteristics, advantages and other contents
1	Air inlet wooden grille  Filter	**1.** Install the filter at the main body grille in case the storey height is low, and at the main body of the indoor unit in case the storey height is high. **2.** It cleans conveniently at the time of installing/uninstalling the filter. **3.** The button structure is easy to install and uninstall.
2	Hose (for absorbing noise) 	**1.** For purpose of air inlet. **2.** Must adopt fire-resistant materials. (Those materials other than specified by Midea than specified by Midea be applied) **3.** The heat insulation material must be glass wool.
3	Hose (for general purpose) 	**1.** For purpose of air outlet. **2.** Must adopt fire-resistant materials. (Those materials other materials. (Those materials other shall not be applied) **3.** The heat insulation material must be glass wool.
4	Air inlet noise pipe 	**1.** Install the unit at the air inlet so that the air flows smoothly and the noise is lower. **2.** The noise value varies with the length. **3.** The hose joint should be bent lest detachment of the pipe.
5	Air outlet noisepipe 	**1.** Install the unit at the air outlet so that the air flows smoothly and the noise is lower. **2.** The noise value varies with the length. **3.** The hose joint should be bent lest detachment of the pipe.
6	Distributor 	**1.** Install the unit at the air outlet so that the air flows smoothly and the noise is lower. **2.** Select 1BY2 or 1BY3 according to the quantity of the diffusers. **3.** The diffuser pipes should preferably have the same length after branching, and the minimum length of the ventilation pipes is 5m.

7	Rectangular Air outlet 	**1.** Fixed model that diffuses air at a 360 angle. **2.** The outline size should increase when the air volume is over 350CMH. (For above 303), i.e., when about 9 diffusers are required, the outline size should increase. **3.** The diffuser pipes should preferably have the same length after branching, and the minimum length of the ventilation pipes is 5m.
8	Air outlet 	**1.** Fixed model that diffuses air at a 360 angle. **2.** The outline size should increase when the air volume is over 350CMH. (For above 303), i.e., when about 9 diffusers are required, the outline size should increase. **3.** Proper air speed: For air speed of over 2-3.5m/s, select other diffusers (with great noise). **4.** Install the diffuser pipe if it is necessary to install the model of over 3.5m/s. **5.** For purpose of cooling-only model.
9	Air outlet 	**1** The lengthwise adjustable model which diffuses air at a 360 angle. **2.** With the change of the cooling/heating air flow, the horizontal and vertical distance of the fan can be adjusted (applicable to department store and exhibition hall where the decorative effect is essential).
10	Air outlet 	**1.** Low noise compared with other air outlets. Applicable to tall buildings that require along distance of air conditioning. **2.** Select the ventilation pipe connection caliber according to the distance and the air speed. **3.** Applicable to storey height of over 5m (for design of tall storey such as temple, consult Midea).
11	Linear diffuser 	**1.** The fan is the adjustable type which can change direction of air flow. It is used for deluxe decoration. **2.** The outline size should increase when the air flow is over 450CMH (3 or 4 SOLT) when about 6 diffusers are required, the outline size should increase. **3.** If the proper air speed is 2.5-5m/s and actual air speed reaches over 5m/s, it is necessary to choose other diffusers (with higher noise values).
12	Air outlet woodengrille 	**1.** Low noise compared with other air outlets. Applicable to tall buildings that require a long distance of air conditioning. **2.** Select the ventilation pipe connection caliber according to the distance and the air speed. **3.** Applicable to storey height of over 5m (for design of tall stores such as temple, consult Midea).

Auxiliary materials	Duct wrapping tape 	**1.** Flanges and pipelines connected to the ventilation pipes. **2.** When the noise pipe is connected with the hose, the ventilation pipe tape must be applied (otherwise, with only adhesive tape, the adhesion will be weakened due to change of temperature).
	Aluminium adhesive tape 	**1.** It is used to prevent glass wool leak and seal the gas at the time of the flanges and pipelines of the ventilation pipes. **2.** Entwine for over 3 circles. **3.** Use ventilation pipe-specific tapes (instead of ordinary adhesive tapes). In order to ensure the installation quality and durability, it is necessary to use the auxiliary materials of standard specifications provided by Midea Electronics and the auxiliary products of the specified manufactures.

TMFE-50HE

1. SELECTING INSTALLATION PLACE

1-1 Indoor Unit

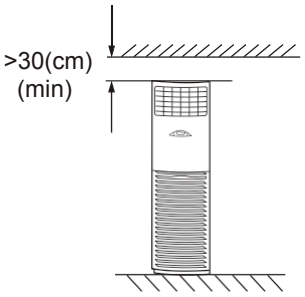
A place which provides the spaces around the indoor unit as required above in the diagram.

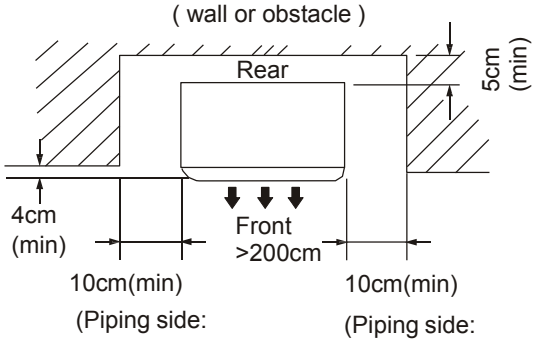
- A place where is no obstacle near the inlet and outlet area.

A place which can bear the weight of the indoor unit.

- A place which allows the air filter to be removed downward.
- A place where the reception range is not exposed to direct sunlight.
- In the center of the room where possible.

(1) ❑ Please stand the unit in hard and flat ground;
❑ Please reserve space for installation and maintenance..





(2) Please check the elevation difference between the indoor unit and the outdoor unit, the length of the refrigerant pipe, and the curved places (bend) of the pipe are no more than the following numbers:
Elevation difference: no more than 10 M (if the elevation difference between indoor and outdoor unit is more than 10 meters, it is recommended that the outdoor unit be placed above the indoor unit.)
Pipe length: no more than 20 M Bends: no more than 5 places

1-2 Outdoor Unit

(A) Before installing the outdoor unit, you should:

- ❑ Select a place where no direct sunlight or other heat-radioactivity may reach. A sunshade is needed if it is unavoidable.
- ❑ Select a place that is easy to connect indoor unit's pipe and electric wires.
- ❑ Avoid a place where combustible gas may leak or stay.
- ❑ Keep it in mind that water may drain out of the outdoor unit while in "Heat" mode.

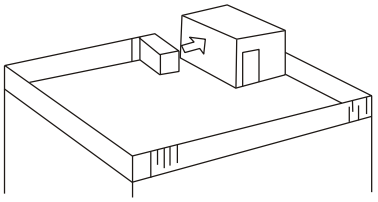
Caution

- Installation in the following places may cause trouble. If it is unavoidable to use in such places, please consult with the dealer.

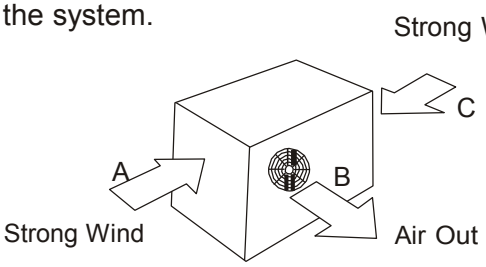
(1) A place full of machine oil.
(2) A saline place such as coast.
(3) Hot-spring resort.
(4) A place full of sulfide gas.
(5) A place where there are high frequency machines such as wireless installation, welding machine, medical facility.
(6) A place of special environmental conditions.

(B) If the outdoor unit is to be installed on a roof or where no constructions are around, you should avoid hard wind blows directly to the air outlet, because it may cause trouble for air-flow shortage.

For example:
Let the air outlet face a wall (if there is one) with a distance about 300 centimeters between them.



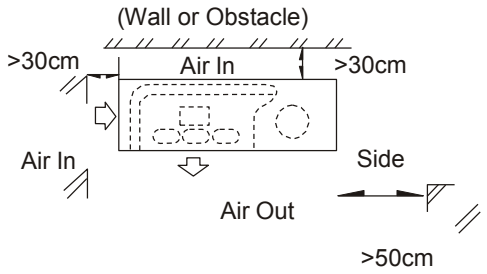
Try to make the air outlet vertical to wind direction if it is known in the season you use the system.



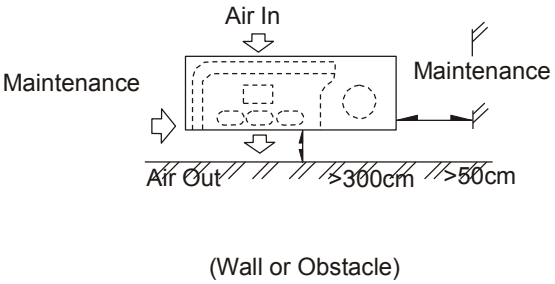
In directions Ⓐ,Ⓑ ,Ⓒ,leave open two of the three directions.

(C)❑ Reserve enough space for installation, maintenance and unit-functioning.
❑ Remove as many obstacles as possible nearby.

When the air-in surface is facing a wall



When the air-out surface is facing a wall



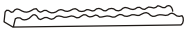
2. INSTALLING

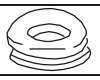
2-1 Indoor Unit

(1) Accessories

Before installing, please check the available accessories according to the list given below.
Please carefully keep the temporarily useless parts.

Accessories for installing			
NO.	Part Name	Quantity	Illustrations
1	Installing Board (for wall mounting)	1	
2	3.9×25 Screw (for fixing the board)	2	
3	Plain Washer	4	

Accessories for pipe-connecting			
NO.	Part Name	Quantity	Illustrations
4	Pipe - hole - protection Ring	1	
5	Sound/Heat Insulation Sleeves	2	Outer Diam.: 52mm Inner Diam.: 36mm Length: 100cm 
6	Water receiver	1	
7	Seal	1	
8	Drain joint	1	

Accessories for wire-connecting			
NO.	Part Name	Quantity	Illustrations
9	Sleeves for wire-connecting	2	
10	Band	3	

Refrigerant Pipe (optional)			
NO.	capacity(Btu/h) Name	20000~30000	30000~55000
11	Liquid Side Size	Diam.: 9.53mm	Diam.: 12.7mm
12	Gas Side Size	Diam.: 16mm	Diam.: 19mm

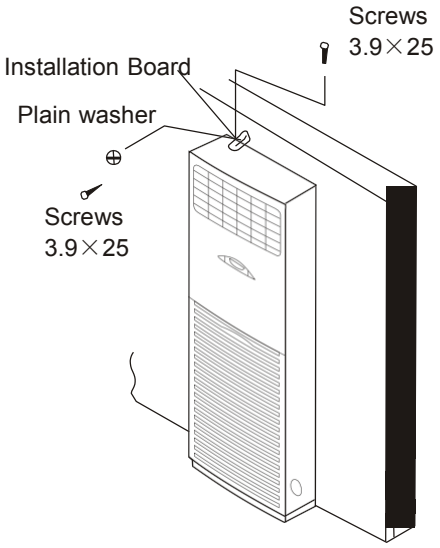
- If there is any difference between the above table and the Packing List, the Packing List shall prevail.

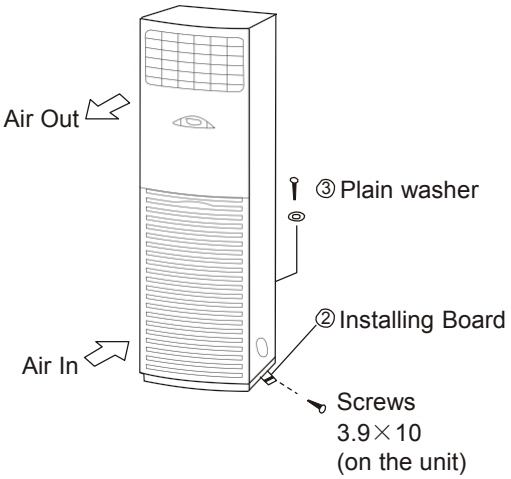
(2) Anti-falling

To prevent the indoor unit from falling, you must:

❑ Pay full attention to the unit because its long outer shape makes it easy to fall;

❑ Firmly fix the unit to the wall and in the ground to avoid accidental falling.

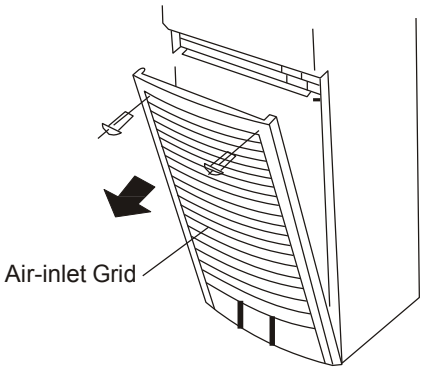




(3) Dismounting the air-inlet grid

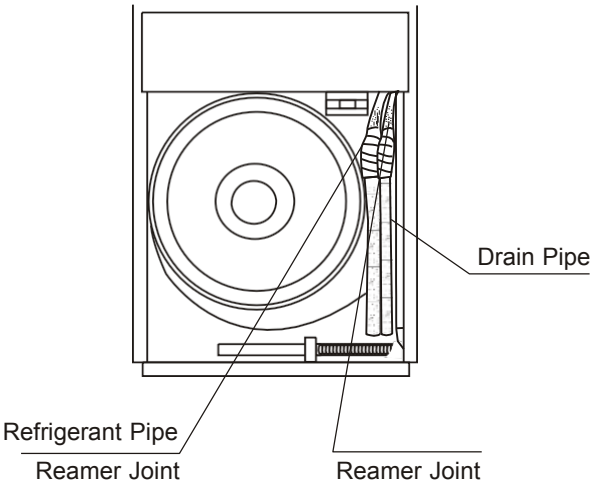
Please take off the air-inlet grid before connecting the pipes/wires.

Pull down the two knobs on the grid, take off the two screws, then the air-inlet grid goes free.

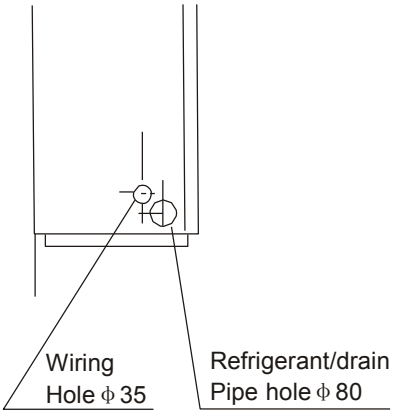


(4) ❑ Take the Pipe Clip off before connecting the pipes and wiring; fit it when these finished.

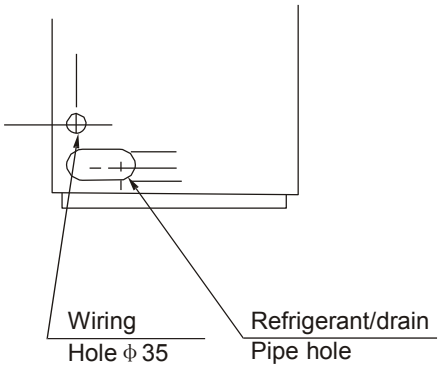
❑ Use accessories 4 and 9 to connect the pipes/wires on both sides and back side.



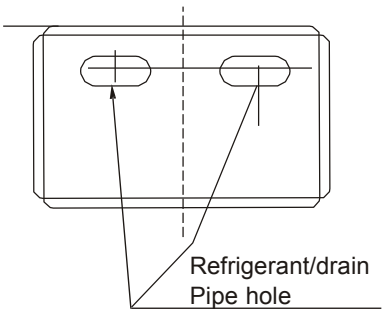
Pipe/wire-hole positions on both sides



Pipe/wire-hole position on back side

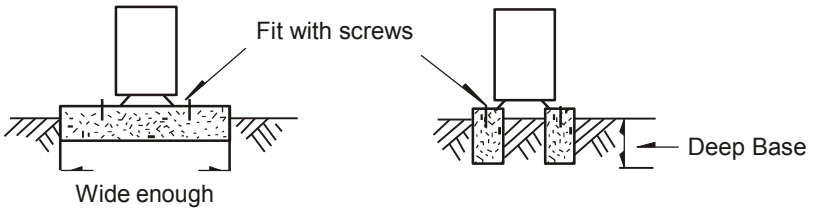


Pipe/wire-hole position on the bottom



2-2 Outdoor Unit

- ❑ Ship the a/c to the installation place originally packed;
- ❑ Be careful while hanging the unit because the center of gravity of the unit is not centralized;
- ❑ Do not make the angle of inclination more than 45 degrees while shipping;(Avoid horizontal storage)
- ❑ Be sure the electric insulation work is well done if installed on metal ceiling / wall.

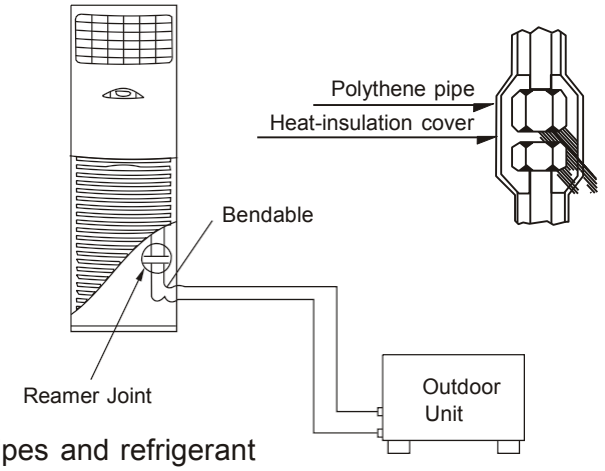


- ❑ Fix the unit feet with bolts (M10/M8). Be sure the unit is fixed strongly enough to against blast or earthquake.
- ❑ Make a concrete basement to the unit by the above references.

3. REFRIGERANT PIPE

The refrigerant pipe and the drain pipe should be heat-insulated to avoid condensing and water-dropping.
A reamer joint is adopted to connect the indoor unit with the outdoor unit.
The refrigerant pipe is used to connect indoor and outdoor units, showed as below.

NOTE The bendable pipe must not be curved for more than 3 times.



NOTE Cover all exposed reamer joint pipes and refrigerant pipes with heat-insulation material.

3-1 Connecting Of Refrigerant Pipe

(1) Only the correctly installing of indoor and outdoor unit done, can the refrigerant pipe be connected.

(2) The cut-off valves are completely close before ex-work. Before connecting the refrigerant pipe, be careful to check whether the valves are completely close.

(3) The connecting procedure of refrigerant pipe: first, unscrew the two valves on the outdoor unit and the pipe-jointing nut on the indoor unit(please keep them care fully). Please connect the refrigerant pipe according to the manual, the pipe-jointing nut should be screw tightly and no leakage. Note: you need two wrenches to make balance.

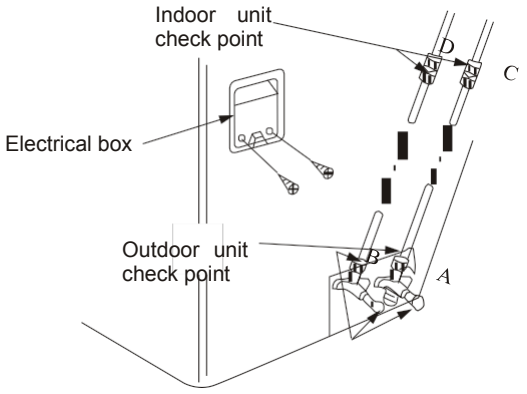
(4) When the connecting of refrigerant pipe is finished, before power on the system, you should vacuum the indoor unit through the maintenance port on the cut-off valves, or open the high-pressure valve, and exhaust the air through the maintenance port on the low-pressure valve (closed). It will take about ten seconds. Then screw tightly the maintenance port.
(When supplement the refrigerant, fill through the maintenance port of the low-pressure valves on the outdoor unit).

(5) Open all the valves completely before power on the system, or it will be sick for low efficiency.

(6) Gas leak check. Make sure no gas from connections with leak detector or soap water.

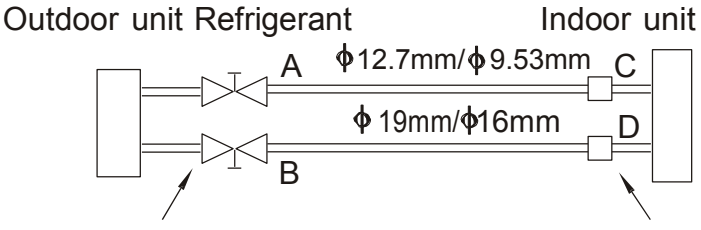
Caution

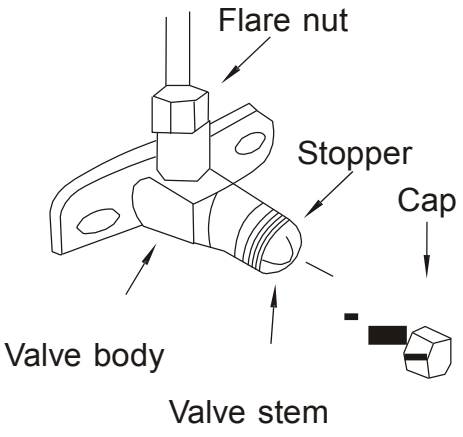
A: Lo packed valve B: Hi packed valve
C and D are ends of indoor unit connection.



Caution in Handling the Packed Valve

❑Open the valve stem until it hits against the stopper. Do not try to open it further.
❑Securely tighten the valve stem cap with a spanner or the link.

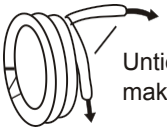




- Notes for the bendable pipe
  - ❑ The bendable pipe should be used on the indoor side;
  - ❑ Bend angel may not exceed 90 degrees;
  - ❑ The bend location should be made on the center of the pipe if possible, as for bend radius, the bigger the better;
  - ❑ The bendable pipe may not be bent for more than 3 times.
- Bend the thin pipe
  - ❑ While bending, expose the pipe by cutting the concave gap on the bending heat-insulation pipe(roll it with soft band after bent).
  - ❑ To avoid pipe deformation, the radius is the bigger the better. Use
  - ❑ a pipe-bending device to make the compact bending pipe.

Use thumb to curve the pipe

Min. Radius 100 mm



Untie the pipe, make is straight

3-2 Using bronze pipe selling in market

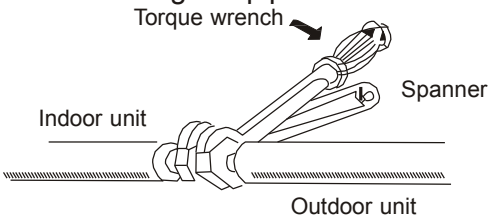
Completely shut the cut-off valves of the outdoor unit (as ex-work status). After the refrigerant pipe has been connected with both the indoor and outdoor unit, let the air exhaust out from the maintenance gap on he low-pressure cut-off valves of the outdoor unit. Screw the nuts tightly on the maintenance gap after the air has been drained.

3-3 To make the refrigerant pipe unblocked completely

you should keep the cut-off valves of the outdoor unit completely open after you have finished the above steps (step1 or step 2)

NOTE

- ❑ Before screwing the reamer nut, smear the pipe and the connecting surface with refrigerant oil;
- ❑ Check and make sure there is no leakage by soap-water or leakage-checker after connecting;
- ❑ Be sure the connecting joint on the indoor side is insulated.
- ❑ Use two wrenches to connecting the pipes.



3-4 Filling Refrigerant

The correct refrigerant quantity filled in the 5-meter-long pipe of the outdoor unit is marked on the Product Data Plate. If you have to use longer pipe for every meter plus pipe, the refrigerant should be added according to the following calculation.

Connective pipe length	Air purging method	Additional amount of refrigerant to be charged	
Less than 5m	Use vacuum pump	———	
5~20m	Use vacuum pump	Liquid side: ϕ 9.53	Liquid side: ϕ 12.7
		(L-5) X 65g	(L-5) X 90g

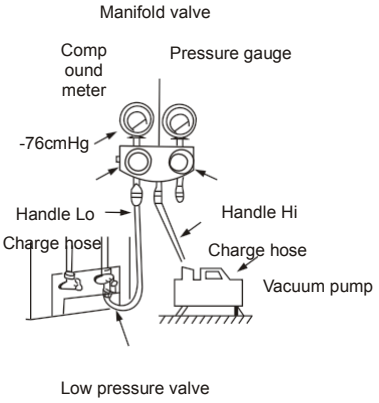
NOTE:

If you are using a pipe purchased in the market, please make sure the heat-insulation material is the same as what we supply. (at least 12 millimeters in thickness)

3-5 . Air Purging When Using the Vacuum Pump

(For method of using a manifold valve, refer to its operation manual.)

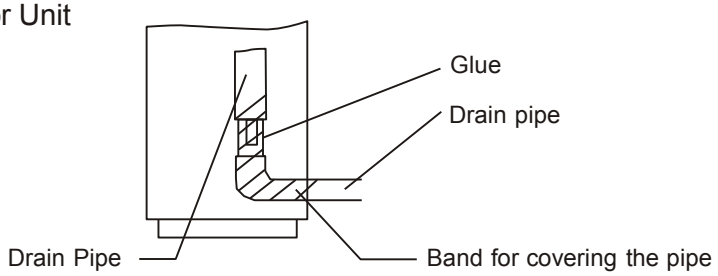
1. Completely tighten the flare nuts, A, B, C, D, connect the manifold valve charge hose to a charge port of the low-pressure valve on the gas pipe side.
2. Connect the charge hose connection to the vacuum pump.
3. Fully open the handle Lo of the manifold valve.
4. Operate the vacuum pump to evacuate. After starting evacuation, slightly loose the flare nut of the Lo valve on the gas pipe side and check that the air is entering.(Operation noise of the vacuum pump changes and a compound meter indicates 0 instead of minus)



5. After the evacuation is complete, fully close the handle Lo of the manifold valve and stop the operation of the vacuum pump.
   Make evacuation for 15 minutes or more and check that the compound meter indicates -76cmHg (-1x10^{5}Pa).
6. Turn the stem of the packed valve B about 45° counterclockwise for 6~7 seconds after the gas coming out, then tighten the flare nut again. Make sure the pressure display in the pressure indicator is a little higher than the atmosphere pressure.
7. Remove the charge hose from the Low pressure charge hose.
8. Fully open the packed valve stems B and A.
9. Securely tighten the cap of the packed valve.

4. DRAIN PIPE

Drain Pipe of The Indoor Unit

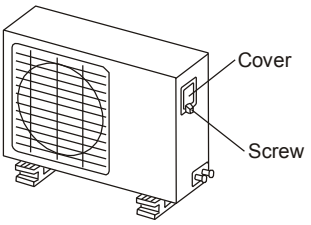


Make sure the drain pipe is connected to the outdoor side downward; The hard polyvinyl chloride(PVC)plastic pipe (external diameter 26 mm) sold is the market is suitable for the attached soft drain pipe; Please connect the Soft Drain Pipe with the Drain Pipe , then fix it with band; if you have to connect the Drain Pipe indoors, to avoid condensing caused by air intake, you must cover the pipe with heat-insulation material (polyethylene with Specific Gravity of 0.03, at least 9 mm in thickness), and use Glue Band to fix it.
After the Drain Pipe has been connected, please check if the water drains out of the pipe efficiently and has no leakage.
Refrigerant Pipe and Drain Pipe should be heat-insulated to avoid condensing and water-dropping later on.

5-Wiring connection

The outdoor unit will look like one of the following:

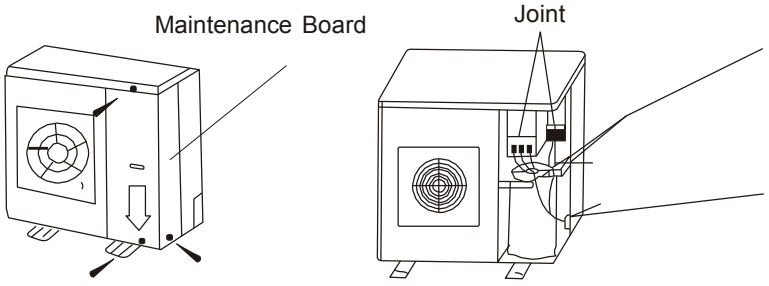
(1) Outdoor unit



1. Remove the electric parts cover from the outdoor unit.
2. Connect the connective cables to the terminals as identified with their respective matched numbers on the terminal block of indoor and outdoor units.
3. To prevent the ingress of water, form a loop of the connective cable as illustrated in the installation diagram of indoor and outdoor units.
4. Wiring connection must be done strictly according to the ″Wiring Diagram″ located on the panel of air conditioner .
5. Follow the instructions of wiring connection in this manual, never attempt to modify the wiring by yourself.

(2) Outdoor Unit

Unscrew the maintenance board. Pull it down as the signal shown.
(Be careful not to scratch the crust.)



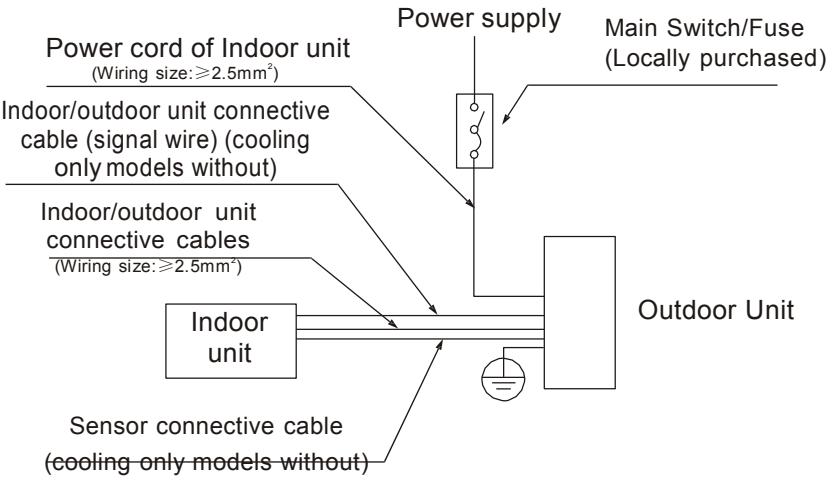
Fix the wire with a wire-clip.
The wires may pass behind the pipes. Notes: Scratching noise may be made if the wires pass above the pipes

Pass the wires through the concave hole on the maintenance board (U shaped), tear the center of the rubber sleeve, and then connect the power.
(Make sure the wires and the pipes have no contact or across.)

CAUTION

Wrong wiring connections may cause some electrical parts to malfunction. The air conditioner must be grounded well.

5-2 Wire-connecting Brief Diagram (for details refer to Wire-connecting Diagram)

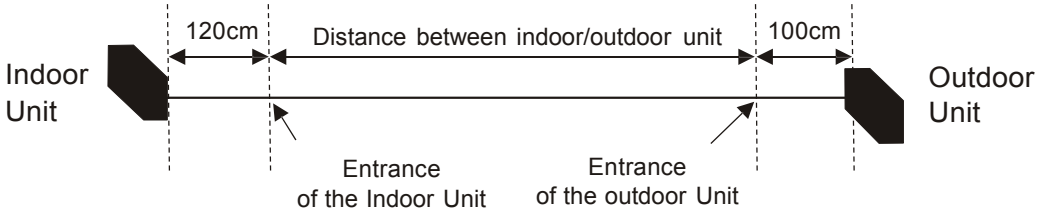


Note: Some models is equipped with a cord having a plug, So a wall outlet shall be properly installed.

NOTE

1. Please remember the surroundings (environmental temperature, direct sunlight, rain etc.)
2. We consider the minimal size of the metal core as the wire size. So it is recommended you adopt a thicker one as the power conducting wire so as to avoid power decrease;
3. Connect the grounded wire to both indoor and outdoor units;
4. This table is just an on-site wire-connecting example. For details, please refer to relative National criteria.

The length of the power wire and connecting-wire which connects the indoor unit to the outdoor unit. (The figure given below shows a suitable length)



5-3. Electrical safety check

Perform the electric safe check after completing installation:

1. Insulated resistance

The insulated resistance must be more than 2MΩ.

2. Grounding work

After finishing grounding work, measure the grounding resistance by visual detection and grounding resistance tester. Make sure the grounding resistance is less than 4Ω.

3. Electrical leakage check (performing during test running)

During test operation after finishing installation, the serviceman can use the electroprobe and multimeter to perform the electrical leakage check. Turn off the unit immediately if leakage happens. Check and find out the solution ways till the unit operate properly.

6. TEST RUN

Perform test operation after completing gas leak and electrical safety check. The test operation time should last more than 30 minutes.

1. Open the panel and lift the panel up to angle which remains fixed. Do not lift the panel any further when it stops with a ″click″sound.
2. Press the manual switch button twice until the operation indicator lights, the unit will operate on Manual Cool mode.
3. Check if all the functions works well while testing the air conditioner. Especially check whether the drainage of indoor unit is smooth or not.
4. Press the manual switch button again till the operation indicator turns dark after finishing the test operation and the unit stops operation.

Installation TMFS-60H

1. Installation place

Indoor Unit

A place which provides the spaces around the indoor unit as required above in the diagram.

A place where is no obstacle near the inlet and outlet area.

A place which can bear the weight of the indoor unit.

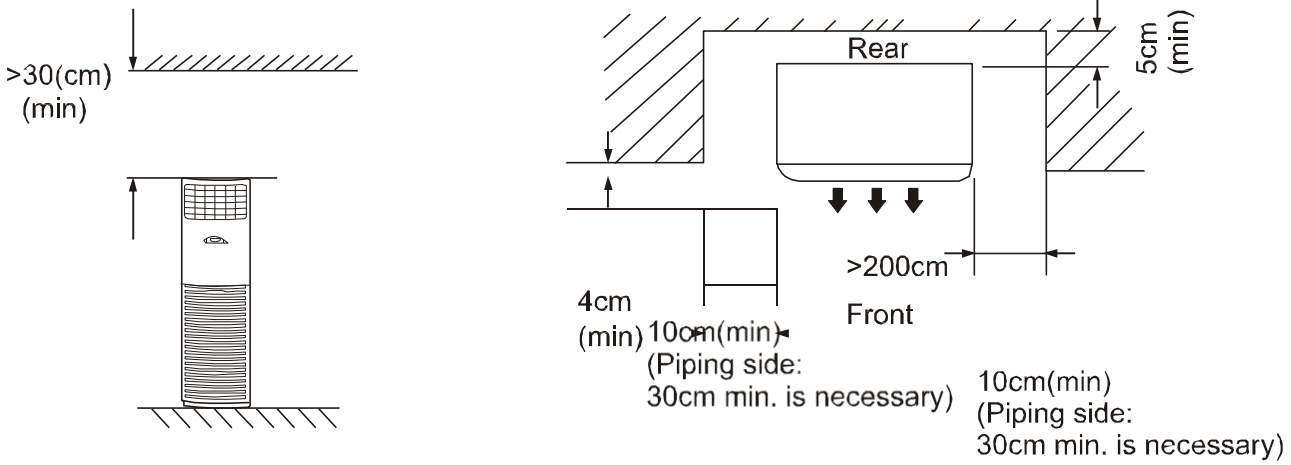
A place which allows the air filter to be removed downward.

A place where the reception range is not exposed to direct sunlight.

In the center of the room where possible.

(1) Please stand the unit in hard and flat ground;

Please reserve space for installation and maintenance.



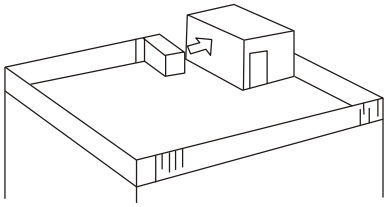
(2) Please check the elevation difference between the indoor unit and the outdoor unit, the length of the refrigerant pipe, and the curved places (bend) of the pipe are no more than the following numbers: Elevation difference: no more than 10 M (if the elevation difference between indoor and outdoor unit is more than 10 meters, it is recommended that the outdoor unit be placed above the indoor unit.) Pipe length: no more than 20 M Bends: no more than 5 places

Outdoor Unit

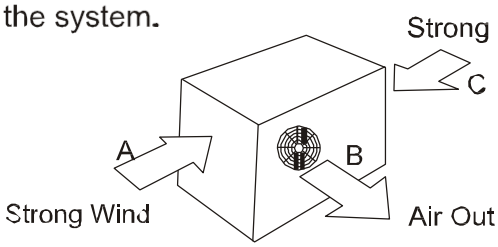
(1) Before installing the outdoor unit, you should: Select a place where no direct sunlight or other heat-radioactivity may reach. A sunshade is needed if it is unavoidable. Select a place that is easy to connect indoor unit's pipe and electric wires. Avoid a place where combustible gas may leak or stay. Keep it in mind that water may drain out of the outdoor unit while in "Heat" mode.

(2) If the outdoor unit is to be installed on a roof or where no constructions are around, you should avoid hard wind blows directly to the air outlet, because it may cause trouble for air-flow shortage.

Let the air outlet face a wall (if there is one) with a distance about 300 centimeters between them.



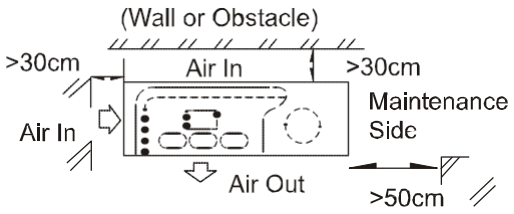
Try to make the air outlet vertical to wind direction if it is known in the season you use the system.



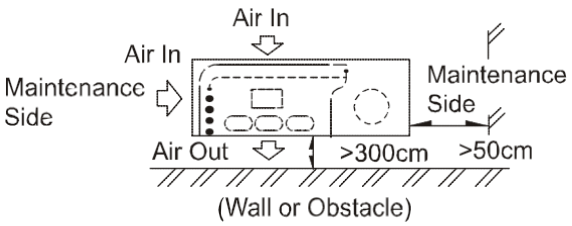
In directions Ⓐ,Ⓑ ,Ⓒ,leave open two of the three directions.

(3) ❑ Reserve enough space for installation, maintenance and unit-functioning.
❑ Remove as many obstacles as possible nearby.

When the air-in surface is facing a wall

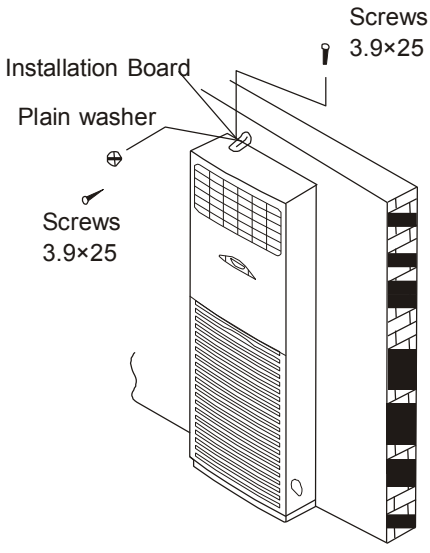


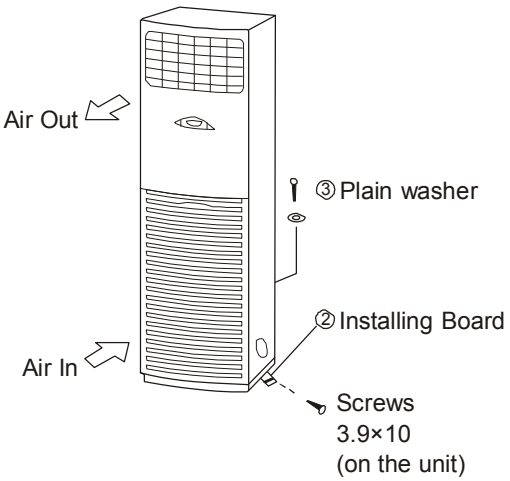
When the air-out surface is facing a wall



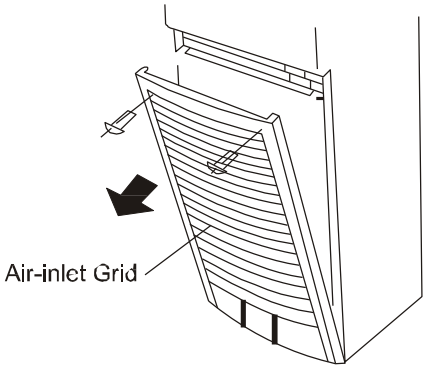
2. Installing

(1)To prevent the indoor unit from falling, you must: Pay full attention to the unit because its long outer shape makes it easy to fall; Firmly fix the unit to the wall and in the ground to avoid accidental falling.

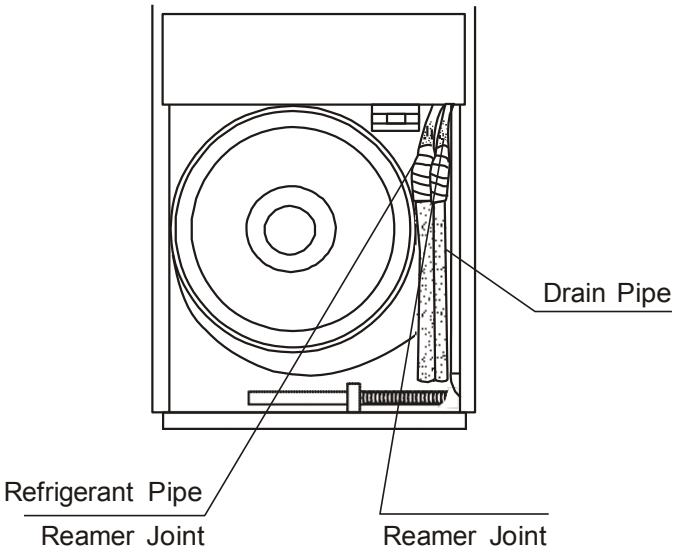




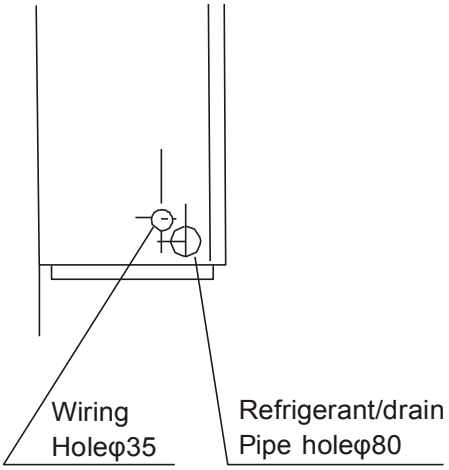
(2) Dismounting the air-inlet grid. Please take off the air-inlet grid before connecting the pipes/wires. Pull down the two knobs on the grid, take off the two screws, then the air-inlet grid goes free.



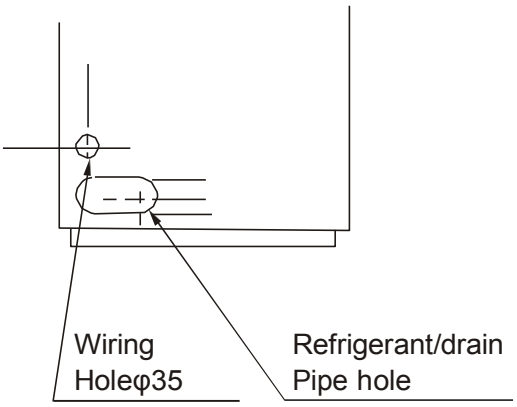
(3) Take the Pipe Clip off before connecting the pipes and wiring; fit it when these finished. Use accessories 4 and 9 to connect the pipes/wires on both sides and back side.



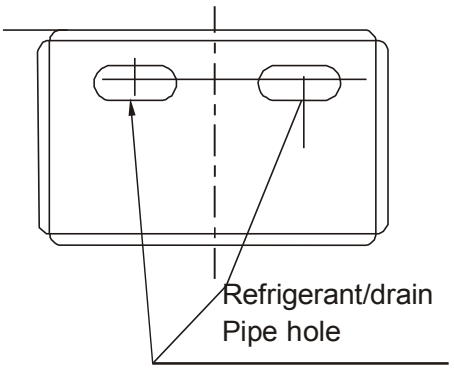
Pipe/wire-hole positions on both sides



Pipe/wire-hole position on back side

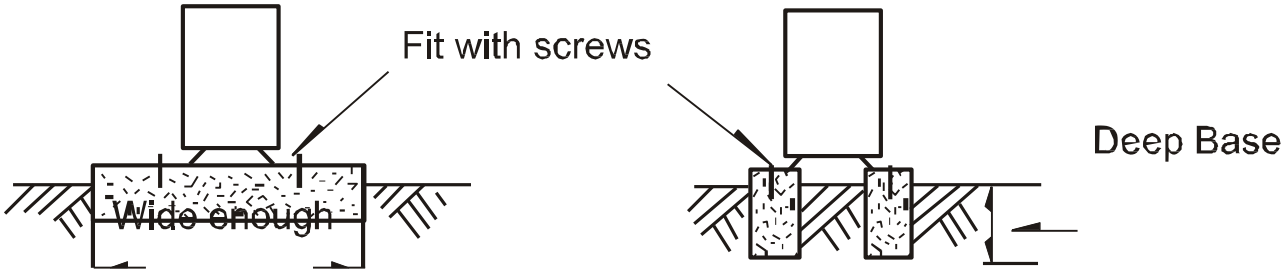


Pipe/wire-hole position on the bottom



(4)Ship the a/c to the installation place originally packed;

Be careful while hanging the unit because the center of gravity of the unit is not centralized; Do not make the angle of inclination more than 45 degrees while shipping;(Avoid horizontal storage) Be sure the electric insulation work is well done if installed on metal ceiling / wall. Fix the unit feet with bolts (M10/M8). Be sure the unit is fixed strongly enough to against blast or earthquake. Make a concrete basement to the unit by the above references.



3. Refrigerant pipe connecting

(1) Maximum pipe length

Model	Max. Length	Max. Elevation
24000Btu/h. 48000Btu/h.	15m	5m

(2) Piping sizes

Model	Liquid(mm/inch)	Gas(mm/inch)
24000Btu/h.	9.52(3/8”)	16.0(5/8”)
48000Btu/h.	12.7(1/2”)	19.0(3/4”)

(3)Piping connection

1) Connecting Of Refrigerant Pipe

a. Only the correctly installing of indoor and outdoor unit done, can the refrigerant pipe be connected.

b. The cut-off valves are completely close before ex-work. Before connecting the refrigerant pipe, be careful to check whether the valves are completely close.

c. The connecting procedure of refrigerant pipe: first, unscrew the two valves on the outdoor unit and the pipe-jointing nut on the indoor unit(please keep them care fully). Please connect the refrigerant pipe according to the manual, the pipe-jointing nut should be screw tightly and no leakage. Note: you need two wrenches to make balance.

d. When the connecting of refrigerant pipe is finished, before power on the system, you should vacuum the indoor unit through the maintenance port on the cut-off valves, or open the high-pressure valve, and exhaust the air through the maintenance port on the low-pressure valve(closed). It will take about ten seconds. Then screw tightly the maintenance port. (When supplement the refrigerant, fill through the maintenance port of the low-pressure valves on the outdoor unit).

e. Open all the valves completely before power on the system, or it will be sick for low efficiency. f. Gas leak check. Make sure no gas from connections with leak detector or soap water.

2) **Using bronze pipe selling in market**

Completely shut the cut-off valves of the outdoor unit (as ex-work status). After the refrigerant pipe has been connected with both the indoor and outdoor unit, let the air exhaust out from the maintenance gap on he low-pressure cut-off valves of the outdoor unit. Screw the nuts tightly on the maintenance gap after the air has been drained.

3) To make the refrigerant pipe unblocked you should keep the cut-off valves of the outdoor unit completely open after you have finished the above steps (step1) or step 2))

Note: Before screwing the reamer nut, smear the pipe and the connecting surface with refrigerant oil; Check and make sure there is no leakage by soap-water or leakage-checker after connecting

Be sure the connecting joint on the indoor side is insulated. Use two wrenches to connecting the pipes.

Tubing size	Torque
9.52	3270~3990N.cm(333~407kgf.cm)
12.7	4950~6030N.cm(504~616kgf.cm)
16	6180~7540N.cm(630~770kgf.cm)
19	9720~11860N.cm(990~12106kgf.cm)

(4) Additional charge

The correct refrigerant quantity filled in the 5-meter-long pipe of the outdoor unit is marked on the Product Data Plate. If you have to use longer pipe for every meter plus pipe, the refrigerant should be added according to the following calculation.

Connective pipe length	Air purging method	Additional amount of refrigerant to be charged
Less than 5m	Use vacuum pump	
Over 5m	Use vacuum pump	65g(length-5m) (Liquid side 9.52) 90g(length-5m) (Liquid side 12.7)

(5) Air Purging

When Using the Vacuum Pump

(For method of using a manifold valve, refer to its operation manual.)

a. Completely tighten the flare nuts, A, B, C, D, connect the manifold valve charge hose to a charge port of the low-pressure valve on the gas pipe side.

b. Connect the charge hose connection to the vacuum pump. c. Fully open the handle Lo of the manifold valve.

d. Operate the vacuum pump to evacuate. After starting evacuation, slightly loose the flare nut of the Lo valve on the gas pipe side and check that the air is entering.(Operation noise of the vacuum pump changes and a compound meter indicates 0 instead of minus)

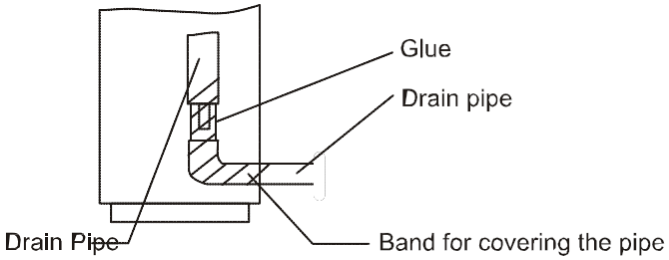
e. After the evacuation is complete, fully close the handle Lo of the manifold valve and stop the operation of the vacuum pump. Make evacuation for 15 minutes or more and check that the compound meter indicates -76cmHg (-10x106Pa).

f. Turn the stem of the packed valve B about 45 counterclockwise for 6~7 seconds after the gas coming out, then tighten the flare nut again. Make sure the pressure display in the pressure indicator is a little higher than the atmosphere pressure.

g. Remove the charge hose from the low pressure charge hose. h. Fully open the packed valve stems B and A.

i. Securely tighten the cap of the packed valve.

4. Drain Pipe of The Indoor Unit



Make sure the drainpipe is connected to the outdoor side downward;

The hard polyvinyl chloride(PVC)plastic pipe (external diameter 26 mm) sold is the market is suitable for the attached soft drain pipe;

Please connect the Soft Drain Pipe with the Drain Pipe, then fix it with band;

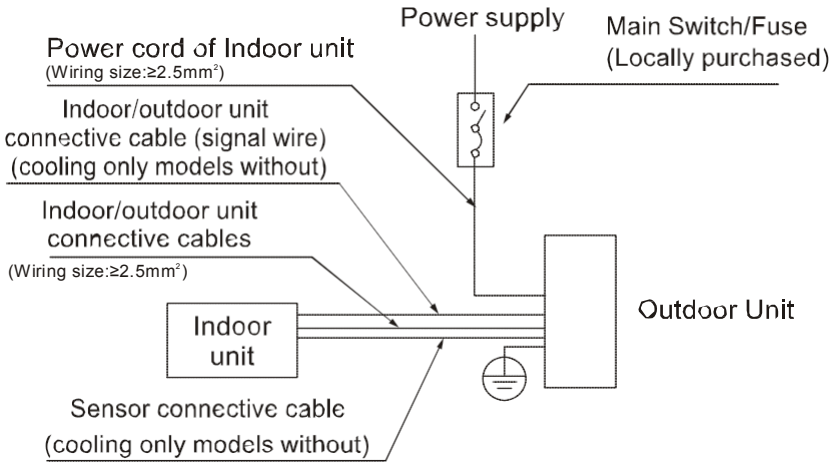
If you have to connect the Drain Pipe indoors, to avoid condensing caused by air intake, you must cover the pipe with heat-insulation material (polyethylene with Specific Gravity of 0.03, at least 9 mm in thickness), and use Glue Band to fix it.

After the Drain Pipe has been connected, please check if the water drains out of the pipe efficiently and has no leakage.

Refrigerant pipe and Drainpipe should be heat-insulated to avoid condensing and water-dropping later on.

5.Wiring

Please refer to the Wiring Diagram.



Note: Some models is equipped with a cord having a plug, So a wall outlet shall be properly installed.

6.Test operation

Perform test operation after completing gas leak and electrical safety check. The test operation time should last more than 30 minutes.

1). Open the panel and lift the panel up to angle which remains fixed. Do not lift the panel any further when it stops with a "click"sound.

2). Press the manual switch button twice until the operation indicator lights, the unit will operate on Manual Cool mode.

3). Check if all the functions work well while testing the air conditioner. Especially check whether the drainage of indoor unit is smooth or not.

4). Press the manual switch button again till the operation indicator turns dark after finishing the test operation and the unit stops operation.

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