

# FLOOR STANDING TYPE SPLIT UNIT



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

# Installation

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**توجه:**

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

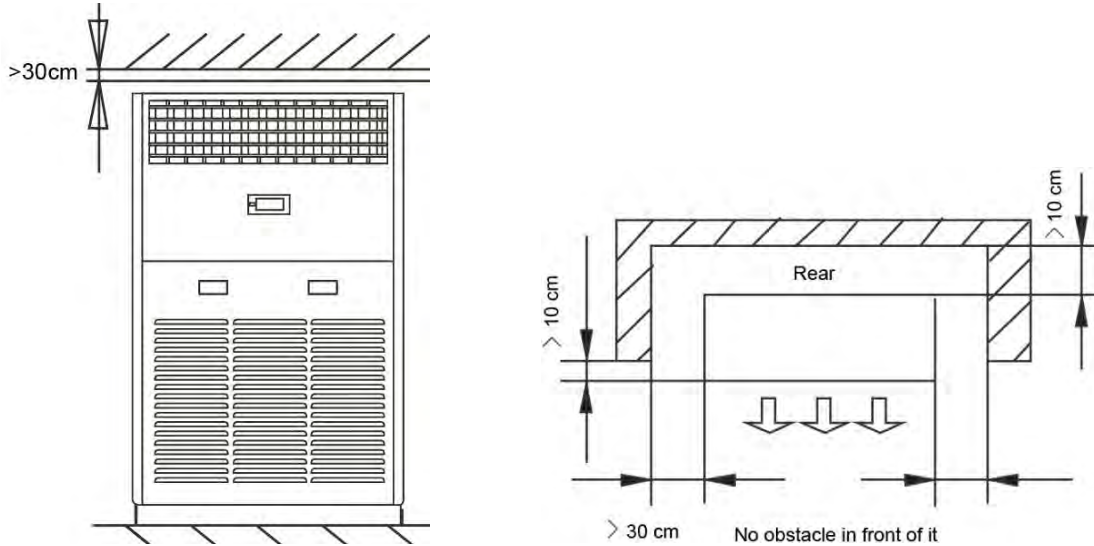
## 1. Notes

### CAUTION:

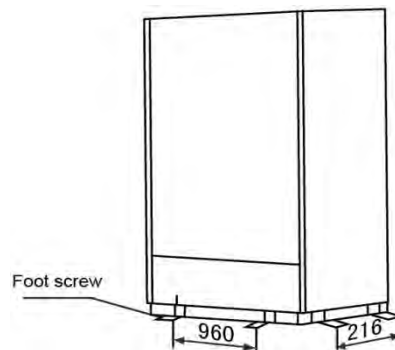
- ◇ Install the unit where enough space of installation and maintenance is available.
  - ◇ Install the unit where the ceiling is horizontal and enough for bearing the weight of the indoor unit.
  - ◇ Install the unit where the air inlet and outlet are not baffled and the least affected by external air.
  - ◇ Install the unit where the supply air flow can be sent to all parts in the room.
  - ◇ Install the unit where it is easy to lead out the connective pipe and the drain pipe.
  - ◇ Install the unit where no heat is emitted from a heat source directly.
  - ◇ Installing the equipment in any of the following places may lead to faults of the equipment (if that is inevitable, consult the supplier):
    - ✓ The site contains mineral oils such as cutting lubricant.
    - ✓ Seaside where the air contains much salt.
    - ✓ Hot ring area where corrosive gases exist, e.g., sulfide gas.
    - ✓ Factories where the supply voltage fluctuates seriously.
    - ✓ Inside a car or cabin.
    - ✓ Place like kitchen where oil permeates.
    - ✓ Place where strong electromagnetic waves exist.
    - ✓ Place where flammable gases or materials exist.
    - ✓ Place where acid or alkali gases evaporate, or other special environments.
  - ◇ Install the unit where enough space of installation and maintenance is available.
  - ◇ Install the unit where the air inlet and air outlet are free from obstacles and strong wind.
  - ◇ Install the unit in a dry and well ventilated place.
  - ◇ Install the unit where the bearing surface is level and can bear weight of the unit, and is suitable for installing the unit horizontally without increasing noise or vibration.
  - ◇ Install the unit where the operation noise and the expelling of air do not affect neighbors.
  - ◇ Install the unit where no flammable gas is leaked.6Install the unit where it is convenient for pipe connection and electric connection.
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## 2- Installation of Floor-Standing Type Indoor Units

- ◇ As the following picture, when install the indoor unit, select the enough solid and level site with enough space for installation and maintance.



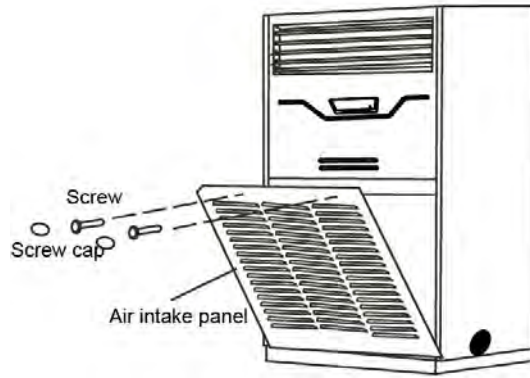
- ◇ For anti-fall down, following the picture (unit: mm) fix the feet on the floor after select aproper place for installation, since the height of the unit casing is very high. The right and left sides as weel as rear can be fixed, it is necessary to select the unit fixed measure as per to the actual installing ambient.



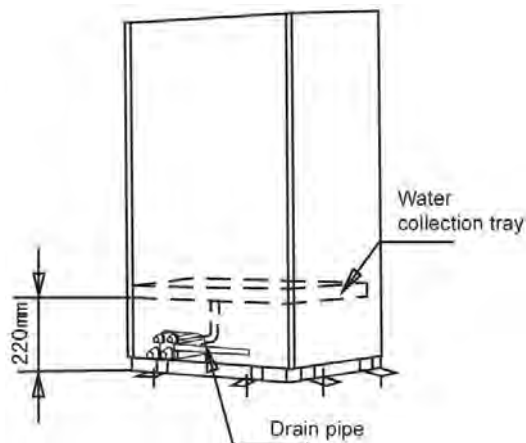
### Notes:

**It is be ware of the foot screw, which may be hurt for the passby people, make sure enough securit of that, prevent accident occure.**

- ◇ Before electric connection, uncover the screw-cap in the air intake panel, and then lossen the screws.
- ◇ Take off the air intake panel, ensure which place secure enough will not make risk to the other people.



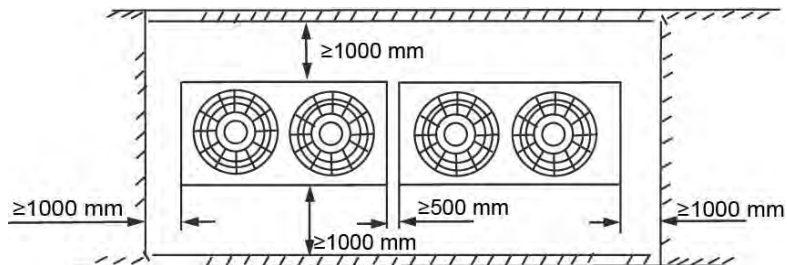
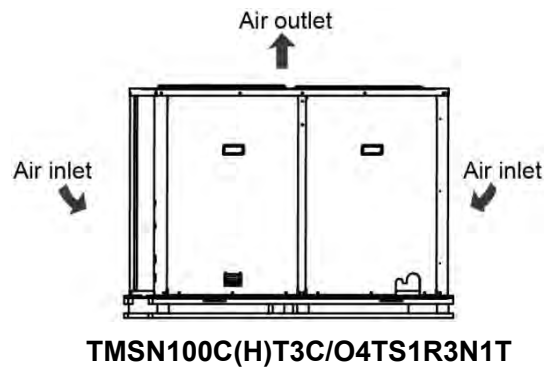
- ✧ There is natural drain, it is should be confirmed that the height of drain pipe is not higher than water collection tray.



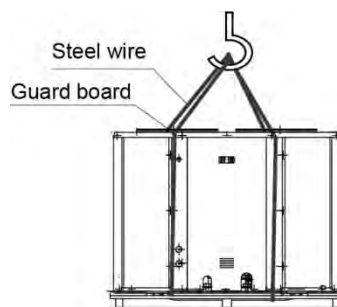
- ✧ The number of bends and folds of the drain pipe should not exceed 2. Try to avoid bends to prevent trash accumulation.
- ✧ Charge water into water collection tray, after the drain water pipe is installed, check whether the water can be drained smoothly and whether the joints are leakage.
- ✧ After making sure that the water drains smoothly and no water is leaked, use a diabatic wool bushes to preserve heat of the drain pipe. Ohterwise, condensate will occur.

### 3. Installation Outdoor Units

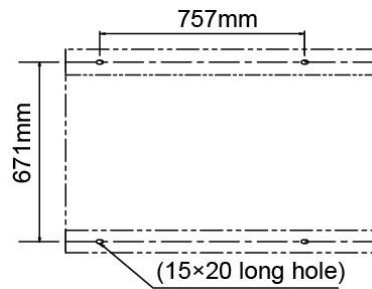
- ◇ When installing the unit, leave a space for maintenance shown in the following figure. Install the power supply at the side of the outdoor unit.



- ◇ Use 4 steel ropes to hoist the unit and move it into the site.
- ◇ 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 unit.
- ◇ Remove the cushion for use in the transport after finishing the transport.

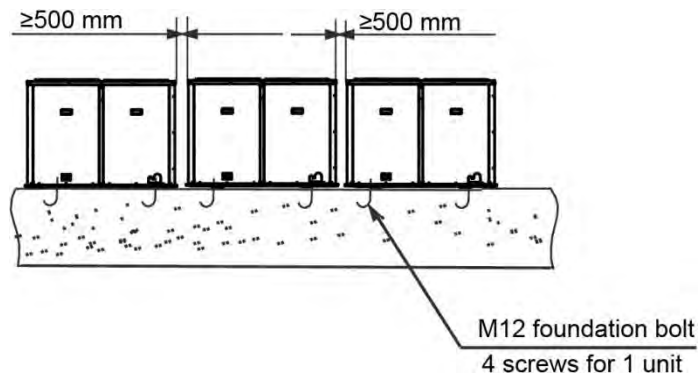


- ◇ The distance of the foundation bolt is shown in following picture.

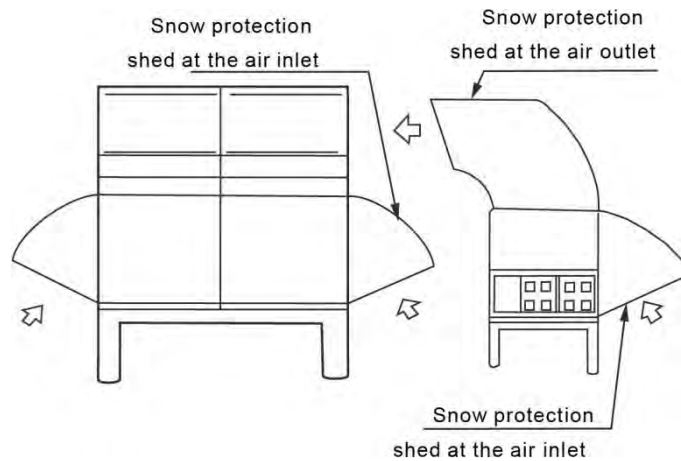


**TMSN100CT3C/O4TS1R3N1T**

- ◇ As the following shown picture, leave an interval between the multi-outdoor unit.

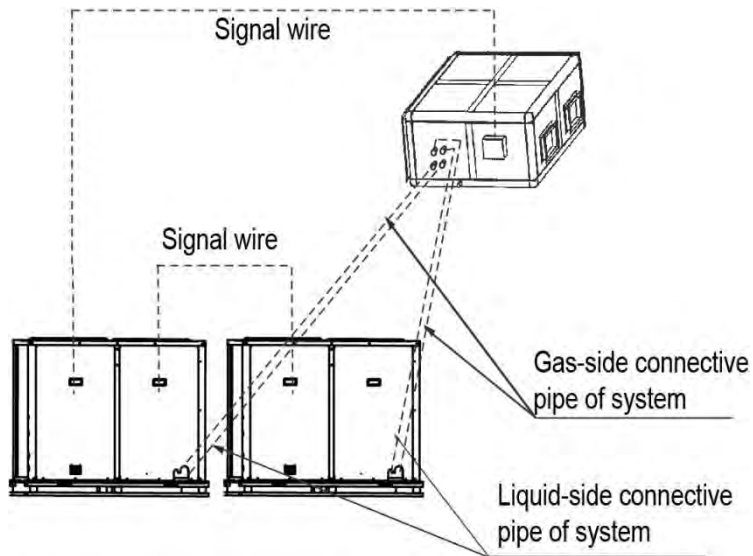
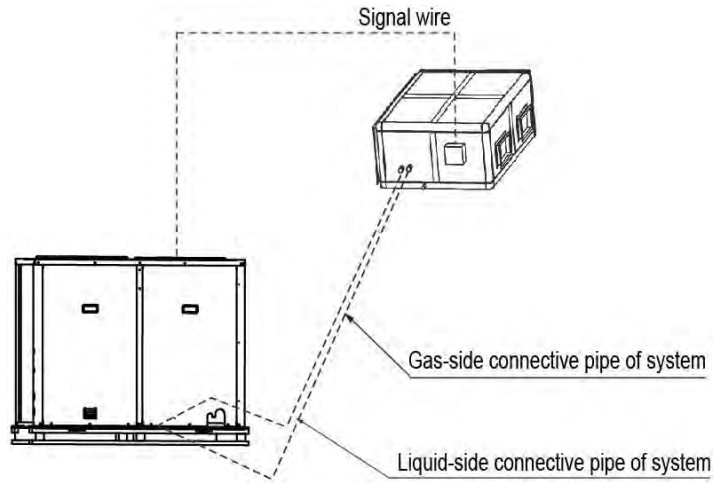


- ◇ Snow protection facilities must be installed in the snowfall areas. In order to prevent influence caused by snow, set up raised pavilion, and install snow protection sheds at the air inlet and air outlet. The snow protection facilities are provided in the site.

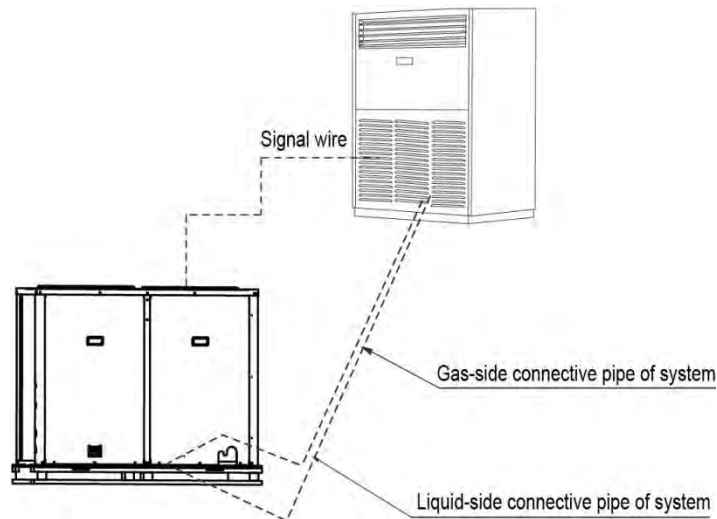


## 4. Connection of Refrigerant Pip

- ◇ Schematic diagram of connection between indoor unit and outdoor unit:





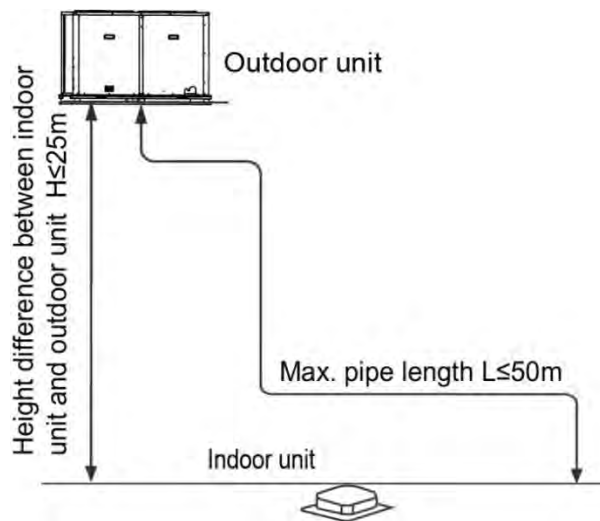


- ✧ The refrigerant pipe adapter is located inside the outdoor unit. So remove the right front board first, totally three pieces of M5 screw.
- ✧ When the pipe is connected from the front side, the pipe can be led out through the right front board.
- ✧ When welding the refrigerant pipe, in order to prevent internal oxidation of the pipe, nitrogen must be filled in. Otherwise, the oxidized chips may block refrigerating circulatory system.
- ✧ 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.
- ✧ Pipes size of the units:

Capacity	Liquid pipe	Gas pipe	Set
22 kW	Φ9.52mm	Φ22mm	1
28 kW	Φ9.52mm	Φ25mm	1
35 kW	Φ12.7mm	Φ28.6mm	1
44 kW	Φ9.52mm	Φ22mm	2

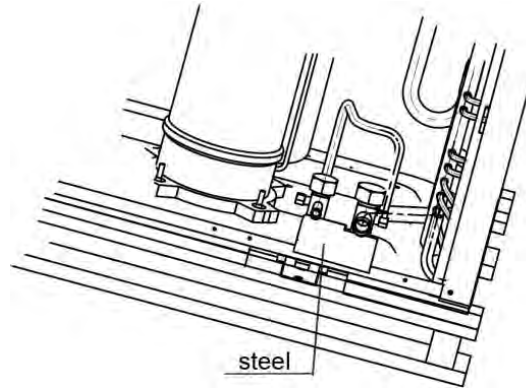
- ✧ For 44kW duct unit, the indoor unit and outdoor unit are categorized in system A and B. When installing and connecting the indoor unit and outdoor unit, identify the label carefully, and make sure that indoor unit corresponds to the outdoor unit, exactly. Otherwise, it may lead to fault of the air conditioner.

- ✧ All connections between indoor unit and outdoor unit are copper-to copper and should be brazed with a phosphorous-copper alloy material such as Silfos-5 or equivalent. **Do not** use soft solder. The outdoor units have reusable valves on both the liquid and vapor connections. The total system refrigerant charge is retained within the outdoor unit during shipping and installation. The reusable valves are provided to evacuate and charge per the instruction.
- ✧ Dry nitrogen should always be supplied through the tubing while it is being brazed, because the temperature required is high enough to cause oxidation of the copper unless an inert atmosphere is provided. The flow of dry nitrogen should continue until the joint has cooled. Always use a pressure regulator and safety valve to insure that only low pressure dry nitrogen is introduced into the tubing. Only a small flow is necessary to displace air and prevent oxidation.
- ✧ Install the connective pipe only after fixing the indoor unit and outdoor unit. Keep dry when installing the connective pipe. Do not let moist intrude into the pipeline system.
- ✧ Allowed length of refrigerant pipe and height difference.

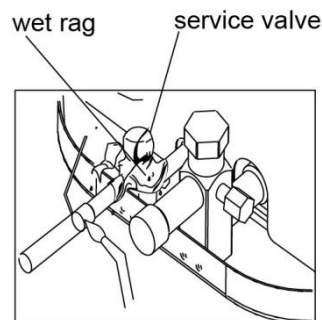


		Allowed value
Max. actual length of pipe (L)		50m
Max. height difference between indoor and outdoor unit	Outdoor unit (upper)	25m
	Outdoor unit lower (lower)	30m
Max. number of bends		15

- ✧ Do not increase or decrease piping sizes.
- ✧ As shown in following picture, when brazing the indoor and outdoor connective lines, pad a sheet metal under the valve avoids the flame burning the chassis.



- ❖ Precaution should be taken to prevent heat damage to the valve by wrapping a wet rag around it. Remove the cap and Schrader core from both the liquid and vapor service valve service ports at the outdoor unit. Connect low pressure nitrogen to the liquid line service port.



- ❖ Braze the liquid line to the high pressure valve (liquid valve) at the outdoor unit. Be sure to wrap the valve body with a wet rag. Allow the nitrogen to continue flowing.
- ❖ Carefully remove the rubber plugs from the evaporator liquid and vapor connections at the indoor unit.
- ❖ Braze the liquid line to the indoor liquid connection. Nitrogen should be flowing through the evaporator coil.
- ❖ Slide the plastic cap away from the vapor connection at the indoor coil. Braze the vapor line to the evaporator vapor connection.
- ❖ Protect the vapor valve with a wet rag and braze the vapor line connection to the outdoor unit. The nitrogen flow should be exiting the system from the vapor service port connection. After this connection has cooled, remove the nitrogen source from the liquid fitting service port.
- ❖ Replace the Schrader core in the liquid and vapor valves.
- ❖ Leak test all refrigerant piping connections including the service port flare caps to be sure they are leak tight.
- ❖ Do not over tighten. (between 40 and 60 inch-lbs. maximum)

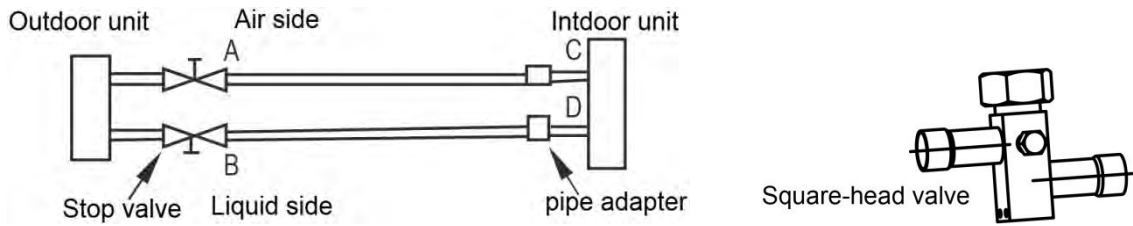
- ✧ Evacuate the vapor line, evaporator and the liquid line, to 500 microns or less.
- ✧ Replace cap on service ports. Do not remove the flare caps from the service ports except when necessary for servicing the system.
- ✧ Do not connect manifold gauges unless trouble is suspected. Approximately 3/4 ounce of refrigerant will be lost each time a standard manifold gauge is connected.
- ✧ Release the refrigerant charge into the system. Open both the liquid and vapor valves by removing the plunger cap and with a hex wrench back out counter-clockwise until valve stem just touches the chamfered retaining wall.
- ✧ Replace plunger cap finger tight, then tighten an additional 1/12 turn (1/ hex flat). Cap must be replaced to prevent leaks.
- ✧ Never attempt to repair any brazed connections while the system is under pressure. Personal injury could result.
- ✧ After the pipes between the indoor unit and the outdoor unit are connected, replenish compressed nitrogen to perform airtight test.
  - ✓ The airtight test is performed by using the compressed nitrogen, 2.94MPa (30kg/cm<sup>2</sup>G). Leak test with a bubble type leak detector. Do not use the system refrigerant in the outdoor unit to purge or leak test.
  - ✓ Tighten the spool of the low pressure valve and high pressure valve before compressing the nitrogen.
  - ✓ Compress the nitrogen at the air vent of the gas valve.
  - ✓ The low pressure valve and high pressure valve are closed in the process of compressing the nitrogen.
  - ✓ **Do not** use oxygen, flammable gas or toxic gas in the airtight test.

✧ Vacuum

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.

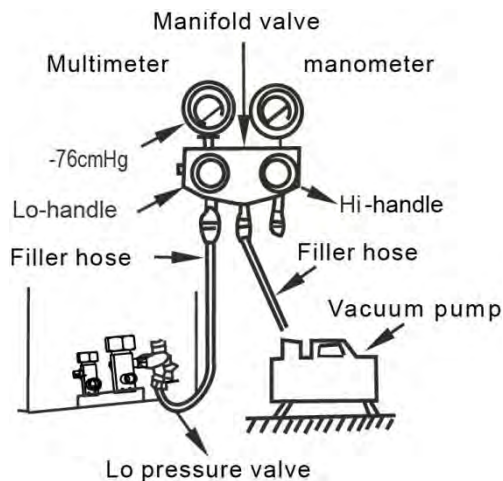
**Note: If the air conditioner is relocated, be sure to use a vacuum pump or refrigerant tank to expel air.**

- ✓ Use the refrigerant in the outdoor unit to expel air.



- 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 counter-clockwise 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.
- ✓ 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 maintenance orifice nut of valves A and B.
    - Connect the filler hose of 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 pools of valves A and B completely.
    - Tighten the square-head cover of valves A and B.

- ✓ Use a vacuum pump

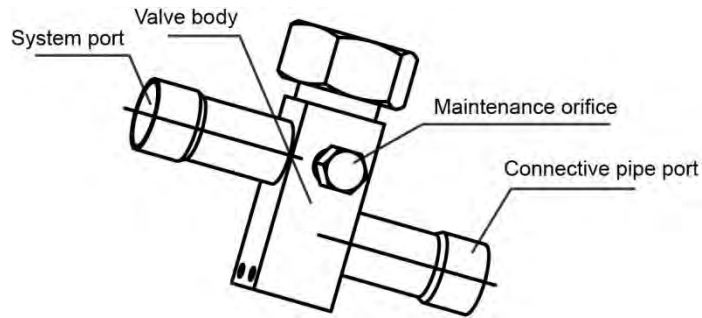


- Loosen and remove the maintenance orifice nut of valve A, and connect the filler hose of the manifold valve to the maintenance orifice of valve A (Tighten both valve A and valve B).
  - Connect the filler hose adapter to the vacuum pump.
  - Open the low (Lo) pressure handle of the manifold valve completely.
  - 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 multi-meter indicates from negative to 0.). Then tighten this maintenance orifice nut.
  - Upon completion of vacuuming, tighten the low pressure handle of the manifold valve completely and stop the vacuum pump. Keep extracting air for over 15 minutes. Check whether the multi-meter points at  $-1.0 \times 10 \text{Pa}$  ( $-76 \text{cmHg}$ ).
  - Loosen the 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 of the maintenance orifice of valve A, and then tighten the nut.
- ◇ 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.
  - ✓ 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 following

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picture.

- ✓ 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.



- ✧ After vacuum, according to the diameter and length of the connective pipe of liquid side between the indoor unit and outdoor unit, calculate the refrigerant replenishment quantity. The refrigerant for replenishment is R410A.

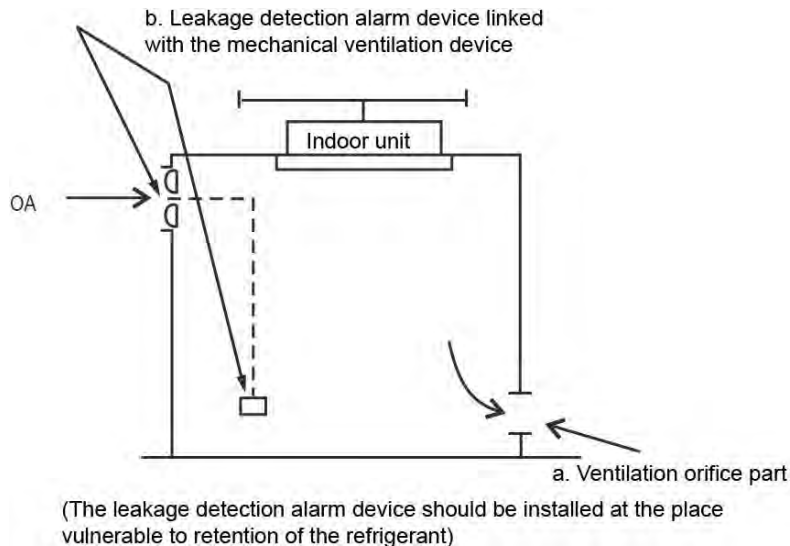
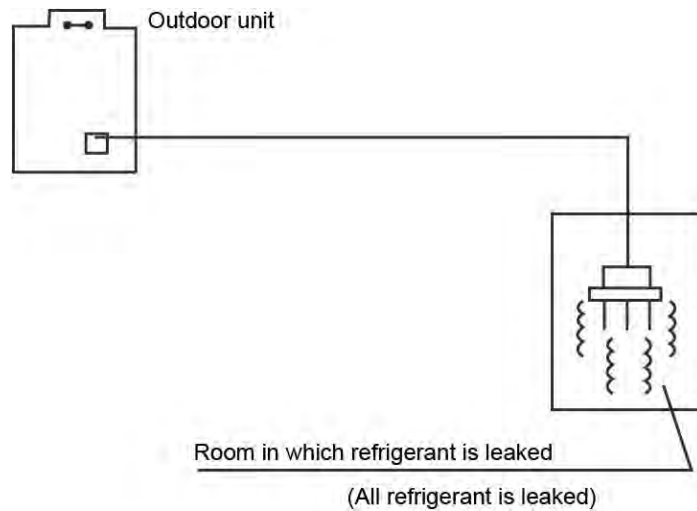
Diameter of liquid-side pipe	Quantity of refrigerant replenished for 1m pipe length
Φ9.52mm	0.060kg
Φ12.7mm	0.115kg

**Note:**

**Please check and record the replenished quantity of the air conditioner.**

- ✧ Refrigerant leak precautions. This air conditioner uses refrigerant R410A. R410A 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.
  - ✓ Density threshold: Density of the Freon gas that does not harm the human body. Density threshold of R410A:  $0.3\text{kg/m}^3$ .
  - ✓ Calculate the total quantity of refrigerant to be replenished [A (kg)].  
Total refrigerant quantity = refrigerant replenishment quantity upon shipment + additional refrigerant replenishment corresponding to the pipe length.
  - ✓ Calculate out the indoor volume [B ( $\text{m}^3$ )] (according to the minimum volume)

- ✓ Calculate out the refrigerant density:  
 $[A \text{ (kg)}] / [B \text{ (m}^3)] \leq \text{Density threshold: } 0.3\text{kg/m}^3$
- ✓ 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.



## 5. Heat Insulation of Refrigerant Pipe

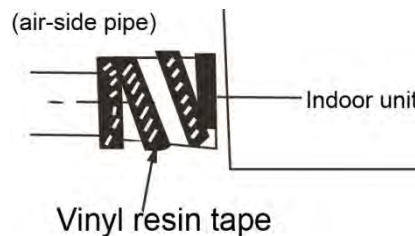
In order to prevent faults caused by condensate of the refrigerant pipe and drain pipe, perform condensate prevention and heat insulation properly. If it is forecast that high humidity and temperature environment (Condensate temperature is over 23°C ) may exist in the ceiling, e.g., inside



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/m<sup>2</sup>) 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.

**Note: the heat insulation of drain pipe refer to the installation of indoor unit.**

- ◇ Please use heat-resistant materials as heat insulation material 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.
- ◇ After applying the auxiliary heat insulation materials, use vinyl resin tape to seal refrigerant pipe and drainage pipe to prevent water leak.



## 7. Electric Connection

### 7.1 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.

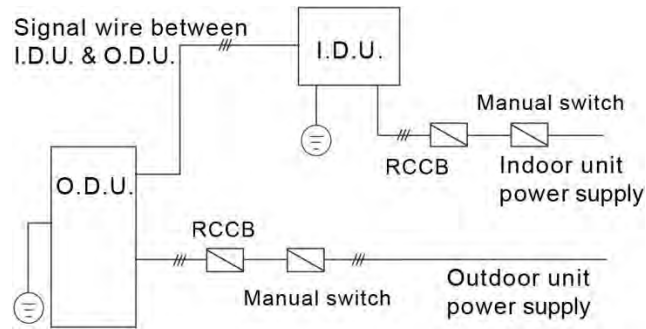
- ✧ Upon completion of wire connection, double check it and then connect the power supply.
- ✧ An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device (RCD) with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rule.
- ✧ The appliance shall be installed in accordance with national wiring regulations.

**Floor-standing type:**

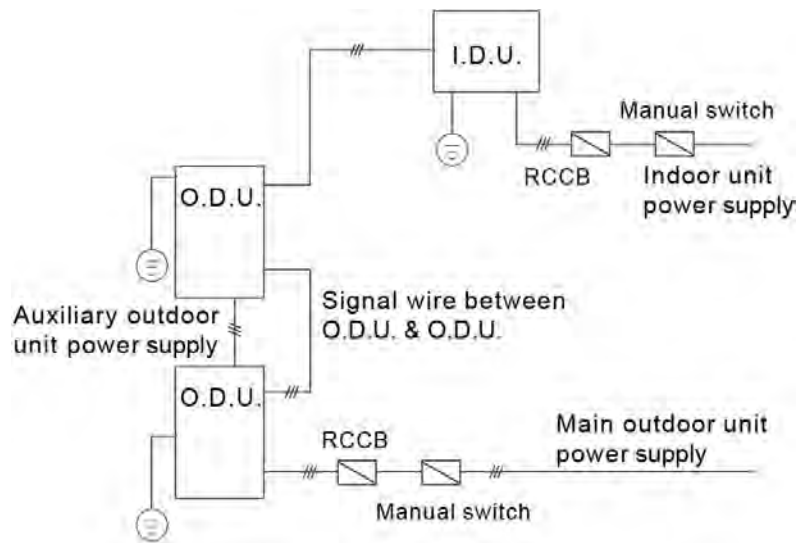
Type	Indoor unit	Outdoor unit
Model	TMSN100C(H)T3C/O4TS1R3N1T	TMSN100C(H)T3C/I4TS1R3N1T
Power	220-240V~, 1Ph, 50Hz	380~415V~, 3Ph, 50Hz
Switch capacity of the main power supply / Fuse	20A/10A	60A/40A
Indoor unit power cable	3×2.5mm <sup>2</sup> (Includes grounded wire)	/
Outdoor unit power cable	\	5×6.0mm <sup>2</sup>
Connective wire of indoor and outdoor unit	4×1.0mm <sup>2</sup> (Cooling & heating) 2×1.0mm <sup>2</sup> (Cooling only)	
Wired controller connective wire	5×0.5mm <sup>2</sup> (Shield wire)	\

### 7.3 Schematic diagram

#### Single outdoor unit:



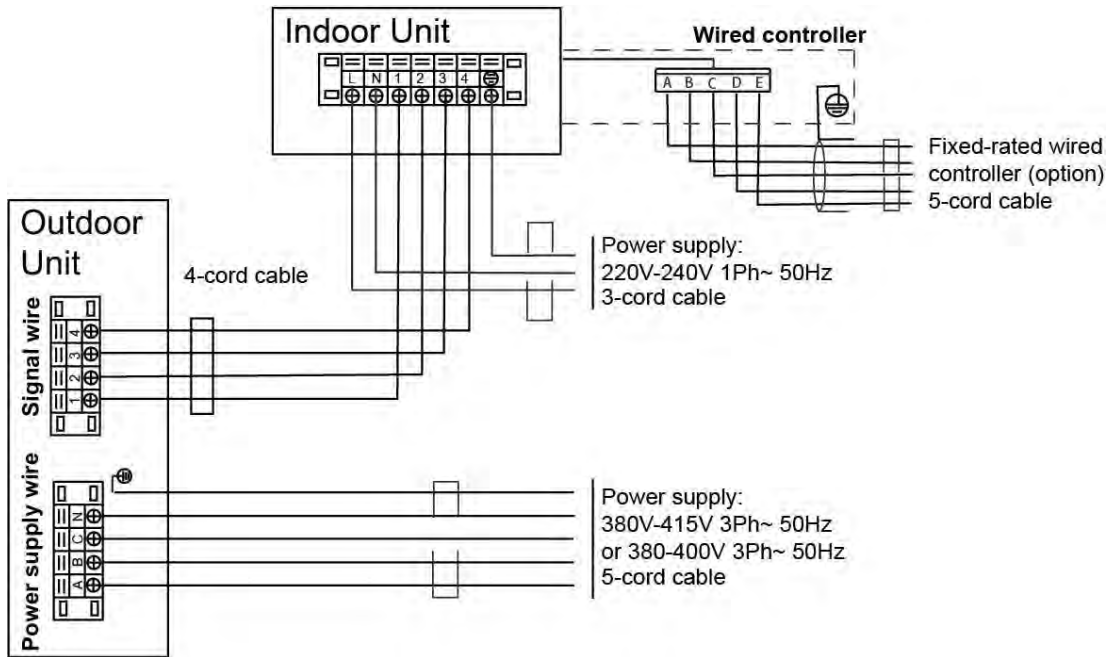
#### Double outdoor units:



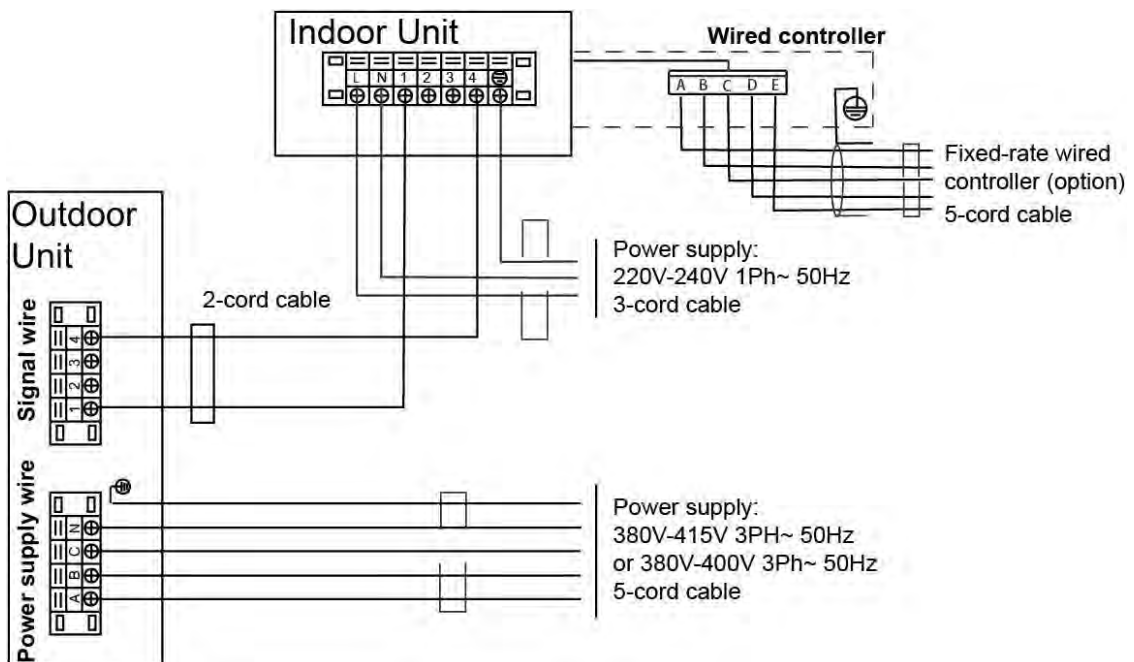
## 7.4 Electric wire diagram

When connect the wire, pay attention to the phase sequence of the power supply. If the phase sequence is reversed, the compressor will not start. Meanwhile, the fault indicator of the outdoor electric control board will light up. After shifting the phase sequence, power on the unit until the fault indicator goes out and the compressor starts up normally.

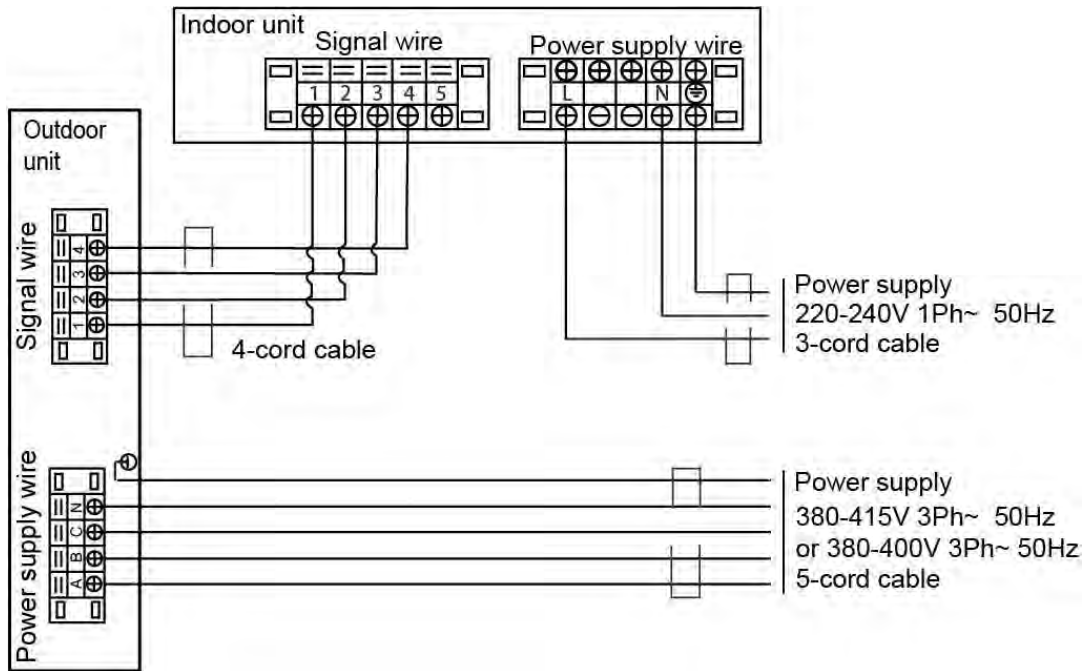
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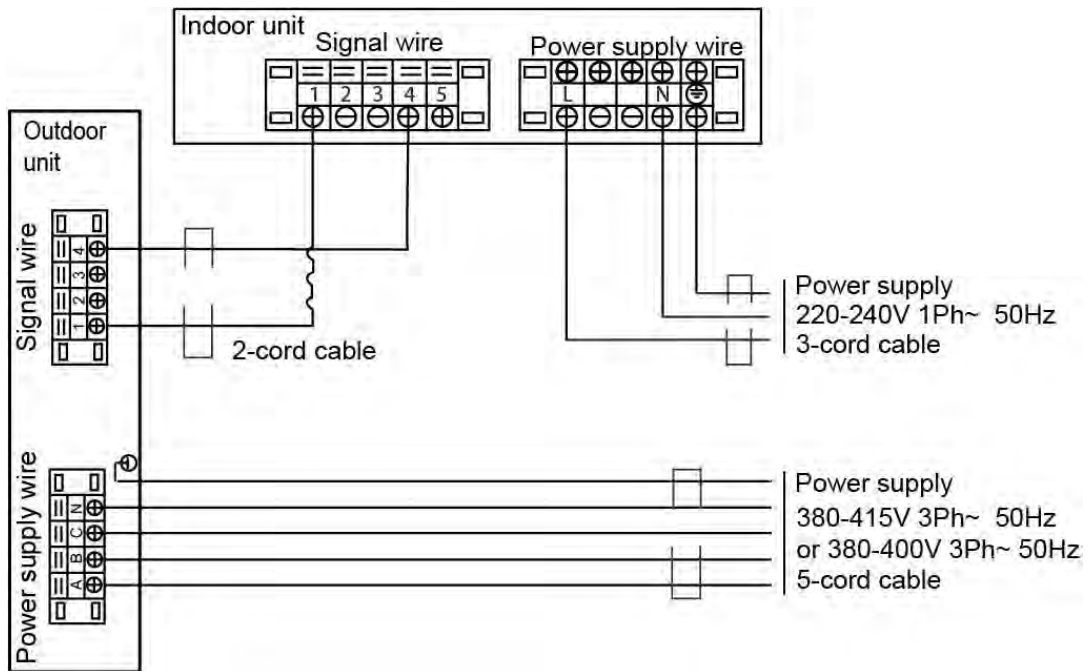
### TMSN100CT3C/I4TS1R3N1T



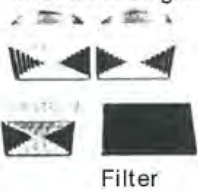





**TMSN100HT3C/I4TS1R3N1T:**




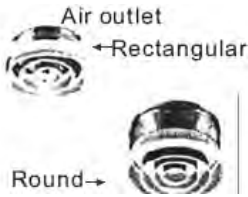



**TMSN100CT3C/I4TS1R3N1T**






## Methods of configuring and selecting installation

	Material name	Characteristics, advantages and other contents
1	<p>Air inlet wooden grille</p>  <p>Filter</p>	<ol style="list-style-type: none"> <li>1. Install the filter at the main body grille in case the store height is low, and at the main body of the indoor unit in case the store height is high.</li> <li>2. It cleans conveniently at the time of installing/uninstalling the filter.</li> <li>3. The button structure is easy to install and uninstall.</li> </ol>
2	<p>Hose (for absorbing noise)</p> 	<ol style="list-style-type: none"> <li>1. For purpose of air inlet.</li> <li>2. Must adopt fire-resistant materials.</li> <li>3. The heat insulation material must be glass wool.</li> </ol>
3	<p>Hose (for general purpose)</p> 	<ol style="list-style-type: none"> <li>1. For purpose of air outlet.</li> <li>2. Must adopt fire-resistant materials. (Those materials other materials. (Those materials other shall not be applied)</li> <li>3. The heat insulation material must be glass wool.</li> </ol>
4	<p>Air inlet noise pipe</p> 	<ol style="list-style-type: none"> <li>1. Install the unit at the air inlet so that the air flows smoothly and the noise is lower.</li> <li>2. The noise value varies with the length.</li> <li>3. The hose joint should be bent lest detachment of the pipe.</li> </ol>
5	<p>Air outlet noise pipe</p> 	<ol style="list-style-type: none"> <li>1. Install the unit at the air outlet so that the air flows smoothly and the noise is lower.</li> <li>2. The noise value varies with the length.</li> <li>3. The hose joint should be bent lest detachment of the pipe.</li> </ol>
6	<p>Distributor</p> 	<ol style="list-style-type: none"> <li>1. Install the unit at the air outlet so that the air flows smoothly and the noise is lower.</li> <li>2. Select 1BY2 or 1BY3 according to the quantity of the diffusers.</li> <li>3. The diffuser pipes should preferably have the same length after branching, and the minimum length of the ventilation pipes is 5m.</li> </ol>

<p>7</p>	<p>Rectangular Air outlet</p> 	<ol style="list-style-type: none"> <li>1. Fixed model that diffuses air at a 360 angle.</li> <li>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.</li> <li>3. The diffuser pipes should preferably have the same length after branching, and the minimum length of the ventilation pipes is 5m.</li> </ol>
<p>8</p>	<p>Air outlet</p> 	<ol style="list-style-type: none"> <li>1. Fixed model that diffuses air at a 360 angle.</li> <li>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.</li> <li>3. Proper air speed: For air speed of over 2-3.5m/s, select other diffusers (with great noise).</li> <li>4. Install the diffuser pipe if it is necessary to install the model of over 3.5m/s.</li> <li>5. For purpose of cooling-only model.</li> </ol>
<p>9</p>	<p>Air outlet</p> 	<ol style="list-style-type: none"> <li>1 The lengthwise adjustable model which diffuses air at a 360 angle.</li> <li>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).</li> </ol>
<p>10</p>	<p>Air outlet</p>  <p>←Rectangular</p> <p>Round→</p>	<ol style="list-style-type: none"> <li>1. Low noise compared with other air outlets. Applicable to tall buildings that require along distance of air conditioning.</li> <li>2. Select the ventilation pipe connection caliber according to the distance and the air speed.</li> <li>3. Applicable to store height of over 5m (for design of tall store such as temple, consult manufacturer).</li> </ol>
<p>11</p>	<p>Linear diffuser</p> 	<ol style="list-style-type: none"> <li>1. The fan is the adjustable type which can change direction of air flow. It is used for deluxe decoration.</li> <li>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.</li> <li>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).</li> </ol>



12	<p>Air outlet woodengrille</p> 	<ol style="list-style-type: none"> <li>1. Low noise compared with other air outlets. Applicable to tall buildings that require a long distance of air conditioning.</li> <li>2. Select the ventilation pipe connection caliber according to the distance and the air speed.</li> <li>3. Applicable to store height of over 5m (for design of tall stores such as temple, consult manufacturer).</li> </ol>
Auxiliary materials	<p>Duct wrapping tape</p> 	<ol style="list-style-type: none"> <li>1. Flanges and pipelines connected to the ventilation pipes.</li> <li>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).</li> </ol>
	<p>Aluminium adhesive tape</p> 	<ol style="list-style-type: none"> <li>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.</li> <li>2. Entwine for over 3 circles.</li> <li>3. Use ventilation pipe-specific tapes (instead of ordinary adhesive tapes).</li> </ol> <p>In order to ensure the installation quality and durability, it is necessary to use the auxiliary materials of standard specifications provided by manufacturer electronics and the auxiliary products of the specified manufacturers.</p>

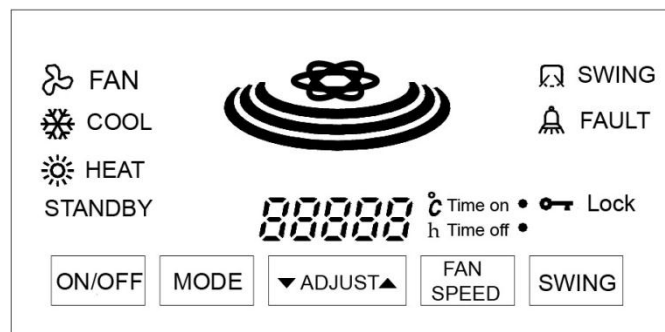
## 8. Trial Run

- ✧ Please conduct in accordance with the nameplate of Trial Run Tenor on the electric control box.
- ✧ Perform the trial run only after the outdoor unit has been powered on for over 12 hours.
- ✧ Check whether all valves are opened before trial run.
- ✧ Check the electric safety before trial run.
- ✧ Do not perform compulsory operation in any way, because it is very dangerous if the protection device is not active.
- ✧ Perform trial run only after all installations are finished.
- ✧ Confirm the following issues before trial operation:
- ✧ Install the remote controller holder as required by the user. The holder must be installed in a location suitable for transmitting the signals of the remote controller to the indoor unit.

- ✧ Use the remote controller or wired controller to let the air conditioner run in the cooling mode. Inspect the following items according to the operation manual. If any fault occurs, remove the fault first.
- ✧ Check the indoor unit:
  - ✓ Whether any vibration or abnormal sound occurs during the operation.
  - ✓ Whether the air, noise and condensate generated by the unit affect the neighbors.
  - ✓ Whether any refrigerant is leaked.
  - ✓ Check whether the connective copper pipes and drain pipes generate condensate due to loose wrapping.
  - ✓ Open the air inlet grille of indoor unit to check whether any penetration or leak of water occurs, especially at the drain stopper.

## 9.Operation of Floor-standing Type Indoor Unit

### 9.1 Operation panel and display



### 9.2 Buttons

- ✧ **ON/OFF**

Press the key at the first time, the air conditioner will switch, and then press it again, the unit will shut down. During the unit is on serving the key is lighting. Otherwise, the light will off.
- ✧ **MODE**

This key is for select the unit's operating mode. For cooling only unit, only air supply (Only fun) mode and cooling mode could be selected by this key. For cooling and heating unit, one more function which is heating mode could be selected. By pressing this key repeatedly, choose these modes. The selected mode is flashing in 2Hz. If keep it without change within 3 seconds, the unit will confirm the mode.

✧ **ADJUST: UP and DOWN**

This button is also called Temperature adjustment key.

**UP:** For increase temperature. Any time press the key, temperature will increase one Celsius degree. When press the key last for more than 1 second, the temperature will increase by 1°C per second, until which up to the maximum temperature 30°C. The buzzer will not buzz at this time.

**DOWN:** For decrease temperature. Any time press the key, temperature will decrease 1°C. When press the key last for more than 1 second, the temperature will decrease by 1°C per second, until which fall to the minimum 17°C. The buzzer will not buzz at this time.

✧ **FAN SPEED**

For select air flow speed: Low speed, medium speed, high speed and auto speed.

✧ **SWING**

Be used to select swing function on or off.

✧ **Lock**

Be used to select lock function on or off. This key is locate at the needle orifice of low right of the control panel, which be pressed by pin. If lock the unit by the key, any other keys is invalid, however the signal is effective.

### 9.3 Display icons





It is named globe and always light-on.

✧ **'STANDBY**

The light is on when the system at standby status, and light-off when the unit switches on.

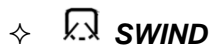


Press **MODE** key, the light of icon is on, the selected mode's icon will flash, after 3 seconds,

the light extinction, while the status of selected mode icon is light-on instead of flashing. Power on for the first drive up, after press the **ON/OFF**, default mode of  **FAN** appear. If malfunction occur, **FAN** icon would always light-on, and  **FAULT** icon light up, fault codes is show. Modes only could be shifted at unit on.










This is speed icon. Different speeds correspond to the waves below of globe icon. The first wave means low speed wind; the middle wave means medium speed wind; the last one stand for high speed wind.



Swing icon. Press the key of **SWING**, which icon is light-up, while close off this mode, the icon will light-off.



For temperature display, the  shows temperature value, the unit is °C. For protection and error display, the first  display  (for protection) or  (for error), the last  display codes form  to .

In only air supply mode, no setting temperature is showed at .



While locking, the lock icon is light-on; while unlocking, the lock icon is light-off.



The time setting only could be set by remote controller. If set time-on mode, which **Time on** icon is light-on; if set time-off mode, **Time off** icon is light-off.



When the unit is in error state, the icon will be showed.



Air Conditioning Systems

Cooling & Heating

**TRUST AIR-CONDITIONING EQUIPMENT CO.**

Shiraz office: 8 th floor, Alvand Bldg., Dostan St.,  
Moaliabad Ave., SHIRAZ, IRAN., Post code: 71877-14446

Tel.: +98-71-36341070

Fax.: +98-71-36341094

Tehran office: No. 19- koohe nour St.- Motahhari St.-

TEHRAN, IRAN., Post code: 15876-73111

Tel.: +98-21-89389

Fax.: +98-21-88541903

Ahwaz office: No. 309- Kaveh St.- AHWAZ, IRAN., Post code: 61939-47911

Tel.: +98-61-32230647-8 E-mail: [info@trustacs.com](mailto:info@trustacs.com)

Fax.: +98-61-32230647 Web site: <http://www.trustacs.com>

برند برتر در اولین جشنواره بین المللی  
برترین نام و نشان های تجاری ایران

