

Before starting up, read this manual carefully and keep it for future reference.

INVERTER SPLIT-TYPE ROOM AIR CONDITIONER HEAT PUMP

INSTALLATION MANUAL (9K & 12K MODELS)



Oasis

INSTALLATION PRECAUTIONS

- Please read this installation manual carefully before operating the unit to ensure correct installation.
- If the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.
- Contact an authorized service technician for repair, maintenance and installation of this unit.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by persons responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- All the pictures in the instructions are for explanation purposes only.
- The design and specifications are subject to change without prior notice. Consult with the sales agency or manufacturer for details.

SAFETY PRECAUTIONS

- Please read these safety precautions carefully before installation.
- Be sure to follow all the precautions below, they are all important for ensuring safety.



WARNING

This symbol indicates the possibility of death or serious injury.



CAUTION

This symbol indicates the possibility of injury or damage to property.



WARNING

- 1) Install according to this installation instructions only. If installation is defective, it will cause water leakage, electrical shock, or fire.
- 2) Use the included accessories and specified parts for installation only. Use of other accessories and parts will cause water leakage, electrical shock, or fire.
- 3) Install at a strong and firm location which is able to withstand the set's weight. If not secured or installation is not properly done, the set will drop and cause injury.
- 4) For electrical work, follow the local national wiring standard, regulation and these installation instructions. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect found in electrical work, it will cause electrical shock, or fire.
- 5) Use the specified cable, connect tightly and clamp the cable so that no external force will be acted on the terminal. If connection or fixing is not properly secured, it will cause excessive heat or fire at the connection.
- 6) Wire routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed properly, it will overheat at connection point of terminal and cause fire or electrical shock.
- 7) When carrying out piping connection, take care not to let air or any substances other than the specified refrigerant go into refrigeration cycle. Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.
- 8) Do not modify the length of the power supply cord or use extension cord, and do not share the single outlet with other electrical appliances. Otherwise, it will cause fire or electrical shock.



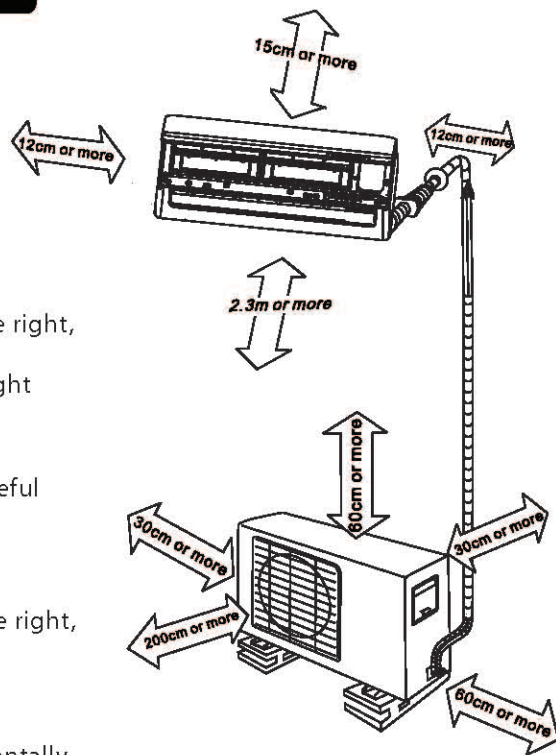
CAUTION

- 1) This equipment must be grounded and installed with ground leakage current breaker. It may cause electrical shock if grounding is not preformed properly.
- 2) Do not install the unit in a place where leakage of flammable gas may occur. In case gas leaks and accumulates around the unit, it may cause fire.
- 3) Carry out drainage piping as mentioned in installation instructions. If drainage is not installed properly, water may enter the room and damage furniture.

SELECT THE BEST LOCATION

Indoor unit

- There should not be any source of heat or moisture near the unit.
- There should not be any obstacles blocking the air circulation.
- Place ideally where air circulates in the room.
- Place where drainage can be easily accomplished.
- Place where noise prevention is taken into consideration.
- Do not install the unit near a door way.
- Ensure the unit is spaced as indicated, by the arrows in the diagram to the right, from walls, ceiling, fence or other obstacles.
- There should not be any direct sunlight on the units. If unavoidable, sunlight prevention should be taken into consideration.



Outdoor unit

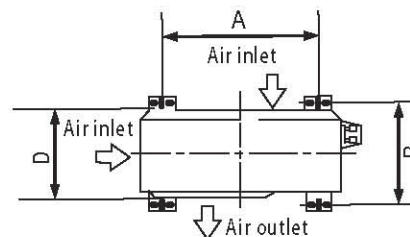
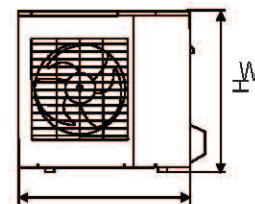
- If an awning is built over the unit to prevent direct sunlight or rain, be careful that heat radiation from the condenser is not obstructed.
- There should not be any animal or plant which could be affected by hot air discharged.
- Ensure the unit is spaced as indicated, by the arrows in the diagram to the right, from walls, ceiling, fence or other obstacles.
- Do not place any obstacles which may obstruct the discharge of air.

Settlement of outdoor unit

- Anchor the outdoor unit with a bolt and nut Φ 10 or Φ 8 tightly and horizontally on a concrete or rigid mount.

NOTE: The outdoor unit you purchase may be like one of the following. Install the outdoor unit according to the dimension as indicated in the table below:

Outdoor unit dimension mm(WxHxD)	Mounting dimensions	
	A(mm)	B(mm)
670x540x265	481	276
780x540x250	549	276
760x590x285	530	290
845x700x320	560	335
810x558x310	549	325
900x860x315	590	333



ACCESSORIES

Number	Name of Accessories	Qty	
1	Installation Plate	1	
2	Clip Anchor	5-8(depend on models)	
3	Self-tapping Screw A ST3.9 x25	5-8(depend on models)	
4	Seal	1	
5	Drain Joint	1	
6	Connecting pipe Assembly	Parts you must purchase. The pipe size differ from appliance to appliance. Consult the technician for the proper size.	
	Liquid side		Φ 6.35
			Φ 9.52
	Gasside		Φ 12.7
		Φ 16	
7	Remote control	1	
8	Self-tapping Screw B ST 2.9x10	optional parts	
9	Remote controller holder	1	
10	Air freshening filter(used to install on Air filter)	1	

NOTE: Except the above parts provided, the other parts needed during installation are the customers responsibility to purchase.

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INSTALLATION PLATE MOUNTING

NOTE:

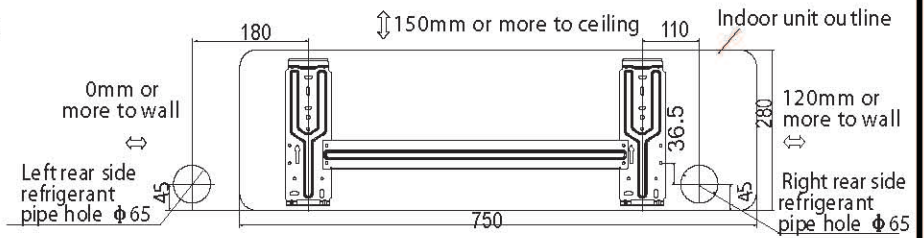
Ensure the mounting wall is strong and solid enough to protect it from vibration.

● Installation Plate Mounting

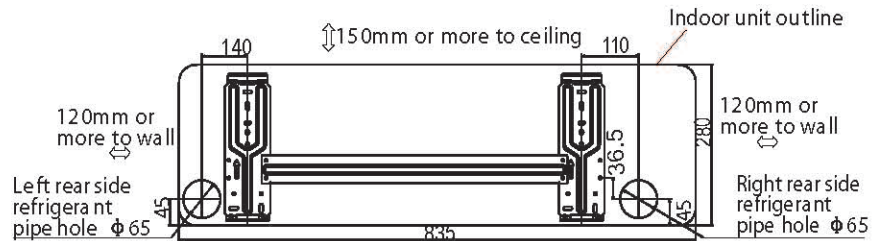
1. Fit the installation plate horizontally on structural parts of the wall with spaces around the installation plate.
2. If the wall is made of brick, concrete or a similar material, drill five or eight 5mm diameter holes in the wall. Insert clip anchor for appropriate mounting screws.
3. Fit the installation plate on the wall with five or eight type "A" screws.

NOTE:

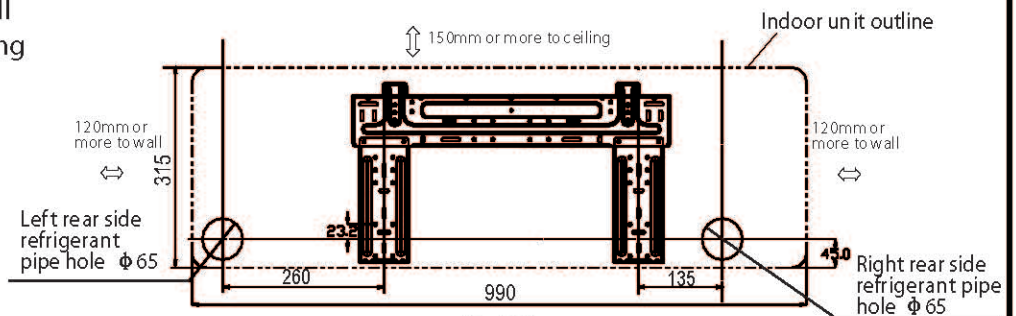
Mount the Installation Plate and drill holes in the wall according to the wall structure and corresponding mounting points on the installation plate. The installation plate provided with the unit may differ from appliance to appliance. (Dimensions are in mm unless otherwise stated)



Model A

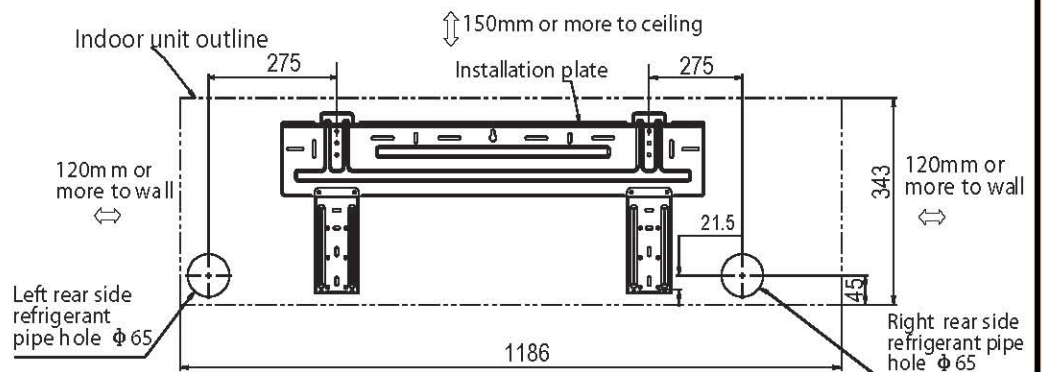
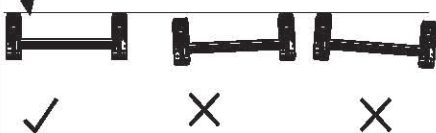


Model B



Model C

Correct orientation of Installation Plate

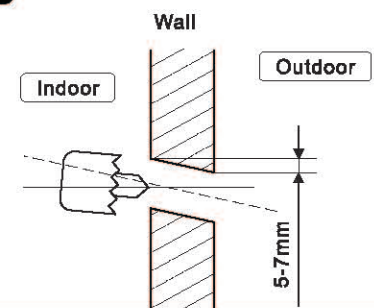


Model D

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DRILL A HOLE IN THE WALL

1. Determine hole positions according to left and right side of the installation plate. The hole center is obtained by measuring the distance as shown in the diagram above.
2. Drill the piping plate hole with 65mm hole-core drill.
3. Drill the piping hole at either the right or the left and the hole should be slightly slanted to the outdoor side.
4. Always take steps to protect the pipe when drilling metal grid, metal plate or similar materials.



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For more details visit www.MrCool.com

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CONNECT THE CABLE TO THE INDOOR UNIT

Electrical work

Electric safety regulations for the initial Installation

1. If there are serious safety problems regarding the power supply, the technician(s) should refuse to install the air conditioner until the problem is solved.
2. Power voltage should be in the range of 90%~110% of rated voltage.
3. Equipment must be properly grounded. Any disconnect and all other components in the power supply circuit should be rated for no less than 1.5 times the equipment rating.
4. The appliance must be installed in accordance with national wiring regulations. Do not operate your air conditioner in a wet room such as a bathroom or laundry room.
5. An all-pole disconnection device which has at least 3mm clearances in all poles, and has a leakage current that may exceed 10mA, the residual current device(RCD) having a rated residual operating current not exceeding 30mA, and disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.
6. For units with auxiliary electric heaters, keep at least 3.25ft away from combustible materials.
7. Refer to the attached Electrical Connection Diagram located on the panel of the indoor & outdoor unit to connect the wire.
8. All wiring must comply with local and national electrical codes and be installed by qualified and skilled electricians.
9. An individual branch circuit and single receptacle used only for this air conditioner must be available. See the following table for suggested wire sizes and fuse specifications:

Suggest Minimum Wire Size (AWG: American Wire Gage):

Appliance Amps	AWG Wire Size
10	18
13	16
18	14
25	12
30	10
40	8

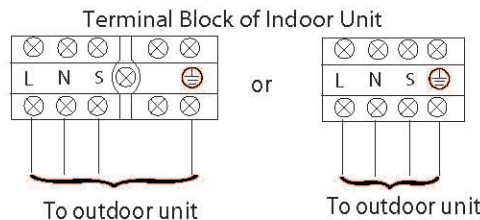
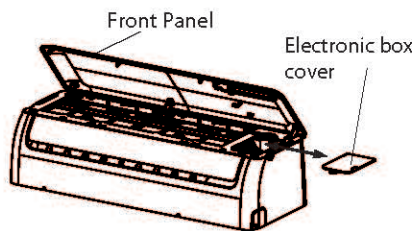
NOTE:

- The wire size of power supply cord and interconnected wire and the current of the fuse or switch are determined by the maximum current indicated on the nameplate which is located on the side panel of the unit. Please refer to the nameplate before selecting the wire size, fuse or switch.
- The controller of the air conditioner is designed with a fuse protection function under abnormal conditions, the specifications of the fuse are printed on the circuit board, such as: T3.15A/250VAC, T5A/250VAC, etc.

Connect the cable to the indoor unit

NOTE: Before performing any electrical work, turn off the main power to the system.

1. The inside and outside connecting cable can be connected without removing the front grill.
2. The indoor power cord type is H05VV-F or H05V2V2-F, the outdoor power cord and interconnected cord type is H07RN-F.
3. Lift the indoor unit panel up, remove the electrical box cover by loosening the screw.
4. Ensure the color of the wires to the outdoor unit and the terminal Nos. are the same as the indoor respectively.
5. Wrap those cables not connected to terminals with insulation tape, so they will not touch any electrical components. Secure the cable onto the control board with the cord clamp.

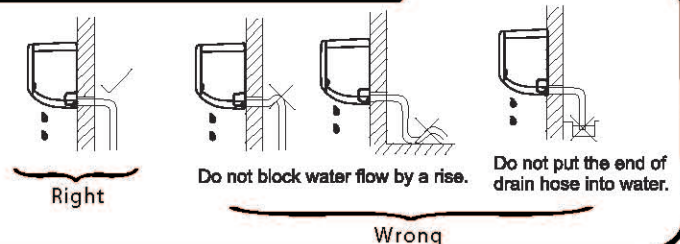


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CONNECTIVE PIPE AND DRAINAGE INSTALLATION

Drainage

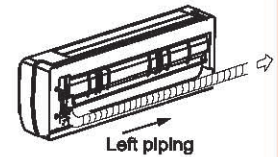
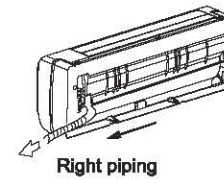
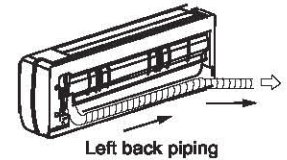
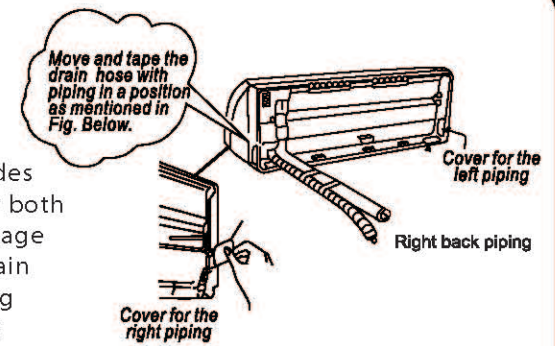
1. Run the drain hose sloping downward. Do not install the drain hose as illustrated in the wrong figures.
2. When connecting the extension drain hose, insulate the connecting part of the extension drain hose with a shield pipe, do not let the drain hose slack.



4

Connective pipe installation

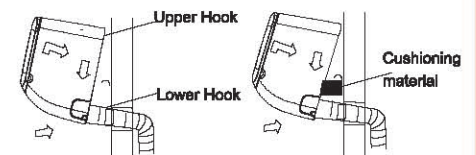
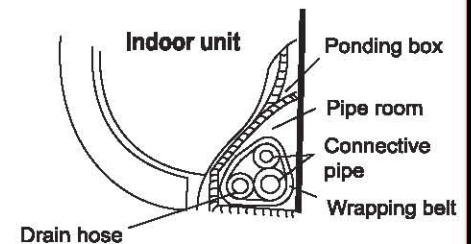
- For the left-hand and right-hand piping, remove the pipe cover from the side panel.
- For the right back and left back piping, install the piping as shown.
NOTE: For 9K/12K model, there is only one side drainage structure design. For 18K models and above, one side drainage structure is standard. Both sides drainage structure is optional and can only be customized from factory. For both sides drainage structure, it can be chosen for right, left or both sides drainage connection. If choosing both sides drainage connection, another proper drain hose is needed as there is only one drain hose offered by factory. If choosing one side drainage connection, make sure the drain hole on the other side is properly plugged. The connection of the drain hose should be done by qualified installer in case of water leakage.
- Bundle the tubing, connecting cable, and drain hose with tape securely and evenly as shown in Figure on the right.
 - Because the condensed water from the rear of the indoor unit is gathered in the ponding box and is piped out of room. Do not put anything else in the box.

CAUTION

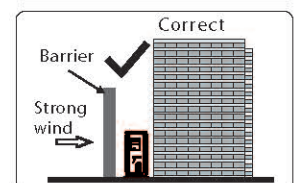
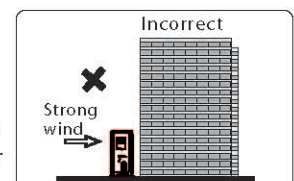
- Connect the indoor unit first, then the outdoor unit.
- Do not allow the piping to let out from the back of the indoor unit.
- Be careful not to let the drain hose slack.
- Heat insulation should be done to the extension drain hose of the indoor unit.
- Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.
- Never cross or twist the power wire with any other wiring.

Indoor unit installation

- Pass the piping through the hole in the wall.
- Hook the indoor unit onto the upper portion of installation plate (connect the indoor unit with the upper edge of the installation plate). Ensure the hooks are properly seated on the installation plate by moving it left and right.
- Piping can easily be set by propping the indoor unit with a cushioning material between the indoor unit and the wall. Remove after piping is finished.
- Press the lower left and right side of the unit against the installation plate until hooked in their proper slots.

**7** OUTDOOR INSTALLATION PRECAUTION

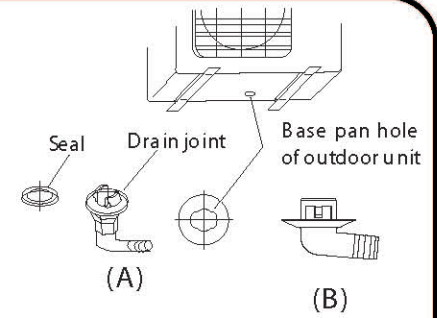
- Install the outdoor unit on a rigid base to minimize noise level and vibration.
- Determine the air outlet direction and ensure the discharged air is not blocked.
- In the case that the installation site is exposed to strong wind such as a seaside, make sure the fan operates properly by putting the unit lengthwise along the wall or using a dust or shield plates.
- Specially in windy areas, install the unit to prevent the admission of wind. If suspended installation is needed, the installation bracket should coincide with technique requirements in the installation bracket diagram. The installation wall should be solid brick or concrete, or actions to reinforce, damping support should be taken.
- The connection between bracket and wall as well as the bracket and the air conditioner should be firm, stable and reliable.
- Be sure there is no obstacle which blocks radiating air.



2 DRAIN JOINT INSTALLATION

NOTE: The drain joint may differ depending on the outdoor unit.

For the drain joint with the seal (Fig.A), first fit the seal onto the drain joint, then insert the drain joint into the base pan hole of outdoor unit, rotate 90° to securely assemble them. To install drain joint as shown in Fig.B, insert the drain joint into the base pan hole of outdoor unit until it is secured, indicated with a clicking sound. Connect the drain joint with an extension drain hose (locally purchased), in case of water draining off the outdoor unit during heating mode.

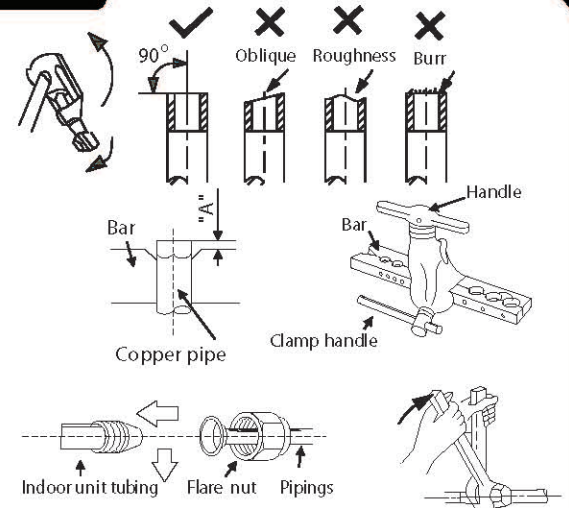


3 REFRIGERANT PIPE CONNECTION

Flaring

1. Cut a pipe with a pipe cutter.
2. Put flare nuts on pipe/tube having completed burr removal and flare the pipe.
3. Firmly hold copper pipe in a die in the dimension shown in the table below.

Outer diam. (mm)	A(mm)	
	Max.	Min.
Φ 6.35	1.3	0.7
Φ 9.52	1.6	1.0
Φ 12.7	1.8	1.0
Φ 16	2.2	2.0



Tightening Torque Table

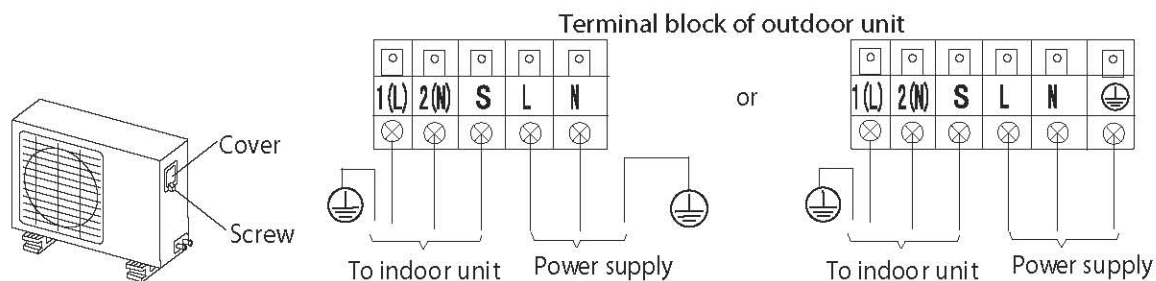
Outer diam.	Tightening torque(N.cm)	Additional tightening torque(N.cm)
Φ 6.35mm	1500 (153kgf.cm)	1600 (163kgf.cm)
Φ 9.52mm	2500 (255kgf.cm)	2600 (265kgf.cm)
Φ 12.7mm	3500 (357kgf.cm)	3600 (367kgf.cm)
Φ 16mm	4500 (459kgf.cm)	4700 (479kgf.cm)

Tightening connection

- Align pipes to be connected.
- Sufficiently tighten the flare nut by hand, and then tighten it with a wrench and torque wrench as shown.
- Excessive torque can break nut depending on installation conditions.

4 CONNECT THE CABLE TO THE OUTDOOR UNIT

1. Remove the electrical control board cover from the outdoor unit by loosening the screw.
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. Secure the cable onto the control board with the cord clamp.
4. To prevent water from running down the connective cable into electrical components form a loop with the connective cable below the point of contact at the outdoor unit.
5. Insulate unused cords (conductors) with PVC-tape. Place them so they do not touch any electrical or metal parts.



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NOTE: Connective pipe length will affect the capacity and energy efficiency of the unit. The nominal efficiency is tested based on the pipe length of 24.5ft.

1. Air purging

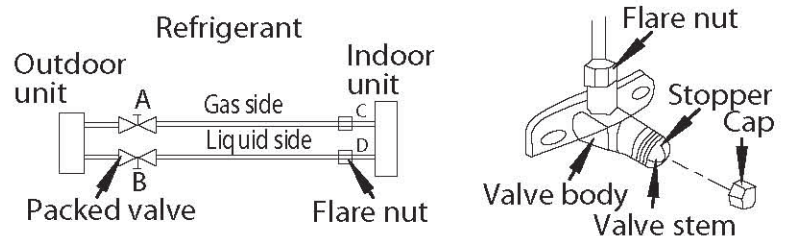
- The indoor unit and tubing between the indoor and outdoor unit must be leak tested and evacuated to remove any trash and moisture from the system.
- Check that each tube (both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed.
- Pipe length and refrigerant amount:

Connective pipe length	Air purging method	Additional amount of refrigerant to be charged	
Less than 24.5ft	Use vacuum pump	—————	
More than 24.5ft	Use vacuum pump	Liquid side: ϕ 6.35mm R22: (Pipe length-7.5)x30g/m R410A: (Pipe length-7.5)x20g/m	Liquid side: ϕ 9.52mm: R22: (Pipe length-7.5)x60g/m R410A: (Pipe length-7.5)x40g/m

- For the R410A refrigerant model, make sure the refrigerant added into air conditioner is in liquid form.
- When relocating the unit to another place, using vacuum pump to perform evacuation.

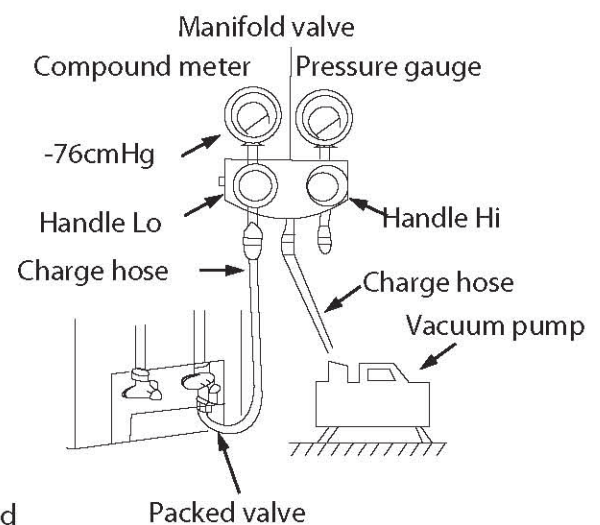
CAUTION

- 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 wrench.
- For valve stem cap tightening torque see Tightening Torque Table (on page 6, step 3.)



2. When using vacuum pump

1. Completely tighten the flare nuts, A, B, C, D, connect the manifold valve charge hose to a charge port of the packed 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 loosen the flare nut of the packed 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.
- Evacuate for 15 minutes or more and check that the compound meter indicates -76cmHg (-1.0x10⁵Pa).
 - 6. Turn the stem of the packed valve B about 45° counter-clockwise for 6~7 seconds after the gas releases, then tighten the flare nut again. Make sure the pressure display in the pressure indicator is a little higher than the atmospheric 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.

3. Safety and leakage check

1. Soap water method:

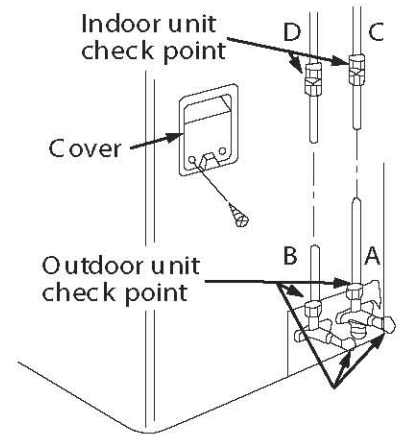
Apply a soap water or a liquid neutral detergent on the indoor unit connections and outdoor unit connections using a soft brush to check for leakage of the connecting points of the piping. If bubbles come out, it indicates that the pipes have leakage.

2. Leak detector:

Use the leak detector to check for leakage.

CAUTION

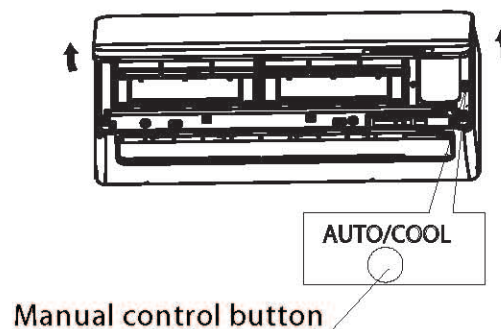
A: Lo packed valve B: Hi packed valve
C and D are ends of indoor unit connection.



4. Test running

Perform test operation after completing gas leak check at the flare nut connections and electrical safety check.

- Check that all tubing and wiring have been properly connected.
 - Check that the gas and liquid side service valves are fully open.
1. Connect the power, press the ON/OFF button on the remote control to turn the unit on.
 2. Use the MODE button to select COOL, HEAT, AUTO and FAN to check if all the functions work well.
 3. When the ambient temperature is too low (lower than 62°F/17°C), the unit cannot be controlled by the remote control to run at cooling mode, manual operation can be taken. Manual operation is used only when the remote control is disable or maintenance necessary.
- Hold the panel sides and lift the panel up to an angle until it remains fixed, indicated by a clicking sound.
 - Press the Manual control button to select the AUTO or COOL, the unit will operate under Forced AUTO or COOL mode (see User Manual for details).
4. The test operation should last about 30 minutes.





Oasis

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Contact the original seller or the product manufacturer for additional details.

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INVERTER SPLIT-TYPE ROOM AIR CONDITIONER HEAT PUMP

INSTALLATION MANUAL (18K & 24K MODELS)





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- 2) Use the included accessories parts and specified parts for installation. Use of other accessories and part will cause the set to fall, water leakage, electrical shock, or fire.
- 3) Install at a strong and firm location which is able to withstand the set's weight. If not secured or installation is not properly done, the set will drop and cause injury.
- 4) For electrical work, follow the local national wiring standard, regulation and these installation instructions. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect found in electrical work, it will cause electrical shock, or fire.
- 5) Use the specified cable and connect tightly and clamp the cable so that no external force will be acted on the terminal. If connection or fixing is not properly secured, it will cause heat-up or fire at the connection.
- 6) Wiring routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed properly, it will overheat at connection point of terminal and cause, fire or electrical shock.
- 7) When carrying out piping connection, take care not to let air or any substances other than the specified refrigerant go into refrigeration cycle. Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.
- 8) Do not modify the length of the power supply cord or use an extension cord, and do not share the single outlet with other electrical appliances. Otherwise, it will cause fire or electrical shock.

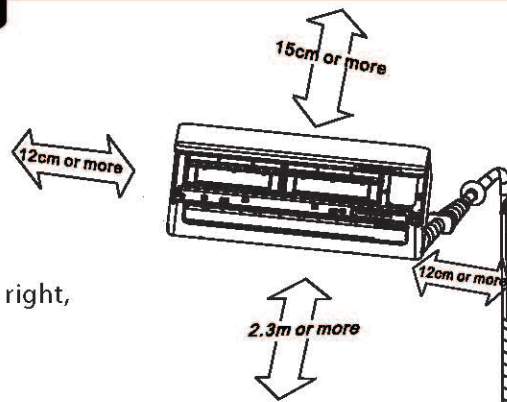
CAUTION

- 1) This equipment must be grounded and installed with ground leakage current breaker. It may cause electrical shock if grounding is not performed properly.
- 2) Do not install the unit at place where leakage of flammable gas may occur. In case gas leaks and accumulates around the unit, it may cause fire.
- 3) Carry out drainage piping as mentioned in installation instructions. If drainage is not installed properly, water may enter the room and damage furniture.

SELECT THE BEST LOCATION

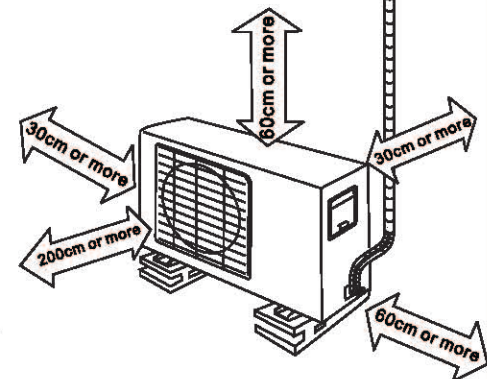
Indoor unit

- There should not be any source of heat or moisture near the unit.
- There should not be any obstacles blocking the air circulation.
- Place ideally where air circulates in the room.
- Place where drainage can be easily accomplished.
- Place where noise prevention is taken into consideration.
- Do not install the unit near a door way.
- Ensure the unit is spaced as indicated, by arrows in the diagram to the right, from walls, ceiling, fence or other obstacles.
- There should not be any direct sunlight on the units. If unavoidable, sunlight prevention should be taken into consideration.



Outdoor unit

- If an awning is built over the unit to prevent direct sunlight or rain, be careful that heat radiation from the condenser is not obstructed.
- There should not be any animal or plant which could be affected by hot air discharged.
- Ensure the unit is spaced as indicated, by arrows in the diagram to the right, from walls, ceiling, fence or other obstacles.
- Do not place any obstacles which may obstruct the discharged air.

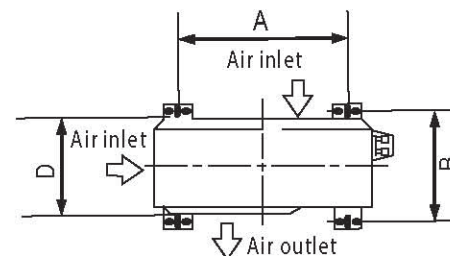
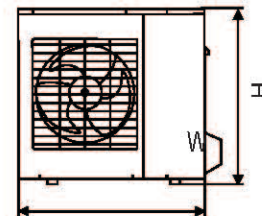


Settlement of outdoor unit

- Anchor the outdoor unit with a bolt and nut Φ 10 or Φ 8 tightly and horizontally on a concrete or rigid mount.

NOTE: The outdoor unit you purchase may be like one of the following. Install the outdoor unit according to the dimension as indicated in the table below:

Outdoor unit dimension mm(WxHxD)	Mounting dimensions	
	A(mm)	B(mm)
670x540x265	481	276
780x540x250	549	276
760x590x285	530	290
845x700x320	560	335
810x558x310	549	325
900x860x315	590	333



ACCESSORIES

Number	Name of Accessories		Qty										
1	Installation Plate		1										
2	Clip Anchor		5-8(dependen on models)										
3	Self-tapping Screw A ST3.9x25		5-8(dependen on models)										
4	Seal		1										
5	Drain Joint		1										
6	Connecting pipe Assembly	<table border="1"> <tr> <td>Liquid side</td> <td>Φ6.35</td> </tr> <tr> <td></td> <td>Φ9.52</td> </tr> <tr> <td>Gas side</td> <td>Φ9.52</td> </tr> <tr> <td></td> <td>Φ12.7</td> </tr> <tr> <td></td> <td>Φ16</td> </tr> </table>	Liquid side	Φ 6.35		Φ 9.52	Gas side	Φ 9.52		Φ 12.7		Φ 16	Parts you must purchase. The pipe size differ from appliance to appliance. Consult the technician for the proper size.
Liquid side	Φ 6.35												
	Φ 9.52												
Gas side	Φ 9.52												
	Φ 12.7												
	Φ 16												
7	Remote controller		1										
8	Self-tapping Screw B ST2.9x10	optional parts	2										
9	Remote controller holder		1										
10	Air freshening filter(used to install on Air filter)		1										

NOTE: Except the above parts provided, the other parts needed during installation are the customers responsibility to purchase.

1

INSTALLATION PLATE MOUNTING

NOTE:

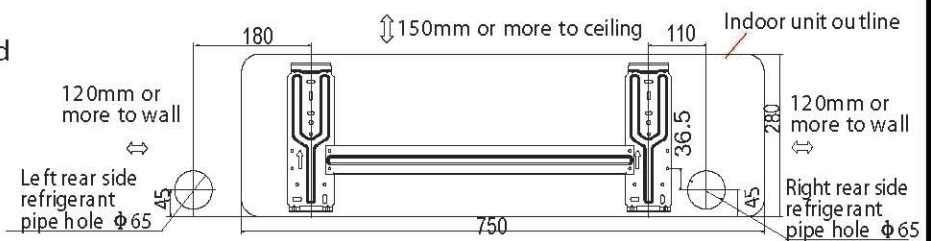
Ensure the mounting wall is strong and solid enough to protect it from the vibration.

● Installation Plate Mounting

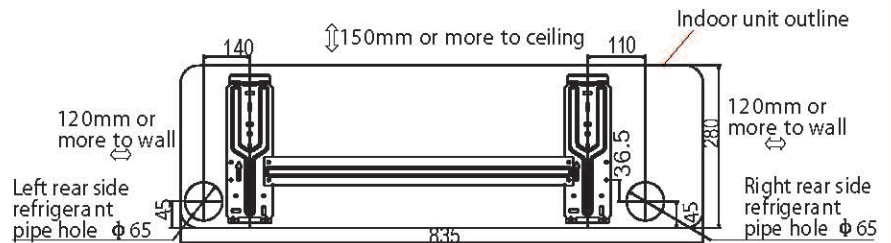
1. Fit the installation plate horizontally on structural parts of the wall with spaces around the installation plate.
2. If the wall is made of brick, concrete or a similar material, drill five or eight 5mm diameter holes in the wall. Insert clip anchor for appropriate mounting screws.
3. Fit the installation plate on the wall with five or eight type "A" screws.

NOTE:

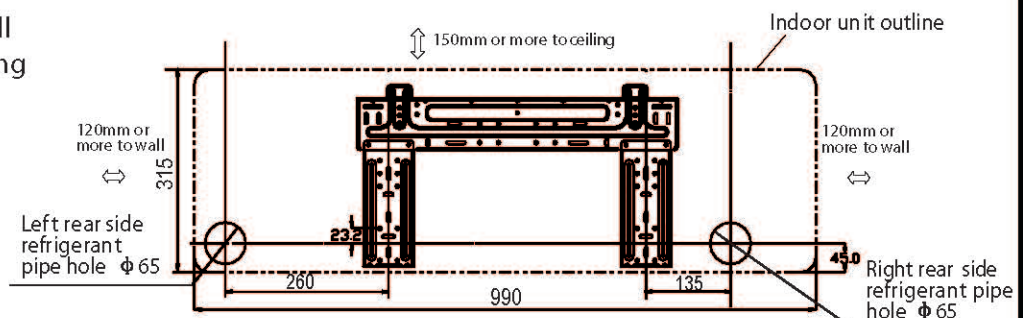
Mount the Installation Plate and drill holes in the wall according to the wall structure and corresponding mounting points on the installation plate. The installation plate provided with the machine may differ from appliance to appliance. (Dimensions are in mm unless otherwise stated)



Model A

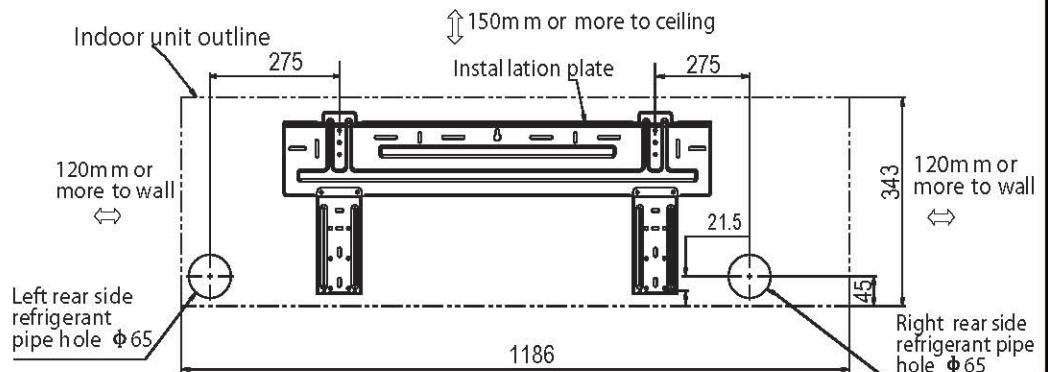
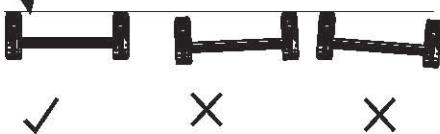


Model B



Model C

Correct orientation of Installation Plate

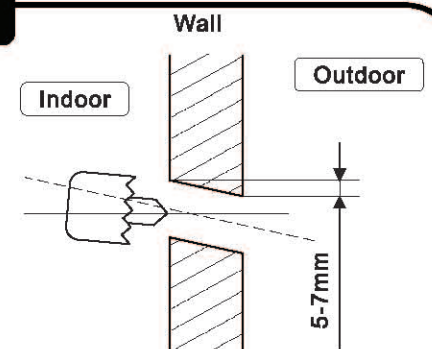


Model D

2

DRILL A HOLE IN THE WALL

1. Determine hole positions according to left and right side of the installation plate. The hole center is obtained by measuring the distance as shown in the diagram above.
2. Drill the piping plate hole with $\phi 65$ mm hole-core drill.
3. Drill the piping hole at either the right or the left and the hole should be slightly slanted to the outdoor side.
4. Always take steps to protect the pipe when drilling metal grid, metal plate or similar materials.



3

3 CONNECT THE CABLE TO THE INDOOR UNIT

Electrical work

Electric safety regulations for the initial Installation

1. If there are serious safety problems regarding the power supply, the technician(s) should refuse to install the air conditioner until the problem is solved.
2. Power voltage should be in the range of 90%~110% of rated voltage.
3. Equipment must be properly grounded. Any disconnect and all other components in the power supply circuit should be rated for no less than 1.5 times the equipment rating.
4. The appliance must be installed in accordance with national wiring regulations. Do not operate your air conditioner in a wet room such as a bathroom or laundry room.
5. An all-pole disconnection device which has at least 3mm clearances in all poles, and has a leakage current that may exceed 10mA, the residual current device(RCD) having a rated residual operating current not exceeding 30mA, and disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.
6. For the units with an auxiliary electric heater, keep at least 3.25ft away from combustible materials.
7. Refer to the attached Electrical Connection Diagram located on the panel of the indoor & outdoor unit to connect the wire.
8. All wiring must comply with local and national electrical codes and be installed by qualified and skilled electricians.
9. An individual branch circuit and single receptacle used only for this air conditioner must be available. See the following table for suggested wire sizes and fuse specifications:

Suggest Minimum Wire Size (AWG:American Wire Gage):

Appliance Amps	AWG Wire Size
10	18
13	16
18	14
25	12
30	10
40	8

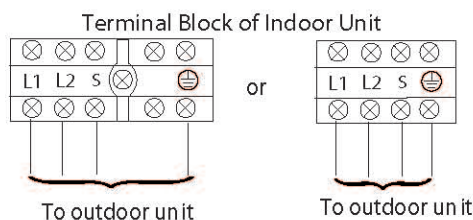
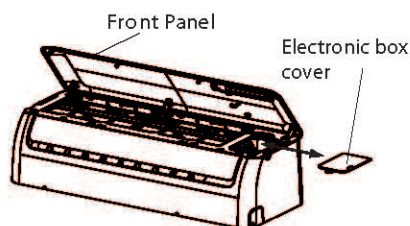
NOTE:

- The wire size of power supply cord and interconnected wire and the current of the fuse or switch are determined by the maximum current indicated on the nameplate which is located on the side panel of the unit. Please refer to the nameplate before selecting the wire size, fuse or switch.
- The controller of the air conditioner is designed with a fuse protection function under abnormal conditions, the specifications of the fuse have printed on the circuit board, such as: T3.15A/250VAC, T5A/250VAC, etc.

Connect the cable to the indoor unit

NOTE: Before performing any electrical work, turn off the main power to the system.

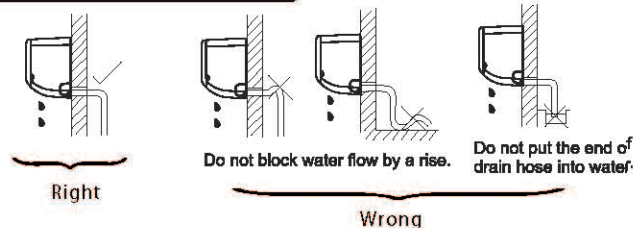
1. The inside and outside connecting cable can be connected without removing the front grill.
2. The indoor power cord type is H05VV-F or H05V2V2-F, the outdoor power cord and interconnected cord type is H07RN-F.
3. Lift the indoor unit panel up, remove the electrical box cover by loosening the screw.
4. Ensure the color of the wires of the outdoor unit and the terminal Nos. are the same as the indoor respectively.
5. Wrap those cables not connected to terminals with insulation tape, so they will not touch any electrical components. Secure the cable onto the control board with the cord clamp.



4 CONNECTIVE PIPE AND DRAINAGE INSTALLATION

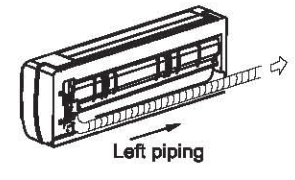
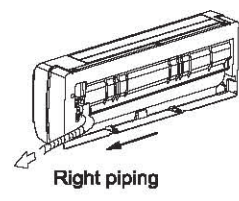
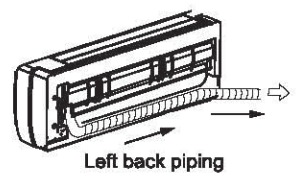
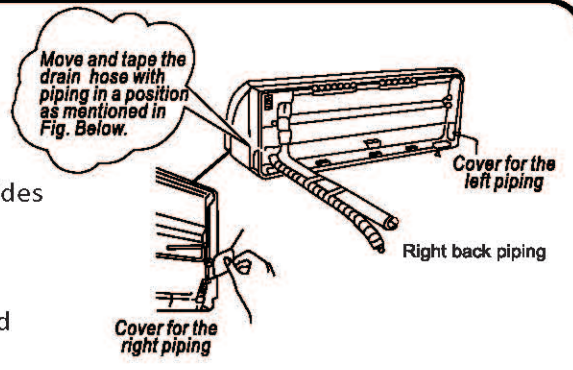
Drainage

1. Run the drain hose sloping downward. Do not install the drain hose as illustrated in the wrong figures.
2. When connecting the extension drain hose, insulate the connecting part of the extension drain hose with a shield pipe, do not let the drain hose slack.



Connective Pipe Installation

- For the left-hand and right-hand piping, remove the pipe cover from the side panel.
- For the right back and left back piping, install the piping as shown.
NOTE: For 9K/12K model, there is only one side drainage structure design. For 18k models and above, one side drainage structure is standard. Both sides drainage structure is optional and can only be customized from factory. For both sides drainage structure, it can be chosen for right, left or both sides drainage connection. If choosing both sides drainage connection, another proper drain hose is needed as there is only one drain hose offered by factory. If choosing one side drainage connection, make sure the drain hole on the other side is well plugged. The connection of the drain hose should be done by qualified installer in case of water leakage.
- Bundle the tubing, connecting cable, and drain hose with tape securely and evenly as shown in Figure on the right.
 - Because the condensed water from the rear of the indoor unit is gathered in the ponding box and is piped out of room. Do not put anything else in the box.

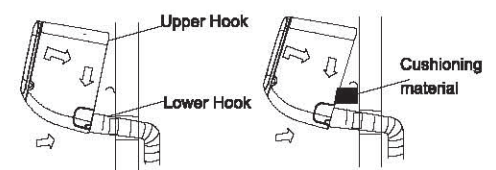
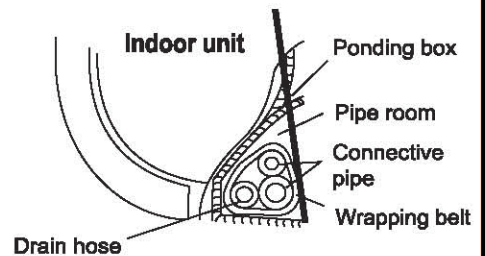


CAUTION

- Connect the indoor unit first, then the outdoor unit.
- Do not allow the piping to let out from the back of the indoor unit.
- Be careful not to let the drain hose slack.
- Heat insulation should be done to the extension drain hose of indoor unit.
- Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.
- Never cross or twist the power wire with any other wiring.

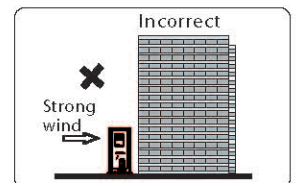
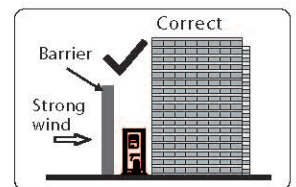
Indoor unit installation

- Pass the piping through the hole in the wall.
- Hook the indoor unit onto the upper portion of installation plate(connect the indoor unit with the upper edge of the installation plate). Ensure the hooks are properly seated on the installation plate by moving it left and right.
- Piping can easily be set by propping the indoor unit with a cushioning material between the indoor unit and the wall. Remove after piping is finished.
- Press the lower left and right side of the unit against the installation plate until hooked in their proper slots.



1 OUTDOOR INSTALLATION PRECAUTION

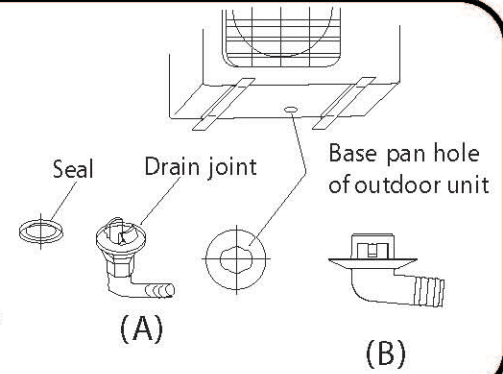
- Install the outdoor unit on a rigid base to minimize noise level and vibration.
- Determine the air outlet direction and ensure the discharged air is not blocked.
- In the case that the installation site is exposed to strong wind such as a seaside, make sure the fan operates properly by putting the unit lengthwise along the wall or using a dust or shield plates.
- Specially in windy area, install the unit to prevent the admission of wind. If suspended installation is needed, the installation bracket should coincide with technique requirements in the installation bracket diagram. The installation wall should be solid brick or concrete, or actions to reinforce, damping supporting should be taken.
- The connection between bracket and wall as well as the bracket and the air conditioner should be firm, stable and reliable.
- Be sure there is no obstacle which blocks radiating air.



2 DRAIN JOINT INSTALLATION

NOTE: The drain joint may differ depending on the outdoor unit.

For the drain joint with the seal (Fig.A), first fit the seal onto the drain joint, then insert the drain joint into the base pan hole of outdoor unit, rotate 90° to securely assemble them. To install drain joint as shown in Fig.B, insert the drain joint into the base pan hole of outdoor unit until it is secured, indicated with a clicking sound. Connecting the drain joint with an extension drain hose (locally purchased), in case of the water draining off the outdoor unit during heating mode.



3 REFRIGERANT PIPE CONNECTION

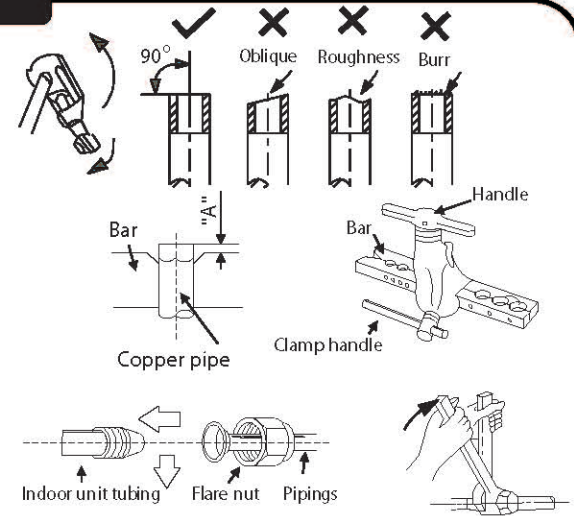
Flaring

1. Cut a pipe with a pipe cutter.
2. Put flare nuts on pipe/tube having completed burr removal and flare the pipe.
3. Firmly hold copper pipe in a die in the dimension shown in the table below.

Outer diam. (mm)	A(mm)	
	Max.	Min.
Φ 6.35	1.3	0.7
Φ 9.52	1.6	1.0
Φ 12.7	1.8	1.0
Φ 16	2.2	2.0

Tightening connection

- Align pipes to be connected.
- Sufficiently tighten the flare nut by hand, and then tighten it with a wrench and torque wrench as shown.
- Excessive torque can break nut depending on installation conditions.

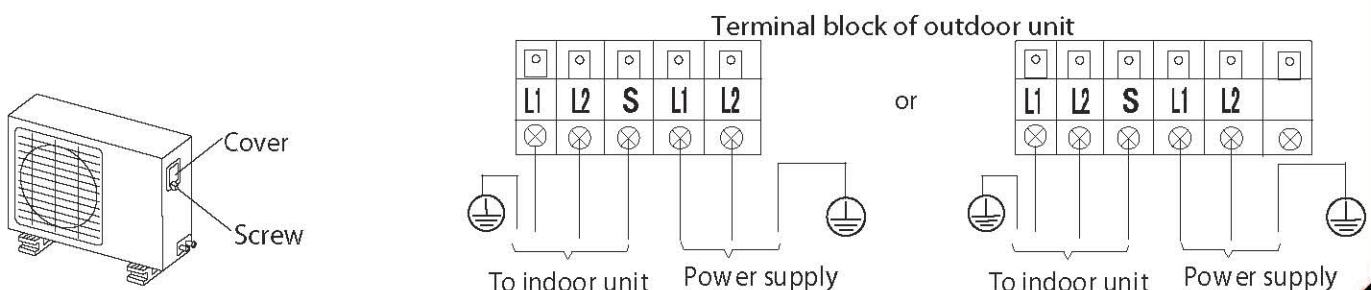


Tightening Torque Table

Outer diam.	Tightening torque(N.cm)	Additional tightening torque(N.cm)
Φ 6.35mm	1500 (153kgf.cm)	1600 (163kgf.cm)
Φ 9.52mm	2500 (255kgf.cm)	2600 (265kgf.cm)
Φ 12.7mm	3500 (357kgf.cm)	3600 (367kgf.cm)
Φ 16mm	4500 (459kgf.cm)	4700 (479kgf.cm)

4 CONNECT THE CABLE TO THE OUTDOOR UNIT

1. Remove the electrical control board cover from the outdoor unit by loosening the screw.
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. Secure the cable onto the control board with the cord clamp.
4. To prevent water from running down the connective cable into electrical components, form a loop with the connective cable below the point of contact at the outdoor units.
5. Insulate unused cords (conductors) with PVC-tape. Place them so they do not touch any electrical or metal parts.



6

NOTE: Connective pipe length will affect the capacity and energy efficiency of the unit. The nominal efficiency is tested basing on the pipe length of 24.5ft.

1. Air purging

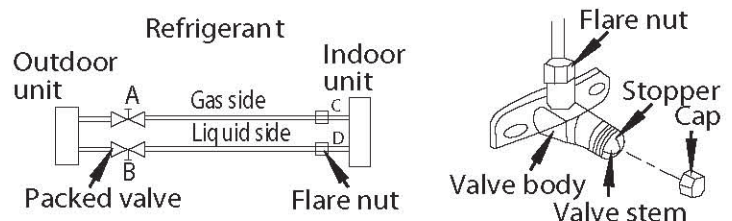
- The indoor unit and tubing between the indoor and outdoor unit must be leak tested and evacuated to remove any trash and moisture from the system.
- Check that each tube(both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed.
- Pipe length and refrigerant amount:

Connective pipe length	Air purging method	Additional amount of refrigerant to be charged	
Less than 24.5ft	Use vacuum pump		
More than 24.5ft	Use vacuum pump	Liquid side: ϕ 6.35mm R22: (Pipe length-7.5)x30g/m R410A: (Pipe length-7.5)x20g/m	Liquid side: ϕ 9.52mm: R22: (Pipe length-7.5)x60g/m R410A: (Pipe length-7.5)x40g/m

- For the R410A refrigerant model, make sure the refrigerant added into air conditioner is liquid form in any cases.
- When relocating the unit to another place, using vacuum pump to perform evacuation.

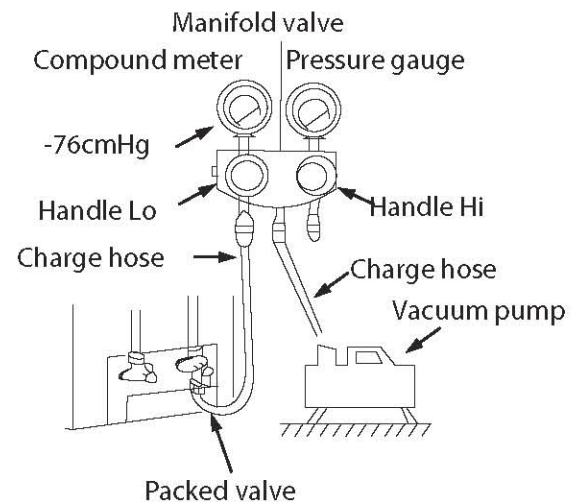
CAUTION

- 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 wrench.
- Valve stem cap tightening torque. See Tightening torque table (on page 6, step 3.)



2. When using vacuum pump

1. Completely tighten the flare nuts, A, B, C, D, connect the manifold valve charge hose to a charge port of the packed 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 loosen the flare nut of the packed 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.
- Evacuation for 15 minutes or more and check that the compound meter indicates -76cmHg(-1.0x10⁵Pa).
6. Turn the stem of the packed valve B about 45° counter-clockwise 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 atmospheric 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.

3. Safety and leakage check

1. Soap water method:

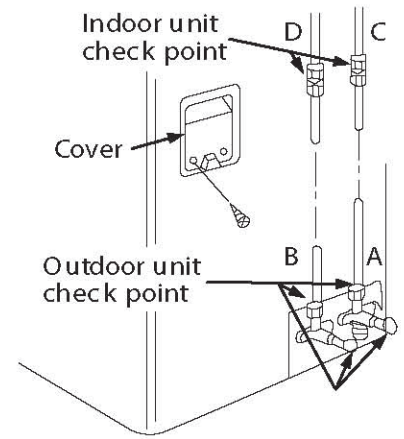
Apply a soap water or a liquid neutral detergent on the indoor unit connections and outdoor unit connections using a soft brush to check for leakage of the connecting points of the piping. If bubbles come out, it indicates that the pipes have leakage.

2. Leak detector:

Use the leak detector to check for leakage.

CAUTION

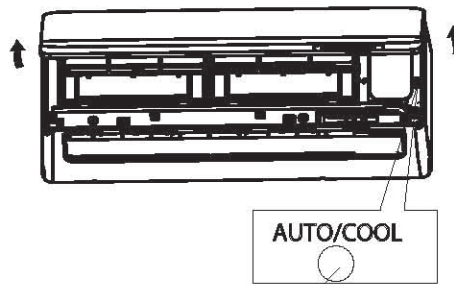
A: Lo packed valve B: Hi packed valve
C and D are ends of indoor unit connection.



4. Test running

Perform test operation after completing gas leak check at the flare nut connections and electrical safety check.

- Check that all tubing and wiring have been properly connected.
 - Check that the gas and liquid side service valves are fully open.
 1. Connect the power, press the ON/OFF button on the remote control to turn the unit on.
 2. Use the MODE button to select COOL, HEAT, AUTO and FAN to check if all the functions work well.
 3. When the ambient temperature is too low (lower than 62°F/17°C), the unit cannot be controlled by the remote control to run at cooling mode, manual operation can be taken. Manual operation is used only when the remote control is disable or maintenance necessary.
 - Hold the panel sides and lift the panel up to an angle until it remains fixed, indicated by a clicking sound.
 - Press the Manual control button to select the AUTO or COOL, the unit will operate under Forced AUTO or COOL mode (see User Manual for details).
4. The test operation should last about 30 minutes.



Manual control button



Oasis

Product design and specifications are subject to change without prior notification.
Contact the original seller or the product manufacturer for additional details.

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