

Required tools for Installation Works

Table listing tools such as Phillips screw driver, Level gauge, Electric drill, Hexagonal wrench, Spanner, Pipe cutter, Reamer, Knife, Gas leak detector, Measuring tape, Thermometer, Megameter, Multimeter, Torque wrench, Vacuum pump, Gauge manifold.

SAFETY PRECAUTIONS

Read the following "SAFETY PRECAUTIONS" carefully before installation. Electrical work must be installed by a licensed electrician. Be sure to use the correct rating of the power plug and main circuit for the model to be installed.

- WARNING: This indication shows the possibility of causing death or serious injury. CAUTION: This indication shows the possibility of causing injury or damage to properties only. Symbols for prohibited and must-be-carried-out items.

Carry out test running to confirm that no abnormally occurs after the installation. Then, explain to the user the operation, care and maintenance as stated in instructions.

WARNING

- Do not install outdoor unit near handrail of veranda. Do not use unspecified cord, modified cord, joint cord or extension cord for power supply cord. Do not insert your fingers or other objects into the unit.

For R410A model, use piping, flare nut and tools which is specified for R410A refrigerant. Use of existing (R22) piping, flare nut and tools may cause abnormally high pressure in the refrigerant cycle.

Engage authorized dealer or specialist for installation. If installation done by the user is incorrect, it will cause water leakage, electrical shock or fire.

Install according to this installation instructions strictly. If installation is defective, it will cause water leakage, electrical shock or fire.

Use the attached accessories parts and specified parts for installation. Otherwise, it will cause the set to fall, wall leakage, fire or electrical shock.

For electrical work, follow the local national wiring standard, regulation and this installation instruction. An independent circuit and single outlet must be used.

Do not use joint cable for indoor/outdoor connection cable. Use the specified indoor/outdoor connection cable, refer to instruction 5 CONNECT THE CABLE TO THE INDOOR UNIT.

Wire routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed perfectly, it will cause fire or electrical shock.

This equipment is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD). Otherwise, it may cause electrical shock and fire in case of equipment breakdown or insulation breakdown.

During installation, install the refrigerant piping properly before running the compressor. Operation of compressor without fixing refrigeration piping and valves at opened position will cause suck-in of air, abnormal high pressure in refrigeration cycle and result in explosion, injury etc.

After completion of installation, confirm there is no leakage of refrigerant gas. It may generate toxic gas when the refrigerant contacts with fire.

Ventilate if there is refrigerant gas leakage during operation. It may cause toxic gas when the refrigerant contacts with fire.

This equipment must be properly earthed. Earth line must not be connected to gas pipe, water pipe, earth of lightning rod and telephone. Otherwise, it may cause electrical shock in case of equipment breakdown or insulation breakdown.

Do not install the unit in a place where leakage of flammable gas may occur. In case gas leaks and accumulates at surrounding of the unit, it may cause fire.

Do not release refrigerant during piping work for installation, re-installation and during repairing refrigeration parts. Take care of the liquid refrigerant, it may cause frostbite.

Do not touch the sharp aluminum fin, sharp parts may cause injury.

Carry out drainage piping as mentioned in installation instructions. If drainage is not perfect, water may enter the room and damage the furniture.

Select an installation location which is easy for maintenance.

Power supply connection to the room air conditioner. Use power supply cord 3 x 1.5 mm² (3/4 - 1.75HP), 3 x 2.5 mm² (2.0 - 2.5HP) type designation 60245 IEC 57 or heavier cord.

Use an approved 15/16A (3/4-1.75HP), 16A (2.0-2.25HP), 20A (2.5HP) power plug with earth pin for the connection to the socket.

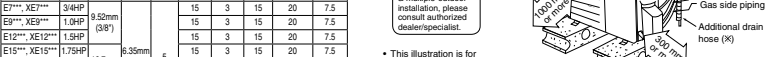
Use an approved 16A (3/4-2.25HP), 20A (2.5HP) circuit breaker for the permanent connection. It must be a double pole switch with a minimum 3.0 mm contact gap.

Installation work. It may need two people to carry out the installation work.

Attached accessories

Table of accessories: Installation plate, Remote control holder, Installation plate fixing screw, Remote control holder fixing screw, Remote control, Drain elbow, Battery.

Indoor/Outdoor Unit Installation Diagram



Installation parts you should purchase (x). Includes items like Bushing-Steeve, Sleeve, Putty, Grom Type Sealer, Power supply cord, and Remote control holder.

Table for applicable piping kit with columns for Piping size, Gas, Liquid, and Piping length.

Example for EP1. If the unit is installed at 10 m distance, the quantity of additional refrigerant should be 50 g ... (10-7.5) m x 20 g/m = 50 g.

INDOOR UNIT

1 SELECT THE BEST LOCATION (Refer to "Select the best location" section)

2 HOW TO FIX INSTALLATION PLATE

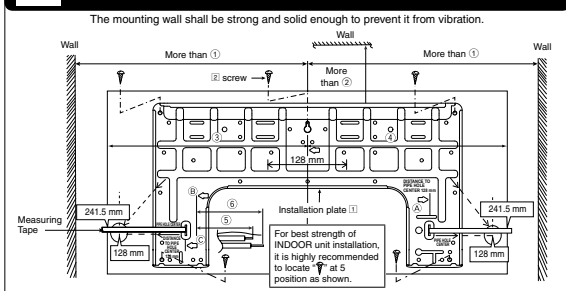
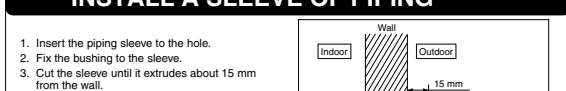


Table showing dimensions for different indoor unit models (E7, E9, E12, E15, E18, E21, E24) across six different mounting configurations.

The center of installation plate should be at more than 1 at right and left of the wall. The distance from installation plate edge to ceiling should be more than 2. From installation plate center to unit's right side is 3.

3 TO DRILL A HOLE IN THE WALL AND INSTALL A SLEEVE OF PIPING

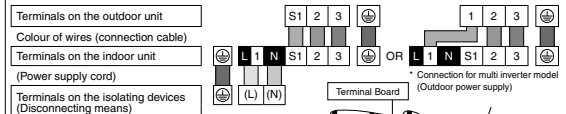


When the wall is hollow, please be sure to use the sleeve for tube assembly to prevent dangers caused by mice biting the connection cable.

5 CONNECT THE CABLE TO THE INDOOR UNIT

The power supply cord, indoor and outdoor unit connection cable can be connected without removing the front grille.

- 1. Install the indoor unit on the installing holder that mounted on the wall. 2. Open the front panel and grille door by loosening the screw. 3. Cable connection to the power supply through Isolating Devices (Disconnecting means).



Secure the power supply cord and connection cable onto the control board with the holder. Close grille door by tighten with screw and close the front panel.

Replace the drain hose. Rear view for left piping installation. Adjust the piping slightly downwards.

How to pull the piping and drain hose out, in case of the embedded piping. Apply putty or caulking material to seal the wall opening.

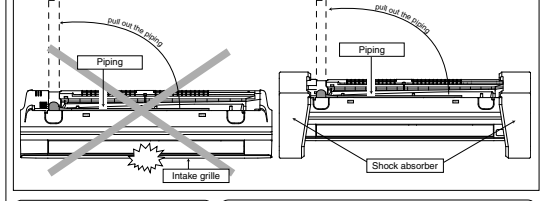
WIRE STRIPPING, CONNECTING REQUIREMENT. No loose strand when inserted. Do not joint wires.

RISK OF FIRE. PVC wires (PVC-20) for drain hose. PVC tube for drain hose (VP-20).

- 1. Use complete wire without joining. 2. Use approved socket and plug with earth pin. 3. Wire connection in this area must follow to national wiring rules.

4 INDOOR UNIT INSTALLATION

Do not turn over the unit without its shock absorber during pull out the piping. It may cause intake grille damage. Use shock absorber during pull out the piping to protect the intake grille from damage.



FOR THE RIGHT REAR PIPING

- Step-1 Pull out the Indoor piping. Step-2 Install the Indoor Unit. Step-3 Secure the Indoor Unit. Step-4 Insert the power supply cord and connection cable.

How to keep the cover is cut, keep the cover at the rear of chassis as shown in the illustration for future reinstallation.

FOR THE RIGHT AND RIGHT BOTTOM PIPING

- Step-1 Pull out the Indoor piping. Step-2 Install the Indoor Unit. Step-3 Insert the power supply cord and connection cable. Step-4 Secure the Indoor Unit.

Install the indoor unit. Hook the indoor unit onto the upper portion of installation plate.

FOR THE EMBEDDED PIPING

- Step-1 Replace the drain hose. Step-2 Bend the embedded piping. Step-3 Pull the connection cable into Indoor Unit. Step-4 Cut and flare the embedded piping.

When determining the dimensions of the piping, slice the unit all the way to the left on the installation plate.

Insert the connection cable. Press the lower left and right side of the unit against the installation plate until hooks engage with their slot.

Secure the indoor unit. Press the lower left and right side of the unit against the installation plate until hooks engage with their slot.

Replace the drain hose. Rear view for left piping installation. Adjust the piping slightly downwards.

How to pull the piping and drain hose out, in case of the embedded piping. Apply putty or caulking material to seal the wall opening.

In case of left piping how to insert the connection cable and drain hose.

Replace the drain hose. Rear view for left piping installation. Adjust the piping slightly downwards.

How to pull the piping and drain hose out, in case of the embedded piping. Apply putty or caulking material to seal the wall opening.

- 1. Use complete wire without joining. 2. Use approved socket and plug with earth pin. 3. Wire connection in this area must follow to national wiring rules.

OUTDOOR UNIT

1 SELECT THE BEST LOCATION (Refer to "Select the best location" section)

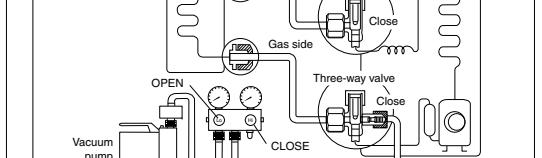
2 INSTALL THE OUTDOOR UNIT

After selecting the best location, start installation to Indoor/Outdoor Unit Installation Diagram.

Table showing dimensions for different outdoor unit models (E7, E9, E12, E15, E18, E21, E24) across four different mounting configurations (A, B, C, D).

4 EVACUATION OF THE EQUIPMENT

WHEN INSTALLING AN AIR CONDITIONER, BE SURE TO EVACUATE THE AIR INSIDE THE INDOOR UNIT AND PIPES IN THE FOLLOWING PROCEDURE.



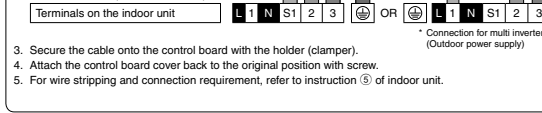
- 1. Connect a charging hose with a push pin to the Low side of a charging set and the service port of the 3-way valve. 2. Be sure to connect the end of the charging hose with the push pin to the service port.

Be sure to check for gas leakage. If the leak stops when the piping connections are tightened further, continue working from step 3. If the leak does not stop when the connections are re-tightened, repair location of leak.

If a gauge needle does not move from 0 cmHg (0 MPa) to -76 cmHg (-0.1 MPa), in step 3 above take the following measure: If the leak stops when the piping connections are tightened further, continue working from step 3. If the leak does not stop when the connections are re-tightened, repair location of leak.

5 CONNECT THE CABLE TO THE OUTDOOR UNIT

- 1. Remove the control board cover from the unit by loosening the screw. 2. Connect cable between indoor unit and outdoor unit shall be approved polychloroprene sheathed 4 x 1.5 mm² (3/4 - 1.75HP) or 4 x 2.5 mm² (2.0 - 2.5HP) flexible cord.



Secure the cable onto the control board with the holder (clamping). Attach the control board cover back to the original position with screw.

6 PIPING INSULATION

- 1. Please carry out insulation at pipe connection portion as mentioned in Indoor/Outdoor Unit Installation Diagram. Please wrap the insulated piping end to prevent water from going inside the piping.

HOW TO TAKE OUT FRONT GRILLE. Please follow the steps below to take out front grille if necessary such as when servicing.

ECO SENSOR. Do not hit or violently press the sensor. This can lead to damage and malfunction. Do not place large objects near the sensor and keep heating units or humidifiers away from the sensors detection area.

AUTO SWITCH OPERATION. The below operations will be performed by pressing the "AUTO" switch.

- 1. AUTO OPERATION MODE. The Auto operation will be activated immediately once the Auto Switch is pressed and release before 5 sec. 2. TEST RUN OPERATION (FOR PUMP DOWN/SERVICING PURPOSE).

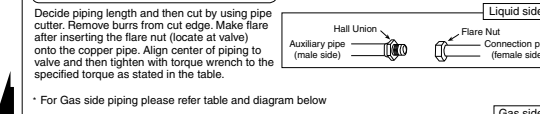
HEATING ONLY OPERATION. Press the "AUTO" switch continuously for more than 8 sec. to below 11 sec. And release when a "pep pep" sound is occurred at eighth sec.

3 CONNECT THE PIPING

Connecting The Piping to Indoor. Please make flare after inserting flare nut (locate at joint portion of tube assembly) onto the copper pipe.

Table showing piping size vs torque for indoor piping connections.

Connecting The Piping to Outdoor. Decide piping length and then cut by using pipe cutter. Remove burrs from cut edge. Make flare after inserting the flare nut.



Connecting The Piping to Outdoor Multi. Decide piping length and then cut by using pipe cutter. Remove burrs from cut edge. Make flare after inserting the flare nut.

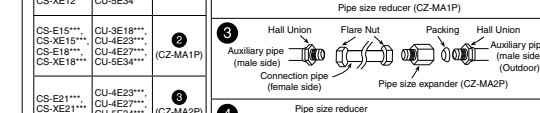


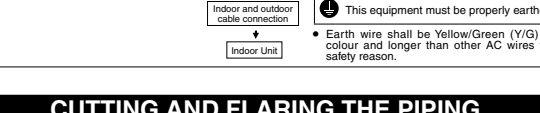
Table showing outdoor multi connection model vs pipe size for various piping configurations.

For Gas side piping please refer table and diagram below. Connect a charging hose with a push pin to the Low side of a charging set and the service port of the 3-way valve.

Be sure to check for gas leakage. If the leak stops when the piping connections are tightened further, continue working from step 3. If the leak does not stop when the connections are re-tightened, repair location of leak.

5 CONNECT THE CABLE TO THE OUTDOOR UNIT

- 1. Remove the control board cover from the unit by loosening the screw. 2. Connect cable between indoor unit and outdoor unit shall be approved polychloroprene sheathed 4 x 1.5 mm² (3/4 - 1.75HP) or 4 x 2.5 mm² (2.0 - 2.5HP) flexible cord.



Secure the cable onto the control board with the holder (clamping). Attach the control board cover back to the original position with screw.

CUTTING AND FLARING THE PIPING

- 1. Please cut using pipe cutter and then remove the burrs. 2. Remove the burrs by using reamer. If burrs is not removed, gas leakage may be caused.

DISPOSAL OF OUTDOOR UNIT DRAIN WATER. If a drain elbow is used, the unit should be placed on a stand which is taller than 3 cm.

CHECK THE DRAINAGE. Open front panel and remove air filters. Drainage checking can be carried out without removing the front grille.

EVALUATION OF THE PERFORMANCE. Operate the unit at cooling/heating operation mode for fifteen minutes or more. Measure the temperature of the intake and discharge air.

- CHECK ITEMS. Is there any gas leakage at flare nut connections? Is the indoor unit connection properly hooked to the installation plate?