

SPLIT TYPE AIR CONDITIONER Duct Type INSTALLATION INSTRUCTION SHEET

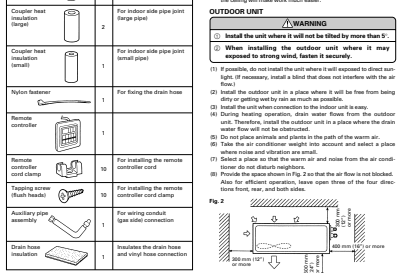
(PART NO. 9357874050)
For authorized service personnel only.

WARNING: This mark indicates procedures which, if misperformed, might lead to the death or serious injury of the user or damage to property.

- For the air conditioner to operate satisfactorily, install it as outlined in this installation instruction sheet.
- After installation, explain correct operation to the customer, using the operating manual.
- Let the customer keep this installation instruction sheet because it is used when the air conditioner is serviced or moved.
- The maximum length of the piping is shown in Table 1. If the units are further apart than this, correct operation cannot be guaranteed.

STANDARD PARTS

Name and Shape	Qty	Application
Installation template	1	For preparing the indoor unit
Hanger	4	For suspending the indoor unit from ceiling
Special nut A (large flange)	4	For suspending the indoor unit from ceiling
Special nut B (small flange)	4	For indoor side pipe joint
Coupler heat insulation target	2	For indoor side pipe joint
Coupler heat insulation (small pipe)	1	For indoor side pipe joint
Nylon fastener	1	For fixing the drain hose
Remote controller	1	For remote control
Remote controller cord clamp	1	For installing the remote controller cord clamp
Tapping screw (flush head)	3	For installing the remote controller cord clamp
Auxiliary pipe assembly	1	For setting correct pipe connection
Drain hose insulation	1	Insulates the drain hose and vinyl hose connection



INDOOR UNIT ACCESSORIES

Hexagon wrench	1	For operating the remote wire on the outdoor unit
Pipe (cable)	1	For indoor unit drain piping work (may not be supplied, depending on the model)
Flexible tube	1	For indoor unit drain piping work (may not be supplied, depending on the model)
Cap (staple)	2	

SELECTING THE MOUNTING POSITION

- Install in a place that can withstand the weight of the indoor and outdoor units and install positively so that the units will not topple or fall.
- Do not install where there is the danger of combustible gas leakage.
- Do not install the unit near heat source of heat, steam, or flammable gas.
- Children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.

CONNECTION PIPE REQUIREMENT

Dimension	Minimum length	Maximum height (between indoor and outdoor)
Small pipe	18.0 mm (0.71 in.)	25 m (82 ft)
Large pipe	15.0 mm (0.59 in.)	15 m (49 ft)

Use 5.7 mm to 1.2 mm thick pipe.
Use pipe that can withstand a pressure of 2.0MPa.

ELECTRICAL REQUIREMENT

• Choose the wire size and load capacity.

Power and current	MAX	4.0
Power	MAX	3.5
Current	MAX	15
Capacity	MAX	1.0

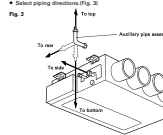
Flame-retardant cable
Flame capacity (A): 30

INSTALLATION PROCEDURE

INDOOR UNIT INSTALLATION

- Install the air conditioner in a location which can withstand a load of at least five times the weight of the main unit and which will not amplify sound or vibration.
- If the installation location is not strong enough, the indoor unit may fall and cause injuries.
- If the job is done with the panel frame only, there is a risk that the unit will come loose. Please take care.

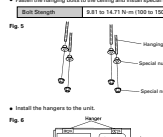
1. PIPING CONNECTION DIRECTION AND PREPARATION



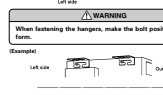
2. DRILLING HOLES FOR BOLTS AND INSTALLING THE BOLTS



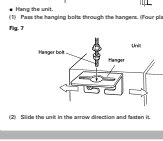
3. INSTALLING THE HANGERS



4. LEVELING



5. SERVICE HOLE DIMENSIONS



2. OUTDOOR UNIT INSTALLATION

- When the outdoor unit will be exposed to strong wind, fasten it with bolts at the places indicated by the arrows (Fig. 16).
- Since the drain water flows out of the outdoor unit during heating operation, install the drain pipe with a slope and connect it to an external 18 mm hose (Reverse model only).
- When installing the drain pipe, plug up the holes at the places where the drain pipe meets the holes at the bottom of the outdoor unit with only the cap in order to prevent leakage (Fig. 16) (Reverse model only).

3. CONNECTING THE PIPING

- Flare processing
- 2-bending pipes
- 3. connection pipes
- 4. vacuum process

4. VACUUM PROCESS

- Remove the cap, and connect the gauge manifold and the vacuum pump to the charging valve by the service hose.
- Disconnect the service hose and fit the cap to the charging valve (if charging valve is not used).
- Remove the drain cap, and fit the cap to the 2-way and 3-way valves with a hexagon wrench (Charge 2-way valve 8.0 to 8.5 MPa (79 to 85 kg/cm²), 3-way valve 8.0 to 13.7 MPa (80 to 130 kg/cm²)).
- Tighten the Mark tags of the 2-way valve and 3-way valve to the specified torque (19.02 to 24.33 N·m (200 to 250 kgf·cm)).

5. ADDITIONAL CHARGE

- Refrigerant suitable for a piping length of 7.5 m is charged in the outdoor unit at the factory.
- If the piping is longer than 7.5 m, additional charging is necessary. For the additional amount, see the table below.

Table 1: Piping length and refrigerant charge

Piping length	7.5 m (25 ft)	10 m (33 ft)	15 m (49 ft)	20 m (66 ft)	25 m (82 ft)
Additional refrigerant (kg)	None	0.05	0.10	0.15	0.20
Additional refrigerant (oz)	None	1.76	3.52	5.28	7.04

Table 2: Flare nut tightening torque

Pipe	Flare nut tightening torque
Small pipe	3.0 to 3.5 N·m (3.0 to 35 kgf·cm)
Large pipe	7.0 to 7.5 N·m (70 to 80 kgf·cm)

Table 3: Heat insulation on the pipe joints

Insulation	Small pipe	Large pipe
Heat insulation target	25 mm (1 in.)	30 mm (1.18 in.)
Heat insulation material	25 mm (1 in.)	30 mm (1.18 in.)

Table 4: Vacuum process

Valve	Pressure	Time
2-way valve	8.0 to 8.5 MPa (79 to 85 kg/cm ²)	10 min
3-way valve	8.0 to 13.7 MPa (80 to 130 kg/cm ²)	10 min

6. GAS LEAKAGE INSPECTION

- When moving and installing the air conditioner, do not use gas other than the specified refrigerant (R32) inside the refrigerant cycle.
- When adding refrigerant, add the refrigerant from the charging valve at the completion of work.
- If the units are further apart than this, correct operation cannot be guaranteed.

7. INSTALLING DRAIN HOSE

- Install the drain hose in accordance with the instructions in this installation instruction sheet and keep the area warm enough to prevent condensation. Problems with the piping may lead to water leaks.
- Do not perform air bleeding.
- Do not install the drain hose in the indoor side of the drain hose.

8. VACUUM PROCESS

- Remove the cap, and connect the gauge manifold and the vacuum pump to the charging valve by the service hose.
- Disconnect the service hose and fit the cap to the charging valve (if charging valve is not used).
- Remove the drain cap, and fit the cap to the 2-way and 3-way valves with a hexagon wrench (Charge 2-way valve 8.0 to 8.5 MPa (79 to 85 kg/cm²), 3-way valve 8.0 to 13.7 MPa (80 to 130 kg/cm²)).
- Tighten the Mark tags of the 2-way valve and 3-way valve to the specified torque (19.02 to 24.33 N·m (200 to 250 kgf·cm)).

9. ADDITIONAL CHARGE

- Refrigerant suitable for a piping length of 7.5 m is charged in the outdoor unit at the factory.
- If the piping is longer than 7.5 m, additional charging is necessary. For the additional amount, see the table below.

