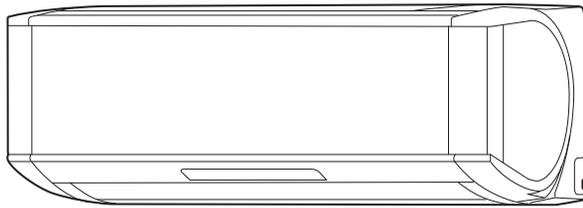


AIR CONDITIONER

Wall Mounted Type



INSTALLATION MANUAL



PART No. 9319357096

[Original instructions]

For authorized service personnel only.

1. SAFETY PRECAUTIONS

- Be sure to read this manual thoroughly before installation.
- The warnings and precautions indicated in this manual contain important information pertaining to your safety. Be sure to observe them.
- Hand this manual, together with the operating manual, to the customer. Request the customer to keep them on hand for future use, such as for relocating or repairing the unit.

WARNING

Indicates a potentially or imminently hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation that may result in minor or moderate injury or damage to property.

WARNING

- The appliance, outlet and inlet shall be installed, operated and stored in a room with a floor area larger than X m².

Minimum installation space

09 type	M (kg)	M ≤ 1.30
12 type	X (m ²)	1.61

M (kg): Amount of refrigerant charge (IEC 60335-2-40)
X (m²): Minimum room area

- Installation of this product must be done by experienced service technicians or professional installers only in accordance with this manual. Installation by non-professional or improper installation of the product might cause serious accidents such as injury, water leakage, electric shock, or fire. If the product is installed in disregard of the instructions in this manual, it will void the manufacturer's warranty.
- Do not turn on the power until all work has been completed. Turning on the power before the work is completed can cause serious accidents such as electric shock or fire.
- If refrigerant leaks when you are working, ventilate the area. If the leaking refrigerant is exposed to a direct flame, it may produce a toxic gas.
- Installation must be performed in accordance with regulations, codes, or standards for electrical wiring and equipment in each country, region, or the installation place.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- 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 a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.

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CAUTION

- Read carefully all safety information written in this manual before you install or use the air conditioner.
- Install the product by following local codes and regulations in force at the place of installation, and the instructions provided by the manufacturer.
- This product is part of a set constituting an air conditioner. The product must not be installed alone or be installed with non-authorized device by the manufacturer.
- Always use a separate power supply line protected by a circuit breaker operating on all wires with a distance between contact of 3 mm for this product.
- To protect the persons, earth (ground) the product correctly, and use the power cable combined with an Earth Leakage Circuit Breaker (ELCB).
- This product is not explosion proof, and therefore should not be installed in explosive atmosphere.
- To avoid getting an electric shock, never touch the electrical components soon after the power supply has been turned off. After turning off the power, always wait 5 minutes or more before you touch the electrical components.
- This product contains no user-serviceable parts. Always consult experienced service technicians for repairing.
- When moving or relocating the air conditioner, consult experienced service technicians for disconnection and reinstallation of the product.
- Do not touch the aluminum fins of heat exchanger built-in the indoor or outdoor unit to avoid personal injury when you install or maintain the unit.
- Do not place any other electrical products or household belongings under the product. Condensation dripping from the product might get them wet, and may cause damage or malfunction to the property.

- Be careful not to scratch the air conditioner when handling it.
- After installation, explain correct operation to the customer, using the operating manual.

Precautions for using R32 refrigerant

The basic installation work procedures are the same as conventional refrigerant (R410A, R22) models.

However, pay careful attention to the following points:

Since the working pressure is 1.6 times higher than that of refrigerant R22 models, some of the piping and installation and service tools are special. (See "2.1. Special tools for R32 (R410A)".)

Especially, when replacing a refrigerant R22 model with a new refrigerant R32 model, always replace the conventional piping and flare nuts with the R32 and R410A piping and flare nuts on the outdoor unit side.

For R32 and R410A, the same flare nut on the outdoor unit side and pipe can be used.

Models that use refrigerant R32 and R410A have a different charging port thread diameter to prevent erroneous charging with refrigerant R22 and for safety. Therefore, check beforehand. [The charging port thread diameter for R32 and R410A is 1/2-20 UNF.]

Be more careful than R22 so that foreign matter (oil, water, etc.) does not enter the piping. Also, when storing the piping, securely seal the opening by pinching, taping, etc. (Handling of R32 is similar to R410A.)

English

Deutsch

Français

Español

Italiano

Ελληνικά

Portugués

Русский

Türkçe

 **CAUTION**

1-Installation (Space)

- That the installation of pipe-work shall be kept to a minimum.
- That pipe-work shall be protected from physical damage.
- The appliance shall not be installed in an unventilated space, if that space is smaller than X m². (Refer to "1. SAFETY PRECAUTIONS, Minimum installation space".)
- That compliance with national gas regulations shall be observed.
- That mechanical connections shall be accessible for maintenance purposes.
- In cases that require mechanical ventilation, ventilation openings shall be kept clear of obstruction.
- When disposing of the product is used, be based on national regulations, properly processed.

2- Servicing

2-1 Service personnel

- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.
- Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- Servicing shall be performed only as recommended by the manufacturer.

2-2 Work

- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the precautions in 2-2 to 2-8 shall be complied with prior to conducting work on the system.
- Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapour being present while the work is being performed.
- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out.
- Work in confined spaces shall be avoided.
- The area around the workspace shall be sectioned off.
- Ensure that the conditions within the area have been made safe by control of flammable material.

2-3 Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. nonsparking, adequately sealed or intrinsically safe.

2-4 Presence of fire extinguisher

- If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available at hand.
- Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.

2-5 No ignition sources

- No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion.
- All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space.
- Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

2-6 Ventilated area

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.
- A degree of ventilation shall continue during the period that the work is carried out.
- The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

2-7 Checks to the refrigeration equipment

- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification.
- At all times the manufacturer's maintenance and service guidelines shall be followed.
- If in doubt consult the manufacturer's technical department for assistance.
- The following checks shall be applied to installations using flammable refrigerants.
 - The charge size is in accordance with the room size within which the refrigerant containing parts are installed.
 - The ventilation machinery and outlets are operating adequately and are not obstructed.
 - If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
 - Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected.
 - Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

 **CAUTION**

2-8 Checks to electrical devices

- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- This shall be reported to the owner of the equipment so all parties are advised.
- Initial safety checks shall include.
 - That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.
 - That there no live electrical components and wiring are exposed while charging, recovering or purging the system.
 - That there is continuity of earth bonding.

3-Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc.
- If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.
- Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected.
 - This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.
 - Ensure that apparatus is mounted securely.
 - Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres.
 - Replacement parts shall be in accordance with the manufacturer's specifications.

NOTE: The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment.
Intrinsically safe components do not have to be isolated prior to working on them.

4-Repair to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.
- Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
- The test apparatus shall be at the correct rating.
- Replace components only with parts specified by the manufacturer.
- Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

5-Cabling

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects.
- The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

6-Detection of flammable refrigerants

- Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks.
- A halide torch (or any other detector using a naked flame) shall not be used.

7-Leak detection methods

- Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
- Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
- Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed.
- Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
- If a leak is suspected, all naked flames shall be removed/extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.
Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

 **CAUTION**

8-Removal and evacuation

- When breaking into the refrigerant circuit to make repairs – or for any other purpose –conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration.
- The following procedure shall be adhered to:
 - remove refrigerant
 - purge the circuit with inert gas
 - evacuate
 - purge again with inert gas
 - open the circuit by cutting or brazing
- The refrigerant charge shall be recovered into the correct recovery cylinders.
- The system shall be "flushed" with OFN to render the unit safe.
- This process may need to be repeated several times.
- Compressed air or oxygen shall not be used for this task.
- Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system.
- When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- This operation is absolutely vital if brazing operations on the pipe work are to take place.
- Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

9-Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed.
 - Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
 - Cylinders shall be kept upright.
 - Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
 - Label the system when charging is complete (if not already).
 - Extreme care shall be taken not to overfill the refrigeration system.
- Prior to recharging the system it shall be pressure tested with OFN.
- The system shall be leak tested on completion of charging but prior to commissioning.
- A follow up leak test shall be carried out prior to leaving the site.

10-Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its details.
- It is recommended good practice that all refrigerants are recovered safely.
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant.
- It is essential that electrical power is available before the task is commenced.
 - Become familiar with the equipment and its operation.
 - Isolate system electrically.
 - Before attempting the procedure ensure that:
 - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - all personal protective equipment is available and being used correctly;
 - the recovery process is supervised at all times by a competent person;
 - recovery equipment and cylinders conform to the appropriate standards.
 - Pump down refrigerant system, if possible.
 - If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
 - Make sure that cylinder is situated on the scales before recovery takes place.
 - Start the recovery machine and operate in accordance with manufacturer's instructions.
 - Do not overfill cylinders. (No more than 80 % volume liquid charge).
 - Do not exceed the maximum working pressure of the cylinder, even temporarily.
 - When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
 - Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

11- Labelling

- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant.
- The label shall be dated and signed.
- Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

 **CAUTION**

12-Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
- When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.
- Ensure that the correct number of cylinders for holding the total system charge are available.
- All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order.
- Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants.
- In addition, a set of calibrated weighing scales shall be available and in good working order.
- Hoses shall be complete with leak-free disconnect couplings and in good condition.
- Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged.
- Do not mix refrigerants in recovery units and especially not in cylinders.
- If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant.
- The evacuation process shall be carried out prior to returning the compressor to the suppliers.
- Only electric heating to the compressor body shall be employed to accelerate this process.
- When oil is drained from a system, it shall be carried out safely.

Explanation of symbols displayed on the indoor unit or outdoor unit.

	WARNING	This symbol shows that this appliance uses a flammable refrigerant. If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.
	CAUTION	This symbol shows that the operation manual should be read carefully.
	CAUTION	This symbol shows that a service personnel should be handling this equipment with reference to the installation manual.
	CAUTION	This symbol shows that information is available such as the operating manual or installation manual.

2. ABOUT THIS PRODUCT

2.1. Special tools for R32 (R410A)

Tool name	Change from R22 to R32 (R410A)
Gauge manifold	Pressure is high and cannot be measured with a R22 gauge. To prevent erroneous mixing of other refrigerants, the diameter of each port has been changed. It is recommended to use gauge with seals -0.1 to 5.3 MPa (-1 to 53 bar) for high pressure. -0.1 to 3.8 MPa (-1 to 38 bar) for low pressure.
Charge hose	To increase pressure resistance, the hose material and base size were changed. (R32/R410A)
Vacuum pump	A conventional vacuum pump can be used by installing a vacuum pump adapter. (Use of a vacuum pump with a series motor is prohibited.)
Gas leakage detector	Special gas leakage detector for HFC refrigerant R410A or R32.

Copper pipes

It is necessary to use seamless copper pipes and it is desirable that the amount of residual oil is less than 40 mg/10 m. Do not use copper pipes having a collapsed, deformed or discolored portion (especially on the interior surface). Otherwise, the expansion valve or capillary tube may become blocked with contaminants.

As an air conditioner using R32 (R410A) incurs pressure higher than when using R22, it is necessary to choose adequate materials.

⚠ WARNING

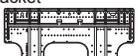
- Do not use the existing (for R22) piping and flare nuts. If the existing materials are used, the pressure inside the refrigerant cycle will rise and cause failure, injury, etc. (Use the special R32/R410A materials.)
- Use (refill or replace with) specified refrigerant (R32) only. Use of unspecified refrigerant can cause product malfunction, burst, or injury.
- Do not mix any gas or impurities except specified refrigerant (R32). Inflow of air or application of unspecified material makes the internal pressure of the refrigerant cycle too high, and may cause product malfunction, burst of piping, or injury.
- For appropriate working of the air conditioner, install it as written in this manual.
- To connect indoor unit and outdoor unit, use air conditioner piping and cables available through your local distributor. This manual describes proper connections using such installation set.
- Do not turn on the power until all work has been completed.

⚠ CAUTION

This manual describes how to install the indoor unit only. To install the outdoor unit, (if any), refer to the installation manual included in each product.

2.2. Accessories

The following installation accessories are supplied. Use them as required.

Name and Shape	Q'ty	Name and Shape	Q'ty
Operating Manual 	1	Cloth tape 	1
Operating Manual (CD-ROM) 	1	Tapping screws (Large) 	11
Installation Manual (This manual) 	1	Tapping screws (Small) 	2
Installation Notice Sheet 	1	Battery 	2
Remote controller 	1	Setting Manual (for WLAN control*) 	1
Remote controller holder 	1	Wireless LAN adapter with cable (with attached wireless LAN label*) 	1
Wall hook bracket 	1		

* This product has a wireless LAN adapter as accessory.

Be sure to keep the wireless LAN label attached to the adapter by writing the details down or pasting it on the list in the last section of the setting manual for wireless LAN adapter.

The following items are necessary to install this air conditioner. (The items are not included with the air conditioner and must be purchased separately.)

Name	Q'ty	Name	Q'ty
Connection pipe assembly	1	Wall cap	1
Connection cable (4-conductor)	1	Saddle	1 set
Wall pipe	1	Drain hose	1
Decorative tape	1	Tapping screws	1 set
Vinyl tape	1	Sealant	1

3. GENERAL SPECIFICATION

This INSTALLATION MANUAL briefly outlines where and how to install the air conditioning system. Please read over the entire set of instructions for the indoor and outdoor units and make sure all accessory parts listed are with the system before beginning.

3.1. Type of copper pipe and insulation material

⚠ CAUTION

Refer to the installation manual of the outdoor unit for description of the length of connecting pipe or for difference of its elevation.

Gas pipe size (thickness) [mm]	Liquid pipe size (thickness) [mm]
Ø 9.52 (3/8 in.)	Ø 6.35 (1/4 in.)

⚠ CAUTION

- Wrap heat insulation around both of the gas pipe and the liquid pipe. No heat-insulation work or incorrect heat-insulation work may cause water leaks.
- In a reverse cycle model, use heat insulation with heat resistance above 120 °C.
- If expected humidity of the installation location of refrigerant pipes is higher than 70 %, wrap the heat insulation around the refrigerant pipes. If the expected humidity is between 70 % and 80 %, use heat insulation that has thickness of 15 mm or more. If the expected humidity is higher than 80 %, use heat insulation that has thickness of 20 mm or more.
- Using of thinner heat insulation than specified above may cause a condensation on the surface of the insulation.
- Use heat insulation with thermal conductivity of 0.045 W/(m·K) or less, at 20 °C.

3.2. Additional materials required for installation

- Refrigeration (armored) tape
- Insulated staples or clamps for connecting wire (See your local electrical codes.)
- Putty
- Refrigeration lubricant
- Clamps or saddles to secure refrigerant piping

4. ELECTRICAL REQUIREMENT

The indoor unit is powered from the outdoor unit. Do not power indoor unit from separate power source.

⚠ WARNING

Standard for electrical wiring and equipment differs in each country or region. Before you start electrical working, confirm related regulations, codes, or standards.

Cable	Conductor size [mm ²]	Type	Remarks
Connection cable	1.5	Type 60245 IEC 57	3 cable + Earth (Ground), 1 Ø 230 V

Max. Cable Length: Limit voltage drop to less than 2%. Increase cable gauge if voltage drop is 2% or more.

5. SELECTING THE MOUNTING POSITION

Decide the mounting position with the customer as follows:

- Install the indoor unit level on a strong wall which is not subject to vibration.
- The inlet and outlet ports should not be obstructed : the air should be able to blow all over the room.
- Install the unit a dedicated electrical branch circuit.
- Do not install the unit where it will be exposed to direct sunlight.
- Install the unit where connection to the outdoor unit is easy.
- Install the unit where the drain pipe can be easily installed.
- Take servicing, etc. into consideration and leave the spaces shown in "6.1. Installation dimensions". Also install the unit where the filter can be removed.
- This product has a wireless LAN adapter as accessory. Refer to "7.4.1. Before installing wireless LAN adapter" to decide on the place of installation.

Correct initial installation location is important because it is difficult to move the unit after it is installed.

⚠ WARNING

Install the indoor unit where is capable to support the weight of the unit. Secure the unit firmly so that the unit does not topple or fall.

CAUTION

Do not install the unit in the following areas:

- Area with high salt content, such as at the seaside. It will deteriorate metal parts, causing the parts to fail or the unit to leak water.
- Area filled with mineral oil or containing a large amount of splashed oil or steam, such as a kitchen. It will deteriorate plastic parts, causing the parts to fail or the unit to leak water.
- Area where is close to heat sources.
- Area that generates substances that adversely affect the equipment, such as sulfuric gas, chlorine gas, acid, or alkali. It will cause the copper pipes and brazed joints to corrode, which can cause refrigerant leakage.
- Area that can cause combustible gas to leak, contains suspended carbon fibers or flammable dust, or volatile in flammables such as paint thinner or gasoline.
- If gas leaks and settles around the unit, it can cause a fire.
- Area where animals may urinate on the unit or ammonia may be generated.

- Do not use the unit for special purposes, such as storing food, raising animals, growing plants, or preserving precision devices or art objects. It can degrade the quality of the preserved or stored objects.
- Install the unit where drainage does not cause any trouble.
- Install the indoor unit, outdoor unit, power supply cable, transmission cable, and remote control cable at least 1 m away from a television or radio receivers. The purpose of this is to prevent TV reception interference or radio noise. (Even if they are installed more than 1 m apart, you could still receive noise under some signal conditions.)
- If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.
- Install the indoor unit on the wall where the height from the floor is more than 1.8 m.

6. INSTALLATION WORK

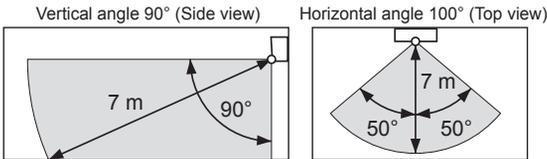
WARNING

During transportation or relocation of the indoor unit, pipes shall be covered with the wall hook bracket for protection. Do not move the appliance by holding the indoor unit pipes. (The stress applied to the pipe joints may cause the flammable gas to leak during operation.)

CAUTION

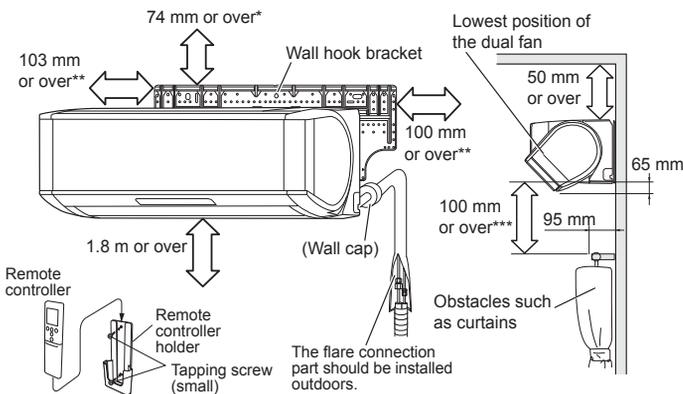
- Do not hit or push the human sensor. This may lead to damage or malfunction.
- Do not touch the human sensor. Any scratches or dirt may lead to incorrect detection.
- Do not place large objects near the human sensor. Also keep heating units outside the sensor's detection area.

Detection range of the human sensor is as follows.



You can change the orientation of the human sensor in accordance with the installation position of the indoor unit. (Refer to "10. SETTING THE ORIENTATION OF THE HUMAN SENSOR".)

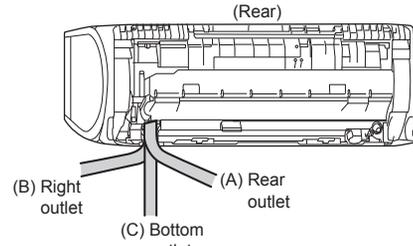
6.1. Installation dimensions



* The distance between the wall hook bracket and the ceiling should be 74 mm or more.
 **The side next to the sidewall must follow the size indicated in figure.
 ***If the depth of the obstacle is more than 95mm, please keep the distance from the indoor unit to the obstacle more than 100mm.

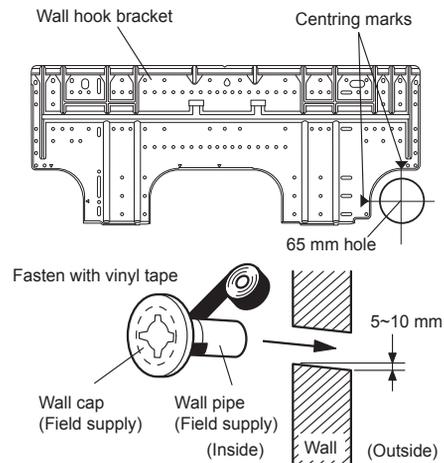
6.2. Indoor unit piping direction

The piping can be connected in the 3 directions in the figure. When the piping is connected in direction (B) or (C), cut along the piping groove in the side of the front panel with a hacksaw.



6.3. Cutting the hole in the wall for the connecting piping

- (1) Cut a 65 mm diameter hole in the wall at the position shown in the following.
- (2) Cut the hole so that the outside end is lower (5 to 10 mm) than the inside end.
- (3) Always align the center of the wall hole. If misaligned, water leakage will occur.
- (4) Cut the wall pipe to match the wall thickness, stick it into the wall cap, fasten the cap with vinyl tape, and stick the pipe through the hole.
- (5) For left piping and right piping, cut the hole a little lower so that drain water will flow freely.

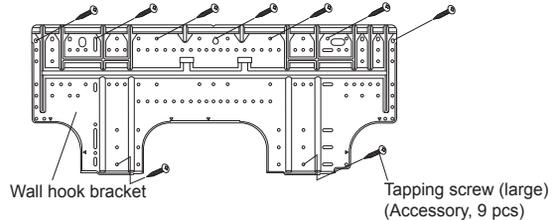


WARNING

Always use the wall pipe. If the wall pipe is not used, the cable that is connected between the indoor unit and the outdoor unit may touch metal, and cause an electric discharge.

6.4. Installing the wall hook bracket

- (1) Install the wall hook bracket so that it is correctly positioned horizontally and vertically. If the wall hook bracket is tilted, water will drip to the floor.
- (2) Install the wall hook bracket so that it is strong enough to support the weight of the unit.
 - Fasten the wall hook bracket to the wall with 9 or more screws through the holes near the outer edge of the bracket.
 - Check that there is no rattle at the wall hook bracket.



CAUTION

Install the wall-hook bracket both horizontally and vertically aligned. Misaligned installation may cause water leakage.

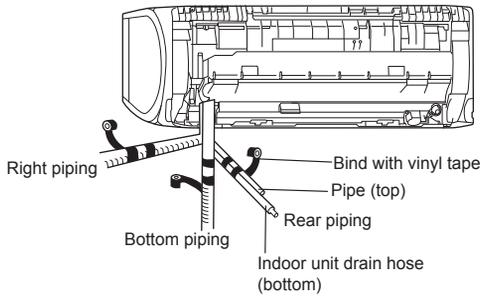
6.5. Forming the drain hose and pipe

CAUTION

- Insert drain hose and drain cap securely. Drain should slope down to avoid water leakage.
- When inserting the drain hose, no other material than water should be applied. Application of other material than water will cause deterioration of the hose, and may cause water leakage.
- After you remove a drain hose, be sure to attach the drain cap.
- When you secure the piping and drain hose with tape, arrange the drain hose so that it is at the bottom of the piping.
- For drain hose piping in low temperature environment, you need to apply freeze protection to prevent a frozen drain hose. After cooling operation is performed in low temperature environment, (when outdoor temperature under 0 °C,) water in the drain hose could be frozen. Frozen drain water will block the water flow in the hose, and may cause water leakage at the indoor unit.

[Rear piping, Right piping, Bottom piping]

- Install the indoor unit piping in the direction of the wall hole and bind the drain hose and pipe together with vinyl tape.
- Install the piping so that the drain hose is at the bottom.
- Wrap the pipes of the indoor unit that are visible from the outside with decorative tape.

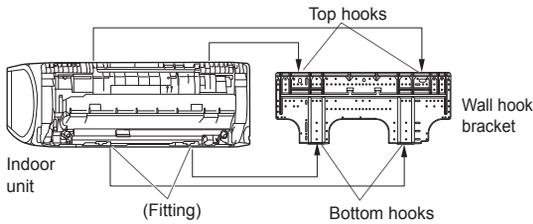
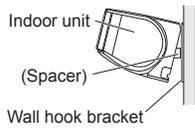


CAUTION

Insert the drain hose and drain cap into the drain port, making sure that it comes in contact with the back of the drain port, and then mount it. If the drain hose is not connected properly, leaking will occur.

[Installing the indoor unit]

- Hang the indoor unit from the hooks at the top of the wall hook bracket.
- Insert the spacer, etc. between the indoor unit and the wall hook bracket and separate the bottom of the indoor unit from the wall.



- After hooking the indoor unit to the top hook, hook the fittings of the indoor unit to the 2 bottom hooks while lowering the unit and pushing it against the wall.

6.6. Flare connection (Pipe connection)

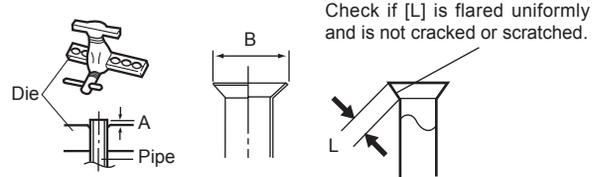
CAUTION

Tighten the flare nuts with a torque wrench using the specified tightening method. Otherwise, the flare nuts could break after a prolonged period, causing refrigerant to leak and generate hazardous gas if the refrigerant comes into contact with a flame.

6.6.1. Flaring

Use special pipe cutter and flare tool designed for R410A or R32 pipework.

- (1) Cut the connection pipe to the necessary length with a pipe cutter.
- (2) Hold the pipe downward so that cuttings will not enter the pipe and remove any burrs.
- (3) Insert the flare nut (always use the flare nut attached to the indoor unit(s) and outdoor unit or branch box respectively) onto the pipe and perform the flare processing with a flare tool. Use the special R410A or R32 flare tool, or the conventional flare tool. Leakage of refrigerant may result if other flare nuts are used.
- (4) Protect the pipes by pinching them or with tape to prevent dust, dirt, or water from entering the pipes.



Pipe outside diameter [mm (in.)]	Dimension A [mm]	Dimension B [mm]
	Flare tool for R32, clutch type	
6.35 (1/4)	0 to 0.5	9.1
9.52 (3/8)		13.2
12.70 (1/2)		16.6
15.88 (5/8)		19.7
19.05 (3/4)		24.0

When using conventional flare tools to flare R32 pipes, the dimension A should be approximately 0.5 mm more than indicated in the table (for flaring with R32 flare tools) to achieve the specified flaring. Use a thickness gauge to measure the dimension A.

Width across flats	Pipe outside diameter [mm (in.)]	Width across flats of Flare nut [mm]
	6.35 (1/4)	17
	9.52 (3/8)	22
	12.70 (1/2)	26
	15.88 (5/8)	29
	19.05 (3/4)	36

6.6.2. Bending pipes

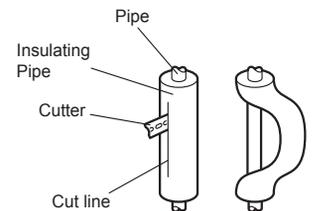
CAUTION

To prevent breaking of the pipe, avoid sharp bends.

If the pipe is bent repeatedly at the same place, it will break.

- The pipes are shaped by your hands. Be careful not to collapse them.
- Bend R70 mm or more with a pipe bender.
- Do not bend the pipes in an angle more than 90°.
- When pipes are repeatedly bend or stretched, the material will harden, making it difficult to bend or stretch them any more.
- Do not bend or stretch the pipes more than 3 times.

- When bending the pipe, do not bend it as is. The pipe will be collapsed. In this case, cut the insulating pipe with a sharp cutter as shown on the right, and bend it after exposing the pipe. After bending the pipe as you want, be sure to put the heat-insulating pipe back on the pipe, and secure it with tape.



6.6.3. Pipe connection

⚠ WARNING

- The flare connection shall not be performed indoors.

⚠ CAUTION

Be sure to install the pipe against the port on the indoor unit correctly. If the centering is improper, the flare nut cannot tighten smoothly. If the flare nut is forced to turn, the threads will be damaged.

Do not remove the flare nut from the indoor unit pipe until immediately before connecting the connection pipe.

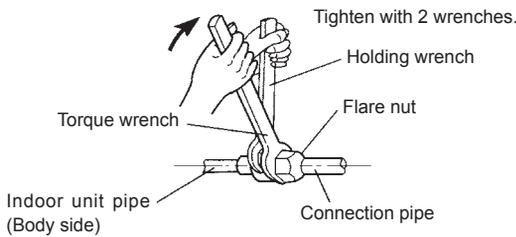
Hold the torque wrench at its grip, keeping it in the right angle with the pipe, in order to tighten the flare nut correctly.

Tighten the flare nuts with a torque wrench using the specified tightening method. Otherwise, the flare nuts could break after a prolonged period, causing refrigerant to leak and generate hazardous gas if the refrigerant comes into contact with a flame.

Connect the piping so that the control box cover can easily be removed for servicing when necessary.

In order to prevent water from leaking into the control box, make sure that the piping is well insulated.

When the flare nut is tightened properly by your hand, hold the body side coupling with a wrench, then tighten with a torque wrench. (See the table below for the flare nut tightening torques.)



Flare nut [mm (in.)]	Tightening torque [N·m (kgf·cm)]
6.35 (1/4) dia.	16 to 18 (160 to 180)
9.52 (3/8) dia.	32 to 42 (320 to 420)
12.70 (1/2) dia.	49 to 61 (490 to 610)
15.88 (5/8) dia.	63 to 75 (630 to 750)
19.05 (3/4) dia.	90 to 110 (900 to 1,100)

Do not remove the cap from the connection pipe before connecting the pipe.

7. ELECTRICAL WIRING

⚠ CAUTION

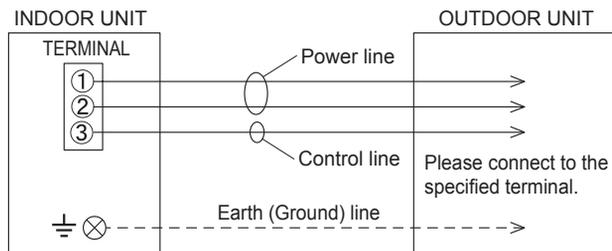
Be careful not to generate a spark as follows for using a flammable refrigerant.

- Do not remove the fuse while the power is on.
- Do not disconnect the wiring while the power is on.
- It is recommended to position the outlet connection in a high position. Place the cords so that they do not get tangled.

7.1. Wiring system diagram

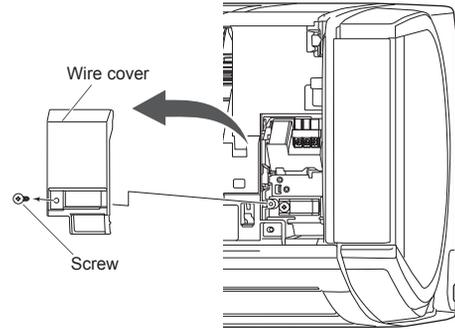
⚠ WARNING

- Before connecting the wires, make sure the power supply is OFF.
- Every wire must be connected firmly.
- No wire should be allowed to touch refrigerant tubing, the compressor, or any moving part.
- Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Therefore, be sure all wiring is tightly connected.
- Connect wires to the matching numbers of terminals.

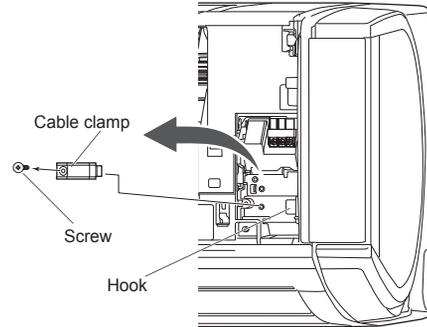


7.2. Indoor unit wiring

- Remove the intake grill. (Refer to "9.1. Intake grill removal and installation".)
- Remove the tapping screw for the wire cover and remove the wire cover.



- Remove the tapping screw and while minding the cable clamp hook, remove the cable clamp.

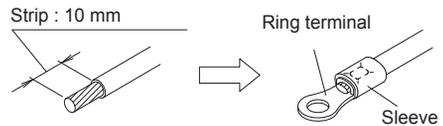


7.3. How to connect wiring to the terminals

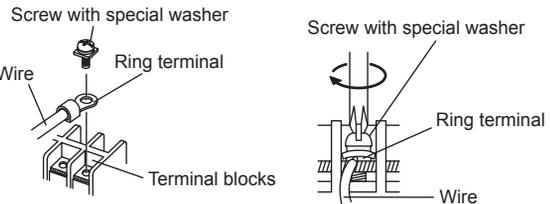
Caution when wiring cable

To strip off the insulation of a lead wire, always use a special tool such as a wire stripper. If there is no special tool, carefully strip off the insulation by using a knife or other utensil.

- Use ring terminals with insulating sleeves as shown in the figure to connect to the terminal block.
- Securely clamp the ring terminals to the wires by using an appropriate tool so that the wires do not come loose.



- Connect specified wires securely, and fasten them so that there is no stress applied on the terminals.
- Use a screwdriver with an appropriate bit size to tighten the terminal screws. Using of screwdriver with inappropriate bit size will damage the screw heads, and the screws will not be tightened properly.
- Do not overtighten the terminal screws. Otherwise, the screws may break.



- See the table for the terminal screw tightening torques.

Tightening torque [N·m (kgf·cm)]	
M4 screw	1.2 to 1.8 (12 to 18)

⚠ CAUTION

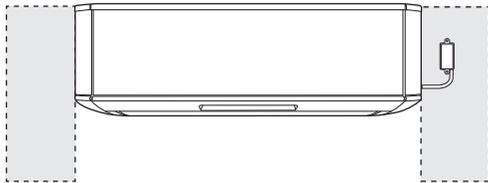
- Match the terminal block numbers and connection cable colors with those of the outdoor unit. Incorrect wiring may cause a fire.
- Connect the connection cables firmly to the terminal block. Imperfect installation may cause a fire.
- When fixing the connection cable with the cable clamp, always fasten the cable at the plastic jacket portion, but not at the insulator portion. If the insulator is chafed, electric leakage may occur.
- Always connect the earth (ground) wire. Improper earthing (grounding) work can cause electric shocks.
- Do not use the earth (ground) screw for the indoor unit to the outdoor unit unless it is specified.

7.4. Wireless LAN adapter installation

7.4.1. Before installing wireless LAN adapter

⚠ CAUTION

- Do not bundle the wireless LAN adapter wiring with the connection cable running between the indoor and outdoor units, or the power supply cable.
- Install the wireless LAN adapter near the wireless router. (The connection will become unstable if it is placed further away, which will make using the system more difficult)
- Install the wireless LAN adapter between the indoor unit and wireless router.
- Certain types of wall materials may shut out wireless communications.
- Do not touch the heat exchanger.
- During installing or removing operation, be sure not to have wire caught by parts or draw it hard. Or it may result troubles to the air conditioner.
- Please do not install the wireless LAN adapter in the following places. Otherwise, radio communication may be interfered.
 - Places exposed to direct sunlight
 - Places subject to extremely high and low temperatures, such as near the outlet port of the air conditioner main body
 - Near the air conditioner air inlet
 - Places with high humidity
 - Places near moving parts of the air conditioner main body
 - Places near the bottom of the air conditioner main body
 - Inside or on the side of the air conditioner main body
 - Near microwave ovens
 - Within 1 m of a TV or radio
 - Places in the reach of children
 - Near automatic control devices such as automatic door sensors or fire detectors
 - Places with oil, vapour or flammable gases
 - Near medical equipment, pacemakers, defibrillators or other devices
 - Places where the wireless LAN adapter could get wet, such as in the bathroom
 - Places where the wireless LAN adapter is difficult to access for maintenance
- Please install the wireless LAN adapter in a place where the switches and buttons can be operated and where the lamp display can be confirmed. (In the areas shown below.)



7.4.2. Installation work

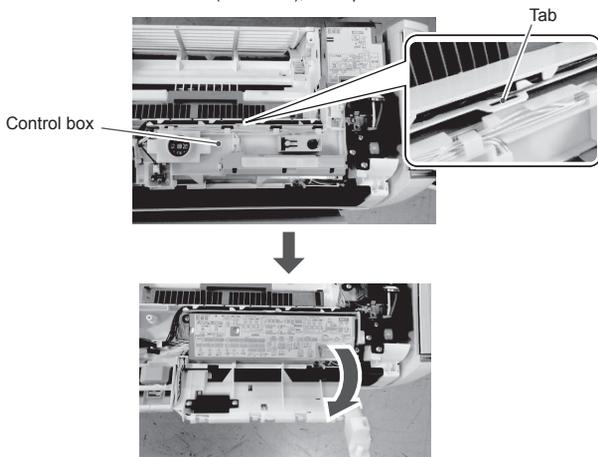
⚠ WARNING

Disconnect the power supply or turn off the breaker before starting work. Failure to disconnect the power supply may lead to electric shock or fire.

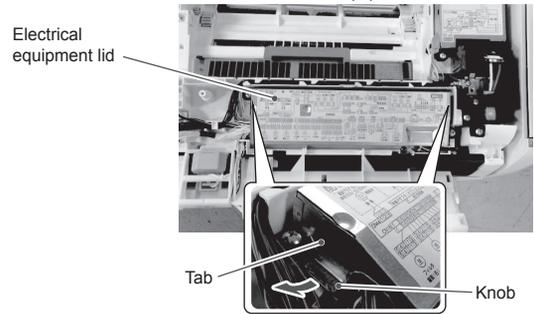
⚠ CAUTION

Discharge static electricity on your body before starting work. If static electricity is not discharged, there is a risk that the board parts may be damaged.

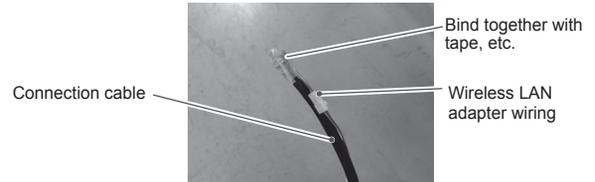
- (1) Remove the dust box. (Refer to "9.2. Dust box removal and installation".)
- (2) Remove the front panel. (Refer to "9.3. Front panel removal and installation".)
- (3) Remove the control box tab (1 location), and open the control box to the front.



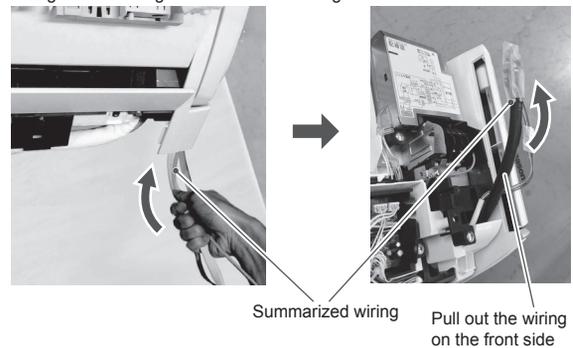
- (4) Remove the electrical equipment lid tabs (left and right, 2 places), pull the knob in the direction of the arrow and remove the electrical equipment cover.



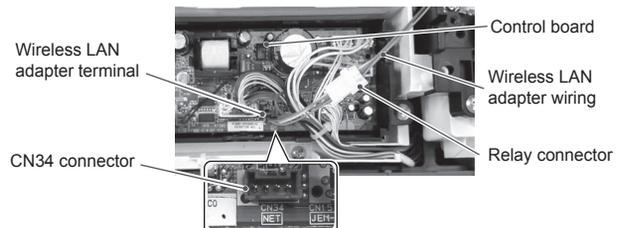
- (5) Gather the connection cable and wireless LAN adapter wiring tips with an item like tape.



- (6) Pull the gathered wiring to the front side through the back of the indoor unit.



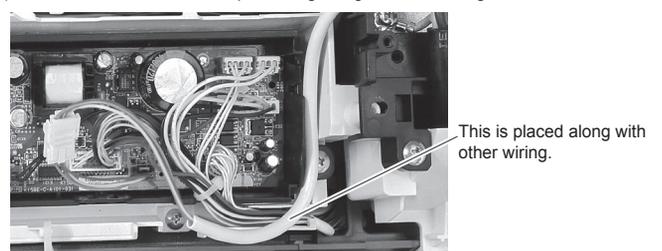
- (7) Connect the wireless LAN adapter terminal to the control board (CN34). Leave excess wiring so that force is not applied to the base of the wireless LAN adapter terminal.



⚠ CAUTION

- Firmly insert the connector. If the connector is not fully inserted, there is a risk of this causing a malfunction.
- Do not disconnect the relay connector.

- (8) Place the wireless LAN adapter wiring along the other wiring.

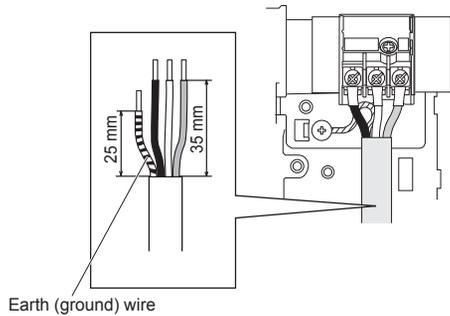


- (9) Fit the electrical equipment lid claws (left and right, 2 places) and replace the electrical equipment lid.

⚠ CAUTION

Do not cut the wiring in the electrical equipment lid and do not squeeze the wiring in. Damage to the wiring may lead to a short circuit.

(10) Connect the end of the connection cable fully into the terminal block.

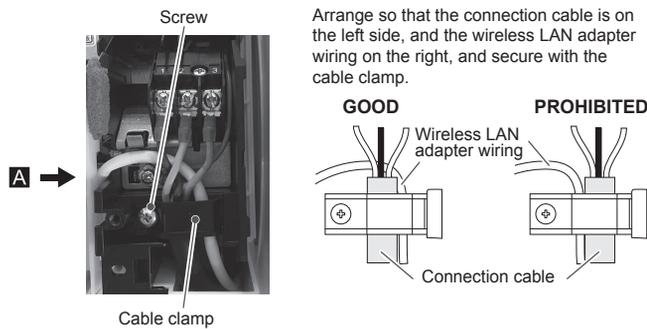


(11) Push the connection cable into the groove on the side of the electrical equipment lid.

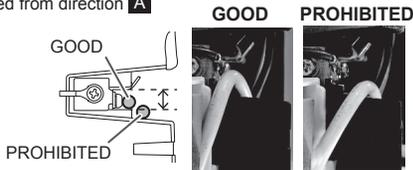


Push into the groove.

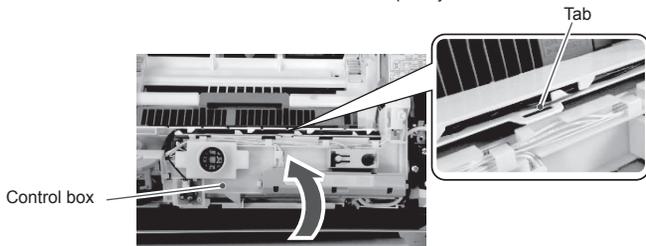
(12) Fix the cables with the attached cable clamp with a screw.



Viewed from direction **A**

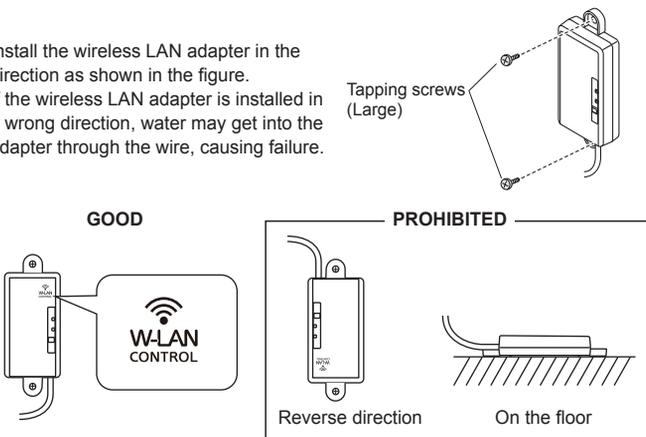


(13) Close the control box.
Please confirm that the control box is closed completely.



(14) Attach the Wireless LAN adapter to the wall with 2 screws (Large).
For details, refer to the setting manual of wireless LAN control.

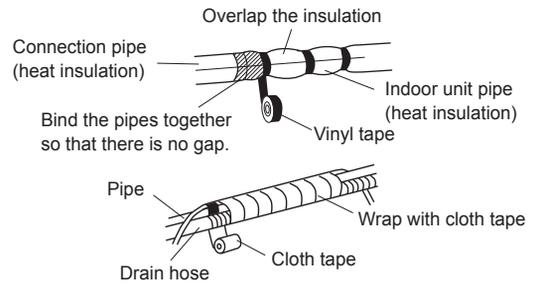
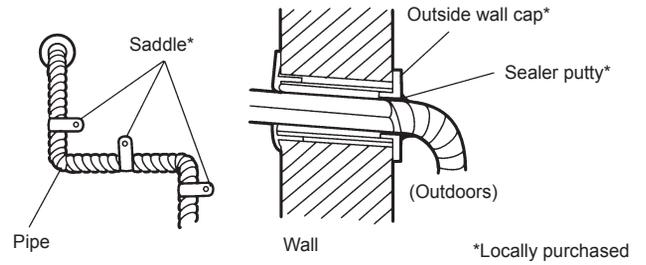
Install the wireless LAN adapter in the direction as shown in the figure.
If the wireless LAN adapter is installed in a wrong direction, water may get into the adapter through the wire, causing failure.



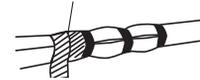
- (15) Replace the front panel. (Refer to "9.3. Front panel removal and installation".)
- (16) Replace the dust box. (Refer to "9.2. Dust box removal and installation".)
- (17) Replace the wiring cover.
- (18) Replace the intake grill. (Refer to "9.1. Intake grill removal and installation".)

8. FINISHING

- (1) Insulate between pipes.
 - Insulate suction and discharge pipes separately.
 - For rear, right, and bottom piping, overlap the connection pipe heat insulation and indoor unit pipe heat insulation and bind them with vinyl tape so that there is no gap.
- (2) Temporarily fasten the connection cable along the connection pipe with vinyl tape. (Wrap to about 1/3 the width of the tape from the bottom of the pipe so that water does not enter.)
- (3) Fasten the connection pipe to the outside wall with a saddle, etc.
- (4) Fill the gap between the outside wall pipe hole and the pipe with sealer so that rain water and wind cannot blow in.
- (5) Fasten the drain hose to the outside wall, etc.

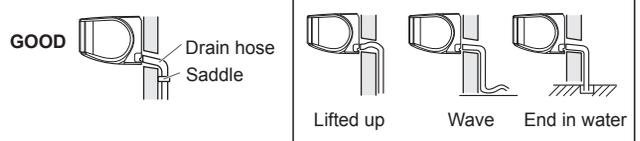


Drain hose insulation is used when the diameter of gas pipe is $\varnothing 12.70$ or more.



Butt connection pipe (heat insulation) against the indoor unit pipe (heat insulation) and wrap with drain hose insulation so that there is no gap.

Check the following:

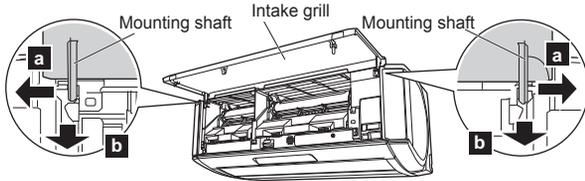


9. REMOVING AND REPLACING PARTS

9.1. Intake grill removal and installation

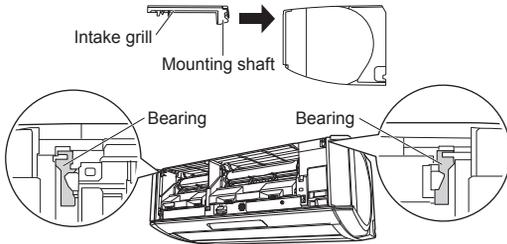
Intake grill removal

- (1) In the recesses of the lower ends of the intake grill, carefully work on them and pull them to the front, and open the intake grill wide until it is slightly higher than the horizontal line.
- (2) While gently pressing and expanding the intake grill left and right mounting shaft to the outside (arrow "a" direction), remove the intake grill in the arrow "b" (front) direction.

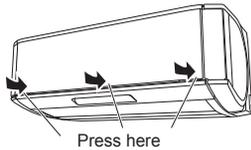


Intake grill installation

- (1) Attach the left and right mounting shaft in the direction of the arrow to the panel top bearing while supporting the intake grill horizontally. Press this until it clicks so that each shaft snaps into place.



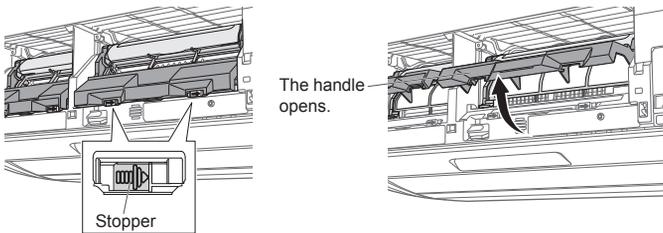
- (2) Press and close the intake grille.



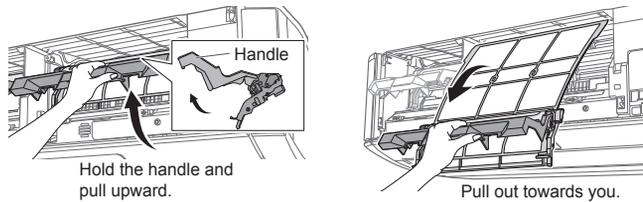
9.2. Dust box removal and installation

Dust box removal

- (1) Slide the stopper to the right.

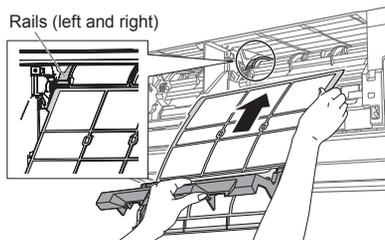


- (2) Pull out the dust box and air filter.

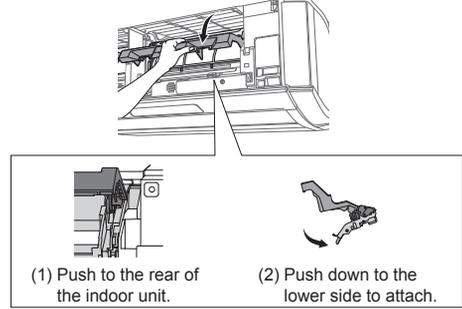


Dust box installation

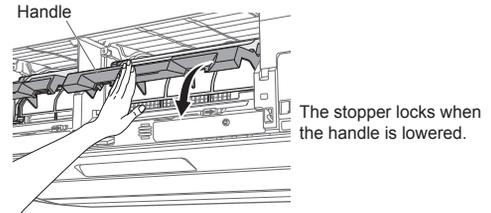
- (1) Insert the air filter along the indoor unit rails.



- (2) Push the dust box to the rear and attach it, downwards to the lower side.



- (3) Close the handle.

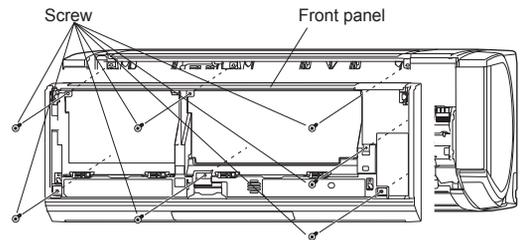


9.3. Front panel removal and installation

* This description has the intake grill, dust box and wire cover removed.

Front panel removal

Remove the screws (7 places) on the front panel, and remove the front panel by pulling it to the front.



Front panel installation

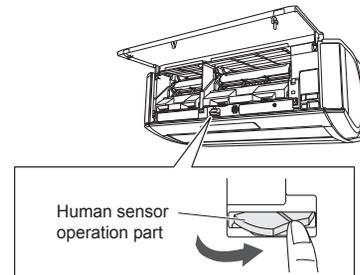
Fit the front panel, and attach the front panel screws (7 places).

CAUTION

Please take caution when removing or installing the front panel. If the front panel falls, there is a risk of injury.

10. SETTING THE ORIENTATION OF THE HUMAN SENSOR

- (1) Open the intake grille.
- (2) Press the human sensor operation part with your finger and align the detection direction. (The detection direction can be changed by approximately 30° to the left and right.)



- (3) Press and close the intake grille.

[Guide to selection of installation position]

	Center of indoor unit is on the left of the wall	Center of indoor unit is in the center of the wall	Center of indoor unit is on the right of the wall
Indoor unit installation position			
Direction of human sensor (detection direction)	Right direction	Center direction	Left direction

The detection range of the human sensor can be checked with the following steps.

- (1) If the energy saving function is OFF, press the "SENSOR" button to enable the energy saving function.
- (2) In FAN mode, press the "TEST RUN" button on the remote controller.
The "ECONOMY" indicator flashes when the human sensor detects a person.
- (3) To finish checking the detection range, push the "Start/Stop(⏻)" button and stop the operation.

11. TEST RUN

Check items

- (1) Is operation of each button on the remote control unit normal?
 - (2) Does each lamp light normally?
 - (3) Do air flow direction louvers operate normally?
 - (4) Is the drain normal?
 - (5) Do not have an abnormal noise and vibration during operation?
- Do not operate the air conditioner in test run for a long time.

[Operation method]

Before starting the test run, wait for 1 minute after connecting the power supply.

By the wireless remote controller

- To start the test run, press the "Start/Stop(⏻)" button, the "TEST RUN" button on the remote controller with a by using the tip of a ballpoint pen or other small object.

By the indoor unit

- To start the test run, keep on pressing the indoor unit button for more than 10 seconds.
- To end test operation, press the remote controller "Start/Stop(⏻)" button. (When the air conditioner is running by pressing the "TEST RUN" button, the "OPERATION" Lamp and "TIMER" Lamp will simultaneously flash slowly.)

12. REMOTE CONTROLLER INSTALLATION

Check that the indoor unit correctly receives the signal from the remote controller, then install the remote controller holder.

CAUTION

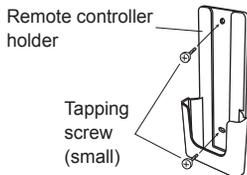
Do not install the remote controller holder in the following conditions:

- Any places exposed in direct sunlight
- Positions affected by the heat from a stove or heater

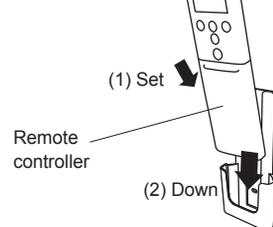
12.1. Remote controller holder installation

- Install the remote controller a maximum distance of 7 m from the remote control signal receiver. After installing the remote controller, check that it operates correctly.
- Install the remote controller holder to a wall, pillar, etc. with the tapping screw.

Remote controller holder fixing



Remote controller mounting



13. SELECTING THE REMOTE CONTROLLER CUSTOM CODE

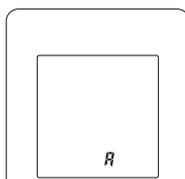
When two or more air conditioners are installed in a room and the remote controller is operating an air conditioner other than the one you wish to set, change the custom code of the remote controller to operate only the air conditioner you wish to set (4 selections possible).

When two or more air conditioners are installed in a room, please contact your retailer to set the individual air conditioner custom codes.

Selecting the Remote Controller Custom Code

Use the following steps to select the custom code of the remote controller. (Note that the air conditioner cannot receive a signal if the air conditioner has not been set for the matching custom code.)

- (1) Press the "Start/Stop(⏻)" button until only the clock is displayed on the remote controller display.
- (2) Press the "MODE" button for at least 5 seconds to display the current custom code (initially set to A).
- (3) Press the "TEMP." (∧ / ∨) buttons to change the custom code between A→B→C→D. Match the code on the display to the air conditioner custom code.
- (4) Press the "MODE" button again to return to the clock display. The custom code will be changed.



- If no buttons are pressed within 30 seconds after the custom code is displayed, the system returns to the original clock display. In this case, start again from step 1.
- The air conditioner custom code is set to A prior to shipment.

14. FUNCTION SETTING

Perform the "FUNCTION SETTING" according to the installation conditions using the remote controller.

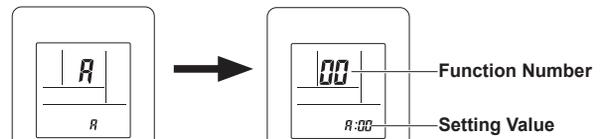
CAUTION

- Confirm whether the wiring work for outdoor unit has been finished.
- Confirm that the cover for the electrical enclosure on the outdoor unit is in place.

- This procedure changes to the function settings used to control the indoor unit according to the installation conditions. Incorrect settings can cause the indoor unit to malfunction.
- After the power is turned on, perform the "FUNCTION SETTING" according to the installation conditions using the remote controller.
- The settings may be selected between the following two: Function Number or Setting Value.
- Settings will not be changed if invalid numbers or setting values are selected.

Selecting the Function Number and Setting Value

- (1) While pressing the "POWERFUL" button and "TEMP." (∧) button simultaneously, press the "RESET" button to enter the function setting mode.
- (2) Press the "10°C HEAT" button.



- (3) Press the "TEMP." (∧ / ∨) buttons to select the function number. (Press the "10°C HEAT" button to switch between the left and right digits.)
- (4) Press the "POWERFUL" button to proceed to setting value. (Press the "POWERFUL" button again to return to the function number selection.)
- (5) Press the "TEMP." (∧ / ∨) buttons to select the setting value. (Press the "10°C HEAT" button to switch between the left and right digits.)
- (6) Press the "MODE" button once. Please confirm the beeping sound.
- (7) Next, please press "Start/Stop(⏻)" button once to fix the function setting. Please confirm the beeping sound.
- (8) Press the "RESET" button to cancel the function setting mode.
- (9) After completing the FUNCTION SETTING, be sure to disconnect the power supply and then reconnect it.

CAUTION

After disconnecting the power supply, wait 30 seconds or more before reconnecting it. The function setting will not become active unless the power supply is disconnected and then reconnected.

Filter clean operation interval

Select appropriate intervals for automatically cleaning the air filter according to environmental conditions and the conditions of use.

(♦... Factory setting)

Setting Description	Function Number	Setting Value
♦ Standard (40 hours)	10	00
Long interval (64 hours)		01
Short interval (24 hours)		02
Filter cleaning disabled *		03

* You can use the "FILTER CLEAN" button to clean the filter manually.

Left/right swing operation range

Select the operation range of the left/right swing according to the installation condition.

(♦... Factory setting)

Setting Description	Function Number	Setting Value
♦ Standard Left↔Right	24	00
Left side Left↔Slightly right		01
Right side Slightly left↔Right		02

Room temperature control for indoor unit sensor

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment. The temperature correction values show the difference from the Standard setting "00" (manufacturer's recommended value).

(◆... Factory setting)

Setting Description	Function Number	Setting Value	
◆ Standard setting		00	
No correction 0.0 °C		01	
-0.5 °C (-1 °F)	30 (For cooling)	02	
-1.0 °C (-2 °F)		03	
-1.5 °C (-3 °F)		04	
-2.0 °C (-4 °F)		05	
-2.5 °C (-5 °F)		06	
-3.0 °C (-6 °F)		07	
-3.5 °C (-7 °F)		08	
-4.0 °C (-8 °F)		09	
+0.5 °C (+1 °F)		31 (For heating)	10
+1.0 °C (+2 °F)			11
+1.5 °C (+3 °F)	12		
+2.0 °C (+4 °F)	13		
+2.5 °C (+5 °F)	14		
+3.0 °C (+6 °F)	15		
+3.5 °C (+7 °F)	16		
+4.0 °C (+8 °F)	17		

Auto restart

Enable or disable automatic restart after a power interruption.

(◆... Factory setting)

Setting Description	Function Number	Setting Value
◆ Enable	40	00
Disable		01

* Auto restart is an emergency function such as for power outage etc. Do not attempt to use this function in normal operation. Be sure to operate the unit by remote controller or external device.

Remote controller custom code

(Only for wireless remote controller)

The indoor unit custom code can be changed. Select the appropriate custom code.

(◆... Factory setting)

Setting Description	Function Number	Setting Value
◆ A	44	00
B		01
C		02
D		03

Indoor unit fan control for energy saving for cooling

Enables or disables the power-saving function by controlling the indoor unit fan rotation when the outdoor unit is stopped during cooling operation.

(◆... Factory setting)

Setting Description	Function Number	Setting Value
Disable	49	00
Enable		01
◆ Remote controller		02

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.

01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.

02: Enable or disable this function by remote controller setting.

* As the factory setting, this setting is initially activated.

Dual fan air flow (in COOL, DRY, FAN modes)

Switch the Dual fan vertical air flow in COOL, DRY and FAN modes. (Set this when the Dual fan air flow is too strong or weak.)

(◆... Factory setting)

Setting Description	Function Number	Setting Value
◆ Standard	92	00
Down		01
Up		02

Dual fan vertical air flow angle (in COOL, DRY, FAN modes)

Switch the Dual fan vertical air flow angle in COOL, DRY and FAN modes. (Set this when the Dual fan air flow hits furniture or does not reach the intended area.)

(◆... Factory setting)

Setting Description	Function Number	Setting Value
◆ Standard (70°)	93	00
0°		01
30°		02
40°		03
45°		04
50°		05
60°		06

Maintenance indicator switchover

Display/Hide the indicator that shows when to clean the dust box or the plasma air clean unit.

(◆... Factory setting)

Setting Description	Function Number	Setting Value
◆ Enable	97	00
Disable		01

Setting record

Record any changes to the settings in the following table.

Setting Description	Setting Value
Filter clean operation interval	
Left and right swing movable range	
Room temperature control for indoor unit sensor	Cooling Heating
Auto restart	
Remote controller custom code	
Indoor unit fan control for energy saving for cooling	
Dual fan air flow	
Dual fan vertical air flow angle	
Maintenance indicator switchover	

After completing the FUNCTION SETTING, be sure to turn off the power and turn it on again.

15. CUSTOMER GUIDANCE

Explain the following to the customer in accordance with the operating manual:

- (1) Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
- (2) Air filter removal and cleaning, and how to use the air louvers.
- (3) Give the operating manual to the customer.

16. ERROR CODES

If you use a wireless remote controller, the lamp on the photo detector unit will output error codes by way of blinking patterns. If you use a wired remote controller, error codes will appear on the remote control display. See the lamp blinking patterns and error codes in the table. An error display is displayed only during operation.

Error display			Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	11	Serial communication error
●(1)	●(2)	◇	12	• Wired remote controller communication error • Server room control communication error
●(1)	●(5)	◇	15	Check run unfinished
●(1)	●(6)	◇	16	Peripheral unit transmission PCB connection error
●(1)	●(8)	◇	18	External communication error
●(2)	●(1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
●(2)	●(2)	◇	22	Indoor unit capacity error
●(2)	●(3)	◇	23	Combination error
●(2)	●(4)	◇	24	• Connection unit number error (indoor slave unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]

●(2)	●(6)	◇	26	Address setting error in wired remote controller system
●(2)	●(7)	◇	27	Master unit, slave unit set-up error [Simultaneous Multi]
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(5)	◇	35	Manual auto switch error
●(4)	●(1)	◇	41	Room temp. sensor error
●(4)	●(2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor 1 error (Main fan)
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(4)	◇	54	Electric air cleaner reverse VDD error
●(5)	●(5)	◇	55	Filter set error
●(5)	●(7)	◇	57	Damper error
●(5)	●(8)	◇	58	Intake grille error
●(5)	●(9)	◇	59	Indoor unit fan motor 2 error (Left side fan)
●(5)	●(10)	◇	5A	Indoor unit fan motor 3 error (Right side fan)
●(5)	●(15)	◇	5U	Indoor unit error
●(6)	●(2)	◇	62	Outdoor unit main PCB model information error or communication error
●(6)	●(3)	◇	63	Inverter error
●(6)	●(4)	◇	64	Active filter error, PFC circuit error
●(6)	●(5)	◇	65	Trip terminal L error
●(6)	●(10)	◇	6A	Display PCB microcomputers communication error
●(7)	●(1)	◇	71	Discharge temp. sensor error
●(7)	●(2)	◇	72	Compressor temp. sensor error
●(7)	●(3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
●(7)	●(4)	◇	74	Outdoor temp. sensor error
●(7)	●(5)	◇	75	Suction Gas temp. sensor error
●(7)	●(6)	◇	76	• 2-way valve temp. sensor error • 3-way valve temp. sensor error
●(7)	●(7)	◇	77	Heat sink temp. sensor error
●(8)	●(2)	◇	82	• Sub-cool Heat Ex. gas inlet temp. sensor error • Sub-cool Heat Ex. gas outlet temp. sensor error
●(8)	●(3)	◇	83	Liquid pipe temp. sensor error
●(8)	●(4)	◇	84	Current sensor error
●(8)	●(6)	◇	86	• Discharge pressure sensor error • Suction pressure sensor error • High pressure switch error
●(9)	●(4)	◇	94	Trip detection
●(9)	●(5)	◇	95	Compressor rotor position detection error
●(9)	●(7)	◇	97	Outdoor unit fan motor error
●(9)	●(9)	◇	99	4-way valve error
●(10)	●(1)	◇	A1	Discharge temp. error

●(10)	●(3)	◇	A3	Compressor temp. error
●(10)	●(4)	◇	A4	High pressure error
●(10)	●(5)	◇	A5	Low pressure error
●(13)	●(2)	◇	J2	Branch boxes error [Flexible Multi]

Display mode ● : 0.5s ON / 0.5s OFF
◇ : 0.1s ON / 0.1s OFF
() : Number of flashing