PROTECT THE ENVIORNMENT FROM E-WASTE (GUIDELINES)

Meaning of E-waste under E-waste (Management) Rules, 2022 (E-waste rules) - Waste, electrical and electronic equipment, whole or in part of reject from their manufacturing and repair process, which are intended to be discarded.

Our product is RoHS compliant.

Don’t dump, electrical and electronic products in garbage bins.

DO'S & DONT'S

DO'S	
Run and maintain the air-conditioner as per the instructions given in the operation/instruction manual	✓
Ensure that an authorised person repairs your air-conditioner	✓
Call our local authorised dealer or our toll-free number to dispose your air-conditioner	✓
Contact an authorised dealer in case or installation or de-installation	✓
Consult our local authorised dealer or our toll free number on the lifespan of the air-conditioner	✓

DONT'S	
Do not try to repair your air conditioner on your own	×
Do not sell or dispose your air-conditioner or parts to an unauthorised Kabaadi Wala/Scrap dealer/Rigpickers.	×
Do not dismantle your air-conditioner on your own.	×
Do not get your air conditioner or any parts repaired by an unauthorised person.	×
Do not dispose off the E-waste in landfills.	×
Do not use the air-conditioner as furniture after its use	×

Customer contact number: 011–4031 9300/1860–180–3900

For further information, visit us at www.daikinindia.com

DAIKIN

OPERATION MANUAL

VRV System Air Conditioner

RXYMQ6ARV16
RXYMQ8ARY16

Thank you for purchasing this Daikin air conditioner. Carefully read this operation manual before using the air conditioner. It will tell you how to use the unit properly and help you if any trouble occurs. After reading the manual, keep it in your custody for future reference.
See also the operation manual included with the indoor unit for details on the indoor unit.
Store the operation manual included with the indoor unit together with this operation manual in a safe place.

Operation manual

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1. Definitions

1.1 Meaning of warnings and symbols

Warnings in this manual are classified according to their severity and probability of occurrence.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

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

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

Indicates situations that may result in equipment or property-damage accidents only.

INFORMATION

This symbol identifies useful tips or additional information.
Some types of danger are represented by special symbols:

Electric current.

Danger of burning and scalding.

1.2 Meaning of used terms

Installation manual:
Instruction manual specified for a certain product or application, explaining how to install, configure and maintain it.

Operation manual:
Instruction manual specified for a certain product or application, explaining how to operate it.

Maintenance instructions:
Instruction manual specified for a certain product or application, which explains (if relevant) how to install, configure, operate and/or maintain the product or application.

Dealer:
Sales distributor for products as per the subject of this manual.

Installer:
Technical skilled person who is qualified to install products as per the subject of this manual.

User:
Person who is owner of the product and/or operates the product.

Service company:
Qualified company which can perform or coordinate the required service to the unit.

Applicable legislation:
All international, European, national and local directives, laws, regulations and/or codes which are relevant and applicable for a certain product or domain.

Accessories:
Equipment which is delivered with the unit and which needs to be installed according to instructions in the documentation.

Optional equipment:
Equipment which can optionally be combined to the products as per the subject of this manual.

Field supply:
Equipment which needs to be installed according to instructions in this manual, but which are not supplied by Daikin.

1.3 Safety Precautions

To gain full advantage of the air conditioner's functions and to avoid malfunction due to mishandling, we recommend that you read this instruction manual carefully before use.
Read the precautions thoroughly to avoid misuse of the equipment.
This air conditioner is classified under "appliances not accessible to the general public".

- The precautions described herein are classified as WARNING and CAUTION. They both contain important information regarding safety.
  Be sure to observe all precautions without fail.
- There are two kinds of safety precaution and tips listed in the following.

⚠ **WARNING** .....
- Failure to follow these instructions properly may result in personal injury or loss of life.
- This unit contains electrical and hot parts.
- Before operating the unit, be sure the installation has been carried out correctly by an installer. If you feel unsure about operation, contact your installer for advice and information.

⚠ **CAUTION** .....
- Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

- After reading, keep this manual in a convenient place so that you can refer to it whenever necessary. If the equipment is transferred to a new user, be sure also to hand over the manual.

⚠ **WARNING**

- **Do not place objects in direct proximity of the outdoor unit and do not let leaves and other debris accumulate around the unit.**
  Leaves are a hotbed for small animals which can enter the unit.
  Once in the unit, such animals can cause malfunctions, smoke or fire when making contact with electrical parts.
- **Consult your local dealer about installation work.**
  Doing the work yourself may result in water leakage, electric shocks or fire hazards.
- **Do not insert fingers, rods or other objects into the air inlet or outlet.**
  When the fan is rotating at high speed, it will cause injury.
- **Never let the indoor unit or the user interface get wet.**
  It may cause an electric shock or a fire.
- **Do not put user interface in risk to wet place.**
  If water into controller, risk to electric leakage and cause to electronics parts damaged.
- **Be sure to use fuses with the correct ampere reading.**
  Do not use improper fuses, copper or other wires as a substitute, as this may result in electric shock, fire, injury or damage to the unit.

- **Consult your local dealer regarding what to do in case of refrigerant leakage.**
  When the air conditioner is to be installed in a small room, it is necessary to take proper measures so that the amount of any leaked refrigerant does not exceed the concentration limit in the event of leakage. Otherwise, this may lead to an accident due to oxygen depletion.
- **Beware of fire in case of refrigerant leakage.**
  If the air conditioner is not operating correctly, i.e. not generating cool or warm air, refrigerant leakage could be the cause.
  Consult your dealer for assistance.
  The refrigerant within the air conditioner is safe and normally does not leak. However, in the event of a leakage, contact with a naked burner, heater or cooker may result in generation of noxious gas. Do not longer use air conditioner until a qualified service person confirms that the leakage has been repaired.
- **Do not use the air conditioner until a service person confirms that the portion where the refrigerant leaks is repaired.**
- **Turn off any combustible heating devices, ventilate the room and contact the dealer where you purchased the unit.**
- **Improper installation or attachment of equipment or accessories could result in electric shock, short circuit, leaks, fire or other damage to the equipment.**
- **Consult your local dealer regarding modification, repair and maintenance of the air conditioner.**
  Improper workmanship may result in water leakage, electric shocks or fire hazards.
- **Consult your local dealer regarding relocation and reinstallation of the air conditioner.**
  Improper installation work may result in leakage, electric shocks or fire hazards.
- **Before cleaning, be sure to stop the operation, turn the breaker off or pull out the supply cord.**
  Otherwise, an electric shock and injury may result.
- **Do not operate the air conditioner with wet hands.**
  An electric shock may result.
- **Do not wash the air conditioner with water, as this may result in electric shocks or fire.**
- **Be sure to install an earth leakage breaker.**
  Failure to install an earth leakage breaker may result in electric shocks or fire.
  In order to avoid electric shock or fire, make sure that an earth leak detector is installed.
- **Consult the dealer if the air conditioner submerges owing to a natural disaster, such as a flood or typhoon.**
  Do not operate the air conditioner in that case, or otherwise a malfunction, electric shock, or fire may result.
- **Do not start or stop operating the air conditioner with the power supply breaker turned ON or OFF.**
  Otherwise, fire or water leakage may result. Furthermore, the fan will rotate abruptly if power failure compensation is enabled, which may result in injury.
- **Do not use the product in the atmosphere contaminated with oil vapour, such as cooking oil or machine oil vapour.**
  Oil vapour may cause crack damage, electric shocks, or fire.
- **Do not install the air conditioner at any place where there is a danger of flammable gas leakage.**
  In the event of a gas leakage, build-up of gas near the air conditioner may result in fire hazards.
- **Contact professional personnel about attachment of accessories and be sure to use only accessories specified by the manufacturer.**
  If a defect results from your own workmanship, it may result in water leaks, electric shock or fire.
- **Do not use the product in places with excessive oily smoke, such as cooking room, or in places with flammable gas, corrosive gas, or metal dust.**
  Using the product in such places may cause fire or product failures.
- **When the air conditioner is malfunctioning (giving off a burning odour, etc.) turn off power to the unit and contact your local dealer.**
  Continued operation under such circumstances may result in a failure, electric shocks or fire hazards.
- **Do not place flammable sprays or operate spray containers near the unit as this may result in fire.**
- **Do not clean the product with organic solvents such as paint thinner.**
  The use of organic solvents may cause crack damage to the product, electric shocks, or fire.

- **Be sure to use a dedicated power supply for the air conditioner.**
  The use of any other power supply may cause heat generation, fire, or product failures.
- **Consult your dealer regarding cleaning the inside of the air conditioner.**
  Improper cleaning may cause breakage of plastic parts, water leakage and other damage as well as electric shocks.
- **Be sure the air conditioner is electrically earthed.**
  In order to avoid electric shock, make sure that the unit is grounded and that the earth wire is not connected to gas or water pipe, lightning conductor or telephone earth wire.
- **Do not place a flower vase or anything containing water on the unit. Water may enter the unit, causing an electric shock or fire.**
- **Avoid placing the controller in a spot which can be splashed with water. Water entering the machine may cause an electric leak or may damage the internal electronic parts.**
- **Be aware that prolonged, direct exposure to cool or warm air from the air conditioner, or to air that is too cool or too warm can be harmful to your physical condition and health.**

⚠ CAUTION

- **Do not remove the outdoor unit's fan guard.**
  The guard protects against the unit's high speed fan, which may cause injury.
- **Do not place objects that are susceptible to moisture directly beneath the indoor or outdoor units.**
  Under certain conditions, condensation on the main unit or refrigerant pipes, air filter dirt or drain blockage may cause dripping, resulting in fouling or failure of the object concerned.
- **To avoid oxygen depletion, ensure that the room is adequately ventilated if equipment such as a burner is used together with the air conditioner.**
- **Do not place flammable sprays near the unit as this can cause explosions.**
- **Do not place appliances that produce naked flames in places exposed to the air flow from the unit as this may impair combustion of the burner.**
- **Do not place burners or heaters in places exposed to the air flow from the unit as this may impair combustion of the burner or heater.**
- **Do not place heaters directly below the unit, as resulting heat can cause deformation.**
- **Do not allow a child to mount on the outdoor unit or avoid placing any object on it.**
  Falling or tumbling may result in injury.
- **Do not block air inlets or outlets.**
  Impaired air flow may result in insufficient performance or trouble.
- **Arrange the drain hose to ensure smooth drainage.**
  Imperfect drainage may cause wetting of the building, furniture etc.
- **Arrange the drain hose to ensure smooth drainage.**
  Imperfect drainage may cause wetting.
- **Be sure that children, plants or animals are not exposed directly to airflow from the unit, as adverse effects may ensue.**
- **Do not wash air conditioner or user interface, causing an electric shock or fire.**
- **Do not put flammable containers, such as spray cans, within 1 m from the blow-off mouth.**
  The containers may explode because the warm air output of the outdoor unit will affect them.
- **Arrange the drain to ensure complete drainage.**
  If proper drainage from the outdoor drain pipe does not occur during air conditioner operation, there could be a blockage due to dirt and debris build-up in the pipe.
  This may result in a water leakage from the indoor unit. Under these circumstances, stop air conditioner operation and consult your dealer for assistance.
- **The appliance is not intended for use by unattended young children or infirm persons.**
  Impairment of bodily functions and harm to health may result.
- **Children should be supervised to ensure that they do not play with the unit or its user interface.**
  Accidental operation by a child may result in impairment of bodily functions and harm health.
- **To avoid injury, do not touch the air inlet or aluminium fins of the unit.**
  These fins are sharp and could result in cutting injuries.

- **Never touch the internal parts of the controller.**
  Do not remove the front panel. Touching certain internal parts will cause electric shocks and damage to the unit. Please consult your dealer about checking and adjustment of internal parts.
- **Do not leave user interface wherever there is a risk of wetting.**
  If water gets into the remote controller there is a risk of electrical leakage and damage to electronic components.
- **Turn off the main power switch when the air conditioner is not to be used for prolonged periods.**
  When the main power switch is left on, some electric power (watts) is still consumed even if the air conditioner is not operating. Therefore, switch off the main power switch to save energy. When resuming operation, to ensure smooth running, turn on the main power switch 6 hours before operating the air conditioner again.
- **Watch your steps at the time of air filter cleaning or inspection.**
  High-place work is required, to which utmost attention must be paid.
  If the scaffold is unstable, you may fall or topple down, thus causing injury.
- **Take care of scaffolding and exercise caution when working high above ground level.**
- **Do not operate with the control panel lid open.**
  If water gets inside the panel, it may result in equipment failure or electric shock.
- **Do not sit or place objects on the outdoor unit.**
  Falling yourself or objects could cause injury.
- **Do not let children play on or around the outdoor unit.**
  If they touch the unit carelessly, injury may be caused.
- **Never operate user interface buttons with hard, pointed objects.**
  This may result in remote controller damage.
- **Do not pull or twist user interface cord.**
  This may cause malfunctioning.
- **Do not use the air conditioner for purposes other than those for which it is intended.**
  Do not use the air conditioner for cooling precision instruments, food, plants, animals or works of art as this may adversely affect the performance, quality and/or longevity of the object concerned.
- **After prolonged use, check the unit stand and its mounts for damage.**
  If left in a damaged condition, the unit may fall and cause injury.
- **Do not place items which might be damaged by moisture under the indoor unit.**
  Condensation may form if the humidity is above 80%, if the drain outlet is blocked or the filter is polluted.
- **Ensure that user interface is not exposed to direct sunlight.**
  This will cause discoloration of the LCD display with resulting loss of readability.
- **Do not wipe the controller panel with benzene or other organic solvent.**
  This will cause discoloration and/or peeling.
  If the panel needs cleaning, use a damp cloth with some water-diluted neutral detergent.
  Wipe with a dry cloth afterwards.
- **Do not operate the air conditioner when using a room fumigation type insecticide.**
  Fumigation chemicals deposited in the unit could endanger the health of those who are hypersensitive to touch chemicals.

Installation Site

Regarding places for installation

- **Install the air conditioner in a well-ventilated place that is free of obstructions**
- **Do not use the air conditioner in the following kinds of places:**
  a. Where there is considerable use of mineral oil such as cutting oil
  b. Where there is much salt such as a beach area
  c. Where there is sulphur gas such as in a hot spring resort
  d. Where there are considerable voltage fluctuations such as a factory.
  e. Where there are motor vehicles or marine vessels
  f. Where there is considerable atmospheric oil such as in cooking areas
  g. Where there are machines generating electromagnetic radiation
  h. Where the air contains acidic or alkaline steam or a vapour
- **Protection against snow**
  For details, consult your dealer.

Wiring

- **All wiring must be performed by an authorized electrician.**
  Always consult your dealer about wiring.
  Never do it by yourself.

- **Only use the dedicated power supply circuit provided for this air conditioner.**

Also pay attention to operating noise.

- **Select the following kinds of location:**
  a. A place that can sufficiently withstand the weight of the air conditioner with less running noises and vibrations.
  b. A place where warm airflow from the air outlet of the outdoor unit and operating noise do not cause a nuisance to neighbours.
- **Be sure there are no obstructions near the air outlet of the outdoor unit.**
- **Obstructions may result in poor performance and increased operating noise.**
  If abnormal noise occur, ask your dealer for advise.
- **Make sure that the piping is heat insulated.**
  If the piping is frozen and broken, scalding or water leakage may result.
  Consult your installer.

System relocation

- **Consult your Daikin about remodelling and relocation.**

2. Introduction

2.1 General information

The indoor unit part of VRV heat pump system can be used for heating/cooling applications. The type of indoor unit which can be used depends on the outdoor units series.

NOTICE

For future modifications or expansions of your system:

A full overview of allowable combinations (for future system extensions) is available in technical engineering data and should be consulted. Contact your installer to receive more information and professional advice.

In general following type of indoor units can be connected to a VRV heat pump system (not exhaustive list, depending on outdoor unit model and indoor unit model combinations):

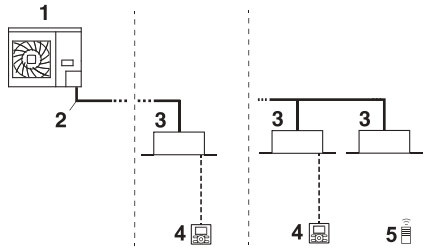
- VRV direct expansion indoor units (air to air applications).

Combination of VRV direct expansion indoor units is allowed.

For more specifications, see technical engineering data.

2.2 System layout

Your VRV heat pump series outdoor unit can be one of following models:
RXYMQ: Single non-continuous heating model.
Depending on the type of outdoor unit which is chosen, some functionality will or will not exist.
It will be indicated throughout this operation manual when certain features have exclusive model rights or not.



1 VRV outdoor unit
2 Refrigerant piping
3 VRV direct expansion indoor unit
4 User interface (dedicated depending on indoor unit type)
5 User interface (wireless, dedicated depending on indoor unit type)

3. Before operation

This operation manual is for the following systems with standard control. Before initiating operation, contact your dealer for the operation that corresponds to your system type and mark. If your installation has a customized control system, ask your dealer for the operation that corresponds to your system.

Operation modes (depending on indoor unit type):
" , " Cooling and Heating (air to air).
" " Fan only operation (air to air).
" " Dry operation.
" " Automatic operation.

Dedicated functions exist depending on the type of indoor unit, refer to dedicated installation/operation manual for more information.

4. User interface

This operation manual will give a non-exhaustive overview of the main functions of the system.

Detailed information on required actions to achieve certain functions can be found in the dedicated installation and operation manual of the indoor unit.

Refer to the operation manual of the installed user interface.

5. Operation range

Use the system in the following temperature and humidity ranges for safe and effective operation.

	❄	☀
Outdoor temperature	0~52°C DB	–20~21°C DB –20~15.5°C WB
Indoor temperature	21~32°C DB 14~25°C WB	15~27°C DB
Indoor humidity	≤80%[(a)]	

(a) To avoid condensation and water dripping out of the unit.
If the temperature or the humidity is beyond these conditions, safety devices may be put in action and the air conditioner may not operate.

Above operation range is only valid in case direct expansion indoor units are connected to the VRV system.

6. Operation procedure

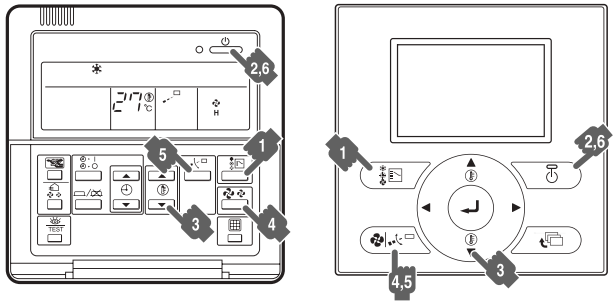
- Operation procedure varies according to the combination of outdoor unit and user interface. Read the chapter "**3. Before operation**".
- To protect the unit, turn on the main power switch 6 hours before operation.
  And do not turn off the power supply during the air conditioning season because of smoothly start up.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.

6.1 Cooling, heating, fan only, automatic operation and dry operation

- The operation mode cannot be changed with the remote controller whose display shows " " (changeover under centralized control). Change the operation mode with user interface whose display does not show " ".
- When the display " " (changeover under centralized control) flashes, refer to "**6.4 Setting the master user interface**".
- The fan may keep on running for about 1 minute after the heating operation stops for removing the heat in the indoor unit.
- The air flow rate may adjust itself depending on the room temperature or the fan may stop immediately. This is not a malfunction.

Starting the system

BRC1C62 **BRC1E62**



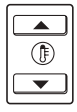
1 Press the operation mode selector button several times and select the operation mode of your choice
" " Cooling operation
" " Heating operation
" " Fan only operation
" " Dry operation
" " Automatic operation.

2 Press the ON/OFF button.
The operation lamp lights up and the system starts operation.

ADJUSTMENT
For adjustment the desired temperature, fan speed and air flow direction (only for the remote controller, follow the procedure shown below).

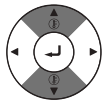
3 Press the temperature setting button

For BRC1C62



Each time this button is pressed, the temperature setting rises or lowers 1°C.

For BRC1E62



Each time this button is pressed, the temperature setting rises or lowers 1°C.

NOTE
- Set the temperature within the operation range.
- The temperature setting is impossible for fan only operation.

For BRC1C62

4 Press the fan speed control button and select the fan speed of your preference.

5 Press air flow direction adjust button.
Refer to the chapter "**6.3 Adjusting the air flow direction**" for details.

For BRC1E62

4,5 Press air flow setting button

- To select air volume or direction setting, press " ◀ ▶ " buttons.

- With air volume selected, using the " ▼▲ " buttons.

- With direction selected, using the " ▼▲ " buttons.

Stopping the system

6 Press the ON/OFF button once again.
The operation lamp goes off and the system stops operation.

NOTICE

- Do not turn off the power immediately after the unit stops, but wait for at least 5 minutes.
- The system need at least 5 minutes for residual operation of drain pump device. Turning off the power immediately will cause water leak or trouble.

Explanation of heating operation

It may take longer to reach the set temperature for general heating operation than for cooling operation.

The following operation is performed in order to prevent the heating capacity from dropping or cold air from blowing.

Defrost operation

- In heating operation, freezing of the outdoor unit's air cooled coil increases over time, restricting the energy transfer to the outdoor unit's coil. Heating capability decreases and the system needs to go into defrost operation to be able to deliver enough heat to the indoor units:
- When a RSUYQ outdoor unit is installed, the indoor unit will stop fan operation, the refrigerant cycle will reverse and energy from inside the building will be used to defrost the outdoor unit coil.
- The indoor unit will indicate defrost operation on the displays " ".

Hot start

In order to prevent cold air from blowing out of an indoor unit at the start of heating operation, the indoor fan is automatically stopped. The display of the user interface shows " ".
It may take some time before the fan starts. This is not a malfunction.

INFORMATION

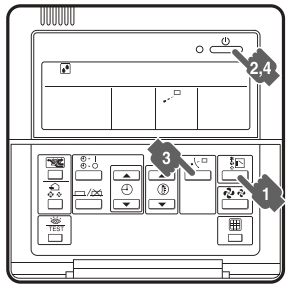
- The heating capacity drops when the outside temperature falls. If this happens, use another heating device together with the unit. (When using together with appliances that produce open fire, ventilate the room constantly).
  Do not place appliances that produce open fire in places exposed to the air flow from the unit or under the unit.
- It takes some time to heat up the room from the time the unit is started since the unit uses a hot-air circulating system to heat the entire room.
- If the hot air rises to the ceiling, leaving the area above the floor cold, we recommend that you use the circulator (the indoor fan for circulating air). Contact your dealer for details.

6.2 Program dry operation

- The function of this program is to decrease the humidity in your room with minimal temperature decrease (minimal room cooling).
- The microcomputer automatically determines temperature and fan speed
  (cannot be set by the user interface).
- The system does not go into operation if the room temperature is low (<20°C).

Starting the system

BRC1C62



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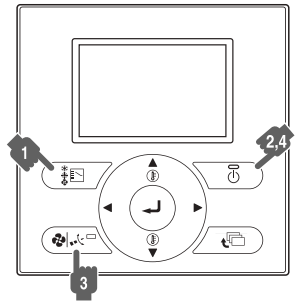


1. Press the operation mode selector button several times and select “ ” (program dry operation).
2. Press the ON/OFF button of the user interface. The operation lamp lights up and the system starts operating.
3. Press the air flow direction adjust button (only for double-flow, multi-flow, corner, ceiling-suspended and wall-mounted). Refer to “**6.3 Adjusting the air flow direction**”.

Stopping the system

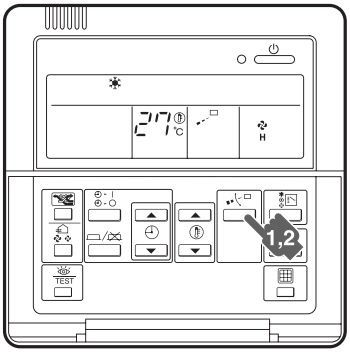
4. Press the ON/OFF button of the user interface once again. The operation lamp goes off and the system stops operating.

NOTICE

Do not turn off power immediately after the unit stops, but wait for at least 5 minutes.

6.3 Adjusting the air flow direction

For BRC1C62

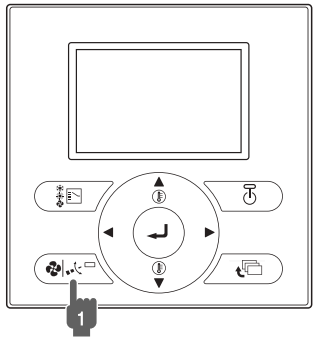


1. Press the air flow direction button to select the air direction.
   The air flow flap display swings as shown right and the air flow direction continuously varies. (Automatic swing setting)

2. Press the air flow direction adjust button to select the air direction of your choice.

   The air flow flap display stops swinging and the air flow direction is fixed. (Fixed air flow direction setting)

For BRC1E62

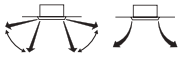


1. Press air flow setting button

- To select air volume or direction setting, press “ ◀ ▶ ” buttons.

- With direction selected, using the “ ▼ ▲ ” buttons.

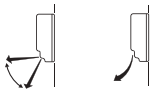
Movement of the air flow flap



Double-flow+multi-flow units

Corner units

Ceiling-suspended units



Wall-mounted units

For the following conditions, a microcomputer controls the air flow direction which may be different from the display.

COOLING	HEATING
• When the room temperature is lower than the set temperature.	• When starting operation. • When the room temperature is higher than the set temperature. • At defrost operation.
• When operating continuously at horizontal air flow direction. • When continuous operation with downward air flow is performed at the time of cooling with a ceiling-suspended or a wall-mounted unit, the microcomputer may control the flow direction, and then the user interface indication will also change.	

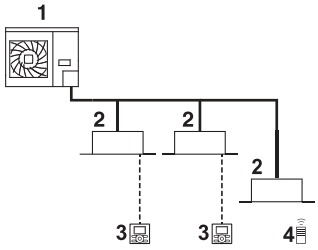
The air flow direction can be adjusted in one of the following ways:

- The air flow flap itself adjusts its position.
- The air flow direction can be fixed by the user. Automatic “ ” or desired position “ ”.

NOTICE

- The movable limit of the flap is changeable. Contact your dealer for details. (only for double-flow, multi-flow, corner, ceiling-suspended and wall-mounted).
- Avoid operating in the horizontal direction " ". It may cause dew or dust to settle on the ceiling or flap.

6.4 Setting the master user interface



1 VRV heat pump outdoor unit
2 VRV direct expansion indoor unit
3 User interface (dedicated depending on indoor unit type)
4 User interface (wireless, dedicated depending on indoor unit type)

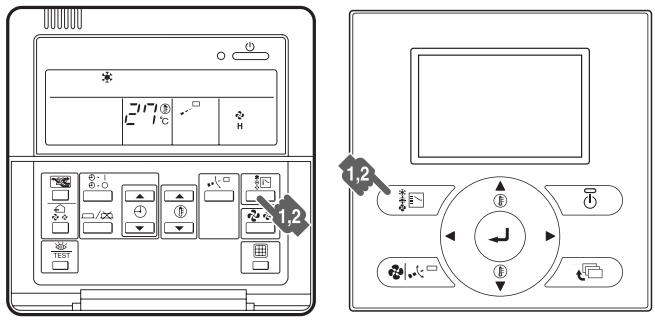
When the system is installed as shown in the figure above, it is necessary to designate one of the user interfaces as the master user interface.

The displays of slave user interfaces show " " (changeover under centralized control) and slave user interfaces automatically follow the operation mode directed by the master user interface.

Only the master user interface can select heating or cooling or fan only mode.

How to designate the master user interface

BRC1C62 **BRC1E62**



In case only VRV indoor units are connected to the VRV system:

1. Press the operation mode selector button of the current master user interface for 4 seconds. In case this procedure was not yet performed, the procedure can be executed on the first user interface operated. The display showing " " (changeover under centralized control) of all slave user interfaces connected to the same outdoor unit flashes.
2. Press the operation mode selector button of the controller that you wish to designate as the master user interface. Then designation is completed.
   This user interface is designated as the master user interface and the display showing " " (changeover under centralized control) vanishes. The displays of other user interfaces show " " (changeover under centralized control).

6.5 Precautions for group control system or two user interface control system

This system provides two other control systems beside individual control system (one user interface controls one indoor unit). Confirm the following if your unit is of the following control system type:

- **Group control system**
  One user interface controls up to 16 indoor units. All indoor units are equally set.
- **Two user interface control system**
  Two user interfaces control one indoor unit (in case of group control system, one group of indoor units). The unit is individually operated.

NOTICE

Contact your dealer in case of changing the combination or setting of group control and two user interface control systems.

INFORMATION

For another user interfaces refer to the operation manual of the operation procedure user interface.

7. Energy saving and optimum operation

Observe the following precautions to ensure the system operates properly.

- Adjust the air outlet properly and avoid direct air flow to room inhabitants.
- Adjust the room temperature properly for a comfortable environment. Avoid excessive heating or cooling.
- Prevent direct sunlight from entering a room during cooling operation by using curtains or blinds.
- Ventilate often.
  Extended use requires special attention to ventilation.
- Keep doors and windows closed. If the doors and windows remain open, air will flow out of your room causing a decrease in the cooling or heating effect.
- Be careful not to cool or heat too much.
  To save energy, keep the temperature setting at a moderate level.
- Never place objects near the air inlet or the air outlet of the unit.
  It may cause deterioration in the effect or stop the operation.
- Turn off the main power supply switch to the unit when the unit is not used for longer periods of time. If the switch is on, it consumes electricity. Before restarting the unit, turn on the main power supply switch 6 hours before operation to ensure smooth running. (Refer to “Maintenance” in the indoor unit manual.)
- When the display shows “ ” (time to clean the air filter), ask a qualified service person to clean the filters. (Refer to “Maintenance” in the indoor unit manual.)
- Keep the indoor unit and user interface at least 1 m away from televisions, radios, stereos, and other similar equipment. Failing to do so may cause static or distorted pictures.
- Do not place items under the indoor unit, they may be damaged by water.
- Condensation may form if the humidity is above 80% or if the drain outlet gets blocked.

Your system is equipped with advanced energy saving functionality. Depending on the priority emphasis can be put on energy saving or comfort level. Several parameters can be selected, resulting in the optimal balance between energy consumption and comfort for your particular application.

Several patterns are available and roughly explained below. Contact your installer or dealer for advice or to modify the parameters to the needs of your building.

Detailed information is given for the installer in the installation manual. He can help you to realize the best balance between energy consumption and comfort.

8. Maintenance

⚠ **CAUTION**

Pay attention to the fan.
It is dangerous to inspect the unit while the fan is running.

Be sure to turn off the main switch and to remove the fuses from the control circuit located in the outdoor unit.

8.1 Maintenance after a long stop period (e.g., at the beginning of the season)

- Check and remove everything that might be blocking inlet and outlet vents of indoor units and outdoor units.
- Clean air filters and casings of indoor units.[(b)] Refer to the operation manual supplied with the indoor units for details on how to proceed and make sure to install for details on how to proceed and make sure to install cleaned air filters back in the same position.
- Turn on the power at least 6 hours before operating the unit in order to ensure smoother operation. As soon as the power is turned on, the user interface display appears.

(b) Contact your dealer or maintenance person to clean air filters and casings of the indoor unit. Maintenance tips and procedures for cleaning are provided in the installation/operation manuals of dedicated indoor units.

8.2 Maintenance before a long stop period (e.g., at the end of the season)

- Let the indoor units run in fan only operation for about half a day in order to dry the interior of the units.
  Refer to "**6.1 Cooling, heating, fan only, automatic operation and dry operation**".
- Turn off the power. The user interface display disappears.
- Clean air filters and casings of indoor units. Refer to the operation manual supplied with the indoor units for details on how to proceed and make sure to install cleaned air filters back in the same position.

9. Symptoms that are not air conditioner troubles

Following symptoms are not air conditioner troubles:

9.1 The system does not operate

- The air conditioner does not start immediately after the ON/OFF button on the user interface is pressed. If the operation lamp lights, the system is in normal condition. To prevent overloading of the compressor motor, the air conditioner starts 5 minutes after it is turned ON again in case it was turned OFF just before.
  The same starting delay occurs after the operation mode selector button was used.
- If "Under Centralized Control" is displayed on the user interface and pressing the operation button causes the display to blink for a few seconds indicating that the central device is controlling the unit. The blinking display indicates that the user interface cannot be used.
- The system does not start immediately after the power supply is turned on. Wait one minute until the microcomputer is prepared for operation.

9.2 Fan operation is possible, but cooling/heating do not work

- Immediately after the power is turned on.
  The microcomputer is getting ready to operate and is performing a communication check with all indoor units. Please wait 12 minutes (max.) till this process is finished.

9.3 The fan strength does not correspond to the setting

- The fan speed does not change even if the fan speed adjustment button is pressed. During heating operation, when the room temperature reaches the set temperature, the outdoor unit goes off and the indoor unit changes to whisper fan speed. This is to prevent cold air blowing directly on occupants of the room. The fan speed will not change even if the button is pressed, when another indoor unit is in heating operation.

9.4 The fan direction does not correspond to the setting

- The fan direction does not correspond with the user interface display. The fan direction does not swing. This is because the unit is being controlled by the microcomputer.

9.5 White mist comes out of a unit

1 Indoor unit
- When humidity is high during cooling operation If the interior of an indoor unit is extremely contaminated, the temperature distribution inside a room becomes uneven. It is necessary to clean the interior of the indoor unit. Ask your dealer for details on cleaning the unit. This operation requires a qualified service person.
- Immediately after the cooling operation stops and if the room temperature and humidity are low. This is because warm refrigerant gas flows back into the indoor unit and generates steam.

2 Indoor unit, outdoor unit
- When the system is changed over to heating operation after defrost operation. Moisture generated by defrost becomes steam and is exhausted.

9.6 The user interface display reads “U4” or “U5” and stops, but then restarts after a few minutes

- This is because the user interface is intercepting noise from electric appliances other than the air conditioner. The noise prevents communication between the units, causing them to stop. Operation automatically restarts when the noise ceases.

9.7 Noise of air conditioners

1 Indoor unit
- A “zeen” sound is heard immediately after the power supply is turned on.
  The electronic expansion valve inside an indoor unit starts working and makes the noise. Its volume will reduce in about one minute.
- A continuous low “shah” sound is heard when the system is in cooling operation or at a stop.
  When the drain pump (optional accessories) is in operation, this noise is heard.
- A low “sah”, “choro-choro” sound is heard while the indoor unit is stopped.
  When the other indoor unit is in operation, this noise is heard. In order to prevent oil and refrigerant from remaining in the system, a small amount of refrigerant is kept flowing.
- A “pishi-pishi” squeaking sound is heard when the system stops after heating operation.
  Expansion and contraction of plastic parts caused by temperature change make this noise.

2 Indoor unit, outdoor unit
- A continuous low hissing sound is heard when the system is in cooling or defrost operation.
  This is the sound of refrigerant gas flowing through both indoor and outdoor units.
- A hissing sound which is heard at the start or immediately after stopping operation or defrost operation.
  This is the noise of refrigerant caused by flow stop or flow change.

3 Outdoor unit
- When the tone of operating noise changes. This noise is caused by the change of frequency.

9.8 Dust comes out of the unit

- When the unit is used for the first time in a long time. This is because dust has gotten into the unit.

9.9 The units can give off odours

- The unit can absorb the smell of rooms, furniture, cigarettes, etc., and then emit it again.

9.10 The outdoor unit fan does not spin

- The speed of the fan is controlled in order to optimise product operation.

9.11 The display shows “ 88 ”

- This is the case immediately after the main power supply switch is turned on and means that the user interface is in normal condition. This continues for one minute.

9.12 The compressor in the outdoor unit does not stop after a short heating operation

- This is to prevent oil and refrigerant from remaining in the compressor. The unit will stop after 5 to 10 minutes.

9.13 The inside of an outdoor unit is warm even when the unit has stopped

- This is because the crankcase heater is warming the compressor so that the compressor can start smoothly.

9.14 Does not cool very well

- Program dry operation.
  Program dry operation is designed to lower the room temperature as little as possible refer to “**6.2 Program dry operation**”.

9.15 Hot air can be felt when the indoor unit is stopped

- Several different indoor units are being run on the same system. When another unit is running, some refrigerant will still flow through the unit.

10. Troubleshooting

If one of the following malfunctions occur, take the measures shown below and contact your dealer.

⚠ **WARNING**

Stop operation and shut off the power if anything unusual occurs (burning smells etc.)

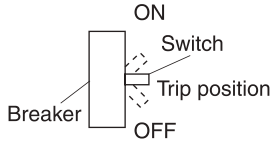
Leaving the unit running under such circumstances may cause breakage, electric shock or fire. Contact your dealer.

The system must be repaired by a qualified service person :

- If a safety device such as a fuse, a breaker or an earth leakage breaker frequently actuates or the ON/OFF switch does not properly work.
  Measure: Turn off the main power switch.
- If water leaks from the unit.
  Measure: Stop the operation.
- The operation switch does not work well.
  Measure: Turn off the power.
- If the user interface display " TEST " indicates the unit number, the operation lamp flashes and the malfunction code appears.
  Measure: Notify your installer and report the malfunction code.

If the system does not properly operate except for the above mentioned cases and none of the above mentioned malfunctions is evident, investigate the system according to the following procedures. If it is impossible to fix the problem yourself after checking all the above items, contact your dealer.
Let him know the symptoms, system name, and model name (listed on the warranty card).

1 If the system does not operate at all:
   - Check if there is no power failure.
     Wait unit power is restored. If power failure occurs during operation, the system automatically restarts immediately after the power supply is recovered.
   - Check if no fuse has blown or breaker has worked. Change the fuse or reset the breaker if necessary.
     Turn the power on with the breaker switch in the off position.
     Do not turn the power on with the breaker switch in the trip position.
     (Contact your dealer.)



2 If the system goes into fan only operation, but as soon as it goes into cooling operation, the system stops:
   - Check if air inlet or outlet of outdoor or indoor unit is not blocked by obstacles. Remove any obstacle and make it well-ventilated. Check if the user interface display shows " " time to clean the air filter). Refer to "the operation manual of the indoor unit and clean the air filter".

3 The system operates but cooling or heating is insufficient:
   - Check if air inlet or outlet of outdoor or indoor unit is not blocked by obstacles.
   - Remove any obstacle and make it well-ventilated.
   - Check if the air filter is not clogged (refer to "Maintenance" in the indoor unit manual).
   - Check the temperature setting.
   - Check the fan speed setting on your user interface.
   - Check for open doors or windows. Shut doors and windows to prevent wind from coming in.
   - Check if there are too many occupants in the room during cooling operation. Check if the heat source of the room is excessive.
   - Check if direct sunlight enters the room. Use curtains or blinds.
   - Check if the air flow angle is proper.

If the checking all above items, it is impossible to fix the problem yourself, contact your installer and state the symptoms, the complete model name of the air conditioner (with manufacturing number if possible) and the installation date (possibly listed on the warranty card).

11. After-sales service

11.1 After-sales service

11.1.1 Recommendations for maintenance and inspection

Since dust collects when using the unit for several years, performance of the unit will deteriorate to some extent. As taking apart and cleaning interiors of units requires technical expertise and in order to ensure the best possible maintenance of your units, we recommend to enter into a maintenance and inspection contract on top of normal maintenance activities. Our network of dealers has access to a permanent stock of essential components in order to keep your air conditioner in operation as long as possible. Contact your dealer for more information.

When asking your dealer for an intervention, always state :

- The complete model name of the air conditioner.
- The manufacturing number (stated on the nameplate of the unit).
- The installation date.
- The symptoms or malfunction, and details of the defect.

⚠ **WARNING**

- Do not modify, disassemble, remove, reinstall or repair the unit yourself as incorrect dismantling or installation may cause an electric shock or fire. Contact your dealer.
- In case of accidental refrigerant leaks, make sure there are no naked flames. The refrigerant itself is entirely safe, non-toxic and non-combustible, but it will generate toxic gas when it accidentally leaks into a room where combustible air from fan heaters, gas cookers, etc. is present. Always have qualified service personnel confirm that the point of leakage has been repaired or corrected before resuming operation.
- Do not remove or reinstall the unit by yourself. Incorrect installation may cause electrical shock or fire. Contact your dealer.

11.1.2 Recommended inspection and maintenance cycles

Be aware that the mentioned maintenance and replacement cycles do not relate to the warranty period of the components.

Table 1 assumes the following conditions of use:

- Normal use without frequent starting and stopping of the unit.
  Depending on the model, we recommend not starting and stopping the machine more than 6 times/hour.
- Operation of the unit is assumed to be 10 hours/day and 2,500 hours/year.

Table 1*: “Inspection Cycle” and “Maintenance Cycle” list

Component	Inspection cycle	Maintenance cycle (replacements and/or repairs)
Electric motor (fan, damper, etc.)	1 year	20,000 hours
PCB boards		25,000 hours
Heat exchanger		5 years
Sensor (thermistor, etc.)		5 years
User interface and switches		25,000 hours
Drain pan		8 years
Expansion valve		20,000 hours
Electromagnetic valve		20,000 hours

*Actual inspection and maintenance cycle also depends on installation site

NOTICE

- Table 1 indicates main components. Refer to your maintenance and inspection contract for more details.
- Table 1 indicates recommended intervals of maintenance cycles. However, in order to keep the unit operational as long as possible, maintenance work may be required sooner. Recommended intervals can be used for appropriate maintenance design in terms of budgeting maintenance and inspection fees. Depending on the content of the maintenance and inspection contract, inspection and maintenance cycles may in reality be shorter than listed.

11.2 Shortening of “maintenance cycle” and “replacement cycle” needs to be considered in following situations

The unit is used in locations where:

- Heat and humidity fluctuate out of the ordinary.
- Power fluctuation is high (voltage, frequency, wave distortion, etc.) (the unit cannot be used if power fluctuation is outside the allowable range).
- Bumps and vibrations are frequent.
- Dust, salt, harmful gas or oil mist such as sulphurous acid and hydrogen sulphide may be present in the air.
- The machine is started and stopped frequently or operation time is long (sites with 24 hour air conditioning).

Recommended replacement cycle of wear parts
Table 2*: “Replacement Cycle” list

Component	Inspection cycle	Maintenance cycle (replacements and/or repairs)
Air filter	1 year	5 years
High efficiency filter (Optional accessory)		1 year
Fuse		10 years
Crankcase heater		8 years

*Actual maintenance cycle also depends on installation site

NOTICE

- Table 2: “Replacement Cycle” list indicates main components. Refer to your maintenance and inspection contract for more details.
- Table 2: “Replacement Cycle” list indicates recommended intervals of replacement cycles. However, in order to keep the unit operational as long as possible maintenance work may be required sooner.
  Recommended intervals can be used for appropriate maintenance design in terms of budgeting maintenance and inspection fees. Contact your dealer for details.

INFORMATION

Damage due to taking apart or cleaning interiors of units by anyone other than our authorized dealers may not be included in the warranty.

Moving and discarding the unit

- Contact your dealer for removing and reinstalling the total unit. Moving units requires technical expertise.
- This unit uses hydrofluorocarbon. Contact your dealer when discarding this unit. It is required by law to collect, transport and discard the refrigerant in accordance with the “hydrofluorocarbon collection and destruction” regulations.

11.3 Malfunction codes

In case a malfunction code appears on the indoor unit user interface display, contact your installer and inform the malfunction code, the unit type, and serial number (you can find this information on the nameplate of the unit).

For your reference, a list with malfunction codes is provided. You can, depending on the level of the malfunction code, reset the code by pushing the ON/OFF button. If not, ask your installer for advice.

Malfunction code Main code	Contents
A0	External protection device was activated
A1	EEPROM failure (indoor)
A3	Drain system malfunction (indoor)
A6	Fan motor malfunction (indoor)
A7	Swing flap motor malfunction (indoor)
A9	Expansion valve malfunction (indoor)
AF	Drain malfunction (indoor unit)
AH	Filter dust chamber malfunction (indoor)
AJ	Capacity setting malfunction (indoor)
C1	Transmission malfunction between main PCB and sub PCB (indoor)
C4	Heat exchanger thermistor malfunction (indoor; liquid)
C5	Heat exchanger thermistor malfunction (indoor; gas)
C9	Suction air thermistor malfunction (indoor)
CA	Discharge air thermistor malfunction (indoor)
CE	Movement detector or floor temperature sensor malfunction (indoor)
CJ	User interface thermistor malfunction (indoor)
E1	PCB malfunction (outdoor)
E3	High pressure switch was activated
E4	Low pressure malfunction (outdoor)
E5	Compressor lock detection (outdoor)
E6	Compressor damage alarm
E7	Fan motor malfunction (outdoor)
E9	Electronic expansion valve malfunction (outdoor)
F3	Discharge temperature or overload protector was activated (outdoor)
F4	Abnormal suction temperature (outdoor)
F6	Refrigerant overcharge detection
H3	High pressure switch was activated
H5	Overload protector malfunction
H7	Fan motor trouble (outdoor)
H9	Ambient temperature sensor malfunction (outdoor)
J1	Pressure sensor malfunction
J3	Discharge temperature sensor malfunction (outdoor)
J5	Suction temperature sensor malfunction (outdoor)
J6	De-icing temperature sensor malfunction (outdoor)
J7	Liquid temperature sensor (after subcool HE) malfunction (outdoor)
J8	Liquid temperature sensor (coil) malfunction (outdoor)

Malfunction code Main code	Contents
J9	Gas temperature sensor (after subcool HE) malfunction (outdoor)
JA	High pressure sensor malfunction (S1NPH)
JC	Low pressure sensor malfunction (S1NPL)
L1	INV circuit abnormal
L4	Fin temperature abnormal
L5	INV circuit faulty
L8	Compressor over current detected
L9	INV compressor startup abnormal
LC	INV circuit transmission trouble
P1	INV unbalanced power supply voltage
P2	Autocharge operation related
P4	Fin thermistor malfunction
P8	Autocharge operation related
P9	Autocharge operation related
PJ	Capacity setting malfunction (outdoor)
U0	Refrigerant shortage warning
U2	INV voltage power shortage
U3	System test run not yet executed
U4	Faulty wiring indoor/outdoor
U5	Abnormal user interface - indoor communication
U8	Abnormal main-sub user interface communication
U9	System mismatch. Wrong type of indoor units combined. Indoor unit malfunction.
UA	Connection malfunction over indoor units or type mismatch
UC	Centralized address duplication
UE	Malfunction in communication centralized control device - indoor unit
UF	Auto address malfunction (inconsistency)
UH	Auto address malfunction (inconsistency)

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The two-dimensional bar code is a manufacturing code.

3P643537-2

DAIKIN 2P633133-1

Installation Manual (2)

Be sure to read this manual before installation and follow the instructions contained in it

The two-dimensional bar code is a manufacturing code.

Installation location

<Precautions to side-by-side installation>

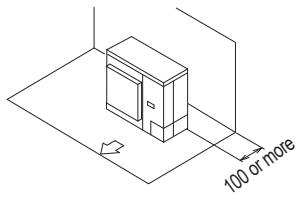
- In the figure below, the connection piping is lead out from the front, the bottom, or the side.
  An interspace of over 100mm should be kept when installing side-by-side.
  To lead out the piping from the back, the interspace of over 250mm should be kept on the right side of the outdoor unit.
  (unit : mm)

(A) Where there is an obstacle on the suction side:

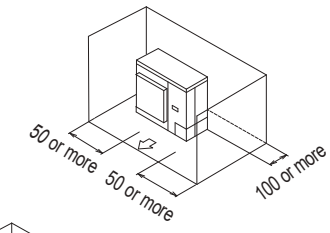
• No obstacle above

① **Stand-alone installation**

- Obstacle on the suction side only

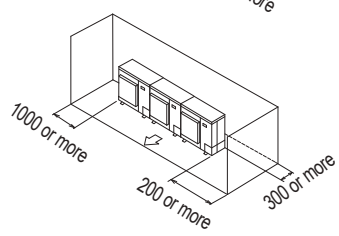


- Obstacle on both sides



② **Series installation (2 or more)**

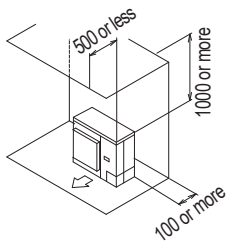
- Obstacle on both sides



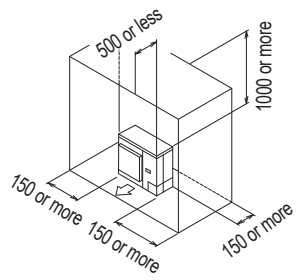
• Obstacle above,too

① **Stand-alone installation**

- Obstacle on the suction side,too

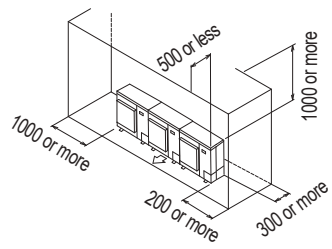


- Obstacle on the suction side and both sides



② **Series installation (2 or more)**

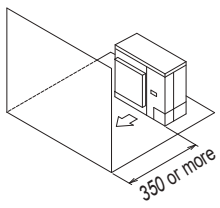
- Obstacle on the suction side and both sides



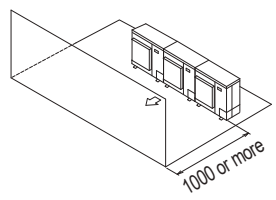
(B) Where there is an obstacle on the discharge side:

• No obstacle above

① **Stand-alone installation**

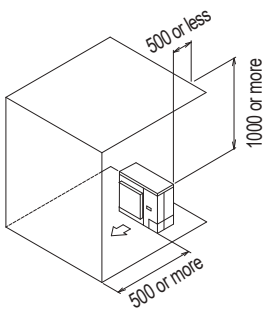


② **Series installation (2 or more)**

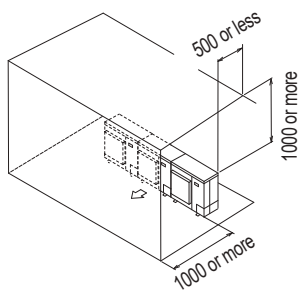


• Obstacle above,too

① **Stand-alone installation**



② **Series installation (2 or more)**

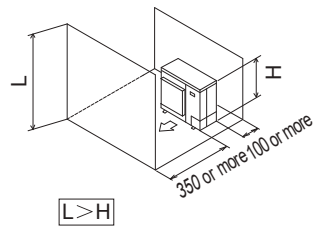


(C) Where there are obstacles on both suction and discharge sides:

Pattern 1 Where the obstacles on the discharge side is higher than the unit: (There is no height limit for obstructions on the intake side.)

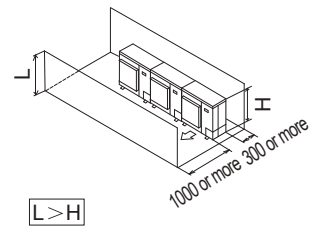
• No obstacle above

① **Stand-alone installation**



L>H

② **Series installation (2 or more)**



L>H

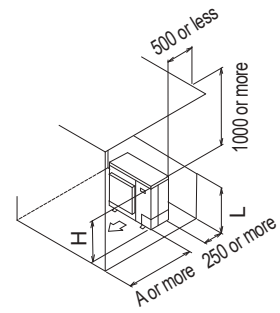
• Obstacle above,too

① **Stand-alone installation**

The relations between H, A and L are as follows:

	L	A
L≤H	0<L≤1/2H	750
	1/2H<L≤H	1000
H<L	Set the stand as: L≤H.	

(Note) Close the bottom of the installation frame to prevent the discharged air from being bypassed.

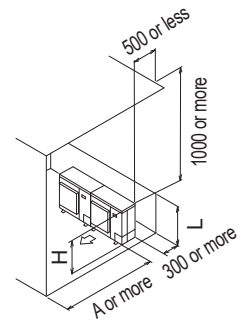


② **Series installation (2 or more)**

The relations between H, A and L are as follows:

	L	A
L≤H	0<L≤1/2H	1000
	1/2H<L≤H	1250
H<L	Set the stand as: L≤H.	

(Note1) Close the bottom of the installation frame to prevent the discharged air from being bypassed.
(Note2) Only two units can be installed for this series.

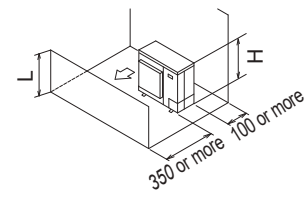


Pattern 2 Where the obstacles on the discharge side is lower than the unit: (There is no height limit for obstructions on the intake side.)

• No obstacle above

① **Stand-alone installation**

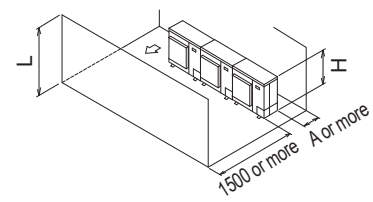
L≤H



② **Series installation (2 or more)**

The relations between H, A and L are as follows:

L	A
0<L≤1/2H	250
1/2H<L≤H	300



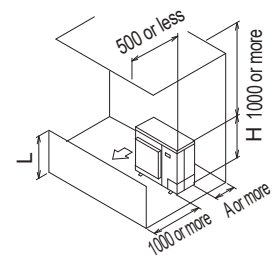
• Obstacle above,too

① **Stand-alone installation**

The relations between H, A and L are as follows:

	L	A
L≤H	0<L≤1/2H	100
	1/2H<L≤H	200
H<L	Set the stand as: L≤H.	

(Note) Close the bottom of the installation frame to prevent the discharged air from being bypassed.

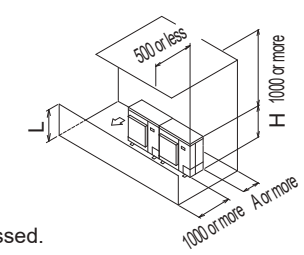


② **Series installation (2 or more)**

The relations between H, A and L are as follows:

	L	A
L≤H	0<L≤1/2H	250
	1/2H<L≤H	300
H<L	Set the stand as: L≤H.	

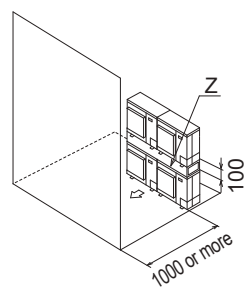
(Note1) Close the bottom of the installation frame to prevent the discharged air from being bypassed.
(Note2) Only two units can be installed for this series.



(D) Double-decker installation

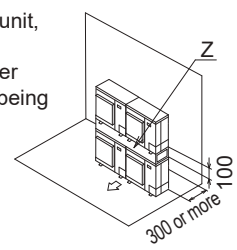
① **Obstacle on the discharge side**

(Note 1) Up to 2 layers can be overlapped.
(Note 2) For the drain pipe installation of the upper outdoor unit, the interspace of 100mm around is needed.
(Note 3) Seal Z part (interspace between the upper and lower outdoor units) to prevent the exhaust bypass from being formed.



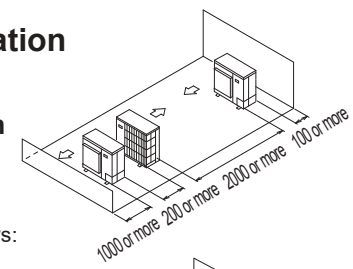
② **Obstacle on the suction side**

(Note 1) Up to 2 layers can be overlapped.
(Note 2) For the drain pipe installation of the upper outdoor unit, the interspace of 100mm around is needed.
(Note 3) Seal Z part (interspace between the upper and lower outdoor units) to prevent the exhaust bypass from being formed.



(E) Multiple rows of series installation (on the rooftop, etc.)

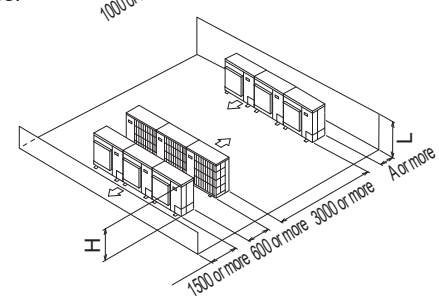
① **One row of stand-alone installation**



② **Rows of series installation (2 or more)**

The relations between H, A and L are as follows:

	L	A
L≤H	0<L≤1/2H	250
	1/2H<L≤H	300
H<L	Cannot be installed.	



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DAIKIN

The two-dimensional bar code is a manufacturing code.

INSTALLATION MANUAL (1)

RXYMQ6ARV16

Be sure to read this manual before installation and conduct installation according to this manual.

1. This series air conditioner uses R410A refrigerant. Strictly observe the precautions under the 6 Refrigerant piping connection as there are strict requirements for how to prevent entry of impurities (mineral oils such as specialized lubricating oil and moisture) for R410A.
- **Clean and dry**
  Strict measures must be taken to keep impurities (including SUNISO oil and other mineral oils as well as moisture) out of the system.
- **Tightly sealed**
  R410A contains no chlorine, does not destroy the ozone layer and so does not reduce the earth's protection against harmful ultraviolet radiation. R410A will contribute only slightly to the greenhouse effect if released into the atmosphere.

2. Since the design pressure is 4.0MPa, refer to the 6 Refrigerant piping connection for selection of pipe thickness.

3. Since R410A is a mixed refrigerant, it must be charged in liquid phase. (If the refrigerant is charged in gaseous phase, its composition can change and the system may not work properly.)

4. Be sure to connect a special indoor unit for R410A. Refer to the product catalogue for the model names of the indoor units which can be connected with this unit. (If connected with other indoor units, the air conditioning system will not operate normally.)

5. Power voltage of this series product is single-phase 220-240V, 50Hz.

Please read the these "SAFETY PRECAUTIONS" carefully before installing air conditioning unit and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation.

- Please instruct the customer on how to operate the unit and keep it maintained.
- The precautions described herein are classified as WARNING and CAUTION, following which is the important safety information, it is strongly recommended to observe.
- This air conditioner comes under the term "appliances not accessible to the general public".
- Meaning of WARNING and CAUTION notices.

⚠ WARNING	Improper handling may result in major accidents such as death and serious injury.
⚠ CAUTION	Improper handling may result in injury or property damage, or even serious consequence under some circumstances.

- After completing installation, perform a test run to check for normal operation and explain to the customer how to operation and maintain the air conditioner.
  In addition, ask the customer to keep this installation manual together with the operation manual for future reference.
- Also, inform customers that they should store this installation manual along with the operation manual for future reference.

⚠ WARNING

Ask the dealer or specialized personnel to carry out the installation work.
Do not install the machine by yourself. Otherwise, it may result in water leakage, electric shocks or fire hazards.

Perform installation work following the instructions contained in this manual.
Improper installation may result in water leakage, electric shocks or fire hazards.

When installing the units in a small room, take proper measures to ensure the amount of any leaked refrigerant under the concentration limit in the event of refrigerant leakage. Contact your dealer for appropriate measures.
Excessive refrigerant concentration in a closed ambient space may result in oxygen deficiency.

Be sure to use the specified accessories and parts for installation.
Failure to use the specified parts may result in water leakage, electric shocks, fire hazards or the unit failing to operate normally.

Install the unit on a solid foundation which can withstand the weight of the unit.
A foundation of insufficient strength may result in the unit falling and causing injuries.

Install the unit at designated places by taking into consideration strong winds such as typhoons and earthquakes.
Improper installation may result in the unit falling and causing accidents.

Make sure that all electrical work is carried out by the specialized personnel in accordance with local laws and regulations and this manual, and a special power supply circuit is provided for the unit.
An insufficient power supply circuit capacity or improper electrical operation may lead to electric shocks or fire hazards.

Use the specified wires and attach them securely, with no external forces acting on the terminal connections or wires.
Improper connections or securing of wire may result in abnormal heat build-up or fire hazards.

When connecting the indoor and outdoor units and the power supply wiring, to avoid the service lid being protruded and deformed, lay the wires in a smooth and regular way to attach the shell plate properly.
Otherwise, the terminals will give out heat and may result in electric shocks and fire hazards.

If refrigerant leakage occurs during installation, immediately open the windows and doors for ventilation.
Gaseous refrigerant will produce toxic gas if it comes into contact with fire.

After installation is completely finished, check for refrigerant leakage.
If the refrigerant leaks inside the room, it may generate noxious gas if in contact with the fire of an air heater, burner or cooker, etc.

Do not touch the electrical parts when the unit is powered on.

After completing installation, make sure that no residual voltage exists on the live parts (such as the terminals of earth leakage circuit breakers and terminal blocks) before operating the breakers such as changing.

Consult your local dealer regarding what to do in case of refrigerant leakage.
When the air conditioner is to be installed in a small room, it is necessary to take proper measures so that the amount of any leaked refrigerant does not exceed the concentration limit in the event of a leakage.
Otherwise, this may lead to an accident due to oxygen depletion.

Do not directly touch refrigerant that has leaked from refrigerant pipes or other areas, as there is a danger of frostbite.

Do not allow children to climb on the outdoor unit and avoid placing objects on the unit.
Injury may result if the unit becomes loose and falls.

⚠ CAUTION

Be sure to earth the unit.
Do not connect the earth wire to gas pipes, water pipes, lightning rods or telephone earth wires.
- Gas pipes – gas leaks can cause explosion or fire.
- Water pipes – cannot be grounded if hard vinyl pipes are used.
- Lightning rods or telephone earth wires – the ground potential when struck by lightning gets extremely high.

Be sure to install a branch circuit breaker, over current circuit breaker (fuse) and earth leakage circuit breaker.
Failure to do so may result in electric shocks and fire hazards.

Install the drain piping according to the installation manual to ensure proper drainage, then insulate the piping to prevent condensation from accumulating. Improper drain piping installation may result in water leakage and household items wet.

Keep the indoor unit, outdoor unit, power wiring and transmission wiring at least 1m away from televisions and radios to prevent image or noise interference. (A distance of 1m or more may not be sufficient to eliminate the noise in the case of strong radio wave.)

Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit as far away from fluorescent lamps as possible.

Make sure to provide for adequate measures in order to prevent that the outdoor unit be used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke or fire. Please instruct the customer to keep the area around the unit clean.

Do not install the air conditioner in the following locations:
(a) Where mineral oil mist, oil spray or vapour is produced, for example, in a kitchen.
Plastic parts may be aged and damaged, and result in water leakage.
(b) Where corrosive gas, such as sulphurous acid gas, is produced.
Corroding copper pipes or soldered parts may result in refrigerant leakage.
(c) Near machinery emitting electromagnetic waves.
Electromagnetic waves may disturb the operation of the control system and cause the unit malfunction.
(d) Where flammable gas may leak, where there is air borne carbon fibre or ignitable dust, or where volatile flammables such as gasoline or thinner are placed. Operating the unit in such conditions may result in fire hazards.
(e) Do not install the outdoor unit at the place where there is a shelter of the small animals.
Once in the unit, leaves and small animals making contact with the electrical parts can cause malfunction, smoke or fire.
Ask the customer to maintain a clean and tidy environment around the outdoor unit.

Do not climb up the outdoor unit or place objects on it. Falling or tumbling may result in injury.

Do not wash the outdoor or indoor units with water. Otherwise, it may cause electric shocks and fire hazards.

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Disposal requirements
Dismantling of the unit, treatment of the refrigerant, of oil and of other parts must be done in accordance with relevant local and national legislation.

[Note]
- **For how to install the indoor unit and the remote controller, refer to the installation manual of each equipment.**

1 Introduction

Combination

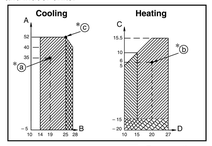
The indoor units can be connected in the following range.

- **Be sure to install the dedicated indoor units.**
  Refer to the product catalogue for the model names of the indoor units which can be connected with this unit.
- Combination capacity ratio and number of the indoor units.

Outdoor unit	Combination	Combination capacity ratio (%)	Maximum number of indoor unit
RXYMQ6ARV16	VRV only	50~130	9

Standard operation range

The values below are the supposed working environment for the outdoor and indoor units:



Equivalent piping length...7.5m
Difference in height.....0m

A	Outdoor temperature (°CDB)
B	Indoor temperature (°CWB)
C	Outdoor temperature (°CWB)
D	Indoor temperature (°CDB)

Range for continuous operation
Range for pull down operation
Range for warming up operation
Possible operation range (Out of unit capability guaranteed)

Technical specifications

For operation conditions *ⓐ, *ⓑ in the table below, refer to the operation range (above figure).

Model			RXYMQ6ARV16	Remark
Refrigerant			R410A	
Cooling capacity		kW	16.0	*ⓐ
Heating capacity		kW	18.0	*ⓑ
Cooling input		kW	4.10	*ⓐ
Heating input		kW	3.98	*ⓑ
Dimensions (H × W × D)		mm	870 × 1100 × 460	
Connection piping	Gas side	inch mm	3/4 Ø19.1	
	Liquid side	inch mm	3/8 Ø9.5	

Electrical specifications

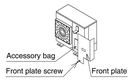
For operation conditions *ⓒ in the table below, refer to the operation range (above figure).

Model			RXYMQ6ARV16	Remark
Power supply	Phase		~	
	Voltage	V	220-240	
	Frequency	Hz	50	
	Allowable voltage fluctuation	%	±10	
	Fuse rated current	A	30	
Outdoor unit maximum running current		A	27.0	*ⓒ

Accessories

Check if the following accessories are supplied with the unit.
(Remove the front plate and they are in the accessory bag)

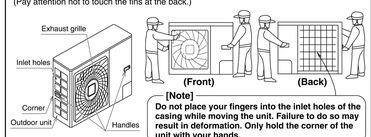
Operation manual	Buckle	Ferrite core
(1 pc.)	(1 pc.)	(1 pc.)



Auxiliary pipe (1)	Others
(1 pc.)	• Installation manual (2 pcs.) • Screw (1 pc.)

2 Before installation

[About carrying]
Hold the 2 handles at both sides as shown in the figure below and move it slowly.
(Pay attention not to touch the fins at the back.)



[Note]
Do not place your fingers into the inlet holes of the casing while moving the unit. Failure to do so may result in deformation. Only hold the corner of the unit with your hands.

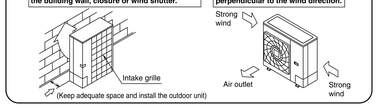
- Use the accessories or the specified parts to install the required parts.

3 Selecting installation location

1) Select a location for installation that meets the following conditions and get the customer's approval.
- Good ventilation.
- Not disturbing the neighbours.
- No shelters of the small animals.
- Solid enough to support the weight and vibration of the unit which can be placed horizontally.
- Able to avoid raining as much as possible.
- Adequate space kept around the unit for installation.
- Outdoor piping and wiring within the allowable length range.
- No risk of flammable gas leaks.

2) When installing in locations where there is a possibility of strong wind, take the following measures.
- If the strong wind with speed over 5m/s blowing to the exhaust side of the outdoor unit, the decreased air flow rate and re-absorbed exhausted gas (short circuit) etc. by the outdoor unit will lead to:
  - Decreased capability
  - Increased frost during heating
  - Operation stopped as high pressure increases
- Excessive strong wind continually blowing to the front exhaust side of the outdoor unit will result in the fan reversing at a high speed and being damaged. Refer to the figure below for installation.

Install the outdoor unit with the air outlet facing the building wall, closure or wind shutter. | **Make the exhaust direction perpendicular to the wind direction.**

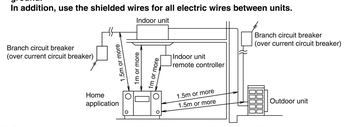


3) When installing in locations where there is heavy snowfall, take the following measures.
- Block up the base.
- Install snow hoods (field supply).
- Remove the rear suction grille to prevent snow from accumulating on the fins.

4) If there is a risk of short circuit for the outdoor unit in the ambient environment, use air flow direction adjustment plate (optional accessory).

5) The refrigerant gas (R410A) is nontoxic, non-flammable and safe. It is necessary to take measures against to keep refrigerant concentration from exceeding allowable safety limits in a small room in the event of refrigerant leakage.

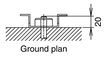
6) An inverter air conditioner may cause home appliances produce noise.
When selecting the location for installation, keep the air conditioner and wiring a proper distance away from radios, computers and stereo equipment as shown in the following figure.
Particularly for location with weak wave reception, be sure to keep a distance of at least 3m between the indoor unit and the remote controllers and place the power supply wiring and transmission wiring in conduits, and connect the conduits to the ground.
In addition, use the shielded wires for all electric wires between units.



7) For the installation locations, refer to the installation manual (2).

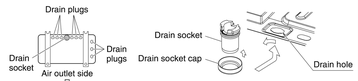
4 Precautions during installation

- To prevent vibration and noise, check the foundation is solid and level before installation.
- As shown in the following figure, firmly secure the unit to a stable base using anchor bolts. (Use four sets of commercially-available W12 anchor bolts, nuts and washers.)
- The section of the anchor bolts above the base 20mm in length is the most appropriate. (Refer to the figure below)



[About drainage handling]
- Perform drain pipe installation work using the optional drain plug if the drainage from the outdoor unit may lead to problems (such as water drained from the outdoor unit dripping down to the pedestrians).
- It is necessary to keep an interspace 100mm or more under the air conditioner leg in order to handle the drainage.
- Make sure the drain functions properly.
  (Beware of water leaks if the piping is brought out from the bottom.)

- Drain plugs are not supplied with the unit. They are commercially-available, so you can purchase them separately.



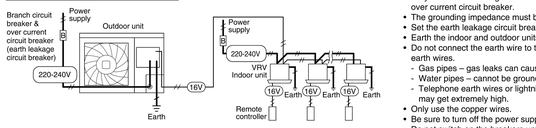
1) Insert the drain plugs into the drain holes of the bottom flame.
2) Attach drain socket cap to drain socket.
3) Insert drain socket to drain hole by turning about 40° to install it to the bottom flame.

5 Electrical wiring

⚠CAUTION To those doing electrical work
- **Do not operate the unit before completing refrigerant piping connection. (Failure to do so will result in compressor malfunction.)**
- **Install the earth leakage circuit breaker. (Since this unit is equipped with an inverter, to prevent malfunction of the earth leakage circuit breaker itself, select the breaker that be capable of handling high harmonics.)**

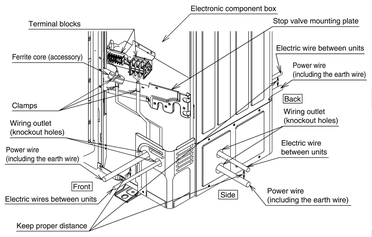
5-1. Example of whole system wiring connection

If connected to a system without a BP unit



Transmission wiring (shielded wire) (16V)
Power supply wiring (sheathed cable) (220-240V) Power supply + Transmission wiring for indoor units

- The electrical wiring must be installed by the trained electricians.
- Perform wiring connection in accordance with "Wiring Diagram Label".
  Only conduct the wiring connection after turning of the branch circuit breaker and the over current circuit breaker.
- The grounding impedance must be 4Ω or less.
- Set the earth leakage circuit breaker.
- Earth the indoor and outdoor units.
- Do not connect the earth wire to the gas pipes, water pipes, lightning rods or telephone earth wires.
  - Gas pipes – gas leaks can cause explosion or fire.
  - Water pipes – cannot be grounded if hard vinyl pipes are used.
  - Telephone earth wires or lightning rods – the ground potential when struck by lightning may get extremely high.
- Only use the copper wires.
- Be sure to turn off the power supply before performing the electrical wiring work.
  Do not switch on the breakers until all wiring work being completed.



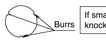
⚠ WARNING:
After the fuse is blown, ask the serving agency to replace it.
Do not replace the fuse by yourself. Otherwise, it may cause accidents such as electric shock.

- Install the earth leakage circuit breaker.
  (Since this unit is equipped with an inverter, to prevent malfunction of the earth leakage circuit breaker itself, select the breaker that be capable of handling high harmonics.)
- Since this product is equipped with an inverter, harmonics will be generated. If local laws require the suppression of harmonics on the building, please take harmonic suppression measures on the electrical equipment side.
  Connect the power wiring and the power supply terminal blocks as shown in the following figure and tighten the clamps.
  Fuse models of the outdoor unit see "Wiring Diagram label" for details:
  F2U, F3U (T6.3A/250V)

5-2. Precautions for routed power wiring and transmission wiring

Route the power wiring (including the earth wire) from the wiring outlets (knockout holes) on the sides, front, or back of the units.
Route the electric wires between units from the piping outlet, or from the wiring outlets (knockout holes) on the sides, front, or back of the units.

[Precautions when punching through the knockout holes]
- Punch through the knockout holes with a hammer.
- After punching through the holes, it is recommended to coat the holes at the edge and the area around them with anti-corrosion paint to prevent rusting.
- Before leading the electric wires through the knockout holes, scrape the burrs around the holes and wrap the wires with the protective tape.



If small animals might enter the unit, block off the knockout holes with sealing material (field supply)

5-3. Precautions for power wiring connection

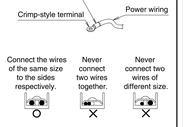
NOTICE
When using residual current operated circuit breakers, be sure to use a high-speed type 100 mA rated residual.

[Note]
- Select the power wiring in accordance with the local and national regulations in your area by referring to the above table.
- Specifications of the field power wiring should be in compliance with IEC60245.
- Use wire type H05VV when the protective conduits are used for the power wiring.
- Use wire type H07RNF when the protective conduits are not used.
- Only proceed with wiring work after turning off all the power.
- Always earth the unit in accordance with the local and national regulations in your area.

- The unit is equipped with an inverter. Always connect the earth wire to discharge the unit and eliminate the impact on other devices by reducing the noise generated from the inverter, and to prevent the unit casing from being live due to electric leakage.
- Never install a phase advancing capacitor to improve the power factor. (Installing a phase advancing capacitor will not improve the power factor, but may cause the capacitor abnormal heating and accidents.)
- For the wiring, use the designated electric wires and connect firmly, then secure them with the accessory clamps to prevent outside force from being applied to the terminal area (terminals of the transmission wiring and earth wire connected on site).
  For details, please refer to **5-3. Precautions for power wiring connection**.
- Do not tie the remaining wires in a bunch and tuck into the unit.
- Place the electric wires in the conduits or plastic sleeves to prevent them from being scratched by the edge of the knockout hole.
- Secure the electric wires with the accessory buckles to prevent it from touching the piping and stop valves.
  (Refer to **5-3. Precautions for power wiring connection**)

[Note]
- **Use the sheathed wires for the power wiring.**
- **Do not route the weak electric wiring (remote controller wire and wiring between units) together with the strong one outside the air conditioner, keeping them at least 25mm apart. Otherwise, being affected by the electrical noise (external noise) may result in malfunction or breakdown.**
- **Be sure to connect the power wiring to the power supply terminal blocks and hold it in place in accordance with 5-3. Precautions for power wiring connection.**
- **Hold the wiring between air conditioner units in place in accordance with 5-4. Precautions for wiring connection between units.**
- **Secure the electric wires using the clamps to prevent it from touching the piping etc.**
- **After connecting the electric wires, lay the wires in a smooth and regular way to avoid the electronic component box cover being protruded, then close the cover tightly.**

[Precautions for routing power wiring]
- Never connect two electric wires of different sizes to one power supply terminal.
  (Phenomenons such as loose electric wire connection may cause abnormal heating.)
- For the electric wires connected to the power supply terminals, use the crimp-style terminal with insulation sleeve. Otherwise, connect the wires of the same size to the sides respectively as shown in the figure.



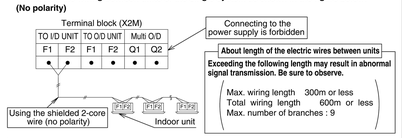
Phenomenons such as loose electric wire connection may cause abnormal heating. Strictly follow the instructions below.

- Use the specified electric wires and secure them firmly without applying external stress to the terminal block.
- Tighten the terminal screws with a suitable screwdriver. Use of small screwdriver would damage the screw head and could not achieve the proper tightening effect.
- Secure the terminal screws overtight may break them.
- Refer to the table below for the tightening torque of the terminal screws.

Tightening torque (N • m)		
M5	(power supply terminal)	2.2~2.7
M4	(shield earthing)	1.18~1.44
M3.5	(Internal unit wiring terminal)	0.8~0.97

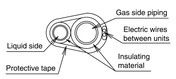
5-4. Precautions for wiring connection between units

- **Connected the wiring between units of the single system as shown in the figure below. (No polarity)**

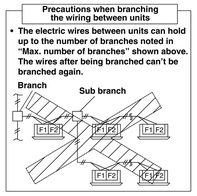


About length of the electric wires between units
Exceeding the following length may result in abnormal signal transmission. Be sure to observe.
Max. wiring length 300m or less
Total wiring length 600m or less
Max. number of branches : 9

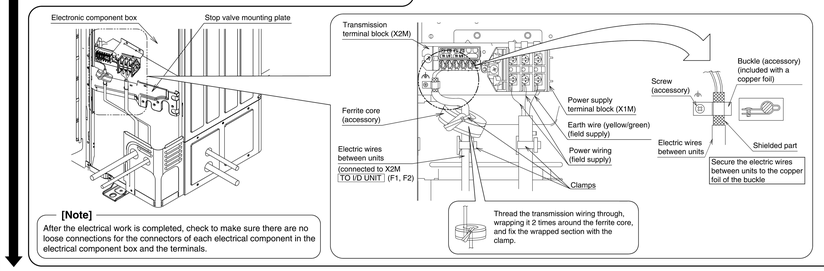
Precautions for wiring connection between units
- Do not connection the power supply to the single-phase wiring terminals. Otherwise, the whole system will be damaged.
- The wiring from the indoor unit must be connected to the PC board terminal F1/F2 (TO I/D UNIT) of the outdoor unit.
- For the electric wires between units, after being secured within the unit, wrap them together with the refrigerant piping connected locally using the protective tape as shown in the figure below.



Precautions when branching the wiring between units
- **The electric wires between units can hold up to the number of branches noted in "Max. number of branches" shown above. The wires after being branched can't be branched again.**



- **Use 0.75~1.25 mm² shielded 2-core wire for the above wiring.**
- **All electric wire between units are field supply.**



[Note]
After the electrical work is completed, check to make sure there are no loose connections for the connectors of each electrical component in the electrical component box and the terminals.

6 Refrigerant piping connection

6-1. Installation tools

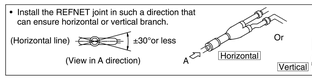
To withstand the pressure and prevent entry of any impurities into the air conditioning system, always use the special installation tools for R410A.

Multi-purpose gauge hose	• **To withstand the pressure and prevent entry of any impurities (mineral oils such as specialized lubricating oil and moisture), be sure to use the special installation tools for R410A. (Screw specifications for R410A and R407C are different.)**
Vacuum pump	• **Make sure that the engine oil in the pump will not flow backward into the air conditioner system when the pump stops.** • **Use the vacuum pump able to lower the pressure to -100.7Pa (5Torr, -755mmHg).**

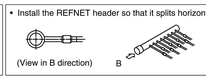
6-2. Selecting piping material

- Do not use the pipes covered with sulphur, iron oxide, dust, cutting oil, moisture or other contamination inside.
  (Better not to exceed 30mg/10m for the oil inside the pipes).
- Determine the thickness and size of refrigerant piping based on the precautions for piping size selection on the back, while also taking into account local laws and regulations. For R410A, the design pressure is 4.0 MPa.
- Be sure to use REFNET joint or header for the piping branches.
- While performing the piping work, make sure that the piping is within the maximum allowable ranges for length, height in difference and branch piping length.
- When using REFNET joint or header, pay attention to the following items and install it by referring to the installation manual included with the kits.

- Install the REFNET joint in such a direction that can ensure horizontal or vertical branch.



- Install the REFNET header so that it splits horizontally.



6-3. Piping protection

- Maintain and protect the piping to prevent moisture from getting into and the entry of the impurities and dust, etc.
- Pay special caution when penetrating the copper pipes through the walls till outside.

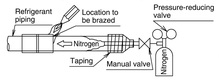
Location	Installation schedule	Protection measure
Outdoor	More than a month	Pinch
	Less than a month	Pinch or seal with tape
Indoor	Random	

6-4. Pipe connection

- **For how to use the stop valves, refer to the Stop valve operation procedure under 6-7. Air tight test and vacuum drying.**
- **Use the accessory flaring nuts only.**
  Adopting other flaring nuts may result in the refrigerant leakage.
- **Be sure to charge nitrogen into the pipe when brazing.**

(Be sure to perform nitrogen purge or nitrogen charge when brazing. Failure to do this will create large quantities of oxide film on the inside surface of the pipes, which would adversely affect the valves and compressors in the refrigerating system and prevent the normal operation.)

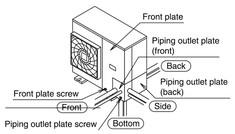
Note) When charging nitrogen before brazing, the pressure-reducing valve must be set to 0.02 MPa (0.2 kg • f/cm² or less: as a slight breeze on your cheek).
- Do not charge other refrigerant other than the specified one for the refrigerating system.
- Do not charge the air for the refrigerating system.



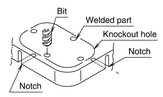
[Note]
Do not use flux when brazing the refrigerant piping.
Use the phosphor copper electrode which does not require flux (BCu93P-710/795:ISO 3677).
(Flux has extremely harmful influence on refrigerant piping system. If the chlorine based flux is used, it will cause pipe corrosion or in particular if the flux contains fluorine, it will damage the refrigerant oil and adversely affect the refrigerant piping system.)

6-5. Precautions for refrigerant piping connection

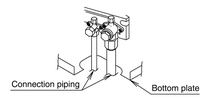
- The field piping can be connected in 4 directions.



- While connecting downward, open up a round hole (knockout hole) by drilling holes near the welded part of the knockout hole (4 places) with a Ø6mm bit.

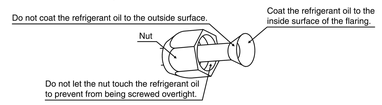


- Cutting out the 2 notches makes it possible to carry out installation as shown in the figure below.
  Use a metal saw when cutting out the notches.



- After drilling through the knockout hole, it is recommended to coat the edges of the notches and the area around them with anti-corrosion paint to prevent rusting.

[Precaution for piping connection]
- For machining the flaring part, refer to the following table.
- To install the flaring nut, only coat the refrigerant oil to the inside surface of the flaring (ester or ether oil), then turn the nut 3~4 circles with your hands.



- To prevent gas leakage, coat the refrigerant oil (ester or ether oil) to the inside surface of the flaring part.
- Refer to the following table for the tightening torque. (Being screwed overtight will damage the flaring part.)

Piping size	Tightening torque	Machining size A	Type
Ø9.5	32.7~39.9N•m	12.8~13.2mm	90°±2° 45°±2° A R0.4~0.8
Ø15.9	61.8~75.4N•m	19.3~19.7mm	
Ø19.1	97.2~118.8N•m	23.6~24.0mm	

- If there is no torque wrench, tighten the flaring nut with a normal wrench instead of it.
- When tightening the nut, there is a possibility that the tightening torque is suddenly increased. In this case, tighten it again based on the angles in the table below from this position.

Piping size	Tightening angle (reference)	Recommended tool arm length
Ø9.5	60°~90°	Around 200mm
Ø15.9	30°~60°	Around 300mm
Ø19.1	20°~35°	Around 450mm

- After piping connection is finished, perform gas leak inspection with nitrogen for the piping connection parts.

Continued on the back page

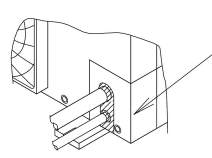
6 Refrigerant piping connection

Precautions to piping connection

- If there is a possibility that the condensed water on the stop valve might flow into the indoor unit through gaps between the insulation material and piping because the outdoor unit is located higher than the indoor unit, caulk the gaps at the connection.

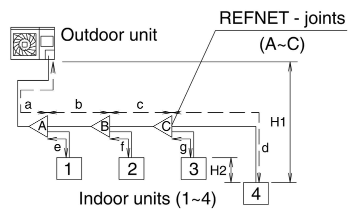
[How to prevent entry of small animals]

- Caulk the piping through holes with putty or insulation material (field supply) as shown in the right figure to prevent gaps. (For the outdoor unit, entry by insects could cause short circuit of the electrical component box.)



Example of connection

(Connecting 4 indoor units)

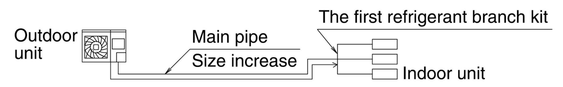


Max. allowable length	Between outdoor unit and indoor unit	Actual piping length	Piping length between outdoor unit and indoor unit ≤120m Take connection of 4 indoor units as example: a + b + c + d ≤120m. (In case of manual refrigerant charging, piping length will be decreased to ≤ 90m.)
		Equivalent length	Equivalent piping length between outdoor unit and indoor unit ≤150m (Assume equivalent piping length of REFNET joint to be 0.5m that of REFNET header to be 1m.)
		Total piping length	Total piping length from outdoor unit to all indoor units ≤300m
Allowable height difference	Between outdoor unit and indoor unit	Difference in height	Difference in height between outdoor unit and indoor unit (H1) ≤50m (Max 40m if the outdoor unit is in the lower part)
	Between indoor units	Difference in height	Difference in height between indoor units (H2) ≤15m for RXYMQ6ARV16.
Allowable length after the branch		Actual piping length	Piping length from the first refrigerant branch kit (REFNET joint or header) to indoor unit ≤40m (Example) 4 : b + c + d ≤40m
Selecting refrigerant branch kit			

Selecting the piping size

[Precautions to select connection piping]

- If the equivalent piping length between outdoor and indoor units is over 90m, size of the main pipe on the gas side must be increased.
  In addition, depending on the distance of the refrigerant piping, size of the main pipe also can be increased if capability decreased.
  [Gas side] Ø19.1 → Ø22.2 (RXYMQ6ARV16)



Note)
To increase the size of the piping joint, connect it using joints of different apertures (field supply). Connection part is beside the outdoor unit (behind the 1st bending outside the unit).

Piping between outdoor unit and refrigerant branch kit

- Should correspond to the size of the connection piping of outdoor unit.

Size of the piping connected to outdoor unit. (Unit: mm)

Piping size (outer diameter × minimum thickness)	
Gas side piping	Liquid side piping
Ø15.9×0.99	Ø9.5×0.80
Ø19.1×0.80	
Ø22.2×0.80	

Piping between refrigerant branch kits

- Select piping size based on the following table.

(Unit: mm)

Piping size (outer diameter × minimum thickness)	
Gas side piping	Liquid side piping
Ø15.9×0.99	Ø9.5×0.80

Piping between refrigerant branch kit and indoor unit

- Should correspond to the size of the connection piping of indoor unit.

Size of the piping connected to indoor unit. (Unit: mm)

Indoor unit capacity type	Piping size (outer diameter × minimum thickness)	
	Gas side piping	Liquid side piping
≤50	Ø12.7×0.80	Ø6.4×0.80
≥63	Ø15.9×0.99	Ø9.5×0.80

How to calculate the additional refrigerant to be charged

Additional refrigerant to be charged: R(kg)
(R should be rounded off in units of 0.1 kg.)

R = (Total length of liquid side piping size at Ø9.5) ×0.054 + (Total length of liquid side piping size at Ø6.4) ×0.022

For refrigerant branch piping with REFNET joint

Example: R = 25×0.054 (a+b+c+f) + 15×0.022 (d+e+g) = 1.68 ⇩ 1.7

a: Ø9.5×10m	d: Ø6.4×5m	g: Ø6.4×5m
b: Ø9.5×5m	e: Ø6.4×5m	
c: Ø9.5×5m	f: Ø9.5×5m	

Pipe size selection

Choose from the following table in accordance with outdoor unit total capacity type, connected downstream. (Unit: mm)

Symbol			Piping size (Outer diameter x minimum thickness) Gas pipe	Liquid pipe
Between outdoor and first refrigerant branch kit	a	RXMQ6ARV16 RXYMQ6ARV16	Ø19.1x0.80	Ø9.5x0.80
Piping between refrigerant branch kits - Choose from the following table in accordance with the total capacity index of all units connected below this. - Do not let the connection piping exceed the refrigerant piping size chosen by general system model name.	b,c	**Total capacity index of connected indoor units**	**Gas pipe**	**Liquid pipe**
		<150	Ø15.9x0.99	Ø9.5x0.80
		150≤X<200	Ø19.1x0.80	

(a) The refrigerant sound from the outdoor unit can be transmitted.
(b) A liquid/gas size up is required for all the piping between the branch kit and VRV unit. If the piping diameter of the sized up piping exceeds the diameter of the piping before the first refrigerant branch kit, then the latter also requires a liquid/gas size up.
(c) In some indoor units, the piping size is different. Choose from the size of each indoor units.

6-6. Piping insulation

- The connection piping (liquid side, gas side) and the refrigerant branch kit must be insulated. (Otherwise, it may cause water dripping.)
- Reinforce the insulation on the refrigerant piping according to the installation environment.

Ambient temperature	Humidity	Minimum thickness
≤30°C	75% to 80% RH	15 mm
>30°C	≥80% RH	20 mm

(Be sure to use heat resistant polyethylene foam which can withstand a temperature of 70°C for liquid piping and polyethylene foam which can withstand a temperature of 120°C for gas piping.)

⚠ **For piping connected locally, wrap the insulation material till the piping connections. The naked piping may result in condensation and burns.**

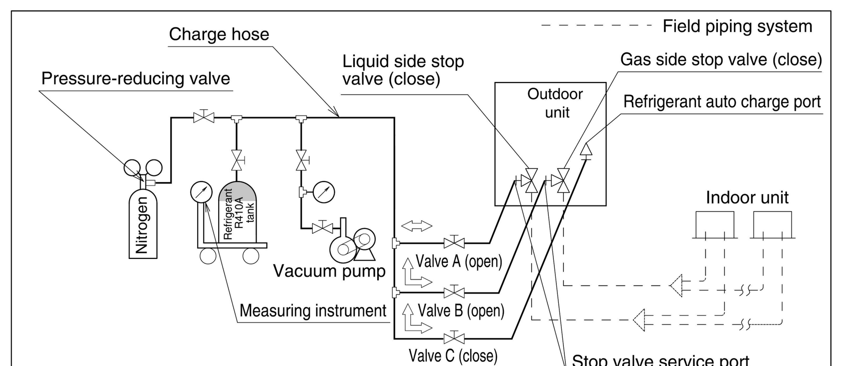
6-7. Air tight test and vacuum drying

Check the following after piping connection is finished.

⚠ CAUTION — To those doing piping work
- **Be sure to open the stop valves after completing wiring connection. (Operation with the stop valve closed will result in compressor malfunction.)**

- **Air tight test** - Always use nitrogen. (Refer to **Stop valve operation procedure** for service port's position.)
  [Procedure] : Pressurize the liquid side piping and the gas side piping to 4.0MPa (do not exceed 4.0 MPa). If the pressure does not drop within 24 hours, the system passes the test. If there is a pressure drop, check for leaks. (Discharge the nitrogen after confirming there is no leakage.)
- **Vacuum drying** - Use a vacuum pump able to evacuate the system to -100.7 kPa (5Torr, -755mmHg) or less.
  [Procedure] : Evacuate the system from the liquid side piping and gas side piping using a vacuum pump for more than 2 hours to -100.7 kPa or less. Keep the system under this condition for more than 1 hour, check if the vacuum gauge indication rises or not. (If it rises, the system may either contain moisture inside or have gas leak.)

If moisture might enter the piping (e.g. if doing work during the rainy season, if the actual work takes long enough that condensation may form on the inside of the pipes, if rain might enter the pipes during work, etc.)
After performing the vacuum drying for 2 hours, pressurize to 0.05 MPa (vacuum breakdown) with nitrogen gas, then depressurize down to -100.7 kPa or less and hold for an hour using the vacuum pump (vacuum drying).
(If the pressure does not reach -100.7 kPa even after depressurizing for at least 2 hours, repeat the vacuum breakdown-vacuum drying process.) After vacuum drying, maintain the vacuum for an hour and make sure the pressure does not rise by monitoring with a vacuum gauge.



Note) Be sure to shut off the liquid side and gas side stop valves. Otherwise, it may cause refrigerant leakage of the outdoor unit.

Stop valve operation procedure

Precautions to stop valve operation

- Name of each part should be known before operating the stop valve (as shown in the right figure). When shipped, the stop valve is left closed.
- Simply using a torque wrench to loosen or tighten the flaring nut may cause deformation of the side panel. Be sure to fix the flaring nut with a normal wrench, then operate it with the torque wrench.
- To prevent flaring nut on the stop valve gas side from freezing since the operation pressure becomes low during cooling operation under low outdoor temperature, caulk it completely with silicon sealant.
- When opening or closing the stop valve lid and flaring nut, make sure that the tool does not touch the PCB. It may cause an electric shock or a fire, and cause damage to electrical components.

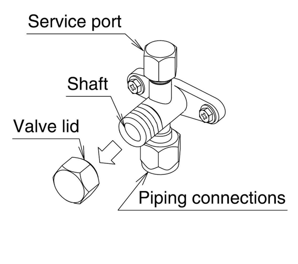
[Stop valve operation procedure]

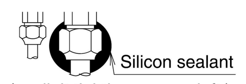
Prepare two inner hexagon wrenches: size 4mm, 6mm.

To open
1. Put the inner hexagon wrench to the valve shaft and turn it counterclockwise.
2. Turn it until the shaft stops. The valve is opened.

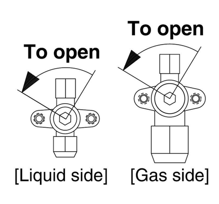
To close
1. Put the inner hexagon wrench to the valve shaft and turn it clockwise.
2. Turn it until the shaft stops. The valve is closed.

Gas, liquid stop valve





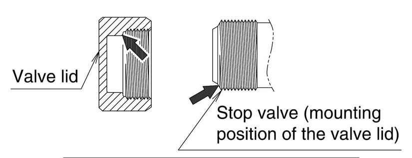
(caulk it tightly, no gaps left.)



[Liquid side] [Gas side]

About valve lid
- Position indicated by the arrow has been caulked. Pay attention not to damage it.
- Be sure to tighten the valve lid after valve operation is completed.

About service port
- Operate with the charge hose with a pushing stick.
- Be sure to tighten the valve lid after operating. Tightening torque……11.5~13.9 N•m



Liquid side tightening torque	Gas side tightening torque
13.5~16.5N•m	22.5~27.5N•m

7 Charging refrigerant

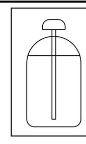
⚠ WARNING
- **Be sure to inform other installers or attach the front panel well before you leaving with the power supply turned on for the outdoor unit.**

7-1. Before charging refrigerant

- Check the following works are completed in accordance with the installation manual.
  • Piping work • Electrical work • Air tight test and vacuum drying

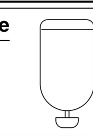
7-2. About refrigerant tank

- Check whether the tank has a siphon pipe before charging and place the tank properly so that the refrigerant is charged in the liquid phase (see the right figure).



Charge refrigerant using tank with siphon pipe

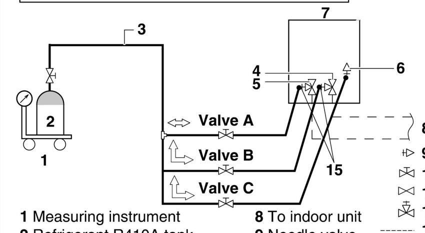
Stand the tank upright and charge.
(Due to the siphon pipe within the tank, there's no need to turn over the tank to charge).



Charge refrigerant using other tanks

Stand the tank upside-down and charge.

7-3. Location of valves



1 Measuring instrument
2 Refrigerant R410A tank (siphon system)
3 Charge hose
4 Gas side stop valve
5 Liquid side stop valve
6 Refrigerant auto charge port
7 Outdoor unit
8 To indoor unit
9 Needle valve
10 Stop valve
11 Globe valve
12 Stop valve with service port
13 Field piping
14 Gas flow
15 Stop valve service port

INFORMATION

Details about the maximum allowable piping length are as described below:
Automatic refrigerant charge: ≤ 120m
Manual refrigerant charge: ≤ 90m

NOTICE

Charging with an unsuitable substance may cause explosions and accidents, so always make sure that the appropriate refrigerant (R410A) is charged. Refrigerant containers must be opened slowly.

⚠ **CAUTION**

- If charge refrigerant without automatic charging procedure, refrigerant amount might over the permissible quantity and result to liquid hammer.
- Always use protective gloves and protect your eyes when charging refrigerant.
- When the refrigerant charging procedure is done or when pausing, close the valve of the refrigerant tank immediately. If the tank is left with the valve open, the amount of refrigerant which is properly charged may get off point. More refrigerant may be charged by any remaining pressure after the unit has stopped.

NOTICE

- If the power of some units is turned off, the charging procedure cannot be finished properly.
- Make sure to turn ON the power 6 hours before starting the operation. This is necessary to warm the crankcase by the electric heater.
- If operation is performed within 12 minutes after the indoor and outdoor units are turned on, the compressor will not operate before the communication is established in a correct way between outdoor unit and indoor units.
- Before starting charging procedures, check if the segment display indication of the outdoor unit A1P PCB is as normal. If a malfunction code is present, see "Malfunction code list".
- Make sure all connected indoor units are recognised.

NOTICE

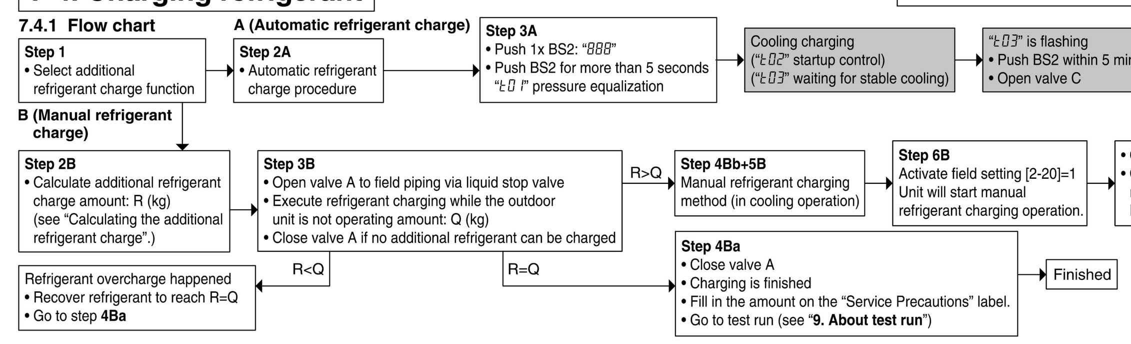
In case of maintenance and the system (outdoor unit+field piping+indoor units) does not contain any refrigerant any more (e.g., after refrigerant reclaim operation), the unit has to be charged with its original amount of refrigerant (refer to the nameplate on the unit).

7.4.2 Charging method

As explained during vacuum drying method, once vacuum drying is finished, additional refrigerant charging can start.
There are two methods to charge additional refrigerant. Use the selected method following the described procedure below.
• Adding refrigerant by using the automatic refrigerant charging function. See "A. Adding refrigerant by using the automatic charging function". This method uses an automated method for charging refrigerant.
• Adding refrigerant by using the manual refrigerant charging function. See "B. Adding refrigerant by using the manual charging function". This method uses a manual method for charging refrigerant.
A flow chart is available which gives an overview of the possibilities and actions to be taken (see "**7.4.1 Flow chart**").
Follow the steps as described below and take into account whether you want to use the automatic charge function or not.
1) Select additional refrigerant charge function **A** or **B**.
A Perform Automatic refrigerant charge function.

7-4. Charging refrigerant

7.4.1 Flow chart



NOTICE

- The unit's internal piping is already factory charged with refrigerant, so be careful when connecting the charge hose.
- After adding the refrigerant, do not forget to close the lid of the refrigerant charging port. The tightening torque for the lid is 11.5 to 13.9 N•m.
- In order to ensure uniform refrigerant distribution, it may take the compressor ±10 minutes to start up after the unit has started operation. This is not a malfunction.

2A) Adding refrigerant by using the automatic charging function.

INFORMATION

The automatic refrigerant charging has limits as described below.
- Outdoor temperature: 0°C DB~43°C DB.
- Indoor temperature: 10°C DB~32°C DB.

When the outdoor temperature is lower than 5°C, the refrigerant tank should be warmed during refrigerant charging.

3A) Additional refrigerant charge can be charged by operating the outdoor unit depending on the ambient limitation conditions.
Procedure
- Idle (default) screen is shown.
- Push BS2 once, indication "888".
- Push BS2 for more than 5 seconds, wait while the unit is preparing for operation.
  Segment display indication: "t01" (pressure control is executed):
  - Cooling operation is started: indication "t02" till "t03" will be displayed (start up control; waiting stable cooling operation).
- When "t03" starts flashing (ready for charging), push BS2 within 5 minutes. Open valve C.
  If BS2 is not pushed within 5 minutes, a malfunction code will appear:
  - Cooling operation: malfunction code "P2" will appear. Push BS3 to restart the procedure.

Cooling (middle segment indicates "0")
Automatic charging will continue, the segment indication shows the current low pressure value and the status indication "t03" intermittent.
When the unit stops operating, close valve C and check whether the segment indication/user interface of indoor unit shows "P9".
This indicates the automatic charging in cooling program was finished successfully.

INFORMATION

When "t03" starts to flash, push BS2 within 5 minutes. Be aware that refrigerant will not be added to the system immediately after BS2 is pushed, however this is not a malfunction.
The system will automatically begin adding refrigerant once the liquid conditions are stable.

INFORMATION

- When a malfunction is detected during the procedure (e.g, in case of closed stop valve), a malfunction code will be displayed. In that case, refer to "Malfunction code list" and solve the malfunction accordingly. Resetting the malfunction can be done by pushing BS3. The procedure can be restarted from **3A**).
- Aborting the automatic refrigerant charge is possible by pushing BS1. The unit will stop and return to idle condition.

Information which may occur during additional refrigerant charging procedures:
P8: Indoor unit freeze up prevention
Action: Close valve C. Reset malfunction by pushing BS1. Retry auto charge procedure.
P2: Abnormal low pressure drop
Action: Close valve C. Reset malfunction by pushing BS1. Check following items before retry auto charge procedure:
- Check if the gas side stop valve is opened correctly.
- Check if the valve of the refrigerant cylinder is opened.
- Check if the air inlet and outlet of the indoor units are not obstructed.

Other malfunction code: Close valve C. Confirm the malfunction code and take corresponding action, "Malfunction code list".
B Perform Manual refrigerant charge function.
2B) Calculate the additional amount of refrigerant to be added using the formula mentioned in "Calculating the additional refrigerant charge".
3B) Perform additional refrigerant charging while the outdoor unit is not operating.
4Ba) If the calculated additional refrigerant amount is reached after charging with additional refrigerant while the outdoor unit is not operating, close valve A. Refrigerant charging is finished.
4Bb) If the total amount of refrigerant could not be charged by charging with additional refrigerant while the outdoor unit was not operating, close valve A and go to step **5B**. Follow step **6B** depending on the chosen charging method. Perform the test procedure as described in "Test operation".
5B) Perform the refrigerant charge operation as shown below and charge the remaining refrigerant of the additional charging amount through valve B. Open the liquid and gas side stop valves. Valves A and B must remain closed!

NOTICE

- The unit's internal piping is already factory charged with refrigerant, so be careful when connecting the charge hose.
- After adding the refrigerant, do not forget to close the lid of the refrigerant charging port. The tightening torque for the lid is 12.7±1.2 N•m.
- In order to ensure uniform refrigerant distribution, it may take the compressor ±10 minutes to start up after the unit has started operation. This is not a malfunction.

6B) The remaining additional refrigerant charge can be charged by operating the outdoor unit by means of the manual refrigerant charge operation mode:
- Turn on the power of the indoor units and outdoor unit.
- Take all the precautions mentioned in "start-up and configuration" into account.
- Activate outdoor unit setting [2-20]=1 to start manual refrigerant charge mode.
  Result: The unit will start operation. Valve B can be opened.
  Charging of remaining additional refrigerant can be done.
  When the remaining calculated additional refrigerant amount is added, close valve B and push BS3 to stop the manual refrigerant charging procedure.

INFORMATION

- The manual refrigerant charge operation will automatically stop within 30 minutes. If charging is not completed after 30 minutes, perform the additional refrigerant charging operation again.
- When a malfunction is detected during the procedure (e.g., in case of closed stop valve), a malfunction code will be displayed. In that case, refer to "Malfunction code list" and solve the malfunction accordingly. Resetting the malfunction can be done by pushing BS3. The procedure can be restarted from **6B**.
- Aborting the manual refrigerant charge is possible by pushing BS3. The unit will stop and return to idle condition.

8 After installation completed

Be sure to check the following after installation

1) Connection of the drainage piping ——→ Refer to **4 Precautions during installation**.
2) Incorrect power wiring and loose screws ——→ Refer to 5-3. Precautions to power wiring connection.
3) Incorrect transmission wiring and loose screws ——→ Refer to 5-4. Precautions to wiring connection between units.
4) Incorrect refrigerant piping ——→ Refer to **6 Refrigerant piping connection**
5) Piping size and insulation ——→ Refer to 6-2. Selecting piping material, 6-6. Piping insulation.
6) Stop valves ——→ Check if the liquid side and gas side stop valves are opened.
7) Record refrigerant charge ——→ Keep a record in the "Refrigerant charge" in the "Service Precautions" label.
8) Insulation test on main power circuit ——→ • Use 500V insulation tester.
• Do not use it in low voltage circuit less than 220V. (Connection wiring between outdoor and indoor units)

9 About test run

To start smoothly, be sure to turn on the power supply to the heating compressor crankcase 6 hours before operation.

⚠ WARNING
Be sure to inform other installers or attach the front panel well before leaving with the power supply turned on for the outdoor unit.

Before powering on

- **Protect the electronic components with insulating tape in accordance with the "Service Precautions" label attached to the front panel.**
- **All indoor units connected with the outdoor unit will operate automatically after powering on. To ensure safety, check the indoor unit installation has been completed.**

9-1. Powering on ~ test run

- Make sure to perform a test run first after installation. (If the unit is operated with the indoor unit's remote controller but without performing test run, the malfunction code "U3" will be indicated on the display of the remote controller and the unit will not operate normally.)
- After turning on the power supply, do not touch any switches excluding push button switches and DIP switches when setting the outdoor unit's PC board (A1P). (For positions of the button switches (BS1~3) and DIP switches (DS1, 2) on PC board, refer to the "Service Precautions" label.)
- Check the state of the outdoor units and fault wiring with this operation.

① • Attach the front panel of the outdoor unit.
• Turn on the power supply of the outdoor and indoor units.

② Make sure all field settings you want are set.

③ Turn ON the power to the outdoor unit and the connected indoor units.

④ Make sure the default (idle) situation is existing. Push BS2 for 5 seconds or more. The unit will start test operation.
- The test operation is automatically carried out, the outdoor unit display will indicate "t01" and the indication "Test operation" and "Under centralized control" will display on the user interface of indoor units.
  Steps during the automatic system test run procedure:
  - "t01" : control before start up (pressure equalization)
  - "t02" : cooling start up control
  - "t03" : cooling stable condition
  - "t04" : communication check
  - "t05" : stop valve check
  - "t06" : pipe length check
  - "t07" : refrigerant amount check
  - "t08" : in case [2-88]=0, detailed refrigerant situation check
  - "t09" : pump down operation
  - "t10" : unit stop

INFORMATION
- If the automatic refrigerant charge function has been used, "t07" and "t08" will not be displayed during the test run, as they have already been checked during automatic refrigerant charge operation.
- During test operation, it is not possible to stop operation of the unit from a user interface. To abort operation, press BS3. The unit will stop after ±30 seconds.

⑤ Check the test operation results on the outdoor unit segment display.
- Normal completion: no indication on the segment display (idle)
- Abnormal completion: indication of malfunction code on the segment display

Refer to "Correcting after abnormal completion of the test operation" to take action for correcting the abnormality.
When the test operation is fully completed, normal operation will be possible after 5 minutes.
Correcting after abnormal completion of the test operation
The test operation is only completed if there is no malfunction code displayed on the user interface or outdoor unit segment display.
In case of a displayed malfunction code, perform correcting actions as explained in the malfunction code table.
Carry out the test operation again and confirm that the abnormality is properly corrected.

INFORMATION
Refer to the installation manual of the indoor unit for other detailed malfunction codes related to indoor units.

⑥ Be sure to attach the front panel of the outdoor unit after test run is completed.

[About test run]
- In order to ensure uniform refrigerant distribution, it may take up to around 10 minutes for the compressor to start up after the power supply on. This is not malfunction.
- Meaning of operation check is not to check individual indoor unit. After completing operation check, operate the system normally with the remote controller.
- Test run can't be performed when the unit is in other mode such as refrigerant recycling mode.
- Never perform test run with discharge pipe thermistor (R2T), suction pipe thermistor (R3T) and pressure sensor (S1NPH, S1NPL) removed. Failure to do so will result in compressor damaged.

9-2. For normal operation

[Set the master unit (the indoor unit with cooling and heating option rights).]

For wired remote controller
- After test run is completed, symbol " [symbol] " flashes on all remote controllers connected here.
- Set the master unit as customer's request. (It is recommended to set the indoor unit with highest frequency of use as the master unit.)
- Press the operation mode changeover button on the remote controller of the master unit.
- Conduct cool/heat changeover with this remote controller and the symbol " [symbol] " vanishes.
- For other remoter controllers excluding the above, symbol " [symbol] " lights up.

For wireless remote controller
- After test run is completed, timer lamps flash on all indoor units connected here.
- Set the master unit as customer's request. (It is recommended to set the indoor unit with highest frequency of use as the master unit.)
- Press the operation mode changeover button on the remote controller of the master unit. Then a sound of beeps can be heard and the timer lamps on all indoor units go out.
- The indoor unit has the option rights to change over to cooling/heating operation.

For details, refer to the installation manual included with the indoor unit.

- After test run is completed, operate the unit normally.
  1) Check the indoor and outdoor units are in normal operation.
     (If a knocking sound can be heard produced by liquid compression of the compressor, stop the unit immediately.)
  2) Operate each indoor unit one by one and check the corresponding outdoor unit is also in operation.
  3) Check to see if cold (or hot) air is coming out from the indoor unit.
  4) Press the fan direction and strength buttons of the indoor unit to see if they operate properly.

[About normal operation check]
- The compressor will not restart in about 5 minutes even if the ON/OFF button of the remote controller is pressed.
- When the system operation is stopped by the remote controller, the outdoor unit may continue operating for further 1 minute at maximum.
- If any check operation was not performed through test run at first installation, the malfunction code "U3" will be displayed. In this case, perform check operation in accordance with **9-1. Powering on ~ test run**.

Malfunction codes displayed on the remote controller (check the remote controller connected with the indoor unit)

Malfunction code Main code	Sub code Master	Contents	Solution
E3	01	High pressure switch was activated (S1PH) - A1P(X2A).	Check stop valve situation or abnormalities in (field) piping or airflow over air cooled coil.
	02	• Refrigerant overcharge. • Stop valve closed.	• Check refrigerant amount+recharge unit. • Open stop valve.
	13	Stop valve closed (liquid).	Open liquid stop valve.
E4	01	Low pressure malfunction: • Stop valve closed. • Refrigerant shortage. • Indoor unit malfunction.	• Open stop valve. • Check refrigerant amount+recharge unit. • Check the user interface's display or Transmission wiring between the outdoor unit and the indoor unit.
E9	01	Electronic expansion valve malfunction (main) (Y1E) - A1P(X21A).	Check connection on PCB or actuator.
	03	Electronic expansion valve malfunction (subcool) (Y2E) - A1P(X22A).	Check connection on PCB or actuator.
	04	Electronic expansion valve malfunction (Inverter cooling) (Y3E) - A1P(X23A).	Check connection on PCB or actuator.
	26	Electronic expansion valve malfunction (refrigerant auto charge) (Y4E) - A1P(X25A).	Check connection on PCB or actuator.
F3	01	Discharge temperature too high (R21T) : • Stop valve closed. • Refrigerant shortage.	• Open stop valve. • Check refrigerant amount+recharge unit.
F6	02	• Refrigerant overcharge. • Stop valve closed.	• Check refrigerant amount+recharge unit. • Open stop valve.
H9	01	Ambient temperature sensor malfunction (R1T) - A1P(X18A).	Check connection on PCB or actuator.
J3	16	Discharge temperature sensor malfunction (R21T): open circuit - A1P (X19A).	Check connection on PCB or actuator.
	17	Discharge temperature sensor malfunction (R21T): short circuit - A1P (X19A).	Check connection on PCB or actuator.
J5	01	Suction temperature sensor malfunction (R3T) - A1P (X30A).	Check connection on PCB or actuator.
J6	01	De-icing temperature sensor malfunction (R7T) - A1P (X30A)	Check connection on PCB or actuator.
J7	06	Liquid temperature sensor (after subcool HE) malfunction (R5T) - A1P (X30A).	Check connection on PCB or actuator.
J8	01	Liquid temperature sensor (coil) malfunction (R4T) - A1P (X30A).	Check connection on PCB or actuator.
J9	01	Gas temperature sensor (after subcool HE) malfunction (R6T) - A1P (X30A).	Check connection on PCB or actuator.
JA	06	High pressure sensor malfunction (S1NPH): open circuit - A1P (X32A).	Check connection on PCB or actuator.
	07	High pressure sensor malfunction (S1NPH): short circuit - A1P (X32A).	Check connection on PCB or actuator.
JC	06	Low pressure sensor malfunction (S1NPL): open circuit - A1P (X31A).	Check connection on PCB or actuator.
	07	Low pressure sensor malfunction (S1NPL): short circuit - A1P (X31A).	Check connection on PCB or actuator.
LC	14	Transmission outdoor unit - inverter: INV1 transmission trouble - A1P	Check connection
	19	Transmission outdoor unit - inverter: FAN1 transmission trouble - A1P	Check connection
P1	01	INV1 unbalanced power supply voltage.	Check if power supply is within range.
U2	01	INV1 voltage power shortage.	Check if power supply is within range.
	02	INV1 power phase loss.	Check if power supply is within range.
U3	03	Malfunction code: System test run not yet executed (system operation not possible).	Execute system test run.
	10	Malfunction code: System refrigerant auto charge run not yet executed.	Execute auto charge function (see manual).
	04	System test run abnormal ending.	Execute test run again.
U4	01	Faulty wiring to indoor - outdoor.	Check (F1/F2) wiring.
	03	Faulty indoor system.	Check indoor system transmissions wire.
U7	11	• Too many indoor units are connected to F1/F2 line. • Bad wiring between outdoor and indoor units.	Check indoor unit amount and total capacity connected.
U9	01	• System mismatch. Wrong type of indoor units combined (R410A, R407C, RA). • Indoor unit malfunction.	Check if other indoor units have malfunction and confirm indoor unit mix is allowed.
UA	03	Connection malfunction over indoor units or type mismatch (R410A, R407C, RA).	Check if other indoor units have malfunction and confirm indoor unit mix is allowed.
	18	Refrigerant type mismatch (Field setting error).	Check if other indoor units have malfunction and confirm indoor unit mix is allowed.
UF	01	Auto address malfunction (inconsistency).	Check if transmission wired unit amount matches with powered unit amount (by monitor mode) or wait till initialization is finished.
	05	Stop valve closed or wrong (during system test run).	Open stop valves.
UH	01	Auto address malfunction (inconsistency).	Check if transmission wired unit amount matches with powered unit amount (by monitor mode) or wait till initialization is finished.

For the case with centralized controller used, refer to the installation manual included with it under service manual.

No display on the remote controller

- Connection and communication error occurred between the indoor unit and the remote controller. Check wiring connection for the broken and loose.

⚠ CAUTION — To those doing piping work / To those doing electrical work
- **After test run is completed, check whether the casing of the units has been attached and whether the screws have been tightened before transferring the air conditioner to your customer.**

The two-dimensional bar code is a manufacturing code.