#### FOR SERVICE PERSONNEL ONLY

#### HITACHI **Inspire the Next** HITACHI SPLIT UNIT AIR CONDITIONER

INSTALLATION MANUAL INDOOR UNIT / OUTDOOR UNIT

RAS-18SH2/RAC-18SH2

**Tools Needed For Installation Work** • Measuring Tape • Knife • Saw • Pipe Cutter • Hexagonal Wrench Kev (♣♦ 4mm) • Power Drill (ø65~ø80mm Vacuum Pump
 Pliers or Wrench
 Torque Wrench

Detector 

Manifold Valve 

Charge Hose

before starting installation work.

correct operation of installation.

Carefully read through the procedures of proper installation

• The sales agent should inform customers regarding the

◆ Vacuum Pump Adaptor
 ◆ Flare Tool
 ◆ Gas Leakage

 Be sure to perform the cleaning unit operation check. Installation information • Unlike conventional types, this model has no grille on its top surface.

#### SAFETY PRECAUTION

• Read the safety precautions carefully before operating the unit. The contents of this section are vital to ensure safety. Please pay special attention to the following sigr

▲ CAUTION...... Improper installation may result in serious consequence.

Be sure that the unit operates in proper condition after installation. Explain to customer the proper operation and maintenance of the unit as described in the user's guide. Ask customers to keep this installation manual together with the instruction manual.

#### **▲** WARNING

Please request your sales agent or qualified technician to install your unit. Water leakage, short circuit or fire may occur if you do the • Please observe the installation stated in the installation manual during the process of installation. Improper installation may cause water leakage, electric shock and fire. Make sure that the units are mounted at locations which are able to provide full support to the weight of the units. If not, the units may

Observe the rules and regulations of the electrical installation and the methods described in the installation manual when dealing with the electrical work. Use cables which are approved official in your country. Be sure to use the specified circuit. A short circuit and fire may occur due to the use of low quality wire or improper work.

conductors of the wire are inserted into the terminals to prevent the external force is being applied to the connection section of the terminal base. Improper insertion and loose contact may cause over-heating and fire. Please use the specified components for installation work. Otherwise, the unit may collapse or water leakage, electric shock, fire or

Be sure to use the specified cables for connecting the indoor and outdoor units. Please ensure that the connections are tight after the

stronger vibration may occur. Be sure to use the specified piping set for R410A. Otherwise, this may result in broken copper pipes or faults. • When installing or transferring an air conditioner to another location, make sure that air other than the specified refrigerant (R410A)

does not enter the refrigeration cycle. If other air should enter, the pressure level of the refrigeration cycle may increase abnormally which could result in a rupture and injury Be sure to ventilate fully if a refrigerant gas leak while at work. If the refrigerant gas comes into contact with fire, a poisonous gas may occur. After completion of installation work, check to make sure that there is no refrigeration gas leakage. If the refrigerant gas leaks into the

room, coming into contact with fire in the fan-driven heater, space heater, etc., a poisonous gas may occur. Unauthorized modifications to the air conditioner may be dangerous. If a breakdown occurs please call a qualified air conditioner technician or electrician. Improper repairs may result in water leakage, electric shock and fire, etc.

Be sure to connect the earth line from the power supply wire to the outdoor unit and between the outdoor and indoor unit. Do not connect the earth line to the gas tube, water pipe, lighting rod or the earth line of the telephone unit. Improper earthing may cause electric shocks. When finishing the refrigerant collection (pumping down), stop the compressor and then remove the coolant pipe.

If you remove the refrigerant pipe while the compressor is operating and the service valve is released, air is sucked and a pressure in the freezing cycle system will build up steeply, causing an explosion or injury. When installing the unit, be sure to install the refrigerant pipe before starting the compressor

If the refrigerant pipe is not installed and the compressor is operated with the service valve released, air is sucked and the pressure level of the refrigeration cycle may increase abnormally which could result in a rupture and injury.

#### **A** CAUTION

 A circuit breaker must be installed in the house distribution box for the direct connected power supply cables to the outdoor unit. In case of other installations a main switch with a contact gap or more than 3mm has to be installed.

Without a circuit breaker, the danger of electric shock exists. Do not install the unit near a location where there is flammable gas. The outdoor unit may catch fire if flammable gas leaks around it.

• Please ensure smooth flow of water when installing the drain hose. Improper installing may wet your funiture.

#### An IEC approved power cord should be used.

Condensed Water Disposal of Outdoor Unit

There is holes on the base of outdoor unit for condensed water to exhaust. In order to flow condensed water to the drain, the unit is installed on a stand or a block so that the unit is 100mm above the ground, join the drain pipe as shown in the figure. Cover the other

figure and press the both sides of the bush to fit into the hole. After installation, check whether the drain pipe and bush cling to the base firmly.

Install the outdoor unit horizontally and make sure that condensate drains away. When using in areas with cold weather

Especially when there are heavy snows in areas with cold weather, condensed water may freeze on the base and result in bad drainage. In such areas, please do not install the bush

If it is tilted above the side of the drain hose, condensed water may overflow.

drain holes (2 places) with a bush. To install the bush, put it on the drain hole as shown in the

and the drain pipe. Also, make sure that the distance from the drain hole to the ground is

Installation of Mounting Board, Wall Penetration and Installation of Protection

#### **A** CAUTION

The drain hose can be installed from the left or right of the Indoor unit. When installing the indoor unit, the mounting board must be fixed horizontally or slightly tilted down towards the side of drain hose.

#### 1 Direct Mounting on The Wall

· Please use hidden beams in the wall to hold the mounting board.

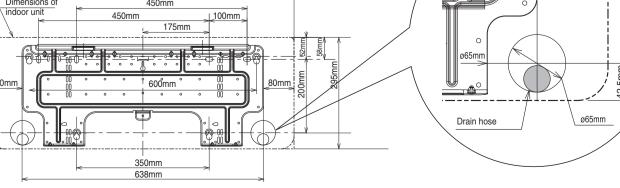
 When it is difficult to look for a stud, use an item such as board anchor (commercial product).

 When using the mounting hole provided by the apartment, cut it in such manner that the dimension of the mounting anchor projecting from the wall is 15mm

**Drill Hole for Board Anchor**  While placing the mounting board on the wall, embed the board anchor in the wall.

 Slide down the mounting plate and then fix the mounting board with the

board anchor.



THE CHOICE OF MOUNTING SITE (Please note the following matters and obtain permission from customer before installation.)

**A** WARNING **A** WARNING The unit should be mounted at stable, non-vibratory location which can provide full support to the unit. **A** CAUTION **A** CAUTION

No nearby heat source and no obstruction near the air outlet is allowed. The clearance distances from top, right and left are specified as The location must be convenient for water drainage and pipe onnection with the outdoor unit. Do not install at a location where there is flammable gas, steam,

oil and smoke. There is a risk of fire, explosion, deterioration of resin and/or damage. To avoid interference from noise, please place the unit and its remote controller at least 1m from the radio and television o avoid any error in signal transmission from the remote controller, please put the controller far away from high-frequency machines and high-power wireless systems.

listance and may even interfere with the signal being received. The installation height should be at least 2.3m or more from the floor. The indoor unit (air outlet) should be installed at least 1.5m away from fire alarm.

Lighting fixtures with electronic starters may shorten the reception

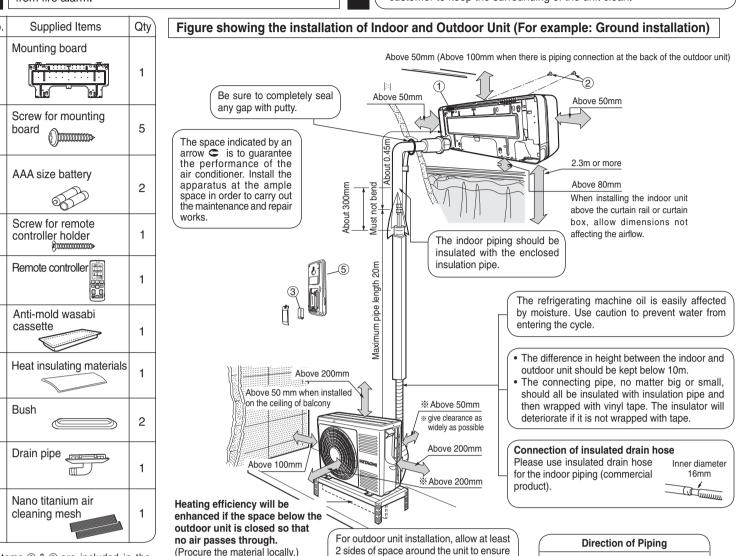
The outdoor unit must be mounted at a location which can support heavy weight. Otherwise, noise and vibration will increase.

• Do not expose the unit under direct sunshine or rain. Besides, ventilation must be good and clear of obstruction. The air blown out of the unit should not point directly to animals or plants. The clearances of the unit from top, left, right and front are specified as ⇔ in figure below. At least two sides must be clear for ventilation. • Be sure that the hot air blown out of the unit and noise do not disturb the

 Place not exposed to strong wind Particularly on the rooftop of a building, strong wind blows and the outdoor unit may be damaged. • Do not install at a location where there is flammable gas, steam, oil and smoke. • The location must be convenient for water drainage.

antenna or signal line of television, radio or telephone. This is to avoid noise interference. • Do not install the indoor unit in a place where small animals may build their nests. If small animal goes inside the unit and touches the electrical parts, failure of the unit, smoke or fire may be caused. Request your customer to keep the surrounding of the unit clean.

Place the outdoor unit and its connecting cord at least 1m away from the



neighbourhood.

ventilation flue. Length of Power Cable Piping configuration may be in six different directions: direct rear piping Do not modify the power cable. left or right downward piping and left or right sideways piping.

**Direction of Piping** 

**A** WARNING

**Preparation of Pipe** 

the wall hole range.

Place the starting point

of refrigerating pipe

bending within the wall

hole range.

ending point of

bending within

refrigerating pipe

Connecting Drain hose

Wrap the wall hole portion with tape.

attached to the pipe insulation.

Please bend at a small

radius to form an arc.

Auxiliary insulation

connecting cord together with tape.

Remove the auxiliary insulation material sheet which is

Referring to the mark on the rear side, form the pipe within

If the starting point of refrigerating pipe bending is projected

from the wall hole range or if the bending radius is too large,

the indoor unit may be lifted from wall and this may cause

Temporarily join the refrigerating pipe, drain hose and

together with tape.

Pipe support

Temporarily join the refrigerating pipe,

drain hose and connecting cord

↑ ↑ Center line of wall hole

<del>/((</del>00)

Refrigerating pipe

Place the

pipe bending

within the wa

Wall hole range

↑ Center line of wall hole

hole range

refrigerating pipe bending

within the wall

Backward piping

Be sure that the wire is not in contact with any metal in the wall. Please use the protection pipe as wire passing through the hollow part of the wall to prevent damaged by mouse, possibility of short circuit or fire.

3 Empty gap in the sleeve of Protection Sleeve of protection pipe should be pipe

Putty

-2-

(Procure the material locally.)

completely sealed with putty to avoid dripping of rain water into the room.

1.2 Wall Penetration and Installation of Protection Pipe

which is slightly tilted towards Indoor

1 Drill a ø65mm hole on wall

2 Cut the protection pipe

according to the wall thickness

and pass through the wall

the outdoor side.

® Bush

Press it into the hole in the chassis

Screw at the positions near the upper and lower hooks where the indoor

unit is hung. Use more than 4 screws for fixing.

2. Installation of the Indoor Unit

#### 2.1 Preparation of Installation

Bush

cleaning mesh

※ Items 
⑧ 
& 
⑨ are included in the

For details on installing Component

aning mesh), refer to pages 5

and 53 in the Operating Instructions.

(10) (namely the nano titanium air

package of the outdoor unit.

Remove the front panel

• To remove front panel, please refer to "Removing and Attaching the Front Panel" on page 13.

• Make sure to use both hands to attach and remove the front the pipe horizontally as shown below.

Remove the lower cover

• Push the bottom inner part (1) of the lower cover to remove the lower cover.

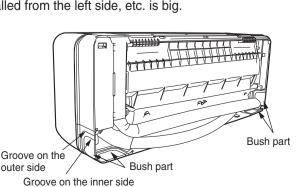
 To attach the lower cover, attach 2 first and then attach 1 by rotating it around 2 as the fulcrum.

Wiring connection • Please refer to "Connection of Power Cord" on page 10.

Cutting lower cover bush

(Horizontal and downward piping) While installing the pipe from the right, left or bottom side,

use a knife to cut lower cover bush accordingly. • Use the groove on the outer side if the pipe which is to be installed from the left side, etc. is big.



Protection pipe (commercial product) must be used

Completely seal with putty

High humidity air inside the wall or the outdoor may go in to the room and could result in dripping of dew. It could also cause smell or odor present outdoor and inside the wall

spreading into the room.

Changing of drain hose (Horizontally piping)

• Install and change the drain hose and drain cap when installing

• Remove the lower cover when installing and changing. Do not carry out horizontal piping for drain hose.

Use the plier to pull and turn the drain cap for easy

Remove the screw and pull out the drain hose.

Push the drain hose deeply into the screw hole, fix with the removed screw during Insert drain cap up to the location securely till the cap stops.

fix with screw

**A** CAUTION Be sure to insert drain hose and drain cap firmly and

Insufficient insert may result in water leakage.

# Connecting the refrigerating pipe at the back of the

Remove the auxiliary Projection insulation material sheet of the which is attached to the indoor unit // pipe insulation. (Keep the removed auxiliary insulation material sheet About 15cm because it will be reused

after pipe connection.) Hang the indoor unit on the mounting board.

Place the cushion under the right rear surface of the indoor unit to lift the lower side of the unit by approximately 15cm. Connect the refrigerating pipe. (Refer to "Pipe Connection"

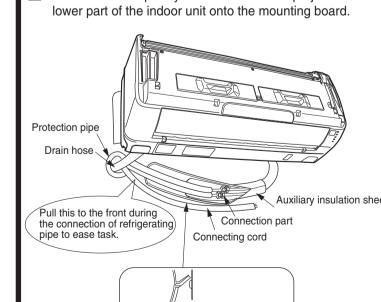
on page 9) Cover the pipe connection with the auxiliary insulation sheet which was removed earlier, with its split line on the top. Wrap the tape without any gap. (Refer to "Installation after connection of refrigerating pipes (Horizontal piping)" on page

5, step ⅓) Insert the drain hose into the wall hole.

Connect the connecting cord. (Refer to "Connection of Power Cord" on page 10).

Form connecting cord and refrigerating pipe and put them in the space on the lower side of the rear surface of the indoor

Remove the temporary stand and hook the projection on the lower part of the indoor unit onto the mounting board.



Auxiliary insulation sheet Refrigerating pipe

**A** CAUTION

 Do not over tighten vinyl tape on pipe heat insulation Do not over tighten to avoid loss of heat insulating effect

and dew condensation Pull the lower part of the indoor unit towards you and confirm that the tab of the indoor unit is fit in the installation plate

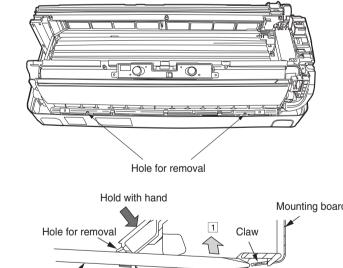
If the tab is not fitted in securely, vibration of the indoor unit

How to remove the indoor unit

Push the [PUSH] section at the bottom of the indoor unit from the outside, the claws are released from the mounting board. (2 places on the left and right) If the bottom of the indoor unit cannot be pushed, remove the bottom part of the front cover and insert a screwdriver into the hole for removal of indoor unit as shown in the

figure. Then, push the claws upwards while holding down the upper part of the hole  $\square$  and pull the indoor unit towards you 2. When horizontal piping is used, be careful not to damage the pipe and connecting cord with the tip of the screwdriver during this operation.

Please refer to "Removing and Attaching the Front Cover" on page 14 to remove the bottom part of the front cover.



3. Drainage Check After the indoor unit is installed, please ensure the smooth flow of condensed water of the indoor unit during installation. (Careless work may result in water leakage.)

## **A** CAUTION

Careless work may result in water leakage.

During drainage work, install the drain pipe to ensure smooth drainage. Make sure to carry out drainage

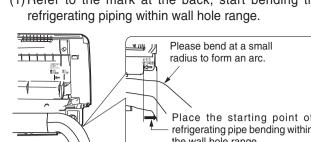
Make sure that there is no problem as shown in the figures on page 8. Such problems may cause clogged drain and could result

in water leakage. Drain hose must be at a slope of at least 1/25. When inserting the drain hose into the drain pipe for embedded piping, etc., do not cut the drain hose in the

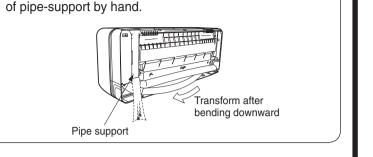
This may lead to poorer heat insulating performance of the drain hose and could result in water leakage. Do not lead the drain hose to a place where corrosive gas (sulfur, ammonia, etc.) is generated such as septic

Corrosive gas may flow into the indoor unit through the drain hose, and could result in corrosion on the copper pipe and odor in the room.

### Form the refrigerating pipe according to the wall hole Especially in the case of horizontally backward piping,



If the starting point of refrigerating pipe bending is projected from the wall hole range or if the bending radius is too large, the indoor unit may be lifted from



#### stallation after connection of refrigerating pipes

lorizontally and downward piping from the right

Carry out refrigerating pipe forming.

Bottom cover \

connecting cord with tape.

bush hole

connection.)

1 Remove the auxiliary insulation material sheet which is

attached to the pipe insulation. (Keep the removed auxiliary

insulation material sheet because it will be reused after pipe

Layout of horizontally piping from the right

3 Temporarily join the refrigerating pipe, drain hose and

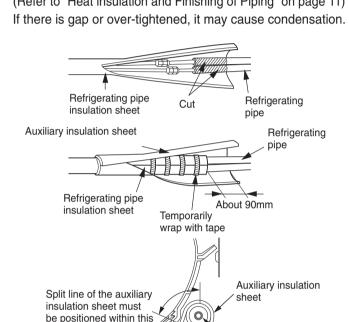
**A** CAUTION

Transform the piping while holding down the lower portion

Remove the auxiliary insulation material sheet which is attached to the pipe insulation. Connect the refrigerating pipe. (Refer to "Pipe Connection" on page 9)

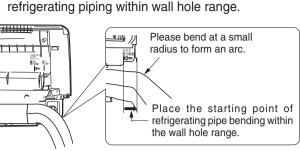
2 Cut the heat insulation sheet refrigerating pipe aligning to the insulation sheet of the pipe and fix them temporarily with

3 Cover the pipe connection with the auxiliary insulation sheet which was removed earlier, with its split line on the top. Wrap the tape without any gap. Tape must not be over tightened (Refer to "Heat insulation and Finishing of Piping" on page 11



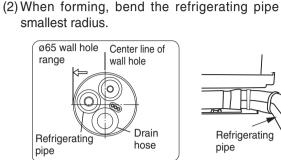
follow the instruction below to carry out accurate forming. Forming of refrigerating pipe for horizontally backward

(1) Refer to the mark at the back, start bending the



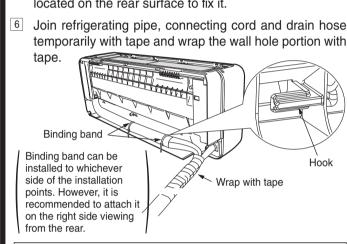
wall and this may cause poor finishing.

(2) When forming, bend the refrigerating pipe with the



Form the connecting cord and refrigerating pipe and put

them in the space on the lower side of the rear surface of the indoor unit. Put the binding band on the hook located on the rear surface to fix it.



temporarily with tape and wrap the wall hole portion with

Be sure to cut the extra binding band. (Otherwise, it may result in abnormal noise or dewfall.)

Connecting the refrigerating pipe at the back of the

locations marked with "♥" symbol.

 Form and set the refrigerating pipe and connecting cord. Match the end of the refrigerating pipes with the 1.00m Below 5mm nsert a plastic hose (commercial product)

Please bend at a small radius to form an arc. (Pipe can be bent with a small radius without being crushed if a plastic hose is used.) **A** CAUTION

• When using a plastic hose, make sure to insert it only

after pipe expanding is carried out to avoid cutting

into the large diameter pipe.

2.2 Installation

dust from getting inside.

#### Connecting the refrigerating pipe other than at the back of the indoor unit

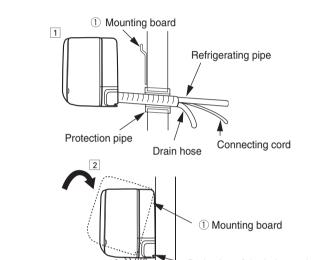
Insert the pipes through the wall hole.

Finishing of Piping" on page 11)

2 Hang the upper part of the indoor unit on the mounting 3 Push the lower part of the indoor unit to the wall, hook the projection on the lower part of the indoor unit onto the

mounting board. 4 Cover the pipe connection with the auxiliary insulation sheet which was removed earlier, with its split line on the top. Wrap the tape without any gap. (Refer to "Heat insulation and

If there is gap or over-tightened, it may cause condensation.



Projection of the indoor unit

**A** CAUTION Be sure that the drain hose is loosely connected

#### **A** CAUTION

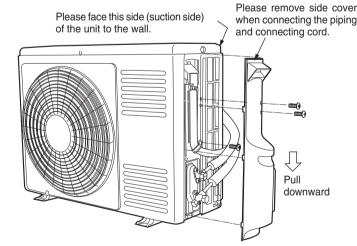
bend or proper condition like left figure.

You are free to choose the side (left or right) for the installation of drain hose. Please ensure the smooth flow of condensed water of the indoor unit during installation. (Careless may result in water

Please mount the outdoor unit on stable ground to prevent vibration and increase of noise level.

Decide the location for piping after sorting out the

different types of pipe available. When removing side cover, please pull the handle after undoing the hook by pulling it downward. Reinstall the side cover in reverse order of the

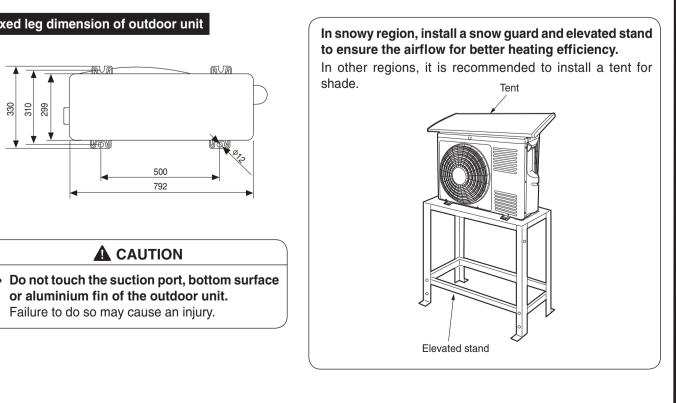


Fixed leg dimension of outdoor unit

**A** CAUTION

or aluminium fin of the outdoor unit.

Failure to do so may cause an injury.



12.7 (1/2")

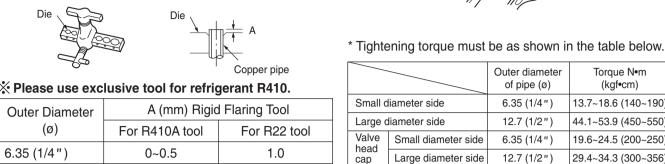
Wiring of the Outdoor Unit

in heat and fire.

trimming to prevent copper chips from entering the

Before flaring, please put on the flare nut.

0~0.5



2. Pipe Connection

side) with a spanner.

Remove the flare nut from the pipe of the indoor

Do not crush the pipe while bending it.

securely with a torque wrench (spanner).

unit by removing the flare nut (female side) with a

spanner while holding down the half union (male

Apply refrigerant oil on the connection part. After

carrying out the center alignment and manual

tightening of the flare nut, tighten the flare nut

12.3~15.7 (125~160)

**A** CAUTION

When removing flare nut of the indoor unit, first remove the nut of small diameter side. Otherwise the nut of big diameter side will fly out.

1.0

Prevent water from entering into the piping when connecting. Be sure to tighten the flare nut to the specified torque with a torque wrench.

If the flare nut is overtightened, it may split after sometime and may cause refrigerant leak. When using a control valve, make sure that the packing is not deteriorated and avoid excessive tightening of the handle. Otherwise, gas may leak from the service valve.

3. Remove of Air from the Pipe and Gas Leakage Inspection

From the viewpoint of global environment protection, air purge type should be vacuum pump method. • Fully tighten the "Hi" shuttle of the manifold valve and hose. completely unscrew the "Lo" shuttle. Run the vacuum pump. (Adapter is switched on) After pumping for about 10-15 minutes, completely loosen the "Lo" shuttle and switch off the vacuum pump. (Adapter is switched off)

Please remove the side cover and terminal cover for wiring connection.

The connecting cord must be fix with cord band

flexible cord with code designation 60245 IEC 57.

wrap the tape without any gap.

hose and pipe with insulation sheet.

outdoor units on page 2.

**A** WARNING

Otherwise rain water may enter and cause short circuit. Besides, an external

force may apply to the connection part of the connecting cord and could result

**A** CAUTION

Outdoor supply cords shall not be lighter than polychloroprene sheathed

**Heat Insulation and Finishing of Piping** 

Cover the pipe connection with the auxiliary insulation sheet,

If there is gap or over-tightened, it may cause condensation

Please wrap the pipe and power cord together with vinyl

tape as shown in the figure of the installation of indoor and

To enhance the heat insulation and to prevent water

condensation, please cover the outdoor part of the drain

When using an exit cover, do not attach a bush for pipe.

When an exit cover is not used, seal the gap of the hole

on the wall, bush and pipe completely with putty. If an exit

cover is used, seal the gap of the hole on the wall and pipe

completely with putty. In the case of embedded piping,

seal the gap of the pipe completely with putty. Incomplete

sealing could cause entering of high humidity air into the

wall or indoor unit, which could result in dripping of dew. It

• The terminal cover and side cover must be installed after work is done.

Meter showing pressure Make sure the meter (-76cmHg) during pumping. R410A Manifold valve the flare nut to check if air sucked in. Then tighten the flare nut. Ball valve \_r Vacuum pump adapter

 Remove the valve head cap of the service valve. Remove the cap of valve valve at small core and connect the charge hose.
Connect the vacuum pump adapter to the vacuum pump and connect the charge hose Loosen the spindle of the service valve with small diameter by 1/4 turn and tighten the spindle immediately after 5 to 6 seconds. Remove the charging hose from the service valve Unscrew the spindle of both the ) service valves in anticlockwise Cap of

direction to allow the flow of refrigerant (unscrew halfway). Tighten the cap of valve head. Check and make sure that there is no gas leakage.

ABC

**IMPORTANT** 

Seal with putty

Drain hose

Do not cut the drain

hose in the middle

When using an exit

cover, do not attach a

bush for pipe.

Connecting cord

Fuse Capacity

25A time-delay fuse

and wrap

with tape

Bush for pipe

**A** CAUTION

High humidity air inside the wall or the outdoor may

go in to the room and could result in dripping of dew.

Completely seal any gap with putty

Please leave the ball valve fully open

Remove the lower cover.

Terminal cover

Gas Leakage Inspection

shown on the right.

**AC 220V** 

Please use gas leakage detector

connection of Flare nut as

If gas leakage occurs, further

tighten the connection to stop

to check if leakage occurs at connection of Flare nut as

leakage. (Be sure to use R410A

**Procedures of Wiring** 

Connecting

contact is tight. Improper insertion may burn the terminal. Be sure to use only wire specified for the use of air-conditioner.

 $3\times2.5$ mm<sup>2</sup>. (Fuse = 16A time delay)

Wiring of the Indoor Unit

part when removing.

Attaching the Front Panel" on page 13)

Remove the terminal cover and screw, hold the upper

lower part of the terminal cover and fix with screw. **About Address Selector Switch** This is utilized to avoid the interference of remote controller signals when two indoor units are installed in the same room. The Address Selector Switch is on the outside of the remote

**WARNING** 

If the supply cord is damaged, it must be replaced by a special cord (Maker's service parts) available from the manufacturer

The naked part of the wire core should be 10mm fix it to the terminal tightly. Then try to pull the individual wire to check if the

Be sure to use only power cables approved form the authorities in your country. For example in Germany: Cable type: NYM

Secure the connecting cord along the coated part of the wire using the cord band. Do not exert pressure on the wire as this

There is a AC voltege of 220V between the A and B terminals. Therefore, before servicing, be sure to remove the plug from

from the rear surface to the

The connecting cord should

be fix with the terminal.

Tightening torque reference

1.2~1.6N•m (12~16kgf•cm)

Excessive tightening may

damage the terminal.

5 Connect the connecting cord

and fix with cord band.

6 Hook onto the claw at the

cable guide.

front surface through the Cable

Please refer to the manual for wire connection, the wiring technique should meet the standard of the electrical

Leave some space in the connecting cord for maintenance purpose and be sure to secure it with the cord band.

Remove the front panel. (Refer to "Removing and 4 Bring the connecting cord

Works to be done when transferring or removing air

From the viewpoint of global environment protection,

air conditioner is transferred or removed.

side in clockwise direction.

Stop the force-cooling operation.

refrigerant should be recovered (pumped down) when the

Perform force-cooling operation (refer to "Force-cooling

Tighten the spindle of the service valve at small diameter

Continue the force-cooling operation for another 1-2

at large diameter side in clockwise direction.

**Detail of Cutting the Connecting Cord** 

minutes, and then tighten the spindle of the service valve

operation" on page 12) for about 5 minutes as a preliminary

controller battery cover. (Factory setting is set to "A") Setting the address (to avoid interference) Only one of the two indoor units has to be set (turn off the power to the other indoor unit). Place a battery in the remote controller and press the reset switch. (Refer to page 11 of the Operation Manual)

2 While pointing the remote controller transmitter/receiver at the indoor unit, move the switch of the Address Selector Switch to "B".

3 The channel is set when the unit beeps, confirming it has received the signal.

After changing the address, please confirm the unit's operation with the remote controller. If the unit does not operate, return the switch to "A" and set the switch again.

. Remove the Protection Sheet

Remove the protection sheet on the display panel. Display panel

Force-cooling operation

completed.

Temporary switch

(Force-cooling operation starts when the

switch is pressed for more than 5 seconds.

Press the switch again and use the remote

controller to stop the operation.)

. Power Source and Operation Test

**A** WARNING Never modify or extend the power cord. Keep additional length for the power cord and do not render the plug under external force as this may cause poor contact.

It could also cause smell or odor present outdoor and Do not fix the power cord with U-shape nail. The power cable easily generates heat. Do not bring the cable together with a wire or vinyl tie.

Power source

connection.

 Use a new power outlet. Old power outlet may cause insufficient electrical contact, which could result in unforeseen accident. Connect and disconnect the power plug a few times

**A** CAUTION

to ensure smooth plug-in before completely insert the power plug into the power outlet. Operation test

Please ensure that the air conditioner is in normal operating condition during the operation test. Explain to your customer about the proper operation procedures as described in the operation manual. If the indoor unit won't operate, check the cable for correct

Removing and Attaching the Front Panel Be sure to hold the front panel with both hands to detach and attach it. Please refer to the operation manual on how to open and close the front panel. ① Push the end of the right-side arm outward to release the tab. 2 Move the left-side arm outward to release the left tab, and then pull the panel towards you. Attaching ① Insert the shaft of the left arm along the step on the unit into the hole. ② Securely insert the shaft of the right arm along the step on the unit into the hole. Make sure that the front panel is securely attached, and then close the front panel. **A** CAUTION

When being installed or removed, the panel is likely to slide off.

the panel may come off or malfunction may be caused.

When lifting to open the panel, do not apply too much force. Otherwise,

the terminal block

Verifying cleaning of the filter mesh

\* Unlike the coventional type of air conditioner, this air conditioner has no grille at its top surface, It is because this air conditioner is equipped with the

cleaning unit, and to prevent the top surface from getting dirty easily.

**Front Panel** 

completion due to an abnormal condition.

take appropriate actions.

**A** CAUTION

Verifying installation of the terminal block and the front panel

then the center until it clicks into place.

To close the front panel, press its right and left sides first and

Cleaning indicator

filter mesh, send wind

boards are closed. The

If the "clean indicator blinks during the "Filter Cleaning Operation" means that the operation is stopped before its

In this case, refer to "Check the Operation of the Filter Cleaning Unit" and "Troubleshooting" of the operation manual and

To verify cleaning of theAfter the cleaning action is

when upper and lower wind diagnosis indicator blinks (4"

cleaning indicator lights up. mality in cleaning operation of

acknowledged, if the cleaning

on/1" off), it indicates abnor-

the filter mesh. In this case,

refer to the Operating

Instructions for a solution

How to remove the panel frame Remove the front panel and the storage box. Unscrew screws of the terminal block cover, and remove the terminal block. Remove the screw cover below the panel frame, and unscrew the 7 screws from the panel frame. 4 Insert the screw driver into the hole on the right upper part of the panel frame, and loosen the jaw. 5 Hold the panel frame and pull it along the direction indicated by the arrow to remove it.

Attaching the Front Cover

1 Make sure that the dew receiving pan and the cleaning unit are securely attached. 2 After attaching the left and right sides of the front cover onto

the unit, ensure that the top tabs (2 places) have been fixed

Fix on the top tabs (2 places)

3 Tighten the 7 screws in the panel.

4 Install the terminal block cover, and tighten the screws. Install the screw cover. Terminal block cover

Terminal block cover

6 Install the storage box and the panel.

[For details on part numbers of optional accessories, refer to the catalogue.] To connect to H-LINK, purchase a RAC adaptor separately.

H-LINK

 When connecting wires, be sure to open the electric Connect the socket of RAC adaptor to CN7.

 Reattach the electric box cover. For details on the RAC adaptor, refer to its user manual. Please take care when connecting the optional adaptor

to prevent the edge of the circuit board from cutting the

 Remove and install the front cover by referring to this Instruction Manual.

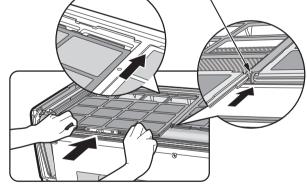
How to check Micro Mesh Stainless Filter installation

• Remove the front panel and check if the filter locks (2 pcs) are tripped or slant.

• If the filters are not inserted properly, refer to following "Installing the Micro Mesh Stainless Filters".

• Please perform "Filter cleaning operation check" again after reinstalled the filters.

Installing the Micro Mesh Stainless Filters



1 Keep the filter mesh facing up, and align the filter with the top face of the indoor unit, and then slide and push it in. (The shape of the left and right filters are the same.)

2 Slide the buckles of the filter mesh leftwards to lock the filter mesh. (Each in both sides)

Settings of [Dynamic Wind Deflection]

When the indoor unit is installed in a corner, please set it by following the procedure below to achieve the maximum effect:

( Keep holding it Hold it for more than 5 seconds The setting completes when the machine beeps. When the air guide mode is set to evasion, the air is sent to all areas except the left side.

Indoor unit Keep holding it Hold it for more than 5 seconds The setting completes when the machine beeps. When the air guide mode is set to evasion, the air is sent to all areas

(This is the factory default setting. Keep holding it Hold it for more than 5 seconds The setting completes when the

More than More than

When the room and installing location change, please set the remote controller again.

Less than --

except the right side.

could also cause smell or odor present outdoor and inside inside the wall spreading into the room. the wall spreading into the room. 2. Affixing the Remote Controller and Installing the Anti-mold Wasabi Cassette The remote controller may be affixed to a wall or pillar with the remote controller mounting screw. When operating the air conditioning with the remote controller attached, please make sure that the signal is received by the air conditioning. Furthermore, fluorescent lighting may affect the reception of the signal, therefore, please make sure by turning on the fluorescent lighting even during the day. Lighting fixtures with electronic starters may shorten the reception distance and may even interfere with the signal being • Install the 6 anti-mold wasabi cassette. Installation methods (Refer to page 8 of the Operation Manual) Noise may occur if the anti-mold wasabi cassette is not installed properly. Anti-mold wasabi

Before trial running of the air conditioner, be sure to check the following steps 1 and 2, and then operate it in the cooling-heating room. A**••**•B Check whether the terminal block cover has been installed. Address selector switch Before turning on the power of the air conditioner, make sure that the filters (2 pieces at the top and 2 pieces in front) have been installed properly and locked. When the power of the air conditioner turns on, the "Filter Cleaning Operation" starts automatically. The tiles clean indicator is lit during the filter cleaning operation. When the temporary switch of the indoor unit is pressed for more than 5 seconds, the force-cooling operation starts. \* Do not touch the cleaning unit during Use this mode when performing the failure diagnosis or the filter cleaning operation. collecting refrigerant into the outdoor unit. Doing so could result in injury or • The Timer lamp flashes when force-cooling is in operation. failure of the appliance. Press the temporary switch again or use the remote controller to stop the force-cooling operation once this operation is Filter Lock Make sure that the top filters have been locked. Lock the filters if they are not locked. (The filters may come off during the operation if they are not locked.) Filter cleaning operation check will take approximately **5 minutes** for the cleaning unit to make **one cycle** of back and forth movement. Make sure that the cleaning unit is actually working by a visual inspection from the top of the indoor unit. **A** CAUTION • Close the front panel properly. • If the "ON/OFF" button on the remote control is pressed during the operation check, the operation check is stopped Do not operate the unit for more than 5 minutes while before its completion. Wait until the operation check is completed without pressing any button on the remote controller. the spindle of the service valve is closed. • If the filters are not installed properly, "Filter Cleaning Operation" is found abnormal and the "team" clean indicator blinks. The filters may come off during operation if they are not installed properly.

Cord band