# MULTITYPE ROOM AIR CONDITIONER INSTALLATION INSTRUCTION

**SHEET** 

**⚠** CAUTION **R410A** REFRIGERANT THIS PRODUCT MUST ONLY BE INSTALLED OR SERVICED BY QUALIFIED PERSONNEL.

Refer to Commonwealth, State, Territory and local legislation regulations, codes, installation & operation manuals, before the installation, maintenance and/or service of this product.

Table 1 Thicknesses of Annealed Copper Pipes

Thickness (mm)

0.80

0.80

Nominal Outer diameter

(mm)

9.52

liameter (inch)

## (PART NO. 9374083015)

**↑** WARNING **?** CAUTION the user, or damage to property.

This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of This mark indicates procedures which, if improperly performed, might possibly result in personal harm to

## This air conditioner uses new refrigerant HFC (R410A).

The basic installation work procedures are the same as conventional refrigerant models. However, pay careful attention to the following points:

1) Since the working pressure is 1.6 times higher than that of conventional refrigerant models, some of the piping and installation and service tools are special. (See the table below.) Especially, when replacing a conventional refrigerant model with a new refrigerant R410A model, always replace the conventional piping and flare nuts with the R410A piping and flare nuts.

(2) Models that use refrigerant R410A have a different charging port thread diameter to prevent erroneous charging with conventional refrigerant and for safety. Therefore, check beforehand. [The charging port thread diameter for R410A is 1/2]

(3) Be more careful that foreign matter (oil, water, etc.) does not enter the piping than with conventional refrigerant models.

Also, when storing the piping, securely seal the openings by pinching, taping, etc. 4) When charging the refrigerant, take into account the slight change in the composition of the gas and liquid phases, and

always charge from the liquid phase side whose composition is stable. Special tools for R410A

Tool name	Contents of change
Gauge manifold	Pressure is high and cannot be measured with a conventional gauge. To prevent erroneous mixing of other refrigerants, the diameter of each port has been changed.  It is recommended the gauge with seals -0.1 to 5.3 MPa (-76 cmHg to 53 kgf/cm²) for high pressure0.1 to 3.8 MPa (-76 cmHg to 38 kgf/cm²) for low pressure.
Charge hose	To increase pressure resistance, the hose material and base size were changed.
Vacuum pump	A conventional vacuum pump can be used by installing a vacuum pump adapter.
Gas leakage detector	Special gas leakage detector for HFC refrigerant R410A.

It is necessary to use seamless copper pipes and it is desirable that the amount of residual oil is less than 40 mg/10 m. Do not use copper pipes having a collapsed,

deformed or discolored portion (especially on the interior surface). Otherwise, the expansion valve or capillary tube may become blocked with contaminants. As an air conditioner using R410A incurs pressure higher than when using R22, it is necessary to choose adequate materials Thicknesses of copper pipes used with R410A are as shown in Table 1. Never use

copper pipes thinner than 0.8 mm even when it is available on the market.

Do not use the existing (for conventional refrigerant) piping and flare nuts. If the existing materials are used, the pressure inside the refrigerant cycle will rise and cause breakage, injury, etc. (Use the special

When installing and relocating the air conditioner, do not mix gases other than the specified refrigerant (R410A) to enter the

If air or other gas enters the refrigerant cycle, the pressure inside the cycle will rise to an abnormally high value and cause breakage,

## For authorized service personnel only

	<b>⚠ WARNI</b>

For the room air conditioner to operate satisfactorily, install it as outlined in this installation instruction sheet.

Connect the indoor unit and outdoor unit with the room air conditioner piping and cords available standards parts. This installation instruction sheet describes the correct connections using the installation set available from our standard parts.

Installation work must be performed in accordance with national wiring standards by authorized personnel only.

Also, do not use an extension cord.

Do not turn on the power until all installation work is complete.

Do not purge the air with refrigerants but use a vacuum pump to vacuum the installation.

There is not extra refrigerant in the outdoor unit for air purging.

Use a vacuum pump for R410A exclusively.

Using the same vacuum pump for different refrigerants may damage the vacuum pump or the unit.

Use a clean gauge manifold and charging hose for R410A exclusively.

If refrigerant leaks while work is being carried out, ventilate the area. If the refrigerant comes in contact with a flame, it

Be careful not to scratch the room air conditioner when handling it.

 After installation, explain correct operation to the customer, using the operating manual. · Let the customer keep this installation instruction sheet because it is used when the room air conditioner is serviced or moved.

# **SELECTING THE MOUNTING POSITION**

## **↑** WARNING

Install at a place that can withstand the weight of the indoor and outdoor units and install positively so that the units will not

**⚠** CAUTION

Do not install where there is the danger of combustible gas leakage

Do not install near heat sources.

If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.

Decide the mounting position with the customer as follows:

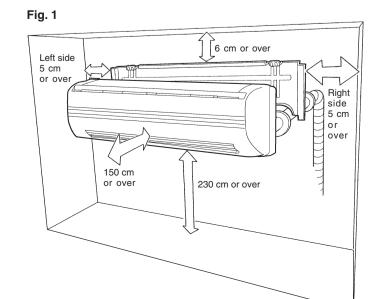
## 1. INDOOR UNIT

(1) Install the indoor unit level on a strong wall which is not subject to (2) The inlet and outlet ports should not be obstructed: the air should be

able to blow all over the room. (3) Do not install the unit where it will be exposed to direct sunlight.

(4) Install the unit where connection to the outdoor unit is easy. (5) Install the unit where the drain pipe can be easily installed.

(6) Take servicing, etc. into consideration and leave the spaces shown in (Fig. 1). Also install the unit where the filter can be removed.



## STANDARD ACCESSORIES

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

INDOOR UNIT ACCESSORIES (Wall Mounted type) Name and Shape Q'ty Wall hook bracket For indoor unit installation Wall cap-B For through hole connection pipe Use for air conditioner operation

control unit Battery (penlight) For remote control unit

Remote control Use as remote control unit holde unit holder Cloth tape

For indoor unit installation For wall hook bracket

For remote control unit holder Tapping screw (small)

#### **OUTDOOR UNIT ACCESSORIES**

Name and Shape	Q'ty	Use
Binder	2	For power cord and connection cords binding
Putty	1	For sealing
Hexagon wrench	1	For opening the refrigerant valve on the outdoor unit
Drain pipe (Heat & Cool model (Reverse cycle) only)	1	For outdoor unit drain piping work
Drain cap (Heat & Cool model (Reverse cycle) only)	2	For outdoor unit drain piping work

#### 2. OUTDOOR UNIT

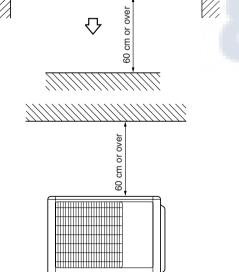
(1) If possible, do not install the unit where it will be exposed to direct sunlight. (If necessary, install a blind that does not interfere with the air flow.) (2) Do not install the unit where a strong wind blows or where it is very dusty.

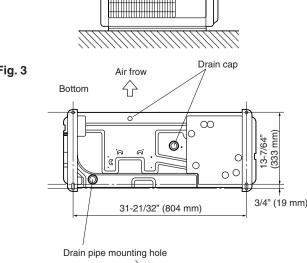
(3) Do not install the unit where people pass. (4) Take your neighbors into consideration so that they are not disturbed

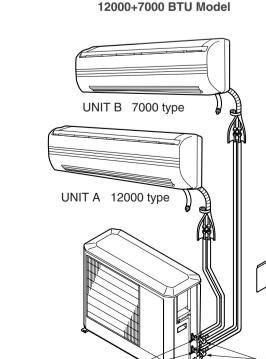
by air blowing into their windows or by noise. (5) Provide the space shown in (Fig. 2) so that the air flow is not blocked. Also for efficient operation, leave open three of the four directions

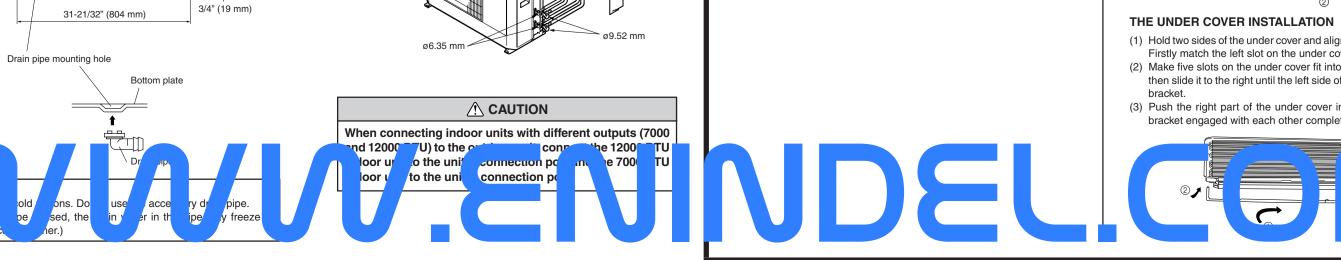
front, rear, and both sides. (6) Since the drain water flows from the outdoor unit during heating operation, when it is installed at a high place, install the drain pipe as shown in (Fig. 3) and connect it to a 16 mm (inside diameter) hose

available anywhere. (Heat & Cool model (Reverse cycle) only) (7) When installing the drain pipe, fill the holes other than the hole for the drain pipe in the bottom of the outdoor unit with drain cap to prevent water leakage. (Fig. 3) (Heat & Cool model (Reverse cycle) only)









INSTALLATION PROCEDURE

bottom of front cover

weight of an adult.

[Installation directly to a wall]

the holes near the outer edge of the bracket.

Check that there is no rattle at the wall hook bracket

**INDOOR UNIT INSTALLATION** 

The piping can be connected in the five directions indicated by ①, ②, ③,

(4), and (5). When the piping is connected in direction (2) or (5), cut along

the piping groove in the side of the front cover with a hacksaw. When

connecting the piping in direction ③, cut a notch in the thin wall at the front

1. INSTALLING THE WALL HOOK BRACKET

**↑** CAUTION

Install the wall hook bracket horizontally and perpendicu-

larly. If the wall hook bracket is tilted, water will drip to the

Install the wall hook bracket so that it is strong enough to withstand the

Before fastening the wall hook bracket to the wall with the screws, level it

by tapping the hook at the center of bracket to the wall with the handle of

Fasten the wall hook bracket to the wall with 6 or more screws through

Connection pipe assembly Connection cord (3-conductor + earth Decorative tape 2 sets Drain hose 2 sets Tapping screws Power supply cord

This installation manual refers to following installation parts.

## **ELECTRICAL REQUIREMENT**

Always make the air conditioner power supply a special branch circuit and provide a special switch and receptacle. Do not extend the power

## **CONNECTION PIPE** REQUIREMENTS

0.045 W/(m·K) or less (at 20 °C).

# **CAUTION**

Install heat insulation around both the gas and liquid pipes Failure to do so may cause water leaks. Use heat insulation with heat resistance above 120 °C. (Re-

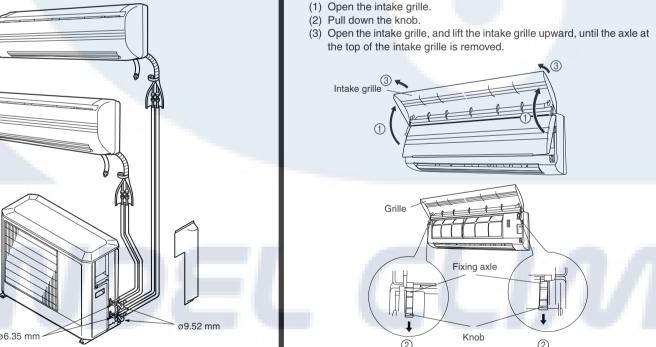
verse cycle model only) In addition, if the humidity level at the installation location of the refrigerant piping is expected to exceed 70%, install heat insulation around the refrigerant piping. If the expected humidity level is 70-80%, use heat insulation that is 15 mm or thicker and if the expected humidity exceeds 80%, use heat insulation that is 20 mm or thicker. If heat insulation is used that is not as thick as specified, condensation may form on the surface of the insulation. In addition, use heat insulation with heat conductivity of

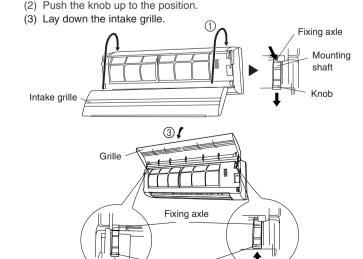
Connect the connection pipes according to "5 CONNECTING THE PIP-ING" in this installation instruction sheet.

Model		All models		
Diameter	Small	6.35 mm (1/4 in.)		
Diameter	Large	9.52 mm (3/8 in.)		
Maximum length		15 m (49 ft.) × 2		

## INDOOR UNITS-OUTDOOR **UNIT CONNECTIONS**

12000+12000 BTU or 9000+9000 BTU Model



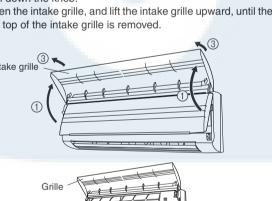


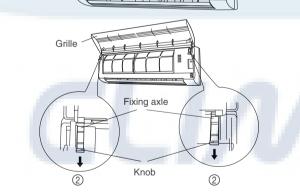
# **COVER REMOVAL**

FRONT PANEL AND UNDER

FRONT PANEL REMOVAL AND INSTALLATION

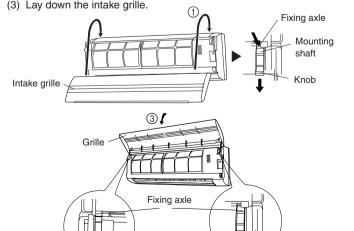
THE INTAKE GRILLE REMOVAL





## THE INTAKE GRILLE INSTALLATION

(1) The fixing axle of the intake grille is installed on the front panel. (2) Push the knob up to the position.



2. CUTTING THE HOLE IN THE WALL FOR THE

**↑** WARNING

If the wall pipe is not used, the cord interconnecting the

indoor and outdoor units may touch metal and cause elec-

(2) When cutting the wall hole at the inside of the installation frame, cut

(3) Cut the hole so that the outside end is lower (5 to 10 mm) than

(4) Always align the center of the wall hole. If misaligned, water leak-

(5) Cut the wall pipe to match the wall thickness, stick it into the

(6) For ⑤ left piping and ② right piping, cut the hole a little lower so that

**↑** CAUTION

Do not remove the flare nut from the indoor unit pipe

until immediately before connecting the connection pipe

To prevent breaking of the pipe, avoid sharp bends. Bend

the pipe with a radius of curvature of 70 mm or over.

If the pipe is bent repeatedly at the same place, it wil

• Install the indoor unit piping in the direction of the wall hole and

Bottom piping

(1) Turn the wind guide and remove two screws at two sides of air outlet.

(2) Take out the air outlet part of the front panel, then lift the whole front

Indoor unit drain hose (bottom)

Bind with vinyl tape

[1] Rear piping, 2 Right piping, 3 Bottom piping]

bind the drain hose and pipe together with vinyl tape.

Install the piping so that the drain hose is at the bottom

3. FORMING THE DRAIN HOSE AND PIPE

accessory wall cap-B, fasten the cap with vinyl tape, and stick

the pipe through the hole. (The connection pipe is supplied in

When cutting the wall hole at the outside of the installation frame,

(1) Cut a 65 mm diameter hole in the wall at the position shown in.

the hole to a point of intersection of center marks.

cut the hole at least 10 mm below less.

CONNECTING PIPING

tric leakage.

the inside end.

age will occur.

the installation set.)

drain water will flow freely.

Cut off the pipir

groove with a

Notch the thin part of

THE FRONT PANEL REMOVAL

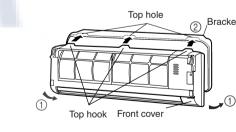
under cover A.

hacksaw, etc

#### THE FRONT PANEL INSTALLATION

(1) Firstly fit the lower part of the front panel to the air outlet part and insert its lower edge into the slot of the lower cover. (2) Insert three hooks on the upper side of the front panel into the slot of

(3) Turn the wind guide, tighten the screws, and then turn the wind guide back to its original position.



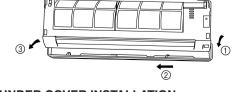
#### THE UNDER COVER REMOVAL AND INSTALLATION

The under cover removal should be done after the panel has been removed beforehand, or the parts may be damaged The under cover should be installed before the fixing of the panel, or it

## THE UNDER COVER REMOVAL

(1) While pressing the joint part between the right part of the under cover and the bracket, pull it out of the slot. (2) Hold two sides of the under cover and slide it to the left. Make sure its under part getting out of the slot.

(3) Turn the right part of the under cover under-left to separate the left slot of the under cover from the bracket.



#### THE UNDER COVER INSTALLATION

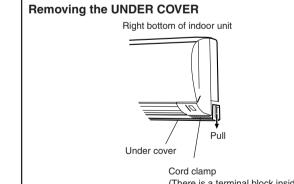
(1) Hold two sides of the under cover and align it to the side of the bracket. Firstly match the left slot on the under cover to the bracket. (2) Make five slots on the under cover fit into the fixing plate of the body, then slide it to the right until the left side of the under cover align to the

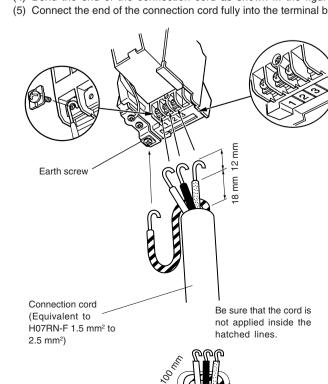
(3) Push the right part of the under cover inward to make the slot and bracket engaged with each other completely.

Before starting work, check that power is not being supplied to indoor units and the outdoor unit.

block. Imperfect installation may cause a fire.

Always connect the ground wire.

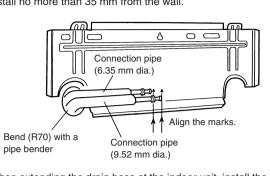




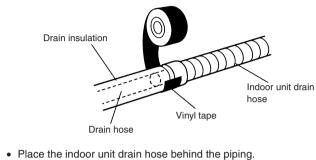
# Installing the drain hose Insert the drain hose into the drain port. Indoor unit drain hose

bracket and shape the connection pipe Bend the connection piping at a bend radius of 70 mm or more and install no more than 35 mm from the wall.

For left piping and left rear piping, align the marks on the wall hook



When extending the drain hose at the indoor unit, install the accessory drain insulation



(6) Fasten the connection cord with a cord clamp.

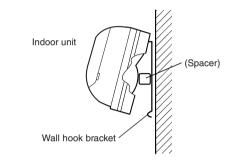
with the position shown in

fasten with a screw.

the figure as reference.

#### [Installing the indoor unit] Hang the indoor unit from the hooks at the top of the wall hook

Insert the spacer, etc. between the indoor unit and the wall hook bracket and separate the bottom of the indoor unit from the wall.



# **INDOOR UNIT WIRING**

**⚠** CAUTION

• Perform "3 INDOOR UNIT WIRING" before performing this piping.

After hooking the indoor unit to the top hook, hook the

lowering the unit and pushing it against the wall.

[For 4 Left rear piping, 5 Left piping]

Interchange the drain cap and the drain hose.

Interchanging the drain hose

Removing the drain hose

Insert the drain cap and drain hose

until it butts against the drain port

the drain cap.

fittings of the indoor unit to the two bottom hooks while

**CAUTION** 

After removing the drain hose, do not forget to install

Remove the under cover A and pull off the drain hose.

For left outlet

a hacksaw.

piping, cut off the

cutting groove with

cap by pulling at

end of the cap with

the projection at the

with decorative tape

the wall hook bracket.

• Wrap the pipes of the indoor unit that are visible from the outside

After passing the indoor piping and drain hose through the wall

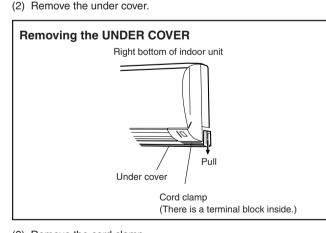
hole, hang the indoor unit on the hooks at the top and bottom of

Match the terminal block numbers and connection cord colors with those of the outdoor unit. Erroneous wiring may cause burning of the electric

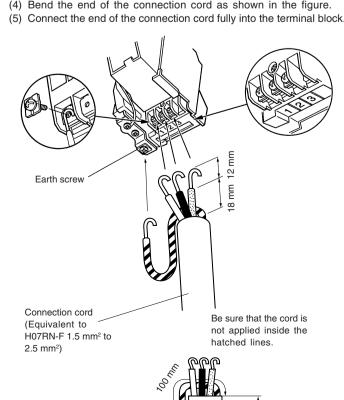
Connect the connection cords firmly to the terminal

Always fasten the outside covering of the connection cord with the cord clamp. (If the insulator is chafed, electric leakage may occur.)

(1) Remove the front panel. (To remove the front panel, refer to "2 FRONT PANEL AND UNDER COVER REMOVAL" in this installation instruc-



(3) Remove the cord clamp. (4) Bend the end of the connection cord as shown in the figure. (5) Connect the end of the connection cord fully into the terminal block.



covering of the connection cord with cord clamp. Insert the tab into the square hole of the indoor unit and

# **OUTDOOR UNIT INSTALLATION**

**⚠ WARNING** Install the unit where it will not be tilted by more than

When installing the outdoor unit where it may exposed to strong wind, fasten it securely.

 Set the unit on a strong stand, such as one made of concrete blocks to minimize shock and vibration.

• Do not set the unit directly on the ground because it will cause trouble.

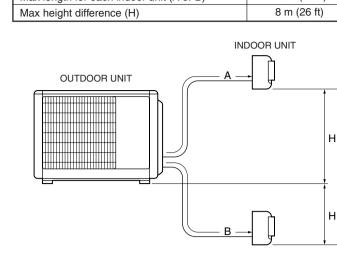
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## The maximum lengths of this product are shown in Table 5-1 If the units are further apart than this, correct operation can not be guaranteed. LIMITATION OF REFRIGERANT PIPING LENGTH Total max length (A+B)

**CONNECTING THE PIPING** 

**CAUTION** 

#### 30 m (98 ft) 15 m (49 ft) Max length for each indoor unit (A or B)



#### 2. FLARING

- (1) Cut the connection pipe to the necessary length with a pipe cutter. (2) Hold the pipe downward so that cuttings will not enter the pipe and
- (3) Insert the flare nut (always use the flare nut attached to the indoor and outdoor units respectively) onto the pipe and perform the flare processing with a R410A flare tool.

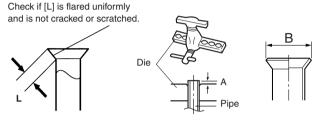


Table 5-2 Flaring dimension: B

Pipe outside diameter	B <sup>+0</sup> <sub>-0.4</sub> (mm)			
6.35 mm (1/4 in.)	9.1			
9.52 mm (3/8 in.)	13.2			
When using conventio	nal flare tools to flare R410A pipes, the di			

A should be approximately 0.5 mm more than indicated in Table 5-3 (for flaring with R410A flare tools) to achieve the specified flaring. Use a thickness gauge to measure the dimension A.

#### Table 5-3 Pipe outside diameter

Flare tool for R410A, clutch type

Pipe outside

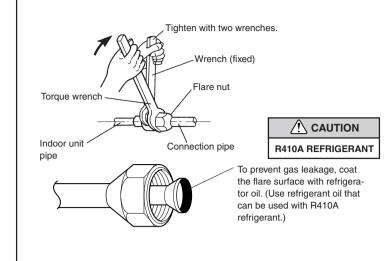
6.35 mm (1/4 in.) 9.52 mm (3/8 in.)

#### 3. BENDING

- (1) When bending the pipe, be careful not to crush it. (2) To prevent breaking of the pipe, avoid sharp bends. Bend the pipe with
- a radius of curvature of 70 mm or over. (3) If the copper pipe is bent or pulled to often, it will become stiff. Do not bend the pipe more than three times at one place.

#### 4. CONNECTION

- (1) Install the outdoor unit wall cap (supplied with the optional installation set or procured at the site) to the wall pipe.
- (2) Connect the outdoor unit and indoor unit piping. (3) After matching the center of the flare surface and tightening the nut hand tight, tighten the nut to the specified tightening torque with a torque wrench. (Tighten the flare nut of the outdoor unit 3-way valve after air purging.)



#### Table 5-4 Flare nut tightening torque

Flare nut	Tightening torque	Tightening torque standard (using a 20 cm wrench)
6.35 mm dia.	16 to 18 N·m (160 to 180 kgf·cm)	Wrist strength
9.52 mm dia.	30 to 42 N·m (300 to 420 kgf·cm)	Arm strength

Do not remove the cap from the connection pipe before connecting

# **VACUUM PROCESS**

<b>⚠</b> CAUTION
① Do not purge the air with refrigerants but use a vacuum pump to vacuum the installation! There is no extra re- frigerant in the outdoor unit for air purging!

- Use a vacuum pump for R410A exclusively. Using the same vacuum pump for different refrigerants may damage the vacuum pump or the unit.
- Charging of additional refrigerant (R410A) according to the piping length is unnecessary.

#### 1. VACUUM

Blank cap

- (1) Remove the cap, and connect the gauge manifold and the vacuum pump to the charging valve by the service hoses.
- (2) Vacuum the indoor unit and the connecting pipes until the pressure gauge indicates -0.1 MPa (-76 cmHg). (3) When –0.1 MPa (–76 cmHg) is reached, operate the vacuum pump
- (4) Disconnect the service hoses and fit the cap to the charging valve to
- the specified torque. 5) Remove the blank caps, and fully open the spindles of the 2-way and 3-way valves with a hexagon wrench (Torque: 6 to 7 N · m (60 to 70
- (6) Tighten the blank caps of the 2-way valve and 3-way valve to the
- specified torque.

Tightening torque

20 to 25 N · m (200 to 250 kgf · cm)

Charging port cap	13 to 16 N · m (125 to 160 kgf · cm)			
Charging port Service hose with valve core  Service hose with valve core	Blank cap  Spindle  Cap			

**⚠** CAUTION

Use a clean gauge manifold

and charging hose for

R410A exclusively.

Gauge manifold

**CHECK ITEMS** 

(1) INDOOR UNIT

(4) Is the drain normal?

(2) OUTDOOR UNIT

(3) Is there any gas leakage?

operation check.

(2) Does each lamp light normally?

(3) Do not air flow direction louvers operate normally?

(5) Is there any abnormal noise and vibration during operation?

(1) Is there any abnormal noise and vibration during operation?

(2) Will noise, wind, or drain water from the unit disturb the neighbors?

• Do not operate the air conditioner in the test running state for a long

• For the operation method, refer to the operating manual and perform

**CUSTOMER GUIDANCE** 

Explain the following to the customer in accordance with the operating

(1) Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit op-

(2) Air filter removal and cleaning, and how to use the air louvers. (3) Give the operating and installation instruction sheets to the customer.

# **OUTDOOR UNIT WIRING**

**GAS LEAKAGE INSPECTION** 

**RECHARGING THE** 

REFRIGERANT

(1) When moving and installing the air conditioner, do not mix gas other

than the specified refrigerant (R410A) inside the refrigerant cycle.

(2) When charging the refrigerant R410A, always use an electronic bal-

(4) Add refrigerant from the charging valve after the completion of the

(3) When charging the refrigerant, take into ac-

count the slight change in the composition of

the gas and liquid phases, and always charge

from the liquid phase side whose composi-

tion is stable.

ance for refrigerant charging (to measure the refrigerant by weight).

**CAUTION** 

After connecting the piping, check the joints for gas leak-

age with gas leak detector.

#### **↑** WARNING Before starting work, check that power is not being supplied to the outdoor unit. Match the terminal block numbers and connection cord colors with those of the indoor unit side. Erroneous wiring may cause burning of the electric Connect the connection cords firmly to the terminal

- block. Imperfect installation may cause a fire. Always fasten the outside covering of the connection
- cord with cord clamps. (If the insulator is clamped, electric leakage may occur.)

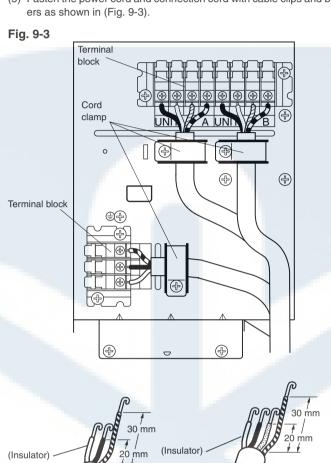
Always connect the ground wire.

#### **CAUTION** The power cord is not supplied with the outdoor unit. Use 2.0 mm<sup>2</sup> to 3.5 mm<sup>2</sup> H07RN-F or equivalent as the

Select power cable matched to the fuse capacity. (Install in a accordance with standard.)

# (1) Remove the outdoor unit terminal cover \* After removing the screws, remove valve cover by pushing it down. (2) Process the end of the connection cords to the dimension shown in (Fig. 9-3) and bend the end of each cord as shown in (Fig. 9-2). Fig. 9-2 Stripped length

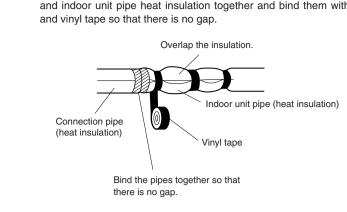
- (3) Connect the end of the power cord and connection cord fully into the
- (4) Fasten the sheath with a cord clamp. (5) Fasten the power cord and connection cord with cable clips and bind-



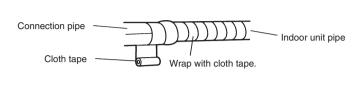
# Indoor and outdoor wire connection · 9000+9000 BTU Model · 12000+7000 BTU Model 12000+12000 BTU Mode [Wall Mounted & Cassette type] · 12000+7000 BTU Model 12000+12000 BTU Mode 220-240 V 50 Hz/1ø [Cassette type] 12000+12000 BTU Mode 50 Hz/1ø (6) Pass the connection cord and power cord through the hole of the 3way valve bracket and run them to the outside of the cabinet.

# **FINISHING**

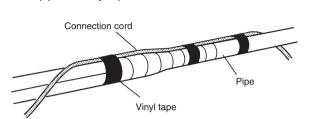
- (1) Insulate between pipes • For rear, right, and bottom piping, overlap the connection pipe heat
- insulation and indoor unit pipe heat insulation and bind them with
- vinyl tape so that there is no gap. • For left and left rear piping, butt the connection pipe heat insulation and indoor unit pipe heat insulation together and bind them with



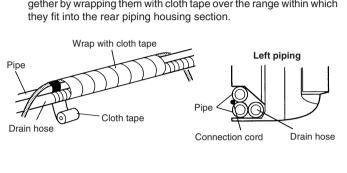
• For left and left rear piping, wrap the area which accommodates the rear piping housing section with cloth tape.



• For left and left rear piping, bind the connection cord to the top of the pipe with vinyl tape



• For left and left rear piping, bundle the piping and drain hose together by wrapping them with cloth tape over the range within which they fit into the rear piping housing section.



#### (2) Temporarily fasten the connection cord along the connection pipe with vinyl tape. (Wrap to about 1/3 the width of the tape from the bottom of the pipe so that water does not enter.)

(3) Fasten the connection pipe to the outside wall with a saddle, etc.

(4) Fill the gap between the outside wall pipe hole and the pipe with sealer

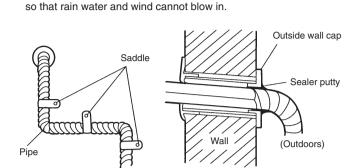
The top and bottom hooks are hooked firmly and the indoor unit

The indoor unit is accurately positioned horizontally and vertically

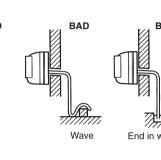
• When connected from the left rear, the drain hose is at the bottom

(For connection from

does not move to the front and rear or left and right.



(5) Fasten the drain hose to the outside wall, etc.



# **POWER**

#### **⚠** WARNING

- The rated voltage of this product is 220-240 V A.C. 50 Hz. Before turning on the verify that the voltage is within the 198 V to 264 V range.
- Always use a special branch circuit and install a special receptacle to supply power to the room air condi-
- Use a circuit breaker and receptacle matched to the capacity of the room air conditioner. (Fuse • breaker
- The circuit breaker is installed in the permanent wiring. Always use a circuit that can trip all the poles of the wiring and has an isolation distance of at least 3mm between the contacts of each pole.
- Perform wiring work in accordance with standards so that the room air conditioner can be operated safely and positively.
- Install a leakage circuit breaker in accordance with the related laws and regulations and electric company

#### **↑** CAUTION

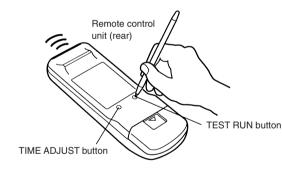
The power source capacity must be the sum of the room air conditioner current and the current of other electrical appliances. When the current contracted capacity is insufficient, change the contracted capacity.

When the voltage is low and the air conditioner is diffi-

cult to start, contact the power company to have the

## **TEST RUNNING**

- Perform test operation and check items 1 and 2 below
- The outdoor unit may not run, depending on the room temperature. In this case, press the test run button at the back of the remote control unit while the room air conditioner is running. (With the transmit section of the remote control unit facing the body. press the TEST RUN button with the tip of a ball point pen.)



OPERATION and TIMER lamps.

#### Test running

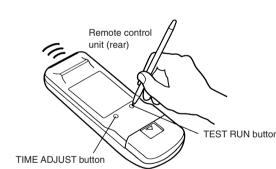
- When the air conditioner is run by pressing the remote control unit test run button, the OPERATION and TIMER lamps flash slowly at the same time. To end test operation, press the remote control unit START/STOP button.
- The OPERATION, TIMER and SWING lamps operate as follows ac-

	Error display			
Error contents	OPERATION (RED)	TIMER (GREEN)	SWING (ORANGE)	
Indoor unit circuit board error	0	0	_	
Room temperature thermistor or piping thermistor error (wire disconnected or broken)	2 times	0	_	
Indoor unit-outdoor unit miswiring	5 times	0	_	
Indoor unit fan error	6 times	0	_	

#### ○ : Fast flashing● : Slow flashing

LE	ED indication	Contents
D8	0	Signal reception (from indoor unit A) error
D8	•	_
D15	0	Signal reception (from indoor unit B) error
סוט	•	_

For the operation method, refer to the operating manual.



Operation can be checked by lighting and flashing of the display section Perform judgement in accordance with the following.

- cording to the error contents.

#### **INDOOR UNIT**

OPERATION		
	TIMER (GREEN)	SWING (ORANGE)
0	0	ı
2 times	$\circ$	_
5 times	$\circ$	-
6 times	0	
2	times •	times • O

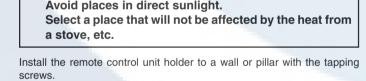
○ : Fast flashing ■ : Slow flashing — : Off

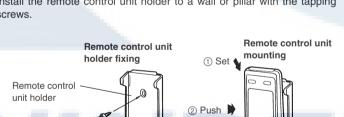
## OUTDOOR UNIT [Heat & Cool model (Reverse cycle) only]

LED indication		Contents
D8	0	Signal reception (from indoor unit A) error
	•	_
D15	0	Signal reception (from indoor unit B) error
	•	_

- mote control unit holder.
- paying careful attention to the following: Avoid places in direct sunlight.







REMOTE CONTROL UNIT **HOLDER INSTALLATION** Check that the indoor unit correctly receives the signal from the remote control unit, then install the re-Select the remote control unit holder selection site by

Check that:

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