SPLIT-TYPE AIR CONDITIONERS

**MSZ-GB50VA MUZ-GB50VA** [FLARE CONNECTION TYPE]

■ Earth the unit.

it is humid).

a leakage of refrigerant.

2-1 INDOOR UNIT

Where airflow is not blocked

Rigid wall without vibration.

2-2 OUTDOOR UNIT

Install the unit horizontally.

ransmitted from there.

Where flammable gas could leak

Where there is much machine oil.

Salty places such as the seaside

Where children can not touch.

emote controller may not be received.

mm

PIPING PREPARATION

Specifications

Where easily drained.

Where cool air spreads over the entire room.

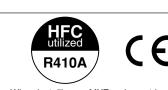
the difference of height of both units is 15 m.

Where it is not exposed to direct sunshine.

may be required for the affected device.

Where it is not exposed to strong wind.

Where airflow is good and dustless.



**⚠** CAUTION

Do not connect the earth to a gas pipe, water pipe, lightning rod or telephone

If gas leak and accumulate in the area surrounding the unit, it could cause an

■ Install an earth leakage breaker depending on the installation place (Where

If an earth leakage breaker is not installed, it could cause an electric shock.

■ Perform the drainage/piping work securely according to the installation

If there is a defect in the drainage/piping work, water could drop from the unit

When fastened too tight, a flare nut may broken after a long period and cause

2. SELECTING THE INSTALLATION LOCATION

Maximum refrigerant piping length between indoor unit and outdoor unit is 30 m and

At a distance 1 m or more away from your TV and radio. Operation of the air conditioner

In a place as far away as possible from fluorescent and incandescent lights (so the

• Where rigid wall or support is available to prevent the increase of operation sound

• Where it is at least 3 m away from the antenna of TV set or radio. Operation of the

Please install it in an area not affected by snowfall or blowing snow. In areas with

It is advisable to make a piping loop near outdoor unit so as to reduce vibration

**↑** CAUTION

woid the following places for installation where air conditioner trouble is liable to

2-3 WIRELESS REMOTE CONTROLLER MOUNTING

Select a position about 1.2 m above the floor, check that signals from the remote

controller are surely received by the indoor unit from that position ('beep' or 'beep-

peep' receiving tone sounds). After that, attach remote controller holder 3 to a

rooms where inverter type fluorescent lamps are used, the signal from the wireless

mm

Never use any pipe with a thickness less than 0.8 mm, as the pressure resistance

**↑** CAUTION

cause incorrect installation of the indoor unit and lack of thickness may cause dew

Decide the installation position using mark on the installation

Be sure to use the insulation of specified thickness. Excessive thickness may

• Use a copper pipe or a copper-alloy seamless pipe with a thickness of 0.8 mm.

Ensure that the 2 refrigerant pipes are insulated to prevent condensation.

Refrigerant pipe bending radius must be 100 mm or more.

Insulation material

Heat resisting foam plastic

Be careful the

right, downward, left or left-rear

apply insulation individually

a wall containing metals (tin plated)

or metal netting, use a chemically reated wooden piece 20 mm or

thicker between the wall and the piping

or wran 7 to 8 turns of insulation vin

Units should be installed by licensed contractor according

to local code requirement.

0.045 specific gravity

heavy snow, please install a canopy, a pedestal and/or some baffle boards.

air conditioner may interfere with radio or TV reception in areas where reception is

infrared remote control can operate the air conditioner normally).

• Where neighbours are not annoyed by operation sound or hot air.

When installing the unit at a high level, be sure to fix the unit legs.

weak. An amplifier may be required for the affected device.

Where sulfide gas is generated such as a hot spring.

· Where there is high-frequency or wireless equipment

pillar or wall and set the wireless remote controller 6.

Use the refrigerant pipes that meet the following specifications.

· Where it is easy to operate and easily visible

Where the air filter can be removed and replaced easily.

Where it is not exposed to rain and direct sunshine.

Where there is no risk of combustible gas leakage

nay interfere with radio or TV reception in areas where reception is weak. An amplifier

Fasten a flare nut with a torque wrench as specified in this manual.

Do not install the unit in a place where an inflammable gas leaks.

earth. Defective earthing could cause an electric shock.

and household goods could be wet and damaged

### 1. THE FOLLOWING SHOULD ALWAYS BE **OBSERVED FOR SAFETY**

electrical appliances to it. Be sure to read "THE FOLLOWING SHOULD ALWAYS BE OBSERVED FOR SAFETY" before installing the air conditione

Please provide an exclusive circuit for the air conditioner and do not connect other

- Be sure to observe the cautions specified here as they include important items
- related to safety. · The indications and meanings are as follows.

### **↑** WARNING

Could lead to death, serious injury, etc.

**↑** CAUTION

 After reading this manual, be sure to keep it together with the OPERATING INSTRUCTIONS in a handy place on the customer's site.

Could lead to serious injury in particular environments when operated incorrect

### ■ Do not install the unit by yourself (customer)

- complete installation could cause injury due to fire, electric shock, the unit falling or leakage of water. Consult the dealer from whom you purchased the
- Install the unit securely in a place which can bear the weight of the When installed in an insufficient strong place, the unit could fall causing
- Use the specified wires to connect the indoor and outdoor units secure and attach the wires firmly to the terminal block connecting sections so the stress of the wires is not applied to the sections. complete connecting and fixing could cause fire
- Do not use intermediate connection of the power cord or the extension cord and do not connect many devices to one AC outlet. It could cause a fire or an electric shock due to defective contact, defective
- nsulation, exceeding the permissible current, etc. ■ Check that the refrigerant gas do not leak after installation has
- If refrigerant gas leaks indoors, and comes into contact with the fire of a fan heater, space heater, stove, etc., harmful substances will be generated.
- Perform the installation securely referring to the installation manual. Incomplete installation could cause a personal injury due to fire, electric shock,
- the unit falling or leakage of water Perform electrical work according to the installation manual and be sure to use an exclusive circuit.
- If the capacity of the power circuit is insufficient or there is incomplete electrical work, it could result in a fire or an electric shock. Attach the electrical cover to the indoor unit and the service panel to the outdoor unit securely.
- If the electrical cover in the indoor unit and/or the service panel in the outdoo unit are not attached securely, it could result in a fire or an electric shock due to dust, water, etc. ■ Be sure to use the part provided or specified parts for the installation
- The use of defective parts could cause an injury or leakage of water due to a fire, an electric shock, the unit falling, etc
- Be sure to cut off the main power in case of setting up the indoor electronic control P.C. board or wiring works.
- It could cause an electric shock ■ The appliance shall be installed in accordance with national wiring
- When installing or relocating the unit, make sure that no substance othe than the specified refrigerant (R410A) enters the refrigerant circuit. Any presence of foreign substance such as air can cause abnormal pressure



## 3. INSTALLATION DIAGRAM & ACCESSORIES

## **FLARED CONNECTIONS**

 Remove the outdoor units valve cover, then connect the pipe Refrigerant pipes are used to connect the indoor and outdoor units. • Be careful not to crush or bend the pipe in pipe bending.

Limits		
Pipe length	30 m max.	
Height difference	15 m max.	
No. of bends	10 max.	

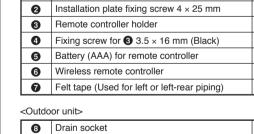
 Refrigerant adjustment ... If pipe length exceeds 7 m, additional refrigerant (R410A) charge is required.

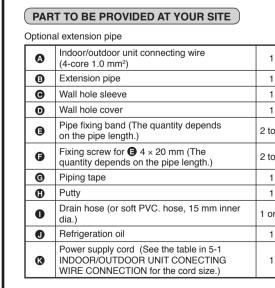
(The outdoor unit is charged with refrigerant for pipe length up to 7 m.) Up to 7 m No additional charge is required.

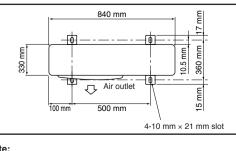
Pipe length	Op 10 7 111	140 additional onargo is required.	
	Exceeding 7 m	Additional charge is required. (Refer to the table below.)	
Refrigerant to be added		20 g/m × (refrigerant piping length (n	
ACCESSORIE	s)		

### Check the following parts before installation. <Indoor unit> Installation plate

O Drain cap ø33







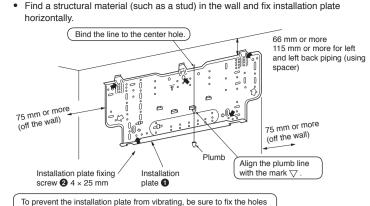
When operating the air conditioner in low outside temperature be sure to follow the instructions described below. Never install the outdoor unit in a place where its air inlet/outlet side may be exposed directly to wind.

baffle board on the air outlet side of the outdoor unit.

To prevent exposure to wind, it is recommended to install a

air inlet side facing the wall.

When installing an MXZ series outdoor unit, refer to the MXZ type manual for outdoor unit set up.



To prevent the installation plate from vibrating, be sure to fix the holes

4. INDOOR UNIT INSTALLATION

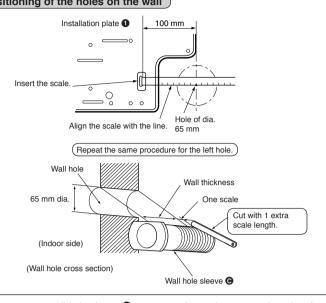
4-1 FIXING OF INSTALLATION PLATE

When bolts recessed in the concrete wall are to be utilized, secure the installation plate 1 using  $11 \times 20 \cdot 11 \times 26$  oval hole (450 mm pitch). If the recessed bolt is too long, change it for a shorter one available in the market

### 4-2 WALL HOLE DRILLING Determine the wall hole position

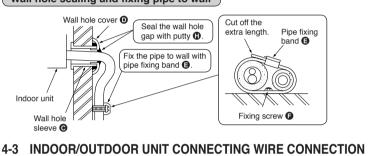
Drill a 65 mm hole so that outside can be lower than inside. Insert the wall hole sleeve 6

## Positioning of the holes on the wall



Be sure to use wall hole sleeve leto prevent the outdoor connecting wires from contacting with metal part in the wall and to prevent damage by rat in case the wall

## Wall hole sealing and fixing pipe to wall



## Use special room air conditioning circuit

<u></u> WARNING					
Specification	with Design 245 IEC 57.				
Indoor/outdoor unit connecting wire	Cable 4-core 1.0 mm <sup>2</sup> , in conformity				

Never cut the indoor and outdoor unit connecting wire and connect it to other

6. INDOOR/OUTDOOR UNIT CONNECTION

Pay particular attention to the following points, though the basic installation

This room air conditioner adopts an HFC refrigerant (R410A) which will never destroy

As R410A has a working pressure approx. 1.6 times as high as that of R22. some

special tools and piping parts / materials are required. (Refer to the table below.)

R410A refrigerant during storage and installation, since it is more susceptible to

Take sufficient care not to allow water and other contaminations to enter the

For refrigerant piping, use clean, pressure-proof parts / materials specifically

charging, charge liquid refrigerant to prevent composition change.

from 7/16 UNF with 20 threads to 1/2 UNF with 20 threads.)

No: Not substitutable for R410A Yes: Substitutable for R410A

Main cause of gas leakage is defect in flaring work.

Cut the copper pipe correctly with pipe cutter.

Carry out correct flaring work in the following procedure.

Completely remove all burrs from the cut cross section of pipe.

Put the end of the copper pipe to downward direction as you remove burrs in order to

Composition change may occur in R410A since it is a mixed refrigerant. When

6-1 Tools dedicated for the air conditioner with R410A

The diameter of the service port on the stop valve in outdoor unit has been changed to

prevent any other refrigerant being charged into the unit. (Cap size has been changed

R410A has high pressures beyond the

to improve the pressure resistance.

Dedicated for HFC refrigerant

the spring strength in the tool.

asurement range of existing gauges. Port

diameters have been changed to prevent any

other refrigerant from being charged into the

Hose material and cap size have been change

Clamp bar hole has been enlarged to reinforce

Provided for flaring work (to be used with R22

adapter enables you to use existing vacuum

cylinder because the refrigerant bubbles due to

high pressure and high-speed vaporization.

The following tools are required for R410A refrigerant. Some R22 tools can be

**FINISHING AND TEST RUN** 

procedure is same as that for R22 air conditioners

the ozone layer.

contaminations than R22.

designed for R410A.

refrigerant

substituted for R410A tools.

auge manifold

orque wrench

lare gauge

Vacuum pump

6-2 FLARING WORK

Burrs removal

avoid to let burrs drop in the piping.

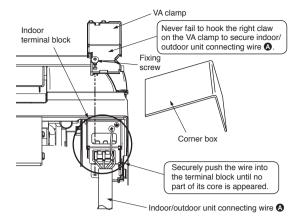
INSTALLATION INFORMATION FOR THE A

**CONDITIONER WITH R410A REFRIGERANT** 

## You can connect indoor/outdoor lead wire without removing the front panel.

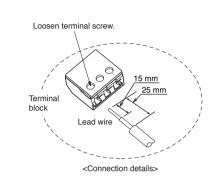
Remove the corner box.

- Remove the VA clamp. Process the end of the earth wire and connect the wire to the earth terminal of the
- electrical parts box. 4 Process the end of the indoor/outdoor unit connecting wire and fix the wire to the terminal block.
- Secure the indoor/outdoor unit connecting wire and the earth wire with the VA 6 Reinstall the corner box



## **⚠** WARNING

- Use the indoor/outdoor unit connecting wire that meets the Standards to connect that no external force is conveyed to the connecting section of the terminal block Incomplete connection or fixing of the wire could result in a fire
- Attach the VA clamp securely. If it is attached incorrectly, it could result in a fire



## **⚠** CAUTION

- After tightening, pull the wires lightly to confirm that they do not move.

connecting wire 🕻

Remove flare nuts attached to indoor and outdoor Flare nut

1/4

1/2

Flare tool for R410A

clutch type

0 to 0.5

0 to 0.5

Fasten a flare nut with a torque wrench as specified in the table below

Apply a thin coat of refrigeration oil **①** on the seat surface of pipe.

When fastened too tight, a flare nut may broken after a long period and cause a leakage

For connection first align the center, then tighten the first 3 to 4 turns of flare nut.

Use tightening torque table below as a guideline for indoor unit side union joint

kaf·cm

140 to 180

Connect pipes to stop valve pipe joint of the outdoor unit in the same manner applied for

• For tightening, use a torque wrench or spanner and use the same tightening torque

For outdoor unit side, surely insulate every piping including valves.

Using piping tape **G**, apply taping starting from the entry of outdoor unit.

When piping have to be arranged through above ceiling, closet or where the

temperature and humidity are high, wind additional commercially sold insulation for

Stop the end of piping tape **G** with tape (with adhesive agent attached).

section, and tighten using two wrenches. Excessive tightening damages the flare

Compare the flared work with figure below

6-3 PIPE CONNECTION

connect both liquid and gas pipings to indoor unit.

N⋅m

13.7 to 17.7

ø12.7 49.0 to 56.4 500 to 575

of refrigerant.

Pipe diameter

Outdoor unit connection

applied for indoor unit.

**INSULATION AND TAPING** 

prevention of condensation.

Cover piping joints with pipe cover

Firmly hold copper pipe in a die in the dimension shown in the table above.

If flare is noted to be defective, cut off the flared section and do flaring work again.

· Carry out flaring work using flaring tool as shown below

R410A

26

Clutch type

1.0 to 1.5

1.0 to 1.5

Inside is shining without any scratches

24

Wing nut type

1.5 to 2.0

2.0 to 2.5

Conventional flare tool

units, then put them on pipe having completed

(not possible to put them on after flaring work)

Flare nut for R410A pipe differs from R22 pipe

Refer to the following table for detail.

**9** Putting nut on

ø6.35

ø12.7

Outside diameter

ø12.7 mm

Outdoor terminal block

- Firmly tighten the terminal screws to prevent them from loosening.

- If the connecting wire is incorrectly connected to the terminal block, the unit does

- If an earth is incorrect, it may cause an electric shock.

# Make earth wire a little longer than the others. (more than 55 mm)

### 4-4 AUTO RESTART FUNCTION

If the main power has been cut, the operation settings remain.

automatically according to the memory.

- These models are equipped with an auto restart function. If you do not want to use
- this function, please consult the service representative because the setting of the unit needs to be changed • When the indoor unit is controlled with the remote controller, the operation mode, the

### set temperature, and the fan speed are memorized by the indoor electronic control P.C. board. The auto restart function sets to work the moment the power has restored after power failure, then, the unit will restart automatically. If the unit is operated in "AUTO" mode before power failure, the operation mode (COOL, DRY or HEAT) is not stored in the memory. When the main power is turned on, the unit decides the operation mode by the initial room temperature at restart and starts operation again.

FOR LEFT OR LEFT-REAR PIPING

Felt tape 7

Otherwise, it could cause drops of water to drip down from the drain hose.

 $oldsymbol{\mathcal{Y}}$  Pull out the drain cap at the rear right of the indoor unit.

Pull out the drain hose at the rear left of the indoor unit.

Put the drain cap into the section to which the drain hose is to be

Insert the drain hose into the section to which the drain hose is to

Insert the drain hose fully into the drain pan. Check if the hose is hooked securely to

the projection of its inserting part at the drain pan

Insert the screwdriver, etc. (not sharp-edged tool) into the hole at the end of the cap

Hold the claw marked by the arrow and pull out the drain hose forward

Hold the convex section at the end and pull the drain cap.

Firmly apply felt tape 7 from the end.

Put the refrigerant piping and the drain hose together, then apply felt tape 7 to

Cut off in case of left piping.

Use a bandage stopper a

(Felt tape 7 overlap width should be 1/3 The operation settings are memorized when 10 seconds have passed after the

REATTACHING DRAIN HOSE Be sure to reattach the drain hose and the drain cap in case of left or left-rear piping

remote controller was operated. • If the main power is turned off or a power failure occurs while AUTO START/STOP timer is active, the timer setting is cancelled. As these models are equipped with an

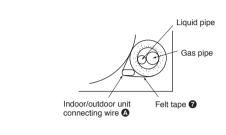
② When three minutes have passed after power was restored, the unit will restart

auto restart function, the air conditioner starts operating with timer cancelled at the same time that power is restored If the unit has been off with the remote controller before power failure, the auto

restart function does not work as the power button of the remote controller is off. To prevent breaker off due to the rush of starting current, systematize other home appliances not to turn on at the same time.

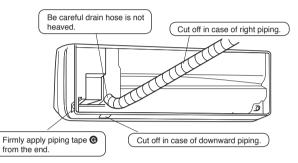
### 4-5 PIPE FORMING • Place the drain hose below the refrigerant piping.

- Make sure that the drain hose is not heaved or snaked.
- Do not pull the hose to apply the tape. • When the drain hose passes the room, be sure to wrap insulation material
- (obtainable at a store) around it. • Wrap the felt tape **3** around the pipe and the drain hose, then put the pipe in the back space of the indoor unit.



## FOR REAR, RIGHT OR DOWNWARD PIPING

Put the refrigerant piping and the drain hose together, then apply piping tape 6 to



- Insert the piping and the drain hose into the wall hole sleeve (G), and hook the upper part of the indoor unit on the installation plate 1 • Check if the indoor unit is hooked securely on the installation plate 1 by moving the
- Thrust the lower part of the indoor unit into the installation plate 1

[Gauge] (-760 mmHg)

6-4 PURGING PROCEDURES-LEAK TEST

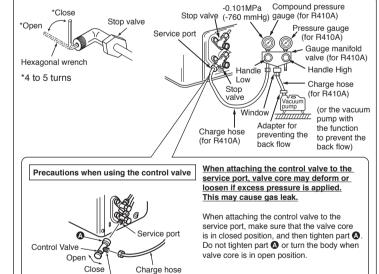
## PURGING PROCEDURES Connect the refrigerant pipes (both liquid pipe and the gas pipe) between the indoor

and the outdoor unit. Remove the service port cap of the stop valve on the side of the outdoor unit gas pipe. (The stop valve will not work in its initial state fresh out of the factory (totally closed with cap on).)

Connect the gauge manifold valve and the vacuum pump to the service port of the stop valve on the gas pipe side of the outdoor unit. Run the vacuum pump. (Vacuumize for more than 15 minutes.)

Check the vacuum with the gauge manifold valve, then close the gauge manifold valve, and stop the vacuum pump Leave as it is for one or two minutes. Make sure the pointer gauge manifold valve

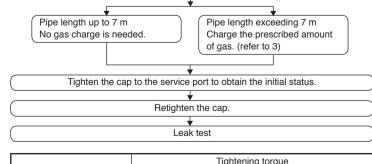
remains in the same position. Confirm that the pressure gauge shows-0.101 Mpa



Remove the gauge manifold valve quickly from the service port of the stop valve. After refrigerant pipes are connected and evacuated, fully open all stop valves on

Operating without fully opening lowers the performance and this causes trouble.

both sides of gas pipe and liquid pipe.



13.7 to 17.7

19.6 to 29.4

140 to 180

200 to 300

### 6-5 TEST RUN • Before performing the test run, recheck for any wrong wiring.

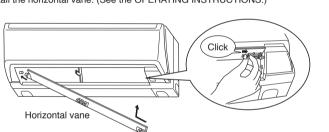
Cap for service port

Cap for stop valve

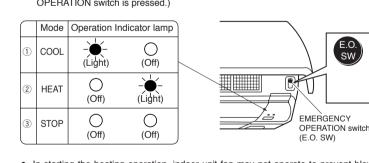
- Wrong wiring prevents normal operation or results in blown fuse disabling operation. • The test run can be started by pressing EMERGENCY OPERATION switch. When the EMERGENCY OPERATION switch is once pressed, the unit will start the test run (continuous operation) for 30 minutes.
- A thermostat does not work during this time. After 30 minutes the unit will start the EMERGENCY OPERATION at a fixed temperature setting of 24 °C in COOL MODE. • Perform test run in the following procedure.

### Insert the power supply plug into the power outlet and/or turn on the breaker Check that all LED lamps are not lit.

If they are blinking, the horizontal vane is not installed correctly. n this case, disconnect the power supply plug and/or turn off the breaker, and then reinstall the horizontal vane. (See the OPERATING INSTRUCTIONS.)



- Press the EMERGENCY OPERATION switch. Press it once, and after test run for 30 minutes the EMERGENCY COOL MODE starts. If the left side lamp of the operation indicator blinks every 0.5 seconds, inspect the indoor/outdoor unit connecting wire (A) for mis-wiring.
- Press it once more, and the EMERGENCY HEAT MODE starts Press it once more, and the operation stops (The operation mode changes in order of ① ~ ③ every time the EMERGENCY OPERATION switch is pressed.)



• In starting the heating operation, indoor unit fan may not operate to prevent blowing cool air. Please wait for a few minutes until the temperature of heat exchanger rises and warm air blows out.

### Checking the remote (infrared) signal reception Press the ON/OFF button on the remote controller and check that an electronic sound is

heard from the indoor unit. Press the ON/OFF button again to turn the air conditioner off. If the indoor unit is operated with the remote controller, both the test

run and the emergency operation are released by commands from the remote controller • Once the compressor stops, the restart preventive device operates so the compressor will not operate for three minutes to protect the air conditioner.

6-6 CHECKING AFTER INSTALLATION After finishing the installation, check the following items and mark the  $\square$  next to each

☐ Is the specified power supply voltage used?

the units (no intermediate connections)?

□ Are the stop valves open fully?

☐ Is the power line equipped with the circuit breaker'  $\square$  Have the ends of the indoor/outdoor connecting wire been properly inserted into the terminal blocks? ☐ Has the indoor/outdoor connecting wire been secured firmly?

□ Are the power supply cord and indoor/outdoor connecting wire connected directly to

Is the earth wire longer than the other wires so that it will not become disconnected

when tension is applied ☐ Is the earth wire connected properly ☐ Are the pipes designed for use with R410A or do they have the specified thickness? ☐ Has the leak test been carried out for the pipe connections? I Has air purging been carried out?

☐ Is the drain hose properly installed ☐ Has water been poured through the drain hose to confirm proper drainage? ☐ Are the pipes at the rear of the unit bundled with felt tape (for left and left-rear piping ☐ Can the installation location bear the weight of the unit and not amplify its vibration or

☐ Has the drain work been performed properly and are there no bubbling sounds'

 $\square$  Have all of the riangle WARNING and riangle CAUTION items in "1. THE FOLLOWING

☐ Is the area under the unit free of objects that block the air outlet? ☐ Are the vertical and horizontal vanes closed securely? ☐ Is the front panel installed securely? ☐ Has the test run been carried out?

SHOULD ALWAYS BE OBSERVED FOR SAFETY" been checked?

### 6-7 EXPLANATION TO THE CUSTOMER Using the OPERATING INSTRUCTIONS, explain the following to the customer, how to control temperature, how to remove the air filters, how to remove or put the remote

- controller in the remote controller holder, how to clean, precautions for operation,
- Recommend the customer to read the OPERATING INSTRUCTIONS carefully.

## 7. FOR MOVEMENT AND MAINTENANCE 7-1 HOW TO REMOVE AND INSTALL THE PANEL **ASSEMBLY**

## Removal procedure

INDOOR LINIT INSTALL ATION

Fix the end with

masking tape or

tape affixed on

the lower side

of indoor unit.

leakage

(Fig. 4)

CONNECTION

4-6 DRAIN PIPING

commercially sold insulation

hook on the back rib and lift the indoor unit.

Roll the cutting

Connect the refrigerant piping with the extension pipe B.

Do not make drain piping as shown in Fig. 2 to 5.

• Thrust the lower part of the indoor unit into the installation plate 1

• The drain hose should point downward for easy drain flow. (Fig. 1)

• If the extension drain hose has to pass through a room, be sure to wrap it with

• If the drain hose provided with the indoor unit is too short, connect it with drain

When connecting the drain hose to the hard vinyl chloride pipe, be sure to insert it

or more

Hard vinyl

Be sure to insert th

drian hose securely

hose 
that should be provided at your site. (Fig. 6)

5. OUTDOOR UNIT INSTALLATION

• For future servicing, give extra length to connecting wire

INDOOR/OUTDOOR UNIT CONNECTING WIRE

CONNECTION AND OUTDOOR POWER SUPPLY CORD

• Connect the indoor/outdoor unit connecting wire **(A)** from the indoor unit correctly

Connect to the supply terminals and leave a

contact separation of at least 3 mm at each pole

to disconnect the source power pole. (When the

power switch is shut off, it must disconnect a

securely into the pipe. (Fig. 7)

piece as shown

in the right.

• Insert the drain hose into the wall hole sleeve **©**, and hook the upper part of

indoor unit on the installation plate 1. Then, move the unit to the very edge of the

left side for putting the piping easily in the back space of the indoor unit. After that,

cut a part of packing material, then roll it as shown below and use it as a spacer to

cardboard

Indoor unit packing

Cut the cardboard using

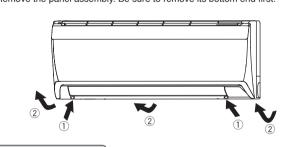
spacer assembly

of the rib, taking

care its direction is correct as shown in

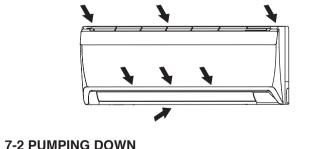
the figure right.

Remove the 2 screws which fix the panel assembly. 2 Remove the panel assembly. Be sure to remove its bottom end first.



## Install the panel assembly following the removal procedure ① and ② (described

above) in reverse. After having attached the panel assembly, be sure to press the positions as indicated by the arrows in order to attach the assembly completely to the



## When relocating or disposing of the air conditioner, pump down the system following

pipe side of the outdoor unit.

the procedure below so that no refrigerant is released into the atmosphere. ① Connect the gauge manifold valve to the service port of the stop valve on the gas

Fully close the stop valve on the liquid pipe side of the outdoor unit. Close the stop valve on the gas pipe side of the outdoor unit almost completel so that it can be easily closed fully when the pressure gauge shows -0.101 MPa

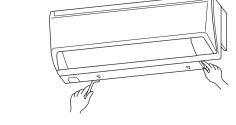
[Gauge] (0 kgf/cm<sup>2</sup>). 4 Start the EMERGENCY COOLING OPERATION. To start the EMERGENCY OPERATION in COOL MODE, disconnect the power supply plug and/or turn off the breaker. After 15 seconds, connect the power supply plug and/or turn on the breaker, and then press the EMERGENCY

OPERATION switch once. (The EMERGENCY COOLING OPERATION can be performed continuously for up to 30 minutes.) 5 Fully close the stop valve on the gas pipe side of the outdoor unit when the pressure gauge shows 0.05 to 0 MPa [Gauge] (approx. 0.5 to 0 kgf/cm<sup>2</sup>).

6 Stop the EMERGENCY COOLING OPERATION. Press the EMERGENCY OPERATION switch twice to stop the operation.

## 7-3 REMOVING THE INDOOR UNIT Remove the bottom of the indoor unit from the installation plate.

### When releasing the corner part Release both left and right bottom corner part of indoor unit and pull it downward and forward as below to release the hooks.



 Peel off both ends of connecting wire (extension wire) When too long, or connected by cutting off the middle, peel off power supply wire to the size as shown in the Be careful not to contact connecting wire with piping. Make earth wire a little longer than the others. (more than 35 mm)

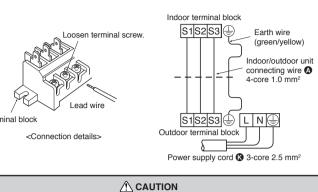
• For the indoor/outdoor unit connecting wires, be sure to use the ones in compliance . Be sure to push the core until it is hidden and pull each cable to make sure that it is not pulled up incomplete insertion may cause a risk of burning the terminal

×	Power supply cord Specification	3-core 2.5 mm <sup>2</sup> or more, in conformity with Design 245 IEC 57.	10 m or less
	Indoor and Outdoor connecting wire Specification	Cable 4-core 1.0 mm², in conformity with Design 245 IEC 57.	

### A means for disconnection of the supply with an isolation switch, or similar device, in all active conductors shall be incorporated in the fixed wiring

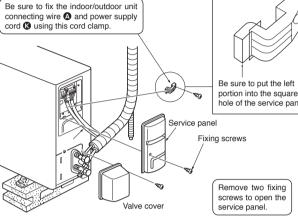
Never cut the power cord and connect it to other wires.

**↑** WARNING



 Use care not to make mis-wiring Firmly tighten the terminal screws to prevent them from loosening

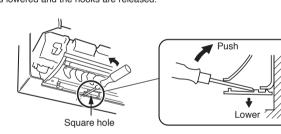
• After tightening, pull the wires lightly to confirm that they do not move. If the connecting wire is incorrectly connected to the terminal block, the unit does not operate normally.



**⚠** WARNING Be sure to attach the service panel of the outdoor unit securely. If it is not attache

rrectly, it could result in a fire or an electric shock due to dust, water, etc.

Remove the panel and insert hexagonal wrenches into the square holes on the left and right as shown in the figure below, then push them up; the bottom of the indoor



## 7-4 GAS CHARGE

to use liquid refrigerant.

 Connect gas cylinder to the service port of stop valve (3-way). Execute air purge of the pipe (or hose) coming from refrigerant gas cylinder. 3 Replenish specified amount of the refrigerant, while operating the air conditioner

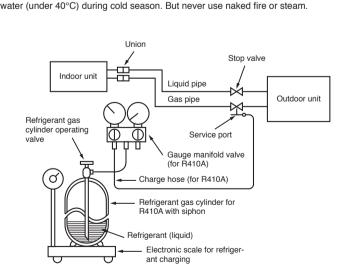
for cooling. In case of adding refrigerant, comply with the quantity specified for the refrigerating

## **⚠** CAUTION

 Do not discharge the refrigerant into the atmosphere Take care not to discharge refrigerant into the atmosphere during installation reinstallation, or repairs to the refrigerant circuit. When charging the refrigerant system with additional refrigerant, be sure

Adding gas refrigerant may change the composition of the refrigerant in the system and affect normal operation of the air conditioner. Also, charge the system slowly, otherwise the compressor will be locked.

To maintain the high pressure of the gas cylinder, warm the gas cylinder with warm



This product is designed and intended for use in the residential, commercial and ight-industrial environment

The product at hand is based on • Low Voltage Directive 73/23/ EEC the following EU regulations: Electromagnetic Compatibility Directive 89/336/ EEC

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODAKU, TOKYO 100-8310, JAPAN

A MITSUBISHI ELECTRIC CORPORATION