SPLIT-TYPE AIR CONDITIONERS

MSZ-GB50VA MUZ-GB50VA [FLARE CONNECTION TYPE]



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

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 Could lead to serious injury in particular environments when operated incorrect

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

⚠ WARNING ■ 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 rise or an explosion

3. INSTALLATION DIAGRAM & ACCESSORIES

30 m max

15 m max.

10 max.

Remove the outdoor units valve cover, then connect the pipe.

• Be careful not to crush or bend the pipe in pipe bending.

Refrigerant pipes are used to connect the indoor and outdoor units.

• Refrigerant adjustment ... If pipe length exceeds 7 m, additional refrigerant

FLARED CONNECTIONS

Height difference

No. of bends

↑ CAUTION ■ Earth the unit. Do not connect the earth to a gas pipe, water pipe, lightning rod or telephone

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

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

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.

· 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.

earth. Defective earthing could cause an electric shock.

and household goods could be wet and damaged

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.

Where easily drained.

Where cool air spreads over the entire room.

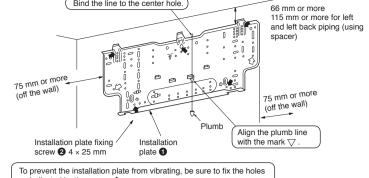
the difference of height of both units is 15 m.

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.



Find a structural material (such as a stud) in the wall and fix installation plate

4. INDOOR UNIT INSTALLATION

4-1 FIXING OF INSTALLATION PLATE

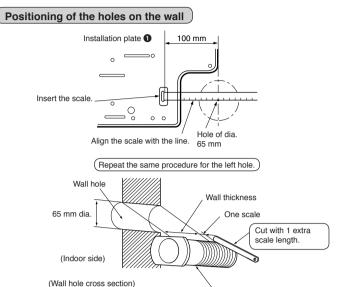
When bolts recessed in the concrete wall are to be utilized, secure the installation plate

If the recessed bolt is too long, change it for a shorter one available in the market

4-2 WALL HOLE DRILLING

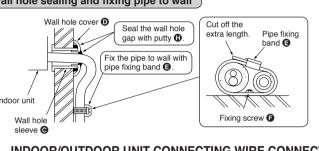
Determine the wall hole position. Drill a 65 mm hole so that outside can be lower than inside. Insert the wall hole sleeve **©**.

1 using $11 \times 20 \cdot 11 \times 26$ oval hole (450 mm pitch).



Be sure to use wall hole sleeve (a) to 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



4-3 INDOOR/OUTDOOR UNIT CONNECTING WIRE CONNECTION

| Indoor/outdoor unit connecting wire Specification | Cable 4-core 1.0 mm ² , in confor with Design 245 IEC 57. | |
|---|--|--|
| opes.means.r | Will 2001gil 2 to 120 07. | |

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

4-4 AUTO RESTART FUNCTION You can connect indoor/outdoor lead wire without removing the front panel.

- 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.

- If the main power has been cut, the operation settings remain. ② When three minutes have passed after power was restored, the unit will restart automatically according to the memory.
- The operation settings are memorized when 10 seconds have passed after the 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 auto restart function, the air conditioner starts operating with timer cancelled at the
- 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.

If the unit has been off with the remote controller before power failure, the auto

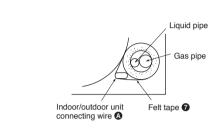
4-5 PIPE FORMING

same time that power is restored

• Place the drain hose below the refrigerant piping. Use the indoor/outdoor unit connecting wire that meets the Standards to connect • Make sure that the drain hose is not heaved or snaked.

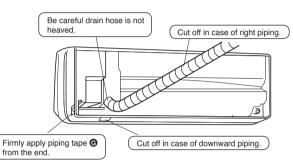
connecting wire 🕻

- Do not pull the hose to apply the tape. that no external force is conveyed to the connecting section of the terminal block • When the drain hose passes the room, be sure to wrap insulation material Incomplete connection or fixing of the wire could result in a fire
 - (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

FOR LEFT OR LEFT-REAR PIPING

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

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

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

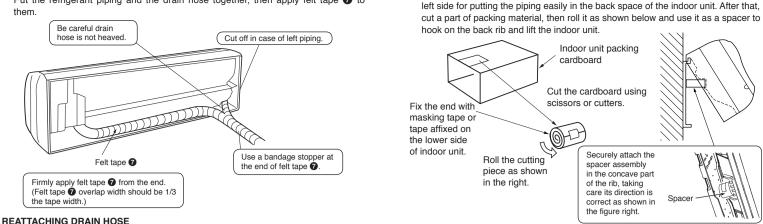
Insert the drain hose fully into the drain pan. Check if the hose is hooked securely to

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.



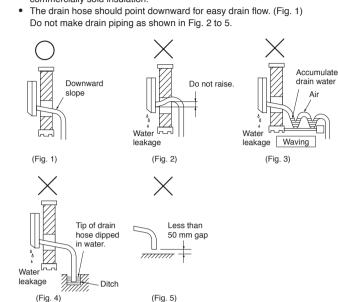
 Connect the refrigerant piping with the extension pipe B. • Thrust the lower part of the indoor unit into the installation plate 1

INDOOR LINIT INSTALL ATION

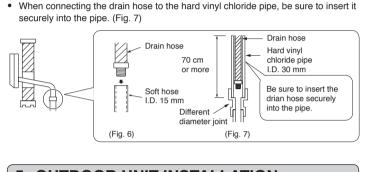
• If the extension drain hose has to pass through a room, be sure to wrap it with commercially sold insulation

• 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



- If the drain hose provided with the indoor unit is too short, connect it with drain hose **1** that should be provided at your site. (Fig. 6)



5. OUTDOOR UNIT INSTALLATION

INDOOR/OUTDOOR UNIT CONNECTING WIRE CONNECTION AND OUTDOOR POWER SUPPLY CORD CONNECTION • Connect the indoor/outdoor unit connecting wire **(A)** from the indoor unit correctly

n the terminal block. For future servicing, give extra length to connecting wire.

| Rated Voltage | Breaker capacity | Connect to the supply terminals and leave contact separation of at least 3 mm at each pot to disconnect the source power pole. (When the |
|---------------|------------------|--|
| 230 V | 20 A | power switch is shut off, it must disconnect poles.) |

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

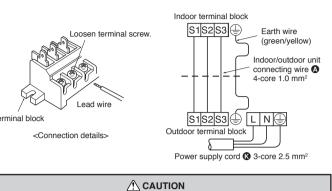
it is not pulled up incomplete insertion may cause a risk of burning the terminal

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

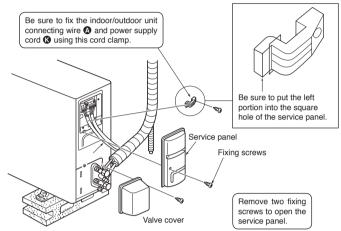
Peel off both ends of connecting wire (extension wire)

↑ WARNING 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.



- 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.

6. INDOOR/OUTDOOR UNIT CONNECTION FINISHING AND TEST RUN

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

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.

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

6-1 Tools dedicated for the air conditioner with R410A

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

INSTALLATION INFORMATION FOR THE AI

contaminations than R22.

designed for R410A.

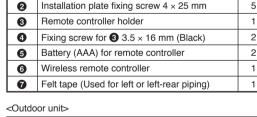
refrigerant

substituted for R410A tools.

- **CONDITIONER WITH R410A REFRIGERANT** This room air conditioner adopts an HFC refrigerant (R410A) which will never destroy the ozone layer.
- procedure is same as that for R22 air conditioners As R410A has a working pressure approx. 1.6 times as high as that of R22, some

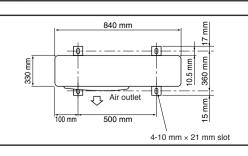
| (R410A) charge is required. | | | ⚠ CAUTION |
|---|---------------|---|--|
| (The outdoor unit is charged with refrigerant for pipe length up to 7 m.) | | | Be sure to use the insulation of specified thickness. Excessive thickness may |
| | Up to 7 m | No additional charge is required. | cause incorrect installation of the indoor unit and lack of thickness may cau drippage. |
| Pipe length | Exceeding 7 m | Additional charge is required. (Refer to the table below.) | ипррадо. |
| | | | |

Refrigerant to be added 20 g/m × (refrigerant piping length (m) -7) ACCESSORIES Check the following parts before installation <Indoor unit> Installation plate



PART TO BE PROVIDED AT YOUR SITE

| | • • | |
|-------------|---|--------|
| Δ | Indoor/outdoor unit connecting wire (4-core 1.0 mm²) | 1 |
| 3 | Extension pipe | 1 |
| Θ | Wall hole sleeve | 1 |
| 0 | Wall hole cover | 1 |
| (| Pipe fixing band (The quantity depends on the pipe length.) | 2 to 5 |
| 3 | Fixing screw for 3 4 × 20 mm (The quantity depends on the pipe length.) | 2 to 5 |
| G | Piping tape | 1 |
| 0 | Putty | 1 |
| 0 | Drain hose (or soft PVC. hose, 15 mm inner dia.) | 1 or 2 |
| 0 | Refrigeration oil | 1 |
| (3) | Power supply cord (See the table in 5-1 INDOOR/OUTDOOR UNIT CONECTING WIRE CONNECTION for the cord size.) | 1 |



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.

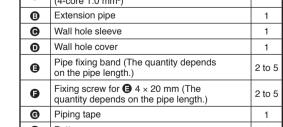
air inlet side facing the wall.

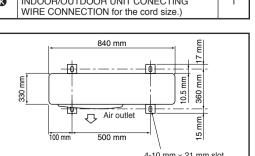
To prevent exposure to wind, it is recommended to install a

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

B Drain socket O Drain cap ø33

Optional extension pipe





When operating the air conditioner in low outside temperature,

PIPING PREPARATION Specifications

Use the refrigerant pipes that meet the following specifications.

| Dina | Outside diameter | Insulation thickness | Insulation material | |
|------------|------------------|----------------------|--|--|
| Pipe | mm | mm | msulation material | |
| For liquid | 6.35 | 8 | Heat resisting foam plastic 0.045 specific gravity | |
| For gas | 12.7 | 8 | | |

| | For gas | 12.7 | 8 | 0.045 specific gravity | | |
|---|--|------|---|------------------------|--|--|
| Use a copper pipe or a copper-alloy seamless pipe with a thickness of 0.8 mm. Never use any pipe with a thickness less than 0.8 mm, as the pressure resistance is insufficient. | | | | | | |
| (| ② Ensure that the 2 refrigerant pipes are insulated to prevent condensation. | | | | | |
| / | 2 Pofrigorent pine handing radius must be 100 mm or more | | | | | |

3 Refrigerant pipe bending radius must be 100 mm or more.

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 from 7/16 UNF with 20 threads to 1/2 UNF with 20 threads.) auge manifold Be careful the orque wrench

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.

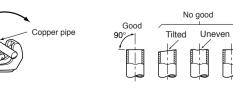
Decide the installation position using mark on the installation

right, downward, left or left-rear lare gauge Vacuum pump

6-2 FLARING WORK Main cause of gas leakage is defect in flaring work. Carry out correct flaring work in the following procedure.

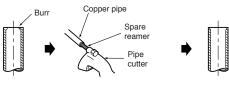
Cut the copper pipe correctly with pipe cutter.

No: Not substitutable for R410A Yes: Substitutable for R410A



2 Burrs removal 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 avoid to let burrs drop in the piping.



9 Putting nut on

<Connection details>

Remove the corner box.

Remove the VA clamp.

electrical parts box.

terminal block.

6 Reinstall the corner box

Process the end of the earth wire and connect the wire to the earth terminal of the

4 Process the end of the indoor/outdoor unit connecting wire and fix the wire to the

⚠ WARNING

Attach the VA clamp securely. If it is attached incorrectly, it could result in a fire

⚠ CAUTION

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

Firmly tighten the terminal screws to prevent them from loosening.

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

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

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

Never fail to hook the right claw

ecurely push the wire into

part of its core is appeared

Indoor/outdoor unit connecting wire A

Outdoor terminal block

5) Secure the indoor/outdoor unit connecting wire and the earth wire with the VA

Remove flare nuts attached to indoor and outdoor Flare nut 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.

R410A ø6.35 1/4 ø12.7 1/2 26 24

· Carry out flaring work using flaring tool as shown below

| Outside diameter | A (mm) | | | |
|------------------|-------------------------------------|-------------------------|---------------|--|
| | Flare tool for R410A clutch type | Conventional flare tool | | |
| | | Clutch type | Wing nut type | |
| ø6.35 mm | 0 to 0.5 | 1.0 to 1.5 | 1.5 to 2.0 | |
| ø12.7 mm | 0 to 0.5 | 1.0 to 1.5 | 2.0 to 2.5 | |

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

Compare the flared work with figure below. If flare is noted to be defective, cut off the flared section and do flaring work again. Smooth all around Inside is shining without any scratches.

6-3 PIPE CONNECTION

Indoor unit connection

applied for indoor unit.

prevention of condensation

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

Fasten a flare nut with a torque wrench as specified in the table below When fastened too tight, a flare nut may broken after a long period and cause a leakage of refrigerant.

| For connectioUse tightening | g torque table below as a guidelin | en the first 3 to 4 turns of flare nut. |
|--|------------------------------------|---|
| Pipe diameter | Tightening torque | |

Outdoor unit connection 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

kaf·cm

140 to 180

INSULATION AND TAPING Cover piping joints with pipe cover

For outdoor unit side, surely insulate every piping including valves. Using piping tape **G**, apply taping starting from the entry of outdoor unit. Stop the end of piping tape **G** with tape (with adhesive agent attached). • When piping have to be arranged through above ceiling, closet or where the temperature and humidity are high, wind additional commercially sold insulation for

6-4 PURGING PROCEDURES-LEAK TEST

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

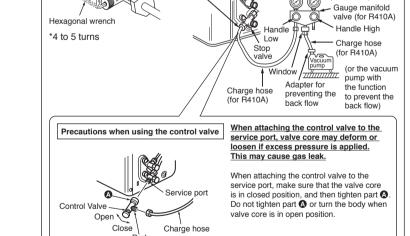
and the outdoor unit. Remove the service port cap of the stop valve on the side of the outdoor unit gas pipe. (The stop valve will not work in its initial state fresh out of the factory (totally closed with cap on).)

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.)

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 [Gauge] (-760 mmHg) -0.101MPa Compound pressure Stop valve (-760 mmHg) gauge (for R410A)

Check the vacuum with the gauge manifold valve, then close the gauge manifold

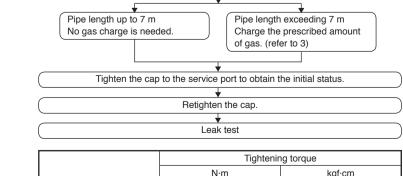


Remove the gauge manifold valve quickly from the service port of the stop valve.

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

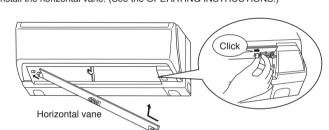
Cap for stop valve

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.

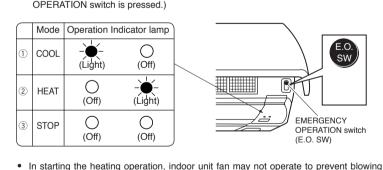
Insert the power supply plug into the power outlet and/or turn on the breaker. Check that all LED lamps are not lit. If they are blinking, the horizontal vane is not installed correctly.

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.)



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

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

heard from the indoor unit. Press the ON/OFF button again to turn the air conditioner off.

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

will not operate for three minutes to protect the air conditioner.

☐ Is the specified power supply voltage used?

the units (no intermediate connections)?

☐ Are the stop valves open fully?

☐ Is the drain hose properly installed?

☐ Is the power line equipped with the circuit breaker' ☐ 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?

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?

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

☐ 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

☐ Are the vertical and horizontal vanes closed securely? ☐ Is the front panel installed securely? ☐ Has the test run been carried out? ☐ 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

SHOULD ALWAYS BE OBSERVED FOR SAFETY" been checked?

☐ Is the area under the unit free of objects that block the air outlet?

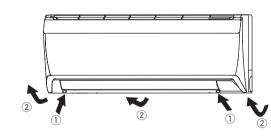
6-7 EXPLANATION TO THE CUSTOMER • Using the OPERATING INSTRUCTIONS, explain the following to the customer, how to

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**

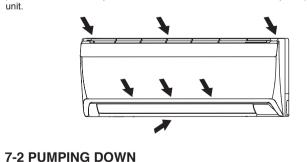
Removal procedure

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



[Gauge] (0 kgf/cm²).

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 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 pipe side of the outdoor unit. 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

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

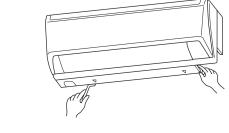
5 Fully close the stop valve on the gas pipe side of the outdoor unit when the pressure gauge shows 0.05 to 0 MPa [Gauge] (approx. 0.5 to 0 kgf/cm²). 6 Stop the EMERGENCY COOLING OPERATION. Press the EMERGENCY OPERATION switch twice to stop the operation.

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

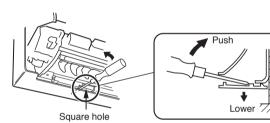
performed continuously for up to 30 minutes.)

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.



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.

① Connect gas cylinder to the service port of stop valve (3-way). Execute air purge of the pine (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

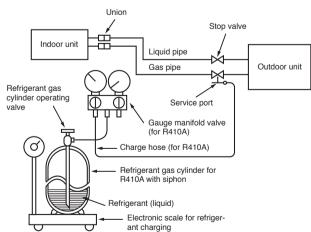
↑ CAUTION

 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

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

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.

water (under 40°C) during cold season. But never use naked fire or steam.



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

the following EU regulations: Electromagnetic Compatibility Directive 89/336/ EEC

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MITSUBISHI ELECTRIC CORPORATION



The product at hand is based on • Low Voltage Directive 73/23/ EEC