



INSTALLATION MANUAL

SPLIT-TYPE AIR CONDITIONERS

Model (Indoor unit MSC type is the common specifications of MS type and MSH type.)

MS-GA20/25/35VB
MSH-GA20/25/35VB Series
[FLARE CONNECTION TYPE]



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

1. THE FOLLOWING SHOULD ALWAYS BE OBSERVED FOR SAFETY

- Please provide an exclusive circuit for the air conditioner and do not connect other electrical appliances to it.
- Be sure to read "THE FOLLOWING SHOULD ALWAYS BE OBSERVED FOR SAFETY" before installing the air conditioner.
- 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 incorrectly.

- 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). Incomplete installation could cause injury due to fire, electric shock, the unit falling or leakage of water. Contact the dealer from whom you purchased the unit or specialist installer.
- Install the unit securely in a place which can bear the weight of the unit. When installed in an insufficient strong place, the unit could fall causing injury.
- Use the specified wires to connect the indoor and outdoor units securely and attach the wires firmly to the terminal block connecting sections so the stress of the wires is not applied to the sections. Incomplete 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 insulation, exceeding the permissible current, etc.

- Check that the refrigerant gas do not leak after installation has completed. 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 outdoor 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 work. 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 regulations.

- When installing or relocating the unit, make sure that no substance other 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.

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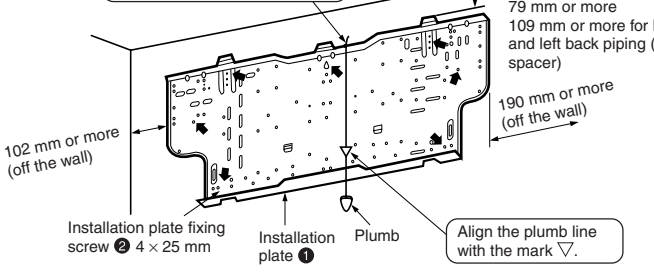
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4. INDOOR UNIT INSTALLATION

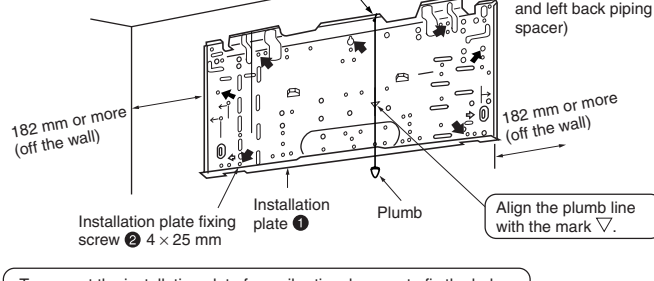
4-1 FIXING OF INSTALLATION PLATE

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

GA20/25VB



GA35VB



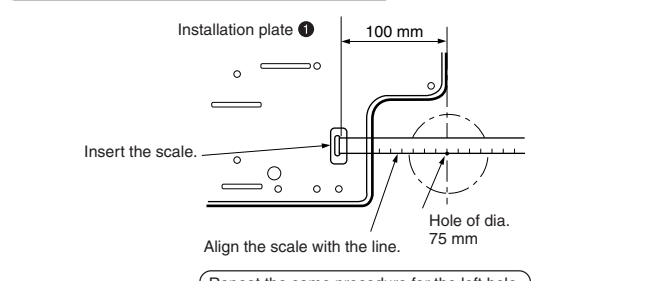
To prevent the installation plate from vibrating, be sure to fix the holes as indicated by the arrows 1.

When bolts recessed in the concrete wall are to be utilized, secure the installation plate using 11 x 20 - 11 x 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

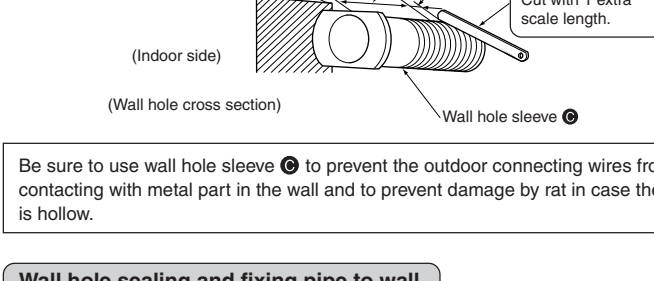
- Determine the wall hole position.
- Drill a 75 mm hole so that outside can be lower than inside.
- Insert the wall hole sleeve.

Positioning of the holes on the wall



Be sure to use wall hole sleeve ⑥ to prevent the outdoor connecting wires from contacting with metal part in the wall and to prevent damage by rain in case the wall is hollow.

Wall hole sealing and fixing pipe to wall



Be sure to use the insulation of specified thickness. Excessive thickness may cause incorrect installation of the indoor unit and lack of thickness may cause drip drainage.

2-3 WIRELESS REMOTE CONTROLLER MOUNTING

- Place of mounting
 - Where it is easy to operate and easily visible.
 - Where children can not touch.
- 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-beep' receiving tone sounds). After that, attach remote controller holder ⑥ to a pillar or wall and set the wireless remote controller ⑥.

In rooms where inverter type fluorescent lamps are used, the signal from the wireless remote controller may not be received.

4-3 POWER SUPPLY AND CONNECTING WIRE SPECIFICATIONS

- Use special room air conditioning circuit.

Power supply cord length (Least to left-lead to right)	0.3 m ¹ /m
Indoor/outdoor unit connecting wire Specification	Cable 2-core 1.0 mm ² , in conformity with Design 245 IEC 57.

- Take out power supply cord from the left or right bottom corner of the indoor unit.

Connect to the power switch which has a gap of 3 mm or more when open to interrupt the source power phase. (When the power switch is shut off, it must interrupt all phases.) (Rated Voltage/Frequency: 230 V/50 Hz) (Input capacity Main switch/Fuse 10 A) (This plug has to be the one meets the Standards.) Power supply cord

Never cut the indoor and outdoor unit connecting wire and connect it to other wires. It may cause a fire.

Do not bundle the spare wire, but put it as shown below.

4-4 INDOOR/OUTDOOR UNIT CONNECTING WIRE CONNECTION (BEFORE HOOKING THE UNIT)

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

- Open the front grille of the front panel.
- Remove one screw holding the electrical cover, then remove the cover.
- Remove one screw holding the electrical cover, then remove the cover.
- In case the outdoor unit is MU type, change the setting of SW2 (refer to 4-5).
- Pass the indoor/outdoor unit connecting wire from the back of the indoor unit and process the end of the wire, then connect it to the terminal block.
- Replace the future and electrical cover securely.

When the indoor and outdoor unit connecting wire and connect it to other wires. It may cause a fire.

Do not bundle the spare wire, but put it as shown below.

4-5 HOW TO SWITCH OVER MS TYPE/MSH TYPE AND AUTO RESTART FUNCTION

SW2-1: AUTO RESTART FUNCTION ON (downside)

SW2-2: MSH type (downside)

SW2-3: MSH type (downside)

SW2-4: MSH type (downside)

SW2-5: MSH type (downside)

SW2-6: MSH type (downside)

SW2-7: MSH type (downside)

SW2-8: MSH type (downside)

SW2-9: MSH type (downside)

SW2-10: MSH type (downside)

SW2-11: MSH type (downside)

SW2-12: MSH type (downside)

SW2-13: MSH type (downside)

SW2-14: MSH type (downside)

SW2-15: MSH type (downside)

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SW2-46: MSH type (downside)

SW2-47: MSH type (downside)

SW2-48: MSH type (downside)

SW2-49: MSH type (downside)

SW2-50: MSH type (downside)

Outdoor unit COOL ONLY (MU & MUX) type

Outdoor unit COOL & HEAT (MUH & MXZ) type

Earth plate

Power supply cord

Indoor terminal block

Indoor/outdoor unit connecting wire

Outdoor terminal block

To power supply

1.0 mm² Power supply cord

1.0 mm² Power supply cord

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