



SPLIT-TYPE AIR CONDITIONERS
Models
MS-A30 WV
MSH-A30 WV Series
MSH-A2WV
[FLARE CONNECTION TYPE]



When installing an MXZ series outdoor unit, refer to the MS and MSH 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.
- Please refer to your supply authority or obtain their consent before connecting this equipment to the power supply system.
- 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.

CAUTION
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 as the customer's site.

- **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. Consult the dealer from whom you purchased the unit or special 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 does 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 use of 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.**

- **Earth the unit.**
Do not connect the earth to a gas pipe, water pipe, lightning rod or telephone earth. Defective earthing could cause an electric shock.
- **Do not install the unit in a place where an inflammable gas leaks.**
If gas leaks and accumulates in the area surrounding the unit, it could cause an explosion.
- **Install an earth leakage breaker depending on the installation place (where it is humid).**
If an earth leakage breaker is not installed, it could cause an electric shock.
- **Perform the drainage/piping work securely according to the installation manual.**
If there is a defect in the drainage/piping work, water could drop from the unit and household goods could be wet and damaged.
- **Fasten a flare nut with a torque wrench as specified in this manual.**
When fastened too tight, a flare nut may be broken after a long period and cause a leakage of refrigerant.

- **Where airflow is not blocked.**
- **Where coil spreads over the entire room.**
- **Maximum refrigerant piping length between indoor and outdoor unit is 25 m (for 24 type) and 30 m (for 30 type) and the difference of height of both units is 10 m (for 24 type) and 15 m (for 30 type).**
- **Rigid wall without vibration.**
- **Where it is not exposed to direct sunshine.**
- **Where it is not exposed to rain and direct sunlight.**
- **An amplifier may be required for the affected device.**
- **In a place as far away as possible from fluorescent and incandescent lights (so the infrared remote control can operate the air conditioner normally).**
- **Where the air filter can be removed and replaced easily.**

- **Where it is not exposed to strong wind.**
- **Where airflow is good and dustless.**
- **Where it is not exposed to rain and direct sunlight.**
- **Where neighbours are not annoyed by operation sound or hot air.**
- **Where rigid wall or support is available to prevent the increase of operation sound or vibration.**
- **Where there is no risk of combustible gas leakage.**
- **When installing the unit at a high level, be sure to fix the unit legs.**
- **Where it is at least 3 m away from the antenna of TV set or radio. Operation of the air conditioner interferes with radio or TV reception in areas where reception is weak. An amplifier may be required for the affected device.**
- **Install the unit horizontally.**

- **It is advisable to make a piping loop near outdoor unit so as to reduce vibration transmitted from there.**

- **Where flammable gas could leak.**
- **Where there is much machine oil.**
- **Shady places such as the seaweeds.**
- **Where sulfide gas is generated such as a hot spring.**
- **Where there is high-frequency or wireless equipment.**

- **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 to a pillar or wall and set the wireless remote controller.**

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

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3. INSTALLATION DIAGRAM & ACCESSORIES

- This unit has flare connections on both indoor and outdoor sides.
- 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 piping bending.

- Limits
- MS-A24 25 m max.
- MS(H)-A30 15 m max.
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- Height difference
- 10 m max.
- 30 m max.
- No. of bends
- 10 max.

- Refrigerant adjustment... If pipe length exceeds 7 m, additional refrigerant (R-410A) charge is required.
- (The outdoor unit is charged with refrigerant for pipe length up to 7 m.)

- No additional charge is required.
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- MS-A30 55 gm x (refrigerant piping length (m) - 7)
- MSH-A30 55 gm x (refrigerant piping length (m) - 7)
- MSH-A24 20 gm x (refrigerant piping length (m) - 7)

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- Installation plate
- Installation plate fixing screw 4 x 25 mm
- Remote controller holder
- Flare nut for 3.5 x 16 mm (Black)
- Battery (AAA for remote controller)
- Wireless remote controller
- Felt tape (Used for left or left-rear piping)

- Drain socket
- Drain cap #33

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