### INSTALLATION MANUAL

**1. Accessory**

<table>
<thead>
<tr>
<th>Parts Name</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone remote controller</td>
<td>1</td>
</tr>
<tr>
<td>Screw</td>
<td>8</td>
</tr>
<tr>
<td>Installation manual</td>
<td>1</td>
</tr>
</tbody>
</table>

**CAUTION**

- Do not install the zone remote controller in outdoor location as it is designed for indoor installation only. Otherwise, electric shock or breakdown may be caused by water drop, wind or dust.
- Do not install the zone remote controller in an unusual environment. If the zone remote controller is installed or exposed to steam, volatile oil (including machine oil), sulfurous gas, flammable air, the internal parts can be damaged.
- Do not install the zone remote controller where combustible gases may leak, be produced, flow, or accumulate. If combustible gas accumulates around the zone remote controller, it may cause fire or explosion.
- When installing the zone remote controller in a hospital or in a building where communications equipment is installed, you may need to take measures to noise and electrical interference. Inverters, home appliances, high-frequency medical equipment, and radio communications equipment can cause the remote control to malfunction or breakdown. At the same time, the noise and electric interference from the zone remote controller may disturb the proper operation of medical equipment, and communications equipment.

**CAUTION**

- Before starting installation, read the following description together with the installation manual included with the zone controller.
- Please read carefully and observe fully the following safety precautions.

**WARNING**

- Precaution that must be observed to prevent injuries or death.
- After installation carry out a test run to ensure correct operation, then explain operation method and safety precautions to the end user.
- Tell your customers to keep this installation manual together with the operation manual, and when they give or sell this machine to any other person include this installation manual and operation manual with it.

**WARNING**

- The zone remote controller must not be installed by the user. Ask an installer or an authorized technician to install the zone remote controller. If the zone remote controller is installed improperly, electric shock, or fire may be caused.
- For installation work, follow the instructions in the Installation Manual and use tools.
- The zone remote controller must be securely installed on a structure that can sustain its weight. If the zone remote controller is mounted on an unstable structure, it may fall down and cause damages or injuries.
- All electric work must be performed by a qualified technician according to local regulations and the instructions given in this manual.
- Only the specified cables can be used for wiring. Connections must be made securely without tension on the terminals. If cables are connected or installed improperly, it may result in overheating or fire.
- Terminal block cover panel of the zone remote controller must be firmly fixed. If the cover panel is mounted improperly, dust and moisture may enter the zone remote controller, and it may cause electric shock or fire.

**CAUTION**

- Make sure to use accessories authorized by Mitsubishi Electric and ask an installer or an authorized technician to install them. If accessories are improperly installed, it may cause electric shock or fire.
- Do not carry out any repairs, alterations or repairs are not performed correctly, it may cause electric shock or fire.
- The zone remote controller must not be installed by the user. Ask an installer or an authorized technician to install it. If accessories are improperly installed, it may cause electric shock or fire.
- Do not install the zone remote controller where combustible gases may leak, be produced, flow, or accumulate. If combustible gas accumulates around the zone remote controller, it may cause fire or explosion.
- When installing the zone remote controller in a hospital or in a building where communications equipment is installed, you may need to take measures to noise and electrical interference. Inverters, home appliances, high-frequency medical equipment, and radio communications equipment can cause the remote control to malfunction or breakdown. At the same time, the noise and electric interference from the zone remote controller may disturb the proper operation of medical equipment, and communications equipment.

2. **Installing the zone remote controller**

This remote controller is for wall installation. It can be installed either on a mounting block or directly on the wall. When performing direct wall installation, cables can be thread through either back or top of the remote controller.

1. Selecting an installation site

- Install the remote controller on the site where the following conditions are met.
  - A flat surface
  - A place where the remote controller can measure the accurate room temperature
  - Sensors to monitor the room temperature on the indoor unit and on the remote controller.
  - To monitor the accurate room temperature, install the remote controller away from direct sunlight, heat sources, and the supply air outlet of the air conditioner.
  - Install the remote controller in a location that allows the sensor to measure the representative room temperature.
  - Install the remote controller where no wires are routed around the temperature sensor on the controller or where no obstacles block the air inlet, otherwise the sensor cannot measure accurate room temperature.
  - Do not install the controller where it is exposed to high concentration of acid, alkaline, or volatile organic compounds.
  - Install the remote controller where occupancy and brightness can be properly detected.
  - The remote controller has an occupancy sensor and a brightness sensor.
  - Each sensor has a sensor-detection area.
  - Install the remote controller where the coverage area covers the appropriate area in the room.
  - The maximum distance the sensor can detect occupancy is approximately 10 m (32 ft).

Occupancy sensor detects occupancy based on the temperature difference between the occupant and its surroundings. The occupancy sensor is designed to detect the changes in the infrared light emitted from an object in the detection area, including human bodies. The occupancy sensor will not detect occupancy if no movements exist. The sensor also becomes less sensitive to occupancy when the temperature difference between the occupant and its surroundings is large.

Select the installation location carefully to avoid false detection.

Factors that contribute to false detection by the occupancy sensor

- Direct sunlight to the remote controller
- Supply air directed straight toward the remote controller
- Freight in the detection zone
- Human heat (e.g., oscillating electric heater) in the detection area
- Excessive vibrations or large impact inflicted on the remote controller
- Strong electrical noise
- Movements of small animals, such as cats and dogs

Handling precautions

- Keep the lens scratch free.
- Do not place adhesive tape or labels over the lens.
- Use a soft cloth to clean the lens.

Do not use solderless terminals to connect cables to the terminal block. Soldierless terminals may come in contact with the circuit board and cause malfunctions or damage to the controller cover.

To avoid deformation and malfunction, do not install the remote controller in direct sunlight, where the ambient temperature may rise above 40ºC (104°F) or drop below 0ºC (32°F), or where the relative humidity may rise above 90% or drops below 20%.

To reduce the risk of malfunctions, do not install the controller in a place where water or oil may come into contact with the controller, or in a condensing or corrosive environment.

Do not install the remote controller directly onto electrically conductive objects such as metal plate that has not been painted.

To use the Energy Saving Assist function in a system with both main and sub remote controllers, activate the function only on the remote controller whose coverage area is the largest.

**CAUTION**

- Make sure to connect the ground wire to earth ground. If the zone remote controller is not properly grounded, there may be a risk to get an electric shock.

**CAUTION**

- Be fully careful when moving the zone remote controller. Do not hold the packaging box. Wear protective gloves to unpack and to move it, in order to avoid your hands be injured by parts.
- Be sure to safely install the zone remote controller in an environment with high humidity.
- Be sure to safely install the zone remote controller in a location where the relative humidity may rise above 90% or drops below 20%.
- Do not wash the zone remote controller. You may receive an electric shock.
- If the zone remote controller is mounted on a mounting block or directly on the wall, the remote controller cable needs to be repaired or moved, ask an installer or an authorized technician.

**CAUTION**

- Before installation or relocation

- Be sure to safely dispose of the packaging materials. Packaging materials also become less sensitive to movements across the area indicated by - .Themeans movementstraight tothensor.

**CAUTION**

- Be fully careful when moving the zone remote controller. If the zone remote controller is mounted on a mounting block or directly on the wall, the remote controller cable needs to be repaired or moved, ask an installer or an authorized technician.

- Be sure to safely dispose of the packaging materials. Packaging materials may become less sensitive to movements across the area indicated by - .Themeans movementstraight to the sensor.

**CAUTION**

- Seal the gap around the remote controller.
- Do not install the zone remote controller where combustible gases may leak, be produced, flow, or accumulate. If combustible gas accumulates around the zone remote controller, it may cause fire or explosion.
- When installing the zone remote controller in a hospital or in a building where communications equipment is installed, you may need to take measures to noise and electrical interference. Inverters, home appliances, high-frequency medical equipment, and radio communications equipment can cause the remote control to malfunction or breakdown. At the same time, the noise and electric interference from the zone remote controller may disturb the proper operation of medical equipment, and communications equipment.

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3. Connecting the zone remote controller cable to the zone control interface

3.1 Main zone remote controller

Maximum 2 remote controllers can be connected to TB3M. Connect the remote controller cable to M1, M2 on the terminal block (TB3M).<Fig. 15> Connect the part of shield wiring of remote controller cable to S on the terminal when using 2-core shielded cable.

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<thead>
<tr>
<th>Wiring type</th>
<th>Wiring (under 10m)</th>
<th>Wiring (10–200m)</th>
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<tr>
<td>2-core shielded cable</td>
<td>2 x 0.75mm²[standard AWG18]</td>
<td>2 x 1.0mm²[minimum AWG16] or equivalent</td>
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*1 For remote controllers, use a cable with supplementary insulation; double coating or minimum thickness coating of 1mm.

**Wiring for remote controller cable shall be (5 cm or more) apart from power source wiring so that it is not influenced by electric noise from power source wiring. (Do not insert remote controller cable and power source wiring in the same conduit.) (Refer to the Zone Controller Installation Manual.)**

When wiring to TB3M, use the ring type lugs and insulate them from the cables of adjoining terminals.

Set the M-NET addresses

<table>
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<tr>
<th>Address range</th>
<th>Address setting method</th>
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<tr>
<td>Sub remote controller</td>
<td>151 Set to 151</td>
</tr>
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</table>

Note: M-NET address can be changed with or without the power being applied to the controller. The screen will jump to the [Start-up] screen. Zone settings will be deleted, but the rest of the information will be retained.

**Important**

To set the address, turn the rotary switch with a precision slotted screwdriver \(-\), 2.0mm (1/16 in) to a torque of less than 13.6 N to avoid the damage to the rotary switches.

3.2 Sub zone remote controller

Maximum 2 remote controllers can be connected to TB3M. Connect the remote controller cable to M1, M2 on the terminal block (TB3M).<Fig. 17> Connect the part of shield wiring of remote controller cable to S on the terminal when using 2-core shielded cable.

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Sub remote controller's address has not been set

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**Important**

To set the address, turn the rotary switch with a precision slotted screwdriver \(-\), 2.0mm (1/16 in) to a torque of less than 13.6 N to avoid the damage to the rotary switches.

Set “has” to the existence of Sub RC or “Zone setting” menu of the zone remote controller. Refer to the Zone Controller Installation Manual for more detail.

Symptoms | Assumed Causes | Solutions
--- | --- | ---
000 error on controllers when 2nd controller is installed | Sub controller's address has not been set to 151 | Set sub controller’s address to 151, refer to installation manual