NOTE:
RoHS compliant products have <G> mark on the spec name plate.
Use the specified refrigerant only

Never use any refrigerant other than that specified.
Doing so may cause a burst, an explosion, or fire when the unit is being used, serviced, or disposed of.
Correct refrigerant is specified in the manuals and on the spec labels provided with our products.
We will not be held responsible for mechanical failure, system malfunction, unit breakdown or accidents caused by failure to follow the instructions.

<Preparation before the repair service>
- Prepare the proper tools.
- Prepare the proper protectors.
- Provide adequate ventilation.
- After stopping the operation of the air conditioner, turn off the power-supply breaker and remove the power plug.
- Discharge the capacitor before the work involving the electric parts.

<Precautions during the repair service>
- Do not perform the work involving the electric parts with wet hands.
- Do not pour water into the electric parts.
- Do not touch the refrigerant.
- Do not touch the hot or cold areas in the refrigeration cycle.
- When the repair or the inspection of the circuit needs to be done without turning off the power, exercise great caution not to touch the live parts.

Revision A:
- MSZ-HJ50VA-□□□ has been added.
TECHNICAL CHANGES

MSZ-HJ25VA - 
MSZ-HJ35VA - 
MSZ-HJ50VA - 

1. New model
PART NAMES AND FUNCTIONS

MSZ-HJ25VA  MSZ-HJ35VA  MSZ-HJ50VA

ACCESSORIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Installation plate</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Installation plate fixing screw 4 x 25 mm</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Battery (AAA) for remote controller</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Wireless remote controller</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Felt tape (Used for left or left-rear piping)</td>
<td>1</td>
</tr>
</tbody>
</table>
## SPECIFICATION

### Power supply

<table>
<thead>
<tr>
<th>Breaker Capacity</th>
<th>MSZ-HJ25VA</th>
<th>MSZ-HJ35VA</th>
<th>MSZ-HJ50VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single phase 230 V, 50 Hz</td>
<td>10</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

### Power input

<table>
<thead>
<tr>
<th>Model</th>
<th>MSZ-HJ25VA</th>
<th>MSZ-HJ35VA</th>
<th>MSZ-HJ50VA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cooling</strong></td>
<td>W</td>
<td>W</td>
<td>W</td>
</tr>
<tr>
<td>Super High</td>
<td>730</td>
<td>1,040</td>
<td>2,050</td>
</tr>
<tr>
<td>High</td>
<td>870</td>
<td>995</td>
<td>1,480</td>
</tr>
<tr>
<td>Med.</td>
<td>3.7</td>
<td>4.9</td>
<td>9.0</td>
</tr>
<tr>
<td>Low</td>
<td>4.2</td>
<td>4.8</td>
<td>6.6</td>
</tr>
<tr>
<td><strong>Heating</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Super High</td>
<td>85</td>
<td>92</td>
<td>99</td>
</tr>
<tr>
<td>High</td>
<td>90</td>
<td>90</td>
<td>97</td>
</tr>
<tr>
<td>Med.</td>
<td>90</td>
<td>90</td>
<td>97</td>
</tr>
<tr>
<td>Low</td>
<td>4.2</td>
<td>4.9</td>
<td>9.0</td>
</tr>
</tbody>
</table>

### Electrical data

<table>
<thead>
<tr>
<th>Current *1</th>
<th>Cooling</th>
<th>Heating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.19</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>0.20</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>0.27</td>
<td>0.34</td>
</tr>
</tbody>
</table>

### Dimensions W × H × D

<table>
<thead>
<tr>
<th></th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>799 × 290 × 232</td>
<td></td>
</tr>
</tbody>
</table>

### Weight

<table>
<thead>
<tr>
<th></th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

### Air direction

<table>
<thead>
<tr>
<th>Airflow</th>
<th>Super High</th>
<th>High</th>
<th>Med.</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling</td>
<td>571</td>
<td>438</td>
<td>328</td>
<td>227</td>
</tr>
<tr>
<td>Heating</td>
<td>598</td>
<td>451</td>
<td>328</td>
<td>208</td>
</tr>
</tbody>
</table>

### Sound level

<table>
<thead>
<tr>
<th>Sound level</th>
<th>Super High</th>
<th>High</th>
<th>Med.</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling</td>
<td>43</td>
<td>37</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>Heating</td>
<td>43</td>
<td>37</td>
<td>30</td>
<td>23</td>
</tr>
</tbody>
</table>

### Fan speed

<table>
<thead>
<tr>
<th>Fan speed</th>
<th>Super High</th>
<th>High</th>
<th>Med.</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling</td>
<td>1,080</td>
<td>880</td>
<td>710</td>
<td>550</td>
</tr>
<tr>
<td>Heating</td>
<td>1,120</td>
<td>900</td>
<td>710</td>
<td>520</td>
</tr>
</tbody>
</table>

### Remote controller regulator

|                   | 4        |

### NOTE

- Test conditions are based on ISO 5151.
- Cooling: Indoor Dry-bulb temperature 27°C, Wet-bulb temperature 19°C
- Heating: Indoor Dry-bulb temperature 20°C, Outdoor Dry-bulb temperature 7°C, Wet-bulb temperature 6°C
- *1 Measured under rated operating frequency.

### Specifications and rated conditions of main electric parts

<table>
<thead>
<tr>
<th>Fuse</th>
<th>T3.15AL250V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal vane motor</td>
<td>12 VDC</td>
</tr>
<tr>
<td>Varistor</td>
<td>S10K320E3K1 (ERZV14D471)</td>
</tr>
<tr>
<td>Terminal block</td>
<td>5P</td>
</tr>
</tbody>
</table>
4 NOISE CRITERIA CURVES

**MSZ-HJ25VA**

<table>
<thead>
<tr>
<th>FAN SPEED</th>
<th>FUNCTION</th>
<th>SPL(dB(A))</th>
<th>LINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super High</td>
<td>COOLING</td>
<td>43</td>
<td>●●●</td>
</tr>
<tr>
<td></td>
<td>HEATING</td>
<td>43</td>
<td>○○○</td>
</tr>
</tbody>
</table>

**MSZ-HJ35VA**

<table>
<thead>
<tr>
<th>FAN SPEED</th>
<th>FUNCTION</th>
<th>SPL(dB(A))</th>
<th>LINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super High</td>
<td>COOLING</td>
<td>45</td>
<td>●●●</td>
</tr>
<tr>
<td></td>
<td>HEATING</td>
<td>44</td>
<td>○○○</td>
</tr>
</tbody>
</table>

**MSZ-HJ50VA**

<table>
<thead>
<tr>
<th>FAN SPEED</th>
<th>FUNCTION</th>
<th>SPL(dB(A))</th>
<th>LINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super High</td>
<td>COOLING</td>
<td>45</td>
<td>●●●</td>
</tr>
<tr>
<td></td>
<td>HEATING</td>
<td>47</td>
<td>○○○</td>
</tr>
</tbody>
</table>

Test conditions

- **Cooling**: Dry-bulb temperature 27°C  Wet-bulb temperature 19°C
- **Heating**: Dry-bulb temperature 20°C

**OBH647A**
5 OUTLINES AND DIMENSIONS

MSZ-HJ25VA MSZ-HJ35VA MSZ-HJ50VA Unit: mm

6 WIRING DIAGRAM

MSZ-HJ25VA MSZ-HJ35VA MSZ-HJ50VA

NOTES:
1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.
2. Use copper conductors only.
3. Symbols indicate:
   - : Terminal block
   - : Connector

OBH647A
MSZ-HJ25VA  MSZ-HJ35VA

Indoor heat exchanger Flared connection
Room temperature thermistor RT11

Refrigerant flow in cooling
Refrigerant flow in heating

Refrigerant pipe ø9.52 (with heat insulator)
Refrigerant pipe ø6.35 (with heat insulator)

Indoor coil thermistor RT12
Indoor coil thermistor RT13

Unit : mm

MSZ-HJ50VA

Indoor heat exchanger
Indoor coil thermistor RT12
Indoor coil thermistor RT13
Room temperature thermistor RT11

Refrigerant flow in cooling
Refrigerant flow in heating

Refrigerant pipe ø12.7 (with heat insulator)
Refrigerant pipe ø6.35 (with heat insulator)
8-1. TIMER SHORT MODE
For service, the following set time can be shortened by short circuiting the timer short mode point on the electronic control P.C. board. (Refer to 10-7.)
Set time : 3-minute → 3-second (It takes 3 minutes for the compressor to start operation. However, the starting time is shortened by short circuiting the timer short mode point.)

8-2. P.C. BOARD MODIFICATION FOR INDIVIDUAL OPERATION
A maximum of 4 indoor units with wireless remote controllers can be used in a room.
In this case, to operate each indoor unit individually by each remote controller, P.C. boards of remote controller must be modified according to the number of the indoor unit.

How to modify the remote controller P.C. board
Remove batteries before modification.
The board has a print as shown below:

The P.C. board has the print "J1" and "J2". Solder "J1" and "J2" according to the number of indoor unit as shown in Table 1. After modification, press the RESET button.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>1 unit operation</th>
<th>2 units operation</th>
<th>3 units operation</th>
<th>4 units operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1 unit</td>
<td>No modification</td>
<td>Same as at left</td>
<td>Same as at left</td>
<td>Same as at left</td>
</tr>
<tr>
<td>No. 2 unit</td>
<td>–</td>
<td>Solder J1</td>
<td>Same as at left</td>
<td>Same as at left</td>
</tr>
<tr>
<td>No. 3 unit</td>
<td>–</td>
<td>–</td>
<td>Solder J2</td>
<td>Same as at left</td>
</tr>
<tr>
<td>No. 4 unit</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Solder both J1 and J2</td>
</tr>
</tbody>
</table>

How to set the remote controller exclusively for particular indoor unit
After you turn the breaker ON, the first remote controller that sends the signal to the indoor unit will be regarded as the remote controller for the indoor unit.
The indoor unit will only accept the signal from the remote controller that has been assigned to the indoor unit once they are set.
The setting will be cancelled if the breaker has turned OFF, or the power supply has shut down.
Please conduct the above setting once again after the power has restored.

NOTE : For modification, take out the batteries and press the OPERATE/STOP (ON/OFF) button 2 or 3 times at first.
After finish modification, put back the batteries then press the RESET button.
8-3. AUTO RESTART FUNCTION

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. “AUTO RESTART FUNCTION” automatically starts operation in the same mode just before the shutoff of the main power.

Operation
① If the main power has been cut, the operation settings remain.
② After the power is restored, the unit restarts automatically according to the memory.
(However, it takes at least 3 minutes for the compressor to start running.)

How to disable “AUTO RESTART FUNCTION”
① Turn off the main power for the unit.
② Cut the Jumper wire to JR77 on the indoor electronic control P.C. board. (Refer to 10-7.)

NOTE:
• The operation settings are memorized when 10 seconds have passed after the indoor unit was operated with the remote controller.
• If main power is turned OFF or a power failure occurs while AUTO START/STOP timer is active, the timer setting is cancelled.
• 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 appliance not to turn ON at the same time.
• When some air conditioners are connected to the same supply system, if they are operated before power failure, the starting current of all the compressors may flow simultaneously at restart.
Therefore, the special counter measures are required to prevent the main voltage-drop or the rush of the starting current by adding to the system that allows the units to start one by one.
NOT : Last setting will be stored after the unit is turned OFF with the remote controller. Indoor unit receives the signal of the remote controller with beeps.

**INDOOR UNIT DISPLAY SECTION**

*Operation Indicator lamp*

The operation indicator at the right side of the indoor unit indicates the operation state.

- The following indication applies regardless of shape of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Operation state</th>
<th>Room temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Lighted" /> <img src="#" alt="Blinking" /> <img src="#" alt="Not lighted" /></td>
<td>The unit is operating to reach the set temperature</td>
<td>About 2°C or more away from set temperature</td>
</tr>
<tr>
<td><img src="#" alt="Lighted" /> <img src="#" alt="Blinking" /> <img src="#" alt="Not lighted" /></td>
<td>The room temperature is approaching the set temperature</td>
<td>About 1 to 2°C from set temperature</td>
</tr>
</tbody>
</table>

9-1. COOL (Cool) OPERATION

1. Press OPERATE/STOP (ON/OFF) button.
   - OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
2. Select COOL mode with OPERATION SELECT button.
3. Press TEMPERATURE buttons (TOO WARM or TOO COOL button) to select the desired temperature.
   - The setting range is 16 ~ 31°C.

1. **Coil frost prevention**
   - The compressor operational frequency is controlled by the temperature of the indoor heat exchanger to prevent the coil from frosting.
   - When the temperature of indoor heat exchanger becomes too low, the coil frost prevention mode works. The indoor fan operates at the set speed and the compressor stops. This mode continues until the temperature of indoor heat exchanger rises.
9-2. DRY (△) OPERATION
(1) Press OPERATE/STOP (ON/OFF) button.
   OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select DRY mode with OPERATION SELECT button.
(3) The set temperature is determined from the initial room temperature.

1. Coil frost prevention
   Coil frost prevention is as same as COOL mode. (9-1.1.)

9-3. HEAT (○) OPERATION
(1) Press OPERATE/STOP (ON/OFF) button.
   OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select HEAT mode with OPERATION SELECT button.
(3) Press TEMPERATURE buttons (TOO WARM or TOO COOL button) to select the desired temperature.
   The setting range is 16 ~ 31°C.

1. Cold air prevention control
   When the compressor is not operating or is starting, and the temperature of indoor heat exchanger and/or the room temperature is low or when defrosting is being done, the indoor fan will stop or rotate in Very Low speed.

2. High pressure protection
   The compressor operational frequency is controlled by the temperature of the indoor heat exchanger to prevent the condensing pressure from increasing excessively.
   When the temperature of indoor heat exchanger becomes too high, the high pressure protection works.
   The indoor fan operates following the cold air prevention control. This mode continues until the temperature of indoor heat exchanger falls.

3. Defrosting
   Defrosting starts when the temperature of outdoor heat exchanger becomes too low.
   The compressor stops once, the indoor/outdoor fans stop, the 4-way valve reverses, and the compressor re-starts.
   This mode continues until the temperature of outdoor heat exchanger rises or the fixed time passes.

9-4. AUTO VANE OPERATION

1. Horizontal vane
   (1) Vane motor drive
      These models are equipped with a stepping motor for the horizontal vane. The rotating direction, speed, and angle of the motor are controlled by pulse signals (approximately 12 V) transmitted from indoor microprocessor.
   (2) The horizontal vane angle and mode change as follows by pressing VANE CONTROL button.

      AUTO 🎁 ➔ 1 ➔ 2 ➔ 3 ➔ 4 ➔ 5 ➔ SWING

   (3) Positioning
      To confirm the standard position, the vane moves until it touches the vane stopper. Then the vane is set to the selected angle.
      Confirming of standard position is performed in the following cases:
      (a) When the operation starts or finishes (including timer operation).
      (b) When the test run starts.

   (4) VANE AUTO (②) mode
      In VANE AUTO mode, the microprocessor automatically determines the vane angle to make the optimum room temperature distribution.

      In COOL and DRY operation
      Vane angle is fixed to Horizontal position.

      In HEAT operation
      Vane angle is fixed to Angle 4.
(5) STOP (operation OFF) and ON TIMER standby
In the following cases, the horizontal vane returns to the closed position.
(a) When OPERATE/STOP (ON/OFF) button is pressed (POWER OFF).
(b) When the operation is stopped by the emergency operation.
(c) When ON TIMER is ON standby.
(6) Dew prevention
During COOL or DRY operation with the vane angle at Angle 3 ~ 5 when the compressor cumulative operation time exceeds 1 hour, the vane angle automatically changes to Angle 2 for dew prevention.
(7) SWING (��) mode
By selecting SWING mode with VANE CONTROL button, the horizontal vane swings vertically.
(8) Cold air prevention in HEAT operation.
The horizontal vane position is set to Upward.
(9) To change the air flow direction not to blow directly onto your body.

<table>
<thead>
<tr>
<th>To change the airflow direction</th>
<th>When to use this function?</th>
<th>COOL/DRY</th>
<th>HEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressing and holding VANE CONTROL button for 2 seconds or more cause the horizontal vane to reverse and move to horizontal position.</td>
<td>Use this function if you do not want the air from the indoor unit to blow directly onto your body.</td>
<td>The air conditioner starts the cooling or drying operation approximately 3 minutes after the vane has moved to the horizontal position.</td>
<td>The air conditioner starts heating operation approximately 3 minutes after the vane has moved to the horizontal position.</td>
</tr>
</tbody>
</table>

NOTE:
- If you make the airflow not to blow directly onto your body by pressing VANE CONTROL button, the compressor stops for 3 minutes even during the operation of the air conditioner.
- The air conditioner operates with Very Low speed until the compressor turns on again.

(10) ECONO COOL (≡) operation (ECONOmatic operation)
When ECONO COOL button is pressed in COOL mode, set temperature is automatically set 2°C higher. Also the horizontal vane swings in various cycle.
SWING operation makes you feel cooler than set temperature. So, even though the set temperature is higher, the air conditioner can keep comfort. As a result, energy can be saved.
ECONO COOL operation is cancelled when ECONO COOL button is pressed once again or VANE CONTROL button is pressed or change to other operation mode.

9-5. TIMER OPERATION (ON/OFF TIMER)
1. How to set the timer
(1) Press OPERATE/STOP (ON/OFF) button to start the air conditioner.
(2) Select the timer mode by pressing the SELECT button during operation.
   Each time this button is pressed, the timer mode is changed in sequence:
   ⊗ → ⊗ (OFF TIMER) → ⊗ → ⊗ (ON TIMER) → TIMER RELEASE
(3) Set the time of the timer using the TIME button.
   Each time this button is pressed, the set time increase or decrease by 1 hour to 12 hours.

2. To release the timer
Press the  button until ⊗→⊗ (OFF TIMER) and ⊗→⊗ (ON TIMER) are not displayed.

NOTE:
- The OFF TIMER and the ON TIMER cannot be set at the same time.
- The displayed time is the time remaining and will decrease in 1-hour increments as time passes.
9-6. EMERGENCY/TEST OPERATION

In case of test run operation or emergency operation, use EMERGENCY OPERATION switch on the right side of the indoor unit. Emergency operation is available when the remote controller is missing, has failed or the batteries of the remote controller run down. The unit will start and OPERATION INDICATOR lamp will light. The first 30 minutes of operation is the test run operation. This operation is for servicing. The indoor fan runs at High speed and the temperature control does not work. After 30 minutes of test run operation, the system shifts to EMERGENCY COOL/HEAT MODE with a set temperature of 24°C. The fan speed shifts to Med.

The coil frost prevention works even in the test run or the emergency operation. In the test run or emergency operation, the horizontal vane operates in VANE AUTO (Auto) mode. Emergency operation continues until EMERGENCY OPERATION switch is pressed once or twice or the unit receives any signal from the remote controller. In case of latter, normal operation will start.

NOTE: Do not press EMERGENCY OPERATION switch during normal operation.

<table>
<thead>
<tr>
<th>Operation mode</th>
<th>COOL</th>
<th>HEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set temperature</td>
<td>24°C</td>
<td>24°C</td>
</tr>
<tr>
<td>Horizontal vane</td>
<td>Auto</td>
<td>Auto</td>
</tr>
</tbody>
</table>

The operation mode is indicated by the Operation Indicator lamp as following:

- **EMERGENCY COOL**
- **EMERGENCY HEAT**
- **STOP**

Lighted Not lighted

9-7. 3-MINUTE TIME DELAY OPERATION

When the system turns OFF, compressor will not restart for 3 minutes as 3-minute time delay function operates to protect compressor from overload.
3. Troubleshooting procedure
1) Check if the OPERATION INDICATOR lamp on the indoor unit is flashing ON and OFF to indicate an abnormality. To make sure, check how many times the OPERATION INDICATOR lamp is flashing ON and OFF before starting service work.
2) Before servicing, check that the connector and terminal are connected properly.
3) When the electronic control P.C. board seems to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
4) When troubleshooting, Refer to 10-2, 10-3 and 10-4.

4. How to replace batteries
Weak batteries may cause the remote controller malfunction. In this case, replace the batteries to operate the remote controller normally.

1) Remove the back lid and insert batteries. Then reattach the back lid.
2) Press RESET button with a thin instrument, and then use the remote controller.

NOTE: 1. If RESET button is not pressed, the remote controller may not operate correctly.
2. This remote controller has a circuit to automatically reset the microcomputer when batteries are replaced. This function is equipped to prevent the microcomputer from malfunctioning due to the voltage drop caused by the battery replacement.
3. Do not use the leaking batteries.
10-2. FAILURE MODE RECALL FUNCTION

Outline of the function
This air conditioner can memorize the abnormal condition which has occurred once. Even though LED indication listed on the troubleshooting check table (10-4.) disappears, the memorized failure details can be recalled. This mode is very useful when the unit needs to be repaired for the abnormality which does not recur.

1. Flow chart of failure mode recall function for the indoor/outdoor unit

Operational procedure
The cause of abnormality cannot be found because the abnormality does not recur.

Setting up the failure mode recall function
Turn ON the power supply.

Preparation of the remote controller:
- While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
- First, release RESET button. Hold down the other two buttons for another 3 seconds. Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.
- Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.

Judgment of indoor/outdoor abnormality
Before blinking, does upper lamp of OPERATION INDICATOR lamp stay ON for 3 seconds?

- Stays ON for 3 seconds (without beep): The outdoor unit is abnormal.
- The indoor unit is abnormal.
- Check the blinking pattern, and identify the abnormal point with the indoor unit failure mode table. (Refer to 10-2.2)
- Make sure to check at least two consecutive blinking cycles.

Releasing the failure mode recall function
Release the failure mode recall function by the following procedures.
- Turn OFF the power supply and turn it ON again.
- Press RESET button of the remote controller.

Repair the failure parts.

Deleting the memorized abnormal condition
- After repairing the unit, recall the failure mode again according to "Setting up the failure mode recall function" mentioned above.
- Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
- Press EMERGENCY OPERATION switch so that the memorized abnormal condition is deleted.
- Release the failure mode recall function according to "Releasing the failure mode recall function" mentioned above.

NOTE
1. Make sure to release the failure mode recall function after it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.
3. Blinking pattern when the indoor unit is abnormal:
   - ON OFF
     - 2.5-second OFF Blinking at 0.5-second interval
     - 2.5-second OFF
     - Repeated cycle
     - Beeps
     - Repeated cycle
     - Beeps

4. Blinking pattern when the outdoor unit is abnormal:
   - ON OFF
     - 2.5-second OFF Blinking at 0.5-second interval
     - 2.5-second OFF
     - Repeated cycle
     - Beeps
     - Repeated cycle
     - Beeps

5. Blinking pattern when the outdoor unit is abnormal:
   - ON OFF
     - 3-second ON Blinking at 0.5-second interval
     - 2.5-second OFF
     - Repeated cycle
     - Beeps
     - Repeated cycle
     - Beeps
## 2. Indoor unit failure mode table

<table>
<thead>
<tr>
<th>Upper lamp of OPERATION INDICATOR lamp</th>
<th>Abnormal point (Failure mode)</th>
<th>Condition</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not lighted</td>
<td>Normal</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1-time flash every 0.5-second</td>
<td>Room temperature thermistor</td>
<td>The room temperature thermistor short or open circuit is detected every 8 seconds during operation.</td>
<td>Refer to the characteristics of the room temperature thermistor (10-7.).</td>
</tr>
<tr>
<td>2-time flash</td>
<td>Indoor coil thermistor</td>
<td>The indoor coil thermistor short or open circuit is detected every 8 seconds during operation.</td>
<td>Refer to the characteristics of the main indoor coil thermistor, the sub indoor coil thermistor (10-7.).</td>
</tr>
<tr>
<td>2.5-second OFF</td>
<td>Serial signal</td>
<td>The serial signal from outdoor unit is not received for a maximum of 6 minutes.</td>
<td>Refer to 10-6.3 &quot;How to check miswiring and serial signal error&quot;.</td>
</tr>
<tr>
<td>11-time flash</td>
<td>Indoor fan motor</td>
<td>The rotational frequency feedback signal is not emitted for the 12 seconds after the indoor fan motor is operated.</td>
<td>Refer to 10-6.6 &quot;Check of indoor fan motor&quot;.</td>
</tr>
<tr>
<td>2.5-second OFF</td>
<td>Indoor control system</td>
<td>It cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.</td>
<td>Replace the indoor electronic control P.C. board.</td>
</tr>
</tbody>
</table>

**NOTE**: Blinking patterns of this mode differ from the ones of TROUBLESHOOTING CHECK TABLE (10-4.).
10-3. INSTRUCTION OF TROUBLESHOOTING

Start

Indoor unit operates. Outdoor unit does not operate.

Indoor unit operates. Outdoor unit does not operate normally.

Indoor unit does not receive the signal from remote controller.

OPERATION INDICATOR lamp on the indoor unit is flashing on and off.

Outdoor unit operates only in Test Run operation.

Outdoor unit does not operate even in Test Run operation.

Unit does not operate normal operation in COOL or HEAT mode.

Indoor unit operates, when EMERGENCY OPERATION switch is pressed.

Indoor unit does not operate, when EMERGENCY OPERATION switch is pressed.

Check room temperature thermistor.
Refer to 10-7. "Test point diagram and voltage".

Refer to "How to check inverter/compressor".

Refer to 10-6. "Check of R.V. coil".

Refer to 10-6.© "Check of remote controller and indoor electronic control P.C. board".

1. Check indoor/outdoor connecting wire. (Check if the power is supplied to the indoor unit.)
2. Refer to 10-6.© "Check of indoor P.C. board and indoor fan motor".

Refer to outdoor unit service manual.

Upper lamp Flash on and off at 0.5-second intervals Cause: Indoor/Outdoor unit • Miswiring or trouble of serial signal

Upper lamp 2-time flash Cause: Indoor unit • Trouble of room temperature / indoor coil thermistor

Upper lamp 3-time flash Cause: Indoor unit • Trouble of indoor fan motor

Upper lamp 4-time flash Cause: Indoor unit • Trouble of indoor unit control system

Upper lamp 5-time flash Cause: Outdoor unit • Trouble of thermistor in outdoor unit

Upper lamp 6-time flash Cause: Outdoor unit • Trouble of outdoor power system abnormality

Upper lamp 7-time flash Cause: Outdoor unit • Trouble of outdoor control system

Upper lamp 14-time flash or more Cause: Outdoor unit • Other abnormality

Refer to 10-6.© "How to check miswiring and serial signal error".

Check room temperature thermistor and indoor coil thermistor. Refer to 10-7."Test point diagram and voltage".

Refer to 10-6.© "Check of indoor fan motor".

Replace the indoor electronic control P.C. board.

Refer to "How to check inverter/compressor".

Refer to "Check of outdoor thermistors".

Replace the inverter P.C. board or the outdoor electronic control P.C. board.

Check "Flow chart of the detailed outdoor unit failure mode recall function."

If blinking of OPERATION INDICATOR lamp cannot be checked, it can be checked with failure mode recall function.

"Test Run operation" means the operation within 30 minutes after EMERGENCY OPERATION switch is pressed.
### 10-4. TROUBLESHOOTING CHECK TABLE

Before taking measures, make sure that the symptom reappears for accurate troubleshooting. When the indoor unit has started operation and detected an abnormality of the following condition (the first detection after the power ON), the indoor fan motor turns OFF and OPERATION INDICATOR lamp flashes.

#### OPERATION INDICATOR

<table>
<thead>
<tr>
<th>Lighted</th>
<th>Blinking</th>
<th>Not lighted</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Lighted" /></td>
<td><img src="image2" alt="Blinking" /></td>
<td><img src="image3" alt="Not lighted" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Abnormal point</th>
<th>Operation indicator lamp</th>
<th>Symptom</th>
<th>Condition</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Miswiring or serial signal</td>
<td>Upper lamp flashes. 3-time flash</td>
<td>The serial signal from the outdoor unit is not received for 6 minutes.</td>
<td>The serial signal from the outdoor unit is not received for 6 minutes.</td>
<td>Refer to 10-6. &quot;How to check miswiring and serial signal error&quot;.</td>
</tr>
<tr>
<td>2</td>
<td>Indoor coil thermistor</td>
<td>Upper lamp flashes. 2-time flash</td>
<td>The indoor coil or the room temperature thermistor is short or open circuit.</td>
<td>The indoor coil or the room temperature thermistor is short or open circuit.</td>
<td>Refer to the characteristics of indoor coil thermistor, and the room temperature thermistor (10-7).</td>
</tr>
<tr>
<td>3</td>
<td>Indoor fan motor</td>
<td>Upper lamp flashes. 4-time flash</td>
<td>The rotational frequency feedback signal is not emitted during the indoor fan operation.</td>
<td>The rotational frequency feedback signal is not emitted during the indoor fan operation.</td>
<td>Refer to 10-6. &quot;Check of indoor fan motor&quot;.</td>
</tr>
<tr>
<td>4</td>
<td>Indoor control system</td>
<td>Upper lamp flashes. 6-time flash</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>Replace the indoor electronic control P.C. board.</td>
</tr>
<tr>
<td>5</td>
<td>Outdoor power system</td>
<td>Upper lamp flashes. 14-time flash or more</td>
<td>It consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.</td>
<td>It consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.</td>
<td>Refer to &quot;How to check of inverter/compressor&quot;. Refer to outdoor unit service manual. Check the stop valve.</td>
</tr>
<tr>
<td>6</td>
<td>Outdoor thermostors</td>
<td>Upper lamp flashes. 7-time flash</td>
<td>The outdoor thermostors short or open circuit during the compressor operation.</td>
<td>The outdoor thermostors short or open circuit during the compressor operation.</td>
<td>Refer to &quot;Check of outdoor thermostors&quot;. Refer to outdoor unit service manual.</td>
</tr>
<tr>
<td>7</td>
<td>Outdoor control system</td>
<td>Upper lamp flashes. 14-time flash or more</td>
<td>It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.</td>
<td>It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.</td>
<td>Replace the inverter P.C. board or the outdoor electronic control P.C. board. Refer to outdoor unit service manual.</td>
</tr>
<tr>
<td>8</td>
<td>Other abnormality</td>
<td>Upper lamp flashes. 14-time flash or more</td>
<td>An abnormality other than above mentioned is detected.</td>
<td>An abnormality other than above mentioned is detected.</td>
<td>Check the stop valve. Check the 4-way valve. Confirm the abnormality in detail using the failure mode recall function for outdoor unit.</td>
</tr>
<tr>
<td>9</td>
<td>Outdoor control system</td>
<td>Upper lamp lights up</td>
<td>Outdoor unit does not operate</td>
<td>Outdoor unit does not operate</td>
<td>Check the blinking pattern of the LED on the inverter P.C. board or the outdoor electronic control P.C. board.</td>
</tr>
</tbody>
</table>
### 10-5. TROUBLE CRITERION OF MAIN PARTS
**MSZ-HJ25VA  MSZ-HJ35VA  MSZ-HJ50VA**

<table>
<thead>
<tr>
<th>Part name</th>
<th>Check method and criterion</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room temperature thermistor (RT11)</td>
<td>Measure the resistance with a tester.</td>
<td></td>
</tr>
<tr>
<td>Indoor coil thermistor (RT12, RT13)</td>
<td>Refer to 10-7, &quot;Test point diagram and voltage&quot;, &quot;2. Indoor electronic control P.C. board&quot;, for the chart of thermistor.</td>
<td></td>
</tr>
<tr>
<td>Indoor fan motor (MF)</td>
<td>Check 10-6.</td>
<td></td>
</tr>
<tr>
<td>Vane motor (MV)</td>
<td>Measure the resistance between the terminals with a tester. (Part temperature 10 ~ 30°C)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Color of the lead wire</td>
<td>Normal</td>
</tr>
</tbody>
</table>
**10-6. TROUBLESHOOTING FLOW**

**A. Check of indoor fan motor**

The indoor fan motor error has occurred, and the indoor fan does not operate.

- **Turn OFF the power supply.**

  - **Is there any foreign matter that interferes the rotation of the line flow fan?**
    - **No**
      - **Remove the foreign matter and adjust the line flow fan.**
    - **Yes**
      - Pay enough attention to the high voltage on the fan motor connector CN211.
      - **Turn ON the power supply, wait 5 seconds or more, and then press EMERGENCY OPERATION switch.**
      - Measure the supply voltage as follows within 12 seconds after EMERGENCY OPERATION switch is pressed.
      - If more than 12 seconds passes, turn OFF the power supply and turn it ON again, then measure the voltage. ※
      - **Indoor power P.C. board**
        1. Measure the voltage between CN211 ①(+)(+) and ③(−)(−).
        2. Measure the voltage between CN211 ②(+)(+) and ③(−)(−).
      - **Indoor electronic control P.C. board**
        1. Measure the voltage between CN10A ①(+)(+) and GND (−)(−).
      - ※If more than 12 seconds passes after EMERGENCY OPERATION switch is pressed, the voltage measured at 2. above goes 0 VDC although the indoor P.C. board is normal.

  - **Is there 325 VDC between CN211 ①(+)(+) and ③(−)(−)?**
    - **Yes**
      - **Does the voltage between CN10A ①(+)(+) and GND (−)(−) on the indoor electronic control P.C. board fall to 2 V or less within 12 seconds after EMERGENCY OPERATION switch is pressed?**
        - **Yes**
          - **Replace the indoor electronic control P.C. board.**
        - **No**
          - **Replace the indoor power P.C. board.**
      - **No**
        - **Replace the indoor fan motor.**

The indoor fan motor error has occurred, and the indoor fan repeats "12-second ON and 30-second OFF" 3 times, and then stops.

- **Measure the voltage between CN211 ①(+)(+) and ③(−)(−) while the fan motor is rotating.**
  - **Is it unchanged holding 0 or 15 VDC?**
    - **Yes (Unchanged)**
      - **Replace the indoor fan motor.**
    - **No (Changed)**
      - **Replace the indoor power P.C. board.**

- **Measure the voltage CN10A ①(+)(+) and GND (−)(−) on the indoor electronic control P.C. board when the fan motor is rotating.**
  - **Is it unchanged holding 0 or 5 VDC?**
    - **Yes (Unchanged)**
      - **Replace the indoor electronic control P.C. board.**
    - **No (Changed)**
      - **Replace the indoor power P.C. board.**
B Check of remote controller and indoor electronic control P.C. board

*Check if the remote controller is exclusive for this air conditioner.

- Press OPERATE/STOP (ON/OFF) button on the remote controller.
  - Is LCD display on the remote controller visible?
    - Yes
      - Does the unit operate with the remote controller?
        - Yes: OK
        - No: Replace the batteries. (Refer to 10-1.4.)
    - No: (Not clear)
      - Replace the batteries. (Refer to 10-1.4.)
  - Remove the batteries, then set them back and press RESET button. (Refer to 10-1.4.) Check if the unit operates with the remote controller.
  - Turn ON a radio to AM and press OPERATE/STOP (ON/OFF) button on the remote controller.
    - Is noise heard from radio?
      - Yes: Replace the remote controller.
      - No: Are there any fluorescent lights of inverter or rapid-start type within the range of 1 m.?
        - Yes: Reinstall the unit away from lights. Attach a filter on receiving part.
        - No: Replace the indoor electronic control P.C. board. (Including the receiver)
**Check of indoor P.C. board and indoor fan motor**

1. **Turn OFF the power supply.**
   - Remove indoor fan motor connector CN211 from indoor power P.C. board and vane motor connector CN151 from the indoor electronic control P.C. board and turn ON the power supply.

2. **Does the unit operate with the remote controller?**
   - **Yes**
     - **Turn OFF the power supply.**
       - **Does OPERATION INDICATOR lamp light up by pressing EMERGENCY OPERATION switch?**
         - **Yes**
           - Replace the varistor (NR11) and fuse (F11). 
         - **No**
           - **With a tester, check the continuity between the connector CN201 of the indoor control P.C. board and S2 on the terminal block.**
             - **Yes**
               - The temperature fuse connected to the terminal block has failed.
             - **No**
               - Replace the terminal block assembly.

   - **No**
     - **Measure the resistance of indoor fan motor.**
       - Refer to 10-5.
     - **Short circuit:**
       - Replace the indoor fan motor.
     - **Measure the resistance of the vane motor coil.**
       - Refer to 10-5.
     - **Short circuit:**
       - Replace the vane motor and the indoor electronic control P.C. board.

3. **Is the resistance 1MΩ or more?**
   - **Yes**
     - Replace the fuse (F11) and the indoor fan motor.
   - **No**
     - Replace the fuse (F11).

4. **Measure the resistance of resistor (R111) on the indoor power P.C. board.**
   - **Is the resistance of resistor (R111) approximately 4 Ω?**
     - **Yes**
       - **Connect the connector or repair disconnection.**
     - **No**
       - **Is the approximately 5 VDC between 5 V (+) and GND (-) of the indoor electronic control P.C. board?**
         - **Yes**
           - Replace the indoor fan motor.
         - **No**
           - **Is the connector CN10A on the indoor electronic control P.C. board or lead wires disconnected?**
             - **Yes**
               - Connect the connector or repair disconnection.
             - **No**
               - Replace the indoor electronic control P.C. board.

---

### Notes:

1. **The fan motor connector's lead wire is red, whereas black.**
2. **Connect "+" of the tester to fan motor connector's lead wire, and "-" to lead wire, otherwise the resistance cannot be measured properly.**
3. **Please replace the fuse after removing the indoor terminal P.C. board from the electrical box.**
How to check miswiring and serial signal error

1. Turn OFF the power supply.
2. Is there rated voltage in the power supply?
   - Yes
   - No
   Yes
   Check the power supply.
   No
   1. Turn ON the power supply.
   2. Press the emergency operation switch.
   No
   Has the relay S2C been turned on 3 minutes later?
   - Yes
   - No
   Yes
   Indication of miswiring or serial serial signal error
   Continuous blinks
   No
   Correct them.

Initializing the determination of the power receiving system
The microprocessor may have mistaken the unit as a model receiving power from the outdoor unit. Follow the procedure below to start the determination of the power receiving system all over again.
1. Hold down the emergency operation switch for 30 seconds. (Do not release the switch even though a buzzer beeps once in about 5 seconds. Keep holding down the switch until a buzzer beeps again for 1 second after 30 seconds. Figure 1)
2. Turn off the power supply.
3. Wait for about 30 seconds.
4. Turn on the power supply.
5. Press the emergency operation switch.
6. The relay S2C will be turned on in 3 minutes.

Figure 1

<table>
<thead>
<tr>
<th>Buzzer</th>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency operation switch</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>0.5-second</td>
<td>Beeps</td>
<td>Beeps</td>
</tr>
<tr>
<td>1-second</td>
<td>Beeps</td>
<td></td>
</tr>
<tr>
<td>5-second</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-second</td>
<td>ON</td>
<td>OFF</td>
</tr>
</tbody>
</table>

Turn OFF the power supply. Make sure again that the indoor/outdoor connecting wire is correctly connected. With the indoor/outdoor connecting wire connected, short circuit between S2 and S3 on the outdoor terminal block. (#)

Preparation of the remote controller
While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
First, release RESET button.
Hold down the other two buttons for another 3 seconds.
Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons. (Setting up the failure mode recall function)

Aim the remote controller at the indoor unit, and press OPERATE/STOP (ON/OFF) button. The relay S2C will be turned on, and the outdoor unit will be energized.

Is the rated supply voltage applied between the S1 and S2 on the outdoor terminal block? (Check of supply voltage)
- Yes
- No

Replace the inverter P.C. board in the outdoor unit. (#2)
Be sure of 140 VDC – 280 VDC residual charge in the capacitor on the main inverter circuit.

Is there approximately 250 VDC – 370 VDC between DB61 (+) and DB61 (–) on the inverter P.C. board in the outdoor unit? (Voltage check of the inverter P.C. board in the outdoor unit)
- No
- Yes

Replace the inverter P.C. board in the outdoor unit. (#2)

Does the LED on the inverter P.C. board in the outdoor unit repeat “3.6-second-OFF and 0.8-second-ON quick blinking” for 3 minutes after the outdoor unit is energized? (Check the blinking pattern within 3 minutes after LED is turned on. After 3 minutes, LED will blink 6 times whether the inverter P.C. board in the outdoor unit is normal or not.)
- Yes
- No

Replace the indoor electronic control P.C. board. (#3)

*1 Make sure that the wiring is correct. If the procedure is performed without correcting miswiring, it may lead to damage to the P.C. board.
*2 Be sure of 140 VDC – 280 VDC residual charge in the capacitor on the main inverter circuit.
*3 Be sure to release the failure mode recall function after checking.
Electromagnetic noise enters into TV sets or radios

Is the unit earthed?  
Yes  
No  
Earth the unit.

Is the distance between the antennas and the indoor unit within 3 m, or is the distance between the antennas and the outdoor unit within 3 m?  
Yes  
No  
Extend the distance between the antennas and the indoor unit, and/or the antennas and the outdoor unit.

Is the distance between the TV sets or radios and the indoor unit within 1 m, or is the distance between the TV sets or radios and the outdoor unit within 3 m?  
Yes  
No  
Extend the distance between the TV sets and/or radios and the indoor unit, or the TV sets or radios and the outdoor unit.

Are the antennas damaged?  
Yes  
No  
Replace or repair the antenna.

Is the coaxial cable damaged?  
Yes  
No  
Replace or repair the coaxial cable.

Is there any poor contact in the antenna wiring?  
Yes  
No  
Extend the distance between the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas.

Even if all of the above conditions are fulfilled, the electromagnetic noise may enter, depending on the electric field strength or the installation condition (combination of specific conditions such as antennas or wiring).

Check the following before asking for service.
1. Devices affected by the electromagnetic noise  
   TV sets, radios (FM/AM broadcast, shortwave)
2. Channel, frequency, broadcast station affected by the electromagnetic noise
3. Channel, frequency, broadcast station unaffected by the electromagnetic noise
4. Layout of;  
   indoor/outdoor unit of the air conditioner, indoor/outdoor wiring, earth wire, antennas, wiring from antennas, receiver
5. Electric field intensity of the broadcast station affected by the electromagnetic noise
6. Presence or absence of amplifier such as booster
7. Operation condition of air conditioner when the electromagnetic noise enters in  
   1) Turn OFF the power supply once, and then turn ON the power supply. In this situation, check for the electromagnetic noise.
   2) Within 3 minutes after turning ON the power supply, press OPERATE/STOP (ON/OFF) button on the remote controller for power ON, and check for the electromagnetic noise.
   3) After a short time (3 minutes later after turning ON), the outdoor unit starts running. During operation, check for the electromagnetic noise.
   4) Press OPERATE/STOP (ON/OFF) button on the remote controller for power OFF, when the outdoor unit stops but the indoor/outdoor communication still runs on. In this situation, check for the electromagnetic noise.
10-7. TEST POINT DIAGRAM AND VOLTAGE

1. Indoor power P.C. board

**MSZ-HJ25VA MSZ-HJ35VA MSZ-HJ50VA**

- **Fuse (F11) T3.15AL250V**
- **Varistor (NR11)**
- **Connector to Indoor fan motor (CN211)**
  - (+) 0 or 15 VDC
  - (+) 3-6 VDC
  - 15 VDC
  - (-) GND
  - (High voltage DC) 325 VDC

- **Connector to indoor control P.C. board (CN20A)**
  - 5 VDC
  - 12 VDC
  - GND

- **Indoor terminal block connecting (TAB1)**
- **Indoor terminal block connecting (TAB2)**

- **Resistor (R111)**

To disable "Auto restart function", cut the Jumper wire to JR77. (Refer to 8-3.)

2. Indoor electronic control P.C. board

- **Room temperature thermistor RT11 (CN111)**
- **Vane motor (CN151)**
- **Emergency operation switch (E.O. SW) (SW1)**
- **Connector to Indoor coil thermistor RT12, RT13 (CN112)**
- **Timer short mode point (Refer to 8-1.)**

**Graph**

- **Room temperature thermistor (RT11)**
- **Indoor coil thermistor (RT12, RT13)**

**Resistance (kΩ)**

**Temperature (°C)**
## OPERATING PROCEDURE

1. **Removing the panel**
   - (1) Remove the screw caps on the panel and remove the screws of the panel.
   - (2) Pull the panel slightly toward you, and then remove the panel by pushing it upward.

## PHOTOS

### Photo 1
- Front panel
- Horizontal vane
- Screws of the panel

---

<"Terminal with locking mechanism" Detaching points>

The terminal which has the locking mechanism can be detached as shown below.

There are two types (refer to (1) and (2)) of the terminal with locking mechanism.

The terminal without locking mechanism can be detached by pulling it out.

Check the shape of the terminal before detaching.

1. Slide the sleeve and check if there is a locking lever or not.
2. The terminal with this connector has the locking mechanism.

### Slide the sleeve.
### Pull the terminal while pushing the locking lever.

### Hold the sleeve, and pull out the terminal slowly.

---

**NOTE:** Turn OFF power supply before disassembly.
2. Removing the indoor power P.C. board and the electrical box
   (1) Remove the panel. (Refer to 1.) Remove the right corner box.
   (2) Disconnect the following connectors:
       <Indoor electronic control P.C. board>
       CN151 (Vane motor)
       CN112 (Indoor coil thermistor)
       CN10A (To the indoor power P.C. board)
   (3) Unhook the catch on the left side of the control P.C. board holder. Pull the control P.C. board holder as if opening the door at 90 degrees. Remove the control P.C. board holder from the axial rod on the electrical box.
   (4) Remove the screw of the V.A. clamp.
   (5) Remove the V.A. clamp and the indoor/outdoor connecting wire.
   (6) Remove the earth wire connected to the indoor heat exchanger from the electrical box.
   (7) Remove the screw of the electrical cover and remove the electrical cover.
   (8) Disconnect the following connectors:
       <Indoor power P.C. board>
       CN211 (Indoor fan motor)
       CN201 (Terminal block)
       CN20A (To the indoor electronic control P.C. board)
   (9) Remove the upper catch of the electrical box, and pull out the electrical box.

   *To attach the electrical box, pass the wires connecting the indoor power P.C. board and the indoor electronic control P.C. board through A. Pass the lead wires of the fan motor through B as shown in the Photo 3.
3. Removing the indoor electronic control P.C. board
(1) Remove the panel. (Refer to 1.) Remove the right corner box.
(2) Disconnect the following connectors:
   <Indoor electronic control P.C. board>
   CN151 (Vane motor)
   CN112 (Indoor coil thermistor)
   CN10A (To the indoor power P.C. board)
(3) Unhook the catch on the left side of the control P.C. board holder. Pull the control P.C. board holder as if opening the door at 90 degrees. Remove the control P.C. board holder from the axial rod on the electrical box.
(4) Remove the room temperature thermistor from the back side of the control P.C. board holder.
(5) Unhook the catches of the control P.C. board holder, and open the control P.C. board holder.
(6) Remove the indoor electronic control P.C. board from the control P.C. board holder.

4. Removing the vane motor
(1) Remove the panel. (Refer to 1.) Remove the right corner box.
(2) Remove the control P.C. board holder and the electrical box. (Refer to 2.)
(3) Pull out the drain hose from the nozzle assembly and remove the nozzle assembly.
(4) Remove the screws of the vane motor and remove the vane motor.
(5) Disconnect the connector from the vane motor.
5. Removing the indoor fan motor, the indoor coil thermistor and the line flow fan
(1) Remove the panel. (Refer to 1.) Remove the right corner box.
(2) Remove the control P.C. board holder, the electrical box and the nozzle assembly. (Refer to 2.)
(3) Remove the screws fixing the motor bed.
(4) Disengage the hooks of the water cover and remove the water cover.
(5) Disconnect the earth wire from the motor band.
(6) Remove the indoor coil thermistor from the motor band.
(7) Loosen the screw fixing the line flow fan.
(8) Remove the motor bed together with the indoor fan motor and the motor band.
(9) Disconnect the lead wire of the fan motor from the motor band.
(10) Disengage the hooks of the motor band and remove the motor band. Pull out the indoor fan motor.
(11) Remove the indoor coil thermistor from the heat exchanger.
   ※ Install the indoor coil thermistor in its former position when assembling it.
(12) Remove the screws fixing the left side of the heat exchanger.
(13) Lift the heat exchanger, and pull out the line flow fan to the lower-left.
   ※ When attaching the line flow fan, screw the line flow fan so 4 mm gap is provided between the right end of the line flow fan and the right wall of the air passage of the box (Figure 1).

Figure 1

Screws of the line flow fan

Photo 6

Photo 7

Photo 8

Photo: MSZ-HJ50VA
Fixing the indoor coil thermistor

※ There are 2 forms of parts for fixing the indoor coil thermistor.

### Clip shape

1. Set the indoor coil thermistor in the center of the clip-shape part.

### Holder shape

2. Check the (marked) mounting position.

3. Mount the clip-shape part.

### Position and procedure for mounting the clip-shape part

- **NOTE:**
  - Take care to avoid loss and accidental falling of the clip-shape part inside the unit.
  - Mount the clip-shape part on the marked position.
  - Do not pull the lead wire when removing the indoor coil thermistor.