INDOOR UNIT
SERVICE MANUAL

No. OBH802

Models
MLZ-KP09NA - [UT]
MLZ-KP12NA - [UT]
MLZ-KP18NA - [UT]

Outdoor unit service manual
MXZ-C-NA, MXZ-C-NAHZ Series
(OBH702, OCH573)

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PARTS CATALOG (OBB802)

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.

1. TECHNICAL CHANGES

MLZ-KP09NA-
MLZ-KP12NA-
MLZ-KP18NA-
1. New model
2 PART NAMES AND FUNCTIONS

INDOOR UNIT
MLZ-KP09NA MLZ-KP12NA MLZ-KP18NA

ACCESSORIES

<table>
<thead>
<tr>
<th>MODELS</th>
<th>MLZ-KP09NA</th>
<th>MLZ-KP12NA</th>
<th>MLZ-KP18NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Alkaline battery (AAA) for remote controller</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>② Drain hose (with insulation)</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>③ Special washer (with cushion, 4pcs)</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>④ Installation template</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>⑤ Fixing screw for ⑤ M5 x 30 mm</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑥ Band</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>⑦ Fixing screw for ⑦ 4 x 16 mm</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑧ Remote controller</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑨ Remote controller holder</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>⑩ Fixing screw for ⑩ 3.5 x 16 mm (Black)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OBH802
1. Multi connection

<table>
<thead>
<tr>
<th>Indoor model</th>
<th>Power supply</th>
<th>Max. fuse size (time delay)/ Disconnect switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLZ-KP09NA</td>
<td>V, phase, Hz 208/230, 1, 60</td>
<td>A 15</td>
</tr>
<tr>
<td>MLZ-KP12NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLZ-KP18NA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Airflow       | COOL Dry CFM 311 - 283 - 254 - 212 | HEAT Dry CFM 325 - 290 - 247 - 212 |
| High - Med. - Low - Slow | 332 - 297 - 258 - 212 | 350 - 311 - 272 - 212 |
| High - Med. - Low - Slow | 403 - 346 - 293 - 212 | 417 - 364 - 311 - 212 |

| Sound level | Cooling dB (A) 36 - 34 - 31 - 27 | Heating dB (A) 37 - 34 - 29 - 26 |
| High - Med. - Low - Slow | 40 - 36 - 32 - 27 | 40 - 36 - 32 - 26 |
| High - Med. - Low - Slow | 47 - 41 - 36 - 29 | 48 - 42 - 37 - 26 |

<table>
<thead>
<tr>
<th>Cond. drain connection</th>
<th>O.D. Ø1 (26 mm)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>W in. 43-3/8</th>
<th>D in. 14-3/16</th>
<th>H in. 7-5/16</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>lb. 34</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>External finish</th>
<th>White</th>
</tr>
</thead>
</table>

| Control voltage (by built-in transformer) | 12 - 24 V DC |

**NOTE**: Test conditions are based on ARI 210/240.

### Specifications and rated conditions of main electric parts

<table>
<thead>
<tr>
<th>Item</th>
<th>Model</th>
<th>MLZ-KP09NA</th>
<th>MLZ-KP12NA</th>
<th>MLZ-KP18NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuse</td>
<td>(F11)</td>
<td>T3.15AL250V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal vane motor</td>
<td>(MV1)</td>
<td>12 V DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical vane motor</td>
<td>(MV2)</td>
<td>12 V DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varistor</td>
<td>(NR11)</td>
<td>470 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRAIN PUMP</td>
<td>(DP)</td>
<td>230 V 6.4 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOAT SENSOR</td>
<td>(FS)</td>
<td>5 V DC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3-1. OPERATING RANGE

(1) POWER SUPPLY

<table>
<thead>
<tr>
<th>Mode</th>
<th>Condition</th>
<th>Intake air temperature (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Indoor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DB</td>
</tr>
<tr>
<td>Cooling</td>
<td>Standard temperature</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Maximum temperature</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Minimum temperature</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Maximum humidity</td>
<td>—</td>
</tr>
<tr>
<td>Heating</td>
<td>Standard temperature</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Maximum temperature</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Minimum temperature</td>
<td>70</td>
</tr>
</tbody>
</table>

3-2. OUTLET AIR SPEED AND COVERAGE

1. Multi connection

<table>
<thead>
<tr>
<th>Model</th>
<th>Mode</th>
<th>Function</th>
<th>Airflow (CFM)</th>
<th>Air speed (ft./s.)</th>
<th>Coverage (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLZ-KP09NA</td>
<td>HEAT</td>
<td>Dry</td>
<td>311</td>
<td>13.0</td>
<td>20.7</td>
</tr>
<tr>
<td></td>
<td>COOL</td>
<td>Dry</td>
<td>325</td>
<td>13.6</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wet</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>MLZ-KP12NA</td>
<td>HEAT</td>
<td>Dry</td>
<td>332</td>
<td>13.9</td>
<td>22.1</td>
</tr>
<tr>
<td></td>
<td>COOL</td>
<td>Dry</td>
<td>350</td>
<td>14.6</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wet</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>MLZ-KP18NA</td>
<td>HEAT</td>
<td>Dry</td>
<td>403</td>
<td>16.9</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>COOL</td>
<td>Dry</td>
<td>417</td>
<td>17.5</td>
<td>27.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wet</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*The operating range of the outdoor unit depends on the connected outdoor unit.

3-1. OPERATING RANGE

3-2. OUTLET AIR SPEED AND COVERAGE

- The air coverage is the figure up to the position where the air speed is 1 ft./s., when air is blown out horizontally from the unit properly at the High speed position. The coverage should be used only as a general guideline since it varies according to the size of the room and furniture arranged inside the room.
5 WIRING DIAGRAM

INDOOR UNIT
MLZ-KP09NA- U1
MLZ-KP12NA- U1
MLZ-KP18NA- U1

SYMBOL NAME SYMBOL NAME
MV1 VAN MOTOR RT11 ROOM TEMP.
MV1 VANE MOTOR RT12 THERMOSTAT
MV2 VANE MOTOR RT13 THERMOSTAT
DP DRAIN PUMP NV11 VARIATION
FS FLOAT SENSOR RT11 RESISTOR
FT1 FUSE (5A, 250V) RT11 TERMINAL
X11 RELAY RT11 BLOCK
TB TERMINAL BLOCK

NOTES:
1. About the outdoor side electric wiring,
   refer to the outdoor unit electric wiring
diagram for wiring.
2. Use copper conductor only.
   (For field wiring)
3. Symbols below indicate:
   Terminal block
   Connector

REMARQUES:
1. Pour le câblage électrique côté
   extérieur, se reporter au schéma
d'installation du câblage électrique
de l'unité extérieure.
2. Utiliser des fils d’alimentation en cuivre.
3. Les symboles ont les significations
   suivantes:
   Borne
   Connecteur
6 REFRIGERANT SYSTEM DIAGRAM

INDOOR UNIT
MLZ-KP09NA
MLZ-KP12NA

MLZ-KP18NA

Unit: inch(mm)

Refrigerant pipe Ø3/8(Ø9.52)
(with heat insulator)

Refrigerant pipe Ø1/2(Ø12.7)
(with heat insulator)

Indoor coil thermistor
RT12 (main)

Indoor coil thermistor
RT13 (sub)

Indoor heat exchanger

Room temperature thermistor
RT11

Refrigerant flow in cooling

Refrigerant flow in heating

MLZ-KP09NA

MLZ-KP12NA

OBH802
7 SERVICE FUNCTIONS

MLZ-KP09NA
MLZ-KP12NA
MLZ-KP18NA

7-1. TIMER SHORT MODE

- For service, the following set time can be shortened by bridging the timer short mode point on the electronic control P.C. board. (Refer to 10-7.)
- The set time for the ON/OFF timer can be reduced to 1 second for each minute.
- After the breaker is turned on, the time for starting the compressor, which normally takes 3 minutes, can be reduced to 3 seconds. Restarting the compressor, which takes 3 minutes, cannot be reduced.

7-2. HOW TO SET REMOTE CONTROLLER EXCLUSIVELY FOR A PARTICULAR INDOOR UNIT

A maximum of 4 indoor units with wireless remote controllers can be used in a room.

To operate the indoor units individually with each remote controller, assign a number to each remote controller according to the number of the indoor unit.

This setting can be set only when all the following conditions are met:
- The remote controller is powered OFF.
- Weekly timer is not set.
- Weekly timer is not being edited.

1. How to modify the electronic control P.C. board

Turn OFF the power supply before modification. To assign a number to each indoor unit, cut off “JR05” and “JR06” on the electronic control P.C. board as shown in Table 1. (Refer to 9-7.)

Table 1

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>JR05</th>
<th>JR06</th>
</tr>
</thead>
<tbody>
<tr>
<td>No modification</td>
<td>Cut off JR05</td>
<td>Cut off JR06</td>
</tr>
<tr>
<td>No modification</td>
<td>Cut off JR05</td>
<td>Cut off JR06</td>
</tr>
</tbody>
</table>

2. How to set the remote controller

(1) Hold down the button on the remote controller for 2 seconds to enter the pairing mode.
(2) Press the button again and assign a number to each remote controller.
   Each press of the button advances the number in the following order: 1 → 2 → 3 → 4.
(3) Press the button to complete the pairing setting.

After the setting, turn ON the power supply and with the remote controller headed towards the indoor unit, press the STOP/OPERATE (OFF/ON) button. If 1 or 2 beeps is heard from the indoor unit, the setting is completed correctly.

The remote controller that first sends a signal to an indoor unit will be regarded as the remote controller for the indoor unit.

Once they are set, the indoor unit will only receive the signal from the assigned remote controller afterwards.
7-3. 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 shut off 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 9-7.)

NOTE:
- The operation settings are memorized when 10 seconds has 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 tripping 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.
7-4. P.C. BOARD MODIFICATION FOR CHANGING AIRFLOW VOLUME

Change dip switch SW3 setting according to the height of ceiling.

<table>
<thead>
<tr>
<th>Dip switch SW3</th>
<th>Normal</th>
<th>Increase airflow volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling height</td>
<td>8.0 ft. (2.4 m) or below</td>
<td>above 8.0 ft. (2.4 m) and 9.0 ft. (2.7 m) or below</td>
</tr>
</tbody>
</table>

**NOTE:** When the ceiling is above 9.0 ft. (2.7 m), airflow volume may be insufficient even with the Dip switch (SW3) set to “increase airflow”.

**How to change Dip switch (SW3) setting (Factory setting is normal)**

1. Make sure that the breaker for air conditioner is turned OFF.
2. Remove the electrical cover (1) and (2) of the indoor unit.
3. Slide out the electronic control P.C. board, and switch up the slide switch (SW).
4. Put the electronic control P.C. board back to the original position, and install the electrical cover (1) and (2).

**NOTE:**
- Install the indoor unit at least 7.2 ft. (2.2 m) above floor or grade level.
- Perform static elimination before setting.

7-5. P.C. BOARD MODIFICATION FOR CHANGING AIRFLOW DIRECTION ADJUSTMENT

**The setting when the higher airflow is preferred in the Airflow direction (1)**

The angle of airflow direction (1) can be slightly heightened by changing SWV1 to up. However, it may cause the dirt on the ceiling.

**How to change Dip switch (SWV1) setting (Factory setting is normal)**

1. Make sure that the breaker for air conditioner is turned OFF.
2. Remove the electrical cover (1) and (2) of the indoor unit.
3. Slide out the electronic control P.C. board, and change the slide switch (SWV1) to up.
4. Put the electronic control P.C. board back to the original position, and install the electrical cover (1) and (2).

**NOTE:**
- Perform static elimination before setting.
**NOTE:** 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>✨✨</td>
<td>The unit is operating to reach the set temperature</td>
<td>About 4°F(2°C) or more away from set temperature</td>
</tr>
<tr>
<td>✨�</td>
<td>The room temperature is approaching the set temperature</td>
<td>About 2 to 4°F(1 to 2°C) from set temperature</td>
</tr>
<tr>
<td>✨☀</td>
<td>Standby mode (Refer to multi system operation)</td>
<td>—</td>
</tr>
</tbody>
</table>

Distance of signal: About 20 ft. (6 m) Beep(s) is (are) heard from the indoor unit when the signal is received.

Distance of signal: About 20 ft. (6 m) Beep(s) is (are) heard from the indoor unit when the signal is received.
8-1. COOL (▲) OPERATION
(1) Press STOP/OPERATE(OFF/ON) 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 TEMP or button to select the desired temperature. The setting range is 61 - 88°F (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.

   NOTE: Do not operate COOL mode at low outside temperature [less than 14°F (-10°C)]. Water condensed in the unit may drip and wet or damage furniture, etc.

8-2. DRY (▼) OPERATION
(1) Press STOP/OPERATE(OFF/ON) 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 works the same way as that in COOL mode. (8-1.1.)

8-3. FAN (●) OPERATION
(1) OPERATION INDICATOR lamp of the indoor unit turns on with a beep tone.
(2) Select FAN mode with OPERATION SELECT button.
(3) Select the desired fan speed. When AUTO, it becomes Low.

Only indoor fan operates.
Outdoor unit does not operate.

8-4. HEAT (▼) OPERATION
(1) Press STOP/OPERATE(OFF/ON) 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 TEMP or button to select the desired temperature. The setting range is 50°F(10°C) and 61 - 88°F (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. 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.

8-5. AUTO CHANGE OVER --- AUTO MODE OPERATION
Once desired temperature is set, unit operation is switched automatically between COOL and HEAT operation.

Mode selection
(1) Initial mode
   When unit starts the operation with AUTO operation from OFF:
   • If the room temperature is higher than the set temperature, operation starts in COOL mode.
   • If the room temperature is equal to or lower than the set temperature, operation starts in HEAT mode.

(2) Mode change
   COOL mode changes to HEAT mode when about 15 minutes have passed with the room temperature 4°F (2°C) below the set temperature.
   HEAT mode changes to COOL mode when about 15 minutes have passed with the room temperature 4°F (2°C) above the set temperature.

   NOTE 1
   If 2 or more indoor units are operating in multi system, there might be a case that the indoor unit, which is operating in (AUTO), cannot change over to the other operating mode (COOL ↔ HEAT) and becomes a state of standby.
   Refer to NOTE 2 “FOR MULTI SYSTEM AIR CONDITIONER”.

OBH802
NOTE 2
FOR MULTI SYSTEM AIR CONDITIONER
OUTDOOR UNIT: MXZ series

Multi system air conditioner can connect 2 or more indoor units with one outdoor unit.

- When you try to operate 2 or more indoor units with one outdoor unit simultaneously, one for the cooling and the others for heating, the operation mode of the indoor unit that operates first is selected. Other indoor units cannot operate, and operation indicator lamp flashes as shown in the figure below. In this case, please set all the indoor units to the same operation mode.

OPERATION INDICATOR

- When indoor unit starts the operation while the defrosting of outdoor unit is being done, it takes a few minutes (max. 10 minutes) to blow out the warm air.
- In the heating operation, though indoor unit that does not operate may get warm or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant continuously flows into it.

8-6. 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.

   ![Horizontal vane angle and mode change diagram]

   NOTE: The setting when the higher airflow is preferred in the Airflow direction (1)
   The angle of airflow direction (1) can be slightly heightened by changing SWV1 to up.
   (Refer to 8-5. P.C. BOARD MODIFICATION FOR CHANGING AIRFLOW DIRECTION ADJUSTMENT.)
   However, it may cause the dirt on the ceiling.

   Factory setting is normal.

   (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 power supply turns on.
   (b) When the operation starts or finishes (including timer operation).
   (c) When the test run starts.
   (d) When multi-standby starts or finishes.
   (e) When the swing operation finishes.

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

   (1) In COOL and DRY operation Vane angle is fixed to Angle 1.

   (2) 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 STOP/OPERATE(OFF/ON) button is pressed (POWER OFF).
   (b) When the operation is stopped by the emergency operation.
   (c) When ON TIMER is ON standby.
(6) SWING () mode
By selecting SWING mode with VANE CONTROL button, the horizontal vanes swing vertically.
When COOL, DRY or FAN mode is selected, only the upper vane swings.

(7) Cold air prevention in HEAT operation
The horizontal vane position is set to Upward.

(8) ECONO COOL (ECO) operation (ECONOMical operation)
When ECONO COOL button is pressed in COOL mode, set temperature is automatically set 4°F(2°C) higher by microprocessor. However, the temperature on the LCD screen on the remote controller is not changed. 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.
To cancel this operation, select a different mode or press one of the following buttons in ECONO COOL operation: ECONO COOL, WIDE VANE CONTROL or VANE CONTROL button.

2. Vertical vane
(1) Press WIDE VANE CONTROL button to change horizontal airflow direction.
   • The vertical vane moves for about 30 seconds.
   (After 30 seconds, the vertical vane moves to its original position. In this case, press WIDE VANE CONTROL button again.)
(2) Press WIDE VANE CONTROL button again to set horizontal airflow direction.
   • The vertical vane stops and the airflow direction is set.
(3) Positioning
   To confirm the standard position, the vane moves until it touches the vane stopper. Then the vane set to the desired angle.
   Confirming of standard position is performed in the following cases:
   (a) When STOP/OPERATE(OFF/ON) button is pressed (POWER ON).
   (b) When SWING is started.

8-7. DRAIN PUMP/ FLOAT SENSOR CONTROL
1. Drain pump
Operating condition:
1. During COOL, DRY, or emergency COOL operation
2. When float sensor detects water level above fixed point during:
   (a) HEAT operation.
   (b) emergency HEAT operation.
   (c) standby when during multi system operation.
   (d) standby when ON timer is set.
   (e) operation STOP.

   Drain pump operates in conditions 1 or 2.

Operation stop condition:
Condition other than 1 or 2 indicated above.

2. Float sensor
Float moves with the up and down of water surface inside the drain pan, and judges water level.
(Fixed point differs at raised and lowered water levels.)
8-8. TIMER OPERATION

1. How to set the time

   (1) Check that the current time is set correctly.
   
   **NOTE:** Timer operation will not work without setting the current time. Initially “0:00” blinks at the current time display of TIME MONITOR, so set the current time correctly with CLOCK SET button.
   
   **How to set the current time**
   
   (a) Press the CLOCK set button.
   
   (b) Press the TIME SET buttons ( and ) to set the current time.
      
      - Each time FORWARD button ( ) is pressed, the set time increases by 1 minute, and each time BACKWARD button ( ) is pressed, the set time decreases by 1 minute.
      - Pressing those buttons longer, the set time increases/decreases by 10 minutes.
   
   (c) Press the CLOCK set button.
   
   (2) Press STOP/OPERATE(OFF/ON) button to start the air conditioner.
   
   (3) Set the time of timer.
   
      **ON timer setting**
      
      (a) Press ON TIMER button( ) during operation.
      (b) Set the time of the timer using TIME SET buttons ( and ).
      
      **OFF timer setting**
      
      (a) Press OFF TIMER button ( ) during operation.
      (b) Set the time of the timer using TIME SET buttons ( and ).
      
   **NOTE:** Each time FORWARD button ( ) is pressed, the set time increases by 10 minutes; each time BACKWARD button ( ) is pressed, the set time decreases by 10 minutes.

2. To release the timer

To release ON timer, press ON TIMER button ( ).
To release OFF timer, press OFF TIMER button ( ).

TIMER is cancelled and the display of set time disappears.

**PROGRAM TIMER**

- OFF timer and ON timer can be used in combination. The set time that is reached first will operate first.
- **“” and “”** display shows the order of OFF timer and ON timer operation.

(Example 1) The current time is 8:00 PM.
   
   The unit turns off at 11:00 PM, and on at 6:00 AM.

(Example 2) The current time is 11:00 AM.
   
   The unit turns on at 5:00 PM, and off at 9:00 PM.

**NOTE:** If the main power is turned OFF or a power failure occurs while ON/OFF 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 when power is restored.
8-9. WEEKLY TIMER OPERATION

- A maximum of 4 ON or OFF timers can be set for individual days of the week.
- A maximum of 28 ON or OFF timers can be set for a week.

<table>
<thead>
<tr>
<th>Setting1</th>
<th>Setting2</th>
<th>Setting3</th>
<th>Setting4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AM</strong></td>
<td><strong>PM</strong></td>
<td><strong>AM</strong></td>
<td><strong>PM</strong></td>
</tr>
<tr>
<td>6:00</td>
<td>8:30</td>
<td>5:30</td>
<td>10:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Temp</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75°F (24°C)</td>
<td></td>
<td>81°F (27°C)</td>
<td></td>
</tr>
</tbody>
</table>

E.g.: Runs at 75°F (24°C) from waking up to leaving home, and runs at 81°F (27°C) from getting home to going to bed on weekdays. Runs at 81°F (27°C) from waking up late to going bed early on weekends.

Setting 1

Mon: ON, 75°F (24°C), AM 6:00
Fri: OFF, 81°F (27°C), PM 5:30
Sat: Setting1
Sun: Setting2, AM 8:00

**NOTE:**
- The simple ON/OFF timer setting is available while the weekly timer is on. In this case, the ON/OFF timer has priority over the weekly timer; the weekly timer operation will start again after the simple ON/OFF timer is complete.
- When the weekly timer is set, temperature cannot be set to 50°F (10°C).
- The weekly timer operation and SMART SET operation cannot be used together.

1. How to set the weekly timer
   * Make sure that the current time and day are set correctly.
   1. Press [MODE] button to enter the weekly timer setting mode.
      * [SET] blinks.
   2. Press [DAY] and [F−1] buttons to select setting days and/or numbers.
      * All days can be selected.
   3. Press [OFF], [ON], and [TIME] buttons to set ON/OFF, time, and temperature.
      * Hold down the button to change the time quickly.
      * The temperature can be set between 61°F and 88°F (16°C and 31°C) at weekly timer.
   Press [DAY] and [F−1] buttons to continue setting the timer for other days and/or numbers.
(4) Press button to complete and transmit the weekly timer setting.

NOTE:
• Press button to transmit the setting information of weekly timer to the indoor unit. Point the remote controller toward the indoor unit for 3 seconds.
• When setting the timer for more than one day of the week or one number, button does not have to be pressed per each setting. Press button once after all the settings are complete. All the weekly timer settings will be saved.
• Press button to enter the weekly timer setting mode, and press and hold button for 5 seconds to erase all weekly timer settings. Point the remote controller toward the indoor unit.

(5) Press button to turn the weekly timer ON. ( lights.)
• When the weekly timer is ON, the day of the week whose timer setting is complete, will light.

Press button again to turn the weekly timer OFF. ( goes out.)

NOTE:
The saved settings will not be cleared when the weekly timer is turned OFF.

2. Checking weekly timer setting
(1) Press button to enter the weekly timer setting mode.
* blinks.
(2) Press or buttons to view the setting of the particular day or number.
(3) Press button to exit the weekly timer setting.

8-10. SMART SET (b) OPERATION
1. How to set SMART SET operation
(1) Press STOP/OPERATE(OFF/ON) button.
(2) Select COOL or HEAT mode.
(3) Press SMART SET button.
(4) Set the temperature, fan speed, and airflow direction for SMART SET operation.

NOTE:
• SMART SET operation cannot be selected during DRY, FAN or AUTO mode operation.
• The setting range of HEAT mode SMART SET operation is 50°F (10°C) and 61 - 88°F (16 - 31°C).
• 2 groups of setting can be saved. (One for COOL, one for HEAT)
• SMART SET operation and the weekly timer operation cannot be used together.
• SMART SET operation and SLEEP operation cannot be set at the same time

2. How to cancel operation
• Press SMART SET button again.
• SMART SET operation can also be cancelled by pressing OPERATION SELECT button to change the operation mode.
The same setting is selected from the next time by simply pressing SMART SET button.
8-11. SLEEP ( ) OPERATION

1. How to set SLEEP operation
   (1) Press STOP/OPERATE (OFF/ON) button.
   (2) Select COOL, DRY, HEAT or FAN mode.
   (3) Press SLEEP ( ) button.
   (4) PRESS TEMPERATURE buttons [ ] (Increase) and [ ] (Decrease) to set the temperature of SLEEP operation.
   • Fan speed: AUTO
   • Horizontal vane: Position set on the remote controller
   • Operation indicator lamp: Dimly lit
   • After the settings are saved, a single push of SLEEP ( ) button during operation activates SLEEP operation with the same settings every time.
   • Temperature for SLEEP operation cannot be set during DRY or FAN mode.

Set temperature for SLEEP operation.

For about 30 minutes after SLEEP ( ) button is pressed, the set temperature remains as set for the operation running when the SLEEP button is pressed. It will change to the set temperature for SLEEP operation in about 30 minutes.

Pressing SLEEP ( ) button again returns the operation to the previous settings.

NOTE:
• ON/OFF timer is available during SLEEP operation.
• When a preset ON time for the weekly timer arrives during SLEEP operation, the weekly timer operation has priority. SLEEP operation will be cancelled, and the operation set on the weekly timer will start.

2. How to cancel operation
   • Press SLEEP ( ) button again.
   • The operation returns to the previous settings.

NOTE: SLEEP operation and SMART SET operation cannot be set at same time.
8-12. EMERGENCY/TEST OPERATION

In the 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 or has failed, or the batteries in the remote controller are running down. The unit will start and OPERATION INDICATOR lamp will light up.

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 75°F(24°C). The fan speed shifts to Medium.

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 mode.

Emergency operation continues until EMERGENCY OPERATION switch is pressed once or twice or the unit receives any signal from the remote controller. In the latter case normal operation will start.

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

![Remote control receiving section](image)

![Emergency operation switch](image)

![Operation indicator lamp](image)

<table>
<thead>
<tr>
<th>Operation mode</th>
<th>COOL/HEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set temperature</td>
<td>75°F(24°C)</td>
</tr>
<tr>
<td>Fan speed</td>
<td>Medium</td>
</tr>
<tr>
<td>Horizontal vane</td>
<td>Auto</td>
</tr>
</tbody>
</table>

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

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

8-13. 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.

8-14. Changing temperature indication (°F/°C)

- The preset unit is °F.
- °F → °C: Press RESET button while the TEMPERATURE buttons are pressed.
- °C → °F: Press RESET button while the TEMPERATURE buttons are pressed.

![Press RESET button gently using a thin instrument](image)
9 TROUBLESHOOTING

MLZ-KP09NA  MLZ-KP12NA  MLZ-KP18NA

9-1. CAUTIONS ON TROUBLESHOOTING

1. Before troubleshooting, check the following:
   1) Check the power supply voltage.
   2) Check the indoor/outdoor connecting wire for miswiring.

2. Take care of the following during servicing
   1) Before servicing the air conditioner, be sure to turn off the unit first with the remote controller, and then after confirming the horizontal vane is closed, turn off the breaker and/or disconnect the power plug.
   2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.
   3) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
   4) When connecting or disconnecting the connectors, hold the connector housing. DO NOT pull the lead wires.

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 OPERATIONAL 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) Refer to 9-2, 9-3 and 9-4.

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 front lid and insert batteries.
      Then reattach the front 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.

INFORMATION FOR MULTI SYSTEM AIR CONDITIONER

OUTDOOR UNIT : MXZ series

Multi system air conditioner can connect two or more indoor units with one outdoor unit.
   • Unit will not operate if the total capacity of indoor units exceeds the capacity of outdoor units.
   • Do not connect indoor units beyond the outdoor unit capacity.
   • When you try to operate two or more indoor units with one outdoor unit simultaneously, one for the cooling and the other for heating, the operation mode of the indoor unit that operates earlier is selected. The other indoor units cannot operate and indicate as shown in the figure below. In this case, please set all the indoor units to the same operation mode.

OPERATION INDICATOR

- Lit
- Blinking
- Not lit

• When indoor units start operation while the defrosting of outdoor unit is being done, it takes a few minutes (maximum 10 minutes) to blow out the warm air.
• In the heating operation, though indoor unit that does not operate may get warm or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant continuously flows into it.
9-2. 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 (9-4.) disappears, the memorized failure details can be recalled.

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

**Operational procedure**

**Setting up the failure mode recall function**
- Turn on the power supply.
- Prepare the operation mode for checking the failure.
- Press and hold both the OPERATION SELECT button and the TEMP button on the remote controller for at least 3 seconds.
- Release the buttons.

**Judgment of indoor/outdoor abnormality**
- **On:**
  - The indoor unit is normal.
  - The outdoor unit is abnormal.
  - Check the blinking pattern and identify the abnormal point by referring to the outdoor unit failure mode table. (Refer to outdoor unit service manual.)
  - Make sure to check at least 2 consecutive blinking cycles.
- **Off:**
  - The indoor unit is abnormal.
  - The outdoor unit is abnormal.
  - Check the blinking pattern and identify the abnormal point by referring to the outdoor unit failure mode table. (Refer to outdoor unit service manual.)
  - Make sure to check at least 2 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 the STOP button of the remote controller.

**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 STOP/OFF button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
- Hold down the other 2 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.

**NOTE**
1. Make sure to release the failure mode recall function after it is set up, otherwise the unit cannot operate properly.
2. The information regarding whether the connected outdoor unit is a low-standby-power model or a non-low-standby-power model will also be initialized. (Default= compatible with a low-standby-power model)
2. Flow chart of the detailed outdoor unit failure mode recall function

Operational procedure

The outdoor unit might be abnormal. Check if outdoor unit is abnormal according to the following procedures.

Make sure that the remote controller is set to the failure mode recall function.

With the remote controller headed towards the indoor unit, press TOO COOL or TOO WARM button to adjust the set temperature to 77ºF (25ºC). ■1

Does OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds? Blinks: The outdoor unit is abnormal. Beeps are emitted at the same timing as the blinking of OPERATION INDICATOR lamp. ■2

The outdoor unit is abnormal. Check the blinking pattern, and identify the abnormal point by referring to the outdoor unit failure mode table (Refer to outdoor unit service manual). Make sure to check at least 2 consecutive blinking cycles. ■2

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". Press STOP/OPERATE (OFF/ON) 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 the left mentioned procedure.

Note1. 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.

■1. Regardless of normal or abnormal, 2 short beeps are emitted as the signal is received.

■2. Blinking pattern when outdoor unit is abnormal:

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON OFF</td>
<td>2.5-second OFF 3-second ON</td>
</tr>
<tr>
<td></td>
<td>Blinking at 0.5-second interval</td>
</tr>
<tr>
<td></td>
<td>Blinking at 0.5-second interval</td>
</tr>
<tr>
<td></td>
<td>Blinking at 0.5-second interval</td>
</tr>
</tbody>
</table>

OBH802 23
### 3. Indoor unit failure mode table

**NOTE:** Blinking patterns of this mode differs from the ones of Troubleshooting check table (9-4.).

<table>
<thead>
<tr>
<th>Abnormal point (Failure mode)</th>
<th>Condition</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room temperature thermistor</td>
<td>Normal</td>
<td>—</td>
</tr>
<tr>
<td>Indoor coil thermistor</td>
<td>—</td>
<td>Refer to the characteristics of the room temperature thermistor (9-7.).</td>
</tr>
<tr>
<td>Serial signal error</td>
<td>—</td>
<td>Refer to 9-6. §“How to check miswiring and serial signal error”.</td>
</tr>
<tr>
<td>Drain pump Float sensor</td>
<td>—</td>
<td>• Check the float sensor and the drain pump.</td>
</tr>
<tr>
<td>Indoor fan motor</td>
<td>—</td>
<td>• Check the connectors of float sensor and the drain pump.</td>
</tr>
<tr>
<td>Indoor control system</td>
<td>—</td>
<td>• Refer to 9-6. §“Check of indoor fan motor”.</td>
</tr>
<tr>
<td>Indoor coil thermistor</td>
<td>—</td>
<td>Replace the indoor electronic control P.C. board.</td>
</tr>
</tbody>
</table>

### Operation Indicator lamp

<table>
<thead>
<tr>
<th>Left lamp of OPERATION INDICATOR lamp</th>
<th>Right lamp of OPERATION INDICATOR lamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not lit</td>
<td>Not lit</td>
</tr>
<tr>
<td>Not lit</td>
<td>Normal</td>
</tr>
<tr>
<td>1-time flash every 0.5-second</td>
<td>Room temperature thermistor</td>
</tr>
<tr>
<td>2-time flash 2.5-second OFF</td>
<td>Indoor coil thermistor (Main 1, 2 and sub) [MLZ-KP18NA]</td>
</tr>
<tr>
<td>3-time flash 2.5-second OFF</td>
<td>Serial signal error</td>
</tr>
<tr>
<td>5-time flash 2.5-second OFF</td>
<td>Drain pump Float sensor</td>
</tr>
<tr>
<td>11-time flash 2.5-second OFF</td>
<td>Indoor fan motor</td>
</tr>
<tr>
<td>12-time flash 2.5-second OFF</td>
<td>Indoor control system</td>
</tr>
<tr>
<td>13-time flash 2.5-second OFF</td>
<td>Indoor coil thermistor (Main 3) [MLZ-KP18NA]</td>
</tr>
</tbody>
</table>

**OBH802**
9-3. 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.

Unit does not operate even in Test Run operation.

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 9-7. "TEST POINT DIAGRAM AND VOLTAGE".

Refer to 9-6. "How to check inverter/compressor".

Refer to "Check of R.V. coil".

Refer to 9-6. @ "Check of remote controller, receiver P.C. board 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 9-6. @ "Check of indoor electronic control P.C. board and indoor fan motor".

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

*1 "Test Run operation" means the operation within 30 minutes after EMERGENCY OPERATION switch is pressed.

Refer to 9-6. "Check of miswiring and serial signal error when outdoor unit does not work".

Refer to "Check of room temperature thermistor and indoor coil thermistor".

Reference to 9-7. "Test point diagram and voltage".

Refer to "Check of indoor fan motor".

Replace the indoor electronic control P.C. board.

Refer to "How to check the inverter/compressor".

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

Refer to 9-6. @ "Check of float sensor".

Check the drain pump.

Check the detailed outdoor unit failure mode recall function.

Refer to outdoor unit service manual.

Refer to 9-6. "Check of float sensor".

Check the drain pump.

Check the stop valve.

Left lamp Flash on and off at 0.5-second intervals
Cause: Indoor/Outdoor unit + Mis-wiring or trouble of serial signal

Left lamp 3-time flash
Cause: Indoor unit air temperature/indoor coil thermistor

Left lamp 4-time flash
Cause: Indoor unit air temperature/indoor fan motor

Left lamp 6-time flash
Cause: Outdoor unit trouble of outdoor control system

Left lamp 8-time flash
Cause: Outdoor unit trouble of thermostat in outdoor unit

Left lamp 14-time flash or more
Cause: Outdoor unit other abnormality
Check the stop valve.

Check room temperature thermistor. Refer to 9-7.
Refer to 9-6. @ "Check of room temperature thermistor and outdoor coil thermistor".

Refer to 9-6. @ "Check of indoor fan motor".

Refer to "Check of indoor electronic control P.C. board".

Refer to "Check of outdoor electronic control P.C. board".

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

Refer to 9-6. @ "Check of float sensor".

Check the drain pump.

Check the detailed outdoor unit failure mode recall function.
### 9-4. TROUBLESHOOTING CHECK 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>Left lamp flashes. 0.5-second ON 0.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>When the serial signal from the outdoor unit is not received for a maximum of 8 minutes.</td>
<td><em>Refer to 9-6. &quot;How to check miswiring and serial signal error&quot;.</em></td>
</tr>
<tr>
<td>2</td>
<td>Indoor coil thermistor</td>
<td>Left lamp flashes. 3-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>When the indoor coil or the room temperature thermistor is shorts or opens circuit.</td>
<td><em>Refer to the characteristics of indoor coil thermistor, and the room temperature thermistor on 9-7.</em></td>
</tr>
<tr>
<td>3</td>
<td>Indoor fan motor</td>
<td>Left lamp flashes. 2-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>When the rotational frequency feedback signal is not emitted during the indoor fan operation.</td>
<td><em>Refer to 9-6.9 &quot;Check of indoor fan motor&quot;.</em></td>
</tr>
<tr>
<td>4</td>
<td>Indoor control system</td>
<td>Left lamp flashes. 4-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>When it cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.</td>
<td><em>Replace the indoor electronic control P.C. board.</em></td>
</tr>
<tr>
<td>5</td>
<td>Outdoor power system</td>
<td>Left lamp flashes. 5-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>The compressor stops 3 times consecutively for over current protection or start-up failure protection within 1 minute after start-up.</td>
<td><em>Refer to &quot;Check of inverter/ compressor&quot;. Refer to outdoor unit service manual. Check the step valve.</em></td>
</tr>
<tr>
<td>6</td>
<td>Outdoor thermostats</td>
<td>Left lamp flashes. 6-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>When the outdoor thermistors short or open circuit during the compressor operation.</td>
<td><em>Refer to &quot;Check of outdoor thermostator&quot;. Refer to outdoor unit service manual.</em></td>
</tr>
<tr>
<td>7</td>
<td>Outdoor control system</td>
<td>Left lamp flashes. 7-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>When it cannot properly read data in the nonvolatile memory of the inverter P.C. board or of the outdoor electronic control P.C. board.</td>
<td><em>Replace the inverter P.C. board or the outdoor electronic control P.C. board. Refer to outdoor unit service manual.</em></td>
</tr>
<tr>
<td>8</td>
<td>Drain pump</td>
<td>Left lamp flashes. 9-time flash 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td></td>
<td>*Check the float sensor characteristics. *Check the drain pipe. *Check the connectors of float sensor and the drain pump. <em>Refer to 9-6.4 &quot;Check of float sensor&quot;.</em></td>
</tr>
<tr>
<td>9</td>
<td>Other abnormality</td>
<td>Left lamp flashes. 14-time flash or more 2.5-second OFF</td>
<td>Indoor unit and outdoor unit do not operate.</td>
<td>An abnormality other than above mentioned is detected.</td>
<td><em>Check the abnormality in detail using the failure mode recall function. Refer to outdoor unit service manual.</em></td>
</tr>
</tbody>
</table>

**NOTE:** When the indoor unit has started operation and the above failures are detected (the first detection after the power ON), the indoor electronic control P.C. board turns OFF the indoor fan motor with OPERATION INDICATOR lamp flashing.
- Flashing of OPERATION INDICATOR lamp (right-hand side lamp) indicates abnormality.
- OPERATION INDICATOR lamp (left-hand side lamp) is lighted.

<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>MXZ type Operation mode setting</td>
<td>Right lamp flash 2.5-second OFF</td>
<td>Outdoor unit operates but indoor unit does not operate.</td>
<td>When the operation mode of the each indoor unit is differently set to COOL (includes DRY) and HEAT at the same time, the operation mode of the indoor unit that has operated at first has the priority.</td>
<td>Unify the operation mode. Refer to outdoor unit service manual.</td>
</tr>
</tbody>
</table>

**NOTE:** When the indoor unit has started operation and the above failures are detected (the first detection after the power ON), the indoor electronic control P.C. board turns OFF the indoor fan motor with OPERATION INDICATOR lamp flashing.

### 9-5. TROUBLE JUDGEMENT CRITERIA OF MAIN PARTS

**MLZ-KP09NA  MLZ-KP12NA  MLZ-KP18NA**

<table>
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<tr>
<th>Part name</th>
<th>Check method and criteria</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room temperature thermistor (RT11)</td>
<td>Measure the resistance with a tester. [Part temperature 50°F - 86°F (10°C - 30°C)]</td>
<td><img src="Diagram1.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Indoor coil thermistor (RT12,RT14,RT15 (MAIN), RT13) (SUB))</td>
<td>Normal 8 kΩ ~ 20 kΩ</td>
<td><img src="Diagram2.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Indoor fan motor</td>
<td>Check 9-6. ②.</td>
<td><img src="Diagram3.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Float sensor (FS)</td>
<td>Disconnect connector and check with a tester. Check open or short according to the float position.</td>
<td><img src="Diagram4.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Drain pump (DP)</td>
<td>Measure the resistance between the terminals with a tester. [Part temperature 50°F - 86°F (10°C - 30°C)]</td>
<td><img src="Diagram5.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Horizontal vane motor (MV1)</td>
<td>Measure the resistance between the terminals with a tester. [Part temperature 68°F - 86°F (20°C - 30°C)] Color of the lead wire</td>
<td>Normal Each phase 300Ω</td>
</tr>
<tr>
<td>Vertical vane motor (MV2)</td>
<td>Measure the resistance between the terminals with a tester. [Part temperature 68°F - 86°F (20°C - 30°C)] Color of the lead wire</td>
<td>Normal Each phase 300Ω</td>
</tr>
</tbody>
</table>
9-6. TROUBLESHOOTING FLOW

When the left lamp of OPERATION INDICATOR lamp flashes 3 times and the right lamp of OPERATION INDICATOR lamp is not lighted.
Indoor fan does not operate.

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 anything that interferes the rotation of the line flow fan?
  - Yes
    - Pay attention to the high voltage on the fan motor connector CN211.
  - No
    - 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 by, turn OFF the power supply and turn ON it again, then measure the voltage:
      1) Measure the voltage between CN211 (+) and (–).
      2) Measure the voltage between CN211 (+) and (–).

- Is there 294/325 V DC between CN211 (+) and (–)?
  - Yes
    - Does the voltage between CN211 (+) and (–) on the indoor electronic control P.C. board rise to the range of 3 to 6 V DC within 12 seconds after EMERGENCY OPERATION switch is pressed?
      - Yes
        - Replace the indoor fan motor.
      - No
        - Replace the indoor electronic control P.C. board.
  - No
    - Replace the indoor fan motor.

- Is there anything that interferes the rotation of the line flow fan?
  - Yes
    - Pay attention to the high voltage on the fan motor connector CN211.
  - No
    - 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 by, turn OFF the power supply and turn ON it again, then measure the voltage:
      1) Measure the voltage between CN211 (+) and (–).
      2) Measure the voltage between CN211 (+) and (–).

- If there is 294/325 V DC between CN211 (+) and (–)?
  - Yes
    - Replace the indoor fan motor.
  - No
    - Does the voltage between CN211 (+) and (–) on the indoor electronic control P.C. board rise to the range of 3 to 6 V DC within 12 seconds after EMERGENCY OPERATION switch is pressed?
      - Yes
        - Replace the indoor electronic control P.C. board.
      - No
        - Replace the indoor fan motor.

- Is there 294/325 V DC between CN211 (+) and (–)?
  - Yes
    - Replace the indoor fan motor.
  - No
    - Replace the indoor fan motor.
Indoor unit operates by pressing EMERGENCY OPERATION switch, but does not operate with the remote controller.

**Check of remote controller, receiver P.C. board and indoor electronic control P.C. board**

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

1. Press STOP/OPERATE (OFF/ON) button on the remote controller.
   - Is LCD display on the remote controller visible?
     - Yes
     - No (Not clear)
     - Replace the batteries. (Refer to 9-1.4.)

2. 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.
   - Does the unit operate with the remote controller?
     - Yes
     - No
     - Replace the remote controller.

3. Assign a number of remote controller. (Refer to 7-2.)
   - Check if the unit operates with the remote controller.
   - Does the unit operate with the remote controller?
     - Yes
     - No

4. Turn ON a radio to AM and press STOP/OPERATE (OFF/ON) button on the remote controller. *1
   - Is noise heard from radio?
     - Yes
     - No
     - Replace the remote controller.

5. Are there any fluorescent lights of inverter or rapid-start type within the range of 3.28 ft. (1 m)? *2
   - Yes
     - Reinstall the unit away from lights.
     - Attach a filter on receiving part.
   - No

6. Measure the voltage between receiver P.C. board connector CN301 (+) and (-) when the remote controller button is pressed.
   - Is the voltage approximately 4 V DC - 5 V DC?
     - Yes
     - Replace the indoor electronic control P.C. board.
     - No
     - Replace the receiver P.C. board.

*1 Look at the image of the signal transmitting section of the remote controller through the monitor of a digital camera or a camera phone. It is normal if the LED of the signal transmitting section lights up when the STOP/OPERATE (OFF/ON) button on the remote controller is pressed. However, it may be difficult to see the illuminated LED of the signal transmitting section with a smartphone camera.

*2 If the inverter fluorescent light is turned on when the room is cool, the unit may have difficulty receiving the signal from the remote controller or may not be able to operate with it. If the inverter fluorescent light is turned on when the room is warm, the unit may be able to operate with the remote controller.
The unit cannot be operated with the remote controller. Also, OPERATION INDICATOR lamp does not light up by pressing EMERGENCY OPERATION switch.

**Check of indoor electronic control P.C. board and indoor fan motor**

1. **Does the unit operate with the remote controller?**
   - Yes: **Turn OFF the power supply.**
   - No: **Check of indoor electronic control P.C. board and indoor fan motor.**

2. **Does OPERATION INDICATOR lamp light up by pressing EMERGENCY OPERATION switch?**
   - Yes: **Turn OFF the power supply.**
   - No: **Check of indoor electronic control P.C. board and indoor fan motor.**

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

4. **Turn OFF the power supply.**
   - **Check both "parts side" and "pattern side" of the indoor electronic control P.C. board visually.**

5. **Replace the varistor (NR11) and fuse (F11).**
   - Yes: **Replace the fuse (F11) and the indoor fan motor.**
   - No: **Replace the fuse (F11).**

6. **短/ open circuit:**
   - **Replace the horizontal vane motor coil.**
   - **Replace the vertical vane motor coil.**
   - **Replace the indoor electronic control P.C. board.**
When the left lamp of OPERATION INDICATOR lamp flashes ON and OFF in every 0.5-second. Outdoor unit does not operate.

How to check miswiring and serial signal error

1. Miswiring may damage indoor electronic control P.C. board during operation. Be sure to confirm the wiring is correct before the operation starts.

As for outdoor unit, refer to outdoor unit service manual.
When the left lamp of OPERATION INDICATOR lamp flashes 9-time.
Indoor unit and outdoor unit do not operate.

**Check of float sensor**

Turn OFF the power supply and check connectors CN145 and CN1N1 visually.

1. Connect the lead wire.
   - Yes: Are the lead wires disconnected?
     - Yes: Replace the indoor electronic control P.C. board.
     - No: Disconnect float sensor from CN145 of indoor electronic control P.C. board. Measure the resistance between CN145 and CN1N1.
   - No: Are there abnormality in the soldering part of connectors?
     - Yes: Replace the indoor electronic control P.C. board.
     - No: Is the resistance 1Ω or less? *1
       - Yes: Replace the indoor electronic control P.C. board.
       - No: Is there large amount of water in drain pan?
         - Yes: Replace the float sensor.
         - No: Turn ON the power supply. Press EMERGENCY OPERATION switch (COOL) and perform emergency COOL operation. Measure the voltage between CN1N1 and CN145.

   *1 Refer to 9-5 when float sensor can be checked.

2. Is there 208/230 V AC between CN1N1 and CN145?
   - Yes: Replace the indoor electronic control P.C. board. Check power supply voltage.
   - No: Replace the drain pump.

3. Is the drain pump operating?
   - Yes: Remove clog from drain hose.
   - No: Replace the drain pump.

4. Is the drain hose clogged?
   - Yes: Replace the indoor electronic control P.C. board.
   - No: Are the lead wires disconnected?

*CN1N1, CN145*

Indoor electronic control P.C. board

OBH802
Electromagnetic noise enters into TV sets or radios

1. Is the unit grounded?
   - Yes
     - Extend the distance between the antennas and the indoor unit, and/or the antennas and the outdoor unit.
   - No
     - Ground the unit.

2. Is the distance between the antennas and the indoor unit within 9.91 ft. (3m), or is the distance between the antennas and the outdoor unit within 9.91 ft. (3m)?
   - Yes
     - Extend the distance between the TV sets or radios and the indoor unit, or the TV sets or radios and the outdoor unit.
   - No
     - Is the distance between the TV sets or radios and the indoor unit within 3.28 ft. (1m), or is the distance between the TV sets or radios and the outdoor unit within 9.91 ft. (3m)?
       - Yes
         - Extend the distance between the TV sets and/or radios and the indoor unit, or the TV sets or radios and the outdoor unit.
       - No
         - Are the antennas damaged?
           - Yes
             - Replace or repair the antenna.
           - No
             - Replace or repair the coaxial cable.

3. Is the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas close?
   - Yes
     - Extend the distance between the indoor/outdoor connecting wire of the air conditioner and the wiring of the antennas.
   - No
     - 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, ground 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 STOP/OPERATE (OFF/ON) 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 STOP/OPERATE (OFF/ON) 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.
OPERATING PROCEDURE

1. Removing the intake grille
   (1) Slide the tabs (2 places) of intake grille in the direction of the arrow (Figure 1).
   (2) Hold the intake grille and pull it down to open (Figure 2).
   (3) Slide the grille shafts (1 each on the left and right sides) off the intake grille and remove the intake grille (Figure 3).
   (4) Remove the safety strings of intake grille from the hooks (Figure 4).

PHOTOS/FIGURES

<Detaching method of the terminal with locking mechanism>

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

There are following 2 types 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 the connector shown below locking mechanism.

MLZ-KP09NA MLZ-KP12NA MLZ-KP18NA

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE

| Photo 1 | Remote control receiving section |
|---------|---------------------------------
| Places for installing the air cleaning filters ([Anti-Allergy Enzyme filters (option)]) [Install to air filters (Air purifying filter)] |

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<tr>
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<td></td>
</tr>
<tr>
<td>Electrical parts</td>
<td></td>
</tr>
<tr>
<td>Safety string</td>
<td></td>
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<table>
<thead>
<tr>
<th>1. Removing the intake grille</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Slide the tabs (2 places) of intake grille in the direction of the arrow (Figure 1).</td>
</tr>
<tr>
<td>(2) Hold the intake grille and pull it down to open (Figure 2).</td>
</tr>
<tr>
<td>(3) Slide the grille shafts (1 each on the left and right sides) off the intake grille and remove the intake grille (Figure 3).</td>
</tr>
<tr>
<td>(4) Remove the safety strings of intake grille from the hooks (Figure 4).</td>
</tr>
</tbody>
</table>

| Figure 1 |
| Tab |

| Figure 2 |

| Figure 3 |
| Shaft |

| Figure 4 |
| Safety string |

| Figure |
| Hook |

DISASSEMBLY INSTRUCTIONS

35
2. Removing the grille

(1) Remove the intake grille.
(2) Remove the fixing screws for side panels (2 screws) on the left and right sides (Figure 5).
(3) Open the side panels on the left and right sides. Remove the safety strings from the grille and remove the side panels (Figure 5).
(4) Open the horizontal vane completely.
(5) Remove the screw cap in the center of air outlet (Figure 5).
(6) Remove the fixing screws ① at 4 places on the left and right sides (Figure 6).
(7) Remove the fixing screws ② at 2 places in the middle and the fixing screw ③ in the center (Figure 6).
(8) Remove the temporary holding tabs of the grille from the hooks of the indoor unit (Figure 6).

<Installing the grille>

(1) Open the horizontal vane completely.
(2) Remove the screw cap in the center of air outlet (Figure 5).
(3) Attach the temporary holding tabs of the grille to the hooks of the indoor unit (Figure 6).
(4) Place the grille so that it fits closely with the ceiling surface. Loosely fasten with the provided fixing screws ① at 4 places on the left and right side (Figure 6).
(5) Tighten the fixing screws ② at 2 places in the middle and the fixing screw ③ in the center (Figure 6).
(6) Tighten the fixing screws ① at 4 places on the left and right sides.

NOTE: Make sure there are no gaps between the indoor unit and the grille, or between the grille and the ceiling surface. If there are any gaps, the wind may come in and it may cause water to drip (Figure 7).

NOTE: Tighten the fixing screws ① and ② completely (Figure 6).

NOTE: If there are any gaps between the grille and the ceiling, with the grille attached, slightly adjust the installation height of the unit and clear the gap (Figure 8).
(7) Install the screw cap.

(8) After attaching the safety strings for the left and right side panels to the grille, install the side panels (Figure 9).

NOTE: Make sure that the tabs of the side panels securely fit into place (Figure 9).

NOTE: Make sure that the safety strings do not hang out of the side panels.

(9) Fix with the side panel fixing screws on the left and right sides (Figure 10).

(10) Attach the air cleaning filters (Anti-Allergy Enzyme filters), if any, to the catches on the air filters (Air purifier filters) (Figure 11).

(11) Attach the safety strings for intake grille to the grille and insert the grille shafts into the holes of the intake grille (Figure 11).

(12) Close the intake grille (Figure 12).

NOTE: Press the intake grille firmly against the grille until a click is heard from each tab on the left and right sides.

<Check after installing>

(1) Check that there are no gaps between the indoor unit and the grille, or between the grille and the ceiling surface.

NOTE: If there are any gaps, the wind may come in and it may cause water to drip.

(2) Check that the screw cap is installed.

(3) Check that the left and right side panels are installed securely.

(4) Check that the emergency operation switch is installed securely.

(5) Check that the display cover of side panel is installed securely.

(6) Check that the filters are installed securely.

NOTE: If the filters are not installed securely, the intake grille may not close properly.

(7) Check that the safety strings (4 places) are attached securely.

Figure 9

Figure 10

Figure 11

Figure 12
3. Removing the indoor electric control P.C. board, the receiver P.C. board and the display P.C. board
(1) Remove the intake grille.
(2) Remove the side panel (L).
(3) Remove the electrical cover $\mathbb{A}$ and $\mathbb{B}$ (4 fixing screws) (Photo 2).
(4) Partially slide the indoor electronic control P.C. board out.
(5) Disconnect all the connectors and lead wires on the board to remove the indoor electric control P.C. board.
(6) Remove the tabs at the top and bottom of lamp cover, and open the lamp cover.
(7) Disconnect the connectors and lead wires, and remove the receiver P.C. board and the display P.C. board.

4. Removing the heat exchanger and stabilizer
(1) Remove the grille.
(2) Remove the room temperature thermistor.
(3) Remove the tabs (2 places) in the center of stabilizer and remove the drain pan (4 fixing screws).
(4) Remove the electrical cover $\mathbb{A}$ and $\mathbb{B}$.
(5) Disconnect the connectors of the horizontal and vertical vane motors.
(6) Remove the indoor coil thermistors (main and sub.).
(7) Remove the drain cover (3 fixing screws).
(8) Remove the pipe band.
(9) Remove the heat exchanger (6 fixing screws).
(10) Remove the stabilizer (2 fixing screws).

5. Removing the horizontal and vertical vane motors
(1) Remove the grille.
(2) Remove the drain pan.
(3) Remove the horizontal vane.
(4) Remove the cover of horizontal and vertical vane motors (2 fixing screws).
(5) Remove the vertical vane motor (2 fixing screws) and disconnect the connector (Photo 4).
(6) Remove the horizontal vane motor (2 fixing screws) and disconnect the connector (Photo 4).
### OPERATING PROCEDURE

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<th>Description</th>
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<tr>
<td>1.</td>
<td>Remove the grille.</td>
</tr>
<tr>
<td>2.</td>
<td>Remove the drain pan.</td>
</tr>
<tr>
<td>3.</td>
<td>Disconnect the connector of the drain pump (Photo 5).</td>
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<tr>
<td>4.</td>
<td>Disconnect the connector of the float sensor (Photo 5).</td>
</tr>
<tr>
<td>5.</td>
<td>Remove the drain hose (Photo 5).</td>
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<tr>
<td>6.</td>
<td>Remove the drain pump assembly (2 fixing screws) (Photo 5).</td>
</tr>
<tr>
<td>7.</td>
<td>Remove the drain pump cover (2 fixing screws) (Photo 5).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Steps</th>
<th>Description</th>
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<td>7.</td>
<td>Removing the fan motor and line flow fan</td>
</tr>
<tr>
<td>1.</td>
<td>Remove the grille.</td>
</tr>
<tr>
<td>2.</td>
<td>Remove the drain pan.</td>
</tr>
<tr>
<td>3.</td>
<td>Remove the drain cover.</td>
</tr>
<tr>
<td>4.</td>
<td>Remove the pipe band.</td>
</tr>
<tr>
<td>5.</td>
<td>Remove the electrical cover and electrical cover (8) and (9).</td>
</tr>
<tr>
<td>6.</td>
<td>Remove the terminal box (2 fixing screws).</td>
</tr>
<tr>
<td>7.</td>
<td>Remove the safety strings (2 places) from the clamps and untie (Photo 6).</td>
</tr>
<tr>
<td>8.</td>
<td>Hook the safety strings to the tabs on the side plate of indoor heat exchanger.</td>
</tr>
<tr>
<td>9.</td>
<td>Remove the indoor heat exchanger (6 fixing screws) and slide it downward.</td>
</tr>
<tr>
<td>10.</td>
<td>Remove the stabilizer (2 fixing screws).</td>
</tr>
<tr>
<td>11.</td>
<td>Partially slide the indoor electric control P.C. board out.</td>
</tr>
<tr>
<td>12.</td>
<td>Disconnect the connector (CN211) of indoor fan motor.</td>
</tr>
<tr>
<td>13.</td>
<td>Remove the motor band (2 fixing screws) (Figure 6).</td>
</tr>
<tr>
<td>14.</td>
<td>Remove the indoor fan motor and line flow fan. (No need to remove the indoor heat exchanger to remove these 2 items.)</td>
</tr>
</tbody>
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### PHOTOS/FIGURES

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<th>Photo 6</th>
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<tbody>
<tr>
<td><img src="image1.png" alt="Photo 5" /></td>
<td><img src="image2.png" alt="Photo 6" /></td>
</tr>
</tbody>
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**Diagram Notes:**
- **Drain pump**
- **Drain hose**
- **Float sensor**
- **Fixing screw of the drain pump cover**
- **Drain pump assembly**
- **Fixing screw of the drain pump assembly**
- **Fixing screw of the drain pump cover**
- **Connector of the drain pump**
- **Connector of the float sensor**
- **Line flow fan**
- **Motor band**
- **Safety string**
- **Fan motor**

**Diagram Descriptions:**
- Drain pump
- Drain hose
- Float sensor
- Fixing screw of the drain pump cover
- Drain pump assembly
- Fixing screw of the drain pump assembly
- Fixing screw of the drain pump cover
- Connector of the drain pump
- Connector of the float sensor
- Line flow fan
- Motor band
- Safety string
- Fan motor

**Diagram Images:**
- Image 1: Photo 5
- Image 2: Photo 6