### SAFETY PRECAUTIONS

- Before starting installation, read the "Safety Precautions" described below.
- The following precautions must be observed as it describes the serious matters for safety.
- The safety precautions are described with the degree of danger.

#### WARNING
- When you handle wrong, it can lead to death or serious injury.
- When you handle wrong, it can lead to injury or damage to building and furniture.

#### CAUTION
- When you handle wrong, it can lead to injury or damage to building and furniture.

- After installation, make test operation and confirm that it works properly, and explain the safety precautions, operation method, and maintenance to your customers.
- Tell your customers to keep this installation manual together with operation manual with them, and when they give or sell this machine to other person put this installation manual and operation manual with it.

---

#### Before electric wiring

<table>
<thead>
<tr>
<th>WARNING</th>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The installation must be done by dealer or qualified person.</td>
<td>The wiring must be securely done by using proper cable. The wires should be connected to the terminals not to have external force of the cable.</td>
</tr>
<tr>
<td>If the customers do the installation by themselves and it is not perfectly installed it can cause water leak, electric shock, or fire.</td>
<td>Faulty connections can cause heat or fire.</td>
</tr>
<tr>
<td>The installation must be done in accordance with this manual.</td>
<td>The terminal cover (panel) of the unit must be installed securely.</td>
</tr>
<tr>
<td>If the installation is not perfectly done, it can cause water leak, electric shock, or fire.</td>
<td>Faulty installation can cause fire or electric shock by dust or water.</td>
</tr>
<tr>
<td>Never try any modification.</td>
<td>The electric installation must be done by qualified person in accordance with this installation manual. Use the separate circuit only for this machine and use rated voltage and circuit breaker.</td>
</tr>
<tr>
<td>For repair, ask your dealer. If the machine is not modified or repaired completely, it can cause water leak, electric shock, or fire.</td>
<td>If the electric circuit power is not sufficient or the wiring is not properly done, it can cause electric shock or fire.</td>
</tr>
<tr>
<td>Never move or reinstall the machine by the customers.</td>
<td>The terminal cover (panel) of the unit must be installed securely.</td>
</tr>
<tr>
<td>If the installation is not perfectly done, it can cause water leak, electric shock, or fire. Ask your dealer or qualified person.</td>
<td>Faulty installation can cause fire or electric shock by dust or water.</td>
</tr>
</tbody>
</table>

---

#### Before test operation

<table>
<thead>
<tr>
<th>WARNING</th>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install a circuit breaker depending upon the location.</td>
<td>Put ground wire.</td>
</tr>
<tr>
<td>Without a circuit breaker, it can cause electric shock.</td>
<td>Never ground to gas pipe, water pipe, lightning conductor, or telephone ground wire.</td>
</tr>
<tr>
<td>Use standard wires which meet current capacity.</td>
<td>Faulty ground can cause electric shock.</td>
</tr>
<tr>
<td>Otherwise, it can cause short-circuit, heat, or fire.</td>
<td>Wires must not have tension.</td>
</tr>
<tr>
<td></td>
<td>It can cause snipping, heat, or fire.</td>
</tr>
</tbody>
</table>

---

### For models in which this component is used, see the separate sheet.
Attention for M-NET connection
Pay attention to the next points for wiring of shielded wires.

(1) Ground wire connection

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The shielded wires of M-NET transmission should be connected with the ground wire at any only one place of the unit to be connected.</td>
</tr>
<tr>
<td>• It can cause the transmission error due to noise. Outdoor unit digital LED display reads “Ed” “A7” error. Centralized controller reads “0403” “6607” error.</td>
</tr>
</tbody>
</table>

Bad example (Multiple ground of shielded wire)

Good example (One spot ground of shielded wire)

(1) Refer to the appendix List of Models to check the applicable models.

(2) In case that the outdoor unit is grounded, connect the ground wire supplied as accessory to the S terminal (secondary) of M-NET terminal block and M-NET ground terminal inside of electric box with using screws supplied.

Note: If the shield and earth are grounded in two or more locations, electrical circuit is generated through them, and a potential difference is created because of the impedance difference between or among the ground locations. This may cause noise in the shield. Ground at only one point, then no circuit is created and no noise gets in.

(2) Length of M-NET transmission line

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The shielded wires of M-NET transmission should be used below the maximum line length.</td>
</tr>
<tr>
<td>• It can cause the transmission error. Outdoor unit digital LED display reads “Ed” “A7” error. Centralized controller reads “0403” “6607” error.</td>
</tr>
</tbody>
</table>

(3) Using dual set point
1. To activate dual set point, make sure that all units and controllers in one group have dual set point function.
2. To change the temperature display setting of existing group from single to dual set point, make sure to restart the whole system related.
3. When ME remote controller is included in same group in the case of 2, make sure to initialize* ME remote controller before use.

(*Refer to the ME remote controller installation manual. <Service Menu.>)
### 1. Parts List

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Figure</th>
<th>Q'ty</th>
<th>Applicable models</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>①</td>
<td>M-NET board (with insulation sheets and supports)</td>
<td><img src="image" alt="M-NET board" /></td>
<td>1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>②</td>
<td>Plate1 (For mounting M-NET board)</td>
<td><img src="image" alt="Plate1" /></td>
<td>1</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>③</td>
<td>Plate2 (For mounting M-NET board)</td>
<td><img src="image" alt="Plate2" /></td>
<td>1</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>④</td>
<td>Plate3 (For mounting M-NET board)</td>
<td><img src="image" alt="Plate3" /></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑤</td>
<td>Insulation sheets</td>
<td><img src="image" alt="Insulation sheets" /></td>
<td>1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>⑥</td>
<td>Screw (M4×8)</td>
<td><img src="image" alt="Screw" /></td>
<td>2</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>⑦</td>
<td>Terminal block (M-NET)</td>
<td><img src="image" alt="Terminal block" /></td>
<td>1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>⑧</td>
<td>Terminal screw (M3×20)</td>
<td><img src="image" alt="Terminal screw" /></td>
<td>1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>⑨</td>
<td>Label</td>
<td><img src="image" alt="Label" /></td>
<td>1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>⑩</td>
<td>Lead wire-A (5 wires)</td>
<td><img src="image" alt="Lead wire-A" /></td>
<td>1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>⑪</td>
<td>Lead wire-B (5 wires)</td>
<td><img src="image" alt="Lead wire-B" /></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑫</td>
<td>Lead wire-C (3 wires)</td>
<td><img src="image" alt="Lead wire-C" /></td>
<td>1</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>⑬</td>
<td>Lead wire-D (2 wires)</td>
<td><img src="image" alt="Lead wire-D" /></td>
<td>1</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>⑭</td>
<td>Ground wire and screw (M4×8)</td>
<td><img src="image" alt="Ground wire and screw" /></td>
<td>1 each</td>
<td>(O)</td>
<td>(O)</td>
</tr>
<tr>
<td>⑮</td>
<td>Fastener</td>
<td><img src="image" alt="Fastener" /></td>
<td>2</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
2. Switch setting

(1) M-NET address setting

The setting should be done by rotary switches SW11 and SW12 on M-NET board. (Factory settings are all Zero)

Make sure to set M-NET address within the range of 01 to 50.

When installing two or more outdoor units, do not use the same number more than once for M-NET address.

<Example>

<table>
<thead>
<tr>
<th>M-NET address No.</th>
<th>1</th>
<th>2</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch setting</td>
<td>SW 11 (Ones digit)</td>
<td>SW 12 (Tens digit)</td>
<td></td>
</tr>
</tbody>
</table>

(2) Switch 1-8 setting

<table>
<thead>
<tr>
<th>SW1-8 Selection</th>
<th>Function</th>
<th>Function details</th>
<th>Initial setting</th>
<th>Effective timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>Turn the switch ON when MA remote controller or wireless remote controller is connected to indoor unit.</td>
<td>&lt;FUNCTION&gt; Set the connection of MA-remote controller or wireless remote controller to the indoor unit. ON: exist (initial setting) OFF: not exist</td>
<td>ON</td>
<td>When power supply ON</td>
</tr>
<tr>
<td>MS SW1-8 OFF</td>
<td>Turn the switch OFF when MA remote controller or wireless remote controller is NOT connected to indoor unit.</td>
<td>&lt;NOTE&gt; In case of switch is ON, transmission error between M-NET board and centralized controllers does not be detected, and M-NET board operates continuously.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: SW1–3 is always ON
3. Installation procedure [Applicable model: Group A]

- To protect the wires connected to M-NET board from the edges of sheet-metal component, paste the insulation on the edge surface of panel sheet-metal before proceeding with the following work.

1. Paste insulation sheets ① and ② to the backside of the flange surface on the top of the side panel.

2. Starting from the bottom, mount insulation sheet ③ to the "L" bend section on the back of the noise filter mounting panel.

3. Position the chamfered section of plate1 ④ so that it faces the fan side (the left side of the drawing) and mount it using screw ⑤.

4. Install M-NET board ⑥ (with insulation sheets and supports) on the four corners of plate1 ④ so that the rotary switches (SW11, SW12) are on the terminal block side and then mount. Note: Push it firmly until you hear it "click".

5. Use terminal screw ⑦ to secure terminal block ⑧. Note: Terminal block ⑨ has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.

6. Paste label ⑩.

7. Use lead wire-A ⑪ to connect CN5 of M-NET board ⑥ connection and CNMNT of outdoor control board.
   • Caution
     Wire Marking: INV type, Connector color: Red
     Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

8. Use lead wire-C ⑫ to connect CND of M-NET board ⑥ connection and CNVMNT of outdoor control board.

9. Use lead wire-D ⑬ to connect CN2M of M-NET board ⑥ connection and terminals A and B of terminal block ⑤. Polarity is not a concern.
   Note: Connect the wire firmly making sure that the screws on terminal block are not loose.

10. The lead wires should be tied together with the other lead wires with the fastener ⑭ not to loose.
    Wiring length is adjusted according to apparatus.

Note1:
Use ground wire and screw ⑮ as required to connect the shield of M-NET transmission line to the unit.
(See the attention on page 2)

Note2:
Take great care that no lead wire is caught on anything when installing panels.
3. Installation procedure [Applicable model: Group B]

- To protect the wires connected to M-NET board from the edges of sheet-metal component, paste the insulation on the edge surface of panel sheet-metal before proceeding with the following work.

1. Paste insulation sheet <1> on sheet-metal so that it completely envelops the edge surface of sheet-metal.

   (When viewed from the side of Electrical parts box)

2. Install M-NET board <2> (with insulation sheets and supports) on the side of electrical parts box so that the rotary switches (SW11, SW12) faces up (at the four points indicated by arrows).
   Note: Push it firmly until you hear it “click”.

3. Use terminal screw <3> to secure terminal block <5>.
   Note: Terminal block <5> has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.


5. Use lead wire-A <8> to connect CN5 of M-NET board <1> connection and CNMNT of outdoor control board.
   - Caution
     Wire Marking: INV type,
     Connector color: Red
     Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

6. Use lead wire-C <9> to connect CND of M-NET board <1> connection and CNVMNT of outdoor control board.

7. Use lead wire-D <10> to connect CN2M of M-NET board <1> connection and terminals A and B of terminal block <7>.
   Polarity is not a concern.
   Note: Connect the wire firmly making sure that the screws on terminal block are not loose.

8. The lead wires should be tied together with the other lead wires with the fastener <9> not to loose.

   Wiring length is adjusted according to apparatus.

   Note1: Use ground wire and screw <11> as required to connect the shield of M-NET transmission line to the unit.
   (See the attention on page 2)

   Note2: Take great care that no lead wire is caught on anything when installing panels.
3. Installation procedure [Applicable model: Group C]

1. Attach the plate2, using two screws.

2. Install M-NET board (with insulation sheets and supports) on the plate2 so that the rotary switches (SW11, SW12) right side (at the four points indicated by arrows). Note: Push it firmly until you hear it “click”.

3. Use terminal screw to secure terminal block.
   Note: Terminal block has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.

4. Paste label under terminal block.

5. Use lead wire-A to connect CN5 of M-NET board connection and CNMNT of outdoor control board.
   • Caution
     Wire Marking: INV type, Connector color: Red
     Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

6. Use lead wire-C to connect CND of M-NET board connection and CND of outdoor control board.

7. Use lead wire-D to connect CN2M of M-NET board connection and terminals A and B of terminal block. Polarity is not a concern.
   Note: Connect the wire firmly making sure that the screws on terminal block are not loose.

8. The lead wires should be tied together with the other lead wires with the fastener not to loose.
   Wiring length is adjusted according to apparatus.

Note1:
Use ground wire and screw as required to connect the shield of M-NET transmission line to the unit.
(See the attention on page 2)

Note2:
Take great care that no lead wire is caught on anything when installing panels.
3. Installation procedure [Applicable model: Group D]

1. Install M-NET board (with insulation sheets and supports) on the bottom of electrical parts box so that the rotary switches (SW11, SW12) come front. Note: Push it firmly until you hear it “click”.

2. Use terminal screw to secure terminal block. Note: Terminal block has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.

3. Paste label under terminal block.

4. Use lead wire-B to connect CN5 of M-NET board connection and CNMNT of outdoor control board. • Caution Wire Marking: NON-INN, Connector color: White Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

5. Use lead wire-C to connect CND of M-NET board connection and CNVMNT of outdoor control board.

6. Use lead wire-D to connect CN2M of M-NET board connection and terminals A and B of terminal block. Polarity is not a concern. Note: Connect the wire firmly making sure that the screws on terminal block are not loose.

7. The lead wires should be tied together with the other lead wires with the fastener not to loose. Wiring length is adjusted according to apparatus.

Note1: Use ground wire and screw as required to connect the shield of M-NET transmission line to the unit. (See the attention on page 2)

Note2: Take great care that no lead wire is caught on anything when installing panels.
3. Installation procedure [Applicable model: Group E]

1. Remove the two screws that secure the control board base of electrical parts box, and then slide the base in the direction of the arrow to remove it from the electrical parts box.

2. Check for the four M-NET board attachment holes (arrows) in the back of control board base (the control board is attached to the surface).

3. Install the M-NET board (with insulation sheets and supports) so that the rotary switches (SW11, SW12) face up (at the four points indicated by arrows).

4. Use terminal screw 3 to secure terminal block 4.

   Note:
   Terminal block 4 has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.

5. Paste label 5 under terminal block 6.

6. Use lead wire-C 7 to connect CND of M-NET board 6 connection and CNVMNT of outdoor control board.

   • Caution
   Wire Marking: INV type,
   Connector color: Red
   Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

7. Use lead wire-A 8 to connect CN5 of M-NET board 6 connection and CNMNT of outdoor control board.

8. Use lead wire-D 9 to connect CN2M of M-NET board 6 connection and terminals A and B of terminal block 4. Polarity is not a concern.

   Note:
   Connect the wire firmly making sure that the screws on terminal block are not loose.

The lead wires should be tied together with the other lead wires with the fastener 10 not to loose.

Wiring length is adjusted according to apparatus.

Note1:
Use ground wire and screw 11 as required to connect the shield of M-NET transmission line to the unit.
(See the attention on page 2)

Note2:
Take great care that no lead wire is caught on anything when installing panels.
3. Installation procedure [Applicable model: Group F]

1. Attach the plate 3, using two screws ③.

2. Install M-NET board ① (with insulation sheets and supports) on the plate 3 so that the rotary switches (SW11, SW12) face up (at the four points indicated by arrows).
   
   Note: Push it firmly until you hear “click”.

3. Use terminal screw ③ to secure terminal block ⑤.
   
   Note: Terminal block ⑤ has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.

4. Paste label ⑧ under terminal block ⑦.

5. Use lead wire-A ⑥ to connect CN5 of M-NET board ① connection and CNMNT of outdoor control board.
   
   • Caution
     
     Wire Marking: INV type,
     
     Connector color: Red
     
     Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

6. Use lead wire-C ⑥ to connect CND of outdoor control board ① connection and CNVMNT of outdoor control board.

7. Use lead wire-D ⑥ to connect CN2M of M-NET board ① connection and terminals A and B of terminal block ⑦. Polarity is not a concern.
   
   Note: Connect the wire firmly making sure that the screws on terminal block are not loose.

8. The lead wires should be tied together with the other lead wires with the fastener ⑨ not to lose.

   Wiring length is adjusted according to apparatus.

Note1:

Use ground wire and screw ⑧ as required to connect the shield of M-NET transmission line to the unit.

(See the attention on page 2)

Note2:

Take great care that no lead wire is caught on anything when installing panels.
3. Installation procedure [Applicable model: Group G]

1. Remove the two screws that secure the control board base of electrical parts box, and then slide the base in the direction of the arrow to remove it from the electrical parts box.

2. Check for the four M-NET board attachment holes (arrows) in the back of control board base (the control board is attached to the surface).

3. Install M-NET board (with insulation sheets and supports) so that the rotary switches (SW11, SW12) faces up (at the four points indicated by arrows).

4. Use terminal screw to secure terminal block.

   Note: Terminal block has a round boss for positioning: Fit the round boss into the positioning hole in steel-plate.

5. Paste label under terminal block.

6. Use lead wire-A to connect CN5 of M-NET board connection and CNVMNT of outdoor control board.

   • Caution
     Wire Marking: INV type,
     Connector color: Red
     Always make sure that the markings and the applicable model match. If used incorrectly, parts could be damaged.

7. Use lead wire-C to connect CND of M-NET board connection and CNVMNT of outdoor control board.

8. Use lead wire-D to connect CN2M of M-NET board connection and terminals A and B of terminal block. Polarity is not a concern.

   Note: Connect the wire firmly making sure that the screws on terminal block are not loose.

9. The lead wires should be tied together with the other lead wires with the fastener not to loose. Wiring length is adjusted according to apparatus.

   Note1: Use ground wire and screw as required to connect the shield of M-NET transmission line to the unit.
   (See the attention on page 2)

   Note2: Take great care that no lead wire is caught on anything when installing panels.