INSTALLATION MANUAL
For safe and correct use, read this manual and the outdoor unit installation manual thoroughly before installing the air-conditioner unit.

INSTALLATIONSANLEITUNG
Aus Sichtsicherheitsgründen und zur richtigen Anwendung vor Installation der Klimaanlage die vorliegende Bedienungsanleitung und das Installationshandbuch gründlich durchlesen.

MANUEL D'INSTALLATION
Avant d'installer l'unité extérieure, lire attentivement ce manuel, ainsi que le manuel d'installation de l'appareil extérieur pour une utilisation sûre et correcte.

INSTALLATIEHANDLEIDING
Lees deze handleiding en de installatiehandleiding van het buitenapparaat zorgvuldig door voordat u met het installeren van de airconditioner begint.

MANUAL DE INSTALACIÓN
Para un uso seguro y correcto, lea detalladamente este manual de instalación antes de montar la unidad de aire acondicionado.

MANUALE DI INSTALLAZIONE
Per un uso sicuro e corretto, prima di installare il condizionatore d'aria leggere attentamente il presente manuale ed il manuale d'installazione dell'unità esterna.

ΕΓΧΕΙΡΙΔΙΟ ΟΑΣΙΓΙΩΝ ΕΓΚΑΤΑΣΤΑΣΗΣ
Για ασφαλή και σωστή χρήση, διάβαστε προσεκτικά αυτό το εγχειρίδιο, καθώς και το εγχειρίδιο εγκατάστασης της εξωτερικής μονάδας, πριν από την εγκατάσταση της μονάδας κλιματιστικού.

MANUAL DE INSTALAÇÃO
Para uma utilização segura e correta, leia atentamente este manual e o manual de instalação da unidade exterior antes de instalar o aparelho de ar condicionado.

INSTALLATIONSManualen
Læs af sikkerhedsgrunde denne manual samt manualen til installation af udstændeheden grundigt, før du installerer klimaen.egget.

INSTALLATIONSMANUAL
Läs bruksanvisningen och utomhusenhagens installationshandbok noga innan lufkontor/ingen i installeras så att den används på ett säkert och korrekt sätt.

MONTAJ ELKİTABI
Emniyetli ve doğru kullanmayı ıgn, klima cihazınız monte etmeden önce bu kılavuzu ve diğer montaj kılavuzunu tamamıyla okuyun.

РУКОВОДСТВО ПО УСТАНОВКЕ
Для обеспечения безопасной и надежной эксплуатации внимательно прочитайте данное руководство и руководство по установке наружного прибора перед установкой кондиционера.
1. Safety precautions

Before installing the unit, make sure you read all the "Safety precautions".

After installation work has been completed, explain the "Safety Precautions" use, and the maintenance of the unit to the customer according to the information in the Operation Manual. The operation manual and operation manual must be given to the user for keeping. These manuals must be passed on to subsequent users.

1.1. Before installation (Environment)

- Do not use the unit in an unusual environment. If the air conditioner is installed in areas exposed to steam, hot oil (including machinery oil), or sulfuric gas, areas exposed to high salt content such as the seashore, the performance can be significantly reduced and the internal parts can be damaged.
- Do not install the unit where combustible gases may leak, be produced, flow, or accumulate. If combustible gas accumulates around the unit, fire or explosion may result.
- Do not keep food, plants, caged pets, artwork, or precision instruments in the direct airflow of the indoor unit or too close to the unit, as these items can be damaged by temperature changes or dripping water.

1.2. Before installation or relocation

- Be extremely careful when transporting the units. Two or more persons are needed to handle the unit, as it weighs 20 kg or more. Do not grasp the pedestal legs. Wear protective gloves as you can injure your hands on the fins or other parts.
- Be sure to safely dispose of the packaging materials. Packaging materials, such as nails and other metal or wooden parts may cause stains or other injuries.

1.3. Before electric work

- Be sure to install circuit breakers, if not installed, electric shock may result.
- For the power lines, use standard cables of sufficient capacity. Otherwise, a short circuit, overheating, or fire may result.
- When installing the power lines, do not apply tension to the cables.

1.4. Before starting the test run

- Turn on the mains power switch more than 12 hours before starting operation. Starting operation just after turning on the power switch can severely damage the indoor unit.
- Before starting operation, check that all panels, grilles and other protective parts are correctly installed. Rolling, hot, or high voltage parts can cause injuries.

- Do not operate the air conditioner without the air filter set in place. If the air filter is not installed, dust may accumulate and breakdown may result.
- Do not touch any switch with wet hands. Electric shock may result.
- Do not touch the refrigerant pipes with bare hands during operation.
- After stopping operation, be sure to wait at least five minutes before turning off the main power switch. Otherwise, water leakage or breakdown may result.
2. Installation location

2.1. Outline dimensions (Indoor unit) (Fig. 2-1)
Select a proper position allowing the following clearances for installation and maintenance.

<table>
<thead>
<tr>
<th>Model</th>
<th>W (mm)</th>
<th>D (mm)</th>
<th>H (mm)</th>
<th>D1 (mm)</th>
<th>D2 (mm)</th>
<th>D3 (mm)</th>
<th>D4 (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP71</td>
<td>1150</td>
<td>650</td>
<td>706</td>
<td>560</td>
<td>98</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>RP125</td>
<td>1500</td>
<td>600</td>
<td>706</td>
<td>560</td>
<td>98</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Warning:**
Mount the indoor unit on a ceiling strong enough to withstand the weight of the unit.
- More than 300 mm recommended for easy maintenance.
- Obsolete

3. Installing the indoor unit

3.1. Check the Indoor unit accessories (Fig. 3-1)
The indoor unit should be supplied with the following spare parts and accessories (contained in the inside of the intake grille).

<table>
<thead>
<tr>
<th>Accessory name</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washer</td>
<td>4 pcs</td>
</tr>
<tr>
<td>Pipe cover (gas)</td>
<td>1 pc</td>
</tr>
<tr>
<td>Pipe cover (liquid)</td>
<td>1 pc</td>
</tr>
<tr>
<td>Drain hose</td>
<td>1 pc</td>
</tr>
<tr>
<td>Filter element</td>
<td>12 pcs</td>
</tr>
<tr>
<td>Wired remote controller</td>
<td>1 pc</td>
</tr>
<tr>
<td>Flare nut</td>
<td>RP125</td>
</tr>
<tr>
<td></td>
<td>RP71</td>
</tr>
</tbody>
</table>

3.2. Preparation for installation (Fig. 3-2)

1) Suspension bolt installing spacing

<table>
<thead>
<tr>
<th>Model</th>
<th>A (mm)</th>
<th>B (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP71</td>
<td>1190</td>
<td>1135</td>
</tr>
<tr>
<td>RP125</td>
<td>1564</td>
<td>1530</td>
</tr>
</tbody>
</table>

2) Refrigerant and drain tubing location

<table>
<thead>
<tr>
<th>Model</th>
<th>C (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP71</td>
<td>542</td>
</tr>
<tr>
<td>RP125</td>
<td>402</td>
</tr>
</tbody>
</table>

3) Selection of suspension bolts and tubing positions (Fig. 3-3)

Using the pattern paper provided for installation, select proper positions for suspension bolts and tubing and prepare relative holes.

3.4. Selection of suspension bolts and tubing positions (Fig. 3-4)

- Use inserts or 100 kg to 150 kg weight.
- Use suspension bolts of W30 or M10 in size.
3. Installing the indoor unit

4) Indoor unit preparation (Fig. 3-6)

1. Install the suspending bolts. (Procure the W38 or M10 bolts locally.) Precalibrate the length from the ceiling (C) within ±0.50 mm.
2. Remove the intake grille.
   Slide the intake grille holding holes (at two locations) backward to open the intake grille.
3. Remove the side panel.
   Remove the side panel holding screws (one in each side, right and left) then slide the side panel forward for removal.

3.3. Installing the indoor unit (Fig. 3-6)

Use a proper suspending method depending on the presence or absence of ceiling materials as option.
In the absence of ceiling materials

1) Directly suspending the unit

Installing procedures:
1. Install the suspening bracket and the unit. (To be locally procured.)
2. Install the unit (without insulation) and the nut (to be locally procured).
3. Set the unit through the suspending bolts.
4. Tighten the nuts.
   Check the unit installing condition.
   • Check that the unit is horizontal between the right and left sides.
   • Check that the unit slopes continuously downward from the front to the rear.
   • Check that the unit is not contacting the ceiling.

4. Installing the refrigerant piping

4.1. Precautions

4.1.1. For devices that use R407C refrigerant

• Do not use the existing refrigerant piping.
  • Do use crushed, misshapen, or discolored tubing. The inside of the tubing should be clean and free from harmful sulfurous compounds, oxides, dirt, debris, oils and moisture.
  • Store the piping to be used during installation indoors and keep both ends of the piping sealed until just before brazing.
  • Use ester oil, other oil or alkylbenzene (small amount) as the refrigerant oil to coat flares and flange connections.
  • Use liquid refrigerant to fill the system.
  • Do not use a refrigerant other than R407C.
  • Use a vacuum pump with a reverse flow check valve.
  • Do not use the tools that are used with conventional refrigerants.
  • Do not use a charging cylinder.
  • Be especially careful when managing the tools.
  • Do not use commercially available dryers.

4.1.2. For devices that use R410A refrigerant

• Use ester oil, other oil, alkylbenzene oil (small amount) as the refrigerant oil applied to the flared sections.
• Use C1220 copper phosphorus, for copper and copper alloy seamless pipes, to connect the refrigerant pipes. Use refrigerant pipes with the thicknesses specified in the table to the below. Make sure the insides of the pipes are clean and do not contain any harmful contaminants such as sulfurous compounds, oxides, debris, or dust.

Warning:
When installing or moving the air conditioner, use only the specified refrigerant (R410A) to charge the refrigerant lines. Do not mix it with any other refrigerant and do not allow air or moisture in the lines. Air or moisture in the lines can cause pressure peaks resulting in a rupture and other hazards.

<table>
<thead>
<tr>
<th>Type</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid pipe</td>
<td>ø9.26, ø9.52</td>
</tr>
<tr>
<td>Gas pipe</td>
<td>ø12.7, ø15.88</td>
</tr>
</tbody>
</table>

* Do not use pipes thinner than those specified above.
4. Installing the refrigerant piping

4.2. Indoor unit (Fig. 4-1)

- When commercially available copper pipes are used, wrap liquid and gas pipes with commercially available insulation materials (heat-resistant up to 100 °C or more, thickness of 12 mm or more).
- The indoor parts of the drain pipe should be wrapped with polyethylene foam insulation materials (specific gravity of 0.05, thickness of 9 mm or more).
- Apply thin layer of refrigerant oil to pipe and joint seating surface before tightening flare nut.
- Use two wrenches to tighten piping connections.
- Use leak detector or soapy water to check for gas leaks after connections are completed.
- Use refrigerant piping insulation provided to insulate indoor unit connections. Insulate carefully following shown below.
- Use correct flare nuts meeting the pipe size of the outdoor unit.

Available pipe size

<table>
<thead>
<tr>
<th>Pipe size</th>
<th>RR35, 50</th>
<th>RR40</th>
<th>RR71</th>
<th>RR100, 125, 140</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid side</td>
<td>ø6.35 O</td>
<td>ø6.35 O</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Gas side</td>
<td>ø12.7 O</td>
<td>ø16.88 O</td>
<td>ø16.88 O</td>
<td>ø16.88 O</td>
</tr>
<tr>
<td>Liquid side</td>
<td>P25</td>
<td>P25</td>
<td>P25</td>
<td>—</td>
</tr>
<tr>
<td>Gas side</td>
<td>—</td>
<td>ø12.7 O</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>—</td>
<td>ø16.88 O</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>—</td>
<td>—</td>
<td>ø19.08 O</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

- Factory flare nut attachment to the heat exchanger.

Fig. 4-1

Flare cutting dimensions

<table>
<thead>
<tr>
<th>Copper pipe O.D. (mm)</th>
<th>Flare dimension at flare end (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø6.35</td>
<td>9.0 – 10.0</td>
</tr>
<tr>
<td>ø9.52</td>
<td>12.0 – 13.0</td>
</tr>
<tr>
<td>ø12.7</td>
<td>16.0 – 17.2</td>
</tr>
<tr>
<td>ø15.88</td>
<td>19.0 – 19.4</td>
</tr>
<tr>
<td>ø19.05</td>
<td>22.0 – 23.3</td>
</tr>
</tbody>
</table>

Flare nut tightening torque

<table>
<thead>
<tr>
<th>Copper pipe O.D. (mm)</th>
<th>Tightening torque (N-m)</th>
<th>Tightening angle (°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø6.35</td>
<td>1.0 – 1.5</td>
<td>60° – 70°</td>
</tr>
<tr>
<td>ø9.52</td>
<td>1.0 – 1.5</td>
<td>60° – 70°</td>
</tr>
<tr>
<td>ø12.7</td>
<td>1.0 – 1.5</td>
<td>60° – 70°</td>
</tr>
<tr>
<td>ø15.88</td>
<td>1.0 – 1.5</td>
<td>60° – 70°</td>
</tr>
<tr>
<td>ø19.05</td>
<td>1.0 – 1.5</td>
<td>60° – 70°</td>
</tr>
</tbody>
</table>

Fig. 4-2

Installing procedures

1. Slide the supplied pipe cover over the gas tubing until it is pressed against the sheet metal inside the unit.
2. Slide the provided pipe cover over the liquid tubing until it is pressed against the sheet metal inside the unit.
3. Tighten the pipe covers (3) and (4) at the both ends (10 - 20 mm) with the supplied bands (5).
- After connecting the refrigerant piping to the indoor unit, be sure to test the pipe connections for gas leakage with nitrogen gas. (Check that there is no refrigerant leakage from the refrigerant piping to the indoor unit.)
- Conduct the air tightness test before connecting the outdoor unit step valve and the refrigerant pipe.
- If the test is conducted after the valve and pipes are connected, gas, which is used for checking the air tightness, will leak from the stop valve and flow into the outdoor unit, resulting in abnormal operation.

Fig. 4-3

Gas tubing (with insulation)
Liquid tubing (with insulation)
Band (3)
Pipe cover (4)
5. Drainage piping work

Installing procedures:
1. Remove the independent piece (2 screws) of the indoor unit.
2. Attach the band (6) supplied with the unit to the drain hose (5).
3. Connect the drain hose (5) to the drain hole of the unit.
4. Connect the field drain tubing (NP 250.D.3/4 PVC TUBES) to the drain hose (5).
5. Tighten the band (6) in 2 places.
6. Wrap the drain tubing cover (7) supplied with the unit.
7. Install the independent piece.
8. Check for correct drainage.
   - Fill the drain pan with water of about 1 l, from the tubing sensor access part.
   - After checking for correct drainage, replace the tubing sensor access part cover.

Fig. 5-1

6. Electrical work

6.1. Electric wiring (Fig. 6-1)

Wiring procedures:
1. Insert all electrical wires into the unit.
2. Remove the terminal block cover (1 screw).
3. Connect the electric wires securely to the corresponding terminals.
4. Replace the terminal block cover.
5. Tie the electric wires with the local wiring clamp located on the right side of the junction box.

Fig. 6-1

6.1.1. Indoor unit power supplied from outdoor unit

The following connection patterns are available.
The outdoor unit power supply patterns vary on models.

1:1 System

For models without heater:

For models with heater:

* Affix a label A that is included with the manuals near each wiring diagram for the indoor and outdoor units.
6. Electrical work

Simultaneous twin/triple/four system

<For models without heater>

<For models with heater>

Outdoor unit power supply
Earth leakage breaker
Wiring circuit breaker or isolating switch
Outdoor unit
Indoor unit/outdoor unit connecting cords
Remote controller
Indoor unit
Heater power supply

* Affix a label A that is included with the manual near each wiring diagram for the indoor and outdoor units.

<table>
<thead>
<tr>
<th>Indoor unit model</th>
<th>PCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor unit power supply (heater)</td>
<td>–</td>
</tr>
<tr>
<td>Main switch (heater)</td>
<td>–</td>
</tr>
<tr>
<td>Outdoor unit power supply (heater)</td>
<td>–</td>
</tr>
<tr>
<td>Indoor unit power supply (heater)</td>
<td>–</td>
</tr>
<tr>
<td>Outdoor unit</td>
<td>–</td>
</tr>
<tr>
<td>Indoor unit/outdoor unit</td>
<td>[3 x 1.5 (galvanized)]</td>
</tr>
<tr>
<td>Remote controller/circuit unit</td>
<td>[1 x 1.5, 1.5 x 1.5]</td>
</tr>
<tr>
<td>Indoor unit (heater)</td>
<td>[3 x 1.5, 3 x 1.5]</td>
</tr>
<tr>
<td>Indoor unit (heater)</td>
<td>[1 x 1.5, 1.5 x 1.5]</td>
</tr>
<tr>
<td>Remote controller (heater)</td>
<td>[1 x 1.5, 1.5 x 1.5]</td>
</tr>
<tr>
<td>Remote controller (heater)</td>
<td>–</td>
</tr>
</tbody>
</table>

* 1. A breaker with at least 3-mm contact separation in each pole shall be provided. Use non-fuse breaker (NF) or earth leakage breaker (NL).

[2] For 20-100 outdoor unit applications,
Max: 45 m

If 6.5 mm² used, Max: 30 m
If 6.5 mm² used and 53 separated, Max: 60 m
For PUHZ-PTP125/125/120/100 Y/A application, size of 185 mm². The shield part must be grounded with the indoor unit or the outdoor unit, NOT with both.

For 200/200 outdoor unit application,
Max: 18 m

If 6.5 mm² used, Max: 30 m
If 6.5 mm² used and 53 separated, Max: 60 m
If 6.5 mm² used and 53 separated, Max: 60 m

* The figures are NOT always against the ground. 53 terminal is DC 24 V against 52 terminal. However between 53 and 51, those terminals are not electrically isolated by the transformer or other device.

Notes:
1. Wiring size must comply with the applicable local and national code.
2. Power supply cords and indoor unit/outdoor unit connecting cords shall not be lighter than polyethylene sheathed flexible cord. (Design 245 IEC 57)
3. Install on earth longer than other cables.

6.1.2. Separate indoor unit/outdoor unit power supplies (For PUHZ application only)
The following connection patterns are available.
The outdoor unit power supply patterns vary on models.

1:1 System

<For models without heater>

* The optional wiring replacement kit is required.

<For models with heater>

* Affix a label B that is included with the manual near each wiring diagram for the indoor and outdoor units.

Simultaneous twin/triple/four system

<For models without heater>

* The optional wiring replacement kits are required.

<For models with heater>

* Affix a label B that is included with the manual near each wiring diagram for the indoor and outdoor units.
6. Electrical work

If the indoor and outdoor units have separate power supplies, refer to the table at the bottom. If the optional wiring replacement kit is used, change the indoor unit electrical box wiring referring to the figure in the right and the DIP switch settings of the outdoor unit control board.

<table>
<thead>
<tr>
<th>Indoor unit specifications</th>
<th>Indoor power supply terminal kit (option)</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indoor unit electrical box connector connection change</td>
<td>Required</td>
</tr>
<tr>
<td>Label attached near each wiring diagram for the indoor and outdoor units</td>
<td>Required</td>
<td></td>
</tr>
</tbody>
</table>

Outdoor unit DIP switch settings (when using separate indoor unit/indoor unit power supplies only)

<table>
<thead>
<tr>
<th></th>
<th>OFF</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW6</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* There are three types of labels (labels A, B, and C). Affix the appropriate labels to the units according to the wiring method.

---

6.2. Remote controller (Fig. 6-2)

For wired remote controller

1) Installing procedures

(1) Select an installing position for the remote controller.
(2) Prepare a hole through the wall to pass the remote controller cord (in order to run the remote controller cable from the back), then seal the hole with putty.
(3) Run the remote controller cord through the cut-out upper case, then seal the cut-out notch with putty similarly as above.

- To lead the remote controller cord from the back of the controller:
- To run the remote controller cord through the upper portion:

---

Notes:
1. Wiring size must comply with the applicable local and national code.
2. Power supply cables and indoor unit/indoor unit connecting cords shall not be lighter than polyvinylchloride sheathed flexible cord. (Design 245 REC 57)
3. Install an earth longer than other cables.

---

Fig. 6-2

Fig. 6-3

Fig. 6-4
6. Electrical work

2) Connecting procedures (Fig.6-6)
Connect the remote controller cord to the terminal block.

3) Two remote controller setting
If two remote controllers are connected, set one to "Main" and the other to "Sub". For setting procedures, refer to "Function selection of remote controller" in the operation manual for the indoor unit.

6.3. Function settings
6.3.1. Function setting on the unit (Fig. 6-6)
Changing the power voltage setting:
- Be sure to change the power voltage setting depending on the voltage used.
- Go to the function setting mode.
- Switch OFF the remote controller.
- Press the 0 and 1 buttons simultaneously and hold them for at least 2 seconds. FUNCTION will start to flash.
- Use the button to set the refrigerant address (01) to 00.
- Press [+] and [-] to start to flash in the unit number (01) display.
- Use the button to set the unit number (00) to 00.
- Press the MODE button to designate the refrigerant address/unit number. [-] will flash in the mode number (1) display momentarily.
- Press the button to set the mode number (1) to 04.
- Press the button and the current set number (2) will flash.
- Use the button to switch the setting number in response to the power supply voltage to be used.
- Power supply voltage 200 V, setting number = 1
- 200 V, 230 V, setting number = 2
- Press the MODE button 1 and mode and the setting number (1) and (2) will change to being on constantly and the contents of this setting can be confirmed.
- Press the FILTER (0) and TEST RUN (8) buttons simultaneously for at least two seconds. The function selection screen will disappear momentarily and the air conditioner OFF display will appear.

**Fig. 6-6**

### Function table

<table>
<thead>
<tr>
<th>Mode</th>
<th>Settings</th>
<th>Mode no.</th>
<th>Setting no.</th>
<th>Initial setting</th>
<th>setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power failure automatic recovery</td>
<td>Not available</td>
<td>01</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Indoor temperature detecting</td>
<td>Available</td>
<td>02</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Indoor unit operating average</td>
<td>03</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Remote controller's internal sensor</td>
<td>04</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Remote controller's internal sensor</td>
<td>05</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>LOSENAY connectivity</td>
<td>Supported (unit is not equipped with outdoor air intake)</td>
<td>01</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Supported (unit is equipped with outdoor air intake)</td>
<td>02</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>300 V</td>
<td>03</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>200 V, 230 V</td>
<td>04</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Energy saving cycle automatically enabled</td>
<td>05</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Energy saving cycle automatically disabled</td>
<td>06</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Select unit numbers 01 to 03 or all unit [No remote controller] 07 (when dual remote controllers) 07 (when dual remote controllers)

### Option table

<table>
<thead>
<tr>
<th>Mode</th>
<th>Settings</th>
<th>Mode no.</th>
<th>Setting no.</th>
<th>Initial setting</th>
<th>setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter sign</td>
<td>100%</td>
<td>07</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>200%</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Fan speed</td>
<td>Standard (PLH/PLP/A)</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard (PLH/PLP/A)</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High ceiling (PLH/PLP/A)</td>
<td>14</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>No. of air outlets</td>
<td>4 directions</td>
<td>09</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 directions</td>
<td>09</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Installed options (high-performance filter)</td>
<td>Not supported</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supported</td>
<td>11</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Up/down wind setting</td>
<td>No values</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equipped with vanes (variable angle setup 0)</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Energy setting air flow (steering mode)</td>
<td>Disabled</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*1 When the power supply returns, the air conditioner will start 5 minutes later.
*1 Power failure automatic recovery initial setting depends on the connecting outdoor unit.
7. Test run

7.1. Before test run

- After completing installation and the wiring and piping of the indoor and outdoor units, check for refrigerant leakage, looseness in the power supply or control wiring, wrong polarity, and no disconnection of one phase in the supply.
- Use a 500-volt megometer to check that the resistance between the power supply terminals and ground is at least 1.0 MΩ.

> Do not carry out this test on the control wiring (low voltage circuit) terminals.

> Warning:
> Do not use the air conditioner if the insulation resistance is less than 1.0 MΩ.

Insulation resistance

Fig. 7-1

- ON/OFF button
- Test run display
- Indoor temperature liquid line temperature display
- ON/OFF lamp
- Power display
- Error code display
- Test run remaining time display
- Set temperature button
- Mode selection button
- Fan speed button
- TEST button

7.2. Test run

The following 2 methods are available:

7.2.1. Using wired remote controller (Fig. 7-1)

- Turn on the power at least 12 hours before the test run.
- Press the [TEST] button below "TEST RUN" liquid crystal display.
- Press the [Mode selection] button. Make sure that the wind is blown out.
- Press the [Fan speed] button. Make sure that the wind speed is switched.
- Check operation of the outdoor unit fan.
- Release test run by pressing the [ON/OFF] button. Stop.
- Register a telephone number.

The telephone number of the repair shop, sales office, etc., to contact if an error occurs can be registered in the remote controller. The telephone number will be displayed when an error occurs. For registration procedures, refer to the operation manual for the indoor unit.

7.2.2. Using SW4 in outdoor unit

Refer to the outdoor unit installation manual.

7.3. Self-check (Fig. 7-2)

- Turn on the power.
- Press the [CHECK] button twice.
- Set refrigerant address with [TEMP] button if system control is used.
- Press the [ON/OFF] button to stop the self-check.

Fig. 7-2

- CHECK button
- Refrigerant address
- TEMPF button
- IC Indoor unit
- OCC Outdoor unit
- Check code
- Unit address

(Output pattern A) Errors detected by indoor unit

<table>
<thead>
<tr>
<th>Check code</th>
<th>Symptom</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Intake sensor error</td>
<td></td>
</tr>
<tr>
<td>P2, P3</td>
<td>Pipe (Liquid or 2-phase pipe) sensor error</td>
<td></td>
</tr>
<tr>
<td>E5, E7</td>
<td>Indoor/Outdoor unit communication error</td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td>Drain sensor error</td>
<td></td>
</tr>
<tr>
<td>P5</td>
<td>Drain pump error</td>
<td></td>
</tr>
<tr>
<td>P6</td>
<td>Freezing/Overheating safeguard operation</td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>Communication error between indoor and outdoor units</td>
<td></td>
</tr>
<tr>
<td>P8</td>
<td>Pipe temperature error</td>
<td></td>
</tr>
<tr>
<td>E4</td>
<td>Remote controller signal receiving error</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>F3</td>
<td>Indoor unit control system error (memory error, etc.)</td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>No corresponding</td>
<td></td>
</tr>
</tbody>
</table>
7. Test run

[Output pattern B] Errors detected by unit other than indoor unit (outdoor unit, etc.)

<table>
<thead>
<tr>
<th>Check code</th>
<th>Symptom</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>E9</td>
<td>Indoor/outdoor unit communication error (Transmitting error) (Outdoor unit)</td>
<td>For details, check the LED display of the outdoor controller board.</td>
</tr>
<tr>
<td>U3, U4</td>
<td>Compressor overcurrent interruption</td>
<td></td>
</tr>
<tr>
<td>U5</td>
<td>Compressor overcurrent interruption (When compressor is locked)</td>
<td></td>
</tr>
<tr>
<td>U6</td>
<td>Abnormal high discharge temperature/Too much/insufficient refrigerant</td>
<td></td>
</tr>
<tr>
<td>U7</td>
<td>Abnormal high pressure (SHM required)/Overheating safeguards operation</td>
<td></td>
</tr>
<tr>
<td>U8</td>
<td>Abnormal temperature of heat sink</td>
<td></td>
</tr>
<tr>
<td>U9</td>
<td>Outdoor unit ten safeguard step</td>
<td></td>
</tr>
<tr>
<td>U10</td>
<td>Compressor overcurrent interruption/Abnormal of power module</td>
<td></td>
</tr>
<tr>
<td>U11, UH</td>
<td>Abnormality of super heat due to low discharge temperature</td>
<td></td>
</tr>
<tr>
<td>U12, U13</td>
<td>Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Circuit sensor error</td>
<td></td>
</tr>
</tbody>
</table>

* Other errors (Refer to the technical manual for the outdoor unit)

* On wired remote controller Check code displayed in the LCD.

* If the unit cannot be operated properly after the above test run has been performed, refer to the following table to remove the cause.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>LED 1, 2 (PCB in outdoor unit)</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLEASE WAIT For about 2 minutes following power-on</td>
<td>After LED 1, 2 are lighted, LED 2 is turned off, then only LED 1 is lighted. (Correct operation)</td>
<td>For about 2 minutes following power-on, operation of the remote controller is not possible due to system start-up. (Correct operation)</td>
</tr>
<tr>
<td>PLEASE WAIT → Error code</td>
<td>After about 2 minutes has elapsed following power-on</td>
<td>Connector for the outdoor unit's protection device is not connected. Reverse or open phase wiring for the outdoor unit's power terminal block (L1, L2, L3).</td>
</tr>
</tbody>
</table>

Display messages do not appear even when operation switch is turned ON (operation lamp does not light up).

Only LED 1 is lighted. → LED 1, 2 blink.

Only LED 1 is lighted. → LED 1 blinks twice, LED 2 blinks once.

* Incorrect wiring between indoor and outdoor units (Incorrect polarity of S1, S2, S3)
* Remote controller wire short

Note:
Operation is not possible for about 30 seconds after cancellation of function selection. (Correct operation)

For description of each LED (LED 1, 2, 3) provided on the indoor controller, refer to the following table.

| LED 1 (power for microcomputer) | Indicates whether control power is supplied. Make sure that this LED is always lit. |
| LED 2 (power for remote controller) | Indicates whether power is supplied to the remote controller. This LED lights only in the case of the indoor unit which is connected to the outdoor unit refrigerant address "0". |
| LED 3 (communication between indoor and outdoor units) | Indicates state of communication between the indoor and outdoor units. Make sure that this LED is always blinked. |
8. Easy maintenance function

Display example (Comp discharge temperature 61°C)

By using the maintenance mode, you can display many types of maintenance data on the remote controller such as the heat exchanger temperature and compressor current consumption for the indoor and outdoor units.

This function can be used whether the air conditioner is operating or not.

During air conditioner operation, data can be checked during either normal operation or maintenance mode stable operation.

* This function cannot be used during the test run.

* The availability of this function depends on the connecting outdoor unit. Refer to the brochures.

Maintenance mode operation procedures

(1) Press the TEST button for three seconds to activate the maintenance mode.

(2) Press the TEMP (+ or -) buttons to set the refrigerant address.

(3) Select the data you want to display.

- Compressor information
- Outdoor unit information
- Indoor unit information

(4) Press the CLEAR button.

(5) The data is displayed.

- (Outdoor temperature display example)
  Display: 37°C

- (Indoor temperature display example)
  Display: 25°C

- (Filter operation time display example)
  Display: 1000 hours

- (Last 100 hours indoor operation)
  Display: 100 hours

* Repeat steps (2) to (5) to check another data.

(6) Press the TEST button for three seconds or press the CLEAR button to deactivate the maintenance mode.

Stable operation

Using this maintenance mode, the operation frequency can be fixed and the operation can be stabilized. If the air conditioner is stopped, use the following procedure to start this operation.

Press the COOL button to select the operation mode.

Press the DEL button.

Press the FILTR button.

Waiting for stable operation

Display: 0000

Stable operation

Display: 0000

* You can check the data using steps (9) to (10) of the maintenance mode operation procedure while waiting for the stable operation.