For safe and correct use, please read this installation manual thoroughly before installing the air-conditioner unit.
1. Safety precautions

- Be sure to read the "Safety Precautions" before installing the air conditioner.
- Be sure to observe the cautions specified here as they include important items related to safety.
- The indications and meanings are as follows.

**MEANINGS OF SYMBOLS ON THE UNIT**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️</td>
<td>Risk of fire</td>
</tr>
<tr>
<td>📚</td>
<td>Read the operation manual</td>
</tr>
<tr>
<td>🔄</td>
<td>Service personnel</td>
</tr>
</tbody>
</table>

**Symbols put on the unit**

- Indicates an action that must be avoided.
- Indicates that important instructions must be followed.
- Indicates a part which must be grounded.
- Indicates that caution should be taken with rotating parts.
- Indicates that the main switch must be turned off before servicing.
- Beware of electric shock.
- Beware of hot surface.

**Warning:**

- Do not install it by yourself (customer). The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Do not install the unit by yourself (customer).
- This appliance should be installed in a room which is equal to or larger than the floor space specified in the outdoor unit installation manual. Refer to the outdoor unit installation manual.
- Only use means recommended by the manufacturer to accelerate the defrosting process or to clean.
- This indoor unit shall be stored in a room that has no continuously-operating ventilation to remain in the lines.
- If air is mixed with the refrigerant, then it may cause abnormal high pressure in the refrigerator lines, resulting in an explosion and other hazards.
- The use of any refrigerant other than that specified for the system will cause mechanical failure, system malfunction, or unit breakdown. In the worst case, this could lead to a serious impediment to securing product safety.
- It may also be in violation of applicable laws.
- MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.

- Ventilate the room if refrigerant leaks during operation.
- If the refrigerant comes in contact with a flame, poisonous gases will be released.
- The installer and system specialist shall secure safety against leakage according to local regulation or standards.
- The instructions in this manual may be applicable if local regulation are not available.
- Pay special attention to the place, such as a basement, etc., where refrigeration can stay, since refrigeration is heavier than the air.
- When installing, relocating, or servicing the air conditioner, use only the specified refrigerant written on the outdoor unit to charge the refrigerant lines. Do not mix the refrigerant with any other refrigerant, and do not allow air to remain in the lines.

**CAUTION:**

- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

**SERVICE PERSONNEL:**

- Service personnel are required to carefully read the operation manual and installation manual before operation.

**Note:**

- The phrase "Wired remote controller" in this installation manual refers only to the PAR-40MAA. If you need any information for the other remote controller, please refer to the respective installation manual or initial setting manual which are included with the remote controller.
1. Safety precautions

- For installation and relocation work, follow the instructions in the installation manual and use tools and pipe components specifically made for using with refrigerant specified in the outdoor unit installation manual.
- If the air conditioner is installed in a small room or closed room, measures must be taken to prevent the refrigerant concentration in the room from exceeding the safety limit in the event of refrigerant leakage. Should the refrigerant leak and cause the concentration limit to be exceeded, hazards due to lack of oxygen in the room may result.

Caution:
- Perform grounding. Do not connect the ground wire to a gas pipe, water pipe arrester or telephone ground wire. Defective grounding could cause an electric shock.
- Do not install the unit in a place where an inflammable gas leaks. If gas leaks and accumulates in the area surrounding the unit, it could cause an explosion.
- Install a ground leakage breaker depending on the installation place (where it is humid). If a ground leakage breaker is not installed, it could cause an electric shock.
- Perform the drainage/piping work securely according to the installation manual. If there is a defect in the drainage/piping work, water could drop from the unit and household goods could be wet and damaged.
- Fasten a flare nut with a torque wrench as specified in this manual. When fastened too tight, a flare nut may break off after a long period and cause a leakage of refrigerant.

2. Selecting the installation location

2.1. Indoor unit

- Where airflow is not blocked.
- Where cool air spreads over the entire room.
- Where it is not exposed to direct sunshine.
- At a distance 1 m or more away from your TV and radio (to prevent picture from being distorted or noise from being generated).
- In a place as far away as possible from fluorescent and incandescent lights (so the infrared remote control can operate the air conditioner normally).

Warning: Mount the indoor unit into a ceiling strong enough to withstand the weight of the unit.

Caution: Avoid the following places for installation where air conditioner trouble is liable to occur.
- Where it is too much machine oil.
- Salty environment as seaside areas.
- Hot-spring areas.
- Where sulfide gas exists.
- Other special atmospheric areas.

2.2. Outdoor unit

- Where it is not exposed to strong wind.
- Where airflow is good and dustless.
- Where it is not exposed to rain and direct sunshine.
- Where neighbours are not annoyed by operation sound or hot air.
- Where rigid wall or support is available to prevent the increase of operation sound or vibration.
- Where there is no risk of combustible gas leakage.
- When installing the unit at a high level, be sure to fix the unit legs.
- Where it is at least 3 m away from the antenna of TV set or radio. (Otherwise, images would be distorted or noise would be generated.)

Install the unit horizontally.

3. Selecting an installation site & Accessories

- Select a site with sturdy fixed surface sufficiently durable against the weight of unit.
- Before installing unit, the routing to carry in unit to the installation site should be determined.
- Select a site where the unit is not affected by entering air.
- Select a site where the flow of supply and return air is not blocked.
- Select a site where refrigerant piping can easily be led to the outside.
- Select a site which allows the supply air to be distributed fully in room.
- Do not install unit at a site with oil splashing or steam in much quantity.
- Do not install unit at a site where combustible gas may generate, flow in, stagnate or leak.
- Do not install unit at a site where equipment generating high frequency waves (a high frequency wave welder for example) is provided.
- Do not install unit at a site where fire detector is located at the supply air side. (Fire detector may operate erroneously dew to the heated air supplied during heating operation.)
- When special chemical product may scatter around such as site chemical plants and hospitals, full investigation is required before installing unit. (The plastic components may be damaged depending on the chemical product applied.)
- If the unit is run for long hours when the air above the ceiling is at high temperature/high humidity (dew point above 28 °C), dew condensation may be produced in the indoor unit. When operating the units in this condition, add insulation material (10-20 mm) to the entire surface of the indoor unit to avoid dew condensation.

3.1. Install the indoor unit on a ceiling strong enough to sustain its weight

Warning: The unit must be securely installed on a structure that can sustain its weight. If the unit is mounted on an unstable structure, it may fall down causing injuries.

3.2. Securing installation and service space

Secure enough access space to allow for the maintenance, inspection, and replacement of the motor, fan, drain pump, heat exchanger, and electric box in one of the following ways:

Select an installation site for the indoor unit so that its maintenance access space will not be obstructed by beams or other objects.
3. Selecting an installation site & Accessories

![Fig. 3-2-2](Viewed from the direction of the arrow Z)

![Fig. 3-2-4](Viewed from the direction of the arrow Y)

**Warning:**
- This unit should be installed in rooms which exceed the floor space specified in outdoor unit installation manual. Refer to outdoor unit installation manual.
- Install the indoor unit at least 2.5m above floor or ground level. For appliances not accessible to the general public.
- Refrigerant pipes connection shall be accessible for maintenance purpose.

3.3. Indoor unit accessories

The unit is provided with the following accessories:

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Washer (with cushion)</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Washer (without cushion)</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Socket</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Pipe cover (small)</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Pipe cover (large)</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Band</td>
<td>7</td>
</tr>
</tbody>
</table>

4. Fixing hanging bolts

4.1. Fixing hanging bolts

![Fig. 4-1](Give site of suspension strong structure.)

**Hanging structure**
- Ceiling: The ceiling structure varies from building to one another. For detailed information, consult your construction company.
- If necessary, reinforce the hanging bolts with anti-quake supporting members as countermeasures against earthquakes.
  * Use M10 for hanging bolts and anti-quake supporting members (field supply).
  * Reinforcing the ceiling with additional members (edge beam, etc.) must be required to keep the ceiling at level and to prevent the ceiling from vibrations.
  * Cut and remove the ceiling members.
  * Reinforce the ceiling members, and add other members for fixing the ceiling boards.
5. Installing the unit

5.1. Moving the unit to ceiling space

(1) When the fan unit does not need to be separated from the coil unit
   ① Bring the indoor unit to an installation site as it is packed.
   ② To hang the indoor unit, use a lifting machine to lift and pass through the hanging bolts. [Fig. 5-1-1]

(2) When the fan unit needs to be separated from the coil unit
   ① Bring the indoor unit to an installation site as it is packed.
   ② Before separating the fan unit from the coil unit, remove the inlet flange and the control box cover to remove the cable of the heat exchanger thermistor. [Fig. 5-1-2]

③ Remove the connector (CN44) of the thermistor cable from the circuit board, thread the thermistor cable through the rubber bush of the control box and the connection flange, and place the thermistor in the connection flange. [Fig. 5-1-3]
5. Installing the unit

④ Remove all the screws Ⓐ through ⓦ connected to the coil unit from inside of the fan box to separate the fan unit. Screw holes Ⓐ and Ⓑ shown in Fig. 5-1-4 are double-snowman-shaped. Do not unscrew the screws Ⓐ and Ⓑ all the way; only loosen them partway. To separate the fan unit from the coil unit, lift the fan unit and move it away from the coil unit. The coil unit has an insulation material attached to its bottom (on the drain-pan side). Do not drag the coil unit when moving it. [Fig. 5-1-4]

⑤ After moving the unit to the ceiling space, thread the screws Ⓑ and Ⓒ through the double-snowman-shaped holes on the fan unit, and re-tighten the screws Ⓐ through Ⓒ to connect the fan unit and the coil unit.

⑥ Reconnect the thermistor cable to the circuit board, and close the control box cover.

⑦ Attach the inlet flange to the inlet so that the oval protrusions face outside the unit. Tighten the inlet flange screws to a torque no greater than 1.4 Nm. [Fig. 5-1-5]

5.2. Hanging the unit body

1. Attach a washer and nut(s) to each suspension bolt. (The nuts are to be supplied locally.)
2. Fit the indoor unit to each suspension bolt.
3. Make sure that the unit is positioned level, then tighten each nut. [Fig. 5-2-1]

5.3. Confirming the unit’s position and fixing hanging bolts

- Use the gage supplied with the panel to confirm that the unit body and hanging bolts are positioned in place. If they are not positioned in place, it may result in dew drops due to wind leak. Be sure to check the positional relationship.
- Install the unit horizontally, using a level. Ensure that the hanging bolt nuts are tightened to fix the hanging bolts.
- To ensure that drain is discharged, be sure to hang the unit at level using a level.

⚠️ Caution: Do not suspend either the fan unit or the coil unit alone. The two units must be connected to each other before being suspended.

⚠️ Caution: Be sure to install the unit body at level.
6. Refrigerant piping work

6.1. Refrigerant pipe

[Fig. 6-1]

- Indoor unit
- Outdoor unit

<table>
<thead>
<tr>
<th>Model</th>
<th>Pipe</th>
<th>Outside diameter</th>
<th>Min wall thickness</th>
<th>Insulation thickness</th>
<th>Insulation material</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEA-M100,</td>
<td>For liquid</td>
<td>ø9.52</td>
<td>3/8</td>
<td>0.8 mm</td>
<td>8 mm</td>
</tr>
<tr>
<td>125, 140</td>
<td>For gas</td>
<td>ø15.88</td>
<td>5/8</td>
<td>1.0 mm</td>
<td>8 mm</td>
</tr>
</tbody>
</table>

Refer to the Instruction Manual that came with the outdoor unit for the restrictions on the height difference between units and for the amount of additional refrigerant charge.

Avoid the following places for installation where air conditioner trouble is liable to occur.
- Where there is too much oil such as for machine or cooking.
- Salty environment as seaside areas.
- Hot-spring areas.
- Where sulfide gas exists.
- Other special atmospheric areas.

This unit has flared connections on both indoor and outdoor sides. [Fig. 6-1]

- Insulate both refrigerant and drainage piping completely to prevent condensation.

Piping preparation
- Refrigerant pipes of 3, 5, 7, 10 and 15 m are available as optional items.

(1) Table below shows the specifications of pipes commercially available.

(2) Ensure that the 2 refrigerant pipes are well insulated to prevent condensation.

(3) Refrigerant pipe bending radius must be 10 cm or more.

Caution:
Using careful insulation of specified thickness. Excessive thickness prevents storage behind the indoor unit and smaller thickness causes dew drippage.

6.2. Flaring work

- Main cause of gas leakage is defect in flaring work.

Carry out correct flaring work in the following procedure.

6.2.1. Pipe cutting

[Fig. 6-2-1]

- Using a pipe cutter cut the copper tube correctly.

6.2.2. Burrs removal

[Fig. 6-2-2]

- Completely remove all burrs from the cut cross section of pipetube.
- Put the end of the copper tube/pipe to downward direction as you remove burrs in order to avoid burrs drop in the tubing.

6.2.3. Putting on

[Fig. 6-2-3]

- Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.
- (not possible to put them on after flaring work)
- Use the flare nut included with this indoor unit.

6.2.4. Flaring work

[Fig. 6-2-4]

- Carry out flaring work using flaring tool.

(1) Table below shows the specifications of pipes commercially available.

<table>
<thead>
<tr>
<th>Pipe diameter (mm)</th>
<th>A (mm)</th>
<th>B (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø9.52</td>
<td>22-34</td>
<td>34-42</td>
</tr>
<tr>
<td>ø15.88</td>
<td>29-68</td>
<td>68-82</td>
</tr>
</tbody>
</table>

Firmly hold copper tube in a die in the dimension shown in the table above.
- When reconnecting the detached refrigerant pipes, make sure to flare them again.

6.2.5. Check

[Fig. 6-2-5]

- Compare the flared work with a figure in right side hand.
- If flare is noted to be defective, cut off the flared section and do flaring work again.

6.3. Pipe connection

[Fig. 6-3-1]

- Apply a thin coat of refrigeration oil on the seat surface of pipe.
- For connection first align the center, then tighten the first 3 to 4 turns of flare nut.
- Use tightening torque table below as a guideline for indoor unit side union joint section, and tighten using two wrenches. Excessive tightening damages the flare section.

<table>
<thead>
<tr>
<th>Copper pipe O.D. (mm)</th>
<th>Flare nut O.D. (mm)</th>
<th>Tightening torque (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø9.52</td>
<td>22</td>
<td>34 - 42</td>
</tr>
<tr>
<td>ø15.88</td>
<td>29</td>
<td>68 - 82</td>
</tr>
</tbody>
</table>
6. Refrigerant piping work

**Warning:**
Be careful of flying flare nut (Internally pressurized)

Remove the flare nut as follows:
1. Loosen the nut until you hear a hissing noise.
2. Do not remove the nut until the gas has been completely released (i.e., hissing noise stops).
3. Check that the gas has been completely released, and then remove the nut.

**Outdoor unit connection**
Connect pipes to stop valve pipe joint of the outdoor unit in the same manner applied for indoor unit.
• For tightening use a torque wrench or spanner, and use the same tightening torque applied for indoor unit.

**Refrigerant pipe insulation**
• After connecting refrigerant piping, insulate the joints (flared joints) with thermal insulation tubing.

**Cautions On Refrigerant Piping**
▶ Be sure to use non-oxidative brazing for brazing to ensure that no foreign matter or moisture enter into the pipe.
▶ Be sure to apply refrigerating machine oil over the flare connection seating surface and tighten the connection using a double spanner.
▶ Provide a metal brace to support the refrigerant pipe so that no load is imparted to the indoor unit end pipe. This metal brace should be provided 50 cm away from the indoor unit’s flare connection.

**6.4. Purging procedures leak test**

**PURGING PROCEDURES**

Connect the refrigerant pipes (both the liquid and gas pipes) between the indoor and the outdoor units.

Remove the service port cap of the stop valve on the side of the outdoor unit gas pipe. (The stop valve will not work in its initial state fresh out of the factory (totally closed with cap on).)

Connect the gage manifold valve and the vacuum pump to the service port of the stop valve on the gas pipe side of the outdoor unit.

Run the vacuum pump. (Vacuumize for more than 15 minutes.)

Check the vacuum with the gage manifold valve, then close the gage manifold valve, and stop the vacuum pump.

Leave it as is for one or two minutes. Make sure the pointer of the gage manifold valve remains in the same position. Confirm that the pressure gage show -0.101MPa (-760 mmHg).

**6.5. Drain piping work**

**[Fig. 6-5]**

- Pipe cover (small) (accessory)
- Caution: Pull out the thermal insulation on the refrigerant piping at the site, install the flare nut to flare the end, and replace the insulation in its original position.
- Liquid end of refrigerant piping
- Gas end of refrigerant piping
- Site refrigerant piping
- Main body
- Pipe cover (large) (accessory)
- Thermal insulation (field supply)
- Pull

1. Remove and discard the rubber bung which is inserted in the end of the unit piping.
2. Flare the end of the site refrigerant piping.
3. Pull out the thermal insulation on the site refrigerant piping and replace the insulation in its original position.

**Cautions On Refrigerant Piping**
- Be sure to use non-oxidative brazing for brazing to ensure that no foreign matter or moisture enter into the pipe.
- Be sure to apply refrigerating machine oil over the flare connection seating surface and tighten the connection using a double spanner.
- Provide a metal brace to support the refrigerant pipe so that no load is imparted to the indoor unit end pipe. This metal brace should be provided 50 cm away from the indoor unit’s flare connection.

**Pipe length**

- 7 m maximum
- No gas charge is needed.

**Pipe length exceeding 7 m**

- Charge the prescribed amount of gas.

Tighten the cap to the service port to obtain the initial status.
Retighten the cap
Leak test

Pipe length : 7 m maximum
No gas charge is needed.

Pipe length exceeding 7 m
Charge the prescribed amount of gas.
7. Duct work

- In connecting duct, insert canvas duct between unit and duct.
- Use incombustible material for duct parts.
- Provide full insulation to inlet duct flange, outlet duct flange and outlet duct to prevent condensation.
- Be sure to apply the air filter near the air inlet grille.
- Before connecting an inlet duct, install the air filter in the inlet grille.

Caution:
- Inlet duct of 850 mm or more should be constructed.
- To connect the air conditioner main body and the duct for potential equalization.
- To reduce the risk of injury from metal sheet edges, wear protective gloves.
- Install sufficient thermal insulation to prevent condensation forming on outlet duct flanges and outlet ducts.
- To avoid electrical noise interference, do not run transmission lines at the bottom of the unit.
- To prevent damage to the inlet flange, install the duct so that a load of 3 kg or heavier will not be applied to the inlet flange. ([Fig. 7-1-2])
- The return-air-temperature thermistor is located directly behind the control box and senses the temperature of the air passing through the flange closest to the control box.

8. Electrical work

8.1. Power supply

8.1.1. Indoor unit power supplied from outdoor unit

<table>
<thead>
<tr>
<th>Indoor unit model</th>
<th>PEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor unit power supply (Heater)</td>
<td>—</td>
</tr>
<tr>
<td>Indoor unit power supply (Heater) earth</td>
<td>—</td>
</tr>
<tr>
<td>Indoor unit-outdoor unit</td>
<td>3 x 1.5 (polar)</td>
</tr>
<tr>
<td>Indoor unit-Outdoor unit earth</td>
<td>1 x Min. 1.5</td>
</tr>
<tr>
<td>Remote controller-outdoor unit</td>
<td>*1 2 x 0.3 (Non-polar)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circuit</th>
<th>PEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor unit (Heater) L-N</td>
<td>*2 —</td>
</tr>
<tr>
<td>Indoor unit-Outdoor unit S1-S2</td>
<td>*2 230 V AC</td>
</tr>
<tr>
<td>Indoor unit-Outdoor unit S2-S3</td>
<td>*2 24 V DC</td>
</tr>
<tr>
<td>Remote controller-indoor unit</td>
<td>*2 14 V DC</td>
</tr>
</tbody>
</table>

*1. The 10 m wire is attached in the remote controller accessory. Max. 500 m
*2. The figures are NOT always against the ground.

S3 terminal has 24 V DC against S2 terminal. However between S3 and S1, these terminals are not electrically insulated by the transformer or other device.
8. Electrical work

2. Open knockout holes
   (Recommend to use a screwdriver or the like for this work.)
   [Fig. 8-2-2]

3. Fix indoor unit/outdoor unit connecting wire to terminal block box by using buffer
   bushing for tensile force. (PG connection or the like.) Connect remote controller
cable to terminal block through the knockout hole of terminal block box using
ordinary bushing.
   [Fig. 8-2-3]

4. After wiring is complete, make sure again that there is no slack on the
   connections, and attach the cover onto the terminal block box in the reverse
   order of removal.

   Warning:
   • Attach the electrical part cover securely. If it is attached incorrectly, it could
     result in a fire, electric shock due to dust, water, etc.
   • Use the specified indoor/outdoor unit connecting wire to connect the
     indoor and outdoor units and fix the wire to the terminal block securely so
     that no stress is applied to the connecting section of the terminal block.
     Incomplete connection or fixing of the wire could result in a fire.
   • Do not pinch the cables or wires when attaching the terminal block box
     cover. Doing so may cause a risk of disconnection.

   • When accommodating the terminal block box, make sure that the connectors
     on the box side are not removed. If removed, it cannot operate normally.
   [Fig. 8-2-5]

5. Use PG bushing to keep the weight of the cable and external force from being
   applied to the power supply terminal connector. Use a cable tie to secure the cable.
   [Fig. 8-2-4]

6. Terminal block for indoor unit

8.3. Remote controller (wireless remote controller (option))

8.3.1. For wireless remote controller (option)

1) Installation area
   • Area in which the remote controller is not exposed to direct sunshine.
   • Area in which there is no near by heating source.
   • Area in which the remote controller is not exposed to cold (or hot) winds.
   • Area in which the remote controller can be operated easily.
   • Area in which the remote controller is beyond the reach of children.

   * The signal can travel up to approximately 7 meters (in a straight line) within 45 degrees to
     both right and left of the center line of the receiver.
   * Connect the infrared remote controller signal receiver sensor to the circuit board on the A-side.

2) Installing procedures
   Refer to the installation manual that comes with each remote controller for details.

8.3.2. Signal Receiving Unit

1) Sample system connection
   [Fig. 8-3-1]
8. Electrical work

1. Connecting to Mr. SLIM air conditioner

(1) Standard 1:1
① Connecting the signal receiving unit
Connect the signal receiving unit to the CN90 (Connect to the wireless remote controller board) on the indoor unit using the supplied remote controller wire. Connect the signal receiving units to all the indoor units.

2) Installing procedures
Refer to the installation manual that comes with each remote controller for details.

8.3.3. Setting

1) Setting the pair number switch
[Fig. 8-3-2]

1. Setting method
Assign the same pair number to the wireless remote controller as that of the indoor unit. If not doing so, the remote controller cannot be operated. Refer to the installation manual that came with the wireless remote controller for how to set pair numbers of wireless remote controllers.

Position of daisy wire on the controller circuit board on the indoor unit.

Controller circuit board on the indoor unit (reference) [Fig. 8-3-2]
① CN90: Connector for remote controller wire connection
For pair number settings, the following 4 patterns (A-D) are available.

<table>
<thead>
<tr>
<th>Pair number setting pattern</th>
<th>Pair number on remote controller side</th>
<th>Indoor controller circuit board side Point where the daisy wire is disconnected</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>Not disconnected</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>J41 disconnected</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>J42 disconnected</td>
</tr>
<tr>
<td>D</td>
<td>3~9</td>
<td>J41 and J42 disconnected</td>
</tr>
</tbody>
</table>

2. Setting example
(1) To use the units in the same room
[Fig. 8-3-3]
① Separate setting
Assign a different pair number to each indoor unit to operate each indoor unit by its own wireless remote controller.

[Fig. 8-3-4]
② Single setting
Assign the same pair number to all the indoor units to operate all the indoor units by a single wireless remote controller.

[Fig. 8-3-5]
(2) To use the units in different rooms
Assign the same pair number to the wireless remote controller as that of the indoor unit. (Leave the setting as it is at purchase.)

2) Setting the Model No.
[Fig. 8-3-6]

1. Insert batteries.
2. Press the SET button with something sharp at the end.
3. Press the temp [ ] button to set the Model No.
4. Press the SET button with something sharp at the end.

Indoor Unit Model  PEA 019
Model No. 019

8.4. Function settings
8.4.1 For wired remote controller
[Fig. 8-4-1]
① Select “Service” from the Main menu, and press the [SELECT] button.
② Select “Function setting” with the [F1] or [F2] button, and press the [SELECT] button.

F1 F2 F3 F4

③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳

• Set the indoor unit refrigerant addresses and unit numbers with the [F1] through [F4] buttons, and then press the [SELECT] button to confirm the current setting.

<Checking the Indoor unit No.>
When the [SELECT] button is pressed, the target indoor unit will start fan operation. If the unit is common or when running all units, all indoor units for the selected refrigerant address will start fan operation.
8. Electrical work

1) Changing the external static pressure setting.
   • Be sure to change the external static pressure setting depending on the duct and the grill used.
   ① Go to the function select mode
      Press the CHECK button ⑥ twice continuously. (Start this operation from the status of remote controller display turned off.)
      Press the TEMP button ⑥ once to set “50”. Direct the wireless remote controller toward the receiver of the indoor unit and press the Hour button ⑤.
   ② Setting the unit number
      Press the TEMP button ⑥ and ⑤ to set the unit number to 07. Direct the wireless remote controller toward the receiver of the indoor unit and press the Minute button ⑥.
   ③ Selecting a mode
      Enter 08 to change the external static pressure setting using the ⑥ and ⑤ buttons.
      Direct the wireless remote controller toward the receiver of the indoor unit and press the Hour button ⑤.
      Current setting number: 1 = 1 beep (one second) 2 = 2 beeps (one second each) 3 = 3 beeps (one second each)
   ④ Selecting the setting number
      Use the ⑥ and ⑤ buttons to change the external static pressure setting to be used.
      Direct the wireless remote controller toward the sensor of the indoor unit and press the Hour button ⑤.
   ⑤ To set the external static pressure
      Repeat steps ① and ④ to set the mode number to 10.
   ⑥ Complete function selection
      Direct the wireless remote controller toward the sensor of the indoor unit and press the ON/OFF button ⑥.

   Note:
   • Whenever changes are made to the function settings after installation or maintenance, be sure to record the changes with a mark in the “Check” column of the Function table.

2) For wireless remote controller [Fig. 8-4-6]

3) Changing the power voltage setting (Function table 1)
   • Be sure to change the power voltage setting depending on the voltage used.

   Function table 1
   Select unit number 00

<table>
<thead>
<tr>
<th>Mode</th>
<th>Settings</th>
<th>Mode no.</th>
<th>Setting no.</th>
<th>Initial setting</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power failure automatic recovery*1 (AUTO RESTART FUNCTION)</td>
<td>Not available</td>
<td>01</td>
<td>1</td>
<td>O</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Available</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indoor temperature detecting</td>
<td>Indoor unit operating average</td>
<td>02</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set by indoor unit’s remote controller</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remote controller’s internal sensor</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOSSNAY connectivity</td>
<td>Not Supported</td>
<td>03</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supported (indoor unit is not equipped with outdoor-air intake)</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supported (indoor unit is equipped with outdoor-air intake)</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power voltage</td>
<td>240V</td>
<td>04</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>220V, 230V</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto mode</td>
<td>Energy saving cycle automatically enabled</td>
<td>05</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy saving cycle automatically disabled</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Electrical work

Function table 2
Select unit number AL [wired remote controller]/07 [wireless remote controller]

<table>
<thead>
<tr>
<th>Mode</th>
<th>Settings</th>
<th>Mode no.</th>
<th>Setting no.</th>
<th>Initial setting</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter sign</td>
<td>100 Hr</td>
<td>07</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2500 Hr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No filter sign indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

External static pressure

| External static pressure | Setting no. of mode no. 08 | Setting no. of mode no. 10 | 08 | 1 | O | 1 | 2 | 3 | 10 | 2 | 3 |
|--------------------------|---------------------------|---------------------------|----|---|---|----|---|---|-----|---|---|---|
| 50 Pa | 1 | 1 | | | | |
| 100 Pa | 2 | 1 | | | | |
| 150 Pa | 3 | 1 | | | | |

*1 When the power supply returns, the air conditioner will start 3 minutes later.

Note: When the function of an indoor unit were changed by function selection after the end of installation, always indicate the contents by entering a O or other mark in the appropriate check filed of the tables.

9. Test run

9.1. 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 megohmmeter 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

After installation or after the power source to the unit has been cut for an extended period, the insulation resistance will drop below 1 MΩ due to refrigerant accumulating in the compressor. This is not a malfunction. Perform the following procedures.

1. Remove the wires from the compressor and measure the insulation resistance of the compressor. If the insulation resistance is below 1 MΩ, the compressor is faulty or the resistance dropped due to the accumulation of refrigerant in the compressor.

2. After “startup” is displayed, the compressor will start to warm up after power is supplied. After supplying power for the times indicated below, measure the insulation resistance again.

- The insulation resistance drops due to accumulation of refrigerant in the compressor. The resistance will rise above 1 MΩ after the compressor is warmed up for two to three hours. (The time necessary to warm up the compressor varies according to atmospheric conditions and refrigerant accumulation.)
- To operate the compressor with refrigerant accumulated in the compressor, the compressor must be warmed up at least 12 hours to prevent breakdown.

3. After connecting the wires to the compressor, the compressor will start to warm up after power is supplied. After supplying power for the times indicated below, measure the insulation resistance again.

- The insulation resistance drops due to accumulation of refrigerant in the compressor. The resistance will rise above 1 MΩ after the compressor is warmed up for two to three hours. (The time necessary to warm up the compressor varies according to atmospheric conditions and refrigerant accumulation.)
- To operate the compressor with refrigerant accumulated in the compressor, the compressor must be warmed up at least 12 hours to prevent breakdown.

4. If the insulation resistance rises above 1 MΩ, the compressor is not faulty.

Caution:

- The compressor will not operate unless the power supply phase connection is correct.
- Turn on the power at least 12 hours before starting operation.
- Starting operation immediately after turning on the main power switch can result in severe damage to internal parts. Keep the power switch turned on during the operational season.

9.2. Test run

9.2.1. Using wired remote controller (option)

Make sure to read operation manual before test run. (Especially items to secure safety)

Step 1 Turn on the power.

- Remote controller: The system will go into startup mode, and the remote controller power lamp (green) and “PLEASE WAIT” will blink. While the lamp and message are blinking, the remote controller cannot be operated. Wait until “PLEASE WAIT” is not displayed before operating the remote controller. After the power is turned on, “PLEASE WAIT” will be displayed for approximately 2 minutes.
- Indoor controller board: LED 1 will be lit up, LED 2 will be lit up (if the address is 0) or off (if the address is not 0), and LED 3 will blink.
- Outdoor controller board: LED 1 (green) and LED 2 (red) will be lit up. (After the startup mode of the system finishes, LED 2 will be turned off.) If the outdoor controller board uses a digital display, [-] and [ ] will be displayed alternately every second.

If the operations do not function correctly after the procedures in step 2 and thereafter are performed, the following causes should be considered and eliminated if they are found.

(The symptoms below occur during the test run mode. “Startup” in the table means the LED display written above.)

<table>
<thead>
<tr>
<th>Symptoms in test run mode</th>
<th>Remote Controller Display</th>
<th>OUTDOOR BOARD LED Display</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote controller displays “PLEASE WAIT”, and cannot be operated.</td>
<td>After “startup” is displayed, green lights up. &lt;00&gt;</td>
<td>After “startup” is displayed, only green lights up. &lt;00&gt;</td>
<td></td>
</tr>
<tr>
<td>After power is turned on, “PLEASE WAIT” is displayed for 3 minutes, then error code is displayed.</td>
<td>After “startup” is displayed, green (once) and red (once) blink alternately. &lt;F1&gt;</td>
<td>After “startup” is displayed, green (once) and red (twice) blink alternately. &lt;F3, F5, F9&gt;</td>
<td>Incorrect connection of outdoor terminal block. (R, S, T and S1, S2, S3)</td>
</tr>
<tr>
<td>No display appears even when remote controller operation switch is turned on. (Operation lamp does not light up.)</td>
<td>After “startup” is displayed, green (twice) and red (once) blink alternately. &lt;EA, Eb&gt;</td>
<td>After “startup” is displayed, green lights up. &lt;00&gt;</td>
<td>Incorrect wiring between the indoor and outdoor unit. (Polarity is wrong for S1, S2, S3)</td>
</tr>
<tr>
<td>Display appears but soon disappears even when remote controller is operated.</td>
<td>After “startup” is displayed, only green lights up. &lt;00&gt;</td>
<td>After canceling function selection, operation is not possible for about 30 seconds. (Normal)</td>
<td>Remote controller transmission wire short.</td>
</tr>
</tbody>
</table>

13
9. Test run

Step 2 Switch the remote controller to “Test run”.

① Select “Test run” from the Service menu, and press the [SELECT] button. [Fig. 9-2-1]

② Select “Test run” from the Test run menu, and press the [SELECT] button. [Fig. 9-2-2]

The test run operation starts, and the Test run operation screen is displayed.

Step 3 Perform the test run and check the airflow temperature.

① Press the [F1] button to change the operation mode. [Fig. 9-2-3]

Cooling mode: Check that cool air blows from the unit.
Heating mode: Check that warm air blows from the unit.

Step 4 Confirm the operation of the outdoor unit fan.

The speed of the outdoor unit fan is controlled in order to control the performance of the unit. Depending on the ambient air, the fan will rotate at a slow speed and will keep rotating at that speed unless the performance is insufficient. Therefore, the outdoor wind may cause the fan to stop rotating or to rotate in the opposite direction, but this is not a problem.

Step 5 Stop the test run.

① Press the [ON/OFF] button to stop the test run. (The Test run menu will appear.)

Note: If an error is displayed on the remote controller, see the table below.

For description of each check code, refer to the following table.

<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>Each unit has two each of the following: intake sensors, liquid pipe sensors, 2-phase pipe sensors, and fan motors. When a problem occurs with one of any of the items above, an error code (P1, P2, P8, or P9) will appear. When an error code appears, check both of the items.</td>
</tr>
<tr>
<td>P2, P9</td>
<td>Pipe (Liquid or 2-phase pipe) sensor error</td>
<td></td>
</tr>
<tr>
<td>E6, 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>PA</td>
<td>Forced compressor 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>Pb</td>
<td>Indoor unit control system error (memory error, etc.)</td>
<td></td>
</tr>
<tr>
<td>E0, E3</td>
<td>Remote controller transmission error</td>
<td></td>
</tr>
<tr>
<td>E1, E2</td>
<td>Remote controller control board error</td>
<td></td>
</tr>
<tr>
<td>E9</td>
<td>Indoor/outdoor unit communication error (Transmitting error) (Outdoor unit)</td>
<td></td>
</tr>
<tr>
<td>UP</td>
<td>Compressor overcurrent interruption</td>
<td></td>
</tr>
<tr>
<td>U3, U4</td>
<td>Open/short of outdoor unit thermostats</td>
<td></td>
</tr>
<tr>
<td>UF</td>
<td>Compressor overcurrent interruption (When compressor locked)</td>
<td></td>
</tr>
<tr>
<td>L1, Ld</td>
<td>Abnormal high pressure (63H worked)/Overheating safeguard operation</td>
<td></td>
</tr>
<tr>
<td>L5</td>
<td>Abnormal temperature of heat sink</td>
<td></td>
</tr>
<tr>
<td>U8</td>
<td>Outdoor unit fan safeguard stop</td>
<td></td>
</tr>
<tr>
<td>U6</td>
<td>Compressor overcurrent interruption/Abnormal of power module</td>
<td></td>
</tr>
<tr>
<td>U7</td>
<td>Abnormality of super heat due to low discharge temperature</td>
<td></td>
</tr>
<tr>
<td>U9, UH</td>
<td>Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Current sensor error</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Other errors (Refer to the technical manual for the outdoor unit.)</td>
<td></td>
</tr>
</tbody>
</table>

- For wired remote controller

① Check code displayed in the LCD.

For details, check the LED display of the outdoor controller board.
9. Test run

9.3. Test run

9.3.1. Using wireless remote controller (option)

[Fig. 9-3]

(Output pattern A) Errors detected by indoor unit

<table>
<thead>
<tr>
<th>Beeper sounds/OPERATION INDICATOR lamp flashes (Number of times)</th>
<th>Symptom</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P1 Intake sensor error</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>P2, P9 Pipe (Liquid or 2-phase pipe) sensor error</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>E6, E7 Indoor/outdoor unit communication error</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>P4 Drain sensor error</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>P5 Drain pump error</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>P6 Freezing/Overheating safeguard operation</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>EE Communication error between indoor and outdoor units</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>P8 Pipe temperature error</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>E4 Remote controller signal receiving error</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>– –</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>PB Fan motor error</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Fb Indoor unit control system error (memory error, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

No sound – – No corresponding

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

<table>
<thead>
<tr>
<th>Wireless remote controller</th>
<th>Symptom</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</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>2</td>
<td>Compressor overcurrent interruption</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Open/short of outdoor unit thermostats</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Compressor overcurrent interruption (When compressor locked)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Abnormal high discharging temperature/49C worked/insufficient refrigerant</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Abnormal high pressure (63H worked)/Overheating safeguard operation</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Abnormal temperature of heat sink</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Outdoor unit fan protection stop</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Compressor overcurrent interruption/Abnormal of power module</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Abnormality of super heat due to low discharge temperature</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Current sensor error</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Other errors (Refer to the technical manual for the outdoor unit)</td>
<td></td>
</tr>
</tbody>
</table>

*1 If the beeper does not sound again after the initial two beeps to confirm the self-check start signal was received and the OPERATION INDICATOR lamp does not come on, there are no error records.

*2 If the beeper sounds three times continuously “beep, beep, beep (0.4 + 0.4 + 0.4 sec.)” after the initial two beeps to confirm the self-check start signal was received, the specified refrigerant address is incorrect.

- On wireless remote controller
  The continuous buzzer sounds from receiving section of indoor unit.
  Blink of operation lamp
- On wired remote controller
  Check code displayed on the LCD.
- Check that all LEDs on the two control boards on the indoor unit are lit or blinking (3 each, 6 total).

Turn on the power to the unit at least 12 hours before the test run.
Press the TEST RUN button twice continuously. (Start this operation from the status of remote controller display turned off.)
Press the MODE button to activate COOL mode, then check whether cool air is blown out from the unit.
Press the MODE button to activate HEAT mode, then check whether warm air is blown out from the unit.
Press the FAN button and check whether fan speed changes.
Press the ON/OFF button to stop the test run.

Note:
- Point the remote controller towards the indoor unit receiver while following steps 2 to 6.
- It is not possible to run the in FAN, DRY or AUTO mode.

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button

Diagram:
- TEST RUN button
- MODE button
- FAN button
- VANE button
9. Test run

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>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wired remote controller LED 1, 2 (PCB in outdoor unit)</td>
<td>For about 2 minutes following power-on, only LED 1 is lighted. (Correct operation)</td>
</tr>
<tr>
<td>PLEASE WAIT</td>
<td>For about 2 minutes after 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>Reverse or open phase wiring for the outdoor unit’s power terminal block (L1, L2, L3)</td>
</tr>
<tr>
<td>Display messages do not appear even when operation switch is turned ON (operation lamp does not light up)</td>
<td>Incorrect wiring between indoor and outdoor units (incorrect polarity of S1, S2, S3)</td>
</tr>
</tbody>
</table>

On the wireless remote controller with conditions above, following phenomena takes place.

• No signals from the remote controller are accepted.
• OPE lamp is blinking.
• The buzzer makes a short ping sound.

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

For description of each LED (LED1, 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 blinking. |

9.4. AUTO RESTART FUNCTION

Indoor controller board
This model is equipped with the AUTO RESTART FUNCTION.

When the indoor unit is controlled with the remote controller, the operation mode, set temperature, and the fan speed are memorized by the indoor controller board.

The auto restart function sets to work the moment the power has restored after power failure, then, the unit will restart automatically.

Set the AUTO RESTART FUNCTION using the remote controller. (Mode no.01)

10. Maintenance

10.1. Gas charge

(Fig. 10-1)

1. Connect gas cylinder to the service port of stop valve (3-way).
2. Execute air purge of the pipe (or hose) coming from refrigerant gas cylinder.
3. Replenish specified amount of refrigerant, while running the air conditioner for cooling.

Note:
In case of adding refrigerant, comply with the quantity specified for the refrigerating cycle.

Caution:
• Do not discharge the refrigerant into the atmosphere.
• Take care not to discharge refrigerant into the atmosphere during installation, reinstallation, or repairs to the refrigerant circuit.
• For additional charging, charge the refrigerant from liquid phase of the gas cylinder.

If the refrigerant is charged from the gas phase, composition change may occur in the refrigerant inside the cylinder and the outdoor unit. In this case, ability of the refrigerating cycle decreases or normal operation can be impossible. However, charging the liquid refrigerant all at once may cause the compressor to be locked. Thus, charge the refrigerant slowly.

To maintain the high pressure of the gas cylinder, warm the gas cylinder with warm water (under 40°C) during cold season. But never use naked fire or steam.
### Air Conditioner Indoor Unit

**Model**

**Service Ref.**

<table>
<thead>
<tr>
<th>Operate</th>
<th>&lt;Cooling&gt;</th>
<th>&lt;Heating&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage (V)</td>
<td>220</td>
<td>230</td>
</tr>
<tr>
<td>Frequency (Hz)</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Rated Input (kW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Current (A)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Phase**

**Refrigerant**

**Allowable Pressure (MPa)**

**SERIAL No.**

**F Code**

**Year of Manufacture**

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**Mitsubishi Electric Corporation**

Mitsubishi Electric Consumer Products (Thailand) Co., Ltd.

705/56 Moo 7, Tanon Don Muang, Amphur Muang, Chonburi 20000, Thailand

Made in Thailand
Please be sure to put the contact address/telephone number on this manual before handing it to the customer.