MITSUBISHI ELECTRIC

Air-Conditioners
INDOOR UNIT

PEA-RP140,170,200 WJA

OPERATION MANUAL
For safe and correct use, please read this operation manual thoroughly before operating the air-conditioner unit.
Remote controller-Button

1. [Set Temperature] Button
2. [Timer Memo] Button
3. [Monitor/Set] Button
4. [Timer On/Off] Button
5. [Set Day] Button
6. [Fan Speed] Button
7. [Ventilation] Button
8. [Operation] Button
9. [Check/Clear] Button
10. [Filter] Button
11. [On/Off] Button
12. Position of built-in room temperature sensor
13. [Set Time] Button

- Never expose the remote controller to direct sunlight. Doing so can result in the erroneous measurement of room temperature.
- Never place any obstacle around the lower right-hand section of the remote controller. Doing so can result in the erroneous measurement of room temperature.

1. Operation lamp
2. Current timer/Timer line
3. Centralized control indicator
4. Timer OFF indicator
5. Timer mode indicator
6. Operation mode display: COOL, DRY, AUTO, FAN, HEAT
7. Function mode indicator
8. Preset temperature
9. Power indicator
10. Louver
11. Ventilation
12. Filter sign
13. Sensor position
14. Room temperature
15. Vane setting
16. Fan speed
1. Safety precautions

- Before operating the unit, make sure you read all the "Safety precautions.
- "Safety precautions" lists important points about safety. Please be sure to follow them.

Symbols used in the text

⚠️ Warning:
Describes precautions that should be observed to avoid the risk of injury or death to the user.

⚠️ Caution:
Describes precautions that should be observed to prevent damage to the unit.

Symbols used in the illustrations

⚠️ 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. (This symbol is displayed on the main unit label.) <Color: yellow>
⚠️ Beware of electric shock. (This symbol is displayed on the main unit label.) <Color: yellow>

⚠️ Warning:
Carefully read the labels affixed to the main unit.

1.1. Installation

- After you have read this manual, keep it and the Installation Manual in a safe place for easy reference whenever a question arises. If the unit is going to be operated by another person, make sure that this manual is given to him or her.

⚠️ Warning:
- The unit should not be installed by the user. Ask the dealer or an authorized company to install the unit. If the unit is installed improperly, water leakage, electric shock or fire may result.
- Use only accessories authorized by Mitsubishi Electric and ask your dealer or an authorized company to install them. If accessories are installed improperly, water leakage, electric shock or fire may result.
- The Installation Manual describes the suggested installation method. Any structural alteration necessary for installation must comply with local building code requirements.
- Never repair the unit or transfer it to another site by yourself. If repair is performed improperly, water leakage, electric shock or fire may result. If you need to have the unit repaired or moved, consult your dealer.
- Keep the electric parts away from water (washing water) etc.
- It might result in electric shock, catching fire or smoke.

Note1: When washing the Heat Exchanger and Drain Pan, ensure the Control Box, Motor and LBV remain dry, using a water proof covering.

Note2: Never drain the washing water for the Drain Pan and the Heat Exchanger using the Drain Pump. Drain separately.

- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the appliance.
- Do not use a leak detection additive.
- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Do not use solvents or organic liquids.
- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Do not spray refrigerant directly onto the unit.
- Never block or cover the indoor or outdoor unit’s intake or outlets. This may affect the unit’s efficiency.

2. How to operate

- 2.1. ON/ OFF
- 2.2. Selecting operation
- 2.3. Room temperature adjustment

3. The smart way to use

4. Caring for the machine

5. Troubleshooting

6. Installation, transferring works, and checking

7. Specifications

1) Outdoor unit

⚠️ Warning:
- The outdoor unit must be installed on a stable, level surface, in a place where there is no accumulation of snow, leaves or refuse.
- Do not stand on, or place any items on the unit. You may fall down or the item may fall, causing injury.

⚠️ Caution:
The outdoor unit should be installed in a location where air and noise emitted by the unit will not disturb the neighbours.

2) Indoor unit

⚠️ Warning:
The indoor unit should be securely installed. If the unit is loosely mounted, it may fall, causing injury.

3) Remote controller

⚠️ Warning:
The remote controller should be installed in such a way that children cannot play with it.

4) Drain hose

⚠️ Caution:
Make sure that the drain hose is installed so that drainage can go ahead smoothly. Incorrect installation may result in water leakage, causing damage to furniture.

4) Power line, fuse or circuit breaker

⚠️ Warning:
- Make sure that the unit is powered by a dedicated supply. Other appliances connected to the same supply could cause an overload.
- Make sure that there is a main power switch.
- Be sure to adhere to the unit's voltage and fuse or circuit breaker ratings. Never use a piece of wire or a fuse with a higher rating than the one specified.

6) Grounding

⚠️ Caution:
- The unit must be properly grounded. Never connect the grounding wire to a gas pipe, water pipe, lightning conductor or telephone grounding wire. If the unit is not grounded properly, electric shock may result.
- Check frequently that the ground wire from the outdoor unit is properly connected to both the unit's ground terminal and the grounding electrode.

1.2. During operation

⚠️ Caution:
- Do not use any sharp object to press the buttons, as this may damage the remote controller.
- Do not twist or tug on the remote controller cord as this may damage the remote controller and cause malfunction.
- Never remove the upper case of the remote controller. It is dangerous to remove the upper case of the remote controller and touch the printed circuit boards inside. Doing so can result in fire and injury.
- Never wipe the remote controller with benzene, thinner, chemical solvents, etc. Doing so can result in discoloration and failure. To remove heavy stains, soak a cloth in neutral detergent mixed with water, wipe it out thoroughly, wipe the stains off, and wipe again with a dry cloth.
- Never block or cover the indoor or outdoor unit's intakes or outlets. This may affect the unit's efficiency.

⚠️ Warning:
- Do not splash water over the unit and do not touch the unit with wet hands. An electric shock may result.
- Do not spray combustible gas close to the unit. Fire may result.
2. How to operate

Before starting operation

- Start running after the "PLEASE WAIT" display has disappeared. The "PLEASE WAIT" display briefly appears on the room temperature display (max. 3 minutes) when the power is turned on and after a power failure. This does not indicate any failure of the air-conditioner.
- The choice of indoor unit operation mode is limited by the operation status of the outdoor unit to which a given indoor unit is connected. If an outdoor unit and some of the indoor units that are connected to the outdoor units are already operating in the cooling mode, for example, only the cooling mode is available for the rest of the units in the same group. If a different mode is requested, the symbol that corresponds to the requested mode will blink, notifying the user that the mode is currently unavailable. The same is true for the dry and heating mode. This restriction, however, does not apply to the models that support a simultaneous cooling-heating function.
- The outdoor units stop when all the indoor units connected to the counterpart outdoor units stop.
- During heating operation, even if the indoor unit is set to operation while the outdoor unit is in defrosting operation, operation starts after the defrosting operation of the outdoor unit has ended.

1.3. Disposing of the unit

⚠️ Warning:
When you need to dispose of the unit, consult your dealer. If pipes are removed incorrectly, refrigerant (fluorocarbon gas) may blow out and come into contact with your skin, causing injury. Releasing refrigerant into the atmosphere also damages the environment.

2.2. Selecting operation

When selecting operation

1. Press the Mode (Back) Button
Consecutive press of the selecting operation button switches the operation over to "COOL", "DRY", "FAN", "AUTO", and "HEAT". For the contents of operation, check the display.

For cooling
Press the [Mode (Back)] Button and bring up the "COOL" display.

For dry
Press the [Mode (Back)] Button and bring up the "DRY" display.
- The indoor fan turns to the low-speed operation, disabling the change of fan speed.
- Dry operation cannot be carried out at room temperature of less than 18°C.

For fan
Press the [Mode (Back)] Button and bring up the "FAN" display.
- The fan operation functions to circulate the air in the room.
- The temperature of the room cannot be set by fan operation.

⚠️ Caution:
Never expose your body directly to cool air for a long time. Excessive exposure to cool air is bad for your health, and should therefore be avoided.

Dry operation
The dry is a microcomputer-controlled dehumidifying operation which controls excessive air-cooling according to the room temperature of your choice. (Not usable for heating.)

1. Until reaching room temperature of your choice
The compressor and indoor fan function is linked motion according to the change of the room temperature and automatically repeat ON/OFF.
2. When reaching room temperature of your choice
Both the compressor and indoor fan stop.
When stop continues for 10 minutes, the compressor and indoor fan are operated for 3 minutes to keep the humidity low.

For heating
Press the [Mode (Back)] Button to bring up the "HEAT" display.

Regarding displays during heating operation "DEFROST" Displayed only during the defrosting operation.
- "STAND BY"
Displayed from the start of heating operation until the moment warm air blows out.
2.3. Room temperature adjustment

To change room temperature

Press the [Set Temperature] button and set the room temperature of your choice.

Pressing [COLD] or [HEAT] once changes the setting by 1 °C. If the pressing is continued, the setting continues to change by 1 °C.

- Indoor temperature can be set within the following range:
  - Cooling: -19 °C to 30 °C
  - Heating: 17 °C to 28 °C

- Temperature cannot be set for the fan mode.
- The range of room temperature display is 0 °C to 39 °C. Outside this range, the display flashes either 8 °C to 39 °C to inform you if the indoor temperature is lower or higher than the displayed temperature.

2.4. Fan speed adjustment

To change fan speed

Every time you press the [Fan Speed] button once, it switches from the low-speed to high-speed settings successively.

3. The smart way to use

Even minimal steps to care for your air conditioner can help make its use far more effective in terms of air-conditioning effect, electricity charges, etc.

Set the right room temperature

- In cooling operation, a temperature difference of about 5 °C between indoors and outdoors is optimum.
- If the room temperature is raised by 1 °C during air-conditioning operation, about 10% of electric power can be saved.
- Excessive cooling is bad for health. It also results in the waste of electric power.

Clean the filter (field supply) thoroughly

- If the screen of the air filter (field supply) becomes clogged, the airflow and air-conditioning effect can be significantly reduced.
- Further, if the condition is left unattended, failure can result. It is particularly important to clean the filter at the beginning of the cooling and heating seasons. (When produce dust and dirt have accumulated, clean the filter thoroughly.)

4. Caring for the machine

Always have filter (field supply) maintenance performed by authorized technicians.

Before care-taking, turn the power supply OFF.

Caution:

- Before you start cleaning, stop operation and turn OFF the power supply. Remember that the fan is rotating inside at high speed, posing a serious risk of injury.
- Indoor units are not equipped with filters. However, filter (field supply) must be installed in the return air to remove the dust of sucked-in air. (The standard filter should normally be cleaned once a week.)
- The life of the filter depends on where the unit is installed and how it is operated.

How to clean

- Clear dust away lightly or clean it up with a vacuum cleaner. In the case of severe staining, wash the filter in lukewarm water mixed with dissolved neutral detergent or water, and then rinse off the detergent completely. After washing, dry it and fix it back into place.

Prevent intrusion of heat during air-cooling

- To prevent the intrusion of heat during cooling operation, provide a curtain or a blind on the window to block out direct sunlight. Also, do not open the entrance or exit except in cases of dire necessity.

Carry out ventilation sometimes

- Since the air periodically gets dirty in a room that is kept closed for a long time, ventilation is sometimes necessary. When gas appliances are used together with the air conditioner, special precautions must be taken. If the "LOSSNAY" ventilation unit developed by our company is used, you can perform ventilation with less waste. For details on this unit, consult with your dealer.

Caution:

- Do not dry the filter by exposing it to direct sunlight or warming it using fire, etc. Doing so can result in the deformation of the filter.
- Washing it in hot water (more than 50 °C) can also result in deformation.
- Never pour water or flammable sprays onto the air conditioner. Cleaning using these methods can result in the failure of the air conditioner, electric shock, or fire.
5. Troubleshooting

Before you ask for repair service, check the following points:

<table>
<thead>
<tr>
<th>State of Machine</th>
<th>Remote Controller</th>
<th>Power failure</th>
<th>Cause</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>It does not run.</td>
<td>&quot;@&quot; display is not lit up. No display appears even when the [ON/OFF] button is pressed.</td>
<td>The power supply is turned OFF.</td>
<td>Press the [ON/OFF] button after power restoration.</td>
<td></td>
</tr>
<tr>
<td>Air flows out but it does not cool enough.</td>
<td>The liquid crystal display shows that it is in the state of operation.</td>
<td>Improper temperature adjustment</td>
<td>After checking the set temperature and inlet temperature on the liquid crystal display, refer to [Room temperature adjustment], and operate the adjustment button.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The filter is filled with dust and dirt.</td>
<td>Clean up the filter. (Refer to [Caring for the machine].)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>There are some obstacles at the air inlet and outlet of the indoor and outdoor units.</td>
<td>Remove.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Windows and doors are open.</td>
<td>Close.</td>
<td></td>
</tr>
<tr>
<td>Cool air or warm air does not come out.</td>
<td>The liquid crystal display shows that it is in operation.</td>
<td>The restart-preventing circuit is in operation for 3 minutes.</td>
<td>Wait for a while. (To protect the compressor, a 3-minute restart-preventing circuit is built into the indoor unit. Therefore, there are occasions sometimes when the compressor does not start running immediately. There are cases when it does not run for as long as 3 minutes.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indoor unit operation was restarted during the heating and defrosting operation.</td>
<td>Wait for a while. (Heating operation starts after ending defrosting operation.)</td>
<td></td>
</tr>
<tr>
<td>It runs briefly, but soon stops.</td>
<td>The &quot;check&quot; and check code flashes on the liquid crystal display.</td>
<td>There are some obstacles at the air inlet and outlet of the indoor and outdoor units.</td>
<td>Rerun after removal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The filter is filled with dust and dirt.</td>
<td>Rerun after cleaning the filter. (Refer to [Caring for the machine].)</td>
<td></td>
</tr>
<tr>
<td>The sound of the exhaust and rotation of the motor can still be heard after stop of running.</td>
<td>All lights are out except the powered display of &quot;@&quot;.</td>
<td>When other indoor units are engaged in cooling operation, the machine stops after running a drain-up mechanism for 3 minutes when air-cooling operation is stopped.</td>
<td>Wait for 3 minutes.</td>
<td></td>
</tr>
<tr>
<td>The sound of the exhaust and the rotation of the motor can be heard intermittently after stop of running.</td>
<td>All lights are out except the powered display of &quot;@&quot;.</td>
<td>When other indoor units are engaged in cooling operation, drained water is brought in. If the drain water is collected, the drain-up mechanism initiates a draining operation.</td>
<td>It soon stops. (If the noise occurs more than 2-3 times in an hour, ask for repair service.)</td>
<td></td>
</tr>
<tr>
<td>Warm air comes out intermittently when the thermostat is OFF or during fan operation.</td>
<td>The liquid crystal display shows that it is in the state of operation.</td>
<td>When other indoor units are engaged in heating operation, the control valves are opened and closed from time to time to maintain the stability of the system.</td>
<td>It soon stops. (If the room temperature does not comfortably high in a small room, stop operation.)</td>
<td></td>
</tr>
</tbody>
</table>

- If operation stops due to a power failure, the [restart-preventing circuit at power failure] operates and disables unit operation even after power restoration. In this case, press the [ON/OFF] button again and start operation.

If malfunctions persist after you have checked the above, turn the power supply OFF and contact your dealer with information about the product name, the nature of the malfunction, etc. If the display of [check?] and 4-digit check code flashes, tell the dealer contents of the display (check code). Never attempt to repair by yourself.

The following symptoms are not air conditioner failures:

- The air blown out from the air conditioner can sometimes give off odors. This is due to cigarette smoke contained in the air of the room, the smell of cosmetics, the walls, furniture, etc., absorbed in the air conditioner.
- A hissing noise can be heard immediately after the air conditioner is started or stopped. This is the sound of the refrigeration flowing inside the air conditioner. This is normal.
- The air conditioner sometimes snorts or clicks at the beginning or end of cooling/heating operation. This is the sound of friction on the front panel and other sections due to expansion and contraction caused by temperature change. This is normal.
6. Installation, transferring works, and checking

Regarding place for installation
Consult with your dealer for details on installation and transferring the installation.

⚠️ Caution:
Never install the air conditioner where there is a risk of leakage of flammable gas.
If gas leaks and accumulates around the unit, fire can result.

Never install the air conditioner at the following place:
• where there is a lot of machine oil
• near the ocean and beach areas where there is salt air.
• where humidity is high
• where there are hot springs nearby
• where there is sulphurous gas
• where there is a high-frequency processing machinery (a high-frequency welder, etc.)
• where acid solution is frequently used
• where special sprays are frequently used
• Install the indoor unit horizontally. Otherwise, water leakage can result.
• Take sufficient measures against noise when installing the air conditioners at hospitals or communication-related businesses.
When the air conditioner is used in any of the above-mentioned environments, frequent operational failure can be expected. It is advisable to avoid these types of installation sites.
For further details, consult with your dealer.

Regarding electrical work
⚠️ Caution:
• The electrical work must be undertaken by a person who is qualified as an electrical engineer according to the [technical standard respecting electrical installation], [internal wiring rules], and the installation instruction manual with the absolute use of exclusive circuits. The use of other products with the power source can result in burnt-out breakers and fuses.

• Never connect the grounding wire to a gas pipe, water pipe, arrester, or telephone grounding wire. For details, consult with your dealer.
• In some types of installation sites, the installation of an earth leakage breaker is mandatory. For details, consult with your dealer.

Regarding transfer of installation
• When moving or reinstalling the air conditioner when you enlarge your home, remodel, or move, consult with your dealer in advance to ascertain the cost of the professional engineering work required for transferring the installation.

⚠️ Caution:
When moving or reinstalling the air conditioner, consult with your dealer. Defective installation can result in electric shock, fire, etc.

Regarding noise
• In installing work, choose a place that can fully bear the weight of the air conditioner, and where noise and vibration can be reduced.
• Choose a place where cool or warm air and noise from the outdoor air outlet of the air conditioner does not inconvenience the neighbors.
• If any alien object is placed near the outdoor air inlet of the air conditioner, decreased performance and increased noise can result. Avoid placing any obstacles adjacent to the air outlet.
• If the air conditioner produces an abnormal sound, consult with your dealer.

Maintenance and inspection
• If the air conditioner is used throughout several seasons, the insides can get dirty, reducing the performance. Depending upon the conditions of usage, foul odors can be generated and drainage can deteriorate due to dust and dirt, etc.

7. Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Power source</th>
<th>RP140</th>
<th>RP170</th>
<th>RP200</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>~220-240V 50Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height (mm)</td>
<td></td>
<td>470</td>
<td>470</td>
<td>470</td>
</tr>
<tr>
<td>Width (mm)</td>
<td></td>
<td>1370</td>
<td>1370</td>
<td>1370</td>
</tr>
<tr>
<td>Depth (mm)</td>
<td></td>
<td>1120</td>
<td>1120</td>
<td>1120</td>
</tr>
<tr>
<td>Net weight (kg)</td>
<td></td>
<td>108</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Fan Airflow rate (Low-Middle-High) (m³/min)</td>
<td>50-61-72</td>
<td>60-61-72</td>
<td>60-61-72</td>
<td></td>
</tr>
<tr>
<td>External static pressure (Pa)</td>
<td>80/75/100/150</td>
<td>80/75/100/150</td>
<td>80/75/100/150</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
* Operation temperature of indoor unit:
  Cooling mode: 19°C DB/16°C WB - 35°C DB/22.5°C WB
  Heating mode: 17°C DB - 26°C DB
*1 The external static pressure is set to 150 Pa at factory shipment.
This product is designed and intended for use in the residential, commercial and light-industrial environment.

The product at hand is based on the following EU regulations:

- Low Voltage Directive 2006/95/EC

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