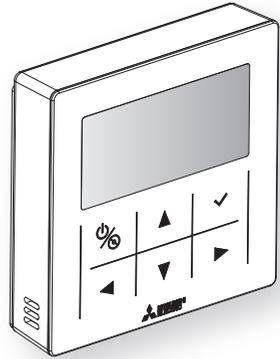




ZONE REMOTE CONTROLLER

PAR-ZR01AW-A
PAR-ZR01AB-A



Contents

1	Safety precautions.....	2	6	Setting mode	10
2	Product outline	4	6.1	Showing or hiding room temperature (Mode No. 3)	10
3	Names of parts and functions.....	5	6.2	Showing or hiding room humidity (Mode No. 4)	11
4	Before operation.....	6	6.3	ON-OFF/ Mode Lock (Mode No. 5)...	11
5	Basic functions	8	6.4	Screen brightness (Mode No. 6) ...	11
5.1	ON/OFF	9	6.5	Light mode/Dark mode (Mode No. 7) ...	11
5.2	Zone ON/OFF.....	9	7	FAQ	12
5.3	Changing set temp	9	8	Specifications	12
5.4	Adjusting damper opening.....	9			
5.5	Selecting operation mode.....	9			

1 Safety precautions

Read the following safety precautions thoroughly before use.

- The following hazardous classification shows the likelihood and severity of hazards if a person does not follow the instructions on the following signs.

 Warning	Indicates a hazardous situation which, if a person does not follow the instructions, could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation that, if a person does not follow the instructions, may result in bodily injury or property damage.

- Always keep this manual ready at hand for quick reference. Provide this manual to the technician or installer in the event that the device is relocated or repaired. Or, if the ownership changes, hand this manual to the next owner.

 Warning	
Check installation location.	Ensure that the device is placed on a hard and stable place to prevent the device from falling.
The device must not be modified or repaired by the user.	Modification or improper repair could cause electrical shock or fire and the like. For repair, contact the dealer where you purchased the device.
Stop operation when the device is malfunctioning.	Operating the malfunctioning device without repairing it could cause breakdown, electrical shock, fire or the like. Should anything abnormal, such as burning smell, occur, stop operation immediately, turn off power, and contact the dealer.
The device must not be disposed of by the user.	To dispose of the device, contact the dealer.
Do not let alkaline batteries become shorted or insert with polarity reversed. Also, do not disassemble, heat, or throw batteries in fire.	Leaked strong alkaline electrolyte could get into your eye, or explode, or generate heat. Injury, burns, or breakdown of the device could result. Should strong alkaline electrolyte come in contact with the skin or clothes, flush electrolyte with clean water. If electrolyte gets into your eye, flush with clean water and seek medical attention immediately.

1 Safety precautions

Caution

Do not drop the device.	This could break the case or break down the device.
Do not wipe the device with benzine, thinner, and a chemical impregnated cloth or the like.	The device could be discolored and damaged. If the dirt is hard to remove, wipe it with a well wrung-out cloth with diluted mild detergent, and dry moisture with a dry cloth.
Do not put hazardous materials around the device.	Avoid installing the device in the place where flammable gas may leak. Should leaked gas build up around the device, fire or explosion could occur.
Do not disassemble the device.	Direct contact with the control board inside is hazardous and also could result in fire, breakdown, and reduction in operating performance.
Do not use the device in particular environments.	Do not use the device in particular environments where the following substances are present in large amounts: oil, vapour, organic solvent, corrosive gas (such as ammonia, sulphuric compounds, and acid or the like) , or where acid or alkali solution, or particular sprays are used frequently. This could affect operating performance, or cause corrosion which could result in electrical shock, breakdown, smoke generation, or fire. (e.g. around kitchen sink, gas cooker, bath room, wash stand or the like)
Do not use sharp objects to touch the buttons.	Electric shock or breakdown may occur.
Do not wash the device with water or solution or the like.	Electric shock or breakdown may occur.
Do not touch the device with wet hands.	Electric shock or breakdown may occur.
Always observe the operating temperature and humidity requirements.	Always observe the operating temperature and humidity requirements. Otherwise severe damage to the device could result. For more details, refer to the specification table in this manual.
Observe the following and handle batteries properly. Otherwise it could result in explosion, leakage of electrolytic liquid, or heat generation. 1) Do not charge the batteries. 2) Insert the batteries with correct polarities. 3) Do not mix up new and old batteries or different types of batteries. 4) When the batteries have run out, remove them from the device immediately.	

2 Product outline

This device is a zone remote controller for zone controller system*. It operates at a frequency of 920 MHz.

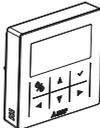
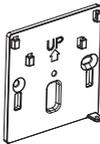
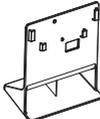
The zone remote controller has the following features:

- Basic functions are operable such as monitoring the operation status of the zone where the zone remote controller is installed. (Chapter 5)
- Up to one zone remote controller can be installed in a room. Multiple wireless sensors can be installed in a room. However, up to a total of 10 zone remote controllers and wireless sensors can be connected to the system.
- Touch buttons and easy-to-read LCD screen.
- Use a sub-GHz radio that is not affected by obstructions.

* Each zone remote controller requires pairing to avoid improper transmission with the unrelated wireless devices. If the zone remote controller does not go through a pairing process, wireless transmission between the zone remote controller and the wireless receiver does not work. For more details about pairing, contact your service contractor.

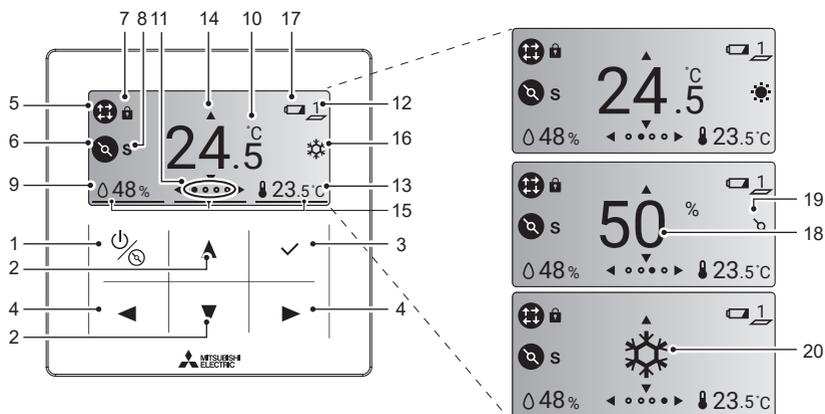
■ Included parts

The following items are included in the box.

Number	Part name	Shape	Qty
1	Zone Remote Controller <PAR-ZR01AW/AB-A>		1
2	Bracket		1
3	Stand		1
4	Wood screw (M4.1 × 16)		2
5	Zone RC screw (M2 × 7.5)		1
6	Installation Manual		1
7	Operation Manual		1

3 Names of parts and functions

■ Zone remote controller buttons/displays



The following explains each button and operation.

*All the items above are shown for the purpose of explanation.

Number	Name	Operation
1	ON/OFF button	Turns on and off the air conditioner or zone.
2	UP/DOWN button	Changes the set temperature, damper opening, and operation mode.
3	SELECT button	Selects the operation.
4	LEFT/RIGHT button	Moves pages as follows: Set Temp↔Damper Opening Degree↔Operation Mode
5	ON/OFF and Operation Mode	Indicates ON/OFF status and the operation mode of the air conditioner.
6	Zone ON/OFF	Indicates ON/OFF status of the zone.
7	ON-OFF/ Mode Lock	Indicates when ON/OFF and Operation Mode lock are enabled.
8	Forced ON	Indicates when the area is a spill zone. The zone is forcefully turned on when not enough zones are open.
9	Humidity	Indicates the humidity in the room measured by the remote controller.
10	Set Temp	Indicates the set temperature.
11	Page	Indicates the current page.
12	Zone No.	Indicates the Zone No. where the remote controller is installed.
13	Room Temp	Indicates that the temperature in the room measured by the remote controller.
14	UP/DOWN icon	Indicates that the set value can be increased or decreased.
15	TOUCH icon	Indicates that the buttons are being touched. (e.g. Pressing the ON/OFF button displays the touch icon over the button.)
16	Target Temp icon	In Auto mode, you can set cooling and heating set temperatures. This icon shows which you are setting.
17	Battery icon	Indicates low battery.
18	Damper Opening	Indicates the damper opening degree.
19	Damper icon	Indicates that the display is showing damper opening page.
20	Operation Mode icon	Indicates the mode in operation.

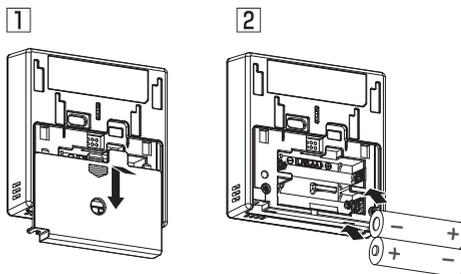
4 Before operation

■ Batteries

Remove the battery case cover before placing the zone remote controller, and insert two AA alkaline batteries properly.

* When the zone remote controller is not paired, it has to go through a pairing process. For details about pairing, contact your service contractor.

- Do not use Ni-Cd rechargeable batteries.
- The AA alkaline batteries in the zone remote controller last for about 1 year under normal usage.
- If not using it long periods of time, remove the batteries.

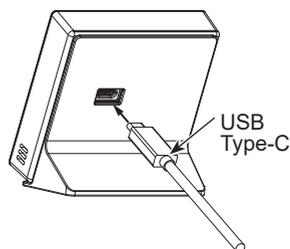
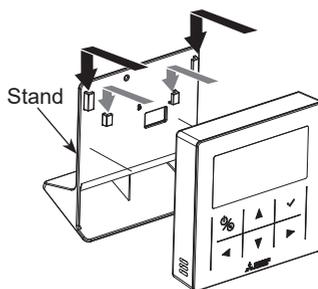


⚠ Caution

Be sure to insert the batteries with the correct polarity as shown in the case.

■ Powered by the USB Type-C.

- Available when using a stand.
(See the installation manual for details.)
- Not available when using a bracket.
(See the installation manual for details.)
- Some types of USB power supply or cables may not be able to power the zone remote controller. Please note this method does not charge batteries if installed.

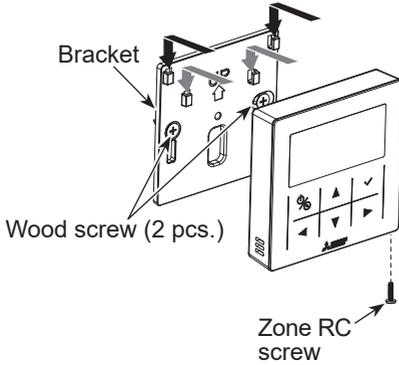


4 Before operation

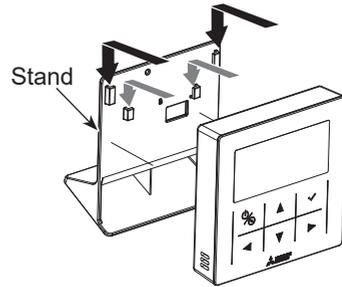
■ Installation

The zone remote controller has two methods of installation, using an included bracket or stand.

<<Using a bracket>>



<< Using a stand >>



Note:

- When installing the zone remote controller on the wall, be sure to secure it with the zone RC screw for safety.
Overtightening may cause damage, so torque the zone RC screw to 0.2 N • m.
- To remove the zone remote controller from the wall, remember to remove the zone RC screw as well. Attempting to remove it without removing the zone RC screw may cause damage.
- Make sure to install the bracket horizontally as shown in the figure, do not install it upside down. This may cause the internal sensors to malfunction.

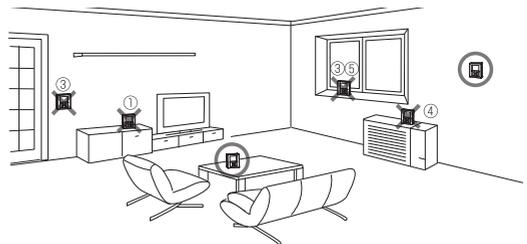
■ Location to place the zone remote controller(s)

Observe the following when determining the installing location.

Do not place the zone remote controller at the places indicated below (① to ⑤).

Do not expose the zone remote controller to a temperature outside the required operating range of 0 to 40°C.

- ① Within 1 m from electrical or electronic devices (such as a radio, TV, computer, and mobile phone)
- ② On a metal rack
- ③ Near a door or a window
- ④ Near heat source such as a radiator
- ⑤ Area exposed to direct sunlight



A thermo-hygro sensor is incorporated in each zone remote controller. Therefore, the desired temperature and humidity may not be obtained, if the zone remote controller is placed in an improper location.

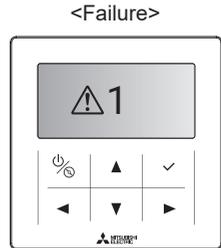
5 Basic functions

The following explains the basic functions available on the zone remote controller.

The following operations may not be available for some system structures:

- Temperature setting
- Damper opening setting
- **Failure or error on the indoor unit, the outdoor unit, the zone controller interface, or the wireless system**

When  is shown all the time, this means a failure (or error) on the indoor unit, the outdoor unit, the zone controller interface, or the wireless system. Contact your service contractor.



- When using the zone remote controller, be sure to touch the buttons with your fingers.
- ▶ The operation panel may not work properly in the following cases.
 - * The operation panel or your finger is wet or dirty.
 - * The operation panel is touched with a gloved finger or a finger with a bandage.
 - * The operation panel is touched with a sharp-pointed instrument.If the operation panel does not respond to touch on the screen, release your finger from the screen and touch it again.

Touching the screen again without pause may result in false detection. Touching on the screen strongly does not enhance the detection sensitivity.

The response of operation panel depends on the ambient temperature and humidity, physical condition of the user, and operating conditions of the electric appliances.

5 Basic functions

5.1 ON/OFF

Press and hold the  button for at least 3 seconds to turn ON and OFF the air conditioner.

The  function is not available when  is displayed.

5.2 Zone ON/OFF

Press the  button to switch between zone ON and OFF.

5.3 Changing set temp

To increase the set temperature:
Press the   button to move to the set temperature page. Then, tap  button.

To decrease the set temperature:
Press the   button to move to the set temperature page. Then, tap  button.

- The set temperature range varies depending on the unit model and the operating status.
- Each time you press the button, the set temperature increases by 0.5°C.
- The set temperature is not adjustable in Fan mode.

5.4 Adjusting damper opening

Press  button to go to the damper opening control page.

To open the damper: Tap  button.

To close the damper: Tap  button.

Opening is adjustable in 5% increments.

The opening range is adjustable from 5 to 100% or AUTO.

To adjust to AUTO, tap  button when the opening is 100%.

5.5 Selecting operation mode

Press   button to go to the mode settings.

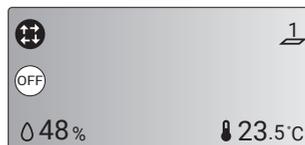
Press   button to change the operation mode.

Available operation modes vary depending on the unit.

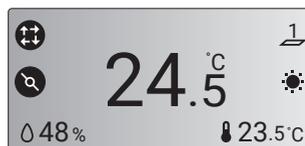
<Display>



air conditioner: OFF



air conditioner: ON zone: OFF



air conditioner: ON zone: ON



Set temperature screen



Damper opening setting screen



Damper opening: AUTO



Operation mode setting screen



6 Setting mode

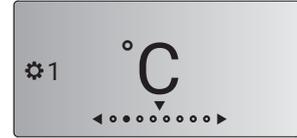
- 1) Touch and hold  and  button for about 3 seconds until the screen changes.
- 2) Touch  or  button to choose a mode number.

<Remote controller Display>

Mode No.



When  button is touched and hold in the middle of setting, the screen returns to the temperature setting page.



Do not select a mode no. other than those described in this chapter.

Mode No.	Names	Functions	Initial settings
3	Room temperature display	Actual room temperature display	Showing
4	Room humidity display	Actual room humidity display	Showing
5	ON/OFF and mode lock	Enables/disables the ON/OFF and mode lock function. In case this function is enabled, ON/OFF and mode operations for the air conditioner cannot be performed.	Enable
6	Screen brightness	Adjusts screen brightness in 3 levels	Low
7	Light mode/Dark mode	Switches the remote controller to light mode or dark mode.	Light mode

6.1 Showing or hiding room temperature (Mode No. 3)

Select either showing or hiding the room temperature.

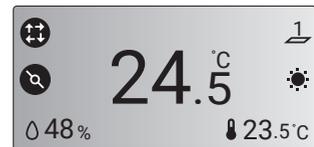
Touch  or  button to select displaying or hiding the room temperature, and touch  button to save the setting.

Hiding : — — —

Showing : Actual room temperature is displayed

The room temperature is displayed at the bottom right.
The measurable temperature range is from 0 to 40°C.

<Remote controller Display>



If the measured room temperature is out of 0°C to 40°C range, the room temperature display blinks.

When the wireless remote controller is installed on a bracket, room temperature might not be accurate being affected by the wall temperature.

Perform a test run and place the remote controller where the room temperature can be correctly detected.

6 Setting mode

6.2 Showing or hiding room humidity (Mode No. 4)

Select either showing or hiding the room humidity.

Tap ▲ or ▼ buttons to select whether to show or hide the room humidity and tap ✓ button to save it.

Hiding : 

Showing : **Actual room humidity is displayed**

The room humidity is displayed on the bottom left. The measurable humidity range is from 0 to 100%.

6.3 ON-OFF/ Mode lock (Mode No. 5)

Enables/disables the ON/OFF and mode lock function. In case this function is enabled, ON/OFF and mode operations for the air conditioner cannot be performed.

Tap ▲ ▼ buttons to select whether to enable or disable the mode and tap ✓ button to save it.

Enable : 

Disable : 

6.4 Screen brightness (Mode No. 6)

You can adjust the screen brightness from 3 levels below.

Tap ▲ ▼ buttons to select the screen brightness and tap ✓ button to save it.

High : 

Medium : 

Low : 

Note: Brightness varies depending on the timing of USB charging and battery charging.

6.5 Light mode/Dark mode (Mode No. 7)

You can set the remote controller screen to light mode or dark mode.

Tap ▲ ▼ buttons to select the mode and tap ✓ button to save it.

Light mode : 

Dark mode : 

7 FAQ

Fault symptom	Possible causes	Solutions
The LCD is blank.	No batteries are inserted.	Ensure that the batteries are inserted in the battery case and no foreign objects are caught between the terminals.
	The batteries are inserted incorrectly.	Check whether the batteries are inserted with correct polarities as shown in the battery case.
	The batteries are running out.	Replace both with new ones.
	The USB power supply has failed.	Use a different USB power supply. Some USB power supplies may not be able to power the zone remote controller depending on their specifications and the type of cables used.
☐ is shown	The batteries are running out, and need replacement.	Replace both with new ones.
The zone remote controller does not work.	The batteries are running out.	Replace both with new ones.
	The signal is weak.	Find a proper location to operate the zone remote controller.
	Failure or error on the indoor unit, the outdoor unit, the zone controller interface, or the zone controller system.	Contact your service contractor.
△ is shown	Failure or error on the indoor unit, the outdoor unit, the zone controller interface, or the wireless system.	Contact your service contractor.
The desired room temperature is not obtained.	The batteries are running out.	Replace both with new ones.
	The zone remote controller is placed in an improper location.	Reposition the zone remote controller. Refer to "Location to place the zone remote controller(s)" in "4. Before operation" in this manual.
	Others	Contact your service contractor.

8 Specifications

Item	Description
Power source	3 VDC (Powered by AA battery × 2) 5 VDC (Powered by USB Type-C) 15-30 VDC (Powered by PAC-ZC**S/L240C-A, AC adapter)
Operating temperature and humidity requirements	Temperatures: 0 to 40°C Humidities: 30 to 90%RH (no condensation)
Net weight	94 g (batteries excluded)
Dimension (W × H × D)	86 mm × 86 mm × 20 mm
Display	Reflective LCD color digital screen
Transmitter power level (MAX)	4.8 dBm
Frequency	920 MHz

This software includes the work that is distributed in the Apache License 2.0.
Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

=====

CMSIS

=====

Copyright (c) 2009-2021 Arm Limited. All rights reserved.

SPDX-License-Identifier: Apache-2.0

Licensed under the Apache License, Version 2.0 (the License); you may not use this file except in compliance with the License.

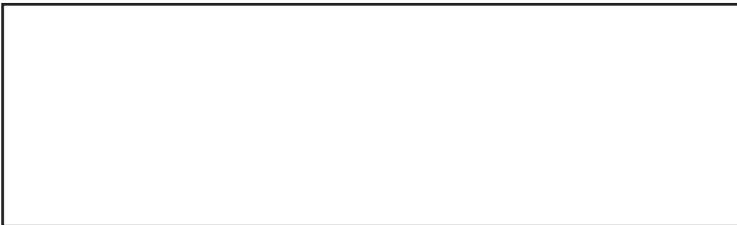
You may obtain a copy of the License at

www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an AS IS BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

See the License for the specific language governing permissions and limitations under the License.

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



MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BUILDING, 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN