



# CITY MULTI Control System Smart ME Controller PAR-U02MEDA

Simple Operation Manual



Prior to use, thoroughly read the instructions in this manual to use the product correctly. Retain this manual for future reference.

Make sure that the CD-ROM, this manual, and Installation Manual are passed on to any future users.

To ensure safety and proper operation of the remote controller, the remote controller should only be installed by qualified personnel.

# Contents

Safety precautions4
Names and functions of controller components7
Controller interface
Basic operations12
Troubleshooting15
Timer, Schedule, and Auto return16
Maintenance17
Product features18

# Safety precautions

- Thoroughly read the following safety precautions before using the unit.
- · Observe these precautions carefully to ensure safety.

Indicates a risk of death or serious injury.
Indicates a risk of serious injury or structural damage.

- After reading this manual, pass it on to the end user to retain for future reference.
- Keep this manual for future reference and refer to it as necessary. This manual should be made available to those who repair or relocate the controller. Make sure that the manual is passed on to any future users.
- For information not contained in this booklet, please refer to the Instruction Book on the CD-ROM that is supplied with the Remote Controller.

#### **General precautions**

## 

Do not install the unit in a place where large amounts of oil, steam, organic solvents, or corrosive gases, such as sulfuric gas, are present or where acidic/alkaline solutions or sprays are used frequently. These substances can compromise the performance of the unit or cause certain components of the unit to corrode, which can result in electric shock, malfunctions, smoke, or fire.

To reduce the risk of shorting, current leakage, electric shock, malfunctions, smoke, or fire, do not wash the controller with water or any other liquid.

To reduce the risk of electric shock, malfunctions, smoke or fire, do not operate the touch panel or touch other electrical parts with wet hands.

When disinfecting the unit using alcohol, ventilate the room adequately. The fumes of the alcohol around the unit may cause a fire or explosion when the unit is turned on. To reduce the risk of injury or electric shock, before spraying a chemical around the controller, stop the operation and cover the controller.

To reduce the risk of injury or electric shock, stop the operation and switch off the power supply before cleaning, maintaining, or inspecting the controller.

If any abnormality (e.g., burning smell) is noticed, stop the operation, turn off the power switch, and consult your dealer. Continued use of the product may result in electric shock, malfunctions, or fire.

Properly install all required covers to keep moisture and dust out of the controller. Dust accumulation and water can cause electric shock, smoke, or fire.

## 

To reduce the risk of fire or explosion, do not place flammable materials or use flammable sprays around the controller.

To reduce the risk of damage to the controller, do not directly spray insecticide or other flammable sprays on the controller.

To reduce the risk of environmental pollution, consult an authorized agency for proper disposal of remote controller. To reduce the risk of electric shock or malfunctions, do not touch the touch panel with a pointy or sharp object.

To reduce the risk of injury and electric shock, avoid contact with sharp edges of certain parts.

To avoid injury from broken glass, do not apply excessive force on the glass parts.

To reduce the risk of injury, wear protective gear when working on the controller.

#### **Relocation and repairs**

## 

The controller should be repaired or moved only by qualified personnel. Do not disassemble or modify the controller.

Improper installation or repair may cause injury, electric shock, or fire.

## 

To reduce the risk of shorting, electric shock, fire, or malfunction, do not touch the circuit board with tools or with your hands, and do not allow dust to accumulate on the circuit board.

### **Additional precautions**

To avoid damage to the controller, use appropriate tools to install, inspect, or repair the controller.

This controller is designed for exclusive use with the Building Management System by Mitsubishi Electric. The use of this controller for with other systems or for other purposes may cause malfunctions.

To avoid discoloration, do not use benzene, thinner, or chemical rag to clean the controller. To clean the controller, wipe with a soft cloth soaked in water with mild detergent, wipe off the detergent with a wet cloth, and wipe off water with a dry cloth. To avoid damage to the controller, provide protection against static electricity.

Properly dispose of the packing materials. Plastic bags pose suffocation hazard to children.

To avoid damage to the controller, do not overtighten the screws.

#### The CD-ROM that is supplied with Smart ME Controller



The CD-ROM can only be played on a CD-drive or a DVD-drive. Do not attempt to play the CD-ROM on an audio CD player as this may damage your ears and/ or speakers.

The CD-ROM that is supplied with the Smart ME Controller contains an Installation Manual and Instruction Book.

Each document is in PDF format.

Viewing documents requires a computer with Adobe® Reader® or Adobe® Acrobat® installed.

"Adobe® Reader®" and "Adobe® Acrobat®" are registered trademarks of Adobe Systems Incorporated.

# Names and functions of controller components

## Controller interface



#### 1 Occupancy Sensor

The occupancy sensor detects vacancy for energy-save control.

#### 2 Brightness Sensor

The brightness sensor detects the brightness of the room for energy-save control.

#### **3** Temperature & Humidity Sensor

The sensor detects the room temperature and the relative humidity.

#### 4 LED Indicator

The LED indicator indicates the operation status in different colors.

The LED indicator lights up during normal operation, lights off when units are stopped, and blinks when an error occurs.

#### 5 Touch panel & Backlit LCD

The touch panel shows the operation settings screen. When the backlight is off, touching the panel turns the backlight on, and it will stay lit for a predetermined period of time.

## Screen configuration

#### General equipment screen

General equipment	(2/4)	
D005 Heater 1	ON	
DO06 Heater 2	OFF	
D007 Humidifier	ON	(
D008 Fan	OFF	

This screen will not appear if no Advanced HVAC CONTROLLERs (AHC) are connected.





#### 9

#### Display

#### Home screen

#### - Basic

\* All icons are displayed for explanation



# ① [ON/OFF] button Touch to turn ON/OFF the indoor unit. ② [Operation mode] button Touch to change the operation mode. ③ [Menu] button Touch to bring up the Menu screen. ④ LED Indicator ON/OFF button Touch to turn ON/OFF the LED indicator. ⑤ ⑦ Touch to decrease the set temperature. ⑥ ④ Touch to increase the set temperature.

Touch to in

Touch to go to the Indoor unit setting screen.

8 Room name

Room name appears here

#### 9 Room temperature

## Current room temperature appears here. 1 10 Humidity

Current room humidity appears here.

#### 1 Set temperature

The set temperature appears here. The display varies with the selected operation mode.

#### 12 Day and time

Current day and time appear here.

## ③ 2 Appears when the scheduled operation is being performed. The icon Q annears when the timer operation is

The icon  $\bigotimes$  appears when the timer operation is prohibited.

Appears when the ON/OFF timer is activated or when the Night setback function is enabled.

#### <u>15</u> X

Appears when the brightness sensor detects light brighter than a predetermined level.

#### 16 🙎

Appears when the occupancy sensor senses an occupant.

#### 1 🗊 🗳

Appears during the energy-save control (depending on the indoor unit model).

18

Appears when the filter needs maintenance.

#### 19 💻

Appears when the built-in thermistor on the remote controller is activated to monitor the room temperature.

appears when the thermistor on the indoor unit is activated to monitor the room temperature.

#### Indoor unit setting screen

\* All icons are displayed for explanation



Fan speed
Touch to change the fan speed.
② Louver
Touch to turn ON/OFF the louver.
3 Air direction
Touch to change the air direction.
(a) LOSSNAY
Touch to change the fan speed of the LOSSNAY unit.
(i) <
Touch to return to the Home screen.
® >

Touch to go to the Humidity setting screen

#### Advanced



I	20 O
	Appears when the operation is centrally controlled.
	2) 🔒
	Appears when the operation is locked.
	2 Auto-OFF display
	Appears when the Auto-OFF timer is activated.
	29 X.
	Indicates the interlocked LOSSNAY unit (ventilator) setting.
I	20 JI
	Appears when the set temperature range is restricted.
I	28 <
	Touch to go to the General equipment screen

#### General equipment screen



#### 32 AHC input/output status

The input and output status of the general equipments connected to Advanced HVAC CONTROLLER (AHC) appear

33	>

#### Touch to go to the Home screen. 34 V A

Touch to go through the General equipment screen pages.

#### Humidity setting screen



#### 35 🗸

Touch to decrease the set humidity. (20%-80% (RH)) 36 A

Touch to increase the set humidity. (20%-80% (RH))

#### 37 🗸

Touch to go to the Indoor unit setting screen.

# **Basic operations**





\*1 Operation modes that are not available for the connected indoor unit will not appear on the display.

\*2 Depending on the indoor unit model, either one or two set temperatures (single or dual set point(s)) can be set for Auto mode.

#### Set temperature

Touch the 5 T or 6 A button to decrease or increase the set temperature.

\* Touching the button once will change the set temperature by 0.5°C, 1.0°C, 1°F, or 2°F, depending on the indoor unit model and the display format setting on the remote controller.

Operation mode	Set temperature range
Cool/Dry	19°C–35°C/67°F–95°F <sup>*1</sup>
Heat	4.5°C–28°C/40°F–83°F *1
Auto (single set point)	19°C–28°C/67°F–83°F *1*2
Auto (dual set points)	Cool: Same as the set temperature range for Cool mode Heat: Same as the set temperature range for Heat mode *2*3*4
Fan	Not settable

\*1 The settable temperature ranges vary, depending on the indoor unit model.

\*2 The set temperature for Auto mode (either single or dual set point(s)) will appear depending on the indoor unit model.

- \*3 The same values are used for the set temperature for Cool/Dry mode and the cooling set temperature for Auto mode (dual set points). Likewise, the same values are used for the set temperature for Heat mode and the heating set temperature for Auto mode (dual set points).
- \*4 The cooling and heating set temperatures can be set under the following conditions.
  - The cooling set temperature is greater than the heating set temperature.
  - The difference between the cooling and heating set temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.
- \*5 Restrictions for the set temperature range will apply, if any. If the setting value is outside of the range, a message "Temp. range locked" will appear. Refer to the remote controller Instruction Book for details.

<Cool, Dry, Auto (single set point), Heat>



<Auto (dual set points)>



For information on Auto (dual set points) control, refer to the Instruction Book.

#### Fan speed

1 Touch the button labeled ⑦ to display the Indoor unit setting screen.







\* The number of available fan speeds depends on the indoor unit model.



- <Note>
- The actual fan speed will differ from the fan speed displayed on the
- LCD when one of the following conditions is met.
- While "Standby" or "Defrost" is displayed
- When the room temperature is higher than the set temperature during the heating mode
- Immediately after the heating operation (during stand by for switching the operation mode)
- · During the Dry mode

#### Air direction

1 Touch the button labeled ⑦ to display the Indoor unit setting screen.



2 Touch the button labeled <sup>28</sup> to change the air direction.



\* The settable air directions depend on the indoor unit model.



#### <Note>

- The actual air direction will differ from the air direction displayed on the LCD when one of the following conditions is met.
- · While "Standby" or "Defrost" is displayed
- · When the room temperature is higher than the set temperature during the heating mode
- · Immediately after the heating operation (during stand by for switching the operation mode)

#### Automatic cooling/heating operation

<Auto (single set point)>

When the room temperature rises above the set temperature, cooling operation starts. When the room temperature drops below the set temperature, heating operation starts.

<Auto (dual set points)>

When the room temperature rises above the cooling set temperature, cooling operation starts. When the room temperature drops below the heating set temperature, heating operation starts.

1 Touch the 1 [ON/OFF] button.

**2** Touch the (2) [Operation mode] button to display the "Auto" mode.

\* If "Cool/Heat display" in the initial settings is set to "Show," the current operation mode "Cool" or "Heat" will be displayed in the area labeled ②. Refer to the Installation Manual for details about initial settings.

#### LOSSNAY unit (ventilator) operation

When performing an interlocked operation of the LOSSNAY unit with the indoor unit> Touch the ① [ON/OFF] button to turn both the indoor unit and the LOSSNAY unit on.

<When operating the LOSSNAY unit individually>



2 Touch the button labeled <sup>(2)</sup> to change the fan speed of the LOSSNAY unit.



\* Indoor unit fan may operate even when the LOSSNAY unit is operated individually, depending on the models of the indoor unit and the LOSSNAY unit.



# Troubleshooting

When an error occurs, the **[Error information]** screen will appear. Check the error status, stop the operation, and consult your dealer.

[Error informat	ion]	
Error code Error unit Address Tel	5101 IC 001 0-12-345-6789	
		Reset

Error code, error unit, M-NET address, and your dealer's phone number will appear.

The phone number will appear only if the information has been registered.



The indicator blinks in the color it is illuminated in at the time.



If a type of error occurs that allows the units to continue their operation, only an error code will appear in the schedule display area (enclosed in dotted line) on the Home screen.

When this type of error occurs, the LED indicator will not blink. To reset the error, touch the 1 **[ON/OFF]** button.

# Timer, Schedule, and Auto return

The settings for Timer, Schedule, and Auto return can be made.

Touch the ③ [Menu] button to go to the Menu screen, and select the desired setting item.

Refer to the remote controller Instruction Book for further information.

Menu (1/2) User Service		> Timer	Menu	> Settings	(3/3)	Menu
Date and time		ON/OFF timer		Auto return		
Schedule		Auto-OFF timer				
Timer						
Night setback						
Home 🛛 🗸	]	Back		Back		

#### Timer

ON/OFF timer

Operation ON/OFF times can be set in 5-minute increments.

Auto-OFF timer

Auto-OFF timer is a type of timer used to stop the operation of units in a set amount of time. Auto-OFF time can be set to a value from 30 to 240 minutes in 10-minute increments.

#### Schedule

Operation ON/OFF times, operation modes, and set temperatures for a week can be scheduled. Up to eight operation patterns can be scheduled for each day.

#### Auto return

The set temperature will return to the specified temperature after the specified time period. The time period can be set to a value from 10 to 120 minutes in 10-minute increments.

# Maintenance

#### Filter information



im will appear on the Home screen when it is time to clean the filters on indoor units.

#### Resetting the filter sign

1 Select [Filter information] from the Menu screen.

Menu	(2/2)	User	Service
Settings			
Screen clear	ning		
Filter info	mation		
Error inform	ation		
Home			

2 Touch [Reset] to reset	3 Touch [OK].
the filter sign.	

[Filter information]	Menu
Please clean the filter.	
Touch Reset when done.	
Pode (	Docot

[Filter i	nformation]			
Are	you sure y the inf	ou want ormation	to reset ?	
Cancel	γ	ſ	(	K

4	A confirmation screen
	will appear.

[Filter information]	Menu	
Filter information has been reset.		
Back		
Back		

<Note>

- Make sure to clean the filters before resetting filter sign.
- When the filter sign is reset, the cumulative operation time of all the connected units will be reset.
- If two or more indoor units of different models are connected, the filter sign will appear when a filter on one of the indoor units is due for cleaning. (long-life filter: 2500 hours; general filter: 100 hours)
- The filter sign is scheduled to appear after a certain duration of operation, based on the premise that the indoor units are
  installed in a space with standard air quality. Depending on the air quality, the filter may require more frequent cleaning.

# **Product features**

#### Energy-save control with the use of the built-in occupancy sensor



- · Energy-save control will be performed when the occupancy sensor detects vacancy.
- When the occupancy sensor detects no human movement for a certain period of time, this will be regarded as the vacancy.
- · One of the following energy-save controls can be used at a time.

Energy-save control	Control when vacancy is detected	
Non-use	-	
ON/OFF	The unit will be turned off.	
Set temperature offset	The set temperature will be offset.	
Fan speed down	The fan speed will be set to "Low."	
Thermo-off	The unit will go into the Thermo-off state.	

• Energy-save control can be stopped according to the brightness level detected by the brightness sensor. (Example: While the occupants are sleeping at night)

#### LED Indicator



- The LED indicator indicates the operation status by lighting and blinking with different colors and brightness (High/Low), or by turning off.
- Indicator colors: Blue, Light blue, Purple, Red, Pink, Orange, Yellow, Green, Lime, and White

Operation status	LED indicator	
The unit is in operation.	Lights up in different colors according to the operation mode or the room temperature (three different levels). $^{\rm *1}$	
The unit is stopped.	Turns off.	
An error is occurring.	Blinks in the color it is illuminated in at the time.	
Energy-save control is being performed.	Lights up in the predetermined color. *1	
The occupancy sensor has sensed an occupant.	Inverts the brightness (High/Low) twice. *1	
A button is touched on the Home screen.	Inverts the brightness (High/Low). *1	

\*1 The settings can be made on the LED Indicator setting screen.

#### Default color setting

	3	
Color	Operation mode setting (default)	Room temperature
Blue	Cool (Auto_Cool)	0°C–21°C (32°F–69°F)
Light blue	Dry	Not used
Yellow	Fan	21.5°C–26°C (70°F–79°F)
White	Auto	Not used
Red	Heat (Auto_Heat)	26.5°C–40°C (80°F–104°F)
Green	Night setback	Not used
Lime	Energy-save control is in effect that has been performed when the occupancy sensor detected vacancy.	

\* Purple, pink, and orange are not used by default.

#### Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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:

- Electromagnetic Compatibility Directive 2004/108/EC
- Restriction of Hazardous Substances 2011/65/EU

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