

Zone Remote Controller PAC-ZC40L/40H/80L/80H-E

Instruction Book



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 Installation Manual, and Instruction 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.

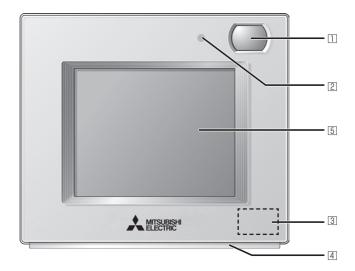
Product features

Zone Remote Controller is a remote controller designed to control Mitsubishi Electric's air conditioning units and zone controller.

Zone Remote Controller features such basic functions as operations and monitoring of air conditioning units, zones, schedule-control functions and is equipped with three built-in sensors (temperature, occupancy, brightness).

When the built-in occupancy sensor detects vacancy in a specific zone, the controller uses its internal function to reduce energy-consumption.

Controller interface



□ 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 Sensor

The sensor detects the room temperature.

4 LED Indicator

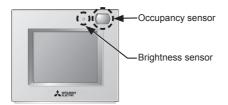
The LED indicator indicates the operation status in different colors.

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

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.
- Only one of the following energy-save controls can be used at a time.

Energy-save control mode	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."
Zones-off	The zones will be off.

• 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). *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

Boldali color colling			
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.

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Safety precautions

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

≜WARNING	Indicates a risk of death or serious injury.
∴ CAUTION	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.

General precautions

MARNING

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.

CAUTION

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

↑ WARNING

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.

ACAUTION

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 Zone controller 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.

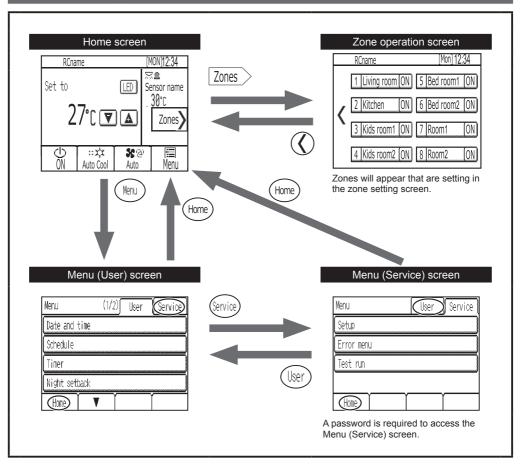
To avoid damage to the controller, provide protection against static electricity.

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

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

Screen display

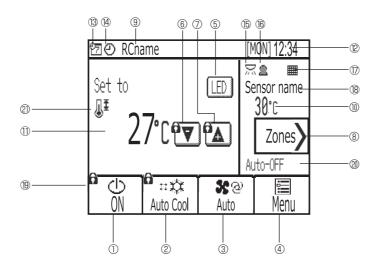
Screen configuration



Display

Home screen

* 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 [Fan] button

Touch to change the fan speed

4 [Menu] button

Touch to bring up the Menu screen.

⑤ LED Indicator ON/OFF button

Touch to turn ON/OFF the LED indicator.



Touch to decrease the set temperature.



Touch to increase the set temperature.



Touch to go to the zone operation screen.

Remote controller name appears here.

® Room temperature for control

Current room temperature for control appears here.

① Set temperature

The set temperature appears here.

The display varies with the selected operation mode.

Day and time

Current day and time appear here



Appears when the scheduled operation is being performed.

The icon \(\mathbb{Q} \) appears when the timer operation is prohibited.



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

15 ///

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



Appears when the occupancy sensor senses an occupant.

⑰ ■

Appears when the filter needs maintenance.

® Sensor name for control

Current sensor name for control appears heare.



Appears when the operation is locked.

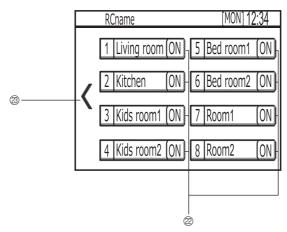
② Auto-OFF display

Appears when the Auto-OFF timer is activated.



Appears when the set temperature range is restricted.

Zone operation screen



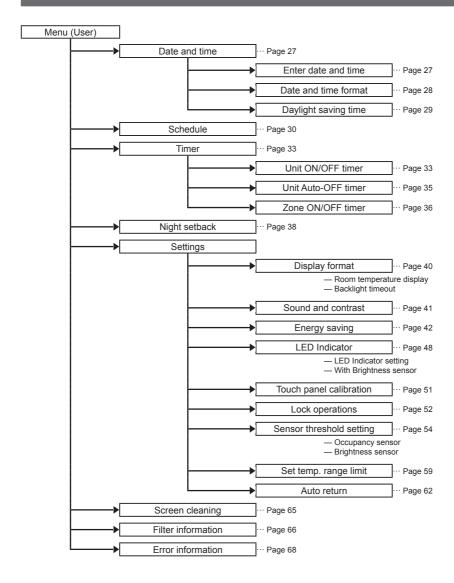


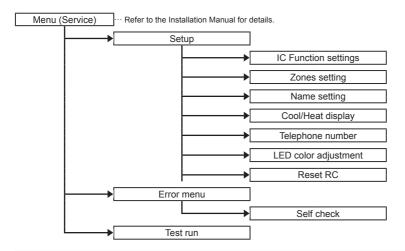
Touch to turn ON/OFF the zones.



Touch to return to the Home screen.

Menu structure

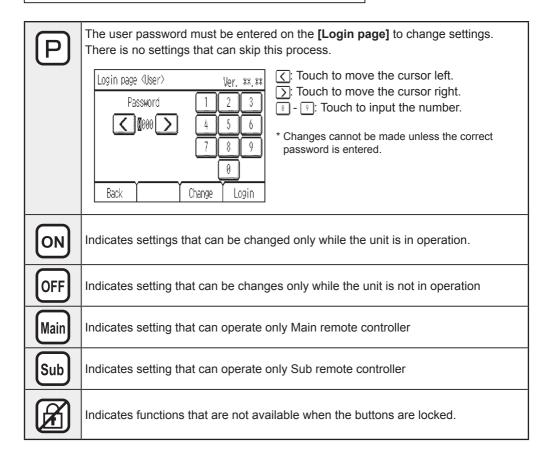




Not all functions are available on all models of indoor units.

Icon explanations

Function settings Timer The table below summarizes the square icons used in this manual.



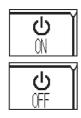
Basic operations

Power ON/OFF



Button operation

ON/OFF



Touch the **[ON/OFF]** button to turn on or off the indoor unit.

- * The LED indicator will light up when the indoor unit is turned on.
- * The LED indicator display depends on the settings for the function settings.
- * The unit will operate with the previously-set operation mode, set temperature, and fan speed.

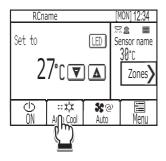
Operation mode, Set temperature and Fan speed settings



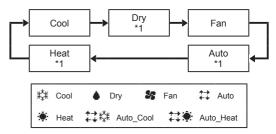


Button operation

Operation mode

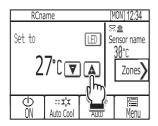


Touch the **[Operation mode]** button to go through the operation modes in the following order. Select the desired operation mode.



- *1 Operation modes that are not available for the connected indoor unit will not appear on the display.
- * LED indicator color changes according to the operation mode and the settings for the function settings.

Set temperature



Cool, Heat, or Auto mode

Touch **▼** or **△** to decrease or increase the set temperature.

- Refer to the table on page 18 for the settable temperature range for different operation modes.
- Set temperature cannot be set for the Fan mode.

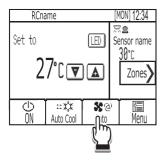
Set temperature range

Operation mode	Set temperature range
Cool/Dry	19–30°C (67–87°F) *1*2
Heat	17–28°C (63–83°F) *1*2
Auto	19–28°C (67–83°F) *1*2
Fan	Not settable

^{*1} The settable temperature ranges vary, depending on the indoor unit model.

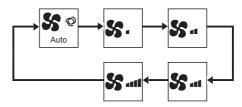
^{*2} Restrictions for the set temperature range will apply, if any. If the setting value is outside of the range, a message "Temp. range locked" will appear.

Fan speed



Touch the **[Fan speed]** button to go through the fan speeds in the following order.

Select the desired setting.



• 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

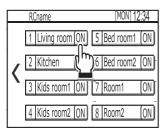
Zone ON/OFF



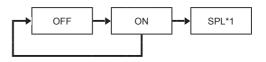


Button operation

Zone ON/OFF



Touch the **[ON/OFF]** button to turn on or off the each zones.



*1 When all zones are fully closed, a zone which is set to as spill zone will open automatically.

Navigating through the Menu

Menu list

Me	enu items	Setting items and details	Reference page
		Sets the current date and time.	27
Date and	time	Selects the date and time format.	28
		Sets the daylight saving time.	29
Schedule		Schedules the operation ON/OFF times, operation modes, set temperatures and zones ON/OFF for a week.	30
		Sets the Unit ON/OFF timer.	33
Timer		Sets the Unit Auto-OFF timer.	35
		Sets the Zone ON/OFF timer.	36
Night set	back	Sets the temperature range and start/stop times for the Night setback function.	38
	Display format	Show/Hide room temperature setting.	40
	Display lorillat	Backlight timeout setting.	40
	Sound and contrast	Sets the volume of the buzzer that sounds when the screen is touched.	41
	contrast	Sets the screen contrast.	41
		Turns off the unit for the energy-save control.	42
		Offsets the set temperature for the energy-save control.	42
		Sets the fan speed to "Low" for the energy-save control.	42
	Energy saving	Turns off the zones for the energy - save control.	42
		Specifies the days and the time periods when the energy-save control will be deactivated.	45
		Sets the brightness sensor condition to deactivate the energy-save control.	45
Settings	LED Indicator	Sets the operation mode display setting. Sets the room temperature display setting.	48
		Selects the use or non-use of brightness sensor to switch LED indicator brightness.	48
	Touch panel calibration	Sets the calibration settings for the touch panel.	51
	Lock operations	Locks the Unit ON/OFF, Operation mode, Set temperature, and Zones ON/OFF.	52
	Sensor threshold setting	Sets the detection sensitivity level for the occupancy sensor.	54
		Sets the brightness/darkness detection thresholds for the brightness sensor.	57
	Set temp. range limit	Limits the settable temperature ranges for the Cool, Heat, and Auto modes.	59
	Auto return	Operates the unit at the specified temperature after the specified period of time.	62

Menu items	Setting items and details	Reference page
Screen cleaning	Temporarily makes the touch panel unresponsive to touch to allow for cleaning.	65
Filter information	Displays and resets the filter signs on the indoor unit.	66
Error information	Displays the error status when an error occurs.	68

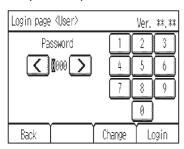
About passwords

A password is required to access certain windows.

Two types of passwords are used as follows.

- Password that is used on the Menu (User)
- Password that is used on the Menu (Service)

Example enter-password screen

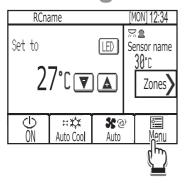


^{*} Refer to section 2 "Service Menu" in Chapter 2 "Initial Setting" in the Installation Manual for details about passwords.

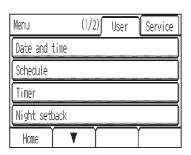
Navigating through the Menu

Button operation

Accessing the Menu

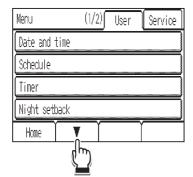


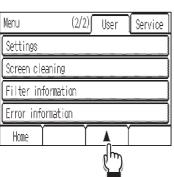
Touch the [Menu] button.



The Menu screen will appear.

Navigating through the pages



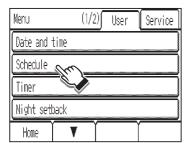


Touch ▼ or ▲ to switch between the pages.

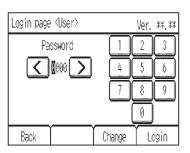
To access the Menu (Service) screen, touch the **[Service]** tab.

A maintenance access password will be required to access the Menu (Service) screen.

Item selection

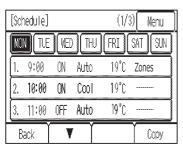


Touch the desired item on the Menu screen.



When an attempt is made to access a password-protected screen, a **[Login page]** will appear.

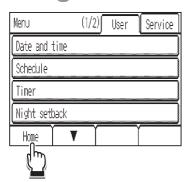
Enter a user password (default: 0000).



The settings screen for the selected item will appear.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Exiting the Menu screen



Touch the **[Home]** button to exit the Menu screen and return to the Home screen.

If no buttons are touched for 10 minutes, the screen will automatically return to the Home screen. Any settings that have not been saved will be lost.

Function settings

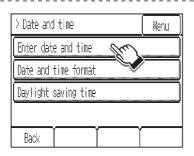
Date and time



Enter date and time

Button operation

1

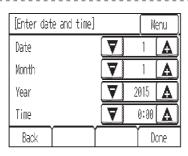


Select [Date and time] from the Menu.
Then, touch [Enter date and time] in the list.

Date and time setting is required before making the following settings.

- Schedule
- Unit ON/OFF timer
- Zone ON/OFF timer
- · Night setback
- · Energy saving
- · Daylight saving time

2



Touch ▼ or ▲ to set the current date, month, year, and time.

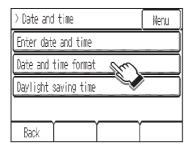
Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Date and time format

Button operation

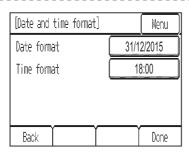
1



Select [Date and time] from the Menu.

Then, touch [Date and time format] in the list.

2



Touch the buttons to select date and time display formats.

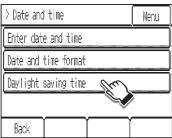
Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Daylight saving time

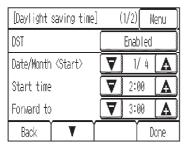
Button operation

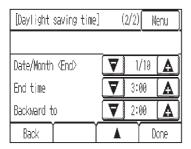
1 [10



Select [Date and time] from the Menu.
Then, touch [Daylight saving time] in the list.

2





The default setting is "Disabled."

To activate the daylight saving time, touch the [Disabled] button to change it to [Enabled].

Set the following items with the **T A** buttons.

- · Date/Month <Start>
- · Start time
- Forward to
- * Set the time when the clock is to be set forward to at the Start time above.
- Date/Month <End> (2nd page)
- End time (2nd page)
- Backward to (2nd page)
 - * Set the time when the clock is to be set backward to at the End time above.

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

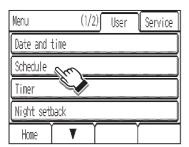
Schedule



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

<Setting the schedules>

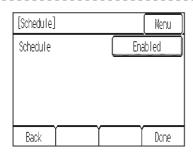
1



Select [Schedule] from the Menu.

The Schedule function will not work in the following cases: when the Unit ON/OFF timer is enabled, the Zone ON/OFF timer is enabled, during an error, during test run, when the clock is not set.

2

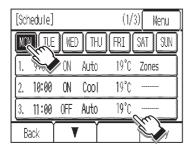


The default setting is "Disabled."

To activate the Schedule function, touch the [Disabled] button to change it to [Enabled].

Touch [Done] to access the settings screen.

3



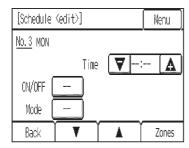
The current settings will appear.

Touch the day of the week button to see the schedule settings for the day.

Up to eight operation patterns can be scheduled for each day. Touch ▼ to see patterns 4 through 8.

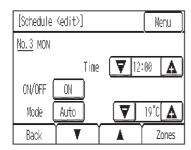
Touch the row of the pattern you want to edit.

4



The current settings for the selected day will appear.

5



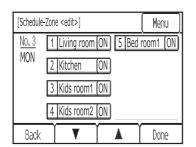
Set the following items.

- Time
- * The time is settable in 5-minute increments.
- * Touch and hold $\overline{\mathbf{v}}$ or $\underline{\mathbf{A}}$ to rapidly advance the numbers.
- ON/OFF
- Mode
- Temperature
 - * The settable operation modes and temperature ranges vary, depending on the indoor unit model.

To continue setting schedules for other time periods, touch ▼ to access the settings screen.

When done making the settings, touch **[Zones]**. Zones schedule setting screen will appear.

6



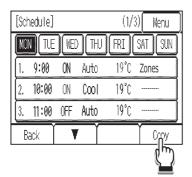
Set the Zones ON/OFF.

To continue setting schedules for other time periods, touch ▼ to access the setting screen. When done making the setting, touch [Done]. A confirmation screen will appear. Touch [OK] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

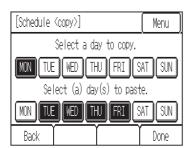
<Copying a schedule>

1



To copy the schedule settings of a day to the schedule settings for another day of the week, touch [Copy].

2

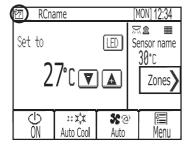


Touch the day whose schedule settings are to be copied and the day(s) to which the copied schedule settings are to be pasted.

When done making the settings, touch **[Done]**. A confirmation screen will appear. Touch **[OK]** to save the settings.

Navigating through the screens

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button



will appear on the Home screen when the schedule setting for the current day exists.

The icon will not appear while the Unit ON/OFF timer or Zone ON/OFF timer is enabled. In these cases, scheduled events will not be executed.

Timer

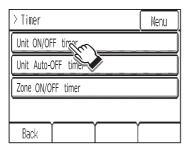


Unit ON/OFF timer

Unit ON/OFF timer allows the user to set a timer to turn on or off the indoor unit at the specified times.

Button operation

1

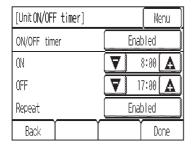


Select [Timer] from the Menu.

Then, touch [Unit ON/OFF timer] in the list.

The Unit ON/OFF timer will not work in the following cases: when Unit ON/OFF timer is disabled, during an error, during test run, when the clock is not set.

2



To activate the Unit ON/OFF timer, touch the [Disabled] button to change it to [Enabled].

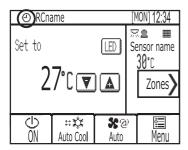
Specify the **[ON]**-time and **[OFF]**-time with the **▼** buttons.

- * The time is settable in 5-minute increments.
- * Touch and hold ▼ or ▲ to rapidly advance the numbers.

To set the ON/OFF timer to repeat daily, set the [Repeat] setting to [Enabled].

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button



② will appear on the Home screen when the ON/ OFF timer is enabled.

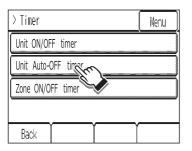


Unit Auto-OFF timer

Unit Auto-OFF timer allows the user to set a timer to turn off the indoor unit after the specified time has elapsed.

Button operation

1

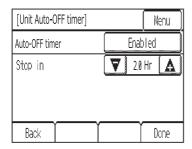


Select [Timer] from the Menu.

Then, touch [Unit Auto-OFF timer] in the list.

The Unit Auto-OFF timer will not work in the following cases: when Unit Auto-OFF timer is disabled, during an error, during test run.

2



To activate the Auto-OFF timer, touch the **[Disabled]** button to change it to **[Enabled]**.

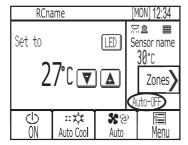
Specify the **[Stop in]**-time with the **T A** buttons.

- * Specify the time to elapse before the indoor unit is automatically turned off. The settable range is 0.5 to 24 hours in 0.5 hours increments.
- * Touch and hold ♥ or ▲ to rapidly advance the numbers.

Touch [Done] to save the settings.

Navigating through the screens

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button



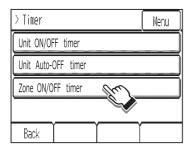
"Auto-OFF" will appear on the Home screen when the Unit Auto-OFF timer is enabled.

Zone ON/OFF timer

Zone ON/OFF timer allows the user to set a timer to turn on or off the zone at the specified times.

Button operation

1

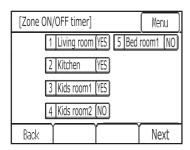


Select [Timer] from the Menu.

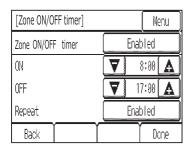
Then, touch [Zone ON/OFF timer] in the list.

The Zone ON/OFF timer will not work in the following cases: when Zone ON/OFF timer is disabled, during an error, during test run, when the clock is not set.

2



To activate the Zone ON/OFF timer, touch the **[No]** button to change it to **[Yes]**.



To activate the Zone ON/OFF timer, touch the **[Disabled]** button to change it to **[Enabled]**.

Specify the **[ON]**-time and **[OFF]**-time with the **V** buttons.

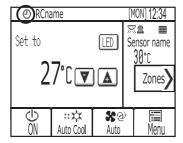
- * The time is settable in 5-minute increments.
- * Touch and hold ♥ or ▲ to rapidly advance the numbers.

To set the ON/OFF timer to repeat daily, set the [Repeat] setting to [Enabled].

Touch [Done] to save the settings.

Navigating through the screens

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button



② will appear on the Home screen when the Zone ON/OFF timer is enabled.

Night setback

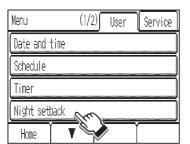


The Night setback function starts heating operation when a given group is stopped and the room temperature drops below the specified lower limit temperature. Also, this function starts cooling operation when a given group is stopped and the room temperature rises above the specified upper limit temperature.

* If the room temperature is measured by the return air temperature sensor on the air conditioning unit, the measured value may not be an accurate representation of the temperature in the room, especially when the air conditioning unit is stopped and the room air is stagnant. When this is the case, use optional sensor or remote controller sensor to measure the room temperature.

Button operation

1

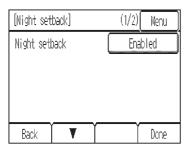


Select [Night setback] from the Menu.

The Night setback function will not work in the following cases: when the unit is in operation, when the Night setback function is disabled, during an error, during test run, when the clock is not set.

The Night setback function will be cancelled when the Unit ON/OFF operation, operation mode setting, or set temperature setting is made from the remote controller while the Night setback function is executed.

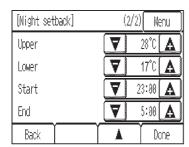
2



The default setting is "Disabled."

To activate the Night setback function, touch the **[Disabled]** button to change it to **[Enabled]**.

To continue making detailed settings, touch ▼ to access the settings screen.



The current settings will appear.

Set the following items.

- · Temperature range
- * Set the upper limit temperature for cooling operation and the lower limit temperature for heating operation.
- * The difference between the lower and upper limit temperatures must be 4°C (8°F) or more.
- * The settable temperature range varies depending on the connected indoor unit model.
- · Start/Stop times
 - * The time is settable in 5-minute increments.
 - * Touch and hold $\overline{\mathbf{v}}$ or $\underline{\mathbf{A}}$ to rapidly advance the numbers.

Touch ▲ to access the previous screen.

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Display format

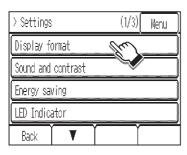


Room temperature for control display

Backlight timeout

Button operation

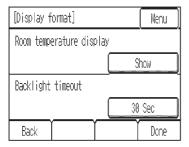
1



Touch [Settings] from the Menu.

Then, touch [Display format] in the list.

2



Room temperature for control display

Touch the button to select the desired room temperature for control display option to be used on the Home screen.

- Show: Room temperature for control appears on the Home screen.
- Hide: Room temperature for controldoes not appear on the Home screen.

Backlight timeout

Touch the button to select the desired timeout of the backlight from 5, 10, 20, 30, and 60 seconds.

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Sound and contrast

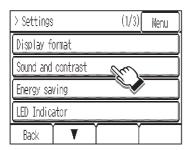


Sound level

Contrast

Button operation

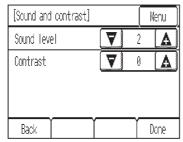
1



Touch [Settings] from the Menu.

Then, touch [Sound and contrast] in the list.

2



Sound level

Set the volume of the buzzer that sounds when the screen is touched.

• Level 0-3 (Level 0: No sound)

Contrast

Set the display contrast between -10 and +10. The greater the value, the higher the contrast.

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Energy saving (Assist function)

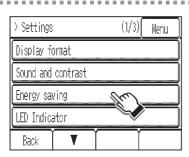


The energy-save control assist function can be set to activate when vacancy is detected while the air conditioning units are operated. (The default setting for this function is set to deactivate.)

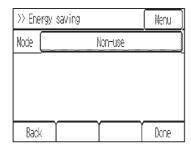
Selecting an energy-save control mode

Button operation

1



Touch [Settings] from the Menu.
Then, touch [Energy saving] in the list.



Touch the **[Mode]** button to select one of the following energy-save control modes that reduces energy-consumption during vacancy.

The default setting is "Non-use."

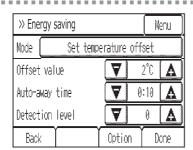
- Non-use: Deactivates the energy-save control assist function.
- Set temperature offset*1: Offsets the set temperature.
- Fan speed down*2: Sets the fan speed to "Low."
- · ON/OFF: Turns off the unit.
- · Zone control: Turns off the zones.
- *1 When the units are operated in the Fan mode, the set temperature will not be offset.
- *2 If the connected indoor unit does not support the fan speed adjustment function, this item will not be displayed.

When the occupancy sensor detects occupancy during the energy-save control, the original operating status will be restored.

However, when the operating status is changed by other controllers or by the scheduled or timercontrolled events, the current operating status will be retained even if the occupancy sensor detects occupancy.

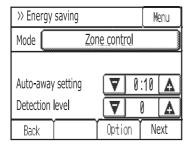
<Note>

 To use the energy-save control assist function in a system with both main and sub remote controllers, activate the function only on the remote controller whose coverage area is the largest.



Set the following items with the ▼ ▲ buttons.

- Offset value (Effective only when "Set temperature offset" mode is selected)
 - * Set the temperature value to be offset by from the set temperature during vacancy. The settable value range is between 1°C (2°F) and 4°C (8°F).
- Auto-away time (Effective when any mode is selected)
 - * When no human movement is detected for the period of the time specified here, the energy-save control will be performed. However, if the user perform a manual operation, the timer will be restarted. The settable time range is between 0:00 and 24:00.
- Detection level (Effective when any mode is selected)
 - * Adjust the detection sensitivity level according to the surrounding environment. (Recommended setting for ordinary use: Level 0) The greater the value, the higher the sensitivity. The settable levels are -2, -1, 0, 1, and 2.
 - * A higher detection level can lead to false detection because the sensor tends to detect more noise.



When the **[Mode]** button is Zone control, **[Next]** button will appear.

As zones setting, the energy-save control zones can be set to active.

As option settings, the energy-save control assist function can be set to deactivate during vacancy at the specified time periods on the specified days or when the brightness sensor detects "Light" or "Dark." (See page 45 for details.)

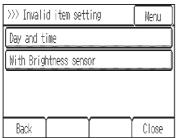
When done making the settings and if no settings need to be made for the option settings, touch **[Done]** to save the settings.

To make option settings, touch [Option].

Invalid item setting (option settings)

Button operation

1 5

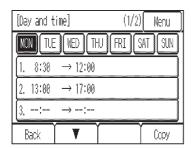


The energy-save control assist function can be set to deactivate during vacancy at the specified time periods on the specified days or when the brightness sensor detects "Light" or "Dark."

To specify time periods and days, touch [Day and time] from the list. (See step 2 below.)

To set the detection conditions for the brightness sensor, touch **[With Brightness sensor]** from the list. (See step 3 below.)

These two different types of settings can be made in combination. The energy-save control assist function will be deactivated when one of the conditions for the above items is met.



Day and time

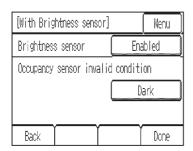
Specify the days and the time periods when the energy-save control assist function will be deactivated.

The settings of a day can be copied to the settings for another day of the week.

The setting details are the same as those for the schedule settings. Refer to page 30 for details.

* To deactivate the function for an entire day, set the setting to "0:00—0:00."

3



With Brightness sensor

To use the brightness sensor for the energy-save control, touch the **[Disabled]** button to change it to **[Enabled]**.

Touch the [Occupancy sensor invalid condition] button to select [Light] or [Dark].

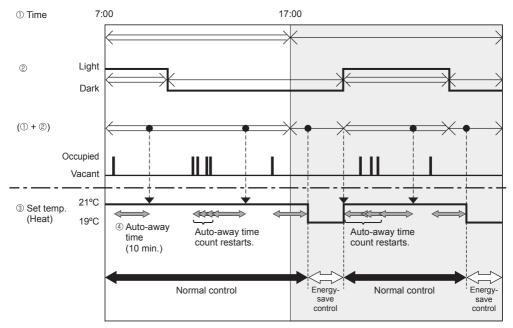
- Light: When the brightness sensor detects "Light" during vacancy, the energy-save control assist function will be deactivated.
- Dark: When the brightness sensor detects "Dark" during vacancy, the energy-save control assist function will be deactivated.

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Example of the energy-save control assist function settings

Setting item		Setting example		
Invalid item setting (option settings)	Day and time	① 7:00 → 17:00		
	With Brightness sensor	② Light		
Energy-save control mode		③ Set temperature offset (Offset value: 2°C)		
Auto-away time		④ 0:10 (10 minutes)		



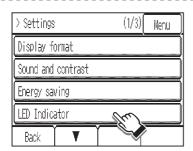
- Period during which energy-save control can not be performed even when vacancy is detected
- $\begin{tabular}{ll} \longleftarrow & \begin{tabular}{ll} \begin{tabular}{ll}$
 - ▼ Because the settings for the items under [Invalid item setting] are made, the energy-save control will not be performed at these times even when the occupancy sensor detects vacancy.

LED Indicator



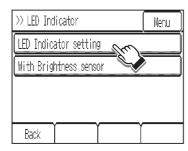
Button operation

1

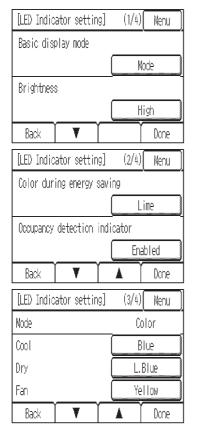


Touch [Settings] from the Menu. Then, touch [LED Indicator] in the list.

2



Touch [LED Indicator setting] in the list.



The default setting for [Basic display mode] is "Mode."

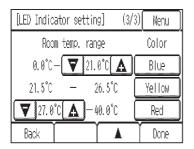
Touch the button to select the Basic display mode from "Mode," "Room temp.," or "Non-use."

Setting items common to "Mode" and "Room temp."

- Brightness
 - * Select "High" or "Low."
 - * This setting is effective only when the "With Brightness Sensor" setting (explained on the next page) is disabled.
- Color during energy saving (2nd page)
- * Select the desired color to be used during energysave control.
- Occupancy detection indicator (2nd page)
- * Select "Enabled" or "Disabled."
 When "Enabled" is selected, the LED indicator blinks once every 30 seconds when the occupancy sensor detects occupancy.

Setting item specific to "Mode"

- Mode color (3rd and 4th pages)
 - * Select the desired LED color for each operation mode.

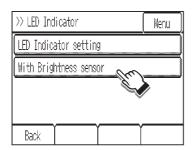


Setting item specific to "Room temp."

- Room temp. for control range and LED color (3rd page)
 - * Set the desired temperature ranges and the LED colors for low, medium, and high temperature range groups.

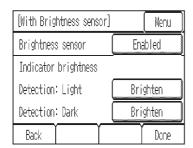
Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button



To select the brightness level of the LED indicator to be used when the brightness sensor detects "Light" or "Dark," touch the **[With Brightness sensor]** in the list.

5



To use the brightness sensor for switching the brightness of the LED indicator, touch the **[Disabled]** button to change it to **[Enabled]**.

Set the following items.

- · Detection: Light
- * Select the brightness level of the LED indicator to be used when the brightness sensor detects "Light." Select "Brighten," "Darken," or "OFF"
- · Detection: Dark
 - * Select the brightness level of the LED indicator to be used when the brightness sensor detects "Dark." Select "Brighten," "Darken," or "OFF"

Touch [Done] to save the settings.

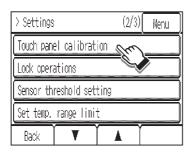
- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Touch panel calibration



Button operation

1



Touch [Settings] from the Menu.

Then, touch [Touch panel calibration] in the list.

A confirmation screen will appear.

Touch [OK].

2

Touch the black dots in the order they appear on the screen.
There will be nine of them all together.

Touch the black dots with a touch pen in a minute, starting from the top left corner.

Touch the black dots in the order they appear, starting from the top left corner.

After all nine squares are touched, the screen will return to the previous screen.

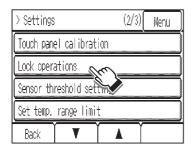
- If each square is not touched within one minute after the last square is touched, calibration will be canceled and the screen will return to the previous screen.
- To calibrate the screen properly, use a pointy, but not sharp object to touch the black dots.
 - * Sharp objects may scratch the touch panel.

Lock operations



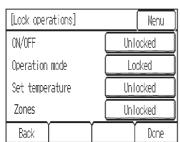
Button operation

1



Touch [Settings] from the Menu.
Then, touch [Lock operations] in the list.

2



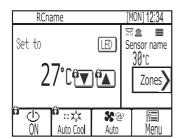
To lock the following operation items, touch the **[Unlocked]** button to change it to **[Locked]**.

- ON/OFF
- · Operation mode
- Set temperature
- Zones

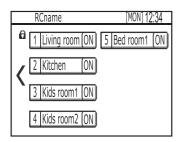
Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Button operation



will appear on the Home screen when the unit ON/OFF operation, operation mode, set temperature are locked.



will appear on the Zone operation screen when the One ON/OFF operation is locked.

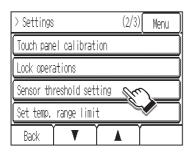
Sensor threshold setting



Occupancy sensor

Button operation

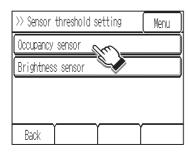
1



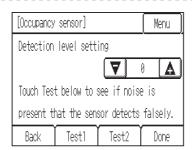
Touch [Settings] from the Menu.

Then, touch [Sensor threshold setting] in the list.

2



To set the detection sensitivity level of the occupancy sensor, touch [Occupancy sensor] in the list



Set the detection sensitivity level with the 🔻 🛕 buttons.



- Level: -2, -1, 0 (default), 1, 2
- * The detection level setting made here will also be reflected on the detection level setting on the "Energy saving" screen.

The larger the value, the more sensitive the sensor will be to light.

Use the default conditions under normal conditions. If the sensor is oversensitive or undersensitive, adjust the detection sensitivity level.

Use the following tests to adjust the detection sensitivity to the appropriate level: A vacancy test (Test 1) and an occupancy test (Test 2).

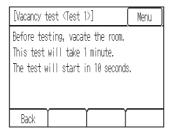
A higher detection sensitivity level can lead to false detection because the sensor tends to detect more noise.

Touch [Done] to save the settings.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Performing sensor detection sensitivity tests

Test 1: Vacancy test



To start Test 1, touch [Test 1].

Ten seconds later, the vacancy detection test will automatically begin.

This test will test for the presence of noise that leads to false detection.

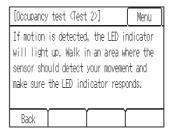
Leave the room within 10 seconds after touching the button, and leave the room unoccupied for 1 minute until the test is completed.

When the test is complete, the result will be displayed in color on the LED indicator.

- Blue: Normal (The sensor correctly detected vacancy without being interfered with by noise.)
- Red: Error (The sensor falsely detected occupancy due to noise.)

If the sensor failed to correctly detect vacancy, lower the detection sensitivity level and try again.

Test 2: Occupancy test



To start Test 2, touch [Test 2].

When movements are detected, the LED indicator will light up in blue.

Walk away from the remote controller, and walk around in areas where you want the sensor to detect motions to see if it will respond correctly.

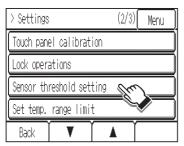
If the sensor does not respond, raise the detection sensitivity level and try again.

The sensor detection area is as follows: 110° to either side, 10 meters (32 feet). Some conditions will render the sensor susceptible to false detection. Refer to "How To Install" in chapter 1 in the Installation Manual.

Brightness sensor

Button operation

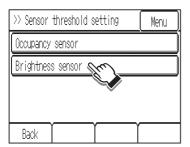
1



Touch [Settings] from the Menu.

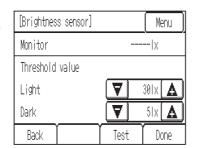
Then, touch [Sensor threshold setting] in the list.

2



To set the threshold value of the brightness sensor, touch [Brightness sensor] in the list.

3



The lux values to be used to determine the "Dark" state and "Light" state can be set.

These statuses are used as parameters for energy-save control and LED indicator control. Set the lux values to an appropriate values suitable for a given environment.

Try changing the brightness in a given space (e.g., by drawing curtains) while adjusting the lux levels.

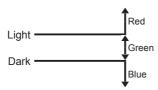
Set the values and touch [Done].

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Performing a test

When **[Test]** is touched, the current lux level in a given space will appear next to "Monitor" on the screen.

The LED indicator will indicate the brightness status of a given space in colors.

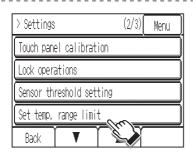


Set temperature range limit

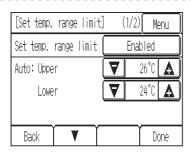


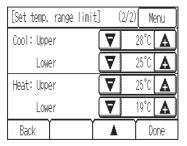
Button operation





Touch [Settings] from the Menu.
Then, touch [Set temp. range limit] in the list.





The default setting is "Disabled."

To limit the settable temperature ranges for the Auto, Cool (Dry), and Heat modes, touch the **[Disabled]** button to change it to **[Enabled]**.

Set the upper and lower limit temperatures for the following operation modes in the table below with the \(\nabla\) \(\Delta\) buttons. (The temperatures will decrease or increase by 1°C or 1°F increments.)

 If the connected indoor unit does not feature the Auto mode, the items related to the Auto mode will not be displayed.

Settable upper and lower limit temperatures

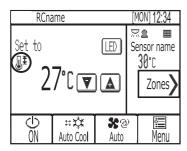
Operation mode	Lower limit	Upper limit		
Auto	19°C–28°C (67°F–83°F)	28°C–19°C (83°F–67°F)		
Cool/Dry	19°C–30°C (67°F–87°F)	30°C–19°C (87°F–67°F)		
Heat	17°C–28°C (63°F–83°F)	28°C–17°C (83°F–63°F)		

- * The settable operation modes and temperature ranges vary, depending on the indoor unit model.
- * The cooling and heating temperature ranges can be set under the following conditions.
 - The difference between the cooling and heating upper limit temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.
- The difference between the cooling and heating lower limit temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.

When done making the settings, touch **[Done]** to save the settings.

Navigating through the screens

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button



will appear on the Home screen when the temperature range is limited.

Auto return

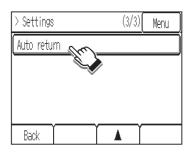




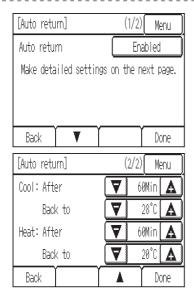
The Auto-return function allows the user to operate the unit at the specified temperature after the specified period of time.

Button operation





Touch [Settings] from the Menu. Then, touch [Auto return] in the list.



The default setting is "Disabled."

To activate the Auto-return function, touch the **[Disabled]** button to change it to **[Enabled]**.

Set the following items with the \(\bar{\bar{\Bar{A}}} \) buttons. The temperatures will decrease or increase by 1°C or 1°F increments.

- Cool
 - * Specify the time to elapse before the set temperature automatically changes to the set temperature specified below during cooling operation. The settable time range is 10 to 120 minutes in 10-minute increments.
 - * Specify the set temperature to be used after the period of time specified above. The settable temperature range is 19°C to 30°C (67°F to 87°F) (depending on the indoor unit model).
- * "Cool" includes the "Dry" and "Auto_Cool" modes.
- Heat
 - * Specify the time to elapse before the set temperature automatically changes to the set temperature specified below during heating operation. The settable time range is 10 to 120 minutes in 10-minute increments.
 - * Specify the set temperature to be used after the period of time specified above. The settable temperature range is 17°C to 28°C (63°F to 83°F) (depending on the indoor unit model).
 - * "Heat" includes the "Auto Heat" modes.

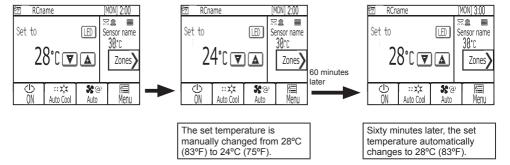
When done making the settings, touch **[Done]** to save the settings.

Navigating through the screens

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

The Auto-return function settings will not be effective when the set temperature range is restricted.

<Sample screens when the Auto-return function is enabled>
Example: Lower the set temperature to 24°C (75°F). Sixty minutes later, the set temperature will automatically change to 28°C (83°F).

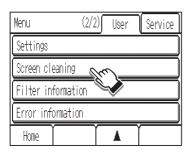


Maintenance

Screen cleaning

Button operation

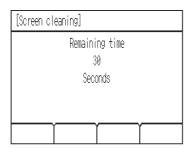
1



Touch [Screen cleaning] from the Menu.

A confirmation screen will appear. Touch **[OK]**.

2

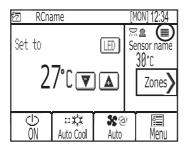


Clean the touch panel within 30 seconds. The touch panel is deactivated for 30 seconds and then returns to the Menu screen.

* The buzzer will sound while the touch panel is being touched.

Wipe with a soft dry cloth, a cloth soaked in water with mild detergent, or a cloth dampened with ethanol. Do not use acidic, alkaline, or organic solvents.

Filter information



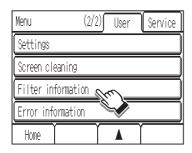
will appear on the Home screen when it is time to clean the filters.

Wash, clean, or replace the filters when this sign appears.

Refer to the indoor unit Instructions Manual for how to clean the filters.

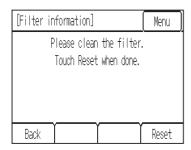
Button operation

1



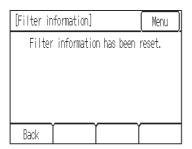
Touch [Filter information] from the Menu.

2



Touch [Reset] to reset the filter sign.

A confirmation screen will appear. Touch **[OK]**.



A message indicating that the filter information has been reset will appear.

Navigating through the screens

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

will appear when the filter on one of the units is due for cleaning.

When the filter sign is reset, the cumulative operation time of all units will be reset.

is scheduled to appear after a certain duration of operation, based on the premise that the indoor units are installed in a space with ordinary air quality. Depending on the air quality, the filter may require more frequent cleaning.

The cumulative time at which filter needs cleaning depends on the model.

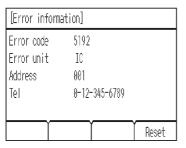
Troubleshooting

Error information

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

Button operation

1



Error code, error unit, and address will appear. Dealer's phone number will appear if the information has been registered in the settings screen under the Menu (Service).

* The LED indicator will blink at 1-second intervals while the error is occurring.

Touch [Reset] to reset the error that is occurring. A confirmation screen will appear.

Touch [OK].

2

[Error inf	Menu					
Error information has been reset.						
Back			•			

A message indicating that the error information has been reset will appear.

- To return to the Menu screen: [Menu] button
- To return to the previous screen: [Back] button

Specifications

Controller specifications

Specifications					
Power Source		17–32 VDC *1 (for connection to M-NET only)	Receives power from zone control interface via the M-NET transmission cable.		
Operating conditions	Temperature	Operating temperature range	0°C - +40°C (+32°F - +104°F)		
		Storage temperature range	-20°C – +60°C (-4°F – +140°F)		
	Humidity	20%–90% RH (Non-condensing)			
Weight 0		0.3 kg (11/16 lbs)			
External dimensions (W x H x D)		140 x 120 (123) x 25 (28.8) mm 5-17/32 x 4-3/4 (4-27/32) x 1 (1-5/32) in			
		* The numbers in the parenthesis indicate the dimensions including the protruding parts.			

^{*1} Not for use with a generic DC power supply device.

List of functions that can/cannot be used in combination

	Schedule	Unit or Zone ON/OFF timer	Unit Auto-OFF timer	Auto return	Set temp. range limit	Lock operations	Night setback	Energy saving (Assist function)
Schedule		X 1	0	0	0	0	A 4	0
Unit or Zone ON/OFF timer	X 1		0	0	0	0	\(\Lambda \) 2	0
Unit Auto-OFF timer	0	0		0	0	0	Δ 3	0
Auto return	0	0	0		X 2	0	Δ6	Δ 1
Set temp. range limit	0	0	0	X ₂		0	Δ 5	0
Lock operations	0	0	0	0	0		0	0
Night setback	Δ4	\(\Delta \) 2	A 3	Δ6	\(\) 5	0		\(\Lambda \) 7
Energy saving (Assist function)	0	0	0	Δ1	0	0	\(\Lambda \) 7	

- O: The functions can be used in combination.
- ▲: Restricted X: The functions cannot be used in combination.
- X1 : The "Schedule" setting is not effective because "ON/OFF timer" has the higher priority.
- X2 : The "Auto return" function cannot be used because the "Set temp. range limit" setting has the higher priority.
- △1 : The "Auto return" function will not be executed when the units are operated in the "Set temperature offset" mode.
- △2: The "Night setback" function will not be executed when the unit has been turned on by "Unit ON/
 - When Zone ON/OFF timer is set, both of the functions will remain effective.
- △3 : The "Unit Auto-OFF timer" function will not be executed while the "Night setback" function is
- △4 : The "Night setback" function will not be executed when the unit has been turned on by "Schedule"
- △5 : The "Set temp. range limit" settings will not be effective while the "Night setback" function is executed.
- △6 : The "Auto return" function will not be executed while the "Night setback" function is executed.
- △7: The "Energy saving" function will not be executed while the "Night setback" function is executed.

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.

MITSUBISHI ELECTRIC CORPORATION

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