MITSUBISHI ELECTRIC

<ORIGINAL>

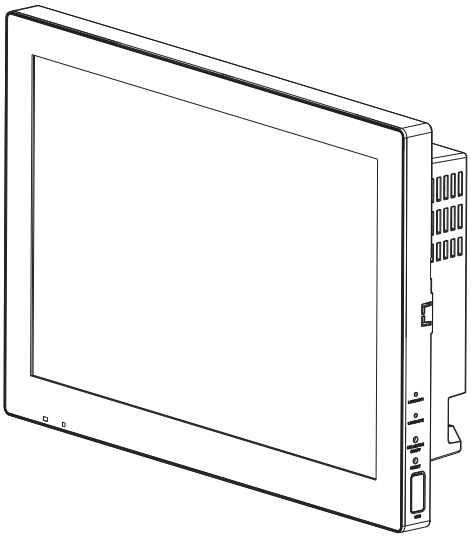
UK CA CE

Air Conditioning Control System
Centralized Controller

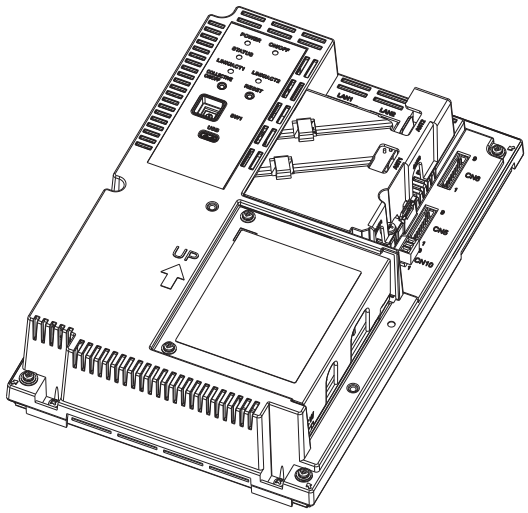
MODEL

AE-C400
EW-C50

Instruction Book
– Detailed operations –



AE-C400



EW-C50

Proper installation is important for your safety and proper functioning of the units. Thoroughly read the following safety precautions prior to installation.
Safety notes are marked with ⚠**WARNING** or ⚠**CAUTION**, depending on the severity of possible consequences that may result when the instructions are not followed exactly as stated.

Before installing the controller, please read this Instruction Book carefully to ensure proper operation.
Retain this manual for future reference.

en
WT09991X01

Manual Download

http://www.mitsubishielectric.com/ldg/ibim/

en Go to the above website to download manuals, select model name, then choose language.

de Besuchen Sie die oben stehende Website, um Anleitungen herunterzuladen, wählen Sie den Modellnamen und dann die Sprache aus.

fr Rendez-vous sur le site Web ci-dessus pour télécharger les manuels, sélectionnez le nom de modèle puis choisissez la langue.

es Visite el sitio web anterior para descargar manuales, seleccione el nombre del modelo y luego elija el idioma.

it Andare sul sito web indicato sopra per scaricare i manuali, selezionare il nome del modello e scegliere la lingua.

pt Aceda ao site Web acima indicado para descarregar manuais, seleccione o nome do modelo e, em seguida, escolha o idioma.

tr Kılavuzları indirmek için yukarıdaki web sitesine gidin, model adını ve ardından dili seçin.

ru Чтобы загрузить руководства, перейдите на указанный выше веб-сайт; выберите название модели, а затем язык.

中<简> 前往上述网站下载手册，选择产品型号，然后选择语言。

MEMO

Contents

Safety precautions

- **Thoroughly read the following safety precautions prior to installation.**
- **Observe these precautions carefully to ensure safety.**

⚠ WARNING	:	**indicates a hazardous situation which, if not avoided, could result in death or serious injury.**
⚠ CAUTION	:	**indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.**

- **After reading this manual, pass the manual on to the end user to retain for future reference.**
- **The user should keep this manual for future reference and refer to it as necessary. The manual should be made available to those who repair or relocate the product. Make sure that the manual is passed on to any future air conditioning system user.**

■ General precautions

⚠ WARNING

Do not use the product where large amounts of oil, steam, organic solvents, or corrosive gases (such as ammonia, sulfuric compounds, and acids) are present or where acidic/ alkaline solutions or special chemical sprays are used frequently. These substances may corrode the internal parts, resulting in electric shock, performance degradation, malfunction, smoke, or fire.

To reduce the risk of injury, electric shock, or fire, do not alter or modify the product.

To reduce the risk of injury, keep children away while installing, inspecting, or repairing the product.

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

To reduce the risk of short circuits, current leakage, electric shock, malfunction, smoke, or fire, do not wash the product with water or any other liquid.

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

To reduce the risk of injury or electric shock, before spraying a chemical around the product, stop the operation and cover the product.

If you notice any abnormality (e.g. a burning smell), stop the operation, turn off the product, and contact your dealer. Continuing the use of the product without correcting the abnormality may result in electric shock, malfunction, or fire.

Properly install all required covers to keep dust and moisture out of the product. Dust or moisture entering the product may result in electric shock, smoke, or fire.

⚠ CAUTION

To reduce the risk of injury from broken glass, do not apply excessive force to the glass parts.

To reduce the risk of electric shock or malfunction, do not touch the touch panel, switches, or buttons with a pointed object.

To reduce the risk of injury, electric shock, or malfunction, do not touch sharp edges of parts.

Consult an authorized agency for proper disposal of the product. Inappropriate disposal can lead to environmental pollution.

■ Precautions for relocating or repairing the product

⚠ WARNING

The product must be relocated or repaired only by qualified personnel. The user must not disassemble or modify the product. Improper installation or repair may result in injury, electric shock, or fire.

1. Introduction

The AE-C/EW-C controller is a Web-based system used to monitor and control air-conditioning and refrigeration units via a Web browser. The AE-C allows you to monitor and control the units from its LCD screen.

1-1. About this manual

- This manual explains basic controller operations and initial settings.
- For monitoring or operation from a Web browser on a computer, you need to log in to the controller from the Web browser.
  Check the IP address, ID, and password of the AE-C/EW-C.
  The factory default IP address is [192.168.1.1].
  The default settings are as follows:
  URL: https://192.168.1.1/control
  User ID: administrator
  Password: Admin + DP
  For DP, refer to the back cover of the Instruction Book (supplied with the controller).
  ex.) When DP is 123456, the password will be Admin123456.
- When accessing the AE-C/EW-C from a computer for the first time, you need to import the root CA certificate.
- To make initial settings, you need to log in to the controller from the Initial Setting Tool.
  The default settings are as follows:
  User ID: initial
  Password: Init + DP
  For DP, refer to the back cover of the Instruction Book (supplied with the controller).
  ex.) When DP is 123456, the password will be Init123456.
- Controller models are abbreviated as "AE-C" or "EW-C" in this manual.
- In this manual, unless otherwise specified, "unit" means general air-conditioning and refrigerant equipment.
- In this manual, an action of selecting an item by tapping it with your finger or a pen or by clicking it with a computer mouse is referred to as "tapping."
- Displayed items and screen transfer patterns may differ, depending on the equipment connected to the units and the licenses purchased by users.

1-2. Related manuals

- Installation Manual (supplied with the controller)
- Instruction Book (supplied with the controller)
- Instruction Book (Detailed operations): this manual

Note

- For the latest version of the manuals, refer to the specified page. "Manual Download (page 2)"

1-3. Trademarks and registered trademarks

MicroSDHC logo is a trademark of SD-3C, LLC.

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IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.
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MODBUS is a registered trademark of Schneider Electric USA Inc.
Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates in the U.S. and other countries.
Other company names and product names shown in this manual may be trademarks or registered trademarks of their respective companies.

1-4. Compliance with applicable laws and regulations

- For information about the compliance of the controller with applicable laws and regulations, refer to the web site of Mitsubishi Electric Corporation.
- The apportioned electricity billing function uses our unique analysis method of energy apportionment, which is based on the analysis of the operation status data exchanged between the controller and the air conditioning units, not based on the actual measurement of the energy consumption of each air conditioning unit.
  The entire energy consumption obtained by the apportioned electricity billing function is for internal use, and is not intended for disclosure to tenant owners.

1-5. Software details

Details of the open source integrated in the controller are available at the following URL:
https://(IP address of the controller)/license/
The access to the above URL is allowed only to commissioning users.

1-6. Precautions regarding radio waves

The controller emits radio waves, which may affect peripheral devices in some cases.
Check that the radio waves do not cause any problems before use.
If any problems may be caused by the use of the controller, consult your dealer.

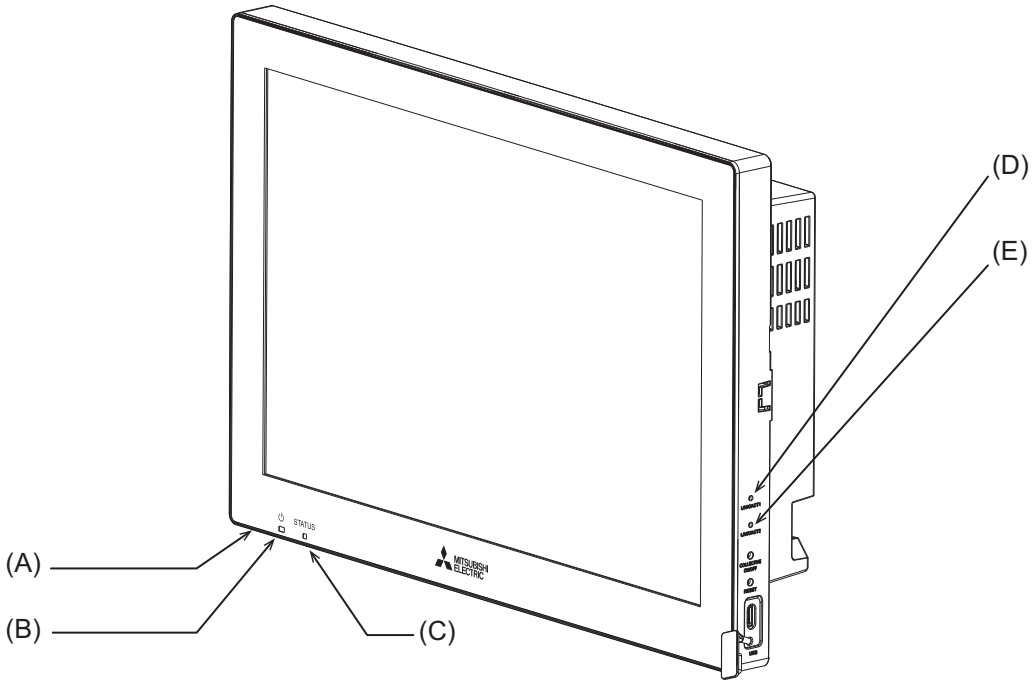
1-7. Action to be taken if the controller shows "!" or the controller does not behave as intended

If an exclamation mark "!" appears on the controller (including the web browser), write down the error code and contact your dealer. For indication of the error code, refer to the specified page. "Notice screen (page 28)"
If the controller does not behave as intended, refer to the specified page. "Before requesting repairs (page 246)".

2. Parts names

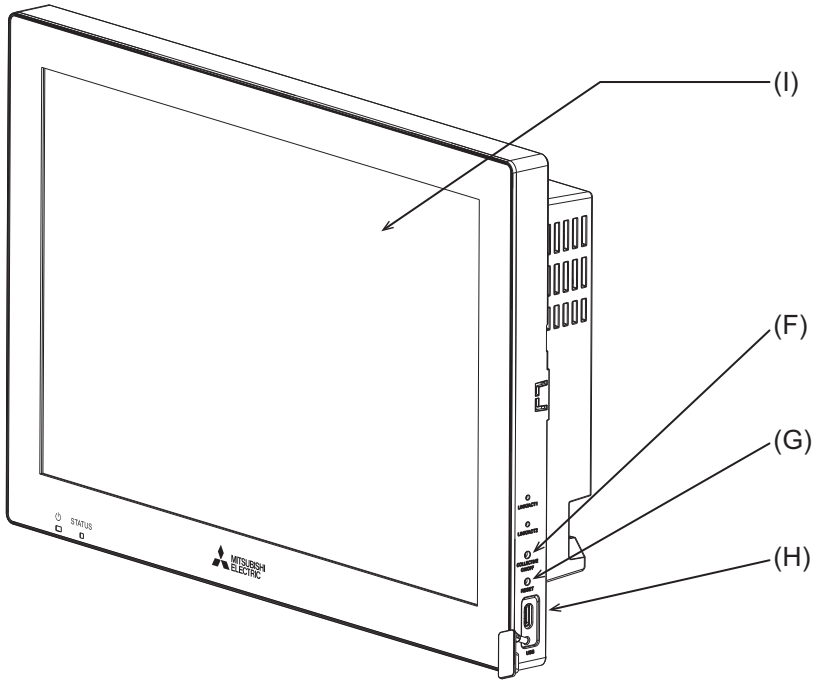
2-1. AE-C

■ AE-C (Front)



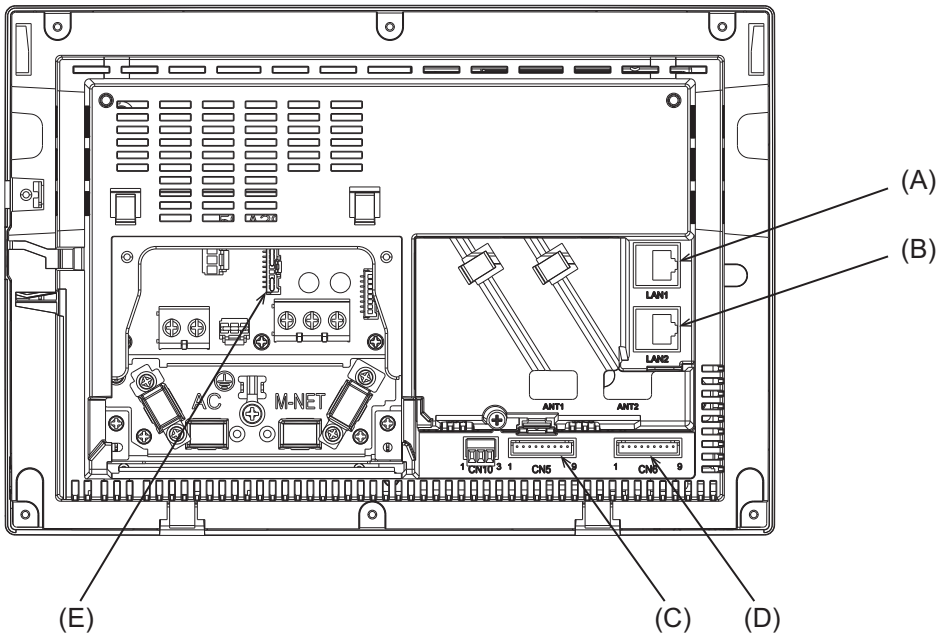
	Item	
		Function and description
(A)	LED	
		⏻(Bottom)
		Lit in green: The controller is receiving power. Unlit: The controller is not receiving power.
(B)		⏻ *1
		Lit in green: On Blinking in green: Error Unlit: Off
(C)		STATUS
		Indicates the status of the controller. The lamp is lit off, or lit or blinks in green during normal operation of the controller. If the lamp is blinking in orange, yellow, or pink, consult your dealer.
(D)		LINK/ACT1
		Blinking in white: Data transmission in progress (LAN1) Unlit: No data transmission
(E)		LINK/ACT2
		Blinking in white: Data transmission in progress (LAN2) Unlit: No data transmission

*1 This LED shows the operation status of the devices controlled directly by the controller or the devices controlled by the entire system.

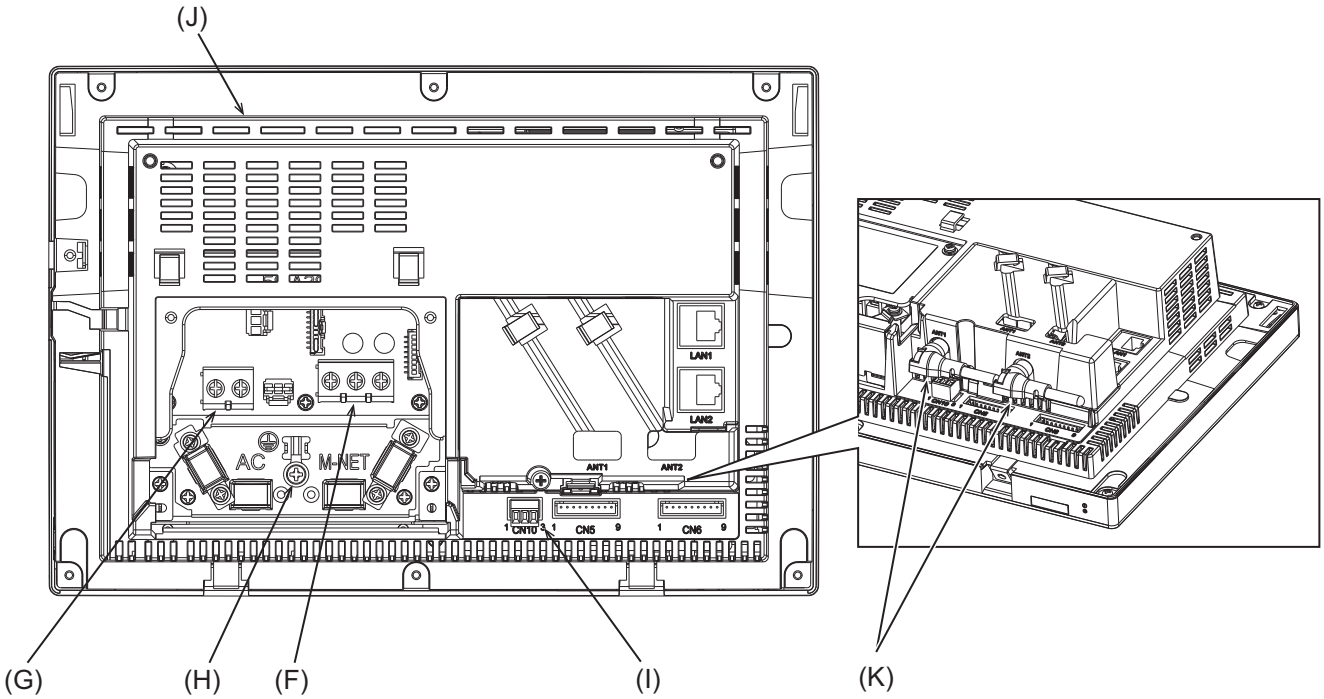


	Item	
		Function and description
(F) (G)	Push switch	
	ON/OFF	
		Pressing the switch turns the backlight on or off.
	RESET	
		Restarts the controller.
(H)	USB port (Type-C) (USB 3.1 Gen1)	
		Remove the cover when connecting a device to the USB port. Leave the cover attached while not using the USB port.
(I)	LCD screen	
		Touch panel

■ AE-C (Rear (without the service cover))

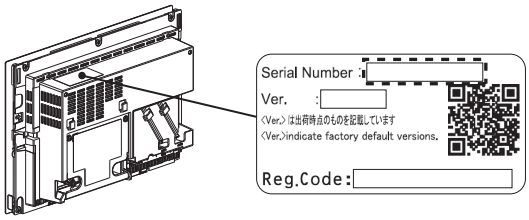


	Item
	Function and description
(A)	LAN1
	LAN port for controlling air-conditioning and refrigeration units. Connects to other AE-C or EW-C with a LAN cable via a switching HUB.
(B)	LAN2
	LAN port for BACnet connection. Connects to a building management system with a LAN cable via a switching HUB.
(C) (D)	CN5 CN6
	Connector for connecting the external input/output adapter (PAC-YG10HA-E).
(E)	CN21
	Connector for M-NET power supply. Attaching this connector to the controller supplies power to M-NET from the controller. (The controller is shipped with the connector attached.) To supply power to M-NET from other devices, remove this connector.



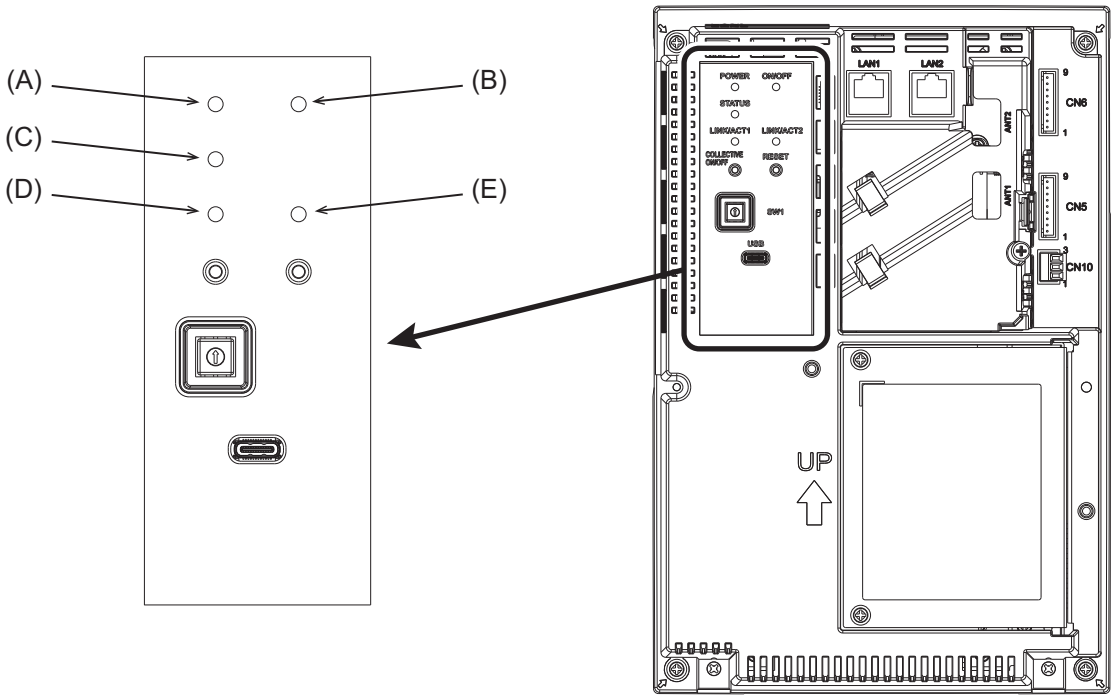
	Item
	Function and description
(F)	TB3 (M3.5)
	Terminal block for connecting the M-NET transmission cable.
(G)	TB1 (M3.5)
	Terminal block for connecting the AC power wires (L/L1, N/L2).
(H)	Ground (M4)
	Terminal for connecting the protective ground wire.
(I)	CN10
	RS-485 connector for connecting a watt-hour meter.
(J)	Serial number label
	The serial label is on the rear of the controller. See the figure below.
(K)	Antenna for cellular communication
	Do not remove the antennas from the controller if they are already installed on the controller. After installing the controller, place the antennas to the default position as shown in the figure.

Serial number label



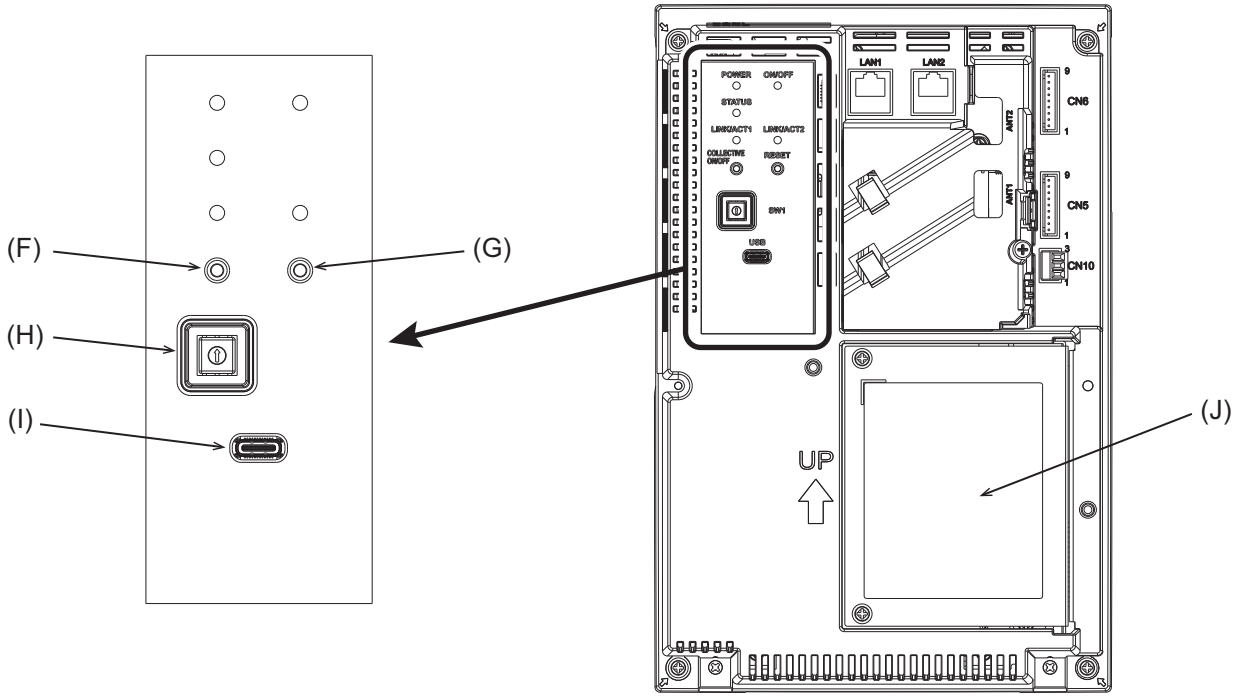
2-2. EW-C

■ EW-C (with the service cover)



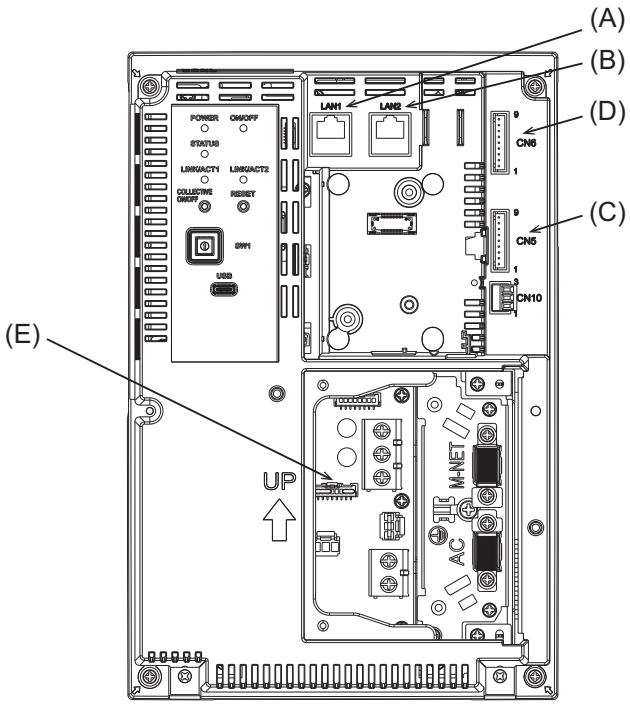
	Item	
		Function and description
	LED	
(A)		POWER
		Lit in green: The controller is receiving power. Unlit: The controller is not receiving power.
(B)		ON/OFF *1
		Lit in green: On Blinking in green: Error Unlit: Off
(C)		STATUS
		Indicates the status of the controller. The lamp is lit off, or lit or blinks in green during normal operation of the controller. If the lamp is blinking in orange, yellow, or pink, consult your dealer.
(D)		LINK/ACT1
		Blinking in orange: Data transmission in progress (LAN1) Unlit: No data transmission
(E)		LINK/ACT2
		Blinking in orange: Data transmission in progress (LAN2) Unlit: No data transmission

*1 This LED shows the operation status of the devices controlled directly by the controller or the devices controlled by the entire system.



	Item	
		Function and description
(F) (G)	Push switch	
	-	
	RESET	
		Restarts the controller.
(H)	Rotary switch	
	SW1 0 to F	
		Sets the IP address of LAN1. When the rotary switch is set to 0 (factory default), the setting made with the Initial Setting Tool is valid. When the rotary switch is set to a value other than 0, the value set with the rotary switch is valid.
(I)	USB port (Type-C) (USB 3.1 Gen1)	
		—
(J)	Service cover	
		To be removed when the AC power cable or M-NET transmission cable is connected to the controller.

■ EW-C (without the service cover)



	Item
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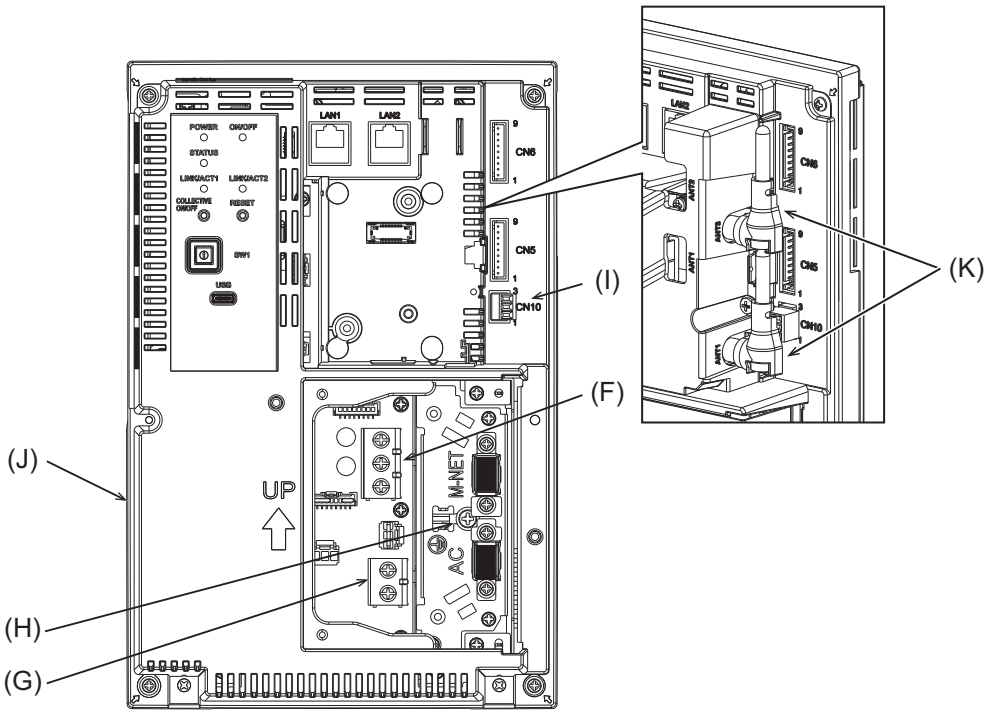
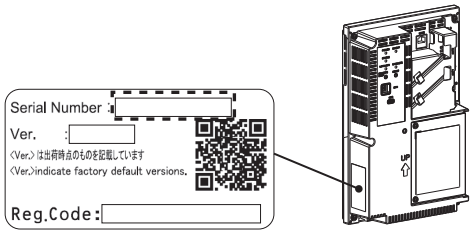


	Item
	Function and description
(F)	TB3 (M3.5)
	Terminal block for connecting the M-NET transmission cable.
(G)	TB1 (M3.5)
	Terminal block for connecting the AC power wires (L/L1, N/L2).
(H)	Ground (M4)
	Terminal for connecting the protective ground wire.
(I)	CN10
	RS-485 connector for connecting a watt-hour meter.
(J)	Serial number label
	The serial label is on the rear of the controller. See the figure below.
(K)	Antenna for cellular communication
	Do not remove the antennas from the controller if they are already installed on the controller. After installing the controller, place the antennas to the default position as shown in the figure.

Serial number label



3. Before using the controller

- The controller must not be installed by the user. (Proper safety level and functionality may not be ensured.)
- The controller must be installed by the dealer (or the contractor) in accordance with the applicable laws, regulations, and certifications.
- When the installation work is completed, check that the initial settings are made properly.
- After the installation work is completed by a professional contractor, attend the commissioning performed by the dealer (or the contractor) to obtain instructions on correct use to ensure safety.
- Make sure that all the items on the checklist of the Installation Manual are ticked off by the dealer (or the contractor). Receive the checklist from the dealer (or the contractor).

MEMO

4. Usage (Common to all models: basic operation and display)

This chapter explains the items and buttons that are displayed on all screens, screen transition patterns, and error indications. For the operation procedure for each product, refer to the specified page.

Air conditioning unit:

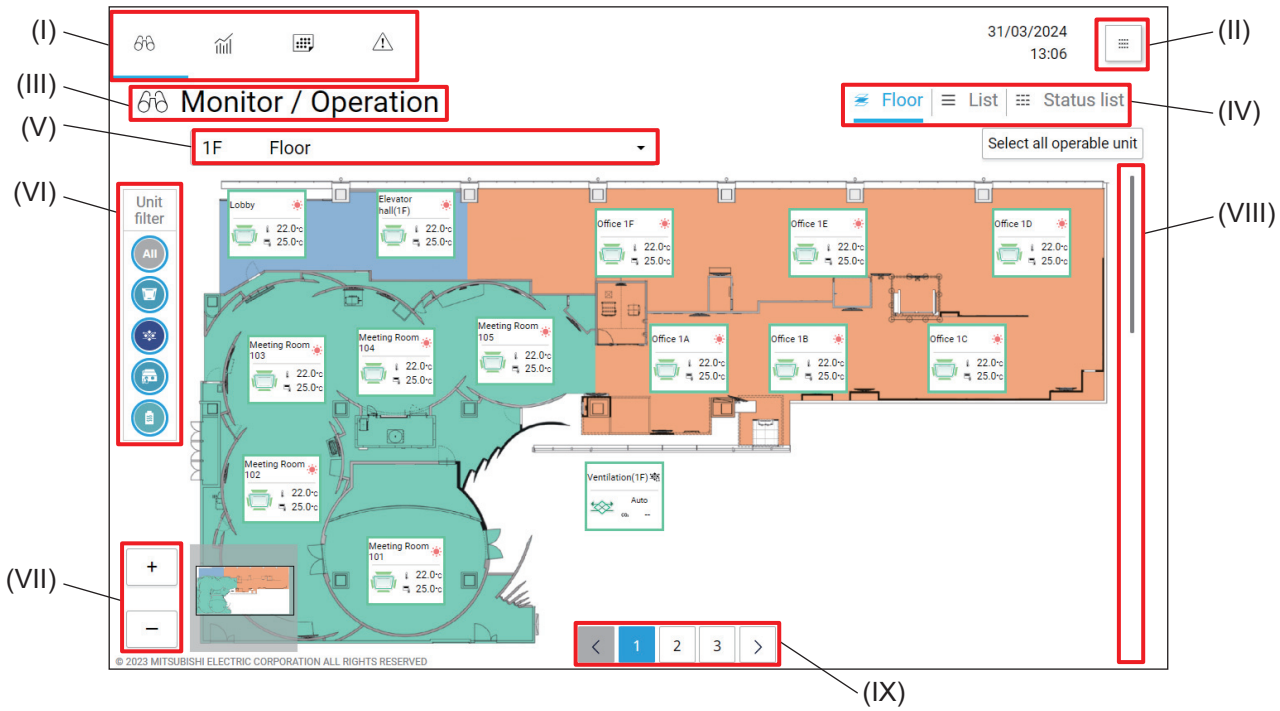
"Usage (Air conditioning unit/ventilating unit: basic operation) (page 52)"
"Usage (Air conditioning unit/ventilating unit: schedule settings) (page 58)"
"Usage (Air conditioning unit/ventilating unit: operation management) (page 62)"

Other products:

"Usage (Products other than air conditioning unit: basic operation) (page 74)"
"Usage (Products other than air conditioning unit: schedule settings) (page 80)"

4-1. Common items and buttons

Items and buttons that appear on all screens are explained below.

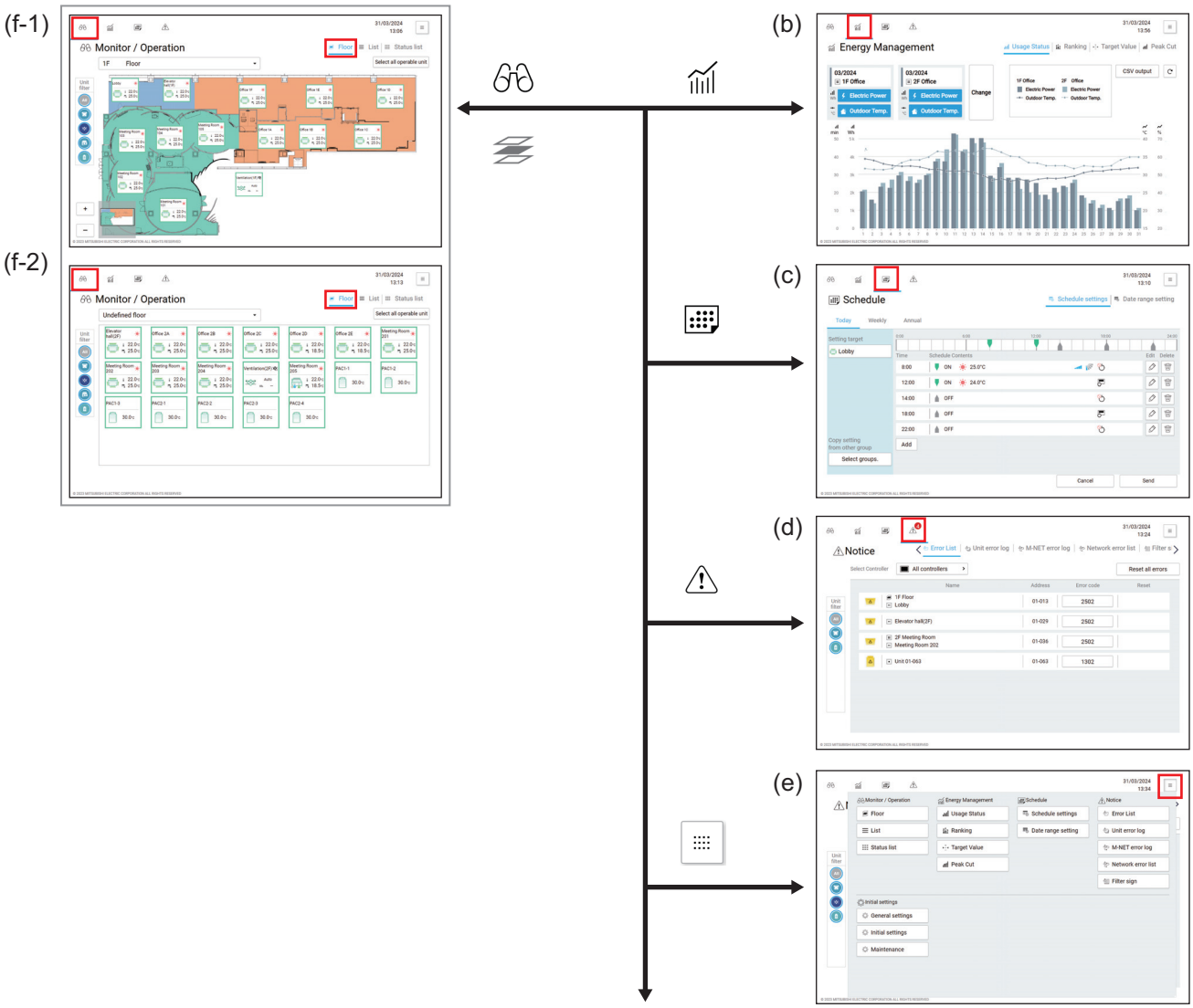


	Item	Function and description
(I)	Main menu	Tapping the buttons on the main menu will display the following screens. [Monitor/Operation] Monitor/Operation screen, which shows floor layouts. [Energy Management] Energy Management screen, which shows the energy consumption status. [Schedule] Schedule screen, which shows the schedule settings. [Notice] Notice screen, which shows the occurrence of filter signs and errors.
(II)	[Panorama view] (Panorama view)	Tapping this button will display the list of setting items.
(III)	Screen name	The name of the screen selected by the main menu buttons is displayed. Monitor/Operation, Energy Management, Schedule, Notice

	Item	Function and description
(IV)	Sub menu	Tapping the buttons on the sub menu will display the control or setting items. Different items appear on different screens. To view items not visible on the screen, tap **[<]** or **[>]** to scroll the screen to the left or the right.
(V)	Floor name/selection button Controller name/selection button	The functions of the item and the button to be displayed vary, depending on the screens selected by the main menu buttons. • Floor name/floor selection button The name of the floor being monitored is displayed. Monitoring target floors are selectable from the pull-down menu. When no floors are registered, "Undefined floor" will be displayed. (Web browser only). • Controller name/controller selection button Tapping [All controllers] and selecting the AE-C/EW-C number will display the units that are controlled by the selected AE-C/EW-C.
(VI)	Unit filter	Tap the buttons below to select the types of units to display. ex.) **[**  **]**: All units, **[**  **]**: Indoor units, **[**  **]**: LOSSNAY units
(VII)	**[+]/[-]**	These buttons appear on the floor layout screen, and zoom in or out the screen.
(VIII)	Scroll bar	The scroll bar appears when the content of the screen is not entirely visible. Moving the scroll bar up or down will scroll the screen up or down.
(IX)	Page number buttons	These buttons appear when the content of the screen is not entirely visible on the scrollable area. Tapping the page number buttons or **[<]** or **[>]** will move the screen pages forward or backward.

4-2. Screen transition

4-2-1. Air conditioning units

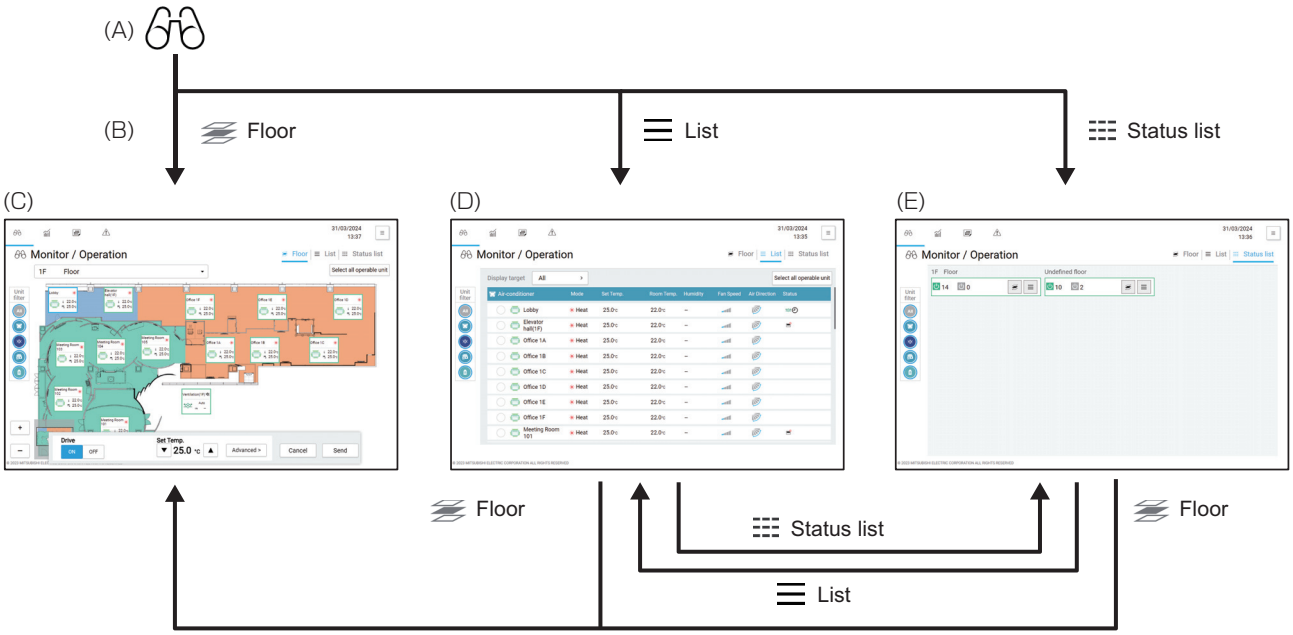


	Screen name	Function and description
(f-1) (f-2)	Monitor/Operation (Floor layout display)	This screen shows the units to be monitored or operated on a floor layout. When no floor layouts are registered, "Undefined floor" will be displayed. (Web browser only)
(b)	Energy Management	This screen shows the energy consumption status.
(c)	Schedule	This screen shows the schedule settings.
(d)	Notice	This screen shows the occurrence of filter signs and errors.
(e)	Panorama view	This screen shows the list of menu buttons.

4-3. Monitor/Operation (floor layout) screen

4-3-1. Monitor/Operation screen transition

Tapping **[****]** on the main menu (A) and then a button on the sub menu (B) will display the Monitor/Operation screen corresponding to the button tapped.

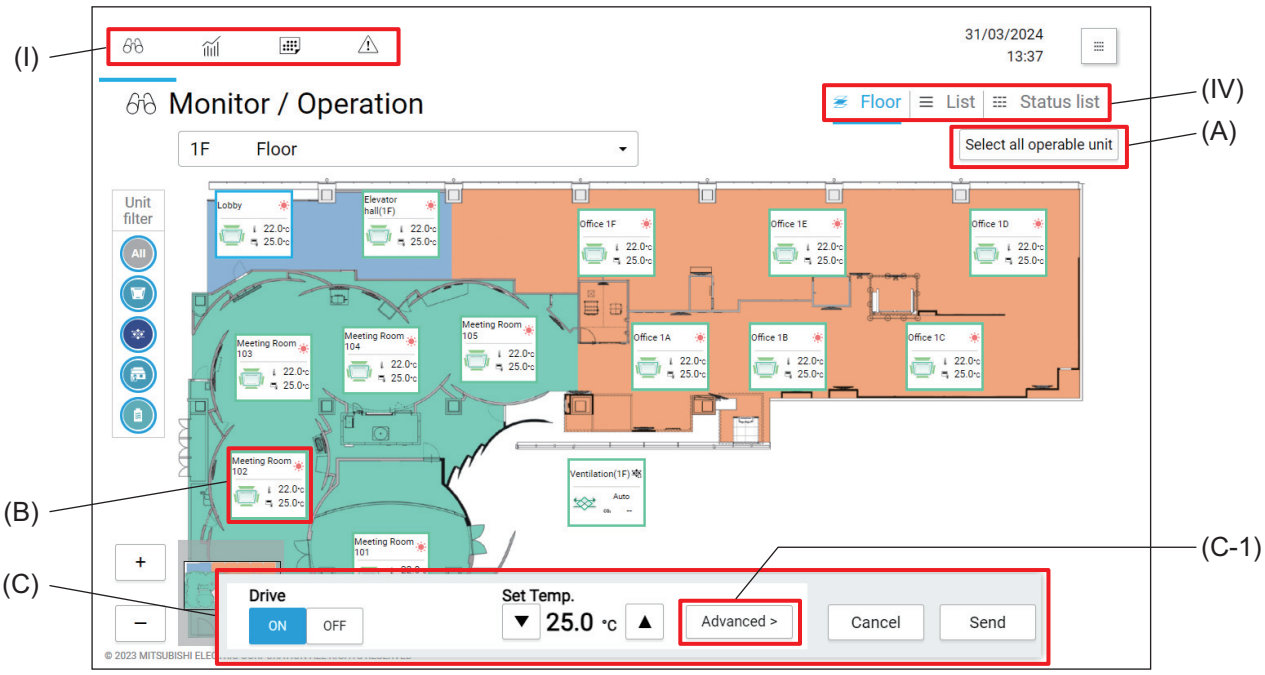


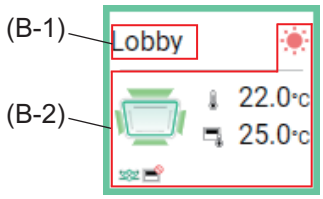
	Screen name	Function and description
(A)	Main menu	Tapping **[****]** will display the Monitor/Operation (floor layout) screen.
(B)	Sub menu	Floor layout screen, list screen, or status list screen will be displayed.
(C)	Floor layout screen	This screen shows the units to be monitored or operated on a floor layout. When no floor layouts are registered, "Undefined floor" will be displayed. (Web browser only)
(D)	List screen	This screen shows the list of the units to be monitored or operated. On this screen, floors or blocks that contain target units can be selected.
(E)	Status list screen	This screen shows the information about the units to be monitored or operated on each floor.

4-3-2. Floor layout screen

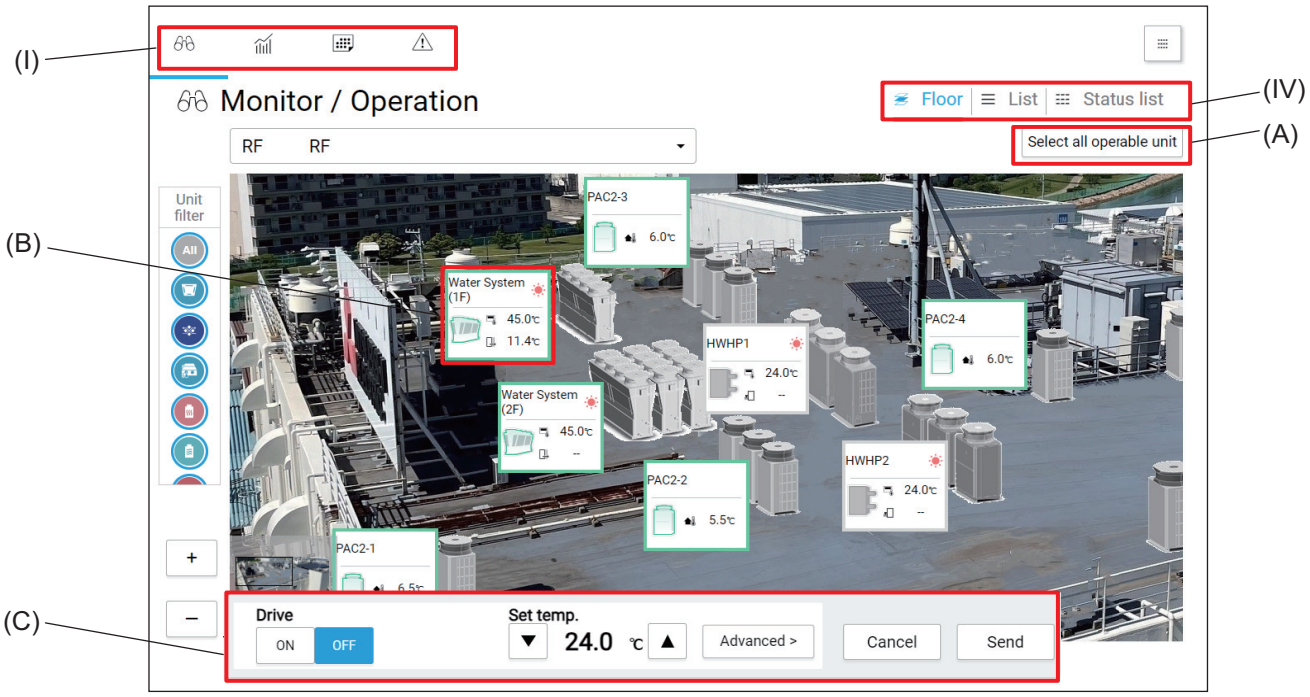
Tapping **[ ]** on the main menu (I) and then **[Floor]** on the sub menu (IV) will display the floor layout screen.

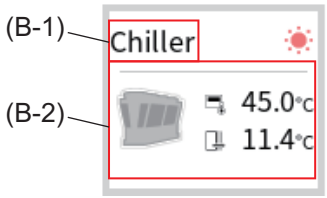
[1] Air conditioning units



	Item	Function and description
(A)	**[Select all operable unit]**	Tapping this button will select all the displayed units to be controlled.
(B)	Unit icon	Tapping this icon will show the unit information.  (B-1) Group name The registered group name is displayed. (B-2) Unit operation status The operation status of the unit is displayed.
(C)	Simple operation panel	When a unit icon (B) is selected, the icon frame will turn blue and the Simple operation panel (C) will appear. Basic control, such as turning on/off the unit, is possible on the Simple operation panel. Tapping **[Advanced]** (C-1) will display the Advanced setting screen.

[2] Products (outdoor units on the heat source side) other than air conditioning units



	Item	Function and description
(A)	**[Select all operable unit]**	Tapping this button will select all the displayed units to be controlled.
(B)	Unit icon	Tapping this icon will show the unit information.  (B-1) Group name The registered group name is displayed. (B-2) Unit operation status The operation status of the unit is displayed.
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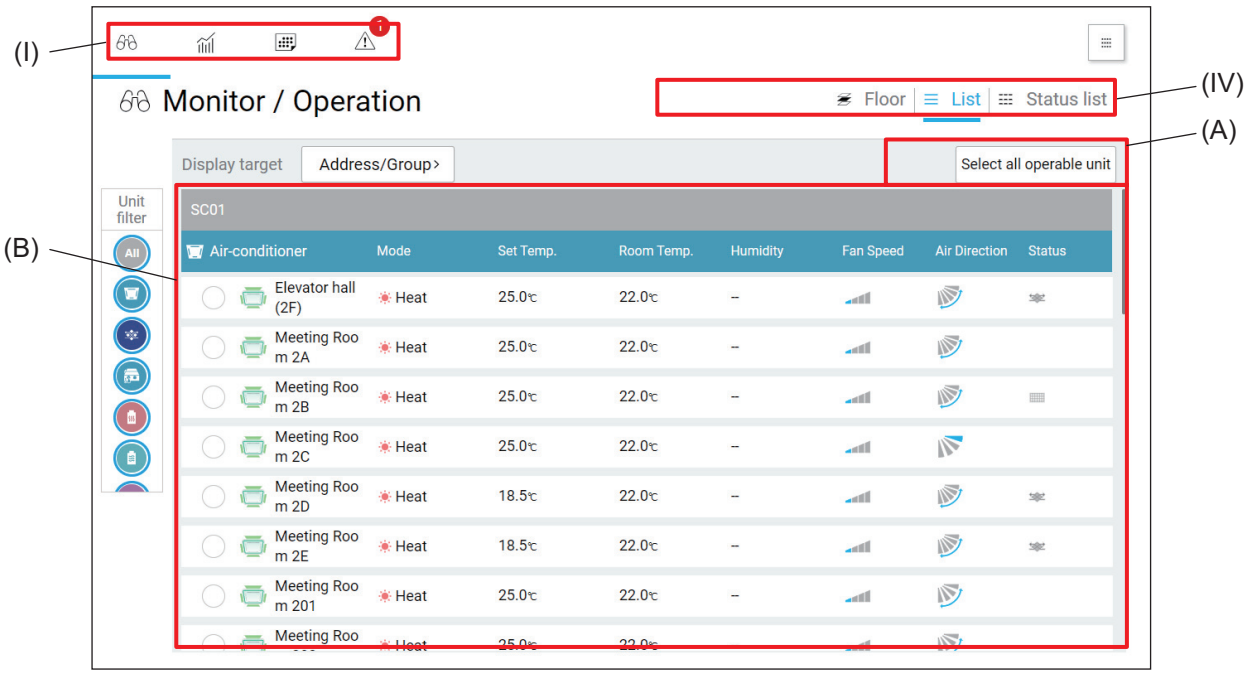
4-3-3. List screen

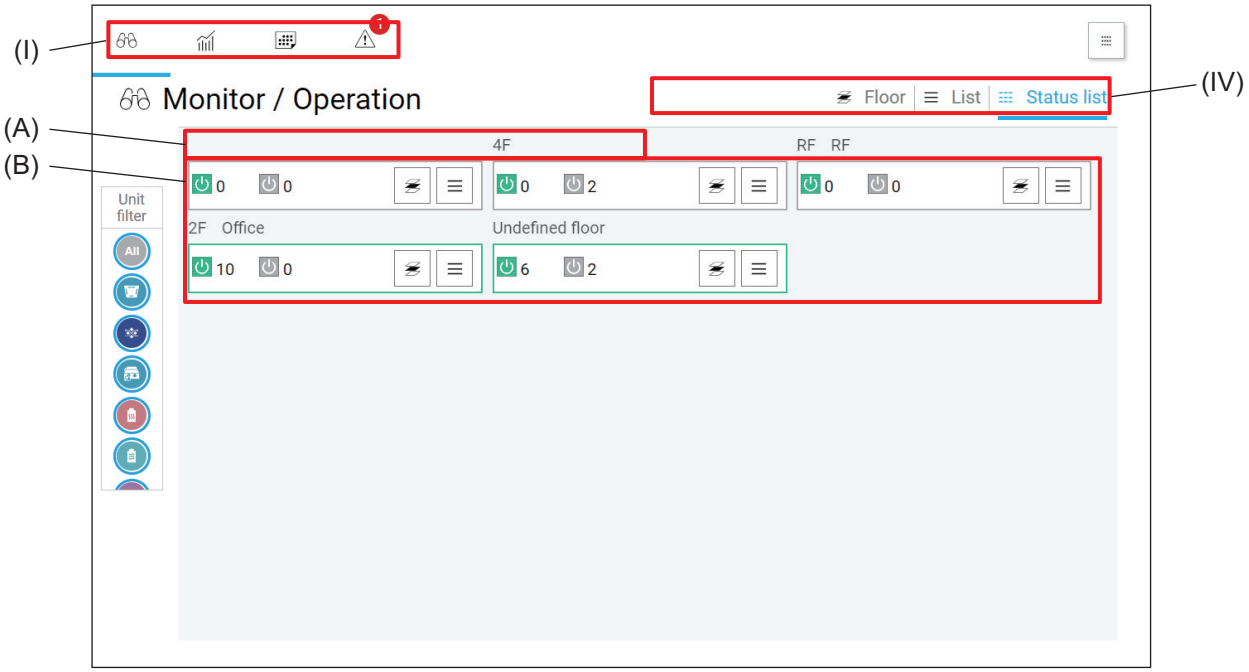
This screen lists the operation statuses and error statuses of the units to be monitored.
Tapping **[ ]** on the main menu (I) and then **[List]** on the sub menu (IV) will display the List screen.



	Item	Function and description
(A)	**[Select all operable unit]**	Tapping this button will select all the displayed units to be controlled.
(B)	List	The operation statuses and error statuses of the units to be monitored are listed.

4-4. Status list screen

This screen shows the statuses of all the units to be monitored. Operation statuses (ON/OFF) of the units and the presence/absence of errors on each floor are displayed.
Tapping **[ ]** on the main menu (I) and then **[Status list]** on the sub menu (IV) will display the Status list screen.

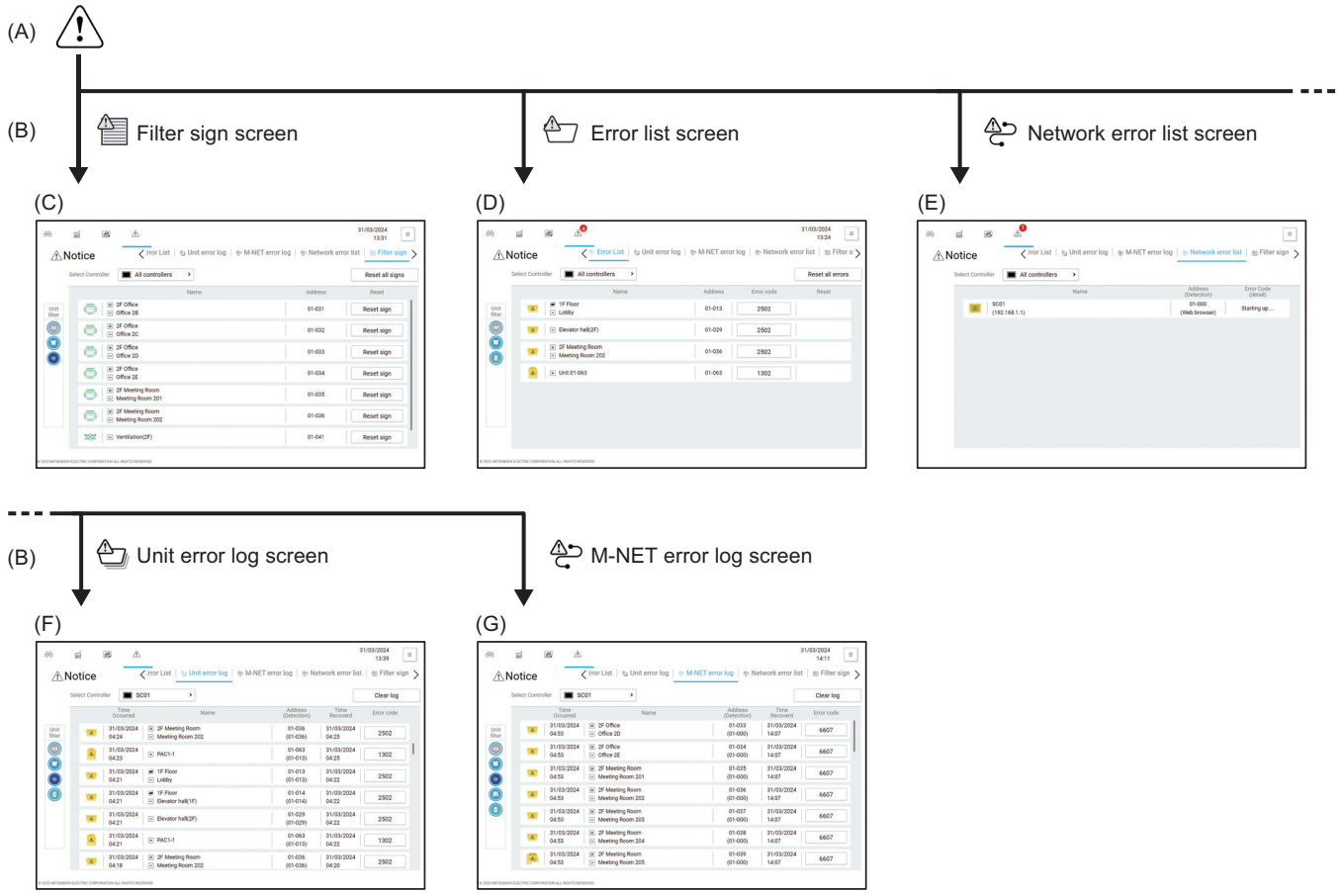


	Item	Function and description
(A)	Floor number/floor name	The floor number and the floor name are displayed.
(B)	Status	The numbers of indoor units, LOSSNAY units, and OA handling units (direct expansion type with built-in heater/humidifier) registered to each floor are counted based on their operation status (ON, OFF, or error), and the counts are listed. (green frame) shows that there are units that are ON, in the 24-hour ventilation mode, or under test run. (gray frame) shows that all units are OFF. (yellow frame) shows that there are units that have an error. shows the number of units that are ON, in the 24-hour ventilation mode, or under test run. shows the number of units that are OFF. shows the number of units that have an error.

4-5. Notice screen

4-5-1. Notice screen transition

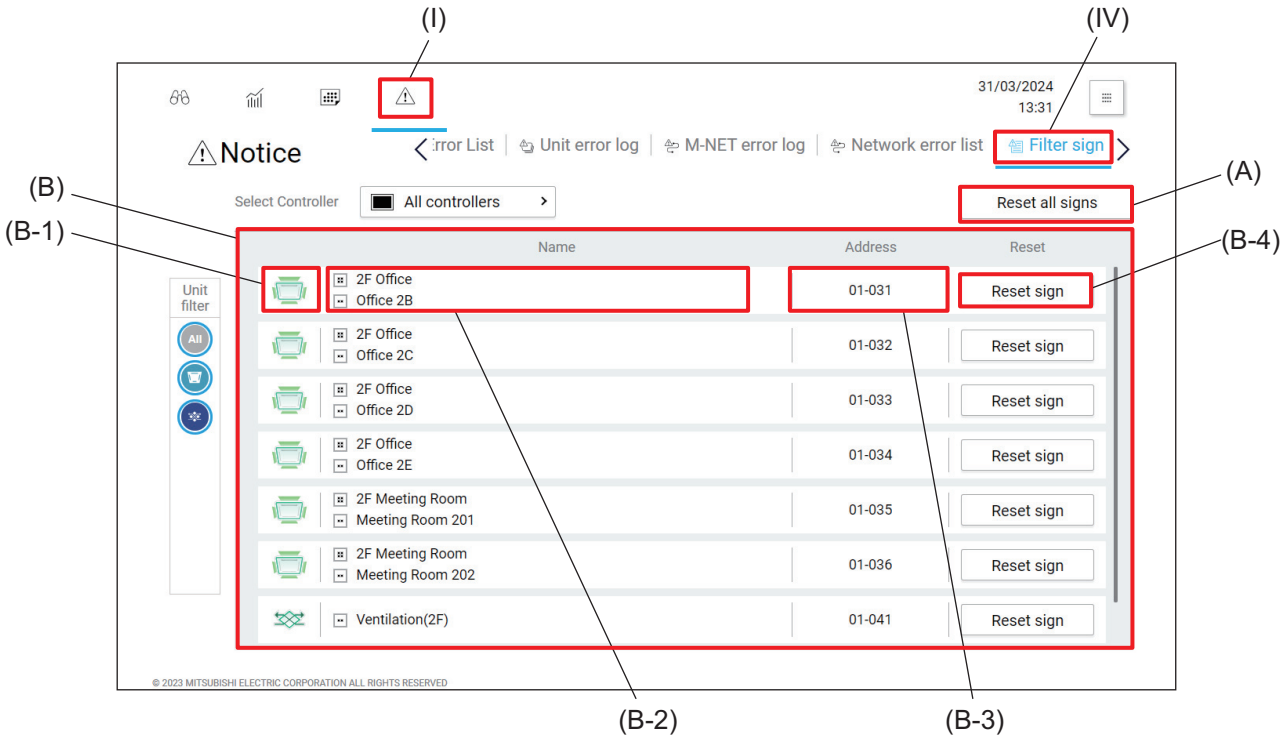
Tapping **[⚠]** (A) on the main menu and then a button on the sub menu (IV) will display the screen corresponding to the button pressed, such as Filter sign screen, error list screen, or error log screen.



	Screen name	Function and description
(A)	Main menu	Tapping **[⚠]** will display the Notice screen.
(B)	Sub menu	Filter sign screen, error list screen, network error list screen, unit error log screen, or M-NET error log screen will be displayed.
(C)	Filter sign	The indoor units and the ventilating units that bear a filter sign will be listed.
(D)	Error list	Units that have an error are listed.
(E)	Network error list	Units that have a network error are listed.
(F)	Unit error log	Error logs are listed.
(G)	M-NET error log	Units that have an M-NET communication error are listed.

4-5-2. Filter sign screen

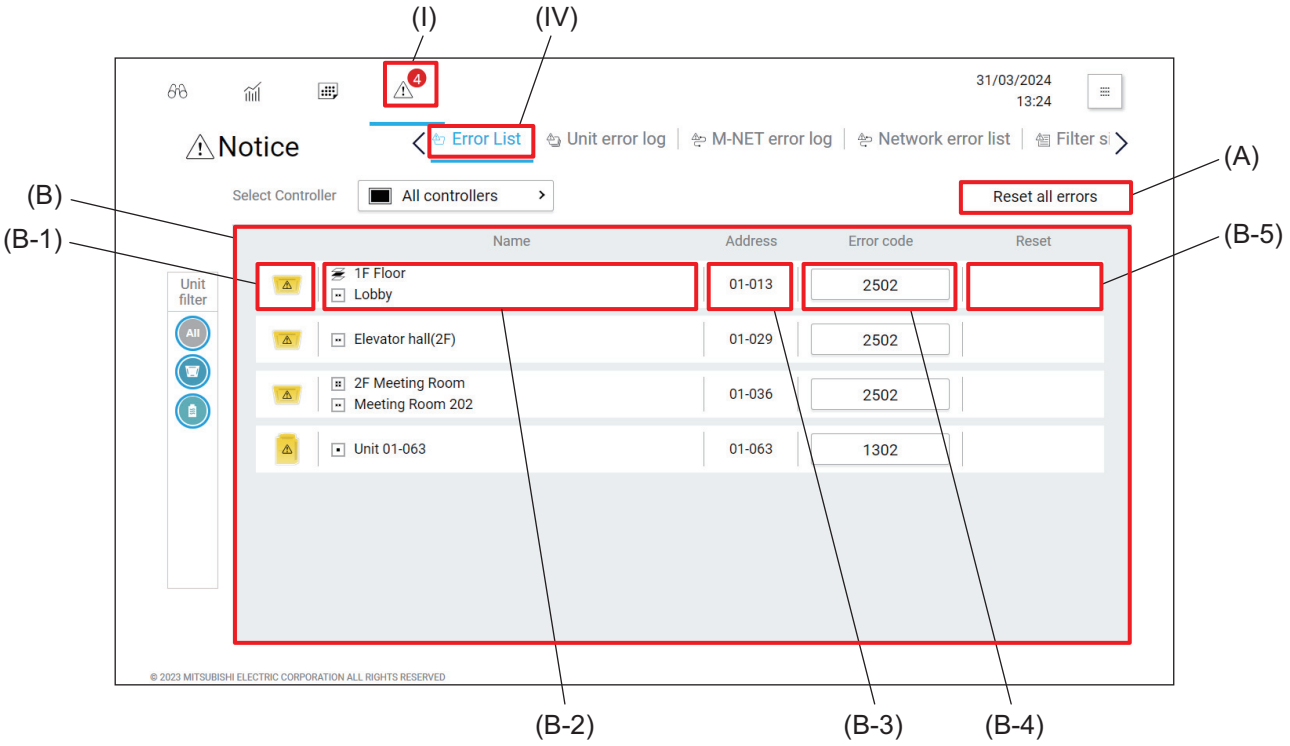
Tapping **[Filter sign]** on the main menu and then **[Filter sign]** (IV) on the sub menu will display the list of the indoor units and the ventilating units that bear a filter sign.



	Item	Function and description
(A)	**[Reset all errors]**	Tapping this button will clear all filter signs.
(B)	Filter sign list	The indoor units and the ventilating units that bear a filter sign will be listed.
(B-1)	Unit icon	Each icon shows an indoor unit or a ventilating unit.
(B-2)	Name	The name and the number of the group containing the indoor units or the ventilating units that bear a filter sign are displayed.
(B-3)	Address	The number of the AE-C/EW-C that controls the indoor unit or the ventilating unit that bear a filter sign and the address of the indoor unit or the ventilating unit are displayed. ex.) 01-012: 01 is the number of the AE-C/EW-C, and 012 is the address of the indoor unit or the ventilation unit.
(B-4)	**[Reset sign]**	Tapping this button will clear the filter sign.

4-5-3. Error list screen

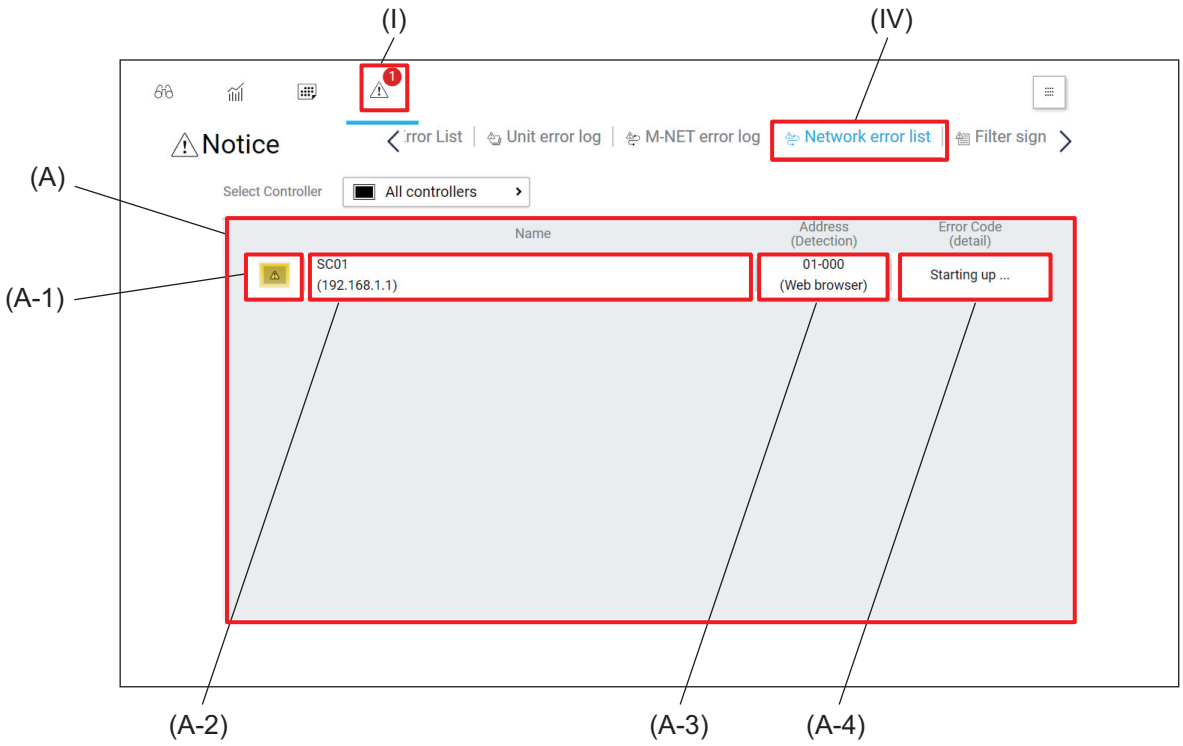
Tapping **[⚠]** on the main menu (I) and then **[Error List]** on the sub menu (IV) will display the list of the units that have an error and the units that have failed to communicate with the AE-C/EW-C.



	Item	Function and description
(A)	**[Reset all errors]**	Tapping this button will clear all errors.
(B)	Error list	Units that have an error are listed.
(B-1)	Unit icon	Each icon shows a unit.
(B-2)	Name	The name and the number of the group containing the units that have an error are displayed.
(B-3)	Address	The number of the AE-C/EW-C that controls the unit that has an error and the address of the unit are displayed. ex.) 01-012: 01 is the number of the AE-C/EW-C, and 012 is the address of the unit.
(B-4)	Error Code	Tapping the error code will display the details of the error.
(B-5)	**[Reset error]**	Tapping the button displayed here will clear the error.

4-5-4. Network error list screen

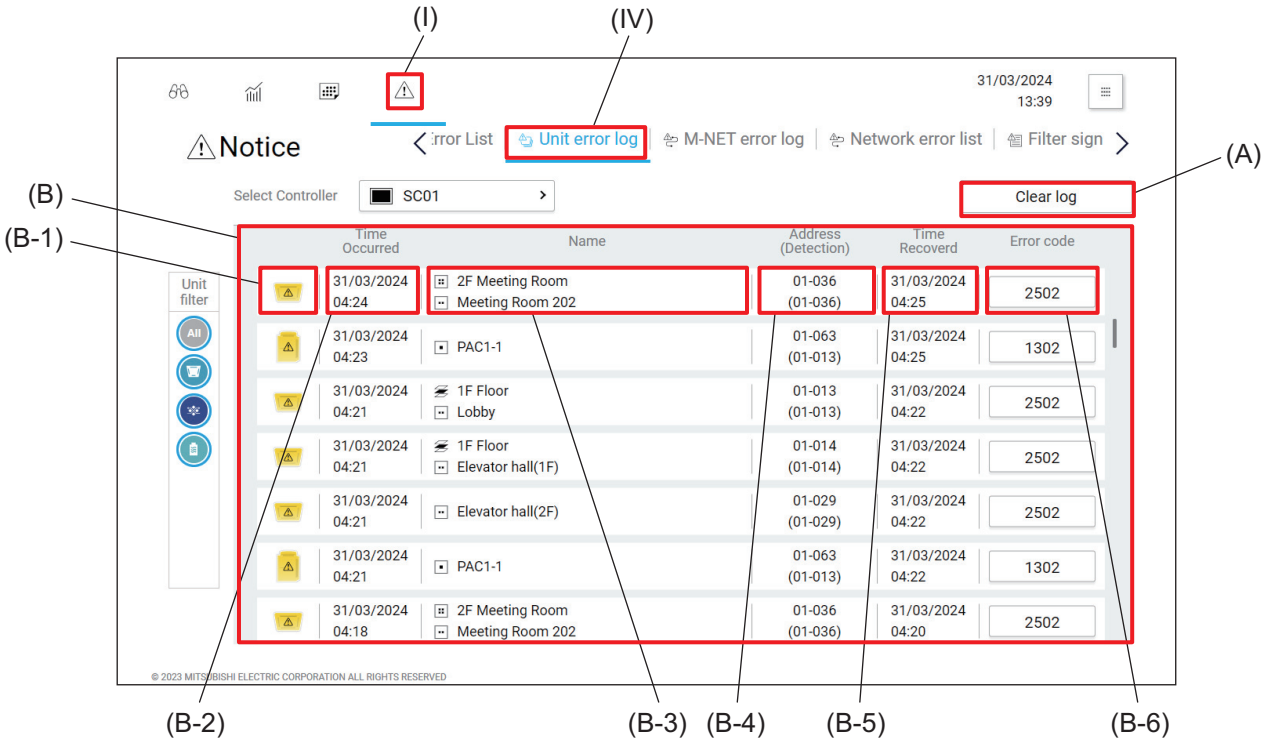
Tapping **[⚠]** on the main menu (I) and then **[Network error list]** on the sub menu (IV) will display the list of the networks that have an error.



	Item	Function and description
(A)	Network error list	Networks that have an error are listed.
(A-1)	Unit icon	Each icon shows a unit.
(A-2)	Name	The name and the number of the group containing the units that have an error are displayed.
(A-3)	Address	The number of the AE-C/EW-C that controls the unit that has an error and the address of the unit are displayed. The number shown in the parentheses indicates the address of the unit or the AE-C/EW-C that detected the error and the number of another AE-C/EW-C that controls the unit or the AE-C/EW-C that detected the error. ex.) 01-012: 01 is the number of the AE-C/EW-C, and 012 is the address of the unit.
(A-4)	Error Code	Tapping the error code will display the details of the error.

4-5-5. Unit error log screen

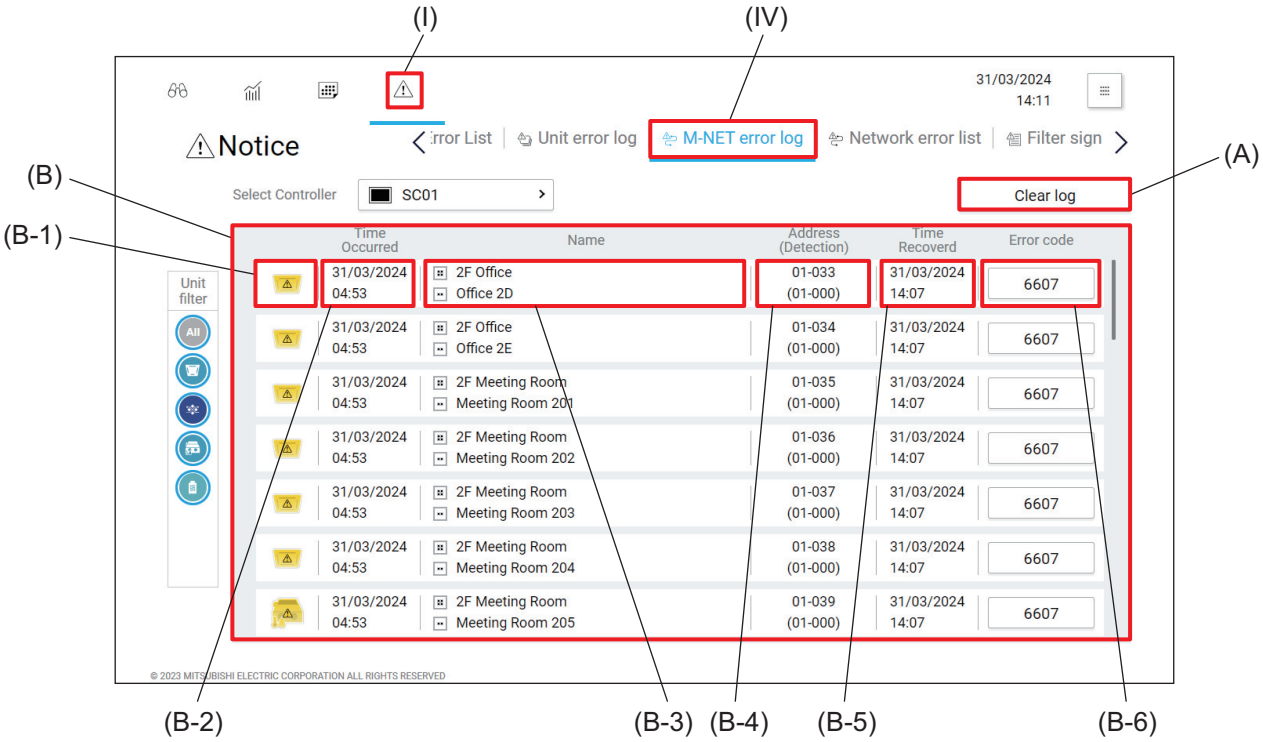
Tapping **[⚠]** on the main menu (I) and then **[Unit error log]** on the sub menu (IV) will display the error logs of the units.



	Item	Function and description
(A)	**[Clear log]**	Tapping this button will clear all error logs.
(B)	Error log	Error logs are displayed.
(B-1)	Unit icon	Each icon shows a unit.
(B-2)	Time Occurred	The date and time when the error occurred is displayed.
(B-3)	Name	The name and the number of the group containing the units that had an error are displayed.
(B-4)	Address	The number of the AE-C/EW-C that controlled the unit that had an error and the address of the unit are displayed. The number shown in the parentheses indicates the address of the unit or the AE-C/EW-C that detected the error and the number of another AE-C/EW-C that controls the unit or the AE-C/EW-C that detected the error. ex.) 01-012: 01 is the number of the AE-C/EW-C, and 012 is the address of the unit.
(B-5)	Time Recovered	The date and time when the unit recovered from the error is displayed.
(B-6)	Error Code	Tapping the error code will display the details of the error.

4-5-6. M-NET error log screen

Tapping **[⚠]** on the main menu (I) and then **[M-NET error log]** on the sub menu (IV) will display the M-NET communication error logs of the units.



	Item	Function and description
(A)	**[Clear log]**	Tapping this button will clear all M-NET communication error logs.
(B)	M-NET communication error log	M-NET communication error logs of the units are displayed.
(B-1)	Unit icon	Each icon shows a unit.
(B-2)	Time Occurred	The date and time when the error occurred is displayed.
(B-3)	Name	The name and the number of the group containing the units that had an error are displayed.
(B-4)	Address	The number of the AE-C/EW-C that controlled the unit that had an error and the address of the unit are displayed. The number shown in the parentheses indicates the address of the unit or the AE-C/EW-C that detected the error and the number of another AE-C/EW-C that controls the unit or the AE-C/EW-C that detected the error. ex.) 01-012: 01 is the number of the AE-C/EW-C, and 012 is the address of the unit.
(B-5)	Time Recovered	The date and time when the unit recovered from the error is displayed.
(B-6)	Error Code	Tapping the error code will display the details of the error.

4-6. Schedule functions

This function automatically switches the preset operation patterns, operation modes, and temperature settings of the air conditioning units depending on the season or on the service hours and calendar of offices and shops.

- To use this function, make the following settings in advance.
  1) Set "Schedule" for each unit to "Enable" on the Monitor/Operation screen.
  2) Set "Schedule: Season setting" to "Enable" under "Advanced Setting" of the Initial Setup Tool.

4-6-1. Summary and usage of the schedule function

(1) To set the operation start/end time and operation mode for each day of the week

The operation patterns can be set for each day of the week. For example, according to the preset operation patterns, air conditioning units automatically turn on in the morning on weekdays or shut down regularly at a preset time outside of the business hours.
Up to 24 events can be set for each day of the week.
→ Use "Weekly Schedule."

(2) To automatically switch cooling/heating mode or to set room temperature depending on the season

Seasonal cooling/heating switching patterns and temperature settings can be preset and applied to a specified period of time.
A year can be divided into up to five periods, and a schedule can be set for each period by day of the week.
→ Use "Weekly schedule" and "Date range setting" in combination.

(3) To set operation schedules for specific months and days, such as public holidays and consecutive holidays

Operation schedules can be applied to specific days, such as summer vacation and holidays, by designating the year/month/day.
Applicable operation schedules can be selected from five preset patterns, and can be set up to 50 days in the range up to 24 months ahead.
→ Use "Annual schedule."

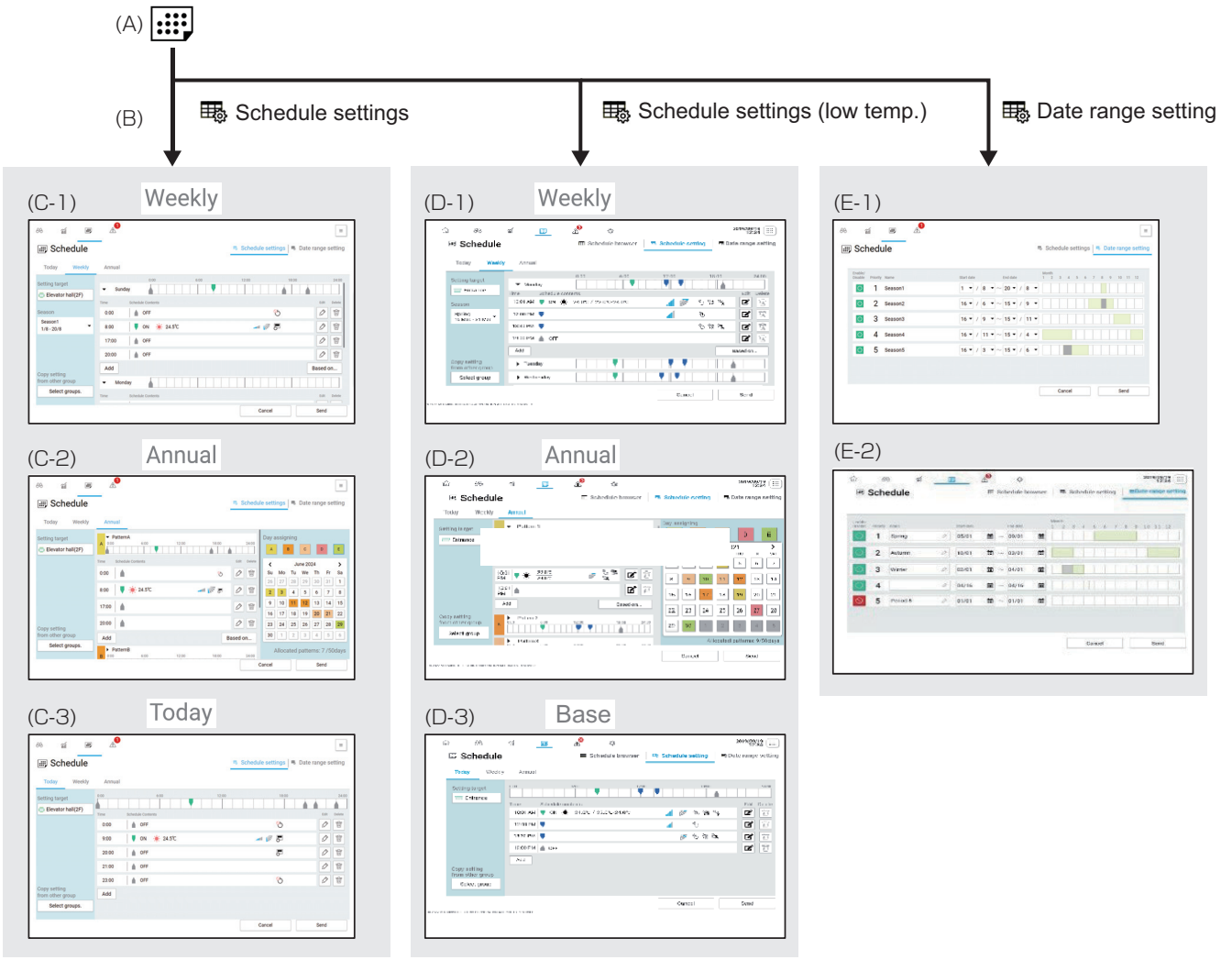
(4) To set an operation schedule for today

To accommodate sudden changes in the ongoing operation schedules, an operation schedule only for today can be set.
This setting will become invalid after the next day.
→ Use "Today's schedule."

MEMO

4-6-2. Screen transition of schedule function setting

Tapping **[ ]** on the main menu (A) and then **[Schedule settings]** or **[Schedule settings (low temp.)]** on the sub menu (B) will display the schedule settings screen for air conditioning units, dehumidifiers, or low temperature systems.
By tapping each menu item on the screen, you can set or change the weekly, annual, or today/base schedules. Tapping **[Date range setting]** will display the screen for setting the periods to which the schedules are applied. You can set the periods, in consideration of seasons and other factors.



	Item	Function and description
(A)	Main menu	Tapping **[ ]** will display the Schedule screen.
(B)	Sub menu	Tapping a sub menu button will display the screen corresponding to the button pressed, such as the Schedule settings, Schedule settings (low temp.), or Date range setting screen.
(C-1)	Schedule settings (Weekly schedule)	A weekly operation schedule can be set for each day of the week and each season.
(C-2)	Schedule settings (Annual schedule)	A schedule that is independent of weekly schedules can be set for public holidays and consecutive holidays.
(C-3)	Schedule settings (Today's schedule)	You can set a schedule that is valid only on the day you set.

	Item	Function and description
(D-1)	Schedule settings (low temp.) (Weekly schedule)	A weekly operation schedule can be set for each day of the week and each hour of the day.
(D-2)	Schedule settings (low temp.) (Annual schedule)	A schedule that is independent of weekly schedules can be set for public holidays and consecutive holidays.
(D-3)	Schedule settings (low temp.) (Today's (Base) schedule)	You can set a schedule that is valid only on the day you set.
(E-1)	Date range setting	You can set periods of time to which weekly schedules apply.
(E-2)	Date range setting (dehumidifier)	

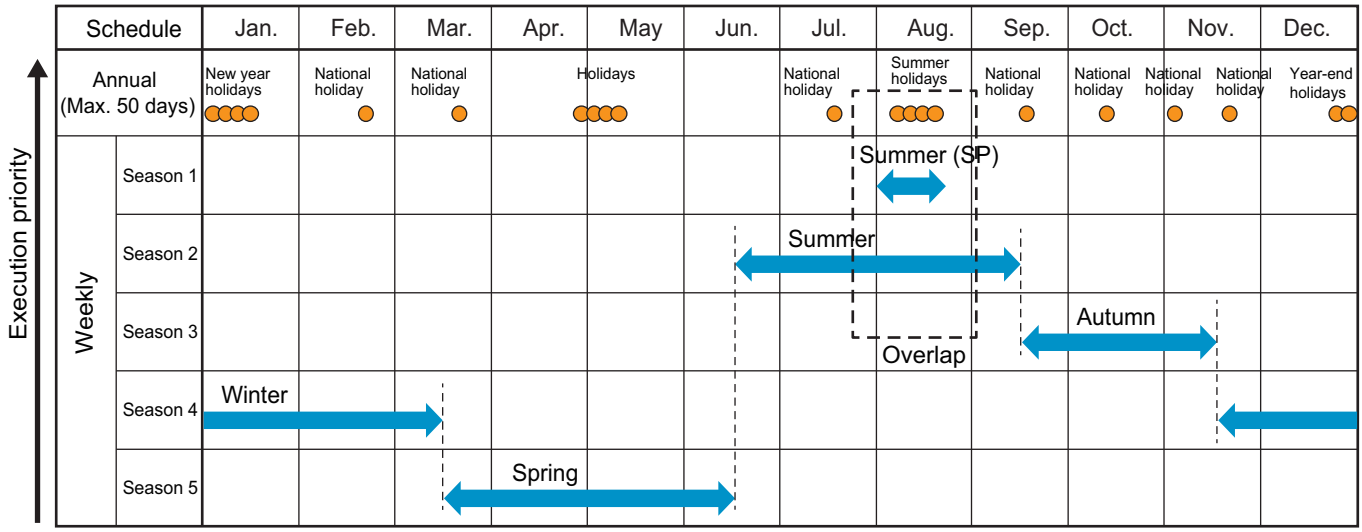
4-6-3. Schedule setting examples

Shown below is a setting example of weekly schedules and annual schedules used in combination and an annual operation diagram.
First, you need to set the time periods to run schedules. In the example below, four seasonal periods are assigned to Seasons 2 to 5, and especially hot days are assigned to Season 1. A weekly schedule is set for each Season, and the preset operation patterns run on each day of the week during the Season.
Annual schedules are set for certain dates, such as public holidays and consecutive holidays.

Schedule setting example

- Annual schedule: Set for public holidays, vacations, consecutive holidays
- Weekly schedule: See the table below.

	Name	Start date	End date	Settings
Season 1	Summer (special)	August 1	August 20	Operation patterns for especially hot days
Season 2	Summer	June 16	September 15	Operation patterns for summer
Season 3	Autumn	September 16	November 15	Operation patterns for autumn
Season 4	Winter	November 16	March 15	Operation patterns for winter
Season 5	Spring	March 16	June 15	Operation patterns for spring



4-6-4. Schedule priorities

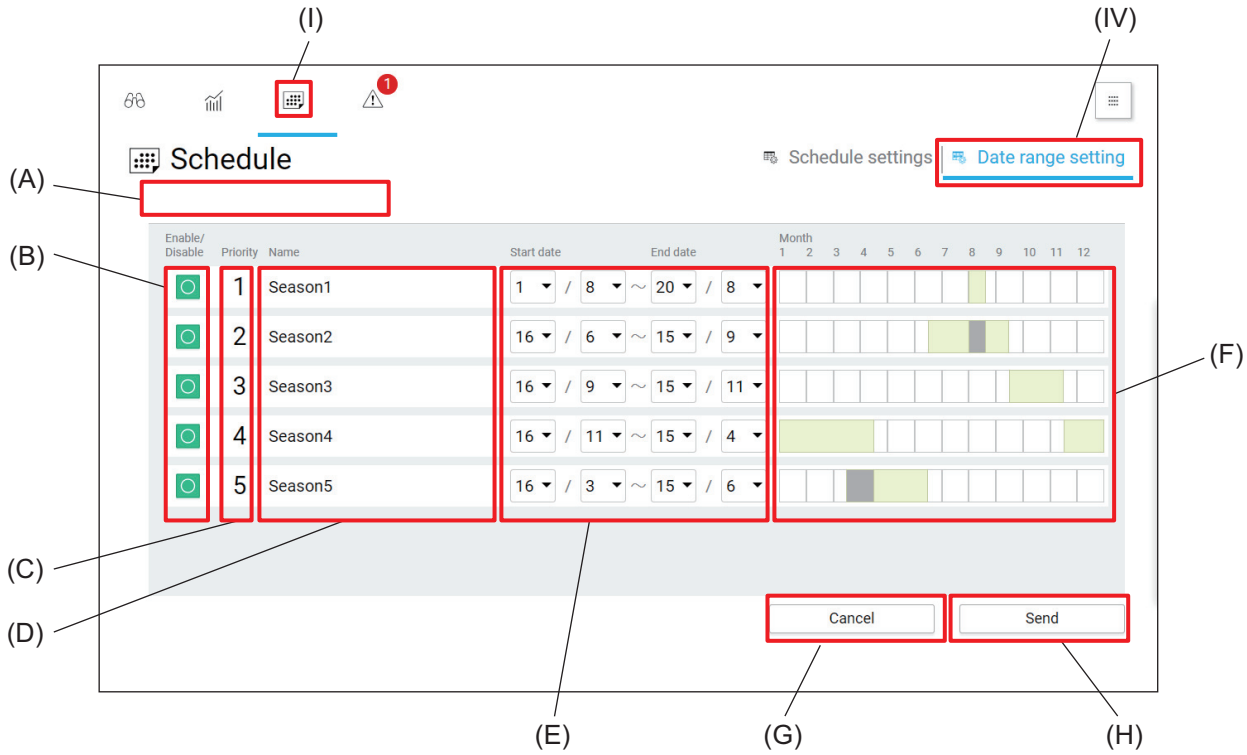
If the weekly schedules and the annual schedules overlap, they will be executed according to the execution priority.

Execution priority

- In the setting example above, the schedule shown at the top of the table takes priority.
  During August, enclosed with a dashed line, the weekly schedule set for Season 1 "Summer (special)" takes priority over the weekly schedule set for Season 2 "Summer," and on the days set as "Summer (special)," the annual schedule takes priority over the weekly schedule.
- Today's schedule will take priority over annual and weekly schedules.

4-6-5. Date range setting screen

You can set periods to which weekly schedules apply.
You need to set periods separately for air conditioning units and dehumidifiers.
Up to five periods can be set within a year.
Tapping **[ ]** on the main menu (I) and then **[Date range setting]** on the sub menu (IV) will display the screen to set periods, Seasons 1 to 5, to which weekly schedules apply.



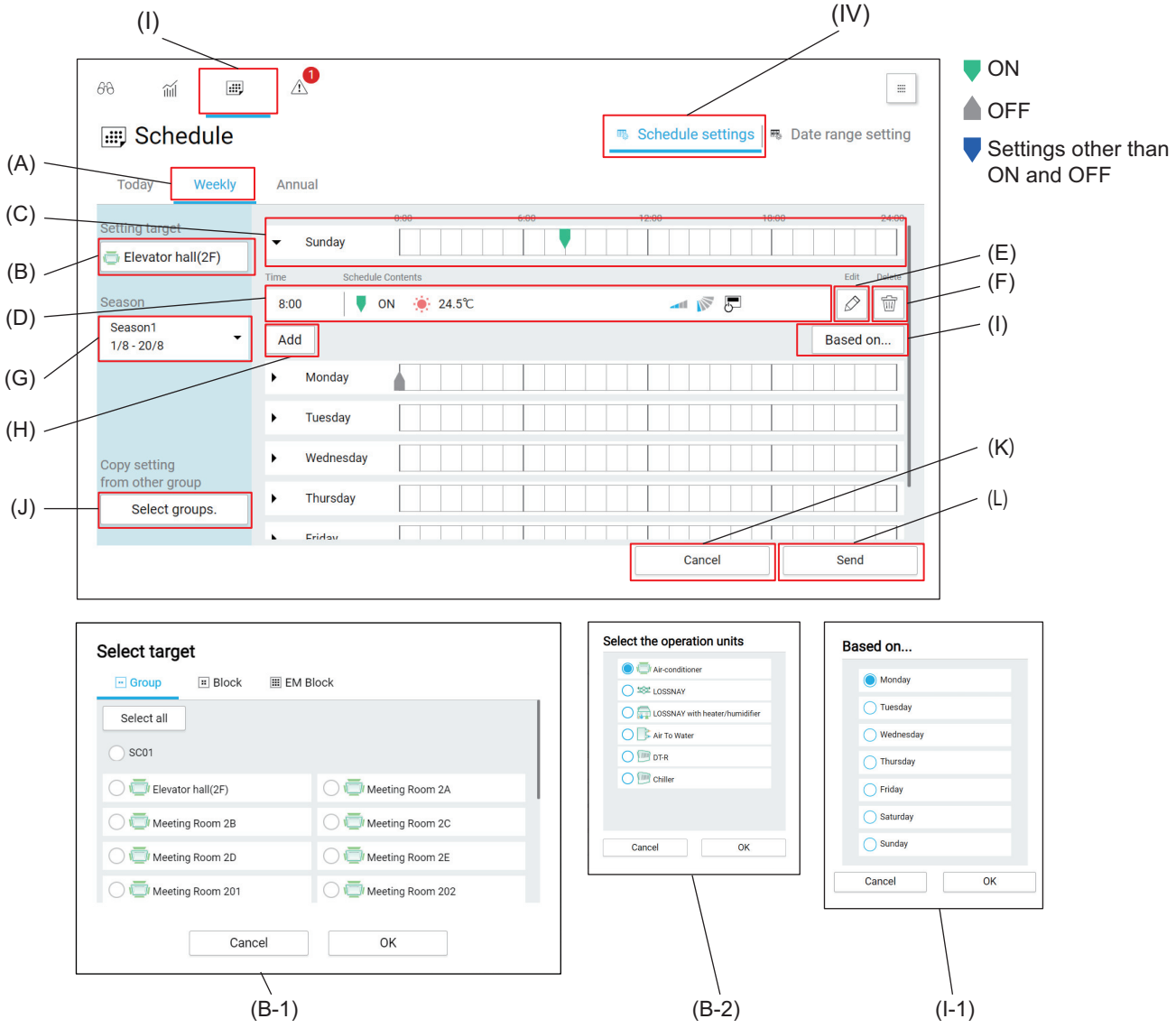
	Item	Function and description
(A)	Setting target	Select the setting target of date range setting.
(B)	Enable/Disable	Select whether to enable or disable the period. If all periods are disabled, the same settings will apply throughout the year.
(C)	Priority	Overlapped schedules are executed according to their priorities.
(D)	Name	Names of the periods, Seasons 1 to 5, are displayed.
(E)	Start date/End date	The start and end dates of each period can be set.
(F)	Month	The periods defined by the start and end dates (E) are graphically displayed.
(G)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(H)	**[Send]**	Tap this button to save the setting changes.

4-6-6. Weekly schedule

On the weekly schedule screen, you can set operation patterns for each day of the week. By using the weekly schedule in combination with the date range setting, you can apply a given weekly schedule to a given period within the year.
Weekly schedules for low temperature systems need to be set separately.

[1] Weekly schedule screen

Tapping **[ ]** on the main menu (I) and then **[Schedule settings]** on the sub menu (IV) will display the Schedule screen. Tapping **[Weekly]** (A) will display the weekly schedule screen.



	Item	Function and description
(A)	Weekly/Annual/Today	Tap **[Weekly]** to display the weekly schedule.
(B)	Setting target	Tapping this item will display the Select target screen (B-1). When more than one type of unit exists in a group, the Select the operation units screen (B-2) will be displayed. Select a target, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(B-1)	Select target screen	
(B-2)	Select the operation units screen	
(C)	Event list	The times and actions of the events set for each day of the week are displayed by markers. Tapping this item will display events (D) in time order, and you can edit, delete, or add events.

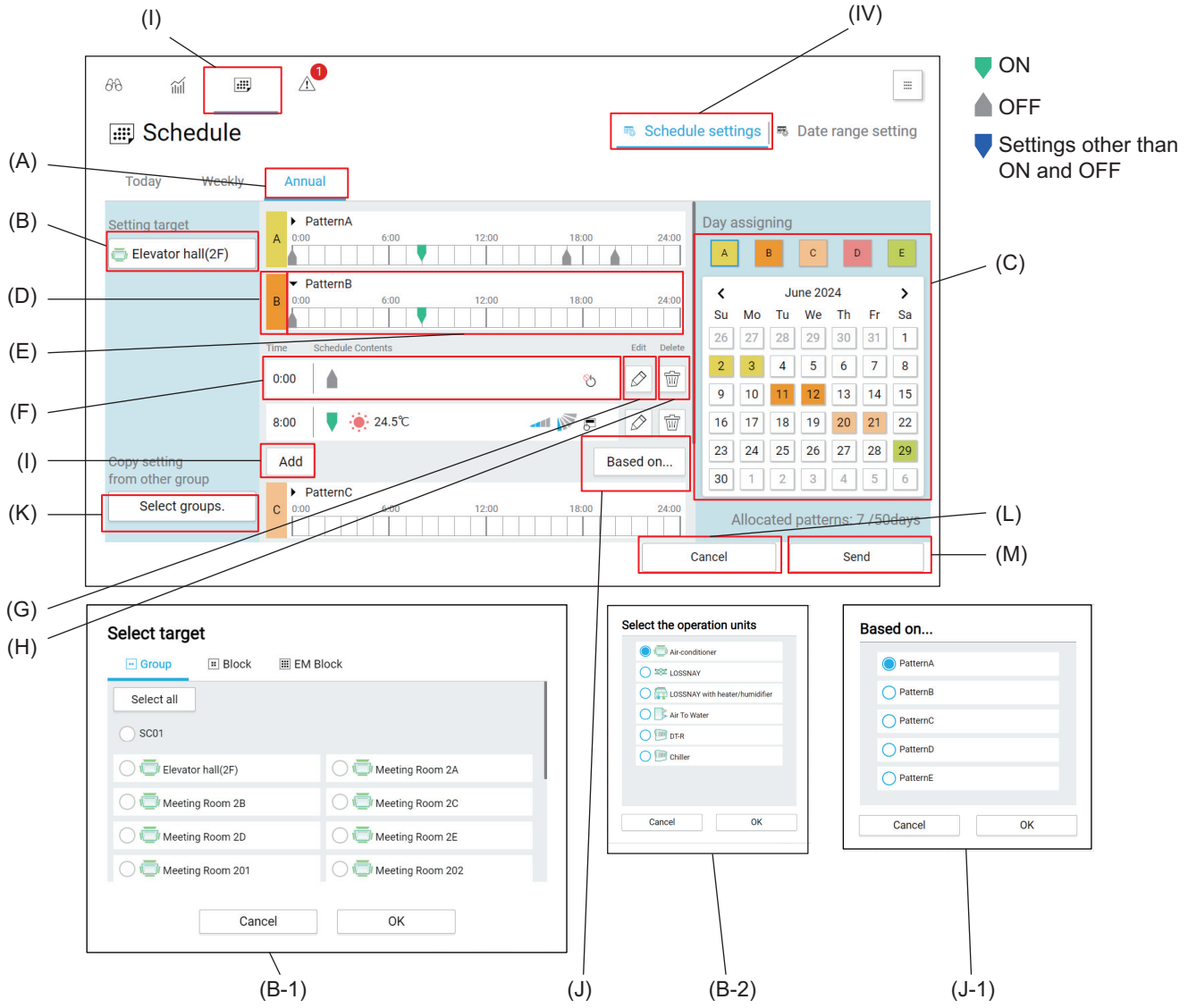
	Item	Function and description
(D)	Event	The activation time and action of the event are displayed.
(E)	Edit	Tap this button to edit the event.
(F)	Delete	Tap this button to delete the event.
(G)	Season	Select the period to which the weekly schedule is applied, from Seasons 1 to 5, that are defined on the Date range setting screen.
(H)	**[Add]**	Tapping this button will display the Advanced setting screen for schedule setting.
(I)	**[Based on...]**	Tapping this button will display the Based on... screen (I-1). Select a copy source day of the week, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(I-1)	Based on... screen	
(J)	Copy setting from other group	Tapping this button will display the Select target screen (B-1). Select a copy source group, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(K)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(L)	**[Send**]	Tap this button to save the setting changes.

4-6-7. Annual schedule

The annual schedule allows you to set schedules for the days that are excluded from the periods to which weekly schedules are applied, such as public holidays and summer holidays, for each group.
You can set up to five operation patterns for each group, with a range of 50 days up to 24 months ahead. (Annual schedules prior to the previous day are automatically deleted.)
Weekly schedules for low temperature systems need to be set separately.

[1] Annual schedule screen

Tapping **[ ]** on the main menu (I) and then **[Schedule settings]** on the sub menu (IV) will display the Schedule screen. Tapping **[Annual]** (A) will display the annual schedule screen.



	Item	Function and description
(A)	Weekly/Annual/Today	Tap **[Annual]** to display the annual schedule.
(B)	Setting target	Tapping this item will display the Select target screen (B-1). When more than one type of unit exists in a group, the Select the operation units screen (B-2) will be displayed. Select a target, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(B-1)	Select target screen	
(B-2)	Select the operation units screen	
(C)	Allocated patterns	Select dates from the calendar to which patterns A to E are allocated. Patterns can be identified by color.

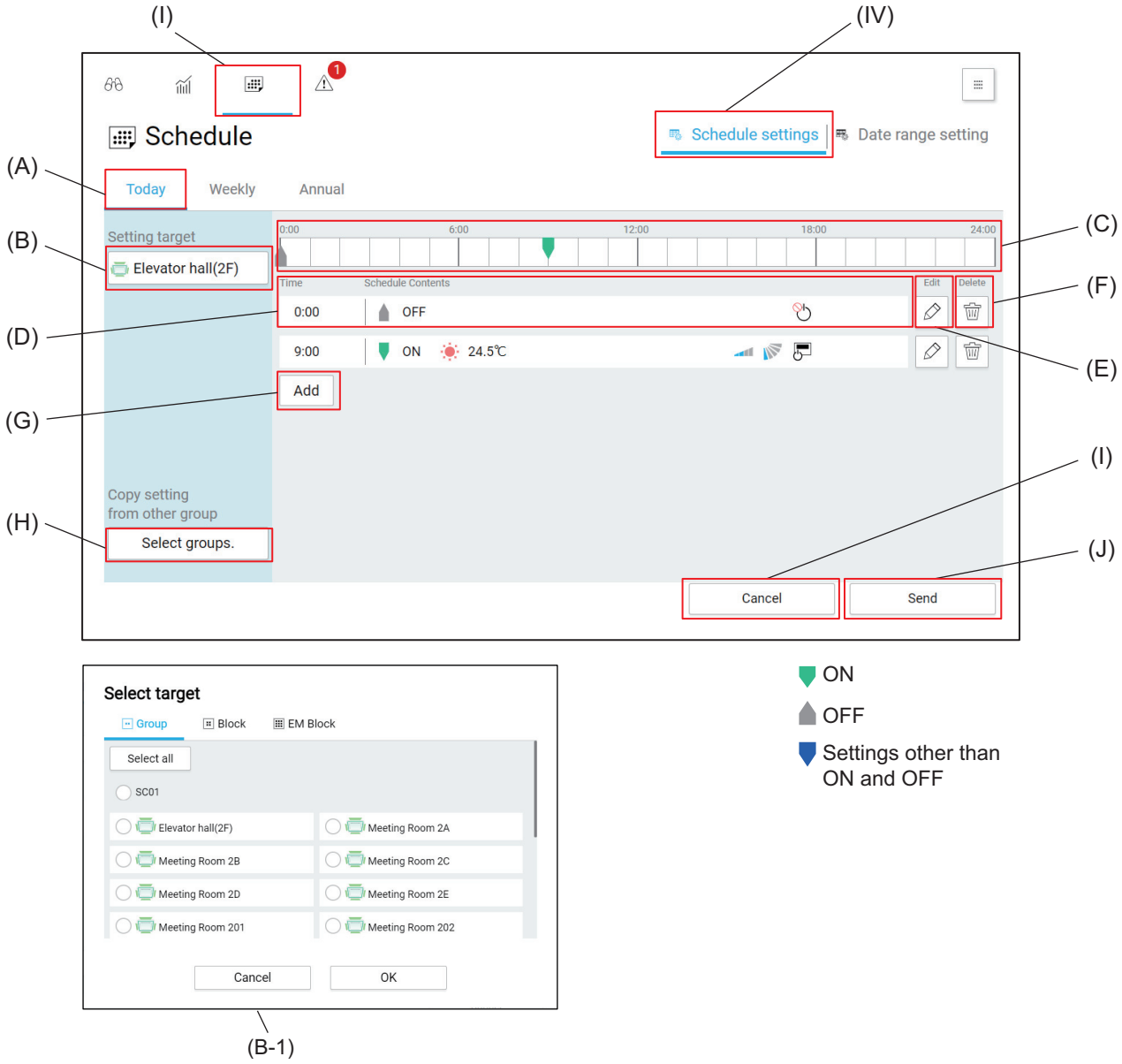
	Item	Function and description
(D)	Pattern name	Pattern names (A to E) are displayed.
(E)	Event list	The times and actions of the events set for each pattern are displayed by markers. Tapping this item will display events (F) in time order, and you can edit, delete, or add events.
(F)	Event	The activation time and action of the event are displayed.
(G)	Edit	Tap this button to edit the event.
(H)	Delete	Tap this button to delete the event.
(I)	**[Add]**	Tapping this button will display the Advanced setting screen for schedule setting.
(J)	**[Based on...]**	Tapping this button will display the Based on... screen (J-1). Select a pattern you want to use, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a pattern.
(J-1)	Based on... screen	
(K)	Copy setting from other group	Tapping this button will display the Select target screen (B-1). Select a copy source group, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(L)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(M)	**[Send]**	Tap this button to save the setting changes.

4-6-8. Today's schedule

[1] Today's schedule screen

Today's schedule allows you to set a schedule that is valid only for today, without affecting the weekly and annual schedules. Today's schedule will be executed only on today and will become invalid after the next day. Tapping **[ ]** on the main menu (I) and then **[Schedule settings]** on the sub menu (IV) will display the Schedule screen. Tapping **[Today]** (A) will display the today's schedule screen that shows the schedule to be executed on today. Edit the schedule as necessary.

- Once tapping **[Send]** (J) to save the settings made on the today's schedule screen, you cannot restore the weekly or annual schedule on that day.



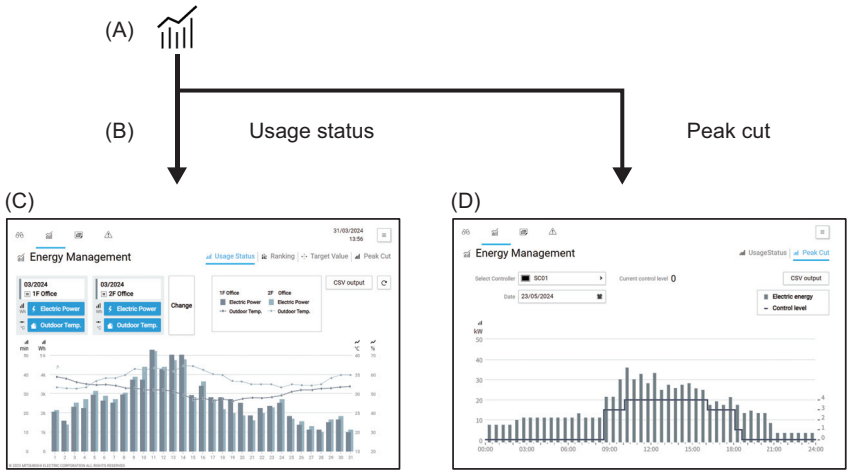
	Item	Function and description
(A)	Weekly/Annual/Today	Tap **[Today]** to display today's schedule.
(B)	Setting target	Tapping this button will display the Select target screen (B-1). When more than one type of unit exists in a group, the Select the operation units screen (B-2) will be displayed. Select a target, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(B-1)	Select target screen	
(B-2)	Select the operation units screen	

	Item	Function and description
(C)	Event list	The times and actions of the events set for today are displayed by markers. Tapping this item will display events (F) in time order, and you can edit, delete, or add events.
(D)	Event	The activation time and action of the event are displayed.
(E)	Edit	Tap this button to edit the event.
(F)	Delete	Tap this button to delete the event.
(G)	**[Add]**	Tapping this button will display the Advanced setting screen for schedule setting.
(H)	Copy setting from other group	Tapping this button will display the Select target screen (B-1). Select a copy source group/block, and tap **[OK]**. Tapping **[Cancel]** will close the screen without selecting a target.
(I)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(J)	**[Send]**	Tap this button to save the setting changes.

4-7. Energy management

The energy management data, such as electric energy consumption, operating hours, and outdoor temperature, can be displayed in graph.
Those data are stored in the controller and available for output to a personal computer in CSV format.
You can view the energy usage of a given unit by specifying the day/month/year. You can also compare the energy usages of units in different areas.

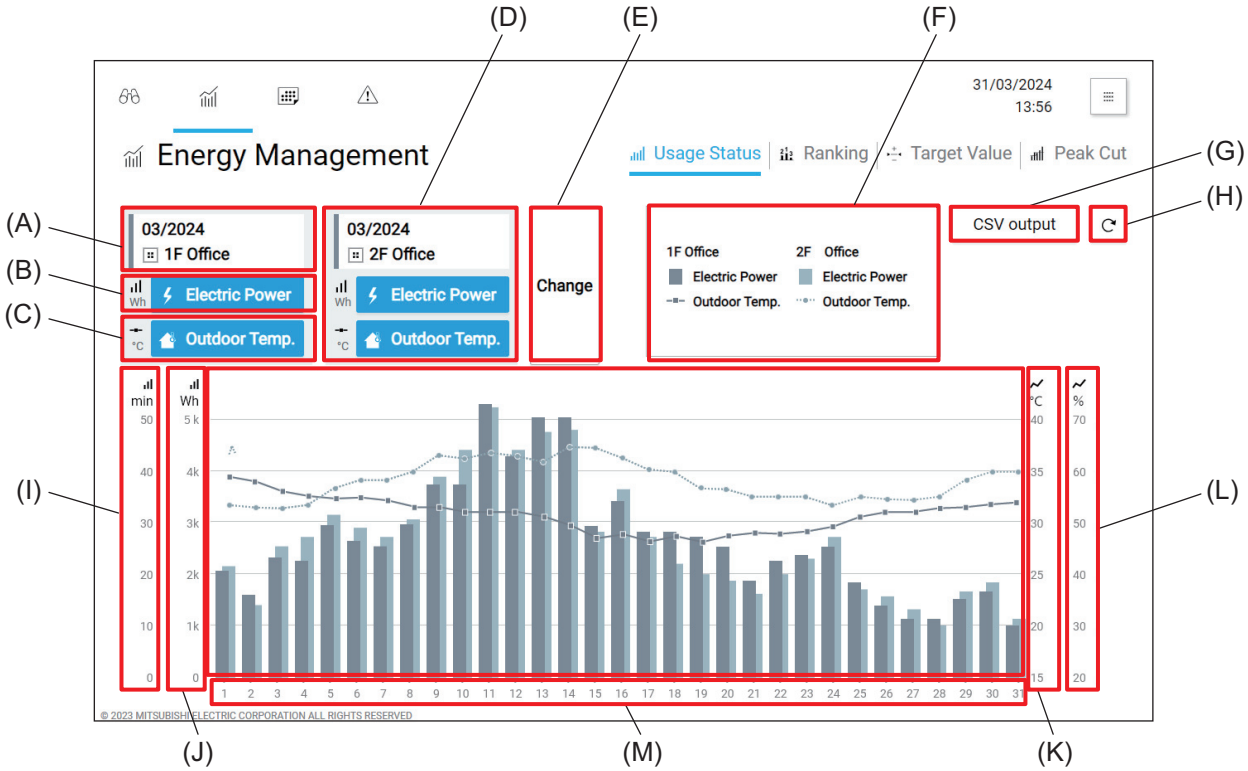
4-7-1. Energy management screen transition



	Screen name	Function and description
(A)	Main menu	Tapping **[**  **]** will display the Energy Management screen.
(B)	Sub menu	Tapping a sub menu button will display the screen corresponding to the button pressed, such as the usage status screen and peak cut screen.
(C)	Usage status	The usage status screen shows energy management data, such as electric energy consumption, operating hours, and outdoor temperature in graph. Details of energy usage of a given unit can be viewed.
(D)	Peak cut	This screen shows peak cut status history (daily report) in graph.

4-7-2. Usage status

The usage status screen shows energy management data, such as electric energy consumption, operating hours, and outdoor temperature in graph. Details of energy usage of a given unit can be viewed.
The energy usages of different units can be displayed at the same time for comparison.
Hourly, daily, or monthly energy usage is displayed in graph to visualize the energy saving status.
Tapping **[ ]** on the main menu (I) and then selecting **[Usage Status]** will display the usage status screen.

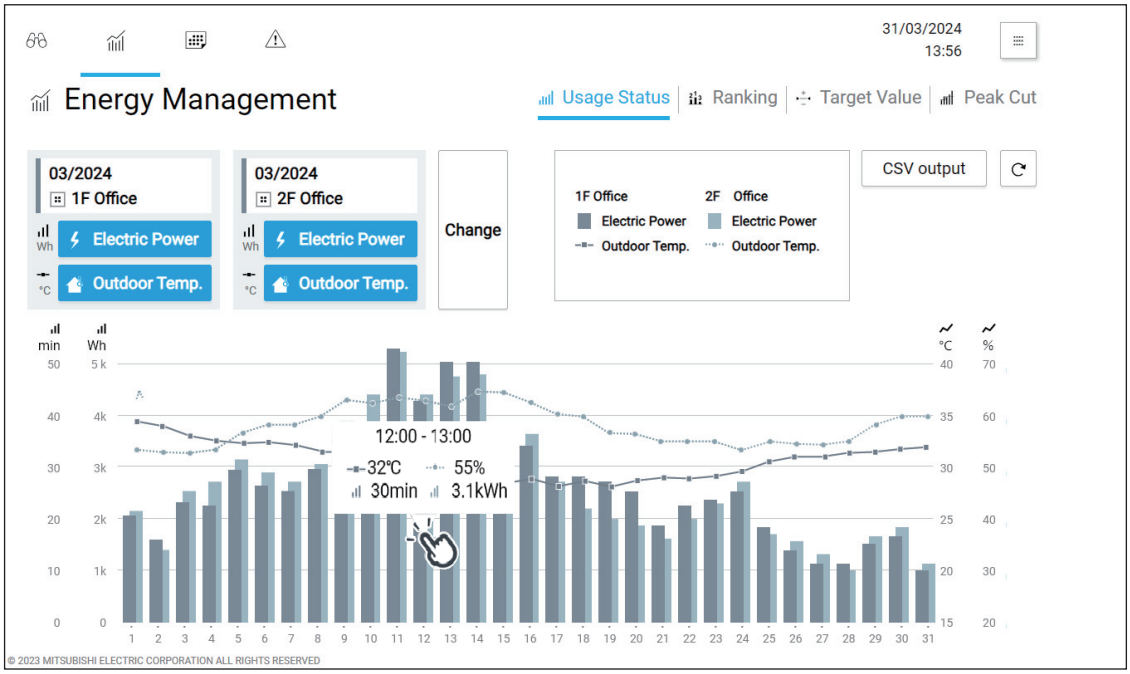


	Item	Function and description
(A)	Display target (date)	The date of the display target and the legend of the graph are displayed.
(B)	Bar graph legend	The icon, numerical unit, and button of the bar graph are displayed.
(C)	Line graph legend	The icon, numerical unit, and button of the line graph are displayed.
(D)	Comparison target (date)	The date of the comparison target and the legend of the graph are displayed.
(E)	**[Change]**	Tap this button to change the settings of the display target (A) and the comparison target (D).
(F)	Graph legend	Legends of the graph are displayed.
(G)	CSV output	Tapping this button will download the currently displayed graph in CSV format.
(H)	Refresh	Tapping this button will reload the graph data and display the updated graph.
(I)	Vertical axis 1 for bar graph	Bar graph scales are displayed depending on the numerical unit, target date, and items to be displayed.
(J)	Vertical axis 2 for bar graph	
(K)	Vertical axis 1 of line graph	Line graph scales are displayed depending on the numerical unit, target date, and items to be displayed.
(L)	Vertical axis 2 of line graph	
(M)	Graph display area	Graphs are displayed.

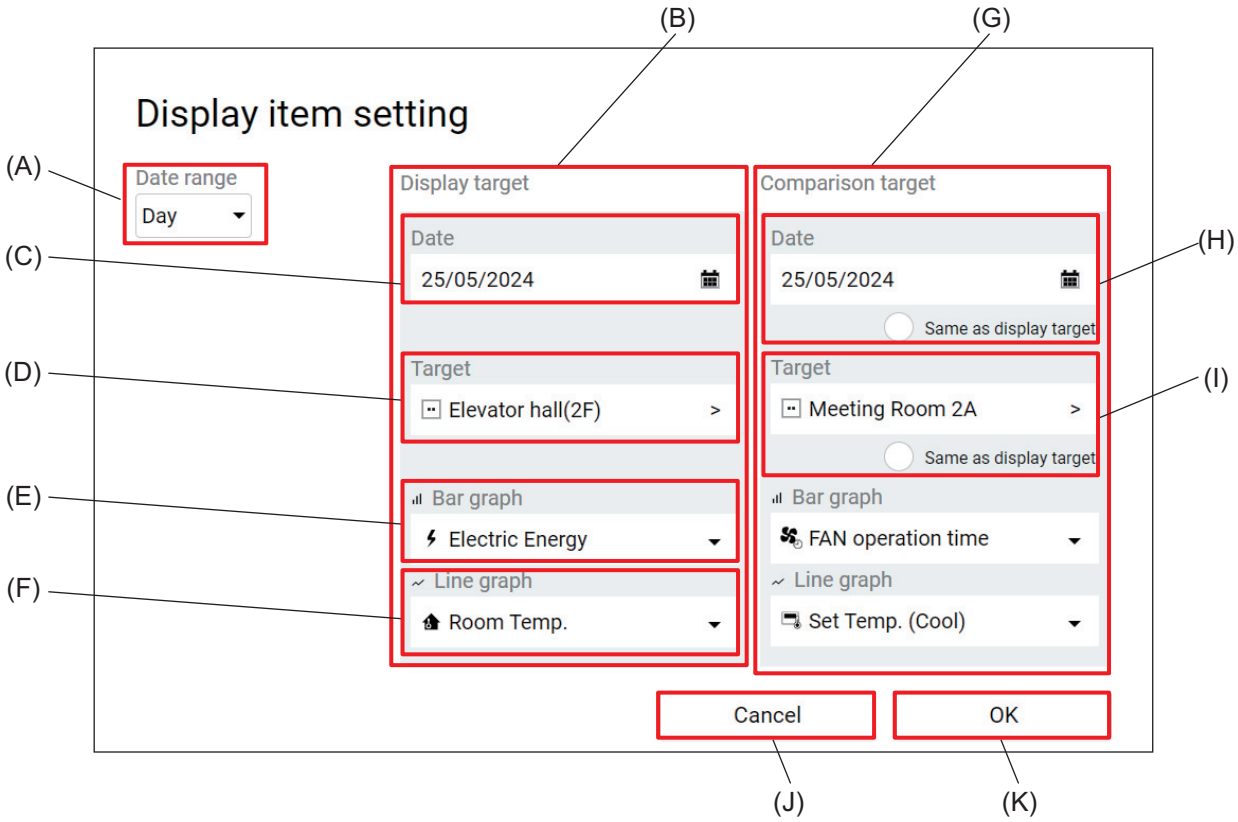
4-7-3. Selecting items displayed on graphs

By tapping the items displayed on the graphs on the Usage Status screen, you can select the period of time, numerical unit, display target, and comparison target.
The bar and line graphs displayed on the Usage Status screen will vary depending on the numerical unit to be selected.

Usage Status screen



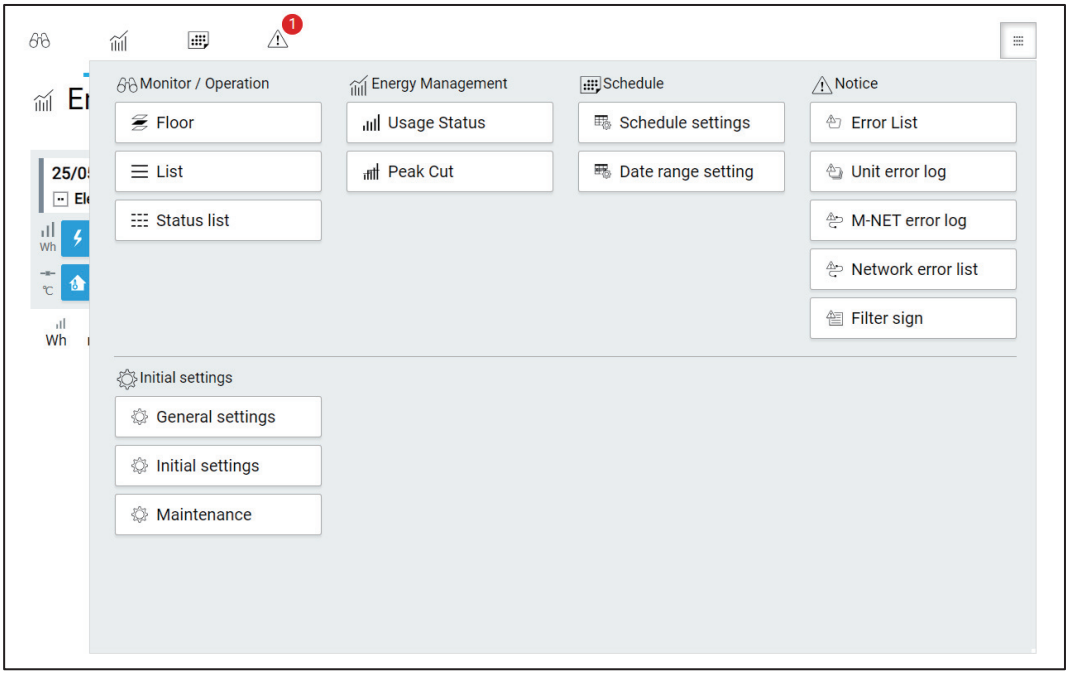
Display item setting screen



	Item	Function and description
(A)	Date range	Date range filters (year/month/day) are selectable.
(B)	Display target	Display target can be set.
(C)	Date	Displayed period can be selected according to the filter selected under Date range (A).
(D)	Target	Target unit can be selected.
(E)	Bar graph	Items displayed on bar graphs can be selected.
(F)	Line graph	Items displayed on line graphs can be selected. • Two line graphs can be plotted when they use the same units. • Items to be displayed on bar graphs can be also selected.
(G)	Comparison target	Comparison target can be set.
(H)	Same as display target (Date)	Tapping this checkbox will synchronize the date of the comparison target with the date of the display target. • This checkbox is displayed under Comparison target only.
(I)	Same as display target (Target)	Tapping this checkbox will synchronize the unit selected as the comparison target with the unit selected as the display target. • This checkbox is displayed under Comparison target only. • When the display target unit is changed with this checkbox being selected, the comparison target unit will be changed accordingly.
(J)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(K)	**[OK]**	Tap this button to save the setting changes.

4-8. Panorama view screen

Available functions are listed as buttons on the panorama view screen, and tapping the buttons will display the screens corresponding to the buttons tapped.
Tapping **[ ]** at the top right of the screen will display the Panorama view screen.



MEMO

5. Usage (Air conditioning unit/ventilating unit: basic operation)

5-1. Advanced setting screen for different types of products (basic operation)

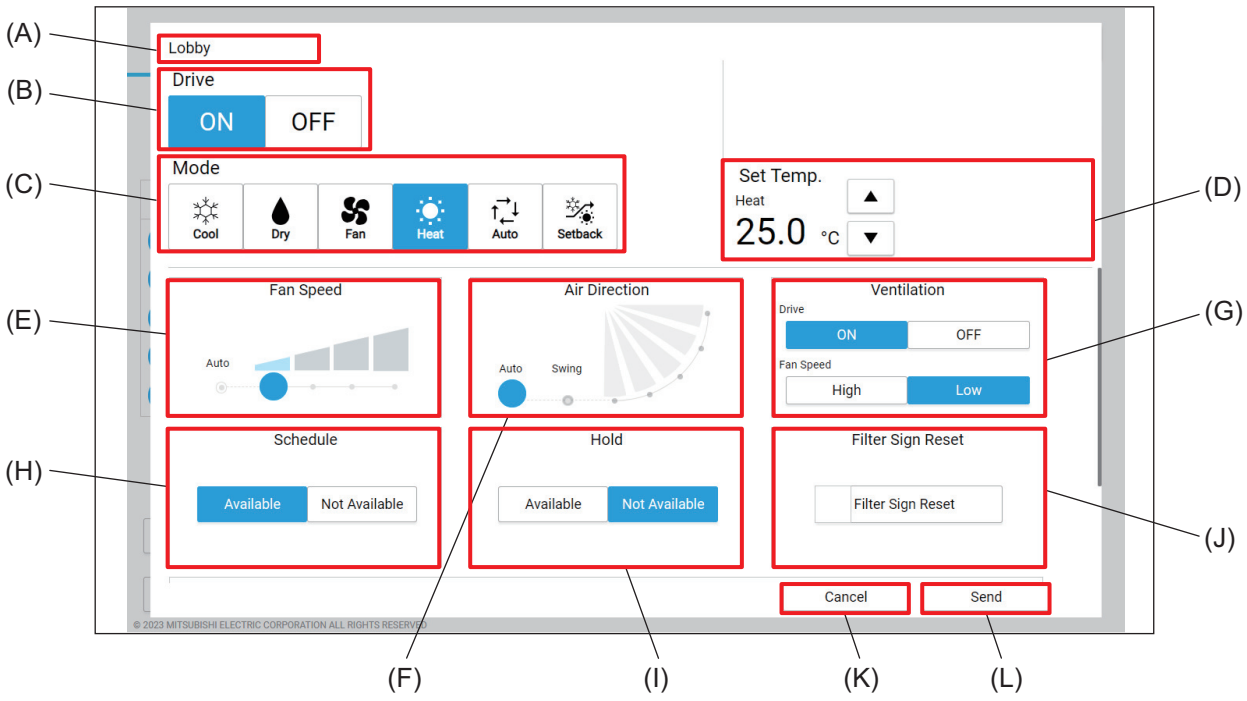
Tapping **[Advanced]** on the Simple operation panel of the Monitor/Operation screen will display the Advanced setting screen for the selected group.
On the Advanced setting screen, you can view the operation status of the selected group or change the settings of the selected group.

After changing the settings, tap **[Send]** (L) to save the changes.
To go back to the previous screen without saving the changes, tap **[Cancel]** (K).

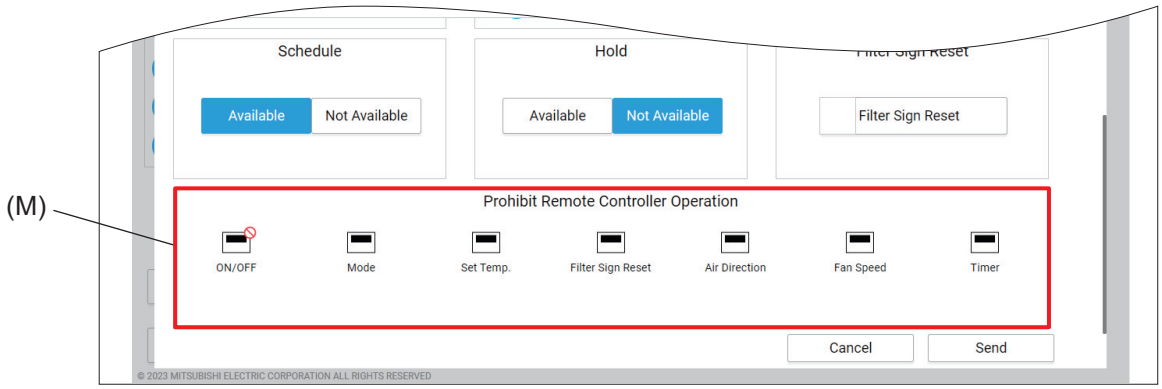
- While the Advanced setting screen is being displayed, any changes in the operation status will not be reflected on the information shown on the screen.
- Buttons being selected are displayed in blue.

[1] Air conditioning unit (indoor unit) group

Top half of the screen



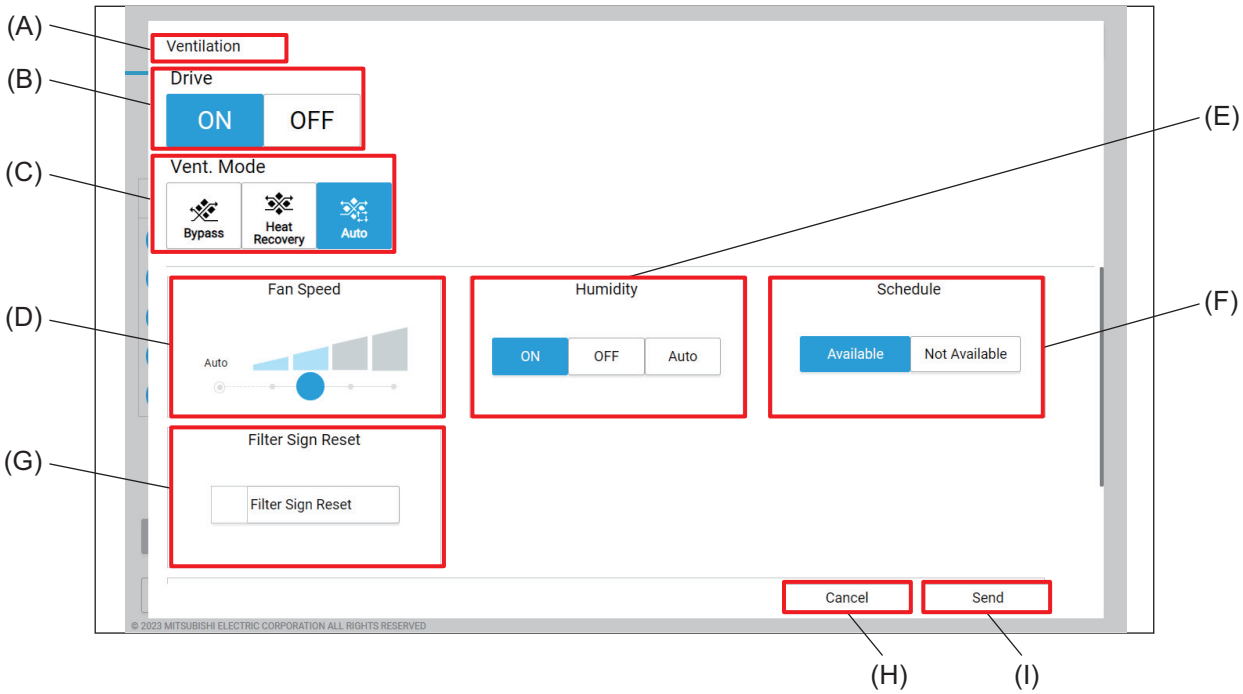
Bottom half of the screen



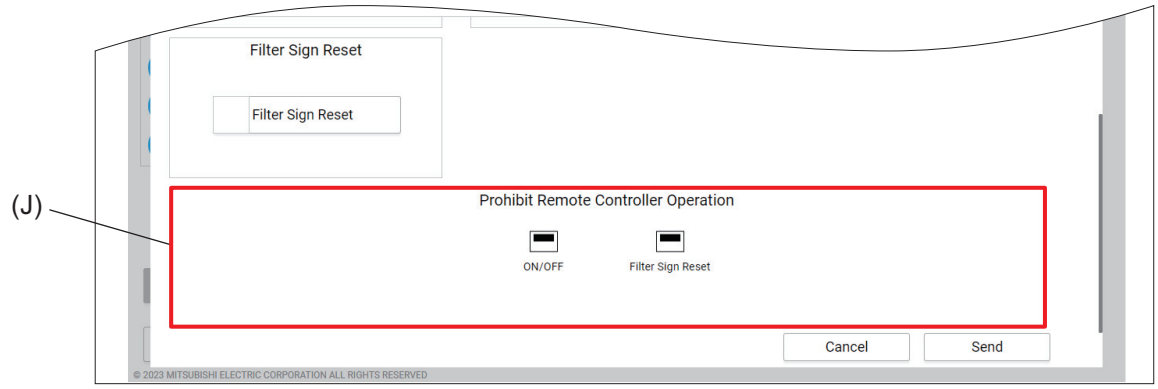
	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the indoor unit.
(C)	Mode	Select the operation mode.
(D)	Set Temp.	Tap **[▲]** or **[▼]** to change the set temperature. • The temperature setting range vary with models.
(E)	Fan Speed	Set the fan speed.
(F)	Air Direction	Set the air direction.
(G)	Ventilation	Tap **[ON]** or **[OFF]** to turn on or off the interlocked LOSSNAY unit. Tap **[High]** or **[Low]** to change the fan speed of the interlocked LOSSNAY unit.
(H)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(I)	Hold	Select to allow or not allow other system controllers or remote controllers to make the schedule settings of the controller.
(J)	Filter Sign Reset	Tap this button to turn off the reminder to clean the filter. (The total operation time will be reset.)
(K)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(L)	**[Send]**	Tap this button to save the setting changes.
(M)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, Set Temp., Filter Sign Reset, Air Direction, Fan Speed, and Timer. Prohibited settings are marked with **[🚫]**.

[2] LOSSNAY group

Top half of the screen



Bottom half of the screen

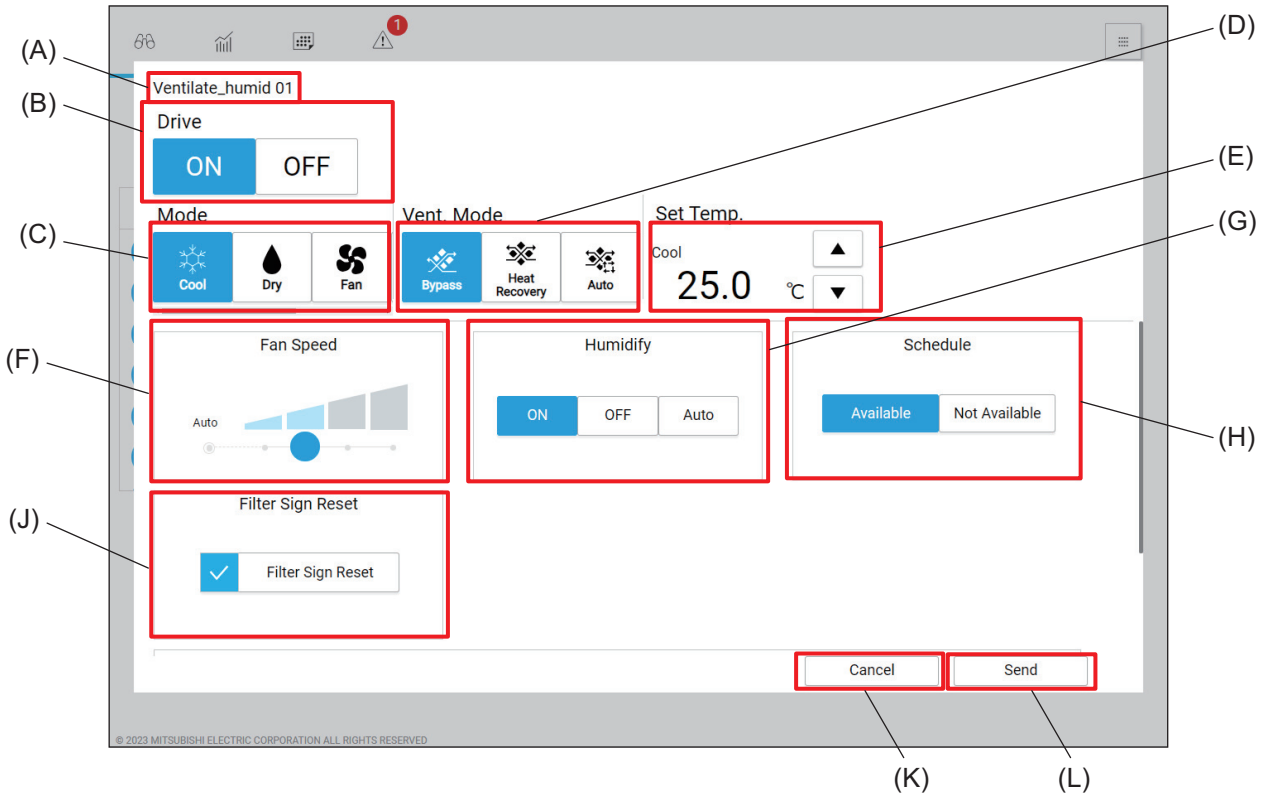


	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to change the operation of the LOSSNAY unit.
(C)	Vent. Mode	Tap **[Bypass]**, **[Heat Recovery]**, or **[Auto]** to change the ventilation mode of the LOSSNAY unit.
(D)	Fan Speed	Set the fan speed.
(E)	Humidify	Tap **[ON]**, **[OFF]**, or **[Auto]** to change the humidifier operation. • This item will not be displayed during night purge operation.
(F)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(G)	Filter Sign Reset	Tap this button to turn off the reminder to clean the filter. (The total operation time will be reset.)
(H)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.

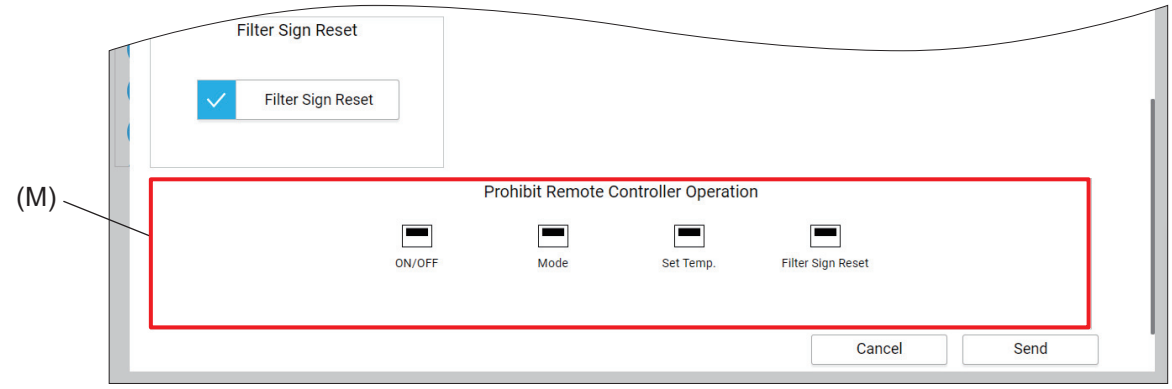
	Item	Function and description
(I)	**[Send]**	Tap this button to save the setting changes.
(J)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF and Filter Sign Reset. Prohibited settings are marked with **[****]**.

[3] OA handling unit (direct expansion type with built-in heater/humidifier) group

Top half of the screen



Bottom half of the screen



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the OA handling unit (direct expansion type with built-in heater/humidifier).
(C)	Mode	Select the operation mode.
(D)	Vent. Mode	Tap **[Bypass]**, **[Heat Recovery]**, or **[Auto]** to change the ventilation mode of the OA handling unit (direct expansion type with built-in heater/humidifier).
(E)	Set temp.	Tap **[▲]** or **[▼]** to change the set temperature. • The temperature setting range vary with models.
(F)	Fan Speed	Set the fan speed.
(G)	Humidify	Tap **[ON]**, **[OFF]**, or **[Auto]** to change the humidifier operation. • This item will not be displayed during night purge operation.

	Item	Function and description
(H)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(J)	Filter Sign Reset	Tap this button to turn off the reminder to clean the filter. (The total operation time will be reset.)
(K)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(L)	**[Send]**	Tap this button to save the setting changes.
(M)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, Set Temp. and Filter Sign Reset. Prohibited settings are marked with **[**  **]**.

6. Usage (Air conditioning unit/ventilating unit: schedule settings)

6-1. Advanced setting screen for different types of products (schedule setting)

Tapping **[Add]** or **[Edit]** on the Schedule screen will display the Advanced setting screen for the selected group.
After changing the settings on the Advanced setting screen, tap **[OK]** to save the changes.
To go back to the previous screen without saving the changes, tap **[Cancel]**.

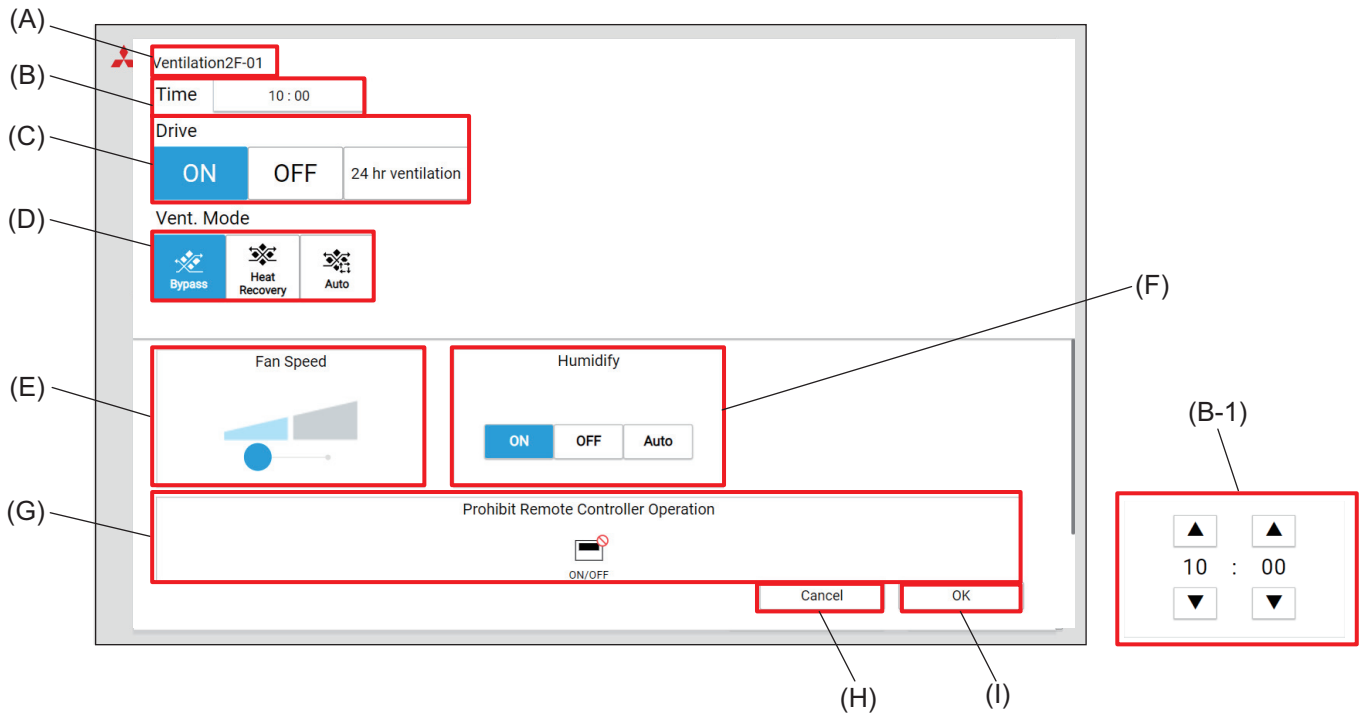
- Buttons being selected are displayed in blue.

[1] Air conditioning unit (indoor unit) group

	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]**, **[OFF]**, or **[Optimized Start]** to select the operation method.
(D)	Mode	Select the operation mode.
(E)	Set temp.	Tap **[▲]** or **[▼]** to change the set temperature. • The temperature setting range vary with models.
(F)	Fan Speed	Set the fan speed.
(G)	Air Direction	Set the air direction.

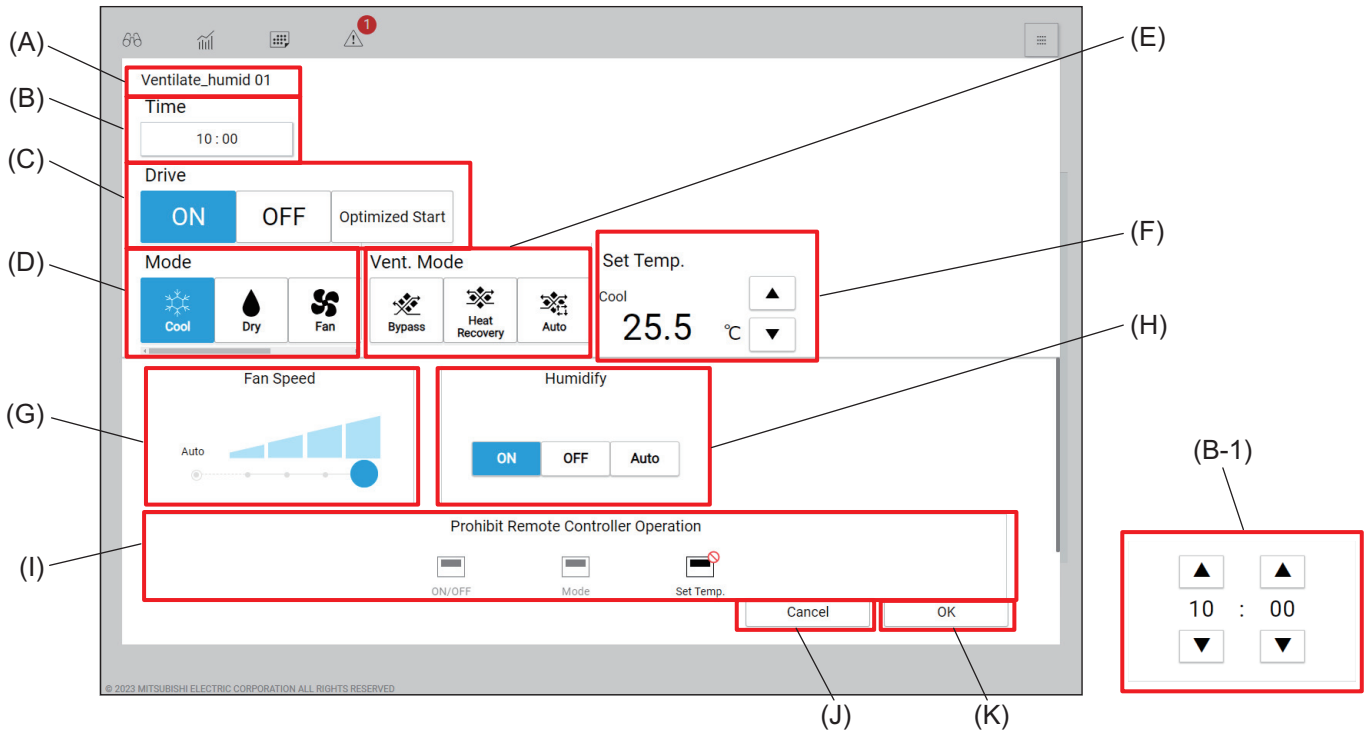
	Item	Function and description
(H)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set Temp. Prohibited settings are marked with **[🚫]**.
(I)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(J)	**[OK]**	Tap this button to save the setting changes.

[2] LOSSNAY group



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]**, **[OFF]**, or **[24 hr ventilation]** to select the operation method.
(D)	Vent. Mode	Tap **[Bypass]**, **[Heat Recovery]**, or **[Auto]** to change the ventilation mode of the LOSSNAY unit.
(E)	Fan Speed	Set the fan speed.
(F)	Humidify	Tap **[ON]**, **[OFF]**, or **[Auto]** to change the humidifier operation.
(G)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF. Prohibited settings are marked with **[⃠]**.
(H)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(I)	**[OK]**	Tap this button to save the setting changes.

[3] OA handling unit (direct expansion type with built-in heater/humidifier) group

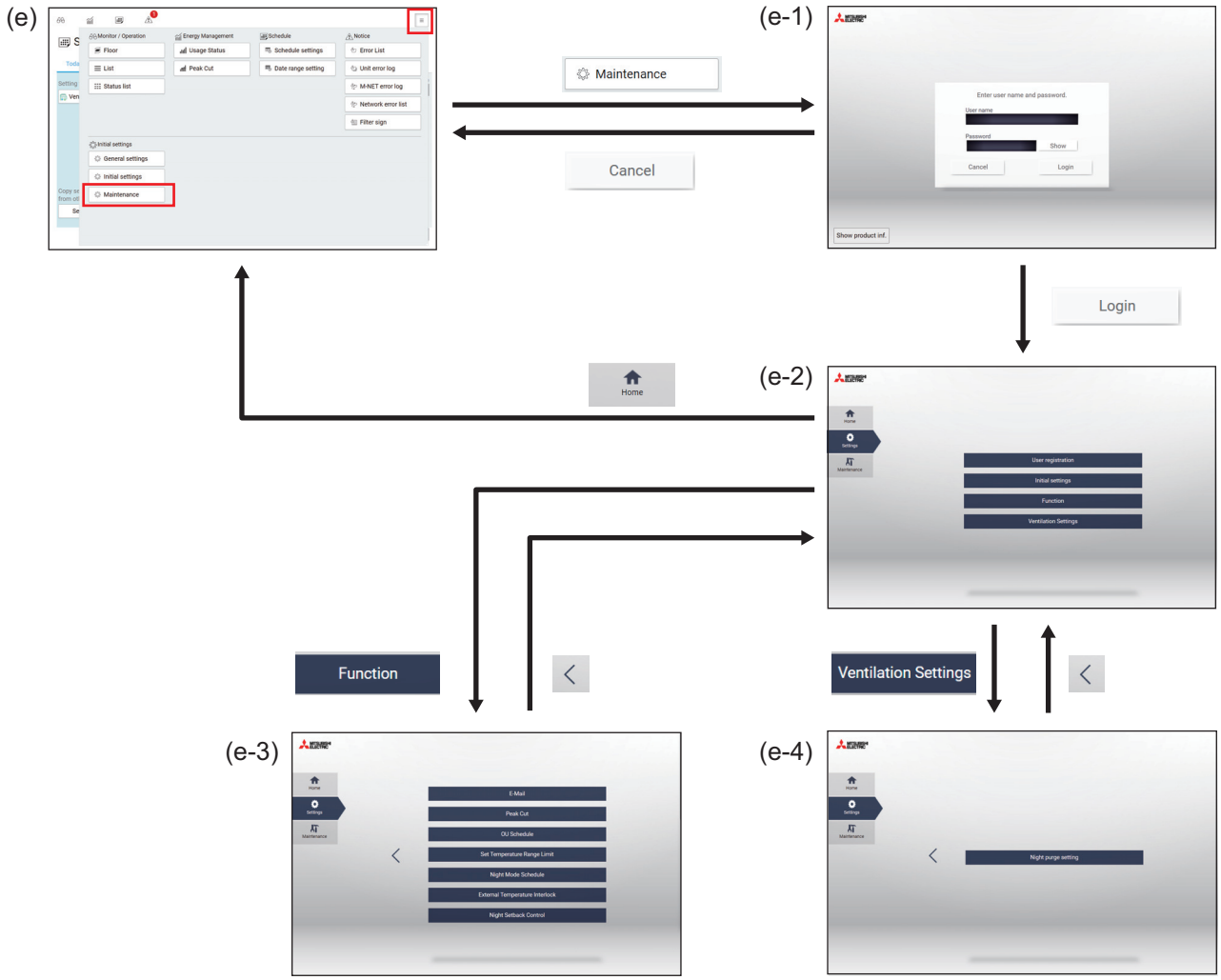


	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]**, **[OFF]**, or **[Optimized Start]** to select the operation method.
(D)	Mode	Select the operation mode.
(E)	Vent. Mode	Tap **[Bypass]**, **[Heat Recovery]**, or **[Auto]** to change the ventilation mode of the OA handling unit (direct expansion type with built-in heater/humidifier).
(F)	Set temp.	Tap **[▲]** or **[▼]** to change the set temperature. • The temperature setting range vary with models.
(G)	Fan Speed	Set the fan speed.
(H)	Humidify	Tap **[ON]**, **[OFF]**, or **[Auto]** to change the humidifier operation.
(I)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set Temp. Prohibited settings are marked with **[🚫]**.
(J)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(K)	**[OK]**	Tap this button to save the setting changes.

7. Usage (Air conditioning unit/ventilating unit: operation management)

7-1. Common matters

7-1-1. Screen transition

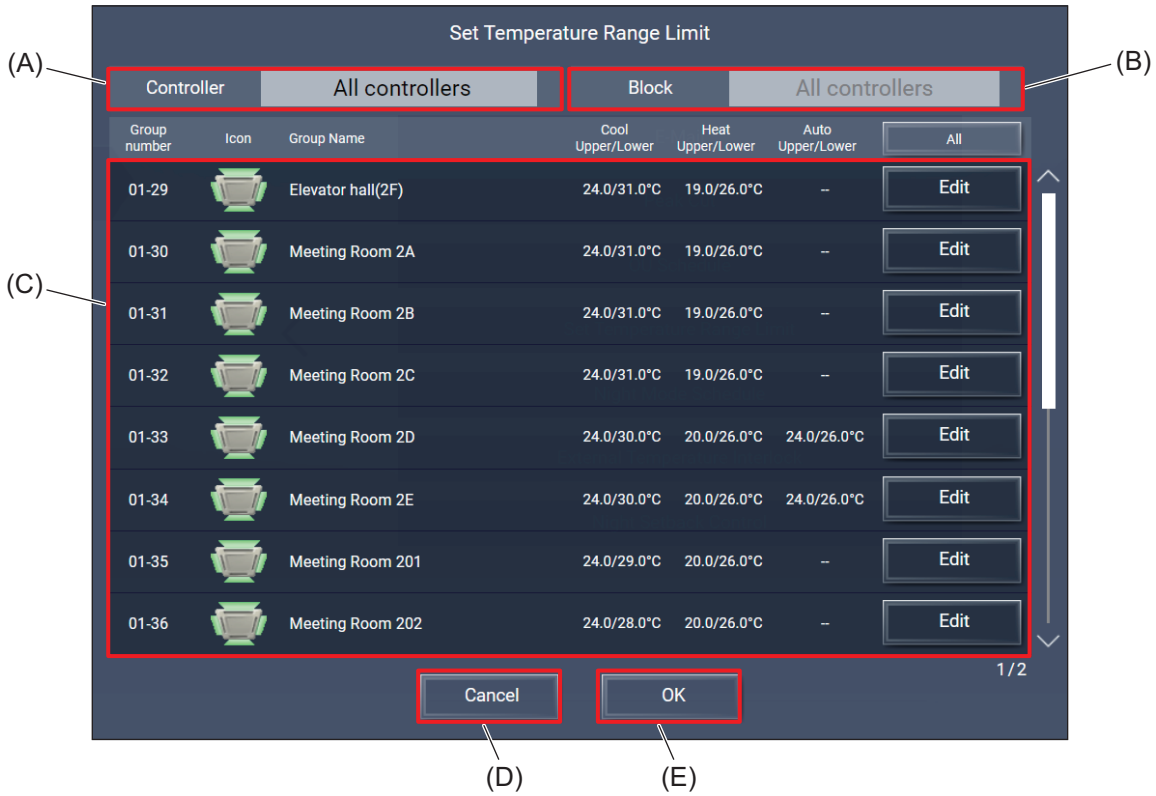


	Item	Function and description
(e)	Panorama view	Tapping **[Maintenance]** will display the operation management login screen.
(e-1)	Login	The login screen to access the operation management screen (e-2) will be displayed. Enter the user ID and password, and tap **[Login]**. To go back to the Panorama view screen (e), tap **[Cancel]**

	Item			Function and description
(e-2)	Operation management			
		Home		The floor layout screen is displayed.
		Settings		The operation settings are displayed.
			User registration	The user registration screen is displayed.
			Initial settings	The initial settings screen is displayed.
			Function	The function settings screen (e-3) is displayed.
			Ventilation Settings	The ventilation settings screen (e-4) is displayed.
		Maintenance		Maintenance items are displayed.

7-2. Set temperature range limit settings

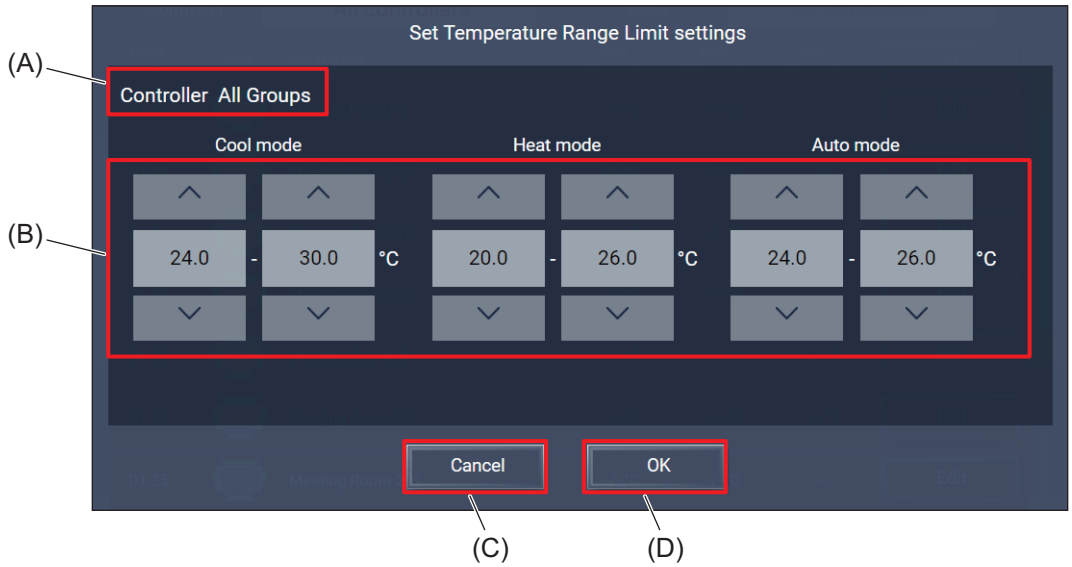
Tapping **[Settings]** and then **[Function]** on the operation management screen (e-2) will display the function settings screen.
Tapping **[Set Temperature Range Limit]** on the function settings screen will display the Set Temperature Range Limit screen.



	Item	Function and description
(A)	Controller	Select the target AE-C/EW-C.
(B)	Block	Select the target block to display.
(C)	List of settings	Setting targets and setting values are displayed. Tapping **[Edit]** will display the Set Temperature Range Limit settings screen.
(D)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.

[1] Set Temperature Range Limit settings screen

The temperature setting range (lower and upper limits) in the cooling, heating, and auto modes of the target group can be set.



	Item	Function and description
(A)	Controller	The target group name is displayed.
(B)	Temperature range limit settings	Tap **[▲]** or **[▼]** to set the temperature setting range (lower and upper limits) in the cooling, heating, and auto modes.
(C)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(D)	**[OK]**	Tap this button to save the setting changes.

7-3. External temperature interlock settings

Tapping **[Settings]** and then **[Function]** on the operation management screen (e-2) will display the function settings screen.
Tapping **[External Temperature Interlock]** on the function settings screen will display the AE-C/EW-C selection dialog (A).
Selecting an AE-C/EW-C and tapping **[Next]** on the dialog will display the External Temperature Interlock screen.

	Item	Function and description
(A)	AE-C/EW-C selection dialog	Selecting an AE-C/EW-C and tapping **[Next]** on the dialog will display the External Temperature Interlock screen. Tapping **[Cancel]** will close the dialog.
(B)	Controller	The target AE-C/EW-C is displayed.
(C)	External Temperature Sensor	External temperature sensor registered to the AE-C/EW-C is displayed. Tapping this item will display the External temperature sensor selection dialog (C-1).
(C-1)	External temperature sensor selection dialog	Select an external temperature sensor. Tapping **[Cancel]** will close the dialog without saving the setting changes. Tapping **[OK]** will save the settings and close the dialog.
(D)	Interlock control area	The numbers and names of the external temperature interlock control groups registered to the AE-C/EW-C are displayed.
(E)	Set Temperature Variation Range	Select the range to vary the set temperature depending on the external temperature.
(F)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(G)	**[OK]**	Tap this button to save the setting changes.

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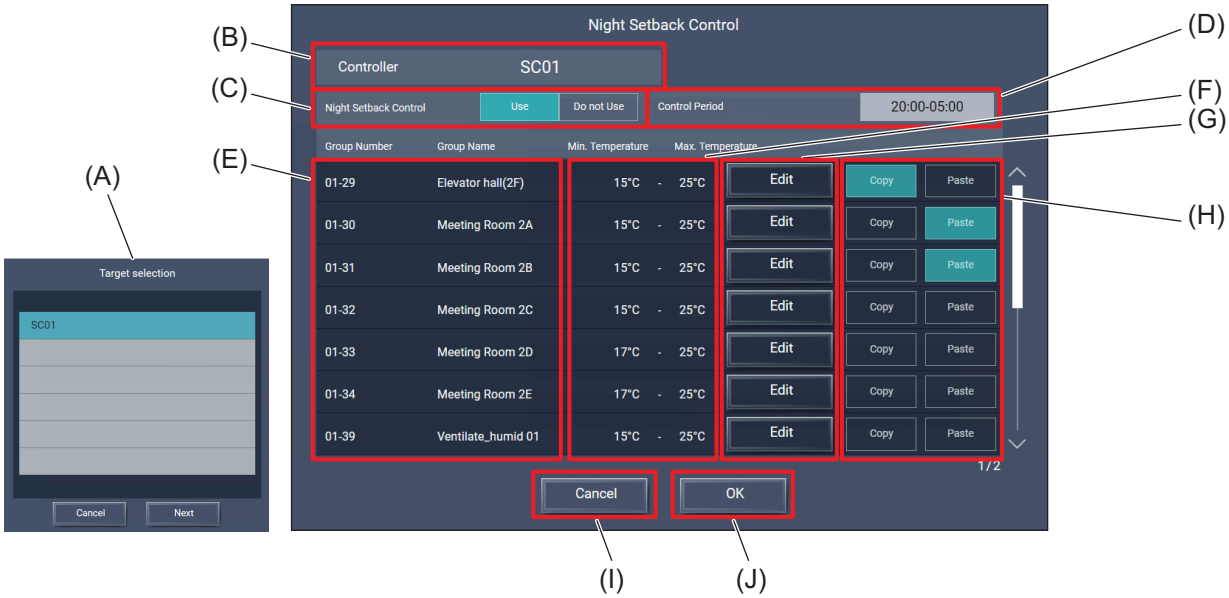
7-4. Night Setback Control settings

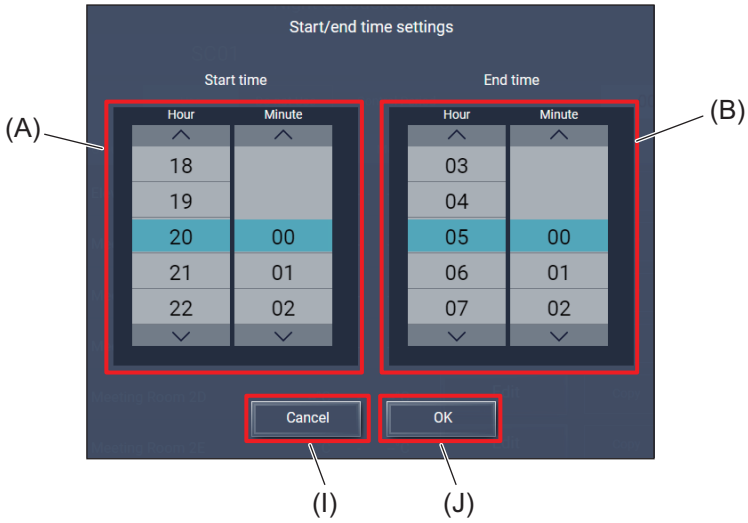
Tapping **[Settings]** and then **[Function]** on the operation management screen (e-2) will display the function settings screen.
Tapping **[Night Setback Control]** on the function settings screen will display the AE-C/EW-C selection dialog (A).
Selecting an AE-C/EW-C and tapping **[Next]** on the dialog will display the Night Setback Control screen.



	Item	Function and description
(A)	AE-C/EW-C selection dialog	Selecting an AE-C/EW-C and tapping **[Next]** on the dialog will display the Night Setback Control screen. Tapping **[Cancel]** will close the dialog.
(B)	Controller	The target AE-C/EW-C is displayed.
(C)	Night Setback Control	Select whether to use or not the setback control.
(D)	Control Period	Set the setback control period. Tapping this item will display the Start/end time settings screen.
(E)	Group Number, Group Name	The numbers and names of the target groups are displayed.
(F)	Min./Max. Temperature	The min. and max. temperatures of each group are displayed.
(G)	Edit	Tapping this button will display the Temperature range settings screen.
(H)	Copy/Paste	Tap **[Copy]** of the group of which settings you want to copy, and tap **[Paste]** of the group to which you want to paste the copied settings.
(I)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(J)	**[OK]**	Tap this button to save the setting changes.

[1] Start/end time settings screen

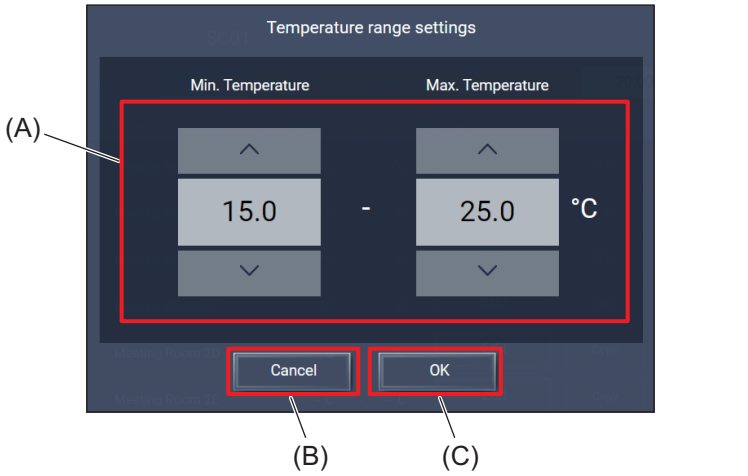
The start and end times of the control can be set.



	Item	Function and description
(A)	Start time	Tap **[▲]** or **[▼]** to set the hour and minute of the start time.
(B)	End time	Tap **[▲]** or **[▼]** to set the hour and minute of the end time.
(C)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(D)	**[OK]**	Tap this button to save the setting changes.

[2] Temperature range settings screen

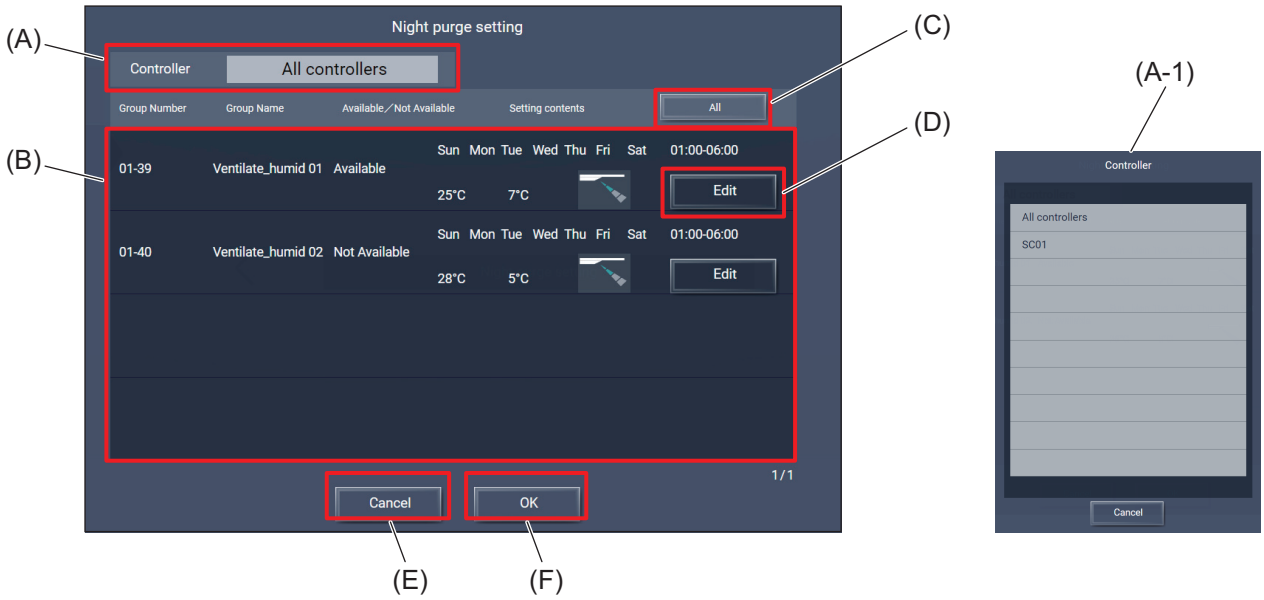
The temperature setting range (min. and max.) of the target group can be set.



	Item	Function and description
(A)	Temperature range	Tap **[▲]** or **[▼]** to set the temperature range (min. and max.) of the target group.
(B)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(C)	**[OK]**	Tap this button to save the setting changes.

7-5. Night purge settings

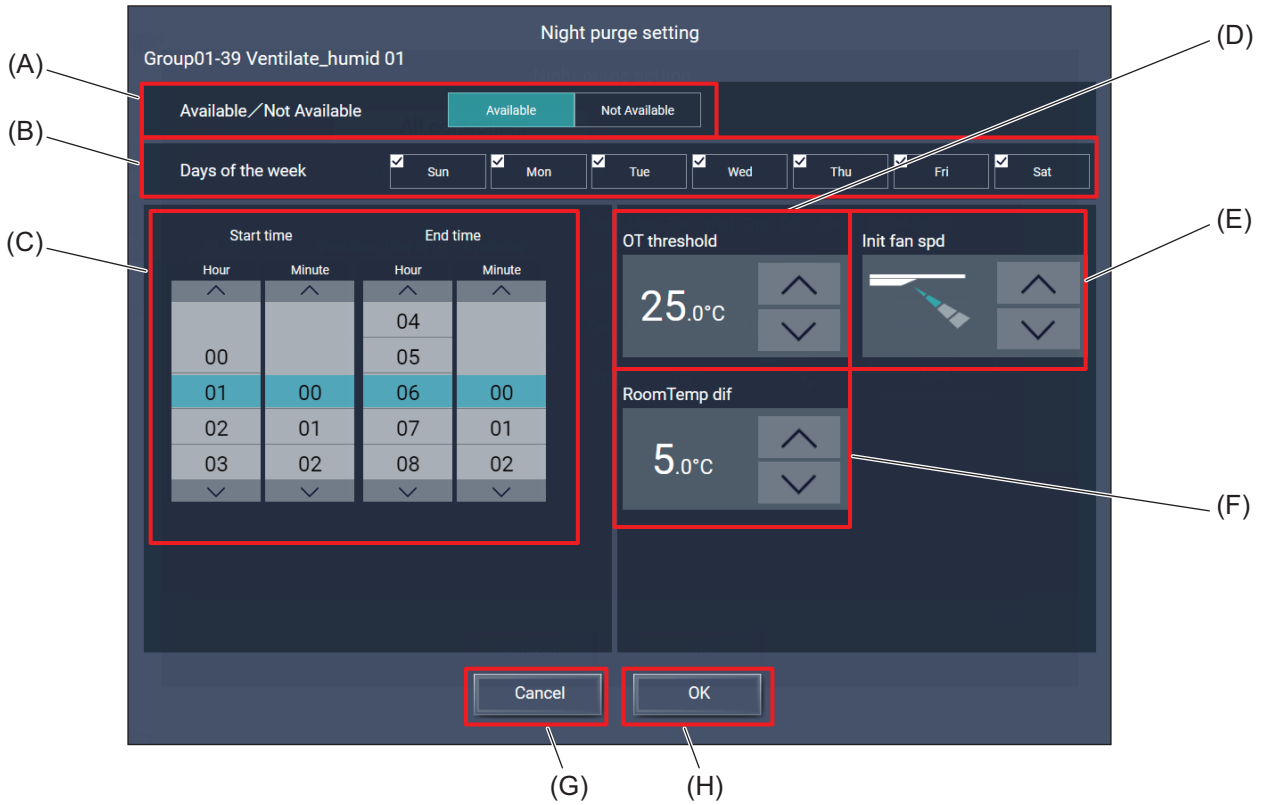
Tapping **[Settings]** and then **[Ventilation Settings]** on the operation management screen (e-2) will display the ventilation settings screen.
Tapping **[Night purge setting]** on the ventilation settings screen will display the Night purge setting screen.



	Item	Function and description
(A)	Controller	Tapping this item will display the AE-C/EW-C selection dialog (A-1).
(A-1)	AE-C/EW-C selection dialog	Select the target AE-C/EW-C. Tapping **[Cancel]** will close the dialog without saving the setting changes.
(B)	Group Number, Group Name, current setting	The numbers and names of the target groups and their settings are displayed. • Available/Not Available • Day of the week • Outside air temperature threshold and indoor-outdoor temperature difference • Initial fan speed
(C)	All	Tapping this button will display the Night purge setting change screen. Tapping [All] will apply the settings to all groups.
(D)	Edit	
(E)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(F)	**[OK]**	Tap this button to save the setting changes.

[1] Night purge setting change screen

Set the time period during which the night purge is allowed, and the threshold values of outdoor air temperature and indoor-outdoor temperature difference at which the night purge is activated.



	Item	Function and description
(A)	Available/ Not Available	Tap **[Available]** or **[Not Available]** to enable or disable the night purge.
(B)	Days of the week	Select the days of the week to execute the night purge.
(C)	Start/end time	Set the start and end times of the time period during which the night purge is allowed.
(D)	OT threshold	Set the outdoor air temperature at which the night purge is activated.
(E)	RoomTemp dif	Set the difference between indoor and outdoor temperatures at which the night purge is activated.
(F)	Init fan spd	Set the initial fan speed of the night purge.
(G)	**[Cancel]**	Tapping this button will close the dialog without saving the setting changes.
(H)	**[OK]**	Tapping this button will save the settings and close the dialog.

7-6. Night mode (low noise mode) schedule settings

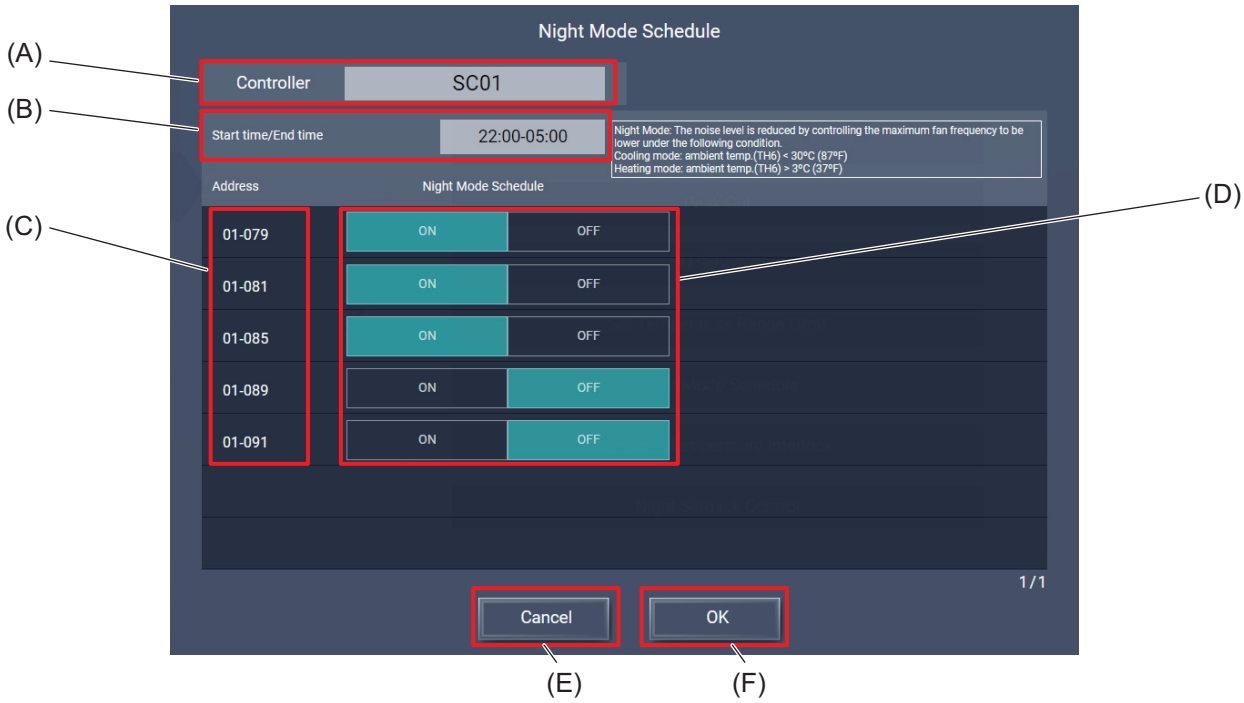
The night mode (low-noise mode) settings can be made with the following method.

- Normal setting

7-6-1. Normal setting

Tapping **[Settings]** and then **[Function]** on the operation management screen (e-2) will display the function settings screen.

Tapping **[Night Mode Schedule]** on the function settings screen will display the Night Mode Schedule screen.



	Item	Function and description
(A)	Controller	Select the target AE-C/EW-C.
(B)	Start time/End time	Set the start and end times of the night mode schedule.
(C)	Address	The M-NET addresses of the outdoor units are displayed.
(D)	ON/OFF	Tap **[ON]** or **[OFF]** to turn on or off the night mode schedule.
(E)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(F)	**[OK]**	Tap this button to save the setting changes.

MEMO

8. Usage (Products other than air conditioning unit: basic operation)

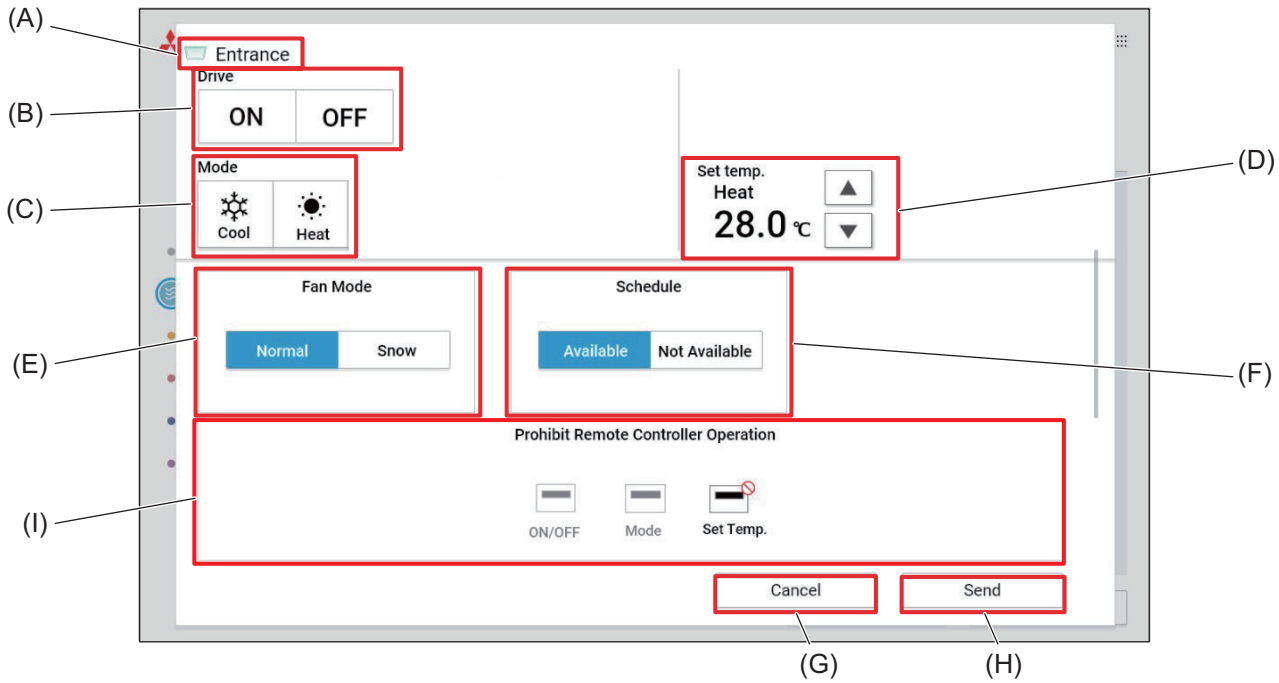
8-1. Advanced setting screen for different types of products (basic operation)

Tapping **[Advanced]** on the Simple operation panel of the Monitor/Operation screen will display the Advanced setting screen for the selected group.
On the Advanced setting screen, you can view the operation status of the selected group or change the settings of the selected group.

After changing the settings, tap **[Send]** to save the changes.
To go back to the previous screen without saving the changes, tap **[Cancel]**.

- While the Advanced setting screen is being displayed, any changes in the operation status will not be reflected on the information shown on the screen.
- Buttons being selected are displayed in blue.

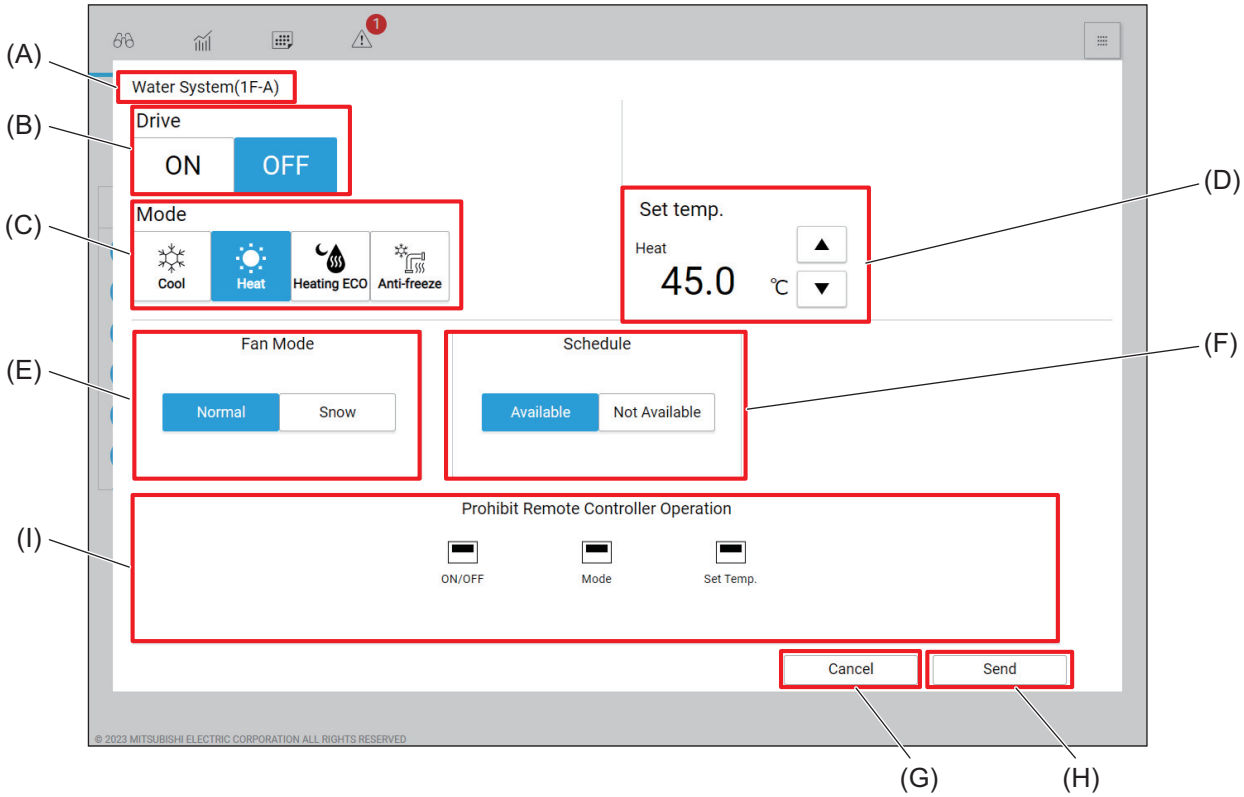
[1] e-Series 1



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the unit.
(C)	Mode	Select the operation mode.
(D)	Set temp.	Tap **[▲]** or **[▼]** to change the set water temperature.
(E)	Fan Mode	Tap **[Normal]** or **[Snow]** to switch the fan mode.
(F)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(G)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.

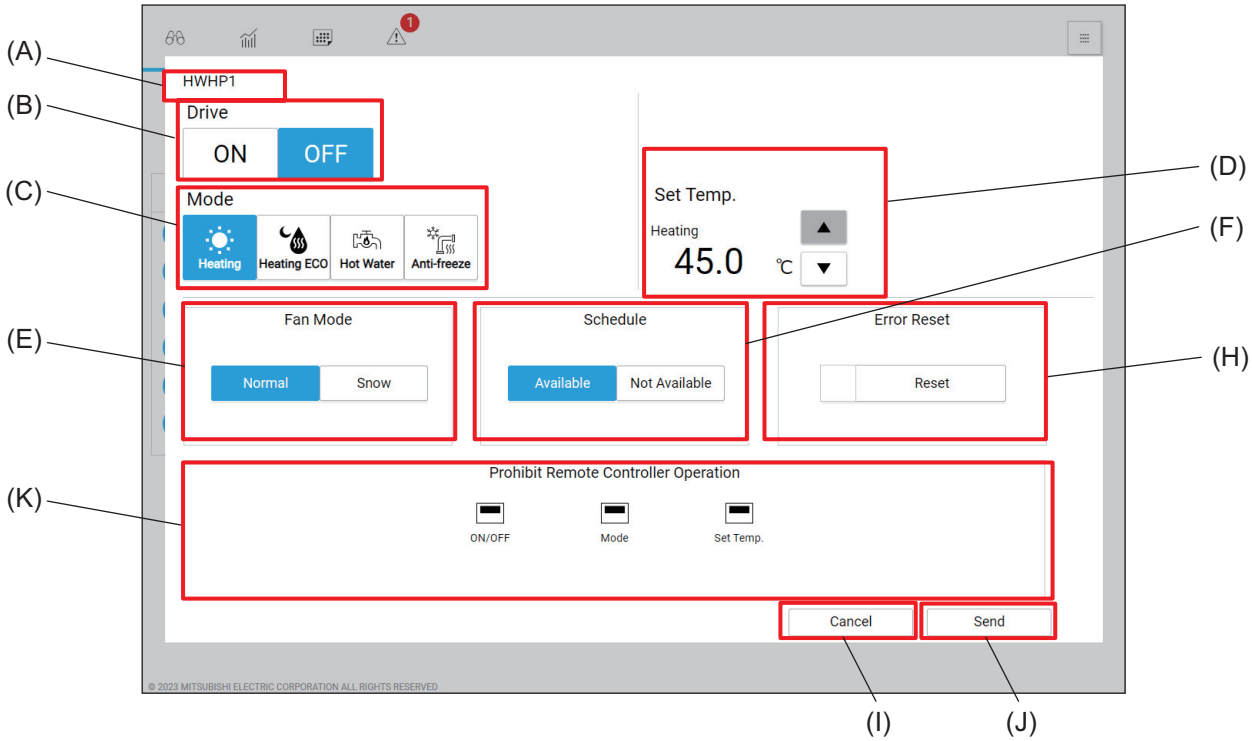
	Item	Function and description
(H)	**[Send]**	Tap this button to save the setting changes.
(I)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set temp. Prohibited settings are marked with **[**  **]**.

[2] e-Series 2



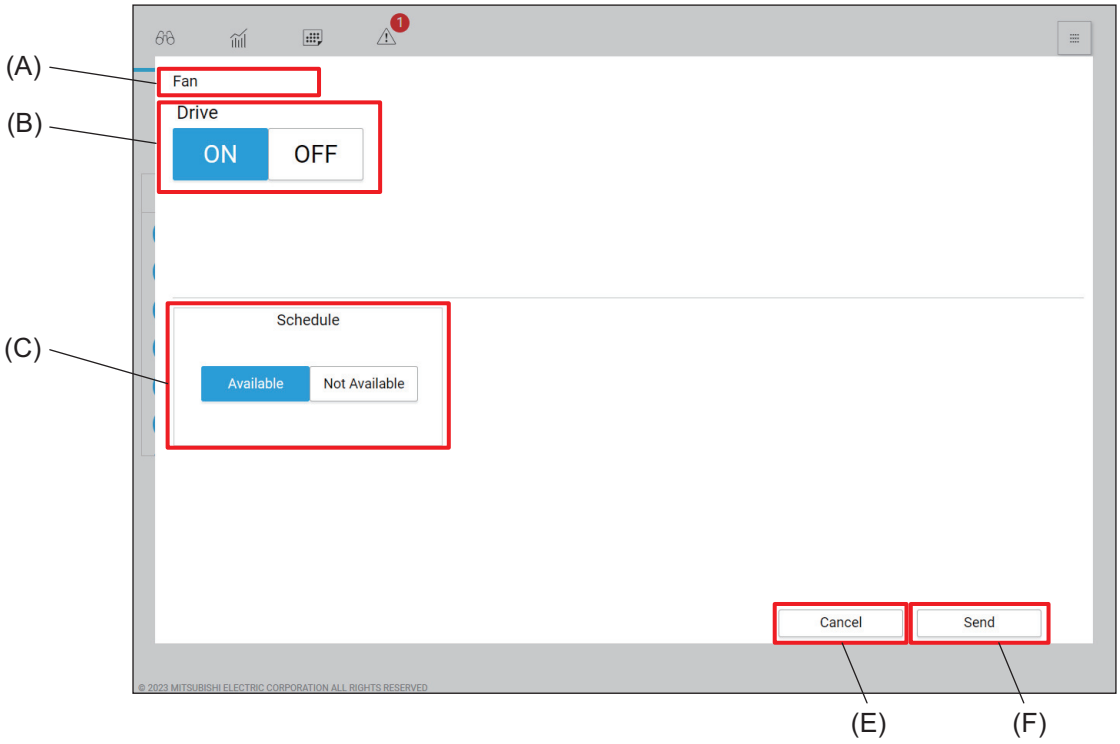
	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the unit.
(C)	Mode	Select the operation mode.
(D)	Set temp.	Tap **[▲]** or **[▼]** to change the set water temperature.
(E)	Fan Mode	Tap **[Normal]** or **[Snow]** switch the fan mode.
(F)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(G)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(H)	**[Send]**	Tap this button to save the setting changes.
(I)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set temp. Prohibited settings are marked with **[⃠]**.

[3] HWHP (CAHV, CRHV)



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the unit.
(C)	Mode	Select the operation mode.
(D)	Set Temp.	Tap **[▲]** or **[▼]** to change the hot water set temperature.
(E)	Fan Mode	Tap **[Normal]** or **[Snow]** switch the fan mode.
(F)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(H)	Error Reset	Tap **[Reset]** to send an error reset command to the unit.
(I)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(J)	**[Send]**	Tap this button to save the setting changes.
(K)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set Temp. Prohibited settings are marked with **[⃠]**.

[4] DIDO controller (66)



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the general equipment.
(C)	Schedule	Tap **[Available]** or **[Not Available]** to enable or disable the schedule. • When **[Not Available]** is selected, the controller will not operate according to the set schedule.
(E)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(F)	**[Send]**	Tap this button to save the setting changes.

MEMO

9. Usage (Products other than air conditioning unit: schedule settings)

9-1. Advanced setting screen for different types of products (schedule setting)

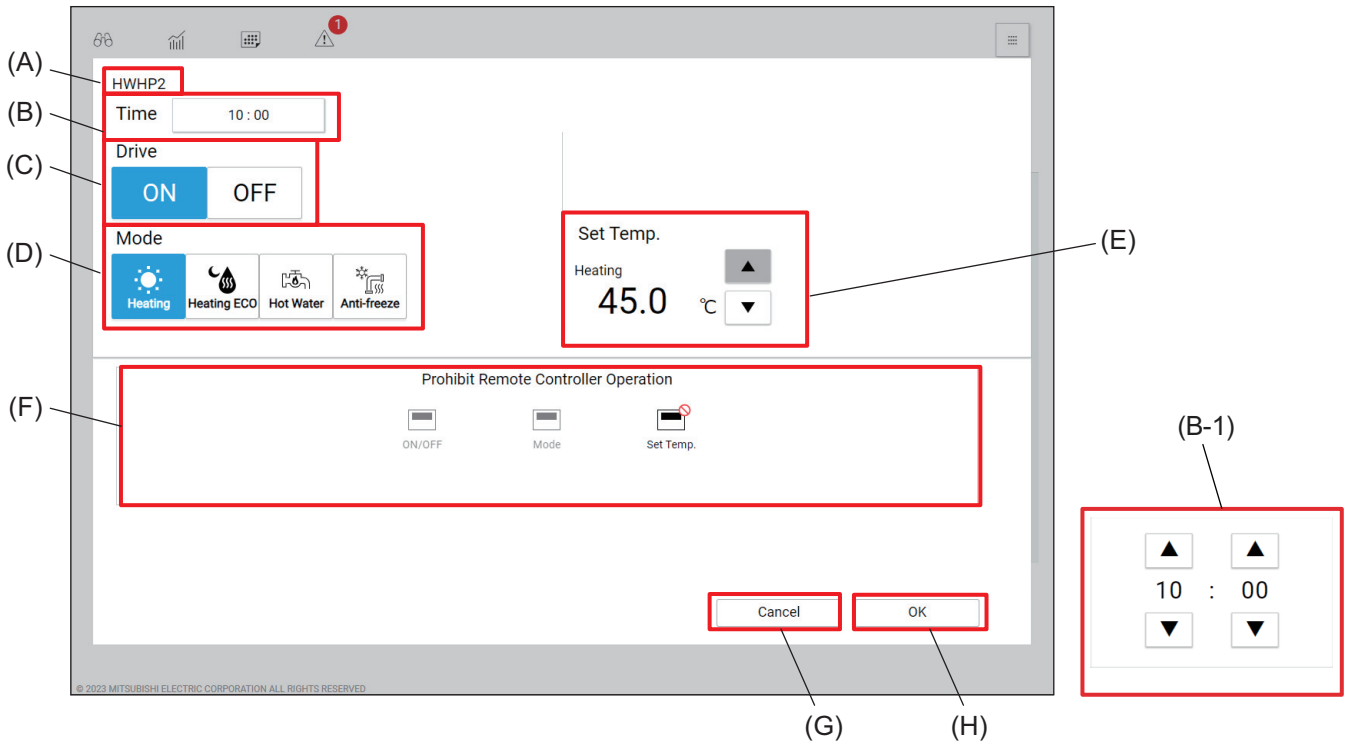
[1] e-Series 1

	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the unit.
(D)	Mode	Select the operation mode.
(E)	Set temp.	Tap **[▲]** or **[▼]** to change the set water temperature.
(F)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set Temp. Prohibited settings are marked with **[🚫]**.
(G)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(H)	**[Send]**	Tap this button to save the setting changes.

[2] e-Series 2

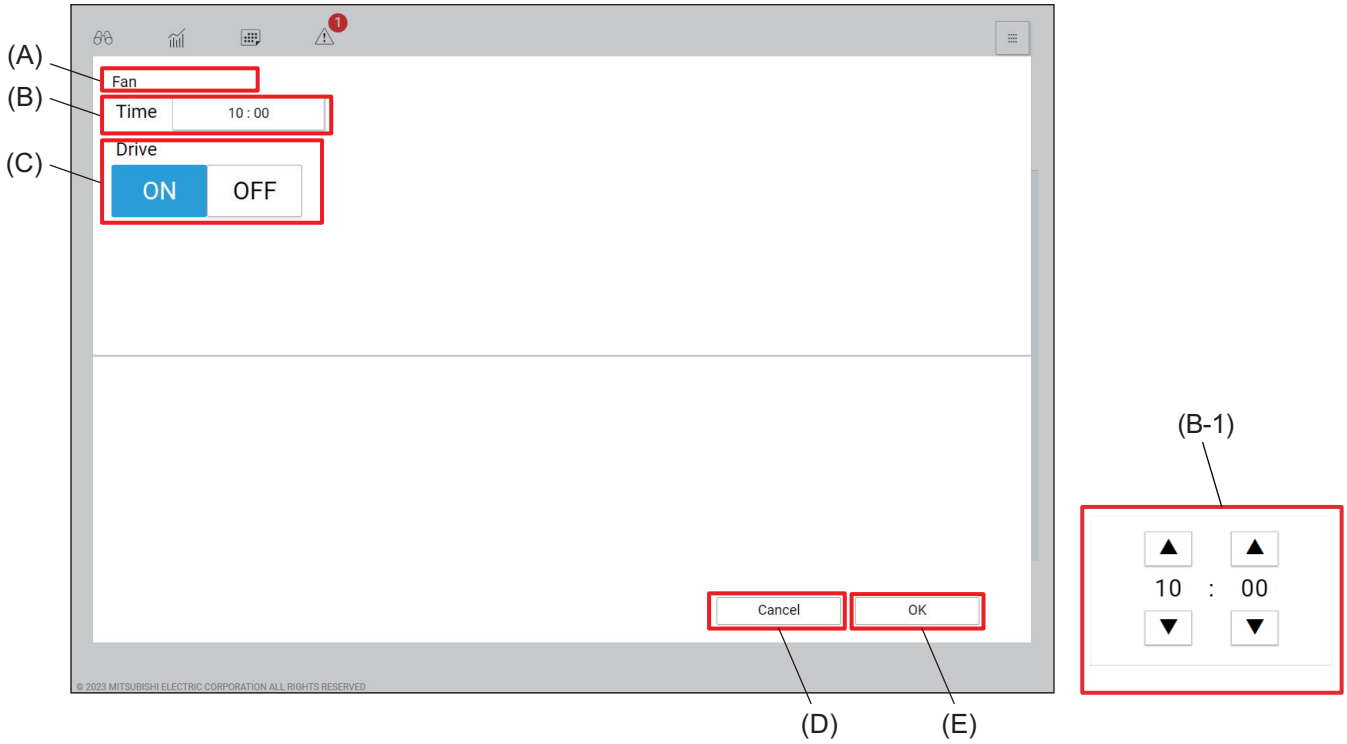
	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the unit.
(D)	Mode	Select the operation mode.
(E)	Set temp.	Tap **[▲]** or **[▼]** to change the set water temperature.
(F)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set temp. Prohibited settings are marked with **[🚫]**.
(G)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(H)	**[Send]**	Tap this button to save the setting changes.

[3] HWHP (CAHV, CRHV)



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the unit.
(D)	Mode	Select the operation mode.
(E)	Set temp.	Tap **[▲]** or **[▼]** to change the hot water set temperature.
(F)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(G)	**[Send]**	Tap this button to save the setting changes.
(H)	Prohibit Remote Controller Operation	Tap the buttons to allow or prohibit access from the remote controller to each item. The following settings can be allowed or prohibited: ON/OFF, Mode, and Set Temp. Prohibited settings are marked with **[🚫]**.

[4] DIDO controller (66)



	Item	Function and description
(A)	Group name	The name of the selected group is displayed.
(B)	Time	Set the activation time of the event. Tapping this item will display the time setting dialog (B-1).
(B-1)	Time setting dialog	Tap **[▲]** or **[▼]** to change the hour and minute.
(C)	Drive	Tap **[ON]** or **[OFF]** to turn on or off the general equipment.
(D)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(E)	**[Send]**	Tap this button to save the setting changes.

10. Usage (Common: Other functions)

10-1. User management

10-1-1. User privileges

The following is a list of available functions for each user.

○: Available -: Not available

Item		Commis-sioning user	Manager	Tenant manager	General user
Monitor/Operation	Floor layout screen	○	○	-	-
	List screen	○	○	○	○
	Simple operation	○	○	○	○
	Advanced operation	○	○	○	○
	Status list screen	○	○	-	-
Energy management	Usage status	○	○	○	-
	Peak cut	○	○	-	-
Schedule	Schedule setting	○	○	○	-
	Date range setting	○	○	○	-
	Schedule contents setting	○	○	○	-
Notice	Error list	○	○	-	-
	Unit error log	○	○	-	-
	M-NET error log	○	○	-	-
	Network error list	○	○	-	-
	Filter sign	○	○	-	-
Initial setting	Controller setting	○	○	-	-
	Network setting	○	○	-	-
	Hot water supply setting	○	○	-	-
	CSV output	○	○	-	-
General setting	Controller setting	○	○	-	-
	Product information	○	○	-	-
	LCD cleaning	○	○	-	-
	Energy management output	○	○	-	-
Setting	User management	○	○	-	-
	License registration	○	○	-	-
	E-mail setting	○	○	-	-
	Peak cut setting	○	○	-	-
	Set temperature range limit	○	○	-	-
	Night mode schedule	○	○	-	-
	External temperature interlock setting	○	○	-	-
	Night setback control setting	○	○	-	-

○: Available -: Not available

Item		Commis-sioning user	Manager	Tenant manager	General user
Maintenance	Error e-mail log	○	○	-	-
	Various status monitoring	○	○	-	-
	Utility	○	○	-	-
	Backup/import of settings data	○	○	-	-

11. Supplementary (Operation)

11-1. Operation using a smartphone

This section explains how to monitor and operate the air conditioning units, LOSSNAY units, Air To Water (PWFY) units, and general equipment that are connected to the AE-C/EW-C.

Login URL: https://[IP address of the login destination centralized controller AE-C/EW-C]/mobile/index.html

Note: Be sure to use a smartphone in portrait mode.

11-1-1. Monitoring the operation status

This section explains how to monitor the operation status of all groups collectively.

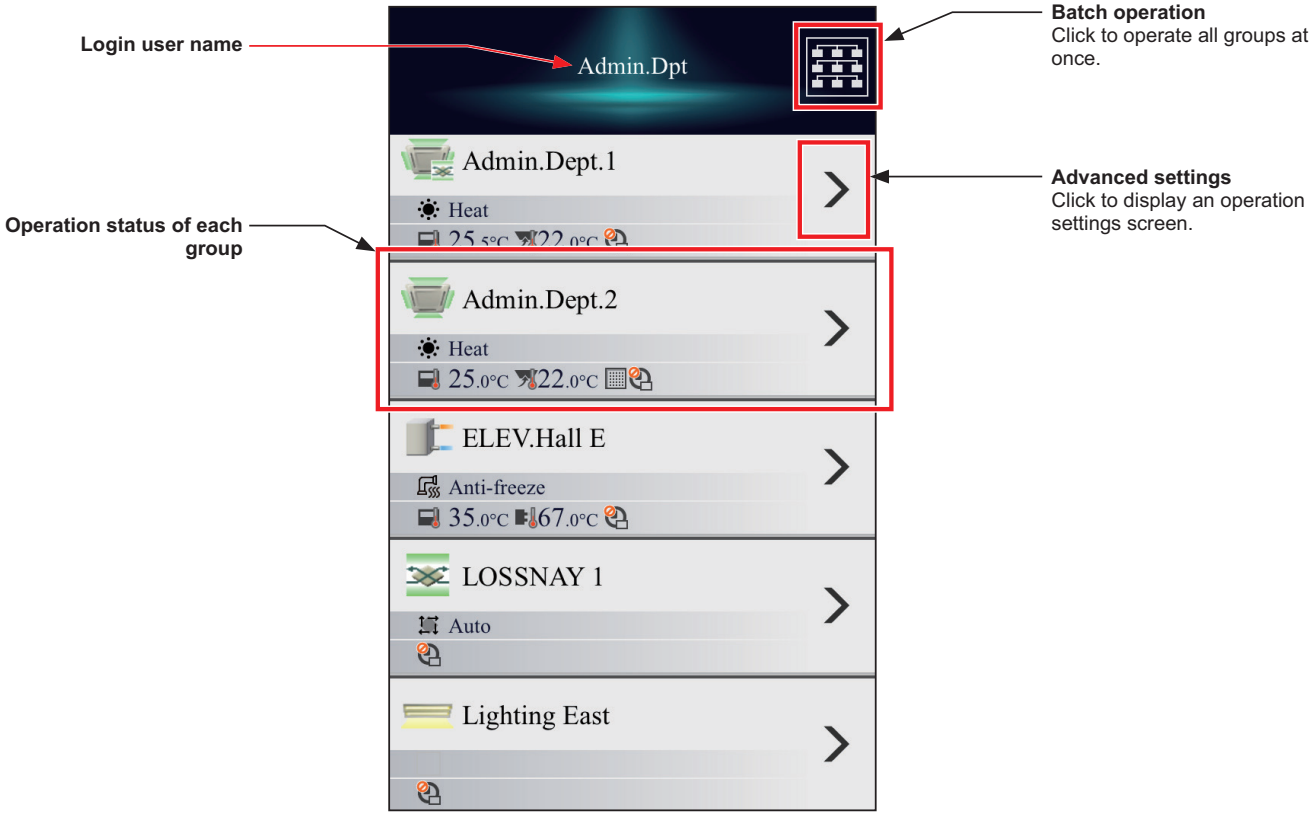
After login, the group list will appear, which shows the operation conditions of all air conditioning unit groups, LOSSNAY unit (ventilator) groups, Air To Water (PWFY) unit groups, and general equipment groups.

Note: HWHP (CAHV, CRHV) units, chiller units, and MEHT-CH&HP units cannot be operated on a smartphone.

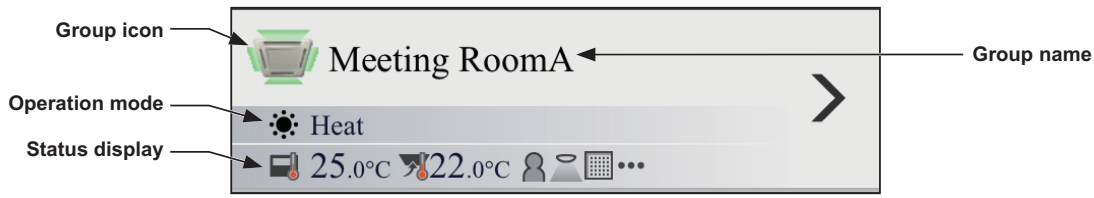
[1] Checking the operation status

In the group list, the operation status of all groups can be monitored. The operator can also check the unit malfunctions in this list and prevent the units from being left on unintentionally.

<Group list>



<Operation status of each group>



[2] Group icons

Each group icon indicates the operation condition of the group.

Unit	ON/OFF	Error	Interlocked LOSSNAY ON/OFF	Unit unknown	Operation suspended
Air conditioning unit group					
LOSSNAY unit (ventilator) group					
General equipment group					
Air To Water (PWFY) unit group					

Note: Icons can be changed in the group settings screen in the initial settings. Refer to the Instruction Book (Detailed Version) for settings methods.

[3] Operation mode

The operation mode of each group currently in use is displayed.

Unit	Cool	Dry	Fan	Heat	Auto	Auto		Setback
						Cool	Heat	
Air conditioning unit group								

Unit	Bypass	Heat Recovery	Auto
LOSSNAY unit (ventilator) group			

Unit	Heating	Heating ECO	Hot Water	Anti-freeze	Cooling
Air To Water (PWFY) unit group					

[4] Status display

The setting information and operation status of each group are displayed by icons.

Icon	Description
	Set temperature (Cool/Heat)
	Room temperature *1
	Humidity
	Night Purge ON
	Setback ON
	Energy saving control
	Occupied/Vacant
	Bright/Dark
	Filter sign ON
	Schedule disabled
	Schedule set
	AI-Smart Start ON
	Hold ON
	Status display skipped

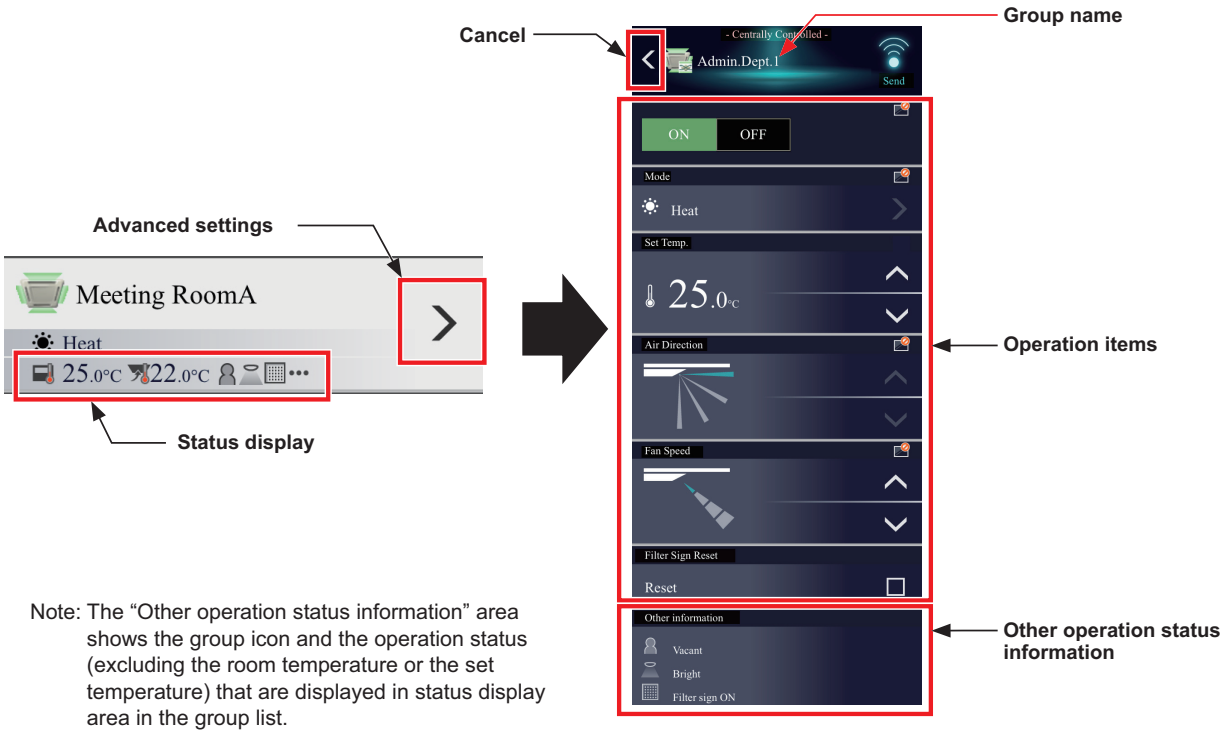
*1 The outlet air temperature is displayed for the outlet air temperature control units.

11-1-2. Operation

This section explains how to operate each group and all groups collectively .

[1] Operating the units

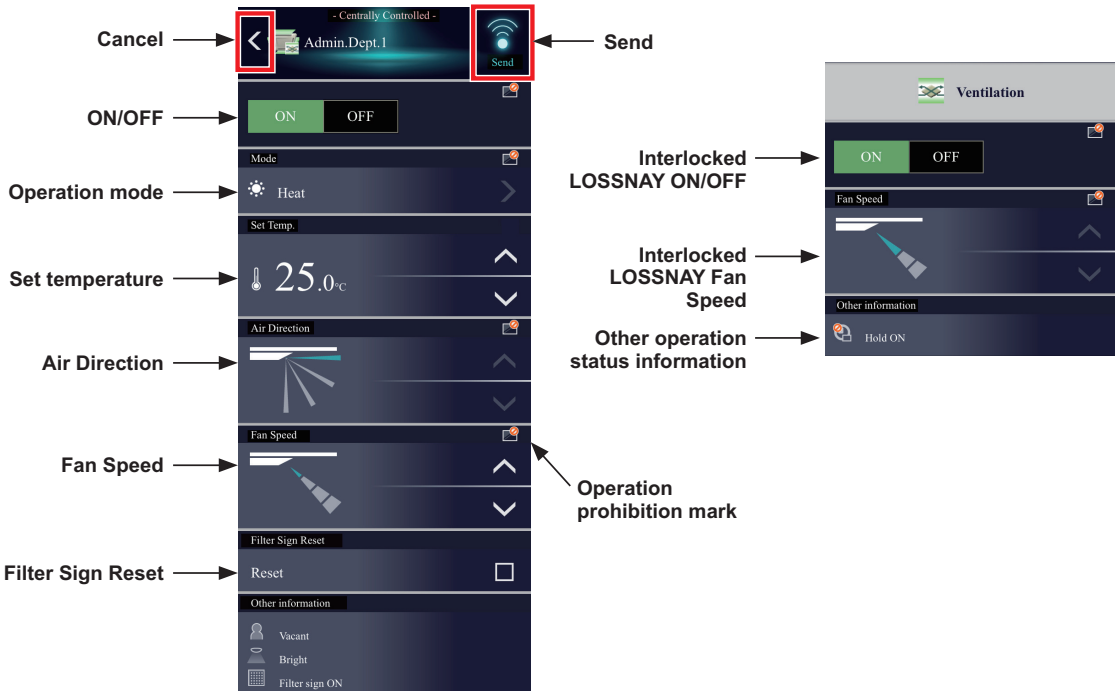
In the group list, click [Advanced settings] to switch to the operation settings screen, which shows the current operation status in the “Operation items” and “Other operation status information” areas. Change the desired operation items and touch [Send] to reflect the changes. Touch [Cancel] to return to the group list without sending any changes.

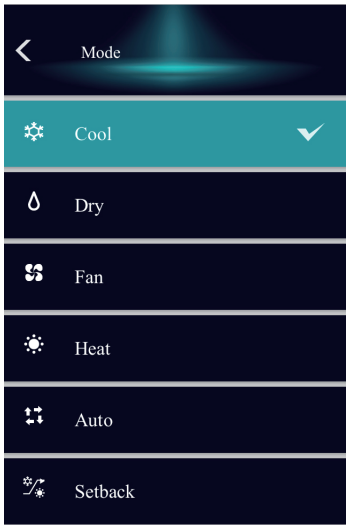


Note: The “Other operation status information” area shows the group icon and the operation status (excluding the room temperature or the set temperature) that are displayed in status display area in the group list.

(1) Air conditioning unit group

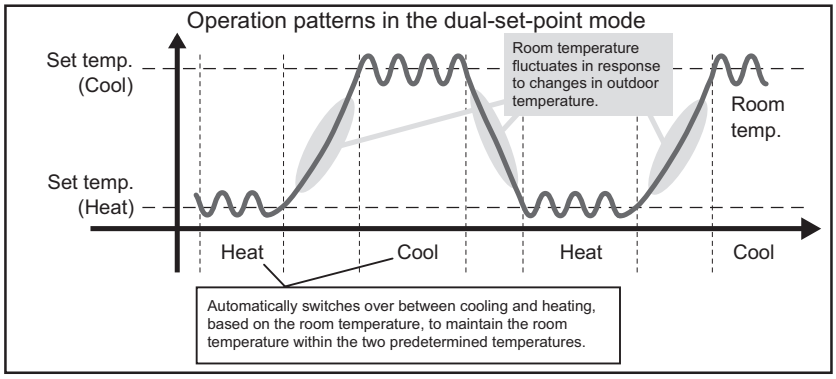
Operation settings screen for air conditioning unit groups is as follows.
If Interlocked LOSSNAY (ventilator) is set, then under the air conditioning unit group operating items will be displayed the interlocked LOSSNAY operating items.



Item	Description
ON/OFF	Touch [ON] or [OFF] to turn on or off the units. Note: Switching this setting will turn on or off the LOSSNAY unit as well that is interlocked with the operation of indoor units in the group. To turn on or off the LOSSNAY unit only, use the “Interlocked LOSSNAY ON/OFF” switch.
Operation mode	Touch > to display the operation mode selection screen, and select the desired operation mode. Touch < to return to the operation settings screen.  Note: When the operation mode signals from the cooling/heating switchover model of units are mixed (Cool and Heat), the operation mode will not change and the selected operation mode will blink. Note: The Setback mode can be selected on the AE-C400A/EW-C50A, but not on the AE-C400E/EW-C50E.
Set temperature	Touch ^ or v to change the set temperature. Depending on settings values resulting from restrictions by device functions and set temperature range restriction functions, temperature settings ranges may be restricted. Note: Depending on the unit model, setting in 0.5°C units and 1°C units is possible. Note: If the indoor unit supports the dual-set-point function and when the operation mode above is set to Auto or Setback, two set temperatures for Cool mode and Heat mode can be set. Note: Set the outlet air temperature for the outlet air temperature control units.
Air Direction	Touch ^ or v to adjust the air direction. 
Fan Speed	Touch ^ or v to adjust the fan speed. 
Filter Sign Reset	Click ■ to switch between resetting and not resetting the filter sign. To reset, display a checkmark (☑). Note: If a filter sign in the group has not been triggered, then this item will not appear.
Interlocked LOSSNAY ON/ OFF	Touch [ON] or [OFF] to turn on or off the interlocked LOSSNAY units (ventilator). Note: For a group that is not connected to an interlocked LOSSNAY unit (ventilator), this item will not appear.
Fan speed of interlocked LOSSNAY	Touch ^ or v to adjust the fan speed of the interlocked LOSSNAY units (ventilator). Note: For a group that is not connected to an interlocked LOSSNAY unit (ventilator), this item will not appear.
Other operation status information	Operation status other than the operation items will appear.

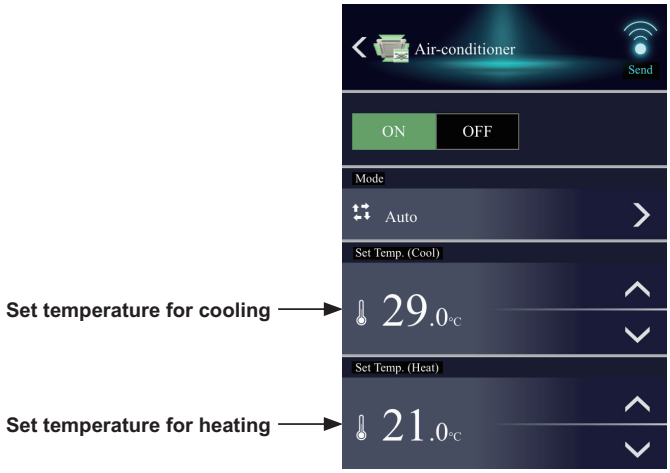
Item	Description
Operation prohibition mark	Operation prohibition mark is displayed on the operation items that are prohibited from the local remote controllers. - Centrally Controlled - is displayed when one or more operation items are prohibited. Note: The operation prohibition setting can be made by a building manager and tenant managers.
Send	Touch Send to reflect the changes and return to the group list.
Cancel	Touch to return to the group list without sending any changes.

Note: When the indoor units support a dual-set-point function, two different set temperatures (one for cooling and the other for heating) can be set for the Auto mode. When this function is used, indoor units automatically switch over between cooling and heating, based on the room temperature, to maintain the room temperature within the two predetermined temperatures. The graph below shows an example of operation patterns of units operated in the dual-set-point mode.

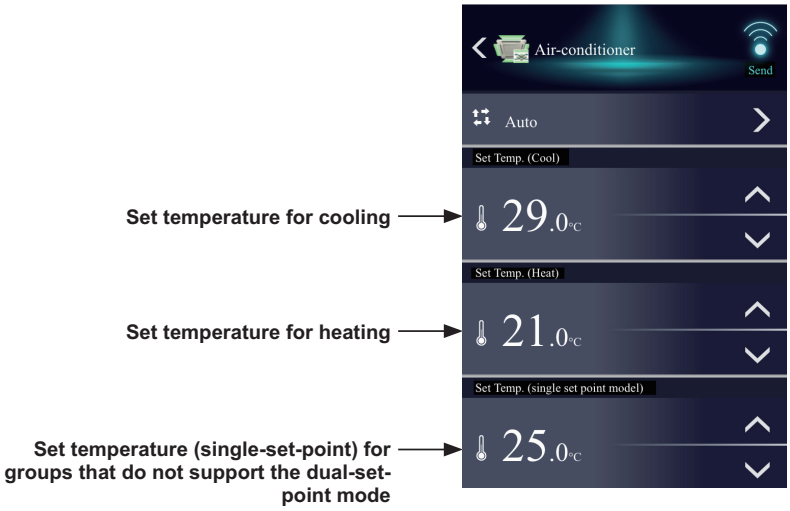


If the indoor units of the selected unit group support the dual-set-point function, two different set temperatures (one for cooling and the other for heating) can be set.

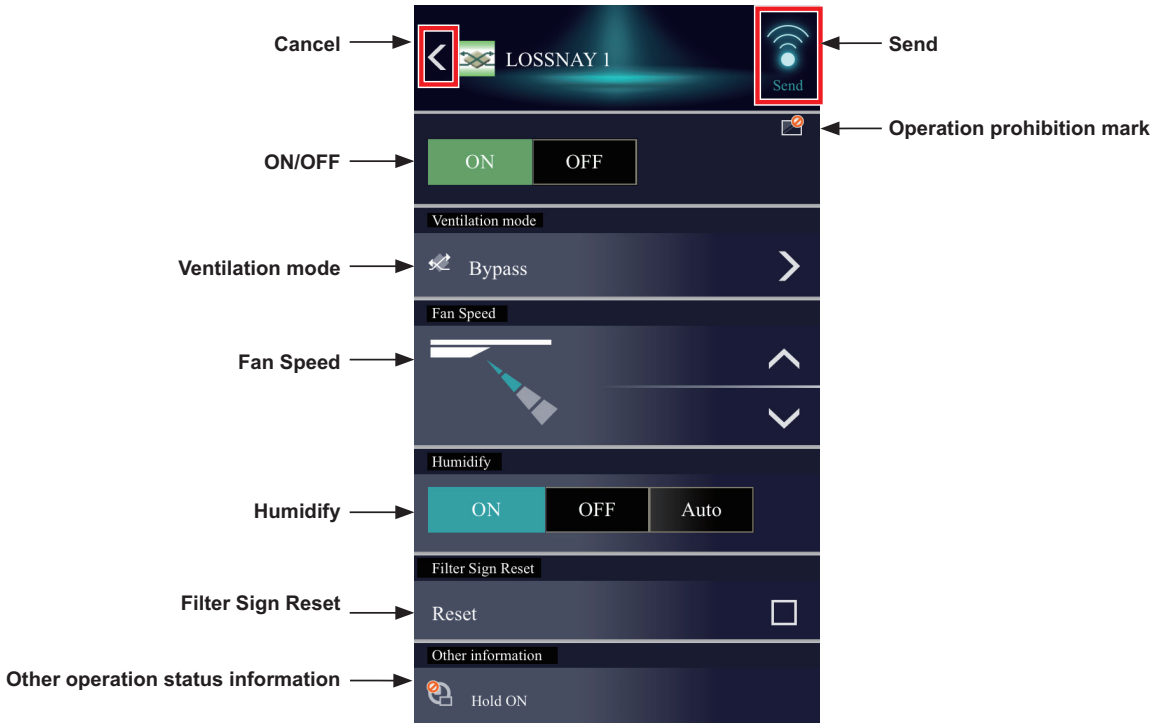
1) Temperature setting for a group in which all indoor units support dual-set-point mode

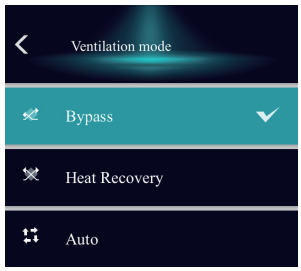


2) Temperature setting for when the groups that support the dual-set-point mode and the groups that do not are selected together



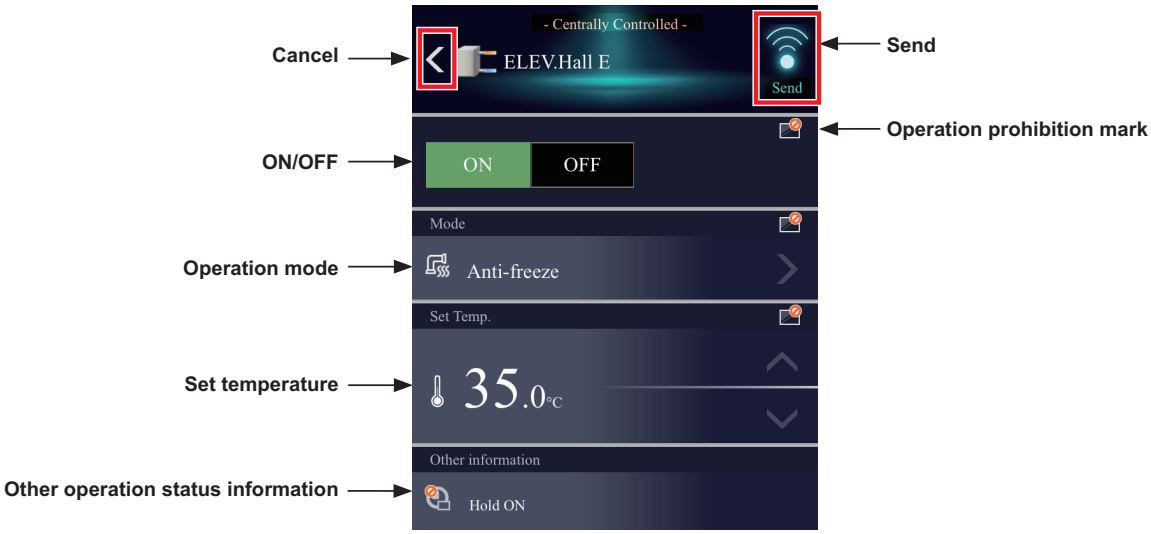
(2) LOSSNAY unit (ventilator) group

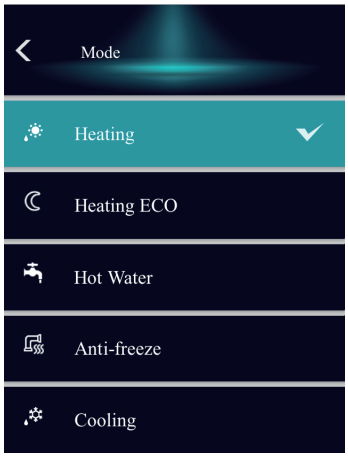


Item	Description
ON/OFF	Touch [ON] or [OFF] to turn on or off the units. Note: If the units are turned off during the Night Purge operation, the Night Purge operation will not be performed until the next day.
Ventilation mode	Touch to display the ventilation mode selection screen, and select the desired ventilation mode. Touch to return to the operation settings screen.  Note: This item will not appear during the Night Purge operation.
Fan Speed	Touch or to adjust the fan speed.  Note: During the Night Purge operation, the fan speed can be adjusted but will not be displayed.
Humidify	Touch [ON], [OFF], or [Auto] to switch the operation status of the humidification function. Note: This item will not appear during the Night Purge operation.
Filter Sign Reset	Click to switch between resetting and not resetting the filter sign. To reset, display a checkmark ( ). Note: If a filter sign in the group has not been triggered, then this item will not appear.
Other operation status information	Operation status other than the operation items will appear.
Operation prohibition mark	Operation prohibition mark is displayed on the operation items that are prohibited from the local remote controllers. - Centrally Controlled - is displayed when one or more operation items are prohibited. Note: The operation prohibition setting can be made by a building manager and tenant managers.

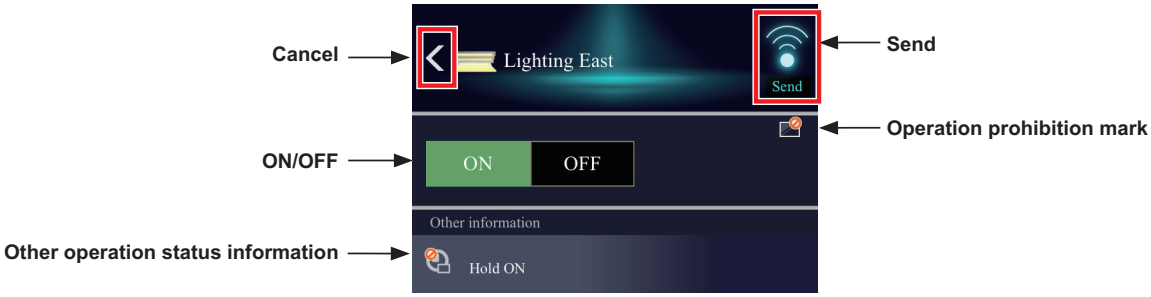
Item	Description
Send	Touch to reflect the changes and return to the group list.
Cancel	Touch to return to the group list without sending any changes.

(3) Air To Water (PWFY) unit group



Item	Description
ON/OFF	Touch [ON] or [OFF] to turn on or off the units.
Operation mode	Touch to display the operation mode selection screen, and select the desired operation mode. Touch to return to the operation settings screen. 
Set temperature	Touch or to change the set temperature.
Other operation status information	Operation status other than the operation items will appear.
Operation prohibition mark	Operation prohibition mark is displayed on the operation items that are prohibited from the local remote controllers. - Centrally Controlled - is displayed when one or more operation items are prohibited. Note: The operation prohibition setting can be made by a building manager and tenant managers.
Send	Touch to reflect the changes and return to the group list.
Cancel	Touch to return to the group list without sending any changes.

(4) General equipment group



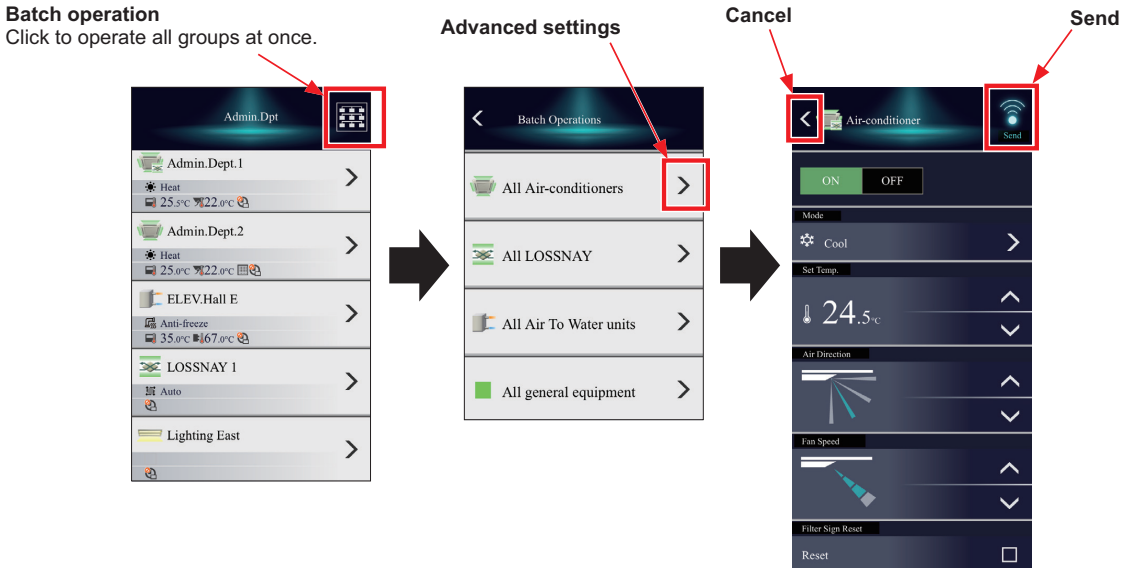
Item	Description
ON/OFF	Touch [ON] or [OFF] to turn on or off the units.
Other operation status information	Operation status other than the operation items will appear.
Operation prohibition mark	Operation prohibition mark is displayed when the operation is prohibited from the local remote controllers.
Send	Touch Send to reflect the changes and return to the group list.
Cancel	Touch to return to the group list without sending any changes.

Note: General equipment whose prohibition setting is enabled (“Allow operations” is set to [No operations] on the group settings screen in the initial settings) cannot be operated and an operation prohibition mark is displayed. Refer to the Instruction Book (Detailed Version) for settings methods.

[2] Operating the units in all groups

(1) In the group list, touch [Batch operation]. If different equipment types exist together in a system, a screen to select an equipment type will appear.
Touch [Advanced settings] of an equipment type of the groups to collectively change their settings.

(2) In the operation settings screen, change the required settings and touch [Send] to reflect the changes. Click [Cancel] to return to the previous screen without making any changes.



Note: For groups that have set temperature ranges limit, then the range of temperatures that can be set is restricted.

Note: If there are groups for which some items cannot be operated within the corresponding group, then sending these items to that group is not possible.

Note: The set temperature is not displayed when the operation group contains both free-plan units and outlet air temperature control units.

[3] Operation suspension function

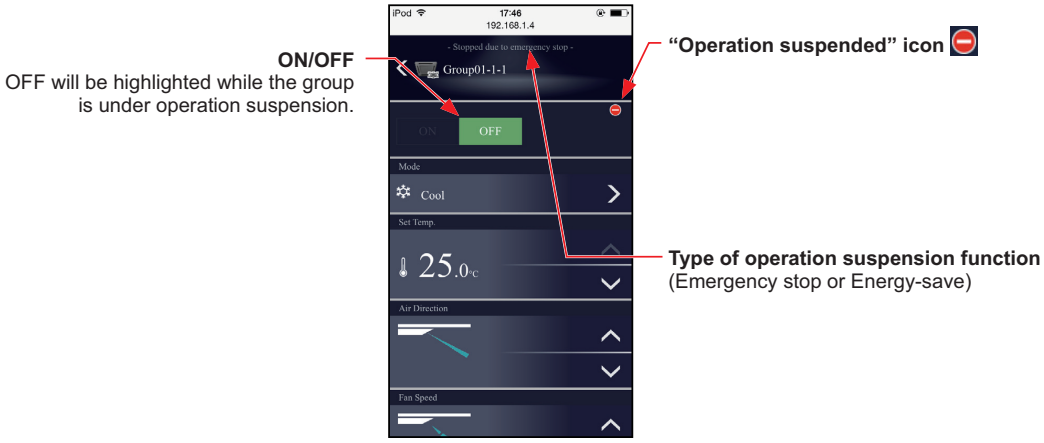
When an emergency stop signal is received through an external contact or from the building management system (BACnet®) or while the 30-minute operation suspension is executed by the Peak Cut function (energy-save control function), the operation control status will be indicated with an icon and a message.
While this indicator is displayed, the status cannot be changed from [OFF] to [ON].

(1) Group list

When a given group of air conditioning units has made an emergency stop or is stopped under Peak Cut control, the icon [ ] will appear and all the units in the group will stop or remain stopped.

(2) Advanced settings screen

When a given group of air conditioning units has made an emergency stop or is stopped under Peak Cut control, the icon [ ] will appear next to the [ON/OFF] button. While this icon is displayed, the operation status cannot be changed. The type of operation suspension function will appear in the top center of the window.



Item	Description
ON/OFF	The operation status cannot be changed from [OFF] to [ON] while the group is under operation suspension.
"Operation suspended" icon	The icon [ ] appears while the group is under operation suspension. When an emergency stop signal is received through an external contact or from the building management system (BACnet®), [-Stopped due to emergency stop-] will appear. While the 30-minute operation suspension is executed by the Peak Cut function, [-Stopped due to energy-save control-] will appear.

11-2. Explanations of icons

■Filter icon

Item	Description	
	Selected	Unselected
Select ALL button		
Indoor unit button		
LOSSNAY button		
OA prosecing unit (Interlocked LOSSNAY) button		
		
HWHP button		
Chiller button		
Outdoor unit button		
PI controller (60)/AI controller (63) button		
Remote controller / System conntroller button		

■Unit icon

Item		Description		
		On	Off	Error
Indoor unit icon	Ceiling cassette type (4-way airflow type)			
	Ceiling cassette type (2-way airflow type)			
	Ceiling cassette type (1-way airflow type)			
	Ceiling concealed type 1			
	Ceiling concealed type 2			
	Ceiling suspended type			
	Floor standing type 1			
	Floor standing type 2			
	Floor standing type 3			
	Wall-mounted type			
	Floor standing type 4			

■Unit icon

Item		Description		
		On	Off	Error
OA prosecing unit (Interlocked LOSSNAY) button				
LOSSNAY button				
e-Series1 button				
e-Series2 button				
e-Series (Water-cooled Chilling Units 1) button				
e-Series (Water-cooled Chilling Units 2) button				
ChillerCV1				
ChillerCV2				
ChillerCV3				
ChillerCV4				
ChillerCV5				

■Unit icon

Item		Description		
		On	Off	Error
PWFY(Air to Water) button				
HWHP(CAHV, CRHV)1 button				
HWHP(CAHV, CRHV)2 button				
HWHP(QAHV)1 button				
HWHP(QAHV)2 button				
HWHP(QAHV)3 button				
HWHP(QAHV)4 button				

■Unit icon

Item		Description		
		On	Off	Error
Outdoor unit button				
Other equipment button	Pump			
	Fan			
	Door (electronic)			
	Humidifier			
	Window			
	Card key			
	Illumination (fl uorescent lamp)			
	Illumination (down light)			
	General equipment			

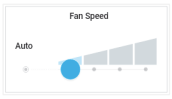
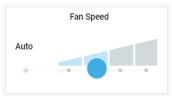
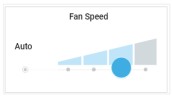
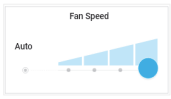
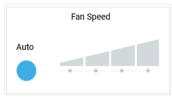
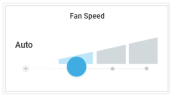
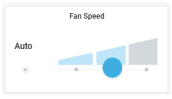
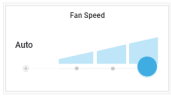
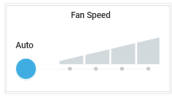
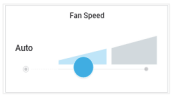
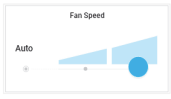
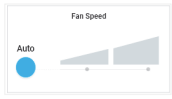
■Mode icon

Item	Description				
Indoor unit, OA prosecing unit (Interlocked LOSSNAY)	Cool	Heat	Fan	Dry	Auto
					
	Auto (Cool)	Auto (Heat)			
					
	Setback (Cool)	Setback (Heat)	Setback		
					
LOSSNAY	Auto	Bypass	Heat Recovery		
					
e-Series1	Heat	Cool			
					
e-Series2	Heat	Cool	Heating ECO	Anti-freeze	
					
CillerCV1	Heat	Cool			
					
PWFY(Air to Water)	Heating	Anti-freeze	Cooling	Heating ECO	Hot Water
					
HWHP(CAHV,CRHV)	Heating	Anti-freeze	Heating ECO	Hot Water	
					
HWHP(QAHV)	Mode1	Mode 2	Mode 3		
					

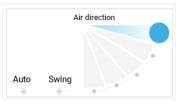
■Information display

Item	Description				
Indoor unit	Set Temperture	Indoor Temperature	Indoor Humidity		
					
LOSSNAY	CO2	Indoor Humidity(ME remote controller)	Indoor Humidity(Unit)		
					
OA prosecing unit (Interlocked LOSSNAY)	Set Temperture	Indoor Temperature	CO2	Indoor Humidity(ME remote controller)	Indoor Humidity(Unit)
					
e-Series	Set Temperture	Repr. Inlet Temperature	Repr. Outlet Temperature	Outdoor Temperature	
					
		Inlet Temperature	Outlet Temperature		
					
MEHITS-CHILLER	Set Temperture	Repr. Inlet Temperature	Repr. Outlet Temperature	Outdoor Temperature	
					
		Inlet Temperature	Outlet Temperature		
					
PWFY(Air to Water)	Set Temperture	Water Temperature			
					
HWHP(CAHV,CRHV)	Set Temperture	Repr. Temperature	Brine Temperature	Outdoor Temperature	
					
		Inlet Temperature	Outlet Temperature		
					
HWHP(QAHV)	Set Temperture	Control Temperature	Hot water Temperature	Outdoor Temperature	
					
		Inlet Temperature	Outlet Temperature		
					
Outdoor unit				Outdoor Temperature	
					

■Fan Speed

Item	Description				
Fan Speed (4 stages)	Low	Mid2	Mid2	High	Auto
					
Fan Speed (3 stages)	Low	Mid		High	Auto
					
Fan Speed (2 stages)	Low			High	Auto
					

■Air direction

<table>
<tr><th>Item</th><th colspan="4">Description</th></tr>
<tr><td rowspan="4">Air direction
(5 steps)</td><td>Step1</td><td>Step 2</td><td>Step 3</td><td>Step 4</td></tr>
<tr><td> 
</td><td> 
</td><td> 
</td><td> 
</td></tr>
<tr><td>Step 5</td><td>Swing</td><td>Auto</td><td></td></tr>
<tr><td> 
</td><td> 
</td><td> 
</td><td></td></tr>
<tr><td rowspan="4">Air direction
(4 steps)</td><td>Step1</td><td></td><td>Step 3</td><td>Step 4</td></tr>
<tr><td> 
</td><td></td><td> 
</td><td> 
</td></tr>
<tr><td>Step 5</td><td></td><td>Auto</td><td></td></tr>
<tr><td> 
</td><td></td><td> 
</td><td></td></tr>
</table>

MEMO

11-3. CSV format

11-3-1. Peak cut

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>CSV output</td><td>
Touch [CSV output] to export the displayed Peakcut control status data in the CSV format as shown below.

■ File output destination
[Serial No. of connected AE-C/EW-C] ¥“OperationalData”¥“EnergyManagement¥“Peakcut”

■ File name
Peakcut_[yyyy]-[mm]-[dd]_[AE-C/EW-C No.].csv
<table>
<tr><th>File-name contents</th><th>Format</th></tr>
<tr><td>[yyyy]</td><td>The year specified in the [Date] field</td></tr>
<tr><td>[mm]</td><td>The month specified in the [Date] field</td></tr>
<tr><td>[dd]</td><td>The date specified in the [Date] field</td></tr>
</table>
■ File format
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>123</td></tr>
<tr><td>2nd</td><td>Date</td><td>yyyy/mm/dd *1</td></tr>
<tr><td>3rd</td><td>Target</td><td>“Peakcut energy”</td></tr>
<tr><td>4th</td><td>Measurement item</td><td>“Time,Power[kW],Control level”</td></tr>
<tr><td>5th–</td><td>Data</td><td>hh:mm (1-minute intervals), average electric power consumption, control level
Note: Average electric power consumption (kW) in 30-minute period will appear in 30-minute increments.</td></tr>
</table>
*1 The date will appear in the format that has been set on the [Unit Info.] screen.

■ File sample
123
03/13/2015
Peakcut energy
Time,Power[kW],Control level
00:00,8.0,1
00:01,8.0,1
00:02,8.0,1
:
:
23:58,6.0,0
23:59,6.0,0
</td></tr>
</table>

11-3-2. Energy management (Indoor unit)

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
■ File name
Data type: 5-minute intervals
“EnergyManagement”_“5MIN”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd].csv

Data type: 30-minute intervals
“EnergyManagement”_“30MIN”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd].csv

Data type: 1-day intervals
“EnergyManagement”_“1DAY”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd].csv

Data type: 1-month intervals
“EnergyManagement”_“1MONTH”_[YYYY]-[MM]_[yyyy]-[mm].csv

Data type: 1-year intervals
“EnergyManagement”_“1YEAR”_[YYYY]-[yyyy].csv

<table>
<tr><th>File-name contents</th><th>Format</th></tr>
<tr><td>[YYYY]</td><td>Start year</td></tr>
<tr><td>[MM]</td><td>Start month</td></tr>
<tr><td>[DD]</td><td>Start date</td></tr>
<tr><td>[yyyy]</td><td>End year</td></tr>
<tr><td>[mm]</td><td>End month</td></tr>
<tr><td>[dd]</td><td>End date</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
■ File output destination
[Serial No. of connected AE-C/EW-C]¥“OperationalData”¥“EnergyManagement2”
¥[Serial No.]_SC[AE-C/EW-C No.]¥[Date]

■ File format
[Data type: 5-minute intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>501</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Item *1*2</td><td>“DateTime,Data1(51),...Data1(100),Data2(51),...Data2(100),
Data3(51),...Data3(100),OutdoorTemp(51),...OutdoorTemp(100),
CoolSetTemp(1),...CoolSetTemp(50),HeatSetTemp(1),...HeatSetTemp(50),
RoomTemp(1),...RoomTemp(50),MCP1(1),…MCP1(50),
MCP2(1),...MCP2(50),MCP3(1),...MCP3(50),MCP4(1),...MCP4(50),
MCT1(1),...MCT1(50),MCT2(1),...MCT2(50),
AHC1(201),...AHC1(250),AHC2(201),...AHC2(250),
MCP1,MCP2,MCP3,MCP4*3”</td></tr>
<tr><td>4th</td><td>Measurement unit *6</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>Data1, Data2, Data3</td><td>Blank</td></tr>
<tr><td>OutdoorTemp, CoolSetTemp, HeatSetTemp, RoomTemp</td><td>ºC, ºF</td></tr>
<tr><td>MCP (PI controller/Modbus watt-hour meter)</td><td>kWh, m3, MJ, --</td></tr>
<tr><td>MCT (AI controller)</td><td>ºC, ºF, %</td></tr>
<tr><td>AHC (Advanced HVAC CONTROLLER)</td><td>ºC, ºF</td></tr>
</table>
</td></tr>
<tr><td>5th–17860th</td><td>Data *1*2*4*5</td><td>Date and time, Data 1 (51), ... (100), Data 2 (51), ... (100), Data 3 (51), ... (100),
Outdoor temperature (51), ... (100),Cooling set temperature (1), ... (50),
Heating set temperature (1) , ... (50),Room temperature (1), ... (50),
MCP 1 (1), ... (50), MCP 2 (1), ... (50), MCP 3 (1), ... (50), MCP 4 (1), ... (50),
MCT 1 (1), ... (50), MCT 2 (1), ... (50),AHC temperature 1 (201), ... (250),
AHC temperature 2 (201), ... (250), MCP 1, MCP 2, MCP 3, MCP 4</td></tr>
</table>
*1 The numbers shown after “MCP” and “MCT” indicate channel No.
*2 The numbers in the parentheses indicate M-NET addresses.
*3 The measurement value of the Modbus watt-hour meter to AE-C/EW-C is only MCP1– MCP4, and the addresses are not displayed.
*4 The value will not appear if the data does not exist.
*5 Each file contains the data for up to the last 62 days including the current day.
*6 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
[Data type: 30-minute intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>502</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Item *1*2</td><td>“DateTime,Data1(51),...Data1(100),Data2(51),...Data2(100),
Data3(51),...Data3(100),OutdoorTemp(51),...OutdoorTemp(100),
CoolSetTemp(1),...CoolSetTemp(50),HeatSetTemp(1),...HeatSetTemp(50),
RoomTemp(1),...RoomTemp(50),FanTime(1),...FanTime(50),
CoolTime(1),...CoolTime(50),HeatTime(1),...HeatTime(50),
ThermoTime(1),...ThermoTime(50),CoolThermoTime(1),...CoolThermoTime(50),
HeatThermoTime(1),...HeatThermoTime(50),
ThermoCount(1),...ThermoCount(50),
SaveValue(1),...SaveValue(50),CoolSaveValue(1),...CoolSaveValue(50),
HeatSaveValue(1),...HeatSaveValue(50),
ApportionedElectricEnergy(1),...ApportionedElectricEnergy(50),
MCP1(1),...MCP1(50),MCP2(1),...MCP2(50),MCP3(1),...MCP3(50),
MCP4(1),...MCP4(50),MCT1(1),...MCT1(50),MCT2(1),...MCT2(50),
AHC1(201),...AHC1(250),AHC2(201),...AHC2(250),
MCP1,MCP2,MCP3,MCP4*3”</td></tr>
<tr><td>4th</td><td>Measurement unit *6</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>ApportionedElectricEnergy</td><td>kWh</td></tr>
<tr><td>ThermoCount, Data1, Data2, Data3</td><td>Blank</td></tr>
<tr><td>OutdoorTemp, CoolSetTemp, HeatSetTemp, RoomTemp</td><td>ºC, ºF</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>MCP (PI controller/Modbus watt-hour meter)</td><td>kWh, m3, MJ, --</td></tr>
<tr><td>MCT (AI controller)</td><td>ºC, ºF, %</td></tr>
<tr><td>AHC (Advanced HVAC CONTROLLER)</td><td>ºC, ºF</td></tr>
</table>
</td></tr>
<tr><td>5th–37204th</td><td>Data *1*2*4*5</td><td>Date and time, Data 1 (51), ... (100), Data 2 (51), ... (100), Data 3 (51), ... (100),
Outdoor temperature (51), ... (100), Cooling set temperature (1), ... (50),
Heating set temperature (1), ... (50), Room temperature (1), ... (50),
Fan operation time (1), ... (50), Cooling operation time (1),... (50),
Heating operation time (1), ... (50), Thermo-ON time (1), ... (50),
Cooling Thermo-ON time (1), ... (50), Heating Thermo-ON time (1), ... (50),
Number of Thermo-ON/OFF (1), ... (50), Capacity-save value (1), ... (50),
Cooling capacity-save value (1), ... (50), Heating capacity-save value (1), ... (50),
Apporioned electric energy (1), ... (50), MCP 1 (1), ... (50), MCP 2 (1), ... (50),
MCP 3 (1), ... (50), MCP 4 (1), ... (50), MCT 1 (1), ... (50), MCT 2 (1), ... (50),
AHC temperature 1 (201), ... (250), AHC temperature 2 (201), ... (250), MCP 1,
MCP 2, MCP 3, MCP 4</td></tr>
</table>
*1 The numbers shown after “MCP” and “MCT” indicate channel No.
*2 The numbers in the parentheses indicate M-NET addresses.
*3 The measurement value of Modbus watt-hour meter to AE-C/EW-C is only MCP1– MCP4, and the addresses are not displayed.
*4 The value will not appear if the data does not exist.
*5 Each file contains the data for up to the last 25 months including the current month.
*6 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
[Data type: 1-day intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>503</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Item *1*2</td><td>“Date,Data1(51),...Data1(100),Data3(51),...Data3(100),
OutdoorTemp(51),...OutdoorTemp(100),CoolSetTemp(1),...CoolSetTemp(50),
HeatSetTemp(1),...HeatSetTemp(50),RoomTemp(1),...RoomTemp(50),
FanTime(1),...FanTime(50),CoolTime(1),...CoolTime(50),
HeatTime(1),...HeatTime(50),ThermoTime(1),...ThermoTime(50),
CoolThermoTime(1),...CoolThermoTime(50),
HeatThermoTime(1),...HeatThermoTime(50),
SaveValue(1),...SaveValue(50),CoolSaveValue(1),...CoolSaveValue(50),
HeatSaveValue(1),...HeatSaveValue(50),
ApporionedElectricEnergy(1),...ApporionedElectricEnergy(50),
TargetElectricEnergy(1),...TargetElectricEnergy(50),
MCP1(1),...MCP1(50),MCP2(1),...MCP2(50),MCP3(1),...MCP3(50),
MCP4(1),...MCP4(50),MCT1(1),...MCT1(50),MCT2(1),...MCT2(50),
AHC1(201),...AHC1(250),AHC2(201),...AHC2(250),
MCP1,MCP2,MCP3,MCP4*3”</td></tr>
<tr><td>4th</td><td>Measurement unit *6</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>ApportionedElectricEnergy, TargetElectricEnergy</td><td>kWh</td></tr>
<tr><td>Data1, Data3</td><td>Blank</td></tr>
<tr><td>OutdoorTemp, CoolSetTemp, HeatSetTemp, RoomTemp</td><td>°C, °F</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>MCP (PI controller/Modbus watt-hour meter)</td><td>kWh, m3, MJ, --</td></tr>
<tr><td>MCT (AI controller)</td><td>°C, °F, %</td></tr>
<tr><td>AHC (Advanced HVAC CONTROLLER)</td><td>°C, °F</td></tr>
</table>
</td></tr>
<tr><td>5th–779th</td><td>Data *1*2*4*5</td><td>Date, Data 1 (51), ... (100), Data 3 (51), ... (100),
Outdoor temperature (51), ... (100), Cooling set temperature (1), ... (50),
Heating set temperature (1), ... (50), Room temperature (1), ... (50),
Fan operation time (1), ... (50), Cooling operation time (1), ... (50),
Heating operation time (1), ... (50), Thermo-ON time (1), ... (50),
Cooling Thermo-ON time (1), ... (50), Heating Thermo-ON time (1), ... (50),
Capacity-save value (1), ... (50), Cooling capacity-save value (1), ... (50),
Heating capacity-save value (1), ... (50), Apporioned electric energy (1), ... (50),
Target electric energy (1), ... (50), MCP 1 (1), ... (50), MCP 2 (1), ... (50),
MCP 3 (1), ... (50), MCP 4 (1), ... (50), MCT 1 (1), ... (50), MCT 2 (1), ... (50),
AHC temperature 1 (201), ... (250), AHC temperature 2 (201), ... (250), MCP 1,
MCP 2, MCP 3, MCP 4</td></tr>
</table>
*1 The numbers shown after “MCP” and “MCT” indicate channel No.
*2 The numbers in the parentheses indicate M-NET addresses.
*3 The measurement value of Modbus watt-hour meter to AE-C/EW-C is only MCP1– MCP4, and the addresses are not displayed.
*4 The value will not appear if the data does not exist.
*5 Each file contains the data for up to the last 25 months including the current month.
*6 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
[Data type: 1-month intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>504</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start year and month + “–” + End year and month</td></tr>
<tr><td>3rd</td><td>Item *1*2</td><td>“Month,Data1(51),...Data1(100),Data3(51),...Data3(100),
OutdoorTemp(51),...OutdoorTemp(100),CoolSetTemp(1),...CoolSetTemp(50),
HeatSetTemp(1),...HeatSetTemp(50),RoomTemp(1),...RoomTemp(50),
FanTime(1),...FanTime(50),CoolTime(1),...CoolTime(50),
HeatTime(1),...HeatTime(50),ThermoTime(1),...ThermoTime(50),
CoolThermoTime(1),...CoolThermoTime(50),
HeatThermoTime(1),...HeatThermoTime(50),
SaveValue(1),...SaveValue(50),CoolSaveValue(1),...CoolSaveValue(50),
HeatSaveValue(1),...HeatSaveValue(50),
ApporionedElectricEnergy(1),...ApporionedElectricEnergy(50).
TargetElectricEnergy(1),...TargetElectricEnergy(50),
MCP1(1),...MCP1(50),MCP2(1),...MCP2(50),MCP3(1),...MCP3(50),
MCP4(1),...MCP4(50),MCT1(1),...MCT1(50),MCT2(1),...MCT2(50),
AHC1(201),...AHC1(250),AHC2(201),...AHC2(250),
MCP1,MCP2,MCP3,MCP4*3”</td></tr>
<tr><td>4th</td><td>Measurement unit *6</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>ApportionedElectricEnergy, TargetElectricEnergy</td><td>kWh</td></tr>
<tr><td>Data1, Data3</td><td>Blank</td></tr>
<tr><td>OutdoorTemp, CoolSetTemp, HeatSetTemp, RoomTemp</td><td>°C, °F</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>MCP (PI controller/Modbus watt-hour meter)</td><td>kWh, m3, MJ, --</td></tr>
<tr><td>MCT (AI controller)</td><td>°C, °F, %</td></tr>
<tr><td>AHC (Advanced HVAC CONTROLLER)</td><td>°C, °F</td></tr>
</table>
</td></tr>
<tr><td>5th–29th</td><td>Data *1*2*4*5</td><td>yyyy/mm, Data 1 (51), ... (100), Data 3 (51), ... (100),
Outdoor temperature (51), ... (100), Cooling set temperature (1), ... (50),
Heating set temperature (1), ... (50), Room temperature (1), ... (50),
Fan operation time (1), ... (50), Cooling operation time (1), ... (50),
Heating operation time (1), ... (50), Thermo-ON time (1), ... (50),
Cooling Thermo-ON time (1), ... (50), Heating Thermo-ON time (1), ... (50),
Capacity-save value (1), ... (50), Cooling capacity-save value (1), ... (50),
Heating capacity-save value (1), ... (50), Apporioned electric energy (1), ... (50),
Target electric energy (1), ... (50), MCP 1 (1), ... (50), MCP 2 (1), ... (50),
MCP 3 (1), ... (50), MCP 4 (1), ... (50), MCT 1 (1), ... (50), MCT 2 (1), ... (50),
AHC temperature 1 (201), ... (250), AHC temperature 2 (201), ... (250), MCP 1,
MCP 2, MCP 3, MCP 4</td></tr>
</table>
*1 The numbers shown after “MCP” and “MCT” indicate channel No.
*2 The numbers in the parentheses indicate M-NET addresses.
*3 The measurement value of the Modbus watt-hour meter to AE-C/EW-C is only MCP1– MCP4, and the addresses are not displayed.
*4 The value will not appear if the data does not exist.
*5 Each file contains the data for up to the last 25 months including the current month.
*6 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
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[Data type: 1-year intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>505</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start year + “–” + End year</td></tr>
<tr><td>3rd</td><td>Item *1*2</td><td>“Year,Data1(51),...Data1(100),Data3(51),...Data3(100),
FanTime(1),...FanTime(50),CoolTime(1),...CoolTime(50),
HeatTime(1),...HeatTime(50),ThermoTime(1),...ThermoTime(50),
CoolThermoTime(1),...CoolThermoTime(50),
HeatThermoTime(1),...HeatThermoTime(50),SaveValue(1),...SaveValue(50),
CoolSaveValue(1),...CoolSaveValue(50),
HeatSaveValue(1),...HeatSaveValue(50),
ApporionedElectricEnergy(1),...ApporionedElectricEnergy(50)
TargetElectricEnergy(1),...TargetElectricEnergy(50),
MCP1(1),...MCP1(50),MCP2(1),...MCP2(50),MCP3(1),...MCP3(50),
MCP4(1),...MCP4(50),
MCP1,MCP2,MCP3,MCP4*3”</td></tr>
<tr><td>4th</td><td>Measurement unit *6</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>ApportionedElectricEnergy, TargetElectricEnergy</td><td>kWh</td></tr>
<tr><td>Data1, Data3</td><td>Blank</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>MCP (PI controller/Modbus watt-hour meter)</td><td>kWh, m3, MJ, –</td></tr>
</table>
</td></tr>
<tr><td>5th–9th</td><td>Data *1*2*4*5</td><td>yyyy, Data 1 (51), ... (100), Data 3 (51), ... (100),
Fan operation time (1), ... (50), Cooling operation time (1), ... (50),
Heating operation time (1), ... (50), Thermo-ON time (1), ... (50),
Cooling Thermo-ON time (1), ... (50), Heating Thermo-ON time (1), ... (50),
Capacity-save value (1), ... (50), Cooling capacity-save value (1), ... (50),
Heating capacity-save value (1), ... (50), Apporioned electric energy (1), ... (50),
Target electric energy (1), ... (50), MCP 1 (1), ... (50), MCP 2 (1), ... (50),
MCP 3 (1), ... (50), MCP 4 (1), ... (50), MCP 1, MCP 2, MCP 3, MCP 4</td></tr>
</table>
*1 The numbers shown after “MCP” and “MCT” indicate channel No.
*2 The numbers in the parentheses indicate M-NET addresses.
*3 The measurement value of the Modbus watt-hour meter to AE-C/EW-C is only MCP1– MCP4, and the addresses are not displayed.
*4 The value will not appear if the data does not exist.
*5 Each file contains the data for up to the last 5 years including the current year.
*6 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
</td></tr>
</table>

11-3-3. Energy management

■ OA processing unit

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
■ File name
Data type: 5-minute intervals
“IC”_“OA”_EnergyManagement”_“5MIN”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd]
_A(Address No).csv

Data type: 30-minute intervals
“IC”_“OA”_“EnergyManagement”_“30MIN”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd]
_A(Address No).csv

Data type: 1-day intervals
“IC”_“OA”_“EnergyManagement”_“1DAY”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd]
_A(Address No).csv

Data type: 1-month intervals
“IC”_“OA”_“EnergyManagement”_“1MONTH”_[YYYY]-
[MM]_[yyyy]-[mm] _A(Address No).csv

Data type: 1-year intervals
“IC”_“OA”_“EnergyManagement”_“1YEAR”_[YYYY]
-[yyyy]_A(Address No).csv

<table>
<tr><th>File-name contents</th><th>Format</th></tr>
<tr><td>[YYYY]</td><td>Start year</td></tr>
<tr><td>[MM]</td><td>Start month</td></tr>
<tr><td>[DD]</td><td>Start date</td></tr>
<tr><td>[yyyy]</td><td>End year</td></tr>
<tr><td>[mm]</td><td>End month</td></tr>
<tr><td>[dd]</td><td>End date</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
■ File output destination
[Serial No. of connected AE-C/EW-C]¥“OperationalData”¥“EnergyManagement2”
¥[Serial No.]_SC[AE-C/EW-C No.]¥[Date]

■ File format
[Data type: 5-minute intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>512</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“DateTime, CoolSetTemp, HeatSetTemp, RoomTemp, CO2Concentration, RelativeHumidity, AbsoluteHumidty”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>CoolSetTemp, HeatSetTemp,RoomTemp</td><td>ºC, ºF</td></tr>
<tr><td>CO2Concentration</td><td>ppm</td></tr>
<tr><td>RelativeHumidity</td><td>%</td></tr>
<tr><td>AbsoluteHumidity</td><td>Kg/Kg</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date and time, CoolSetTemp, HeatSetTemp, RoomTemp, CO2Concentration, RelativeHumidity, AbsoluteHumidty</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 62 days including the current day.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
[Data type: 30-minute intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>513</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“DateTime, CoolSetTemp, HeatSetTemp, RoomTemp, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, ThermoCount, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, CO2Concentration, RelativeHumidity, AbsoluteHumidity”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>CoolSetTemp, HeatSetTemp,RoomTemp</td><td>ºC, ºF</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>ThermoCount</td><td>-</td></tr>
<tr><td>ApporionedElectricEnergy</td><td>kWh</td></tr>
<tr><td>CO2Concentration</td><td>ppm</td></tr>
<tr><td>RelativeHumidity</td><td>%</td></tr>
<tr><td>AbsoluteHumidity</td><td>Kg/Kg</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date and time, CoolSetTemp, HeatSetTemp, RoomTemp, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, ThermoCount, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, CO2Concentration, RelativeHumidity, AbsoluteHumidity</td></tr>
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*3 Each file contains the data for up to the last 25 months including the current month.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
[Data type: 1-day intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>514</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“Date, CoolSetTemp, HeatSetTemp, RoomTemp, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, TargetElectricEnergy”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>CoolSetTemp, HeatSetTemp,RoomTemp</td><td>ºC, ºF</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>ApporionedElectricEnergy, TargetElectricEnergy</td><td>kWh</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date, CoolSetTemp, HeatSetTemp, RoomTemp, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, TargetElectricEnergy</td></tr>
</table>
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<table>
<tr><th>Item</th><th>Description</th></tr>
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[Data type: 1-month intervals]
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<tr><th>Row</th><th>Item</th><th>Format</th></tr>
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<tr><td>2nd</td><td>Data range</td><td>Start year and month + “–” + End year and month</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“Month, CoolSetTemp, HeatSetTemp, RoomTemp, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, TargetElectricEnergy”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>CoolSetTemp, HeatSetTemp,RoomTemp</td><td>ºC, ºF</td></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>ApporionedElectricEnergy, TargetElectricEnergy</td><td>kWh</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>yyyy/mm, CoolSetTemp, HeatSetTemp, RoomTemp, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, TargetElectricEnergy</td></tr>
</table>
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<table>
<tr><th>Item</th><th>Description</th></tr>
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[Data type: 1-year intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>516</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start year + “–” + End year</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“Year, FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, TargetElectricEnergy”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>FanTime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue</td><td>Minute</td></tr>
<tr><td>ApporionedElectricEnergy, TargetElectricEnergy</td><td>kWh</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>yyyy, Fantime, CoolTime, HeatTime, ThermoTime, CoolThermoTime, HeatThermoTime, SaveValue, CoolSaveValue, HeatSaveValue, ApporionedElectricEnergy, TargetElectricEnergy”</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 5 years including the current year.
</td></tr>
</table>

■ LOSSNAY

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
■ File name
Data type: 5-minute intervals
“LC”_EnergyManagement”_“5MIN”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd]
_A(Address No).csv

Data type: 30-minute intervals
“LC”_“EnergyManagement”_“30MIN”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd]
_A(Address No).csv

Data type: 1-day intervals
“LC”_“EnergyManagement”_“1DAY”_[YYYY]-[MM]-[DD]_[yyyy]-[mm]-[dd]
_A(Address No).csv

Data type: 1-month intervals
“LC”_“EnergyManagement”_“1MONTH”_[YYYY]-[MM]_[yyyy]-
[mm] _A(Address No).csv

Data type: 1-year intervals
“LC”_“EnergyManagement”_“1YEAR”_[YYYY]-
[yyyy] _A(Address No).csv

<table>
<tr><th>File-name contents</th><th>Format</th></tr>
<tr><td>[YYYY]</td><td>Start year</td></tr>
<tr><td>[MM]</td><td>Start month</td></tr>
<tr><td>[DD]</td><td>Start date</td></tr>
<tr><td>[yyyy]</td><td>End year</td></tr>
<tr><td>[mm]</td><td>End month</td></tr>
<tr><td>[dd]</td><td>End date</td></tr>
</table>
</td></tr>
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<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>
■ File output destination
[Serial No. of connected AE-C/EW-C]¥“OperationalData”¥“EnergyManagement2”
¥[Serial No.]_SC[AE-C/EW-C No.]¥[Date]

■ File format
[Data type: 5-minute intervals]
<table>
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<tr><td>1st</td><td>File Type</td><td>517</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“DateTime, CO2Concentration, RelativeHumidity”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>CO2Concentration</td><td>ppm</td></tr>
<tr><td>RelativeHumidity</td><td>%</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date and time, CO2Concentration, RelativeHumidity</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 62 days including the current day.
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
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<tr><td>1st</td><td>File Type</td><td>518</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“DateTime, FanTime, CO2Concentration, RelativeHumidity”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>FanTime</td><td>Minute</td></tr>
<tr><td>CO2Concentration</td><td>ppm</td></tr>
<tr><td>RelativeHumidity</td><td>%</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date and time,FanTime, CO2Concentration, RelativeHumidity</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 25 months including the current month.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>[Data type: 1-day intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>519</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“Date, FanTime”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>FanTime</td><td>Minute</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date, FanTime</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 25 months including the current month.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>[Data type: 1-month intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>520</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“Date, FanTime”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>FanTime</td><td>Minute</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date, FanTime</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 25 months including the current month.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Energy management data</td><td>[Data type: 1-year intervals]
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>521</td></tr>
<tr><td>2nd</td><td>Data range</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Address</td><td>“Address” + Address No.</td></tr>
<tr><td>4th</td><td>Item</td><td>“Date, FanTime”</td></tr>
<tr><td>5th</td><td>Measurement unit *1</td><td>
<table>
<tr><th>Item</th><th>Unit</th></tr>
<tr><td>FanTime</td><td>Minute</td></tr>
</table>
</td></tr>
<tr><td>6th –</td><td>Data *2*3</td><td>Date, FanTime</td></tr>
</table>
*1 The measurement units are displayed only when an air conditioning unit or measurement device is connected.
*2 The value will not appear if the data does not exist.
*3 Each file contains the data for up to the last 5 years including the current year.</td></tr>
</table>

11-3-4. Gas refrigerant amount check

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>CSV output</td><td>
■ File name
<For AE-C>
“OC”_“RefrigerantCharge”_[YYYY]-[MM]-[DD]_“AE”[AE-C No.].csv

<For EW-C>
“OC”_“RefrigerantCharge”_[YYYY]-[MM]-[DD]_“AE”[AE- No.]-[EW-C No.].csv
Example: OC_RefrigerantCharge_2024_03_10_AE01-2.csv
* Date format ([YYYY], [MM], [DD]) will use the format set in the initial settings.

■ File format
<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>802</td></tr>
<tr><td>2nd</td><td>Data output date</td><td>Output date</td></tr>
<tr><td>3rd</td><td>Item</td><td>“Address,Date and Time 1,CheckResult1,Date and Time 2, CheckResult2,Date and Time 3,CheckResult3, Date and Time 4, CheckResult4,Date and Time 5,CheckResult5,Date and Time 6, CheckResult6,Date and Time 7, CheckResult7,Date and Time 8, CheckResult8,Date and Time 9,CheckResult9,Date and Time 10, CheckResult10”</td></tr>
<tr><td>4–35th</td><td>Data</td><td>Outdoor unit address, Check date and time 1, Check result 1, Check date and time 2, Check result 2, Check date and time 3, Check result 3, Check date and time 4, Check result 4, Check date and time 5, Check result 5, Check date and time 6, Check result 6, Check date and time 7, Check result 7, Check date and time 8, Check result 8, Check date and time 9, Check result 9, Check date and time 10, Check result 10
* Only the addresses of the connected units will appear.</td></tr>
</table>
■ File sample
802
2024/10/14
Address,Date and Time 1,CheckResult1,Date and Time 2,CheckResult2,Date and Time3,CheckResult3,Date and Time4,
CheckResult4,Date and Time5,CheckResult5,Date and Time6,CheckResult6,Date and Time7,CheckResult7,Date and Time8,
CheckResult8,Date and Time9,CheckResult9,Date and Time10,CheckResult10
51,2023/11/29 21:45,Normal,2023/08/25 23:01,Normal,2023/05/30 22:15,Normal,2023/02/27 21:05,Normal,2023/02/26
22:04,Normal,2023/11/25 21:20,Normal,2023/08/27 22:36,Normal,2023/05/26 22:11,Normal,2023/02/19 21:05,Normal,,
55,2023/02/19 22:45,Low,2023/11/29 21:46,Normal,2023/8/25 23:02,Normal,2023/05/30 22:16,Normal,2023/02/26
22:41,Normal,,,,,,,,,
61,2024/10/14 11:51,Unmeasurable,,,,,,,,,,,,,,,,,
</td></tr>
</table>

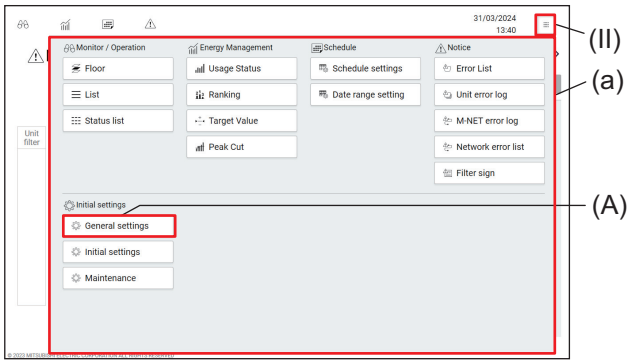
12. Adjustment and maintenance

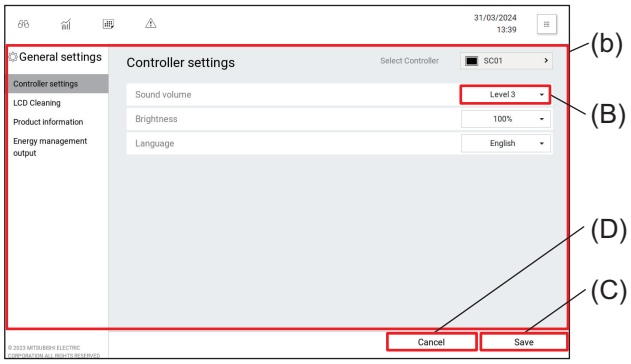
WARNING

To reduce the risk of short circuits, current leakage, electric shock, malfunction, smoke, or fire, do not wash the product with water or any other liquid.

12-1. Adjusting the sound volume

The screen sound volume of the AE-C is adjustable.



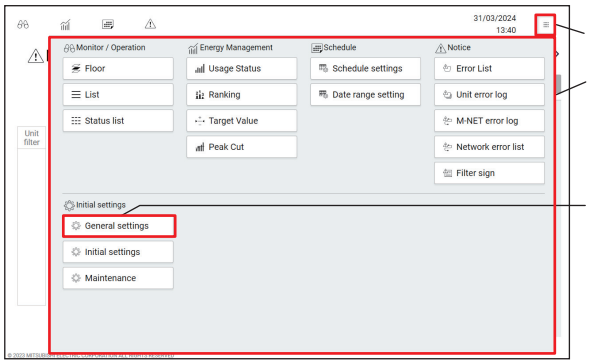


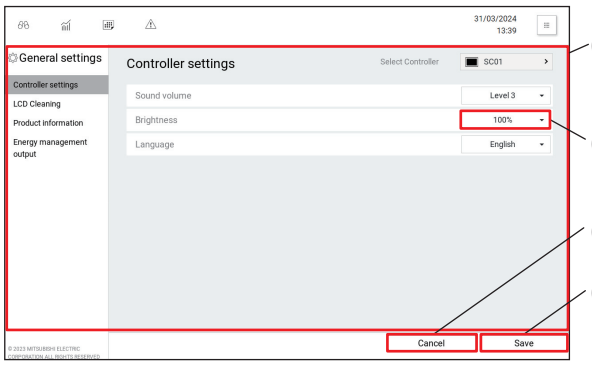
Step

1. Tap (II) to display screen (a).
2. Tap (A) to display screen (b).
3. Select the sound volume from the pull-down list (B). (Factory default: Level 2)
4. Tap (C) to save the setting.
   - To cancel the setting, tap (D).
5. Tap any button on the main menu to go back to the regular operation screen.

12-2. Adjusting the screen brightness

The LCD screen brightness of the AE-C is adjustable.





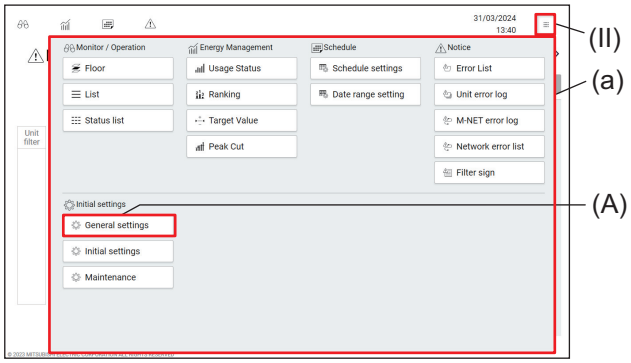
Step

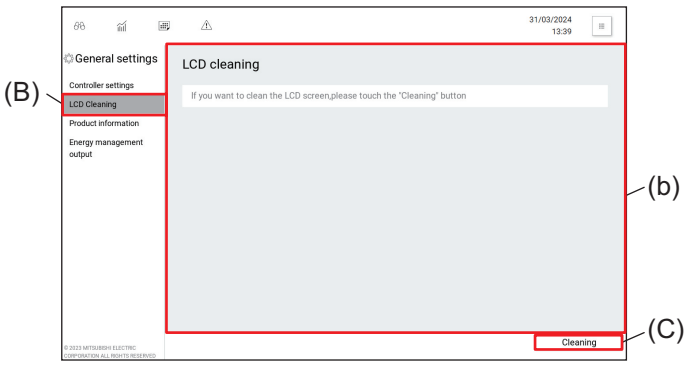
1. Tap (II) to display screen (a).
2. Tap (A) to display screen (b).
3. Select the brightness value from the pull-down list (B). (Factory default: 100%)
4. Tap (C) to save the setting.
   - To cancel the setting, tap (D).
5. Tap any button on the main menu to go back to the regular operation screen.

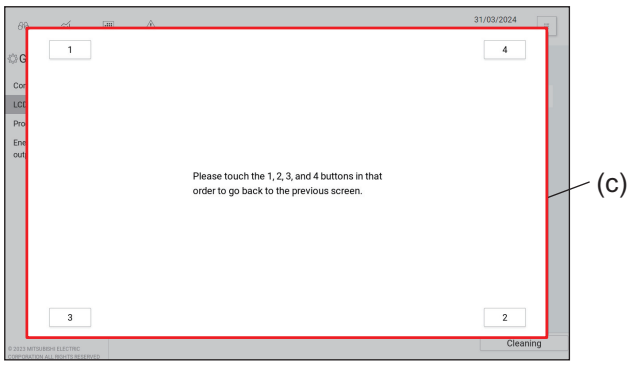
12-3. Cleaning the LCD screen and the casing

- Wipe off dirt with a soft cloth soaked in diluted neutral detergent, and then wipe off the detergent with a dry cloth. (Dilute neutral detergent with water according to its usage instructions. Do not use undiluted detergent.)
- Do not use benzene or thinner. Do not touch the controller with a chemical cloth. Doing so may cause discoloration.

Clean the LCD screen using the following steps.







Step

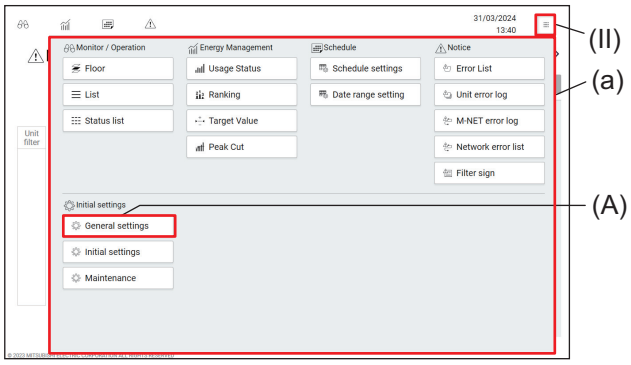
1. Tap (II) to display screen (a).
2. Tap (A).
3. Tap (B) to display screen (b).
4. Tap (C) to display screen (c).
   - The LCD cleaning screen will be displayed.
5. Clean the LCD screen.
6. After completing the cleaning, tap the numbers [1] through [4] at the corners of screen (c) to return to screen (b).
   - The numbers tapped will turn dark gray.
   - Unless the numbers are tapped in the correct order, all the numbers tapped will be canceled. If this happens, start with [1] again.
7. Tap any button on the main menu to go back to the regular operation screen.

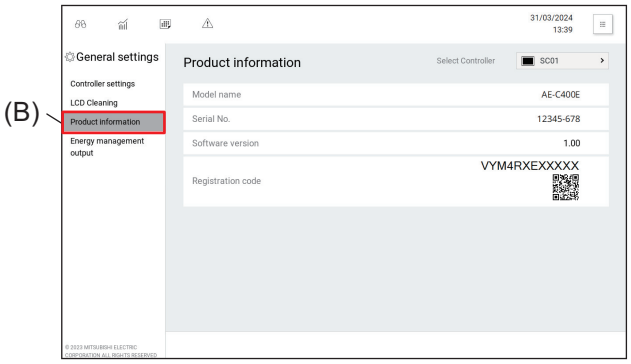
MEMO

13. Viewing the product information

13-1. Viewing the product information

Follow the steps below to view the model name, serial number, and software version of the AE-C.



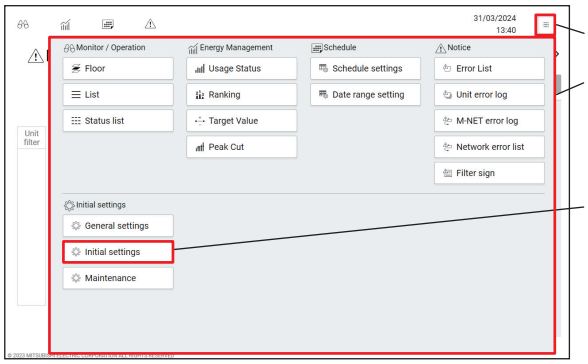


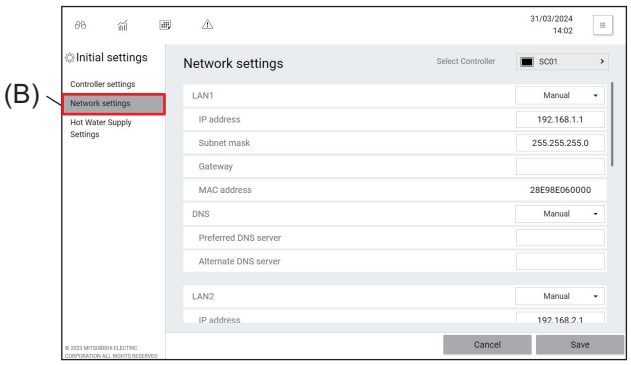
Step

1. Tap (II) to display screen (a).
2. Tap (A).
3. Tap (B) to view the product information (model name, serial number, and software version).
4. Tap any button on the main menu to go back to the regular operation screen.

13-2. Viewing the IP address

Follow the steps below to view the IP address of the AE-C.





Step

1. Tap (II) to display screen (a).
2. Tap (A), and enter the user ID and the password according to the screen instructions.
3. Tap (B) to display the network settings.
4. Check the IP address, and then tap any button on the main menu to go back to the regular operation screen.

Note

- The default IP address of the LAN1 port of the controller is 192.168.1.1.

14. Initial settings [Initial Setting Tool] - Overview 1

14-1. Overview of the Initial Setting Tool

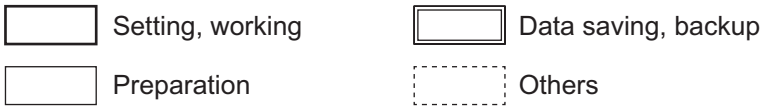
The Initial Setting Tool is used to configure settings via a PC.
Initial settings can be performed for multiple AE-C/EW-C systems, enabling up to 40 controllers to be initialized at once.
This chapter explains the common operations for each setting screen of the Initial Setting Tool.

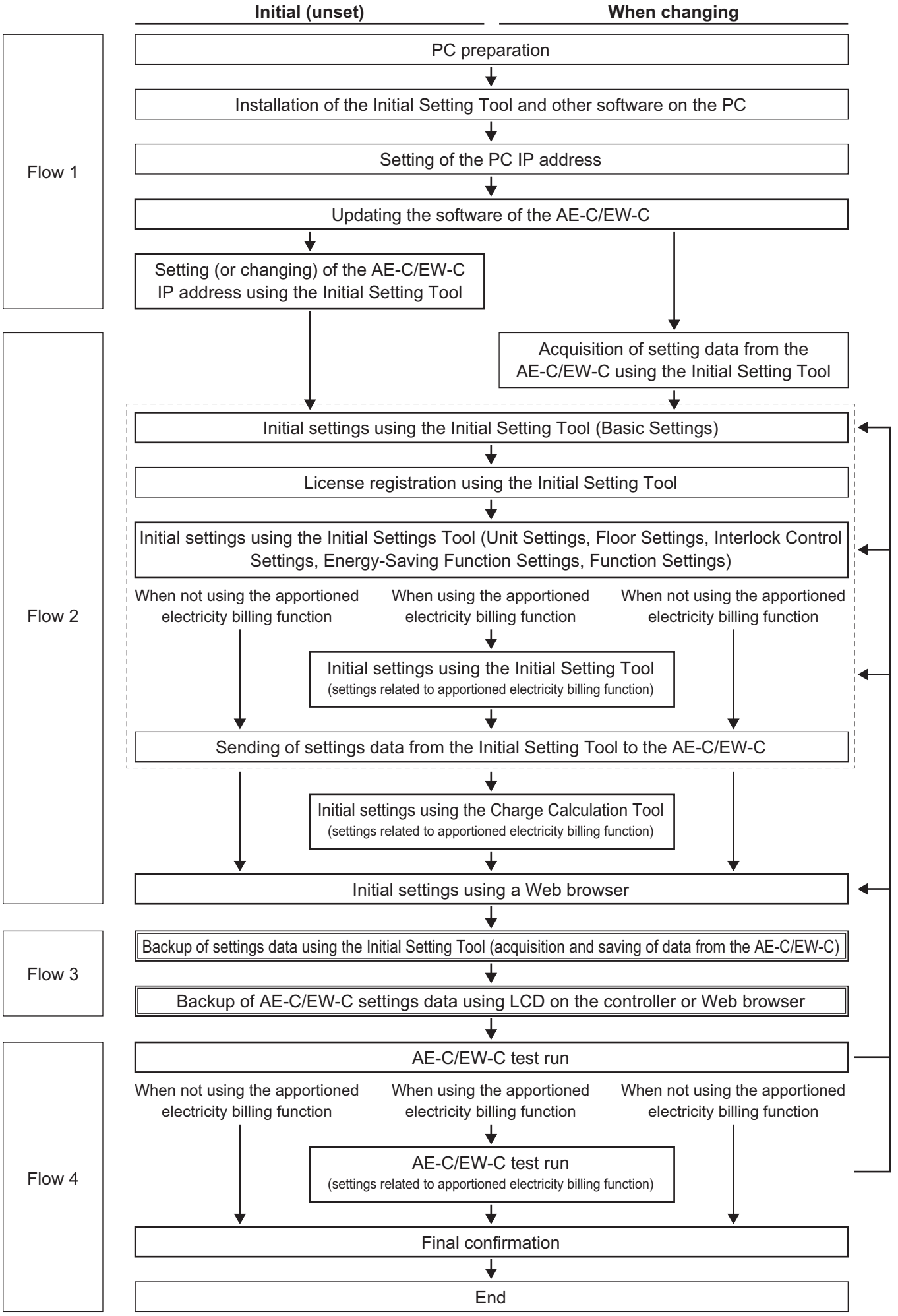
14-2. Flow of AE-C/EW-C initial settings and test runs

This section explains how to perform the initial settings and test runs required for using AE-C/EW-C.
The flow of initial settings will vary for "Initial (unset)" and "When changing."

- "Initial (unset)" refers to a state in which the AE-C/EW-C has never been configured (initial setting data is not retained/factory default).
- "When changing" refers to a state in which already configured initial settings are changed.

Flow 1: Preparation of the initial setting environment (PC, network devices, etc.)
Flow 2: Initial settings (Initial Setting Tool, unit settings)
Flow 3: Backup of configuration data
Flow 4: Test run




Initial (unset)
When changing
Flow 1
PC preparation
Installation of the Initial Setting Tool and other software on the PC
Setting of the PC IP address
Updating the software of the AE-C/EW-C
Setting (or changing) of the AE-C/EW-C IP address using the Initial Setting Tool
Acquisition of setting data from the AE-C/EW-C using the Initial Setting Tool
Flow 2
Initial settings using the Initial Setting Tool (Basic Settings)
License registration using the Initial Setting Tool
Initial settings using the Initial Settings Tool (Unit Settings, Floor Settings, Interlock Control Settings, Energy-Saving Function Settings, Function Settings)
When not using the apportioned electricity billing function
When using the apportioned electricity billing function
When not using the apportioned electricity billing function
Initial settings using the Initial Setting Tool
(settings related to apportioned electricity billing function)
Sending of settings data from the Initial Setting Tool to the AE-C/EW-C
Initial settings using the Charge Calculation Tool
(settings related to apportioned electricity billing function)
Initial settings using a Web browser
Flow 3
Backup of settings data using the Initial Setting Tool (acquisition and saving of data from the AE-C/EW-C)
Backup of AE-C/EW-C settings data using LCD on the controller or Web browser
Flow 4
AE-C/EW-C test run
When not using the apportioned electricity billing function
When using the apportioned electricity billing function
When not using the apportioned electricity billing function
AE-C/EW-C test run
(settings related to apportioned electricity billing function)
Final confirmation
End

14-3. Required settings for using each function

Shown below are examples of setting configuration procedures required for using each function.

○: Required △: May be required ×: Not required

Initial settings / Equipment types	Basic settings			Unit settings									Floor settings			
	Connection settings	Control target settings	Basic system Settings	Group settings	Hot water supply settings	Refrigerant system settings	Outdoor unit name settings	Interlocked LOSSNAY settings	Block settings	Energy management block settings	Low-temperature group settings	Freezer settings	Floor settings for LCD	Floor layout settings for LCD	Floor settings for Web	Floor layout settings for Web
Air conditioning unit	○	○	○	○	×	○	○	○	△	△	×	×	△	△	△	△
Mr. SLIM	○	○	○	○	×	×	×	○	△	△	×	×	△	△	△	△
Ventilation equipment	○	○	○	○	×	○	×	○	△	△	×	×	△	△	△	△
OA handling unit (direct expansion type with built-in heater/humidifier)	○	○	○	○	×	×	×	○	△	△	×	×	△	△	△	△
Hot water supply	○	○	○	×	○	×	×	×	×	△	×	×	△	△	△	△
HWHP	○	○	○	○	×	×	×	×	×	△	×	×	△	△	△	△
DT-R/e-Series	○	○	○	○	×	×	×	×	×	△	×	×	△	△	△	△
Brine cooler	○	○	○	○	×	×	×	×	×	△	×	×	△	△	△	△
Low-temperature equipment	○	○	○	×	×	×	×	×	×	△	○	○	△	△	△	△
Dehumidifier	○	○	○	×	×	×	×	×	×	△	○	×	△	△	△	△

Setting configurable without using the Initial Settings Tool

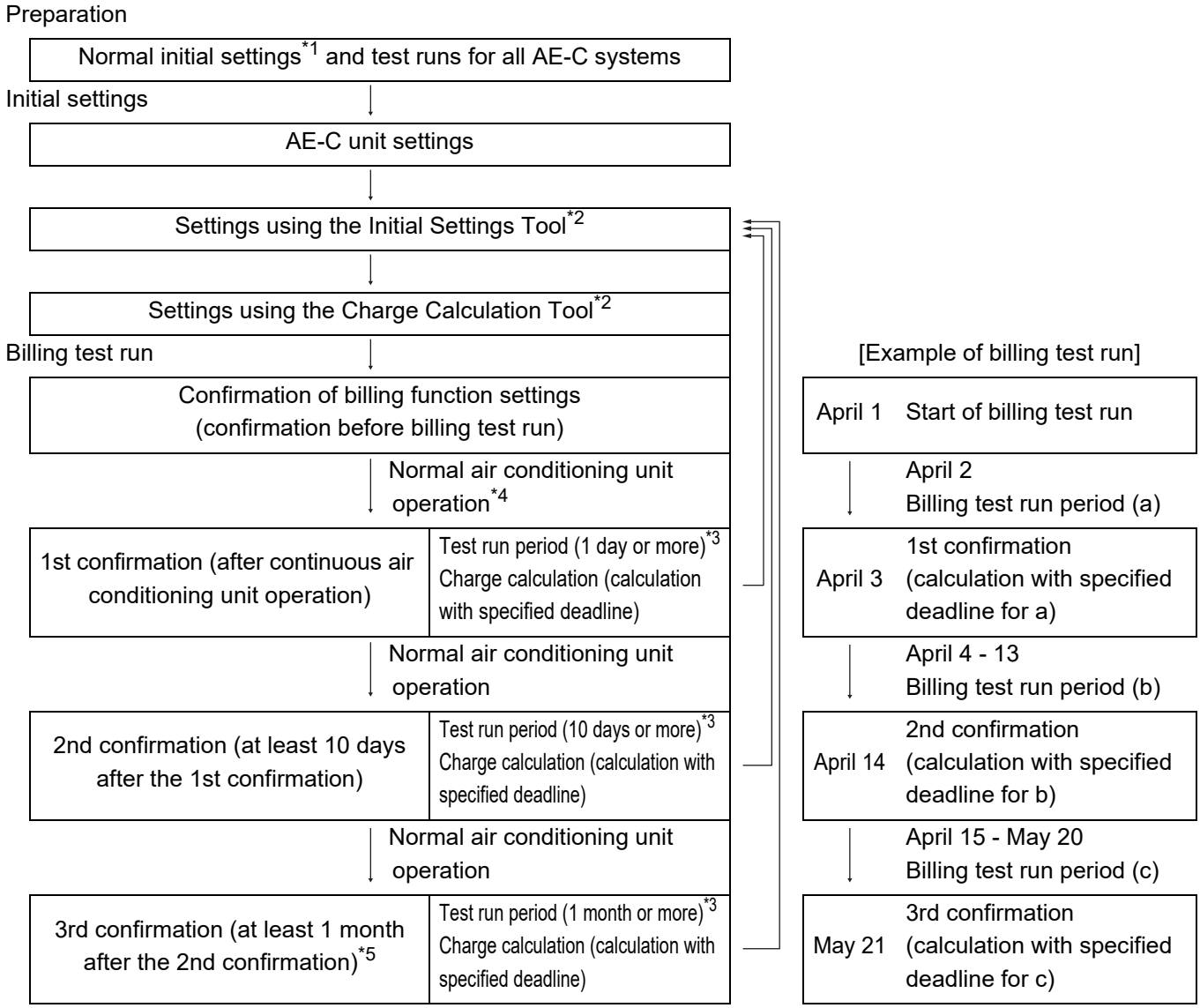
Setting configurable using the AE-C/ EW-C Web browser	×	×	△	×	○	×	×	×	×	×	×	×	×	×	×	×
Setting configurable on the AE-C/ EW-C LCD	×	×	△	×	○	×	×	×	×	×	×	×	×	×	×	×

○: Required △: May be required ×: Not required

Initial settings / Function	Unit settings				Billing function settings					Interlock control settings	Energy-saving function settings	Function settings	
	PI controller settings	AI controller settings	Modbus connection settings	AHC port name settings	Billing function settings	Outdoor unit settings	Indoor unit settings	Measurement settings	Charges settings	Interlock control settings	High sensible heat control settings	Energy management settings	System-changeover settings
Billing (with WHM)	△	×	×	×	○	○	○	○	○	×	×	×	×
Billing (without WHM)	×	×	×	×	○	○	○	○	○	×	×	×	×
Watt-hour measurement	△	×	△	×	×	×	×	×	×	×	×	×	×
Demand control	△	×	×	×	×	×	×	×	×	×	×	×	×
Energy management	△	×	△	×	×	×	×	×	×	×	×	○	×
Temperature/humidity measurement	×	○	×	×	×	×	×	×	×	×	×	×	×
Interlock control	×	×	×	×	×	×	×	×	×	○	×	×	×
High sensible heat	×	×	×	×	×	×	×	×	×	×	○	×	×
System-changeover	×	×	×	×	×	×	×	×	×	×	×	×	○

Setting configurable without using the Initial Settings Tool

Setting configurable using the AE-C/ EW-C Web browser	×	×	×	×	×	×	×	×	×	×	×	×	×
Setting configurable on the AE-C/ EW-C LCD	×	×	×	×	×	×	×	×	×	×	×	×	×



*1 Complete configuration of settings such as unit settings, network settings, license registration, group settings, block settings, and measurement settings.

*2 If any settings are changed during billing test runs, use the Initial Setting Tool to configure settings.

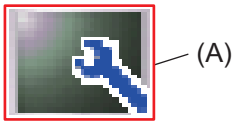
*3 Operate each indoor unit continuously for at least 2 hours.

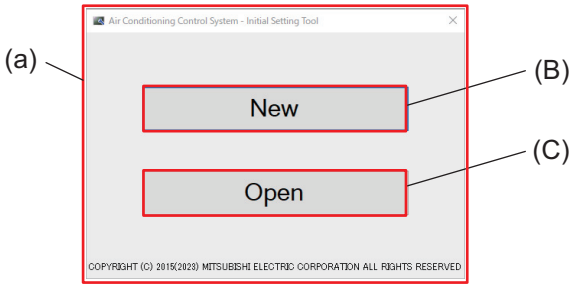
*4 Perform this on the day after the closing date following 1 month or more passing since the 2nd billing test run.

MEMO

15. Initial settings [Initial Setting Tool] - Overview 2

15-1. Launching the setting tool and importing setting files





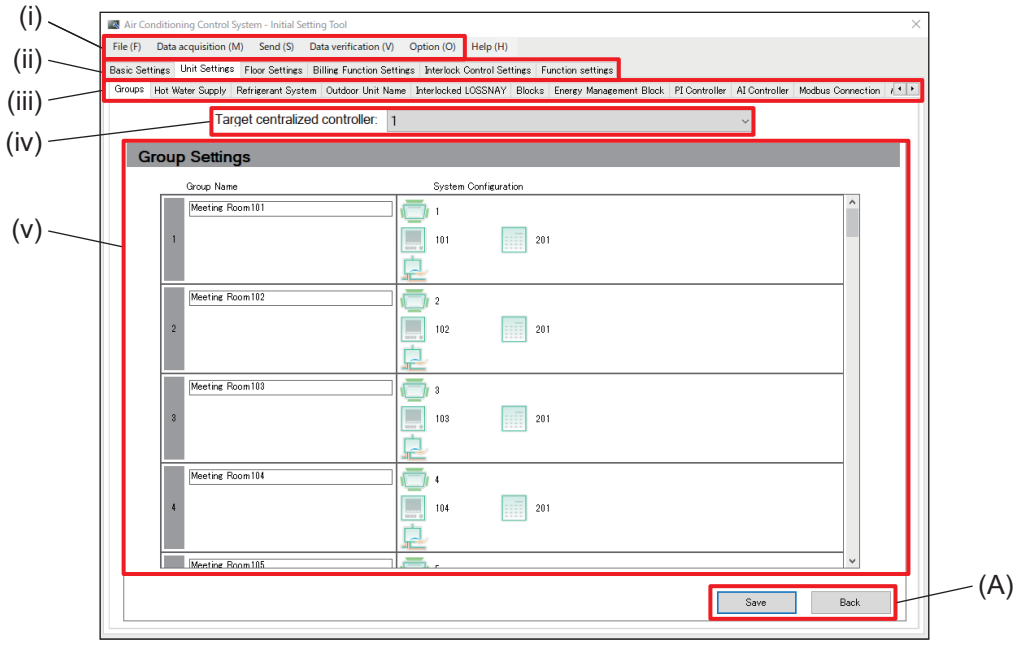
	Item
(A)	Initial Setting Tool icon
(B)	**[New]**
(C)	**[Open]**

Step

1. Tap (A) to display screen (a).
2. To create a new setting file, tap (B).
   - To use an existing setting file, tap (C) to load the existing setting file (with the dat file extension).

15-2. Screen configuration and common items

This section explains the screen configuration for common parts of the Initial Setting Tool.

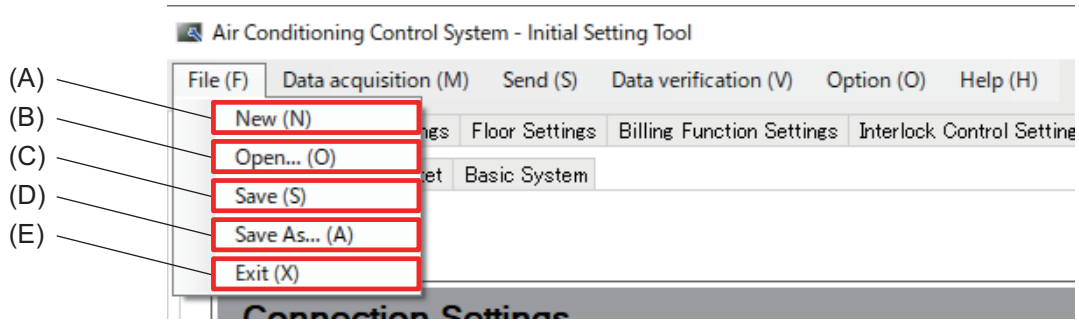


	Item	Function and description
(i)	Toolbar	Use to create, save, load, and send setting files and to monitor setting status from the AE-C/EW-C.
(ii)	Menu tab	Use to display the setting screens for each menu item.
(iii)	Sub menu tab	Use to display the setting items available under the selected menu tab. • After entering settings, tap **[Save]** to save them to the Initial Setting Tool.
(iv)	Target centralized controller	Select the controller to be configured from among the AE-C/EW-C whose connections have been configured. • Settings must be configured for each AE-C/EW-C.
(v)	Settings area	Configure settings here.
(A)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

15-3. List of toolbar operations

15-3-1. File

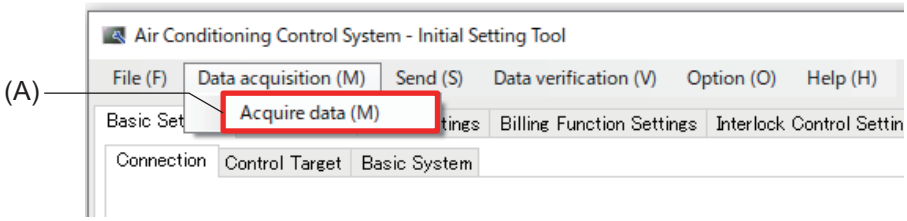
Create, open (import), overwrite, and save setting files.



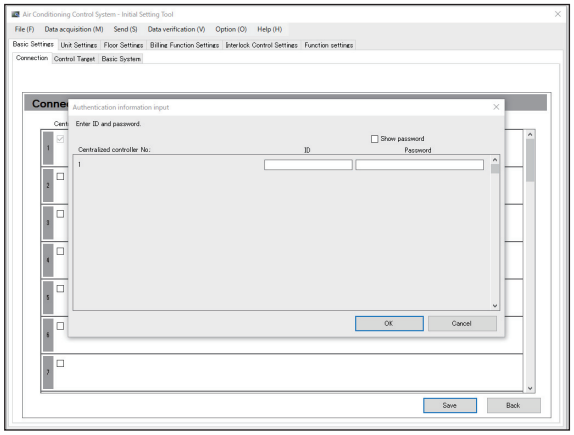
	Item	Function and description
(A)	New	Create a new setting file.
(B)	Open	Import a setting file saved on the PC.
(C)	Save	Save the setting file to the PC. Tap **[Save As…]** to save settings as a new file, and tap **[Save]** to add new settings and changes to the existing settings.
(D)	Save As	
(E)	Exit	Exit the Initial Setting Tool.

15-3-2. Data acquisition

Acquire the existing settings from the AE-C/EW-C.
To make changes to the existing settings, perform data acquisition first.



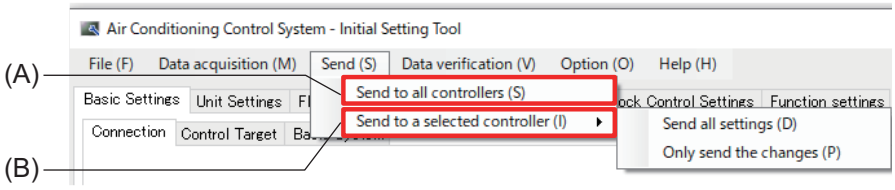
	Item	Function and description
(A)	Acquire data	Import the settings of the AE-C/EW-C to the Initial Setting Tool.



The Authentication information input screen for the AE-C/EW-C for which data will be acquired will be displayed.

15-3-3. Sending

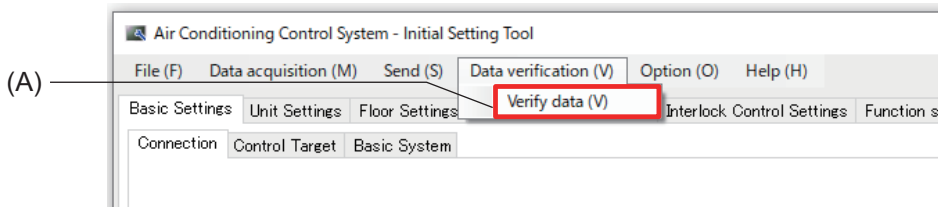
Send settings to the AE-C/EW-C.



	Item		Function and description
(A)	Send to all controllers		Send all settings to all AE-C/EW-C at once.
(B)	Send to a selected controller	Send all settings	Send all settings to AE-C/EW-C with edited settings.
		Only send the changes	Send only setting changes to AE-C/EW-C with edited settings.

15-3-4. Data verification

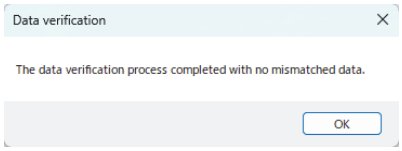
Verify whether the settings retained in the Initial Setting Tool have been correctly sent to the AE-C/EW-C. Data verification results will be displayed on the screen or exported as an Excel file.



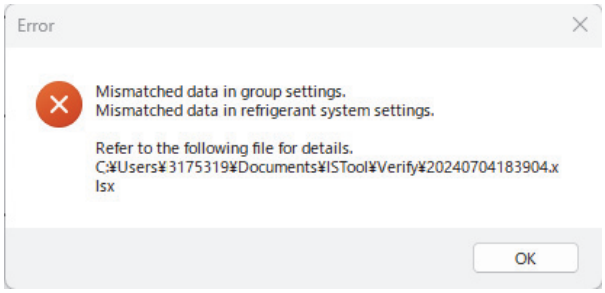
	Item	Function and description
(A)	Verify data	The settings of this tool are verified through comparison with those of the AE-C/EW-C.

If the verification reveals any differences in settings or if data acquisition fails, those results are displayed and saved to the PC as an Excel file. Refer to the screen display for the file save location.

Example of screen display when there are no differences

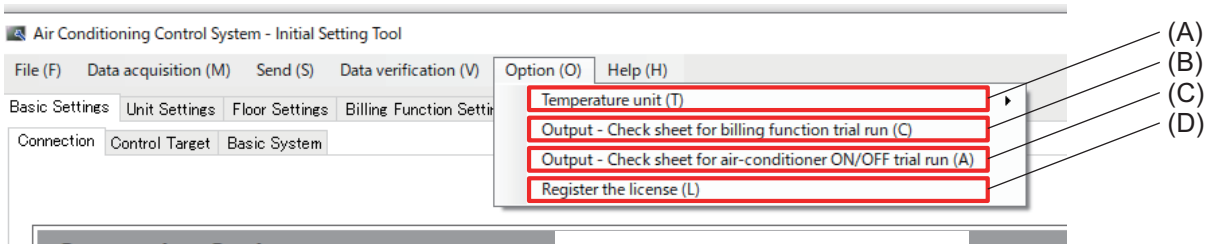


Example of screen display when differences are detected



15-3-5. Option

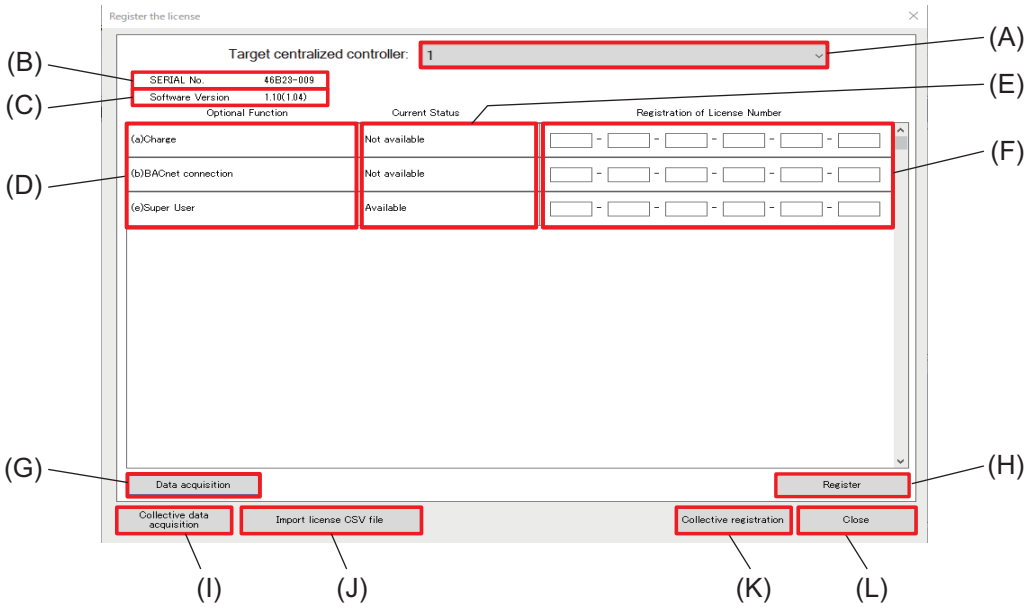
This section explains various optional functions available with the Initial Setting Tool.



	Item	Function and description
(A)	Temperature unit	Select whether the Initial Setting Tool displays the temperature in Centigrade (°C) or Fahrenheit (°F).
(B)	Output - Check sheet for billing function trial run	Output a test run check sheet for the apportioned electricity billing function.
(C)	Output - Check sheet for air-conditioner ON/OFF trial run	Output an ON/OFF test run check sheet for connected units.
(D)	Register the license	Register licenses for each AE-C/EW-C.

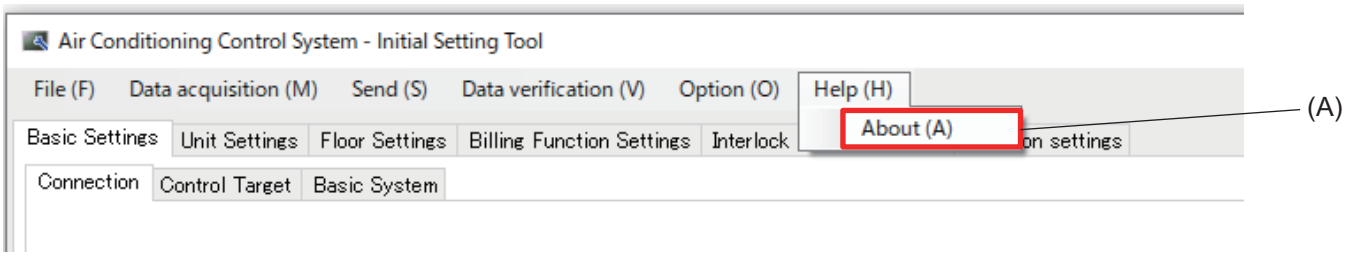
[1] Registering licenses

Register licenses using the Initial Setting Tool.
For information on optional functions and on purchasing license numbers, contact your dealer.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C from the pull-down list.
(B)	SERIAL No.	The serial number of the AE-C/EW-C is displayed. Use to import license CSV files.
(C)	Software Version	The software version of the AE-C/EW-C is displayed.
(D)	Optional Function	Optional functions (license names) to be registered are displayed.
(E)	Current Status	The registration statuses of optional functions (license names) are displayed.
(F)	License Number	Enter the license numbers of optional functions to be registered.
(G)	**[Data acquisition]**	Acquire the software versions, serial numbers and license information of selected AE-C/EW-C.
(H)	**[Register]**	Register a license.
(I)	**[Collective data acquisition]**	Acquire the software versions, serial numbers and license information of all AE-C/EW-C.
(J)	**[Import license CSV file]**	Import a license CSV file to automatically enter license number registration information.
(K)	**[Collective registration]**	Register the licenses entered to all AE-C/EW-C.
(L)	**[Close]**	Close this screen.

15-3-6. Help



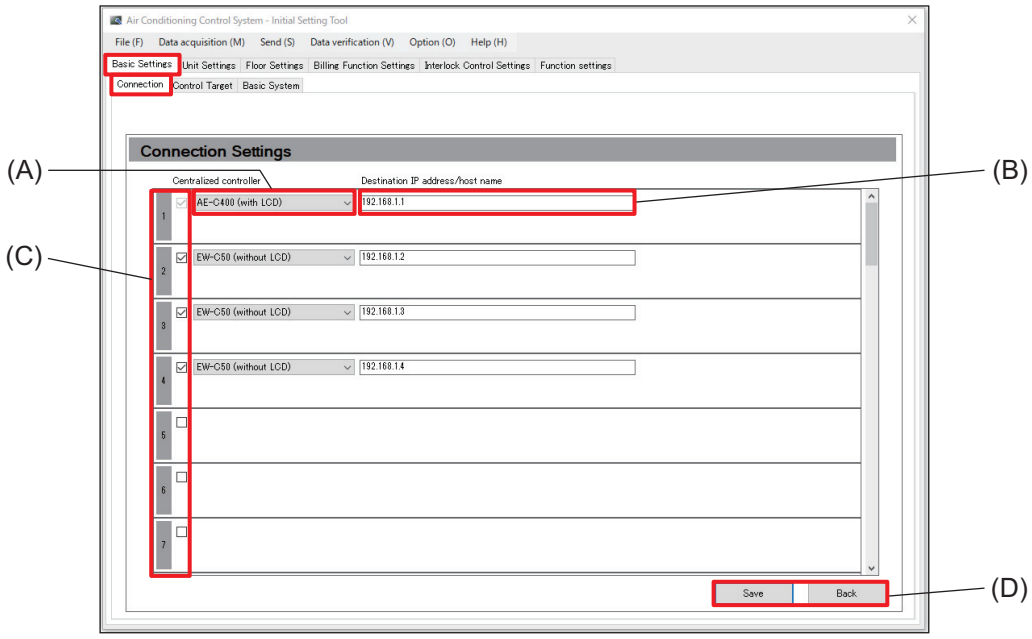
	Item	Function and description
(A)	About	The version of this software is displayed.

16. Initial settings - Basic settings/operation

16-1. Menu tab: Basic Settings

16-1-1. Sub menu tab: Connection

Register AE-C/EW-C controllers that are connected to the system.
Tapping **[Basic Settings]** - **[Connection]** will display the Connection Settings screen.



	Item	Function and description
(A)	Centralized controller	Select AE-C or EW-C from the pull-down list.
(B)	Destination IP address/ host name	Enter the IP address or host name assigned by the connection destination. ex.) 192.168.1.1 ...
(C)	Controller number and check box	When multiple AE-C/EW-C controllers are connected to the same system, select the AE-C/EW-C controllers you want to register by tapping their check box, and set (A) and (B). • When only one AE-C/EW-C controller exists in the system, only controller number 1 is displayed.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

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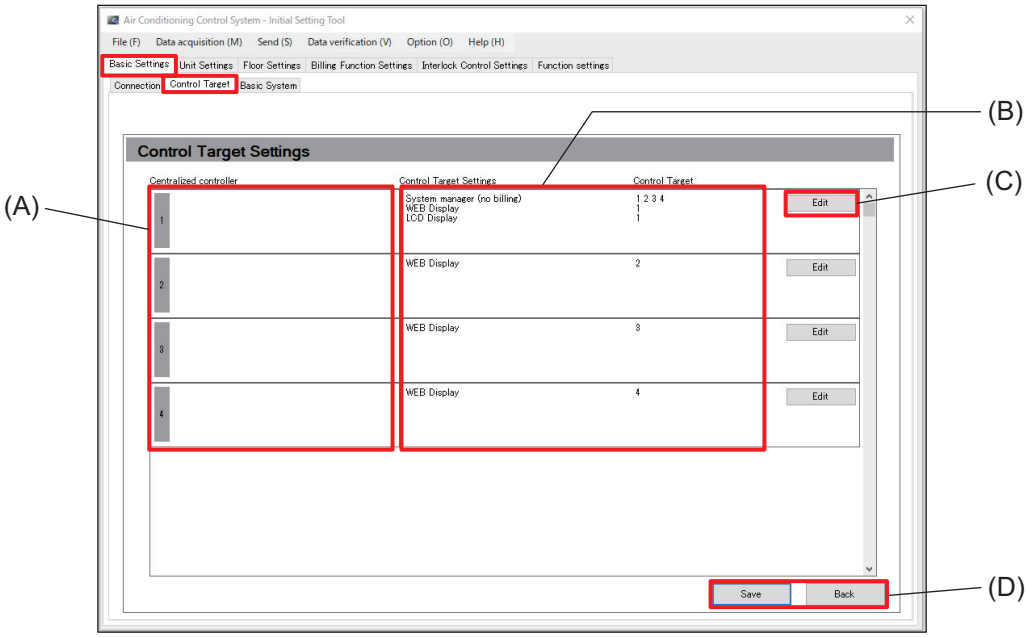
16-1-2. Sub menu tab: Control Target

This tab is for making settings to monitor and operate the units that are connected to different AE-C/EW-C controllers.

Tapping **[Basic Settings]** - **[Control Target]** will display the Control Target Settings screen.



	Item	Function and description
(A)	Centralized controller	The number and the name of the AE-C/EW-C controller that has been registered on the Connection tab are displayed.
(B)	Control Target Settings and Control Target	Set the following items to monitor and operate the units that are connected to different AE-C/EW-C controllers. • System manager (billing), System manager (no billing) This item shows the AE-C/EW-C controller that manages the entire system. Only one AE-C/EW-C controller can be the system manager. • WEB Display The numbers of the controllers (B) that are monitored and operated via the Web are displayed. • LCD Display The numbers of the controllers (B) that are monitored and operated on the LCD screen are displayed.
(C)	**[Edit]**	Tapping this button displays the AE-C/EW-C Settings screen to configure the settings for the system manager, Web display, and LCD display.
(D)	**[Save]**/**[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

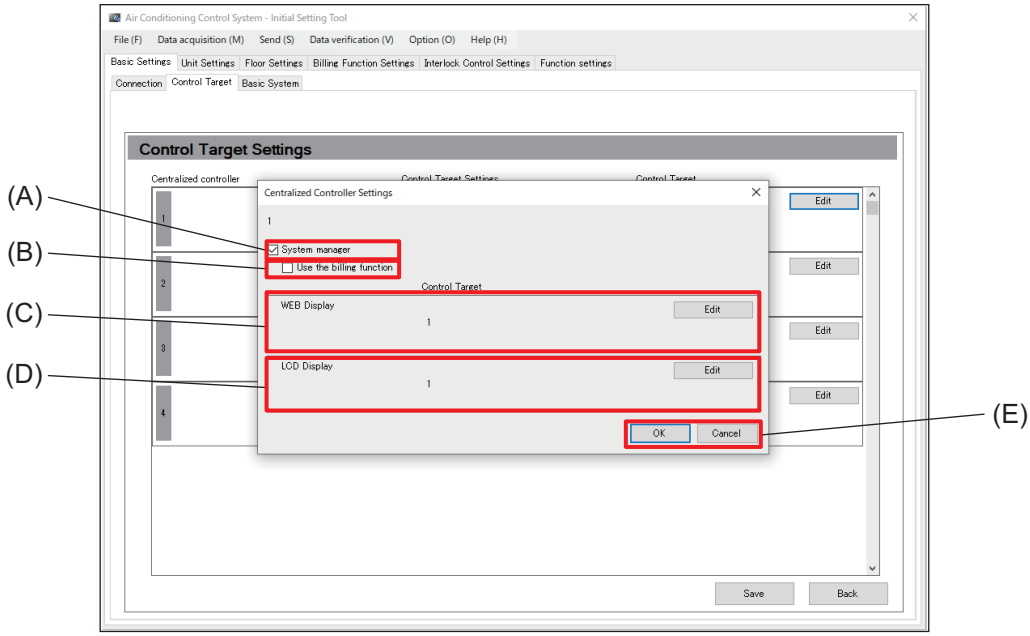
Note

- When there is only one connected AE-C/EW-C controller (or only one M-NET network) in the system, the items on this tab do not need to be set.

[1] AE-C/EW-C settings screen

Configure settings for the AE-C/EW-C controllers added on the Connection Settings screen that will be displayed and managed on the LCD screen or Web screen.

Tapping **[Edit]** on the Control Target Settings screen will display the Centralized Controller Settings screen.

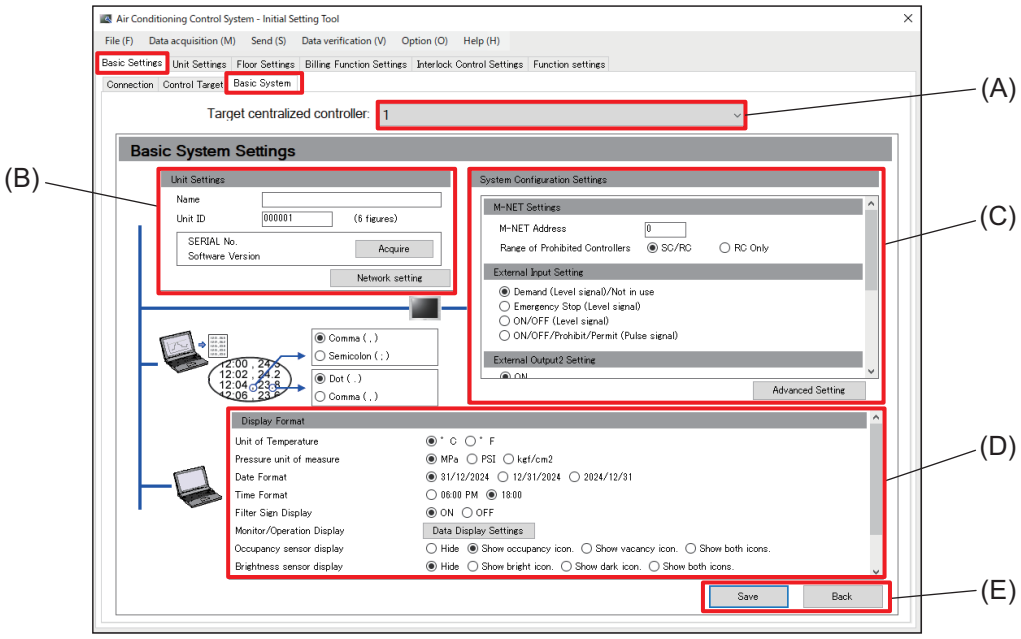


	Item	Function and description
(A)	System manager	This item is used to specify the AE-C/EW-C that will manage the system. Put a check here to allow the AE-C/EW-C to control other AE-C/EW-C. Only one AE-C/EW-C in a system can be used to manage the system.
(B)	Use the billing function	Entering a check here enables the apportioned electricity billing function of the system manager.
(C)	WEB Display	The numbers of the AE-C/EW-C to be displayed on the Web browser are displayed. Tap **[Edit]** to change the AE-C/EW-C to be controlled.
(D)	LCD Display	The numbers of the AE-C/EW-C to be displayed on the LCD are displayed. Tap **[Edit]** to change the AE-C/EW-C to be controlled.
(E)	**[OK]/[Cancel]**	After completing the setting, tap **[OK]**. To cancel the setting, tap **[Cancel]**.

16-1-3. Sub menu tab: Basic System

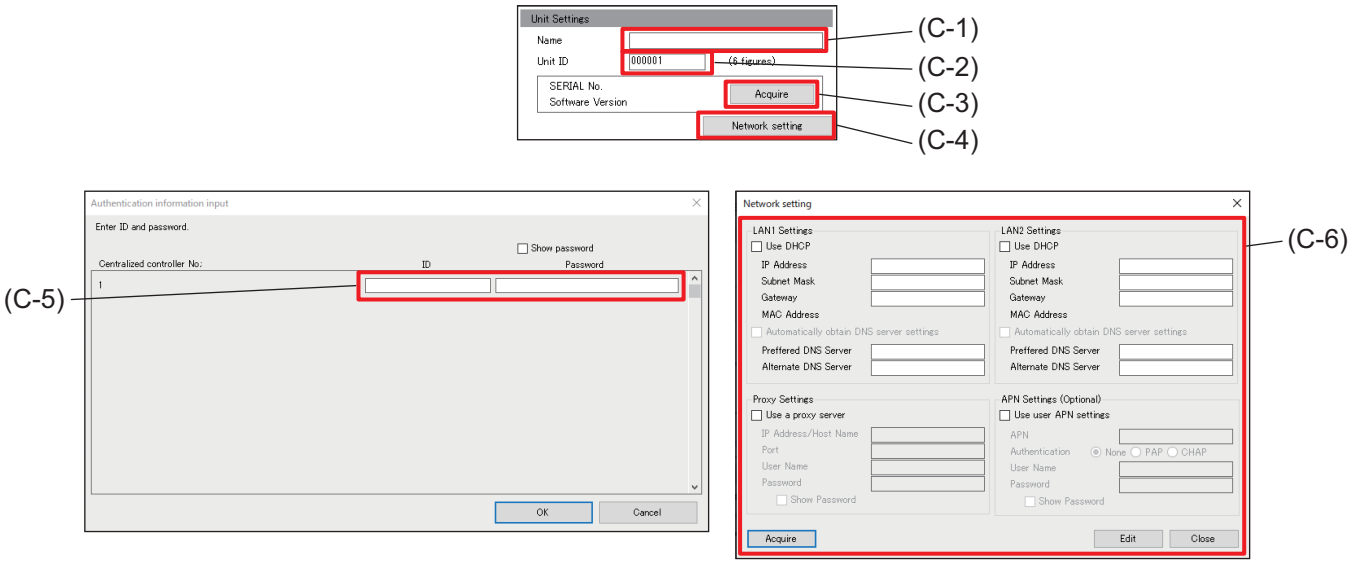
Configure settings for the AE-C/EW-C.

Tapping **[Basic Settings]** - **[Basic System]** will display the Basic System Settings screen.



	Item	Function and description
(A)	Target centralized controller	The number and the name of the AE-C/EW-C controller that has been registered on the Connection tab are displayed.
(B)	Unit Settings	Set the name and unit ID of the target AE-C/EW-C controller. Name: Enter the site name, building name, floor number, etc. (Up to 40 characters) Unit ID: Enter any number. (Six digits)
(C)	System Configuration Settings	Configure settings such as the M-NET address and external input/output method for the AE-C/EW-C controller.
(D)	Display Format	Set the items related to the display format of the AE-C/EW-C controller.
(E)	**[Save]**/**[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

[1] Unit settings



	Item	Function and description
(C-1)	Name	Enter information for identifying the AE-C/EW-C such as the site name, building name, floor number, etc. (Up to 40 characters)
(C-2)	Unit ID	Enter a number for identifying the AE-C/EW-C. (Six digits) This item is for managing the AE-C/EW-C using a Unit ID.
(C-3)	**[Acquire]**	Tapping this button displays the authentication ID and Password input screen (C-5).
(C-4)	**[Network setting]**	Tapping this button displays the Network settings screen (C-6).
(C-5)	User ID/password	Inputting the user ID and password and tapping **[OK]** displays the serial number and software version of the AE-C/EW-C selected as the target centralized controller.
(C-6)	Network setting	Configure settings for LAN1 and LAN2 of the AE-C/EW-C, such as the IP address, subnet mask, gateway address, and proxy. Tapping **[Acquire]** displays the current network settings for the AE-C/EW-C selected as the target centralized controller. Tapping **[Edit]** applies the network settings to the target centralized controller. Tapping **[Close]** returns to the previous screen without saving the settings.

Note

- Names and unit IDs can be configured for each AE-C/EW-C that can be set as the target centralized controller.
- The Unit ID is also used as an ID for identifying the senders of error notifications and warnings.

(1) Network setting

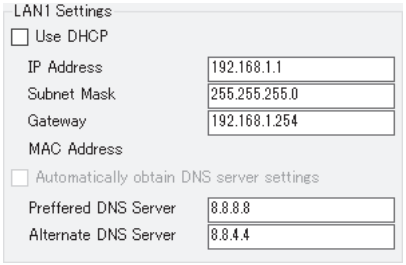
1) LAN1/LAN2 common settings

Use the following table to set valid values for each item.

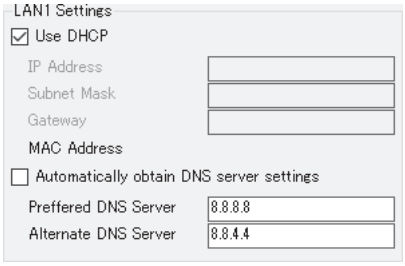
○: Configurable setting

	Use DHCP				Automatically obtain DNS server settings		Example setting
		IP Address	Subnet mask	Gateway	Preferred DNS server	Alternate DNS server	
If not using DHCP	—	Input required			—	Input required	(1)
If using DHCP	○	Input not required			—	—	
If not automatically obtaining DNS server settings	○				—	Input required	(2)
If automatically obtaining DNS server settings	○				○	Input not required	(3)

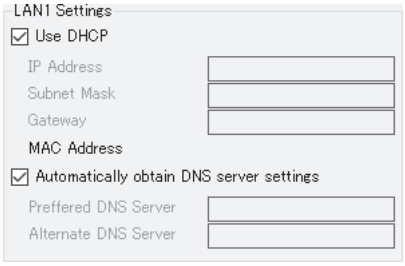
Example setting (1)



Example setting (2)

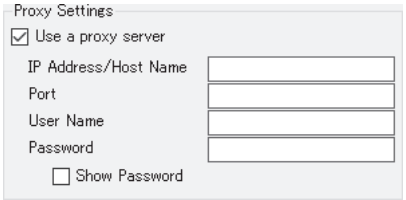


Example setting (3)



2) Proxy settings

If configuring via a proxy server, enter a check for **[Use a proxy server]** and configure each item.
Obtain the IP address, subnet mask, and gateway address from the system administrator and set them accordingly.



3) APN settings (optional)

Do not change these settings.

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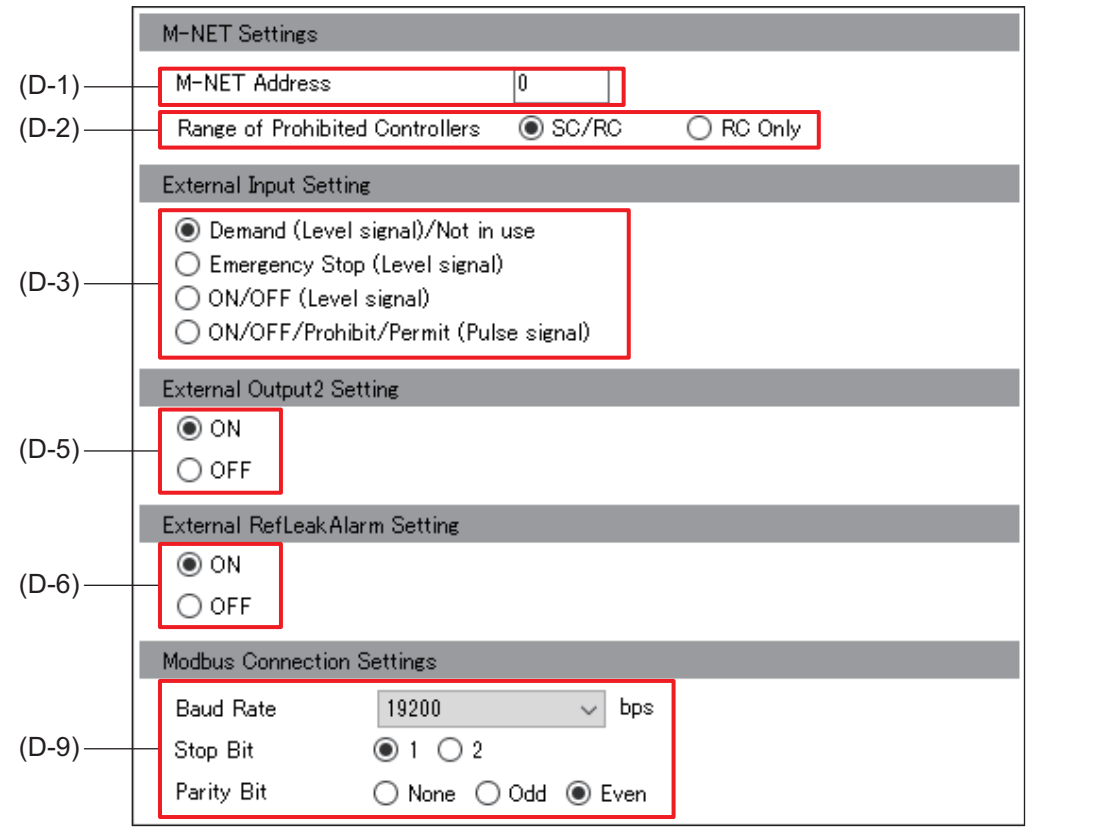
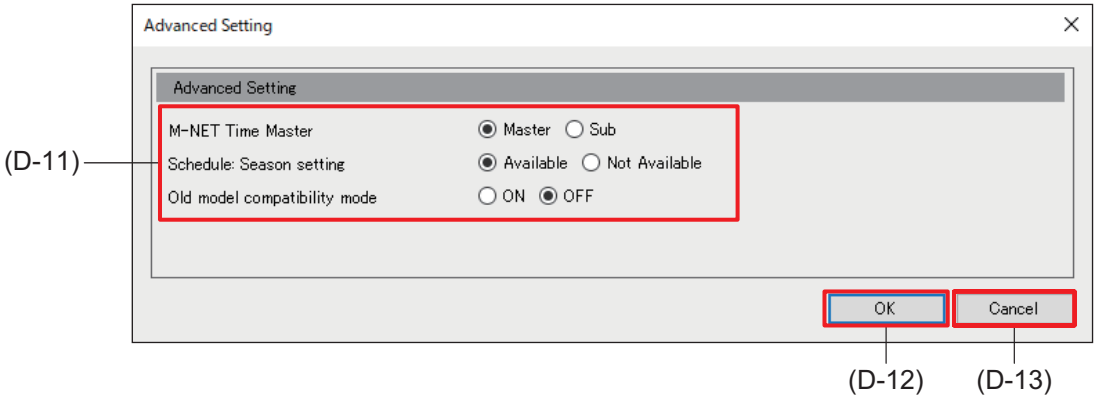
[2] System configuration settings





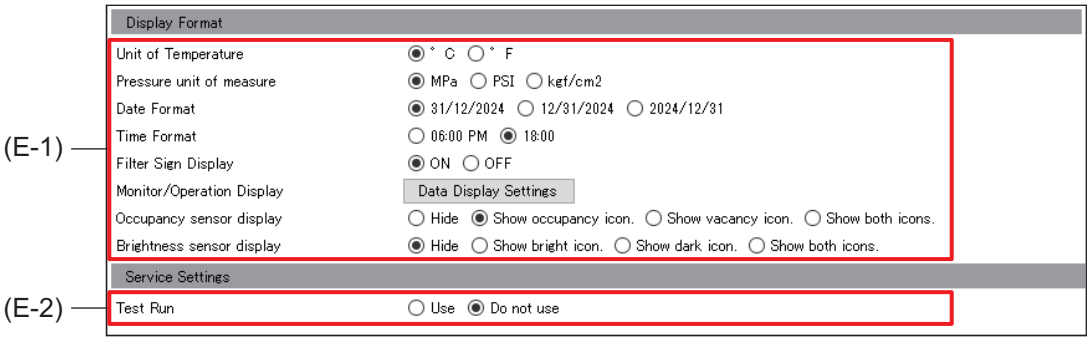
	Item	Function and description
(D-1)	M-NET Settings M-NET Address	Normally, enter **[0]**.
(D-2)	M-NET Settings Range of Prohibited Controllers	Select **[SC/RC]** to prohibit operation from both sub system controllers and local remote controllers. Select **[RC Only]** to prohibit operation from only local remote controllers.
(D-3)	External Input Setting	If using an external contact input, select its function from the list.
(D-5)	External Output2 Setting	If using an external contact output (CN6), select its function from the list.
(D-6)	External RefLeakAlarm Setting	Set whether or not the controller buzzer will sound when a refrigerant leak is detected.

	Item		Function and description
(D-9)	Modbus Connection Settings		Configure settings according to Modbus unit settings.
(D-10)	**[Advanced Setting]**		Tapping this button displays the Advanced Setting screen (D-11).
(D-11)	Advanced Setting screen		
		M-NET Time Master	Select **[Sub]** to synchronize the time using a central monitoring device in a system configuration that uses the BACnet function.
		Schedule: Season setting	Select **[Available]** to use seasonal settings in the weekly schedule.
		Old model compatibility mode	Select **[ON]** to set all units to not support dual auto mode.
(D-12)	**[OK]**		Tap this button to save the setting changes.
(D-13)	**[Cancel]**		Tap this button to go back to the previous screen without applying the setting changes.

Note

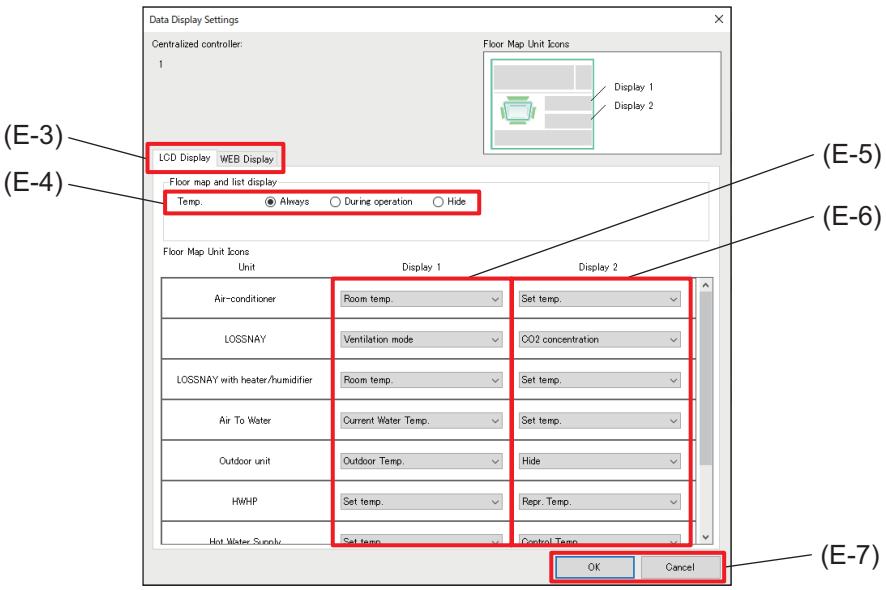
- To use an external output, a separately sold external input/output adapter (PAC-YG10HA-E) is required.
- The setting for the range of prohibited controllers is effective when local remote controller operation is prohibited for the AE-C/EW-C.
- When an alarm (remote) or error (buzzer/lamp) is output, the error code display screen will appear at the same time.
- Error-level based output cannot be configured for air conditioning units.
- Select [ON] for "Old model compatibility mode" when using indoor units that support and do not support the dual mode together, or when a higher-level building management system that is connected using the BACnet function does not support the dual auto mode.

[3] Configuring display settings and services



	Item	Function and description
(E-1)	Unit of Temperature	Select the temperature unit.
	Pressure unit of measure	Select the pressure unit.
	Date Format	Select the date format.
	Time Format	Select the time format.
	Filter Sign Display	Select whether or not to display filter signs on the Monitor/Operation screen displayed on the AE-C/EW-C LCD screen and the Web browser.
	Monitor/Operation Display	Tapping **[Data Display Settings]** displays the Data Display Settings screen.
	Occupancy sensor display	Set whether to show or hide the detection status of the occupancy sensor built in the ME remote controller.
	Brightness sensor display	Set whether to show or hide the detection status of the brightness sensor built in the ME remote controller.
(E-2)	Test Run	Select whether or not to use test run.

(1) Data Display Settings screen

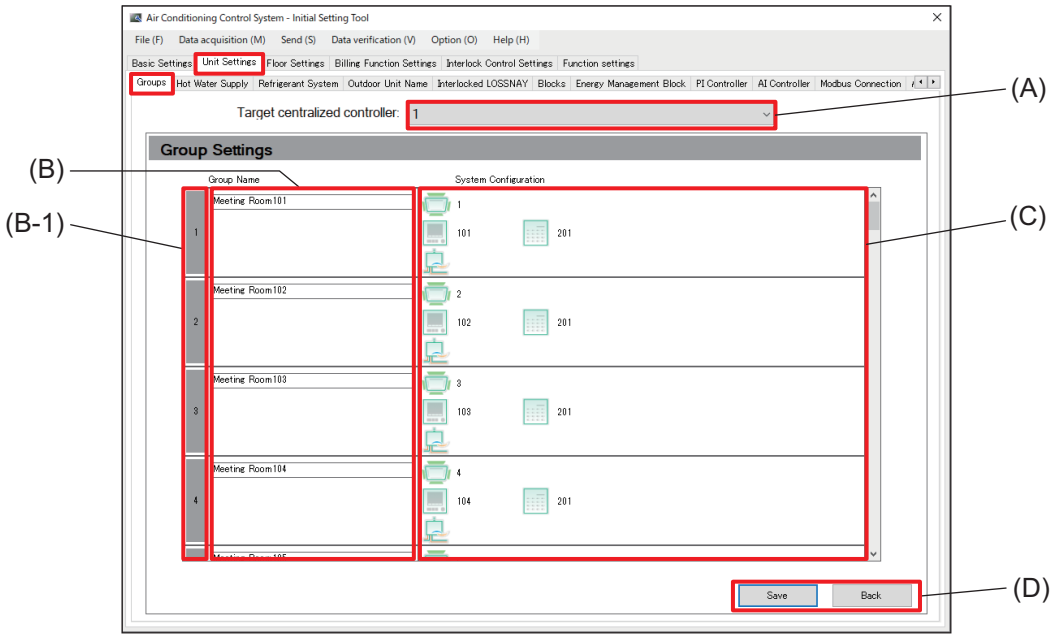


	Item	Function and description
(E-3)	Control target tab	Select the LCD Display tab or WEB Display tab.
(E-4)	Floor map and list display	Configure the temperature and humidity displays on the Monitor/Operation screen.
(E-5)	Display 1	From the pull-down list, select information shown by the unit icon displayed on the Monitor/Operation (floor layout) screen. Displays 1 and 2 can be configured separately.
(E-6)	Display 2	
(E-7)	**[OK]/[Cancel]**	After completing the setting, tap **[OK]**. To cancel the setting, tap **[Cancel]**.

16-2. Menu tab: Unit Settings

16-2-1. Sub menu tab: Groups

Register the units connected to each AE-C/EW-C.
Tapping **[Unit Settings]** - **[Groups]** will display the Group Settings screen.



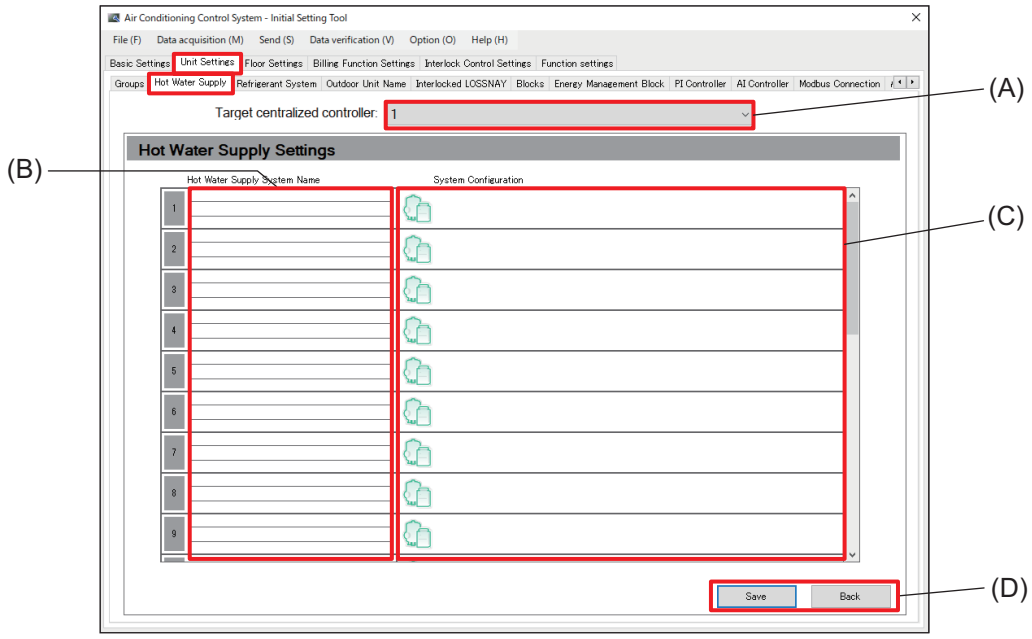
	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Group Name	Set the group name for each group number (B-1). The group name set here will be displayed on the AE-C/EW-C screen.
(C)	System Configuration	Register the information of the connected unit. • Select the unit type, and set the unit address. • To add a local remote controller (ME remote controller) to the system, select its icon and set the address. • When a sub system controller exists in the system, select its icon and set the address.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

- Group names can be up to 20 characters in length. (Recommended name length is 12 characters or less.) However, the following characters cannot be used. < > & " '

16-2-2. Sub menu tab: Hot Water Supply

Register the hot water supply systems connected to each AE-C/EW-C.
Tapping **[Unit Settings]** - **[Hot Water Supply]** will display the Hot Water Supply Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Hot Water Supply System Name	Input system names.
(C)	System Configuration	Configure the addresses of the hot water supply systems.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

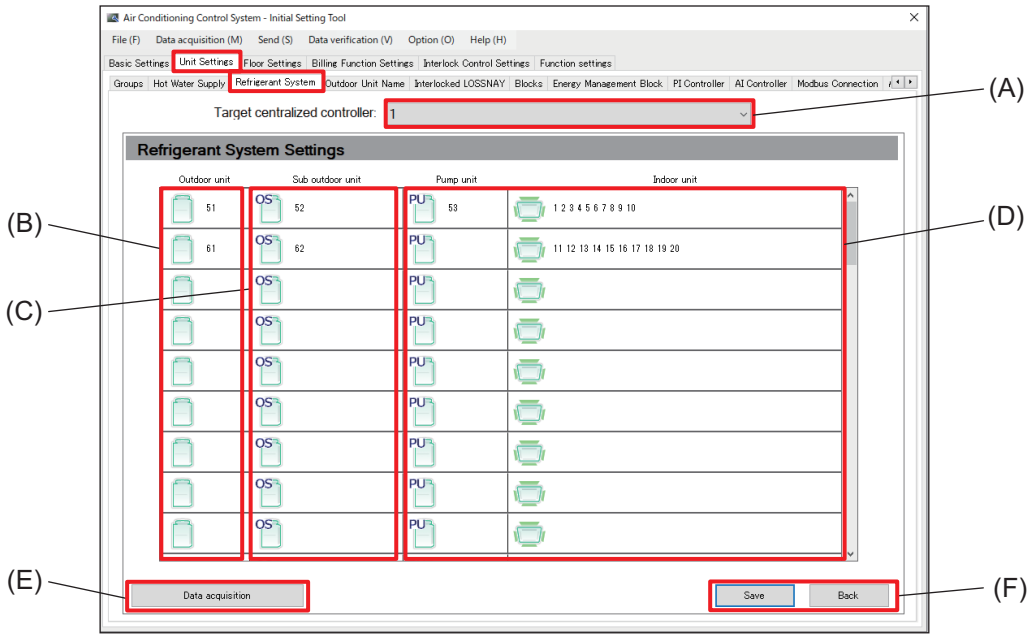
Note

- System names can be up to 20 characters in length. (Recommended name length is 12 characters or less.)
  However, the following characters cannot be used. < > & " '

16-2-3. Sub menu tab: Refrigerant System

Register the refrigerant system connected to each AE-C/EW-C.

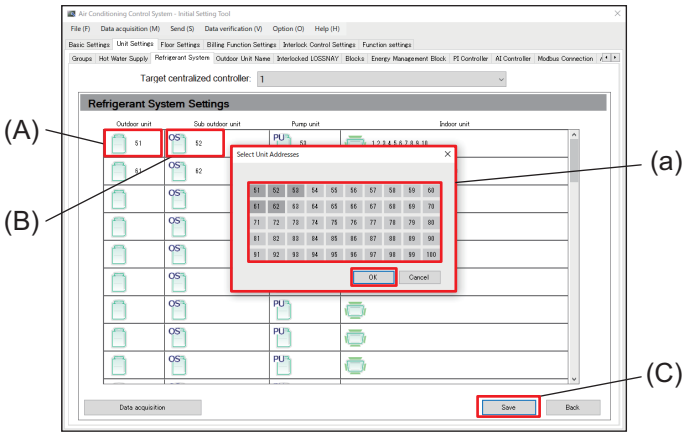
Tapping **[Unit Settings]** - **[Refrigerant System]** will display the Refrigerant System Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Outdoor unit	Tapping this item displays the screen for registering outdoor units.
(C)	Sub outdoor unit	Tapping this item displays the screen for registering sub-outdoor units.
(D)	Indoor unit	Tapping this item displays the screen for registering indoor units.
(E)	Data acquisition	Acquire data on refrigerant system connections that have already been configured and update the settings.
(F)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

[1] Configuring refrigerant systems

(1) Configuring outdoor unit addresses and sub outdoor unit addresses



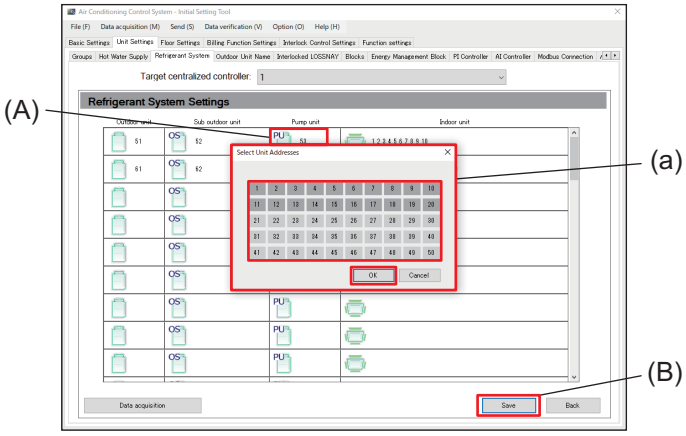
Step

1. Tap **[Unit Settings]** - **[Refrigerant System]** to display the Refrigerant System Settings screen.
2. Register outdoor units by tapping (A) to display (a).
3. Register sub-outdoor units by tapping (B) to display (a).
4. Select the outdoor unit address or sub outdoor unit address to be registered from (a).
5. Tap **[OK]** in (a) to close (a).
6. Tap (C) to save the settings.

Note

- Both outdoor unit addresses and indoor unit address within the same system must be configured.
  If either of them are not configured, the unit addresses will not be registered and will return to an unset state.

(2) Configuring indoor unit addresses



Step

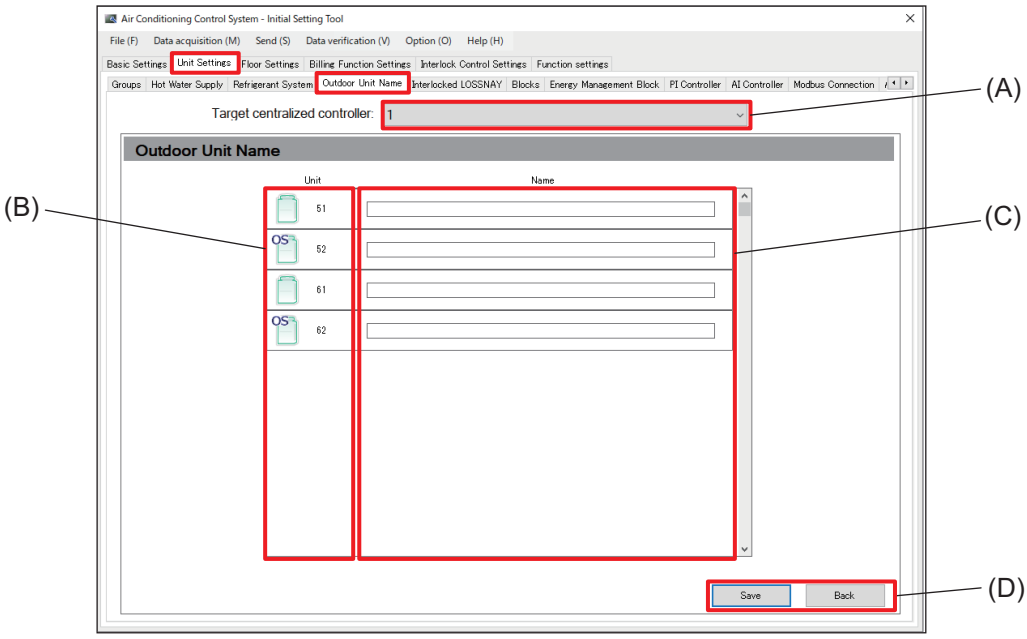
1. Tap **[Unit Settings]** - **[Refrigerant System]** to display the Refrigerant System Settings screen.
2. Tap (A) to display (a).
3. Select the indoor unit address to be registered from (a).
4. Tap **[OK]** in (a) to close (a).
5. Tap (B) to save the settings.

Note

- Both outdoor unit addresses and indoor unit address within the same system must be configured.
  If either of them are not configured, the unit addresses will not be registered and will return to an unset state.

16-2-4. Sub menu tab: Outdoor Unit Name

Register the names of the outdoor units and sub-outdoor units connected to each AE-C/EW-C.
Tapping **[Unit Settings]** - **[Outdoor Unit Name]** will display the Outdoor Unit Name screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Outdoor unit	Outdoor unit and sub outdoor unit addresses are displayed in order of address number.
(C)	Outdoor unit name	Use to configure the names of outdoor units configured on the Refrigerant System settings screen.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

- Outdoor unit names can be up to 20 characters in length. (Recommended name length is 12 characters or less.)
  However, the following characters cannot be used. < > & " '

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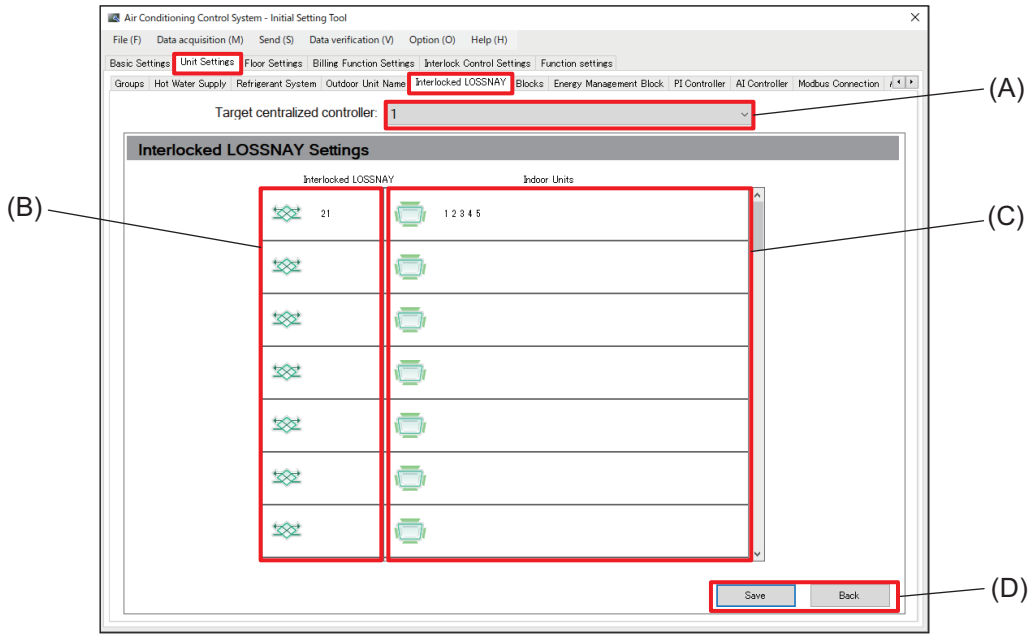
16-2-5. Sub menu tab: Interlocked LOSSNAY

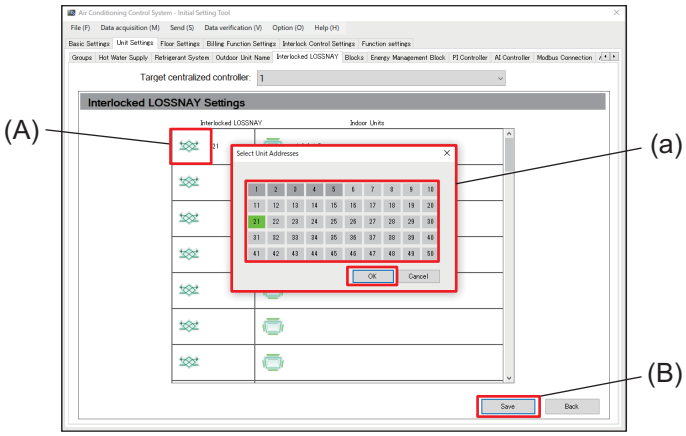
This tab is for registering the interlock settings of the LOSSNAY units for each AE-C/EW-C controller.
Tapping **[Unit Settings]** - **[Interlocked LOSSNAY]** will display the Interlocked LOSSNAY Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Interlocked LOSSNAY	Tap the icon displayed here, and select the address (1 to 50) of the interlocked LOSSNAY unit.
(C)	Indoor Units	Tap the icon displayed here, and select the address (1 to 50) of the indoor unit to be interlocked. • Multiple indoor units can be selected as interlock sources.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

[1] Configuring interlocked LOSSNAY units

(1) Configuring interlocked LOSSNAY units



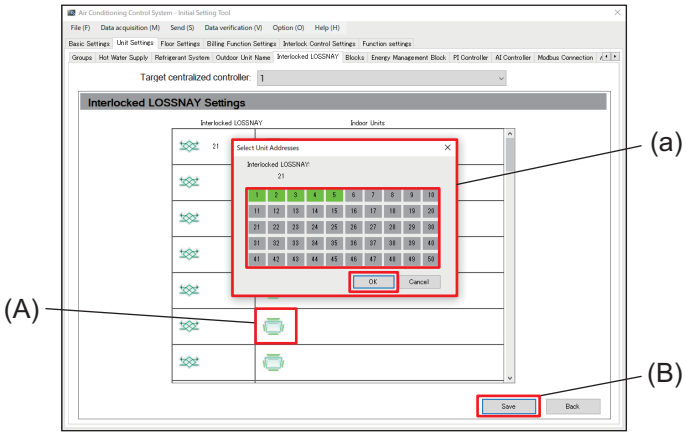
Step

1. Tap **[Unit Settings]** - **[Interlocked LOSSNAY]** to display the Interlocked LOSSNAY Settings screen.
2. Tap (A) to display (a).
3. Select the addresses of registered interlocked LOSSNAY units from (a).
4. Tap **[OK]** in (a) to close (a).
5. Tap (B) to save the settings.

Note

- It is necessary for both the interlocked LOSSNAY and source indoor units to be configured. If either of them are not configured, the addresses will not be registered and will return to an unset state.

(2) Configuring interlock source indoor units



Step

1. Tap **[Unit Settings]** - **[Interlocked LOSSNAY]** to display the Interlocked LOSSNAY Settings screen.
2. Tap (A) to display (a).
3. Select the indoor unit address to be registered from (a).
4. Tap **[OK]** in (a) to close (a).
5. Tap (B) to save the settings.

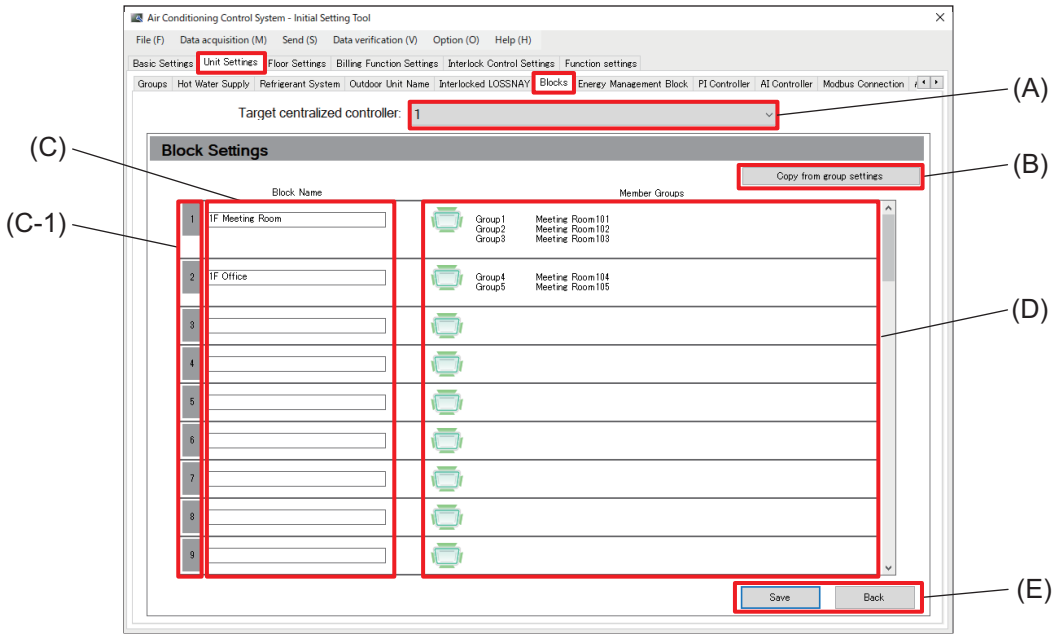
Note

- It is necessary for both the interlocked LOSSNAY and source indoor units to be configured. If either of them are not configured, the addresses will not be registered and will return to an unset state.

16-2-6. Sub menu tab: Blocks

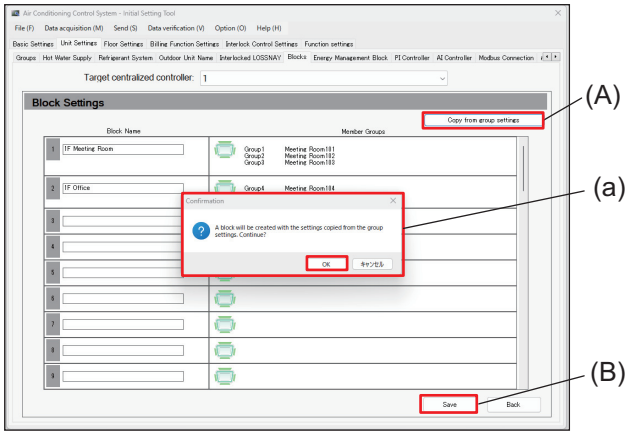
Register the operation units (blocks) for each AE-C/EW-C.

Tapping **[Unit Settings]** - **[Blocks]** will display the Block Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Copy from group settings	Create blocks by copying group settings.
(C)	Block Name	Enter block names for each block number (C-1).
(D)	Member Groups	Tapping the icon displays the group selection screen.
(E)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

[1] Configuring blocks



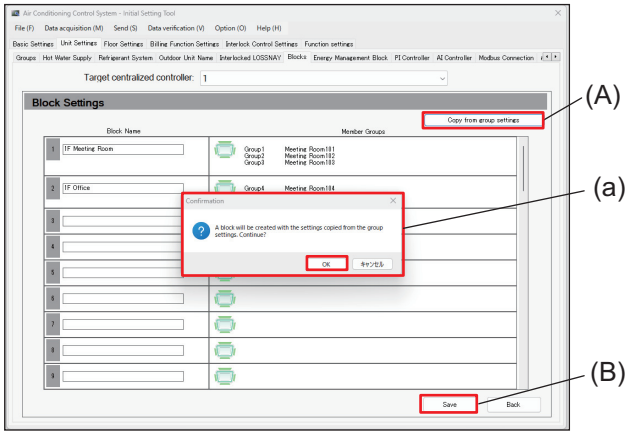
Step

1. Tap **[Unit Settings]** - **[Block Settings]** to display the Block Settings screen.
2. Tap (A) to input block names.
3. Tap (B) to display (a).
4. Select the block to be registered from (a).
5. Tap **[OK]** in (a) to close (a).
6. Tap (C) to save the settings.

Note

- Block names can be up to 20 characters in length.
  However, the following characters cannot be used. < > & " '

[2] Copying from group settings



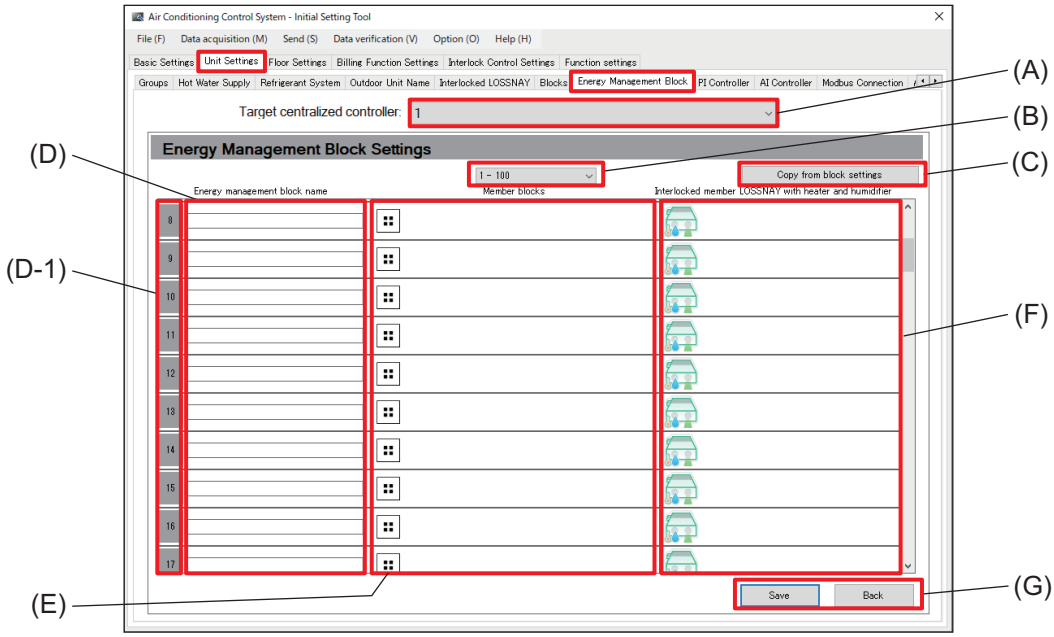
Step

1. Tap **[Unit Settings]** - **[Block Settings]** to display the Block Settings screen.
2. Tap (A) to display (a).
3. Tap **[OK]** in (a) to close (a).
4. Tap (B) to save the settings.

16-2-7. Sub menu tab: Energy Management Block

Set blocks for aggregation units.

Tapping **[Unit Settings]** - **[Energy Management Block]** will display the Energy Management Block Settings screen.

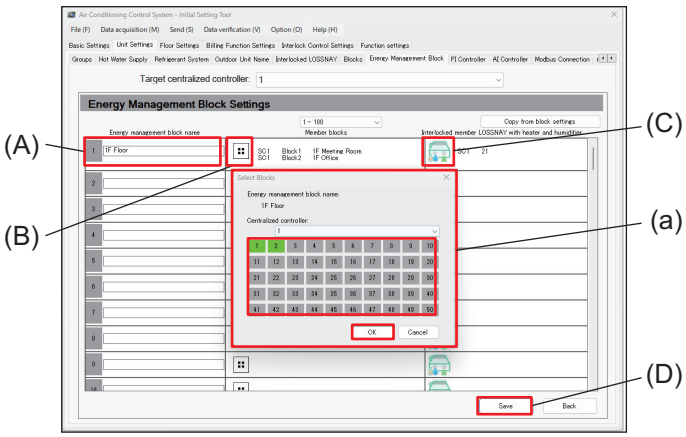


	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Page navigation	The page for the energy management block number selected from the pull-down list is displayed.
(C)	Copy from block settings	Create energy management blocks by copying block settings.
(D)	Energy management block name	The energy management block name for each energy management block number (D-1) is displayed.
(E)	Member blocks	Tapping the icon displays the screen for registering blocks.
(F)	Interlocked member LOSSNAY with heater and humidifier	Tapping the icon displays the screen for registering unit addresses.
(G)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

- Energy management block names can be up to 20 characters in length.
  However, the following characters cannot be used. < > & " '

[1] Configuring energy management blocks



Step

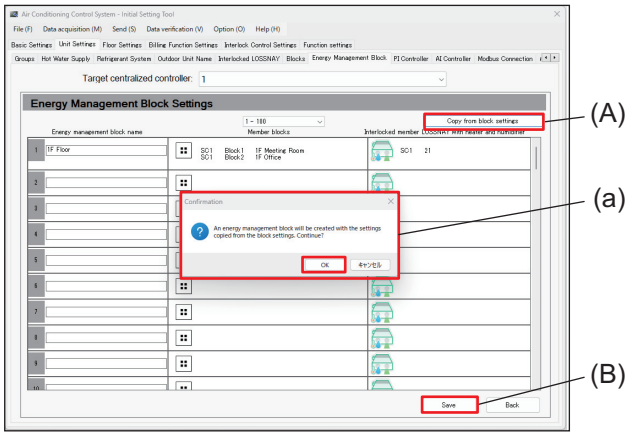
1. Tap **[Unit Settings]** - **[Energy Management Block]** to display the Energy Management Block Settings screen.
2. Tap (A) to input energy management block names.
3. Tap (B) to display (a).
4. Select the block to be registered from (a).
5. Tap **[OK]** in (a) to close (a).
6. Tap (D) to save the settings.

Configure interlocked member LOSSNAY with heater and humidifier by performing the following.

1. Tap (C) to display (a).
2. Select the unit address to be registered from (a).
3. Tap **[OK]** in (a) to close (a).
4. Tap (D) to save the settings.

[2] Copying from block settings

Use this configuration to make block settings and energy block settings the same. After copying, configure LOSSNAY with heater and humidifier if necessary.



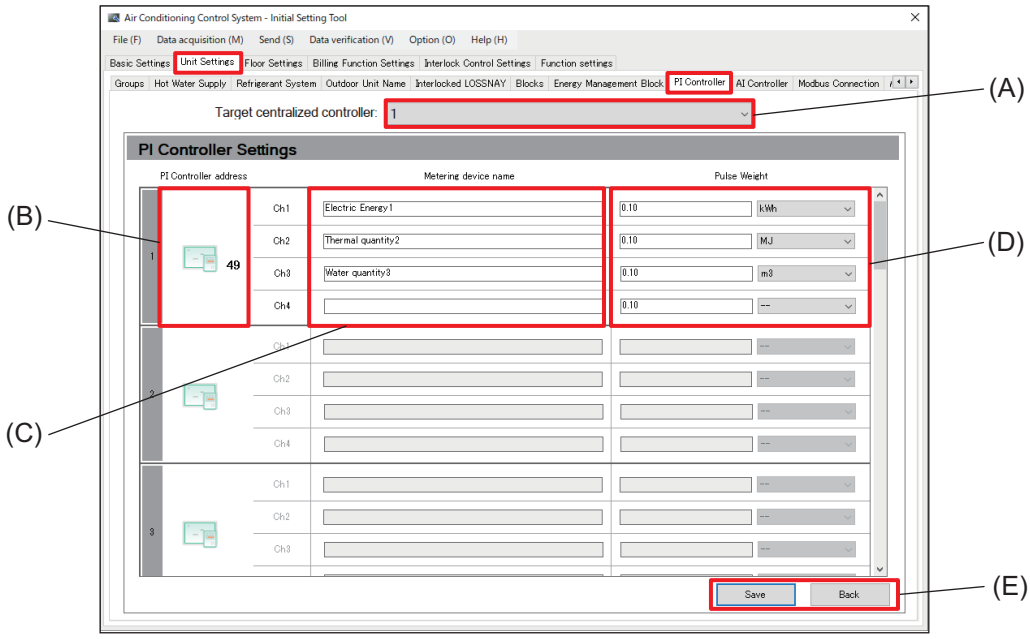
Step

1. Tap **[Unit Settings]** - **[Energy Management Block]** to display the Energy Management Block Settings screen.
2. Tap (A) to display (a).
3. Tap **[OK]** in (a) to close (a).
4. Tap (B) to save the settings.

16-2-8. Sub menu tab: PI Controller

Register PI controllers.

Tapping **[Unit Settings]** - **[PI Controller]** will display the PI Controller Settings screen.

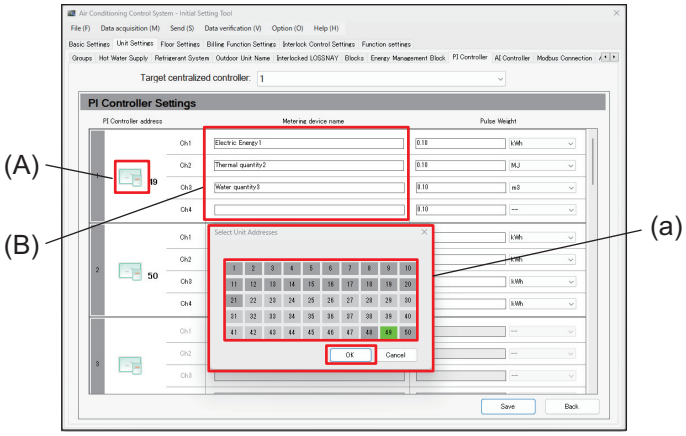


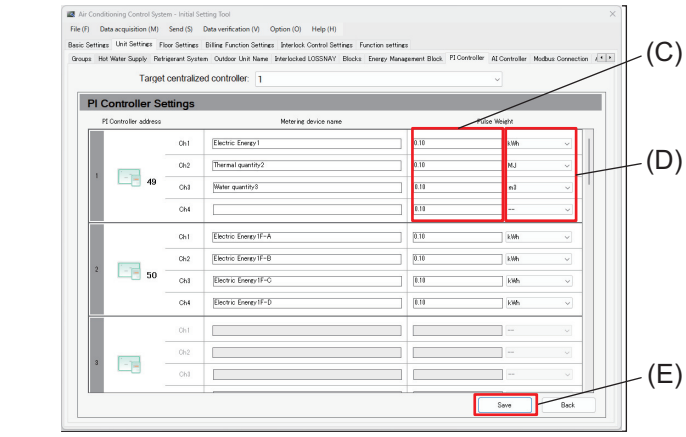
	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	PI Controller address	Select the addresses of PI controllers to be registered.
(C)	Metering device name	Configure the names of metering devices.
(D)	Pulse Weight	Enter a pulse weight between 0.01 and 100. Select a unit of measurement.
(E)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

- Metering device names can be up to 20 characters in length. (Recommended name length is 12 characters or less.)
  However, the following characters cannot be used. < > & " '

[1] Configuring PI controllers





Step

1. Tap **[Unit Settings]** - **[PI Controller]** to display the PI Controller Settings screen.
2. Tap (A) to display (a).
3. Select the addresses of PI controllers to be registered from (a).
4. Tap **[OK]** in (a) to close (a).
5. Tap (B) to input metering device names for registered channels.
6. Tap (C) to input pulse values.
7. Select the pulse unit from the pull-down list in (D).
8. Tap (E) to save the settings.

Important

- Select a unit of measurement from [kWh], [m^3], [MJ] and [--] (no unit).
- If not using a metering device, select [--] (no unit).
- When [--] (no unit) is selected, measured values will not be displayed as graph data for Energy Use Status.

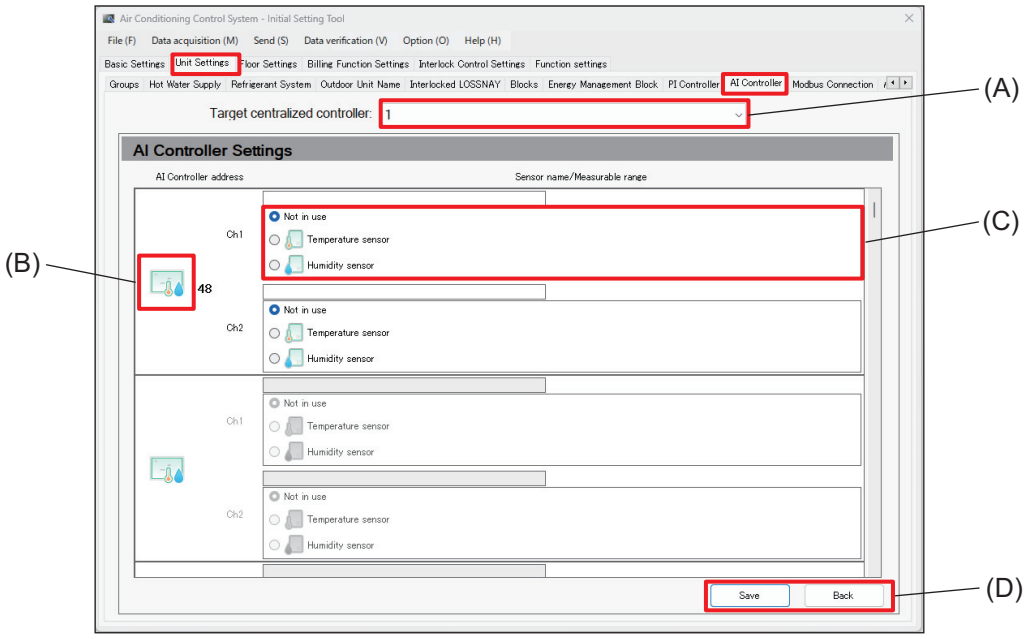
Note

- Metering device names can be up to 20 characters in length. (Recommended name length is 12 characters or less.)
  However, the following characters cannot be used. < > & " '

16-2-9. Sub menu tab: AI Controller

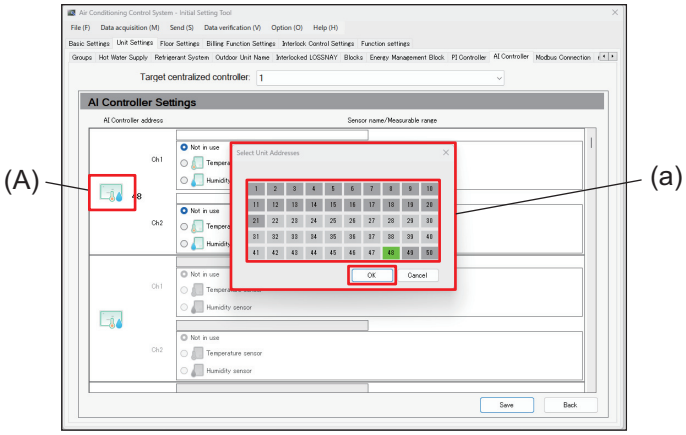
Configure AI controllers (sensors).

Tapping **[Unit Settings]** - **[AI Controller]** will display the AI Controller Settings screen.



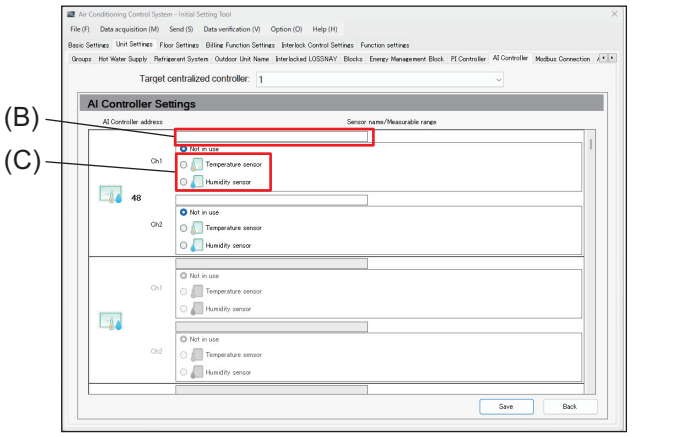
	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	AI Controller address	Select the address numbers of AI controllers (sensors) to be registered.
(C)	Measurable range	Configure the measurement ranges of temperature and humidity sensors, as well as modified values.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

[1] Configuring AI controllers

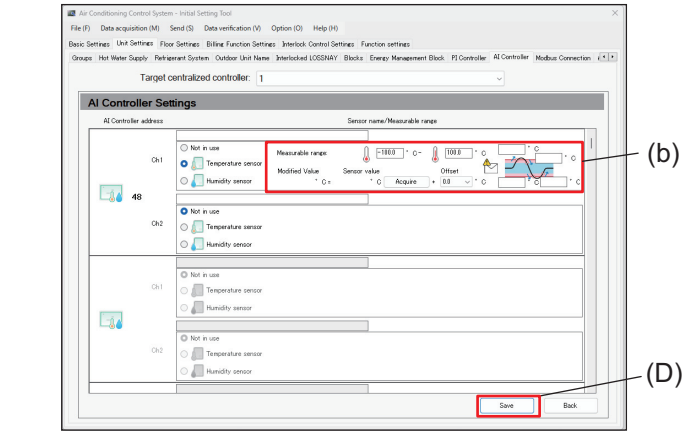


Step

1. Tap **[Unit Settings]** - **[AI Controller]** to display the AI Controller Settings screen.
2. Tap (A) to display (a).
3. Select the addresses of AI controllers to be registered from (a).
4. Tap **[OK]** in (a) to close (a).



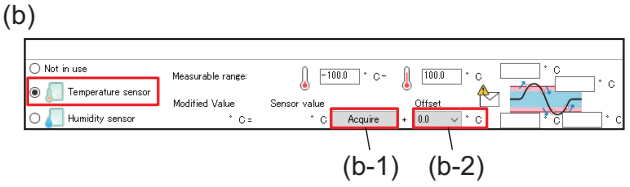
5. Tap (B) to input the sensor name.
6. Select the sensor to be used from (C) to display the measurement range input screen (b).



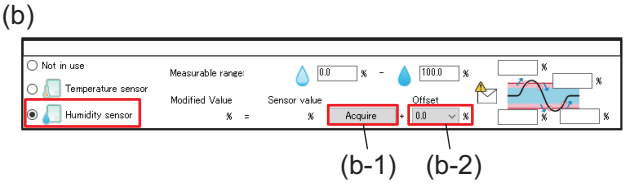
7. Configure the items in (b).
8. Tap (D) to save the settings.

Input upper and lower limits for the measurement range on the measurement range input screen (b).

If a temperature sensor is selected



If a humidity sensor is selected

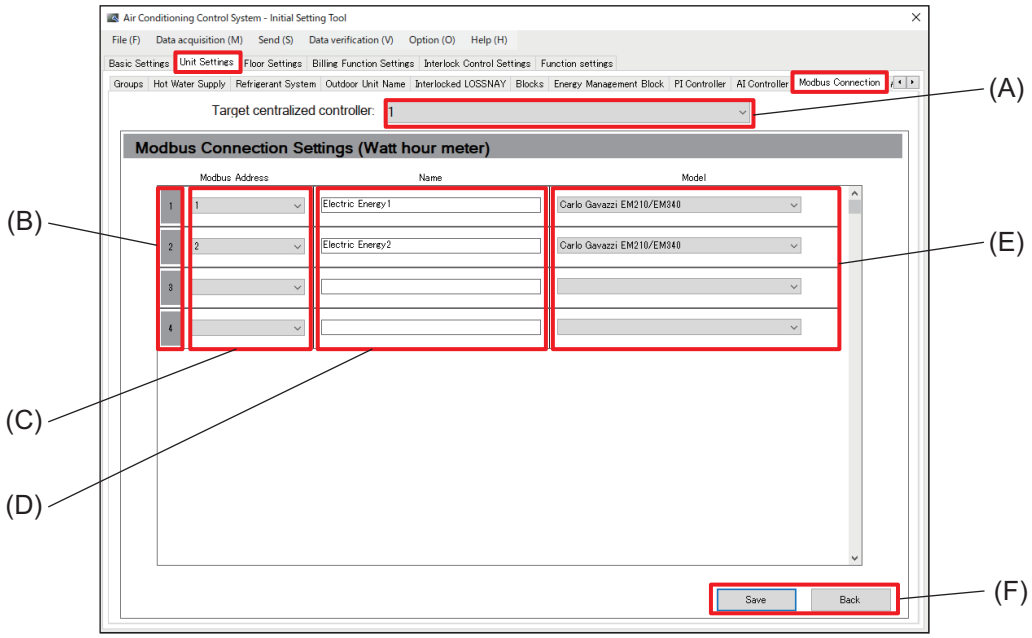


	Item	Function and description
(b-1)	**[Acquire]**	The ID and password input screen opens. Once authenticated, sensor values will be acquired and measurement values are displayed.
(b-2)	Offset	Select an offset from the pull-down list. The selection will be reflected to modified values.

16-2-10. Sub menu tab: Modbus Connection

Configure connections with Modbus units.

Tapping **[Unit Settings]** - **[Modbus Connection]** will display the Modbus Connection Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Modbus number	Modbus numbers are displayed.
(C)	Modbus Address	Select the addresses of the Modbus unit.
(D)	Name	Input the names of Modbus units.
(E)	Model	Select a watthour meter capable of communicating with the Modbus from the pull-down list.
(F)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

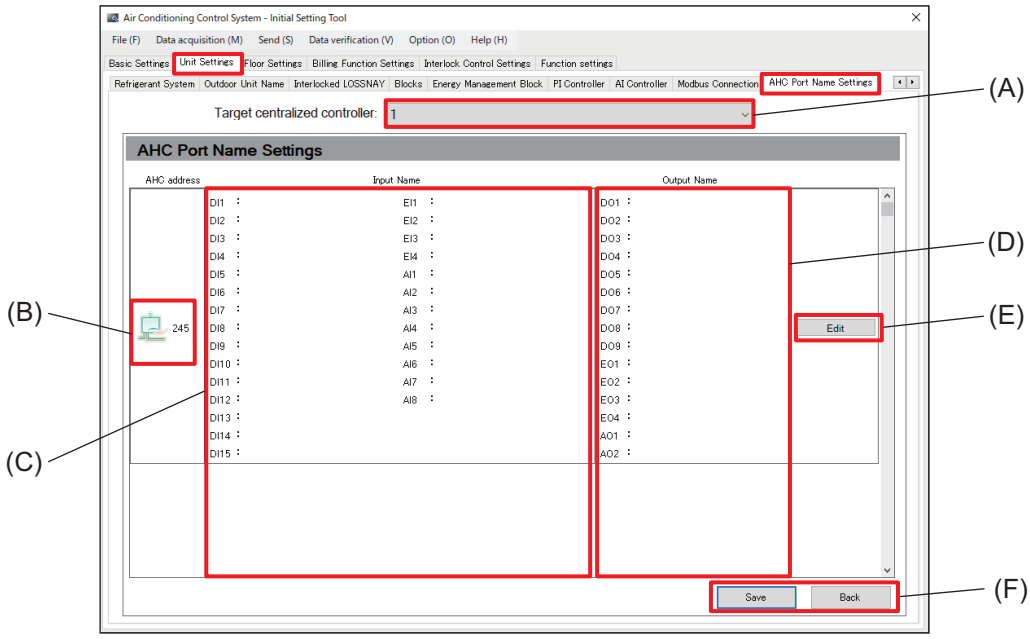
- Modbus unit names can be up to 20 characters in length. (Recommended name length is 12 characters or less.)
  However, the following characters cannot be used. < > & " '

MEMO

16-2-11. Sub menu tab: AHC Port Name Settings

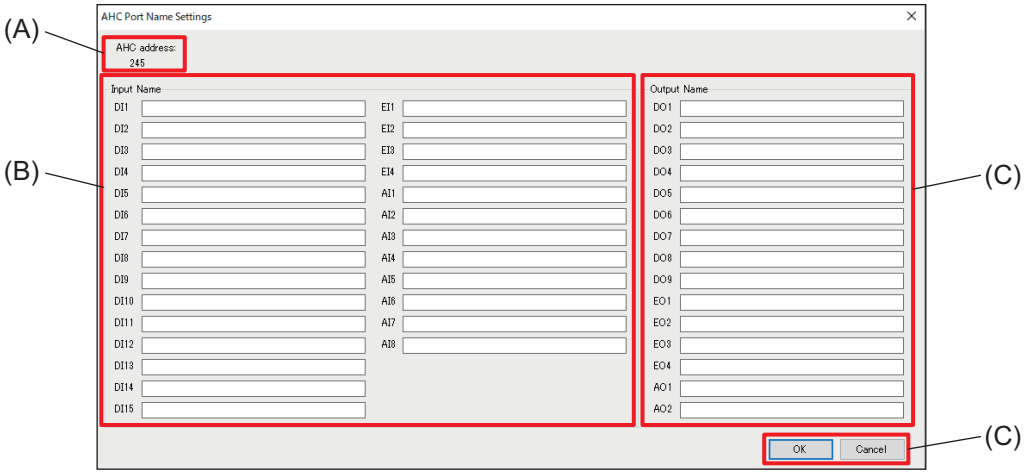
Set the name of the AHC port.

Tapping **[Unit Settings]** - **[AHC Port Name Settings]** will display the AHC Port Name Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	AHC address	The addresses of AHC ports configured on the Group Settings screen are displayed in ascending order.
(C)	Input Name	The input names of AHC ports configured on the AHC Port Name Settings screen are displayed.
(D)	Output Name	The output names of AHC ports configured on the AHC Port Name Settings screen are displayed.
(E)	**[Edit]**	The AHC Port Name Settings screen is displayed.
(F)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

[1] AHC Port Name Settings screen



	Item	Function and description
(A)	AHC address	The selected AHC address is displayed.
(B)	Input Name	Set input names for AHC ports.
(C)	Output Name	Set output names for AHC ports.
(E)	**[OK]/[Cancel]**	After completing the setting, tap **[OK]**. To cancel the setting, tap **[Cancel]**.

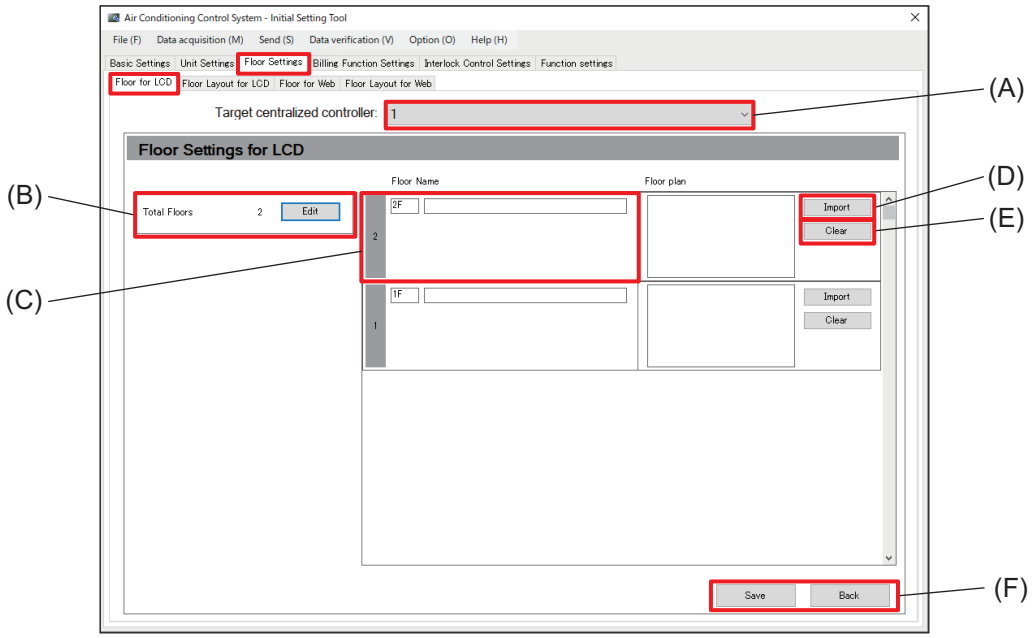
Note

- Input and output names can be up to 20 characters in length. (Recommended name length is 12 characters or less.)
  However, the following characters cannot be used. < > & " '

16-3. Menu tab: Floor Settings

16-3-1. Sub menu tab: Floor for LCD

Configure the floor layout displayed on the LCD screen.
Tapping **[Floor Settings]** - **[Floor for LCD]** will display the Floor Settings for LCD screen.

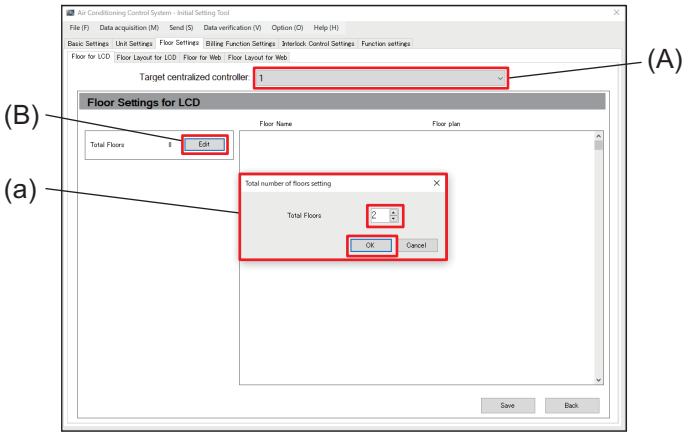


Symbol	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Total Floors	Set the total number of floors for the target site.
(C)	Floor Name	Set the floor number and floor name.
(D)	**[Import]**	Import an image file of the floor plan displayed on the floor layout.
(E)	**[Clear]**	Delete the imported floor plan.
(F)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

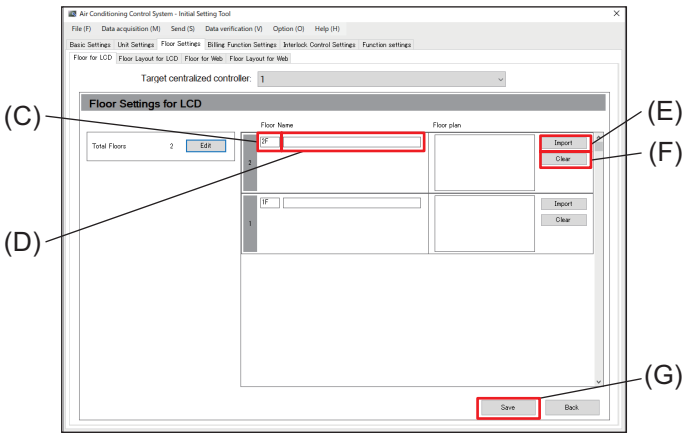
- Image file of floor layout can be imported on one AE-C/EW-C and connect to this AE-C/EW-C via Web browser.

[1] Configuring floors for LCDs



Step

1. Tap **[Floor Settings]** - **[Floor for LCD]** to display the Floor Settings for LCD screen.
2. Select the number of the AE-C/EW-C to be configured from the pull-down list in (A).
   - The number of the AE-C/EW-C to be configured is the number shown on the Connection Settings screen.
3. Tap (B) to display (a).
4. Input the total number of floors in (a) using the keyboard or by selecting using **[▲] [▼]**, and then tap **[OK]**.
   - If 0 is entered for the total number of floors, all groups will be undefined floor groups.



5. Tap (C) to input the floor number.
6. Tap (D) and input the floor name.
7. To import a floor plan, tap (E) and select a file to import.
   - To delete the imported floor plan file, tap (F).
8. Tap (G) to save the settings.

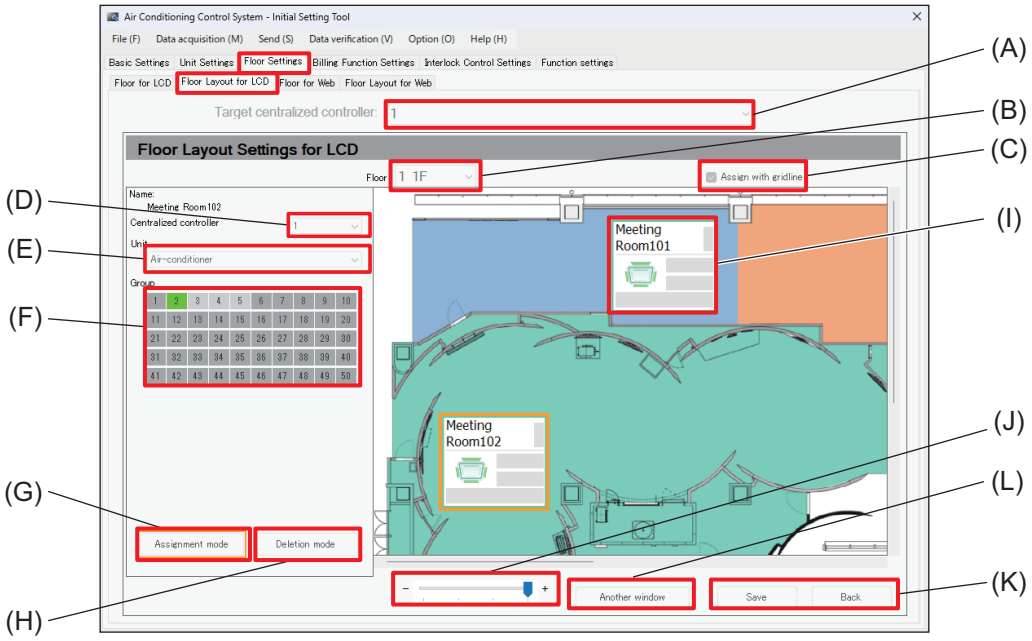
Note

- Floor numbers can be up to 3 characters in length.
  Floor names can be up to 20 characters in length.
  However, the following characters cannot be used for either floor numbers or floor names. < > & " '

16-3-2. Sub menu tab: Floor Layout for LCD

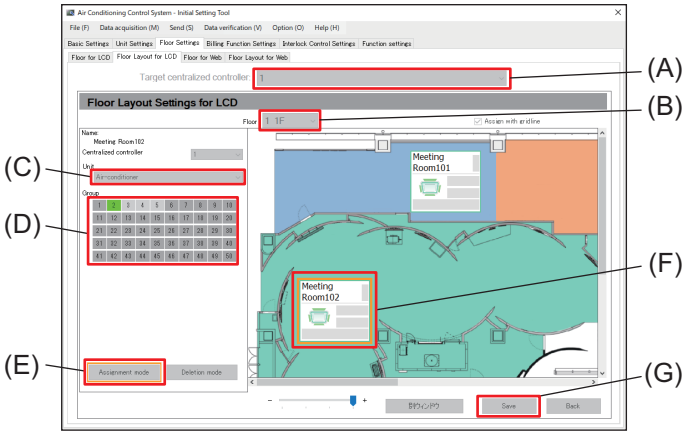
Icons for air conditioning units and other units can be assigned on the floor layout configured using Floor Settings for LCD.

Tapping **[Floor Settings]** - **[Floor Layout for LCD]** will display the Floor Layout Settings for LCD screen.



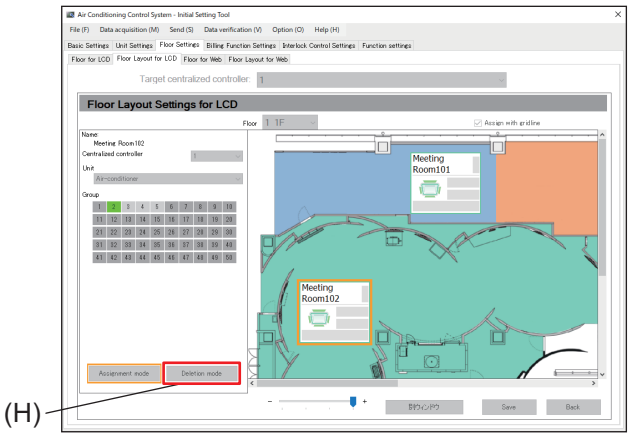
	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Floor	Select the floor to be displayed.
(C)	Assign with gridline	If a check is entered here, group icons will be placed at regular intervals.
(D)	Centralized controller	Select the AE-C/EW-C to which the icon assigned on the floor layout belongs.
(E)	Unit	Select a unit type.
(F)	Group	Select a group.
(G)	**[Assignment mode]**	Display unit icons on the floor plan.
(H)	**[Deletion mode]**	Delete selected unit icons on the floor plan.
(I)	Unit icon	Icons assigned on the floor plan are displayed.
(J)	Zoom in/out	Zoom in or out on the floor plan image.
(K)	**[Save]**/**[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.
(L)	Another window	Another window for configuring settings will appear.

[1] Configuring floor layouts for LCDs



Step

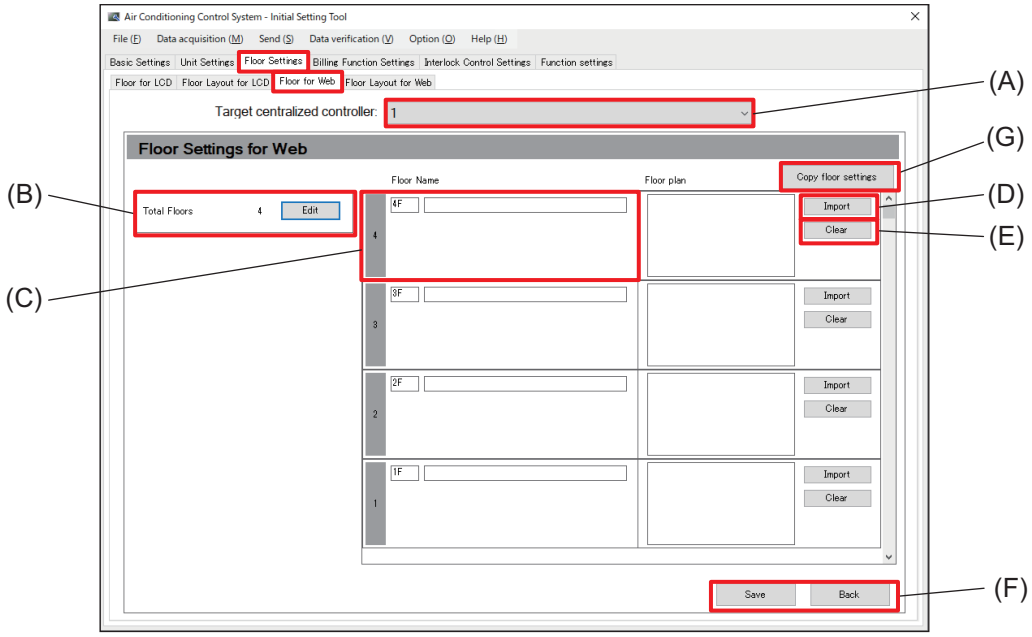
1. Tap **[Floor Settings]** - **[Floor Layout for LCD]** to display the Floor Layout Settings for LCD screen.
2. Select the number of the AE-C/EW-C to be configured from the pull-down list in (A).
   - The number of the AE-C/EW-C to be configured is the number shown on the Connection Settings screen.
   - The names displayed are the settings/names of the unit configured using Basic System Settings.
3. Select a floor from the pull-down list in (B).
4. Tap (E) to start the Assignment mode.
5. Select a unit from the pull-down list in (C).
6. Select a unit group from among those shown in (D).
7. Assign unit icons (F) on the floor plan.
8. Tap (G) to save the settings.

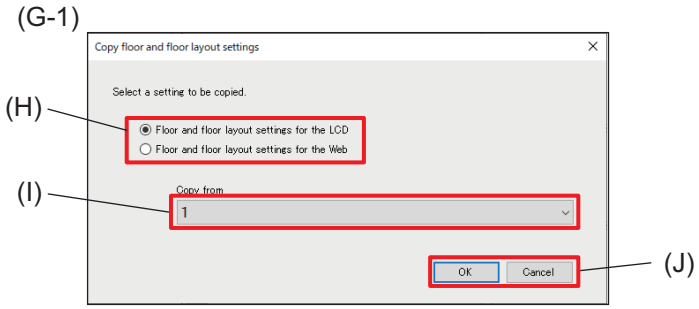


To cancel the assignment, tap (H) and then tap the unit icon to be deleted.

16-3-3. Sub menu tab: Floor for Web

Configure the floor layout displayed on the Web.
Tapping **[Floor Settings]** - **[Floor for Web]** will display the Floor Settings for Web screen.
Floor Settings for Web can be configured using the same procedure as that for Floor Settings for LCD.





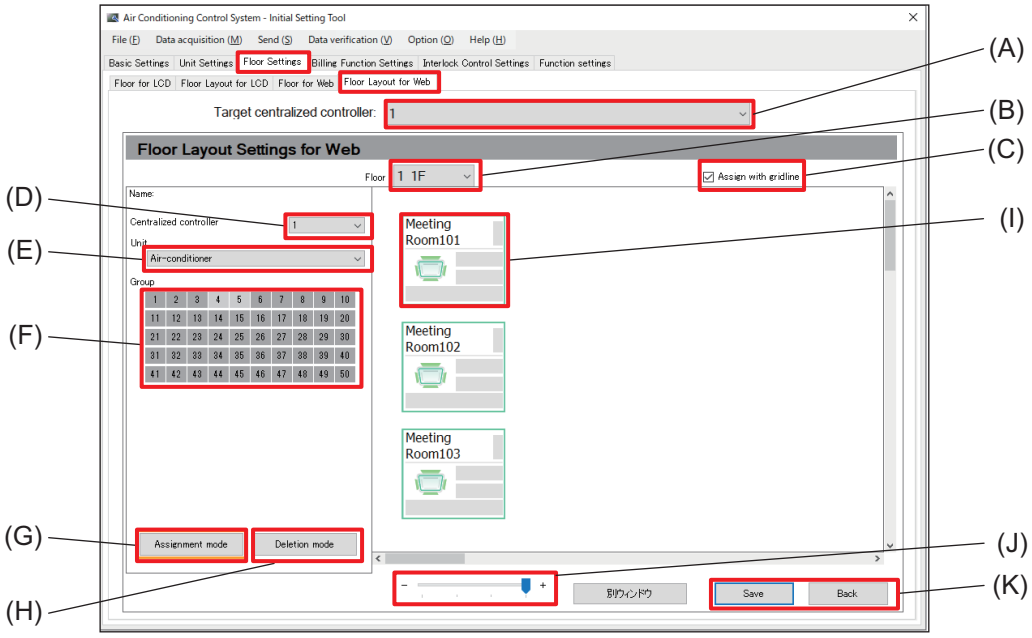
	Item	Function and description
(A) to (F)		Same as those of Floor Settings for LCD.
(G)	[**Copy floor settings**]	Tapping this item displays the screen for copying floor settings (G-1).
(G-1)	Copy floor and floor layout settings	
(H)	Select a setting to be copied	Select the floor settings to be copied.
(I)	Copy from	Select the AE-C/EW-C floor settings to be copied from the pull-down list.
(J)	**[OK]/[Cancel]**	After completing the setting, tap **[OK]**. To cancel the setting, tap **[Cancel]**.

16-3-4. Sub menu tab: Floor Layout for Web

Icons for air conditioning units and other units can be assigned on the floor layout configured using Floor Settings for Web.

Tapping **[Floor Settings]** - **[Floor Layout for Web]** will display the Floor Layout Settings for Web screen.

Floor Layout Settings for Web can be configured using the same procedure as that for Floor Layout Settings for LCD.



	Item	Function and description
(A) to (L)		Same as those of Floor Layout Settings for LCD.

16-4. Menu tab: Billing Function Settings

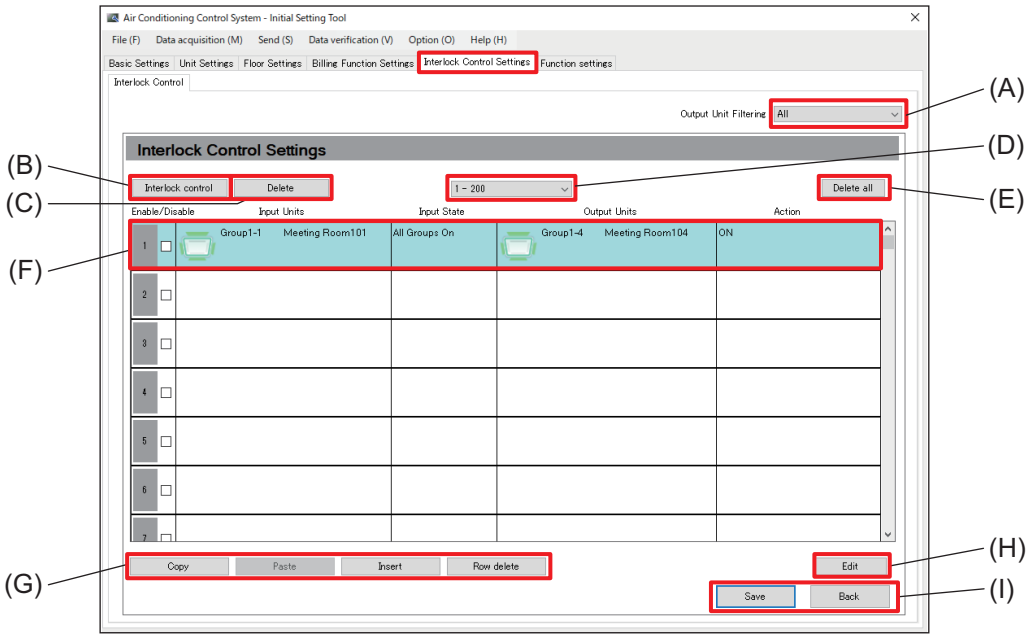
<<This section is currently in production.>>

MEMO

16-5. Menu tab: Interlock Control Settings

16-5-1. Sub menu tab: Interlock Control

Set interlock control to operate multiple units in tandem.
Tapping **[Interlock Control Settings]** will display the Interlock Control Settings screen.



	Item	Function and description
(A)	Output Unit Filtering	Select the centralized controller for which interlock control settings from among the centralized controllers whose connections have been configured.
(B)	**[Interlock control]**	Set whether to enable/disable interlock control settings.
(C)	**[Delete]**	Delete settings configured using Interlock control (B).
(D)	Page navigation	Switch to the page showing interlock control settings.
(E)	**[Delete all]**	Delete interlock control settings for all units.
(F)	Control settings	Individual settings are displayed.
(G)	Edit button	Copy, paste, insert or delete rows of interlock control conditions.
(H)	**[Edit]**	The Interlock Control screen is displayed.
(I)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Note

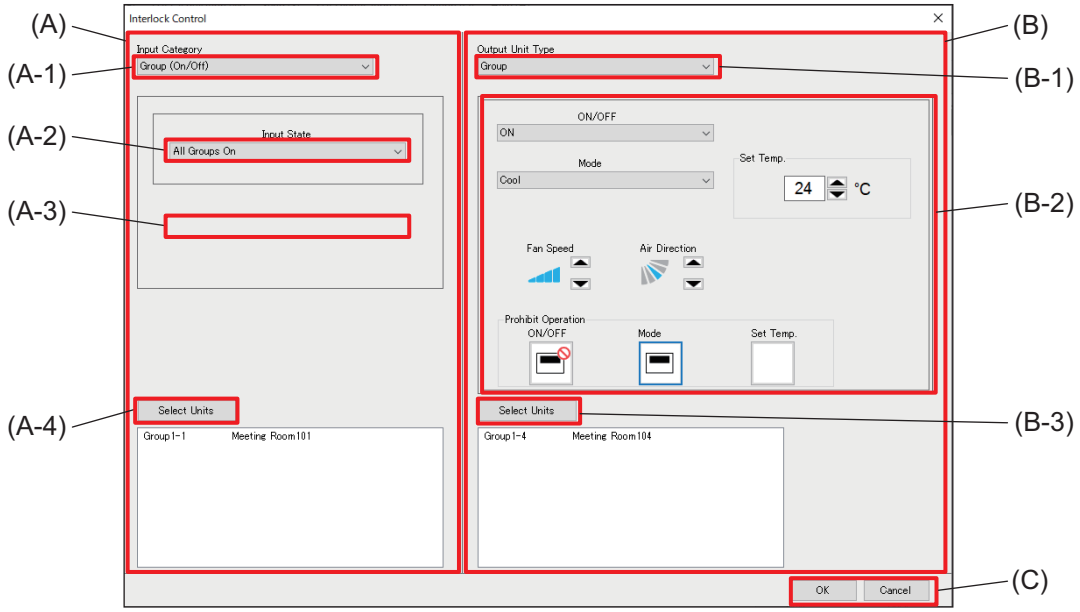
Interlock control may not work properly outside the control range.
Example) When Unit 2 does not support the Auto mode, the following interlock control does not work.

- Once Unit 1 starts operating, Unit 2 will start in Auto mode.
- When Unit 2 enters the Auto mode, Unit 1 will start operating.

Note

After making interlock control settings, check that the interlock control work properly according to the settings you made.

[1] Interlock Control screen



	Item	Function and description
(A)	Interlock control source configuration area	
(A-1)	Input Category	Select the interlock source unit category from the pull-down list.
(A-2)	Input State	Select an interlock condition from the pull-down list.
(A-3)	Mode	Select a mode from the pull-down list.
(A-4)	**[Select Units]**	The screen for selecting interlock source units is displayed.
(B)	Interlock control target configuration area	
(B-1)	Output Unit Type	Select the interlocked unit category from the pull-down list.
(B-2)	Action	Select the operation details to be sent to the interlocked units.
(B-3)	**[Select Units]**	The screen for selecting interlocked units is displayed.
(C)	**[OK]/[Cancel]**	After completing the setting, tap **[OK]**. To cancel the setting, tap **[Cancel]**.

(1) Configuring interlock conditions

Set the interlock source category and interlock conditions.
Refer to the table below and select the Input Category, Input State, and Mode.

<table>
<tr><th>Input category</th><th>Input State</th><th colspan="2">Mode</th></tr>
<tr><td>Group (On/Off)</td><td>All groups On
All groups Off
One or more groups On
One or more groups Off</td><td colspan="2">—</td></tr>
<tr><td rowspan="2">Group (Mode)</td><td rowspan="2">All groups in the mode
All groups out of the mode
One or more groups in the mode
One or more groups out of the mode</td><td>Air conditioning unit group
Ventilating unit (OA handling unit)</td><td>Cool, Dry, Fan, Heat, Auto</td></tr>
<tr><td>Ventilation group (LOSSNAY)</td><td>Bypass, Heat Recovery, Auto</td></tr>
<tr><td>Group (Error/ Normal)</td><td>All units in error
All units in normal operation
One or more units in error
One or more units in normal operation</td><td colspan="2">—</td></tr>
<tr><td>Free input points (On/Off)</td><td>All units On
All units Off
One or more units On
One or more units Off</td><td colspan="2">—</td></tr>
<tr><td>Outdoor unit (Defrost operation)</td><td>All units On
All units Off
One or more units On
One or more units Off</td><td colspan="2">—</td></tr>
</table>

(2) Configuring interlock actions

Configure interlocked unit types and interlock conditions.
Referring to the following table, select an interlocked unit type and configure interlock actions.

Input category	Action		
	Setting	Setting options	
Group	ON/OFF	ON, OFF*1	
	Mode*2	Air conditioning unit group Ventilating unit (OA handling unit)	Cool, Dry, Fan, Heat, Auto
		Ventilating unit (LOSSNAY)	Bypass, Heat Recovery, Auto
	Set Temp.*2	Specified temperature	
	Air Direction*2	Direction, Swing, Auto	
	Fan Speed*2	Fan speed, Auto	
	Prohibit Remote Controller Operation (ON/OFF)	Permit, Prohibit	
	Prohibit Remote Controller Operation (Mode)	Permit, Prohibit	
	Prohibit Remote Controller Operation (Set Temp.)	Permit, Prohibit	
Free Output Points	ON/OFF	ON, OFF	

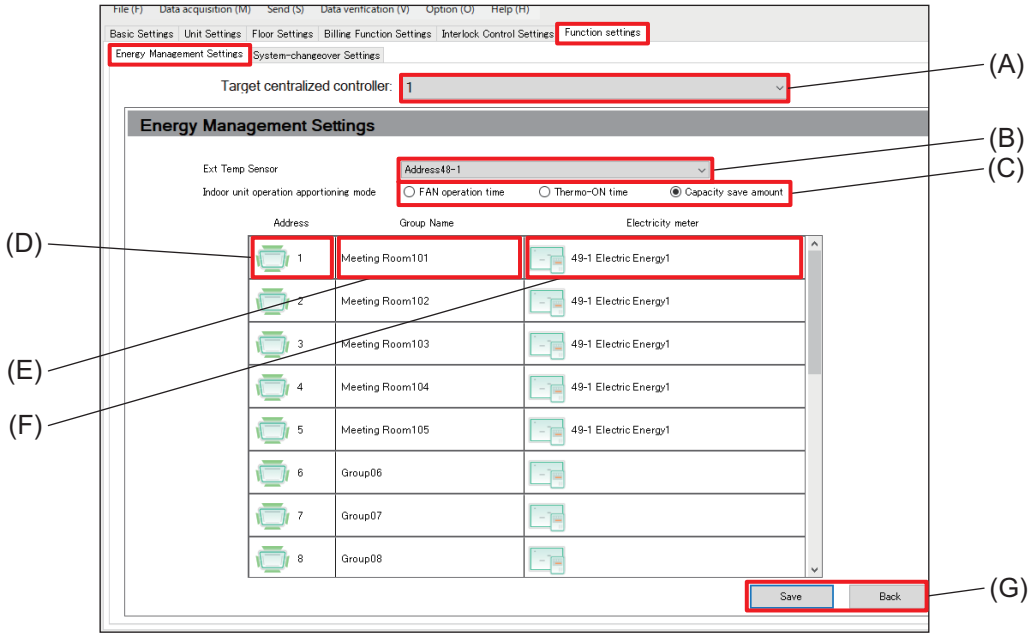
*1 If the interlocked unit is a LOSSNAY group with 24 hour ventilation function or an OA handling unit (direct expansion type with built-in heater/humidifier), setting 24 hour ventilation operation is not possible. Note that if set to OFF, 24 hour ventilation operation will turn OFF by interlock control.

*2 Some settings may not be available depending on the models of connected indoor units.
When configuring interlock actions, be sure to make settings that are available to the interlocked units.

16-6. Menu tab: Function settings

16-6-1. Sub menu tab: Energy Management Settings

Register external temperature sensors, apportioning modes, and watthour meters.
Tapping **[Function settings]** - **[Energy Management Settings]** will display the Energy Management Settings screen.

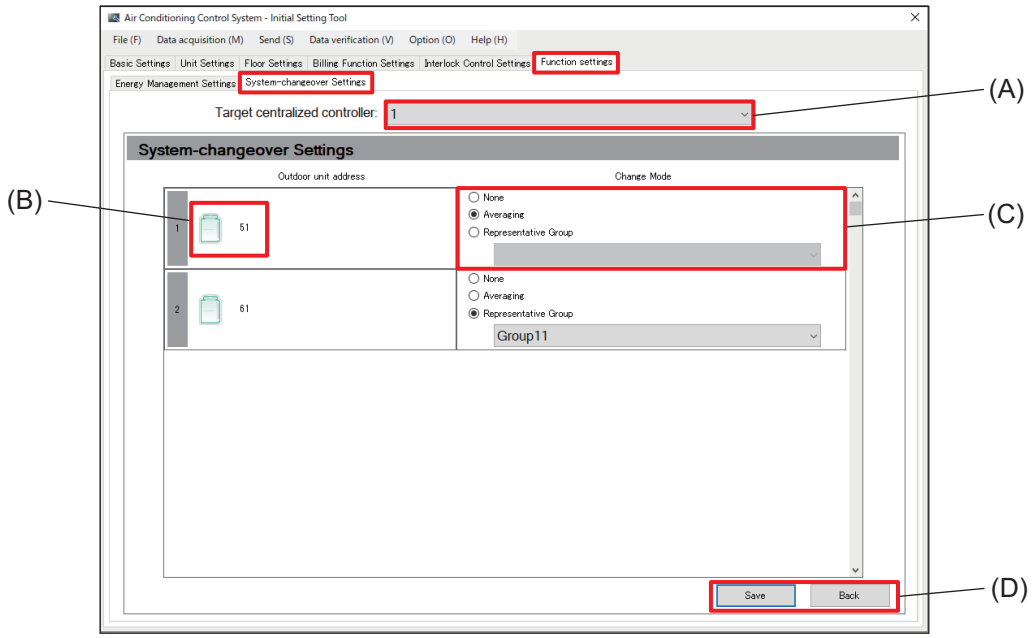


	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Ext Temp Sensor	Select the temperature sensor used to measure the outside temperature from the pull-down list. The pull-down list shows temperature sensors connected to the AI controller.
(C)	Indoor unit operation apportioning mode	Select the method used to calculate the operation times of indoor units used for apportioning the power consumption displayed on the Energy Management screen.
(D)	Address	The M-NET addresses of the indoor units are displayed.
(E)	Group Name	Group names are displayed.
(F)	Electricity meter	Set the electricity meter to be used for billing.
(G)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

MEMO

16-6-2. Sub menu tab: System-changeover Settings

Configure system-changeover settings. The system-changeover function automatically switches the mode (cooling or heating) of indoor units connected to the same outdoor unit based on the room temperature and set temperature.
The system-changeover function can be used for Y-series outdoor units without the Auto mode. Use this function such as for turning on the heating in the morning and switching to cooling all at once in the afternoon. Because the modes of all indoor units are switched automatically, there is no need to manually switch modes using the remote control.
Tapping [**Function settings**] - **[System-changeover Settings]** will display the System-changeover Settings screen.



	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Outdoor unit address	The M-NET addresses of the outdoor units are displayed.
(C)	Change Mode	Select the control mode. If Representative Group is selected, select the representative group from the pull-down list.
(D)	**[Save]/[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

Step

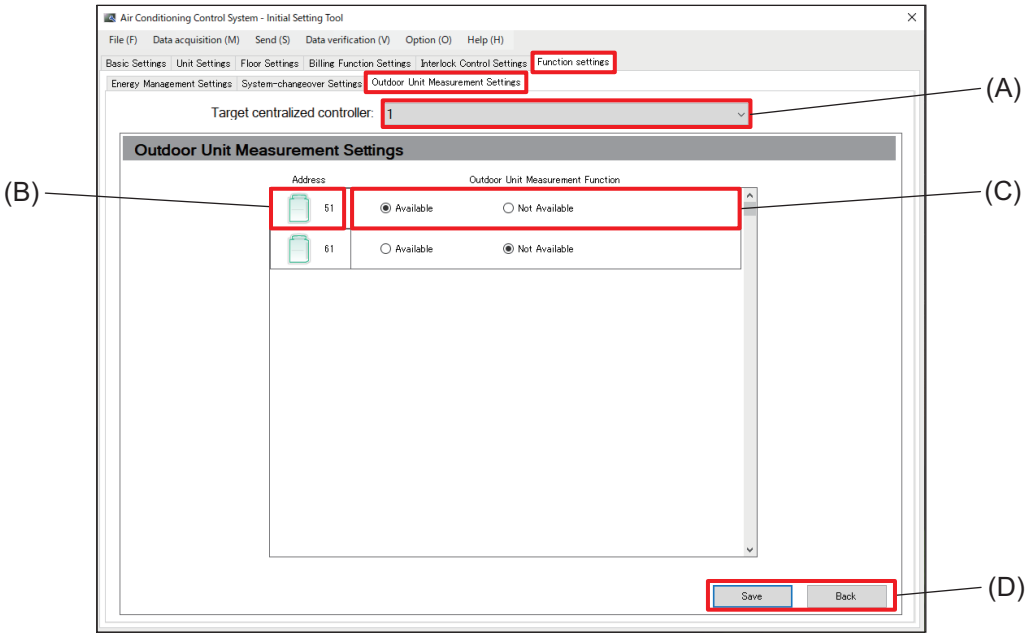
1. Referring to the following table, select a mode under Change Mode (C).
   If Representative Group is selected, select the representative group from among the groups.

Change Mode	Function and description
None	The system-changeover function is not used.
Averaging	The mode (cooling or heating) is switched by considering the difference between the set temperatures and room temperatures of all indoor groups connected to the outdoor unit, as well as the capacity values of each indoor unit included in the indoor group. • Modes cannot be switched for groups that are OFF or operating in Fan mode or Auto mode.
Representative Group	The mode (cooling or heating) is switched depending on the difference between the set temperature of the representative group and the room temperature. • If air conditioning units in the representative group are OFF or operating in Fan mode or Auto mode, the system will be controlled in Averaging mode instead of Representative Group mode.

2. After completing the setting, tap **[Save]** (D).

16-6-3. Sub menu tab: Outdoor Unit Measurement Settings

Register the measurement settings of outdoor units.
Tapping **[Function settings]** - **[Outdoor Unit Measurement Settings]** will display the Outdoor Unit Measurement Settings screen.



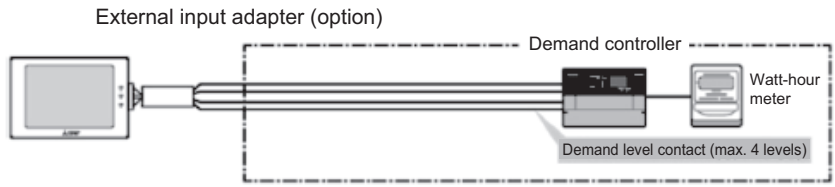
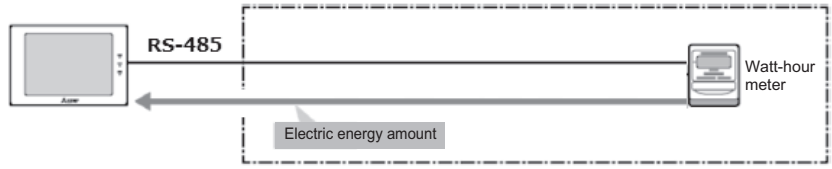
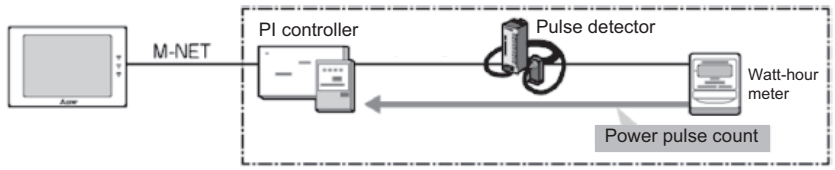
	Item	Function and description
(A)	Target centralized controller	Select the number of the AE-C/EW-C controller from the pull-down list.
(B)	Address	The M-NET addresses of the outdoor units are displayed.
(C)	Outdoor Unit Measurement Function	Select to enable or disable the function.
(D)	**[Save]**/**[Back]**	After completing the setting, tap **[Save]**. To cancel the setting, tap **[Back]**.

MEMO

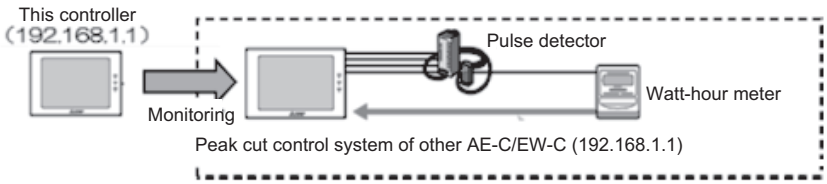
17. Supplementary information (Initial settings)

17-1. Input method for peak cut control

To use the peak cut control, power pulses or demand levels need to be input to the controller.

	Peak cut control method	Remarks
1	External contact input (Input image) 	A method in which control level signals from the demand controller are directly input to the controller.
2	Modbus watt-hour meter (Input image) 	A method in which the amount of electric energy is directly input from a Modbus (RS-485) watt-hour meter to the controller.
3	PI controller input (Input image) 	A method in which power pulses are input to a PI controller and the controller predicts the control level.

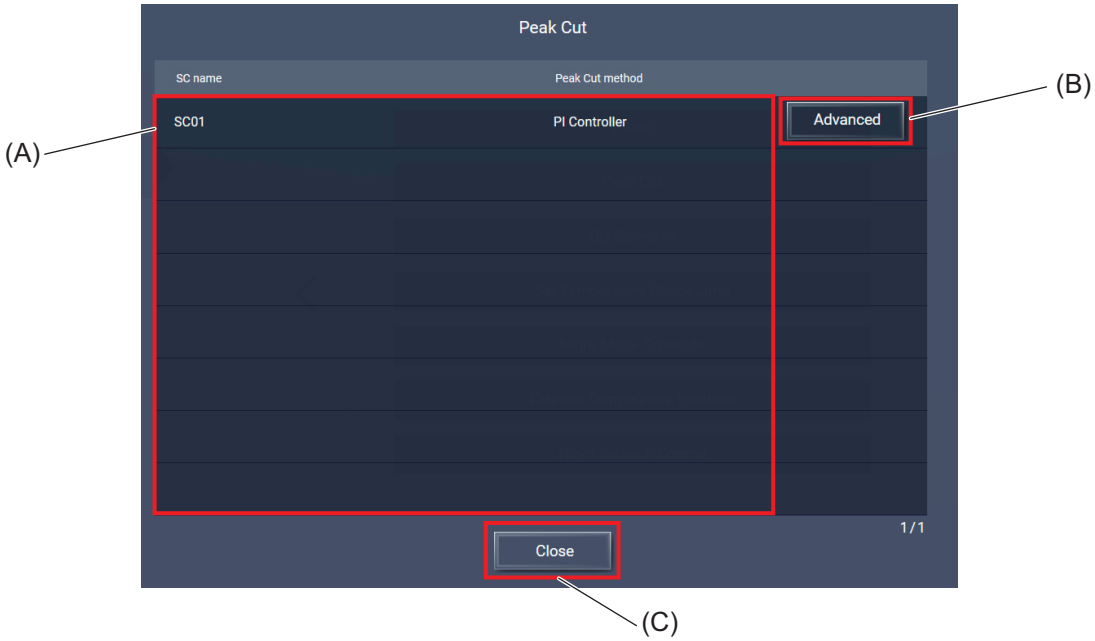
When the above inputs are made to other AE-C/EW-C controllers connected via LAN, their peak cut control levels can be referenced.
(Input image)



17-1-1. Settings for peak cut control method (energy saving control)

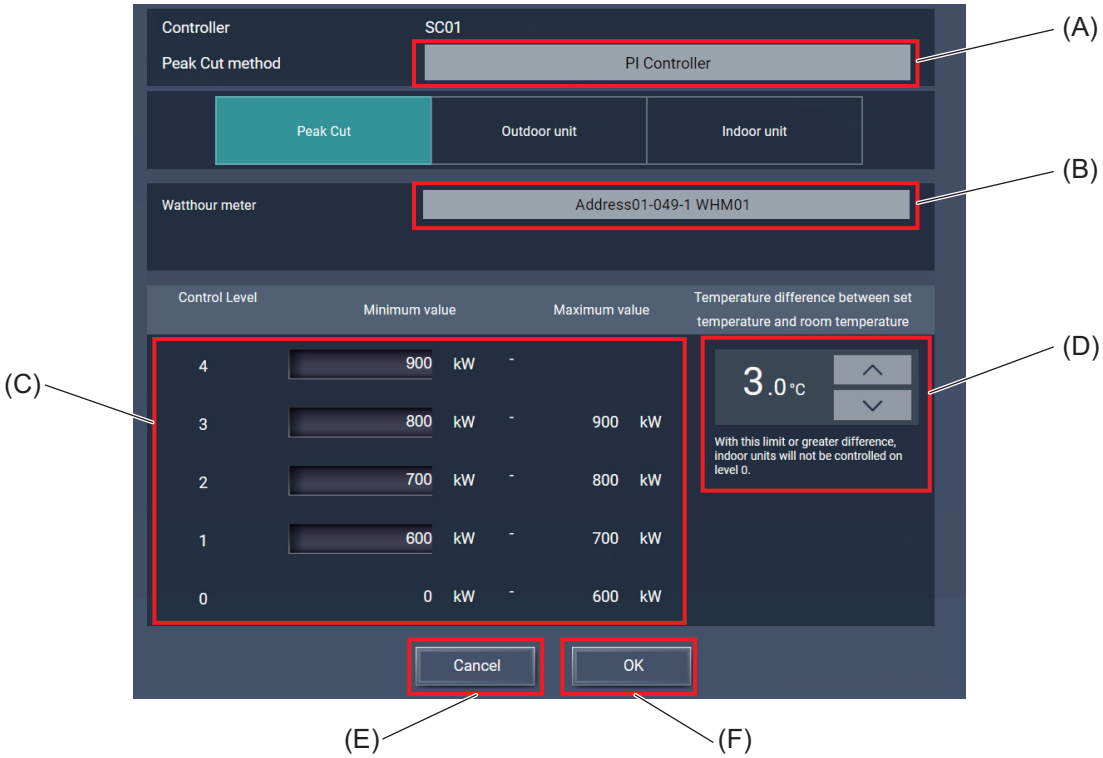
For energy saving control, the control level is determined from the demand level and electric energy value according to the selected peak cut method, and the outdoor/indoor units are operated at the capacity appropriate to the control level.

Tap **[Settings]** on the operation management screen and then tap **[Function]** to display the function settings screen. Tap **[Peak Cut]** to display the peak cut settings screen.

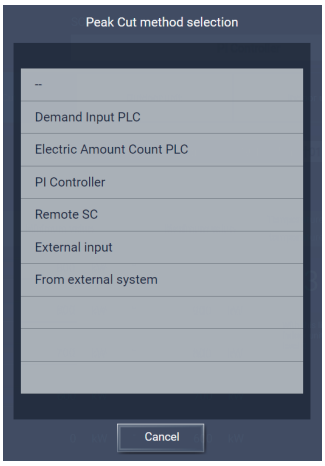


	Item	Function and description
(A)	AE-C/EW-C settings	The numbers and names of the AE-C/EW-C controllers to be displayed and the selected peak cut method are displayed.
(B)	**[Advanced]**	Tapping this button will display the peak cut control settings screen.
(C)	**[Close]**	Tapping this button will close the settings screen and display the function settings screen.

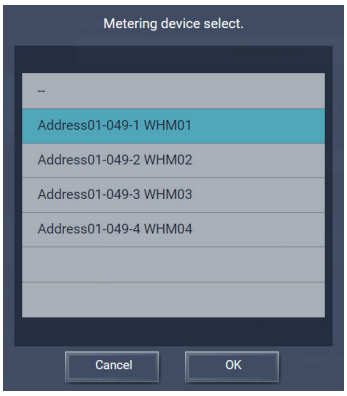
[1] When the use of PI controller is selected



(A-1)



(B-1)

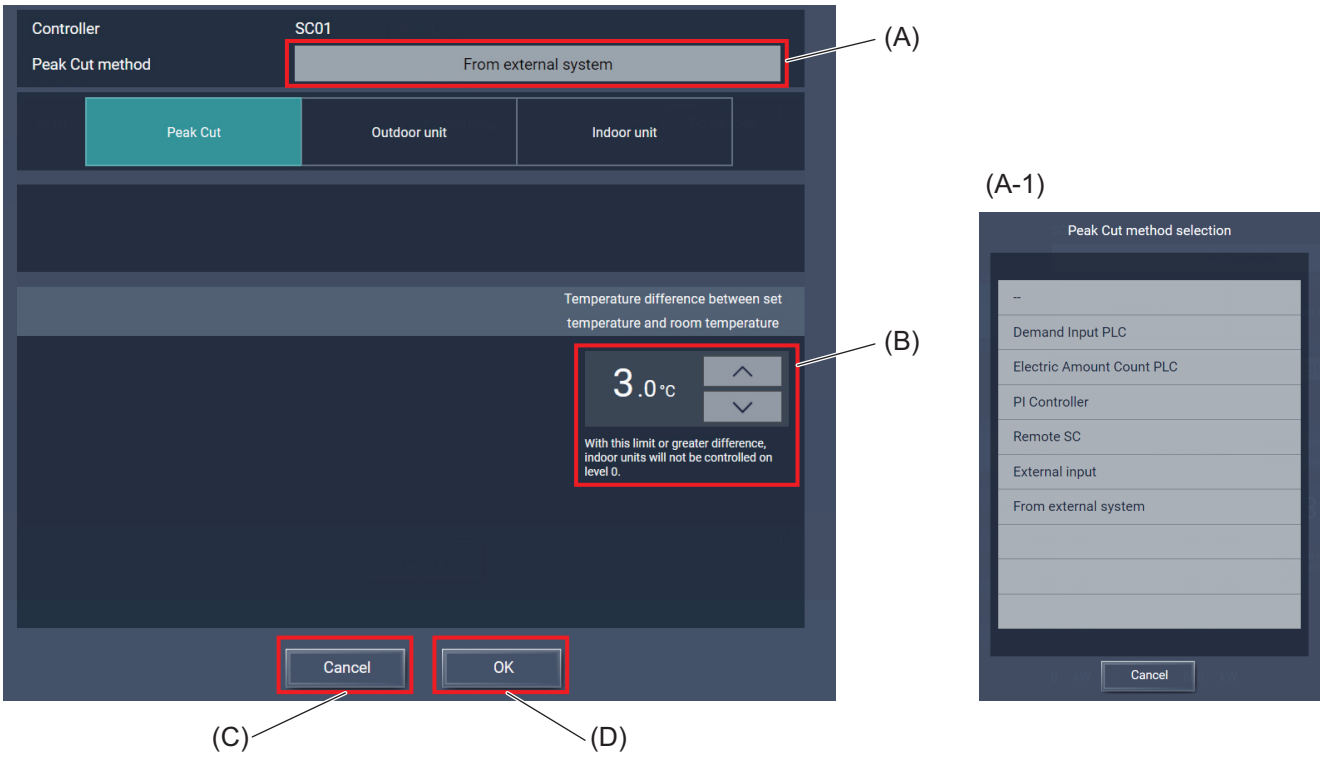


	Item	Function and description
(A)	Peak Cut method selection	The peak cut method selected for the AE-C/EW-C is displayed. Tapping this item will display the Peak Cut method selection dialog (A-1).
(A-1)	Peak Cut method selection dialog	Tapping a method will enable that method and display the peak cut control settings screen. When you don't change the selection, tap **[Cancel]**.
(B)	Watthour meter	The selected watt-hour meter is displayed. Tapping this item will display the Metering device select. dialog (B-1).
(B-1)	Metering device select. dialog	Select a watt-hour meter and tap **[OK]**, and the selection will become effective and the peak cut control settings screen will be displayed. When you don't change the selected watt-hour meter, tap **[Cancel]**.
(C)	Control level threshold settings	Set the threshold for each control level.

	Item	Function and description
(D)	Temperature difference between set temperature and room temperature	Set the threshold of the temperature difference between the set temperature and room temperature at which the energy saving control is disabled. The energy saving control is not performed on the indoor unit group of which temperature difference between the set temperature and room temperature is greater than the threshold with the control level 0.
(E)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(F)	**[OK]**	Tap this button to save the setting changes.

[2] When external contact input method or other system method is selected

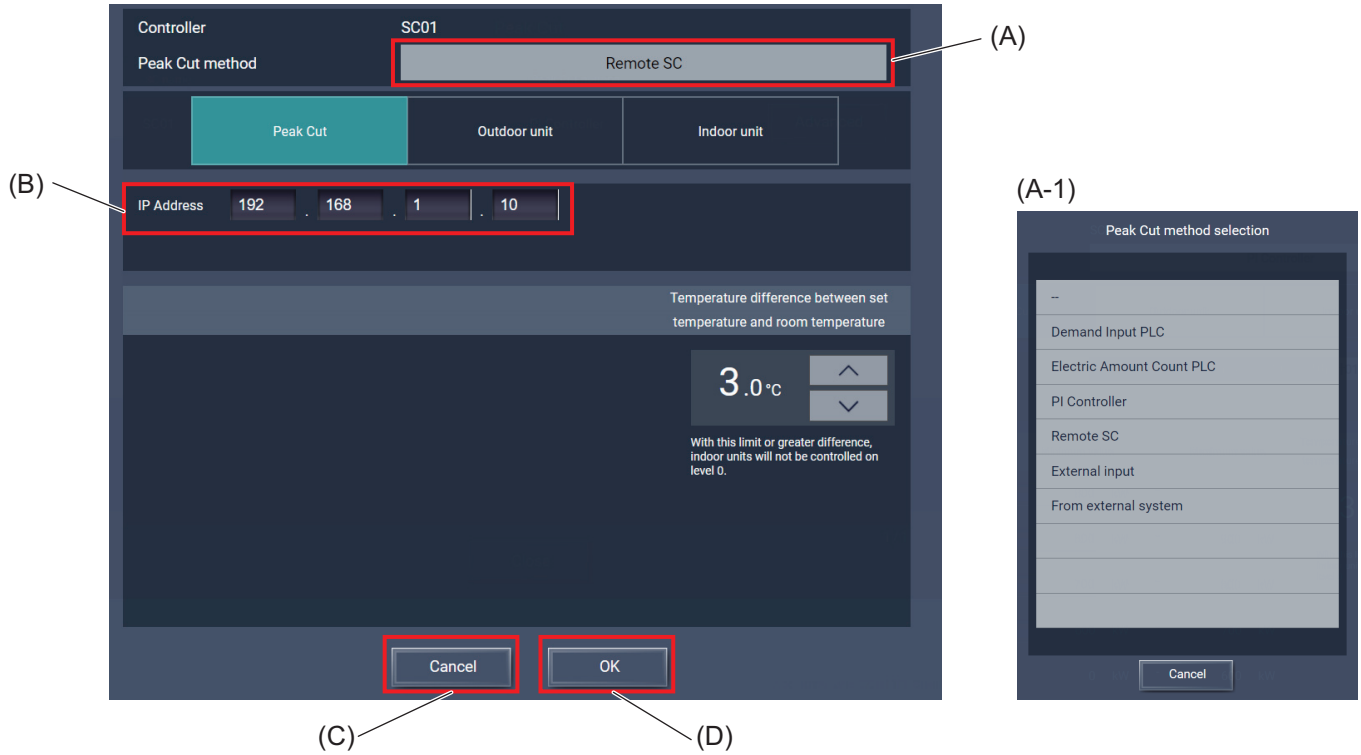
To perform demand control by inputting a level signal from a demand controller to the external input terminal on the controller, or by inputting a level signal from other systems such as EcoServer to the controller via LAN, the demand value setting (including setting of restrictions and control operations) needs to be done on the demand controller or EcoServer.



	Item	Function and description
(A)	Peak Cut method selection	The peak cut method selected for the AE-C/EW-C is displayed. Tapping this item will display the Peak Cut method selection dialog (A-1).
(A-1)	Peak Cut method selection dialog	Tapping a method will enable that method and display the peak cut control settings screen. When you don't change the selected method, tap **[Cancel]**.
(B)	Temperature difference between set temperature and room temperature	Set the threshold of the temperature difference between the set temperature and room temperature at which the energy saving control is disabled. The energy saving control is not performed on the indoor unit group of which temperature difference between the set temperature and room temperature is greater than the threshold with the control level 0.
(C)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(D)	**[OK]**	Tap this button to save the setting changes.

[3] When other SC method is selected

Demand levels can be input to the controller via LAN from other AE-C/EW-C controllers that have been selected for demand input.
The IP addresses of the input source AE-C/EW-C controllers need to be set.
Up to 10 other AE-C/EW-C controllers can be connected. For 11 or more controllers, prepare another AE-C/EW-C to set another demand input.

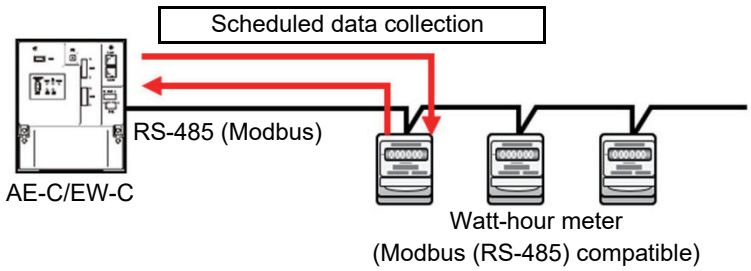


	Item	Function and description
(A)	Peak Cut method selection	The peak cut method selected for the AE-C/EW-C is displayed. Tapping this item will display the Peak Cut method selection dialog (A-1).
(A-1)	Peak Cut method selection dialog	Tapping a method will select that method and display the peak cut control settings screen. When you don't change the selected method, tap **[Cancel]**.
(B)	IP address of SC	Set the IP address of the AE-C/EW-C to which a watt-hour meter or a demand controller used for peak cut control is connected.
(C)	Temperature difference between set temperature and room temperature	Set the threshold of the temperature difference between the set temperature and room temperature at which the energy saving control is disabled. The energy saving control is not performed on the indoor unit group of which temperature difference between the set temperature and room temperature is greater than the threshold with the control level 0.
(D)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(E)	**[OK]**	Tap this button to save the setting changes.

17-2. Modbus watt-hour meter

17-2-1. Summary

By connecting a watt-hour meter that supports Modbus communication, you can collect electric energy data.



17-2-2. Specified watt-hour meter

(As of July 2024)

Model	Manufacturer
EM210, EM340	Carlo Gavazzi

17-2-3. Basic settings

Before using a Modbus watt-hour meter connected to the controller, make the following settings.

Controller settings

(1) Modbus connection settings (Refer to 16-2-10. Sub menu tab: Modbus Connection.)

1) Modbus address: Set the address in order from 1.
2) Name: Set an easy-to-understand watt-hour meter name.
3) Model: Select the model (model name) of the watt-hour meter to be connected.

(1) Modbus connection settings (Refer to 16-1-3. Sub menu tab: Basic System.)

1) Baud rate: 19200
2) Stop bit: 1
3) Parity bit: EVEN

Watt-hour meter settings

Make the following settings, referring to the instruction manual for the watt-hour meter.

(1) Communication settings

(2) Termination resistance (when the watt-hour meter is the last terminal)

17-2-4. Specifications

Item	Specifications
Communication system	RS-485 2-wire half-duplex communication
Synchronization method	Start-stop synchronization
Communication protocol	Modbus RTU (binary data communication)
Baud rate	19200 (default), 9600, 38400, 57600, 115200 bps
Bit length	8 bits
Stop bit	1 (initial value), 2 bit
Parity bit	EVEN (default), ODD, NONE
Termination resistance	120 Ω, built-in (non-removable) Install the controller as a terminal. Attach a termination resistor to the watt-hour meter located at the end of the transmission line.
Topology	Cascade connection (cross-wiring) (Star wiring and midway branching are not acceptable.)
Number of units connected	Max. 4 units
Address setting	Watt-hour meter 1 to 4

17-2-5. Transmission distance

Refer to the related technical manual.

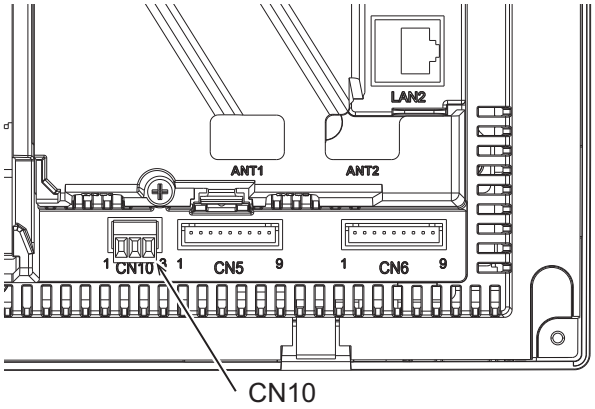
Note

- After making settings, check that data are input correctly.

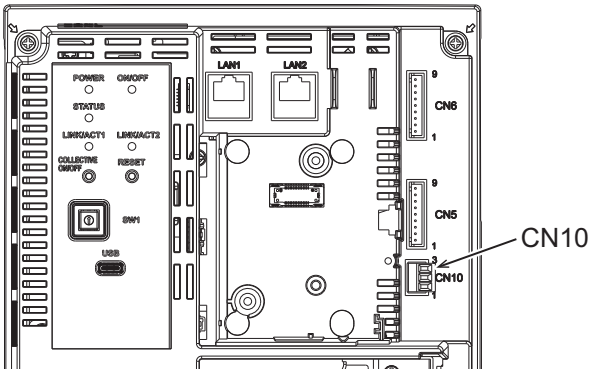
17-2-6. Connection

- Connector on the controller
  Connect the cable to CN10. For the location of the connector, refer to the Installation Manual supplied with the controller.

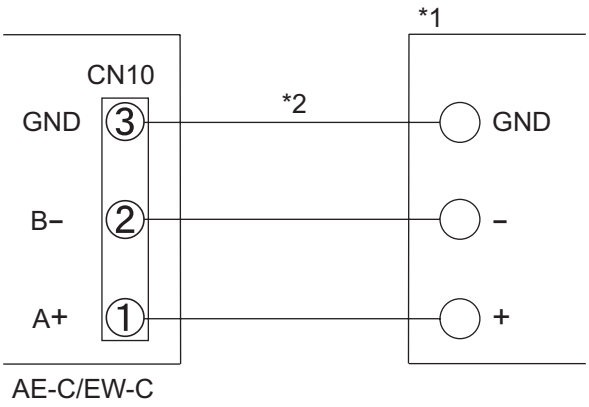
AE-C



EW-C



- Wiring
  Connect the controller and the watt-hour meter with a twisted pair cable.
  Be sure to check the polarity of the terminal before connecting the cable.



*1 Watt-hour meter

*2 Connect both twisted pair wires for GND to GND.
When using a shielded wire, connect the shield to GND.

17-3. External input/output settings

17-3-1. External input/output

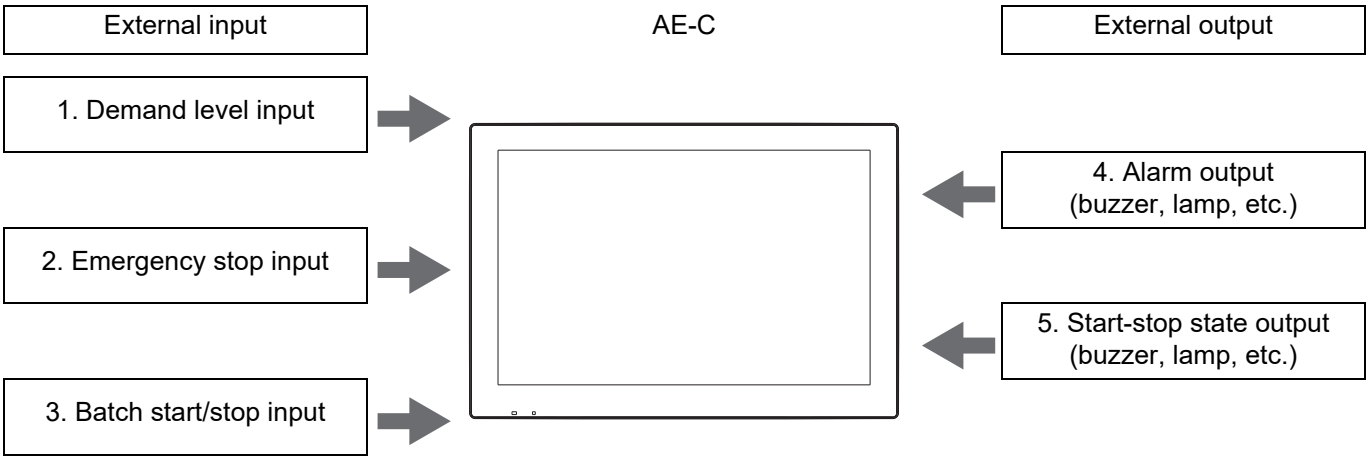
Configure external input and output settings as needed.

[1] Summary of external input/output

The controller is equipped with an external input/output function that allows batch start/stop control and emergency stop of the units by external signal input, as well as notification of the unit's operation status and error conditions by external signal output.

- To use external input and output, select one mode used for each.
- External I/O signals should be connected to CN5 or CN6 on the controller via an external I/O adapter (option).
- For connection, refer to the installation manuals included with the external input/output device.

(1) Image of use



(2) Setting

For setting, refer to the specified page. "System configuration settings (page 156)"

(3) External signal input specifications

CN5	Lead wire (PAC-YG10HA-E)	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5
		Demand mode (Level signal)	Emergency Stop (Level signal)	Emergency Stop/ Restoration mode (Level signal)	ON/OFF (Level signal)	ON/OFF/ Prohibit/Permit (Pulse signal)
No.5	Orange	Demand Level 1	Emergency stop/ normal input	Emergency stop/ normal input	ON/OFF	ON input
No.6	Yellow	Demand Level 2	Demand Level 2	Demand Level 2	Not used	OFF input
No.7	Blue	Demand Level 3	Demand Level 3	Demand Level 3	Not used	Local remote controller operation prohibit input
No.8	Gray	Demand Level 4	Demand Level 4	Demand Level 4	Not used	Local remote controller operation enable input
No.9	Red	External DC source “+ 12 VDC” or “+ 24 VDC”				

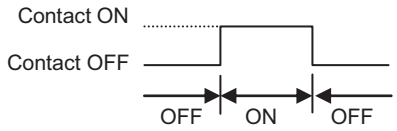
(4) Operations of external signal input

Mode	Setting mode	Equipment	Description
Mode 1	Demand mode (Level signal)	Air conditioners	The use of the level signal: • enables selection of the “demand level 1 to 4” input from 4 levels. (When no external signal is input, use Mode 1.)
		HWHP (CAHV, CRHV, QAHV) unit	Non-controllable
		Chiller unit	Non-controllable
Mode 2	Emergency stop (Level signal)	Air conditioners	The use of the level signal: • enables selection of the “demand level 2 to 4” input from 3 levels, • stops all air conditioners connected to each line of AE-C/EW-C when “emergency stop” is input, • prohibits the starting/stopping operation from a remote controller and prohibits the starting/ stopping operation and prohibition/permission setting on AE-C/EW-C when “emergency stop” is input, and • discontinues the scheduled operation, night setback control and night purge operation and interlock control when the system is stopped.
		HWHP (CAHV, CRHV, QAHV) unit	Non-controllable
		Chiller unit	Non-controllable
Mode 3	ON/OFF (Level signal)	Air conditioners	The use of the level signal (emergency stop): • starts and stops all air conditioners connected to each line of AE-C/EW-C when “ON/OFF” is input, • prohibits the starting/stopping operation from a remote controller and prohibits the starting/ stopping operation and prohibition/permission setting on AE-C/EW-C when “ON/OFF” is input, and • discontinues the scheduled operation, night setback control and night purge operation and interlock control.
		HWHP (CAHV, CRHV, QAHV) unit	Non-controllable
		Chiller unit	Non-controllable
Mode 4	ON/OFF/ Prohibit/ Permit (Pulse signal)	Air conditioners	The use of the pulse signal: • starts and stops all air conditioners connected to each line of AE-C/EW-C when “ON/ OFF” is input, and • prohibits or permits the operation of the air conditioners connected to each line of AE-C/ EW-C from a remote controller when “prohibition/permission” is input.
		HWHP (CAHV, CRHV, QAHV) unit	Non-controllable
		Chiller unit	Non-controllable

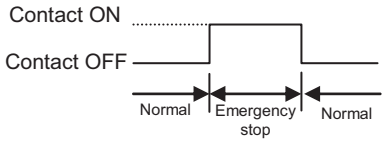
(5) Level signal and pulse signals (12 or 24 VDC)

(A) Level signal

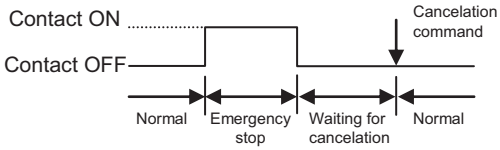
In the case of level signal ON/OFF



In the case of emergency stop/normal

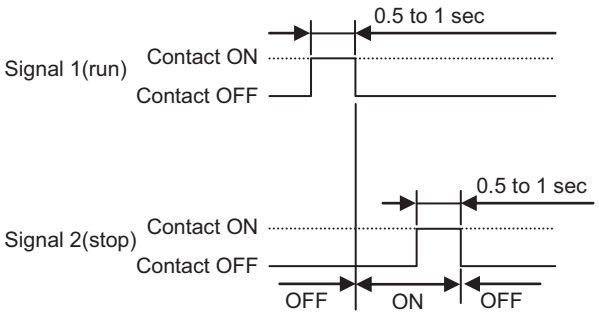


In the case of restoration from emergency stop/normal



(B) Pulse signal

In the case of ON/OFF (The prohibit/enable input is the same)



Note: The pulse width of the contact must be 0.5 to 1 sec.

(6) External signal output specifications

CN5	Lead wire (PAC-YG10HA-E)	Signal
No. 3	Brown	Error signal, Normal signal
No. 2	Black	ON signal*, OFF signal
No. 1	Green	Common ground for external output (Ground for the external power supply)

* The operation status of general equipment (via a DIDO controller (PAC-YG66DCA)) will not be output.
* The ON signal will be output even during an error.

(7) Operation of external signal output

Setting	Description
Start/stop output Abnormal/normal state output	(Air conditioners) • The operating state and error state of air conditioners connected to all lines of AE-C/EW-C are output with level signals. When one or more air conditioners are operating, the ON signal is output. When one or more air conditioners are in trouble, the Error signal is output.

18. Initial settings: [Billing] Operation

<<This section is currently in production.>>

19. Initial settings: [Billing] Initial Setting Tool

<<This section is currently in production.>>

20. Initial settings: [Billing] Verification

<<This section is currently in production.>>

MEMO

21. Initial settings: configuring the LCD screen

21-1. Initial settings

21-1-1. Logging into the initial settings screen

The user name and password for logging in to the initial settings are as follows (factory default).

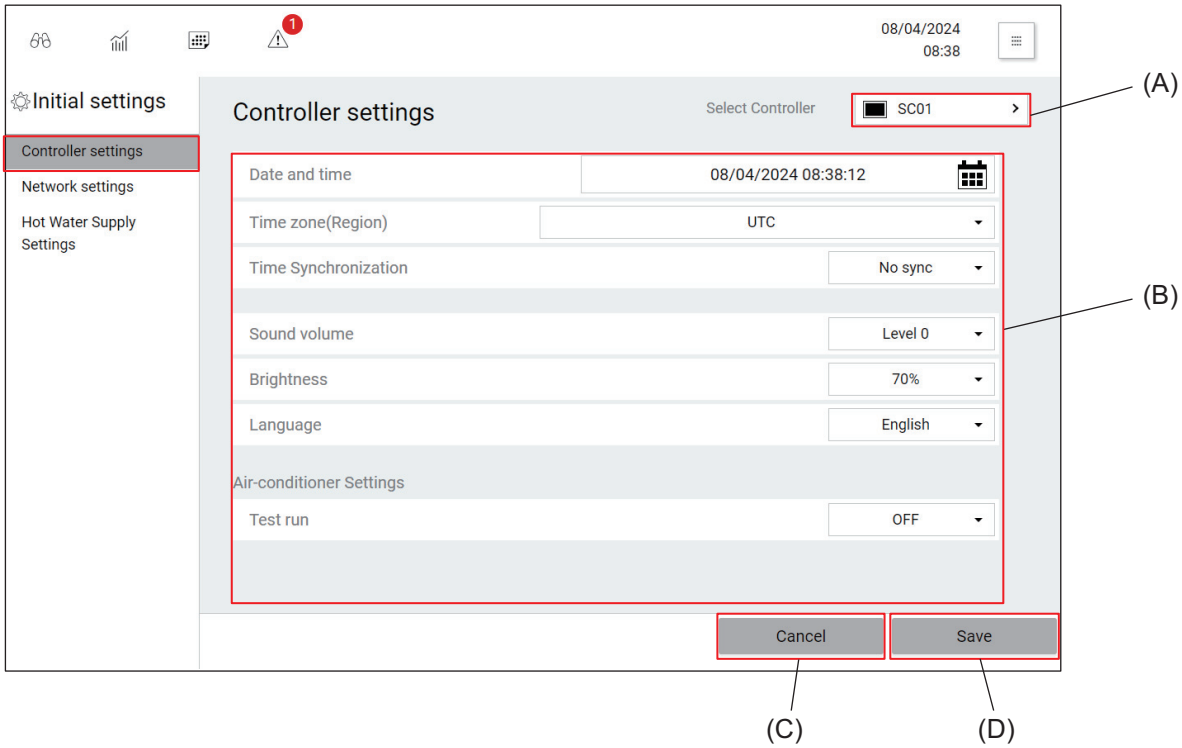
User	Initial user name	Initial password	Available functions
Commissioning user	initial	*1	All functions
Manager	administrator	*1	All functions

*1 For the initial password, refer to the specified page. "About this manual (page 8)"

21-2. Controller settings

21-2-1. Controller settings screen (common areas)

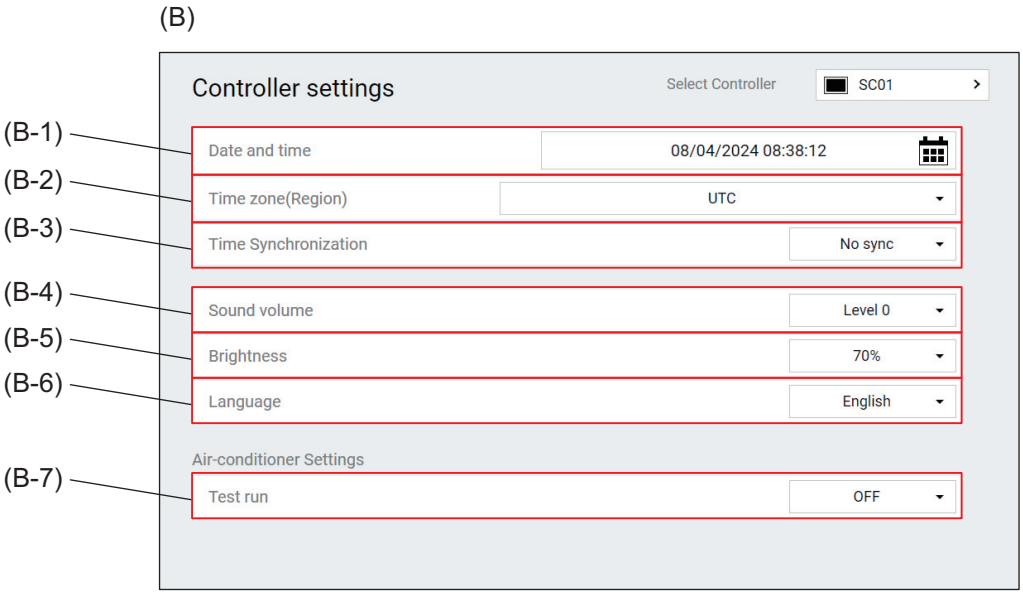
Configure controller settings.



	Item	Function and description
(A)	Select Controller	Select the AE-C/EW-C to be configured.
(B)	Setting item details	Configure controller settings.
(C)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(D)	**[Save]**	Tap this button to save the setting changes.

[1] Setting item details

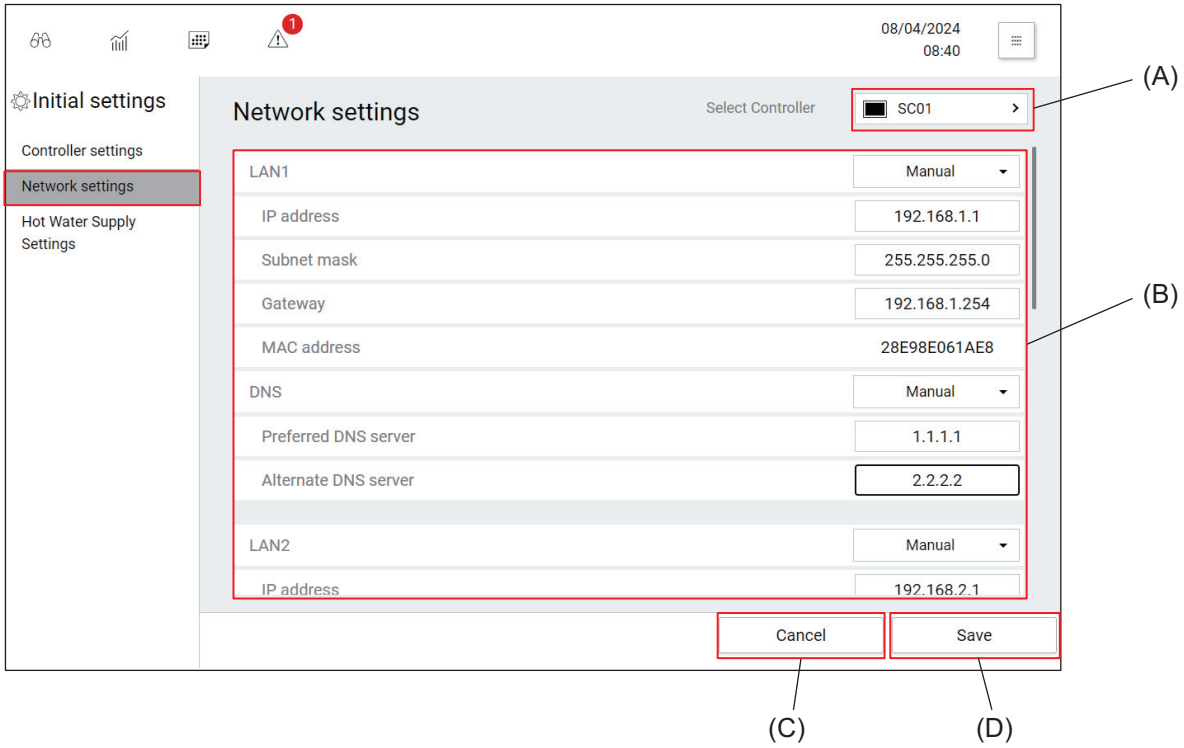
Details of each setting item are as follows.



	Item	Function and description
(B-1)	Date and time	Manually set the date and time of the AE-C/EW-C.
(B-2)	Time zone (Region)	Set the time zone in which the AE-C/EW-C is used.
(B-3)	Time Synchronization	Set the time synchronization method. No sync, System control equipment/NTP
(B-4)	Sound volume	Adjust the volume of the sound made when the LCD screen is tapped. Any edits to this setting will be immediately applied. Level 0 to 3 (0: Mute, 3: Max.)
(B-5)	Brightness	Set the LCD screen brightness. The higher the number, the brighter the LCD screen. Any edits to this setting will be immediately applied. 70%, 80%, 90%, 100%
(B-6)	Language	Set the controller display language.
(B-7)	Test run	Set whether to turn ON or OFF the air conditioning unit test run.

21-2-2. Network settings screen

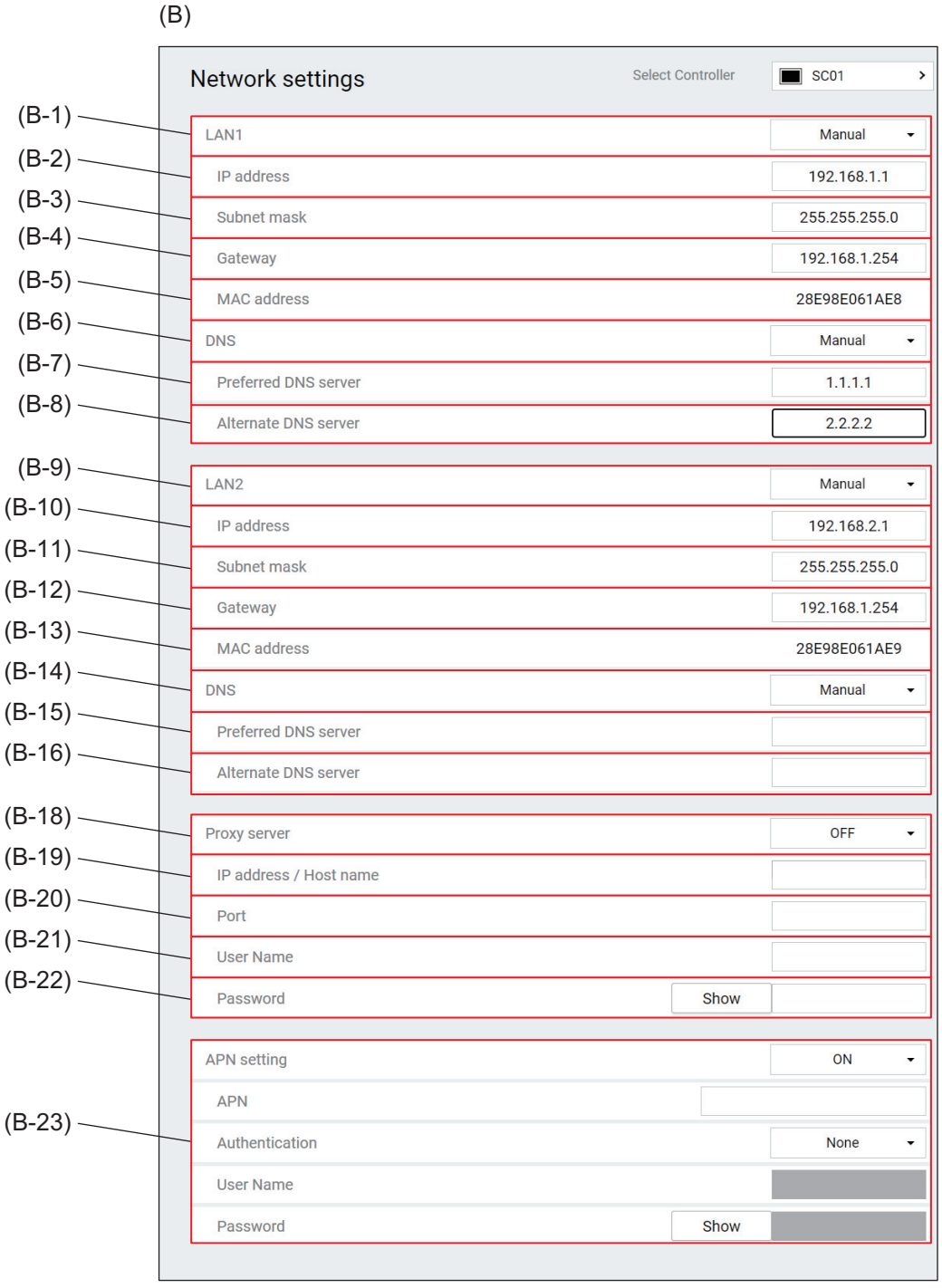
Configure network settings such as the IP address and subnet mask for LAN ports 1 to 2 on the controller, as well as proxy server settings and APN settings.



	Item	Function and description
(A)	Select Controller	Select the AE-C/EW-C to be configured.
(B)	Setting item details	Configure network settings.
(C)	**[Cancel]**	Tap this button to go back to the previous screen without saving the setting changes.
(D)	**[Save]**	Tap this button to save the setting changes.

[1] Setting item details

Details of each setting item are as follows.



	Item	Function and description
LAN1		
(B-1)	LAN1	Set the configuration method for the IP address, subnet mask, and gateway. Manual, Auto (DHCP)
(B-2)	IP address	Set the IP address, subnet mask, and gateway. • If (B-1) is set to Auto (DHCP), the IP address, subnet mask, and gateway assigned by the DHCP will be displayed. • If (B-1) is set to Manual, the IP address, subnet mask, and gateway manually set will be displayed.
(B-3)	Subnet mask	
(B-4)	Gateway	
(B-5)	MAC address	The MAC address is displayed.
(B-6)	DNS	Set the DNS configuration method. Manual, Auto (DHCP)
(B-7)	Preferred DNS server	Set the preferred DNS server and alternate DNS server. • If (B-6) is set to Auto(DHCP), the preferred DNS server and alternate DNS server assigned by the DHCP will be displayed. • If (B-6) is set to Manual, the preferred DNS server and alternate DNS server manually set will be displayed.
(B-8)	Alternate DNS server	
LAN2		
(B-9)	LAN2	Set the configuration method for the IP address, subnet mask, and gateway. Manual, Auto (DHCP)
(B-10)	IP address	Set the IP address, subnet mask, and gateway. • If (B-9) is set to Auto (DHCP), the IP address, subnet mask, and gateway assigned by the DHCP will be displayed. • If (B-9) is set to Manual, the IP address, subnet mask, and gateway manually set will be displayed.
(B-11)	Subnet mask	
(B-12)	Gateway	
(B-13)	MAC address	The MAC address is displayed.
(B-14)	DNS	Set the DNS configuration method. Manual, Auto (DHCP)
(B-15)	Preferred DNS server	Set the preferred DNS server and alternate DNS server. • If (B-14) is set to Auto(DHCP), the preferred DNS server and alternate DNS server assigned by the DHCP will be displayed. • If (B-14) is set to Manual, the preferred DNS server and alternate DNS server manually set will be displayed.
(B-16)	Alternate DNS Server	
Proxy server		
(B-18)	Proxy server	Set the proxy server to ON or OFF.
(B-19)	IP address / Host name	Set the IP address or host name.
(B-20)	Port	Set the port number.
(B-21)	User Name	Set the user name.
(B-22)	Password	Set the password.
APN setting		
(B-23)		Do not set these items.

21-2-3. System controller update screen

[1] Before updating

(1) PC environment settings

Software updates can be performed via a Web browser or USB flash drive. The AE-C can be updated by either way.

When updating via a Web browser, configure the PC as follows.

1) Installing .NET Framework
   For details, refer to the specified page. ".NET Framework installation procedure (page 234)"
2) Installing the Initial Setting Tool
   For details, refer to the specified page. "Initial Setting Tool installation procedure (page 228)"
3) Importing the root CA certificate
   For details, refer to the specified page. "Importing the root CA certificate (page 234)"
4) Setting the IP address of the computer
   For details, refer to the specified page. "Setting the PC IP address (page 232)"

(2) Obtaining consent from customers in advance

Before performing a software update, inform the customer of the following and obtain their consent.

1) The following control functions will not operate during the software update.
   Perform the update by first considering what impact it will have on the following functions.
   - Schedule control
   - Billing data processing
   - Peak cut
   - Energy management function
   - Measurement pulse input function
   - Demand control signal via LAN or contact / External input/output

2) In the case of system configurations without local remote controllers or Mr. SLIM models, inform the customer that air conditioning units may experience an abnormal stoppage during the update.
   For configurations other than above, although the local remote controller of the air conditioning unit may display an error, the air conditioning unit will continue operating and can be controlled by the local remote controller.

(3) Preparing for the update

1) Acquire the update file (AC_FW####.dat).
   Note: #### can be any number (software version).

2) If multiple AE-C/EW-C controllers are connected, update all of them.
   If using a PC for initial settings, update the Initial Setting Tool as well.

3) If using the following functions, perform the update outside of hours in which updating is prohibited.

Available functions	Hours during which update is prohibited
Apportioned billing function (using Charge Calculation Tool)	5:00 a.m. to 5:10 a.m.
PI controller usage	12:00 a.m. to 12:05 a.m.
Energy management data	11:50 p.m. to 12:20 a.m.

(4) Precautions during updates

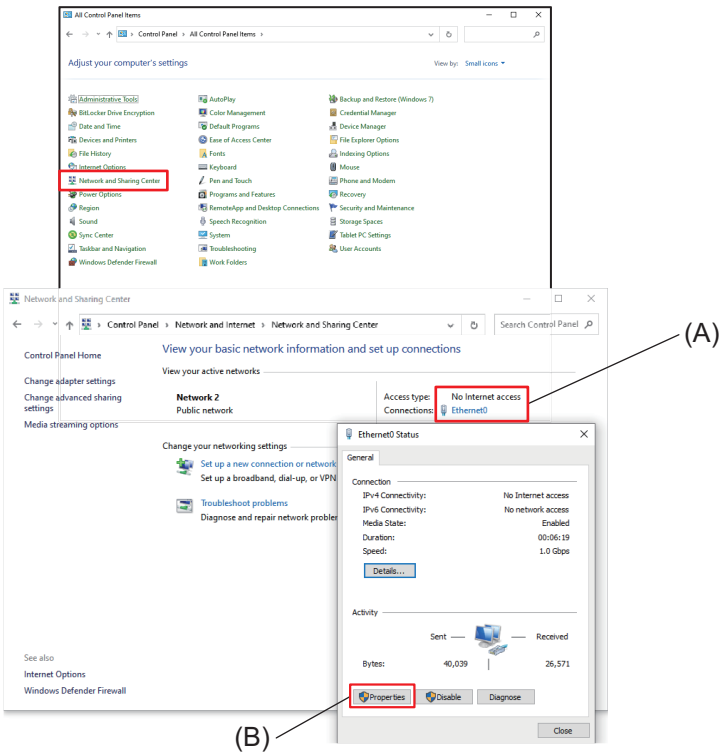
1) Do not turn off the AE-C/EW-C during the AE-C/EW-C update.
2) If using a USB flash drive:
   - Do not remove the USB flash drive until the update is complete.
   - Do not insert and then immediately remove the USB flash drive.
     Doing so may prevent the controller from recognizing the USB flash drive.

[2] Software updates using a Web browser

(1) Setting the IP address of the update PC

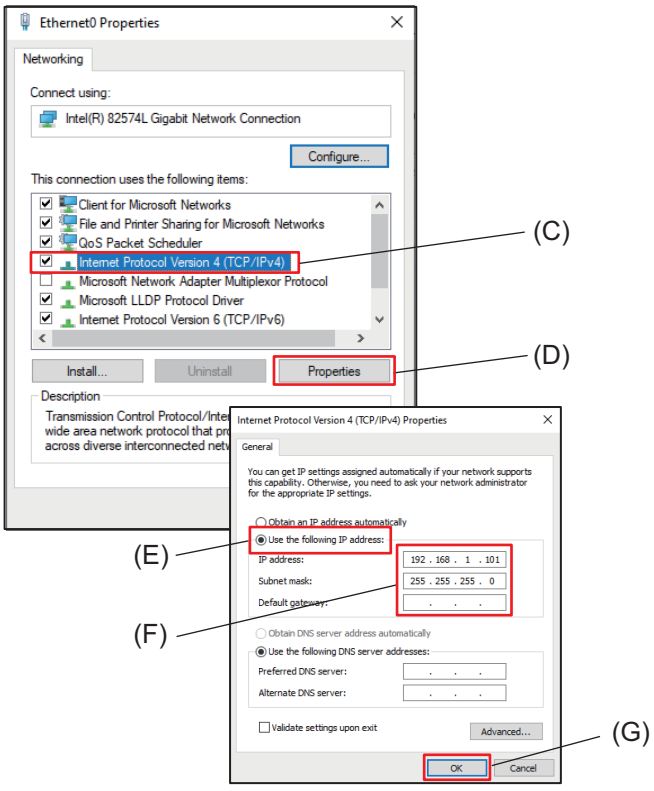
Check that the update PC satisfies the requirements given in "PC environment (page 239)".
Set the IP address of the update PC so that it can connect to the AE-C/EW-C via LAN.

For update using a Web browser on a PC that is connected to an internal LAN, request your network administrator to provide the IP address, subnet mask, etc.



Step

1. Tap [Control Panel] on the Start menu to open the Control Panel.
2. Tap [Network and Sharing Center].
3. Tap (A).
4. Tap (B).
5. Select (C) and tap (D).
6. Select (E).



7. In (F), enter the IP address and subnet mask.

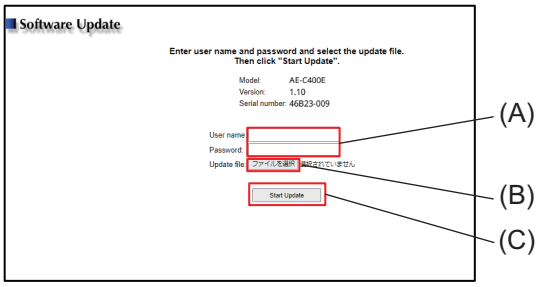
The factory default IP address of the AE-C/EW-C is 192.168.1.1.

If the IP address of the AE-C/EW-C is 192.168.1.1, set the IP address to 192.168.1.2 by entering the same value up to the third digit and making the fourth digit different.

If no particular subnet mask is specified, enter 255.255.255.0.

8. Enter a default gateway if necessary.
9. Tap (G).

(2) Update operation



Step

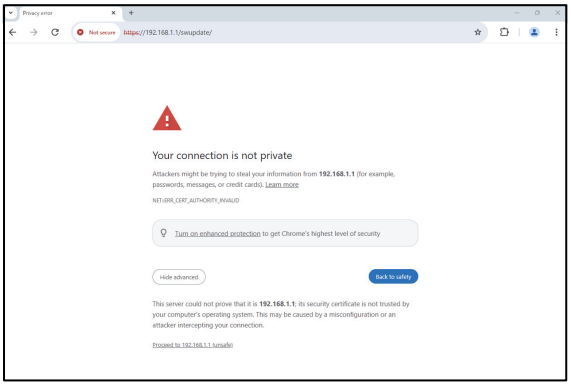
1. Connect the update PC and the LAN1 port on the AE-C/EW-C using a LAN cable.
2. Use a Web browser to access the following Web page address.
   The factory default IP address of the AE-C/EW-C is 192.168.1.1.
   https://192.168.1.1/swupdate/
3. Enter the user name and password in (A).

The default settings are as follows:
User ID: initial
Password: Init + DP

For DP, refer to the back cover of the Instruction Book (supplied with the controller).
ex.) When DP is 123456, the password will be Init123456.

4. Tap (B) to configure the update file.
5. Tap (C).

The STATUS LED will blink during the update.
The controller will automatically reboot once the update is complete.
Unplug the LAN connection once the update is complete.



When accessing a Web page address
The screen on the left will appear if the security certificate is invalid.
1) Tap [Proceed to 192.168.1.1 (unsafe)].
2) A security warning screen will appear.
   Tap [Yes].

Note

The update proceeds as follows.

It takes approximately 10 minutes to complete the update.

	STATUS LED		AE-C operation panel status	Remarks
	Color	Status		
1	Off	Off	No change	Update start
2	Blue	Blinking	No change	
3	Blue	Blinking	Backlight off	
4	Off	Off	Backlight off	
5	Off	Off	"Initializing" displayed	
6	White	Blinking	"Initializing" displayed	
7	White	Blinking	"Starting" displayed	
8	White	Blinking	Backlight on	
9	Off	Off	Monitor/Operation screen	Update complete

[3] Software updates using a USB flash drive

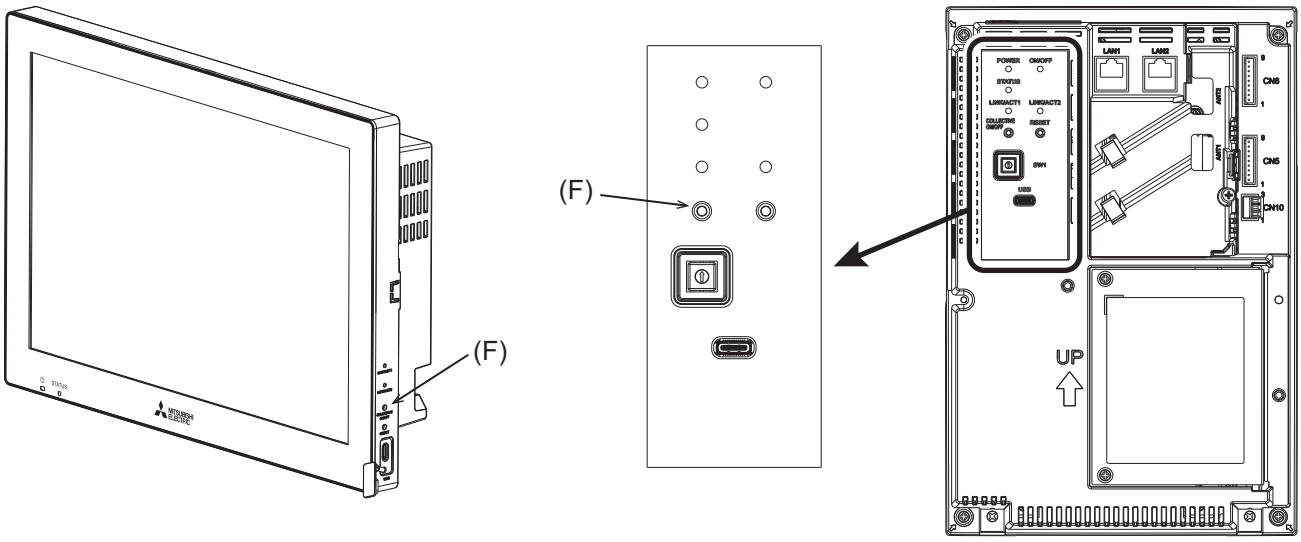
(1) Preparing the USB flash drive

Save the update file (AC_FW####.dat) to the root folder of the USB flash drive.
Note: #### can be any number (software version).

(2) Updating using the AE-C operation screen

Step

1. Power off the AE-C/EW-C.
2. Connect the USB flash drive containing the update file.
3. Turn on the power while holding down the ON/OFF button.
   Hold down the button until the STATUS LED lights up in blue (approx. 1 minute).
   Start the update.
4. Remove the USB flash drive once the update is complete.



Note

The update proceeds as follows.
It takes approximately 10 minutes to complete the update.

	STATUS LED		AE-C operation panel status	Remarks
	Color	Status		
1	Off	Off	"Initializing" displayed	Update start
2	Blue	On	"Initializing" displayed	
3	Blue	Blinking	"Initializing" displayed	
4	Off	Off	Backlight off	
5	Off	Off	"Initializing" displayed	
6	Blue	Blinking	"Initializing" displayed	
7	Blue	On	"Initializing" displayed	
8	Blue	On	"Starting" displayed	
9	Blue	On	Backlight on	
10	Blue	On	Monitor/Operation screen	Update complete

22. Initial settings: software installation

22-1. Charge Calculation Tool installation procedure

<<This section is currently in production.>>

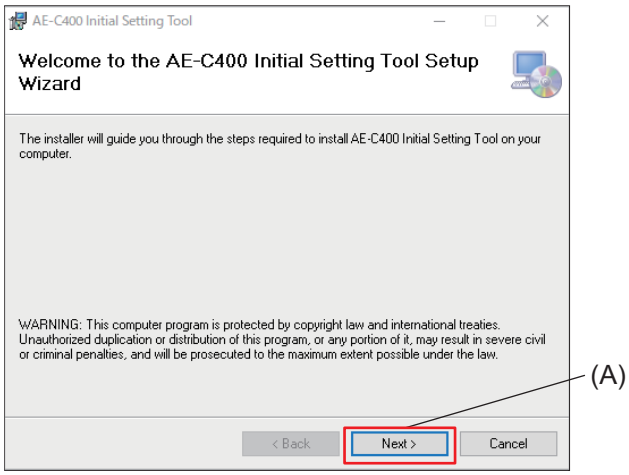
MEMO

22-2. Initial Setting Tool installation procedure

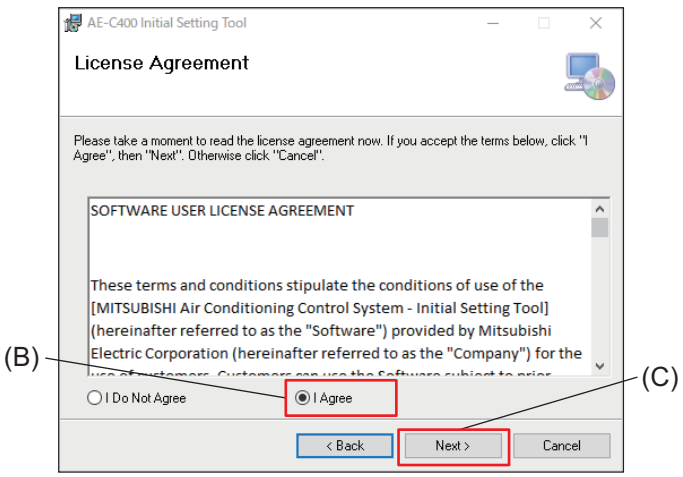
This section explains the installation procedure for the Initial Setting Tool.
To use the apportioned electricity billing function, the Initial Setting Tool that is capable of configuring the settings of the function is required.
To acquire the Initial Setting Tool, consult your dealer.
The following installation procedure can also be used to upgrade the Initial Setting Tool.

Step

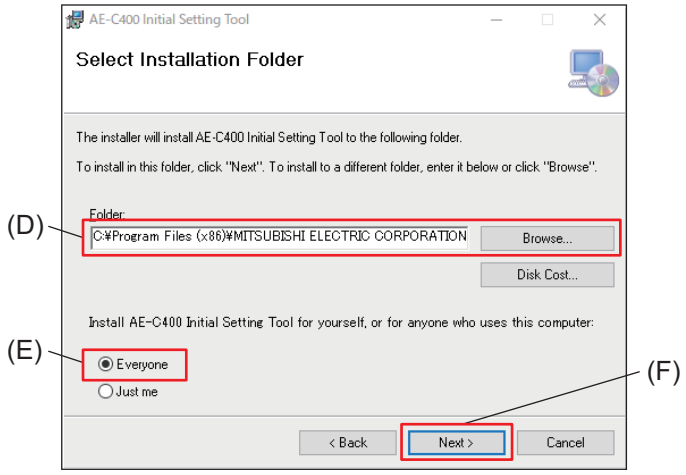
1. Before starting the procedure, check that the version of .NET Framework is Ver. 4.8 or later.
   - You can find the version of .NET Framework installed on your PC by selecting Control Panel in the Windows Start menu and then Programs and Features.
   - For the installation procedure, refer to the specified page. ".NET Framework installation procedure (page 234)"
   - When installing the tool in an offline environment, first download the offline installer.
2. Launch the setup file (setupISToolAEC*_V***.msi) for the Initial Setting Tool.
   - The setup wizard screen will appear.
   - V*** indicates the version. ex.) For V110, the version is 1.10.
   - If a security warning screen appears, tap **[Run]**.



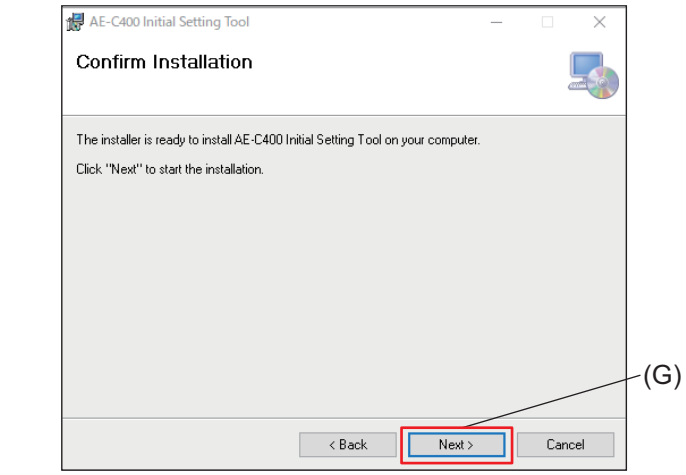
3. Tap (A).



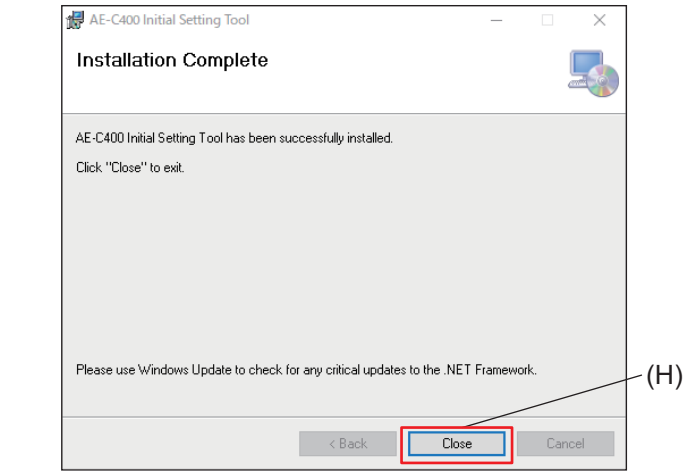
4. Select (B) and tap (C).



5. Select the installation folder (D) and tap (F).
   - To allow all log-in users to use the tool, select (E) and then tap (F).



6. Tap (G).
   - Installation of the Initial Setting Tool will start.



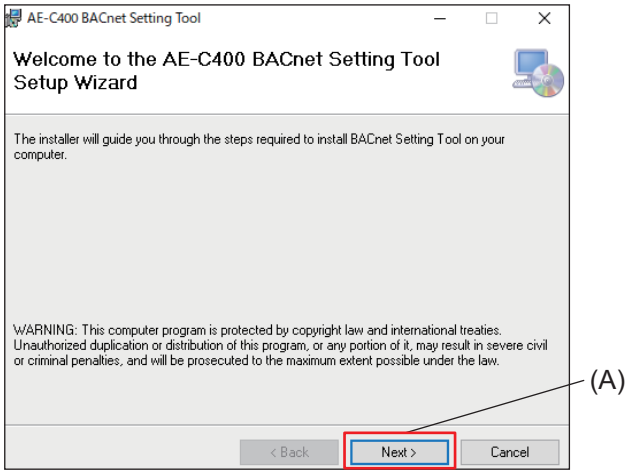
7. Once installation is complete, tap (H).
   - A shortcut icon for the Initial Setting Tool will be created on the PC desktop.
     To launch the tool, double-click on the icon.

22-3. BACnet Setting Tool installation procedure

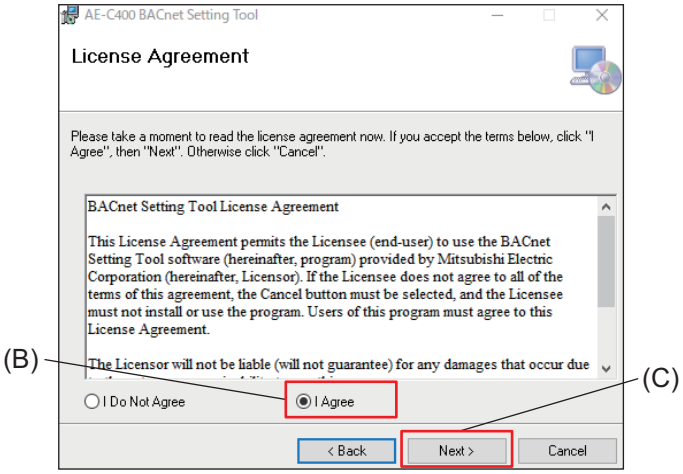
This section explains the installation procedure for the BACnet Setting Tool.
The following installation procedure can also be used to upgrade the BACnet Setting Tool.

Step

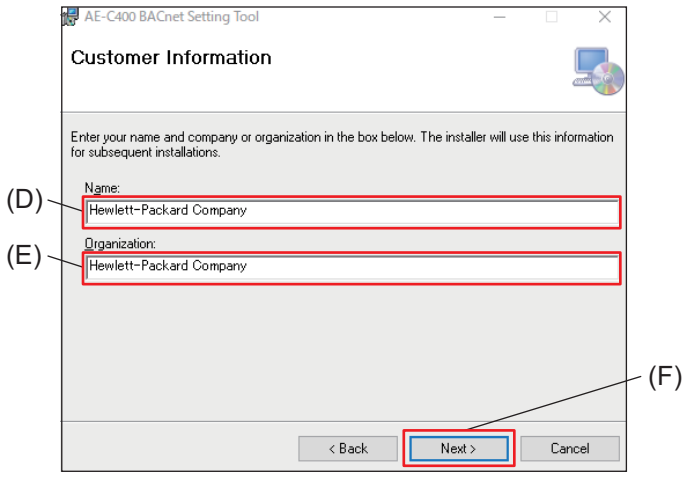
1. Before starting the procedure, check that the version of .NET Framework is Ver. 4.8 or later.
   - You can find the version of .NET Framework installed on your PC by selecting Control Panel in the Windows Start menu and then Programs and Features.
   - For the installation procedure, refer to the specified page. ".NET Framework installation procedure (page 234)"
   - When installing the tool in an offline environment, first download the offline installer.
2. Launch the setup file (SetBACnetAEC_V***.msi) for the BACnet Setting Tool.
   - The setup wizard screen will appear.
   - V*** indicates the version. ex.) For V110, the version is 1.10.
   - If a security warning screen appears, tap **[Run]**.



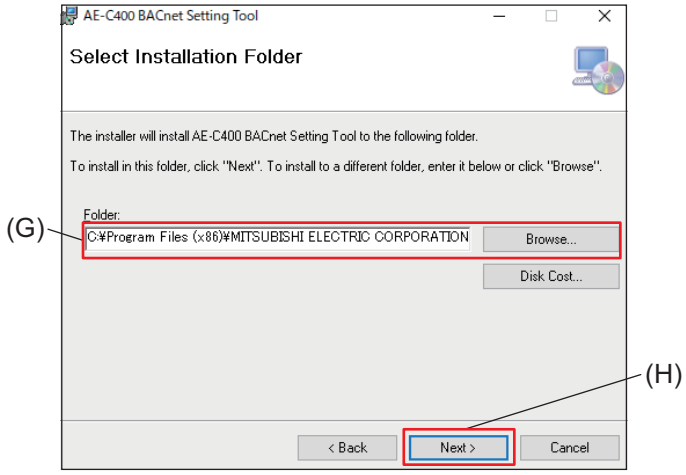
3. Tap (A).



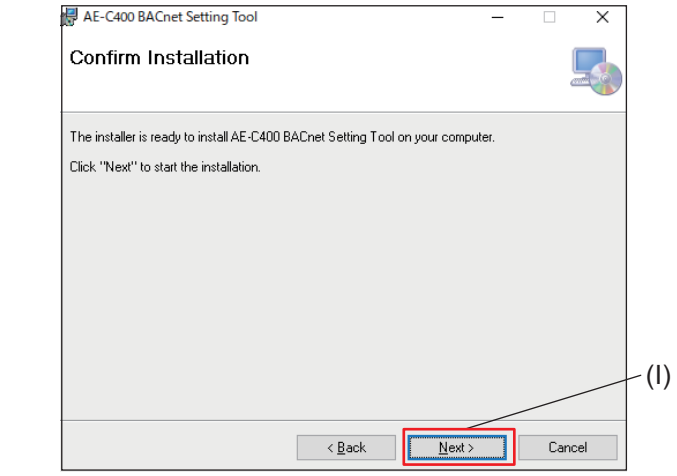
4. Select (B) and tap (C).



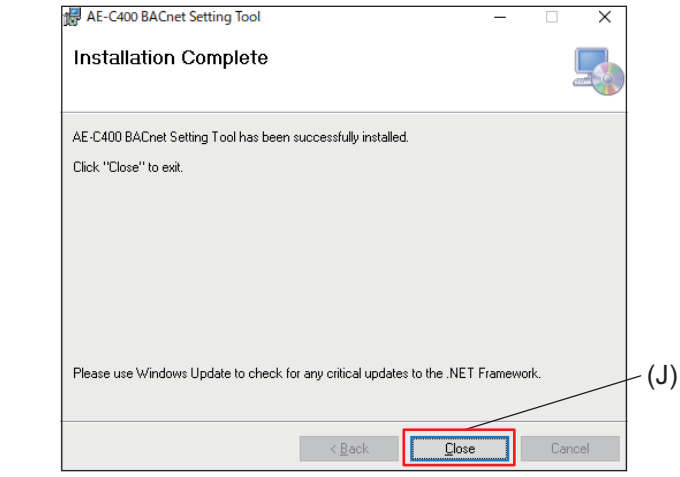
5. Enter the name in (D) and the organization in (E), and tap (F).



6. Select the installation folder (G) and tap (H).



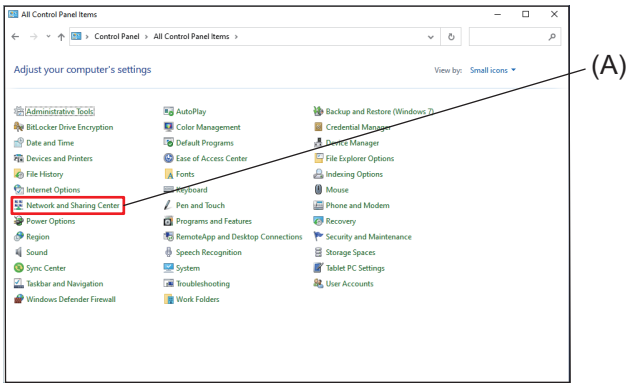
7. Tap (I).
   - Installation of the BACnet Setting Tool will start.



8. Once installation is complete, tap (J).
   - A shortcut icon for the BACnet Setting Tool will be created on the PC desktop.
     To launch the tool, double-click on the icon.

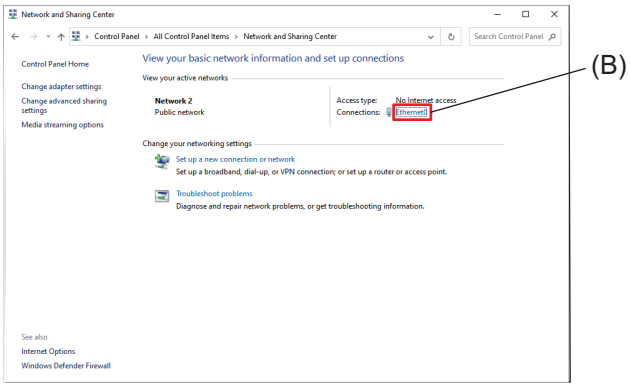
22-4. Setting the PC IP address

22-4-1. For Windows 10 and 11

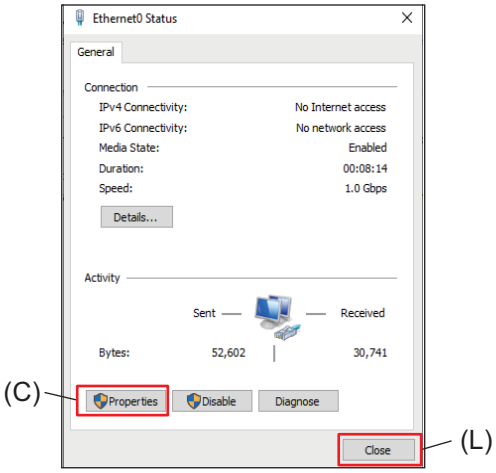


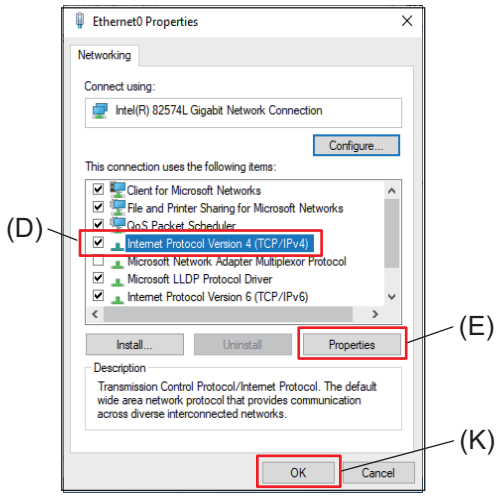
Step

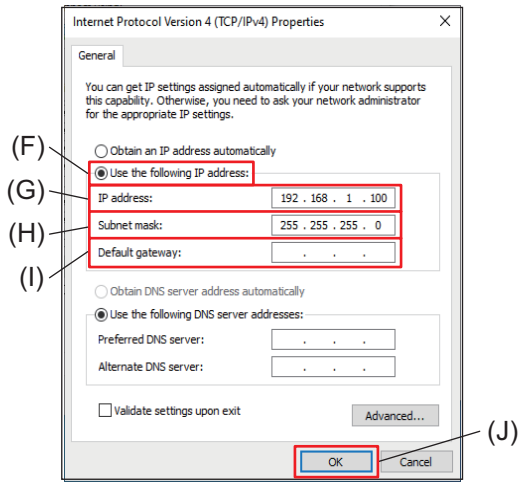
1. Search for [Control Panel] in the PC search box, and then open the Control Panel.
2. Tap [Network and Sharing Center] (A), and the Network and Sharing Center window will appear.



3. Tap [Ethernet] (B).







4. Tap (C).
5. Select [Internet Protocol 4 (TCP/IPv4) (D)], and tap (E).
6. Select (F).
7. Enter the PC IP address in (G).
   ex.) 192.168.1.101
8. Enter the subnet mask in (H).
   ex.) 255.255.255.0
9. Enter the gateway address in (I) if necessary.
10. Tap (J), (K), and (L), and close the screen.
11. Close the Control Panel.

- Request your system administrator to provide the IP address (G), subnet mask (H), and gateway address (I).

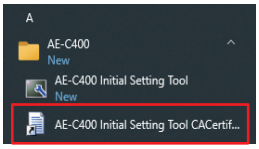
22-5. .NET Framework installation procedure

If the version of .NET Framework is earlier than 4.8, download the .NET Framework 4.8 installer from the following URL and install it.
https://go.microsoft.com/fwlink/?LinkId=2085155

22-6. Importing the root CA certificate

[1] Importing using the installed tools

Check that the tools are already installed.

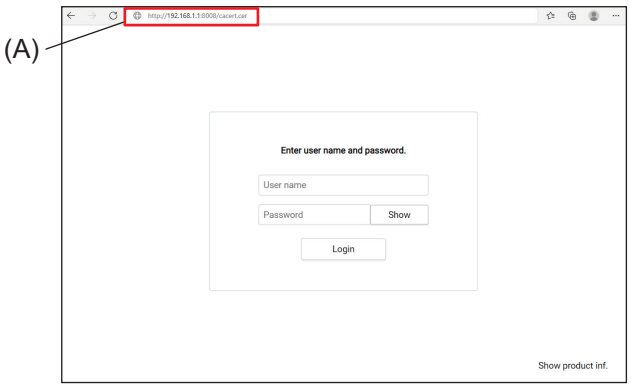


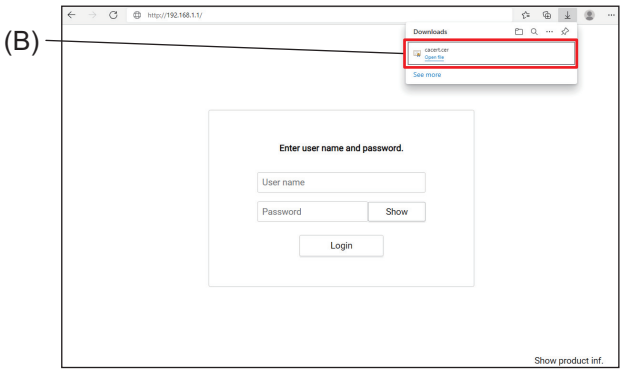
Tap the root certificate in the menu of each tool on the Windows Start menu.

[2] Importing the certificate via browser

The controller encrypts communication data using HTTPS (SSL).
Therefore, it is necessary to configure the following settings to monitor and control the operation status via an encrypted Web page.
Register the AE-C/EW-C certificate managed by the browser to the PC to be used.

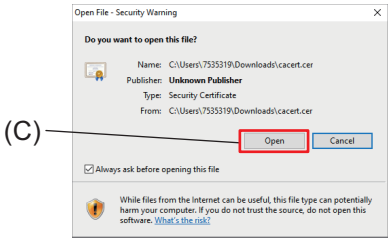
(1) When using a Windows device



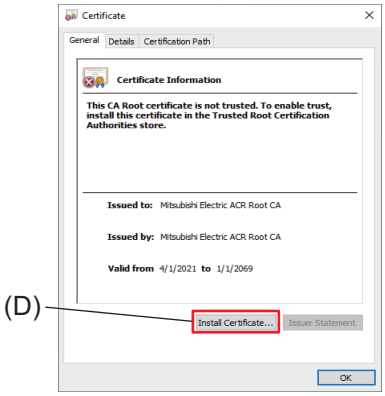


Step

1. Enter the following Web page address in the address bar (A), and tap [Enter].
   http://(IP address of AE-C or EW-C):8008/cacert.cer
   ex.: http://192.168.1.1:8008/cacert.cer
   - Although this system integrates multiple AE-C/EW-C controllers to monitor and operate air conditioning units, the certificate can be registered from any one of the controllers to the PC.
2. Tap (B) on the taskbar.
   - Depending on the browser used, downloaded files may not be displayed on the taskbar. If not displayed, run cacert.cer in the installation folder.

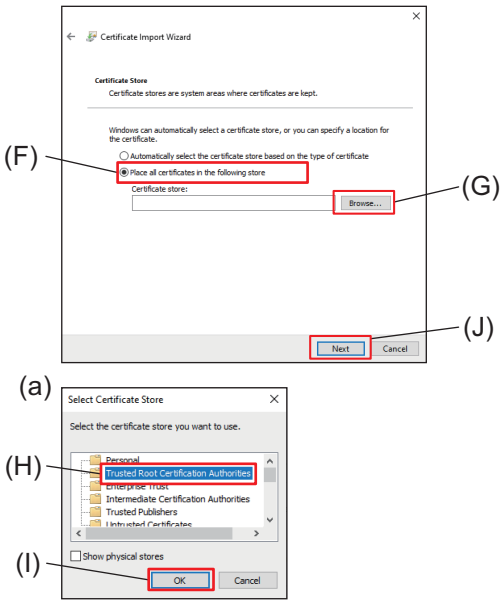


3. Tap (C).

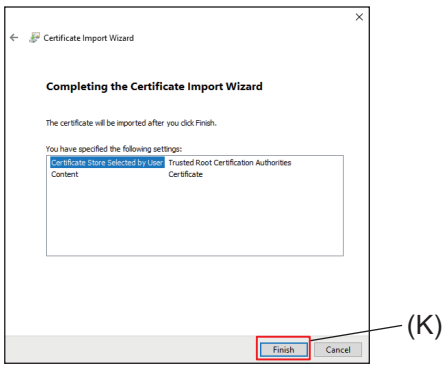


4. Tap (D).

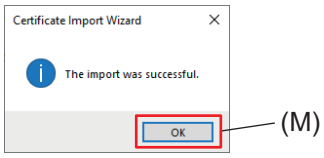
5. Tap (E).



6. Select (F), and tap (G) to open (a).
7. Select (H), and tap (I) to close (a).
8. Tap (J).



9. Tap (K).



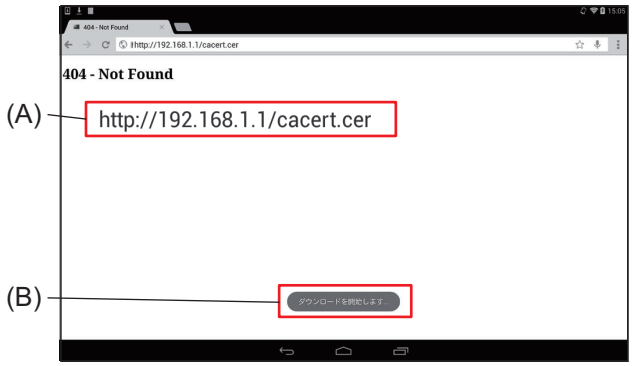
10. Tap (M).

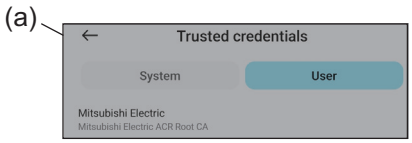
11. Log in by entering the following Web page address in the address bar of the Web browser.
https://(IP address of AE-C/EW-C to be logged in)/control/
    - The certificate is valid from April 1, 2014 to January 1, 2051.
      Set the date and time on your PC so that it is within the valid period.
    - Use the Initial Setting Tool to configure the AE-C/EW-C to be logged in.

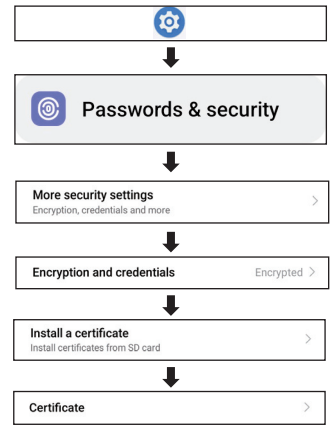
(2) When using an iOS device (Safari)

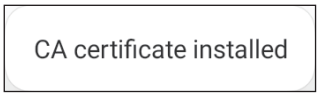
When using an iOS device (Safari), you do not need to register a root CA certificate, but you need to access the IP addresses of all AE-C/EW-C from your iOS device (https://AE-C or EW-C IP address/control/index.html) and make sure that an operation screen of each AE-C/EW-C is displayed.
When a warning message about website access appears, allow access to the website.

(3) When using an Android device (Chrome)









Step

1. Launch Chrome, enter the following Web page address in the address bar (A), and tap (B).
   http://(IP address of AE-C or EW-C):8008/cacert.cer
   ex.: http://192.168.1.1:8008/cacert.cer
   - You must enter your passcode.

2. Enter any certificate name in (C), and tap (D).
   - Installation will start.
   - Once installation is complete, the message [(certificate name) has been installed] appears.

3. Tap [Settings] > [Passwords & security] > [More security settings] > [Encryption and credentials] > [Install a certificate] > [Certificate].

4. Check that the user certificate has ben registered.

5. Log in by entering the following Web page address in the address bar.

   On a tablet
   https://(IP address of AE-C/EW-C to be logged in)/control/index.html
   ex.: https://192.168.1.1/control/index.html

   On a smartphone
   https://(IP address of AE-C/EW-C to be logged in)/mobile/index.html
   ex.: https://192.168.1.1/mobile/index.html

22-7. PC environment

The PC operating environment for using the installed tools is as follows.
Ensure that the PC is connected to the same network as the AE-C/EW-C.

PC operating environment

Item	Requirements	(1) Browser	(2) Initial Setting Tool	(3) Charge Calculation Tool	(4) BACnet Setting Tool	Remarks
CPU	1.0 GHz or more	○	○	○	○	
RAM	4 GB or more	○	○	○	○	
Image resolution	1024 × 768 or more	○	○	○	○	
Supported OS	Microsoft Windows 11 (64-bit) *1	○	○	○	○	
	Microsoft Windows 10 (64-bit) *1	○	○	○	○	
	MacOS®	○				
Operating environment	.NET Framework 4.8 or higher		○	○	○	
	Microsoft Excel 2016 32-bit		○	○		(2) When using the test run check sheet (3) When using the automatic printing function (4) For interlock control data integration files
	Microsoft Excel 2019 32-bit		○	○		
	Microsoft Excel 2021 32-bit		○	○		
Supported browser	Microsoft Edge	○				
	Google Chrome	○				
	Safari	○				
USB	1 port or more		○	○		Used for importing and exporting data
LAN port	100Base-TX or higher	○	○	○	○	

*1 Operation confirmed on Pro versions of Windows.

Tablet/smartphone operating environment

Item	Browser
Tablet/ smartphone	iOS / Safari
	Android / Google Chrome

Note

- The Web browser function works differently depending on the user who logs in.
- When you want to log in as a tenant manager or general user, you need to be registered as such user by the building manager in advance.
- There are restrictions on the access to the Web browser function.

  (1)There is a limit on the number of simultaneously accessible users.
  Users exceeding the limit will not be able to access the Web browser function. (Maximum number of users is 10.)

  (2)Once you close the browser, you will be logged out.
  After you work on a temporary task on the browser, close the browser.

Floor layout background image

- The default size of the background image is 1140 x 570 pixels.
- Saving the background image
  Make sure that the background image meets the following conditions before saving it.

Image resolution (horizontal × vertical)	630 × 450 to 1920 × 1080 pixels
File size (per floor)	250 KB or less
File type	gif, jpeg, jpg, png
Number of floors	
LCD	10 floors
Browser	40 floors

23. Regular inspection

Product components deteriorate over time and can pose safety hazards.
Regularly conduct safety inspections to use the product safely and in good condition.

24. Checking for proper installation and conducting commissioning

24-1. Checking for proper installation

- The controller must be installed by the dealer (or the contractor) in accordance with the applicable laws, regulations, and certifications.
- Attend the commissioning to be conducted by the dealer (or the contractor).
- Receive instructions on the correct usage from the dealer (or the contractor) to ensure safety.
- When the installation work is completed, check the following items yourself.

Check item	Check-off column
Did you receive instructions on safety precautions?	
Did you receive instructions on operation procedures and correct usage to ensure safety?	
Did you make sure that the items listed on the installation work checklist of the Installation Manual are checked off?	
Did you receive instructions on the initial settings?	
Did you receive a report on the commissioning result? Did you attend the commissioning?	

24-2. Commissioning

- Before the commissioning for the controller is conducted, a test run for the indoor units must be completed. For details, refer to the installation manual for the indoor units.
  The following checks must be conducted to make sure that the initial settings of the controller are correct and that the air-conditioning system is configured properly.

  (1) Start and stop the indoor units from the AE-C, and make sure the indoor units operate accordingly.

  (2) Start and stop the indoor units from the local remote controller, and make sure the correct operation statuses appear on the AE-C.

  (3) Perform items (1) and (2) for all indoor unit groups.

Important

- Conduct a test run for each group. Incorrect initial settings (e.g., incorrect group settings) for the controller can result in operation problems (e.g., target/non-target indoor units do not operate or stop as intended).

Note

- Item (2) can be skipped when testing a system without local remote controllers.
- EW-C needs to be operated from the Web browser.

24-3. Backup of setting data

Be sure to back up the initial settings in case of a failure or problem of the controller.

Tap [Maintenance] on the Panorama view screen and log in, and the operation management screen will be displayed.
Tap [Utilities]-[Back up/import settings data] to display the Back up/import settings data screen to make a backup of setting data.

25. Specifications

■ **AE-C**

Item		Specifications
Power supply	Rating	100-240 VAC ±10%, 50/60 Hz, single phase
Power consumption		22 W
LAN1, LAN2		100BASE-TX
RS-485		Modbus RTU
USB		Type C (Supported memory USB 3.2 Gen 1 (FAT32, no security))
External input/ output	Input	Photocoupler input (4 inputs x 2)
	Output	Transistor output (2 outputs x 2) (sink type)
Ambient conditions	Operating temperature range	0°C to +40°C (+32°F to +104°F)
	Storage temperature range	-20°C to +60°C (-4°F to +140°F)
	Humidity	30% to 90% RH (non-condensing)
Exterior		PC + ABS - GF10 (Munsell 1.0Y 9.2/0.2)
External dimensions	W x H x D	306 × 211 × 71.8 mm (12-1/16 × 8-5/16 × 2-27/32 in) When embedded, the controller protrudes from the wall or the metal control box by 19.7 mm (25/32 in).
Weight		2.9 kg (7 lbs)
Installation conditions		Indoor only • The controller is for use in an indoor or equivalent environment.

The clock accuracy is ±10 seconds per month (at 25°C). Backup time in case of power failure is 3 days.

EW-C

Item		Specifications
Power supply	Rating	100-240 VAC ±10%, 50/60 Hz, single phase
Power consumption		15 W
LAN1, LAN2		100BASE-TX
RS-485		Modbus RTU
USB		Type C (Supported memory USB 3.2 Gen 1 (FAT32, no security))
External input/ output	Input	Photocoupler input (4 inputs x 2)
	Output	Transistor output (2 outputs x 2) (sink type)
Ambient conditions	Operating temperature range	-10°C to +55°C (+14°F to +131°F)
	Storage temperature range	-20°C to +60°C (-4°F to +140°F)
	Humidity	30% to 90% RH (non-condensing)
Exterior		Body: Electrogalvanized steel sheet Cover: PC + ABS
External dimensions	W x H x D	185 × 278 × 60.3 mm (7-5/16 × 10-31/32 × 2-3/8 in) (185 × 278 × 81.5 mm (7-5/16 × 10-31/32 × 3-7/32 in) when installed on the installation frame)
Weight		1.9 kg (5 lbs)
Installation conditions		In the metal control box installed indoors

The clock accuracy is ±10 seconds per month (at 25°C). Backup time in case of power failure is 3 days.

Specifications of commercial parts

Unsupplied parts		No.	Specifications
AC power wire/ Protective ground wire		S-1	Type: Sheathed cable (designated by 60227 IEC 53) (Do not use sheathed cables lighter than ordinary IEC 60227 sheathed cables.) ⬧ Wire type (recommended): VCT, VVF, VVR, or equivalent • Wire size: 2 mm^2 (ø1.6 mm) (AWG 14) Cables with outer diameter of 10 mm (13/32 in) (thick enough to be held by cable clamps under the terminal block) are recommended. Protective ground wire color: Green-and-yellow
M-NET transmission cable (Connected to the controller)		S-2	Type: Shielded cable • CPEV-S 1P (pair) ø1.2 mm (AWG 16): PE*1 insulated PVC*1 shielded cable for communication ⬧ CVV-S, MVV-S (two cores) 1.25 to 2 mm^2 (AWG 16 to 14): PVC*1 insulated PVC*1 shielded cable for control Type: Environmentally friendly cable (reference) • EM-CPEE-S 1P (pair) ø1.2 mm (AWG 16): PE*1 shielded cable for communication • EM-CEE-S, EM-MEE-S (two cores) 1.25 to 2 mm^2 (AWG 16 to 14): PE*1 shielded cable for control
Sleeved ring terminal		S-3	M3.5 ring terminal (for AC power wires (L/L1, N/L2) and M-NET transmission wires (A, B, S)) M4 ring terminal (for protective ground wire)
Watt-hour meter cable		S-4	Type: Twisted-pair cable 2P (pair) (Shielded cables (1P (pair)) are allowed for use.) Wire size: 0.3 to 1.25 mm^2 (AWG 22 to 16)
Screw (M4)		S-5	ISO metric screw thread
Wood screw (M4.1)		S-6	ISO metric screw thread Used to install the EW-C directly on a wall that can hold the weight of the EW-C, such as a gypsum-board wall.
Overcurrent breaker (Either one of the right)	Fuse	S-11	Rated current: 3 A (A fuse must be used in combination with a switch with a rated current of 3 A.)
	Circuit breaker		Type: 2-pole circuit breaker (2P2E) Rated current: 3 A
Earth leakage breaker		S-12	Type: 2-pole circuit breaker (2P2E) Rated current: 3 A or greater Rated current sensitivity: 30 mA Operating time: 0.1 second or shorter
External power supply (DC power supply)		S-15	Rated voltage: 12 VDC or 24 VDC
Extension cable		S-16	Conductor size: 0.3 mm^2 (AWG 22) or greater
DC power supply (for external input/output relays)		S-17	Rated voltage: 12 VDC or 24 VDC
Relay/ Relay with diode (for external input)		S-18	Contact rating Rated voltage: 12 VDC or 24 VDC Rated current: 10 mA or greater Minimum applied load: 1 mA DC
Relay/ Relay with diode (for external output)			Coil rating Rated voltage: 12 VDC or 24 VDC Power consumption: 0.9 W or less
LAN cable		S-20	Category 5 or higher straight cable (100 m (328-1/16 ft) or shorter)
Switching HUB		S-21	Transmission rate: 100 Mbps or higher

*1 PE: Polyethylene; PVC: Polyvinyl chloride

26. Before requesting repairs

If the problem cannot be solved by referring to the following, stop the operation, and turn off the molded-case circuit breaker. Contact the dealer (contractor, service provider) with the information on the nature of the problem and the error code ("Notice screen (page 28)").

	Symptom	Possible cause	Countermeasure
1	The LCD screen is off. Tapping the screen displays nothing. (The backlight does not light up.)	• Is the ⏻ (power) LED lit in green? • Foreign substances or dirt on the screen may cause a malfunction. • It may take up to 5 minutes before the initial screen appears on the LCD after the controller is turned on.	Press the push switch (ON/OFF) on the side of the controller once, wait for two seconds, press the push switch again, and then tap the screen. • The screen and the touch panel will be reset, and the screen display will recover. • The controller will not be reset. • After the screen display recovers, clean the LCD screen. * For power reset of the controller, contact the dealer (contractor, service provider).
2	The LCD screen does not respond to tapping while it is lit. The screen operating sound is heard or the screen switches when the screen is not tapped.	• The screen sometimes takes time to switch. Does the screen switch after five seconds or so? • Foreign substances or dirt on the screen may cause a malfunction. • It may take up to 5 minutes before the initial screen appears on the LCD after the controller is turned on.	Press the push switch (ON/OFF) on the side of the controller once, and then tap the screen. • The screen and the touch panel will be reset, and the screen display will recover. • The controller will not be reset. • After the screen display recovers, clean the LCD screen. • To ensure stable operation, perform a power reset of the controller periodically (about once a year). * For power reset of the controller, contact the dealer (contractor, service provider).
3	The outdoor unit icon is marked with [⚠] (error).	• Is the error code of the outdoor unit "6607" on the Error list screen? • Unless the power of the outdoor unit is on, indoor units do not perform cooling or heating operation or emit cool or warm air.	• Check that the power of the outdoor unit is on. If it is not on, turn it on. • If an error code other than "6607" is displayed, the outdoor unit needs to be inspected.

	Symptom	Possible cause	Countermeasure
4	When the controller is not operated, an indoor unit or a LOSSNAY unit starts or stops.	Even when the controller is not operated, indoor units may be started or stopped by the following event: 1) Control from the local remote controller 2) Activation of the schedule function or the timer of the local remote controller 3) Activation of the schedule function of the controller 4) Activation of the interlocked control	When an indoor unit or a LOSSNAY unit is started or stopped by the events listed on the left, it is not a malfunction. Cause 1) Indoor units or LOSSNAY units may start or stop according to the operation of the local remote controller. Cause 2) Indoor units or LOSSNAY units may start or stop according to certain settings of the local remote controller, such as the schedule setting, ON/OFF timer setting, and Auto-OFF timer setting. Cause 3) Indoor units or LOSSNAY units may start or stop according to the schedule settings (day, weekly, and annual schedule settings) of the controller. Cause 4) LOSSNAY units may start or stop, interlocking with multiple indoor units.

This product is designed and intended for use in the residential, commercial and light-industrial environment.

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

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU

2011/65/EU; (EU) 2015/863; (EU) 2017/2102:
The restriction of the use of certain hazardous substances in electrical and electronic equipment

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

MITSUBISHI ELECTRIC CORPORATION

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