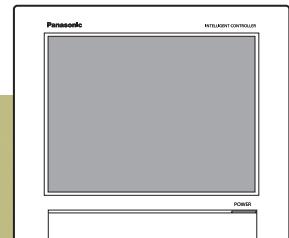


Panasonic®

Operating Instructions
Intelligent Controller

Model No. **CZ-256ESMC3**



ENGLISH

Before operating the unit, read these operating instructions thoroughly and keep them for future reference.

Installation Instructions
Separately Attached.



Panasonic Corporation
1006 Kadoma, Kadoma City, Osaka, Japan

F1118-10419

Features

This unit is a centralized air conditioning management system designed for use with precision air conditioning systems (PAC, air conditioning systems for offices and shops, and multi-unit systems for buildings) and gas heat pump (GHP) air conditioners.

- With one of these units you can connect and control up to 128 indoor units (2 systems of 64 units each) and 60 outdoor units (2 systems of 30 units each).
- By connecting a communication adaptor this can be increased to 256 indoor units and 120 outdoor units.
- The unit is equipped with a 10.4-inch TFT colour touch panel display (1024 x 768 dots), enabling control by almost anyone.

Operation and status

P.23

You can check to operational status (ON/OFF, operating mode, alarms, etc.) of all indoor units and outdoor units in real time.

You can also select indoor units to change their settings.



Operation scheduling

P.40

You can register daily operation schedules (ON/OFF time, operating modes, set temperatures, etc.) for individual indoor units or groups of indoor units.

Operations can be scheduled for up to 2 years in advance.



Distributing air conditioner energy

P.71

You can view cumulative operating times for indoor units, engine operating times for outdoor units, and operation cycles in a list. (Cumulative values)

Using these data, you can calculate the distribution ratio of electricity or gas consumed for air conditioning and volumes used (kWh, m³) per indoor unit or in an area, then show these calculations in a list.

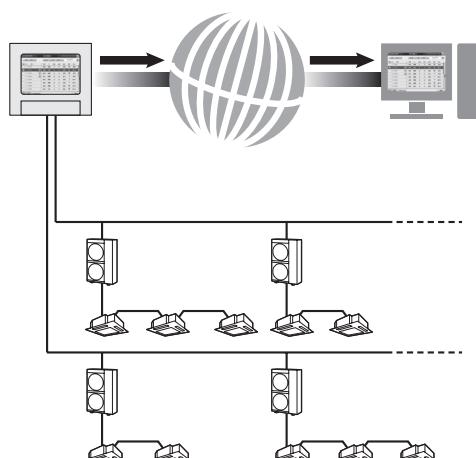


Remote control

P.122

The LAN terminal on this unit enables you to connect it to a network.

Connecting to Internet will enable you to operate the unit and check the status using a PC from a remote location.



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- Read the Operating Instructions carefully for safe use. This manual describes the Operating Instructions of the intelligent controller. Read this manual as well as operating instructions supplied with indoor units and outdoor units.
- **Be sure to read the “Safety precautions” (P.5) before using.**
- Keep this manual with operating instructions supplied with indoor units and outdoor units in a safe place.
- Be sure to keep this manual in a place easily accessible by users. In the case of user change, be sure to give this manual to the new user.

NOTICE

The English text is the original instructions. Other languages are translation of the original instructions.

Simple guide to features

This guide only shows the main features.

Operations on the air conditioning unit

What you want to do	Title	Page
To operate the indoor unit	Operating the indoor unit	26
To change the operating mode	Operating the indoor unit	26
To change the set temperature	Operating the indoor unit	26
To reset the filter sign	Checking the settings on the indoor unit	25
To change the airflow direction and fan speed	Operating the indoor unit	26
To prevent operation by remote controllers	Operating the indoor unit	26

Checking the operating status

What you want to do	Title	Page
To check the operational status of the indoor units you are managing	Checking the operational status of indoor units	28
To check the current alarms	Checking on current alarms	36
To check alarm history	Checking the alarm logs	59
To check the current or past cumulative times	Checking the list of accumulated values on the indoor unit	65
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Settings

What you want to do	Title	Page
To change the name of an indoor unit	Basic settings on the indoor unit	141
To change the name of the area group	Changing the name of the area group	153
To adjust the date or time	Setting the date and time	204
To operate an indoor unit according to a schedule	Setting a schedule	40
To adjust the brightness of the screen	Setting the screen display and volume for this unit	199
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Miscellaneous

What you want to do	Title	Page
To backup data (settings, cumulative values, distribution data, etc.) to a USB memory device	Backing up data	130
To show the operating times, temperature changes, and other information in graphs	Displaying data in graphs	105

Safety precautions



WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.



Matters to be observed



Prohibited matters



WARNING



Do not use this appliance in a potentially explosive atmosphere.



In case of malfunction of this appliance, do not repair by yourself. Contact the sales or service dealer for repair.



In case of emergency, remove the power plug from the socket or switch off the circuit breaker or the means by which the system is isolated from the mains power.



CAUTION



This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.



- Do not operate with wet hands.
- Do not wash with water.

Operating precautions

- **Do not use in the following locations**

- Where flammable gases, etc. may leak
- Near the ocean or other areas with a lot of salt
- In areas where sulphurous gases occur such as natural spa areas
- In places where there may be airborne water or oil (including machinery lubricants, etc.) or steam
- Where there are large fluctuations in voltage
- Where machinery emitting electromagnetic waves are located
- Where there may be airborne organic solvents

- **Do not apply strong shocks**

(This may cause malfunction)

- **Do not use heaters near the controller**

(This may cause deformation or discolouration)

- **Do not use hard or pointy objects**

(This may cause scratches or malfunction)

- **Do not hit the touch panel or push on it too strongly**

(This may cause malfunction)

Installation precautions

- **Do not install in locations with high humidity, lots of oil, vibrations, where direct sunlight can reach the unit, or near sources of heating**

(This may cause malfunction)

- **Do not install in noisy locations**

(This may cause incorrect operation)

- **Install at least 1 m away from TV, radio, PC. etc.**

(To prevent fuzzy images or noise)

Information for Users on Collection and Disposal of Old Equipment and Used Batteries



These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.



For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.



Note for the battery symbol (bottom two symbol examples):

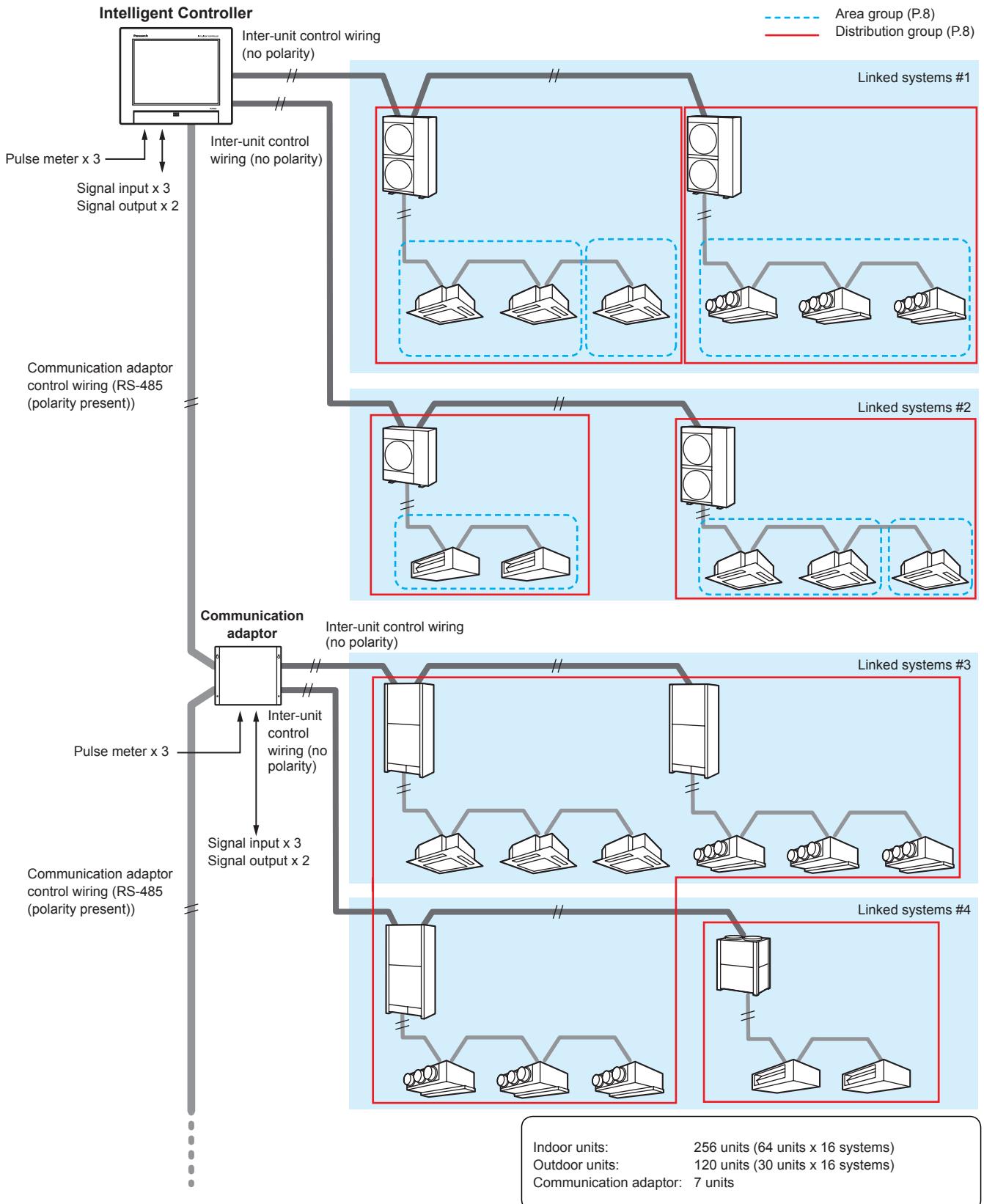
This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.



Pb

System configuration

The following is an example of a system configuration.



Explanation of terms

This section explains the terms used in this document.

Term	Explanation
Adaptor address	The address allocated to a single communication adaptor (sold separately). If the pulse meter is connected to a communication adaptor, use the address of the adaptor. Setting No.0: This unit (setting complete) No.1 to 7: Settings with the communication adaptor
Linked systems address	This is a grouping of indoor units and/or outdoor units connected to the same inter-unit control wiring. 2 linked systems can be connected to this unit or a communication adaptor (sold separately). Setting No.1 and 2 (fixed)
Outdoor unit systems address	An outdoor unit and the grouping of indoor units connected by the coolant piping. A single linked system can consist of a maximum of 30 outdoor unit systems. Setting No.1 to 30: Set on the outdoor unit for each linked system
Indoor unit address	In an indoor unit system, this is a fixed number allocated to an indoor unit. This is also allocated to each indoor unit for group control. Setting No.1 to 64: Set on the indoor unit for each outdoor unit system
Central address	This is a fixed value within the linked system and is shared with other centralised controllers (system controllers, etc.). In group control, all indoor units belonging to a group have the same address. In this document and on the unit, this is described as the "CNTR addr.". Setting No.1 to 64: Set on this unit and other central controllers for each linked system
Unit name	In group control, this will be the same name. This is the minimum unit used for operation, monitoring, and scheduling. Setting Set on this unit
Distribution group	A distribution group consists of multiple (or single) areas and matches with the measuring range of a pulse meter, with the distribution ratio of the grouping totalling to 100%. A maximum of 256 groups can be created across the whole system. With time distributing, it is not possible to mix PAC and GHP in a single distribution group. You can have PAC and GHP in the same group if you are using load distributing. Setting No.1 to 256: Set on this unit
Area group	An area group is one grouping used for calculating distributions (or for operating or monitoring) and consists of multiple (or single) indoor units. A maximum of 256 groups can be created across the whole system. Setting No.1 to 256: Set on this unit
Control groups	Control groups consist of multiple (or single) indoor units or outdoor units controlled the same in cyclic control settings. A maximum of 10 groups can be set for indoor units and a maximum of 5 groups can be set for outdoor units.

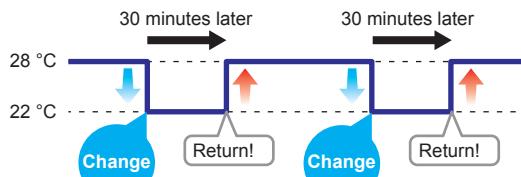
The Energy Saving function

This reduces waste in air conditioning so that you can save energy without replacing the air conditioning units.

e-CUT function

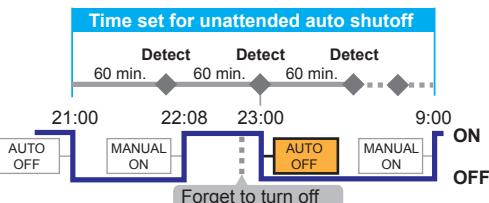
Set temperature auto return

When you want to return to the set temperature after a certain time even if the temperature is changed. (P.77)



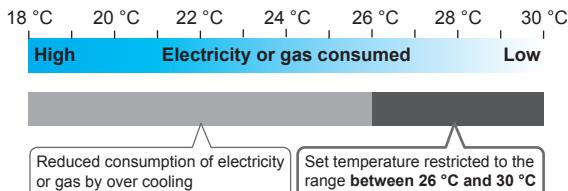
Unattended auto shutoff

When you want to operate outside of a schedule but to monitor and stop automatically. (P.80)



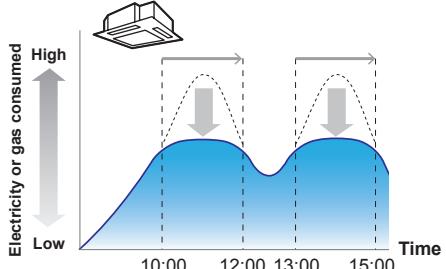
Set temperature range limit

When you want to limit the temperatures that can be set. (P.83)



Energy saving timer/Efficient operation setting*1

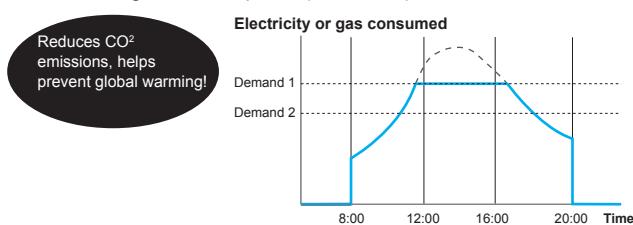
Specify time slots when you want operation capacity reduced. (P.85)



The Demand function

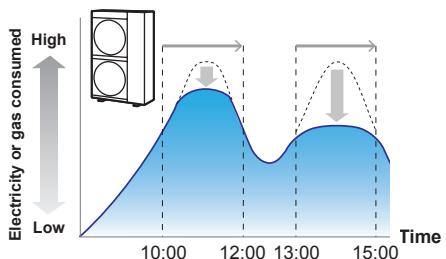
Demand settings (indoor unit/outdoor unit)

When you want to suppress the maximum demand for electricity or maximum gas consumption. (P.90, P.93)



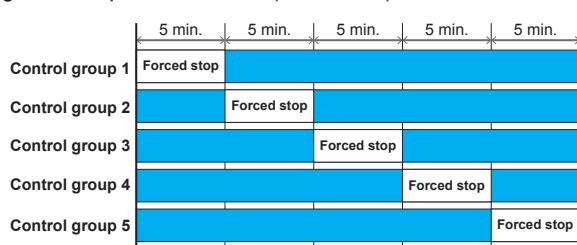
Demand/peak shaving settings/ Peak cut settings*2

Specify time slots when you want operation capacity of the outdoor units reduced. (P.95)



Indoor/outdoor unit cyclic

When you want operation capacity of the outdoor units reduced during certain repeated intervals. (P.98, P.102)



*1 The "Efficient operation setting" is the name of setting when using gas heat pump air conditioners.

*2 The "Peak cut settings" is the name of setting when using gas heat pump air conditioners.

Note

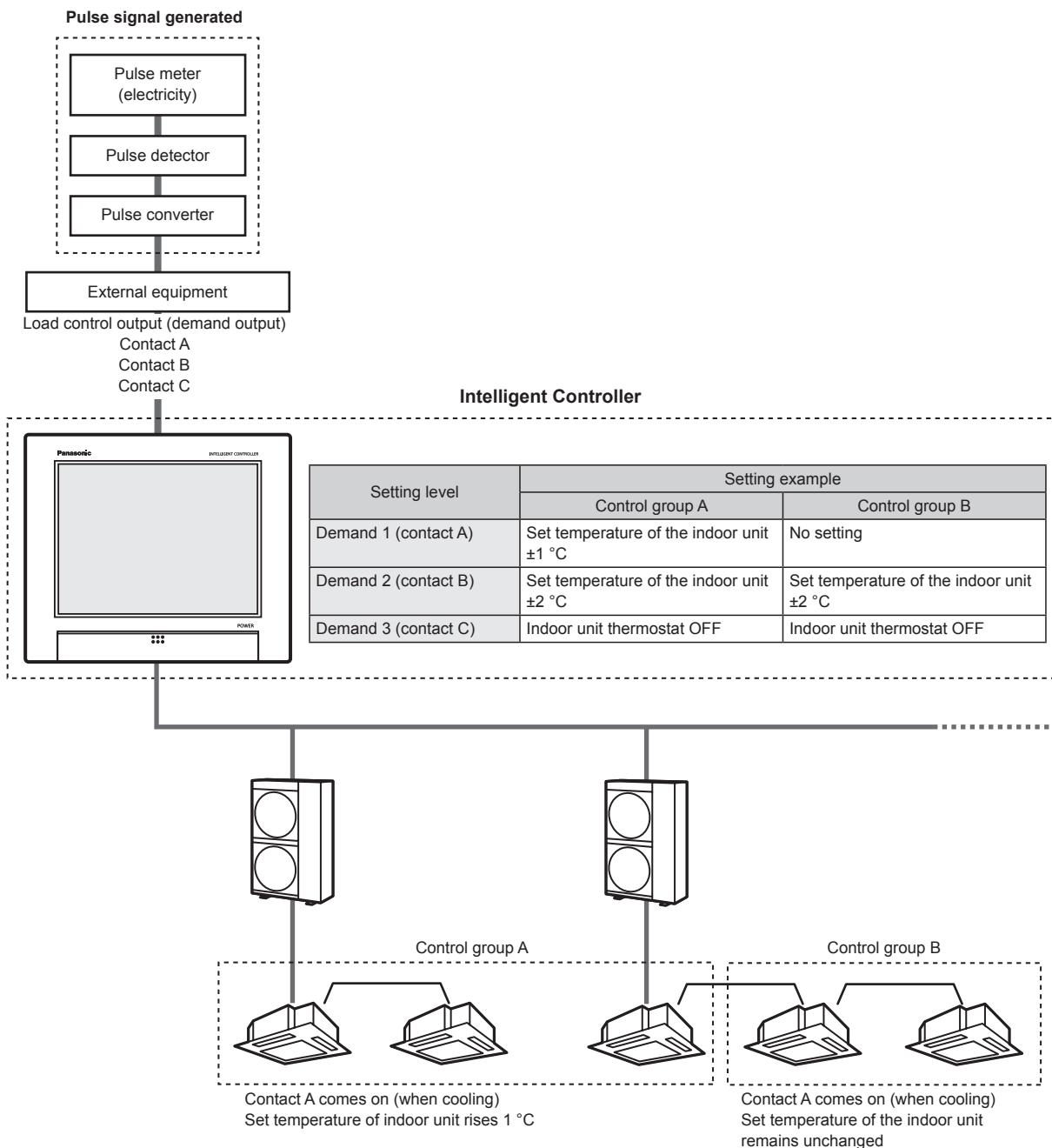
- Some models may not support these functions.

Demand control

"Demand" indicates the "electricity demand" (average electricity over 30 minutes). The basic charges for electricity are determined by the maximum value of demand (the maximum electricity demand). This maximum demand for electricity occurs during summer and winter when the air conditioning burden is the greatest. One way of reducing electric power costs is to suppress the maximum electricity demand during these periods. (Your actual situation depends on your contract with your electricity provider) Furthermore, by suppressing the maximum demand for electricity, you can assist in the reduction of carbon dioxide emissions and help reduce global warming.

Demand control means that the air conditioning units are monitored so that their electricity consumption does not exceed a contracted amount, and by setting a level as shown in the following diagram (demand 1, 2, or 3), the performance of the air conditioning units can be controlled so that energy usage is reduced. This unit suppresses the maximum demand for electricity through automated control of air conditioning units by demand control output (demand output) signals emitted by external equipments.

Demand control (with indoor unit demand settings)



Energy navigation function

Indoor units will run in energy saving modes according to the amount of human activity detected by ECONAVI sensors (sold separately).

When there is a lot of human activity



- In cooling or drying mode

Operates at the set temperature.

- In heating mode

The air conditioners run at a temperature lower than the set temperature.

When there are no people



When there is a continuous 20 minute period of no people

- In cooling or drying mode

The temperature is set higher than when there are people in the room.

- In heating mode

The temperature is set lower than when there are people in the room.

When there is not a lot of human activity



- In cooling or drying mode

The air conditioners run at a temperature higher than the set temperature.

- In heating mode

Operates at the set temperature.

When there are no people for about an hour

- The units run according to the mode set for when there are no people. The factory preset is for low energy use operation to continue with the temperature suppressed. (Refer to the operating instructions for the ECONAVI sensor for information on the operation mode when there are no people.)
- If people are detected while operating in the Absent mode, the air conditioners return to a mode appropriate to the level of activity.



Do not use the ECONAVI feature in rooms where only disabled people or infants are present.

(It may cause damage to their condition or worsen their health)

If there is not much movement for a long time, the ECONAVI sensor may determine that the room is unoccupied and stop the air conditioning unit.

Note

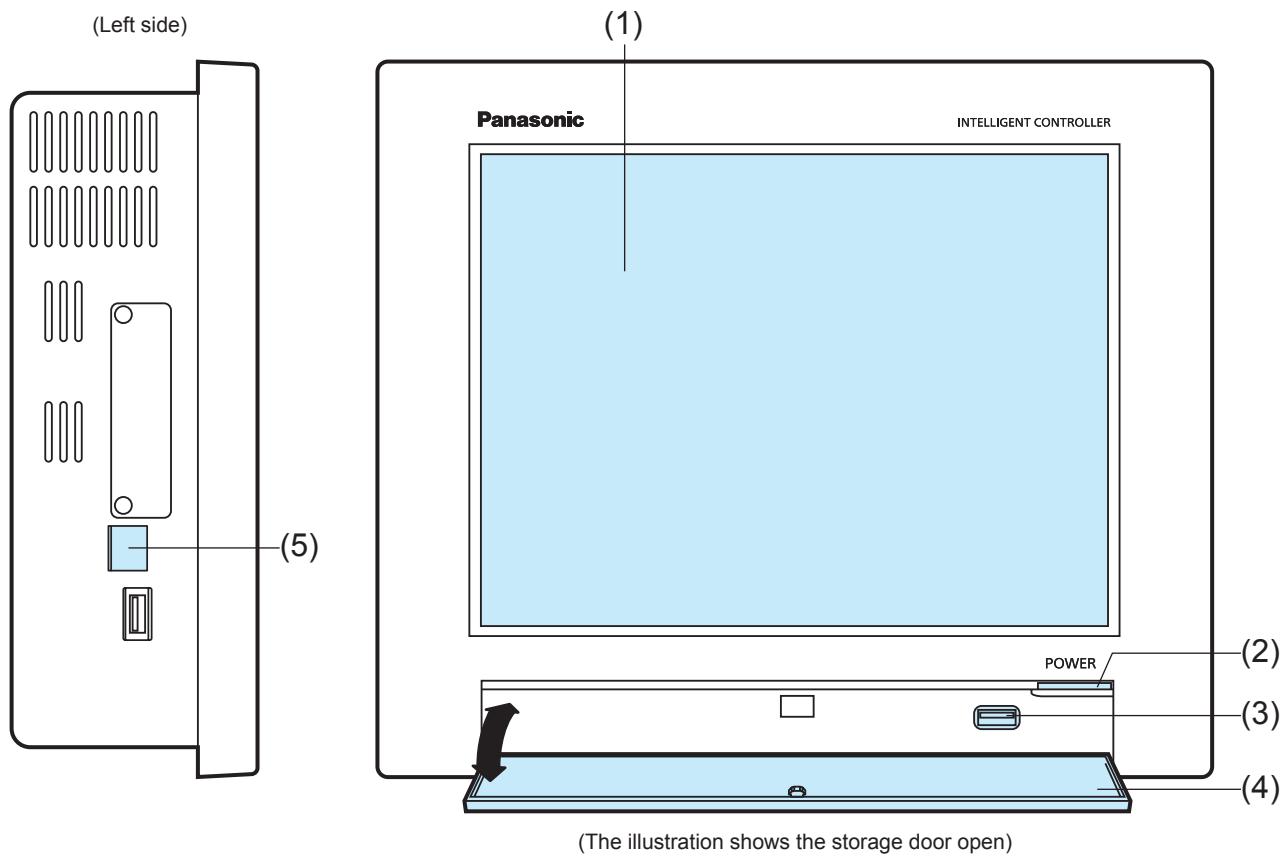
- You can turn on or off the ECONAVI feature on this unit.
- You will need a separate remote controller* with ECONAVI functionality in order to make advanced settings for the ECONAVI feature. Refer to the operating instructions for the remote controller* with ECONAVI functionality for details on how to configure the feature.
- Even if the target temperature is changed by ECONAVI, the set temperature displayed on the unit will not change.
- Even if the mode is switched to fan due to the absence of people (standby mode), the mode displayed on the unit will not change.
- When running multiple indoor units, the energy reduction effect may be reduced depending on the conditions in the room.

* Multi-function wired remote controller (CZ-RTC5 or later)

Preparations before changing settings

This chapter describes the part names of the unit and their functions and also explains some basic operations.

Part names



Name	Explanation
(1) Colour LCD with touch panel	You can operate the unit by touching the screen with your fingers.
(2) Power indicator	This lights when the power is on.
(3) USB terminal	Connect a USB memory device here to backup data from this unit (settings, accumulation/distribution).
(4) Storage door	Open this cover to connect a USB memory device to the USB terminal. To open, gently push on the storage door and then allow to drop down. To close, lift the storage door and gently press closed.
(5) LAN terminal	Connect to a network with wiring.

Operations on this unit

Operations on this unit are performed by following menus.

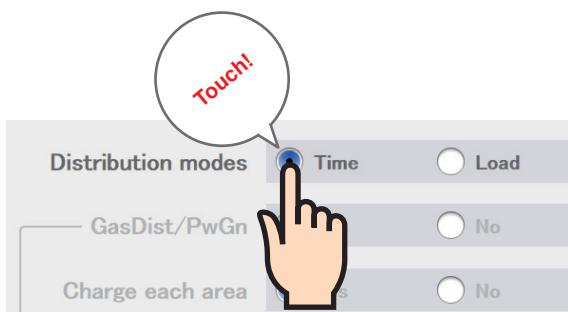
The screens used for operations all follow a common pattern, with the screens being easy to read and easy to use.

Basic operation of the touch panel

This section describes the basic operations on the touch panel.

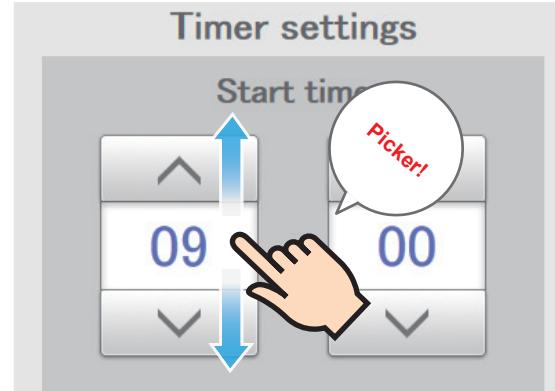
Touch

This is a light touch with a finger on the buttons or text boxes displayed on the touch panel.



Picker

This is an up and down movement of the finger touching the screen, used to pick settings in elements such as spin boxes.



Swipe

This is an operation where the finger is slid in a direction (up or down) on the touch panel.

This is used to scroll slowly.



Flick

This is an operation where the finger on the touch panel is flicked in a direction (up or down).

This is used to scroll quickly.



Buttons and boxes

There are varieties of buttons and boxes on the screen that you use to perform operations and settings on the touch panel.

Buttons

These are used to switch screens, save settings, switch settings on or off, select items, and similar operations.

Display example	Status	Explanation
	Setting is off	In this state the setting is off.
	Setting is on	In this state the setting is on.
	Setting unavailable	This indicates that the setting is currently unavailable due to other conditions.

Display example	Status	Explanation
	Selected	The highlighted item is the one that is currently selected.
	Selection disabled	This indicates that the selection is currently unavailable due to other conditions.

Check boxes

These are mainly used to switch on or off item selection and functions.

Display example	Status	Explanation
	Unselected	In this state the item is not selected.
	Selected	In this state the item is selected. (In this example, the automatic stop feature will operate.) A check mark appears when you touch it. The check mark disappears when you touch it again.

Spin boxes

These are used to switch the display of items and to set numeric items such as time.

Display example	Explanation
	▶ takes you to the next item. ◀ takes you to the previous item. Items may cycle around in the following way:
	▲ increases the numeric figure. ▼ decreases the numeric figure. The numbers will change continuously if you continue to touch the button. The numbers cycle around in the following way: For example: When the number is an "hour"

Buttons and boxes (continued)

Text boxes

These are used when you need to edit some text.

Display example	Explanation
IP address XXXX.XXX.XXX.XXX	The touchscreen keyboard appears when you touch the text box. Use the touchscreen keyboard to enter the text. Refer to "Number and letter input" (P.214) for instructions on how to enter text.

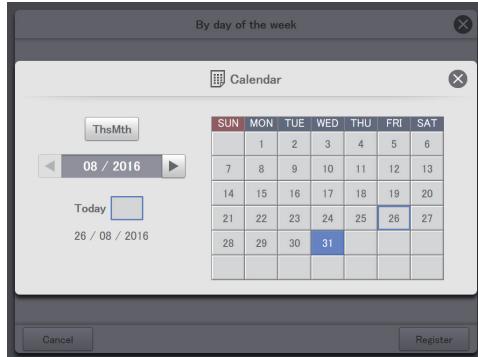
Dialogues

These are elements that appear on the screen and are mainly used for settings.

They close automatically once you have registered the settings.

Touch  to close the dialogue without changing the setting.

(There may also be cases where you touch  at the top right of the screen to register the setting)



Notations in this document

Menu names, screen names, etc., are shown as follows in this document.

Type	Notation	Example
Top menus	"xxx"	"Oper./Status"
Screen names		"I/D unit list" screen
Screen display items		"Select" column, "ON/OFF"
Submenu names	[xxx]	[Operation/Status]
Screen menu names		[I/D unit list]
Button names		[Operation]

How to read the screens

There are some items and icons common to the operations and settings screens.
The following explains the items and icons.

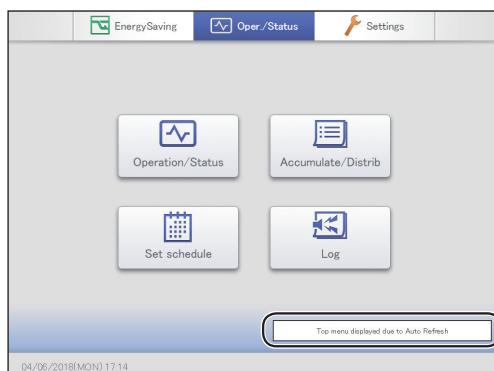


Name	Explanation
A Submenu name	This displays the submenu name.
B Operations/Settings screen name	This displays the operations/settings screen name.
C Date and time	The current date and time is displayed.
D "Home" icon	Touch this to display the Top menu (P.18).
E Scroll buttons	Touch on the right side of the screen to scroll to the right. Touch to scroll to the left. (The display changes according to the direction you can scroll.)
F "Back" icon	Touch this to go back to the previous menu.
G "Warning" icon	The "Alarm list" screen is displayed when you touch this. (→ "Checking on current alarms" (P.36))

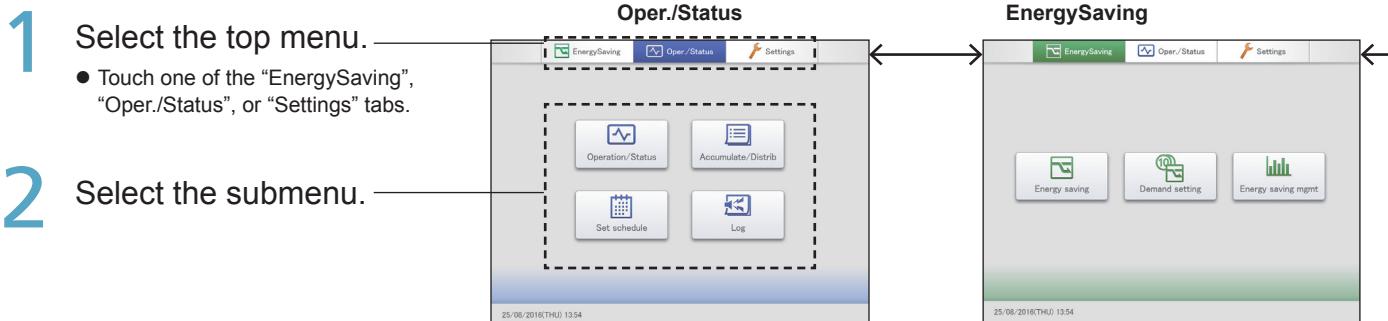
- In this document and on the unit, indoor units are described as the "I/D".
- In this document and on the unit, outdoor units are described as the "O/D".

Automatic refresh function

The screen may be reset or you may be returned to the Top menu under some rare circumstances, but this is an automatic refresh function and is not indicative of a malfunction.



Menu list



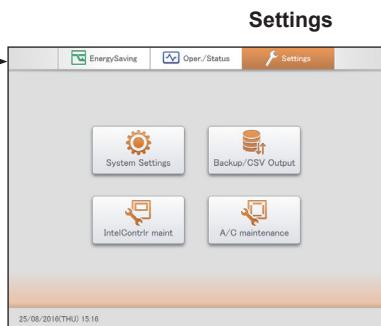
Oper./Status (Check on the status of connected units)

Submenu	Screen menu	Overview	Page
Operation/Status	I/D unit list I/D unit information O/D unit information Alarm list	Check the operational status of the indoor units in a list. Check the details about the indoor units (number of operation cycles, etc.) in a list. Check the details about the outdoor units (outdoor temperatures, etc.) in a list. You can view a list of units with current alarms, where you can check the unit, the alarm type, and the date of the alarm.	24 28 33 36
Set schedule	Schedule/results Calendar Schedule setting Update schedule	You can see the schedules set up for the future and how they performed in the past in a list. You can allocate a single day's schedule to a calendar. You can register the schedule for a single day. You can modify a schedule that you have registered (only from the day of the change up to 4 days later, or a total of 5 days).	54 50 44 56
Log	Alarm log Operation/Status change log	Check the log of alarms that have occurred in the system in a list. Check the log of operation/status changes of the indoor units in a list.	59 61
Accumulate/Distrib	I/D unit acc. O/D unit acc. Pulse acc. Distribution data	Check the accumulated data for the indoor units in a list. Check the accumulated data for the outdoor units in a list. Check the accumulated data for the pulse meters in a list. Check the details about distribution calculations in a list.	65 67 69 72

EnergySaving (Perform energy saving settings)

Submenu	Screen menu	Overview	Page
Energy saving	★ Set temp. auto return ★ Unattended auto shutoff ★ Set temperature range limit ★ Energy saving timer/Efficient operation setting* ★ Out unit silent setting ★ Register demand point ★ I/D unit demand settings ★ O/D unit demand settings ★ I/D unit cyclic ★ O/D unit cyclic ★ Demand/peak shaving settings/ Peak cut settings*	Even if the temperature initially set is changed, the temperature automatically returns to the set one after a certain amount of time. If the indoor unit automatically stops at the set time but then is started again, this setting automatically stops the unit again repeatedly at set intervals. Restrict the temperatures that can be set by setting upper and lower limits on temperatures. You can specify time slots when you want operation capacity reduced. Set a time for the outdoor unit to operate at a lower level at night compared to the day. Register the contacts between the external equipments and the main unit (Contact A, Contact B, Contact C). You can automatically control indoor units to cut the maximum demand for electricity or maximum gas consumption. You can automatically control outdoor units to cut the maximum demand for electricity or maximum gas consumption. At specified intervals (3, 4, or 5 minutes), the thermostats of indoor units in control groups are turned off and restored repeatedly in order. At specified 10 minute intervals, the thermostats of outdoor units in control groups are turned off and restored repeatedly in order. Limit the electricity or gas consumed by outdoor units during the set time slot.	77 80 83 85 87 89 90 93 98 102 95
Demand setting	Bar chart Line graph	Quantities of energy usage (electricity, gas), etc., are shown in bar charts. Temperature changes, etc., are shown in line graphs.	109 113
Energy saving mgmt			

* When using gas heat pump air conditioners



Settings (Perform other miscellaneous settings)

Submenu	Screen menu	Overview	Page
 System Settings	★ Calendr stngs for distr calc	Set specified days, cut-off days, particular time slots (regular hour ranges) and days of the week for calculating distributions.	148
	★ I/D unit settings	Change settings on indoor units, such as indoor unit addresses, groups belonged to, etc.	141
	★ O/D unit settings	Change settings on outdoor units (addresses, etc.).	145
	★ Schedule group name settings	Edit the name of the schedule group.	151
	★ Area group name settings	Edit the name of the area group.	153
	★ Distribution group settings	Edit the name of the distribution group.	155
	★ Pulse meter settings	Make allocations between pulse meters and distribution groups.	158
	★ Distribution mode settings	Set the mode used for distributing when calculating charges.	160
	★ Distribution Ratio settings	Set the units for calculating electricity and gas usage charges.	161
	★ Event control	Perform linked control by setting input and output conditions for devices.	162
	★ Network settings	Make settings to enable remote control over a network.	123
	★ Email settings	Configure the outgoing mail server.	168
	★ Web user settings	Register users that will access the unit over a network.	125
	★ Communication adapter setting	Register the communication adaptor connected to this unit.	170
	★ Check configuration*	Modify the registered configuration when there have been changes to the configuration of the system.	226
	★ Hybrid GHP/EHP settings	Make settings for Hybrid GHP/EHP control.	172
 Backup/CSV Output	★ Backup	Save data (settings, accumulation/distribution, logs) to USB memory devices.	130
	★ Restore	Restore data that has been stored in the unit or saved to a USB memory device.	132
	★ CSV Output	Export (output) the settings for this unit in CSV format.	134
	★ CSV Input	Import (input) the settings for this unit in CSV format.	136
	★ Auto-save CSV file	Saves the CSV files (distributions, logs) automatically generated in this unit.	138
 IntelContrlr maint	★ Display/Volume settings*	Adjust the brightness of the unit's screen and the sound of the buzzer.	199
	★ Intelligent Controller info	Register the contacts for servicing (telephone numbers) for this unit.	200
	★ Software update*	Update the software for this unit.	201
	★ Initialize*	Initialise the settings for this unit. All data will be lost when you initialise. Do not initialise under any circumstances.	202
	★ Language&TimeZone stngs	Set the language to be used when setting and operating this unit.	205
	★ Date settings	Manually set the date and time.	204
	Open license	The licences for the freeware is displayed.	—
 A/C maintenance	★ Test run	Perform a test operation of the indoor unit after installing this unit.	207
	★ A/C communication settings	Make settings such as the communications protocol between this unit and the air conditioning units.	210
	★ Maintenance information	Register the units that will require maintenance.	212

* These settings are not available for setting or operation over the network.

Menus marked with ★☆ require you to enter the identification number (password) when you select them.

★ menus require entry of the level 1 or higher identification number, while ☆ requires the level 2 identification number.

Refer to "Input of the identification number (password)" (P.22) for details.

Initial settings

The initial settings are those items that require setting after the unit is installed so that the system operates normally.

The unit will operate normally if you make settings according to the following flow for the type of operation intended.

○: Settings required. △: Settings may be required. ×: Settings not required.

Step	Category step	Setting	Screen menu names	Reference page	Operation			
					Air conditioning operations only	Distribution rate display only	Quantity used, charges display	Time
Step	Category step	Setting	Screen menu names	Reference page	Air conditioning operations only	Distribution rate display only	Quantity used, charges display	Time
1	Date settings	Setting the current date and time	Date settings	204	○	○	○	○ ○
2	Composition loading	Confirming the connection configuration	Check configuration	—	○	○	○	○ ○
3	Unit related	Central address* ¹	I/D unit settings	141	○	○	○	○ ○
		Name of the indoor units	I/D unit settings	141	○	○	○	○ ○
		Distribution group	I/D unit settings	141	×	○	○	○ ○
		Area group	I/D unit settings	141	△* ²	○	○	○ ○
		Control group	I/D unit settings	141	△	△	△	△ △
		Not batch, not managed	I/D unit settings	141	△	△	△	△ △
		Name of the outdoor units	O/D unit settings	145	△	△	△	△ △
4	Group related	Local remote controller prohibition setting	A/C communication settings	210	△	△	△	△ △
		Name of the area group	Area group name settings	153	△* ²	○	○	○ ○
		Name of the distribution group	Distribution group settings	155	×	○	○	○ ○
5	Pulse meter related	Name of the schedule group	Schedule group name settings	151	△	△	△	△ △
		Association with the distribution group	Pulse meter settings	158	×	×	×	○ ○
		Type of pulse meter (electricity/gas), multiplying factor (number of pulse units)	Pulse meter settings	158	×	×	×	○ ○
6	Distribution related	Name of the pulse meter	Pulse meter settings	158	×	×	×	△ △
		Distribution modes (time/load)	Distribution mode settings	160	×	○	○	○ ○
		Power distribution calculation target* ³	Distribution mode settings	160	×	○	○	○ ○
		Energy saving distribution setting	Distribution mode settings	160	×	×	△* ⁴	× △* ⁴
		Distribution of gas for power generation	Distribution mode settings	160	×	×	×	△* ⁵ △* ⁵
		Setting the monthly cut-off days	Calendr stngs for distr calc	148	△* ⁶	○	○	○ ○
		Setting the regular hour range	Calendr stngs for distr calc	148	×	△	△	△ △
		Setting specified days	Calendr stngs for distr calc	148	×	△	△	△ △
		Currency for electricity or gas charges* ⁷	Distribution Ratio settings	161	×	×	×	△ △
		Setting the capacity of the indoor units* ⁸	I/D unit settings	141	×	△	×	△ ×
7	Scheduling related	Setting the capacity of the electric heater* ⁹	I/D unit settings	141	×	×	△	× △
		Schedule for a single day	Schedule setting	44	△	△	△	△ △
		Allocating a schedule to a calendar	Calendar	50	△	△	△	△ △
8	Event control	Schedule group	I/D unit settings	141	△	△	△	△ △
		Input point (names and conditions)* ¹⁰	Event control	162	△	△	△	△ △
		Output point (names and operation)* ¹¹	Event control	162	△	△	△	△ △

Step	Category step	Setting	Screen menu names	Reference page	Operation			
					Air conditioning operations only	Distribution rate display only		Quantity used, charges display
					Time	Load	Time	Load
9	Network related* ¹²	IP address, net mask, DHCP, etc.	Network settings	123	△	△	△	△
		Setting to send alarm mails	Email settings	168	△	△	△	△
		User ID, password, privileges	Web user settings	125	△	△	△	△
10	Intelligent controller related	Buzzer volume	Display/Volume settings	199	△	△	△	△
		Brightness of the back light	Display/Volume settings	199	△	△	△	△
		Auto logout time	Display/Volume settings	199	△	△	△	△
		Register PIN (Identification number)	Initialize	202	△	△	△	△
		Initialise the days accumulated data* ¹³	Initialize	202	○	○	○	○

*1 Attention needs to be paid to administration divisions when devices such as systems controllers are to be used in conjunction with this unit.

*2 Settings required when area administration is to be performed.

*3 Select the object of calculations for electricity distributing from the following:

Operating hours	Select when consideration is to be paid to the electricity for the indoor units. The electricity for outdoor units and indoor units are both loaded into this unit and distributed.
Thermostat on times	Select when no consideration is to be paid to the electricity for the indoor units. The electricity for outdoor units only is loaded into this unit and distributed.

*4 If the air conditioning units included in the system are multi-function types supporting simultaneous heating and cooling or ice thermal storage models, settings are required.

*5 Settings are required only when units are GHP with generators.

*6 Settings are required when only the accumulation operating time is to be managed.

*7 This must be set if you want to display charges.

*8 This only needs to be set for interface adaptors. (→ "Interface adaptors (sold separately)" (P.224))

*9 This is used when calculating load distributing.

*10 Set items such as batch startup and stopping from external input.

*11 Set items such as batch alarm output to external devices.

*12 Required when logging in through a network device to operate and monitor.

*13 Clears the data calculated from test operation of the air conditioning units before hand over.

Input of the identification number (password)

There are identification numbers (password) for Level 1, Level 2, and screen lock release. (P.203)

- Items marked with ★ or ☆ in the “Menu list” (P.18 and P.19) require you to enter a Level 1 or Level 2 identification number before use to maintain security.
- When the screen illumination goes out and the screen operations are locked, you will need to enter one of the Level 1, Level 2, or screen lock release identification numbers to use the intelligent controller again.
- If the identification number (password) is not set, it is not necessary to enter the identification number (password).

Releasing restrictions on screen menu operations

The identification number input screen is displayed when you touch a screen menu.



1. Enter the identification number (level 1 or level 2).

- Depending on the level of identification number you have, you may not be able to enter the menu.

■ When using a browser

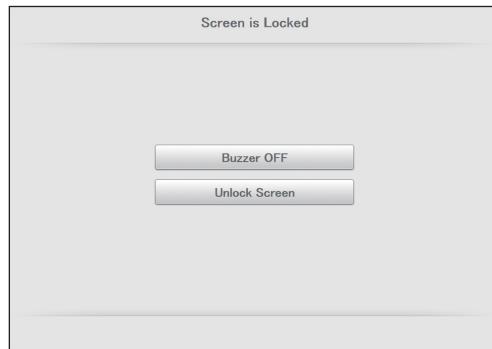
Depending on your user level, some menus may not be displayed. Refer to “Control remotely” (P.128) for information on how to access the menus.

You may need to enter the identification number again after gaining access, depending on the menu.

See above for information on how to enter the identification number.

Releasing the lock on screen operations

The “Screen is locked” screen is displayed if you touch the screen when the screen illumination is off.



1. Touch [Unlock Screen].

2. Enter the identification number.

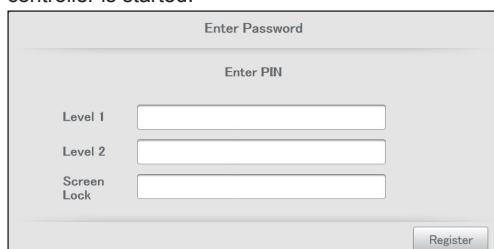
- When you enter a Level 1 or Level 2 identification number, the screen returns to the one that was displayed before the screen illumination turned off.
- When you enter the screen lock release identification number, the screen either returns to the one that was displayed before the screen illumination turned off or to the Top menu.

■ To stop the buzzer when an alarm has occurred

When an alarm occurs and the above screen is displayed after you touch the screen, you can stop the buzzer by touching [Buzzer OFF]. (There is no need to enter an identification number.)

If an identification number has not been set

If a Level 1 or Level 2 identification number has not been set, a dialogue is displayed for setting identification numbers when the intelligent controller is started.



1. Enter an identification number.

- Use an identification number of at least 4 characters (Ensure both numbers and letters are included).

2. Touch [Register].

- The identification number is registered.

Note

- Refer to “Setting the PIN (identification number)” (P.203) for information about setting the identification number.

Check the operation and status of air conditioning units



Operation/Status

This chapter explains how to check the setting status of air conditioning units (indoor units and outdoor units).

This unit allows you to operate and confirm indoor units, and confirm the operational status of indoor units and outdoor units.

You can also check alarms that have occurred in the system in a list.

Screen menu

Overview

Page

I/D unit list	Check the operational status of the indoor units in a list.	24
I/D unit information	Check the details about the indoor units (number of operation cycles, etc.) in a list.	28
O/D unit information	Check the details about the outdoor units (outdoor temperatures, etc.) in a list.	33
Alarm list	You can view a list of units with current alarms, where you can check the unit, the alarm type, and the date of the alarm.	36

Checking the settings on the indoor unit

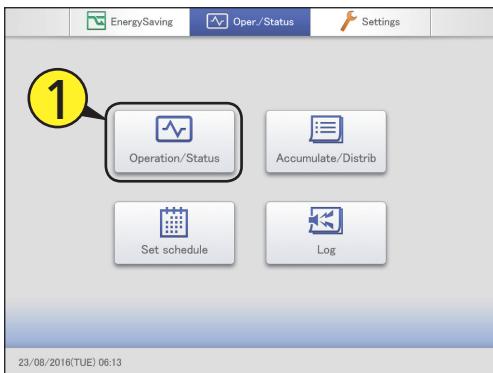
You can check the setting status of all indoor units connected to this unit in a list. You can also change the display to show by area.

Note

- Before proceeding with this setting, you must register the area to be displayed and also register indoor units in that area.

After performing "Changing the name of the area group" (P.153 to 154), perform "Basic settings on the indoor unit" (P.141 to 144), and then proceed with these settings.

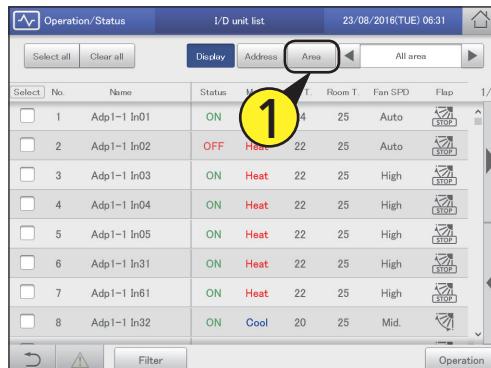
- 1** Touch [Operation/Status] in "Oper./Status".



Select the area to display

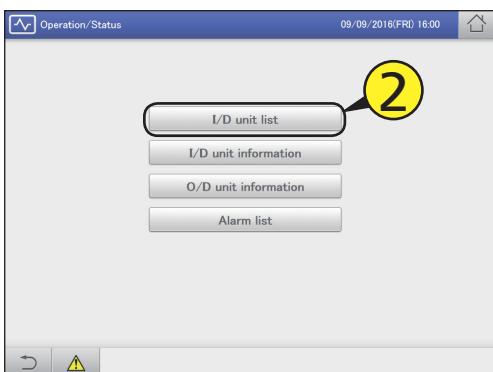
- 1** Touch [Area].

- The "Select Area" dialogue is displayed.

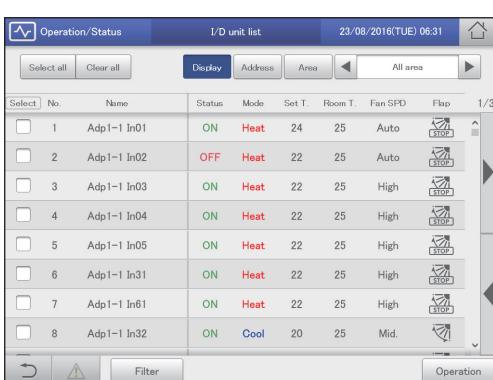


- 2** Touch [I/D unit list].

- The "I/D unit list" screen is displayed.

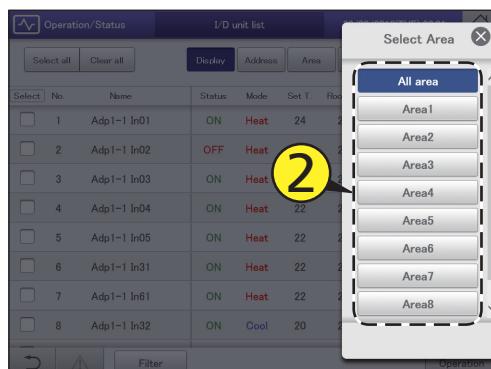


- 3** Checking the status of settings. (P.25)



Select the area to display.

- If 9 or more area groups have been registered (P.153), you can scroll up or down by swiping or flicking the screen.
- The "Select Area" dialogue is closed and the settings of the selected area are displayed in the list.



Note

- You can select indoor units to change their settings. (→ "Operating the indoor unit" (P.26))

"I/D unit list" screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

B: Change list order.

Display	The display follows the order set in "I/D unit settings" (P.141).
Address	The display follows the address order set in "I/D unit settings" (P.141).

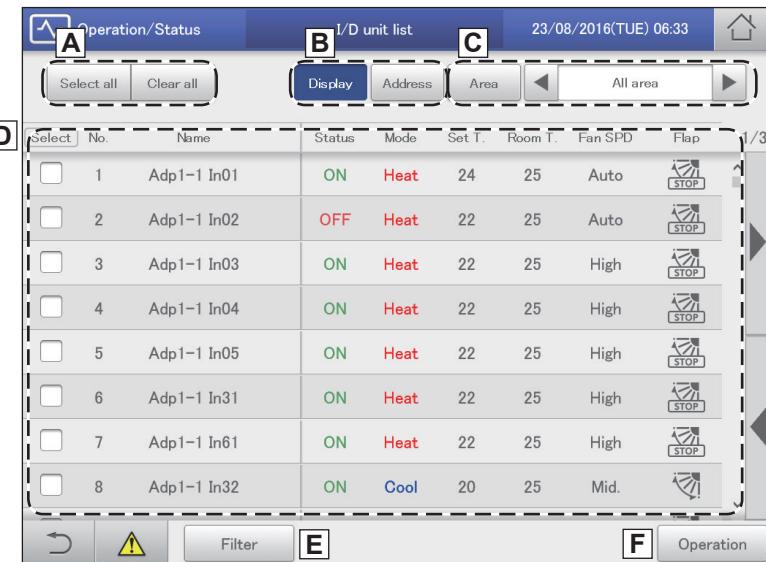
C: Select the area to display in the list.

The area changes each time you touch and . Touch [Area] to display the "Select Area" dialogue. (→ "Select the area to display" (P.24))
 ("All area" → "Area1" → "Area2" →... → "AreaXXX*" → "All area")
 * "XXX" stands for the number of the last of the registered areas.

D: The settings of the indoor units are displayed in a list.

You can scroll up or down by swiping or flicking the screen.

- Each time you touch the item name, the order switches between ascending (▲) and descending (▼).
- Some items are not displayed for some models.



Item	Explanation
[Select]	Select the indoor units you want to operate.
Name	The names of the indoor units are displayed. When an icon is displayed to the right of the name, this indicates that some situation has occurred. : The indoor unit filters need cleaning : An alarm has occurred
Status	This indicates the current operating status (ON/OFF). (P.26)
Mode	The current operating mode (Heat, Dry, Cool, Fan, Auto) is displayed. (P.26)
Set T.	The current temperature setting is displayed. (P.27)
Room T.	The current room temperature is displayed.
Fan SPD	The current fan speed (High, Mid., Low, Auto) is displayed. (P.27)
Flap	The airflow direction is displayed. (P.27)
Prhbt.	This indicates the remote controller operation "Accept" or "Prhbt1" to "Prhbt4". (P.27)
Sche.	This indicates the setting status of the schedule (Yes, --, OFF). Yes: This indicates that a schedule is set. --: This indicates that a schedule is not set. OFF: This indicates that a schedule is set, but that the schedule has not started because indoor units are off or similar.
Eco	"●" is displayed when the energy saving setting is running. (P.27)
ECONAVI	"ECONAVI" is displayed when the ECONAVI setting is running. (Only for models with ECONAVI) (P.27)
e-CUT	"●" is displayed when the e-CUT function is running.

E: After cleaning the filters, touch to clear the filter icon from the display.

F: The "Settings" dialogue of the indoor unit selected at D is displayed.

You can change the settings for the selected indoor unit in the "Settings" dialogue. (→ "Operating the indoor unit" (P.26))

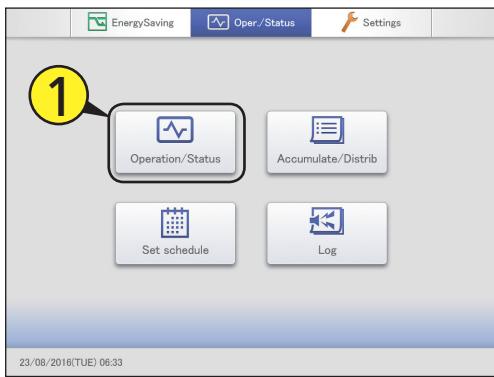
- There may be differences in the items you can set depending on the model of the indoor unit.
- When you have selected multiple units, setting items in common are displayed in the "Settings" dialogue.

Operating the indoor unit

You can select indoor units to change settings, for example, start or stop them, or change their set temperature, etc.. Change settings in the “Settings” dialogue.

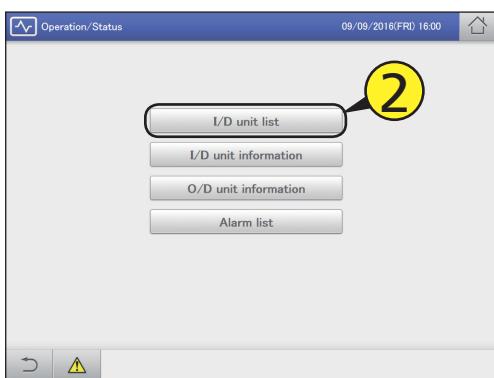
You can also select multiple indoor units and operate them using the same settings.

- 1** Touch [Operation/Status] in “Oper./Status”.



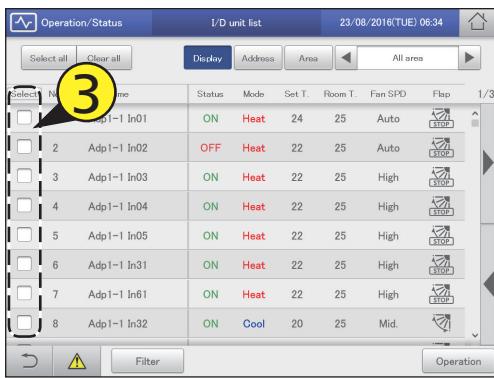
- 2** Touch [I/D unit list].

- The “I/D unit list” screen is displayed.



- 3** Put a check mark in the “Select” column.

- Select the indoor units whose settings you want to change.
- You can touch [Select all] to change the settings in a batch.



- 4** Touch [Operation].

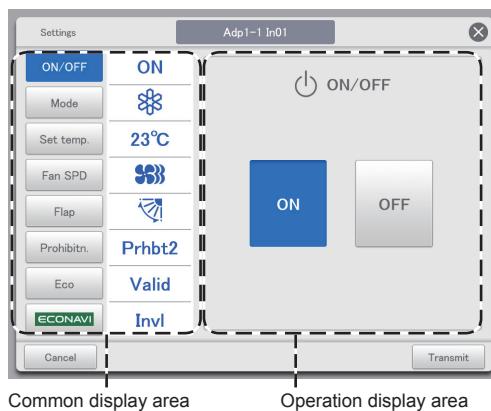
- The “Settings” dialogue is displayed.



Note

- There may be differences in the items you can set in the “Settings” dialogue, depending on the model of the indoor unit.
- When you have selected multiple units, setting items in common are displayed in the “Settings” dialogue.

- 5** Change the settings of the items.



Select an item from the common display area and set the operation in the operation display area.

Item	Explanation
ON/OFF	Set whether to start or stop operation. 1) Touch [ON/OFF]. 2) Select “ON” or “OFF”.
Mode	Set the operating mode. 1) Touch [Mode]. 2) Select the operating mode (heating), (drying), (cooling), (fan), (automatic)).

Continued on next page ➞

Item	Explanation
Set temp.	<p>Set the temperature.</p> <ol style="list-style-type: none"> Touch [Set temp.]. Set the temperature with and . (\pm in 1 °C steps) <p><Setting ranges></p> <ul style="list-style-type: none"> In cooling or drying mode: Between 18 °C and 30 °C In heating mode: Between 16 °C and 30 °C*1 Automatic: Between 17 °C and 27 °C <p>*1 The upper limit temperature for some models is 26 °C.</p>
Fan SPD	<p>Set the strength of the fan.</p> <ol style="list-style-type: none"> Touch [Fan SPD]. Select the fan speed (HIGH) (high), (MID) (mid), (LOW) (low), (AUTOMATIC) (automatic).
Flap*2	<p>Set the direction of the airflow.</p> <ol style="list-style-type: none"> Touch [Flap]. Set the flap to the desired position (F1), (F2), (F3), (F4), (F5), (Swing). Touch during the swing to stop the flap at the desired position. <ul style="list-style-type: none"> Heating, fan, and automatic (heating) can be adjusted in 5 steps and cooling and dry can be adjusted in 3 steps. You can set either or if the model does not support airflow direction settings.
Prohibit.*3	<p>Set whether to allow or prohibit use of the local remote controller.</p> <ol style="list-style-type: none"> Touch [Prohibitn.]. Use to select from "Accept", "Prhbt1", "Prhbt2", "Prhbt3", or "Prhbt4". Accept: Allows operations with the remote controller. Prhbt1 to Prhbt4: Operations on the remote controller are restricted. You can change the restricted operations. (P.211)
Eco	<p>Enable or disable energy saving operation.</p> <ol style="list-style-type: none"> Touch [Eco]. Select "Valid" or "Invl".
	<p>Enable or disable ECONAVI setting.</p> <ol style="list-style-type: none"> Touch . Select "Valid" or "Invl".

*2 The air flow indicated on the Intelligent Controller is different from the actual angle.

*3 Example of prohibiting or enabling remote controller use (factory setting)

	ON/OFF	Mode	Set temp.	Fan SPD	Flap	Eco
Accept	○	○	○	○	○	○
Prhbt1	×	○	○	○	○	○
Prhbt2	×	×	×	○	○	○
Prhbt3	○	×	×	○	○	○
Prhbt4	○	×	○	○	○	○

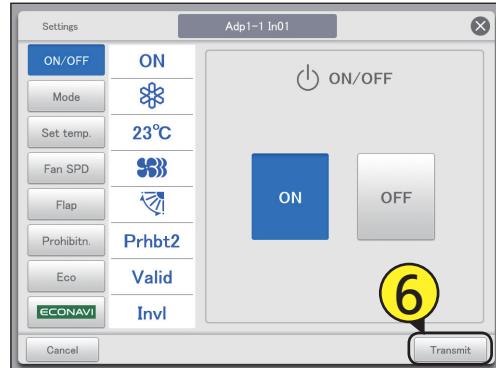
○: Operation and setting with the remote controller is possible

×: Operation and setting with the remote controller is not possible

6

Touch [Transmit].

- The settings are registered and the "Settings" dialogue closes.
- To cancel the settings, touch [Cancel].



Note

- Touch (or) at the upper value (or lower value) of the set temperature and the set value becomes a blank (no setting). Make the setting blank when you want no setting. Furthermore, touch (or) and the upper value (or lower value) is displayed.

For example:
If upper value 30 °C and
lower value 18 °C (cooling)

19 °C

18 °C (lower limit value)

(blank)

30 °C (upper limit value)

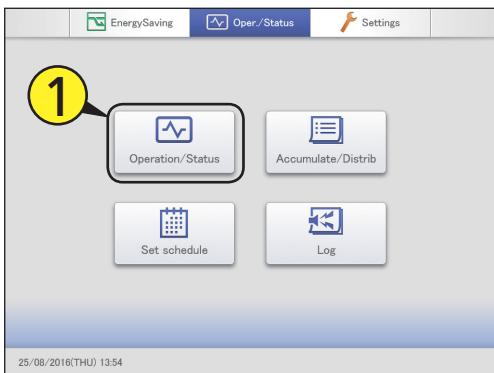
29 °C
⋮

Checking the operational status of indoor units

Check the operational status of indoor units (remaining filter time, number of operation cycles, etc.) in a list.

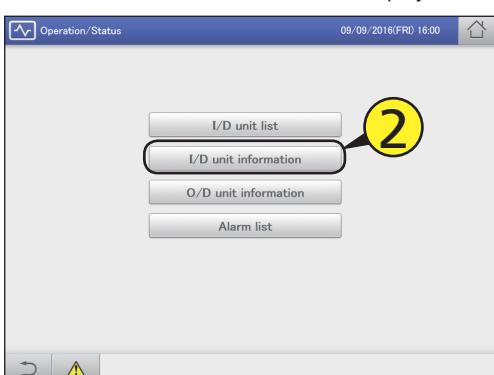
You can also change the ventilation system and demand control settings (ON or OFF only).

- 1 Touch [Operation/Status] in “Oper./Status”.



- 2 Touch [I/D unit information].

- The “I/D unit information” screen is displayed.



- 3 Check the setting details. (P.29)

Select	No.	Name	Filter time	OprCount	Demand	T/S	Fan
<input type="checkbox"/>	1	Adp1-1 In01	2000	1224	OFF	ON	Auto
<input type="checkbox"/>	2	Adp1-1 In02	3000	987	OFF	ON	Auto
<input type="checkbox"/>	3	Adp1-1 In03	2980	7	OFF	ON	Auto
<input type="checkbox"/>	4	Adp1-1 In04	1600	13	OFF	ON	Auto
<input type="checkbox"/>	5	Adp1-1 In05	1943	0	ON	ON	Auto
<input type="checkbox"/>	6	Adp1-1 In06	--	11	ON	ON	Auto
<input type="checkbox"/>	7	Adp1-1 In07	--	1	OFF	ON	Auto
<input type="checkbox"/>	8	Adp1-1 In08	--	0	OFF	ON	Auto

Note

- You can select indoor units to change their ventilation output settings. (→ “Changing the settings for ventilation output” (P.30))
- You can select indoor units to change their demand control settings. (→ “Changing the demand control settings” (P.31))

"I/D unit information" screen

- A: [Select all]/[Clear all] buttons

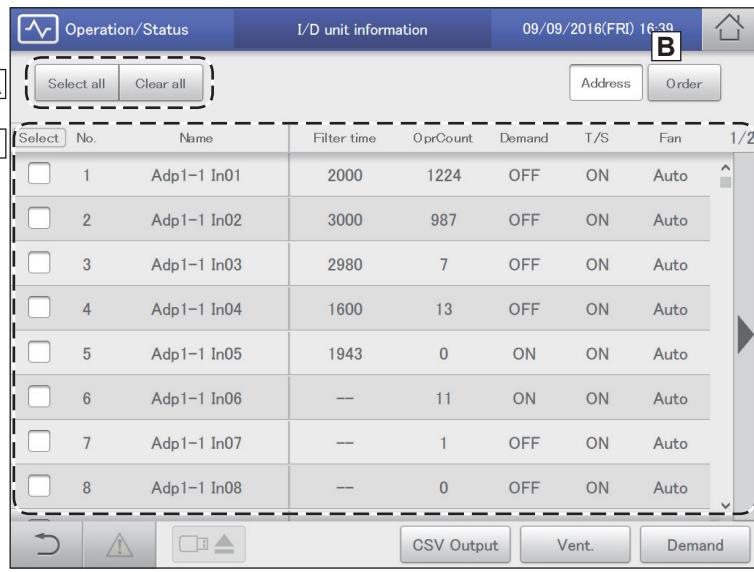
[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

- B: Change list order. The list order changes each time you touch it.

Address	The display follows the address order set in "I/D unit settings" (P.141).
Display	The display follows the order set in "I/D unit settings" (P.141).
O/D unit	The display follows the outdoor unit display order set in "O/D unit settings" (P.145).

- C: Indoor unit details are displayed in a list.

You can scroll up or down by swiping or flicking the screen.



F D E

Item	Explanation
[Select]	Select the units you want to make ventilation settings or demand settings for.
Name	The names of the indoor units are displayed. You can change the names. (→ "I/D unit settings" (P.141))
Filter time	This displays the approximate time remaining before is displayed. "--" is displayed for sub units in control groups.
OprCount	The number of operation cycles for the day is displayed.
Demand	Demand control setting status is displayed. "ON" is displayed when demand control is set. (→ "Demand settings on the indoor unit" (P.90))
T/S	This displays the operational status of the thermostat. "ON" is displayed when the thermostat is working.
Fan	The actual fan strength (High/Mid./Low/Auto/OFF) is displayed.
SuctnTmp	The current inlet temperature is displayed.
DschgTmp	The current outlet temperature is displayed.
VentOpen	The ventilation output setting (ON or OFF) is displayed.

- D: Change the settings for ventilation output.

The "Vent." dialogue is displayed when you touch this. (→ "Changing the settings for ventilation output" (P.30))

ON	Operation of the ventilation output starts.
OFF	Operation of the ventilation output stops.

- E: Change the demand control settings.

The "Demand setting" dialogue is displayed when you touch this. (→ "Changing the demand control settings" (P.31))

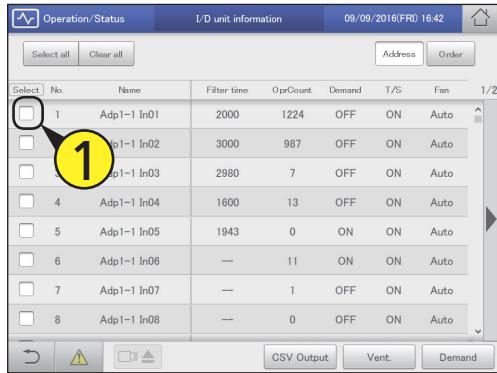
ON	Demand control is set.
Cancel	Demand control is cancelled.

- F: The contents currently displayed are output to the USB memory device as a CSV file. (→ "Outputting (saving) the displayed contents as a CSV file" (P.32))

Changing the settings for ventilation output

1 Put a check mark in the “Select” column.

- Select the indoor units whose settings you want to change.
- You can select multiple indoor units.



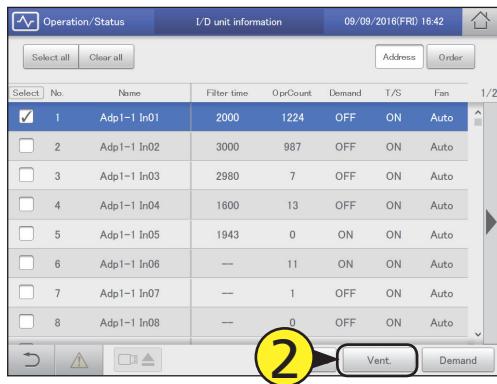
3 Change the settings.

- The settings are registered and the “Vent.” dialogue closes.



2 Touch [Vent.].

- The “Vent.” dialogue is displayed.

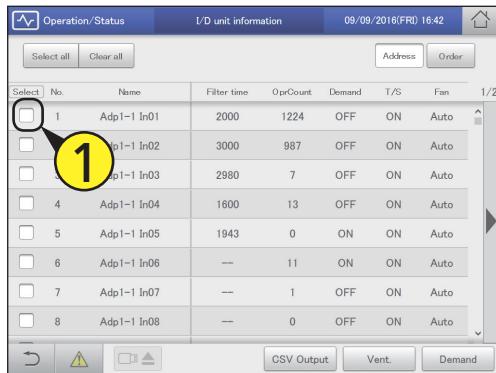


Changing the demand control settings

Switch between setting and cancelling demand control. Refer to "Demand settings on the indoor unit" (P.90) for information about demand control.

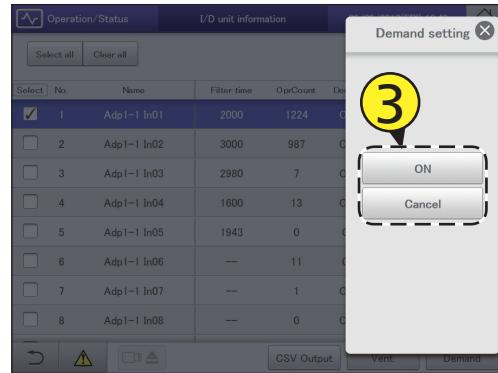
1 Put a check mark in the "Select" column.

- Select the indoor units whose settings you want to change.
- You can select multiple indoor units.



3 Change the settings.

- A confirmation message appears.

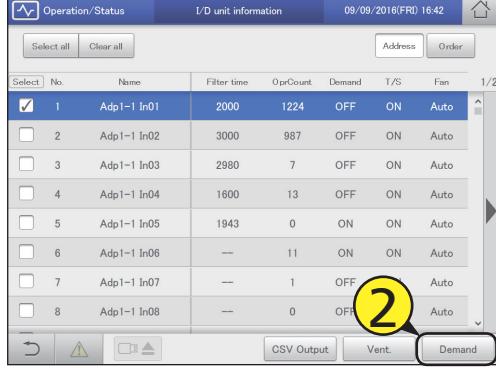


Note

- This setting is linked with "I/D unit demand settings". (→ "Demand settings on the indoor unit" (P.90))

2 Touch [Demand].

- The "Demand setting" dialogue is displayed.



4 Touch [Yes].

- The setting is registered.

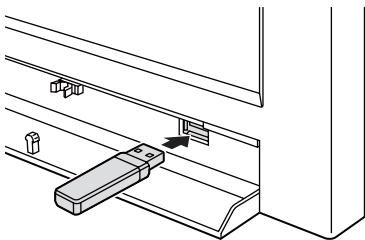


Outputting (saving) the displayed contents as a CSV file

The following screen is the “I/D unit information” screen.

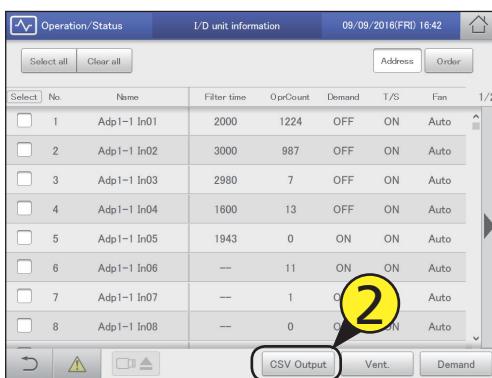
CSV file output (saving) for “O/D unit information”, “I/D unit acc.”, “O/D unit acc.”, “Pulse acc.”, and “Alarm log” is the same as for “I/D unit information”.

- 1** Open the storage door and connect a USB memory device to the USB terminal.



- 2** Touch [CSV Output].

- A confirmation screen is displayed.

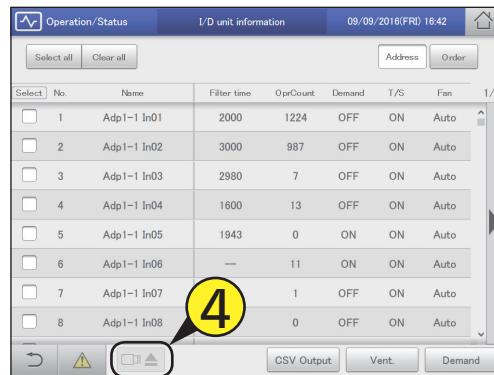


- 3** Touch [OK].

- The contents currently displayed is saved to the USB memory device in CSV format.
- When saving is complete, a message confirming that saving is complete is displayed.

- 4** Touch  when you want to disconnect the USB memory device.

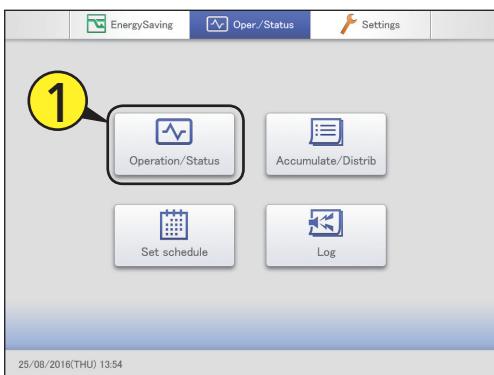
- The message “USB memory can now be safely removed” is displayed. Touch [OK] and then remove the USB memory device.
- Close the storage door after removing the USB memory device.



Checking the operational status of the outdoor unit

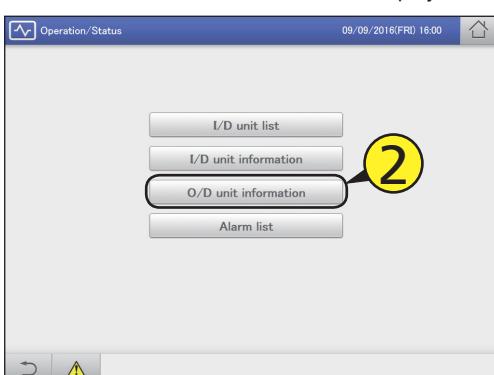
Check the details about the outdoor units (outdoor temperatures, demand setting status, etc.) in a list. You can also select outdoor units to change their demand control settings (ON or OFF only).

- 1 Touch [Operation/Status] in “Oper./Status”.



- 2 Touch [O/D unit information].

- The “O/D unit information” screen is displayed.



- 3 Check the setting details. (P.34)

Select	No.	Name	OutdrTemp	Demand	Silent	Current coil change time	En
<input type="checkbox"/>	1	Unit1 Out10	-0.5	NoStngs	----	-----	-----
<input type="checkbox"/>	2	Adp1-1 Out1	26.0	NoStngs	ON	14568	14568
<input type="checkbox"/>	3	Adp1-1 Out2		NoStngs	ON	14567	14567
<input type="checkbox"/>	4	Adp1-1 Out3		NoStngs	----	-----	-----
<input type="checkbox"/>	5	Adp1-1 Out4		NoStngs	----	-----	-----
<input type="checkbox"/>	6	Adp1-1 Out5		NoStngs	----	14129	14129
<input type="checkbox"/>	7	Adp1-1 Out6		NoStngs	----	14129	14129
<input type="checkbox"/>	8	Adp1-1 Out7		NoStngs	----	14128	14128

Note

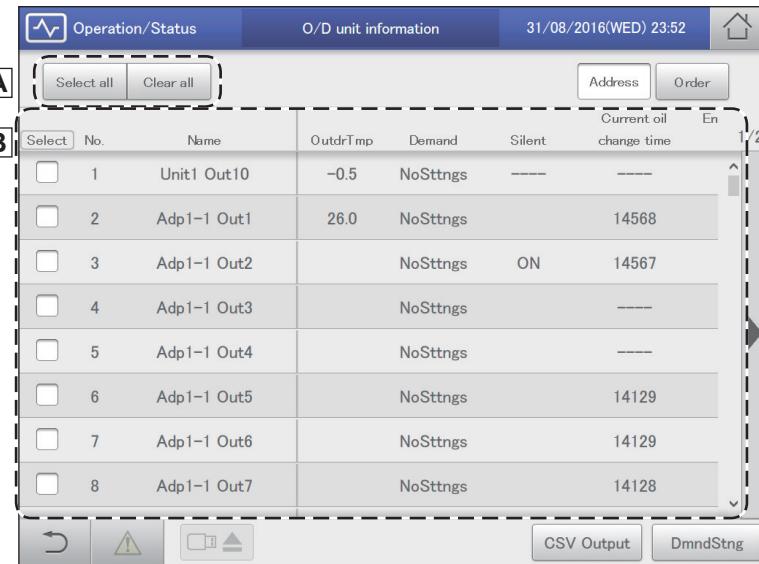
- You can select outdoor units to change their demand control settings. (→ “Changing the demand control settings” (P.35))

Checking the operational status of the outdoor unit

“O/D unit information” screen

- A: [Select all]/[Clear all] buttons

[Select all]	Select all outdoor units.
[Clear all]	Cancel selection of all outdoor units.



- B: Outdoor unit details are displayed in a list.

You can scroll up or down by swiping or flicking the screen.

D C

Item	Explanation
[Select]	Select the units you want to set demand control for.
Name	The names of the outdoor units are displayed. You can change the names. (→ “Basic settings on the outdoor unit” (P.145))
OutdrTmp	The temperature outside is displayed.
Demand	Demand control setting status is displayed. (→ “Demand settings on the outdoor unit” (P.93))
Silent	This displays the operational status of the out unit silent. (→ “Reducing the noise of outdoor units” (P.87)) • This is supported only by some outdoor units.
Current oil change time	The number of operating hours after the last oil change is displayed. (Available only when using a gas heat pump)
Engine oil check sign	This displays the check sign for engine oil. (Available only when using a gas heat pump) • If this sign is displayed, contact the place of purchase or your servicing agent to have the oil replaced.
Inverter instant.(kW)	This displays the current value for the inverter generator instantaneous value of the ECO G HIGH POWER.
Solar instant.(kW)	This displays the current value for the solar generator instantaneous value of the ECO G HIGH POWER.

- C: Change silent mode.

The “Demand” dialogue is displayed when you touch this.

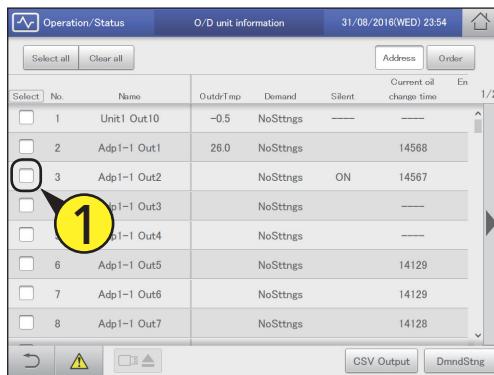
(→ “Changing the demand control settings” (P.35))

- D: The contents currently displayed are output to the USB memory device as a CSV file. (→ “Outputting (saving) the displayed contents as a CSV file” (P.32))

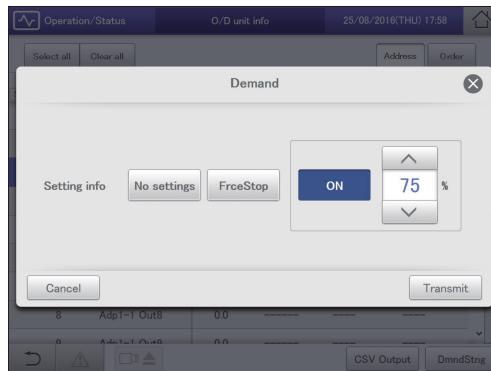
Changing the demand control settings

1 Put a check mark in the “Select” column.

- Select the outdoor units whose settings you want to change.
- You can select multiple outdoor units.



3 Set the demand operating range.



[No settings]	The demand operation setting is cancelled.
[FrceStop]	Demand operation is forcibly stopped.
[ON XX%] (Demand values)	Use <input type="button" value="^"/> and <input type="button" value="v"/> to select an available demand value for the selected outdoor unit. • If multiple outdoor units are selected, the demand values common between them are displayed.

2 Touch [DmndStng].

- The “Demand” dialogue is displayed.



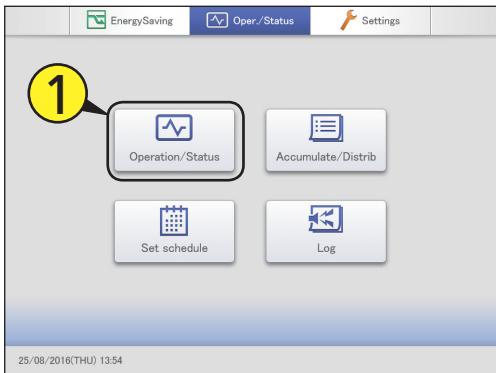
4 Touch [Transmit].

- The settings are changed and the “Demand” dialogue is closed.
- To cancel the settings, touch [Cancel].

Checking on current alarms

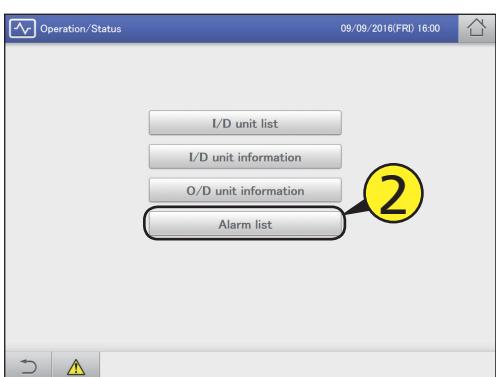
You can check the indoor unit names, alarm codes, and dates and times of occurrence and recovery for alarms that have occurred in the air conditioning system in a list. You can also do things such as output the alarm list in CSV format and check the alarm log.

- 1 Touch [Operation/Status] in “Oper./Status”.



- 2 Touch [Alarm list].

- The “Alarm list” screen is displayed.



- 3 Checking on current alarms. (P.37)

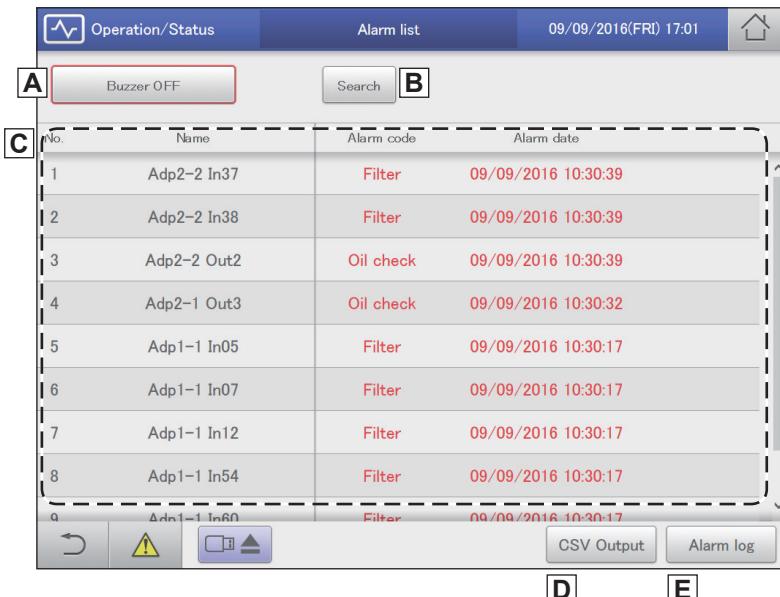
No.	Name	Alarm code	Alarm date
1	Adp2-2 In37	Filter	09/09/2016 10:30:39
2	Adp2-2 In38	Filter	09/09/2016 10:30:39
3	Adp2-2 Out2	Oil check	09/09/2016 10:30:39
4	Adp2-1 Out3	Oil check	09/09/2016 10:30:32
5	Adp1-1 In05	Filter	09/09/2016 10:30:17
6	Adp1-1 In07	Filter	09/09/2016 10:30:17
7	Adp1-1 In12	Filter	09/09/2016 10:30:17
8	Adp1-1 In54	Filter	09/09/2016 10:30:17
9	Adp1-1 In60	Filter	09/09/2016 10:30:17

“Alarm list” screen

- A: Stop the alarm notification buzzer.
- B: Set conditions (unit names, periods) to search alarms.
(→ “Searching alarms” (P.38))
- C: Display a list of current alarms.
You can scroll up or down by swiping or flicking the screen.

Item	Explanation
Name	The names of units where alarms are currently occurring are displayed.
Alarm code	The alarm detail of current alarms is displayed.
Alarm date	This displays the date and time the alarm occurred.

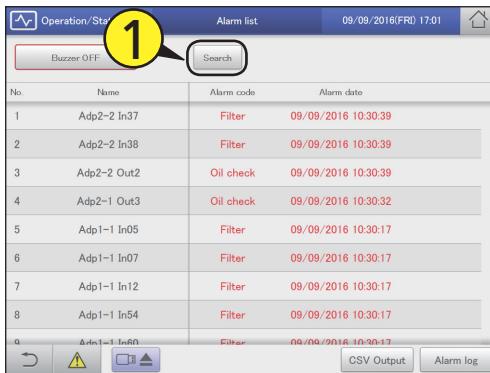
- D: You can output (save) the displayed list of alarms in CSV format.
(→ “Outputting (saving) the list of alarms in CSV format” (P.39))
- E: The “Alarm log” screen is displayed when you touch this. (→ “Checking the alarm logs” (P.59))



Searching alarms

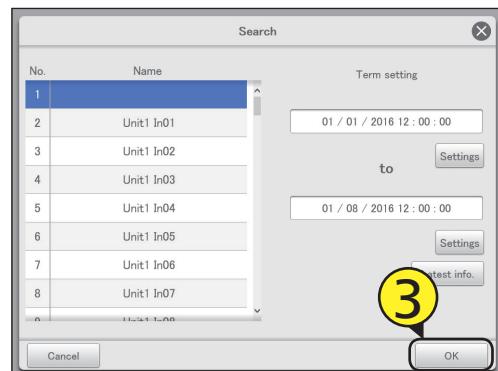
1 Touch [Search].

- The “Search” screen is displayed.

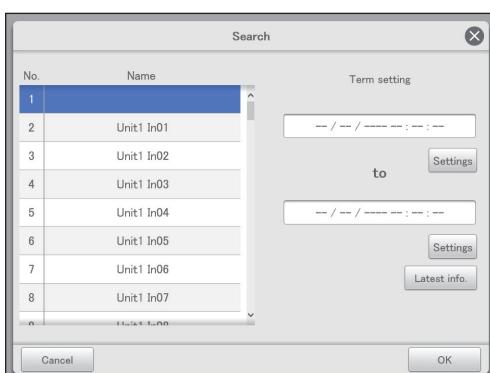


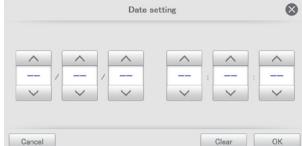
3 Touch [OK].

- Alarms matching the conditions are displayed in a list.
- To cancel the search, touch [Cancel].



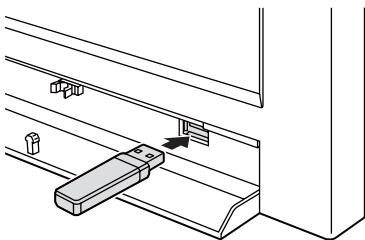
2 Setting the conditions.



Item	Explanation
Name	Select the name of the unit for which you want to find the information from the list.
Term setting	<p>Set the start and finish for the period you want to search. The time at the top is the start of the period and the time at the bottom is the end.</p> <p>1. Touch [Settings].</p> <ul style="list-style-type: none"> The “Date setting” dialogue is displayed. <p>2. Set the date and time.</p> <ul style="list-style-type: none"> Use to set the “Day”, “Month”, “Year”, “Hours”, “Minutes”, and “Seconds”.  <p>3. Touch [OK].</p> <ul style="list-style-type: none"> The settings are registered and the “Date setting” dialogue closes. To cancel the settings, touch [Cancel].
[Latest info.]	Touch to clear the period you have set and show the most recent 100 alarms.

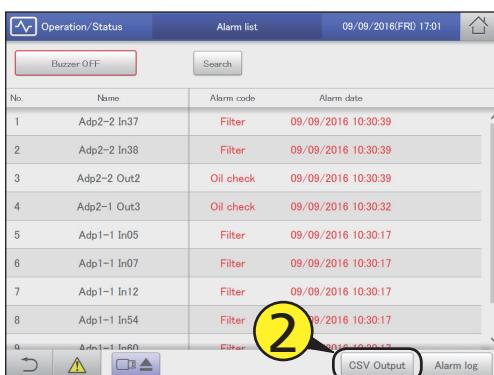
Outputting (saving) the list of alarms in CSV format

- 1** Open the storage door and connect a USB memory device to the USB terminal.



- 2** Touch [CSV Output].

- A confirmation screen is displayed.



- 3** Touch [OK].

- The list of alarms currently displayed is output (saved) to the USB memory device as a CSV file.
- When saving is complete, a message confirming that saving is complete is displayed.
- The CSV file is saved to the "icxi/csv/almlist" folder.
(Example file name for the output file)
al_18052016.csv

- 4** Touch  when you want to disconnect the USB memory device.

- The message "USB memory can now be safely removed" is displayed. Touch [OK] and then remove the USB memory device.
- Close the storage door after removing the USB memory device.

No.	Name	Alarm code	Alarm date
1	Adp2-2 In37	Filter	09/09/2016 10:30:39
2	Adp2-2 In38	Filter	09/09/2016 10:30:39
3	Adp2-2 Out2	Oil check	09/09/2016 10:30:39
4	Adp2-1 Out3	Oil check	09/09/2016 10:30:32
5	Adp1-1 In05	Filter	09/09/2016 10:30:17
6	Adp1-1 In07	Filter	09/09/2016 10:30:17
7	Adp1-1 In12	Filter	09/09/2016 10:30:17
8	Adp1-1 In54	Filter	09/09/2016 10:30:17

Setting a schedule



Set schedule

This chapter explains how to set schedules.

You can register a single day's schedule as a pattern and then allocate to a date on the calendar. Indoor units can be registered in groups or individually.

Screen menu	Overview	Page
Schedule/results	You can see the schedules set up for the future and how they performed in the past in a list.	54
Calendar	You can allocate a single day's schedule to a calendar.	50
Schedule setting	You can register the schedule for a single day.	44
Update schedule	You can modify a schedule that you have registered (only from the day of the change up to 4 days later, or a total of 5 days).	56

Schedule setting flow

This system allows you to set schedules for each indoor unit so that they run automatically.

You can set schedules by month for up to 2 years in the future.

Furthermore, you can put indoor units that will run on the same schedule into “Schedule group”.

Schedules are set according to the following flow.

1

Setting a schedule

- “Setting a schedule” (P.44)

Register the schedule for indoor units.

- Decide a “daily running mode” to set when registering the schedule. You can register up to 50 types of daily running mode.

What is the “daily running mode”?

Scheduling patterns for indoor units (individually or as part of a schedule group) are called “daily running mode”.

Daily operating modes are registered as different patterns for schedules to match different days of the week, holidays, and seasons.

Example of daily running mode settings

- Daily running mode for a working day (Monday to Friday) (“Mode1”)
- Daily running mode for Saturday (“Mode2”)
- Daily running mode for Sunday (“Mode3”)

* Schedule group: Indoor units that run on the same schedule registered in groups. To register into schedule groups, see “Basic settings on the indoor unit” (P.141).

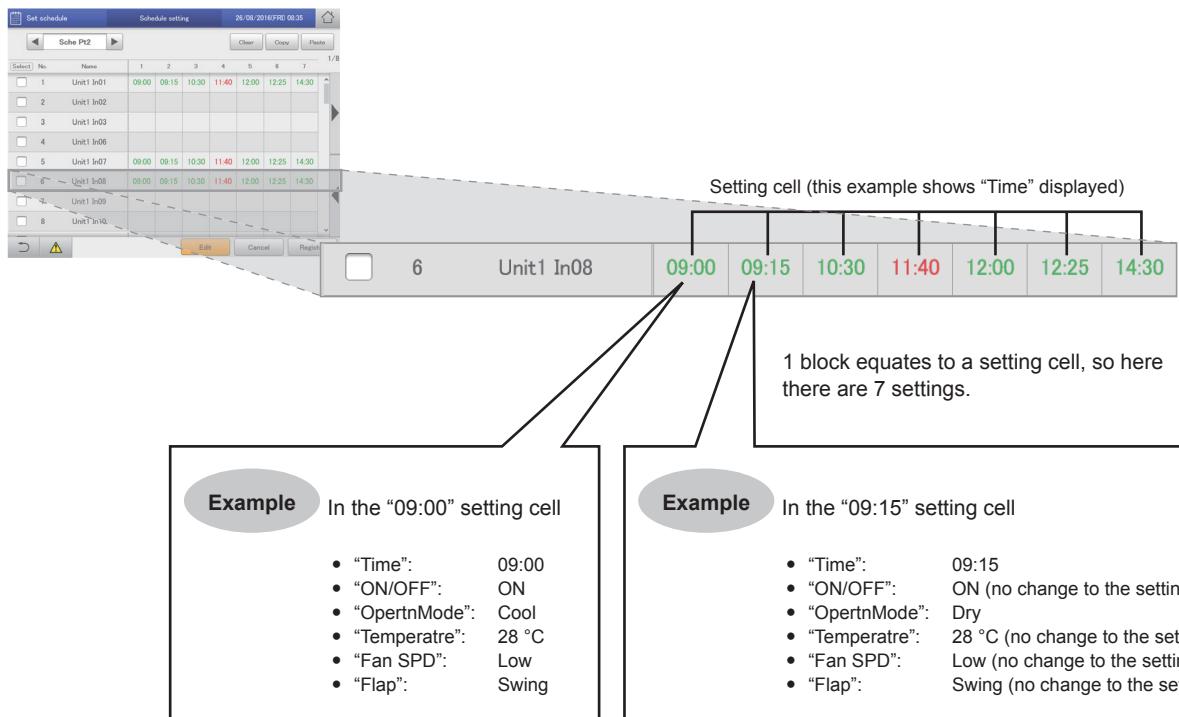
What is a “setting cell”?

To set a schedule, you need to register operations in “setting cells”. The “setting cell” is the smallest unit of operations used to configure a schedule.

You set “Time”, “ON/OFF”, “OpertnMode”, “Temperatre”, “Fan SPD”, “Flap”, “Prhbt”, and “EnerSavStg” in a “setting cell”. Each time you change an operation (for example from “ON” to “OFF”), you register a different “setting cell”.

A schedule consists of a collection of these “setting cells” lined up.

The following is an example schedule set for an indoor unit.



The following summarises the flow followed when setting a schedule.

- (1) Select the daily running mode to register for a schedule.
↓
- (2) Select an indoor unit or schedule group.
↓
- (3) Set the schedule.
↓
- (4) Register the setting.

2

Allocating a schedule to a date on the calendar

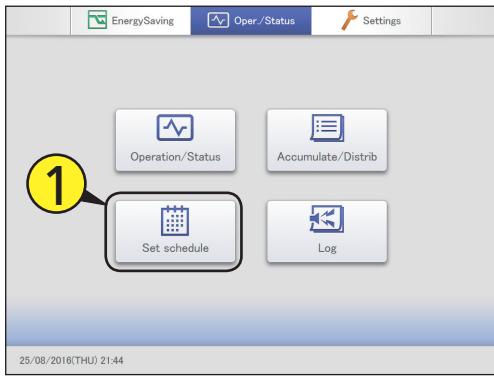
- “Allocating a schedule to a calendar” (P.50)

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
This day is a Sunday, so allocate “Mode3”	21	22	23	24	25	26
28	29	30	This day is a work day, so allocate “Mode1”	27	This day is a Saturday, so allocate “Mode2”	

Setting a schedule

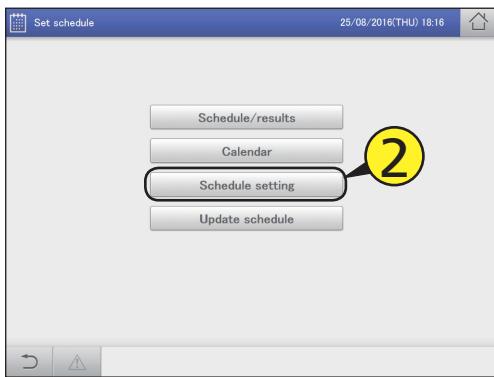
Register the schedules for an indoor unit or a schedule group in the “daily running mode”.

- 1** Touch [Set schedule] in “Oper./Status”.



- 2** Touch [Schedule setting].

- The “Schedule setting” screen is displayed.



- 3** Press to select the daily running mode.



- 4** Put a check mark in the “Select” column.

- Select the indoor unit or schedule group you want to set.

Set schedule		Schedule setting							26/08/2016(FRI) 08:35							
									Clear	Copy	Paste					
									Sche Pt2	1	2	3	4	5	6	7
Select	No.	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input type="checkbox"/>	1	Unit1 In01	09:00	09:15	10:30	11:40	12:00	12:25	14:30							
<input type="checkbox"/>	2	Unit1 In02														
<input type="checkbox"/>	3	Unit1 In03														
<input type="checkbox"/>	4	Unit1 In06														
<input type="checkbox"/>	5	Unit1 In07	09:00	09:15	10:30	11:40	12:00	12:25	14:30							
<input type="checkbox"/>	6	Unit1 In08	09:00	09:15	10:30	11:40	12:00	12:25	14:30							
<input type="checkbox"/>	7	Unit1 In09														
<input type="checkbox"/>	8	Unit1 In10														

- 5** Touch [Edit].

- The “Detail setting” screen is displayed.

Set schedule		Schedule setting							26/08/2016(FRI) 08:35							
									Clear	Copy	Paste					
									Sche Pt2	1	2	3	4	5	6	7
Select	No.	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input type="checkbox"/>	1	Unit1 In01	09:00	09:15	10:30	11:40	12:00	12:25	14:30							
<input type="checkbox"/>	2	Unit1 In02														
<input type="checkbox"/>	3	Unit1 In03														
<input type="checkbox"/>	4	Unit1 In06														
<input type="checkbox"/>	5	Unit1 In07	09:00	09:15	10:30	11:40	12:00	12:25	14:30							
<input type="checkbox"/>	6	Unit1 In08	09:00	09:15	10:30	11:40	12:00	12:25	14:30							
<input type="checkbox"/>	7	Unit1 In09														
<input type="checkbox"/>	8	Unit1 In10														

Continued on next page ➔

6

Register setting cells.

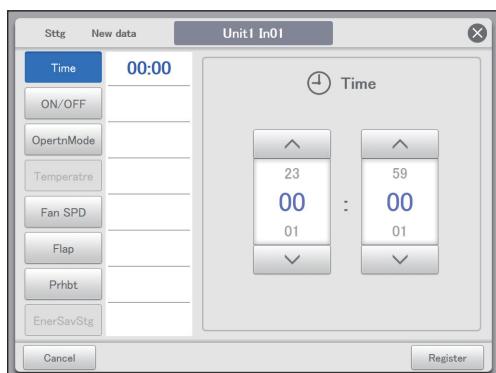
- Repeat the following (1) to (3) to register setting cells.

(1) Touch [New data].

- The "Sttg" dialogue is displayed.
- In the "Sttg" dialogue, set "Time", "ON/OFF", "OpertnMode", "Temperatre", "Fan SPD", "Flap", "Prhbt", and "EnerSavStg".



(2) Change the settings.



Item	Explanation
Temperatre	<p>Set the temperature.</p> <ol style="list-style-type: none"> Touch [Temperatre]. Set the temperature with <input type="button" value="^"/> and <input type="button" value="v"/> (+ in 1 °C steps) <p>Setting ranges</p> <ul style="list-style-type: none"> In cooling or drying mode: Between 18 °C and 30 °C In heating mode: Between 16 °C and 30 °C* Automatic: Between 17 °C and 27 °C <p>*1 The upper limit temperature for some models is 26 °C.</p>
Fan SPD	<p>Set the strength of the fan.</p> <ol style="list-style-type: none"> Touch [Fan SPD]. Select the fan speed (HIGH (high), MEDIUM (mid), LOW (low), AUTOMATIC (automatic)).
Flap	<p>Set the direction of the airflow.</p> <ol style="list-style-type: none"> Touch [Flap]. Set the flap to the desired position (F1, F2, F3, F4, F5, SWING (Swing)). <ul style="list-style-type: none"> Heating, fan, and automatic (heating) can be adjusted in 5 steps and cooling and dry can be adjusted in 3 steps. You can set either <input checked="" type="checkbox"/> or <input type="checkbox"/> if the model does not support airflow direction settings.
Prhbt	<p>Set whether to allow or prohibit use of the local remote controller.</p> <ol style="list-style-type: none"> Touch [Prhbt]. Use <input type="button" value="^"/> <input type="button" value="v"/> to select from "Accept", "Prhbt1", "Prhbt2", "Prhbt3", or "Prhbt4". <p>Accept: Allows operations with the remote controller. Prhbt1 to Prhbt4: Operations on the remote controller are restricted. You can change the restricted operations. (P.211)</p>
EnerSavStg	<p>Enable or disable energy saving operation.</p> <ol style="list-style-type: none"> Touch [EnerSavStg]. Select "Valid" or "Invl".

Item	Explanation
Time	<p>Set the time for the operation.</p> <ol style="list-style-type: none"> Touch [Time]. Use <input type="button" value="^"/> <input type="button" value="v"/> to set the "hour" and "minute".
ON/OFF	<p>Set whether to start or stop operation.</p> <ol style="list-style-type: none"> Touch [ON/OFF]. Select "ON" or "OFF".
OpertnMode	<p>Set the operating mode.</p> <ol style="list-style-type: none"> Touch [OpertnMode]. Select the operating mode (HEATING (heating), DRYING (drying), COOLING (cooling), FAN (fan), AUTOMATIC (automatic)).

Note

- You do not have to set all items, but "Time" must be set.
- You can register up to 50 setting cells per day for a single indoor unit or single schedule group.
- When setting schedule groups, you can only set those items that are common to the indoor units that make up the group.

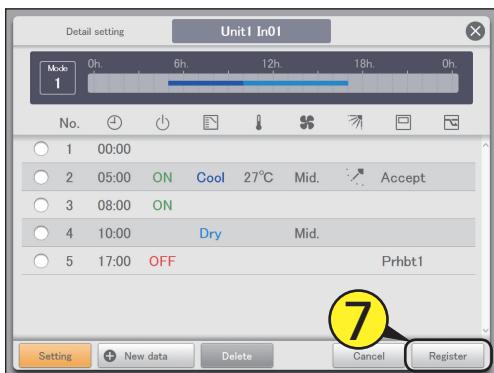
Continued on next page ➤

(3) Touch [Register].

- The settings are registered and the “Sttg” dialogue closes.
- To cancel the settings, touch [Cancel].

**7 Touch [Register].**

- The “Detail setting” dialogue closes.
- To cancel the settings, touch [Cancel].

**8 Repeat steps 4 to 7 to register other indoor units.**

- Repeat steps 3 to 7 if you want to register in other daily running modes.
- The confirmation message “Change sched. for the next day to 4 days later?” may be displayed.
To change the setting, touch [OK]. To cancel the changes, touch [Cancel].

9 Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].

**10 Touch [OK].**

- The confirmation message “Change sched. for the next day to 4 days later?” may be displayed.
To change the setting, touch [OK]. To cancel the changes, touch [Cancel].

Note

- Indoor units or schedule groups whose setting cells are all blank will not run at all.

The “Schedule setting” screen

- A: Select the daily running mode to register.
You can select daily running modes from the following types.

Mode	Register as a normal pattern. (Mode1 to 50)
------	--

- Use to select the daily running mode.
- The display order is as follows.
“Mode1” ⇔ “Mode2” ⇔ … ⇔ “Mode50”

- B: You can delete the selected schedule either by indoor unit or by schedule group.
(→ “Deleting a schedule” (P.48))

- C: You can copy the selected schedule either by indoor unit or by schedule group. (→ “Copy a schedule for setting” (P.48))

- D: You can paste the schedule specified at C to an indoor unit or schedule group.
(→ “Copy a schedule for setting” (P.48))

- E: You can view the schedule for a single day in a list.
You can scroll up or down by swiping or flicking the screen.



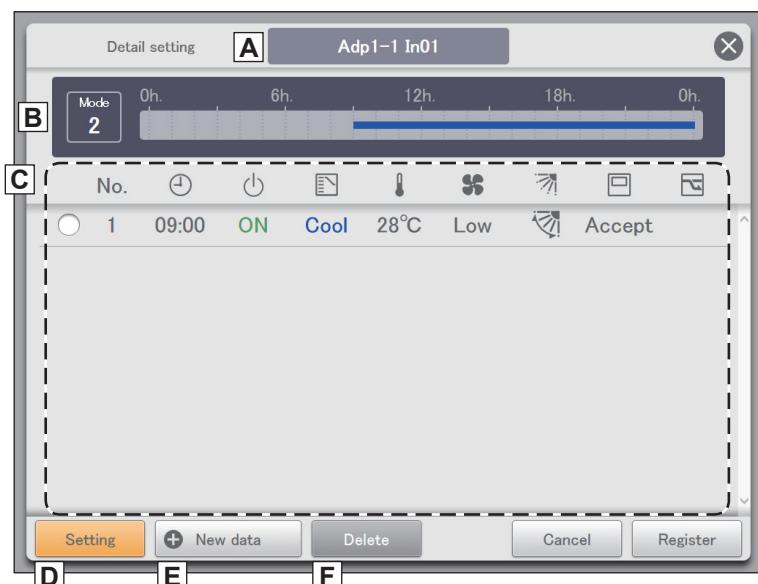
Note

- Before setting an operating schedule, the setting cell on the right is blank.
- When at least one check mark has been put in the “Valid” column in the “Set schedule group name” screen (refer to “Changing the name of the schedule group” (P.151)), the schedule group name is displayed first, then the indoor unit names that do not belong to schedule groups are displayed.

- F: The “Detail setting” dialogue is displayed when you touch this, and you can make advanced settings for the schedule.

The “Detail setting” dialogue

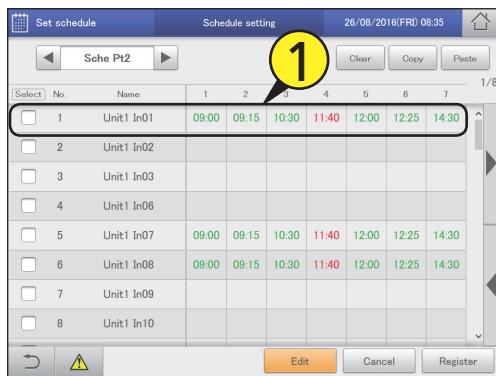
- A: The name of the selected indoor unit or schedule group is displayed.
- B: The daily running mode is displayed.
Set schedules are displayed in a timetable.
- C: View a list of registered setting cells.
Each line is one setting cell.
You can scroll up or down by swiping or flicking the screen.
- D: Modify the registered content of setting cells.
(→ “Changing the settings in setting cells” (P.49))
- E: The “Sttg” dialogue is displayed when you touch this and you can add setting cells.
- F: Delete the registered content of setting cells.
(→ “Deleting the settings in setting cells” (P.49))



Deleting a schedule

1 Select the schedule to delete.

- The highlighted indoor unit or schedule group is the one to be deleted.
- You cannot delete multiple indoor units or schedule groups.



2 Touch [Clear].

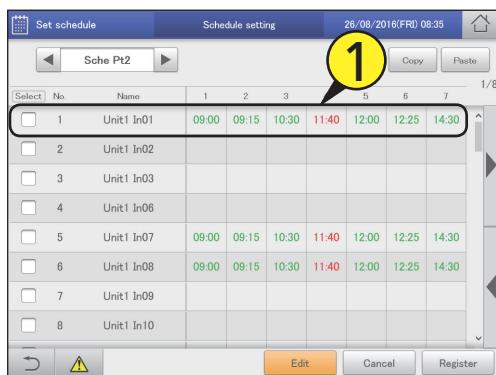
- The selected schedule is deleted.
- The schedule is restored if you touch [Cancel].

Copy a schedule for setting

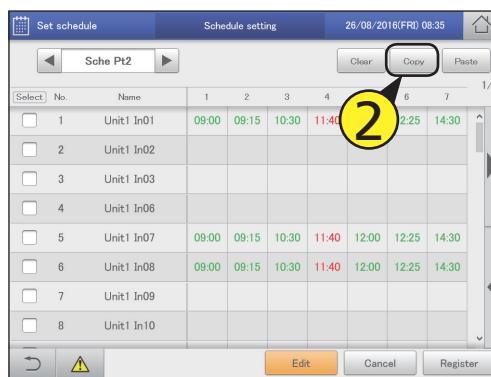
This is convenient when setting the same kind of schedule.

1 Select the schedule to copy.

- The highlighted indoor unit or schedule group is the one to be copied.

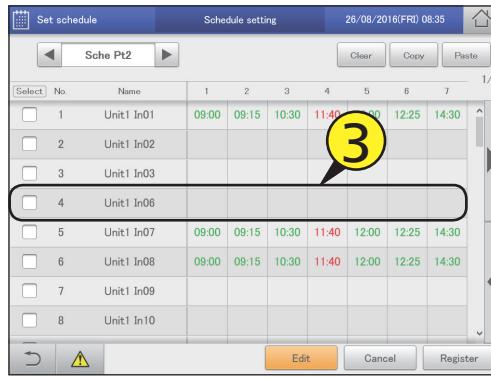


2 Touch [Copy].



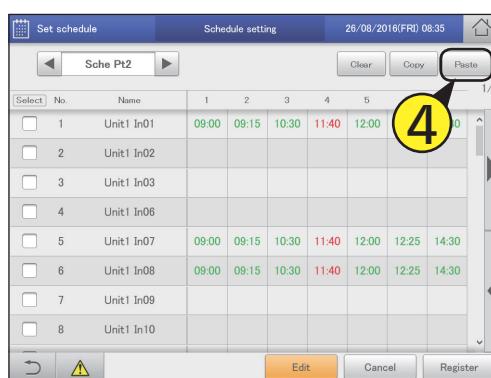
3 Select the indoor unit or schedule group you want to paste.

- You cannot simultaneously paste multiple indoor units or schedule groups.



4 Touch [Paste].

- The selected schedule is pasted.



Changing the settings in setting cells

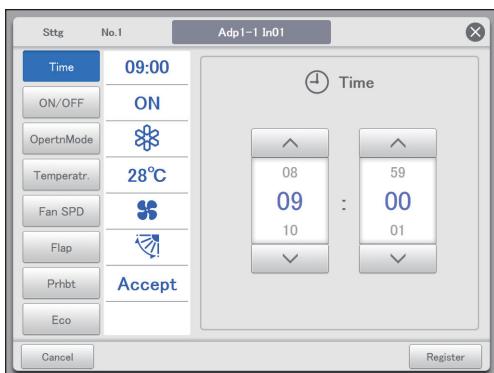
- 1** Select the setting cell to be changed (1-1) in the “Detail setting” dialogue and touch [Setting] (1-2).

- The “Sttg” dialogue is displayed.



- 2** Change the settings.

- Refer to step 6 on P.45 for the settings.



- 3** Touch [Register].

- The settings are registered and the “Sttg” dialogue closes.
- To cancel the settings, touch [Cancel].



Deleting the settings in setting cells

- 1** Select the setting cell to be deleted in the “Detail setting” dialogue.



- 2** Touch [Delete].

- The selected setting cell is deleted.

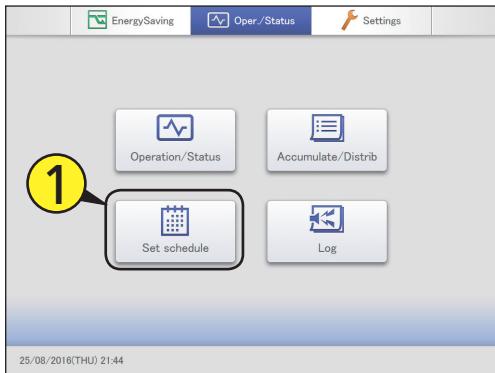


Allocating a schedule to a calendar

Allocate daily running modes to a calendar.

Calendars can be set starting with the current month and up to 2 years in the future.

1 Touch [Set schedule] in “Oper./Status”.

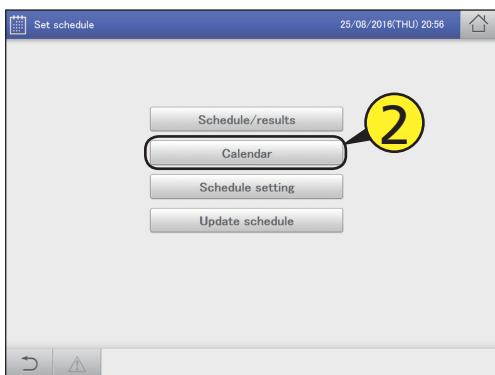


4 Select the daily running mode.



2 Touch [Calendar].

- The “Calendar” screen is displayed.



3 Use to select the year and month.



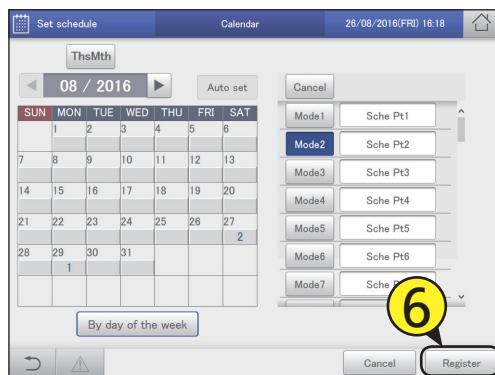
5 Touch the date.

- The daily running mode is allocated to the selected date.
- While a daily running mode is selected, you can allocate it to other dates.
- Repeat steps 4 and 5 to allocated daily running modes to other dates.



6 Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].

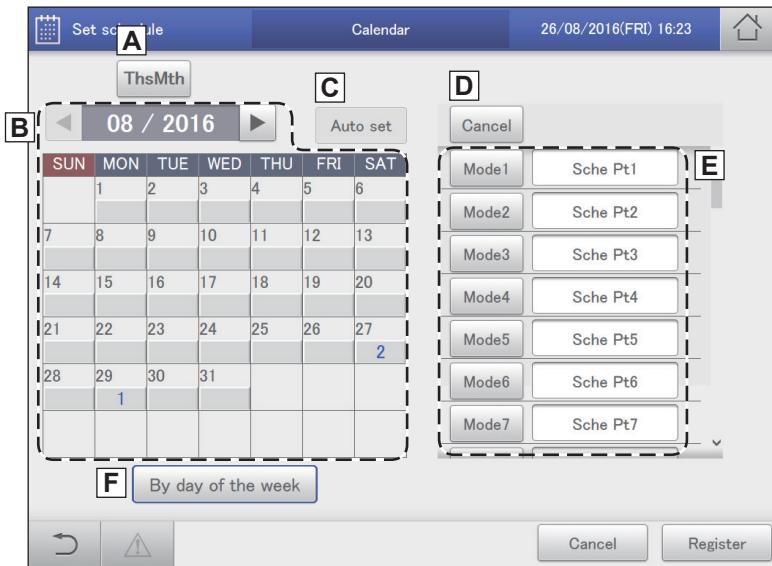


Note

- You cannot allocate daily running modes to dates in the past.

The “Calendar” screen

- A: Returns the calendar display to the current month.
- B: The calendar for the specified year and month is displayed.
- C: Automatic update is executed.
When the mode is registered by day of the week (P.53), the setting will be repeated weekly.
- 1) Touch [Auto set].
 - 2) Select [Mode1] to [Mode50], then touch the calendar daily running mode allocation display (dark grey section).
 - 3) Touch [Register] to register the setting content.
- Automatic updates are applied starting from 2 years later.
- D: Delete the daily running mode allocated to a calendar. (→ “Deleting allocated daily running modes” (P.52))
- E: A list of daily running modes allocated to the calendar is displayed. You can put comments in the text boxes on the right. (→ “Adding comments to daily running modes” (P.52))
- F: Allocate modes by day of the week.
(→ “Allocating by day of the week” (P.53))

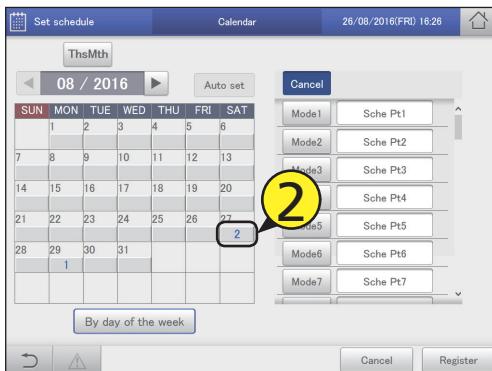


Deleting allocated daily running modes

1 Touch [Cancel].



2 Touch the date of the daily running mode to be deleted.

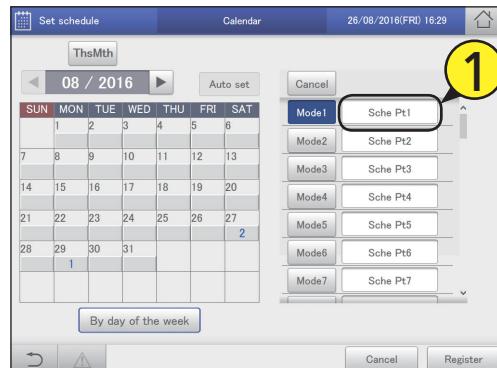


Adding comments to daily running modes

It can be helpful to add a comment to the daily running mode to describe how it is used, for example.
The comment can be up to 16 characters long using letters and numbers.

1 Touch the text box on the right of the daily running mode.

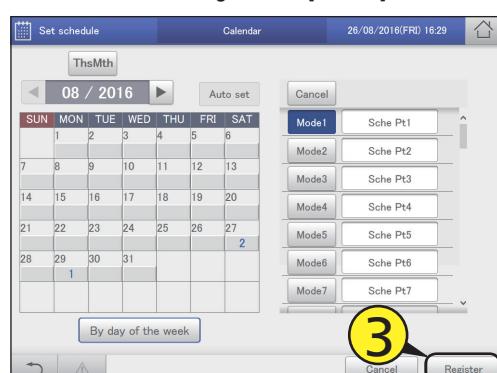
- The touchscreen keyboard is displayed.



2 Enter the text.

3 Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].

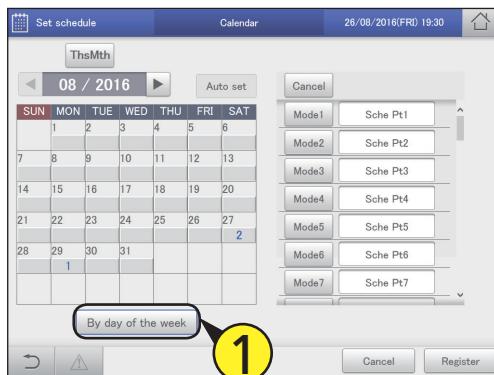


Allocating by day of the week

Allocate daily running modes by day of the week.

1 Touch [By day of the week].

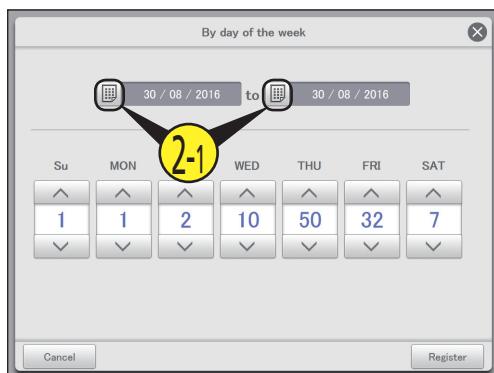
- The “By day of the week” screen is displayed.



2 Set the period.

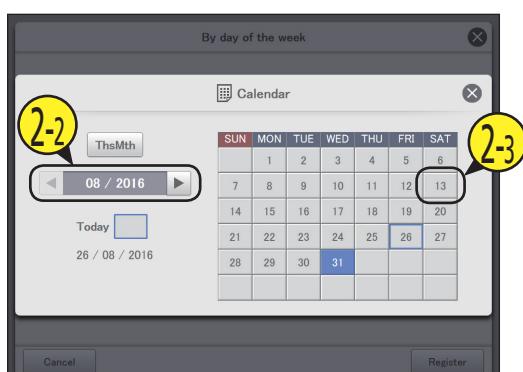
(1) Touch (2-1).

- The “Calendar” dialogue is displayed.
- The period at the left is the start and the period at the right is the end.

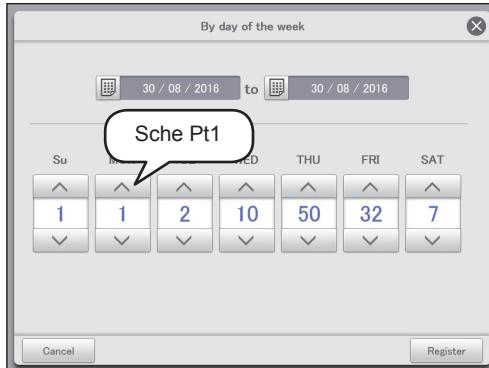


(2) Use to select the month to be set (2-2), then select the day to be set (2-3).

- The settings are registered and the “Calendar” dialogue closes.



3 Use to allocate the daily running modes to days of the week.



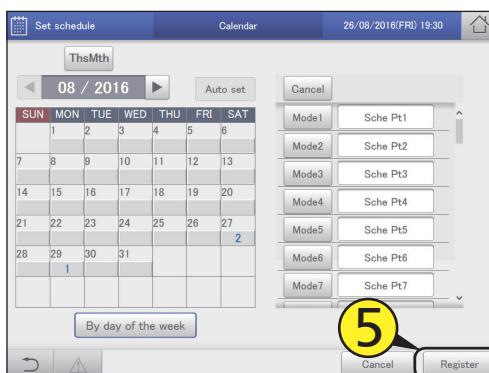
4 Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].



5 Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].



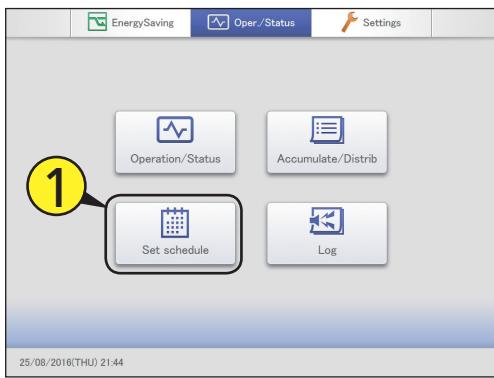
Note

- You cannot allocate daily running modes by day of the week to the current day or the 4 days thereafter.
- You do not need to set daily running modes in every day of the week.
- If daily running modes have already been registered in the calendar, then when you set at the day of the week level, the daily running modes are overwritten.

Checking the future schedule and past performance

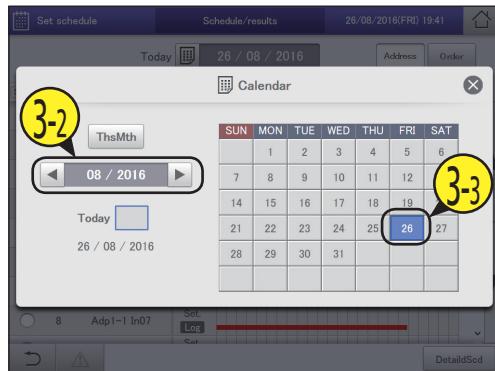
You can see the registered schedules in a list.
You can also see how operations performed in the past.

- 1 Touch [Set schedule] in “Oper./Status”.



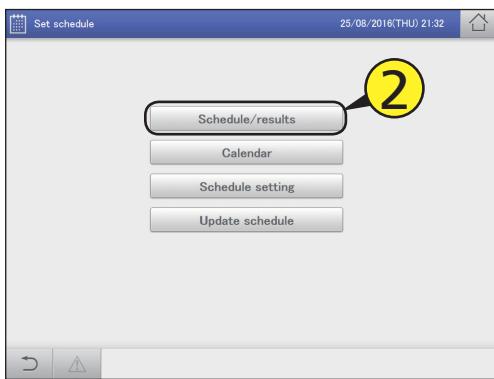
- (2) Use **◀ ▶** to select the month to be set (3-2), then select the date (3-3).

- The settings are registered and the “Calendar” dialogue closes.



- 2 Touch [Schedule/results].

- The “Schedule/results” screen for that day is displayed.



- 4 Touch the “Select” column (4-1), then touch [DetailedScd] (4-2).

- The “Detailed schedule” dialogue (P.55) is displayed.



- 3 Set the day you want to check.

- (1) Touch (3-1).

- The “Calendar” dialogue is displayed.



Checking the future schedule and past performance

“Schedule/results” screen

A: Select the year, month, and day to display. The calendar screen is displayed when you touch and you can select the date.

B: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the order of the central addresses.

C: The day's schedule and past operating performance is displayed in a list for each indoor unit.

The schedules are displayed in the 24-hour format with the passage of time indicated with a horizontal line.

The upper part of the row shows the planned schedule and the lower part of the row shows the past performance.

The colour key is as follows:

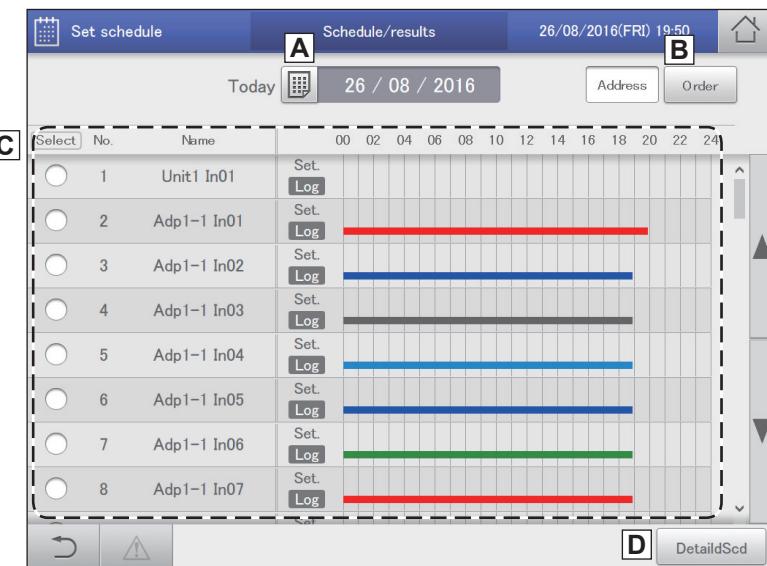
Blue:	Cooling	Light blue:	Dry
Red:	Warming	Grey:	Fan
Green:	Automatic		

Note

Past performance is not displayed in the following cases:

- When a date after the next day is specified in setting A
- When the power of the indoor unit has been turned off so that the schedule could not be executed
- When past performance display exceeds 50,000 items, items are deleted, starting from the oldest.

D: The “Detailed schedule” dialogue is displayed when you touch this. Details about the schedules for indoor units with a check mark in the “Select” column are displayed.

**The “Detailed schedule” dialogue**

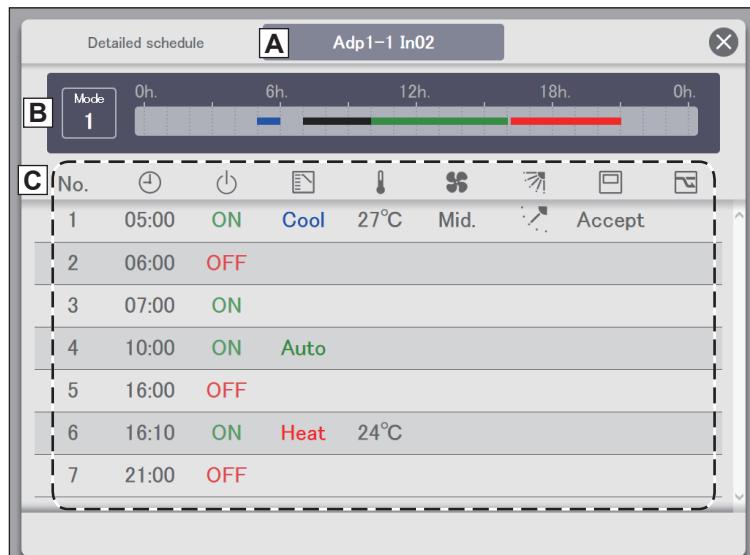
A: The name of the selected indoor unit or schedule group is displayed.

B: The daily running mode is displayed. The time line for a set schedule for one day is displayed.

C: Details of B are displayed in a list.

Note

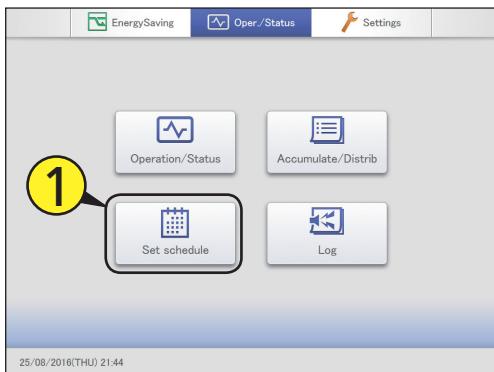
- You can check the future schedule in this screen. Settings cannot be changed.



Temporarily modifying or adding a schedule

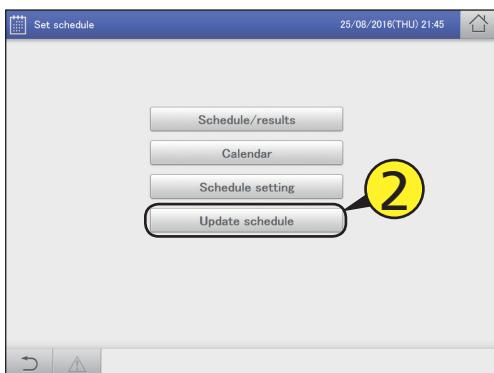
Schedule settings for the current date and the next 4 days (up to 5 days) can be temporarily changed. Settings in the “Schedule setting” screen will not be changed by this operation.

- 1 Touch [Set schedule] in “Oper./Status”.

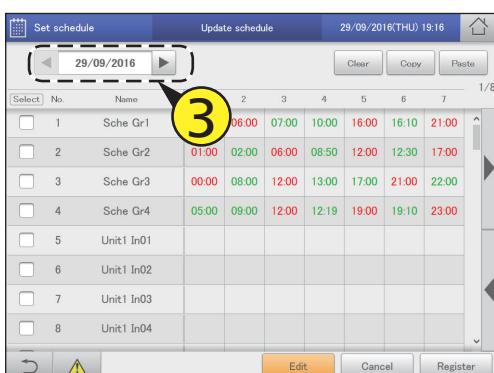


- 2 Touch [Update schedule].

- The “Update schedule” screen is displayed.



- 3 Use to select the date.



- 4 Put a check mark in the “Select” column.

- Select the indoor unit or schedule group whose settings you want to change.

Select	No.	Name	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	1	Sche Gr1	05:00	06:00	07:00	10:00	16:00	16:10	21:00
<input type="checkbox"/>	2	Sche Gr2	01:00	02:00	06:00	08:50	12:00	12:30	17:00
<input type="checkbox"/>	3	Sche Gr3	00:00	08:00	12:00	13:00	17:00	21:00	22:00
<input type="checkbox"/>	4	Sche Gr4	05:00	09:00	12:00	12:19	19:00	19:10	23:00
<input type="checkbox"/>	5	Unit1 In01							
<input type="checkbox"/>	6	Unit1 In02							
<input type="checkbox"/>	7	Unit1 In03							
<input type="checkbox"/>	8	Unit1 In04							

- 5 Touch [Edit].

- The “Detail setting” dialogue is displayed.

Select	No.	Name	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	1	Sche Gr1	05:00	06:00	07:00	10:00	16:00	16:10	21:00
<input type="checkbox"/>	2	Sche Gr2	01:00	02:00	06:00	08:50	12:00	12:30	17:00
<input type="checkbox"/>	3	Sche Gr3	00:00	08:00	12:00	13:00	17:00	21:00	22:00
<input type="checkbox"/>	4	Sche Gr4	05:00	09:00	12:00	12:19	19:00	19:10	23:00
<input type="checkbox"/>	5	Unit1 In01							
<input type="checkbox"/>	6	Unit1 In02							
<input type="checkbox"/>	7	Unit1 In03							
<input type="checkbox"/>	8	Unit1 In04							

- 6 Change and add settings.

- Refer to “Changing the settings in setting cells” (P.49) to change the settings.
- Refer to step 6 in “Setting a schedule” (P.45) to add settings.
- Refer to step 6 in “Setting a schedule” (P.45) for the setting items.

Continued on next page

Temporarily modifying or adding a schedule

7

Touch [Register].

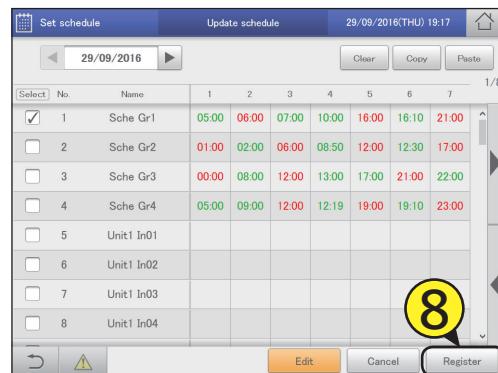
- The settings are registered and the “Detail setting” dialogue closes.
- To cancel the settings, touch [Cancel].



8

Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].



Note

- Even if you change the schedule in this screen, the daily running mode settings in the “Schedule setting” screen will not be changed.
- You do not need to add settings to “Calendar” dialogue in temporarily modifying.

The “Update schedule” screen

- A: Select the year, month, and day to change.
 • Only the current date and the next 4 days are shown in this area.
- B: You can delete the selected schedule either by indoor unit or by schedule group.
 (→ “Deleting a schedule” (P.48))
- C: You can copy the selected schedule either by indoor unit or by schedule group. (→ “Copy a schedule for setting” (P.48))
- D: Paste the schedule specified at C to an indoor unit or schedule group.
 (→ “Copy a schedule for setting” (P.48))
- E: View the operating schedule for a single day in a list.
- F: When you touch this, the “Detail setting” dialogue is displayed for indoor units or schedule groups with a check mark in the “Select” column.



Checking the alarm logs and operation/ status change logs



Log

This chapter explains how to check alarm logs and operation/status change logs.

You can check the logs for alarms that have occurred in the system and the logs of operation/status changes in lists on this unit.

You can also output the log lists in a CSV format file.

Screen menu

Overview

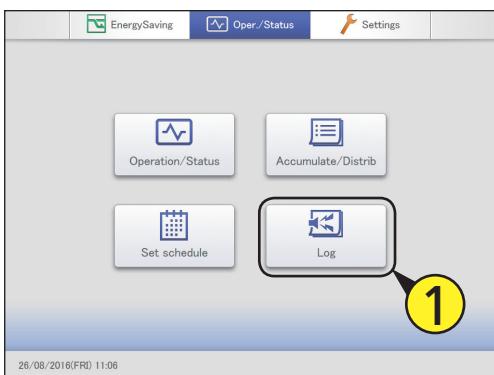
Page

Alarm log	Check the log of alarms that have occurred in the system in a list.	59
Operation/Status change log	Check the log of operation/status changes of the indoor units in a list.	61

Checking the alarm logs

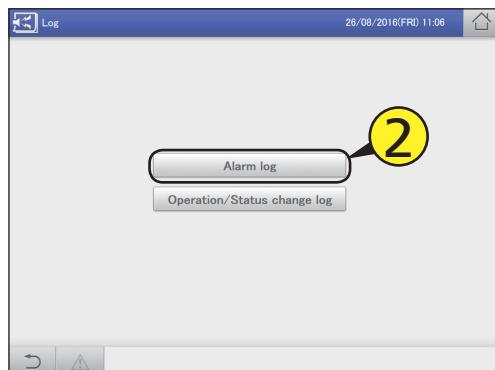
You can display up to 100 of the most recent alarms that have occurred or that have been restored.

- 1 Touch [Log] in “Oper./Status”.



- 2 Touch [Alarm log].

- The “Alarm log” screen is displayed.
- Alarms are in red letters immediately after occurring. They change to green letters after they are restored.



The “Alarm log” screen

Alarm log					
C	Name	Alarm code	Date/time of Alarm ON/OFF	Alarm	Check
1	Adp1-1 In09	C06	25/08/2016 14:07:39	ON	<input type="checkbox"/>
2	Adp1-1 In04	E02	25/08/2016 14:07:39	ON	<input type="checkbox"/>
3	Adp1-1 In03	E01	25/08/2016 14:07:39	ON	<input type="checkbox"/>
4	PossConfigChange	Config. change	06/07/2016 14:05:08	OFF	<input checked="" type="checkbox"/>
5	PossConfigChange	Config. change	06/07/2016 14:02:59	ON	<input type="checkbox"/>
6	PossConfigChange	Config. change	13/05/2016 14:17:25	OFF	<input type="checkbox"/>
7	PossConfigChange	Config. change	13/05/2016 11:09:39	ON	<input type="checkbox"/>
8	PossConfigChange	Config. change	13/05/2016 10:43:22	ON	<input type="checkbox"/>

- A: The “Search” dialogue is displayed when you touch this.
You can find the log information you need from amongst the logs for alarms that have occurred.
You can search by either the device name or the display period. (→ “Searching alarm logs” (P.60))
- B: A check mark appears in all of the “Check” columns when you touch this.
- C: The alarm log is displayed in a list.
You can scroll up or down by swiping or flicking the screen.

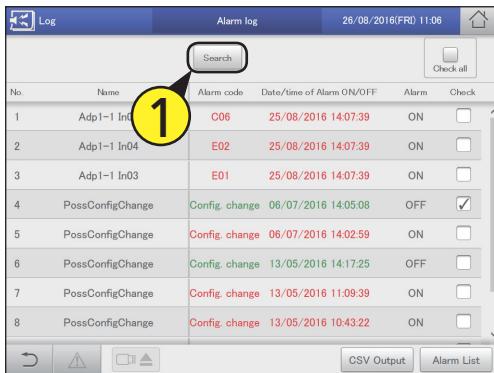
Item	Explanation
Name	The names of units where alarms are occurring are displayed.
Alarm code	The type of alarm is displayed.
Date/time of Alarm ON/OFF	This displays the date and time the alarm occurred. When a problem in the system has been restored, this shows the date and time it was restored.
Alarm	Immediately after an alarm has occurred, this shows “ON”, and after it is restored it shows “OFF”.
[Check]	Select the alarms you want to check.

- D: You can output (save) the displayed list of alarm logs in CSV format. (→ “Outputting (saving) the displayed contents as a CSV file” (P.32))
- E: The “Alarm list” screen is displayed when you touch this. (P.36)

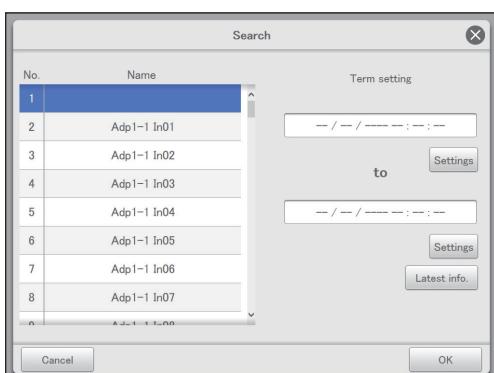
Searching alarm logs

1 Touch [Search].

- The “Search” dialogue is displayed.

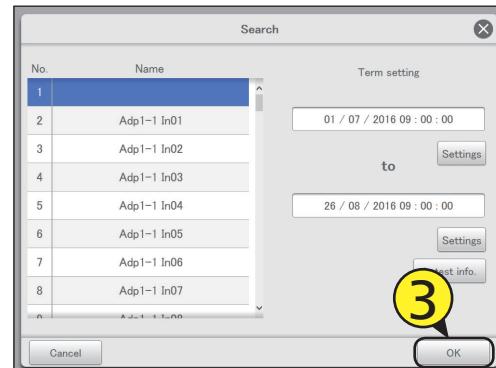


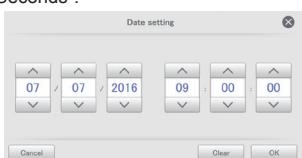
2 Set the search conditions.



3 Touch [OK].

- Alarms matching the conditions are displayed in a list.
- If you specify name, the latest 200 alarms are displayed.
If you do not specify, the latest 100 alarms for all units are displayed.
- If you specify period, the latest 200 alarms are displayed.
- You can save the search results in a file in the CSV format.
(→ “Outputting (saving) the displayed contents as a CSV file” (P.32))
- To cancel display conditions, touch [Cancel].

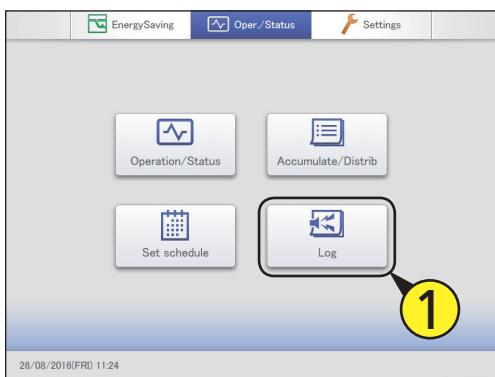


Item	Explanation
Name	Select the name of the unit for which you want to find the information from the list.
Term setting	<p>Set the start and finish for the period you want to search. The time at the top is the start of the period and the time at the bottom is the end.</p> <p>1) Touch [Settings].</p> <ul style="list-style-type: none"> The “Date setting” dialogue is displayed. <p>2) Set the date and time.</p> <ul style="list-style-type: none"> Use to set the “Day”, “Month”, “Year”, “Hours”, “Minutes”, and “Seconds”.  <p>3) Touch [OK].</p> <ul style="list-style-type: none"> The settings are registered and the “Date setting” dialogue closes. To cancel the settings, touch [Cancel].
[Latest info.]	Touch to clear the period you have set and show the most recent 100 alarms.

Checking the operation/status change log in a list

You can display a list showing operations for indoor units that logs when and how changes were made.

- 1 Touch [Log] in “Oper./Status”.



- 2 Touch [Operation/Status change log].

● The “Operation/Status change log” screen is displayed.



The “Operation/Status change log” screen

- A: The operation log is displayed. This is usually displayed. Touch to hide.
- B: The status change log is displayed. This is usually displayed. Touch to hide.
- C: The “Search” dialogue is displayed when you touch this.
You can find the log information you need from amongst the operation/status change logs.
You can search by either the device name or the display period. (→ “Searching operation/status change logs” (P.62))
- D: The operation/status change logs are displayed in a list.

Operation/Status change log				
No.	Name	Operation	Status	Mode
1	Adp1-1 In37	Status change	OFF	A/Cool
2	Adp1-1 In38	Status change	OFF	A/Cool
3	Adp1-1 In39	Status change	OFF	A/Cool
4	Adp1-1 In40	Status change	OFF	A/Cool
5	Adp1-1 In41	Status change	OFF	A/Cool
6	Adp1-1 In42	Status change	OFF	A/Cool
7	Adp1-1 In43	Status change	OFF	A/Cool
8	Adp1-1 In44	Status change	OFF	A/Cool

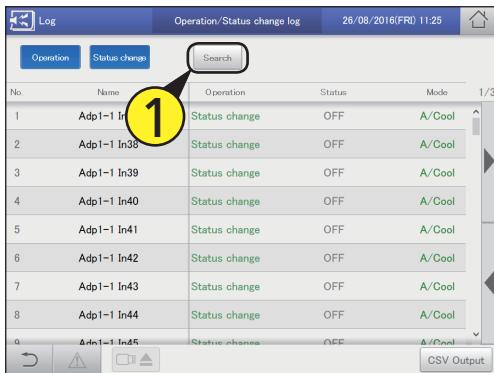
Item	Explanation
Name	The names of the units are displayed.
Operation	This shows whether the operation occurred as schedule or if the operation was changed.
Status	This indicates the operating status (ON or OFF).
Mode	The operating mode (Heat, Dry, Cool, Fan, A/Heat, A/Cool) is displayed.
Set T.	The temperature setting is displayed.
Fan	The fan speed (High, Mid., Low, Auto) is displayed.
Flap	The airflow direction is displayed.
Prhbt	This indicates the remote controller operation “Accept”, or “Prhbt1” to “Prhbt4”.
Date	The date and time of the change to operational status is displayed.

- E: You can output (save) the displayed list of operation/status change logs in CSV format.
(→ “Outputting (saving) logs as a CSV file” (P.63))

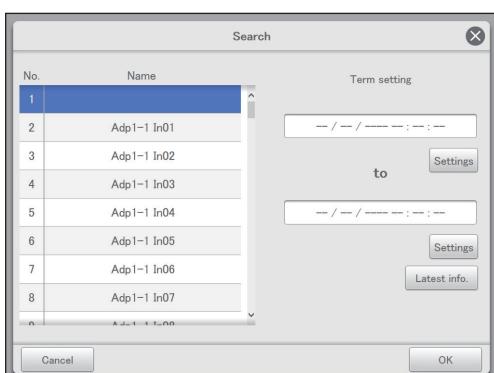
Searching operation/status change logs

1 Touch [Search].

- The “Search” dialogue is displayed.



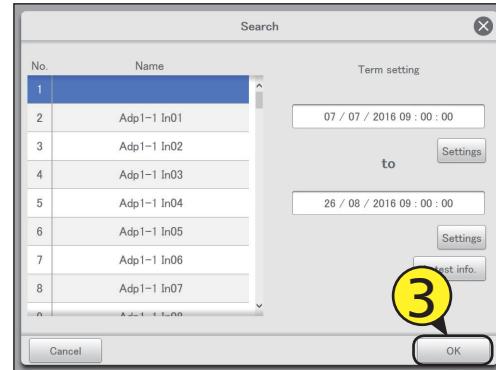
2 Set the search conditions.



Item	Explanation
Name	Select the name of the unit for which you want to find the information from the list.
Term setting	<p>Set the start and finish for the period you want to search. The time at the top is the start of the period and the time at the bottom is the end.</p> <p>1) Touch [Settings].</p> <ul style="list-style-type: none"> The “Date setting” dialogue is displayed. <p>2) Set the date and time.</p> <ul style="list-style-type: none"> Use to set the “Day”, “Month”, “Year”, “Hours”, “Minutes”, and “Seconds”. <p>3) Touch [OK].</p> <ul style="list-style-type: none"> The settings are registered and the “Date setting” dialogue closes. To cancel the settings, touch [Cancel].
[Latest info.]	Touch to clear the period you have set and show the most recent 100 alarms.

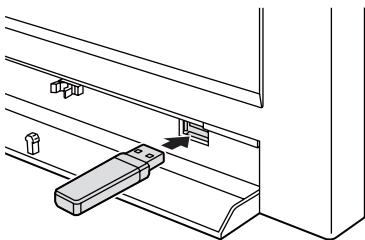
3 Touch [OK].

- Operation/status change logs matching the conditions are displayed in a list.
- If you specify device, the latest 200 operation logs are displayed. If you do not specify the device, the latest 100 operation logs for all devices are displayed.
- If you specify period, the latest 200 operation logs are displayed.
- You can save the search results in a file in the CSV format. (→ “Outputting (saving) logs as a CSV file” (P.63))
- To cancel the search, touch [Cancel].



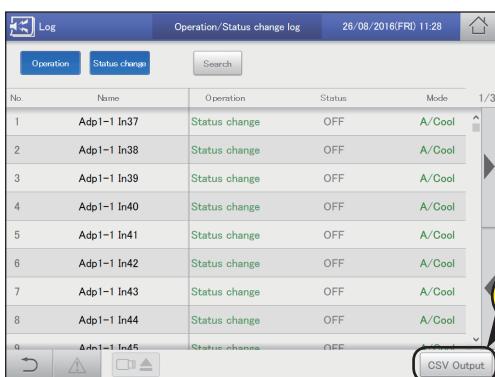
Outputting (saving) logs as a CSV file

- 1** Open the storage door and connect a USB memory device to the USB terminal.



- 2** Touch [CSV Output].

- A confirmation screen is displayed.



- 3** Touch [OK].

- The log currently displayed is saved to the USB memory device in CSV format.
- When saving is complete, a message confirming that saving is complete is displayed.

- 4** Touch when you want to disconnect the USB memory device.

- The message "USB memory can now be safely removed" is displayed. Touch [OK] and then remove the USB memory device.
- Close the storage door after removing the USB memory device.

No.	Name	Operation	Status	Mode
1	Adp1-1 In37	Status change	OFF	A/Cool
2	Adp1-1 In38	Status change	OFF	A/Cool
3	Adp1-1 In39	Status change	OFF	A/Cool
4	Adp1-1 In40	Status change	OFF	A/Cool
5	Adp1-1 In41	Status change	OFF	A/Cool
6	Adp1-1 In42	Status change	OFF	A/Cool
7	Adp1-1 In43	Status change	OFF	A/Cool
8	Adp1-1 In44	Status change	OFF	A/Cool
9	Adp1-1 In45	Status change	OFF	A/Cool



Check accumulated values



Accumulate/Distrib

This chapter explains how to check the accumulated values for the devices.

You can check accumulated values for indoor units, outdoor units, and pulse meters in a list on this unit. The display for indoor units can be viewed by area or individual unit, and outdoor units and pulse meters can be viewed by different values (adaptor value or total value for a period).

Screen menu

Overview

Page

I/D unit acc.	Check the accumulated data for the indoor units in a list.	65
O/D unit acc.	Check the accumulated data for the outdoor units in a list.	67
Pulse acc.	Check the accumulated data for the pulse meters in a list.	69

Checking the list of accumulated values on the indoor unit

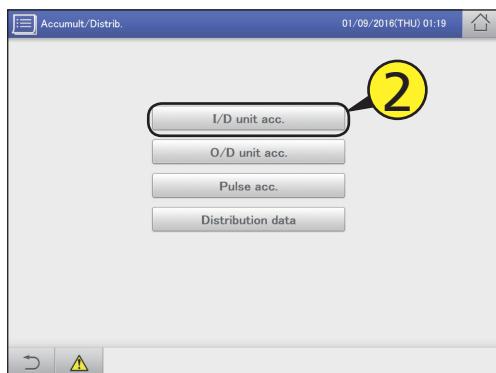
The accumulated values for indoor units (thermostat ON operating times, etc.) are displayed in a list.

- 1** Touch [Accumulate/Distrib] in “Oper./Status”.



- 2** Touch [I/D unit acc.].

- The “I/D unit acc.” screen is displayed.

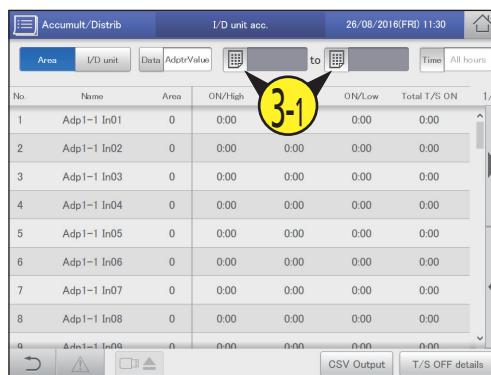


- 3** Set the period to be displayed.

- Set the start and end of the period to be displayed.
- The time at the left is the start of the period and the time at the right is the end.
- If you set “Data” to “Adaptor value”, you cannot select the period to be displayed.

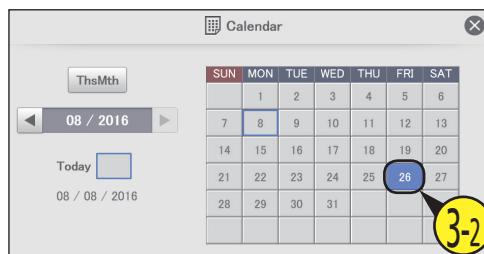
- (1) Touch [Calendar] (3-1).**

- The “Calendar” dialogue is displayed showing the current date.



- (2) Touch the date (3-2).**

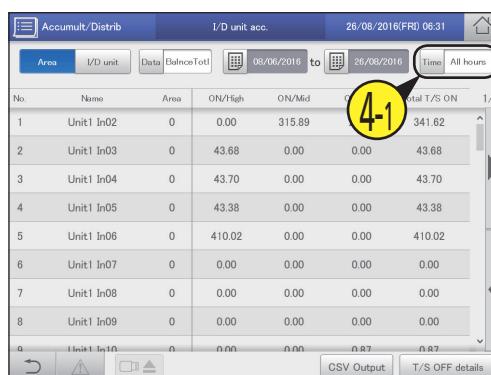
- Use to select the month you want to check. The current month is displayed if you touch [ThsMth].
- The settings are registered and the “Calendar” dialogue closes.



- 4** Set the time slots to display.

- (1) Touch [Time] (4-1).**

- The “Specify time” dialogue is displayed.
- If you set “Data” to “Adaptor value”, you cannot select the time slots to be displayed.

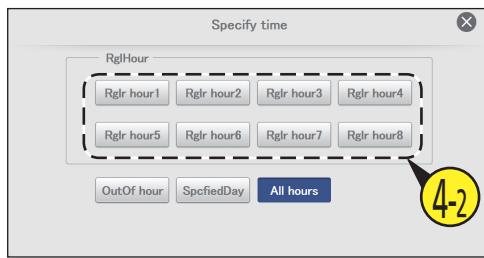


Continued on next page ➞

Checking the list of accumulated values on the indoor unit

(2) Touch the time slot to accumulate (4-2).

- The settings are registered and the “Specify time” dialogue closes.
- Refer to “RglrHourRnge” in “Calendr sttgs for distr calc” (P.148) for information about “Rglr hour1” to “Rglr hour8”.



5

Check accumulated values.

Accumult/Distrib		I/D unit acc.	26/08/2016(FRI) 06:32	Home		
Area	I/D unit	Data	BalnceTotl	08/06/2016 to 26/08/2016 Time All hours		
No.	Name	Area	ON/High	ON/Mid	ON/Low	Total T/S ON
1	Unit1 In02	0	0.00	315.89	25.72	341.62
2	Unit1 In03	0	43.68	0.00	0.00	43.68
3	Unit1 In04	0	43.70	0.00	0.00	43.70
4	Unit1 In05	0	43.38	0.00	0.00	43.38
5	Unit1 In06	0	410.02	0.00	0.00	410.02
6	Unit1 In07	0	0.00	0.00	0.00	0.00
7	Unit1 In08	0	0.00	0.00	0.00	0.00
8	Unit1 In09	0	0.00	0.00	0.00	0.00
9	Unit1 In10	0	0.00	0.00	0.87	0.87

The “I/D unit acc.” screen

A: Set the order of display.

[Area]	Display indoor units by area.
[I/D unit]	Display indoor units in display order.

E

- Set the displayed values. The “Data type” dialogue is displayed when you touch this. Select from “Adaptor value”, “Balance total”, or “WeighFactrBlncceTtl”.
- Set the periods to be displayed. The “Calendar” dialogue is displayed when you touch this.
- Set the time slots to be displayed. The “Specify time” dialogue is displayed when you touch this.
- The accumulated values for indoor units are displayed in a list.

You can scroll up or down by swiping or flicking the screen.

A	B	C	D			
Area	I/D unit	Data	BalnceTotl			
08/06/2016	to	26/08/2016	Time All hours			
No.	Name	Area	ON/High	ON/Mid	ON/Low	Total T/S ON
1	Unit1 In02	0	0.00	315.89	25.72	341.62
2	Unit1 In03	0	43.68	0.00	0.00	43.68
3	Unit1 In04	0	43.70	0.00	0.00	43.70
4	Unit1 In05	0	43.38	0.00	0.00	43.38
5	Unit1 In06	0	410.02	0.00	0.00	410.02
6	Unit1 In07	0	0.00	0.00	0.00	0.00
7	Unit1 In08	0	0.00	0.00	0.00	0.00
8	Unit1 In09	0	0.00	0.00	0.00	0.00
9	Unit1 In10	0	0.00	0.00	0.87	0.87

G

F

Checking the list of accumulated values on the outdoor unit

The accumulated values for outdoor units (engine operating times, engine operation cycles, etc.) are displayed in a list.

- 1** Touch [Accumulate/Distrib] in “Oper./Status”.



- 2** Touch [O/D unit acc.].

- The “O/D unit acc.” screen is displayed.



- 3** Set the period to be displayed.

- Set the start and end of the period to be displayed.
- The time at the left is the start of the period and the time at the right is the end.
- If you set the “Adaptor value”, you cannot select the period to be displayed.

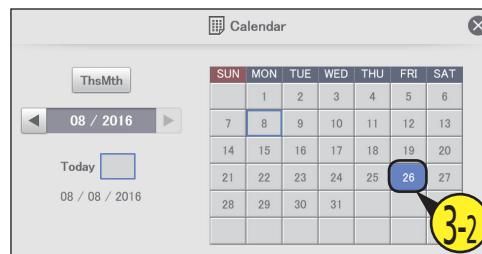
- (1) Touch** **(3-1).**

- The “Calendar” dialogue is displayed showing the current date.



- (2) Touch the date** **(3-2).**

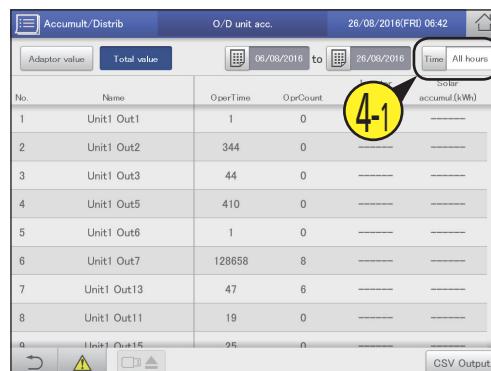
- Use to select the month you want to check. The current month is displayed if you touch [ThsMth].
- The settings are registered and the “Calendar” dialogue closes.



- 4** Set the time slots to display.

- (1) Touch [Time]** **(4-1).**

- The “Specify time” dialogue is displayed.
- If you set the “Adaptor value”, you cannot select the time slots to be displayed.

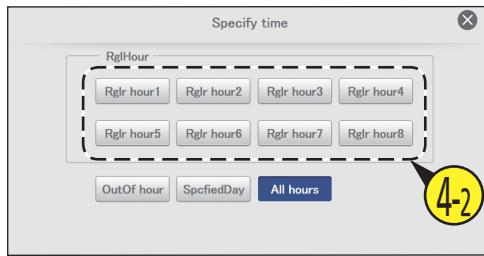


Continued on next page

Checking the list of accumulated values on the outdoor unit

(2) Touch the time slot to accumulate (4-2).

- The settings are registered and the “Specify time” dialogue closes.
- Refer to “RglrHourRnge” in “Calendr sttgs for distr calc” (P.148) for information about “Rglr hour1” to “Rglr hour8”.



5

Check accumulated values.

Accumult/Distrib		O/D unit acc.	26/08/2016(FRI) 06:43	Home
		06/08/2016 to 26/08/2016	Time All hours	
No.	Name	OperTime	OprCount	Inverter accumul.(kWh) Solar accumul.(kWh)
1	Unit1 Out1	1	0	----- -----
2	Unit1 Out2	344	0	----- -----
3	Unit1 Out3	44	0	----- -----
4	Unit1 Out5	410	0	----- -----
5	Unit1 Out6	1	0	----- -----
6	Unit1 Out7	128658	8	----- -----
7	Unit1 Out13	47	6	----- -----
8	Unit1 Out11	19	0	----- -----
9	Unit1 Out15	25	0	----- -----

The “O/D unit acc.” screen

- A: Set the values to be displayed. Touch to select either “Adaptor value” or “Total value”.
- B: Set the periods to be displayed. The “Calendar” dialogue is displayed when you touch this.
- When “Total value” is set, totals matching the time slot set in “Time” (“RglHour”, “OutOf hour”, etc.) are displayed. If “All hours” is set in “Time”, all totals are displayed.
- C: Set the time slots to be displayed. The “Specify time” dialogue is displayed when you touch this.
- D: The accumulated values for outdoor units are displayed in a list.
You can scroll up or down by swiping or flicking the screen.

Accumult/Distrib		O/D unit acc.	26/08/2016(FRI) C 44	Home
		06/08/2016 to 26/08/2016	Time All hours	
No.	Name	OperTime	OprCount	Inverter accumul.(kWh) Solar accumul.(kWh)
1	Unit1 Out1	1	0	----- -----
2	Unit1 Out2	344	0	----- -----
3	Unit1 Out3	44	0	----- -----
4	Unit1 Out5	410	0	----- -----
5	Unit1 Out6	1	0	----- -----
6	Unit1 Out7	128658	8	----- -----
7	Unit1 Out13	47	6	----- -----
8	Unit1 Out11	19	0	----- -----
9	Unit1 Out15	25	0	----- -----

E

Item	Explanation
Name	The names of the outdoor units are displayed.
OperTime	The number of operation hours for the outdoor units are displayed.
OprCount	The number of operation cycles for the outdoor units are displayed.
Inverter accumul.(kWh)	The accumulated values if inverter generation is being used are displayed.
Solar accumul.(kWh)	The accumulated values if solar generation is being used are displayed.

- E: You can output (save) the displayed list of outdoor unit accumulation in CSV format. (→ “Outputting (saving) the displayed contents as a CSV file” (P.32))

Checking the list of accumulated values on a pulse meter

The accumulated pulse count values for the pulse meter are displayed in a list. (When a pulse meter is set)

- 1** Touch [Accumulate/Distrib] in “Oper./Status”.



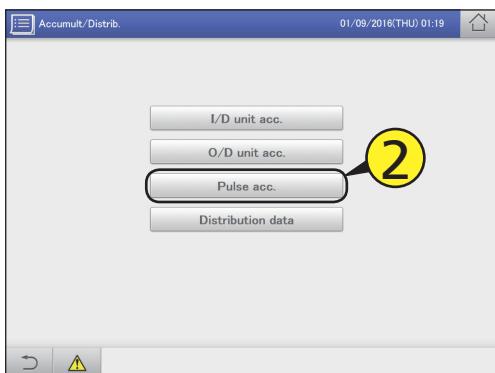
- (1) Touch [Accumulate/Distrib] (3-1).**

- The “Calendar” dialogue is displayed showing the current date.

No.	Name	Dstr.	Type	Adaptor value	Meter
1	Adp1 PI1	0	OkWh	0kWh	0kWh
2	Adp1 PI2	0	OkWh	0kWh	0kWh
3	Adp1 PI3	0		0	0

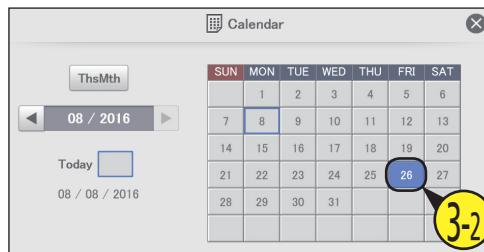
- 2** Touch [Pulse acc.].

- The “Pulse acc.” screen is displayed.



- (2) Touch the date (3-2).**

- Use to select the month you want to check. The current month is displayed if you touch [ThsMth].
- The settings are registered and the “Calendar” dialogue closes.



- 3** Set the period to be displayed.

- Set the start and end of the period to be displayed.
- The time at the left is the start of the period and the time at the right is the end.
- If you set the “Adaptor value”, you cannot select the period to be displayed.

- 4** Select the display item.

- (1) Touch [Display data] (4-1).**

- The “Display data” dialogue is displayed.

No.	Name	Dstr.	Type	All hours	OutOfHours	SpecifyDay
1	Adp1 PI1	0				
2	Adp1 PI2	0				
3	Adp1 PI3	0				

Continued on next page ➤

Checking the list of accumulated values on a pulse meter

(2) Select the items to be displayed (4-2).

- You can select multiple items.
- Refer to “RglrHourRnge” in “Calendr sttgs for distr calc” (P.148) for information about “RglrHours1” to “RglrHours8”.



5

Check accumulated values.

Accumult/Distrib							Pulse acc.	26/08/2016(FRI) 11:52	Home		
Adaptor value		Total value						26/07/2016	to	26/08/2016	
No.	Name	Dstr	Type	All hours	RglrHours1	OutOfHours	SpecifdDay				
1	Adp1 PI1	0									
2	Adp1 PI2	0									
3	Adp1 PI3	0									

(3) Touch

- The settings are registered and the “Display data” dialogue closes.

The “Pulse acc.” screen

Accumult/Distrib							Pulse acc.	26/08/2016(FRI) 11:52	Home		
Adaptor value		Total value						26/07/2016	to	26/08/2016	
C	B	A	C	D	E	F	G	H	I	J	K
No.	Name	Dstr	Type	All hours	RglrHours1	OutOfHours	SpecifdDay				
1	Adp1 PI1	0									
2	Adp1 PI2	0									
3	Adp1 PI3	0									

- A: Set the values to be displayed. Touch to select either “Adaptor value” or “Total value”.
● If you set “Adaptor value”, the displayed value changes at 10-second intervals.

- B: Set the periods to be displayed. The “Calendar” dialogue is displayed when you touch this.
● When “Total value” is set, totals matching the time slot set in “Time” (“RglrHours”, “OutOfHours”, etc.) are displayed.

- C: The accumulated values for pulse meters are displayed in a list.
You can scroll up or down by swiping or flicking the screen.

Item	Explanation
Name	The names of all units (indoor units and outdoor units) are displayed.
Dstr	The distribution group number is displayed.
Type	The type of meter is displayed.
Adaptor value (when “Adaptor value” is selected)	The accumulated value of the communication adaptor is displayed.
Meter value (when “Adaptor value” is selected)	The accumulated value for pulse meter is displayed.
Time (when “Total value” is selected)	The accumulated pulse count values for the adaptor or specified period are displayed. (“All hours”, “OutOfHours”, “SpecifdDay”) Display items (“RglrHours1” to “RglrHours8”) can also be added.

- D: The “Display data” dialogue is displayed when you touch this, and you can select the items to add to the display.
● If you set the “Adaptor value”, you cannot select the items to be displayed.
- E: You can output (save) the displayed list of pulse accumulation in CSV format. (→ “Outputting (saving) the displayed contents as a CSV file” (P.32))

Checking distribution data



Accumulate/Distrib

This chapter explains how to check distribution data.

You can check distribution data in a list by unit and by area on this unit.

You can check the distribution ratio, usage, and charges for both electricity and gas.

Screen menu

Distribution data

Overview

Check the details about distribution calculations in a list.

Page

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Checking distribution data in a list

Details about distribution data (distribution ratios, usage, and charges) are displayed in a list.

For indoor units used in tenanted buildings, it can be difficult to know how much electricity or gas is used in each area because the same air conditioning system may be used across multiple areas.

By putting the indoor units in each area into “Distribution group”, rates can be calculated based on the data acquired from the air conditioning units (indoor units and outdoor units) in a “Distribution group”, and this can help you know how much electricity or gas is used in each area. The rate calculated by this is called the “Distribution ratio”.

You need to make the following settings before you can check distribution data.

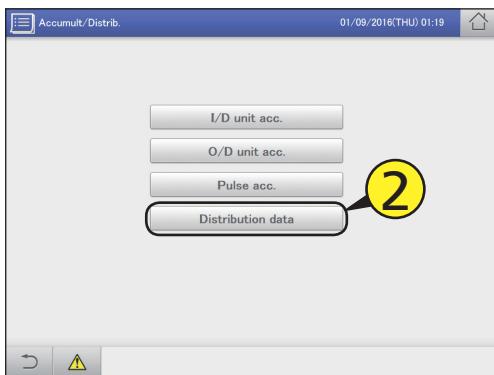
- Distribution mode settings (P.160)
- Distribution group settings (P.155)
- Area group name settings (P.153)
- Pulse meter settings (P.158)
- Calendar settings for distribution calculation (P.148)
- Distribution ratio settings (P.161)

1 Touch [Accumulate/Distrib] in “Oper./Status”.



2 Touch [Distribution data].

- The “Distribution data” screen is displayed.



3 Set the period to be displayed.

- Set the start and end of the period to be displayed.
- The time at the left is the start of the period and the time at the right is the end.

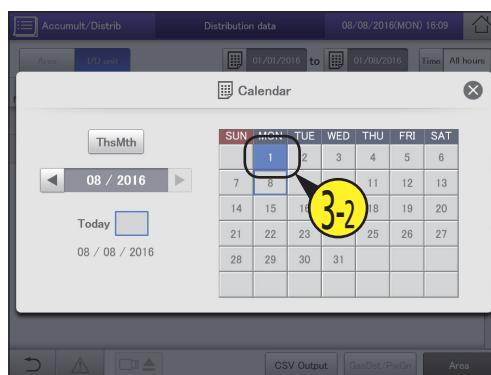
(1) Touch (3-1).

- The “Calendar” dialogue is displayed showing the current date.



(2) Touch the date (3-2).

- Use to select the month you want to check. The current month is displayed if you touch [ThsMth].
- The settings are registered and the “Calendar” dialogue closes.



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4 Set the time slots to display.

(1) Touch [Time] (4-1).

- The “Specify time” dialogue is displayed.

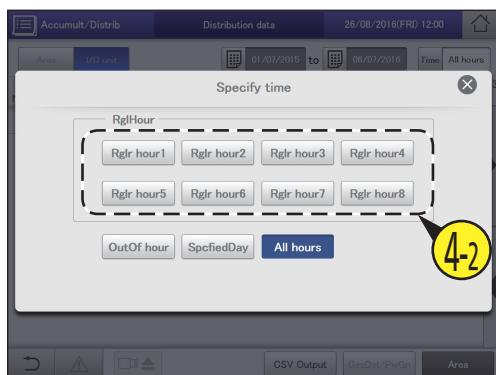


5 Checking distribution data.

Accumult/Distrib		Distribution data		26/08/2016(FR0) 07:14			26/08/2016		26/08/2016		Time All hours		
Area		I/O unit		01/07/2016		to		01/07/2016		26/08/2016		Time All hours	
No.	Name	Subt.	Area Dstr	Elec. ratio (%)	Elec. usage (kWh)	Elec. cost (€)	No.	Name	Subt.	Area Dstr	Elec. ratio (%)	Elec. usage (kWh)	Elec. cost (€)
1	Area1	Area	1	97.70	0.00	0	1	Area1	Area	1	97.70	0.00	0
2	Area2	Area	2	2.27	0.00	0	2	Area2	Area	2	2.27	0.00	0
3	Dist Gr1	DstrGrtl	1	99.97	0.00	0	3	Dist Gr1	DstrGrtl	1	99.97	0.00	0

(2) Touch the time slot to accumulate (4-2).

- Refer to “RglrHourRnge” in “Calendr sttgs for distr calc” (P.148) for information about “Rglr hour1” to “Rglr hour8”.
- The settings are registered and the “Specify time” dialogue closes.



Note

- The calculations for distribution made by this unit do not accord with the relevant laws and statutes, so they cannot be used for official transactions.
- The operating time data accumulated on the indoor units is acquired via a communication adaptor. When this unit sends a request for the data to the communication adaptor, the communication adaptor makes inquiries to the indoor units about their operating hours, and when collection is complete it transfers the results to this unit. This may result in a difference in counts when moving from one time slot to the next.
- Stopping of indoor units by scheduling is subject to some delays due to communications, so make sure it is not set at the same time as the “RglrHourRnge sttgs” (P.150) time slot is changed over. If the schedule stops operation prior to the change over of a time slot, avoid setting it inside 10 minutes (this may change depending on the state of communications) of the change over of the time slot.
- When there is a problem with the communications between the main unit and the indoor units (or the communication adaptor), it may not be possible to accumulate by time slot normally. The accumulated values received by this unit are counted in the time slot when they are received.
- The usage in [All hours] in the “Specify time” dialogue is calculated from the distribution ratio distributed overall according to the total operating data from all time slots. This means that the usages in [RglrHour], [OutOf hour], and [SpcfiedDay] will not match.
- If you remove an air conditioning unit after accumulating distribution data, all accumulated values for that air conditioning unit are deleted, so it will not be possible to view distribution data that includes that air conditioning unit after it is removed.

Before removing the unit, output (save) the distribution data as a CSV file to a USB memory device.

The output method for CSV files is the same as for outputting logs. (→ “Outputting (saving) the displayed contents as a CSV file” (P.32))

Changing the units of display

1 Make sure that [Area] is off.

2 Select the unit of display.

- Switch the display between “Area” and “I/D unit”.



No.	Name	Subt	Area	Dstr	Elec. metric (%)	Elec. usage (kWh)	Elec. cost (€)	1/3
1	Area1		Area	1	97.70	0.00	0	
2	Area2		Area	2	2.27	0.00	0	
3	Dist Gr1		DstrGrl	1	99.97	0.00	0	

The “Distribution data” screen

A: Set the units of display.

[Area]	Display indoor units by area.
[I/D unit]	Display indoor units in display order.

B: Set the periods to be displayed. The “Calendar” dialogue is displayed when you touch this.

C: Set the time slots to be displayed. The “Specify time” dialogue is displayed when you touch this.

D: Indoor unit distribution data is displayed in a list.

E:

F:

Item	Explanation
Name	The names of the indoor units are displayed.
Subt	This is the subtotal of the specified unit.
Area	The area number that the indoor unit belongs to is displayed.
Dstr	The distribution group number is displayed.
Elec. ratio (%)	This is the distribution ratio of electricity supplied from outdoor units.
Elec. usage (kWh)	This is the usage of electricity supplied from outdoor units.
Elec. cost	This is the charges calculated based on the electricity usage.
O/D Gas ratio(%)	This is the distribution ratio of gas supplied from GHP.
O/D Gas usage(m ³)	This is the quantity of gas supplied from GHP.
O/D Gas cost	This is the charges calculated based on the gas usage.
PwrGnGas ratio(%)	This is the distribution ratio of gas used to generate power.
PwrGnGas usage(m ³)	This is the volume of gas used to generate power.
PwrGnGas cost	This is the charges calculated based on the volume of gas used to generate power.
Total cost	This is the total of “Elec. cost”, “O/D Gas cost”, and “PwrGnGas cost”.

- E:** The “PwrGnGas ratio”, “PwrGnGas usage”, and “PwrGnGas cost” items are added to the display when you touch this. This is not possible if time distribution is set, however.
- F:** Display by area or by distribution group. (Factory setting: ON)
When this is cancelled, it is possible to display by area or by indoor unit. (→ “Changing the units of display” (P.74))

Settings for energy saving



Energy saving

This chapter explains how to make energy saving settings.

This unit is equipped with the e-CUT functions (temperature auto return, unattended auto shutoff, temperature range limit, energy saving timer/efficient operation*).
The e-CUT functions reduce waste when air conditioning so that you can even save energy using existing air conditioning units.

Screen menu

Overview

Page

Set temp. auto return	Even if the temperature initially set is changed, the temperature automatically returns to the set one after a certain amount of time.	77
Unattended auto shutoff	If the air conditioning unit automatically stops at the set time but then is started again, this setting automatically stops the unit again repeatedly at set intervals.	80
Set temperature range limit	Restrict the temperatures that can be set by setting upper and lower limits on temperatures.	83
Energy saving timer/Efficient operation setting*	You can specify time slots when you want operation capacity reduced.	85
Out unit silent setting	Set a time for the outdoor unit to operate at a lower level at night compared to the day.	87



Demand setting

Screen menu

Overview

Page

Register demand point	Register the demand point input.	89
I/D unit demand settings	You can automatically control indoor units by setting particular levels to cut the maximum demand for electricity or maximum gas consumption.	90
O/D unit demand settings	You can automatically control outdoor units by setting particular levels to cut the maximum demand for electricity or maximum gas consumption.	93
I/D unit cyclic	At specified intervals (3, 4, or 5 minutes), the thermostats of indoor units in control groups are turned off and restored repeatedly in order.	98
O/D unit cyclic	At specified 10 minute intervals, the thermostats of outdoor units in control groups are turned off and restored repeatedly in order.	102
Demand/peak shaving settings/ Peak cut settings*	Limit the electricity or gas consumed by outdoor units during the set time slot.	95

* When using gas heat pump air conditioners

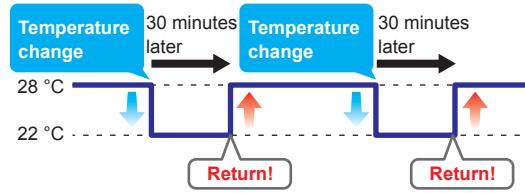
Automatically return to set temperatures [Set temp. auto return]

Even if the set temperature is changed, the temperature automatically returns to the set temperature ("Return temperature") at certain times ("Return time"). This feature prevents over cooling or heating.

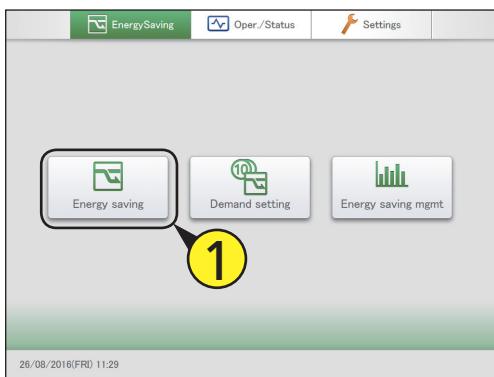
When you want to keep the set temperature at 28 °C during the summer months

Make the return temperature 28 °C in the temperature auto return setting and the return time 30 minutes later, and it will not matter how many times the temperature is changed, the set temperature will return to 28 °C every 30 minutes after it is changed.

However, when the return temperature is set to 27 °C, if the set temperature is changed to 28 °C, the temperature will not return to the return temperature even after the return time has elapsed. (When "Eco dirc. only" is set)

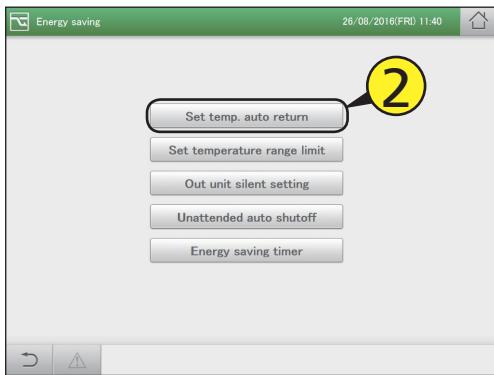


1 Touch [Energy saving] in "EnergySaving".



2 Touch [Set temp. auto return].

- Enter the identification number (password level 1 or 2) and the "Set temp. auto return" screen is displayed.

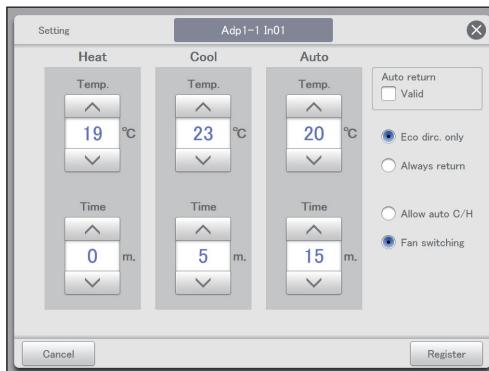


3 Put a check mark in the "Select" column (3-1), and touch [Set] (3-2).

- The "Setting" dialogue is displayed.



4 Change the settings.

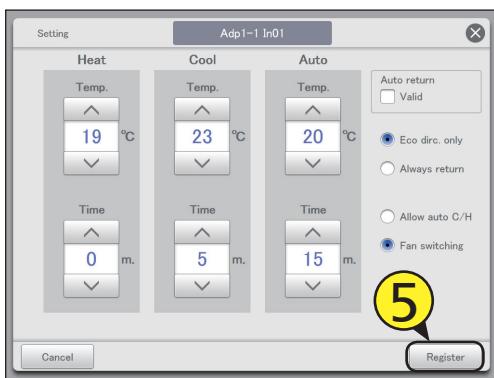


Continued on next page ➤

Item	Explanation
Return temperature Return time	<p>Set the return temperatures for "Heat", "Cool", and "Auto" and the return time. Use to set the temperature or time.</p> <p>The setting ranges are as follows.</p> <ul style="list-style-type: none"> • Return temperature for heating: 16 to 30 °C*1 (1 °C intervals) *1 The upper limit temperature for some models is 26 °C. • Return temperature for cooling (dry): 18 to 30 °C (1 °C intervals) • Return temperature for auto: 17 to 27 °C (1 °C intervals) • Return time (shared): 0 to 240 minutes (5 minute intervals)
Auto return	The auto return function is enabled for the selected indoor unit if you put a check mark here.
The following items are settings common to all indoor units.	
• Eco dirc. only • Always return	Select the conditions for return. When you select "Eco dirc. only", the return to the set temperature only occurs automatically if it saves energy.
• Allow auto C/H • Fan switching	<p>When you select "Allow auto C/H", temperature auto return control also occurs in the automatic mode.</p> <p>When you select "Fan switching", when the running mode of the indoor units is switched to "Auto Cool/Heat" the mode switches from automatic mode to fan mode, irrespective of the return time.</p>

5 Touch [Register].

- The "Setting" dialogue closes.
- To cancel the settings, touch [Cancel].

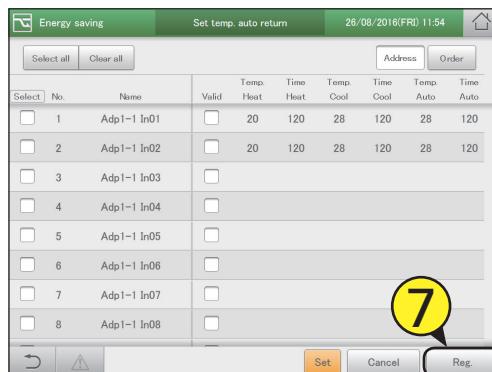


6 Set other indoor units.

- Repeat steps 3 to 5.

7 Touch [Reg.].

- To cancel the settings, touch [Cancel].



The “Set temp. auto return” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

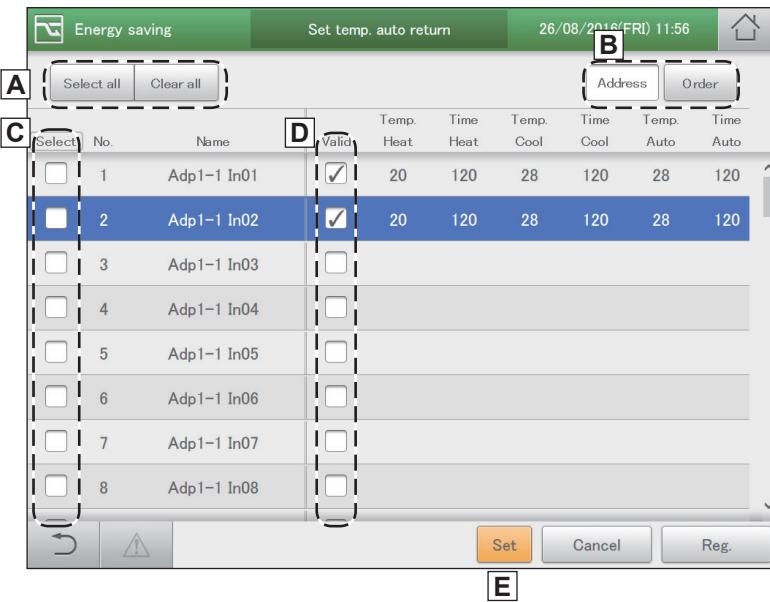
B: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the address order set in “I/D unit settings” (P.141).

C: The indoor units with a check mark next to them will be the subject of the changes to the settings.

D: The temperature auto return setting is enabled for the selected indoor unit if you put a check mark here. This is linked with the “Auto return” (“Setting” dialogue) (P.78) setting.

E: The “Setting” dialogue is displayed when you touch this.

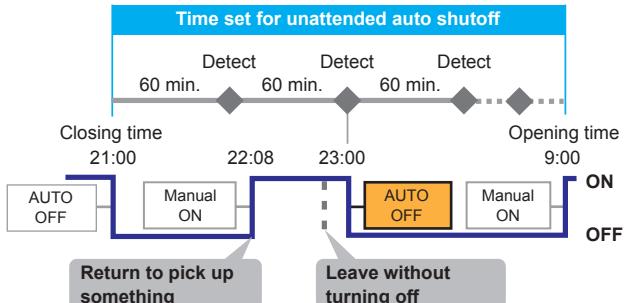


Automatically stopping restarts [Unattended auto shutoff]

If air conditioning automatically stops at the time set on the timer, but then is started again, this setting automatically stops the unit again repeatedly at set intervals, so it helps prevent people from forgetting to turn the air conditioning off.

When the settings are for closed between 21:00 and 09:00, and the stop monitoring during closed hours is set to 60-minute intervals

The "auto shutoff" feature works as many times as necessary during the closed hours (21:00 to 9:00 the next morning in the example).

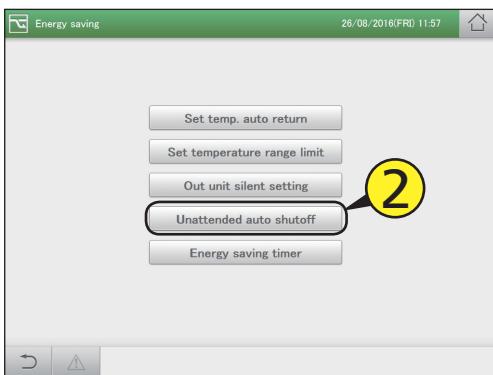


1 Touch [Energy saving] in "EnergySaving".



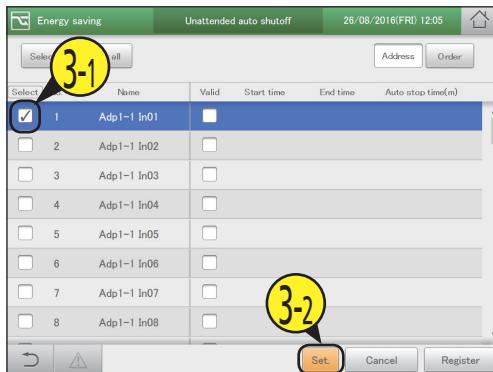
2 Touch [Unattended auto shutoff].

- Enter the identification number (password level 1 or 2) and the "Unattended auto shutoff" screen is displayed.

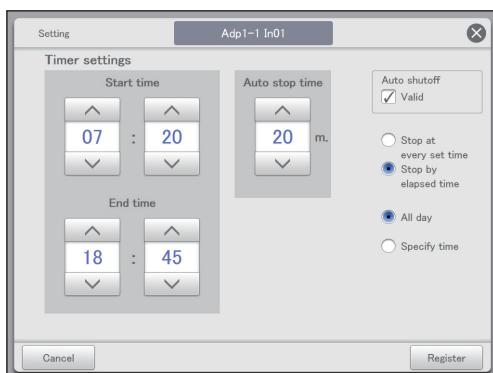


3 Put a check mark in the "Select" column (3-1), and touch [Set.] (3-2).

- The "Setting" dialogue is displayed.



4 Change the settings.



Item	Explanation
Timer settings (Start time, End time)	<p>Set the time slots to automatically stop. Use <input type="button" value="^"/> <input type="button" value="v"/> to set the time.</p> <p>Note</p> <ul style="list-style-type: none"> You can make the settings extend over different dates. For example: 22:00 to 08:00

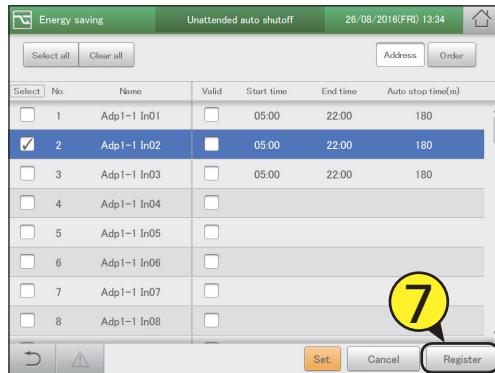
Continued on next page ➤

Item	Explanation
Auto stop time	Set the time to automatically stop after operation is started. Use to set the time. You can set between 0 and 180 minutes (5 minute intervals).
Auto shutoff	The auto shutoff function is enabled for the selected indoor unit if you put a check mark here.
• Stop at every set time • Stop by elapsed time	Select the stop conditions. <ul style="list-style-type: none"> “Stop at every set time” Even after automatically stopping at the “Start time”, the unit continues to automatically stop repeatedly at the “Auto stop time” interval. “Stop by elapsed time” After automatically stopping at “Start time” automatic stopping only happens after the “Auto stop time” has elapsed if the indoor unit is running.
• All day • Specify time	Select the time conditions. <ul style="list-style-type: none"> “All day” Automatic stopping at “Auto stop time” continues repeatedly throughout the day. (“Timer settings” is ignored) “Specify time” Auto shutoff is repeated between the “Start time” and the “End time”.

7

Touch [Register].

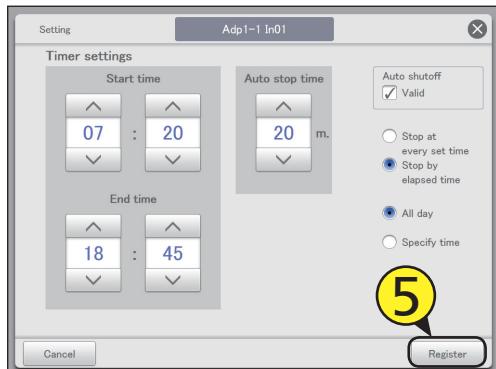
- To cancel the settings, touch [Cancel].



5

Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].



6

Set other indoor units.

- Repeat steps 3 to 5.

The “Unattended auto shutoff” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

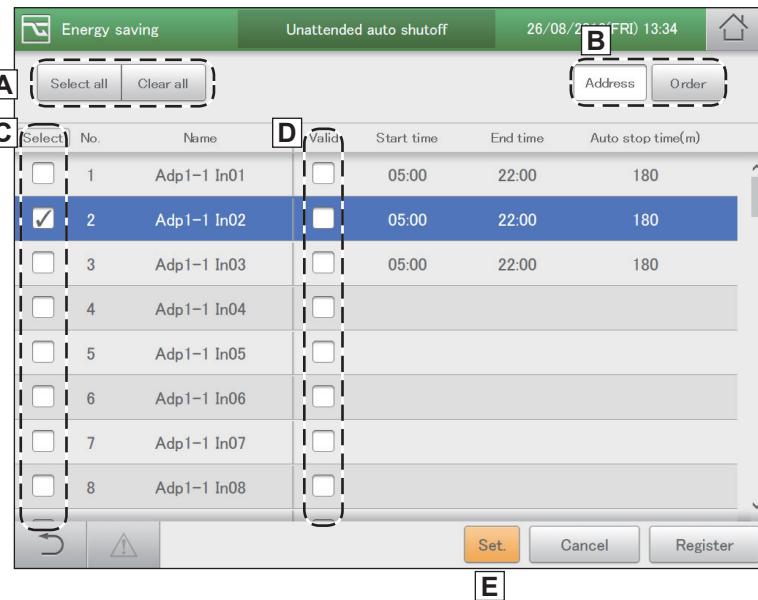
B: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the address order set in “I/D unit settings” (P.141).

C: The indoor units with a check mark next to them will be the subject of the changes to the settings.

D: The unattended auto shutoff is enabled for the selected indoor unit if you put a check mark here. This is linked with the “Auto shutoff” (“Setting” dialogue) (P.81) setting.

E: The “Setting” dialogue is displayed when you touch this.



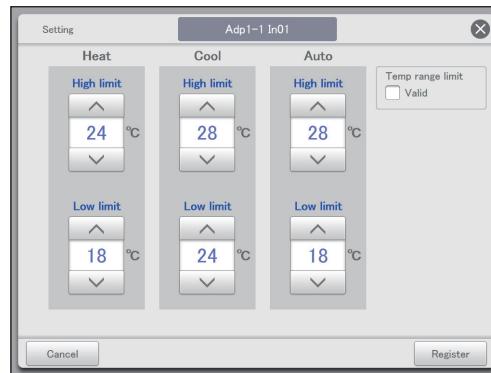
Restricting the range of set temperatures [Set temperature range limit]

Restrict the range of temperatures that can be set by setting upper and lower limits on temperatures.

1 Touch [Energy saving] in “EnergySaving”.



4 Change the settings.



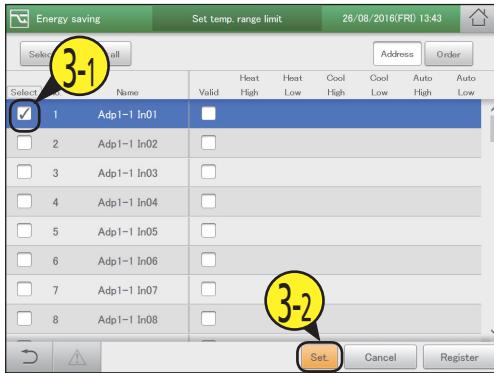
2 Touch [Set temperature range limit].

- Enter the identification number (password level 1 or 2) and the “Set temp. range limit” screen is displayed.



3 Put a check mark in the “Select” column (3-1), and touch [Set.] (3-2).

- The “Setting” dialogue is displayed.



Continued on next page ➤

Item	Explanation
High limit Low limit	<p>Set the upper temperature and lower temperature for “Heat”, “Cool”, and “Auto”. Set the temperature with Δ and ∇.</p> <p>The setting ranges are as follows.</p> <ul style="list-style-type: none"> In heating mode: 16 to 30 °C*¹ (1 °C intervals) ¹ The upper limit temperature for some models is 26 °C. In cooling (drying) mode: 18 to 30 °C (1 °C intervals) In automatic mode: 17 to 27 °C (1 °C intervals) <p>Note</p> <ul style="list-style-type: none"> The temperature range you can set depends on the model.
Temp range limit	The temperature range limit function is enabled for the selected indoor unit if you put a check mark here.

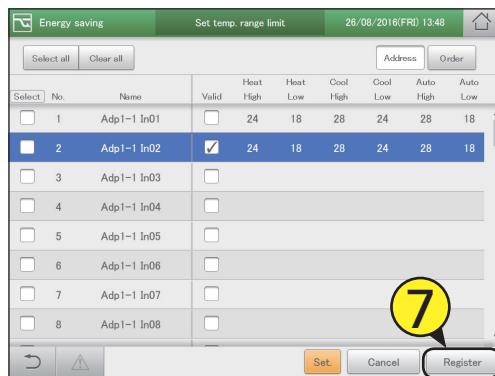
5 Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].



7 Touch [Register].

- To cancel the settings, touch [Cancel].



6 Set other indoor units.

- Repeat steps 3 to 5.

The “Set temp. range limit” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

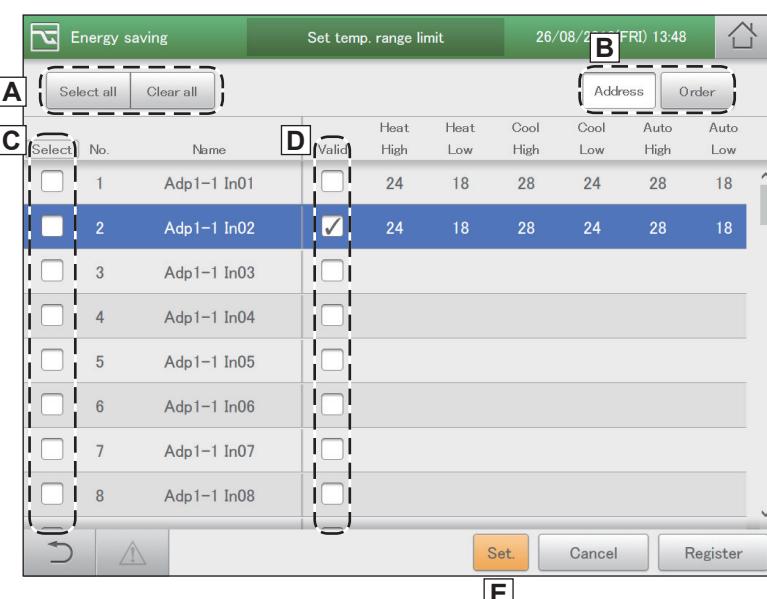
B: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the address order set in “I/D unit settings” (P.141).

C: The indoor units with a check mark next to them will be the subject of the changes to the settings.

D: The temperature range limit setting is enabled for the selected indoor unit if you put a check mark here. This is linked with the “Temp range limit” (“Setting” dialogue) (P.83) setting.

E: The “Setting” dialogue is displayed when you touch this.

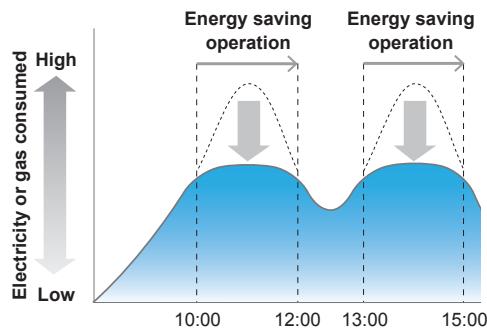


Restricting operating capacity according to the time slot [Energy saving timer]/[Efficient operation setting*]

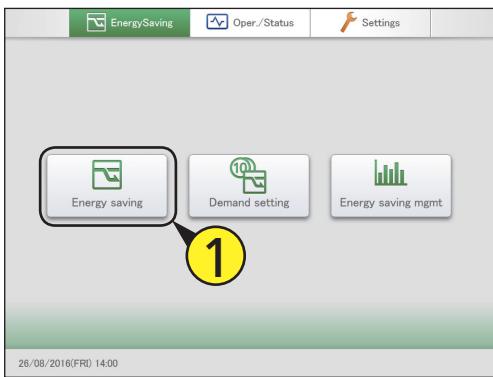
* When using gas heat pump air conditioners

You can specify time slots when you want operation capacity reduced.

When set to the 10:00 to 12:00 and 13:00 to 15:00 time slots, the consumption of electricity/gas is reduced during those time periods.



1 Touch [Energy saving] in "EnergySaving".



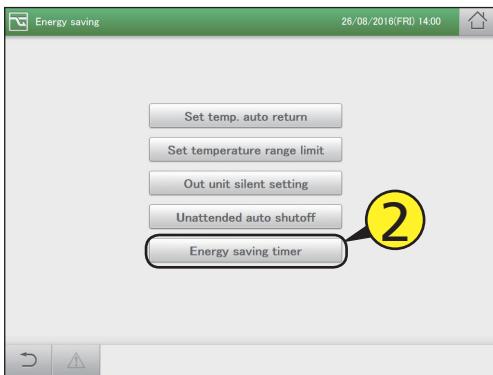
3 Put a check mark in the "Select" column (3-1), and touch [Set.] (3-2).

- The "Setting" dialogue is displayed.



2 Touch [Energy saving timer].

- Enter the identification number (password level 1 or 2) and the "Energy saving timer" screen is displayed.



4 Change the settings.



Item	Explanation
Start time End time	<p>Set the start and end times for "Timer 1" and "Timer 2". Use <input type="button" value="^"/> <input type="button" value="v"/> to set the time. The setting ranges are as follows.</p> <ul style="list-style-type: none"> Hours: 00 to 23 (1 hour intervals) Minutes: 00 to 59 (1 minute intervals) <p>Note</p> <ul style="list-style-type: none"> You can make the settings extend over different dates. For example: 22:00 to 08:00

Continued on next page ➔

Item	Explanation
Timer	The energy saving timer function is enabled for the selected indoor unit if you put a check mark here.

5 Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].

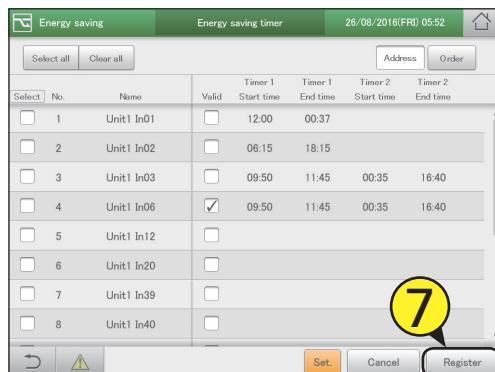


6 Set other indoor units.

- Repeat steps 3 to 5.

7 Touch [Register].

- To cancel the settings, touch [Cancel].



Note

- The settings for efficient operation (when using gas heat pump air conditioners) are made in the same way as energy saving timer.

The “Energy saving timer” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

B: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the address order set in “I/D unit settings” (P.141).

C: The indoor units with a check mark next to them will be the subject of the changes to the settings.

D: The energy saving timer setting is enabled for the selected indoor unit if you put a check mark here. This is linked with the “Timer” (“Setting” dialogue) setting.

E: The “Setting” dialogue is displayed when you touch this.



Reducing the noise of outdoor units [Out unit silent setting]

Set a time for the outdoor unit to operate more quietly at night compared to the day.

Note

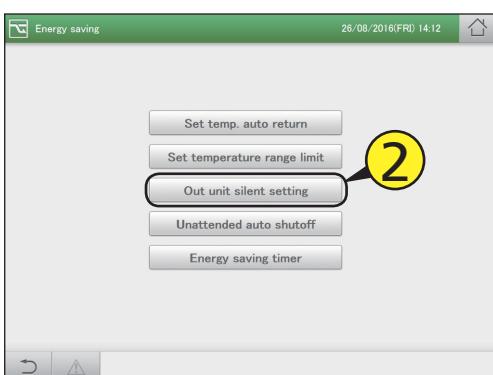
- This is supported only by some outdoor units.

1 Touch [Energy saving] in “EnergySaving”.



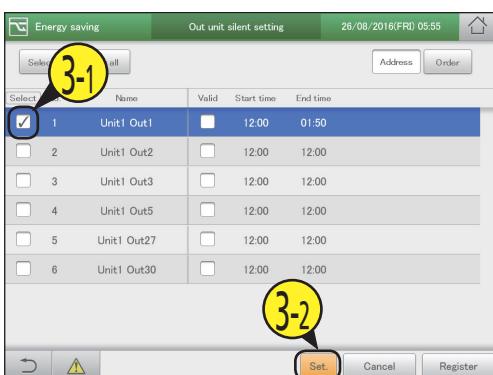
2 Touch [Out unit silent setting].

- Enter the identification number (password level 1 or 2) and the “Out unit silent setting” screen is displayed.



3 Put a check mark in the “Select” column (3-1), and touch [Set.] (3-2).

- The “Setting” dialogue is displayed.



Note

- This is displayed only for outdoor units for which the out unit silent setting can be set.

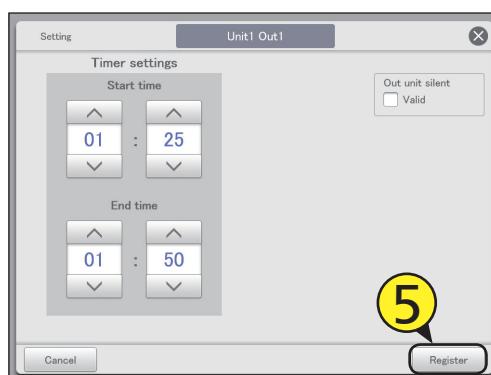
4 Change the settings.



Item	Explanation
Start time End time	Set the start and end times. Use <input type="button" value="^"/> <input type="button" value="v"/> to set the time. The setting ranges are as follows. • Hours: 00 to 23 (1 hour intervals) • Minutes: 00 to 59 (1 minute intervals)
Out unit silent	Note • You can make the settings extend over different dates. For example: 22:00 to 08:00 The silent operating mode is enabled if you put a check mark here.

5 Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].



6 Set other indoor units.

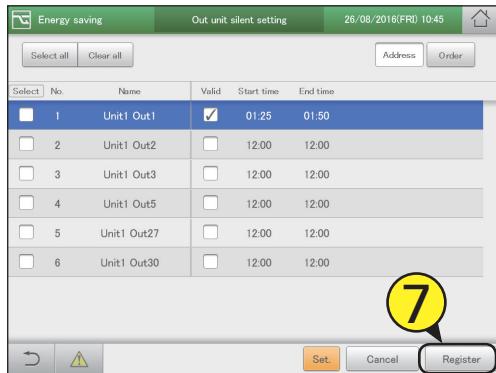
- Repeat steps 3 to 5.

Continued on next page ➞

7

Touch [Register].

- To cancel the settings, touch [Cancel].

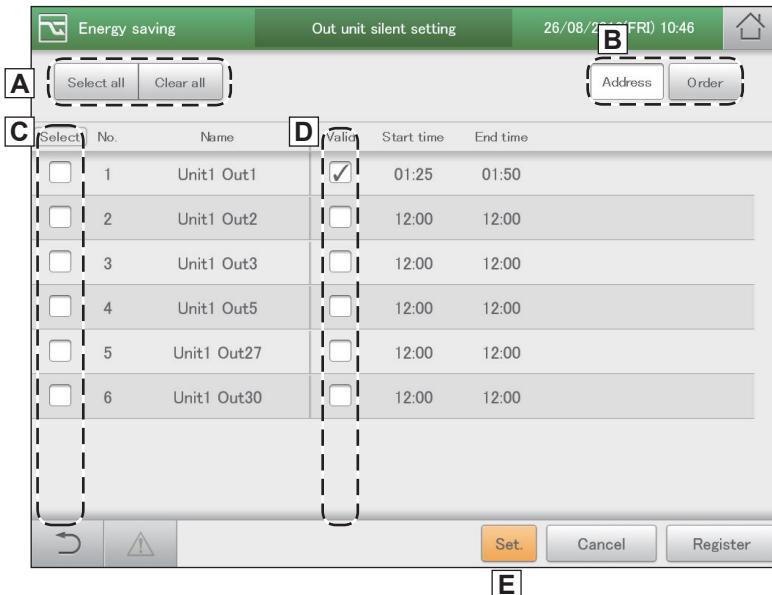


The “Out unit silent setting” screen

- A: [Select all]/[Clear all] buttons

[Select all]	Select all outdoor units.
[Clear all]	Cancel selection of all outdoor units.

- B: This switches between “Display” and “Address” each time you touch it.
- C: The outdoor units with a check mark next to them will be the subject of the changes to the settings.
- D: The out unit silent setting is enabled for the selected out unit silent if you put a check mark here. This is linked with the “Out unit silent” (“Setting” dialogue) (P.87) setting.
- E: The “Setting” dialogue is displayed when you touch this.



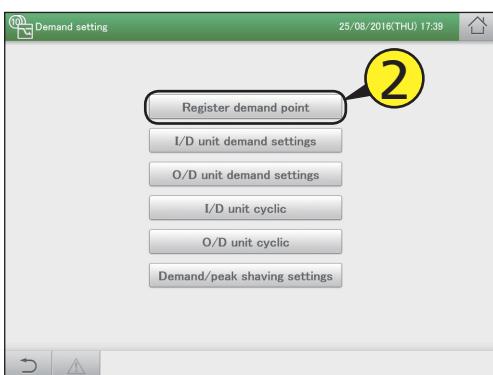
Registering demand point input [Register demand point]

Register the Di terminal of the main unit or the communication adaptor that inputs the demand point when an external equipment is connected.

- 1 Touch [Demand setting] in "EnergySaving".

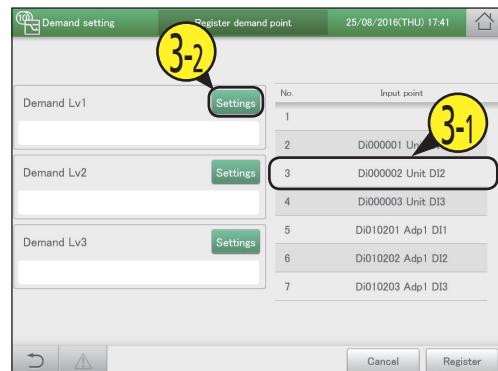


- 2 Touch [Register demand point].
● Enter the identification number (password level 1 or 2) and the "Register demand point" screen is displayed.

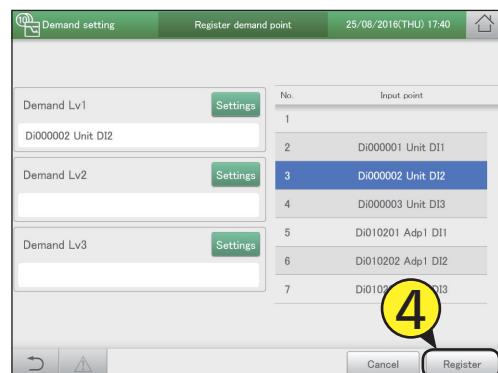


- 3 Select the main unit or the communication adaptor from the list at right (3-1) and touch [Settings] (3-2).

- Set the demand points ("Demand 1", "Demand 2", and "Demand 3").
- You can change the name of the adaptor displayed for the demand points. Touch the text box and change with the touchscreen keyboard. (Enter a name up to 16 alphanumeric characters)



- 4 Touch [Register].
● To cancel the settings, touch [Cancel].



Demand settings on the indoor unit [I/D unit demand settings]

You can automatically control indoor units by setting indoor unit demand control levels to cut the maximum demand for electricity or maximum gas consumption.

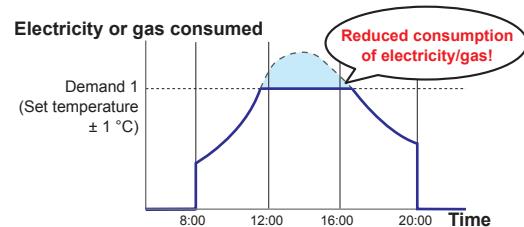
Set an operation when the setting levels for the demand point inputs come on.

Attention

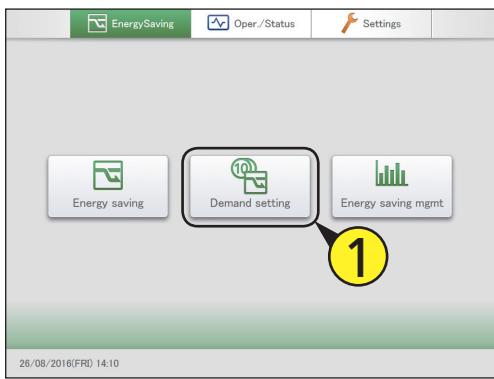
- Register the demand point input before making these settings. (P.89)
- Before making these settings, also cancel the demand operation settings ([No settings]) for the outdoor units in the “O/D unit information” screen. (P.35)

When “ $\pm 1^{\circ}\text{C}$ ” is set in the setting level “Demand 1” during cooling

When the demand signal is received from the external equipment, the demand 1 contact comes on and the set temperature is raised by 1°C .



1 Touch [Demand setting] in “EnergySaving”.



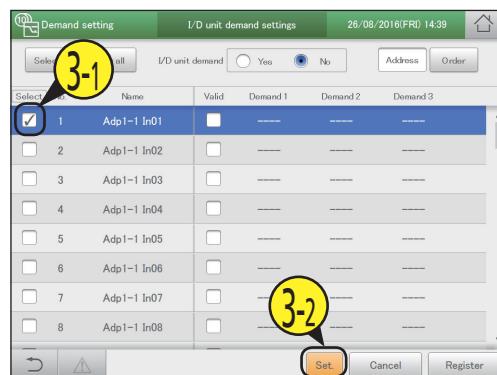
2 Touch [I/D unit demand settings].

- Enter the identification number (password level 1 or 2) and the “I/D unit demand settings” screen is displayed.



3 Put a check mark in the “Select” column (3-1), and touch [Set.] (3-2).

- The “Setting” dialogue is displayed.



4 Change the settings.

- Set the “Settings” for “Demand 1”, “Demand 2”, and “Demand 3” in “Level”.

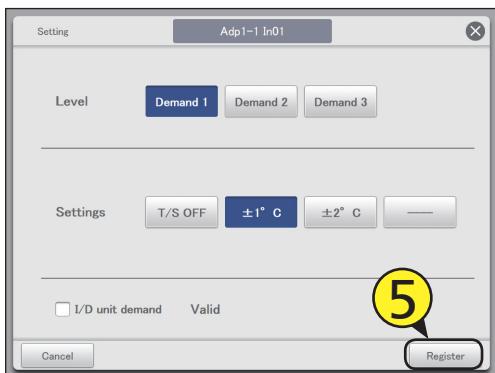


Item	Explanation
Level	Select a setting level.
Settings	Select an operation. No operation is caused if you select [---].
I/D unit demand Valid	The demand setting is enabled for the selected indoor unit if you put a check mark here.

Continued on next page ➤

5 Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].



8 Touch [Register].

- To cancel the settings, touch [Cancel].

Select	No.	Name	Valid	Demand 1	Demand 2	Demand 3
<input checked="" type="checkbox"/>	1	Adp1-1 In01	<input type="checkbox"/>	±1°C	±2°C	T/S OFF
<input type="checkbox"/>	2	Adp1-1 In02	<input type="checkbox"/>	±1°C	±2°C	T/S OFF
<input type="checkbox"/>	3	Adp1-1 In03	<input type="checkbox"/>	---	---	---
<input type="checkbox"/>	4	Adp1-1 In04	<input type="checkbox"/>	---	---	---
<input type="checkbox"/>	5	Adp1-1 In05	<input type="checkbox"/>	---	---	---
<input type="checkbox"/>	6	Adp1-1 In06	<input type="checkbox"/>	---	---	---
<input type="checkbox"/>	7	Adp1-1 In07	<input type="checkbox"/>	---	---	---
<input type="checkbox"/>	8	Adp1-1 In08	<input type="checkbox"/>	---	---	---

6 Set other indoor units.

- Repeat steps 3 to 5.

7 Select “Yes” for “I/D unit demand”.

Select	No.	Name	I/D unit demand	Demand 1	Demand 2	Demand 3
<input checked="" type="checkbox"/>	1	Adp1-1 In01	<input checked="" type="radio"/>	±1°C	±2°C	T/S OFF
<input type="checkbox"/>	2	Adp1-1 In02	<input type="radio"/>	±1°C	±2°C	T/S OFF
<input type="checkbox"/>	3	Adp1-1 In03	<input type="radio"/>	---	---	---
<input type="checkbox"/>	4	Adp1-1 In04	<input type="radio"/>	---	---	---
<input type="checkbox"/>	5	Adp1-1 In05	<input type="radio"/>	---	---	---
<input type="checkbox"/>	6	Adp1-1 In06	<input type="radio"/>	---	---	---
<input type="checkbox"/>	7	Adp1-1 In07	<input type="radio"/>	---	---	---
<input type="checkbox"/>	8	Adp1-1 In08	<input type="radio"/>	---	---	---

The “I/D unit demand settings” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

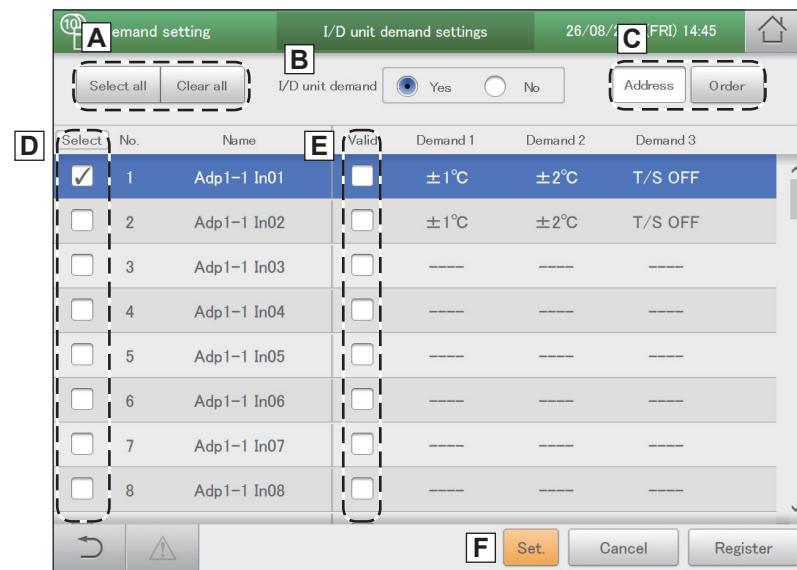
B: Set whether to enable indoor unit demand control across the whole system or not.

Note

- If you select “Yes”, make sure that you set “No” for outdoor unit demand settings.

C: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the address order set in “I/D unit settings” (P.141).



D: The indoor units with a check mark next to them will be the subject of the changes to the settings.

E: The I/D unit demand setting is enabled for the selected indoor unit if you put a check mark here. This is linked with the “I/D unit demand Valid” (“Setting” dialogue) (P.90) setting.

F: The “Setting” dialogue is displayed when you touch this.

Demand settings on the outdoor unit [O/D unit demand settings]

You can automatically control outdoor units by setting outdoor unit demand control levels to cut the maximum demand for electricity or maximum gas consumption.

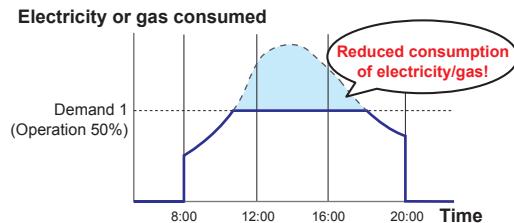
Set an operation when the setting levels for the demand point inputs come on.

Attention

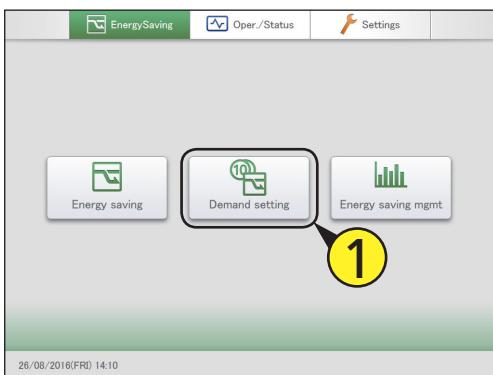
- Register the demand point input before making these settings. (P.89)
- Before making these settings, also cancel the demand operation settings ([No settings]) for the outdoor units in the “O/D unit information” screen. (P.35)

When “Ope. 50%” is set in the setting level “Demand 1” during warming

When the demand signal is received from the external equipment, the demand 1 contact comes on and the operation of the outdoor unit is restricted by 50%.

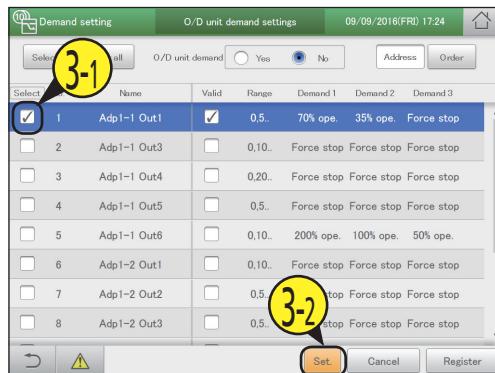


1 Touch [Demand setting] in “EnergySaving”.



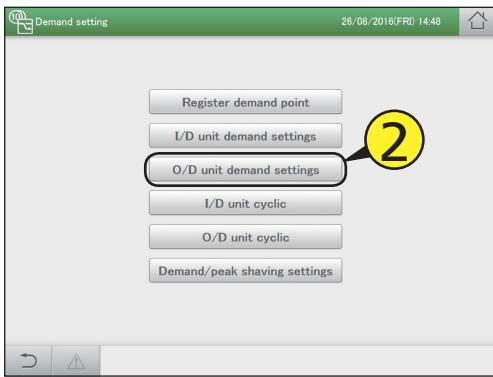
3 Put a check mark in the “Select” column (3-1), and touch [Set.] (3-2).

- The “Setting” dialogue is displayed.



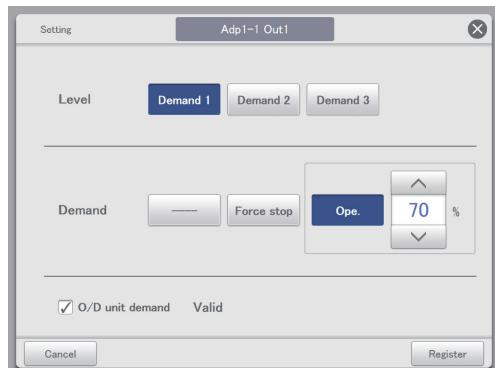
2 Touch [O/D unit demand settings].

- Enter the identification number (password level 1 or 2) and the “O/D unit demand settings” screen is displayed.



4 Change the settings.

- Set the “Demand” for “Demand 1”, “Demand 2”, and “Demand 3” in “Level”.



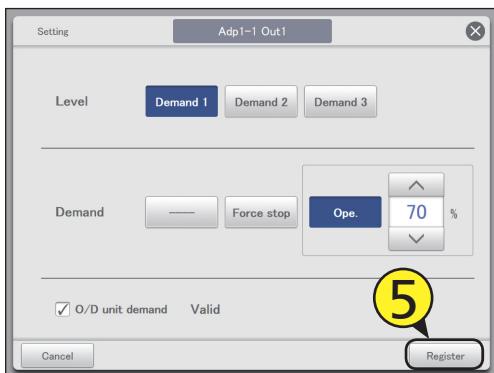
Item	Explanation
Level	Select a setting level.
Demand	Select an operation. No operation is caused if you select [---]. When you have selected [Ope.] in “Demand”, set the control rate with <input type="button" value="^"/> <input type="button" value="v"/> . The values shown are those values that can be set for the outdoor unit selected.
O/D unit demand Valid	The demand setting is enabled for the selected outdoor unit if you put a check mark here.

Continued on next page ➤

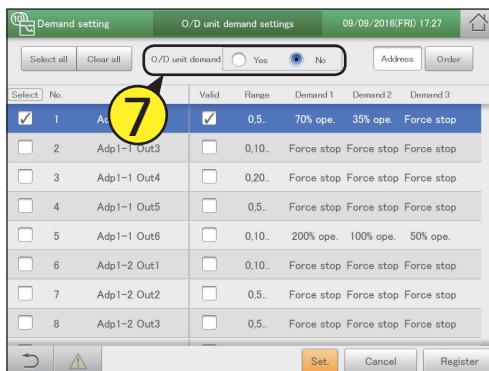
Demand settings on the outdoor unit [O/D unit demand settings]

5 Touch [Register].

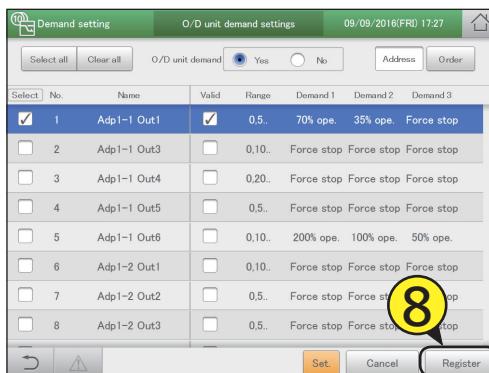
- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].

**6** Set other outdoor units.

- Repeat steps 3 to 5.

7 Select “Yes” for “O/D unit demand”.**8** Touch [Register].

- To cancel the settings, touch [Cancel].



The “O/D unit demand settings” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all outdoor units.
[Clear all]	Cancel selection of all outdoor units.

B: Set whether to enable outdoor unit demand control or not.

Note

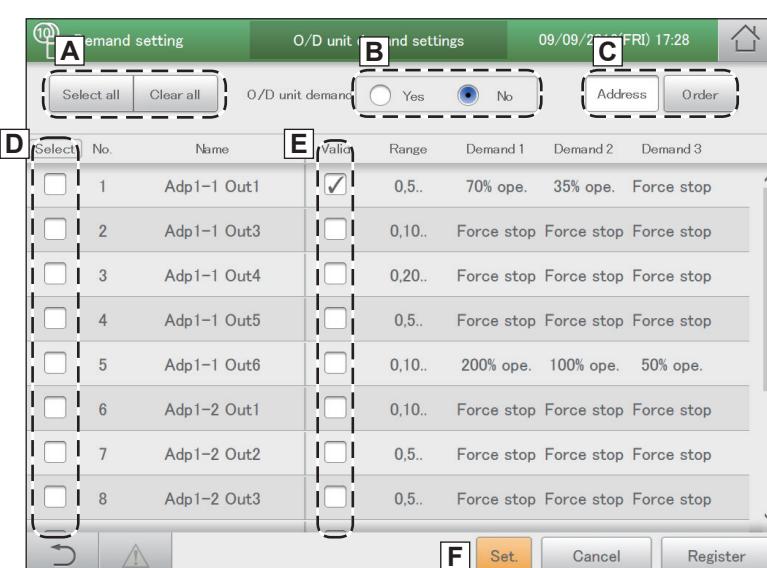
- If you select “Yes”, make sure that you set “No” for indoor unit demand settings.

C: This switches between “Display” and “Address” each time you touch it.

D: The outdoor units with a check mark next to them will be the subject of the changes to the settings.

E: The O/D unit demand setting is enabled for the selected outdoor unit if you put a check mark here. This is linked with the “O/D unit demand Valid” (“Setting” dialogue) (P.93) setting.

F: The “Setting” dialogue is displayed when you touch this.



Suppressing the consumption of electricity/gas [Demand/peak shaving settings]/[Peak cut settings*]

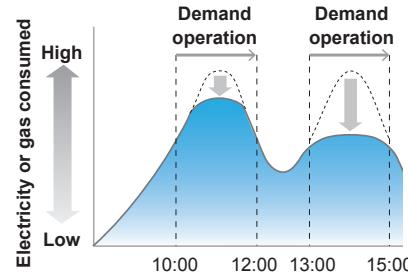
* When using gas heat pump air conditioners

You can limit the electricity or gas consumed by outdoor units during the set time slot.

Attention

- Register the demand point input before making these settings. (P.89)
- Before making these settings, also cancel the demand operation settings ([No settings]) for the outdoor units in the "O/D unit information" screen. (P.35)

When set to the 10:00 to 12:00 and 13:00 to 15:00 time slots, the consumption of electricity/gas by the outdoor units is reduced during those time periods.



1 Touch [Demand setting] in "EnergySaving".



3 Put a check mark in the "Select" column (3-1), and touch [Set.] (3-2).

- The "Setting" dialogue is displayed.

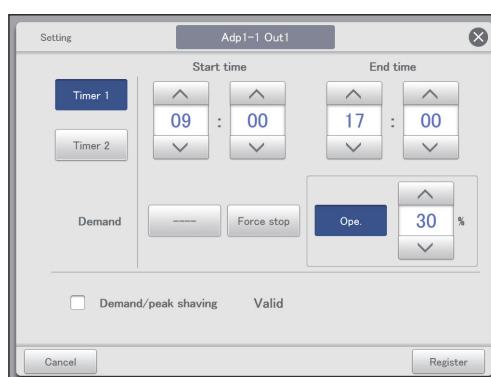


2 Touch [Demand/peak shaving settings].

- Enter the identification number (password level 1 or 2) and the "Demand/peak shaving settings" screen is displayed.



4 Change the settings.



Item	Explanation
Timer 1 Timer 2	First select either "Timer 1" or "Timer 2", then set the "Start time", "End time", and "Demand" for each of them.

Continued on next page ➤

Item	Explanation
Start time End time	Set the start and end times for "Timer 1" and "Timer 2". Use to set the time. The setting ranges are as follows. <ul style="list-style-type: none">• Hours: 00 to 23 (1 hour intervals)• Minutes: 00 to 59 (1 minute intervals) Note <ul style="list-style-type: none">• You can make the settings extend over different dates. For example: 22:00 to 08:00
Demand	Select an operation. No operation is caused if you select [---]. When you have selected [Ope.] in "Demand", set the control rate with . The values shown are those values that can be set for the outdoor unit selected.
Demand/peak shaving Valid	The outdoor unit time slot demand control setting is enabled for the selected outdoor unit if you put a check mark here.

5 Touch [Register].

- The "Setting" dialogue closes.
- To cancel the settings, touch [Cancel].



Note

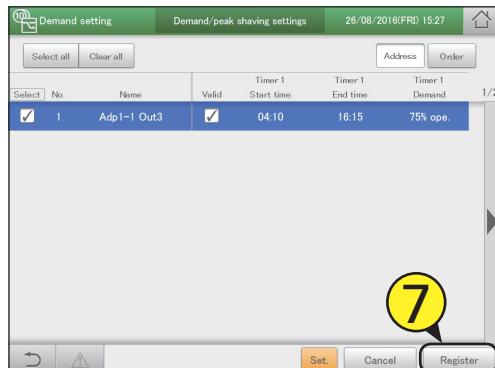
- The settings for peak cut (when using gas heat pump air conditioners) are made in the same way as outdoor time slot demand settings.

6 Set other outdoor units.

- Repeat steps 3 to 5.

7 Touch [Register].

- To cancel the settings, touch [Cancel].



The “Demand/peak shaving settings” screen

A: [Select all]/[Clear all] buttons

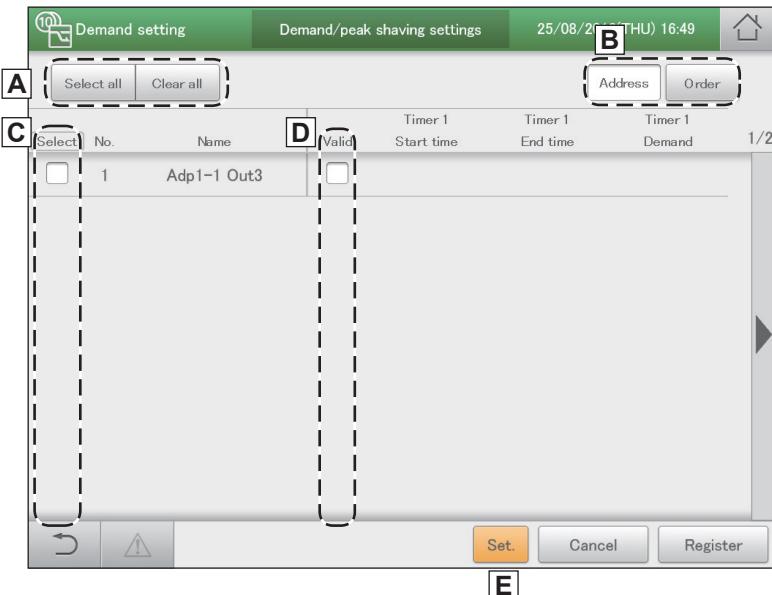
[Select all]	Select all outdoor units.
[Clear all]	Cancel selection of all outdoor units.

B: This switches between “Display” and “Address” each time you touch it.

C: The outdoor units with a check mark next to them will be the subject of the changes to the settings.

D: The outdoor time slot demand setting is enabled for the selected outdoor unit if you put a check mark here. This is linked with the “Demand/peak shaving Valid” (“Setting” dialogue) (P.96) setting.

E: The “Setting” dialogue is displayed when you touch this.



Control operation at regular intervals [I/D unit cyclic]

This type of control rotates through the set times slots at the specified intervals (3 minutes, 4 minutes, 5 minutes), evenly operating the indoor units in the control groups using the settings (OFF, thermostat, mode, set temperature) and recovering.

Attention

- Register the demand point input before making these settings. (P.89)
- Before making these settings, also cancel the demand operation settings ([No settings]) for the outdoor units in the “O/D unit information” screen. (P.35)

When using cycling control at 5 minute intervals on the indoor units in control groups 1 to 5

Control groups 1 to 3 are “T/S OFF” and control groups 4 and 5 are “Fan”, and if the interval is “5 min.”, the cycling control happens at 5 minute intervals.

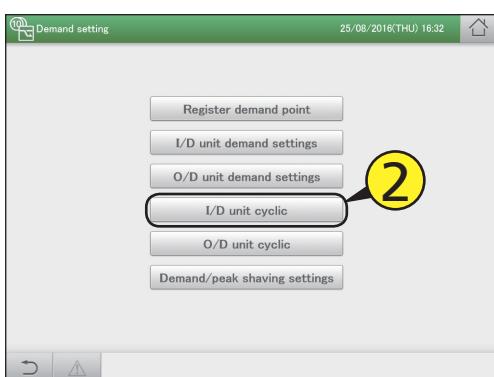
	5 min.	5 min.	5 min.	5 min.	5 min.
Control group 1	Thermostat forced OFF				Normal operation
Control group 2	Normal operation	Thermostat forced OFF			Normal operation
Control group 3	Normal operation		Thermostat forced OFF		Normal operation
Control group 4		Normal operation		Fan	Normal operation
Control group 5		Normal operation			Fan

1 Touch [Demand setting] in “EnergySaving”.



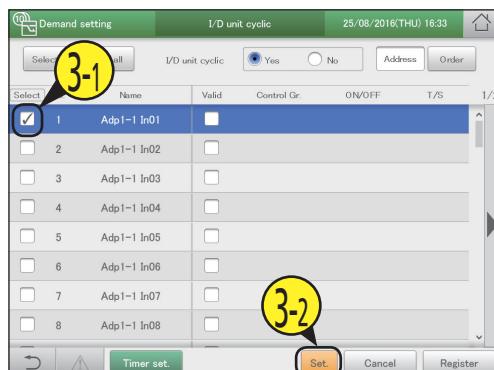
2 Touch [I/D unit cyclic].

- Enter the identification number (password level 1 or 2) and the “I/D unit cyclic” screen is displayed.



3 Put a check mark in the “Select” column (3-1), and touch [Set.] (3-2).

- The “Setting” dialogue is displayed.



4 Change the settings.



Item	Explanation
Control Gr. 1-10	Press \blacktriangleleft \triangleright to set the control group that the indoor unit is to be allocated to. (Up to 10 groups) Set from “Gr.1” to “Gr.10”.
Ope.	Operation of the indoor units is stopped. Set either [OFF] or [---]*.
T/S	The thermostat is set to off forcibly. Select between [T/S OFF] and [---]*.

Continued on next page

Item	Explanation
Mode	Set the operating mode to fan. Set either [Fan] or [---]*.
Set T.	Set the temperature with \wedge and \vee . Set “±1” or “±2”, at 1 °C steps between 16 °C and 28 °C*.
Fan	Use \wedge \vee to set the fan speed. Set “Auto”, “High”, “Mid.”, or “Low”*.
I/D unit cyclic Valid	The indoor unit cycling control function is enabled for the selected indoor unit if you put a check mark here.

* When left blank, that item does not cause any operation.

5 Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].

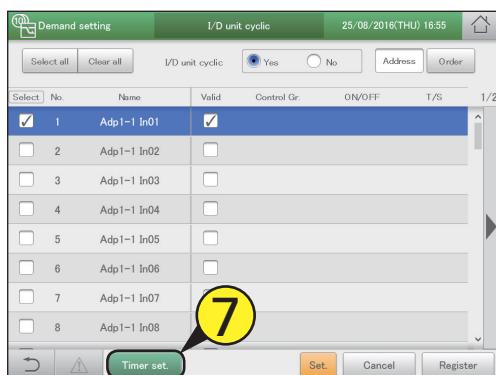


6 Set other indoor units.

- Repeat steps 3 to 5.

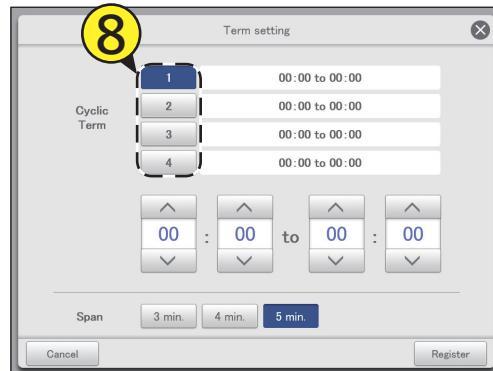
7 Touch [Timer set.].

- The “Term setting” dialogue is displayed.



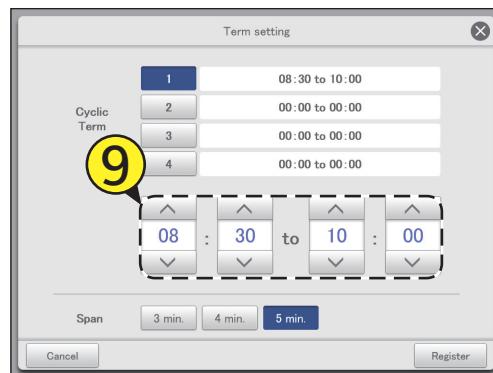
8 Touch the number.

- You can set 4 different time slots.



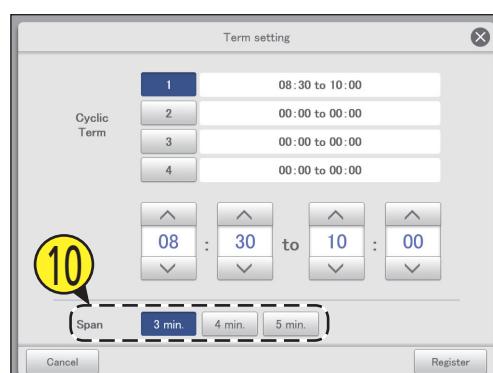
9 Set the times.

- The time on the left is the control start time. The time on the right is the control end time.
- Use \wedge \vee to set the time. Hours can be set in the range 0 to 23, and minutes may be either “00” or “30”.



10 Set the control interval.

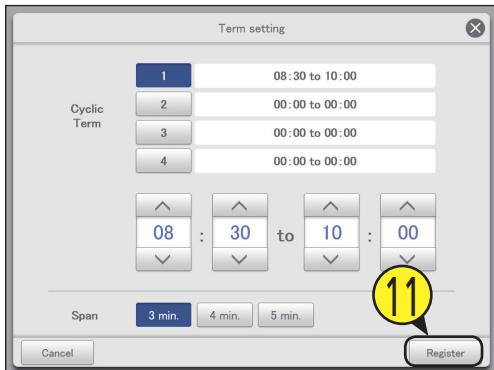
- Select “3 min.”, “4 min.”, or “5 min.”.
- Repeat steps 7 to 9 to set for numbers [1] to [4].



Continued on next page ➤

11 Touch [Register].

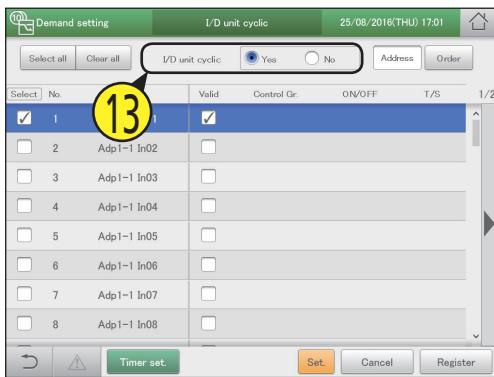
- The “Term setting” dialogue closes.
- To cancel the settings, touch [Cancel].



12 Put a check mark in the “Valid” column.

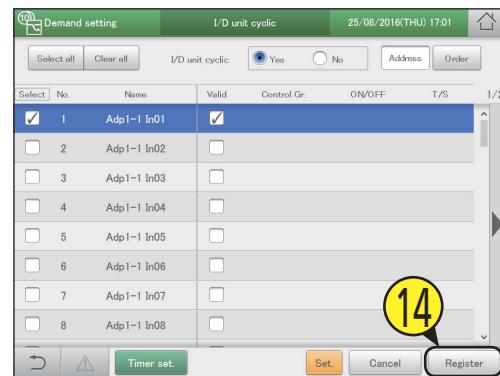


13 Select “Yes” for “I/D unit cyclic”.



14 Touch [Register].

- To cancel the settings, touch [Cancel].



Note

- Up to 10 control groups can be created.
- Control groups that have not been set will not be the object of cyclic control.

The “I/D unit cyclic” screen

A: [Select all]/[Clear all] buttons

[Select all]	Select all indoor units.
[Clear all]	Cancel selection of all indoor units.

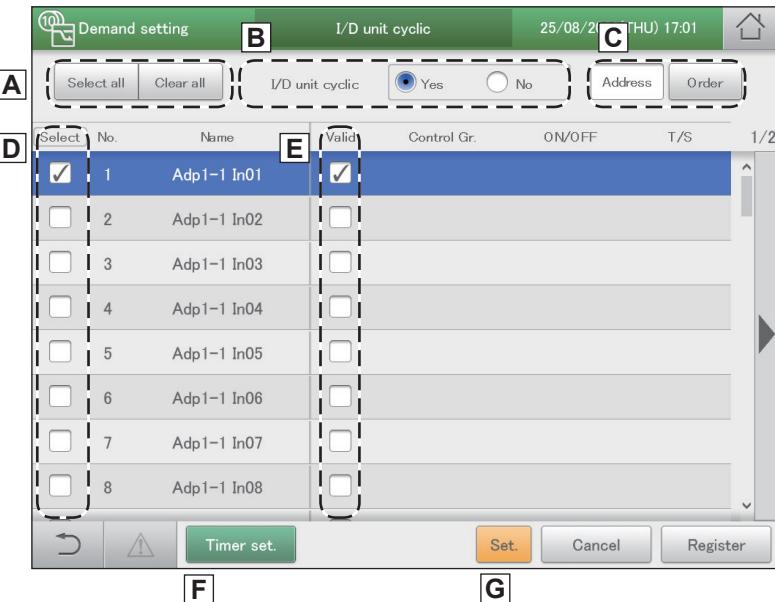
B: Set whether to enable indoor unit cycling control across the whole system or not.

Note

- If you select “Yes”, make sure that you set “No” for outdoor unit cycling control settings.

C: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “I/D unit settings” (P.141).
O/D unit	The display follows the outdoor unit display order set in “O/D unit settings” (P.145).
Address	The display follows the address order set in “I/D unit settings” (P.141).



D: The indoor units with a check mark next to them will be the subject of the changes to the settings.

E: The I/D unit cyclic is enabled for the selected indoor unit if you put a check mark here. This is linked with the “I/D unit cyclic Valid” (“Setting” dialogue) (P.99) setting.

F: The “Term setting” dialogue is displayed when you touch this.

G: The “Setting” dialogue is displayed when you touch this.

Control operation at regular intervals [O/D unit cyclic]

This type of control rotates through at 10 minute intervals, evenly operating the outdoor units in the control groups either operating (or stopping) and recovering.

Attention

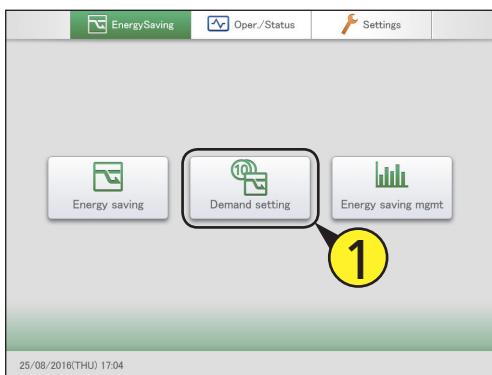
- Register the demand point input before making these settings. (P.89)
- Before making these settings, also cancel the demand operation settings ([No settings]) for the outdoor units in the “O/D unit information” screen. (P.35)

When using cycling control at 10 minute intervals on the outdoor units in control groups 1 to 5

Control groups 1 and 3 are “Force stop” and control groups 2, 4 and 5 are “50%” operation, and the cycling control happens at 10 minute intervals.

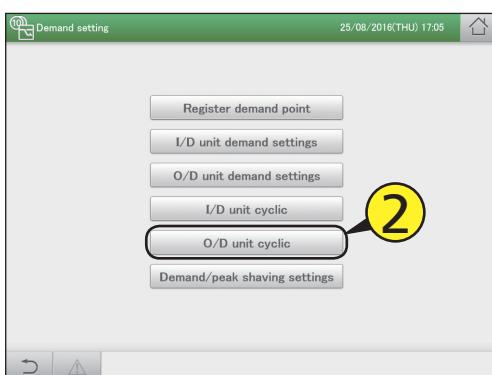
	10 min.				
Control group 1	Forced stop		Normal operation		
Control group 2	Normal operation	50% control		Normal operation	
Control group 3	Normal operation		Forced stop	Normal operation	
Control group 4		Normal operation		50% control	Normal operation
Control group 5		Normal operation			50% control

1 Touch [Demand setting] in “EnergySaving”.



2 Touch [O/D unit cyclic].

- Enter the identification number (password level 1 or 2) and the “O/D unit cyclic” screen is displayed.

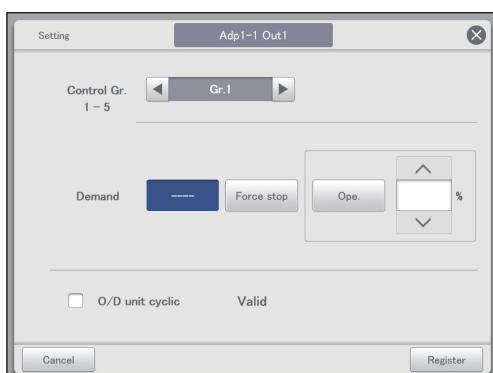


3 Put a check mark in the “Select” column (3-1), and touch [Set.] (3-2).

- The “Setting” dialogue is displayed.



4 Change the settings.



Item	Explanation
Control Gr. 1-5	Press to set the control group that the outdoor unit is to be allocated to. Set from “Gr.1” to “Gr.5”.
Demand	Select an operation. No operation is caused if you select [---]. When you have selected [Ope.], set the control rate with . The values shown are those values that can be set for the outdoor unit selected.

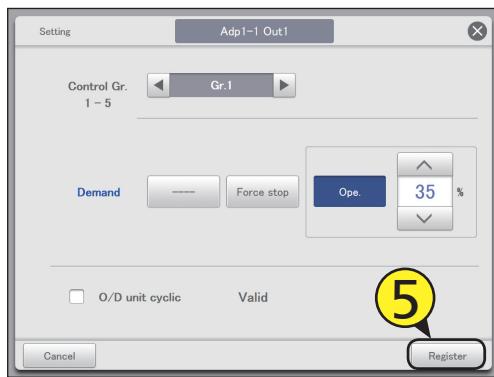
Continued on next page ➤

Control operation at regular intervals [O/D unit cyclic]

Item	Explanation
O/D unit cyclic Valid	The O/D unit cyclic function is enabled for the selected outdoor unit if you put a check mark here.

5 Touch [Register].

- The “Setting” dialogue closes.
- To cancel the settings, touch [Cancel].

**6 Set other outdoor units.**

- Repeat steps 3 to 5.

7 Touch [Timer set].

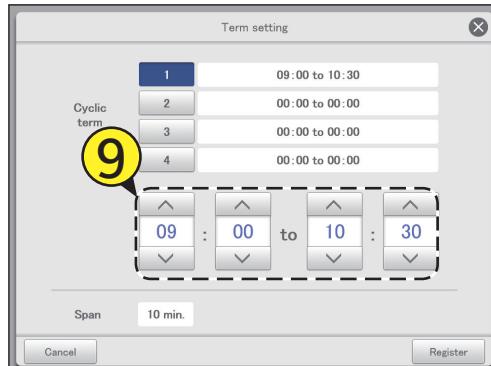
- The “Term setting” dialogue is displayed.

**8 Touch the number.**

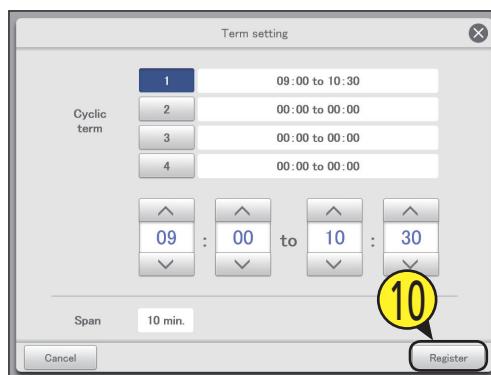
- You can set 4 different time slots.

**9 Set the times.**

- The time on the left is the control start time. The time on the right is the control end time.
- Use \uparrow \downarrow to set the time. Hours can be set in the range 0 to 23, and minutes may be either “00” or “30”.

**10 Touch [Register].**

- The “Term setting” dialogue closes.
- To cancel the settings, touch [Cancel].

**11 Put a check mark in the “Valid” column.**

Continued on next page ➤

12 Select “Yes” for “O/D unit cyclic”.



13 Touch [Register].

● To cancel the settings, touch [Cancel].



Note

- Up to 5 control groups can be created.
- Control groups that have not been set will not be the object of cyclic control.

The “O/D unit cyclic” screen

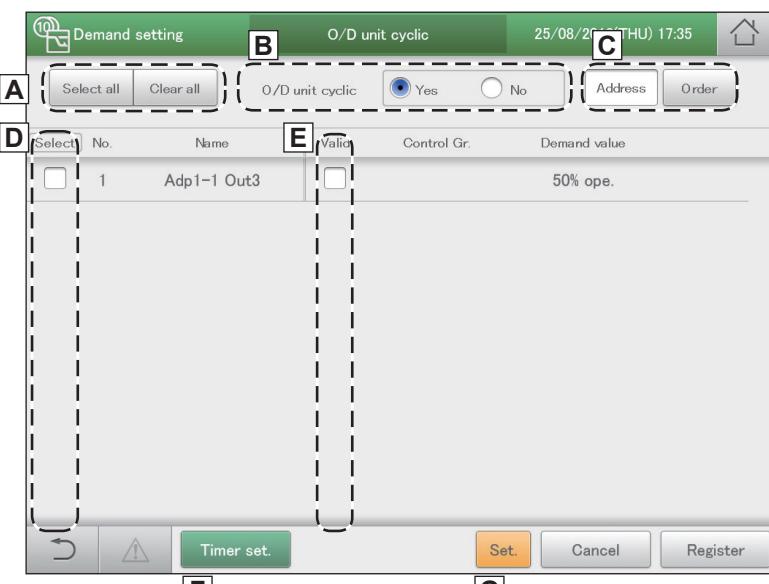
A: [Select all]/[Clear all] buttons

[Select all]	Select all outdoor units.
[Clear all]	Cancel selection of all outdoor units.

B: Set whether to enable outdoor unit cycling control across the whole system or not.

Note

- If you select “Yes”, make sure that you set “No” for indoor unit cycling control settings.
- C: This switches between “Display” and “Address” each time you touch it.
- D: The outdoor units with a check mark next to them will be the subject of the changes to the settings.
- E: The O/D unit cyclic is enabled for the selected outdoor unit if you put a check mark here. This is linked with the “O/D unit cyclic Valid” (“Setting” dialogue) (P.103) setting.
- F: The “Term setting” dialogue is displayed when you touch this.
- G: The “Setting” dialogue is displayed when you touch this.



Displaying data in graphs



Energy saving mgmt

This chapter explains how to display graphs.

This unit is equipped with the functionality to collect the data accumulated in the devices and to turn this into graphs.

Making the data visible makes it possible to objectively manage energy saving.

Screen menu

Overview

Page

Bar chart	Quantities of energy usage (electricity, gas), etc., are shown in bar charts.	109
Line graph	Temperature changes, etc., are shown in line graphs.	113

Graph display function

This unit is equipped with a “graph display” function as part of the energy saving functionality. Collect data from devices such as the indoor units, outdoor units, and pulse meters, set the display period (daily, monthly, or yearly) and display the graphs.

Types of graph

There are 2 types of graph that you can display on this unit.

	Bar charts	Line graphs
Display example		
Main uses	Comparing accumulated data (thermostat ON operating times, etc.)	Comparing temperature changes, etc.

Graph settings

The following settings are necessary to display graphs.

(○ are items that can be set)

● Display period

Display period	Bar	Line	Explanation
days	○	○	The transition of daily data is displayed in hourly units (1 hour).
Mths	○	○	The transition of monthly data is displayed in daily units (1 day).
Yrs.	○		The transition of yearly data is displayed in monthly units (1 month).

● Display method

Display method	Bar	Line	Explanation
Ranking	○		Display the 10 top best or worst units based on collected values for the item.
By unit		○	Data by item is displayed for units. (items are fixed)
UntCmpar	○		Display the data for items by unit (you can select up to 4 devices).
ItemUnits		○	
ChngPrDy	○	○	The three days' worth of data for items and units from the day before the previous day, the previous day, and the same day is displayed.
UserSlct	○	○	You can select items freely.

● Unit

Unit	Bar	Line	Explanation
I/D	○	○	Set indoor unit as the display target.
O/D	○	○	Set outdoor unit as the display target.
Pulse	○		Set accumulator (pulse meter) as the display target.
Ar.	○		Set area group as the display target.

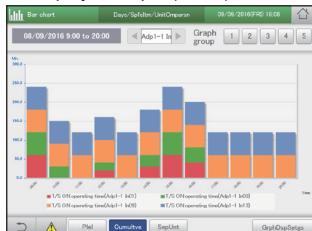
● Graph type/Data type

	Type	Bar	Line	Explanation
Graph	Plel*1	<input type="radio"/>		Selected units or data are lined up horizontally, with one unit on the X axis.
	Cumultve*2	<input type="radio"/>		Data for selected units are stack, with one unit on the X axis.
	SepUnt*3	<input type="radio"/>		The X axis displays the units (10 units in ascending order of display).
Data	Max.*4		<input type="radio"/>	The highest value of the selected item is used as the data.
	Min.*4		<input type="radio"/>	The lowest value of the selected item is used as the data.
	Avg*		<input type="radio"/>	The average value of the selected item is used as the data.
	SpcfTime		<input type="radio"/>	The value of the selected item from the specified time is used as the data.

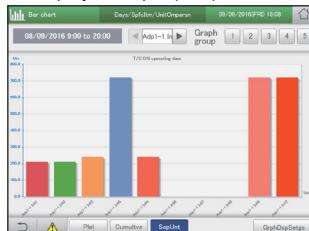
*1 Display example (Parallel)



*2 Display example (Stack)



*3 Display example (Unit)



*4 These can be set when "Mths" is selected as the display period.

● Item

The items you can set depend on the unit selected.

● Bar charts

Unit	days	Mths	Yrs.
I/D	Ttl opr time (minutes) T/S ON ope. time (minutes)	Ttl opr time (minutes) Elec. usage (kWh) PowerGenratn gas usage (m³) A/C gas cost	T/S ON ope. time (minutes) A/C gas usage (m³) ElectricCost PwrGnGasCost
O/D	O/D Unit opern count (times) Invert cuml power genrtn (kWh)	Engine operating time (minutes) PV cumulative pwr generatn (kWh)	
Pulse	Incr. amount		
Ar.	Ttl opr time (minutes) T/S ON ope. time (minutes)	Ttl opr time (minutes) Elec. usage (kWh) PowerGenratn gas usage (m³) A/C gas cost	T/S ON ope. time (minutes) A/C gas usage (m³) ElectricCost PwrGnGasCost

● Line graphs

Unit	days	Mths	
I/D un	Set T. (°C) Room temp. (°C) DischrgTemp (°C)	Suction temp (°C)	
O/D un	Outdoor temp (°C) PV InstPwGen (kW)	Invert inst power genrtn (kW)	

Note

- If you selected [By unit] as the display method, all items are displayed for the relevant units. (You cannot select the items)

[UserSlct]

- “Setting items freely” (P.116)

When you select [UserSlct] for both bar charts and line graphs, you can display graphs where you can freely select the units and items. By registering the settings in “Graph group” to suit their use, you can easily display them without having to select the items every time. (You still need to set the display period and other items.)

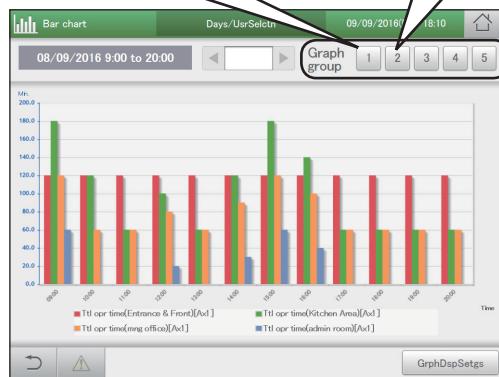
Up to 5 graph groups can be registered.

Example

The monthly transitions of total operating hours, thermostat ON operating times, and electricity usage for one indoor unit is registered in graph group 1.

Example

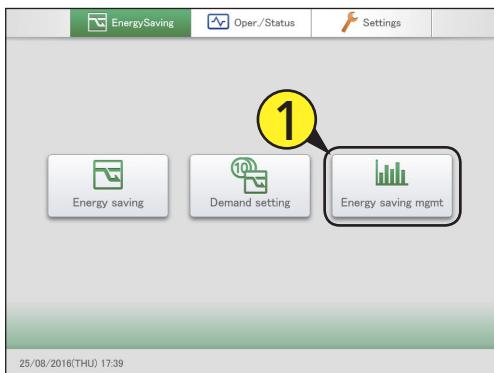
The daily transition of operation cycles and engine operating times for 2 outdoor units is registered in graph group 2.



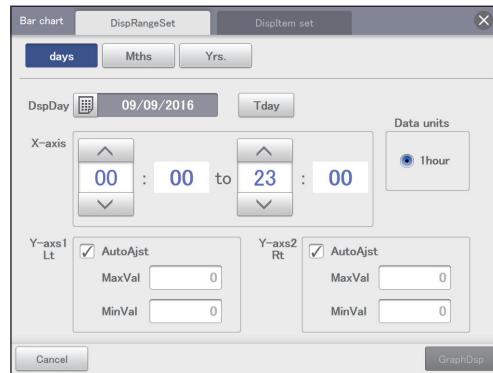
Graphing operating times and energy usage

Specify the display period (daily, monthly, yearly), and display mainly accumulated data, such as energy usage (electricity, gas), total operating hours, and charges (electricity, gas), in bar charts. You can put target values in graphs (these are displayed as red lines on the graphs). Putting target values in the graphs will help raise awareness about saving energy.

- 1** Touch [Energy saving mgmt] in "EnergySaving".



- 4** Set the display range.



(The screen shown is if "days" is selected)

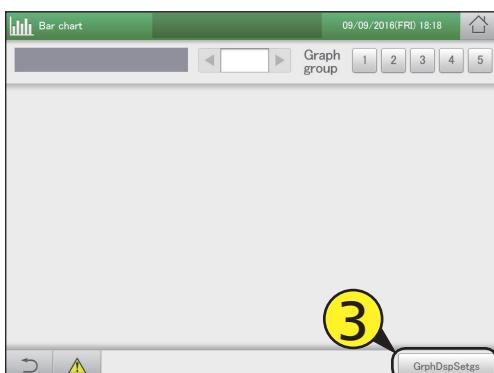
- 2** Touch [Bar chart].

- The main screen is displayed.



- 3** Touch [GrphDspSetgs].

- The display settings screen is displayed.



Item	Explanation
Display period (days/Mths/Yrs.)	Refer to P.106 for information about display periods.
DspDay DspMth Year	<p>Set the dates to be displayed.</p> <ul style="list-style-type: none"> When "days" is selected <ol style="list-style-type: none"> Touch [DspDay]. Select the date to display in the "Calendar" dialogue. The current date is displayed if you touch [Tday]. When "Mths" or "Yrs." is selected <ol style="list-style-type: none"> Select the month or year to display with [CuMo] or [CuYr]. The current month or year is displayed if you touch [DspMth] or [DspYrs].
X-axis	Use \wedge \vee to set the first and last time or period. <ul style="list-style-type: none"> When "days", 00:00 to 24:00 in 1-hour steps When "Mths", 1st to 31st in 1-day steps
Data units	Indicates the units for one tick mark on the X axis. <ul style="list-style-type: none"> days: Fixed at 1 hour Mths : Fixed at 1 day Yrs.: Fixed at 1 month
Y-axis1 Lt Y-axis2 Rt	Set the range of values for the axis. <p>If you put a check mark in "AutoAjust" the values will be set automatically to the maximum value and the minimum value.</p> <p>If you want set the maximum and minimum values manually, remove the check mark and enter the values in the text box.</p>

Continued on next page ➤

5 Touch [DispItem set].

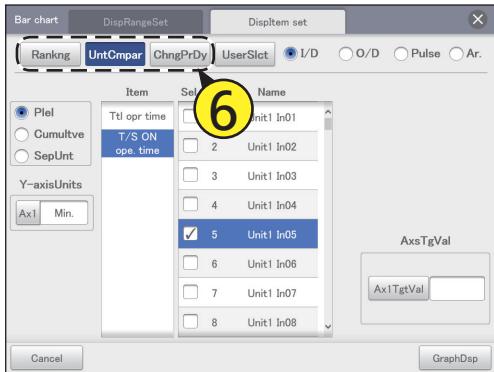
- The “DispItem set” screen is displayed.



5

6 Select how to display.

- Refer to P.106 for information about how to display.



6

(The following explains using examples as if “UntCmpar” was selected)

7 Select the unit.

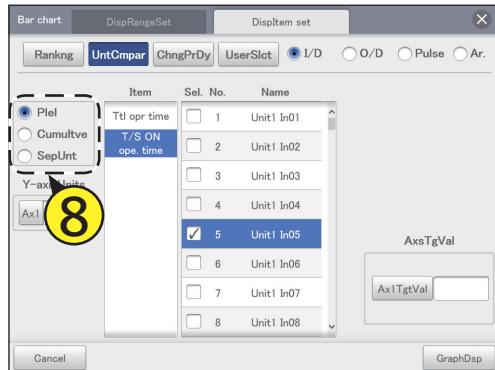
- Refer to P.106 for information about units.



7

8 Select the type of graph.

- Refer to P.107 for information about types of graphs.
- If you have selected [Rankng] as the display method, select either “Worst” or “Best”.

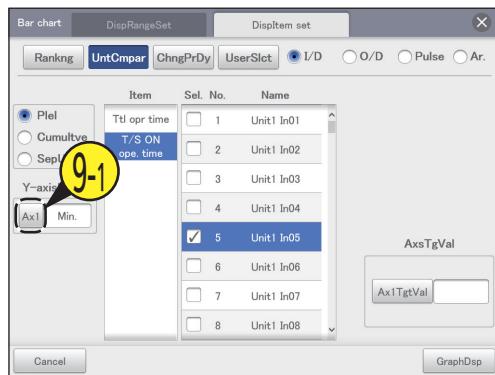


8

9 Set the display units for the Y axis.

(1) Touch [Ax1].

- The “Unit setting” dialogue is displayed.
- Select the display units for the Y axis.



9-1

(2) Touch the unit to display.

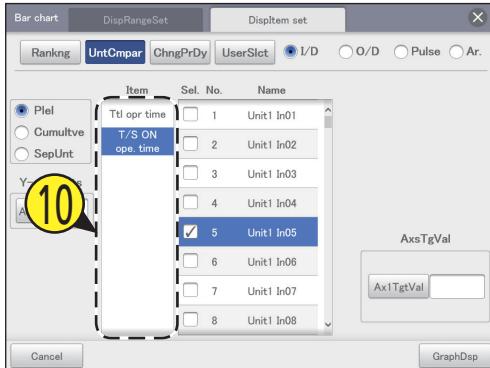
- The settings are registered and the “Unit setting” dialogue closes.



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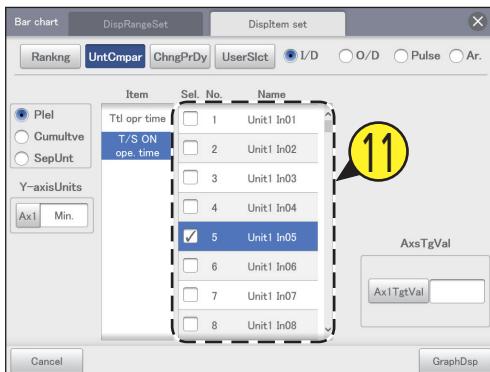
10 Select the item.

- Refer to P.107 for the items you can set.
- You can select one item only.



11 Select the device name.

- Put a check mark in the "Sel." column.
- If you have selected "Rankng" as the display method and "SepUnt" as the graph type, all devices are the target, so you do not have to select.



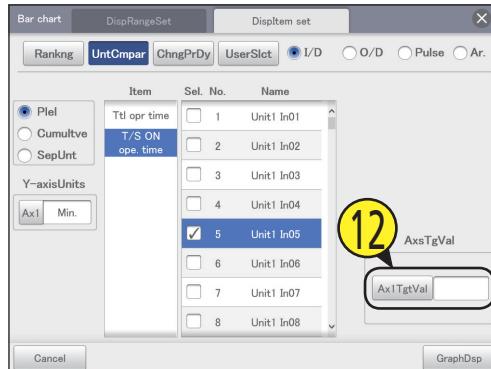
Note

- The number of units you can select depends on the settings for display method and graph type.

Display method	Graph type	
	Plel	Cumultve
UntCmpar	Up to 4	Up to 4
ChngPrDy	1 only	1 only

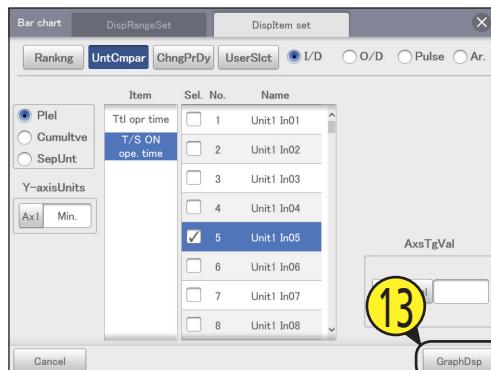
12 Set the target values for the axis.

- Touch [Ax1TgtVal] and enter the numbers with the touchscreen numeric keypad.
- A blue line is inserted to indicate the target values for the graph.
- You can set any goal.
- This cannot be set if you have selected "Rankng" as the display method.

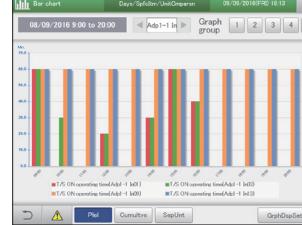


13 Touch [GraphDsp].

- The graph is displayed in the main screen.
- To cancel the settings, touch [Cancel].



Bar chart example

Type	Display method		
	Rankng	UntCmpar	ChngPrDy
Worst/Best	 *1	—	—
Plel	—	 *2	 *2 *3
Cumultve	—	 *2	 *2 *3
SepUnit	—	 *2 *3	 *2 *3

*1 Touch [Worst] or [Best] to switch between rankings.

*2 Touch [Plel], [Cumultve], or [SepUnit] to switch between the type of graph.

*3 You can touch to change the units displayed (10 units before or after).

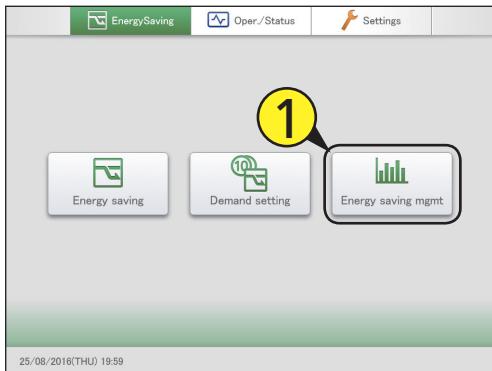
Note

- Touch [GrphDspSetgs] to change the display range and displayed items.

Graphing temperature changes

Specify the display period (daily, monthly), and display variable data such as set temperatures and indoor temperatures in line graphs.

- 1** Touch [Energy saving mgmt] in "EnergySaving".



- 2** Touch [Line graph].

- The main screen is displayed.

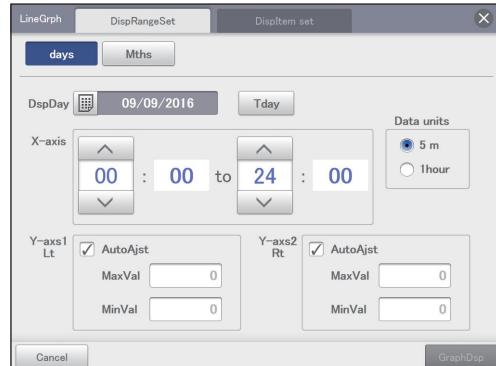


- 3** Touch [GrphDspSetgs].

- The display settings screen is displayed.



- 4** Set the display range.



(The screen shown is if "days" is selected)

Item	Explanation
Display period (days/Mths)	Refer to P.106 for information about display periods.
DspDay DspMth	Set the dates to be displayed. • When "days" is selected 1) Touch []. 2) Select the date to display in the "Calendar" dialogue. The current date is displayed if you touch [Tday]. • When "Mths" is selected 1) Select the month to display with [CuMo]. The current month is displayed if you touch [CuMo].
X-axis	Use [] to set the first and last time or period. • When "days", 00:00 to 24:00 in 1-hour steps • When "Mths", 1st to 31st in 1-day steps
Data units	Indicates the units for one tick mark on the X axis. days: Select either "5 m" or "1hour". Mths: Fixed at 1 day
Y-axis1 Lt Y-axis2 Rt	Set the range of values for the axis. If you put a check mark in "AutoAjs" the values will be set automatically to the maximum value and the minimum value. If you want set the maximum and minimum values manually, remove the check mark and enter the values in the text box.

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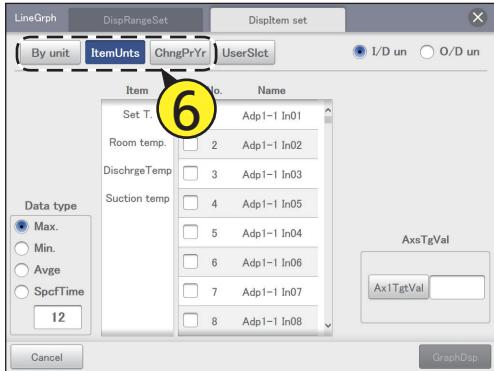
5 Touch [DispItem set].

- The “DispItem set” screen is displayed.



6 Select how to display.

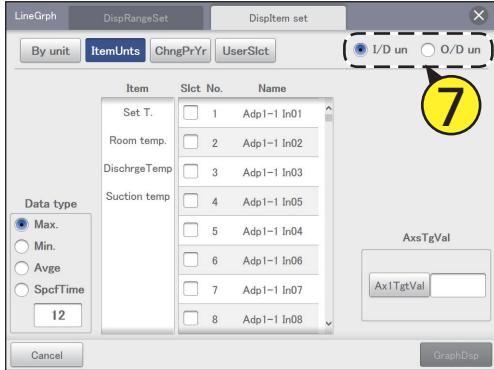
- Refer to P.106 for information about how to display.



(The following explains using examples as if “ItemUnits” was selected)

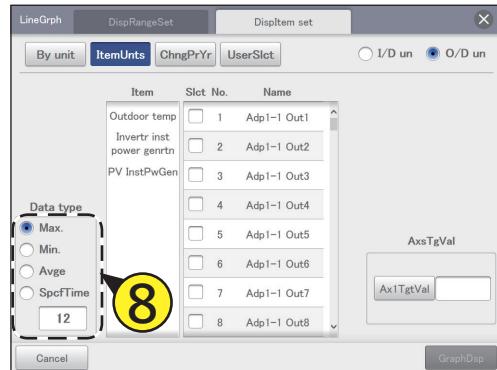
7 Select the unit.

- Refer to P.106 for information about units.



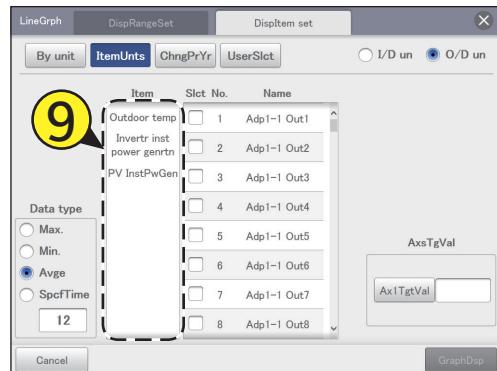
8 Select the type of data.

- Refer to P.107 for information about types of data.
- If you have selected [days] for the display period, this is not set.



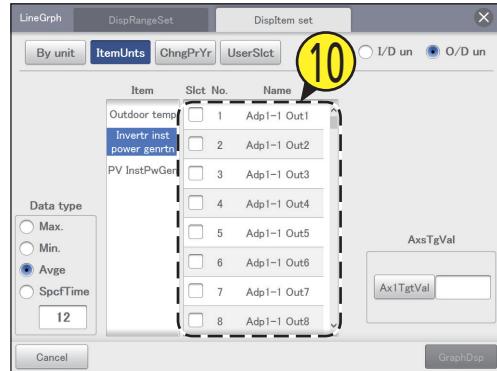
9 Select the item.

- Refer to P.107 for the items you can set.
- You can select one item only.
- If you have selected [By unit] as the display method, the items are fixed so there is no need for you to set them.



10 Select the device name.

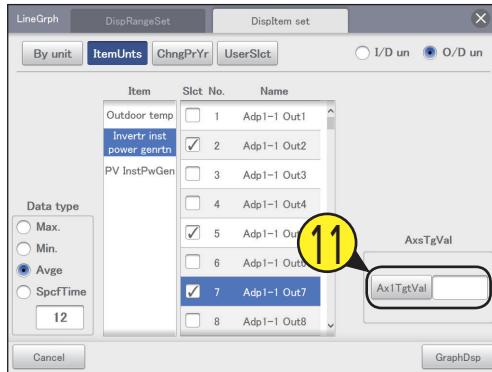
- You can set the device name for only one device.
- If you have selected [ItemUnits] as the display method, you can set up to 4 device names.



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11 Set the target values for the axis.

- Touch [Ax1TgtVal] and enter the numbers with the touchscreen numeric keypad.
- A blue line is inserted to indicate the target values for the graph.
- You can set any goal.

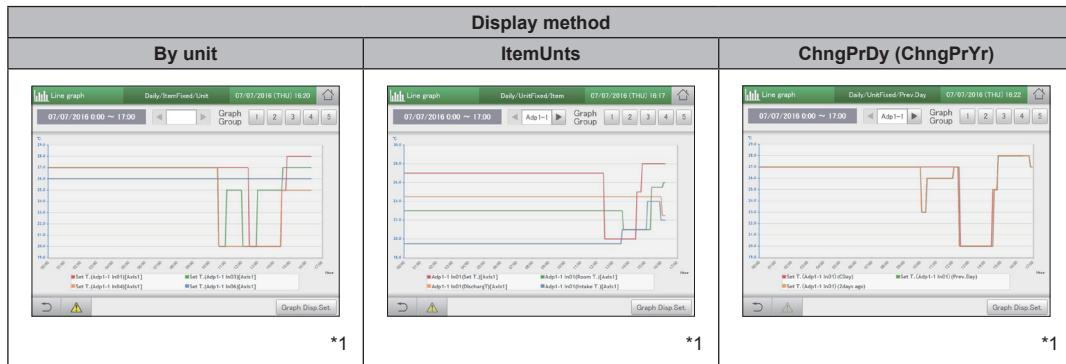


12 Touch [GraphDsp].

- The graph is displayed in the main screen.
- To cancel the settings, touch [Cancel].



Line graph example



*1 You can touch to change the units displayed (10 units before or after).

Note

- Touch [Graph Disp.Set.] to change the display range and displayed items.

Setting items freely

When you select [UserSelct], you can display graphs where you can freely select the units and items.
For example, the following combinations are possible.

- The monthly transitions of total operating hours, thermostat ON operating times, and electricity usage for indoor unit 01 is displayed in a bar chart.
- The daily transitions of set temperatures and indoor temperatures for indoor units 03 and 06 are displayed in a line graph.

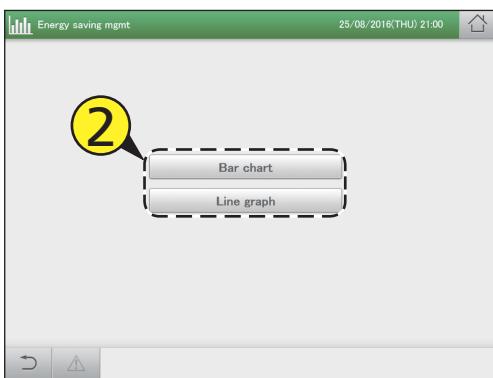
Making the settings

- 1 Touch [Energy saving mgmt] in "EnergySaving".



- 2 Select the type of graph.

- The main screen is displayed.



- 3 Touch [GrphDspSetgs].

- The display settings screen is displayed.

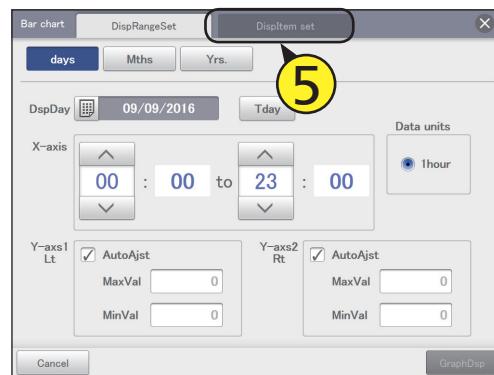


- 4 Set the display range.

- For details, refer to step 4 in "Graphing operating times and energy usage" (P.109) for bar charts, or step 4 in "Graphing temperature changes" (P.113) for line graphs.

- 5 Touch [DispItem set].

- The "DispItem set" screen is displayed.



- 6 Select [UserSelct].



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7 Select the unit.



8 Select the type of graph.

- This setting can be selected only for "Bar chart".
- Refer to P.107 for information about types of graphs.

9 Set the display units for the Y axis.

(1) Touch [Ax1] or [Ax2].

- The "Unit setting" dialogue is displayed.



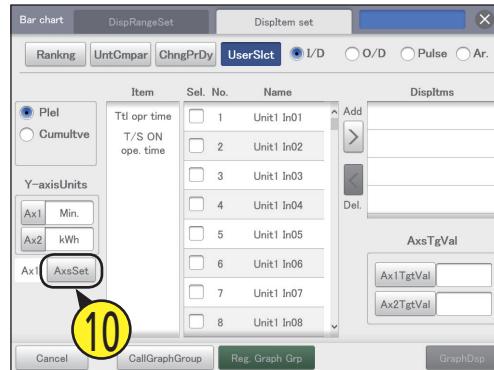
(2) Select the unit of display.

- The settings are registered and the "Unit setting" dialogue closes.



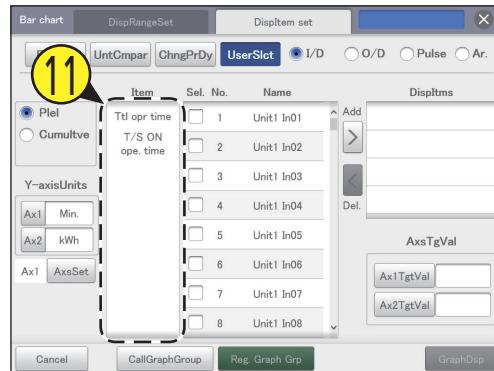
10 Touch [AxsSet] to select the axis to display.

- Select the axis to display the data item.
- The axis switches between "Ax1" and "Ax2" each time you touch it.

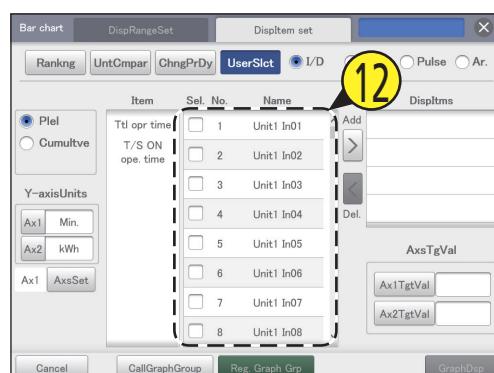


11 Select the item.

- Refer to P.107 for the items you can set.
- You can select one item only.
- If you have selected [Unit] as the display method, the items are fixed so there is no need for you to set them.



12 Select the device name.



Continued on next page ➤

13 Touch to add to the display item list.



14 Repeat steps 11 to 13 to select the display items.

- You can add up to 4 display items.
- To delete from the display item list, select the display item and touch .

15 Set the target values for the axis.

- Touch [Ax1TgtVal] or [Ax2TgtVal] and enter the numbers with the touchscreen numeric keypad.
- A blue line is inserted to indicate the axis 1 target values and a pink line is inserted to indicate the axis 2 target values for the graph.
- You can set any goal.



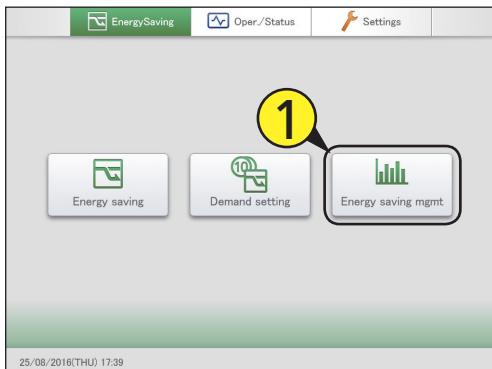
16 Touch [GraphDsp].

- The graph is displayed in the main screen.
- To cancel the settings, touch [Cancel].



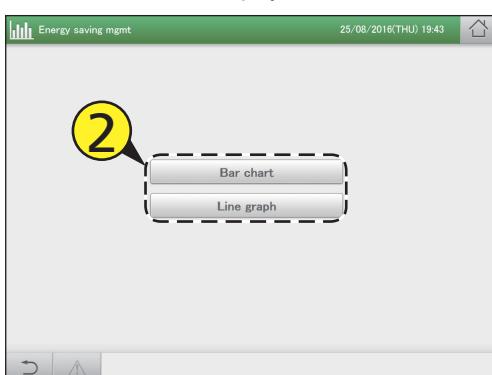
Registering as a graph group

- 1** Touch [Energy saving mgmt] in "EnergySaving".



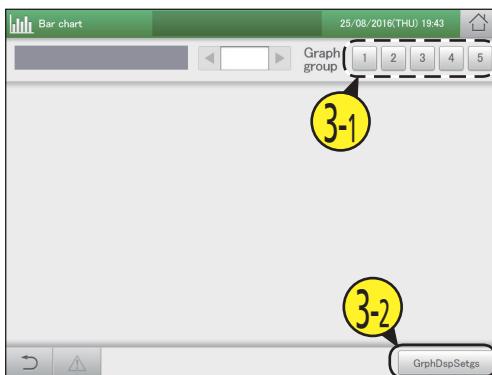
- 2** Select the type of graph.

- The main screen is displayed.



- 3** Select the graph group (3-1) and touch [GrphDspSetgs] (3-2).

- The display settings screen is displayed.



- 4** Make the graph display settings.

- Follow steps 4 to 14 in "Making the settings" (P.116 to 118) to make the graph display settings.

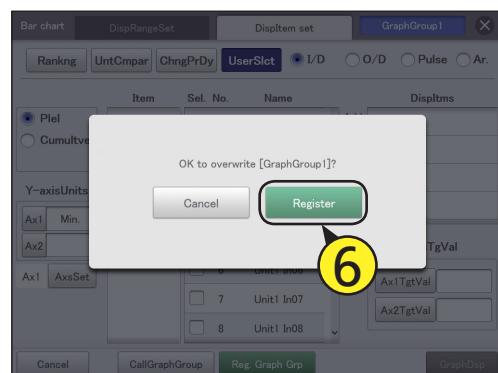
- 5** Touch [Reg. Graph Grp].

- The message "OK to overwrite [GraphGroupXX]?" (XX is the setting number of the selected graph group) is displayed.



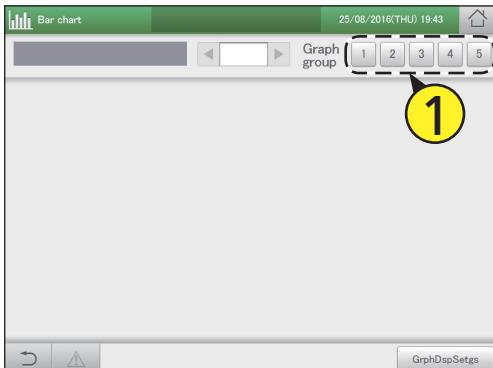
- 6** Touch [Register].

- The setting is registered.
- To cancel registration, touch [Cancel].



Displaying a registered graph

- 1 In the main screen, touch the number of the “Graph group” to be displayed.



- 2 Touch [GrphDspSetgs].

- The display settings screen is displayed.



- 3 Set the display range.

- For details, refer to step 4 in “Graphing operating times and energy usage” (P.109) for bar charts, or step 4 in “Graphing temperature changes” (P.113) for line graphs.

- 4 Touch [GraphDsp].

- The graph is displayed in the main screen.
- To cancel the settings, touch [Cancel].

Note

- By touching the graph group numbers displayed in the graphs, you can display other registered graphs.

Modifying a registered graph

- 1 Touch the number of the “Graph group” to be displayed.



- 2 Touch [GrphDspSetgs].

- The display settings screen is displayed.



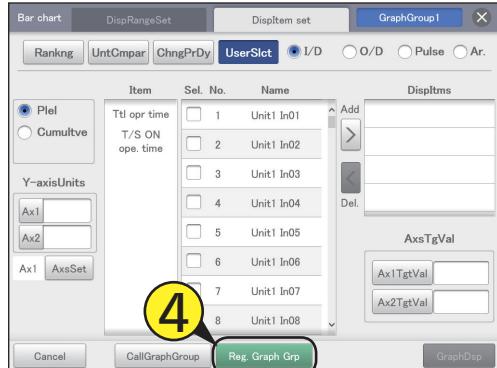
- 3 Change the settings.

- For advanced settings for changing the range of display, refer to step 4 in “Graphing operating times and energy usage” (P.109) for bar charts, or step 4 in “Graphing temperature changes” (P.113) for line graphs.
- For advanced settings for changing the display items, refer to steps 5 to 12 in “Graphing operating times and energy usage” (P.110 to 111) for bar charts, or steps 5 to 11 in “Graphing temperature changes” (P.114 to 115) for line graphs.

Continued on next page ➞

4 Touch [Reg. Graph Grp] in the “DispItem set” screen.

- The message “OK to overwrite [GraphGroupXX]?” (XX is the setting number of the selected graph group) is displayed.



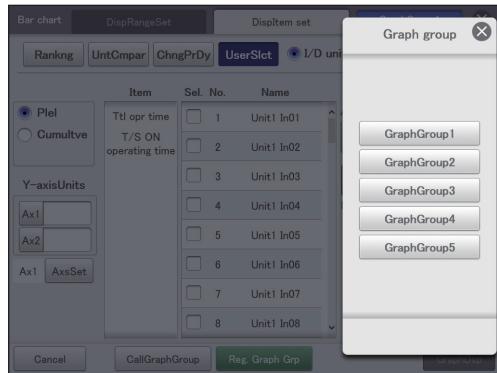
5 Touch [Register].

- The setting is registered.
- To cancel registration, touch [Cancel].



Note

- Touch [CallGraphGroup] and you can also modify the display item settings for other graph groups.



Perform remote operation of the unit over a network



System Settings

This chapter describes the settings and operation screen displays required to remotely control this unit over a network.

You can remotely control this unit from external devices over a network.

Remote control is performed using a browser from a PC, smart phone, or tablet.

Only users registered in this unit can operate. You can also limit the operations that can be performed on the unit using privileges.

Screen menu

Network settings
Web user settings

Overview

Make settings to enable remote control over a network.
Register users that will access the unit over a network.

Page

123
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Setting the network

To control remotely over a network, you first need to set up the network.
Consult your network administrator beforehand for the network settings.

1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.



2 Touch [Network settings].

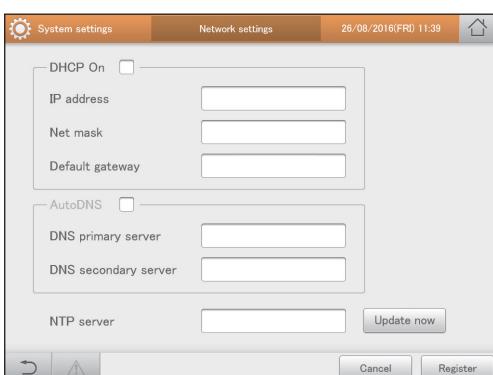
- Enter the identification number (password level 2) and the “Network settings” screen is displayed.



Item	Explanation
DHCP On	If you want to use a DHCP server, put a check mark here. If you enable this, you will be unable to set “IP address”, “Net mask”, or “Default gateway”.
IP address	Set the IP address of this unit. Touch the text box and enter with the touchscreen keyboard. <ul style="list-style-type: none">You cannot set “0.0.0.0” or “255.255.255.255”.
Net mask	Set the net mask of this unit. Touch the text box and enter with the touchscreen keyboard. <ul style="list-style-type: none">You cannot set “0.0.0.0”.
Default gateway	Set the default gateway of this unit if necessary. Touch the text box and enter with the touchscreen keyboard. <ul style="list-style-type: none">You cannot set “0.0.0.0”.
AutoDNS	If you want the IP address of the DNS server acquired automatically, put a check mark here. The “DNS primary server” and “DNS secondary server” will not be able to be set if you choose to acquire automatically.
DNS primary server	Set the IP address of DNS primary server. Touch the text box and enter with the touchscreen keyboard. <ul style="list-style-type: none">You cannot set “0.0.0.0”.
DNS secondary server	Set the IP address of DNS secondary server. Touch the text box and enter with the touchscreen keyboard. <ul style="list-style-type: none">You cannot set “0.0.0.0”.
NTP server	Set the IP address of the NTP server if the clock is to be synchronised with an NTP server. Touch the text box and enter with the touchscreen keyboard. After setting, touch [Update now] to start synchronising the clock. <ul style="list-style-type: none">You cannot set “0.0.0.0”.

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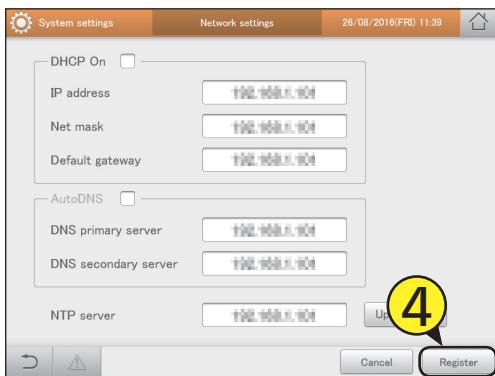
3 Change the settings.



4

Touch [Register].

- To cancel the settings, touch [Cancel].



Setting the Web users

Register users that will access the unit over a network. You can register up to 64 users. You can restrict operations with privileges (admin, operator, general user).

1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.

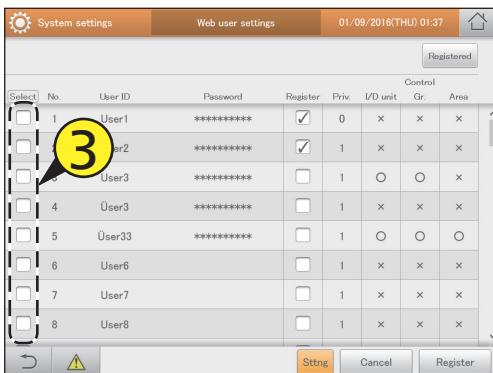


2 Touch [Web user settings].

- Enter the identification number (password level 2) and the “Web user settings” screen is displayed.

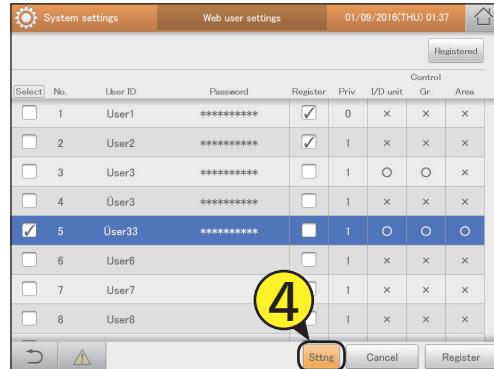


3 Put a check mark in the “Select” column of the user ID to be registered.



4 Touch [Sttng].

- The “Edit user sttngs” dialogue is displayed.



5 Enter a password.

- The touchscreen keyboard appears when you touch the text box. Refer to “Character input” (P.215) for instructions on how to enter text.
- Enter a password of at least 8 numbers (Ensure alphanumerics are included).



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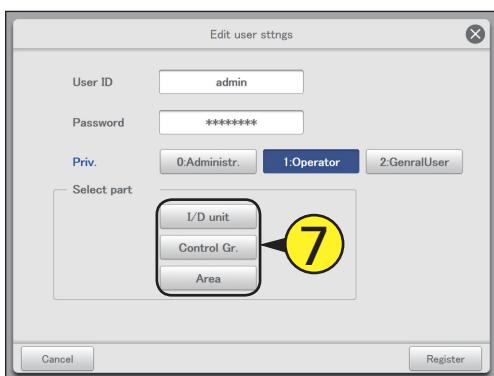
6 Select the privileges.

- Select “0:Administr.”, “1:Operator”, or “2:GeneralUser”.
- Only one person can have the “0:Administr.” setting.



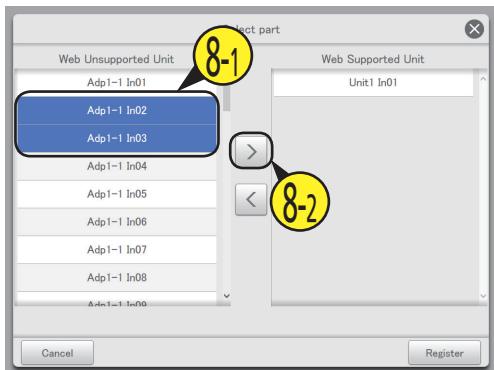
7 Select what is to be operated.

- The “Select part” dialogues are displayed when you touch this.
- Select what is to be operated (“I/D unit”, “Control Gr.”, “Area”).
- When the privileges are set to “0:Administr.”, all operations are available so it is not possible to select what to operate.



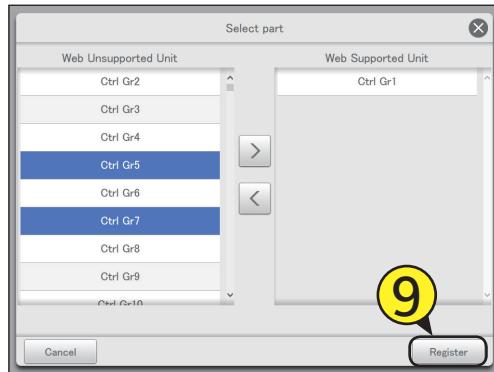
8 Select the devices to be operated (8-1) and touch > (8-2).

- The devices to be operated move to the list on the right (Web Supported Unit). Select the devices to be operated and touch < to restore.
- Multiple devices can be selected to be operated.



9 Touch [Register].

- The settings are registered and the “Select part” dialogue closes.
- To cancel registration, touch [Cancel].



10 Touch [Register].

- The settings are registered and the “Edit user settings” dialogue closes.



11 Register other users.

- Repeat steps 3 to 10.

Continued on next page

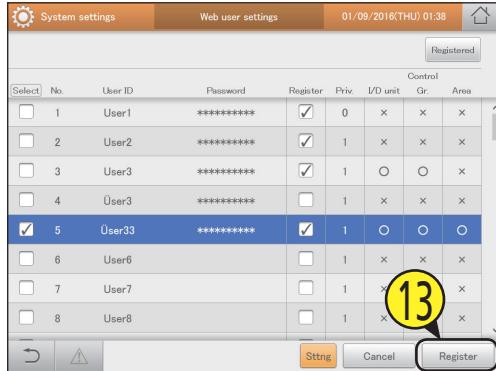
12 Put a check mark in the “Register” column.

- Select the users that can operate over the network.



13 Touch [Register].

- The setting is registered.
- To cancel the settings, touch [Cancel].

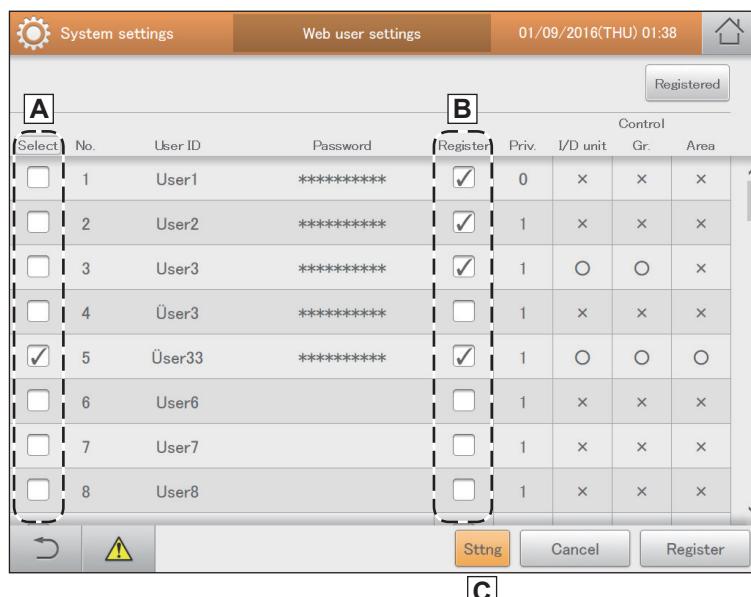


The “Web user settings” screen

- A: Users with a check mark next to them will be the subject of the changes to the user settings.
B: The users with the check marks next to them will be allowed to perform operations over the network.

Priv.	This shows the privileges of the user. 0:Administr. 1:Operator 2:GeneralUser
I/D unit	Users can use the categories with a “○”.
Control Gr.	
Area	

- C: The “Edit user stngs” dialogue is displayed when you touch this.



Control remotely

You can remotely control this unit from the browser on a PC.

1 Start the browser.

2 Enter the address required to access the intelligent controller.

- The address is “https://***.***.***.***/intelicon/index.php”.
“***.***.***.***” is the IP address set in Network settings.

For example:
<https://192.168.1.101/intelicon/index.php>

- The login screen is displayed.



3 Enter the “User ID” and “Password”.

- Enter the personal user ID and password set in Web user settings (P.125).
- The operation screen is displayed.
- The operations are the same as the operations on this unit.

INTELLIGENT CONTROLLER	
LOGIN	
User ID	<input type="text"/>
Password	<input type="password"/>
<input type="button" value="Login"/>	<input type="button" value="Reset"/>

Backing up/restoring data



Backup/CSV Output

This chapter explains how to back up and restore data.

This unit has functionality to save the setting data, accumulated/distribution data, and log data to a USB memory device. (Back up function)

It also has the functionality to reload the saved data back into the unit. (Restore function)

By regularly saving data to USB memory devices, you can restore the data in the main unit if it is ever corrupted by power outages caused by lightning strikes, etc.

Screen menu

Overview

Page

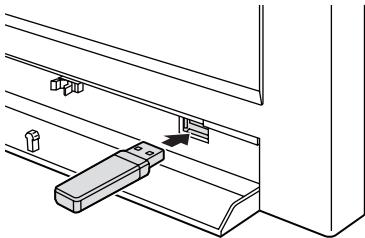
Backup	Save data (settings, logs) to USB memory devices.	130
Restore	Restore data that has been stored in the unit or saved to a USB memory device.	132
CSV Output	Export (output) the settings for this unit as a CSV file.	134
CSV Input	Import (input) the settings for this unit from a CSV file.	136
Auto-save CSV file	Saves the CSV files (accumulation, distributions, logs) automatically generated in this unit.	138

Backing up data

You can save the setting data and log data to a USB memory device. You can also backup over a network.

- 1** Open the storage door and connect a USB memory device to the USB terminal.

- This step is not necessary if you are backing up over a network.



- 2** Touch [Backup/CSV Output] in "Settings".

- The "Backup/CSV Output" screen is displayed.



- 3** Touch [Backup].

- Enter the identification number (password level 1 or 2) and the "Backup" screen is displayed.



- 4** Touch [Save] in "IntelliConStngs&LogFile".

- Saving starts. When saving is complete, a message is displayed.
- When backing up over a network, specify the location to save to.
- To backup other items, repeat the same procedure.



- 5** Touch  when you want to disconnect the USB memory device.

- Remove your USB memory device after the message "USB memory can now be safely removed" is displayed.
- Close the storage door after removing the USB memory device.



Note

- Backup files are generated once per day and saved within this unit. This procedure saves the backup files saved in this unit to a USB memory device.
- The items you can back up are as follows:

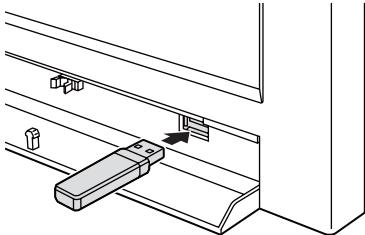
Main unit Set.	Save schedule settings and group settings.
Log	Save alarm logs and operation/status change logs.

- The time required for backup depends on the volume of data.
- The 6 types of backup file are;
icxsysset.zip
icxsyslog.zip
icxappset.zip
icxapplog.zip
icxapplog_now.zip
icxsyslog_now.zip
- When backing up over a network, this operation is not possible if backing up from another terminal.

Restoring data

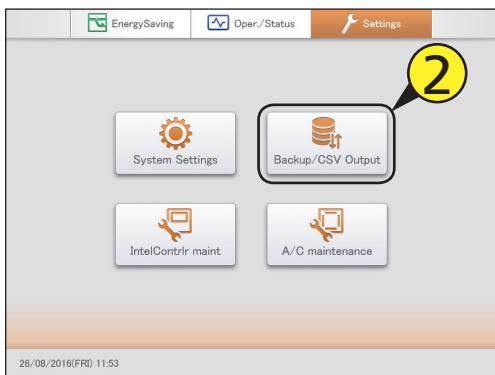
You can restore data that has been backed up in the unit (saved) or to a USB memory device.

- 1 Open the storage door and connect a USB memory device to the USB terminal.



- 2 Touch [Backup/CSV Output] in "Settings".

- The "Backup/CSV Output" screen is displayed.



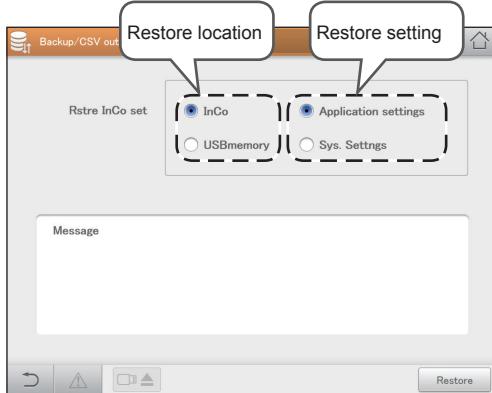
- 3 Touch [Restore].

- Enter the identification number (password level 1 or 2) and the "Restore" screen is displayed.



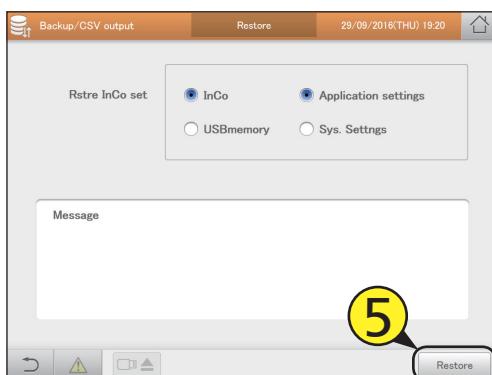
- 4 Select the restore location and restore setting.

- The restore location can be either "InCo" or "USBmemory".
- The restore setting can be either "Application settings" or "Sys. Settings".



- 5 Touch [Restore].

- Restoring starts. When restoring is complete, the message "Restart" is displayed.



- 6 Touch [OK].

- Restart the unit. The restored data may restart.

Continued on next page ➞

7 Touch when you want to disconnect the USB memory device.

- Remove your USB memory device after the message "USB memory can now be safely removed" is displayed.
- Close the storage door after removing the USB memory device.

Note

- The items you can restore are as follows:

Restore main unit Set.	Restore schedule settings and group settings.
------------------------	---

- The time required for restoring depends on the volume of data.
- The data restored is that which was backed up.

Outputting settings as a CSV file

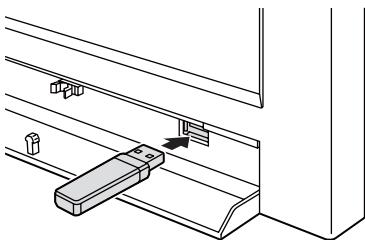
Export (output) the settings for this unit as a CSV file.

The settings that are exported are as follows:

- Indoor unit settings
- Schedule group settings
- Area settings
- Outdoor unit settings
- Pulse meter settings
- Schedule
- Distribution group settings
- Communication adaptor settings
- Events

1 Open the storage door and connect a USB memory device to the USB terminal.

- This step is not necessary if you are backing up over a network.



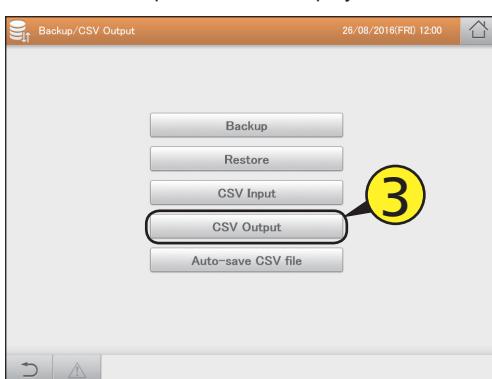
2 Touch [Backup/CSV Output] in "Settings".

- The "Backup/CSV Output" screen is displayed.



3 Touch [CSV Output].

- Enter the identification number (password level 1 or 2) and the "CSV Output" screen is displayed.



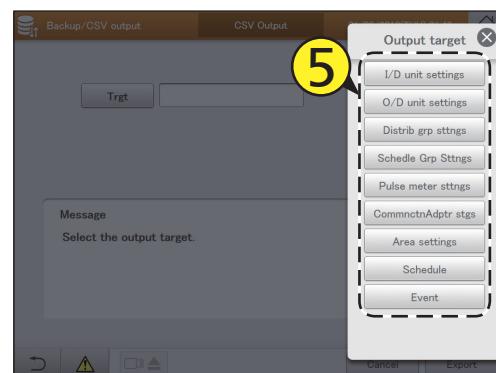
4 Touch [Trgt].

- The "Output target" dialogue is displayed.



5 Touch setting name to be exported.

- The settings are registered and the "Output target" dialogue closes.



Continued on next page ➤

6

Touch [Export].

- Exporting starts. The message “Exporting of XXX CSV file was successful.” is displayed when the export finishes.
- To export other settings, repeat steps 4 to 6.
- To cancel the export, touch [Cancel].



7

Touch when you want to disconnect the USB memory device.

- Remove your USB memory device after the message “USB memory can now be safely removed” is displayed.
- Close the storage door after removing the USB memory device.

Note

- The time required for export depends on the volume of data.

Inputting settings as a CSV file

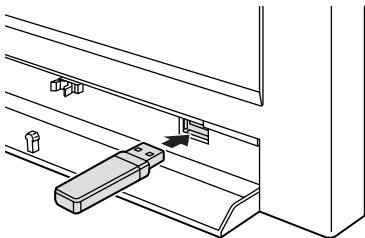
Import (input) the settings for this unit in CSV format.

The settings that are imported are as follows:

- Indoor unit settings
- Outdoor unit settings
- Schedule group settings
- Pulse meter settings
- Area settings
- Distribution group settings
- Communication adaptor settings

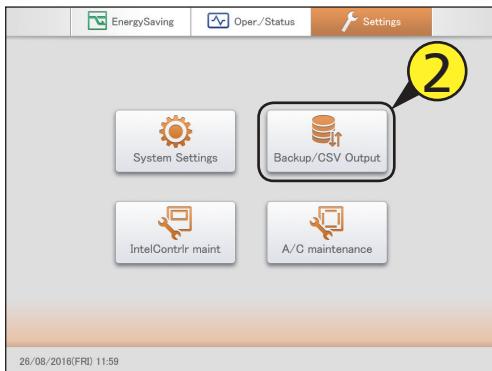
1 Open the storage door and connect a USB memory device to the USB terminal.

- This step is not necessary if you are importing over a network.



2 Touch [Backup/CSV Output] in "Settings".

- The "Backup/CSV Output" screen is displayed.



3 Touch [CSV Input].

- Enter the identification number (password level 1 or 2) and the "CSV Input" screen is displayed.



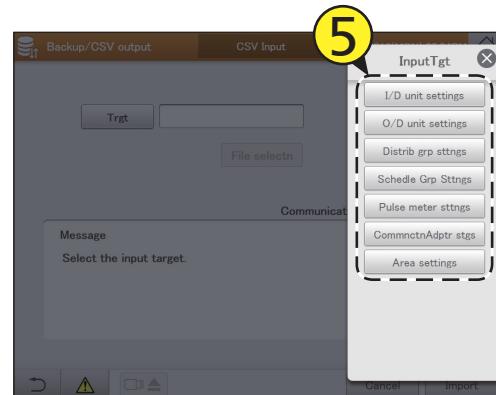
4 Touch [Trgt].

- The "InputTgt" dialogue is displayed.



5 Touch setting name to be imported.

- The settings are registered and the "InputTgt" dialogue closes.



Continued on next page

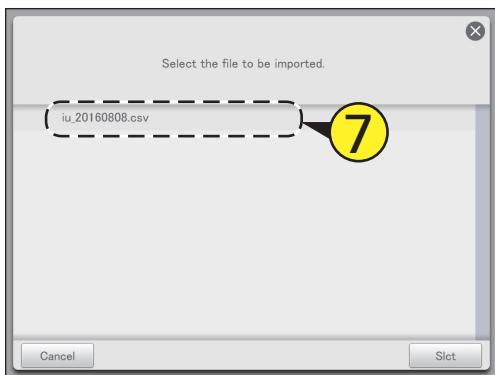
6 Touch [File selectn].

- The file selection screen is displayed.
- If you are selecting across a network, the file selection dialogue is displayed.



7 Select the file to import and touch [Slct].

- The file selection screen is closed.
- To cancel file selection, touch [Cancel].
- If you are selecting across a network, select the file in the file selection dialogue and click [Slct].



Note

- The time required for import depends on the volume of data.
 - The CSV file is imported (input) from the location it was exported (output) on the USB memory device, so when the data is edited on another computer, make sure you overwrite in the original location on the USB memory device.
- If the save location is different, then either "No folder was found." or "File was not found." is displayed.



8 Touch [Import].

- Importing starts.
- To cancel the import, touch [Cancel].



9 Touch when you want to disconnect the USB memory device.

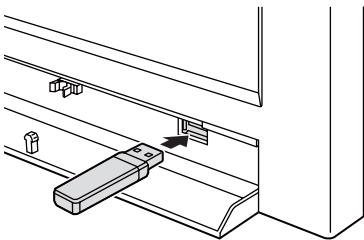
- Remove your USB memory device after the message "USB memory can now be safely removed" is displayed.
- Close the storage door after removing the USB memory device.

Saving automatically generated files

Save the CSV files (distributions, logs) automatically generated in this unit as ZIP format to a USB memory device.

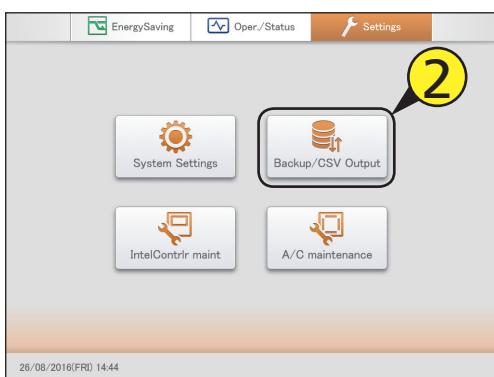
- 1** Open the storage door and connect a USB memory device to the USB terminal.

- This step is not necessary if you are downloading over a network.



- 2** Touch [Backup/CSV Output] in “Settings”.

- The “Backup/CSV Output” screen is displayed.



- 3** Touch [Auto-save CSV file].

- Enter the identification number (password level 1 or 2) and the “Auto save CSV file” screen is displayed.



- 4** Select the CSV file type to save.



- 5** Select the “Year” to save.



- 6** Select the “Month” to save.

- You can select multiple “Month”.

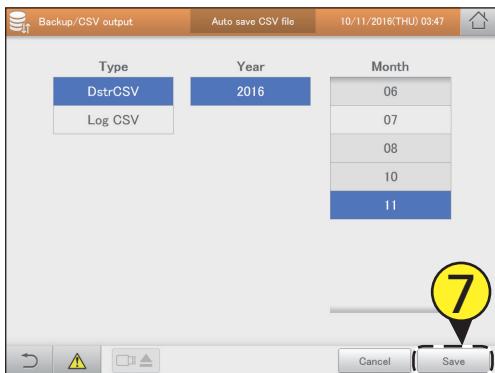


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7

Touch [Save].

- A confirmation message appears.
- Specify the location to save to when doing so over a network.
- To cancel saving the file, touch [Cancel].



8

Touch [OK].

- Saving starts. When saving is complete, a completion message is displayed.

9

Touch when you want to disconnect the USB memory device.

- Remove your USB memory device after the message "USB memory can now be safely removed" is displayed.
- Close the storage door after removing the USB memory device.

Note

- Distribution data and log data is automatically saved in the unit as CSV files once per day. CSV files are automatically generated every month.
- This procedure saves the CSV files specified by year and month to a USB memory device. You can also download over a network.

Configuring the system



This chapter describes how to make settings required to run the system.

The main settings are as follows:

- Group settings (schedule, area, distribution)
- Pulse meter settings, distribution mode settings, distribution ratio settings
- Email settings

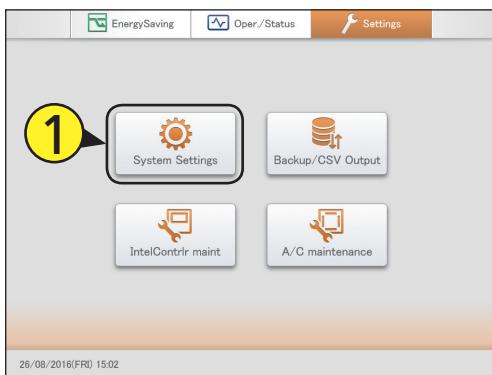
Screen menu	Overview	Page
Calendr sttngs for distr calc	Set specified days, cut-off days, particular time slots (regular hour ranges) and days of the week for calculating distributions.	148
I/D unit settings	Change the settings on the indoor units.	141
Schedule group name settings	Edit the name of the schedule group.	151
Area group name settings	Edit the name of the area group.	153
Pulse meter settings	Make allocations between pulse meters and distribution groups.	158
Distribution mode settings	Set the mode used for distributing when calculating charges.	160
Distribution Ratio settings	Set the units for calculating electricity and gas usage charges.	161
Event control	Set the conditions for input points and output points to perform linked control.	162
Email settings	Configure the outgoing mail server.	168
O/D unit settings	Change the settings on the outdoor units.	145
Distribution group settings	Edit the name of the distribution group.	155
Communication adapter setting	Register the communication adaptor connected to this unit.	170

Basic settings on the indoor unit

Display details about indoor units (indoor unit addresses, groups belonged to, etc.). Settings can also be changed.

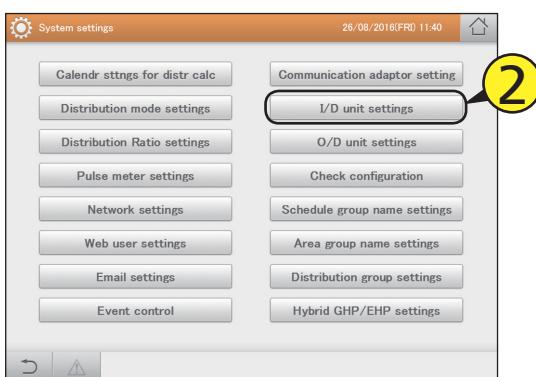
1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.



2 Touch [I/D unit settings].

- Enter the identification number (password level 2) and the “I/D unit settings” screen is displayed.



3 Check the setting details (P.142).



4 Put a check mark in the “Register” column.

- Select the indoor units you want to manage.
- This procedure is not necessary if central addresses have been automatically set. (→ “Automatically setting central addresses” (P.144))

Line No.	Name	Address	Connect	Main	Register	Not batch	Not managed	Display	Central address
1	Unit1 In01	10-01	Yes	Main	<input type="checkbox"/>	x	x	256	—
2	Unit1 In02	10-02	Yes	Main	<input type="checkbox"/>	x	x	256	—
3	Unit1 In03	10-03	Yes	Main	<input checked="" type="checkbox"/>	x	x	256	—
4	Unit1 In04	10-04	Yes	Main	<input type="checkbox"/>	x	x	256	—
5	Unit1 In05	10-05	Yes	Main	<input type="checkbox"/>	x	x	256	—
6	Unit1 In06	10-06	Yes	Main	<input type="checkbox"/>	x	x	256	—
7	Unit1 In07	10-07	Yes	Sub	<input type="checkbox"/>	x	x	256	—
8	Unit1 In08	01-08		Main	<input type="checkbox"/>	x	x	256	—

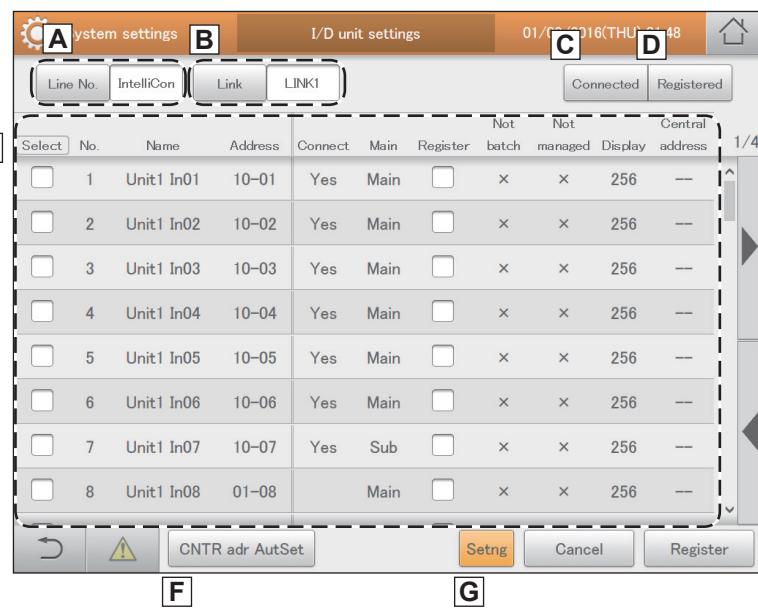
5 Touch [Register].

- To cancel the settings, touch [Cancel].

Line No.	Name	Address	Connect	Main	Register	Not batch	Not managed	Display	Central address
1	Unit1 In01	10-01	Yes	Main	<input checked="" type="checkbox"/>	x	x	256	—
2	Unit1 In02	10-02	Yes	Main	<input checked="" type="checkbox"/>	x	x	256	—
3	Unit1 In03	10-03	Yes	Main	<input checked="" type="checkbox"/>	x	x	256	—
4	Unit1 In04	10-04	Yes	Main	<input type="checkbox"/>	x	x	256	—
5	Unit1 In05	10-05	Yes	Main	<input type="checkbox"/>	x	x	256	—
6	Unit1 In06	10-06	Yes	Main	<input type="checkbox"/>	x	x	256	—
7	Unit1 In07	10-07	Yes	Sub	<input type="checkbox"/>	x	x	256	—
8	Unit1 In08	01-08		Main	<input type="checkbox"/>	x	x	256	—

The “I/D unit settings” screen

- A: Select the adaptor (this unit, communication adaptor) that the indoor unit is connected to.
- B: Select the linked system that the indoor unit is connected to.
- C: A list of indoor units with “Yes” in the “Connect” column is displayed when you touch this (turn the setting on). Touch again and all indoor units are displayed in a list. (turn the setting off)
- D: A list of indoor units with a check mark in the “Register” column is displayed when you touch this (turn the setting on). Touch again and all indoor units are displayed in a list. (turn the setting off)
- E: Details about indoor units are displayed in a list.



Item	Explanation
[Select]	Select the indoor units whose settings you want to change.
No.	The serial number is displayed.
Name	The names of the indoor units are displayed.
Address	The addresses of the indoor units are displayed.
Connect	If connected to this unit, “Yes” is displayed.
Main	If the main unit, “Main” is displayed.
Register	If you want it to be managed by this unit, put a check mark here.
Not batch	“○” is displayed if the device is not subject to batch operations, and “×” is displayed if it is subject to batch operations.
Not managed	“○” is displayed if the device is not subject to management, and “×” is displayed if it is subject to management.
Display	This indicates the display order.
Central address	This shows the central address.
Control Gr.	This shows the control group name it belongs to.
SchedleGroup	This shows the schedule group name it belongs to.
Area	This shows the area group name it belongs to.
Distrib. Grp.*	This shows the distribution group name it belongs to.
Cap	This shows the operational capacity values for the indoor unit.
Fix cap	The fixed capacity values of the indoor unit.
I/D type	This shows the model name of the indoor unit.
PrdctTyp	This shows the product type (PAC or GHP).
ElcHeatr	This shows the capacity values of the electric heater.

* If the distribution mode (P.160) is set to “Time”, do not allocate PAC and GHP to the same distribution groups.

- F: Central addresses are automatically set for indoor units with a check mark in the “Register” column. (→ “Automatically setting central addresses” (P.144))
- G: When you touch this, the “Edit unit settings” dialogue is displayed for indoor units with a check mark in the “Select” column.

Attention

- If the distribution mode (→ “Set the distribution mode” (P.160)) is set to “Time”, do not allocate PAC and GHP to the same distribution groups.

Editing settings

1 Put a check mark in the “Select” column.

- You can select more than one.

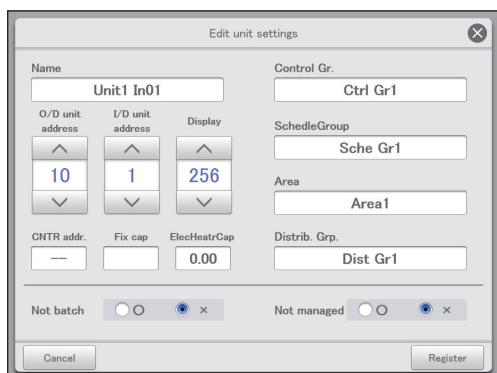


2 Touch [Setng].

- The “Edit unit settings” dialogue is displayed.



3 Change the settings.



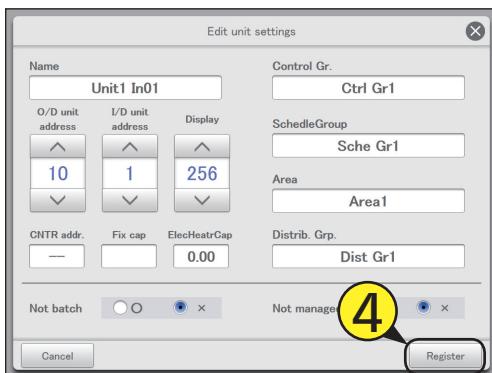
Continued on next page ➔

Item	Explanation
Name	Change the name of the indoor unit. Touch the text box and enter with the touchscreen keyboard. You can enter up to 16 letters or numbers.

Item	Explanation
O/D unit address	Use <input type="button" value="^"/> <input type="button" value="v"/> to select the desired outdoor unit address (1 to 31). (“31” is set for interface adaptors)
I/D unit address	Use <input type="button" value="^"/> <input type="button" value="v"/> to select the desired indoor unit address (1 to 64).
Display	Use <input type="button" value="^"/> <input type="button" value="v"/> to set the order when displayed in a list (0 to 256).
CNTR addr.	Set the central addresses (1 to 64). Touch the text box and enter with the touchscreen numeric keypad.
Note	<ul style="list-style-type: none"> The central address is shared with other centralised controllers (system controllers, etc.). Do not change unless necessary. An error message is displayed if you set an address that is already in use. This cannot be set if multiple indoor units are selected.
Fix cap	Set the fixed capacity values of the indoor unit. (When interface adaptors are installed) Touch the text box and enter with the touchscreen numeric keypad.
ElecHeatCap	Set the capacity of the electric heater if the model has an electric heater. (when calculating load distribution) Touch the text box and enter with the touchscreen numeric keypad.
Group registration	Register the group the unit belongs to. The group names are displayed when you touch the text boxes.
Note	<ul style="list-style-type: none"> By putting a check mark in the “Select” column of the indoor units belonging to the same group, you can edit the settings at the same time and register them all together.
Not batch	Select “○” if the device is not to be subject to operations and select “×” if it is to be subject to operations.
Not managed	Select “○” if the device is to be removed as a subject of management by this unit, and select “×” if it is to be subject of management by this unit.

4 Touch [Register].

- To cancel the settings, touch [Cancel].



5 Touch [Register].

- To cancel the settings, touch [Cancel].



Note

- Do not register indoor units in the same area to multiple distribution groups.
- Do not allocate PAC and GHP to the same area or distribution groups when using time distribution.

Automatically setting central addresses

1 Put a check mark in the “Register” column.

- Select the indoor units you want to manage.

Line No.	Name	Address	Connect	Main	Register	Not batch	Not managed	Display	Central address
1	Unit1 In01	10-01	Yes	Main	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
2	Unit1 In02	10-02	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
3	Unit1 In03	10-03	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
4	Unit1 In04	10-04	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
5	Unit1 In05	10-05	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
6	Unit1 In06	10-06	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
7	Unit1 In07	10-07	Yes	Sub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
8	Unit1 In08	01-08		Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—

2 Touch [CNTR adr AutSet].

Line No.	Name	Address	Connect	Main	Register	Not batch	Not managed	Display	Central address
1	Unit1 In01	10-01	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
2	Unit1 In02	10-02	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
3	Unit1 In03	10-03	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
4	Unit1 In04	10-04	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
5	Unit1 In05	10-05	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
6	Unit1 In06	10-06	Yes	Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
7	Unit1 In07	10-07	Yes	Sub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—
8	Unit1 In08	01-08		Main	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	256	—

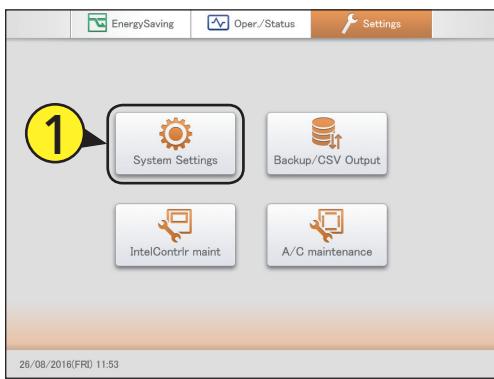
Note

- The central address is shared with other centralised controllers (system controllers, etc.). Do not change unless necessary.
- After setting the central address in the “Edit unit settings” dialogue, and then enable [CNTR adr AutSet], the central addresses will be overwritten.

Basic settings on the outdoor unit

Display details about outdoor units (outdoor unit addresses, etc.). Settings such as the names can also be changed.

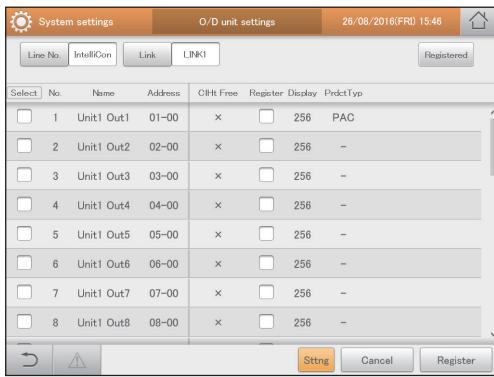
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [O/D unit settings].
- Enter the identification number (password level 2) and the “O/D unit settings” screen is displayed.

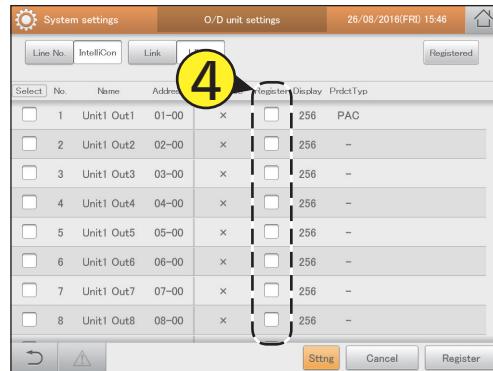


- 3** Check the setting details (P.146).



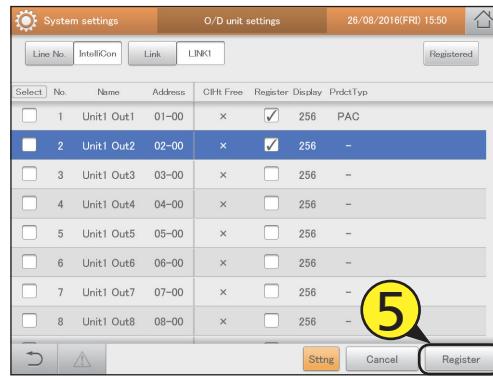
- 4** Put a check mark in the “Register” column.

- Select the outdoor units you want to manage.

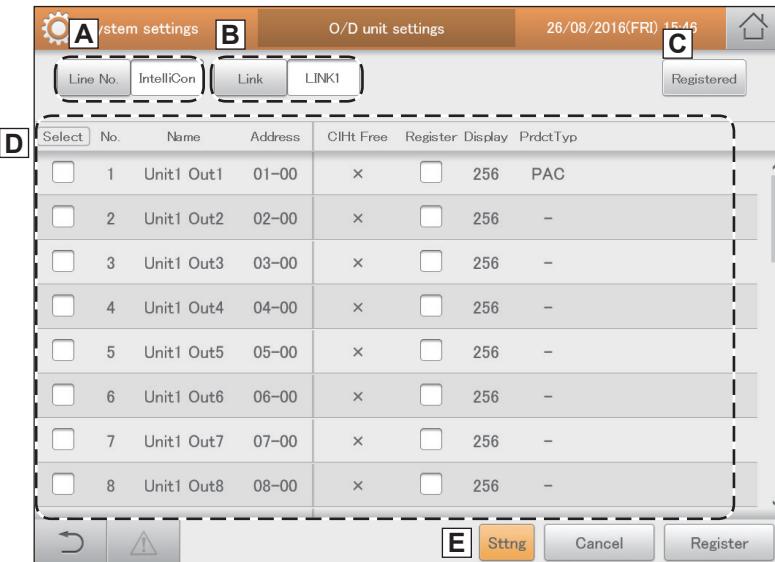


- 5** Touch [Register].

- To cancel the settings, touch [Cancel].



The “O/D unit settings” screen



- A: Select the adaptor (this unit, communication adaptor) that the outdoor unit is connected to.
- B: Select the linked system that the outdoor unit is connected to.
- C: A list of outdoor units with a check mark in the “Register” column is displayed when you touch this (turn the setting on). Touch again and all outdoor units are displayed in a list. (turn the setting off)
- D: Details about outdoor units are displayed in a list.

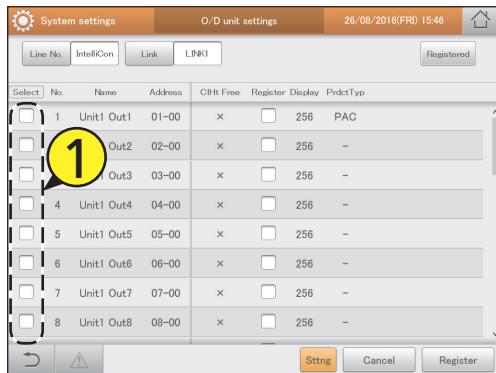
Item	Explanation
[Select]	Select the outdoor units whose settings you want to change.
No.	The serial number is displayed.
Name	The names of the outdoor units are displayed.
Address	The addresses of the outdoor units are displayed.
CIHt Free	“○” is displayed if the outdoor unit is the type that can both cool and heat, “×” is displayed if it is the specialised type.
Register	If you want it to be managed by this unit, put a check mark here.
Display	This indicates the display order.
Prdct Typ	This shows the product type (PAC or GHP).

- E: When you touch this, the “Edit O/D unit sttngs” dialogue is displayed for outdoor units with a check mark in the “Select” column.

Editing settings

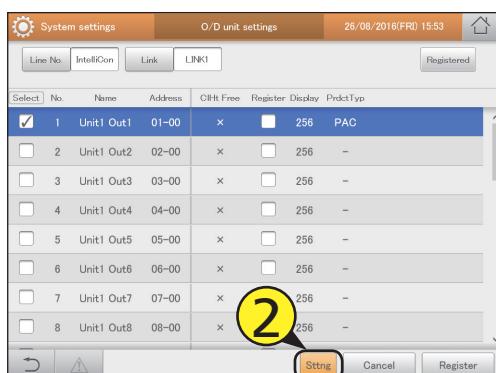
1 Put a check mark in the “Select” column.

- You can select more than one.

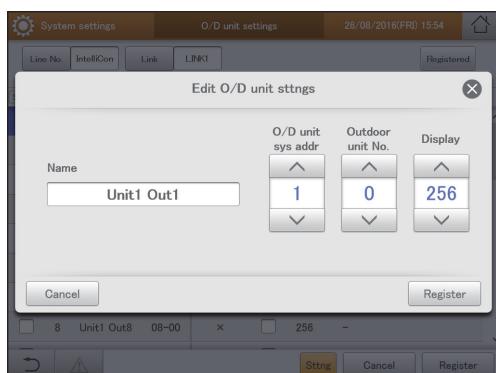


2 Touch [Sstng].

- The “Edit O/D unit sttngs” dialogue is displayed.



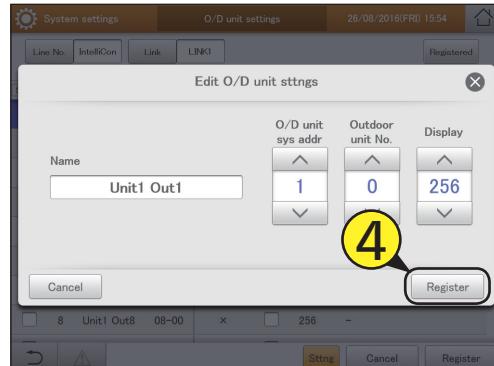
3 Change the settings.



Item	Explanation
Outdoor unit No. (Sub unit number)	Use <input type="button" value="^"/> <input type="button" value="v"/> to select the desired individual number (0 to 3) within the system.
Display	Use <input type="button" value="^"/> <input type="button" value="v"/> to set the order when displayed in a list.

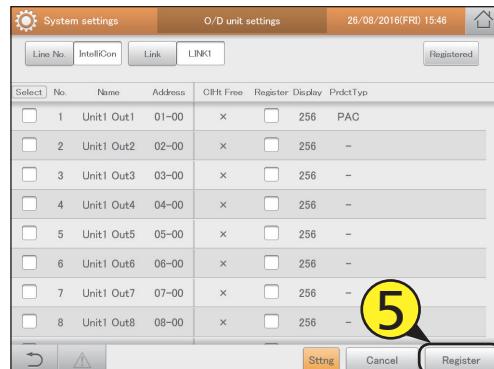
4 Touch [Register].

- To cancel the settings, touch [Cancel].



5 Touch [Register].

- To cancel the settings, touch [Cancel].

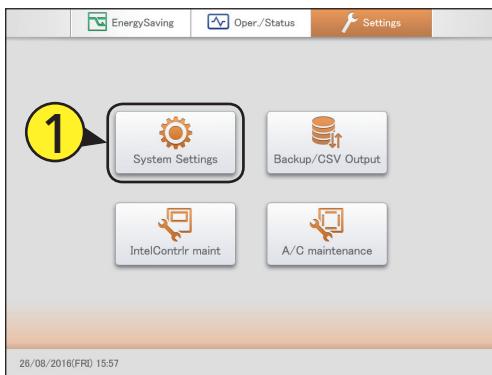


Item	Explanation
Name	Change the name of the outdoor unit. You can enter up to 16 letters or numbers.
O/D unit sys addr	Use <input type="button" value="^"/> <input type="button" value="v"/> to select the desired outdoor unit system address (1 to 30).

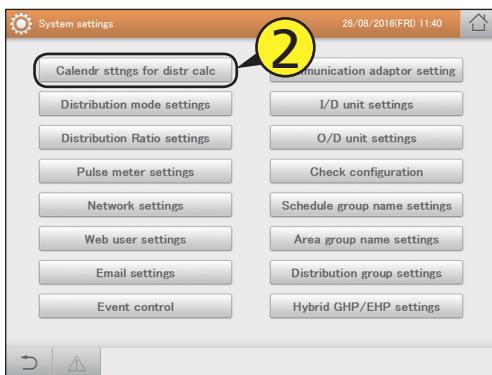
Basic settings for distribution calculation

Set specified days, cut-off days, particular time slots (regular hour ranges) and days of the week for calculating distributions.

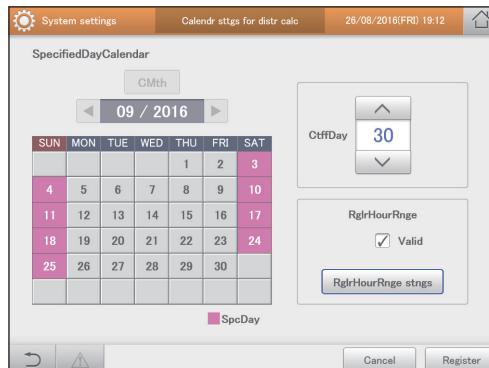
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [Calendr sttgs for distr calc].
- Enter the identification number (password level 1 or 2) and the “Calendr sttgs for distr calc” screen is displayed.



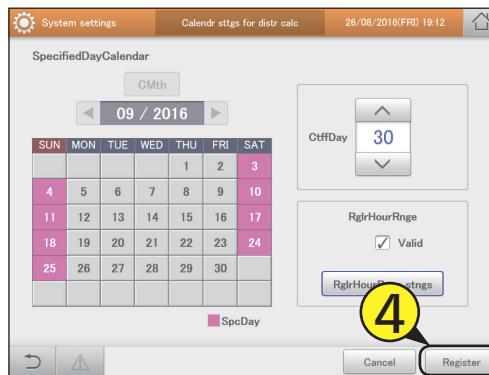
- 3** Change the settings.



Item	Explanation
SpecifiedDay- Calendar	Set specified days (days where the whole day will have a special distribution setting, such as holidays, when the time slot doesn't matter). These can be set starting with the current month and up to 2 years in the future. (→ “Registering specified days” (P.149))
CutffDay	Set the monthly cut-off days (“1” to “28”, “End”). (→ “Registering cut-off days” (P.149))
RglrHourRnge	Set the distribution time slots for each day of the week. Regular hour range settings possible if you put a check mark in “Valid”. The “Regular hour range settings” dialogue is displayed when you touch [RglrHourRnge sttgs]. (→ “Set the target time slots for distribution calculation” (P.150))

- 4** Touch [Register].

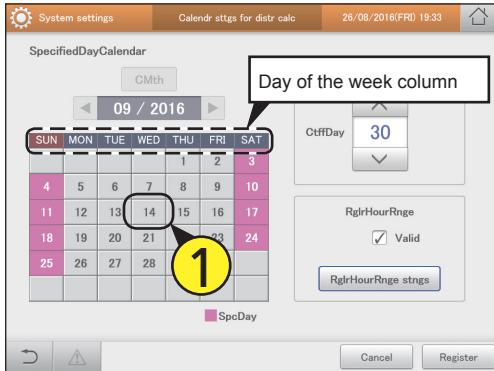
- To cancel the settings, touch [Cancel].



Registering specified days

1 Touch the date for the specified day.

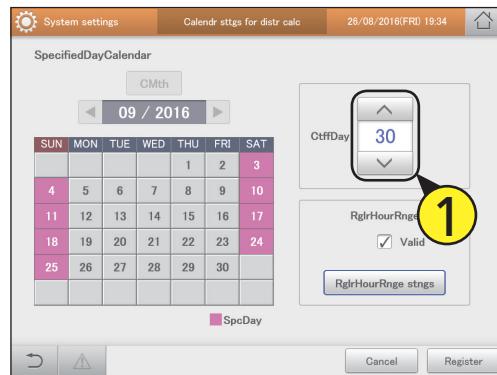
- Use **◀ ▶** to select the registered month. Touch [CMth] to return to the current month.
- The colour of the date column changes when you touch this. Touch again to return to the original. You cannot set a date in the past, however.
- Touch the day of the week column to set the specified day by day of the week.



Registering cut-off days

1 Touch **^** **▼**.

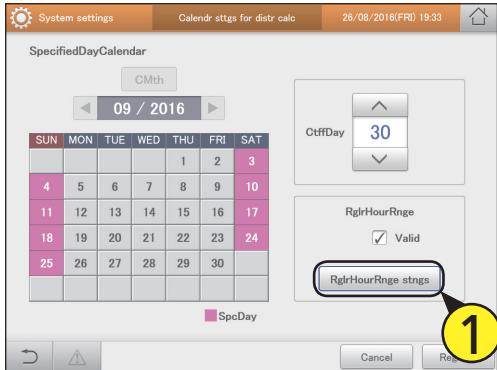
- Touch **^** **▼** to move the days forward, touch **▼** to move the days back.



Set the target time slots for distribution calculation

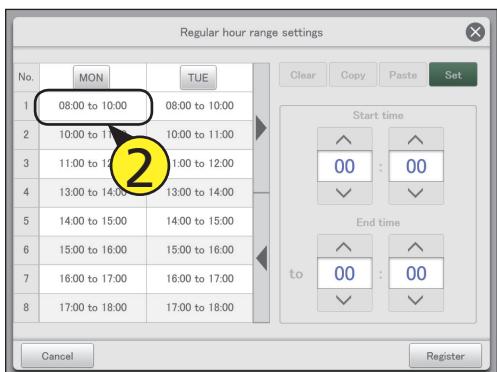
1 Touch [RglrHourRnge stngs].

- The “Regular hour range settings” dialogue is displayed.



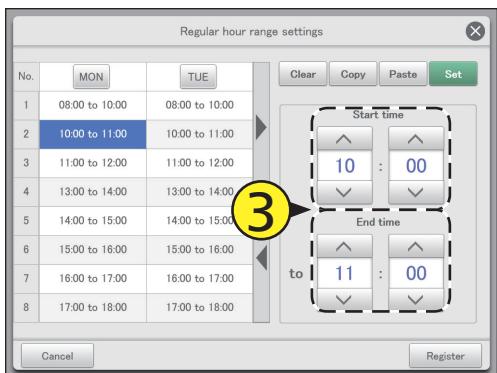
2 Touch the cell to be entered.

- You can select all of the time slots for a day of the week by touching the day of the week column.



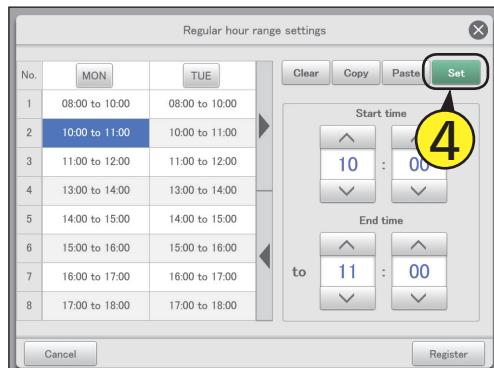
3 Set the start and end times.

- Use to set “Hours” and “Minutes”.



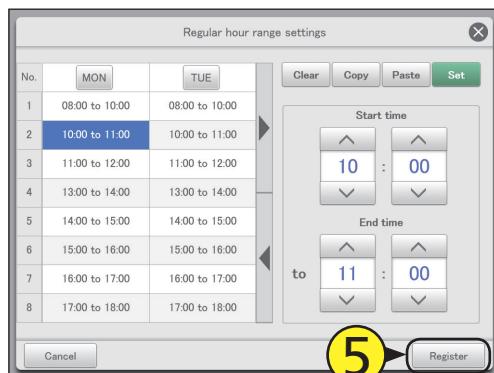
4 Touch [Set].

- The set time is displayed in the cell.
- To delete the set time slot, select the time slot to delete and touch [Clear].
- To copy the set time slot, select the time slot to copy and touch [Copy]. Next select the place you want to paste to and touch [Paste].

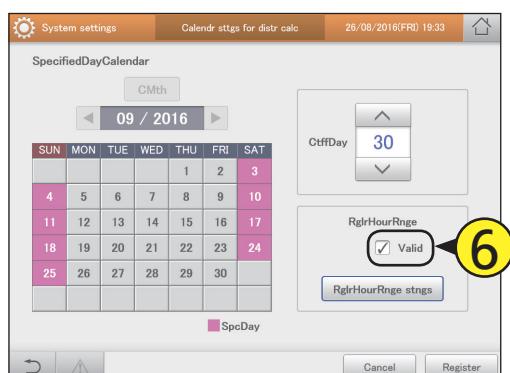


5 Touch [Register].

- The “Regular hour range settings” dialogue closes.
- To cancel the settings, touch [Cancel].



6 Put a check mark next to “Valid”.



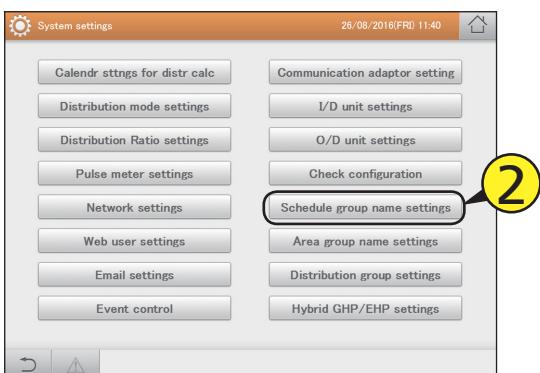
Changing the name of the schedule group

Edit the name of the operating schedule group.

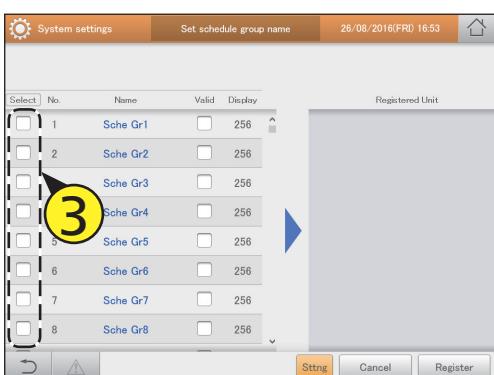
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



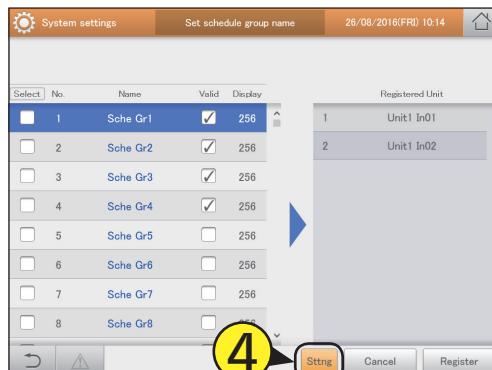
- 2** Touch [Schedule group name settings].
- Enter the identification number (password level 1 or 2) and the “Set schedule group name” screen is displayed.



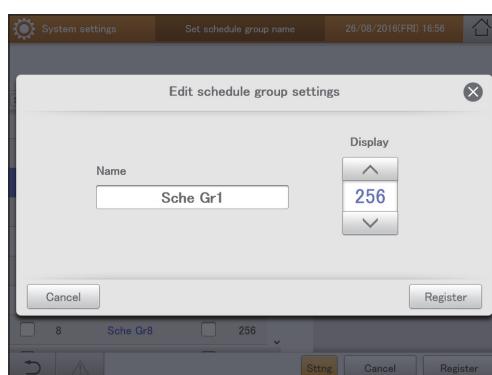
- 3** Put a check mark in the “Select” column.
- Select the schedule group name to be edited.



- 4** Touch [Sttng].
- The “Edit schedule group settings” dialogue is displayed.



- 5** Change the settings.



Item	Explanation
Name	Edit the name of the schedule group. You can enter up to 16 letters or numbers.
Display	Use to set the order when displayed in a list.

Continued on next page ➤

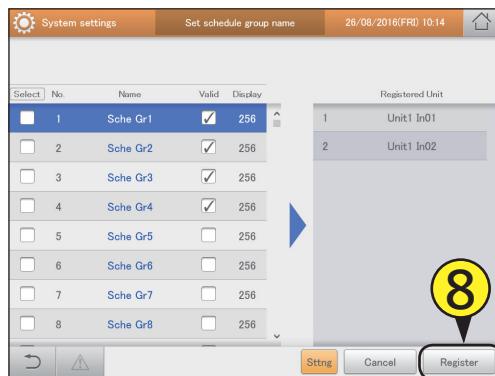
6 Touch [Register].

- The “Edit schedule group settings” dialogue closes.
- To cancel the settings, touch [Cancel].



8 Touch [Register].

- To cancel the settings, touch [Cancel].



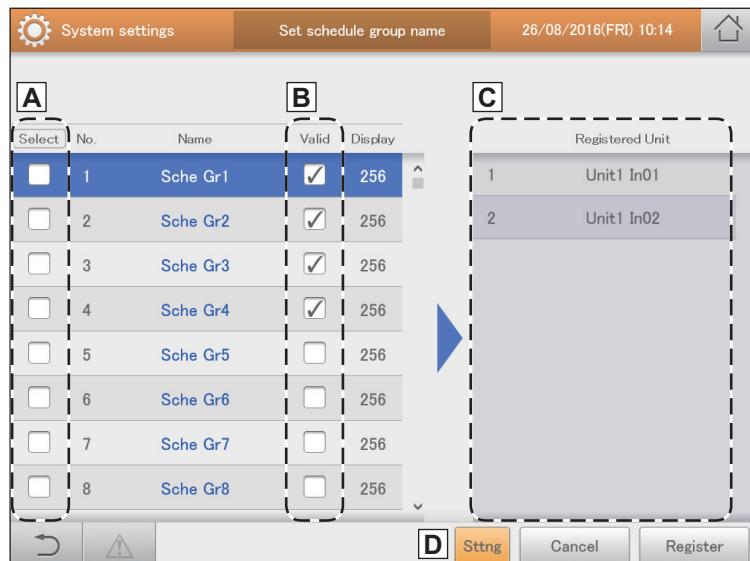
7 Put a check mark in the “Valid” column.

- Put a check mark in the schedule group to be used for the operating schedule.



The “Set schedule group name” screen

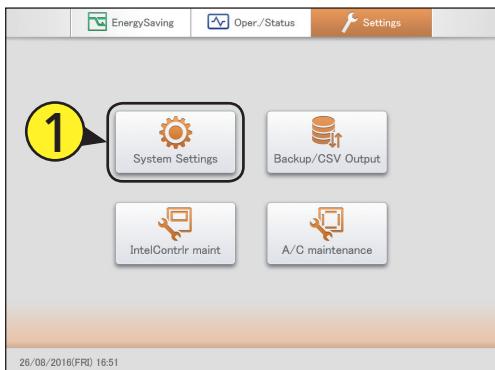
- Put a check mark in the group to be edited.
- Put a check mark here if schedule group is to be used.
- The indoor units belonging to the selected schedule group are displayed.
- The “Edit schedule group settings” dialogue is displayed when you touch this.



Changing the name of the area group

Edit the name of the area group.

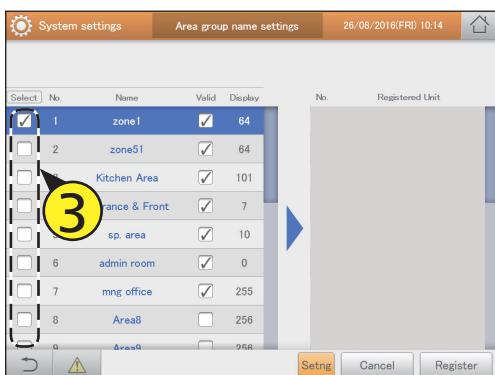
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



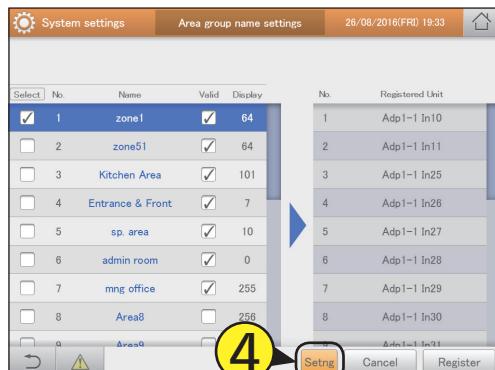
- 2** Touch [Area group name settings].
- Enter the identification number (password level 1 or 2) and the “Area group name settings” screen is displayed.



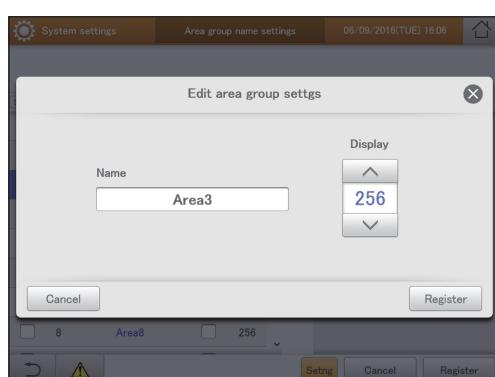
- 3** Put a check mark in the “Select” column.
- Select the area group name to be edited.



- 4** Touch [Setng].
- The “Edit area group settgs” dialogue is displayed.



- 5** Change the settings.

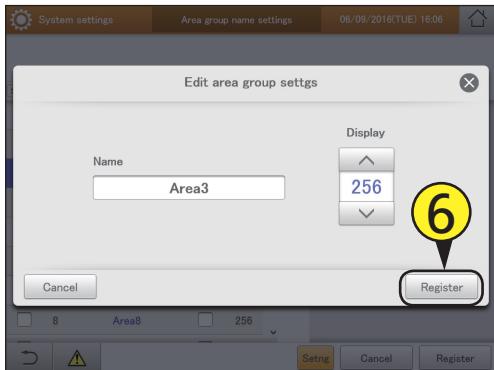


Item	Explanation
Name	Change the name of the area group. You can enter up to 16 letters or numbers.
Display	Use to set the order when displayed in a list.

Continued on next page ➔

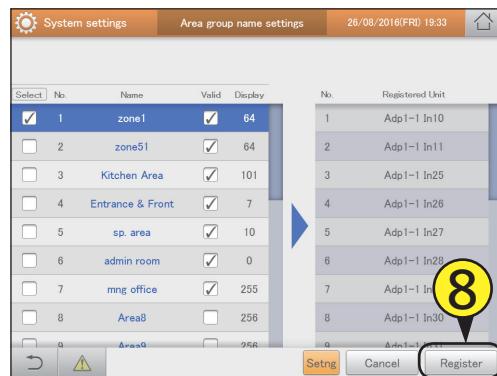
6 Touch [Register].

- The “Edit area group settings” dialogue closes.
- To cancel the settings, touch [Cancel].



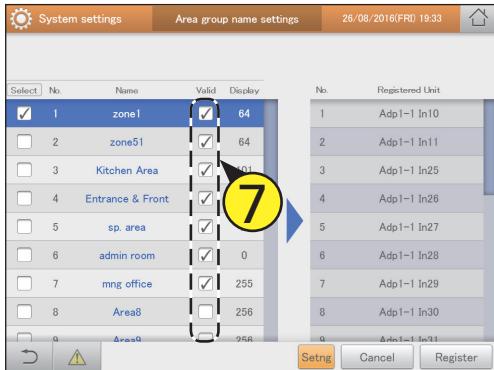
8 Touch [Register].

- To cancel the settings, touch [Cancel].



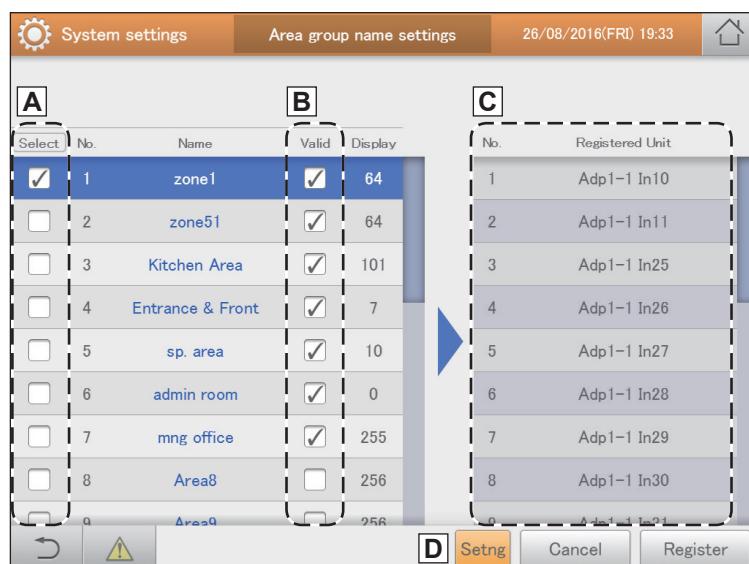
7 Put a check mark in the “Valid” column.

- Put a check mark in the area group to use.



The “Area group name settings” screen

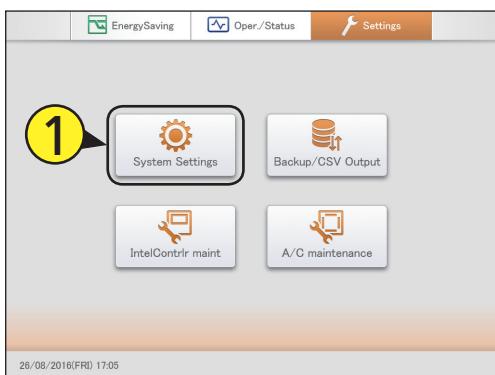
- Put a check mark in the group to be edited.
- Put a check mark in the group name use the area group.
- The names of the indoor units belonging to the selected area group are displayed.
- The “Edit area group settings” dialogue is displayed when you touch this.



Changing the name of the distribution group

Edit the name of the distribution group.

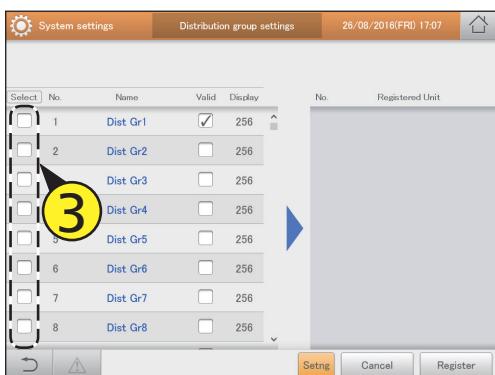
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



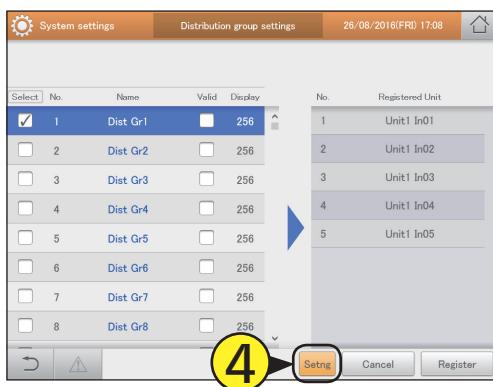
- 2** Touch [Distribution group settings].
- Enter the identification number (password level 1 or 2) and the “Distribution group settings” screen is displayed.



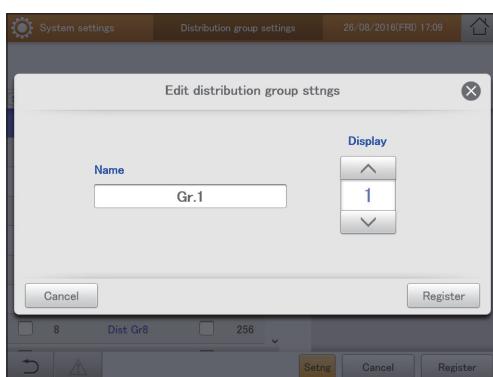
- 3** Put a check mark in the “Select” column.
- Select the distribution group name to be edited.



- 4** Touch [Setng].
- The “Edit distribution group sttngs” dialogue is displayed.



- 5** Change the settings.

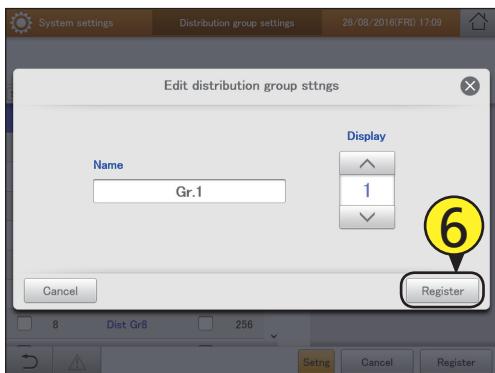


Item	Explanation
Name	Change the name of the distribution group. You can enter up to 16 letters or numbers.
Display	Use to set the order when displayed in a list.

Continued on next page ➔

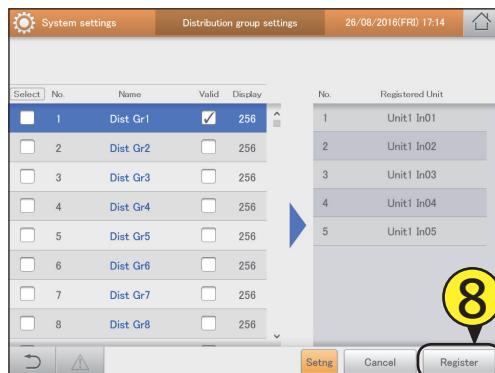
6 Touch [Register].

- The “Edit distribution group stngs” dialogue closes.
- To cancel the settings, touch [Cancel].



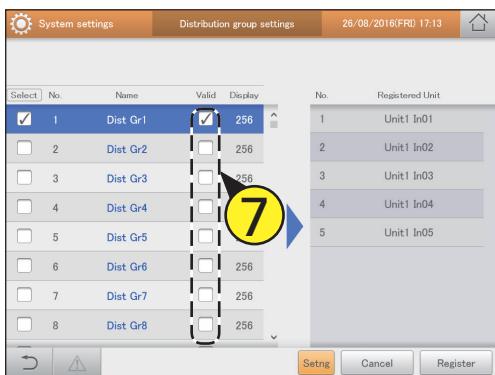
8 Touch [Register].

- To cancel the settings, touch [Cancel].



7 Put a check mark in the “Valid” column.

- Put a check mark in the distribution group to use in distribution calculations.

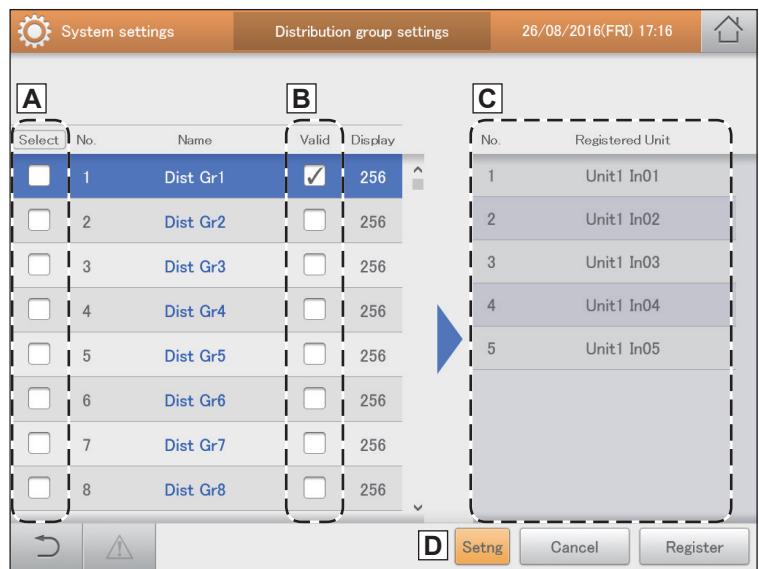


Note

- Do not put both “PAC” and “GHP” in a single distribution group with time distribution. Put each of them in separate groups.

The “Distribution group settings” screen

- A: Put a check mark in the group to be edited.
- B: Put a check mark here if distribution group is to be used.
- C: The indoor units belonging to the selected distribution group are displayed.
- D: The “Edit distribution group sttngs” dialogue is displayed when you touch this.



Basic settings for the pulse meter

Make allocations between pulse meters and distribution groups.

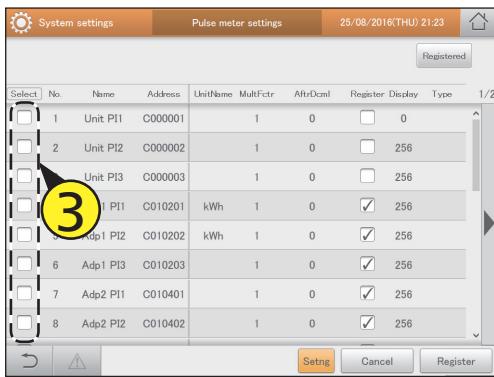
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [Pulse meter settings].
- Enter the identification number (password level 2) and the “Pulse meter settings” screen is displayed.



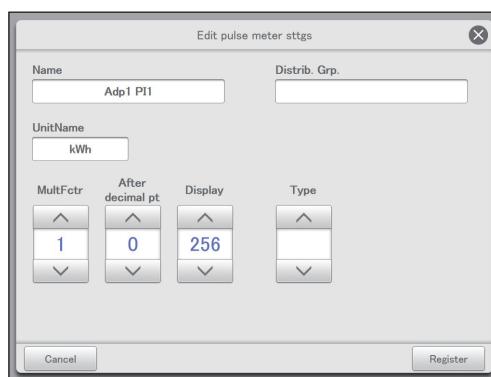
- 3** Put a check mark in the “Select” column.
- Select the pulse meter to be edited.



- 4** Touch [Setng].
- The “Edit pulse meter sttgs” dialogue is displayed.



- 5** Change the settings.



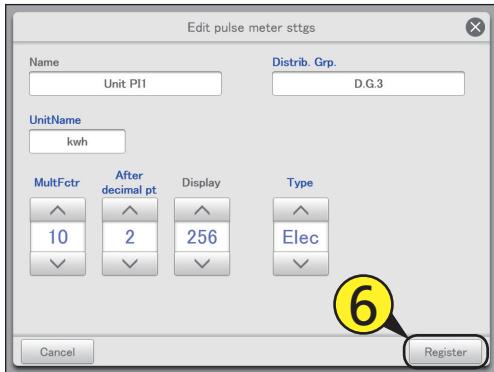
Item	Explanation
Name	Change the pulse meter name. You can enter up to 16 letters or numbers.
UnitName	Enter the units to be displayed for the pulse meter.
MultFctr	Use <input type="button" value="^"/> <input type="button" value="v"/> to set the multiplying factor to be displayed for the pulse meter.
After decimal pt	Use <input type="button" value="^"/> <input type="button" value="v"/> to set the number of decimal places to be displayed for the pulse meter. (0 to 3)
Display	Use <input type="button" value="^"/> <input type="button" value="v"/> to set the order when displayed in a list.
Type	Use <input type="button" value="^"/> <input type="button" value="v"/> to set the pulse meter type. Select from “Elec”, “Gas”, “PwGn”, “TpWt”, and “Ice”.

Continued on next page

Item	Explanation
Distrib. Grp.	Configure a distribution group to be measured. The "Distrib. Grp." dialogue is displayed when you touch this. Select the distribution group to be measured and touch [Select].

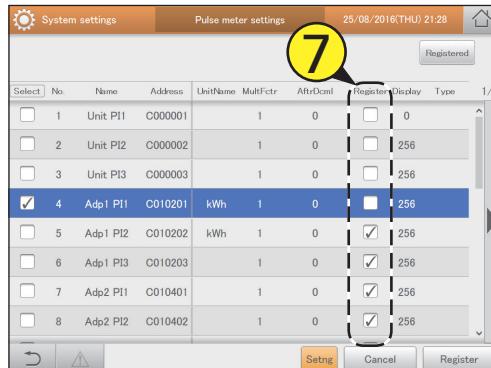
6 Touch [Register].

- The "Edit pulse meter sttgs" dialogue closes.
- To cancel the settings, touch [Cancel].



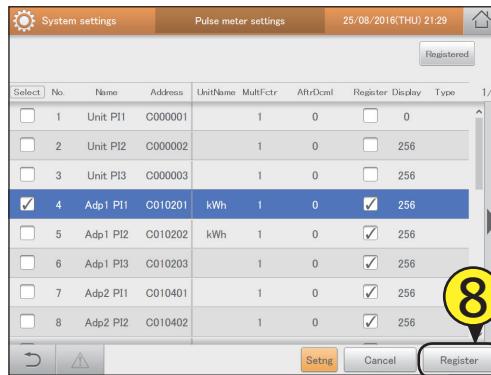
7 Put a check mark in the "Register" column.

- Put a check mark next to the pulse meters you want to enable.



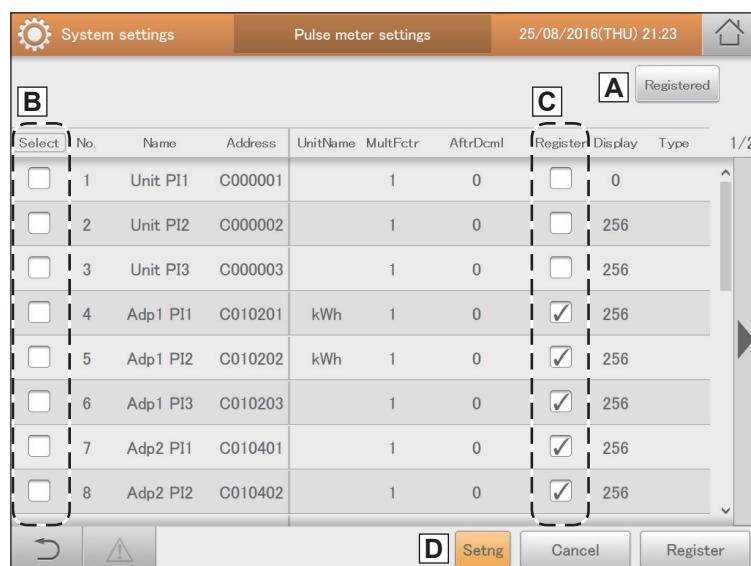
8 Touch [Register].

- To cancel the settings, touch [Cancel].



The "Pulse meter settings" screen

- A list of pulse meters with a check mark in the "Register" column is displayed.
- Put a check mark next to the pulse meters you want to edit.
- Put a check mark next to the pulse meters you want to enable.
- The "Edit pulse meter sttgs" dialogue is displayed when you touch this.



Set the distribution mode

Set the mode used for distributing when calculating charges.

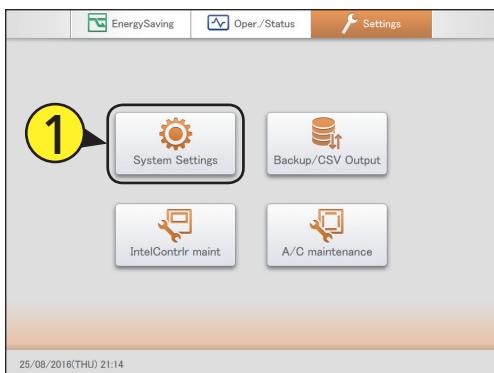
There are two methods for distribution.

Time distribution: This method calculates distribution ratios based on the operating times of the indoor units (thermostat ON cumulative time and thermostat OFF cumulative time).

Load distribution: This method calculates distribution ratios based on the electricity/gas usage (including standby power) of the indoor units and outdoor units.

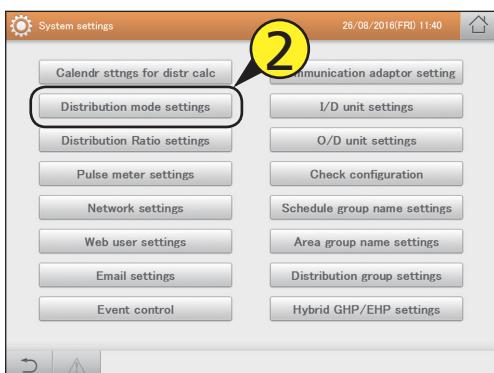
1 Touch [System Settings] in "Settings".

- The "System settings" screen is displayed.

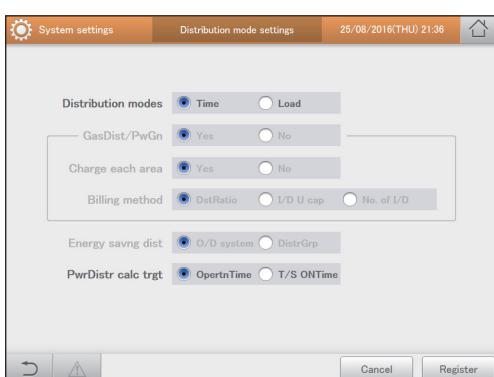


2 Touch [Distribution mode settings].

- Enter the identification number (password level 1 or 2) and the "Distribution mode settings" screen is displayed.



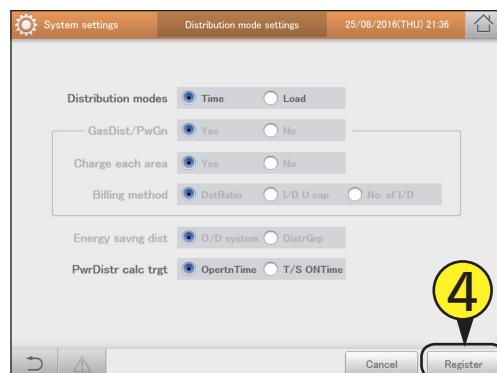
3 Change the settings.



Item	Explanation
Distribution modes	Set the distribution mode (time distribution or load distribution). <ul style="list-style-type: none"> Load distribution is not available for "Hybrid GHP/EHP".
GasDist/PwGn	Select whether to calculate distributions when using gas for power generation. <ul style="list-style-type: none"> When set to "No", you cannot set charge each area and billing method.
Charge each area	Select whether to use charge each area for gas power generation. <ul style="list-style-type: none"> When set to "No", you cannot set billing method.
Billing method	Set the billing method for gas power generation.
Energy savng dist	Set the range of energy savings effects for multi-function air conditioners or ice thermal storage models in calculations for distribution. (when load distribution only) <ul style="list-style-type: none"> With "O/D system", only the air conditioning distribution of the area of the outdoor system is reflected. With "DistrGrp", the air conditioning distribution of all areas in the entire distribution group is reflected.
PwrDistr calc trgt	Set the target of electricity distribution calculation. <ul style="list-style-type: none"> "OpertnTime" is distributed between the electricity for both outdoor units and indoor units. "T/S ONTime" is distributed to the electricity for only outdoor units.

4 Touch [Register].

- To cancel the settings, touch [Cancel].



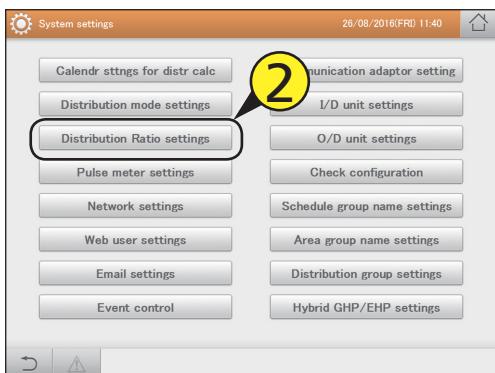
Set the units for electricity/gas charges

Set the units for electricity and gas charges.

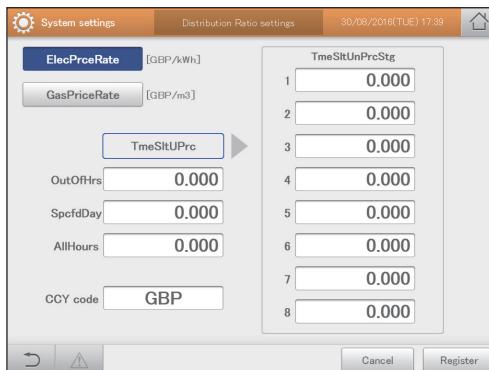
- Touch [System Settings] in "Settings".
 - The "System settings" screen is displayed.



- Touch [Distribution Ratio settings].
 - Enter the identification number (password level 1 or 2) and the "Distribution Ratio settings" screen is displayed.

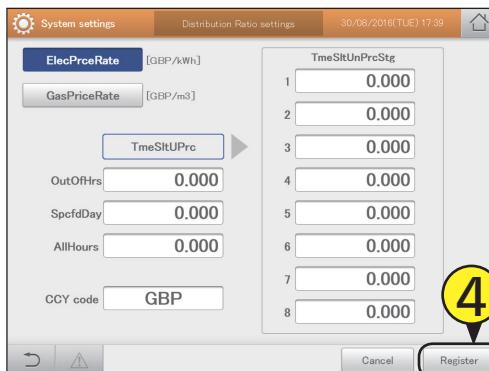


- Change the settings.
 - The touchscreen numeric keypad appears when you touch the text box.



Item	Explanation
ElecPrceRate GasPriceRate	The screen switches to the one for setting the prices for electricity or gas charges. The highlighted item after touching is the one that will be set.
TmeSltUPrc	Set the regular hour range 1 to 8 price. <ul style="list-style-type: none"> The time slot for the regular hour range is the one set in "Regular hour range settings" in "Calendr sttgs for distr calc" (P.150).
OutOfHrs	Set the out of hours price.
SpcfdDay	Set the specified days price. <ul style="list-style-type: none"> The specified day is the one set in "SpecifiedDayCalendar" in "Calendr sttgs for distr calc" (P.149).
AllHours	Set prices for times that are not covered by regular hour ranges, out of hours, or specified days.
CCY code	Enter the currency unit.

- Touch [Register].
 - To cancel the settings, touch [Cancel].

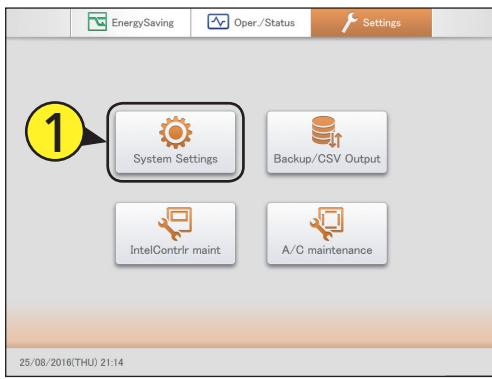


Linked control of air conditioning units

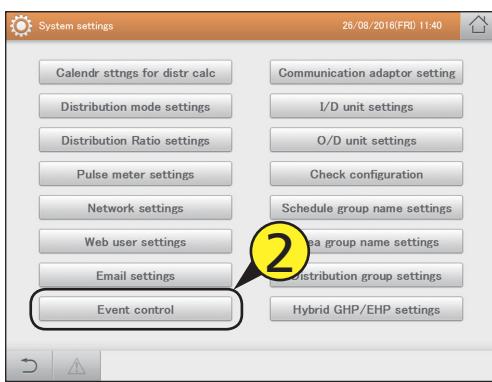
By setting conditions for input points and output points, you can perform linked control of air conditioning units (indoor units and outdoor units).

For example, you can make a setting so that all indoor units stop operating at the same time (output point) in response to a fire alarm going off (input point).

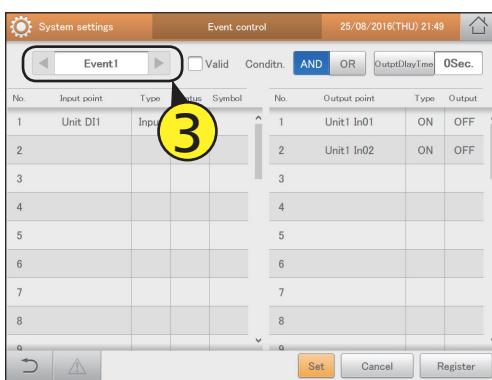
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [Event control].
- Enter the identification number (password level 1 or 2) and the “Event control” screen is displayed.

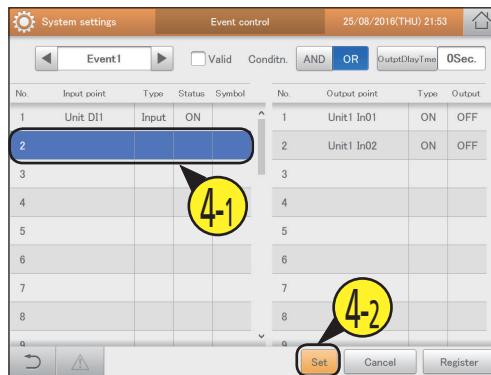


- 3** Select an event name.
- Use **◀ ▶** to select the name to register the event.
 - You can change the event names. (→ “Changing an event name” (P.167))



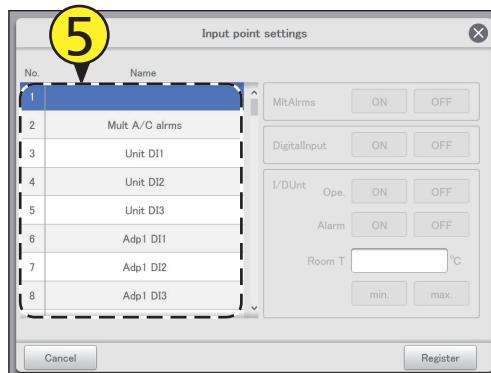
- 4** Select the input point border (4-1) and touch [Set] (4-2).

- The “Input point settings” dialogue is displayed.



- 5** Select the input target from the list.

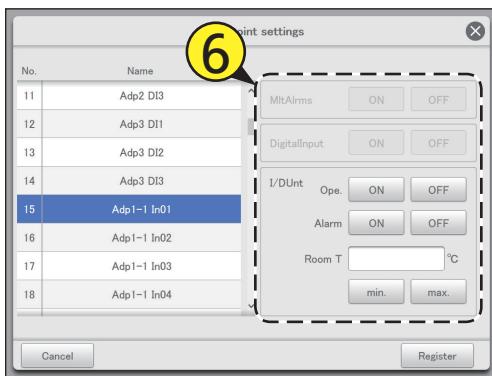
- Input targets include air conditioner alarms, digital input/output devices, indoor units (individual and control groups).



Continued on next page ➔

6 Setting the input conditions.

- The items you can set depend on the input target selected.



- When air conditioning unit alarm batch is selected

Item	Explanation
MltAlrms	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" indicates that an error alarm has been transmitted. "OFF" indicates that a unit has recovered from an error.

- When a digital input/output device is selected

DigitalInput	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" is displayed when digital input signals are on. "OFF" is displayed when digital input signals are off.
--------------	---

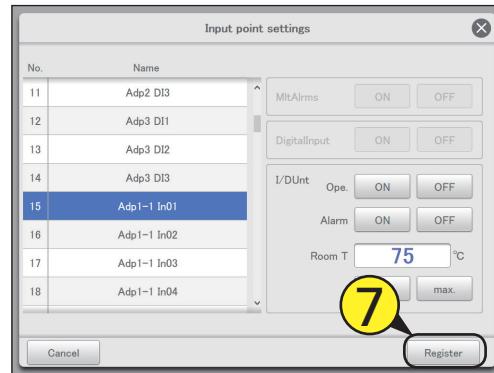
- When an indoor unit has been selected

I/DUnit*	Ope.	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" is displayed when operation of the indoor units has been started. "OFF" is displayed when operation of the indoor units is stopped.
	Alarm	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" indicates that an error alarm has been transmitted. "OFF" indicates that a unit has recovered from an error.
	Room T	Set the room temperature. The touchscreen numeric keypad appears when you touch the text box. Select either "min." or "max.". <ul style="list-style-type: none"> "min." indicates when the temperature is above the set temperature. "max." indicates when the temperature is below the set temperature.

* Set one of the condition items on the right.

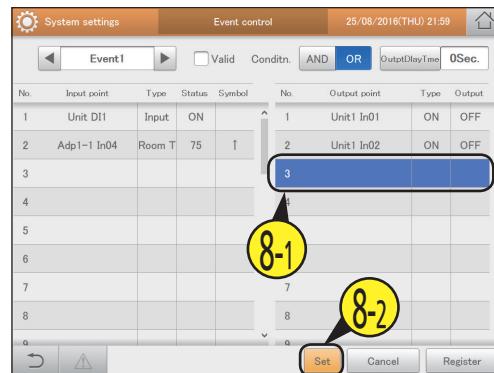
7 Touch [Register].

- The "Input point settings" dialogue closes.
- To cancel the settings, touch [Cancel].



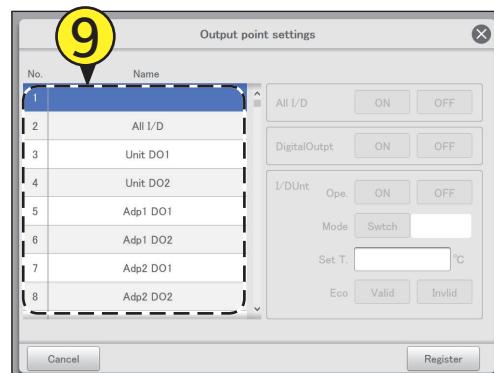
8 Select the output point border (8-1) and touch [Set] (8-2).

- The "Output point settings" dialogue is displayed.



9 Select the output target from the list.

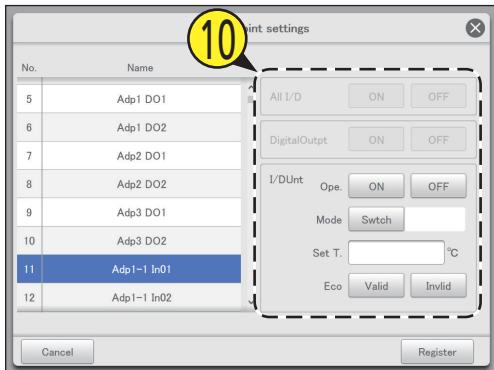
- Output targets include digital input/output devices, indoor units (all at once, individual, and control groups).



Continued on next page ➔

10 Setting the output conditions.

- The items you can set depend on the output target selected.



- When indoor units all at once is selected

Item	Explanation
All I/D	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" indicates that all indoor units start operation. "OFF" indicates that all indoor units stop operation.

- When a digital input/output device is selected

DigitalOutput	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" indicates that the digital output signal is on. "OFF" indicates that the digital output signal is off.
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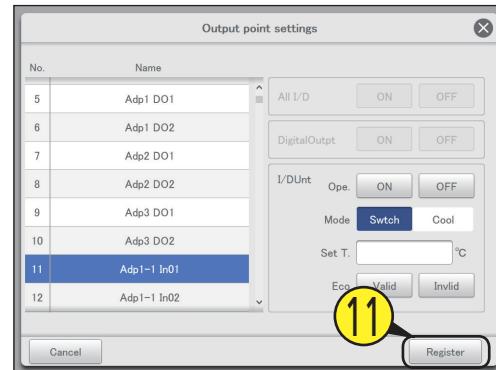
- When an indoor unit has been selected

I/DUnit*	Ope.	Select either "ON" or "OFF". <ul style="list-style-type: none"> "ON" indicates that the indoor unit starts operation. "OFF" indicates that indoor unit stops operation.
	Mode	Select the operation mode to switch to. → "Setting the operation mode" (P.167))
	Set T.	Set the temperature.
	Eco	Select either "Valid" or "Invlid".

* Set one of the items on the right as the output.

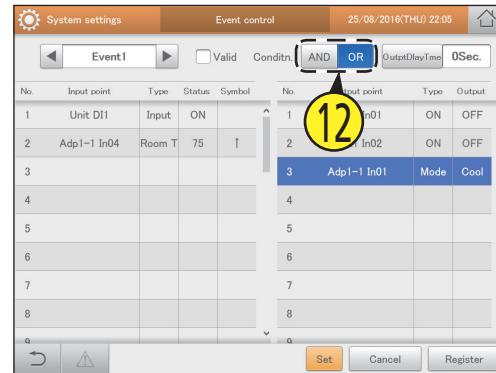
11 Touch [Register].

- The "Output point settings" dialogue closes.
- To cancel the settings, touch [Cancel].



12 Select the "Condtn."

- Select either [AND] or [OR]. (P.166)



Continued on next page

13 Set the output delay time.

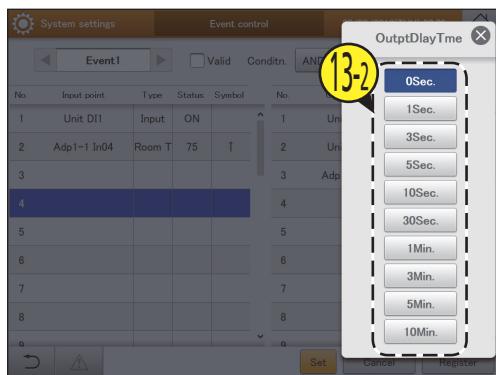
(1) Touch [OutputDelayTime].

- The “OutputDelayTime” settings dialogue is displayed.



(2) Select the output delay time.

- Set the initiating time for the output point when the input point conditions have been met.

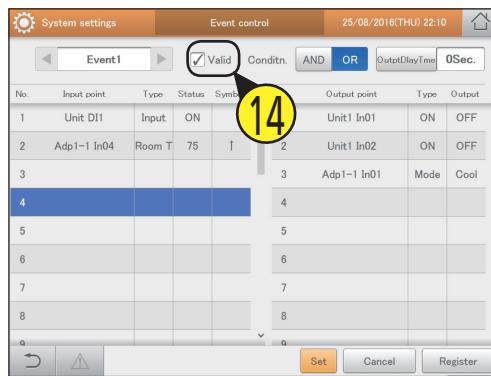


Note

- You can register a maximum of 50 event controls.
- You can register a maximum of 32 conditions each for input points and output points for each individual event.

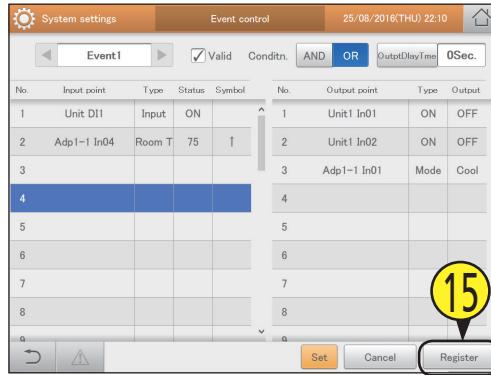
14 Put a check mark next to “Valid”.

- The set event control works if you put a check mark here.



15 Touch [Register].

- To cancel the settings, touch [Cancel].



The “Event control” screen

A: Set the event name with . You can change the event names. (→ “Changing an event name” (P.167))

B: The settings for the selected event name are enabled if you put a check mark here.

C: Select the conditions.

AND	The event at the output point is executed when the conditions set for the input point are <u>all met</u> .
OR	The event at the output point is executed when <u>at least one</u> of the conditions set for the input point are met.

D: Set the output point event execution timing (time).

The “OutptDlayTme” setting dialogue is displayed when you touch this. Setting values are “0Sec.”, “1Sec.”, “3Sec.”, “5Sec.”, “10Sec.”, “30Sec.”, “1Min.”, “3Min.”, “5Min.”, and “10Min.”.

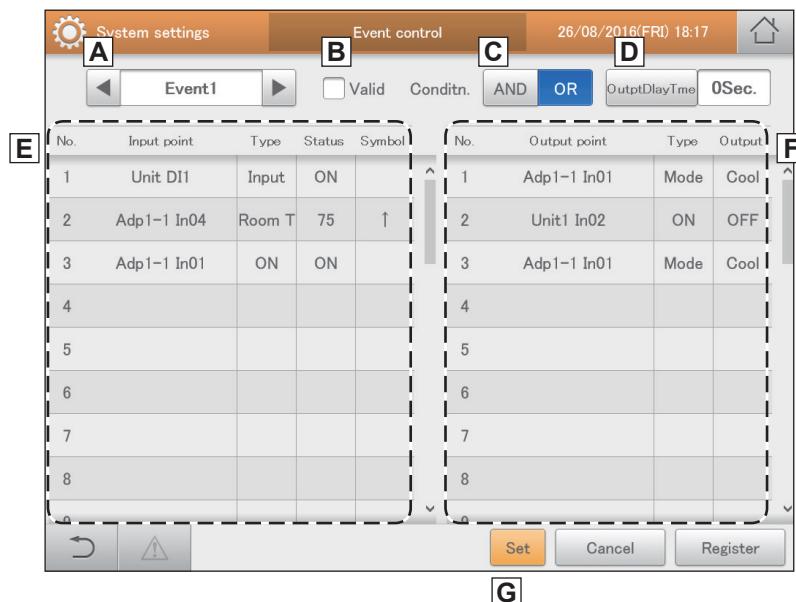
E: The list of input points that are set is displayed.

Input point	This displays the input targets for which conditions are set.
Type	The input target type is displayed.
Status	The input target status is displayed.
Symbol	A symbol is displayed when temperature is set as a condition for indoor units. The symbols displayed are as follows: ↑: When the temperature is set to “min.” ↓: When the temperature is set to “max.”

F: The list of output points that are set is displayed.

Output point	This displays the output targets for which conditions are set.
Type	The output target type is displayed.
Output	The output target status is displayed.

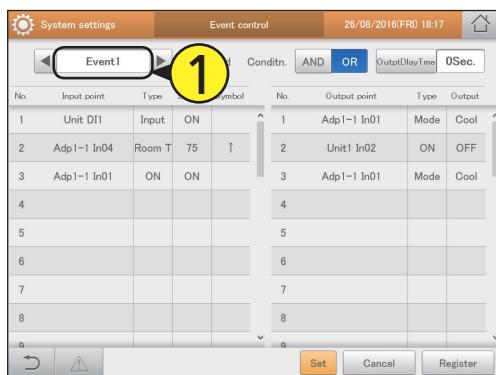
G: When an input point border or output point border is selected and you touch it, the dialogue for setting each of them is displayed.



Changing an event name

1 Touch the text box.

- The touchscreen keyboard is displayed.

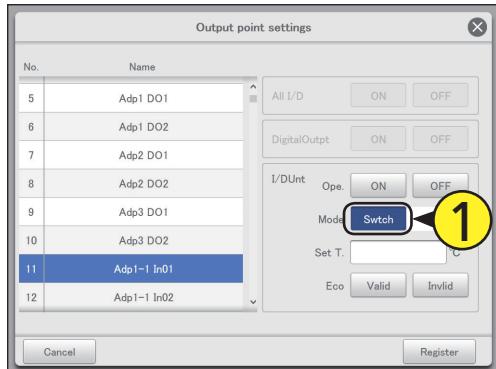


2 Enter the text.

Setting the operation mode

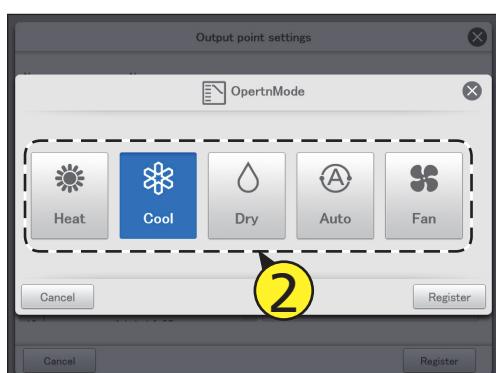
1 Touch [Swtch] in the “Output point settings” dialogue.

- The “OpertnMode” dialogue is displayed.



2 Select the mode to switch.

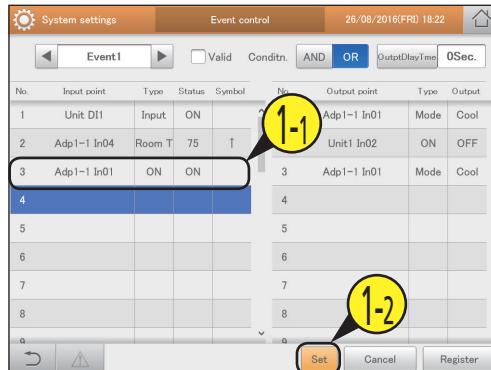
- The settings are registered and the “OpertnMode” dialogue closes.



Deleting the settings for input/output points

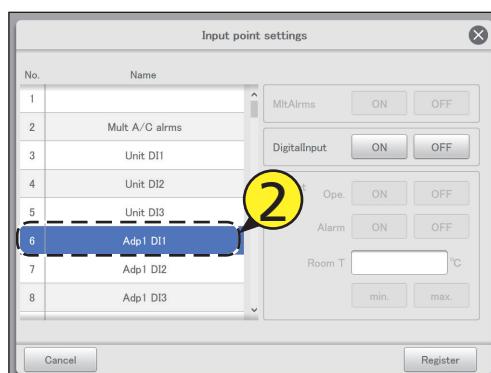
1 Select the input/output point to delete (1-1) and touch [Set] (1-2).

- The settings dialogue is displayed.



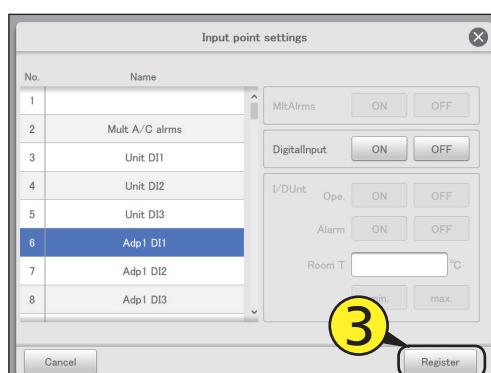
2 Touch the highlighted input/output target.

- The setting is deleted.



3 Touch [Register].

- The setting dialogue closes, and the selected input/output point is deleted from the list.



Configuring outgoing mail

When an alarm occurs, this unit can automatically send alarm mails.
Set the outgoing mail server and the mail destination.

1 Touch [System Settings] in "Settings".

- The "System settings" screen is displayed.

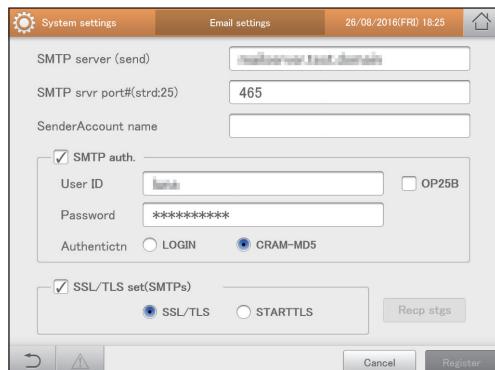


2 Touch [Email settings].

- Enter the identification number (password level 2) and the "Email settings" screen is displayed.



3 Change the settings.



Item	Explanation	
SMTP server (send)	Set the IP address or host name of the SMTP server.	
SMTP svr port#(strd:25)	Set the port number (0 to 65535) for the SMTP server. (Factory setting: 25)	
SenderAccount name	Set the mail address to be put in the sender section of the outgoing mail.	
SMTP auth.* ¹	User ID	Set the user ID to use for SMTP authentication.
	OP25B	The SMTP server port setting is automatically set to "587" if you put a check mark here.
	Password	Set the password to use for SMTP authentication.
	Authenticn	Select either "LOGIN" or "CRAM-MD5" as the authentication method.
SSL/TLS set(SMTPs)* ²	Select either "SSL/TLS" or "STARTTLS" as the encryption method.	
Recp stgs	The "Email Alarm recipient settings" dialogue is displayed when you touch this. (→ "Setting the destination" (P.169))	

*1 The settings at the left are enabled if you put a check mark here.

*2 The SMTP server port setting is automatically set to "465" if you put a check mark here.

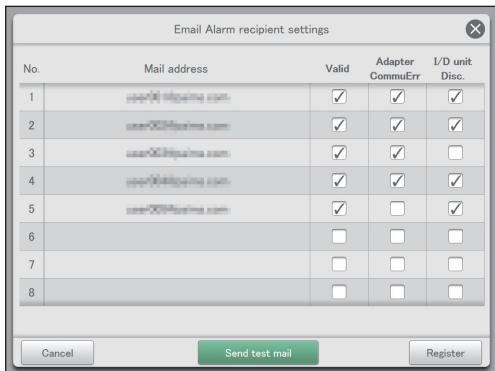
Note

- The SMTP server port number automatically changes if "OP25B" and "SSL/TLS set(SMTPs)" are set. The priority of setting is "OP25B">>"SSL/TLS set(SMTPs)".
- The SMTP server port number cannot be changed if you make the above settings. When the settings are cancelled, the SMTP port number returns to the factory setting (25), and you can enter any value again.

Setting the destination

Set the destination in the “Email Alarm recipient settings” dialogue.

1 Change the settings.



Item	Explanation
Mail address	Set the mail address to send alarms emails. The touchscreen keyboard appears when you touch this and you can change the mail address.
Valid	Users with a check mark in this column will be sent alarm mails.
Adapter CommuErr	Users with a check mark in this column will be sent alarm mails when there is a communications error with the communication adaptor.
I/D unit Disc.	Users with a check mark in this column will be sent alarm mails when there is a disconnected alarm with an indoor unit.
Send test mail	A test mail is sent to the set mail address.

2 Touch [Register].

- To cancel the settings, touch [Cancel].

Registering a communication adaptor

Register communication adaptors connected to this unit to enable communications with the air conditioning units.

- 1 Touch [System Settings] in “Settings”.



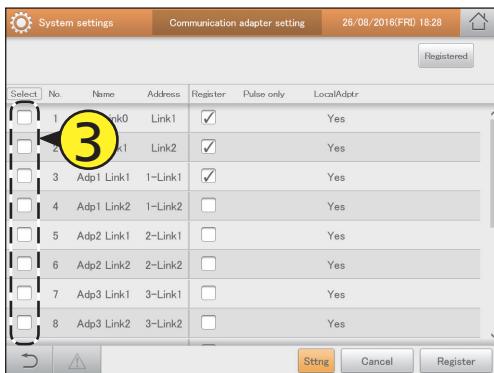
- 2 Touch [Communication adapter setting].

- Enter the identification number (password level 2) and the “Communication adapter setting” screen is displayed.



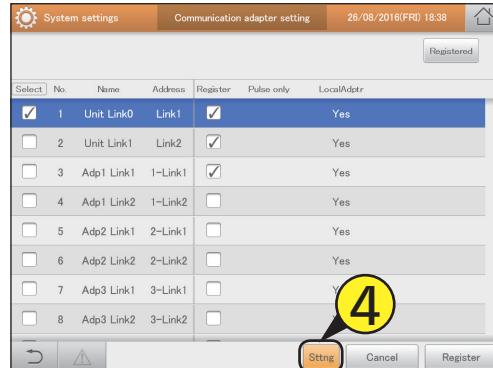
- 3 Put a check mark in the “Select” column.

- Select the communication adaptor to be edited.

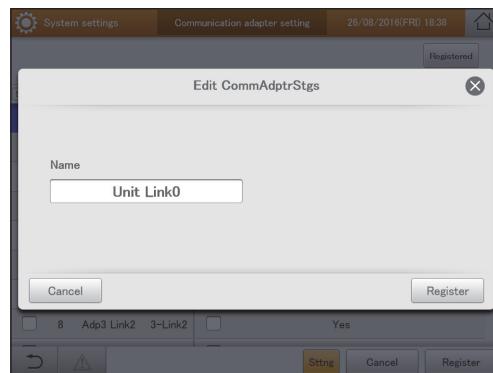


- 4 Touch [Stng].

- The “Edit CommAdptrStgs” dialogue is displayed.



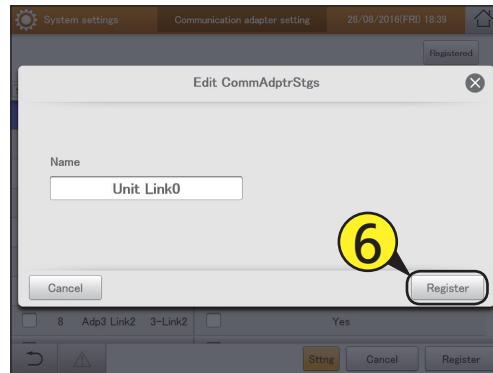
- 5 Change the settings.



Item	Explanation
Name	Change the name of the communication adaptor. You can enter up to 16 letters or numbers.

- 6 Touch [Register].

- The “Edit CommAdptrStgs” dialogue closes.
- To cancel the settings, touch [Cancel].



Continued on next page ➤

7 Repeat steps 3 to 6 to edit other communication adaptors.

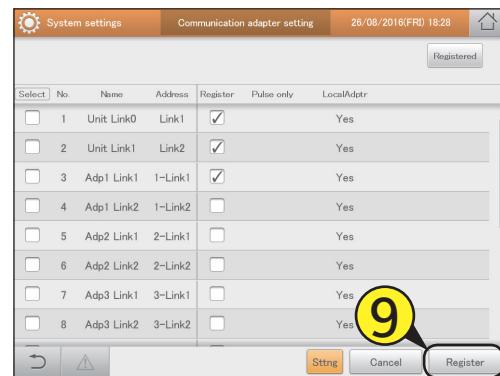
8 Put a check mark in the “Register” column.

- Put a check mark next to the communication adaptors you want to enable.



9 Touch [Register].

- To cancel the settings, touch [Cancel].

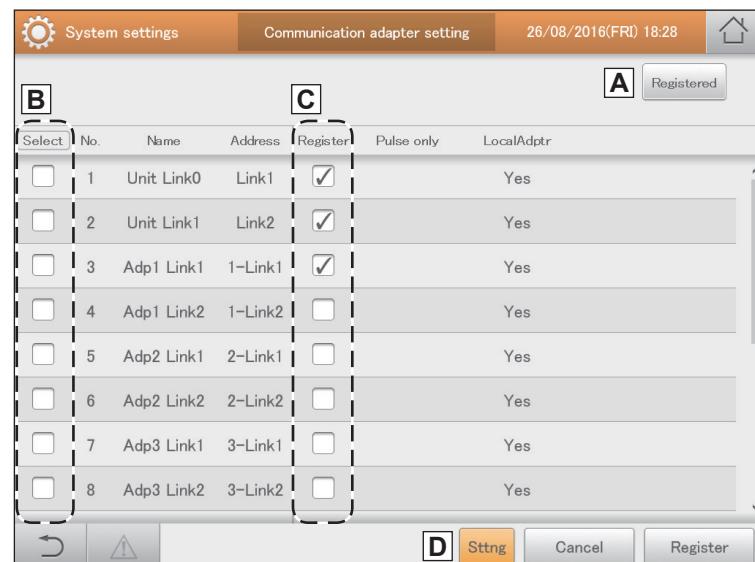


The “Communication adapter setting” screen

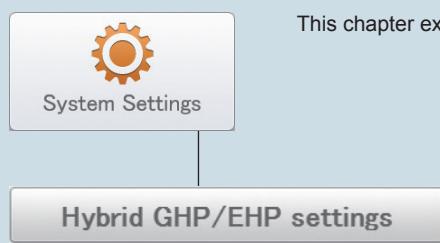
- A list of communication adaptors with a check mark in the “Register” column is displayed when you touch this. Touch again to return to the previous display.
- Put a check mark next to the communication adaptor you want to edit.
- Put a check mark next to the communication adaptors you want to enable.
- The “Edit CommAdptrStgs” dialogue is displayed when you touch this.

Note

- In the “Address” column, “Link1” and “Link2” are in this unit, and addresses such as “1-Link1” and “1-Link2” are the addresses of added communication adaptors.



Configuring the Hybrid GHP/EHP control



This chapter explains items such as how to configure the Hybrid GHP/EHP control.

Screen menu	Overview	Page
Basic settings	Set the mode used for operation.	175
Outdoor unit settings	Set the control for each outdoor unit.	177
Hybrid GHP/EHP O/D unit info	View the current control status.	180
Cost settings	Set cost priority control.	182
Gas demand settings	Set gas demand values.	184
Check upper limit map	Check the upper limit map which is used for cost priority control.	186
Delay time settings	Set delay times.	188
Register power demand point	Register the power demand point inputs.	192
Register gas demand point	Register the gas demand point inputs.	193
Register hotwtr demand point	Register the hot water demand point inputs.	194
Individual map settings	Use upper limit maps that are set individually.	195

Hybrid GHP/EHP control function

What is Hybrid GHP/EHP control?

Hybrid GHP/EHP control makes it possible to remotely control from this unit so that air conditioning units with GHP and EHP in the same air conditioning system operate using the optimum mode.

This unit controls the optimum operation mode by sending demand values via S-LINK communications to hybrid air conditioning units.

The demand values that are sent are determined by modes set on the screen and the operational load status of the hybrid air conditioning units.

● What is a hybrid air conditioning unit?

A hybrid air conditioning unit is one that is connected to GHP and EHP in the same air conditioning system, and is able to have its operation controlled to run at reduced energy consumption and reduced cost by operating using the optimum ratio of each type.

System configuration

It is not possible to connect this unit to hybrid air conditioning units via communication adaptors (485 communication).

Only direct connection with HBS lines is supported.

As the hybrid air conditioning units consist of two systems, GHP and EHP, each outdoor unit is counted as two units. (Note this when counting the number of connected units.)

Functionality

● Hybrid GHP/EHP control modes

Select one of the following modes to control the system.

● Cost priority control

Control so that the power/gas usage charges are kept to a minimum.

Based on the values set for the power costs and gas costs for each of the 5 time slots set in the "Cost settings" screen, upper limit maps are automatically generated according to the cooling or heating mode and the outdoor temperature, with the upper limit map suited to the current conditions being automatically referenced.

Refer to the following page for information about upper limit maps.

● Energy priority control

Control so that the energy consumed is kept to a minimum.

Values are fixed for each load level in the upper limit map.

● EHP priority control

The system operates so that the EHP side is prioritised, with GHP operating only when capacity is insufficient.

Values are fixed for each load level in the upper limit map.

● GHP priority control

The system operates so that the GHP side is prioritised, with EHP operating only when capacity is insufficient.

Values are fixed for each load level in the upper limit map.

● Demand control

Select one of the following modes to control the system.

● Not set

Demand control is not performed.

● EHP demand

GHP takes some of the load from EHP according to the demand level set for the point.

For each 1 point rise in the demand level, GHP takes over 1/3 of the load from EHP, and at the maximum demand level of 3 (the maximum), EHP stops and only GHP is operating.

● GHP demand

GHP demand control instructions are issued according to the demand level set for the point.

The instruction value can be freely changed in the "Gas demand settings" screen.

● Other functions

By making settings to use hot water demand control points, the system switches to hot water demand control only when the point is on. (The operation is similar to the control behaviour when using GHP priority control.)

Upper limit maps

This section explains the different upper limit maps referenced by Hybrid GHP/EHP control.

Upper limit maps are tables that define values that are the upper limits for GHP/EHP for the current system load levels, and the upper limit map referenced depends on the Hybrid GHP/EHP control mode setting.

The system references maps to be used from one of the following 5 types according to the settings of this unit.

● Cost priority map

Referenced with cost priority control.

As this map is automatically generated based on the power costs/gas costs values set in the “Cost settings” screen, these vary depending on the settings.

You can view the upper limit map that has been generated according to the current settings in the “Check upper limit map” screen.

● Energy priority map

Referenced with energy priority control. Values are fixed in the following map.

Load level	EHP	GHP
≤10%	30	0
≤20%	60	0
≤30%	90	0
≤40%	20	50
≤50%	50	50
≤60%	80	50
≤70%	100	55
≤80%	100	70
≤90%	100	85
≤100%	100	100
>100%	100	100

● GHP priority map

Referenced with GHP priority control. Values are fixed in the following map.

Load level	EHP	GHP
≤10%	0	15
≤20%	0	30
≤30%	0	45
≤40%	0	60
≤50%	0	75
≤60%	0	90
≤70%	10	100
≤80%	40	100
≤90%	70	100
≤100%	100	100
>100%	100	100

● EHP priority map

Referenced with EHP priority control. Values are fixed in the following map.

Load level	EHP	GHP
≤10%	30	0
≤20%	60	0
≤30%	90	0
≤40%	100	10
≤50%	100	25
≤60%	100	40
≤70%	100	55
≤80%	100	70
≤90%	100	85
≤100%	100	100
>100%	100	100

● Individual map

This is referenced only when settings to use individual maps have been made in the “Individual map settings” screen.

Content varies according to the content set in the “Individual map settings” screen.

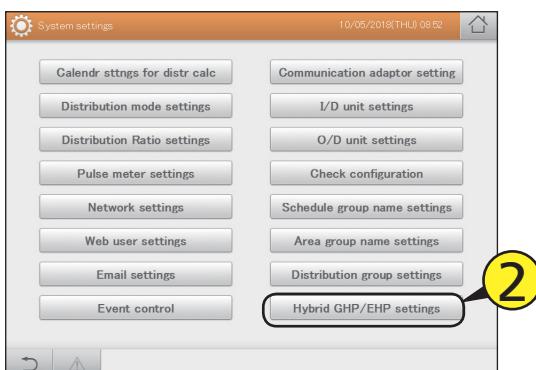
Setting the mode used for operation [Basic settings]

Set basic operation for Hybrid GHP/EHP control and set demand control.

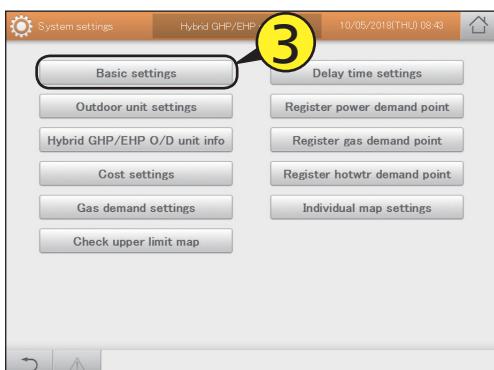
- Touch [System Settings] in "Settings".
● The "System settings" screen is displayed.



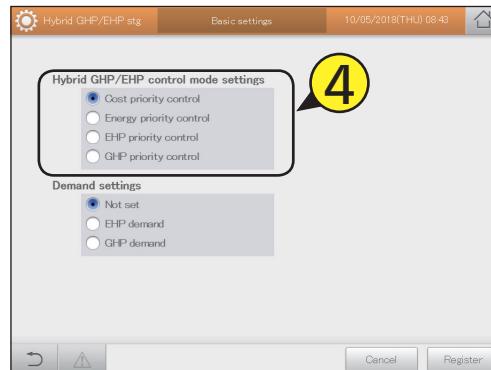
- Touch [Hybrid GHP/EHP settings].
● Enter the identification number (password level 1 or 2) and the "Hybrid GHP/EHP settings" screen is displayed.



- Touch [Basic settings].
● The "Basic settings" screen is displayed.

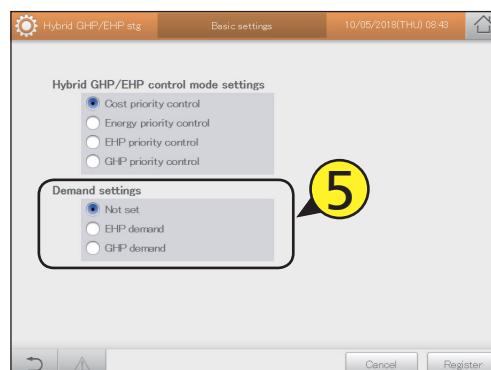


- Select the Hybrid GHP/EHP control mode setting.



Item	Explanation
Cost priority control	Control so that the power/gas usage charges are kept to a minimum based on the unit prices set in the "Cost settings" screen.
Energy priority control	Control so that the energy consumed is kept to a minimum.
EHP priority control	The system operates so that the EHP side is prioritised, with GHP operating only when capacity is insufficient.
GHP priority control	The system operates so that the GHP side is prioritised, with EHP operating only when capacity is insufficient.

- Select the demand setting.



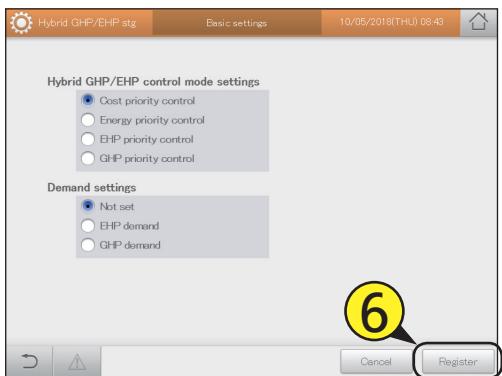
Item	Explanation
Not set	Demand control is not performed.
EHP demand	GHP takes some of the load from EHP according to the demand level.
GHP demand	GHP demand control instructions are issued according to the demand level. The instruction value can be freely changed in the "Gas demand settings" screen.

Continued on next page ➤

6

Touch [Register].

- To cancel the settings, touch [Cancel].



Setting the control for each outdoor unit

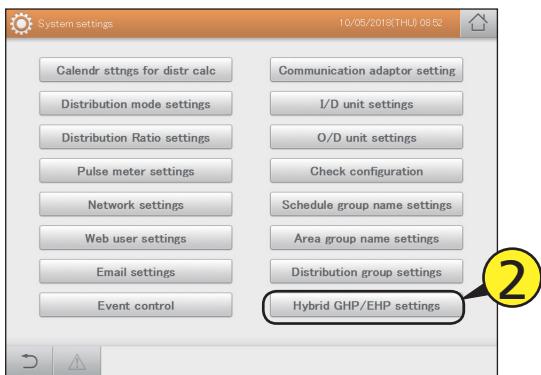
[Outdoor unit settings]

Make the main outdoor unit, group, and registration settings for Hybrid GHP/EHP control for each of the outdoor units.

- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



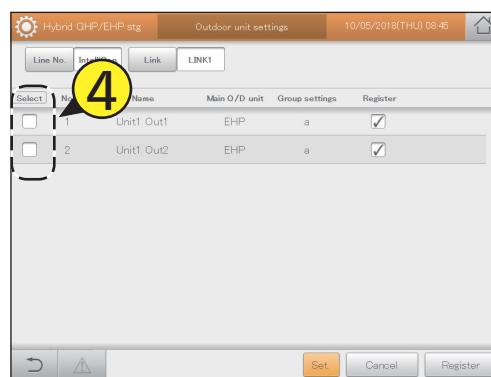
- 2** Touch [Hybrid GHP/EHP settings].
- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



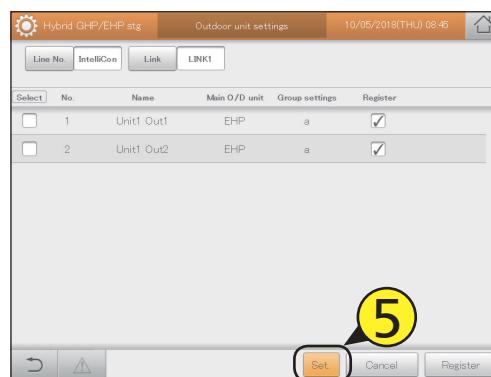
- 3** Touch [Outdoor unit settings].
- The “Outdoor unit settings” screen is displayed.



- 4** Put a check mark in the “Select” column.
- Select the outdoor units you want to register.

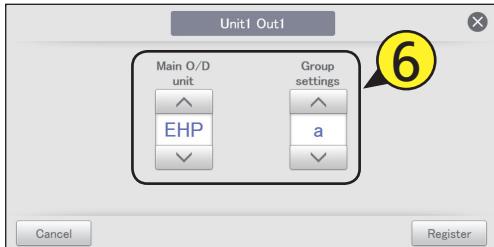


- 5** Touch [Set].
- The operation dialogue is displayed.



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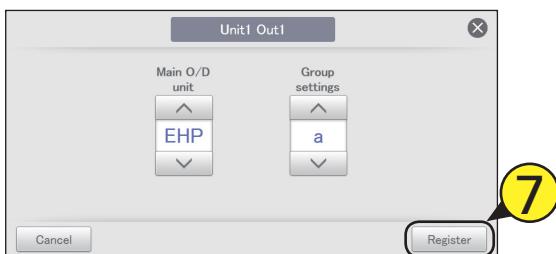
6 Enter the main outdoor unit and group settings.



Item	Explanation
Main O/D unit	Set which of EHP and GHP will be prioritised. <ul style="list-style-type: none"> There is no affect on air conditioning unit operation under normal control conditions. This only has an affect on operation when EHP upper limit and GHP upper limit are both set to "Unlmtd" in individual map settings.
Group settings	Set the group for referencing the value sent when gas demand is input.

7 Touch [Register].

- The settings are registered and the operation dialogue closes.
- To cancel the settings, touch [Cancel].



8 Put a check mark in the "Register" column.

- Select the outdoor units for which you want to implement Hybrid GHP/EHP control. Hybrid GHP/EHP control instructions are implemented only on those outdoor units that have a check mark.



9 Touch [Register].

- To cancel the settings, touch [Cancel].

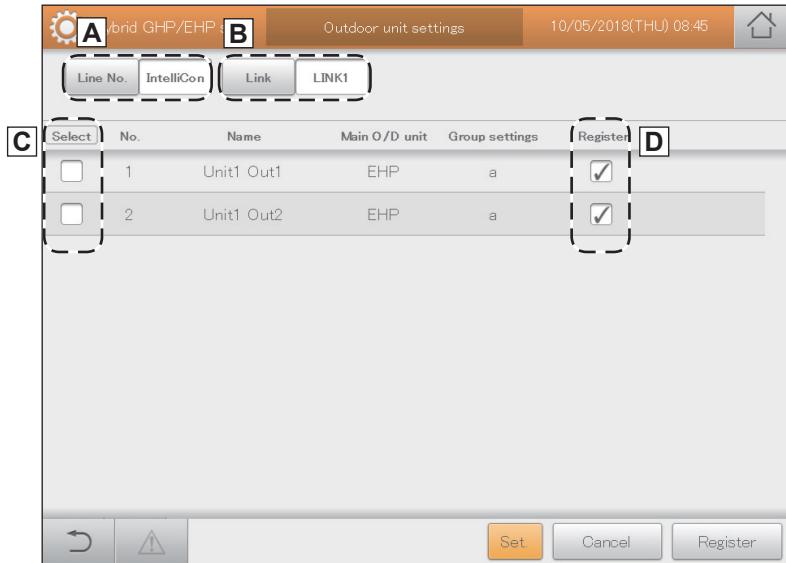


“Outdoor unit settings” screen

Note

- Of the outdoor units registered in the “O/D unit settings” screen (P.146), only those outdoor units that support Hybrid GHP/EHP control are shown. Sub units are also shown, but ON/OFF registration only affects main units.

- A: Shows the circuit (Intelligent controller) that the outdoor unit is connected to.
Currently this is fixed to “IntelliCon”.
- B: Select the linked system that the outdoor unit is connected to.
- C: The outdoor units with a check mark next to them will be the subject of the changes to the settings.
- D: Hybrid GHP/EHP control is enabled for the selected outdoor unit if you put a check mark here.



Viewing the current control status

[Hybrid GHP/EHP O/D unit info]

This shows whether the outdoor unit is compatible or incompatible with Hybrid GHP/EHP control and the current instruction values for Hybrid GHP/EHP control for each outdoor unit.

1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.



4 Check the details (P.181).

Hybrid GHP/EHP stg		Hybrid GHP/EHP O/D unit info			10/05/2018(THU) 08:45		Address	Order	Home
No.	Name	Hybrid G/E compatibl unit	GHP/EHP	Power demand level	Gas demand level	1/2			
1	Unit1 Out1	Yes	GHP	0	0				
2	Unit1 Out2	Yes	EHP	-	-				
3	Unit1 Out3	No	-	-	-				
4	Unit1 Out4	No	-	-	-				

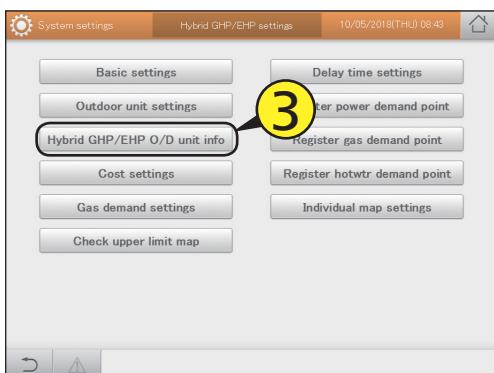
2 Touch [Hybrid GHP/EHP settings].

- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.

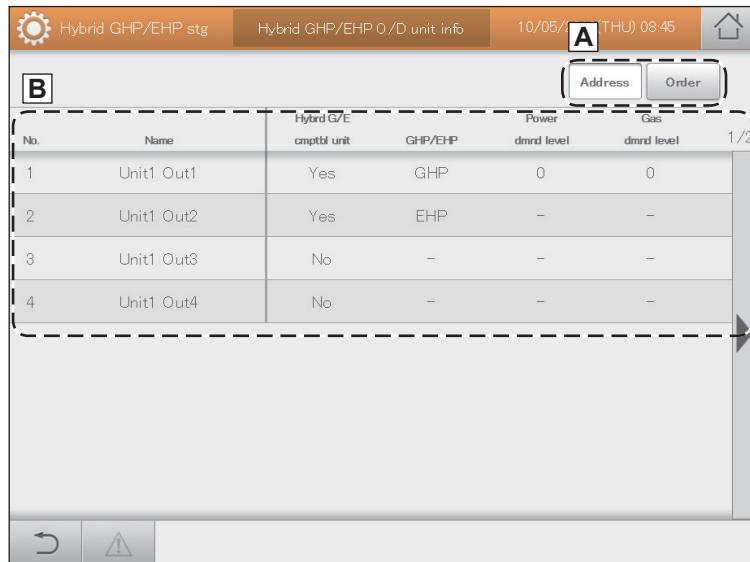


3 Touch [Hybrid GHP/EHP O/D unit info].

- The “Hybrid GHP/EHP O/D unit info” screen is displayed.



“Hybrid GHP/EHP O/D unit info” screen



- A: Change list order. The list order changes each time you touch it.

Display	The display follows the order set in “O/D unit settings” (P.146).
Address	The display follows the address order set in “O/D unit settings” (P.146).

- B: The current control status of each outdoor unit is displayed in a list.

Item	Explanation
Name	The names of the outdoor units are displayed.
Hybrd G/E cmptbl unit	“Yes” is displayed if the unit is Hybrid GHP/EHP compatible. “No” is displayed if the unit is not compatible.
GHP/EHP	Shows whether the unit is GHP or EHP.
Power dmnd level	Shows the current power demand level (0 to 3).
Gas dmnd level	Shows the current gas demand level (0 to 3).
EHP upLmt (%)	Shows the EHP upper limit value that is currently being sent to the outdoor unit.
GHP upLmt (%)	Shows the GHP upper limit value that is currently being sent to the outdoor unit.
Gas dmnd (%)	Shows the gas demand value that is currently being sent to the outdoor unit.
Load factor (%)	Shows the load level calculated from the operating status of the outdoor unit. • Used when referencing the upper limit map.

Setting cost priority control [Cost settings]

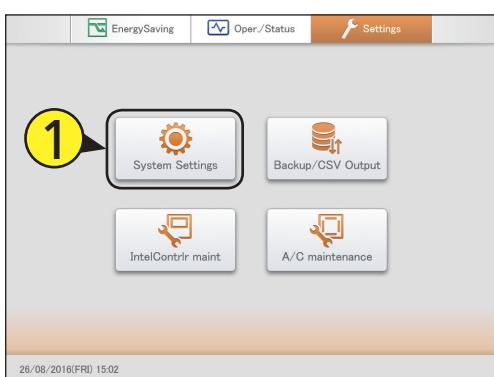
Make settings for power and gas costs used in cost priority control.

A day can be divided into a maximum of 5 time slots, and operation is optimised according to the power costs and gas costs set for each time slot.

- The values set for power costs and gas costs are used when calculating the ratio of power charges and gas charges when using cost priority control.

This means that it doesn't matter what the currency is, but it is necessary to match the scale of the monetary value.

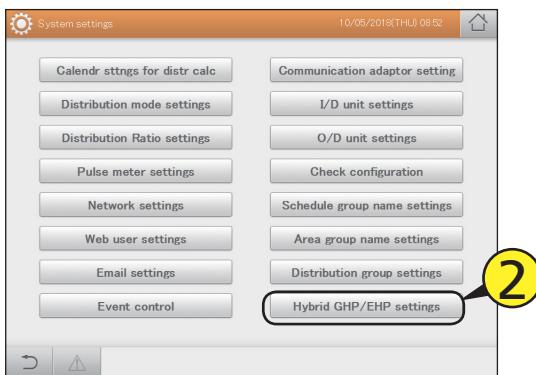
- 1** Touch [System Settings] in "Settings".
● The "System settings" screen is displayed.



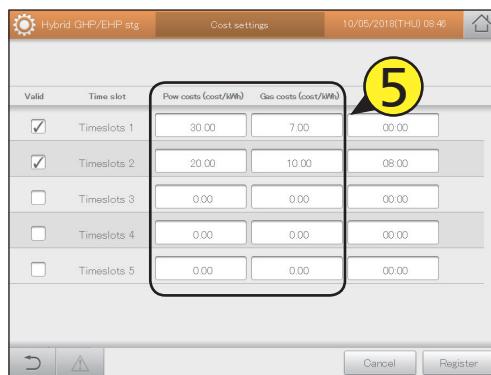
- 4** Put a check mark in the "Valid" column.
● Select the time slot to use.



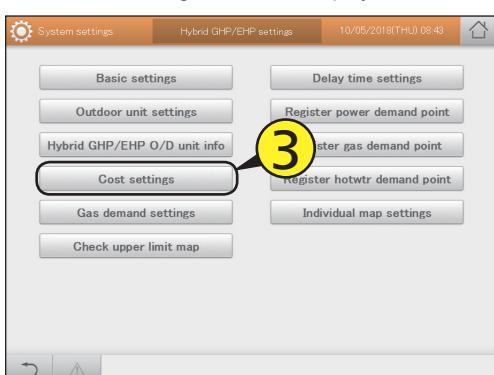
- 2** Touch [Hybrid GHP/EHP settings].
● Enter the identification number (password level 1 or 2) and the "Hybrid GHP/EHP settings" screen is displayed.



- 5** Set the power costs/gas costs.
● The touchscreen numeric keypad appears when you touch the text box.



- 3** Touch [Cost settings].
● The "Cost settings" screen is displayed.

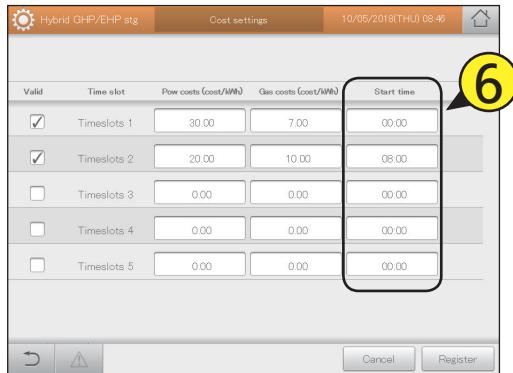


Item	Explanation
Pow costs (cost/kWh)	Set the unit price (0 to 999.99) for each unit of energy. This is used to calculate the power charges when using cost priority control.
Gas costs (cost/kWh)	Set the unit price (0 to 999.99) for each unit of energy. This is used to calculate the gas charges when using cost priority control.

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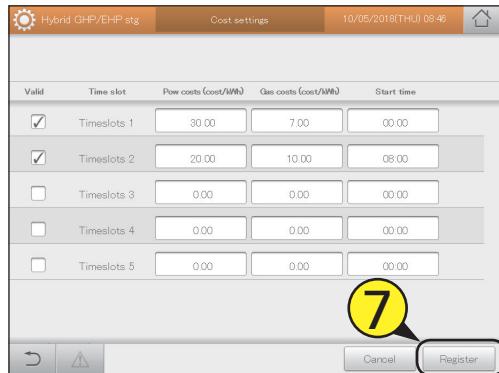
6 Set the start time.

- Touch the text box and the operation dialogue is displayed.
Set in the range 00:00 to 23:59.



7 Touch [Register].

- To cancel the settings, touch [Cancel].



Example start time setting

Time slot settings are referenced when the current time is after the start time and before the start time set thereafter.

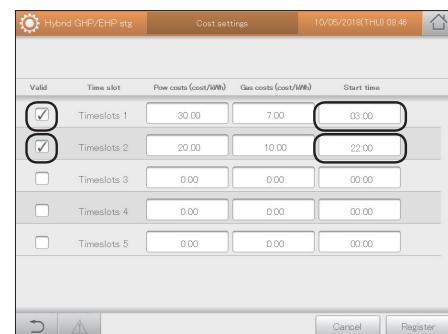
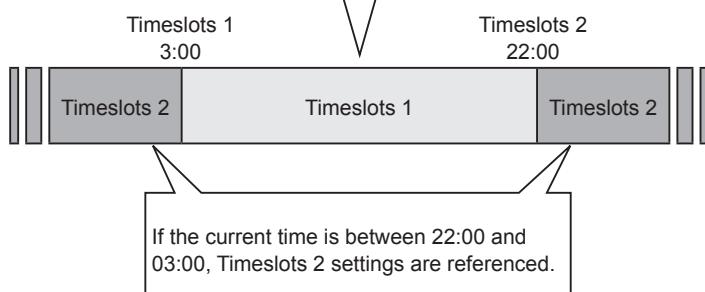
- You can make the settings extend over different dates.
For example: 22:00 to 08:00
- The start time is valid only for those time slots where a check mark has been put in the "Valid" column.

For example:

When set as follows;

- Put a check mark in the "Valid" column for Timeslots 1 and set the start time to 03:00.
- Put a check mark in the "Valid" column for Timeslots 2 and set the start time to 22:00.

If the current time is between 03:00 and 22:00, Timeslots 1 settings are referenced.



Setting gas demand values [Gas demand settings]

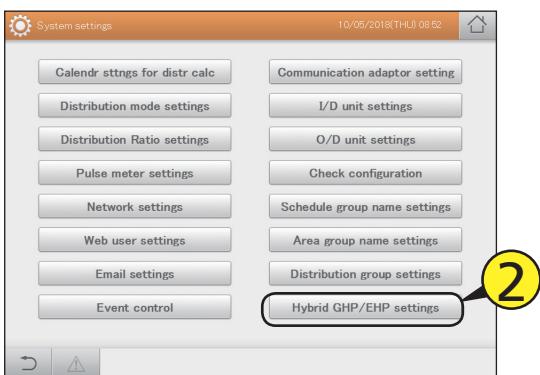
Set the gas demand values instructed to outdoor unit when the gas demand level is between 0 and 3 for each of the groups set in “Outdoor unit settings” (P.177).

- The settings in this screen can be used only when “GHP demand” has been selected in the demand settings in the “Basic settings” screen (P.175).

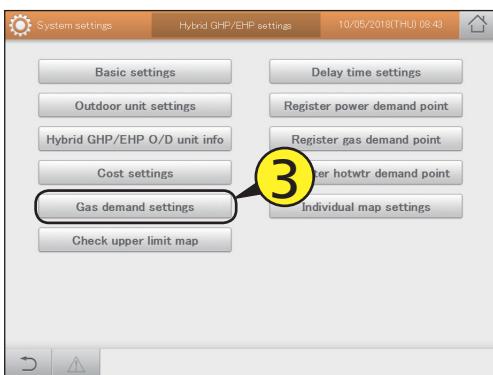
- 1** Touch [System Settings] in “Settings”.
● The “System settings” screen is displayed.



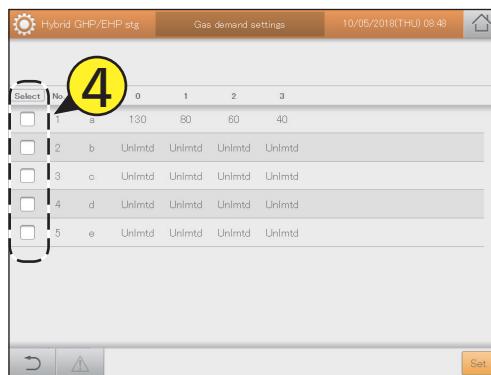
- 2** Touch [Hybrid GHP/EHP settings].
● Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



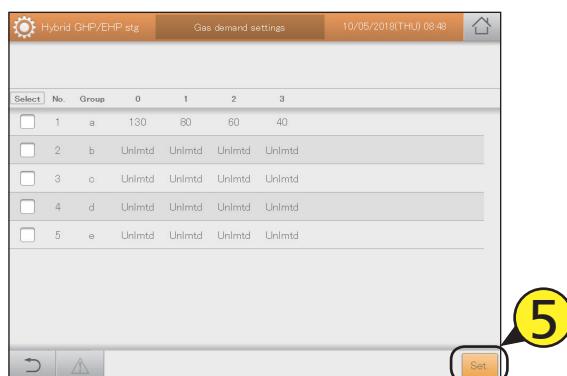
- 3** Touch [Gas demand settings].
● The “Gas demand settings” screen is displayed.



- 4** Put a check mark in the “Select” column.
● Select the group you want to edit.



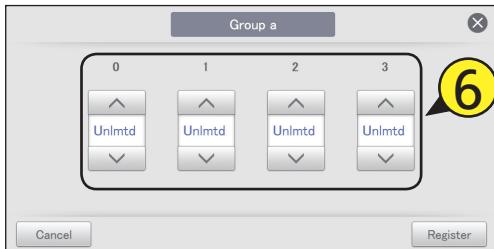
- 5** Touch [Set].
● The operation dialogue is displayed.



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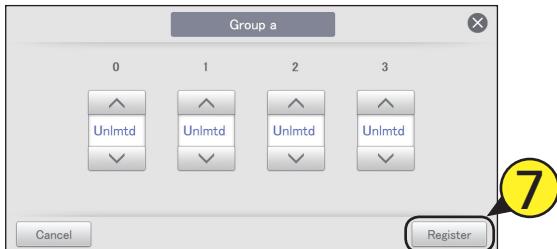
6 Set the gas demand value.

- Set a value for each between level 0 and 3. The settings can be in the range 0 to 130 and "Unlmtd" (unlimited).



7 Touch [Register].

- The settings are registered and the operation dialogue closes.
- To cancel the settings, touch [Cancel].



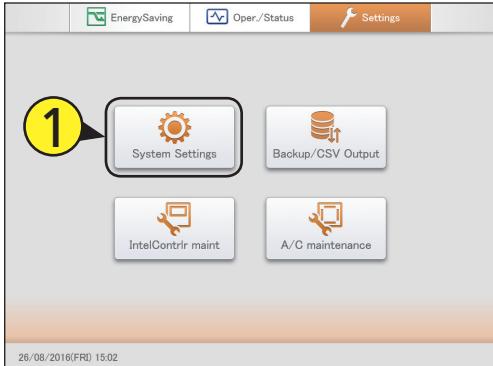
Checking the upper limit map used for cost priority control [Check upper limit map]

You can view the content of the upper limit maps automatically generated based on the costs set in the “Cost settings” screen (P.182).

Automatically generated upper limit maps are generated according to combinations of [Timeslot group], [Mode], and [OutAirTmpSlt], and you can view the content of each upper limit map by selecting each of these.

1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.

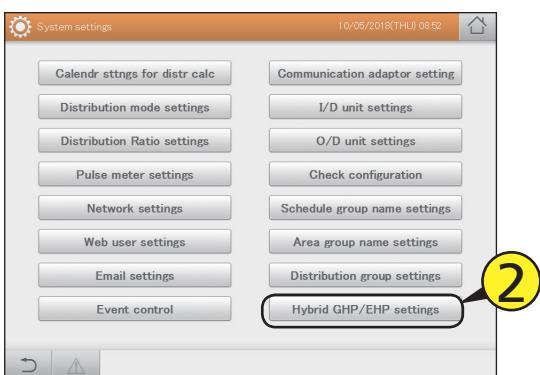


4 Check the details (P.187).

Timeslot group	1	Mode	Cool	OutAirTmpSlt	25
Load level	EHP upl.mt(%)	GHP upl.mt(%)			
<=10	30	0			
<=20	60	0			
<=30	0	45			
<=40	0	60			
<=50	0	75			
<=60	60	60			
<=70	60	75			
<=80	70	85			
<=90	80	95			

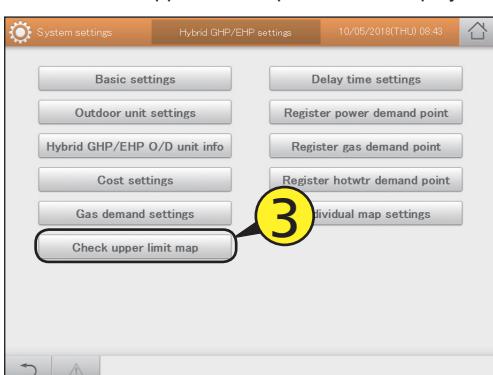
2 Touch [Hybrid GHP/EHP settings].

- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



3 Touch [Check upper limit map].

- The “Check upper limit map” screen is displayed.



“Check upper limit map” screen

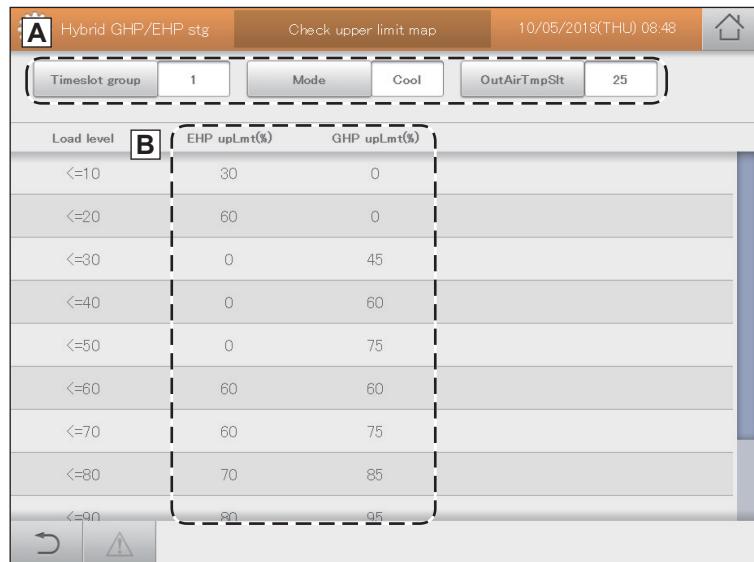
- A: Select the conditions for the upper limit map to display.

Timeslot group	These correspond to the time slots in the “Cost settings” screen. (1 to 5)
Mode	This corresponds to the current operating mode. (Cool/Heat)
OutAirTmpSlit	<p>This corresponds to the current outdoor temperature (per each outdoor system).</p> <ul style="list-style-type: none"> • In cooling mode: 25 °C / 27 °C / 29 °C / 31 °C / 33 °C / 35 °C / 37 °C / 39 °C • In heating mode: -7 °C / -5 °C / -3 °C / 0 °C / 3 °C / 5 °C / 7 °C / 9 °C / 11 °C / 13 °C

- When cooling, if the outdoor temperature is less than 27 °C, the 25 °C map is referenced.
If the outdoor temperature is more than 27 °C and less than 29 °C, the 27 °C map is referenced.
If the outdoor temperature is more than 39 °C, the 39 °C map is referenced.
This concept is the same when heating.

- B: This shows the upper limit value that is referenced when the set conditions are met for each load level.

EHP upLmt (%)	Shows the EHP upper limit value corresponding to the current load level.
GHP upLmt (%)	Shows the GHP upper limit value corresponding to the current load level.



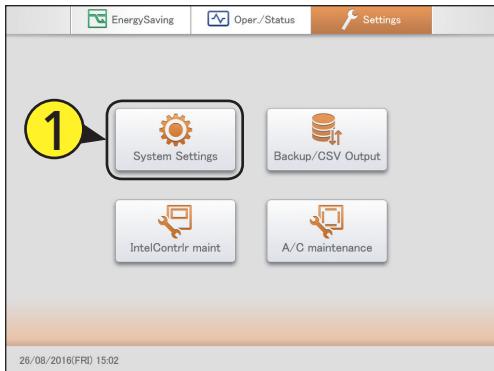
Setting delay times [Delay time settings]

Make settings to delay control when the power or gas demand level either rises or falls.

The delay group setting content for each time slot corresponding to outdoor units is shown in graphs.
(Invalid: Grey / Group 1: Blue / Group 2: Red / Group 3: Green / Group 4: Light blue / Group 5: Yellow)

1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.



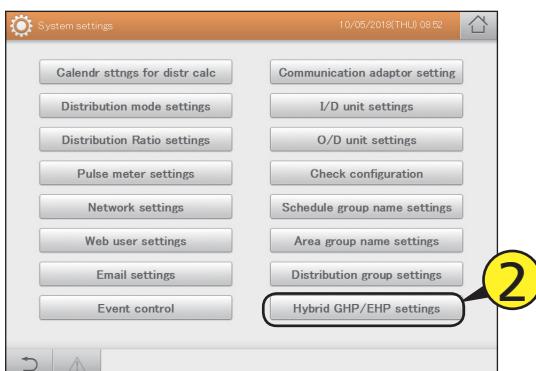
4 Put a check mark in the “Select” column.

- Select the outdoor units you want to edit.



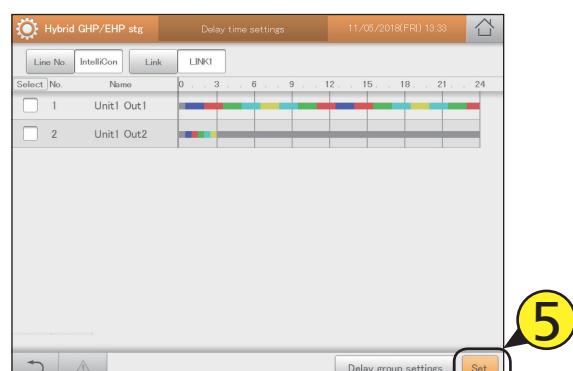
2 Touch [Hybrid GHP/EHP settings].

- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



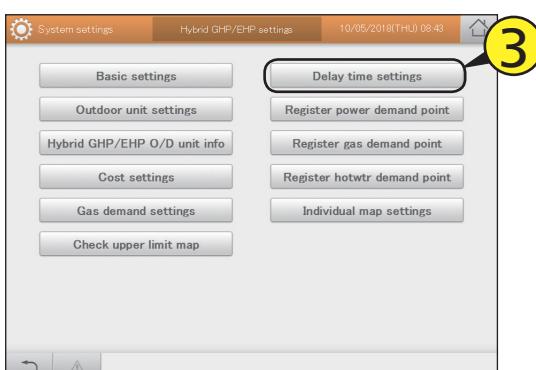
5 Touch [Set].

- The operation dialogue is displayed.



3 Touch [Delay time settings].

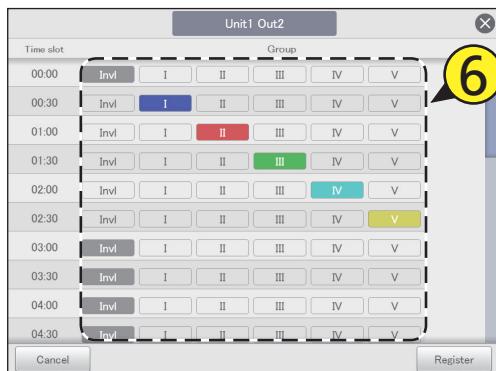
- The “Delay time settings” screen is displayed.



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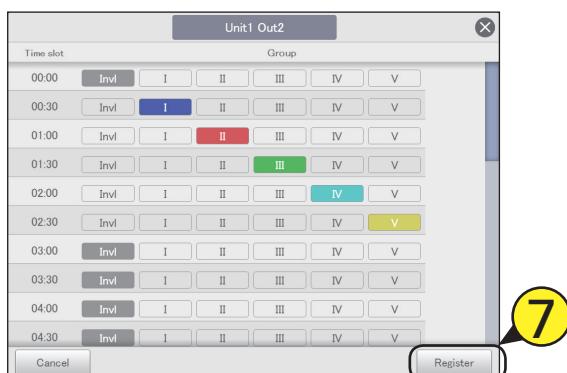
6 Set delay groups for each time slot.

- Set the delay group (I to V) for each 30-minute slot. Touch [Invl] if delay control is not to be used.



7 Touch [Register].

- The settings are registered and the operation dialogue closes.
- To cancel the settings, touch [Cancel].



8 Touch [Delay group settings].

- The "Delay group settings" dialogue is displayed.



9 Put a check mark in the "Select" column.

- Select the demand delay group you want to edit.

Delay group settings				
Select	No.	Demand delay	Ctrl delay time(min)	Release delay(min)
<input type="checkbox"/>	1	Ie	2	4
<input type="checkbox"/>	2	IIe	1	3
<input type="checkbox"/>	3	IIIe	2	4
<input type="checkbox"/>	4	IVe	1	1
<input type="checkbox"/>	5	Ve	0	0
<input type="checkbox"/>	6	Ig	2	4
<input type="checkbox"/>	7	IIg	1	3
<input type="checkbox"/>	8	IIIg	2	4
<input type="checkbox"/>	9	IVg	1	1

Demand delay	Ie to Ve	These correspond to groups 1 to 5 and are referenced when there is a change in the power demand level.
	Ig to Vg	These correspond to groups 1 to 5 and are referenced when there is a change in the gas demand level.
Ctrl delay time (min)		Shows the time (0 to 60 minutes) to delay when the demand level increases.
Release delay (min)		Shows the time (0 to 60 minutes) to delay when the demand level decreases.

10 Touch [Set].

- The operation dialogue is displayed.

Delay group settings				
Select	No.	Demand delay	Ctrl delay time(min)	Release delay(min)
<input type="checkbox"/>	1	Ie	2	4
<input type="checkbox"/>	2	IIe	1	3
<input type="checkbox"/>	3	IIIe	2	4
<input type="checkbox"/>	4	IVe	1	1
<input type="checkbox"/>	5	Ve	0	0
<input type="checkbox"/>	6	Ig	2	4
<input type="checkbox"/>	7	IIg	1	3
<input type="checkbox"/>	8	IIIg	2	4
<input type="checkbox"/>	9	IVg	1	1

10

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11 Set the control delay time/release delay time.



Item	Explanation
Ctrl delay time (min)	Set the time (0 to 60 minutes) to delay when the demand level increases.
Release delay time (min)	Set the time (0 to 60 minutes) to delay when the demand level decreases.

12 Touch [Register].

- The settings are registered and the operation dialogue closes.
- To cancel the settings, touch [Cancel].

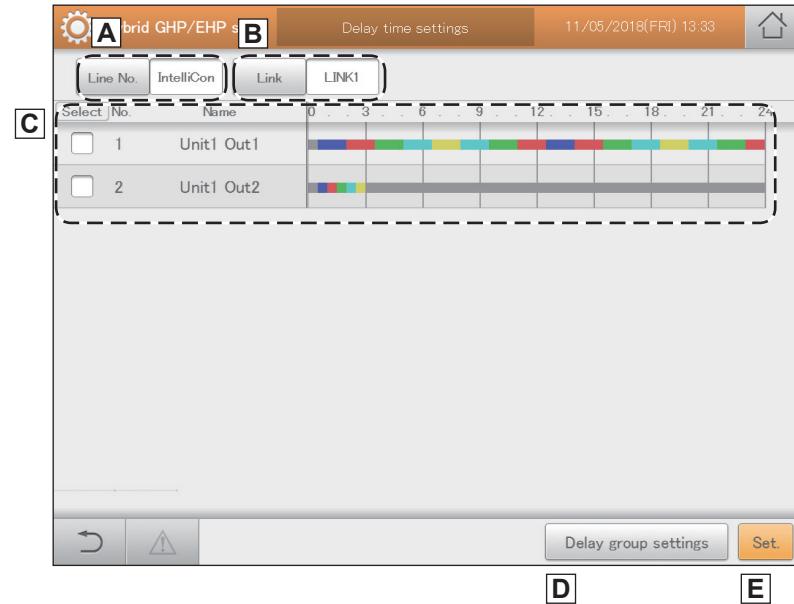


“Delay time settings” screen

Note

- Of the outdoor units registered in the “O/D unit settings” screen (P.146), only those outdoor units that support Hybrid GHP/EHP control are shown. Sub units are also shown, but the setting only affects main units.

- Shows the circuit (Intelligent controller) that the outdoor unit is connected to.
Currently this is fixed to “IntelliCon”.
- Select the linked system that the outdoor unit is connected to.
- The delay group setting content for each time slot corresponding to outdoor units is shown in graphs.
- The “Delay group settings” screen is displayed when you touch this.
- When you touch this, you can make settings for the delay groups for each outdoor unit time slot with a check mark in the “Select” column.



Registering the power demand point inputs

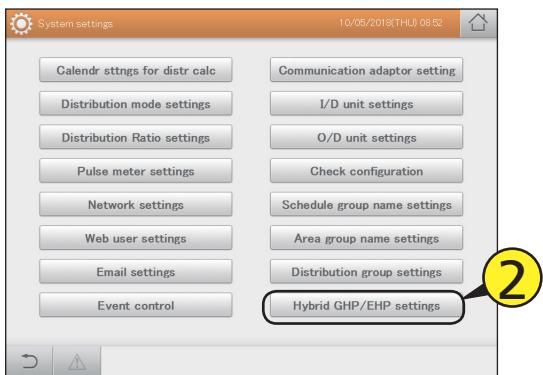
[Register power demand point]

Register the Di terminal of the main unit or the communication adaptor that inputs the power demand point when an external equipment is connected.

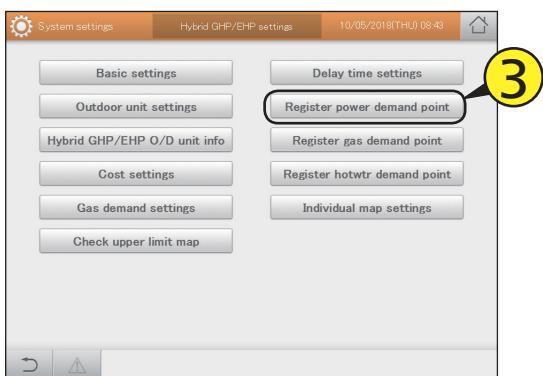
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [Hybrid GHP/EHP settings].
- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



- 3** Touch [Register power demand point].
- The “Register power demand point” screen is displayed.

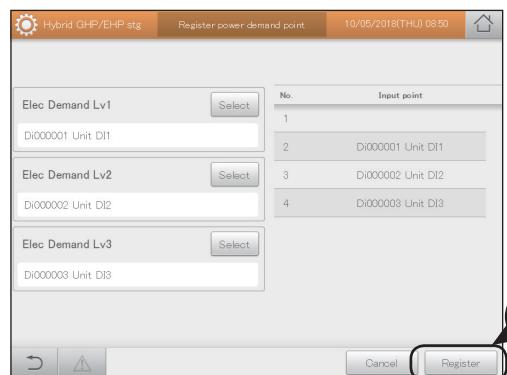


- 4** Select the Di terminal of the main unit or communication adaptor from the list at right (4-1) and touch [Select] (4-2).

- Set the demand points (“Elec Demand Lv1”, “Elec Demand Lv2”, and “Elec Demand Lv3”).
- You can change the names displayed for each of the demand points. Touch the text box and change with the touchscreen keyboard. (Enter a name up to 16 alphanumeric characters)



- 5** Touch [Register].
- To cancel the settings, touch [Cancel].



Registering the gas demand point inputs

[Register gas demand point]

Register the Di terminal of the main unit or the communication adaptor that inputs the gas demand point when an external equipment is connected.

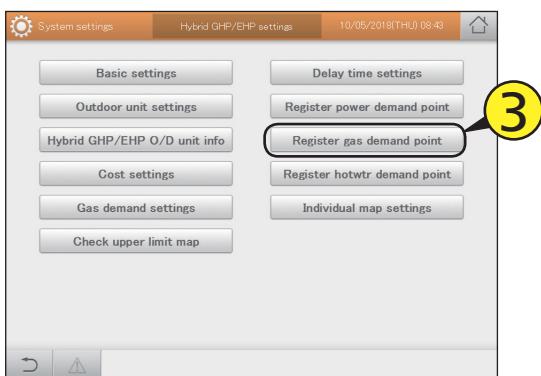
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [Hybrid GHP/EHP settings].
- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



- 3** Touch [Register gas demand point].
- The “Register gas demand point” screen is displayed.

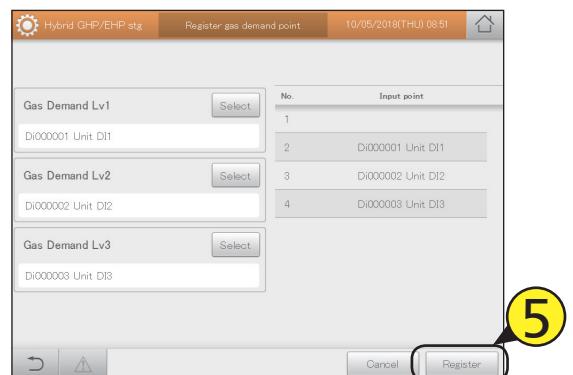


- 4** Select the Di terminal of the main unit or communication adaptor from the list at right (4-1) and touch [Select] (4-2).

- Set the demand points (“Gas Demand Lv1”, “Gas Demand Lv2”, and “Gas Demand Lv3”).
- You can change the names displayed for each of the demand points. Touch the text box and change with the touchscreen keyboard. (Enter a name up to 16 alphanumeric characters)



- 5** Touch [Register].
- To cancel the settings, touch [Cancel].



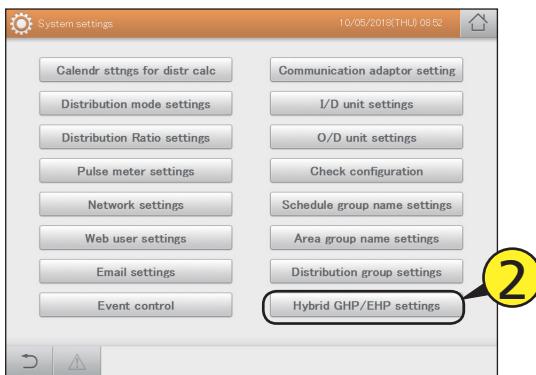
Registering the hot water demand point inputs [Register hot water demand point]

Register the Di terminal of the main unit or the communication adaptor that inputs the hot water demand point when an external equipment is connected.

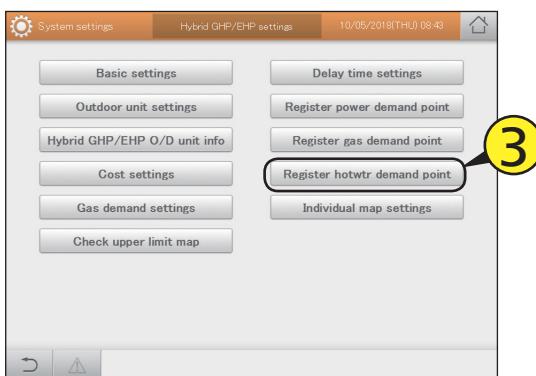
- 1** Touch [System Settings] in “Settings”.
- The “System settings” screen is displayed.



- 2** Touch [Hybrid GHP/EHP settings].
- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.



- 3** Touch [Register hotwtr demand point].
- The “Register hot water demand point” screen is displayed.

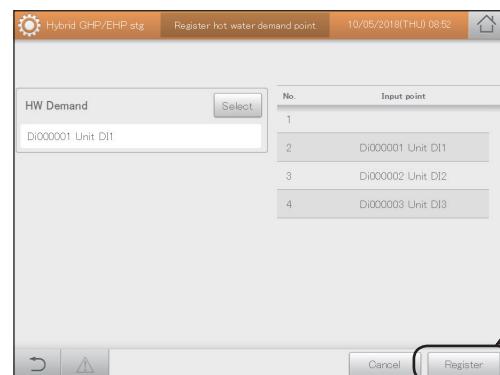


- 4** Select the Di terminal of the main unit or communication adaptor from the list at right (4-1) and touch [Select] (4-2).

- Set the demand point (“HW Demand”).
- You can change the names displayed for demand points. Touch the text box and change with the touchscreen keyboard. (Enter a name up to 16 alphanumeric characters)



- 5** Touch [Register].
- To cancel the settings, touch [Cancel].



Using individually set upper limit maps

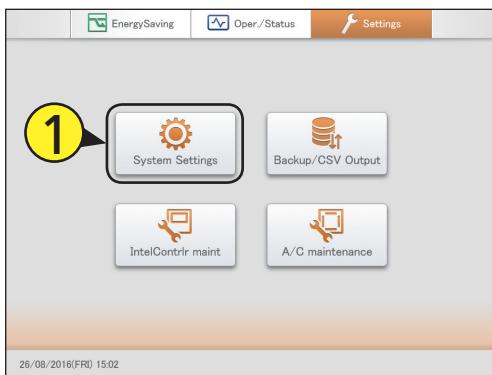
[Individual map settings]

You can use your own upper limit map to perform Hybrid GHP/EHP control.

- If you have used this screen to make the setting to use an individual map, the Hybrid GHP/EHP control mode settings made in the “Basic settings” screen (P.175) are not used, and the upper limit map made with these settings is prioritised.

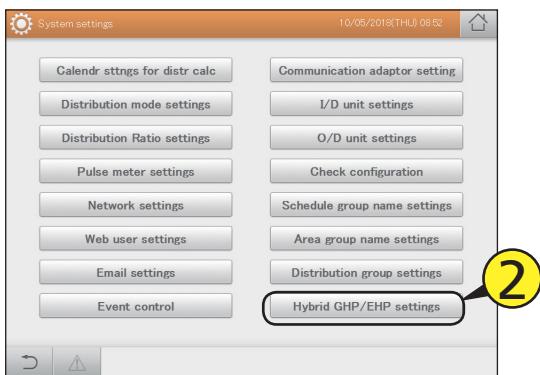
1 Touch [System Settings] in “Settings”.

- The “System settings” screen is displayed.



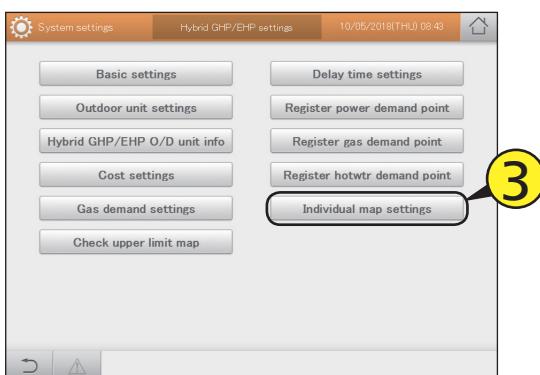
2 Touch [Hybrid GHP/EHP settings].

- Enter the identification number (password level 1 or 2) and the “Hybrid GHP/EHP settings” screen is displayed.

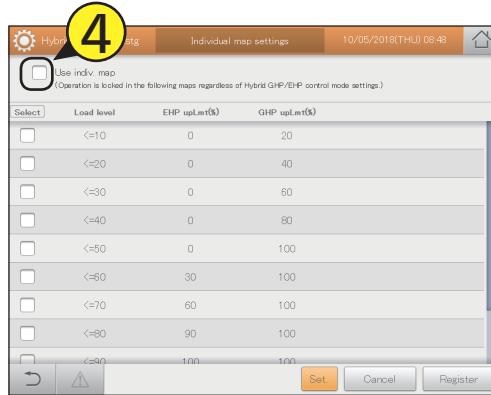


3 Touch [Individual map settings].

- The “Individual map settings” screen is displayed.



4 Put a check mark in “Use indiv. map”.



5 Touch [Register].

- To cancel the settings, touch [Cancel].



6 Put a check mark in the “Select” column.

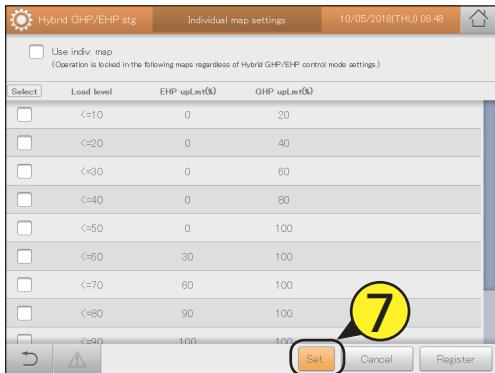
- Select the load level to edit.



Continued on next page

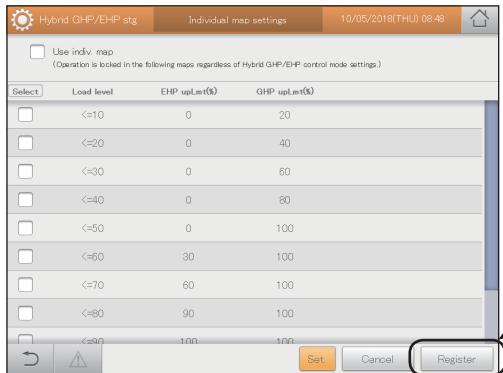
7 Touch [Set].

- The operation dialogue is displayed.



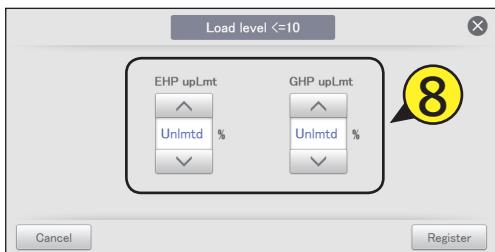
10 Touch [Register].

- To cancel the settings, touch [Cancel].



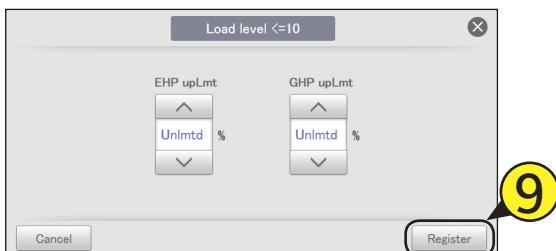
8 Set EHP upper limit value/GHP upper limit value.

- Set a value for both EHP upper limit value and GHP upper limit value.
- The settings can be in the range 0 to 130 and "Unlmted" (unlimited).



9 Touch [Register].

- The settings are registered and the operation dialogue closes.
- To cancel the settings, touch [Cancel].



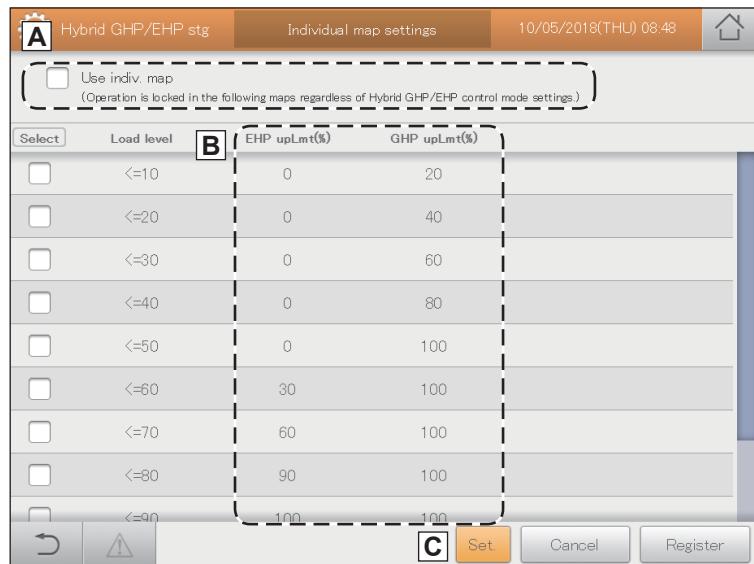
“Individual map settings” screen

A: The individual map is used irrespective of the Hybrid GHP/EHP control settings when you put a check mark here.

B: This shows the upper limit value that is referenced when the set conditions are met for each load level.

EHP upLmt (%)	Shows the EHP upper limit value corresponding to the current load level.
GHP upLmt (%)	Shows the GHP upper limit value corresponding to the current load level.

C: When you touch this, the operation dialogue is displayed for load levels with a check mark in the “Select” column.



Maintenance settings



IntelContrlr maint

This chapter explains how to set the date and time, and other adjustments such as the volume and the brightness of the screen.

Screen menu	Overview	Page
Display/Volume settings	Adjust the brightness of the unit's screen and the sound of the buzzer.	199
Intelligent Controller info	Register the contacts for servicing (telephone numbers) for this unit.	200
Software update	Update the software for this unit.	201
Initialize	Initialise the settings for this unit. The user not initialise under any circumstances.	202
Language&TimeZone sttngs	Set the language to be used when setting and operating this unit.	205
Date settings	Manually set the date and time.	204



A/C maintenance

Screen menu	Overview	Page
Test run	Perform a test operation of the indoor unit after installing this unit.	207
A/C communication settings	Make settings such as the communications protocol between this unit and the air conditioning units.	210
Maintenance information	Register the units that will require maintenance.	212

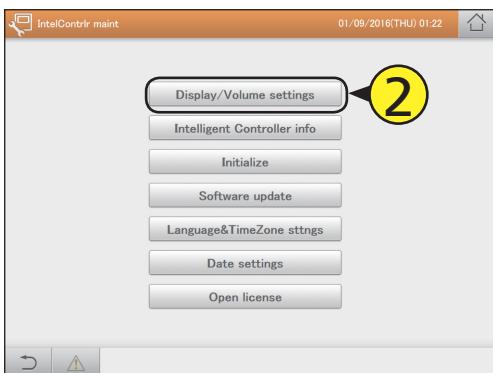
Setting the screen display and volume for this unit

You can adjust the brightness of the screen or adjust the buzzer sound.

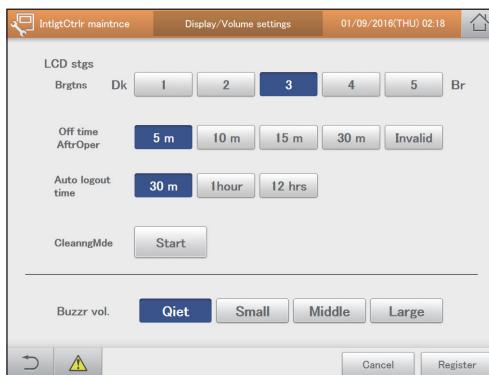
- 1** Touch [IntelContrlr maint] in “Settings”.
- The “IntelContrlr maint” screen is displayed.



- 2** Touch [Display/Volume settings].
- Enter the identification number (password level 1 or 2) and the “Display/Volume settings” screen is displayed.



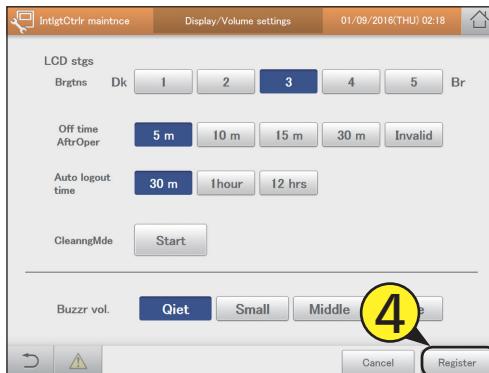
- 3** Change the settings.



Item	Explanation
Brgtns	Adjust the brightness of the back light in 5 steps (1 to 5).
Off time AfrOper	If there are no screen operations after the specified time* is exceeded, the backlight turns off automatically and the operation is locked. <ul style="list-style-type: none">To unlock, touch the screen and enter your identification number (password). (P.22)If the identification number (password) is not set, it is not necessary to enter the identification number (password).The back light does not turn off if you touch [Invalid]. * The actual time can differ by about a minute.
CleaningMde	All operations are disabled on the liquid crystal display when you touch this [Start] so that you can clean it. This is cancelled when you touch [END].
Auto logout time	Log out automatically after the specified time. ("30 m", "1hour", or "12 hrs")
Buzzr vol.	You can adjust the volume of the buzzer. No sound is output if you touch [Quiet].

- 4** Touch [Register].

- To cancel the settings, touch [Cancel].



Register the contacts for servicing for this unit

Register the contacts for servicing (telephone numbers) for this unit.

- 1** Touch [IntelContrlr maint] in “Settings”.
- The “IntelContrlr maint” screen is displayed.



- 2** Touch [Intelligent Controller info].
- Enter the identification number (password level 1 or 2) and the “Show service contact info.” screen is displayed.



- 3** Touch the text box.
- The touchscreen keyboard is displayed.



- 4** Enter the telephone number.

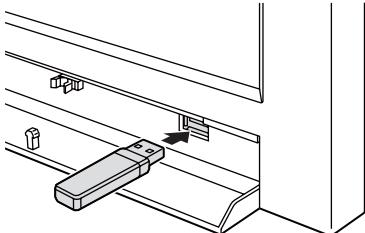
- 5** Touch [Register].
- To cancel the settings, touch [Cancel].



Update the software

Update the software for this unit from a USB memory device.
A service person should perform this operation.

- 1 Open the storage door and connect a USB memory device to the USB terminal.



- 2 Touch [IntelContrlr maint] in "Settings".



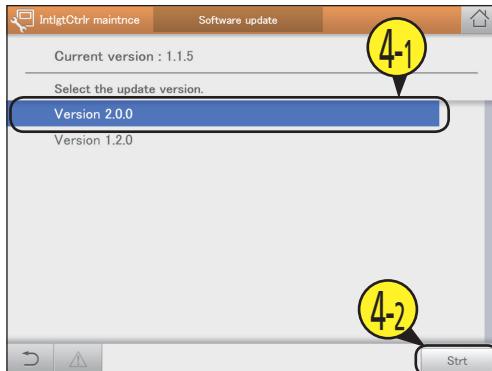
- 3 Touch [Software update].

- Enter the identification number (password level 1 or 2) and the "Software update" screen is displayed.



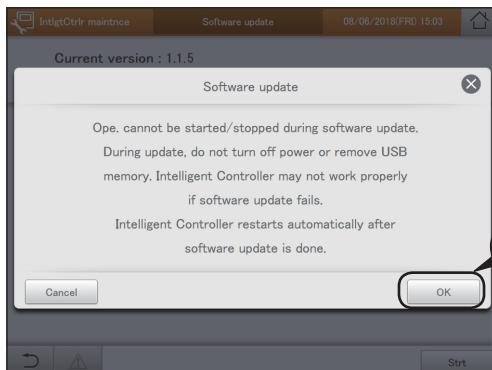
- 4 Select the version to update (4-1) and touch [Strt] (4-2).

- The software update confirmation message is displayed.



- 5 Touch [OK].

- A confirmation message appears again.
- To cancel the update, touch [Cancel].



- 6 Touch [Update].

- The update starts. The progress of the update is shown as a percentage.
- The unit automatically restarts when updating is complete.

Initialising the unit and setting log levels

Initialise the unit and set an identification number (password) and log output levels.



All data is deleted when you initialise.

Unless you are the administrator, do not initialise under any circumstances.

- 1 Touch [IntelContrlr maint] in “Settings”.
- The “IntelContrlr maint” screen is displayed.



- 2 Touch [Initialize].
- Enter the identification number (password level 2) and the “Initialize” screen is displayed.



Initialising

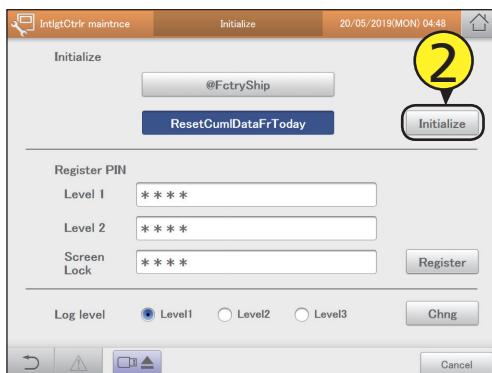
- 1 Select the type of initialisation.



Item	Explanation
@FctryShip	All data (settings, accumulated data, distribution data) is deleted.
ResetCumlDataFrToday	The accumulated data for the day is deleted. Use this after performing a test operation of the air conditioning units, for example.

- 2 Touch [Initialize].

- Several confirmation messages will be displayed, so touch [Yes] each time.
- Initialisation starts.
- When initialising is complete, the message “Settings were reset. IntelligentCtrlr is restarting...” is displayed.

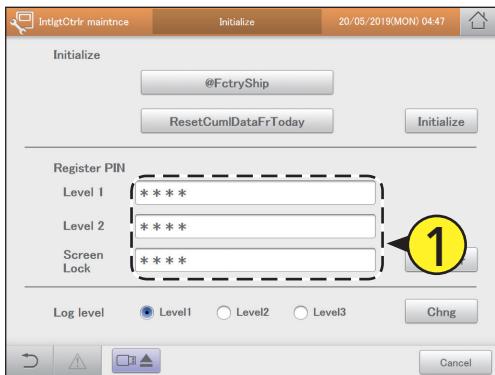


Setting the PIN (identification number)

Some menus require you to enter an identification number (password) to perform settings and operations.
If you wish to operate after the screen turns off, entering the identification number (password) can disable the operation by the third party.
There are identification numbers (password) for Level 1, Level 2, and screen lock release.

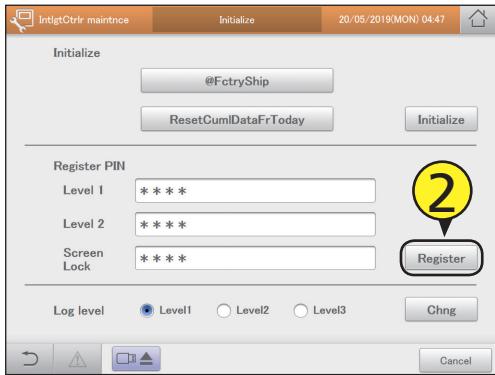
1 Enter an identification number.

- The touchscreen keyboard appears when you touch the text box.
- Use an identification number of at least 4 characters (Ensure both numbers and letters are included).



2 Touch [Register].

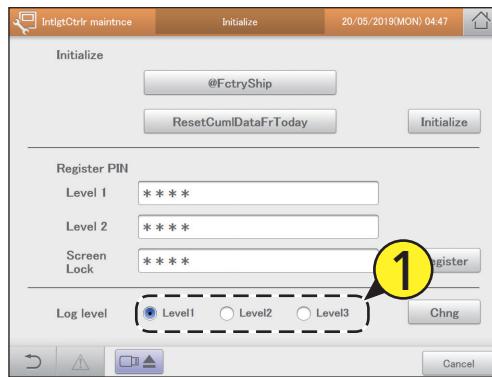
- The setting is registered.



Set the log output level

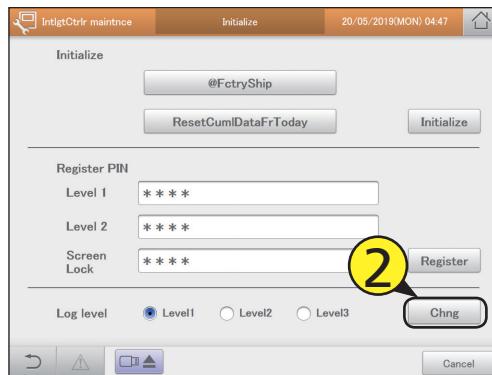
Set a level for outputting the log data recorded in this unit. The content of the log data output differs according to the log level that is set.

1 Select the log level.



2 Touch [Chng].

- The setting is registered.



Setting the date and time

Manually set the date and time. This setting is not necessary if you are using the NTP server (P.123).

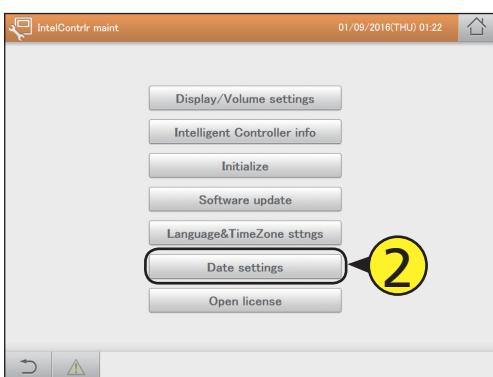
1 Touch [IntelContrlr maint] in “Settings”.

- The “IntelContrlr maint” screen is displayed.

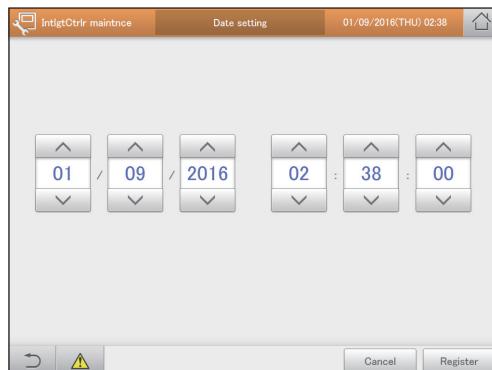


2 Touch [Date settings].

- Enter the identification number (password level 1 or 2) and the “Date setting” screen is displayed.



3 Setting the date and time.



Item	Explanation
Day Month Year	Set the date. Use to set “Day”, “Month”, and “Year”.
Hours* Minutes Seconds	Set the time. Use to set “Hours”, “Minutes”, and “Seconds”. * The time system for “Hours” is 24 hours.

4 Touch [Register].

- To cancel the settings, touch [Cancel].



Note

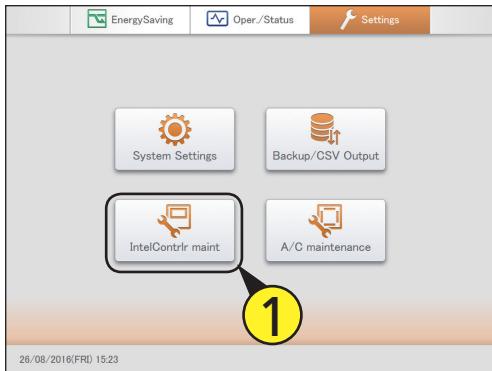
- Do not turn back the time manually by 30 minutes or more.
Errors may occur in the basic settings on the indoor unit, and distribution results may be affected.

Setting the language and time zone

Set the language to be used when setting and operating this unit. The languages available on this unit are English (US), English (UK), German, Italian, French, Spanish, and Portuguese.
Set the time zone to suit the language to be used.

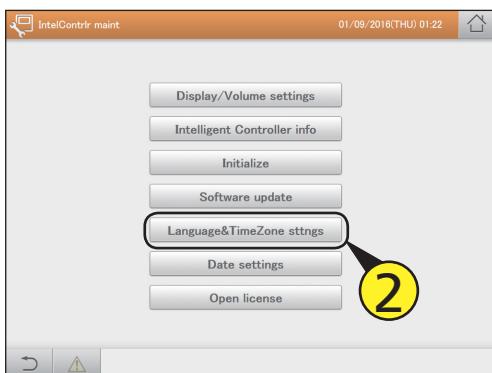
1 Touch [IntelContrlr maint] in "Settings".

- The "IntelContrlr maint" screen is displayed.



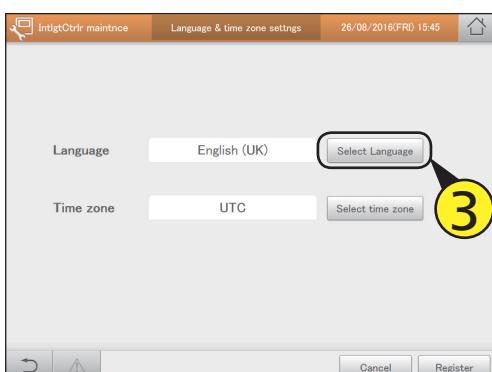
2 Touch [Language&TimeZone sttngs].

- Enter the identification number (password level 2) and the "Language & time zone settings" screen is displayed.



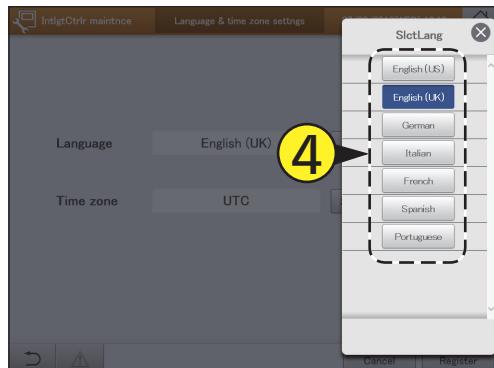
3 Touch [Select Language].

- The "SlctLang" dialogue is displayed.



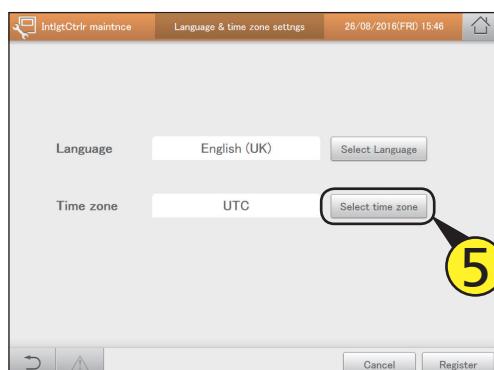
4 Select the language to display.

- You can set [English (US)], [English (UK)], [German], [Italian], [French], [Spanish], and [Portuguese].
- The settings are registered and the "SlctLang" dialogue closes.



5 Touch [Select time zone].

- The "Select time zone" dialogue is displayed.

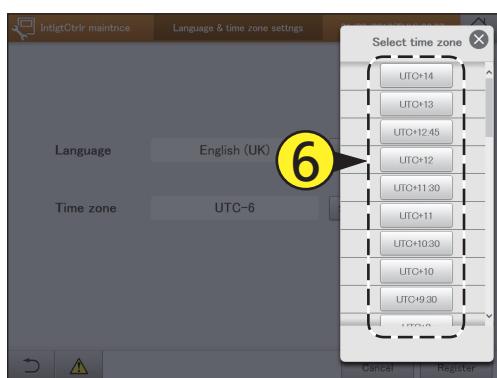


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6

Select the time zone to display.

- You can select [UTC-12] to [UTC-1], [UTC], and [UTC+1] to [UTC+14]. Find the difference between the time in the installation location of the intelligent controller and Coordinated Universal Time (UTC). If the former is 1 hour ahead of the latter, for example, select [UTC+1].
- The settings are registered and the “Select time zone” dialogue closes.



7

Touch [Register].

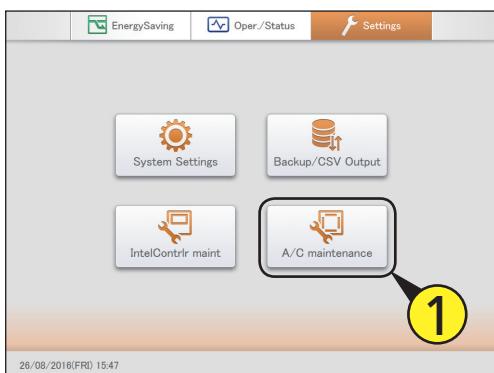
- The settings are registered and the unit automatically restarts.
- To cancel the settings, touch [Cancel].



Running a test operation

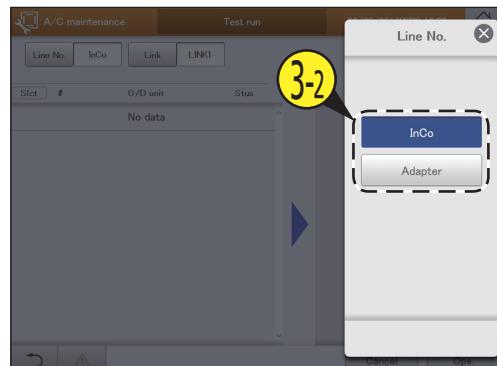
You can run test operations for indoor units for each outdoor unit system address.

- 1** Touch [A/C maintenance] in “Settings”.
- The “A/C maintenance” screen is displayed.

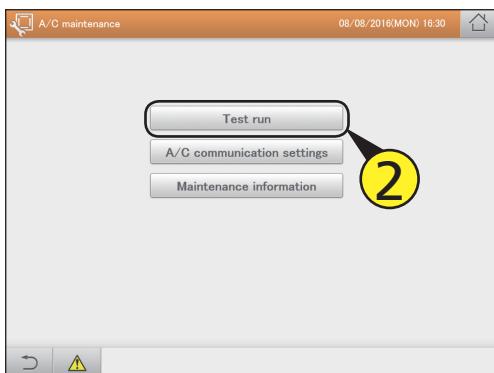


(2) Select the line number.

- The settings are registered and the “Line No.” dialogue closes.



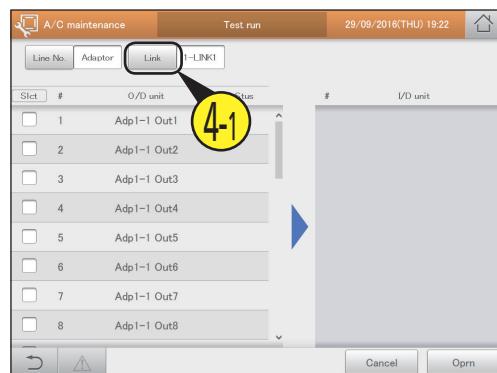
- 2** Touch [Test run].
- Enter the identification number (password level 2) and the “Test run” screen is displayed.



4 Select the link.

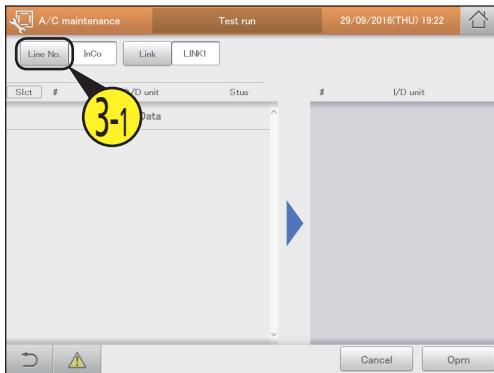
(1) Touch [Link].

- The “Link” dialogue is displayed.



- 3** Select the line number.
- (1) Touch [Line No.].**

- The “Line No.” dialogue is displayed.



(2) Select the linked system you want to run the test operation for.

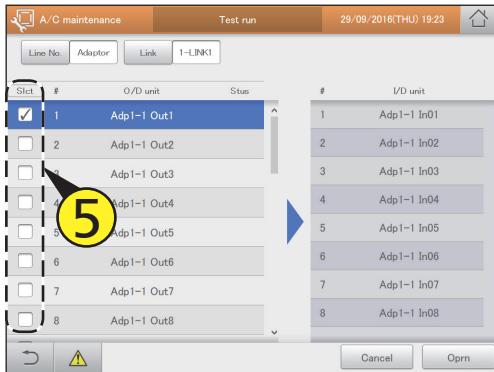
- The settings are registered and the “Link” dialogue closes.
- The outdoor units in the selected linked system are displayed in a list.



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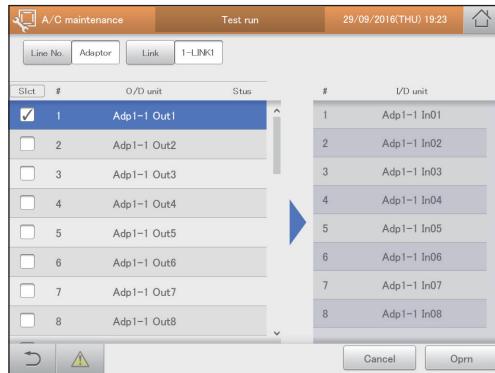
5 Put a check mark in the “Select” column.

- Select the outdoor units you want to run a test operation for.
- You can select multiple outdoor units.



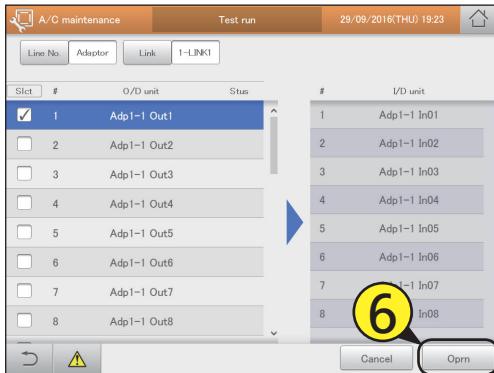
8 Check the “Stus” column.

- During the test operation, the operation mode is shown in the “Stus” column (❄️ for cooling and ☀️ for heating).



6 Touch [Oprn].

- The operation dialogue is displayed.



9 To stop the test operation, touch [Oprn], then touch [OFF] in the operation dialogue.

7 Select the operation mode ([Cool] or [Heat]) (7-1) and touch [ON] (7-2).

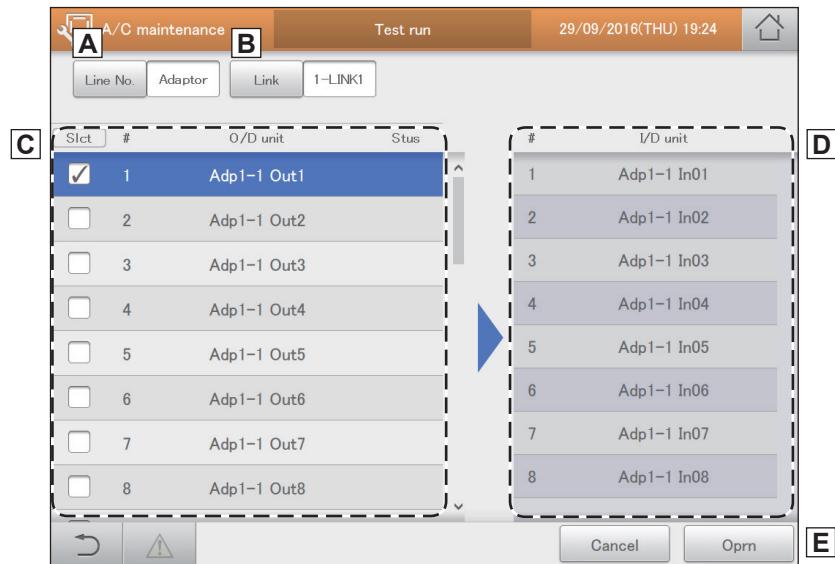
- The settings are registered and the operation dialogue closes.
- The test operation starts.



The “Test run” screen

- A: Select the line numbers of the outdoor units you want to run a test operation for. The “Line No.” dialogue is displayed when you touch this.
- B: Set the link system of the outdoor units you want to run a test operation for. The “Link” dialogue is displayed when you touch this.
- C: Outdoor units are displayed in a list.

Item	Explanation
Slt	Select the outdoor units you want to run a test operation for.
O/D unit	The outdoor units in the linked system selected at B are displayed.
Stus	The operation mode while testing operation is displayed.

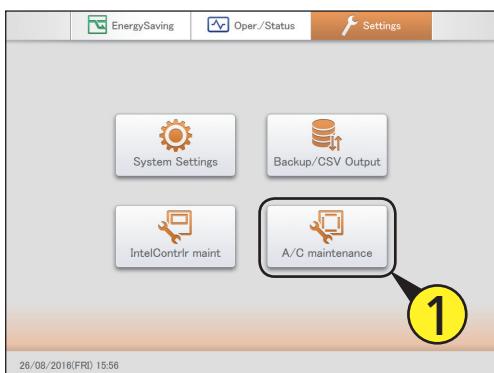


- D: The indoor units that are connected to outdoor units with a check mark in C are displayed.
- E: Test operation is performed. The operation dialogue is displayed when you touch this.

Setting communications with air conditioning units

Make settings such as the communications protocol between this unit and the air conditioning units.
There are three stages to these settings.

1 Touch [A/C maintenance] in “Settings”.

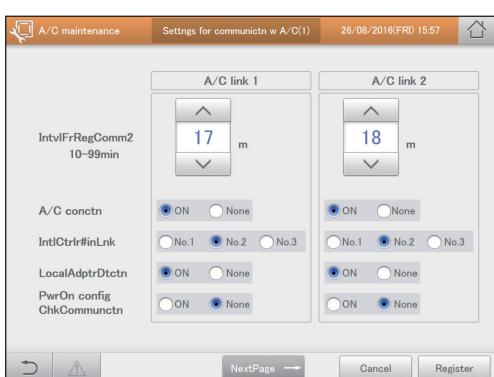


2 Touch [A/C communication settings].

- Enter the identification number (password level 2) and the “Settings for communictn w A/C(1)” screen is displayed.



3 Change the settings.

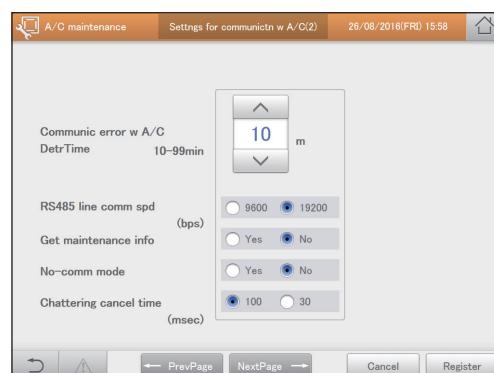


Item	Explanation
IntlCtrlr#inLnk	If there are multiple intelligent controllers within the link, set the sub units to No. 2 and No. 3. <ul style="list-style-type: none"> If there is no main unit (No. 1) within the link, indoor units without remote controllers may emit an E03 warning.
LocalAdptrDtctn	If you have interface adaptors connected in the system, set to “ON” so that this unit recognises interface adaptors.
PwrOn config ChkCommuncntn	When you have added indoor units or otherwise changed the configuration of the system, set to “ON” so that the unit checks the configuration.

4 Touch [NextPage →].

- The “Settings for communictn w A/C(2)” screen is displayed.
- To cancel the settings, touch [Cancel].

5 Change the settings.



Item	Explanation
Communic error w A/C DetrTime	Set the judgement time (10 to 99) when an error occurs between this unit and the air conditioning units. Use <input type="button" value="^"/> <input type="button" value="v"/> to set the value.
RS485 line comm spd (bps)	Set the communications speed between this unit and the air conditioning units (9600 or 19200). <ul style="list-style-type: none"> Set “19200” under normal circumstances.
No-comm mode	There is no communication with the air conditioning units if you set this to “No”. Set this when communication with the air conditioning units is incomplete (not set up, no power, etc.) and you just want to confirm items such as registered names, etc.

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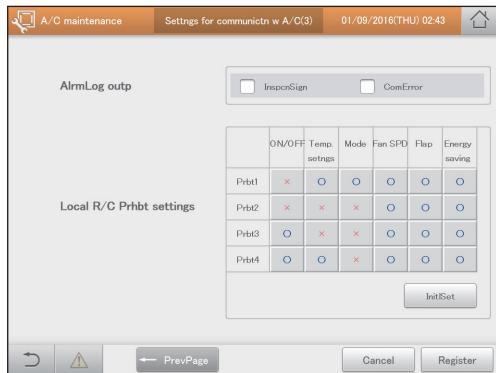
Item	Explanation
IntvlFrRegComm2	Set the communications interval between this unit and the air conditioning units (10 to 99). Use <input type="button" value="^"/> <input type="button" value="v"/> to set a value for each linked system.
A/C conctn	Set whether air conditioning units are connected for each linked system.

Item	Explanation
Chattering cancel time (msec)	Set the time until cancelling when chattering occurs.

6 Touch [NextPage →].

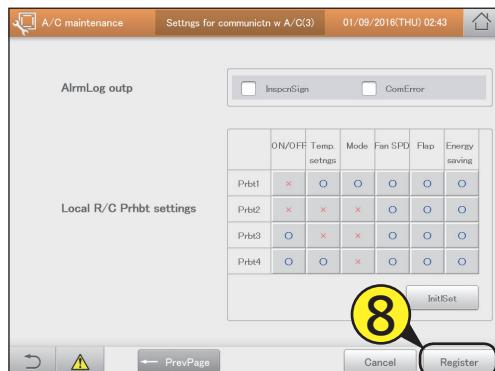
- The “Settings for communictn w A/C(3)” screen is displayed.
- To return to the “Settings for communictn w A/C(1)” screen, touch [← PrevPage].
- If you touch [Cancel], all the settings up to that point are cancelled.

7 Change the settings.



8 Touch [Register].

- All of the settings are registered.
- If you touch [Cancel], all the settings up to that point are cancelled.



Item	Explanation
AlrmLog outp	Select whether to output alarm logs. Alarm mails are not sent if the check mark is removed. You can select only the following checks and alarms. Others are executed irrespective of the setting. <ul style="list-style-type: none"> InspcnSign: <ul style="list-style-type: none"> Filter sign Engine oil check Remote controller display check ComError: <ul style="list-style-type: none"> C17 alarm (communication error between the unit and the air conditioning unit) C06 alarm (communication error between the unit and the communication adaptor)
Local R/C Prhbt settings	Set “Prbt1” to “Prbt4” for each item (“ON/OFF”, “Temp. settings”, “Mode”, “Fan SPD”, “Flap”, or “Energy saving”) to set whether to permit or prohibit operations and settings with the local remote controller. Each time you touch either “○” or “×” is displayed. <ul style="list-style-type: none"> “○”: Operation and setting with the local remote controller is enabled “×”: Operation and setting with the local remote controller is prohibited Touch [InitlSet] to restore the default factory settings.

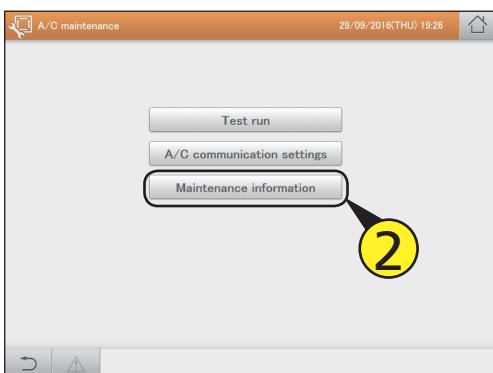
Ignoring alarms from the units

Register the units that will require maintenance. By registering them, this unit will ignore the alarms, etc., transmitted by the units.

- 1** Touch [A/C maintenance] in “Settings”.
- The “A/C maintenance” screen is displayed.



- 2** Touch [Maintenance information].
- Enter the identification number (password level 1 or 2) and the “Register maintenance information” screen is displayed.



- 3** Put a check mark in the “Register” column of the target unit.

No.	Name	Address	Alarm	Register
1	Adp1-1 In01	01-01	A02	<input type="checkbox"/>
2	Adp1-1 In02	02-01		<input type="checkbox"/>
3	Adp1-1 In03	03-01	A01	<input checked="" type="checkbox"/>
4	Adp1-1 In05	05-01		<input type="checkbox"/>
5	Adp1-1 In06	06-01		<input type="checkbox"/>
6	Adp1-1 In07	07-01		<input type="checkbox"/>
7	Adp1-1 In08	08-01		<input type="checkbox"/>
8	Adp1-1 In09	09-01		<input type="checkbox"/>

- 4** Touch [Register].
- To cancel the settings, touch [Cancel].

No.	Name	Address	Alarm	Register
1	Adp1-1 In01	01-01	A02	<input checked="" type="checkbox"/>
2	Adp1-1 In02	02-01		<input checked="" type="checkbox"/>
3	Adp1-1 In03	03-01	A01	<input checked="" type="checkbox"/>
4	Adp1-1 In05	05-01		<input type="checkbox"/>
5	Adp1-1 In06	06-01		<input type="checkbox"/>
6	Adp1-1 In07	07-01		<input type="checkbox"/>
7	Adp1-1 In08	08-01		<input type="checkbox"/>
8	Adp1-1 In09	09-01		<input type="checkbox"/>

Appendix

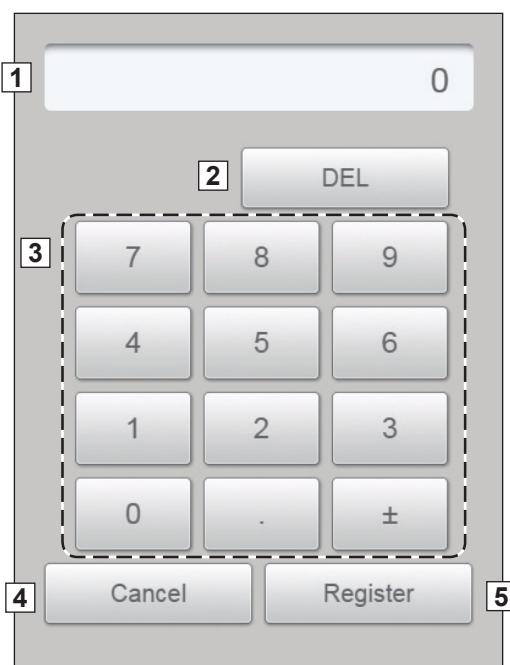
This chapter provides information you will require to use the unit (input of numbers and letters, terminology, etc.) and maintenance information.

Number and letter input

This section explains the keyboard that is displayed on the screen that enables input of numbers and text. A touchscreen numeric keypad is displayed for number input and a touchscreen keyboard is displayed for text input.

Number input

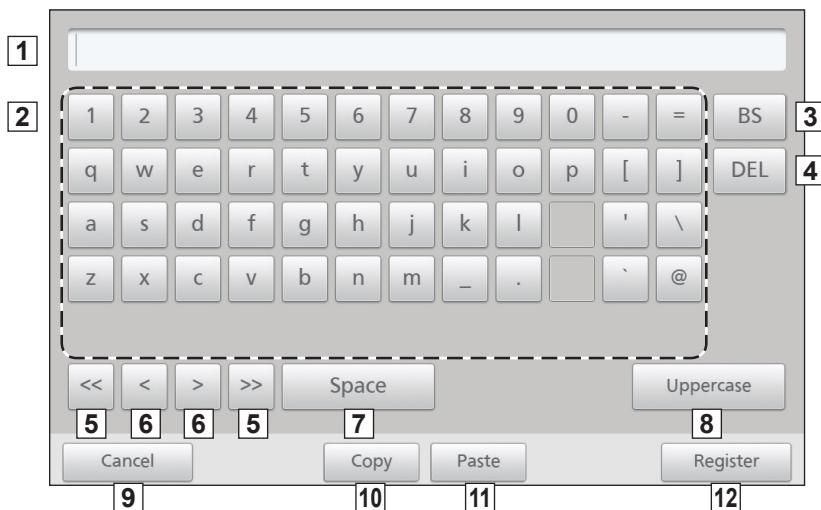
Use the touchscreen numeric keypad that is displayed on the screen when entering numbers such as times and temperatures. A touchscreen numeric keypad such as the following appears on the screen when you touch the text box.



Name	Explanation
1 Input field	The number you touch appears.
2 [DEL] key	This deletes all of the numbers displayed in the input field.
3 Numbered keys (0 to 9) . (dot) key [±] key	Touch the number. The number you touch is displayed in the input field and are added to the right. Each time you touch the [±] key, a “-” (minus sign) is displayed or cleared.
4 [Cancel] key	The touchscreen numeric keypad closes when you touch this.
5 [Register] key	The numbers displayed in the input field are displayed as the setting values in the text box.

Character input

Use the touchscreen keyboard that is displayed on the screen when entering text such as when changing names and passwords.
A touchscreen keyboard such as the following appears on the screen when you touch the text box.



Name	Explanation
1 Input field	The letter you touch appears.
2 Letter keys	Touch the letter. The letter you touch is displayed in the input field and is added to the right.
3 [BS] key	Each time you touch it, the characters displayed are deleted one at a time from the left of the cursor.
4 [DEL] key	Each time you touch it, the characters displayed are deleted one at a time from the right of the cursor.
5 [<<][>>] keys	Touch [<<] to move the cursor to the beginning of the text. Touch [>>] to move the cursor to the end of the text.
6 [<][>] (move cursor) keys	Each time you touch one of these, the cursor in the input field moves one character left or right.
7 [Space] key	Each time you touch this key, 1 space is added to the input field.
8 [Uppercase] key	The keyboard layout is changed to capitals.
9 [Cancel] key	The touchscreen keyboard closes when you touch this.
10 [Copy] key	Copy the text in the input field.
11 [Paste] key	Paste the text you copied with the [Copy] key in the cursor position in the input field.
12 [Register] key	The text displayed in the input field is displayed as the setting text in the text box.

Connections with external signals

You can measure the gas and electricity consumed by the unit and control all of the units by input or outputting signals to and from external equipments.

Refer to the installation instructions for details about the electronics for external signals.

Pulse meter input

You can measure the gas and electricity consumed by connecting a pulse meter (gas and/or fuel flow meter, electricity meter).

Operation

A count is made for each pulse.

You will need to set the consumption units (m^3 , kWh) per pulse in "Pulse meter settings" (P.158).

Batch stop input

You can automatically stop all connected units with an external signal (a fire alarm, for example). (Excluding those indoor units set to be excluded from the operation.)

Operation example

When input is ON, the stop signal is sent to all indoor units.

Batch startup input

You can automatically startup all units with an external signal. (Excluding those indoor units set to be excluded from the operation.)

Operation example

When the input signal switches from OFF to ON, the startup signal is sent to all indoor units.

Batch alarm output

When an alarm or error occurs on any of the connected units, this unit sends a signal externally. This signal can be used by an alarm monitor or similar device.

Operation example

When an alarm or error occurs on any of the connected units, the intelligent controller signal to the external device is shorted. When the system is restored, the intelligent controller signal is opened.

Batch startup output

When any of the connected units are running, this unit sends a signal externally.

Operation example

When any of the connected units (including interface adaptors) are running, the intelligent controller signal to the external device is shorted. When all connected units are stopped, the intelligent controller signal is opened. (Including when alarms or errors are occurring)

Methodology for calculating distributions

This unit is able to make simplified calculations of air conditioning distribution and energy (electricity and gas) usage with the cumulative operating time (thermostat ON/thermostat OFF) of indoor units and the performance values of indoor units.

Calculations for time distribution

Calculate the electricity/gas consumption index for indoor units individually or as a part of a distribution group, and calculate the electricity/gas consumption distribution ratios for indoor units individually or as a part of an area group.

Types of parameters used to calculate distributions

The following parameters are used for calculating time distributing.

Parameter	Explanation
RHHi	The cumulative operating time of indoor unit No. i* (high)
RHi	The cumulative operating time of indoor unit No. i* (mid)
RLi	The cumulative operating time of indoor unit No. i* (low)
SHHi	The cumulative thermostat ON time of indoor unit No. i (high)
SHi	The cumulative thermostat ON time of indoor unit No. i (mid)
SLi	The cumulative thermostat ON time of indoor unit No. i (low)
Pi	The performance of indoor unit No. i (a value equivalent to kW)
k	Weighting coefficient for electricity when the thermostat is ON and when it is OFF
aHH	Weighting coefficient for fan speed when the speed is high
aH	Weighting coefficient for fan speed when the speed is mid
aL	Weighting coefficient for fan speed when the speed is low

* Cumulative operating time is equal to thermostat ON cumulative time PLUS thermostat OFF cumulative time

Attention

- If the distribution mode (→ "Set the distribution mode" (P.160)) is set to "Time", do not allocate PAC and GHP to the same distribution groups.

Methodology for calculating electricity/gas consumption index for indoor unit No. i

TEi is the electricity consumption index for indoor unit No. i. **TGi** is the gas consumption index for indoor unit No. i. **TOi** is the fuel consumption index for indoor unit No. i.

- When the object of electricity distribution calculations is “thermostat ON time” and “thermostat OFF time” (regular time distribution)

The electricity consumption index is calculated with “cumulative operating time” and “thermostat ON cumulative time”.

The gas consumption index and fuel consumption index are calculated with “thermostat ON cumulative time”.

- GHP

Electricity	$TEi = (RHHi \times \alpha_{HH} + RH_i \times \alpha_H + RL_i \times \alpha_L) \times Pi$
Gas	$TGi = (SHHi \times \alpha_{HH} + SH_i \times \alpha_H + SL_i \times \alpha_L) \times Pi$

- PAC

Electricity	$TEi = \{(RHHi \times \alpha_{HH} + RH_i \times \alpha_H + RL_i \times \alpha_L) + k + (SHHi \times \alpha_{HH} + SH_i \times \alpha_H + SL_i \times \alpha_L)\} \times Pi$
Gas	$TGi = 0$

- When the object of electricity distribution calculations is “thermostat ON time” (thermostat ON time distribution)

The electricity consumption index, gas consumption index and fuel consumption index are calculated with “thermostat ON cumulative time”.

- GHP

Electricity	$TEi = (SHHi \times \alpha_{HH} + SH_i \times \alpha_H + SL_i \times \alpha_L) \times Pi$
Gas	$TGi = (SHHi \times \alpha_{HH} + SH_i \times \alpha_H + SL_i \times \alpha_L) \times Pi$

- PAC

Electricity	$TEi = (SHHi \times \alpha_{HH} + SH_i \times \alpha_H + SL_i \times \alpha_L) \times Pi$
Gas	$TGi = 0$

Methodology for calculating electricity/gas consumption index across the whole distribution group

The electricity/gas consumption index for the distribution group as a whole is the total electricity/gas consumption index for all indoor units included in the relevant distribution group.

TOTALE is the electricity consumption index for the distribution group as a whole. **TOTALg** is the gas consumption index for the distribution group as a whole. **m** is the number of indoor units included in the relevant group.

Electricity consumption index	$TOTALE = TE1 + TE2 + \dots + TEm$
Gas consumption index	$TOTALg = TG1 + TG2 + \dots + TGm$

Methodology for calculating electricity/gas consumption distribution for indoor unit No. i

REi is the electricity consumption distribution ratio. **RGi** is the gas consumption distribution ratio.

Distribution ratio of electricity consumed	$REi (\%) = TEi / TOTALE \times 100$
Distribution ratio of gas consumed	$RGi (\%) = TGi / TOTALg \times 100$

Methodology for calculating electricity/gas consumption distribution for area j

The electricity/gas consumption distribution ratio for the area as a whole is the total of electricity/gas consumption distribution ratio for all indoor units included in the relevant area.

NEj is the electricity consumption distribution ratio in Area j. **NGj** is the gas consumption distribution ratio in Area j. **n** is the number of indoor units included in the relevant area.

Distribution ratio of electricity consumed	$NEj = RE1 + RE2 + \dots + REn$
Distribution ratio of gas consumed	$NGj = RG1 + RG2 + \dots + RGn$

Note

- For models whose only setting for fan speed is “High”, or for models whose only settings are “High” or “Low”, you cannot give weighting for each speed.
- Distribution ratios are rounded to two decimal places for display.

Calculating the air conditioning usage volume

You can calculate either the electricity/gas consumed by a distribution group as a whole or for individual indoor units.

Methodology for calculating electricity/gas usage across the whole distribution group

The formula for calculating the electricity usage or gas usage for a distribution group is as follows.

Quantity of electricity used	Pulse meter (electricity meter) count value x pulse unit quantity (kWh)
Quantity of gas used	Pulse meter (gas flow meter) count value x pulse unit quantity (m ³)

Methodology for calculating electricity/gas consumption usage for each indoor unit

The formula for calculating the electricity usage or gas usage for an individual indoor unit is as follows.

Quantity of electricity used	Electricity usage of the distribution group x the distribution ratio of electricity consumed by indoor units
Quantity of gas used	Gas usage of the distribution group x the distribution ratio of gas consumed by indoor units

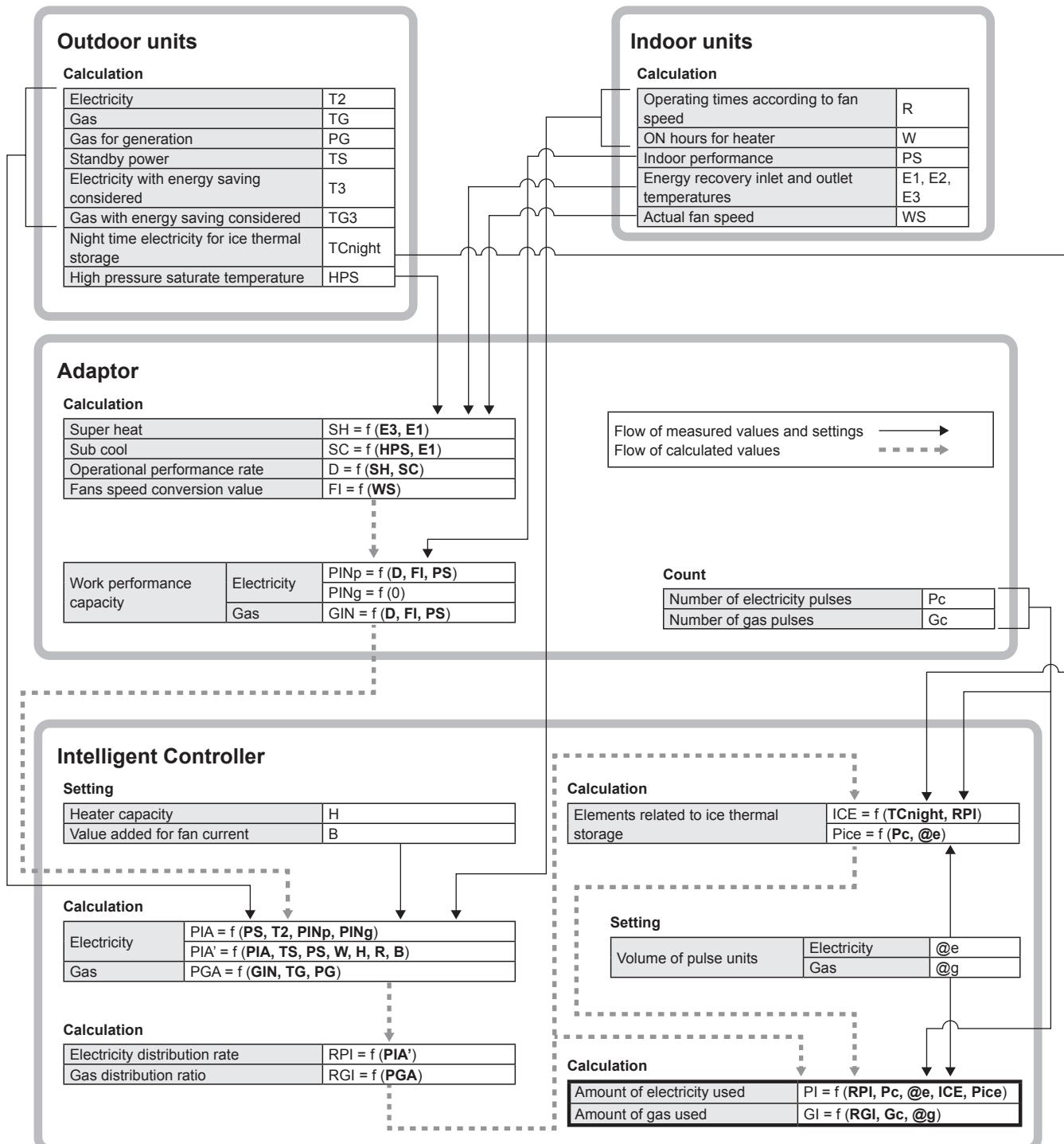
For the methodology for calculating the distribution ratio of electricity/gas consumed by indoor units, refer to “Methodology for calculating electricity/gas consumption distribution for indoor unit No. i” (P.218).

Note

- Usages are rounded to two decimal places for display.

Calculations for load distribution

Load distribution is calculated according to the following flow.



Note

- “F” indicates a function calculation.

* Indicates a function calculation.
For example, "Operational performance rate D=f (SH, SC)" means that the operational performance rate is calculated using "Super heat SH" and "Sub cool SC".

Things you should know

This section explains some things you need to know in order to use the unit.

Operation related

When back up data is restored

The message "InitCom..." may appear on the screen for a long time immediately after restarting (approximately 1 hour and 30 minutes at the longest).

Under no circumstances turn the unit off at this stage. You may corrupt files in the unit and render it unable to start.

If you are unable to start the unit, the data in the unit will need to be repaired, so contact the place of purchase or your servicing agent to ask them to repair the data.

Multi-unit systems for buildings and GHP

For multi-unit systems for buildings and GHP, the outdoor unit data (operation cycles, operating times, etc.) displayed is for a standard unit. The data display on this unit varies when the operating status of the standard unit changes.

The alarm log screen

Only an alarm code is displayed in the alarm log screen. Even if the alarm code is the same, the actual content of the alarm may be different with different models. Check the alarm content relevant to the alarm code in the operating instructions for each model.

Area and distribution group settings

Correct distribution calculations cannot be made if you put PAC and GHP in the same area or distribution group for time distribution. Make sure you separate PAC and GHP by area or distribution group.

Accumulation/distribution displays by time slot

This unit has functionality to accumulate and distribute by time slot, but due to delays during the transmission and reception of operational data, the counts apportioned to each time slot (in hours, out hours, particular days) may not be completely accurate.

Display refresh times

The maximum period between refreshing of filter signs and engine oil signs is 7 minutes. The maximum period between refreshing of accumulated operating time and distribution data (distribution ratios, used amounts) is 18 minutes. Electric heater ON time is refreshed every hour.

Closing down

The closing down processing starts at midnight (00:00) and lasts for a few minutes while the day's processes are closed. No operations will be possible during this time.

Malfunctions during operation due to lightning or wireless interference

Turn the unit off and then turn it on again.

You should not turn the unit off for any other reason as a rule. The unit may not be able to manage the air conditioning units properly if you do so.

The cumulative operating times

The distribution of air conditioning and operating hours for air conditioning units is performed when this unit is on and when the unit is communicating without error with the air conditioning units. The operating times for air conditioning units cannot be accumulated if this unit is off or if there are problems with communication.

The errors in calculations for things like distribution become greater as this situation continues so care should be taken.

Operations with the touch panel

Operations with the touch panel are not possible in the following cases:

- While the system is starting up
- While checking connectivity
- While closing down
- While accessing USB memory devices (backing up, restoring)
- During an external batch stop

Some characters (special characters) entered over the network may not be able to be displayed on the screen of this unit.

Settings related

Limitations on changes to settings

There may be limitations on the changes you can make to settings depending on the model of air conditioning unit.

For example:

- You cannot make changes to "Heat" when the unit is a specialised cooling machine
- With the exception of some models, floor mounted units do not allow you to change the fan speed from "High".
- You will not be able to change the airflow direction on ceiling embedded types if they don't have flaps

So please use this unit with consideration for the peculiarities of each of the units.

Contact the place of purchase or your servicing agent for details.

Standby power (with time distribution)

This unit calculates distribution based on the operating times of the indoor units. The electricity and gas consumed while stopped (standby power) is not distributed.

For example, if no air conditioners operate for a month, the standby power is not distributed to any distribution group. If an indoor unit operates for even a minute, however, all of the standby power is distributed to the distribution group to which the indoor unit belongs.

With load distribution the standby power is included in the distribution.

The display on the screen when making changes

When you have made changes to the settings for indoor units on this unit, you may see the display returning temporarily (especially when performing batch operations). This is just a delay caused by communication and is not indicative of a malfunction.

Air conditioning distribution ratios and air conditioning usage

The methodology adopted on this unit for calculating air conditioning distribution ratios and air conditioning usage is only a simplified one. There will be differences from the usage volumes billed by the electricity and gas providers.

Depending on operating conditions, there will be differences from the actual air conditioning volumes and the distribution ratios.

Due to the rounding of fractions when calculating distribution ratios, you will observe differences arising between the following pairs of data.

- "Distribution rates of areas within a distribution group" and "100.00%"
- "Total of the distribution rate breakdown" and "distribution rate of the entire area"
- "Total of usage in each area" and "total usage according to the pulse meter"
- "Total of usages for in hours, out of hours, and cut-off days" and "usage for the whole time"

As this unit calculates distributions (proportional allocation) through a comparison of load estimated for each indoor unit rather than measuring energy directly, please use the calculations only as a guide.

The current time and date settings

The unit's clock is accurate to ±30 seconds per month (at a normal temperature of 25 °C), regularly adjust the time and date against a reliable source.

About distribution data

If you remove an air conditioning unit after accumulating distribution data, all accumulated values for that air conditioning unit are deleted, so it will not be possible to view distribution data that includes that air conditioning unit after it is removed.

Before removing the unit, output (save) the distribution data as a CSV file to a USB memory device.

The output method for CSV files is the same as for outputting histories. (→ "Outputting (saving) the displayed contents as a CSV file" (P.32))

Miscellaneous

Indemnity

This company shall not compensate in the following cases.

- If the identification number (password) is found out by a third party and problems result
- If a USB memory device malfunctions and backed up data (accumulated data, distribution data) is lost

Where large errors can occur in calculation

Some models (semi-centralised models, floor mounted models, etc.) and old models with electric heaters for example, may show large differences in calculations of air conditioning distribution ratios. Furthermore, if you use large pan type humidifiers that use a lot of power, the operating times of the humidifiers will not be reflected in the calculation of the distributions, leading to a large difference.

Contact the place of purchase or your servicing agent for details.

Remote control-less systems

In a system without remote controllers where only one centralised device has been installed, if that device breaks down then you may be faced with the problem of not being able to run the air conditioning units. It is our recommendation to install multiple centralised devices for safety purposes.

The identification number (password)

You should take a note of the identification number (password) and keep it in your records. You should also take care not to reveal the number to a third party.

Contact the place of purchase or your servicing agent if you forget the number.

Screen disruptions

There may be some disruption to the screen when it is refreshing, but this is not indicative of a malfunction.

Interface adaptors (sold separately)

Interface adaptors include those used to convert transmissions and those used for on and off control.

Interface adaptors for transmission conversion

This unit is a centralised controller designed for use with electronic package air conditioners (PAC) and gas heat pump air conditioners (GHP) later than type G, but you can also connect it with older models by using interface adaptors to convert communications.

There are the following limitations you should be aware of, however.

Contact the place of purchase or your servicing agent for details.

Models you can connect	E series and F series GHP	
Alarm display	“C12” (interface adaptor batch alarm) is displayed, but no details are displayed.	
Maintenance information	The following information is not displayed for GHP outdoor units. <ul style="list-style-type: none"> • Engine operation hours • Oil replacement timing • Outdoor unit operating hours 	
Air conditioning distributing	Indoor unit fan speed data	The cumulative operating hours by fan speed will be fixed to “Mid.”. (Even if set to “Low” or “High”, the calculation will be made for “Mid.”)
	Cumulative operating hours	When group control has been set on the remote controller, the cumulative operating times of only one of these (the main unit) shall be the object of distribution calculations. If the sub units operate with the thermostat off or stop due to warnings, these will not be recognized.
	ON hours for electric heater	The cumulative ON time for electric heaters is not displayed.
	Indoor unit performance fixed values	As these are not identified automatically, set the performance fixed capacity values (kW) in the “Edit unit settings” dialogue (P.143). When doing this, when group control has been set on the remote controller, you need to set the value of all sub unit performances added together.
	Distribution methodology	Only time distribution is supported.
Items that cannot be operated	The following operations are not possible: <ul style="list-style-type: none"> • Resetting the filter sign • Airflow direction settings • Test operation For old models, install remote controllers before use.	
Test operation	When testing operation with remote controllers on old model indoor units, if you perform setting operations on this unit to the old model unit, test operations are automatically cancelled.	
Demand operations	Demand operations to outdoor units are not possible.	
Remote controller prohibition	You cannot change the prohibited items in the remote controller prohibition modes (“Prbt1” to “Prbt4”). Even if you make settings in “Local R/C Prhbt settings” in the “Settings for communictn w A/C(3)” screen (P.211), the settings will be invalid.	

Interface adaptors for on/off control

Using interface adaptors for on/off control enables you to connect devices (ventilation fans, room air conditioners, etc.) to turn on or off.

There are the following limitations you should be aware of, however.

Contact the place of purchase or your servicing agent for details.

Items that can be centrally controlled	Centralised control is possible only with the following items: <ul style="list-style-type: none"> • ON/OFF • Remote controller prohibition (only prohibiting "ON/OFF") You can also make timer settings, but settings other than "ON/OFF" and "remote controller prohibition" will be invalid. "Remote controller prohibition" is only for when local prohibition signal output is connected from the interface adaptor to the device.	
Alarm display	"C12" (interface adaptor batch alarm) is displayed, but no details are displayed. (However, only when the alarm signal input is connected to the interface adaptor)	
Air conditioning distributing	Indoor unit fan speed data	The cumulative operating hours by fan speed will be fixed to "Mid.". Even when the thermostat ON signal input is connected to the interface adaptor, the cumulative operating hours will be counted as fixed to "Mid.".
	ON hours for electric heater	The cumulative ON time for electric heaters is not displayed.
	Indoor unit performance fixed values	As these are not identified automatically, set the performance fixed capacity values (kW) in the "Edit unit settings" dialogue (P.143).
	Distribution methodology	Only time distribution is supported.

Note

- If a device meets the contact specifications as an interface adapter for on/off control, you can control this unit from any device, but avoid using for devices that have an important influence over life, property, etc.
- After starting distribution operation, if you change the address of an indoor unit or switch the address of an indoor unit with another, for example, distribution calculations will be inaccurate, and other problems may occur so care should be taken.

Troubleshooting

Check the following before requesting repairs.

Due to the dangers involved, do not perform repairs yourself.

Symptom	Cause and measures
Scheduling isn't working properly	<ul style="list-style-type: none">Have you set the calendar and time? Scheduling cannot operate if you set the calendar and time but neglect to register the schedule.Are the current settings for the date and time correct? If the current time is not set properly, the schedule may be starting at another time.
The distribution ratio always becomes 100%	<ul style="list-style-type: none">Check the distribution group and area group settings. If you put only one area group in a single distribution group or only one indoor unit in a single area group, the distribution ratio will always be 100%, and the calculations are meaningless.
The power turns off unexpectedly	<ul style="list-style-type: none">Has the screen turn off automatically? The power is still on, so try touching the screen.Irrespective of the set time, the screen may turn off at start up.
The display is taking a long time to update even after performing operations with the screen.	<ul style="list-style-type: none">Depending on the communication status of the connected air conditioning units, it may take some time. The screen will update if you wait a moment.
Screen of the colour liquid crystal display	<ul style="list-style-type: none">There may be some dots on the screen that do not light or stay lit constantly, but this is not indicative of a malfunction. Furthermore, it is characteristic for colour liquid crystal displays to show some discolouration due to changes in temperature, etc., but this is not indicative of a malfunction.
No operation even after touching buttons	<ul style="list-style-type: none">After long term use, there may be a shift in the positioning of the operating positions on the touch panel compared to the screen's position. Contact the place of purchase or your servicing agent.
This unit suffers a malfunction while you have prohibited operations on local remote controllers and you are unable to change settings on air conditioning units, such as starting or stopping operation	<ul style="list-style-type: none">As a stop gap measure until service personnel can visit, turn off this unit and the communication adaptor, then turn off the indoor units and turn them back on. You will not be able to use the local remote controllers. You will be unable to operate systems that do not have remote controllers.
There is a power outage and the devices do not automatically restore themselves after the power has been restored	<ul style="list-style-type: none">This unit does not restore itself automatically after power has been restored. When a scheduled time is reached, the unit will switch to the scheduled setting.
Not even one indoor unit is loaded	<ul style="list-style-type: none">Conduct a confirmation of the configuration.
The following message appears on the screen	 <ul style="list-style-type: none">If there are changes to the system of air conditioning units, this message is displayed when you touch [Check configuration].If this message is displayed, contact the place of purchase or your servicing agent.

Cautions when cleaning and maintaining

Take care of the following when cleaning and maintaining the unit.

Unplug the power cord when cleaning.

The power connections of the unit include parts with very high voltage which can be extremely dangerous, so take care when cleaning. Before cleaning make sure you stop the system and unplug the power plug from the power outlet.

Do not clean with benzene or thinners or wipe with chemical cloths. (This can cause discolouration or malfunction.)

When the unit is very dirty, dampen a cloth in water or warm water, wring thoroughly, and wipe.

Do not let water get on the unit directly

Take care not to get water directly on the unit.

Electric insulation may worsen leading to possible malfunction and electric shock.

Do not disassemble.

Do not disassemble this unit.

This may cause malfunctions which may lead to extremely dangerous electrocution.

Checking the fixtures

You should check the fixtures for rust and corrosion a few times a year to ensure the control panel is still firmly attached.

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- It is prohibited by copyright law to reproduce fully or in part the software and operating instructions included with this unit, or to lend out the software, without the permission of the rights holder.
- This company accepts no responsibility for damages, losses, or requests for payment incurred as a result of using this unit or the software included with this unit.
If any problems with calculations, etc., of proportions and usage volumes occur due to issue with the device or software, we will not be responsible for any compensation.
- The software included with this unit should not be used with any other devices.
- This unit and the software included with it may be modified to improve performance without prior notice.
The content of this document may also be changed without notice.
- Infringements of third party patent rights or other rights as a result of using the items described in this document shall not be the responsibility of this company.
- Refer to the DVD included with the intelligent controller for the open source licences.

Specifications

Model No.		CZ-256ESMC3
Dimensions [H × W × D]		240 × 280 × (20 + 65) mm
Weight		2.7 kg
Temperature/Humidity range		0 °C to 40 °C / 20% to 80% (no condensation) Indoor use only.
Rated voltage/Rated frequency		Single phase 100–240 V ~ 50–60 Hz
Power consumption		Max. 20 W
Clock	Precision	± 30 seconds/month (at normal temperature 25 °C) * Adjust periodically.
	Holding time	100 days (at normal temperature 25 °C with full charge) * Approx. 8 hours are required for full charge.
Number of connectable units per link*1		Indoor unit - Up to 64 units*2 Outdoor unit - Up to 30 units
PC environment for remote control	Browsers	Internet Explorer 11 or later or Google Chrome
	Screen resolution	1280×1024 (recommended)
USB memory devices that can be used		Standard type (USB2.0) Capacity: 4 GB or more Cautions before use <ul style="list-style-type: none"> • Proper operation is not guaranteed even if you use a computer that meets the above specifications. • Encryption (with security software) etc., cannot be used. • Panasonic accepts no responsibility for any loss of data.

*1: The maximum number of connectable units is shown below.

- When using only this unit: 128 indoor units and 60 outdoor units
- When connecting a Communication Adaptor: 256 indoor units and 120 outdoor units

*2: The number of indoor units includes the Interface Adaptor.

Note

- Internet Explorer is the registered trademarks of Microsoft Corporation in the United States and other countries.
- Google Chrome is either a trademark or registered trademark of Google Inc.

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