MITSUBISHI ELECTRIC

Air Conditioning Control System
Centralized Controller
AE-200A/AE-50A
AE-200E/AE-50E

CE

Instruction Book



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

Ver. 7.10

1. Safety precautions

- ► Thoroughly read the following safety precautions prior to installation.
- ► Observe these precautions carefully to ensure safety.
- ► After reading this manual, pass the manual on to the end user to retain for future reference.
- ► The user should keep this manual for future reference and refer to it as necessary. This manual should be made available to those who repair or relocate the units. Make sure that the manual is passed on to any future air conditioning system user.

⚠ WARNING	: indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	: indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
CAUTION	: addresses practices not related to personal injury, such as product and/or property damage.

1-1. General precautions

⚠ WARNING

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

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

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

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

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

If you notice any abnormality (e.g., burning smell), stop the operation, turn off the controller, and consult your dealer. Continuing the operation may result in electric shock, malfunction, or fire.

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

⚠ CAUTION

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

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

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

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

Consult your dealer for the proper disposal of the controller. Improper disposal will pose a risk of environmental pollution.

1-2. Precautions for relocating or repairing the unit

⚠ WARNING

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

1-3. Additional precautions

CAUTION

To avoid discoloration, do not use benzene, thinner, or chemical rag to clean the controller. When the controller is heavily soiled, wipe the controller with a well-wrung cloth that has been soaked in water with mild detergent, and then wipe off with a dry cloth.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

2. Introduction

AE-200A/AE-50A/AE-200E/AE-50E is a centralized controller.
Any connected air conditioning systems can be operated or monitored on the AE-200A/AE-50A/AE-200E/AE-50E's LCD or the Web browser. Each AE-200A/AE-50A/AE-200E/AE-50E can control up to a total of 50 indoor units and other equipment. By connecting AE-200A/AE-200E (main controller) and AE-50A/AE-50E (sub controllers), up to 200 indoor units and other equipment can be controlled.

2-1. Terms used in this manual

- "Centralized Controller AE-200A/AE-200E" is referred to as "AE-200."
- "Centralized Controller AE-50A/AE-50E" is referred to as "AE-50."
- "Booster unit" and "Water HEX unit" are referred to as "Air To Water (PWFY) unit."
- "Advanced HVAC CONTROLLER" is referred to as "AHC."
- "Hot Water Heat Pump unit" is referred to as "HWHP (CAHV) unit."

2-2. Required licenses

The required licenses vary, depending on the functions to be used. Refer to the License Classification List for details. Purchase the required licenses from your dealer. Refer to section 5-2-4 for license registration.

2-3. "Group" and "Block" definitions

The terms "Group" and "Block" used in this manual are defined as follows.

Group: Group is a group of air conditioning units and controllers and is the smallest unit that the AE-200/AE-50 can control. The maximum number of units that each group can contain is 16.

Block: Each block consists of one or more groups. Multiple groups of units in a given block can be monitored or operated collectively.

2-4. Main and Sub system controllers (M-NET)

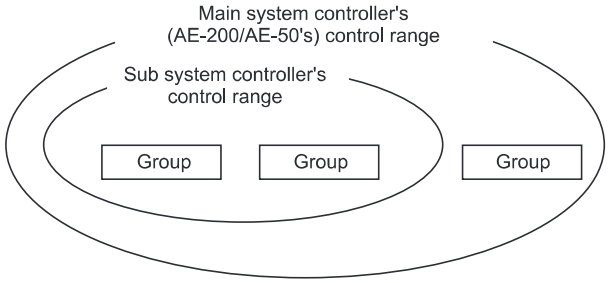
Each group can be controlled by a Main system controller or a Sub system controller.
AE-200/AE-50 is exclusively for use as a Main system controller and cannot be used as a Sub system controller.

Main system controller

Main system controller refers to a system controller that controls all other system controllers including the units they control. If a given system has only one system controller, that controller becomes a Main system controller. Group settings and interlock settings can be made only from a Main system controller.

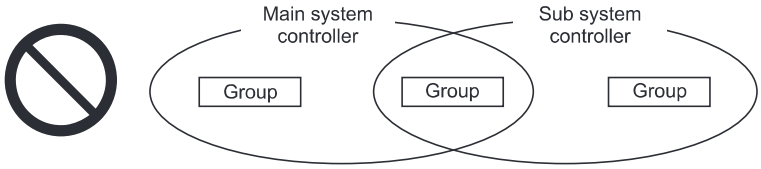
Sub system controller

Sub system controller refers to a system controller that is controlled by a Main system controller.

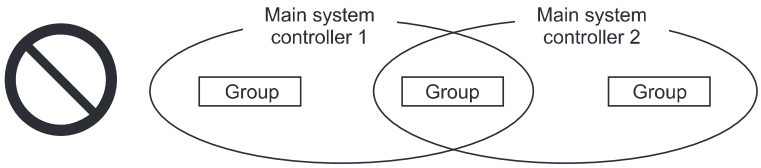


The system cannot be configured as shown in the examples below.

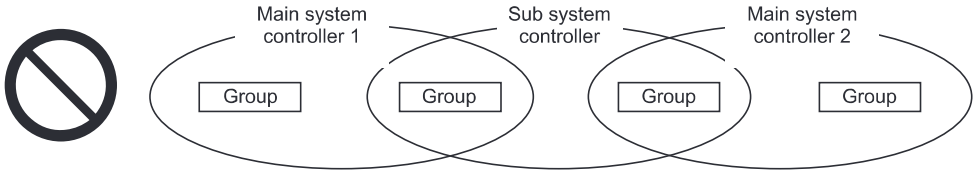
- Groups that are not under the control of a Main system controller cannot be controlled from a Sub system controller.



- Each group cannot be placed under the control of two or more Main system controllers.



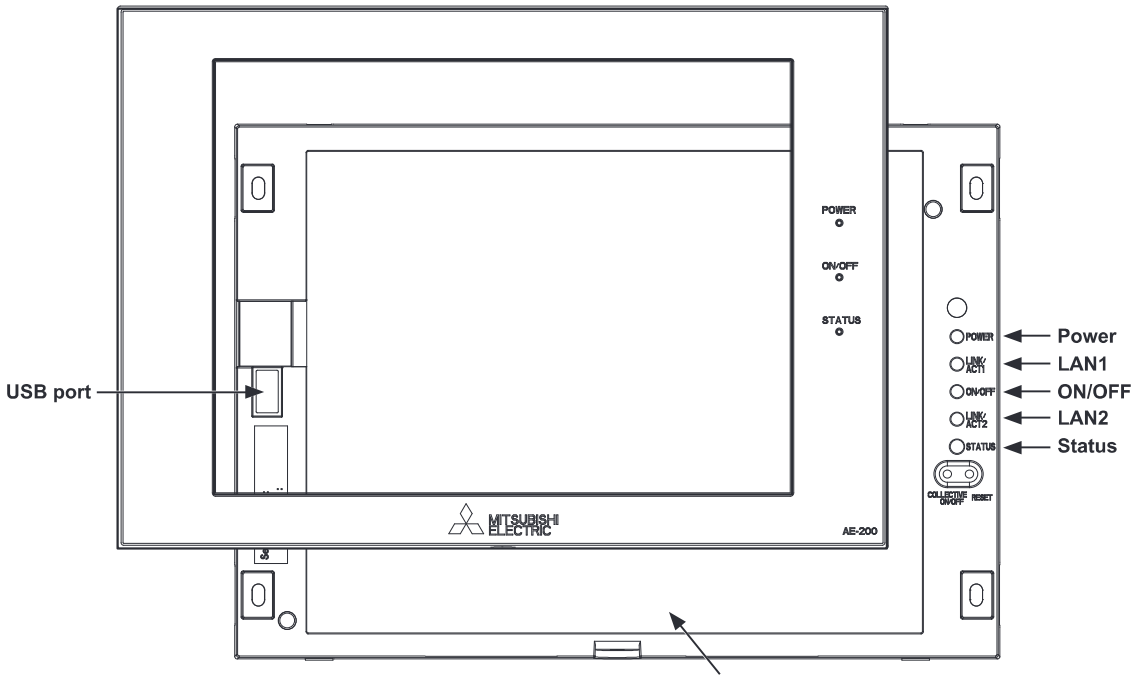
- Sub system controllers cannot be placed under the control of two or more Main system controllers.



2-5. Controller interface

Important

- Before using the controller, remove the protective sheet on the cover to avoid the sheet from sticking to the touch panel and causing malfunctions.
- Use the supplied L-shaped driver to remove or attach the cover.



Display/Touch panel
When the backlight is off, touching the panel turns the backlight on, and it will stay lit for three minutes. The backlight stays lit while an error is occurring.

Item			Description
LED	Power	Lit in green	Power ON
		Unlit	Power OFF
	LAN1	Blink in orange	Data transmission in progress (LAN1)
	ON/OFF	Lit in green	One or more air conditioning units are ON.
		Blink in green	One or more air conditioning units are in error.
		Unlit	All air conditioning units are OFF.
	LAN2	Blink in orange	Data transmission in progress (LAN2)
	Status	Blink in orange	The SD card may be damaged, or the startup failed.
		Blink in blue	Software update in progress
		Blink in pink	Software update failed
USB port			Used when the settings data is backed up to or imported from the USB memory device.

2-6. Number of connectable units

The table below summarizes the number of connectable units.

Unit type	Number of connectable units
Indoor units, independent OA processing units, LOSSNAY units, DIDO controllers (PAC-YG66DCA), Air To Water (PWFY) units, Advanced HVAC CONTROLLERs, HWHP (CAHV) units, AI controllers (PAC-YG63MCA), PI controllers (PAC-YG60MCA) in each AE-200/AE-50 system	Up to 50 units (including the interlocked LOSSNAY units)*1*2*3*4
Indoor units, independent OA processing units, LOSSNAY units, DIDO controllers (PAC-YG66DCA), Air To Water (PWFY) units, HWHP (CAHV) units in a group	1–16 units (Indoor units, independent OA processing units, LOSSNAY units, DIDO controllers (PAC-YG66DCA), Air To Water (PWFY) units, and HWHP (CAHV) units cannot be combined in one group.)
Remote controllers in a group	0–2 units
System controllers in a group	0–4 units (Up to four remote and system controllers combined can be assigned to each group.)
Advanced HVAC CONTROLLER in a group	0–1 unit
LOSSNAY unit that can be interlocked with each indoor unit	1 unit
Indoor units that can be interlocked with each LOSSNAY unit	1–16 units

*1 The maximum number of controllable units varies, depending on the number of channels used for the DIDO controller. In a system with connection to Advanced HVAC CONTROLLERs, the number of connectable units is 70 units when using the monitoring function on the Maintenance Tool, and 60 units when not using the monitoring function on the Maintenance Tool.

*2 By connecting AE-50 controllers to an AE-200, up to 200 units can be controlled (when connecting three AE-50 controllers).

*3 Each contact of DIDO controller (PAC-YG66DCA) counts as one unit.

*4 Although up to 15 PI controllers (PAC-YG60MCA) can be set for each AE-200/AE-50, the number of PI controllers in a system with connection to one or more AE-50 controllers must be 20 or less.

2-7. Product features

The table below summarizes the items that can be displayed or set on the AE-200/AE-50.

Note: The items may not be displayed, depending on the model of the connected units.

Function			Description
User's operation functions	Operation	ON/OFF	The ON/OFF operation can be performed for units in a given group.
		Operation mode	The operation mode can be switched.
		Ventilation mode (LOSSNAY unit)	The ventilation mode can be switched.
		Fan speed	The fan speed (2 to 4 speeds and Auto) can be changed.
		Fan speed (LOSSNAY unit)	The fan speed (3 speeds and Auto) can be changed.
		Set temperature	The set temperature can be set.
		Air direction	The air direction (5 directions, Swing, and Auto) can be changed.
		ON/OFF/Fan speed (LOSSNAY unit)	Interlocked LOSSNAY units can be operated or stopped. The fan speed (2 speeds) can be changed.
		Schedule (Available/Not Avail.)	The scheduled operations can be enabled or disabled.
		Hold (AE-200A/AE-50A only)	The Hold function can be enabled or disabled.
		Prohibition of local remote controller operation	Some operations or settings from the local remote controllers can be prohibited.
		Filter sign reset	Filter sign can be reset.
		Schedule Settings	Weekly, annual, and today's schedules can be set.
		Malfunction reset	Displayed errors can be reset.
		Clear malfunction log	Displayed unit errors and communication errors can be cleared.
		External input	Using external contact signals, the following collective operations can be controlled: Demand level, Emergency stop, ON/OFF operation, and Prohibit/Permit local remote controller operation. (An external input/output adapter is required.)

Function			Description
User's operation functions	Monitor	ON/OFF (LED on the controller)	ON: One or more units are in operation. OFF: All units are stopped.
		Operation status of each group	The operation status of each group can be displayed.
		Filter sign	The filter sign indicates that the filter is due for cleaning.
		Prohibition of local remote controller operation	The icon to indicate that the operation is prohibited by the AE-200/AE-50 or other system controllers can be displayed.
		Measurement List	The readings of the temperature sensor, humidity sensor, and metering device can be displayed.
		AHC List	The input and output status of Advanced HVAC CONTROLLERs can be displayed.
		Malfunction List	The address of the unit in error and the error code can be displayed.
		Malfunction Log	Up to the latest 128 errors can be displayed for each AE-200/AE-50.
		External output	The ON/OFF and Error signals can be output to an external device. (An external input/output adapter is required.)
		Energy Use Status	The energy consumption data and comparison data can be displayed in a graph.
		Ranking	The rankings in electric energy consumption and the fan operation time of given indoor units can be displayed in a bar graph.
		Target Value Setting	The target electric energy consumption values for the entire system can be set.
		Peakcut Control Status	The Peakcut control status can be checked.
Initial settings	Initial Settings	Date and time	The current date/time and daylight savings time can be set.
		License	The license for optional functions can be registered.
		Unit Info.	The unit information can be set.
		Network	The network settings can be made.
		Groups	Air conditioning units, Air To Water (PWFY) units, LOSSNAY units, HWHP (CAHV) units, general equipment, remote controllers, and sub system controllers can be registered to a group.
		Interlocked LOSSNAY	The operation of indoor units and LOSSNAY units can be interlocked.
		Blocks	The groups can be registered to a block.
		Floor Layout	The basic floor settings, location setting of the groups, and floor plan settings can be made.
		System View	Refrigerant system information (connection information of outdoor and indoor units) can be checked.
		Advanced	The following settings can be made: [Time Master/Sub], [Schedule: Season setting], [Hold type] (AE-200A/AE-50A only), and [Old model compatibility mode].
	Function1	Measurement	AI and PI controllers, temperature sensor, humidity sensor, and metering device can be registered.
	Function2	External Temperature Interlock	This function adjusts the set temperature based on the temperature difference between the set temperature and the outdoor temperature. A temperature sensor to measure the outdoor temperature can be selected, and a maximum temperature value to be added to the set temperature can be set for each group.
		Night Setback Control	This function performs cooling or heating operation when the room temperature goes outside of the specified temperature range. The start/end times and temperature range can be set for each group.
	User information	Maintenance user	User name and password for maintenance users can be set.
		Building manager	User name, password, and available functions to building managers can be set.

Function			Description
Initial settings	Maintenance	Backing up settings data	The settings data can be stored to a USB memory device.
		Importing settings data	Backed-up settings data can be restored from a USB memory device.
		CSV output	The operation data, such as apportioning parameters and power consumption, can be output to a USB memory device. (Each file contains the data of up to 62 days.)
		Touch Panel Calibration	The touch panel can be calibrated.
		Software Update	The software can be updated.
Miscellaneous	Data back-up	Group setting information/ Interlocked LOSSNAY information	The group setting information and interlocked LOSSNAY information are retained in the hardware, even if power is turned off.
		Malfunction log	The malfunction log is retained in the hardware, even if power is turned off.
		Scheduled operations	The scheduled operations set for each group are retained in the hardware, even if power is turned off.
		Current date and time	The current date and time are retained by the built-in capacitor when power is turned off.
	Maintenance	Screen lock function	The touch panel operation can be locked.
		Touch panel cleaning	The touch panel can be locked when it needs to be cleaned.
		Time synchronization	Clocks on the controllers and the units that are under the control of the main system controller are synchronized once a day.

3. Basic operations

3-1. Monitor/Operation

This section explains how to monitor and operate the unit groups.

3-1-1. Screen sequence

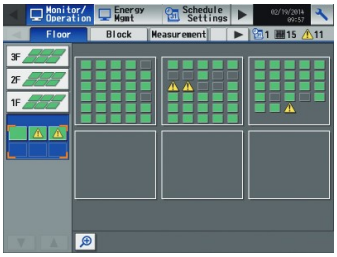
[Floor] display (zoomed-in)



Touch [ ].

Touch [ ].

[Floor] display (zoomed-out)



Touch [Floor].

Touch [Block].

Select a group and touch [Operate].

Touch [OK] or [Cancel].

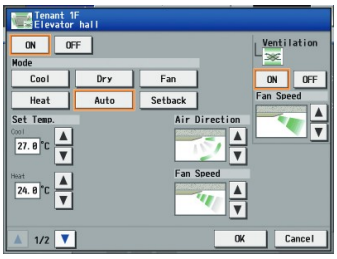
[Block] display



Select a group and touch [Operate].

Touch [OK] or [Cancel].

Operation settings screen

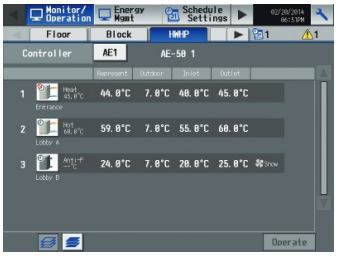


[Measurement] display



* The [Measurement] tab will appear only when an AI or PI controller is connected.

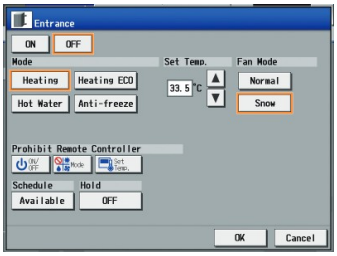
[HWHP] display



Select a group and touch [Operate].

Touch [OK] or [Cancel].

Operation settings screen



* The [HWHP] tab will appear only when an HWHP (CAHV) unit is connected.

[AHC] display



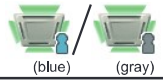
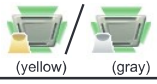
3-1-2. Group icons

Each group icon indicates the operation condition of the group. Touch the icon, and then touch [Operate] to bring up the operation settings screen.

[1] Air conditioning unit group

ON	OFF	Error	Interlocked LOSSNAY ON *1 *7	Interlocked LOSSNAY OFF *2 *7
				

Schedule set *3	Schedule disabled	Energy-saving ON *4	Setback ON *10	Starting up *11
				

Occupied/Vacant *5 *6 *7	Bright/Dark *8 *9 *10	Room temperature display	Room humidity display	HOLD ON *12
 (blue) (gray)	 (yellow) (gray)			

Note: Besides the 4-way airflow unit icons, 2-way airflow or ceiling-suspended unit icons are also available. Icons can be selected on the [Groups] screen.

*1 If the LOSSNAY unit is interlocked with the operation of Mr. Slim units, “Interlocked LOSSNAY ON” icon will appear, even when the LOSSNAY unit is operated individually.
(Applicable M-NET adapter model: PAC-SF48/50/60/70/80/81MA-E)

*2 If a LOSSNAY unit is interlocked with the operation of indoor units in multiple groups, the LOSSNAY unit may be in operation, even when the “Interlocked LOSSNAY OFF” icon is displayed.

*3 If any schedule setting is applied to a DIDO controller whose prohibition setting is enabled ([Allow operations] is set to [No operations] on the [Groups] screen), the “Schedule set” icon will appear, but the scheduled operations will not be performed.

*4 The “Energy-saving ON” icon will appear while the Peak Cut control is performed on the group or on the outdoor unit that is connected to the group.

*5 The Occupancy/Vacancy status icon will appear only when [ ] (blue), [ ] (gray), or [ ] (blue/gray) is selected in the [Occupancy] section on the [Unit Info.] screen.

*6 The Occupancy/Vacancy status icon will not appear if the remote controller in the group does not have an occupancy sensor.

*7 The Occupancy/Vacancy status icon takes priority over the “Interlocked LOSSNAY ON” or “Interlocked LOSSNAY OFF” icon.

*8 The Brightness/Darkness status icon will appear only when [ ] (yellow), [ ] (gray), or [ ] (yellow/gray) is selected in the [Brightness Sensor] section on the [Unit Info.] screen.

*9 The Brightness/Darkness status icon will not appear if the remote controller in the group does not have a brightness sensor.

*10 The “Setback ON” icon takes priority over the Brightness/Darkness status icon.

*11 The “Starting up” icon will stay when the unit cannot be recognized after startup. Check for proper connection of the air conditioning unit and proper group settings.

*12 The Hold function can be used on the AE-200A/AE-50A, but not on the AE-200E/AE-50E.

[2] LOSSNAY unit (ventilator) group

ON	OFF	Error	Schedule set	Schedule disabled
				

Energy-saving ON *1	HOLD ON
	

*1 The “Energy-saving ON” icon will appear while the Peak Cut control is performed on the LOSSNAY unit group.

[3] Air To Water (PWFY) unit group and HWHP (CAHV) unit group

ON	OFF	Error	Schedule set	Schedule disabled
				

Energy-saving ON *1	Water temperature display *2	HOLD ON
		

*1 The “Energy-saving ON” icon will appear while the Peak Cut control is performed on the Air To Water (PWFY) unit group. This icon will not appear for the HWHP (CAHV) unit groups.

*2 The “Water temperature display” icon will not appear for the HWHP (CAHV) unit groups.

[4] General equipment group

ON	OFF	Error	Schedule set	Schedule disabled
				

HOLD ON


Note: Besides the lighting icons, pump or card key icons are also available. The icon can be selected on the [Groups] screen.

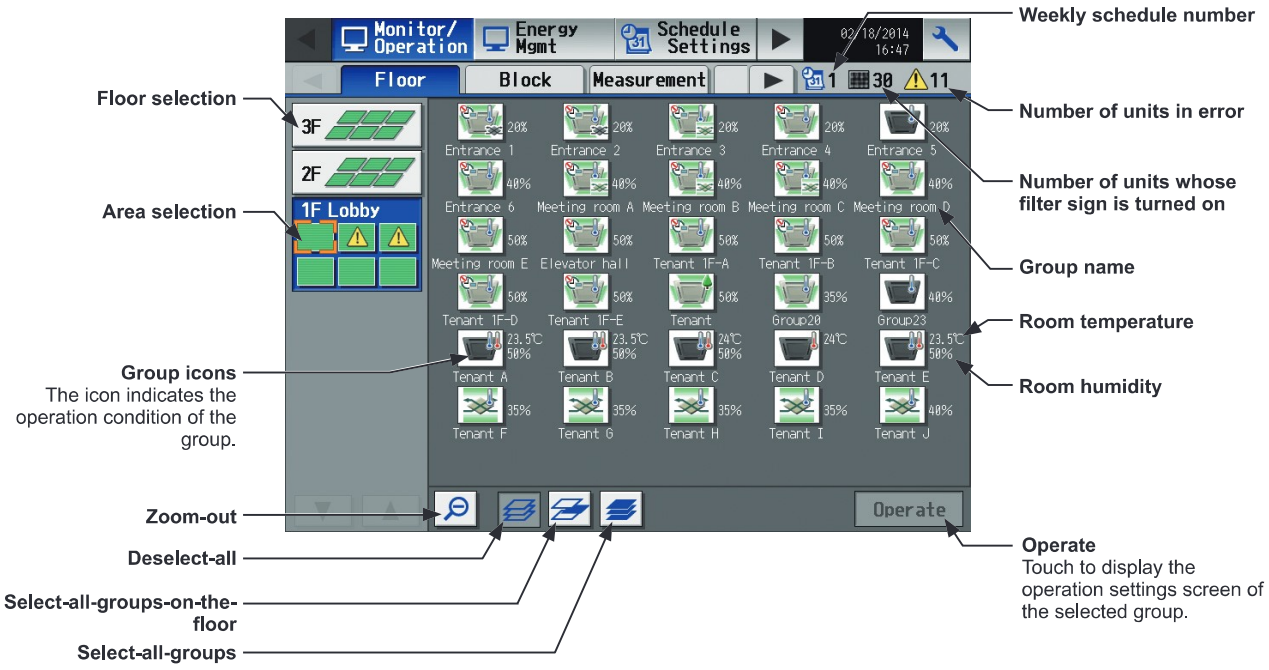
3-1-3. Checking the operation conditions

This section explains how to display the operation conditions of units.

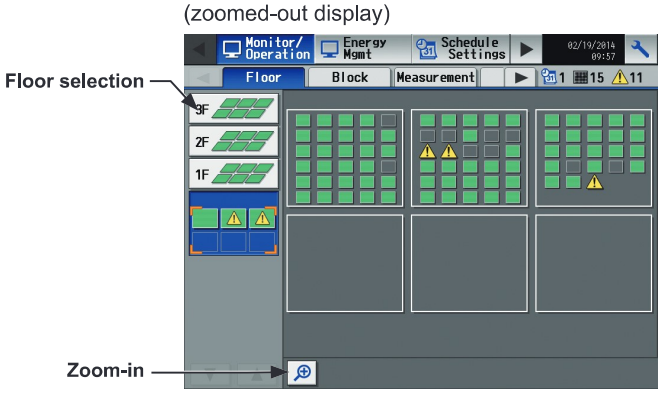
[1] [Floor] display

Touch [Monitor/Operation] in the menu bar, and then touch [Floor].

Note: The unit groups that are under the control of both AE-200 and AE-50 can be displayed.

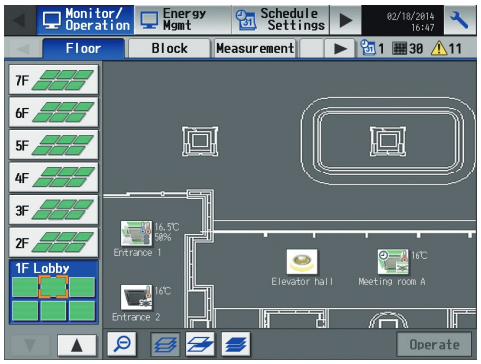


(zoomed-out display)

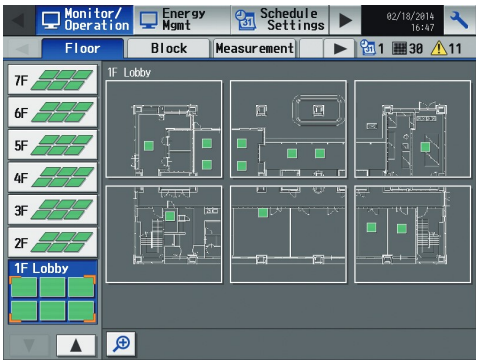


Screen images when using the Floor Layout function (Refer to section 5-2-10 “Floor Layout” for details.)

(zoomed-in display)



(zoomed-out display)

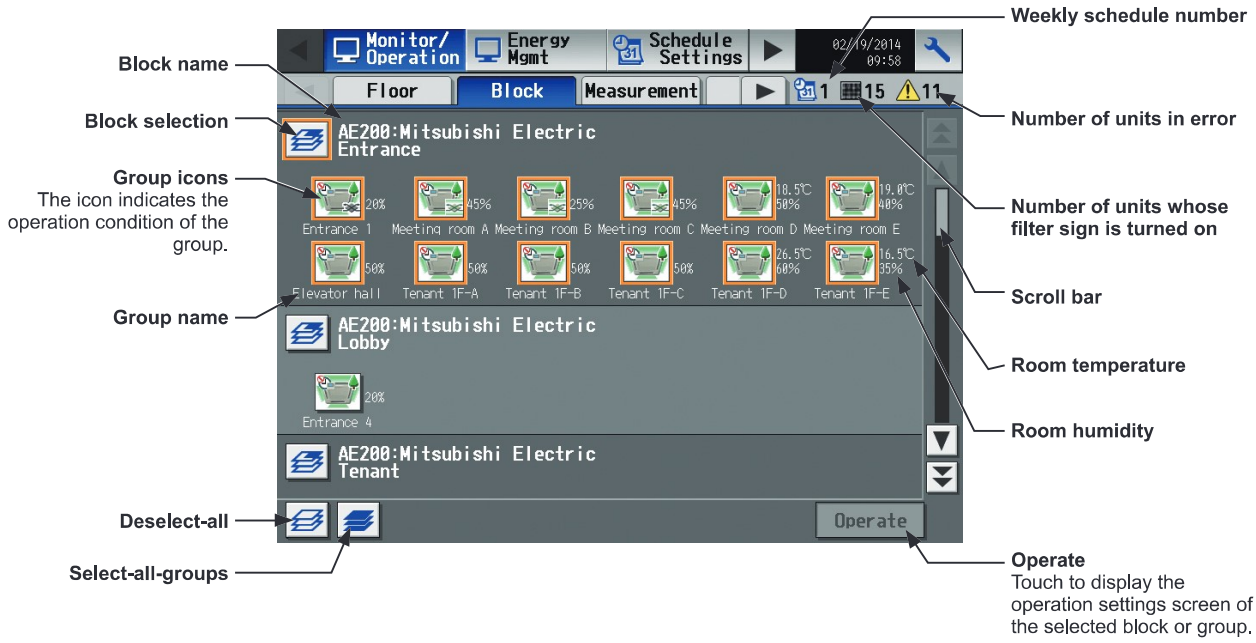


Item	Description
Floor selection	Select a floor you want to monitor.
Area selection	Select an area of the selected floor you want to monitor.
Group name	The name of the group will appear.
Room temperature	Indoor unit return air temperature will appear. Note: The temperature shown may be different from the actual room temperature. Note: Whether to show or hide the room temperature can be set on the [Unit Info.] screen. Note: For Air To Water (PWFY) unit groups, the current water temperature will appear. Note: The temperature unit °C or °F will appear, depending on the temperature unit that has been selected on the [Unit Info.] screen.
Room humidity	The room humidity will appear.
Weekly schedule number	The weekly schedule that is currently effective will appear.
Number of units whose filter sign is turned on *1	The number of units whose filter sign is currently turned on will appear. Touching "▦" will bring up the [Filter Sign] screen. (See section 3-4-2 "Filter Sign List".)
Number of units in error *1	The number of units that are currently in error will appear. Touching "⚠" will bring up the [Malfunction] screen. (See section 3-4-1 "Malfunction List".)
Deselect-all	Touch to cancel all group selections.
Select-all-groups-on-the-floor	Touch to select all groups on the currently selected floor.
Select-all-groups	Touch to select all groups.
Zoom-out	Touch to display the status of the whole floor.
Zoom-in	Touch to go to the zoomed-in screen.

*1 The item will not appear if the number of units is "0."

[2] [Block] display

Touch [Monitor/Operation] in the menu bar, and then touch [Block].



Item	Description
Block selection	Select a block you want to monitor.
Group name	The name of the group will appear.
Room temperature	Indoor unit return air temperature will appear. Note: The temperature shown may be different from the actual room temperature. Note: Whether to show or hide the room temperature can be set on the [Unit Info.] screen. Note: For Air To Water (PWFY) unit groups, the current water temperature will appear. Note: The temperature unit °C or °F will appear, depending on the temperature unit that has been selected on the [Unit Info.] screen.
Room humidity	The room humidity will appear.
Weekly schedule number	The weekly schedule that is currently effective will appear.
Number of units whose filter sign is turned on *1	The number of units whose filter sign is currently turned on will appear. Touching "▦" will bring up the [Filter Sign] screen. (See section 3-4-2 "Filter Sign List".)
Number of units in error *1	The number of units that are currently in error will appear. Touching "⚠" will bring up the [Malfunction] screen. (See section 3-4-1 "Malfunction List".)
Deselect-all	Touch to cancel all group selections.
Select-all-groups	Touch to select all groups.

*1 The item will not appear if the number of units is "0."

[3] [Measurement] display

Touch [Monitor/Operation] in the menu bar, and then touch [Measurement].

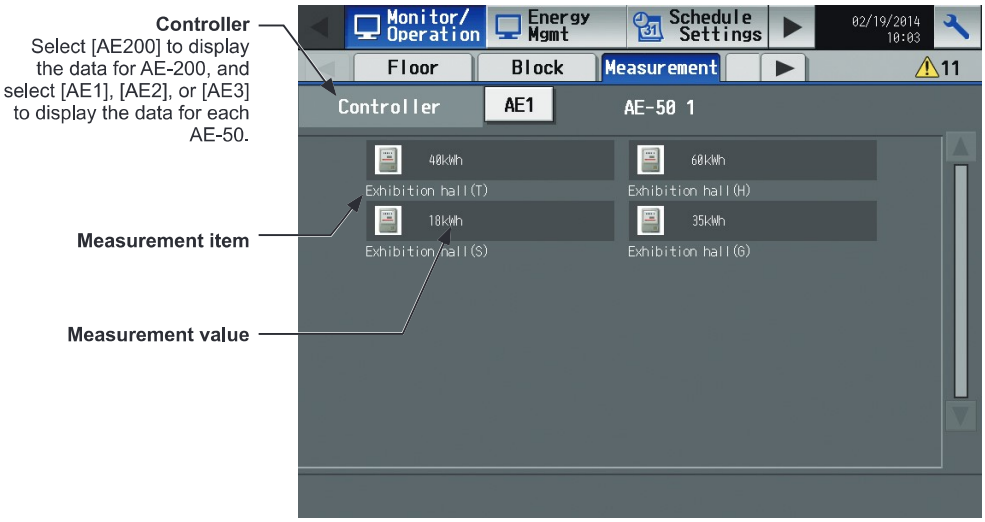
The measurement data of the temperature sensors, humidity sensors, and metering devices will appear.

Note: Measurement settings on the [Measurement] screen under the [Function1] menu are required to display the measurement data on this screen.

Note: An AI controller (PAC-YG63MCA), a commercially available temperature sensor, and a humidity sensor are required to measure the temperature and humidity.

Note: A PI controller (PAC-YG60MCA) and a commercially available pulse-output metering devices are required to measure the electric, water, heat, and gas consumptions.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the data for each AE-200 and AE-50 individually.



Item	Description
Measurement value	The current measurement values will appear. Note: The following icons are used to indicate the measuring devices. Icons will appear in orange when the measurement value reaches the upper or lower alarm threshold value that has been set on the [Measurement] screen.

	Normal	Upper/lower alarm threshold value is reached.	Communication error
Temperature sensor			 *1
Humidity sensor			 *1
Metering device			 *2

*1 When there is a communication error, the measurement value of the temperature or humidity sensor will be "--."

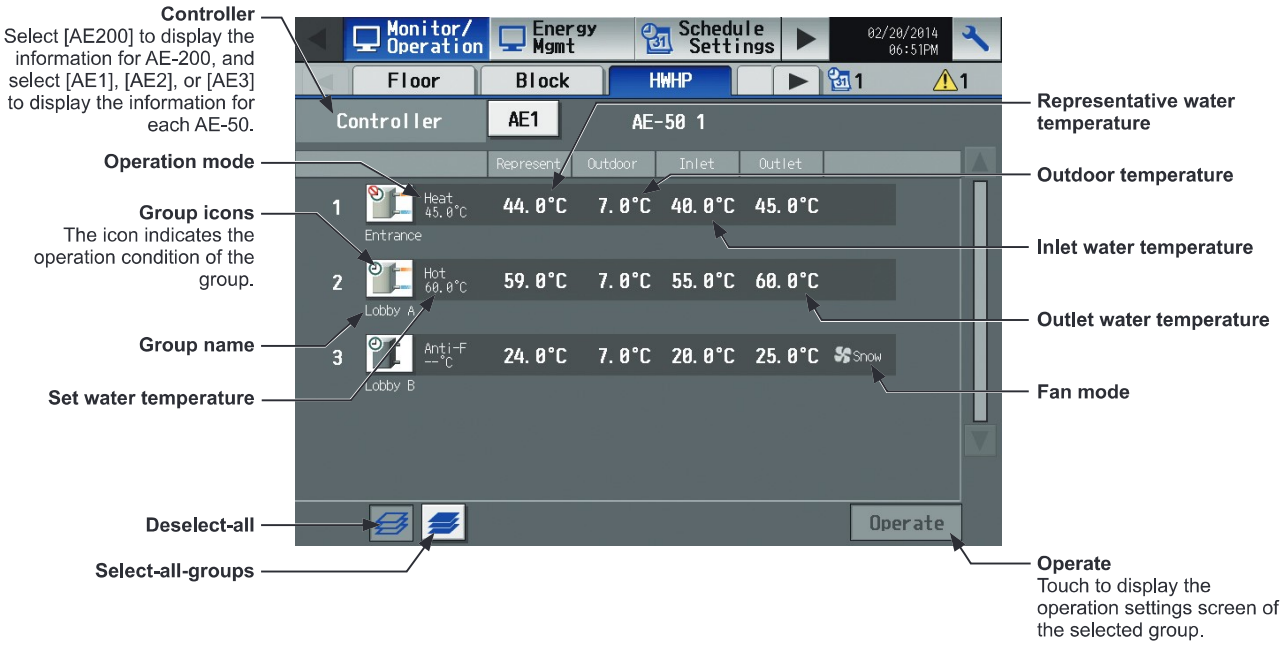
*2 When there is a communication error, the measurement value of the metering device will be the measured value immediately before the error detection.

[4] [HWHP] display

Touch [Monitor/Operation] in the menu bar, and then touch [HWHP].

The operation status of each HWHP (CAHV) unit group will appear.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the information for each AE-200 and AE-50 individually.

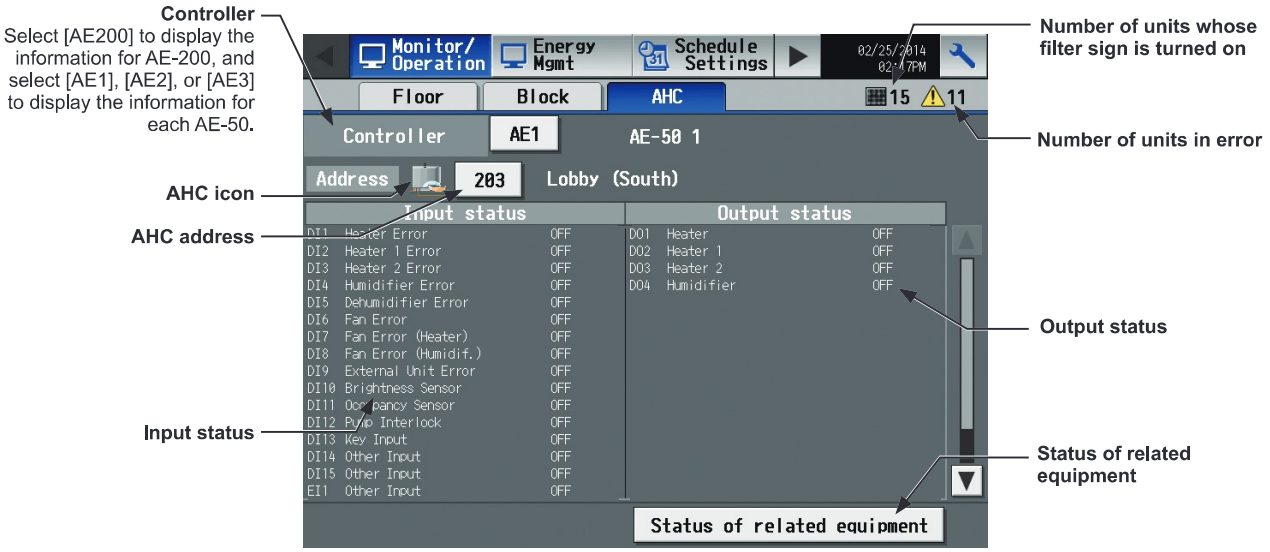


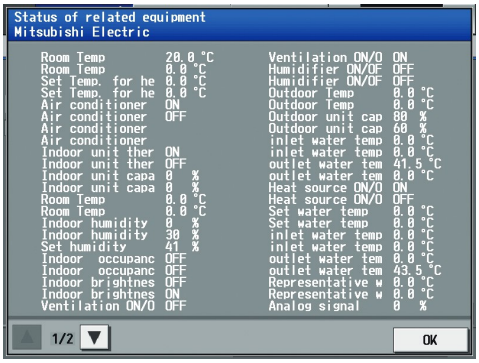
[5] [AHC] display

Touch [Monitor/Operation] in the menu bar, and then touch [AHC].

The status of input and output ports of each Advanced HVAC CONTROLLER (AHC) can be monitored.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the information for each AE-200 and AE-50 individually.



Item	Description
AHC icon	The following icons indicate the AHC status.  : Normal  : A communication error is occurring or an error signal has been input to the AHC.
AHC address	The address of the connected AHC will appear.
Input status	[Input port code * + Input port name + Input status] will appear. * DI1–DI15 (Digital input), EI1–EI4 (Extended digital input), AI1–AI8 (Analog input) Note: The status of the unused ports will not appear. Note: If a communication error occurs with AHC, no port information will appear.
Output status	[Output port code * + Output port name + Output status] will appear. * DO1–DO9 (Digital output), EO1–EO4 (Extended digital output), AO1–AO2 (Analog output) Note: The status of the unused ports will not appear. Note: If a communication error occurs with AHC, no port information will appear.
Status of related equipment	Touch to display the status of the equipment that are used to control the equipment that are connected to the AHC. 
Number of units whose filter sign is turned on *1	The number of units whose filter sign is currently turned on will appear. Touching "▦" will bring up the [Filter Sign] screen. (See section 3-4-2 "Filter Sign List".)

Item	Description
Number of units in error *1	The number of units that are currently in error will appear. Touching "⚠" will bring up the [Malfunction] screen. (See section 3-4-1 "Malfunction List".)

*1 The item will not appear if the number of units is "0."

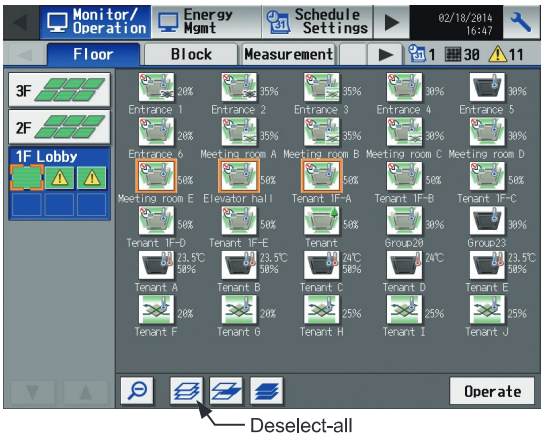
3-1-4. Selecting the icons of the groups to be operated

On the [Floor] or [Block] display under the [Monitor/Operation] menu, select the icon(s) of the group(s) to be operated as explained below, and then touch [Operate] to bring up the operation settings screen.

[1] Selecting group icons

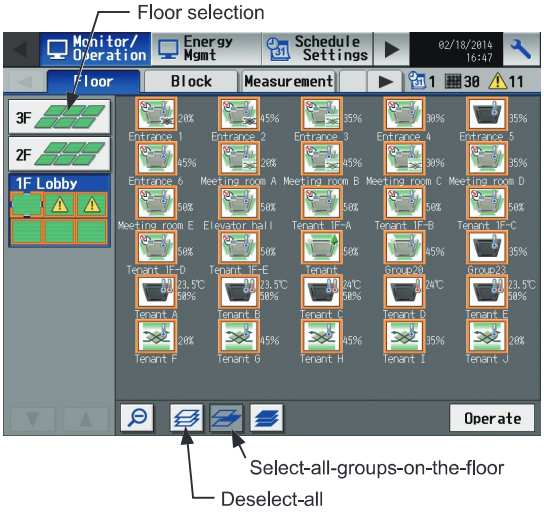
(1) Selecting a group

On the [Floor] or [Block] display, touch the icon(s) of the group(s) you want to operate. The selected group icon(s) will appear with an orange frame.
Touch again to deselect.
To cancel all group selections, touch the “Deselect-all” button.



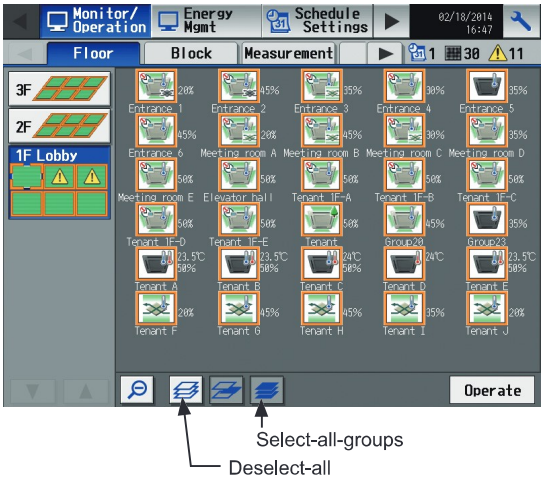
(2) Selecting all groups on the selected floor

On the [Floor] display, touch the floor(s) you want to operate, and then touch the “Select-all-groups-on-the-floor” button. The selected floor and group icons will appear with an orange frame.
To cancel all group selections, touch the “Deselect-all” button.



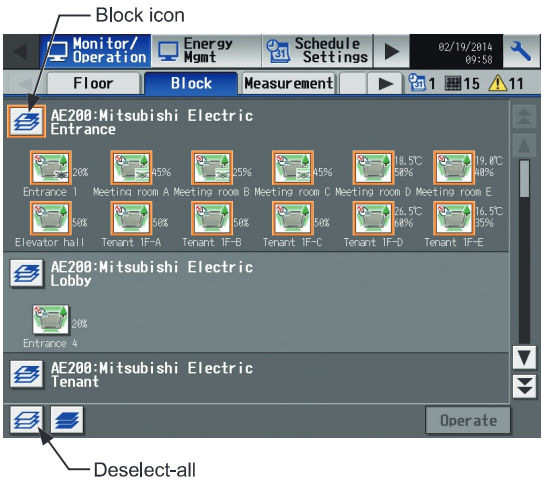
(3) Selecting all groups on all floors

On the [Floor] or [Block] display, touch the “Select-all-groups” button. All floor and group icons will appear with an orange frame.
To cancel all group selections, touch the “Deselect-all” button.



(4) Selecting all groups in the selected block

On the [Block] display, touch the block(s) you want to operate. The selected block and group icons will appear with an orange frame.
Touch again to deselect.
To cancel all group selections, touch the “Deselect-all” button.



[2] Selecting equipment type

(1) When the equipment types of all selected groups are the same

Selecting the group icons and touching [Operate] will bring up the operation settings screen for the selected groups.
Refer to section 3-1-5 “Operation settings screen” for details about the operation settings.

(2) When the equipment types of the selected groups are different

Selecting the group icons and touching [Operate] will bring up the equipment type selection screen.
Touch the equipment type(s) you want to operate, and then touch [OK] to bring up the operation settings screen for the selected equipment groups.
Refer to section 3-1-5 “Operation settings screen” for details about the operation settings.

Note: When two or more equipment types are selected, only the [ON/OFF], [Schedule], and [Hold] settings will appear on the operation settings screen.



3-1-5. Operation settings screen

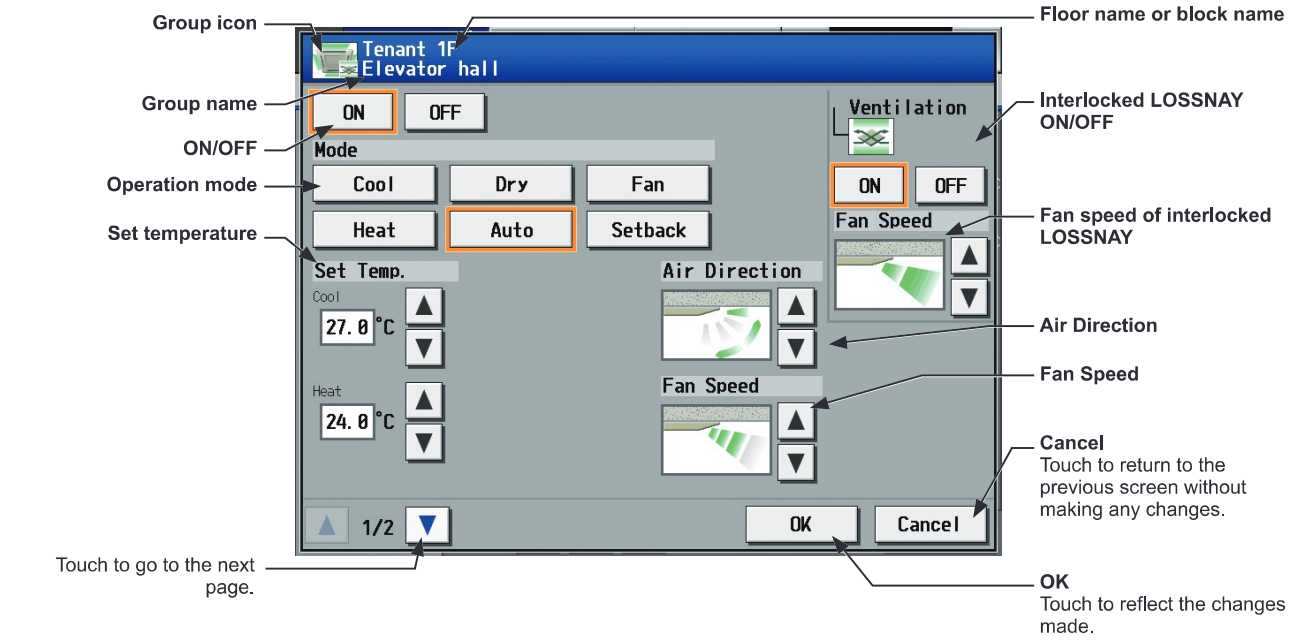
On the screen under the [Monitor/Operation] menu, selecting the group icon and touching [Operate] will bring up the operation settings screen for the selected group. The current operation conditions will appear.
Change necessary operation settings, and then touch [OK] to save the settings. Touch [Cancel] to return to the previous screen without making any changes.

Note: The selected icon and buttons will appear with an orange frame.
Note: When the setting is changed from other controllers, the operation conditions shown on the screen will not be updated while the screen is open.

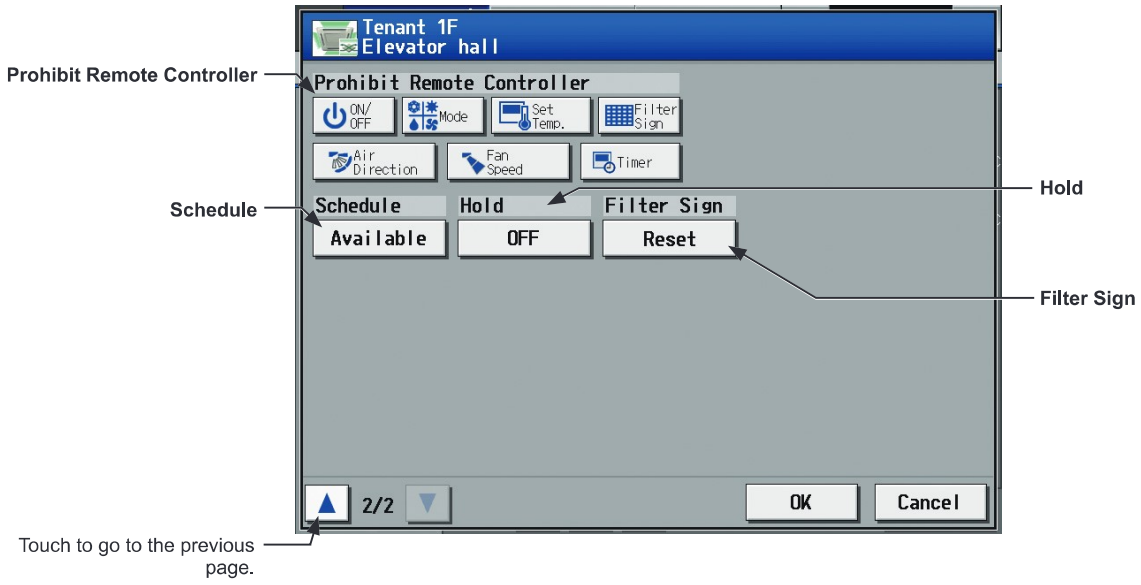
[1] Air conditioning unit group

Refer to section 3-1-6 for details about the setting items.

1st page

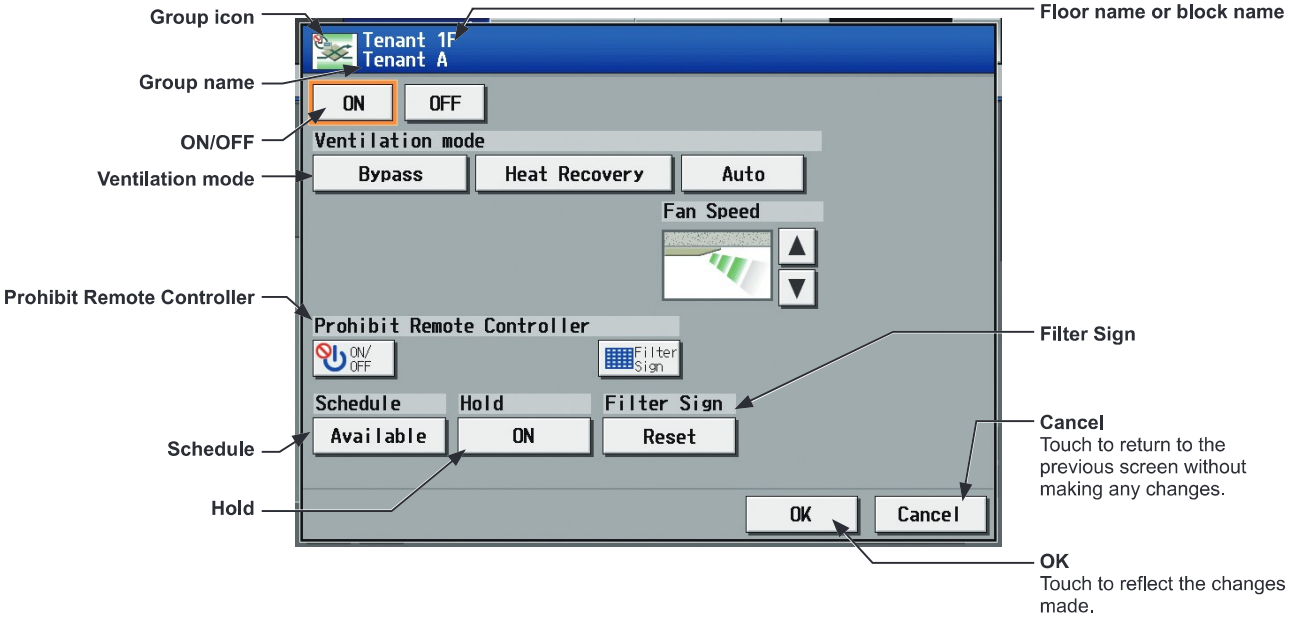


2nd page



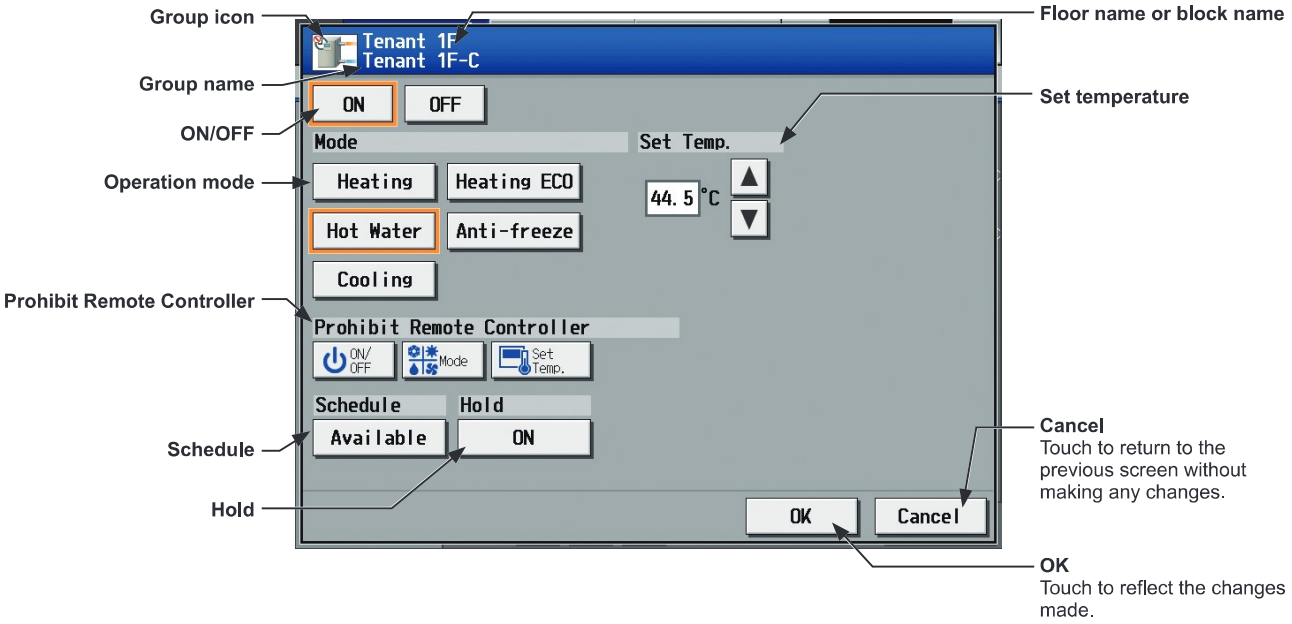
[2] LOSSNAY unit group

Refer to section 3-1-6 for details about the setting items.



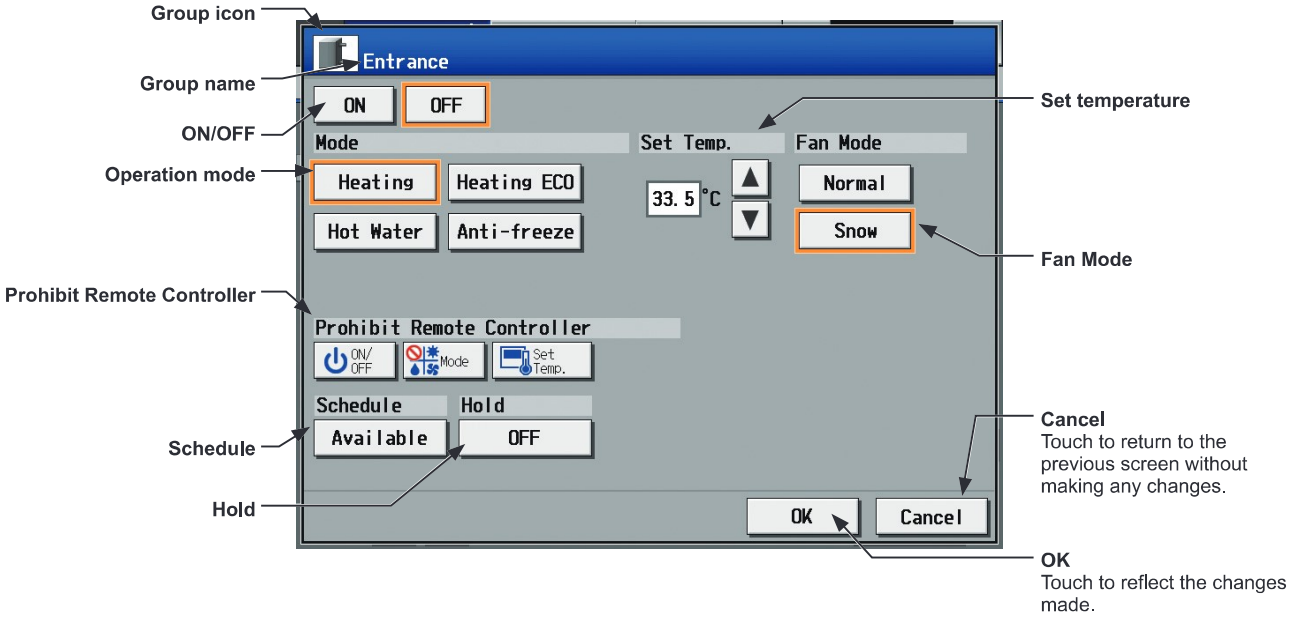
[3] Air To Water (PWFY) unit group

Refer to section 3-1-6 for details about the setting items.



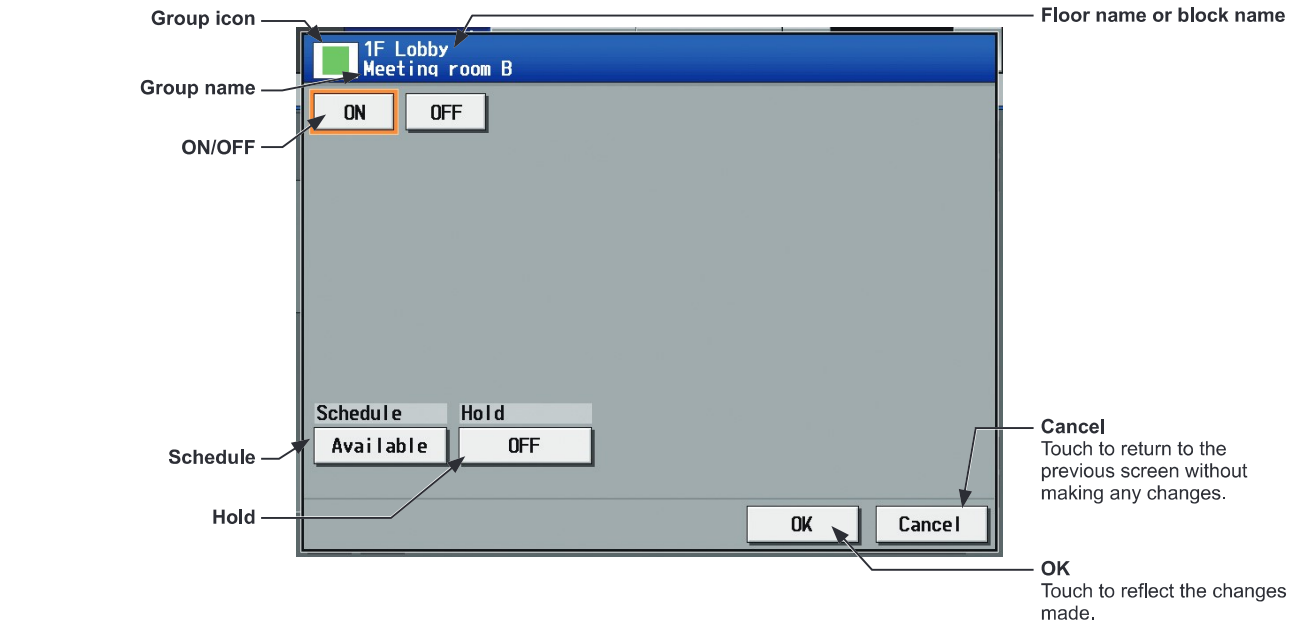
[4] HWHP (CAHV) unit group

Refer to section 3-1-6 for details about the setting items.



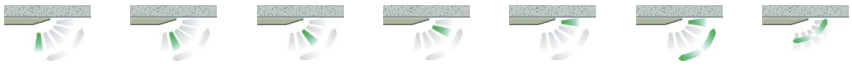
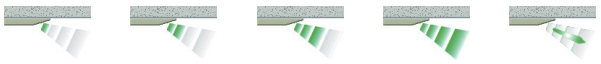
[5] General equipment group

Refer to section 3-1-6 for details about the setting items.



3-1-6. Operation setting items

Note: The items in the table below may not be displayed, depending on the model of the connected units.

Item	Description
ON/OFF	Touch [ON] or [OFF] to turn on or off the units in a given group. Note: Switching this setting will turn on or off the LOSSNAY unit as well that is interlocked with the operation of indoor units in the group. To turn on or off the LOSSNAY unit only, use the “Interlocked LOSSNAY ON/OFF” switch.
Operation mode	Touch the desired operation mode. Air conditioning unit: Cool, Dry, Fan, Heat, Auto, Setback LOSSNAY unit: Bypass, Heat Recovery, Auto Air To Water (PWFY) unit: Heating, Heating ECO, Hot Water, Anti-freeze, Cooling HWHP (CAHV) unit: Heating, Heating ECO, Hot Water, Anti-freeze Note: Only the operation modes available for the unit model will appear. Note: The Setback mode can be selected on the AE-200A/AE-50A, but not on the AE-200E/AE-50E.
Set temperature	Touch ▲ or ▼ to adjust the set temperature. <Setting range> Air conditioning unit Cool/Dry: 19°C–30°C (67°F–87°F) Heat: 17°C–28°C (63°F–83°F) Auto: 19°C–28°C (67°F–83°F) Air To Water (PWFY) unit (Booster unit) Heating: 30°C–50°C (87°F–122°F) Hot Water: 30°C–70°C (87°F–158°F) Anti-freeze: 10°C–45°C (50°F–113°F) HWHP (CAHV) unit Heating: 25°C–70°C (77°F–158°F) Hot Water: 25°C–70°C (77°F–158°F) Note: The settable temperature ranges depend on the unit model. Note: If the indoor unit supports the dual set point function in the Auto mode and when the operation mode above is set to Auto or Setback, two set temperatures for Cool mode and Heat mode can be set. Note: The temperature unit (°C or °F) can be selected on the [Unit Info.] screen.
Air Direction	Touch ▲ or ▼ to adjust the air direction. (Mid 3) (Mid 2) (Mid 1) (Mid 0) (Horizontal) (Swing) (Auto)  Note: Available air directions depend on the unit model.
Fan Speed	Touch ▲ or ▼ to adjust the fan speed. (Low) (Mid 2) (Mid 1) (High) (Auto)  Note: Available fan speeds depend on the unit model.
Fan Mode	This item will appear only on the operation settings screen for HWHP (CAHV) unit groups. The fan can be set to keep rotating even while the unit is stopped to avoid snow accumulation on the fan guard during the winter. Select [Normal] to stop the fan while the unit is stopped. Select [Snow] to operate the fan even while the unit is stopped.
Interlocked LOSSNAY ON/OFF	Touch [ON] or [OFF] to turn on or off the interlocked LOSSNAY unit. Note: For a group that is not connected to an interlocked LOSSNAY unit (ventilator), this item will not appear. Note: It takes a while for the status of the LOSSNAY unit group icons on the [Floor] or [Block] display to be updated. Note: If a LOSSNAY unit is interlocked with the operation of indoor units in multiple groups, the LOSSNAY unit may be in operation, even when the “Interlocked LOSSNAY OFF” icon is displayed.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Fan speed of interlocked LOSSNAY</td><td>Touch [▲] or [▼] to adjust the fan speed of the interlocked LOSSNAY unit (ventilator).
Note: For a group that is not connected to an interlocked LOSSNAY unit (ventilator), this item will not appear.
Note: It takes a while for the status of the LOSSNAY unit group icons on the [Floor] or [Block] display to be updated.</td></tr>
<tr><td>Prohibit Remote Controller Operation</td><td>The following operations or setting change from the local remote controllers can be prohibited.
<table>
<tr><th></th><th>(Permit)</th><th>(Prohibit)</th></tr>
<tr><td>ON/OFF</td><td></td><td></td></tr>
<tr><td>Operation mode</td><td></td><td></td></tr>
<tr><td>Set temperature</td><td></td><td></td></tr>
<tr><td>Filter Sign</td><td></td><td></td></tr>
<tr><td>Air Direction</td><td></td><td></td></tr>
<tr><td>Fan Speed</td><td></td><td></td></tr>
<tr><td>Timer</td><td></td><td></td></tr>
</table>
Note: The settable items depend on the unit model.
Note: When the [ON/OFF] operation is prohibited and the “Automatic recovery after power failure” switch on the indoor unit is set to “Turn off the power, or restore operation regardless of the operation status immediately before power failure,” the operation of the indoor unit will not be restored, even when turned on after power restoration. When the switch is set to “Turn off the power, or restore operation if the unit was in operation immediately before power failure,” the operation of the indoor unit will be restored regardless of whether the [ON/OFF] operation is prohibited or not. Refer to the indoor unit Installation Manual for details about switch settings.</td></tr>
<tr><td>Schedule</td><td>Touch [Available] or [Not Avail.] to enable/disable the scheduled operations. When the Schedule is enabled, the scheduled operations are disabled.
Note: The operations that have been scheduled on the remote controller will not be disabled.</td></tr>
<tr><td>Hold</td><td>Touch [ON] or [OFF] to enable/disable the Hold function. When the Hold function is enabled, the scheduled operations are disabled.
Note: The operations that have been scheduled on the remote controller will also be disabled.
Note: [Hold type] can be specified on the [Advanced] screen.
Note: The Hold function can be used on the AE-200A/AE-50A, but not on the AE-200E/AE-50E.</td></tr>
<tr><td>Filter Sign</td><td>Touch [Reset] to switch between resetting and not resetting the filter sign after cleaning the filter.
Note: If a filter sign in the group has not been triggered, then this item will not appear.
Note: Filter sign of LOSSNAY units will not be reset.</td></tr>
</table>

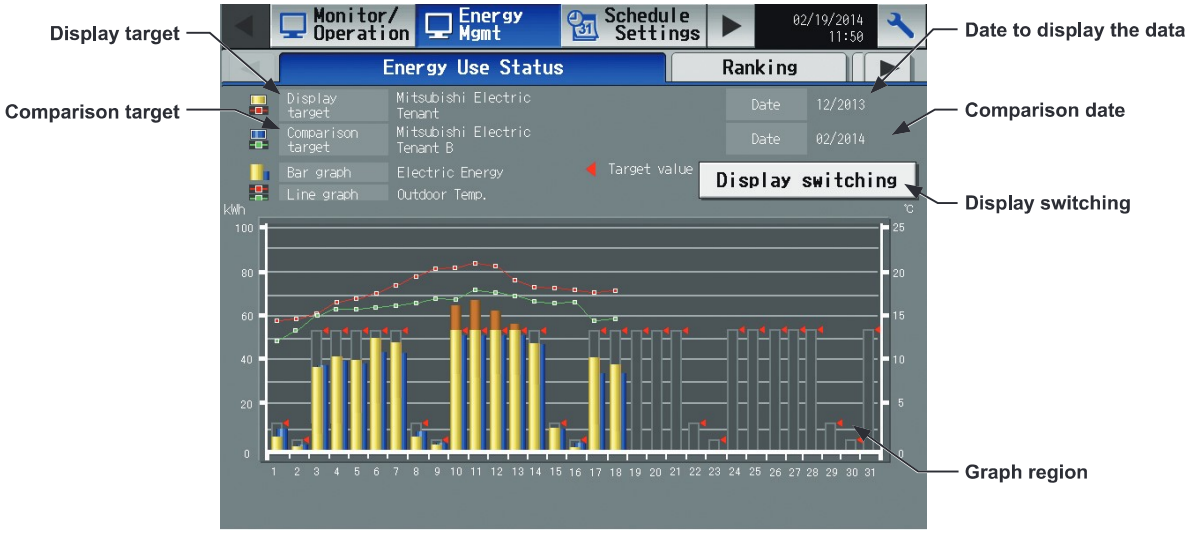
3-2. Energy Management

3-2-1. Energy Use Status

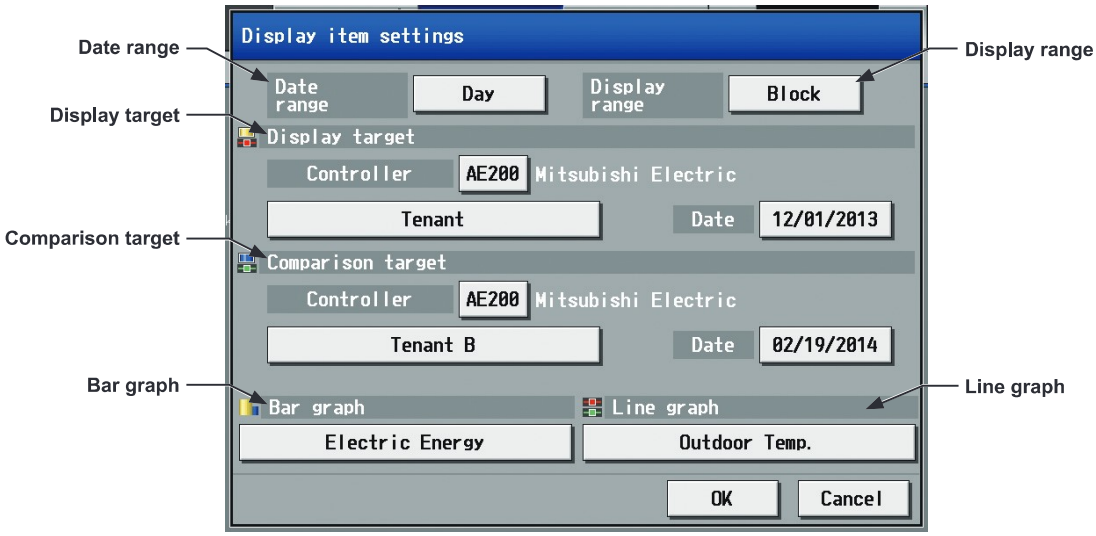
On the [Energy Use Status] screen, the energy-control-related status, such as electric energy consumption, operation time, and outdoor temperature, can be displayed in a graph. Operators can check the detailed status of given indoor units by specifying the date to display the data per group, block, or unit address. Also, the status of other indoor units can be displayed at the same time for comparison.

Touch [Energy Mgmt] in the menu bar, and then touch [Energy Use Status].

Note: A separate license is required, depending on the selected date range, display range, and display item.



(1) Touch [Display switching] to set the display items.



Item	Description
Date range	Select [Day], [Month], or [Year]. Note: When [Day] is selected, the data for each hour between 0: 00 and 24: 00 of the specified date will appear in the graph. When [Month] is selected, the data for each day between the 1st and 31st of the specified month will appear in the graph. When [Year] is selected, the data for each month between January and December of the specified year will appear in the graph. Note: Only the data for the period during which the AE-200/AE-50 was powered on will appear in the graph. The data for the period during which the AE-200/AE-50 was powered off will not appear in the graph.
Display range	Select [Block], [Group], or [Address] to display its data.

<table>
<tr><th colspan="2">Item</th><th>Description</th></tr>
<tr><td rowspan="3">Display target</td><td>Controller</td><td>Select [AE200] to display the data for AE-200, and select [AE1], [AE2], or [AE3] to display the data for each AE-50.</td></tr>
<tr><td>Target</td><td>Select a block name, group name, or address number to display its data.
Note: The selectable items vary, depending on the item selected in the [Display range] field.</td></tr>
<tr><td>Date</td><td>Specify a date to display the data.
Note: When [Day] is selected as a Date range, specify “yyyy/mm/dd“ from the current month or the last 24 months.
When [Month] is selected as a Date range, specify “yyyy/mm” from the current month or the last 24 months.
When [Year] is selected as a Date range, specify “yyyy” from the current year or the last 2 years.
Note: The date will appear in the format that has been set on the [Unit Info.] screen (see section 5-2-5 “Unit Information”).</td></tr>
<tr><td rowspan="3">Comparison target</td><td>Controller</td><td>Select [AE200] to display the data for AE-200 for comparison, and select [AE1], [AE2], or [AE3] to display the data for each AE-50 for comparison.</td></tr>
<tr><td>Target</td><td>Select a block name, group name, or address to display the comparison data.
Note: The selectable items vary, depending on the item selected in the [Display range] field.</td></tr>
<tr><td>Date</td><td>Specify a date to display the comparison data.
Note: The same rule as for the [Date] under the [Display target] section apply.
Note: The date will appear in the format that has been set on the [Unit Info.] screen (see section 5-2-5 “Unit Information”).</td></tr>
<tr><td colspan="2">Bar graph</td><td>Select an item to display its data in the bar graph.
Note: The selectable items vary, depending on the items selected in the [Display range] and [Display target] fields.
 Display items for bar graph
<table>
<tr><th rowspan="2">Display target</th><th rowspan="2">Display item</th><th colspan="3">Display range</th></tr>
<tr><th>Address</th><th>Group</th><th>Block</th></tr>
<tr><td rowspan="6">Indoor unit</td><td>Target value</td><td>-</td><td>-</td><td>V *1*5</td></tr>
<tr><td>Electric Energy *3</td><td>V *1</td><td>V *1</td><td>V *1</td></tr>
<tr><td>Fan operation time *4</td><td>V *1</td><td>V *1</td><td>-</td></tr>
<tr><td>Thermo-ON time *4</td><td>V *1</td><td>V *1</td><td>-</td></tr>
<tr><td>Thermo-ON time (Cool) *4</td><td>V *1</td><td>V *1</td><td>-</td></tr>
<tr><td>Thermo-ON time (Heat) *4</td><td>V *1</td><td>V *1</td><td>-</td></tr>
<tr><td rowspan="4">MCP
(PI controller)</td><td>Name of the metering device 1</td><td>V *2</td><td>-</td><td>-</td></tr>
<tr><td>Name of the metering device 2</td><td>V *2</td><td>-</td><td>-</td></tr>
<tr><td>Name of the metering device 3</td><td>V *2</td><td>-</td><td>-</td></tr>
<tr><td>Name of the metering device 4</td><td>V *2</td><td>-</td><td>-</td></tr>
</table>
V: Item that can be displayed in the graph
*1 “Energy Management License Pack” is required.
*2 If “Energy Management License Pack” has not been registered, only [Day] is available for selection as a Date range. To select [Month] or [Year], “Energy Management License Pack” is required.
*3 The electric energy consumed by indoor units will appear in the graph. The values are apportioned based on the setting for [Indoor unit operation apportioning mode] that has been made on the Energy Management Settings screen, accessible via the Web Browser for Initial Settings.
*4 The indoor unit’s cumulative operation time for the selected item will appear in the graph.
• [FAN operation time] is the cumulative duration of time in which the indoor unit is ON.
• [Thermo-ON time] is the cumulative duration of time in which the indoor unit and the compressor are ON. (Thermo-ON time (Cool): when the Cool mode is selected; Thermo-ON time (Heat): when the Heat mode is selected; Thermo-ON time: when either mode is selected)
*5 The target values will appear in the graph when the target electric energy values are specified on the Target Value Setting screen and when the electricity meter is selected in the [Indoor unit electricity meter] section on the Energy Management Settings screen, accessible via the Web Browser for Initial Settings.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Line graph</td><td>
Select an item to display its data in the line graph.
Note: The selectable items vary, depending on the items selected in the [Display range] and [Display target] fields.

 Display items for line graph
<table>
<tr><th rowspan="2">Display target</th><th rowspan="2">Display item</th><th colspan="3">Display range</th></tr>
<tr><th>Address</th><th>Group</th><th>Block</th></tr>
<tr><td>-</td><td>Outdoor Temp. *4</td><td>V *1</td><td>V *1</td><td>V *1</td></tr>
<tr><td rowspan="3">Indoor unit</td><td>Set Temp. for cool *4</td><td>V *2</td><td>V *2</td><td>-</td></tr>
<tr><td>Set Temp. for heat *4</td><td>V *2</td><td>V *2</td><td>-</td></tr>
<tr><td>Room Temp. *4</td><td>V *2</td><td>V *2</td><td>-</td></tr>
<tr><td rowspan="2">MCT
(AI controller) *4</td><td>Name of the temperature sensor 1 or humidity sensor 1</td><td>V *3</td><td>-</td><td>-</td></tr>
<tr><td>Name of the temperature sensor 2 or humidity sensor 2</td><td>V *3</td><td>-</td><td>-</td></tr>
<tr><td rowspan="2">AHC *4</td><td>Name of the temperature sensor 1</td><td>V *2</td><td>-</td><td>-</td></tr>
<tr><td>Name of the temperature sensor 2</td><td>V *2</td><td>-</td><td>-</td></tr>
</table>
V: Item that can be displayed in the graph
*1 Selectable only when the outdoor temperature sensor is selected in the [External Temperature Sensor] section on the Energy Management Settings screen, accessible via the Web Browser for Initial Settings.
*2 “Energy Management License Pack” is required.
*3 If “Energy Management License Pack” has not been registered, only [Day] is available for selection as a Date range. To select [Month] or [Year], “Energy Management License Pack” is required.
*4 When [Day] is selected as a Date range, the temperature values obtained every hour will appear. When [Month] is selected, the average daily temperature values will appear. When [Year] is selected, the average monthly temperature values will appear.
</td></tr>
</table>

(2) Touch [OK] to go back to the previous screen.
The display target’s data and the comparison target’s data will appear in a bar graph and a line graph.
Note: No graph will appear if no data that meet the specified criteria exist.

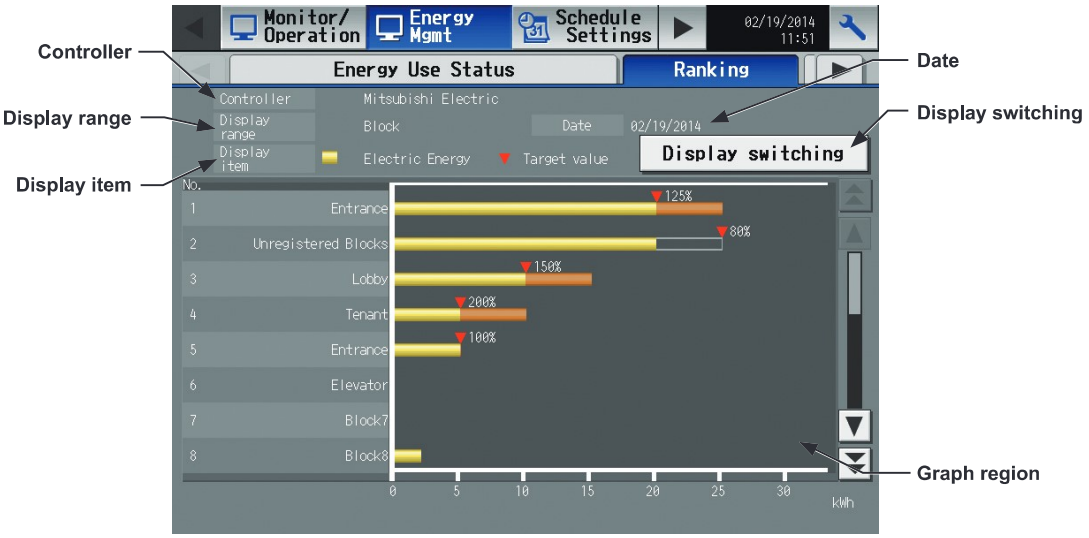
<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Graph region</td><td>
<table>
<tr><th></th><th>Display target</th><th>Comparison target</th><th>Target value</th></tr>
<tr><td> Bar graph</td><td> (Yellow)</td><td> (Blue)</td><td> (Red)</td></tr>
<tr><td> Line graph</td><td> (Red)</td><td> (Green)</td><td></td></tr>
</table>
Note: If no item is selected in the [Comparison target] field, only the data of the item selected in the [Display target] field will appear in the graph.
Note: The data for a certain period of time may not appear if it does not exist due to the changes of the daylight saving time setting or current time setting.
If the data overlap for a certain period of time due to the time overlap that was occurred when daylight saving ended or the current time setting was changed, the newer data will appear in the graph.
</td></tr>
</table>

3-2-2. Ranking

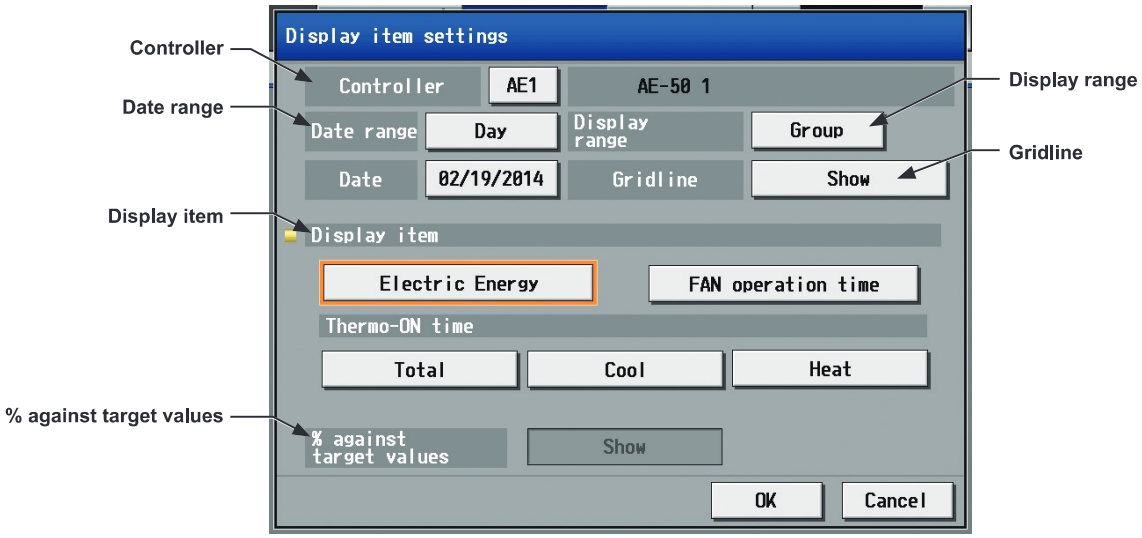
On the Ranking screen, the rankings in electric energy consumption and the fan operation time of given indoor units can be displayed per block, group, and unit in descending order in the bar graph.

Touch [Energy Mgmt] in the menu bar, and then touch [Ranking].

Note: “Energy Management License Pack” is required to access the Ranking screen.



(1) Touch [Display switching] to set the display items.



Item	Description
Controller	Select [AE200] to display the data for AE-200, and select [AE1], [AE2], or [AE3] to display the data for each AE-50. Note: The [Controller] setting will appear only when the [System Exp] setting on the [Unit Info.] screen is set to [Expand].
Date range	Select [Day], [Month], or [Year].
Display range	Select [Block], [Group], or [Address] to display its data in the ranking graph.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Date</td><td>Specify a date to display the data in the ranking graph.
Note: When [Day] is selected as a Date range, specify “yyyy/mm/dd” from the current month or the last 24 months.
When [Month] is selected as a Date range, specify “yyyy/mm” from the current month or the last 24 months.
When [Year] is selected as a Date range, specify “yyyy” from the current year or the last 2 years.
Note: The date will appear in the format that has been set on the [Unit Info.] screen (see section 5-2-5 “Unit Information”).
Note: Only the data for the period during which the AE-200/AE-50 was powered on will appear in the graph. The data for the period during which the AE-200/AE-50 was powered off will not appear in the graph.</td></tr>
<tr><td>Gridline</td><td>Select [Show] to show the gridline in the ranking graph, and [Hide] not to.</td></tr>
<tr><td>Display item</td><td>Select an item to display its data in the ranking graph.
Note: The selectable items vary, depending on the item selected in the [Display range] field.

Display items
<table><tr><th rowspan="2">Display item</th><th colspan="3">Display range</th></tr><tr><th>Address</th><th>Group</th><th>Block</th></tr><tr><td>Electric Energy (kWh)</td><td>V</td><td>V</td><td>V</td></tr><tr><td>Fan operation time (min)</td><td>V</td><td>V</td><td>-</td></tr><tr><td>Thermo-ON time (Total) (min)</td><td>V</td><td>V</td><td>-</td></tr><tr><td>Thermo-ON time (Cool) (min)</td><td>V</td><td>V</td><td>-</td></tr><tr><td>Thermo-ON time (Heat) (min)</td><td>V</td><td>V</td><td>-</td></tr></table>V: Item that can be displayed in the graph</td></tr>
<tr><td>% against target values</td><td>Select [Show] to show the percentage against the target values, and [Hide] not to.</td></tr>
</table>

(2) Touch [OK] to go back to the previous screen.
The graph will be created based on the specified criteria.
Note: No graph will appear if no data that meet the specified criteria exist.

Item	Description
Graph region	Ranking graph will appear in descending order of the value of the selected display item.

3-2-3. Target Value Setting

This section explains how to set the target electric energy consumption values for the entire system for the current year, each month, each day of the week, and each block. The set values will be displayed in the graph on the [Energy Use Status] screen (see section 3-2-1) and the [Ranking] screen (see section 3-2-2).

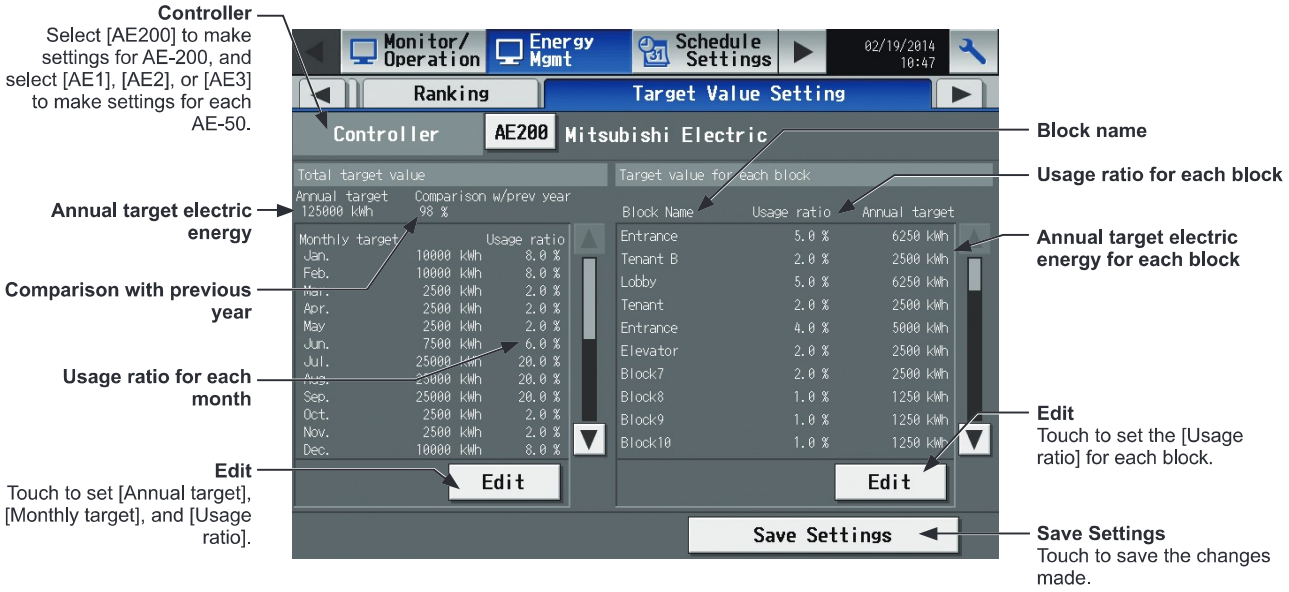
Touch [Energy Mgmt] in the menu bar, and then touch [Target Value Setting].

Set the annual target electric energy, usage ratio for each month, and usage ratio for each day of the week to automatically calculate the monthly target electric energy. Also set the usage ratio for each block to automatically calculate the annual target electric energy for each block.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

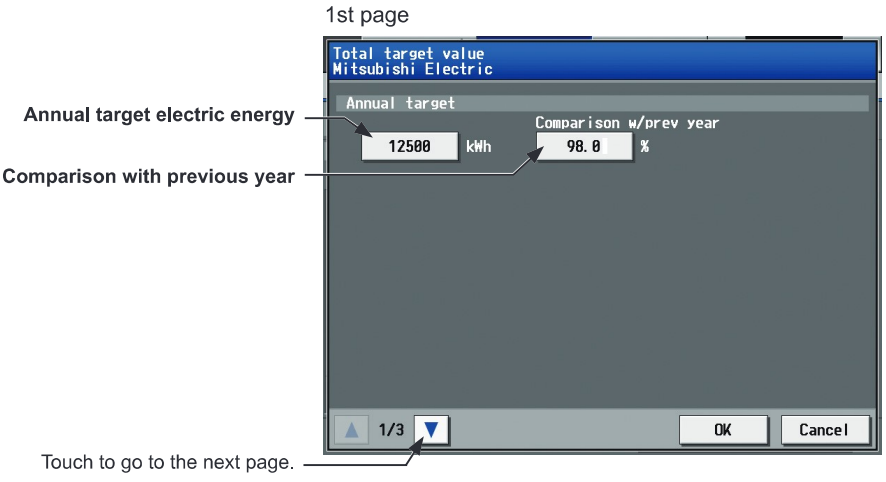
Important

- The target value settings must be made after all units have been started up.
  The settings that have been saved while one or more units are starting up may be lost.

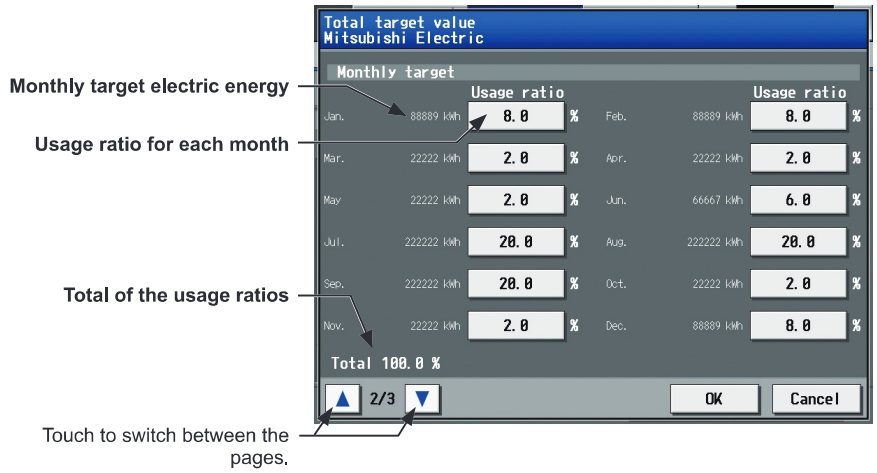


(1) In the [Controller] section, select [AE200] to make settings for AE-200, and select [AE1], [AE2], or [AE3] to make settings for each AE-50.

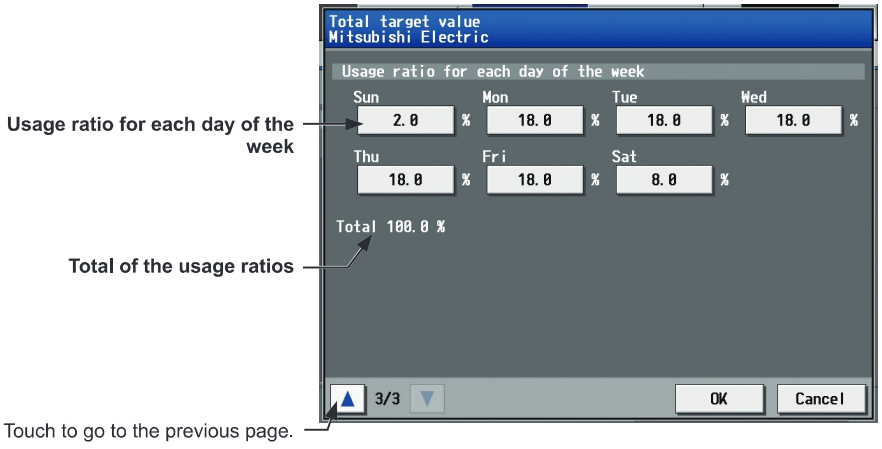
(2) Touch [Edit] on the left, and set the annual target electric energy, the target usage ratios of the annual electric energy for each month, and the target usage ratios of the electric energy for each day of the week.



2nd page



3rd page

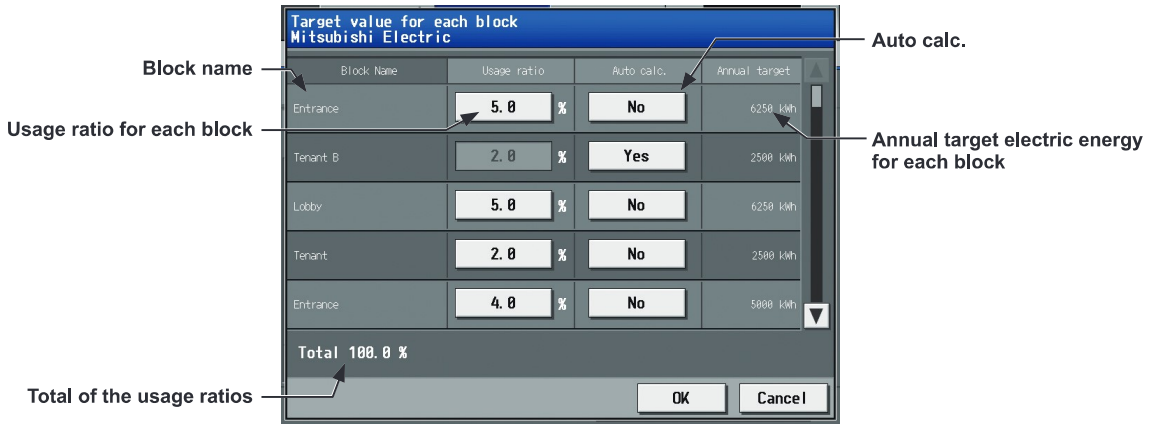


Item	Description
Annual target electric energy	Enter the annual target electric energy consumption value. Note: The value must be between 0 and 4294967 kWh. Note: If the ratio is entered in the “Comparison with previous year” field, the annual target electric energy will be calculated automatically, based on the electric energy consumption data of the previous year.
Comparison with previous year	Enter the ratio of the annual target electric energy of the current year to the electric energy consumed in the previous year. Note: The ratio must be between 0.0 and 999.9%. Note: If the value is entered in the “Annual target electric energy” field, the ratio will be calculated automatically based on the electric energy consumption data of the previous year.
Monthly target electric energy	The target electric energy value for each month will appear. Note: The values cannot be entered. The values will be calculated automatically, based on the ratios entered in the “Usage ratio for each month” field.
Usage ratio for each month	Enter the target usage ratios of the annual electric energy for each month. Note: Each ratio must be between 0 and 100%. Note: The total of the ratios must be 100%. Note: When the ratios are entered, the values in the “Monthly target electric energy” field will be calculated automatically, based on the value in the “Annual target electric energy” field.
Usage ratio for each day of the week	Enter the target usage ratios of the electric energy for each day of the week. Note: The total of the ratios must be 100%. Note: When the ratios are entered, the values in the “Monthly target electric energy” field may change after being recalculated.

(3) Touch [OK] to go back to the previous screen.

Note: If the total of the usage ratios for each month and each day of the week are not 100%, the [OK] button cannot be touched.

(4) Touch [Edit] on the right, and set the target usage ratios of the electric energy for each block to automatically calculate the annual target electric energy for each block.



Item	Description
Block name	The names of all the registered blocks will appear. Note: If the block name has not been registered, [“Block” + block number] will appear.
Usage ratio for each block	Enter the target usage ratios of the electric energy for each block. Note: The ratios cannot be entered if the [Auto calc.] setting is set to [Yes]. To enter the desired ratios, change the setting to [No]. Note: The total of the ratios must be 100%.
Auto calc.	Set to [Yes] to automatically calculate the usage ratio of the electric energy and the annual target electric energy for each block based on the indoor unit capacity.
Annual target electric energy for each block	The annual target electric energy for each block will appear after being calculated based on the ratios in the “Usage ratio for each block” field and the value entered in the “Annual target electric energy” field.

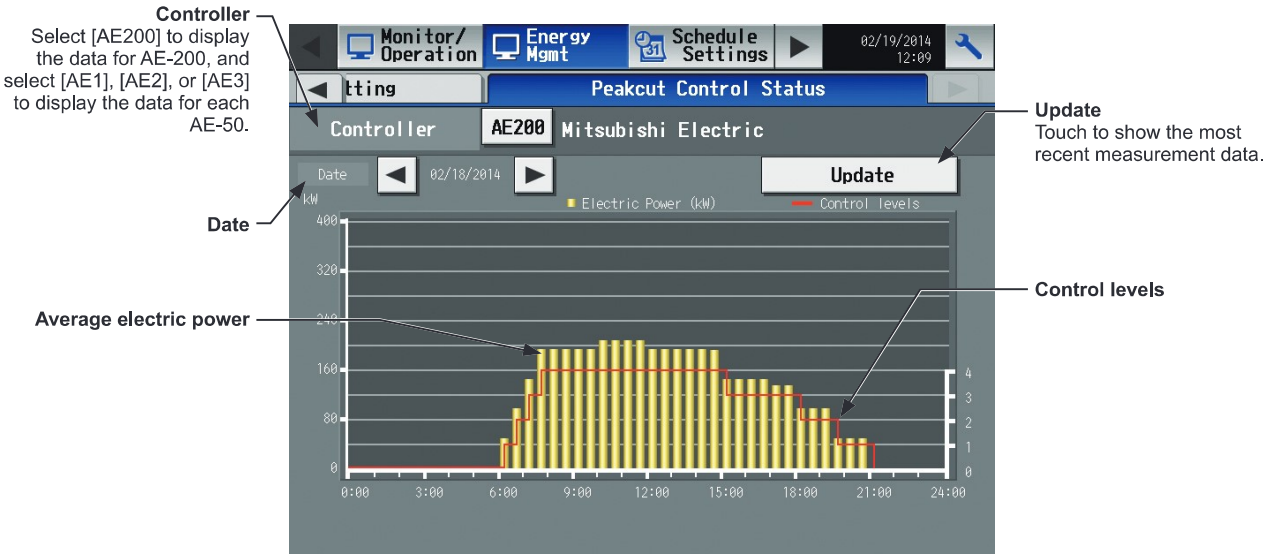
3-2-4. Peakcut Control Status

This section explains how to check the Peakcut control status.

Touch [Energy Mgmt] in the menu bar, and then touch [Peakcut Control Status].

The average electric power consumption (kW) and the control level will appear in the graph.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the data for each AE-200 and AE-50 individually.



(1) In the [Controller] section, select [AE200] to display a graph for AE-200, and select [AE1], [AE2], or [AE3] to display a graph for each AE-50.
The most recent measurement data will appear in a graph.

Item	Description
Update	Touch to show the most recent measurement data.
Date	Select the measurement date. Note: The data of the past three days including the current day can be displayed.
Average electric power	Average electric power consumption (kW) will appear in 30-minute increments. Note: Average electric power consumption data are stored every hour and half hour. If a power failure occurs, up to 30-minute worth of data will be lost. Note: The graph can be displayed only when the Peak Cut method is set to [Electric Amount Count PLC] or [PI Controller] on the Peak Cut settings screen, accessible via the Web Browser for Initial Settings.
Control levels	Peak Cut control level will appear.

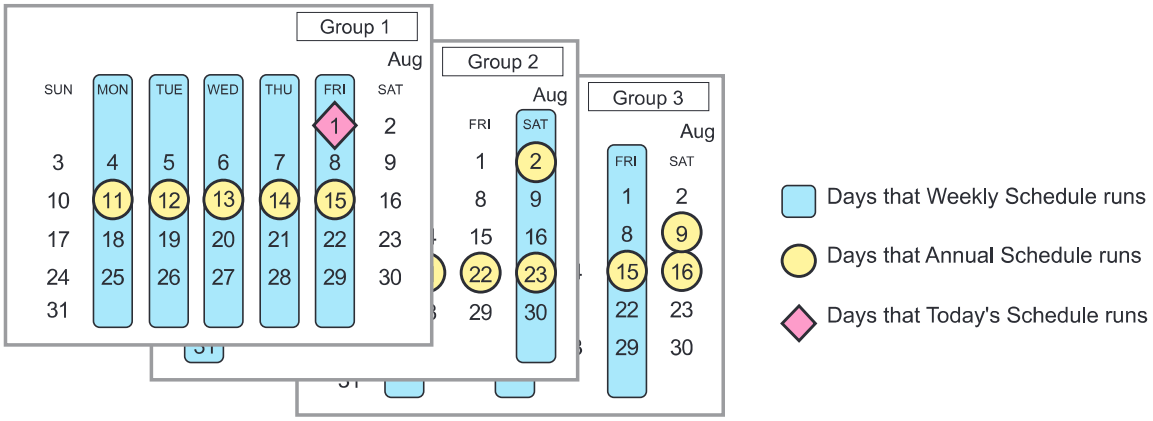
3-3. Schedule

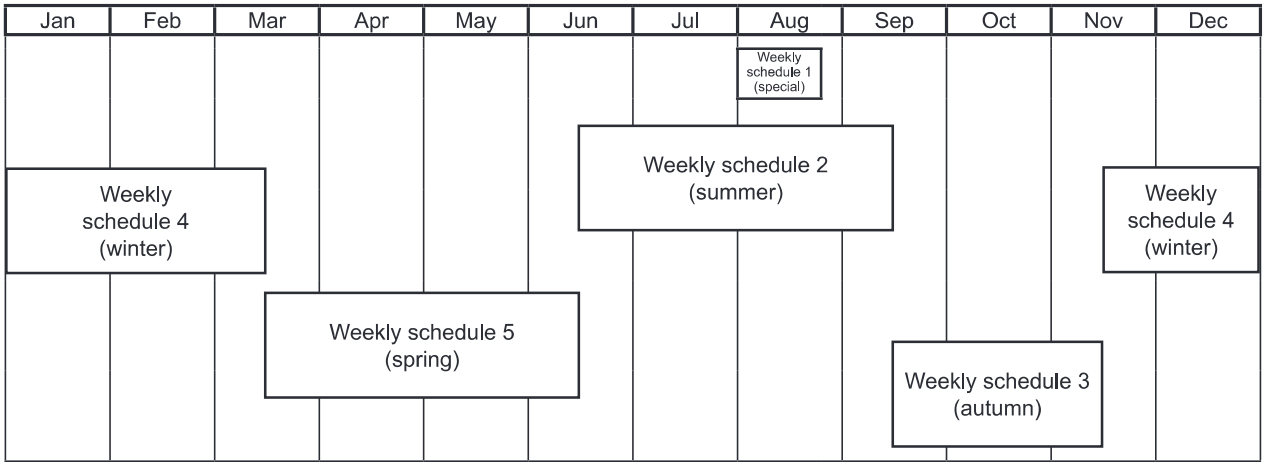
Weekly (5 types), annual (5 types), and current day scheduling are available. Schedules can be set for each group, each floor, each block, or all groups.

Important

- When one or more AE-50 controllers are connected, the schedule settings must be made with the AE-50 properly connected to ensure proper settings.

Schedule setting example

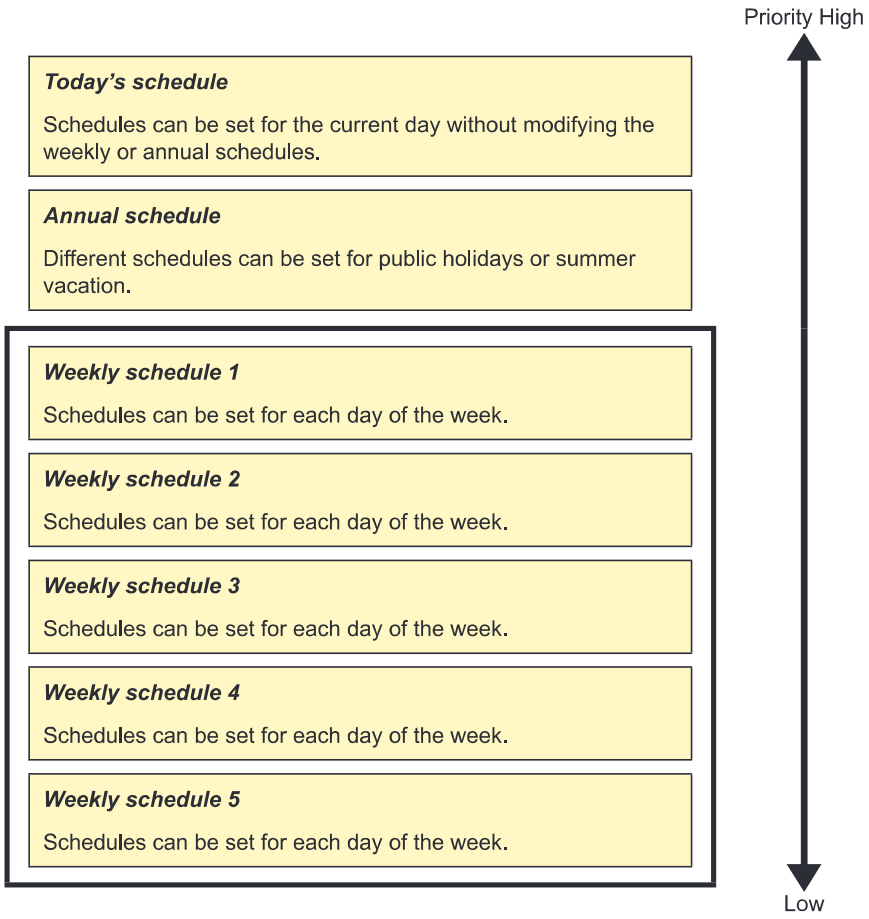




Note: The figure above shows the setting example of weekly schedules where the date period for each Weekly Schedule is set to the followings.
Weekly Schedule 1: Aug 1 - Aug 20
Weekly Schedule 2: Jun 16 - Sep 15
Weekly Schedule 3: Sep 16 - Nov 15
Weekly Schedule 4: Nov 16 - Mar 15
Weekly Schedule 5: Mar 16 - Jun 15

Note: When any of the Weekly Schedules 1, 2, 3, 4, and 5 overlap, the schedule with the lower number takes priority. For example, Weekly Schedule 1 takes precedence over Weekly Schedule 2.

Note: When the schedules overlap, schedule with the highest priority will run as shown below.



3-3-1. Weekly Schedule

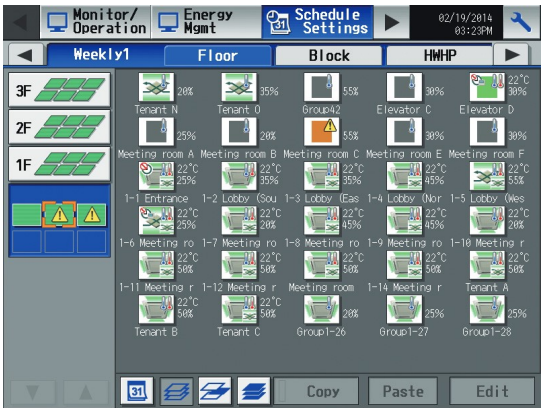
Touch [Schedule Settings] in the menu bar, and then touch [Weekly1], [Weekly2], [Weekly3], [Weekly4], or [Weekly5]. On the Weekly Schedule settings screen, schedules can be set for each day of the week.

Note: When today's schedule and weekly schedule are set for the same day, today's schedule settings take precedence over weekly schedule settings.

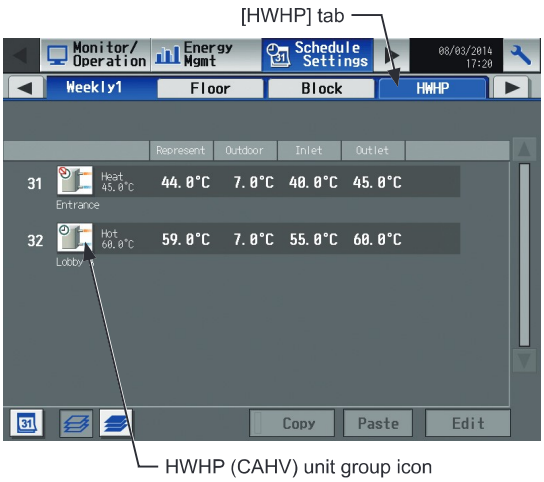
Note: Set the [Schedule] setting on the operation settings screen to [Available] to enable the scheduled events. (Refer to section 3-1-5 "Operation settings screen" for details.)

[1] Selecting a target to which the schedule will be applied

(1) On the [Floor] or [Block] display, select a group(s), block(s), or floor(s) to which the schedule will be applied. (Refer to 3-1-4 "Selecting the icons of the groups to be operated" for details.)



Note: The [HWHP] tab will appear when an HWHP (CAHV) unit is connected.
On the [HWHP] display, touch the icon(s) of the HWHP (CAHV) unit group(s) to set the schedule.



(2) If different equipment types exist together, a screen to select an equipment type will appear.
Touch one of the equipment types to set the schedule.



(3) A [Schedule Settings] screen will appear.
To create a schedule for the given block from scratch, touch [New settings] and touch [OK].
To create a schedule based on the existing setting of another group, touch [Based on the following group settings], select the name of the group whose schedule is to be based on, and touch [OK]. The contents of the schedule that have been set for the selected group will appear in the “Contents of Schedule” section on the screen that will appear next.

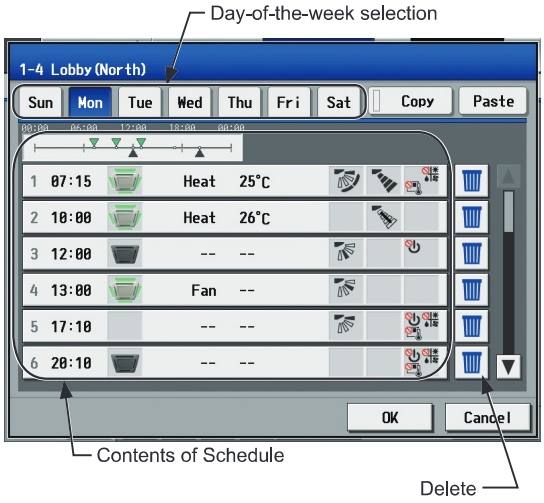


[2] Selecting a day of the week

(1) Touch the day to set the schedule.
The icons of the events that have been set for the selected group will appear in the “Contents of Schedule” section.

: ON
: OFF
: Other scheduled events

Note: To delete each scheduled events, touch the “Delete” button in the row of the schedule to be deleted.



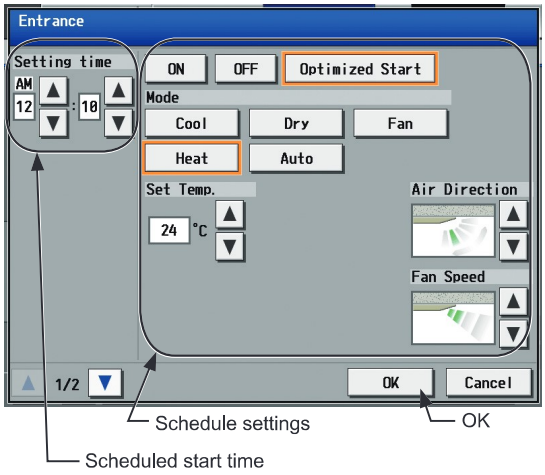


[3] Setting the contents of the schedule

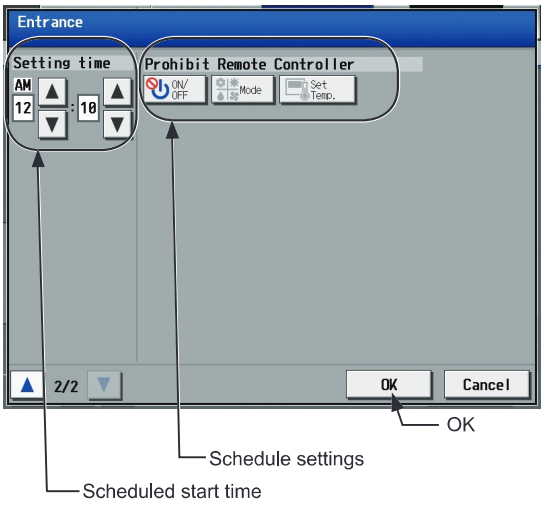
(1) Touch the row of the schedule to be set in the “Contents of Schedule” section to display the schedule settings screen.
Set the start time to apply to the schedule, set the operations to be scheduled, and then touch [OK].

To copy the schedule settings between groups, see [6] below.
To copy the schedule settings between days of the week, see [7] below.

1st page (Air conditioning unit group)

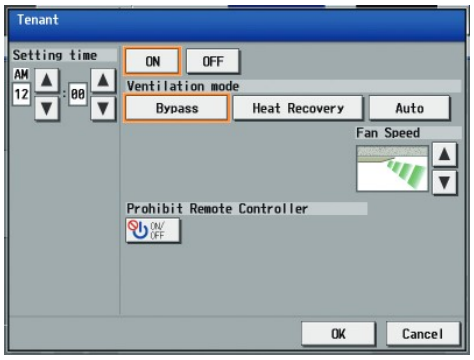


2nd page (Air conditioning unit group)

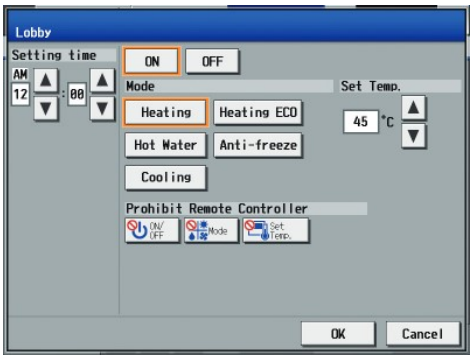


Note: The operation items that will appear on the screen vary, depending on the equipment type.

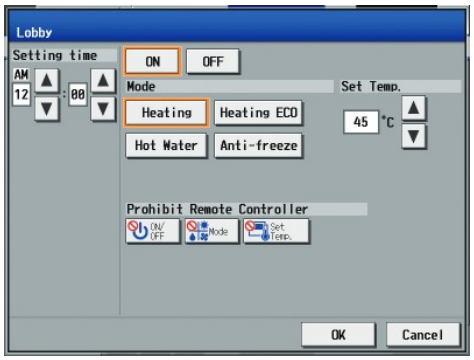
LOSSNAY unit group



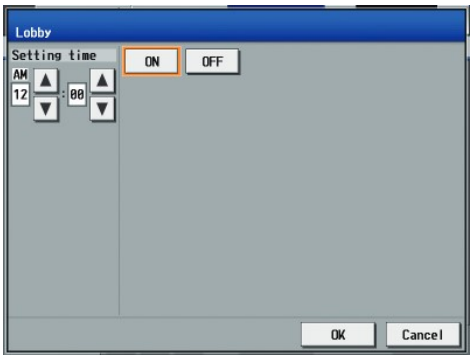
Air To Water (PWFY) unit group



HWHP (CAHV) unit group

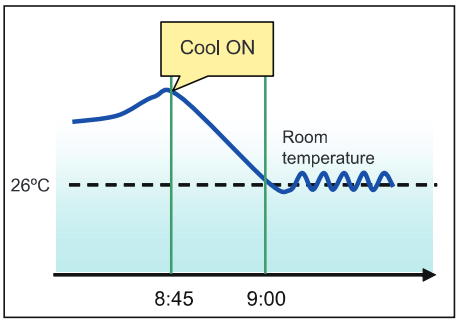


General equipment group

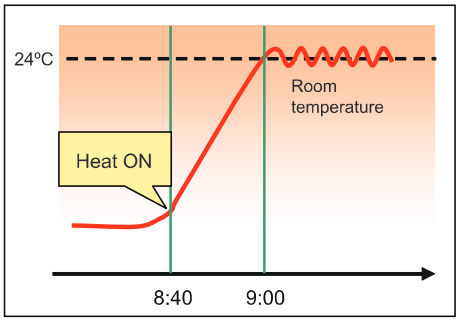


Note: When setting a schedule for a block or all groups, all operation modes are available for selection, but the available operation modes depend on the unit model. The units will not operate in the selected mode not supported by the units.

Note: About Optimized Start function



Operation mode: Cool
Start time: 9:00
Set temperature: 26ºC



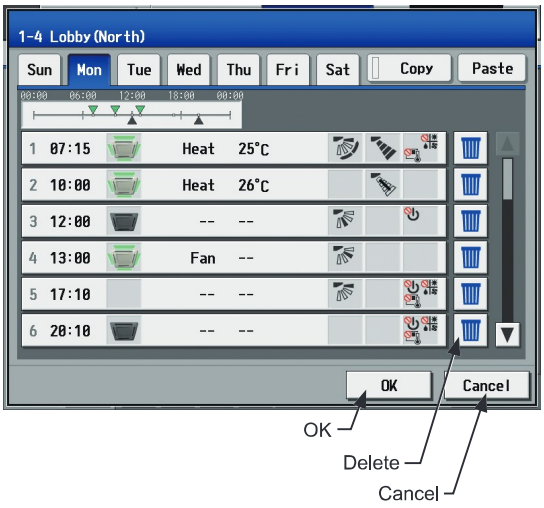
Operation mode: Heat
Start time: 9:00
Set temperature: 24ºC

- If [Optimized Start] is selected, the operation mode and the set temperature need to be set as well. The Optimized Start function will start the units 5 to 60 minutes prior to the scheduled start time to reach the set temperature at the scheduled start time, based on the operation data in the past. (When the units start the first time after a power reset, the units will start operation 30 minutes before the scheduled start time.)
- [Optimized Start] can be selected only for the air conditioning unit groups.
- If the room temperature is measured by the return air temperature sensor on the air conditioning unit, the measured value may not be an accurate representation of the temperature in the room, especially when the air conditioning unit is stopped and the room air is stagnant. When this is the case, use an external temperature sensor (PAC-SE40TSA) or remote controller sensor to measure the room temperature.
- If [Optimized Start] is selected and the [Prohibit Remote Controller] setting is set to Prohibit or Permit at the same time, the operations from the remote controllers will be prohibited or permitted at the scheduled start time.

[4] Saving the schedules

(1) To undo the changes made, touch [Cancel] before saving the schedules.
After completing the settings, touch [OK] to save the schedules.

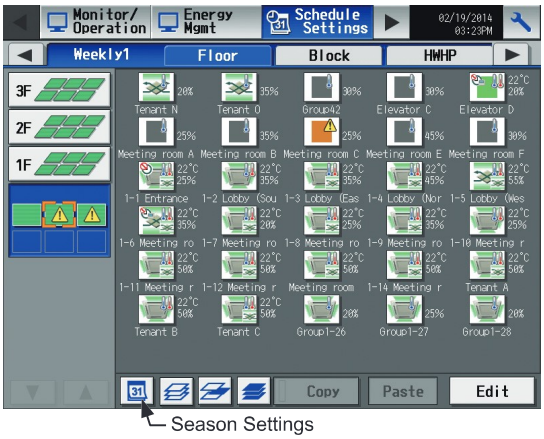
Note: To delete each scheduled events, touch the “Delete” button in the row of the schedule to be deleted.



[5] Setting the date periods

(1) Touch the “Season Settings” button on the [Floor] or [Block] display.

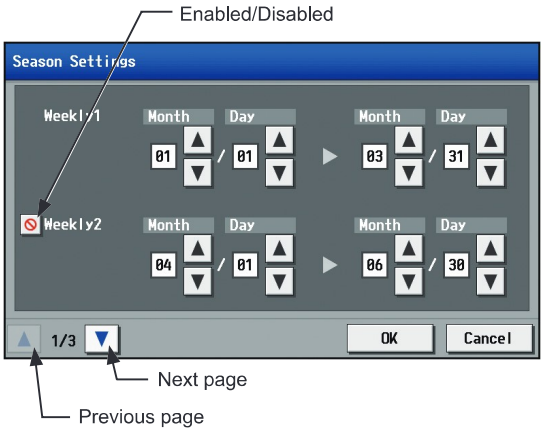
Note: If the [Schedule: Season setting] setting on the [Advanced] screen is set to [Not Available], the “Season Settings” button will not appear, and seasonal settings cannot be made.



(2) Enter the date periods in which each weekly schedule will be effective.
Touch the “Enabled/Disabled” buttons on the left side to enable or disable each weekly schedule.

☐ : Enabled
⊘ : Disabled (default)

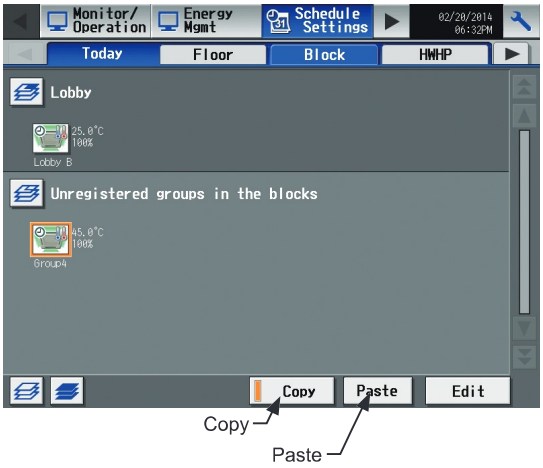
Note: Set the [Schedule: Season setting] setting on the [Advanced] screen to [Available]. (Refer to section 5-2-12 “Advanced settings” for details.)
Note: When any of the Weekly Schedules 1, 2, 3, 4, and 5 overlap, the schedule with the lower number takes priority. For example, Weekly Schedule 1 takes precedence over Weekly Schedule 2.
Note: The date period over the next year (such as 11/01 - 03/31) can be set.
Note: The settings made on this screen on the AE-200 will be reflected on this screen on the AE-50.



[6] Copying a schedule to another group

(1) To copy the schedule settings of a group to the schedule settings for another group, select the group whose schedule settings are to be copied, touch [Copy], select the group to which the copied schedule settings are to be pasted, and touch [Paste].

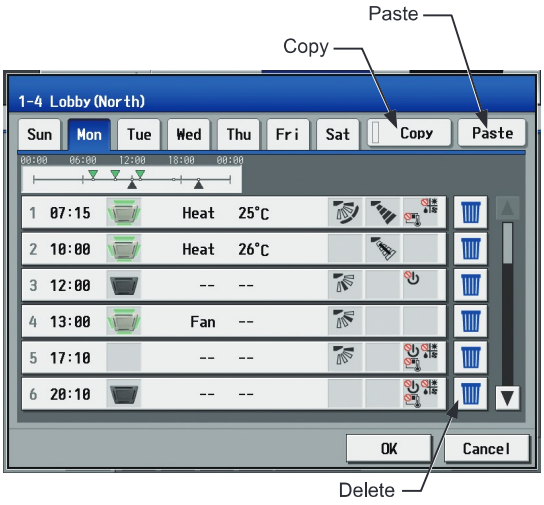
Note: Schedules of a group cannot be copied to a different type of group. For example, the schedules of an air conditioning unit group cannot be copied to the schedules for a LOSSNAY unit group.
Note: The operation mode and set temperature may not be copied because the available operation modes or operable set temperature range differ among the units.



[7] Copying a schedule to another day of the week

(1) To copy the schedule settings of a day to the schedule settings for another day of the week, select the day whose schedule settings are to be copied, touch [Copy], select the day to which the copied schedule settings are to be pasted, and touch [Paste].

Note: To delete each scheduled events, touch the “Delete” button in the row of the schedule to be deleted.



3-3-2. Annual Schedule

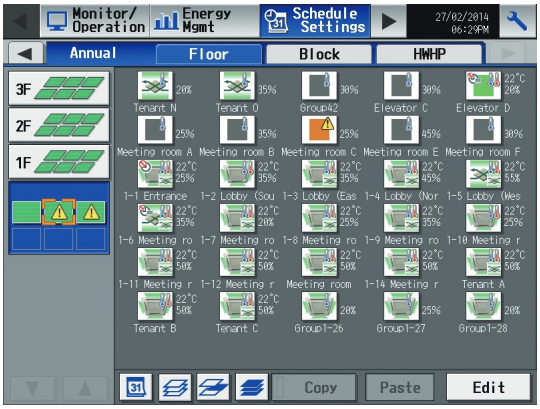
Touch [Schedule Settings] in the menu bar, and then touch [Annual].
On the Annual Schedule settings screen, schedules can be set for public holidays or summer vacation.
Up to five operation patterns (Pattern A through E) can be set for the 24 months including the current month, and total of 50 days can be allocated to the patterns.

Note: When today's schedule and annual schedule are set for the same day, today's schedule settings take precedence over annual schedule settings.

Note: Set the [Schedule] setting on the operation settings screen to [Available] to enable the scheduled events. (Refer to section 3-1-5 "Operation settings screen" for details.)

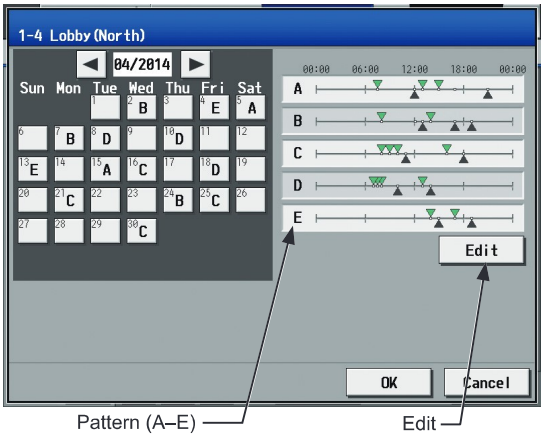
[1] Selecting a target to which the schedule will be applied

(1) On the [Floor] or [Block] display, select a group(s), block(s), or floor(s) to which the schedule will be applied. (Refer to 3-1-4 "Selecting the icons of the groups to be operated" for details.)



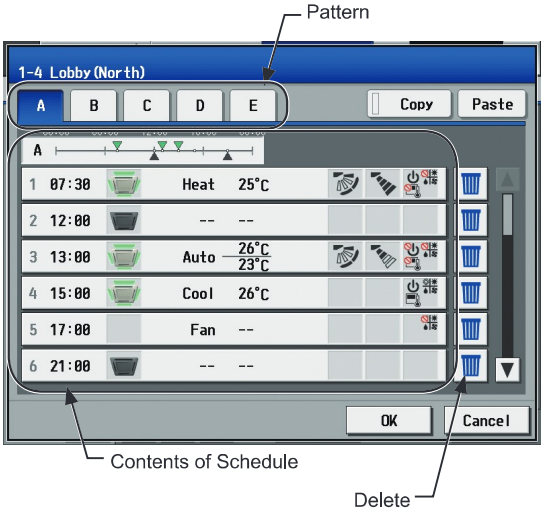
[2] Selecting a schedule pattern

(1) Touch a pattern or [Edit] to display the pattern settings screen.



(2) Touch a pattern tab to set the schedule.

Note: To delete each scheduled events, touch the "Delete" button in the row of the schedule to be deleted.



[3] Setting the contents of the schedule

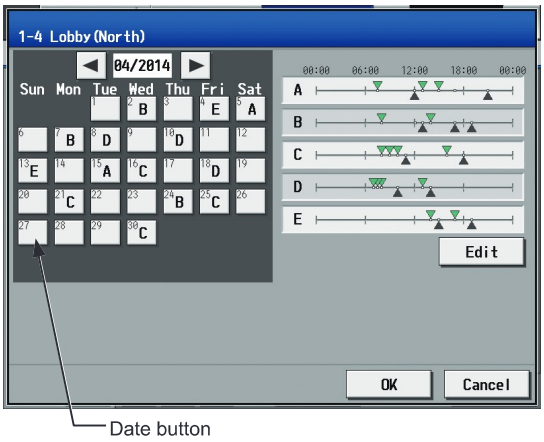
(1) Touch the row of the schedule to be set in the “Contents of Schedule” section to display the schedule settings screen.
Set the start time to apply to the schedule, set the operations to be scheduled, and then touch [OK]. (Refer to section 3-3-1 [3] for details.)

To copy the schedule settings between patterns, see [7] below.

[4] Assigning schedule patterns to special dates

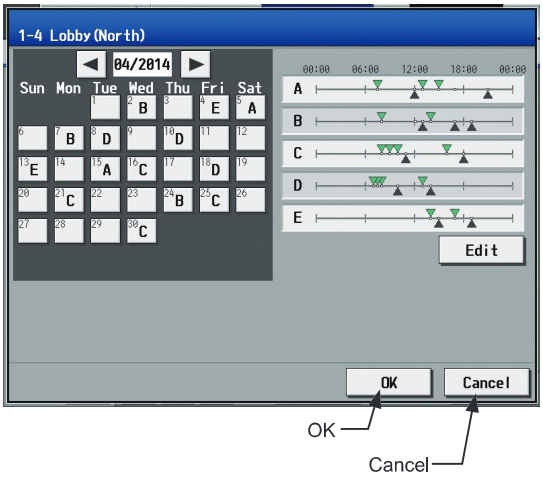
(1) Each schedule pattern can be assigned to the specified dates.
The date buttons will appear with the alphabet of the pattern that has been assigned.
Touching the date buttons toggles through the following options: A, B, C, D, E, and blank.

To cancel the pattern assignment, select blank.



[5] Saving the schedules

(1) To undo the changes made, touch [Cancel] before saving the schedules.
After completing the settings, touch [OK] to save the schedules.



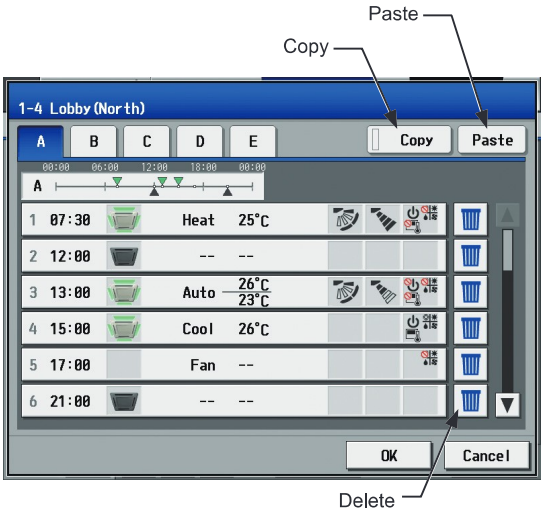
[6] Copying a schedule to another group

(1) Refer to 3-3-1 [6] for details.

[7] Copying a schedule to another pattern

(1) To copy the schedule settings of a pattern to the schedule settings for another pattern, select the pattern whose schedule settings are to be copied, touch [Copy], select the pattern to which the copied schedule settings are to be pasted, and touch [Paste].

Note: To delete each scheduled events, touch the “Delete” button in the row of the schedule to be deleted.



3-3-3. Today's Schedule

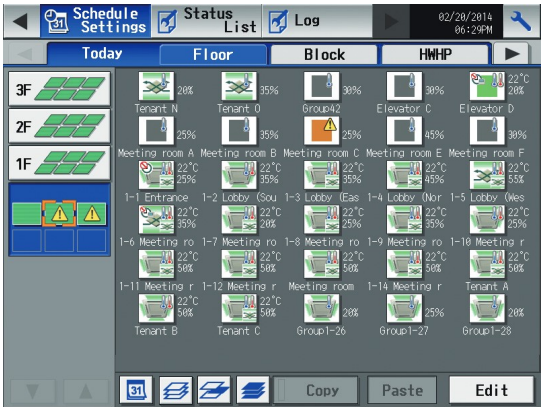
Touch [Schedule Settings] in the menu bar, and then touch [Today].
On the Today's Schedule settings screen, schedules can be set for the current day without modifying the weekly or annual schedules.

Note: Set the [Schedule] setting on the operation settings screen to [Available] to enable the scheduled events. (Refer to section 3-1-5 "Operation settings screen" for details.)

Note: Be sure to set the contents of schedule in a way that will not impact on the next day's operation. For example, if Prohibit setting of remote controller operation is made for any time such as 17: 00, Permit setting needs to be made for any time before the date changes such as 23: 59.

[1] Selecting a target to which the schedule will be applied

(1) On the [Floor] or [Block] display, select a group(s), block(s), or floor(s) to which the schedule will be applied. (Refer to 3-1-4 "Selecting the icons of the groups to be operated" for details.)



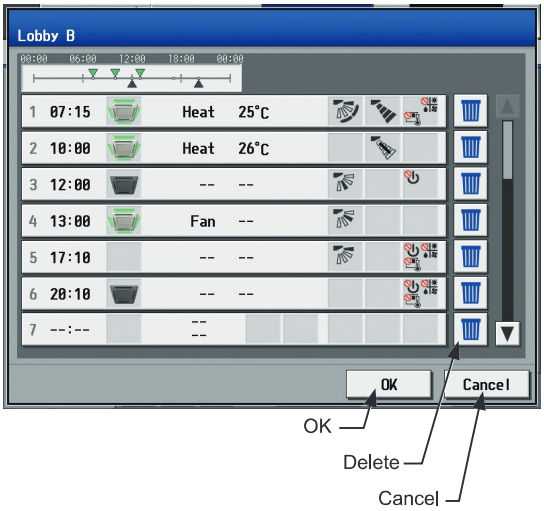
[2] Setting the contents of the schedule

(1) Touch the row of the schedule to be set in the "Contents of Schedule" section to display the schedule settings screen.
Set the start time to apply to the schedule, set the operations to be scheduled, and then touch [OK]. (Refer to section 3-3-1 [3] for details.)

[3] Saving the schedules

To undo the changes made, touch [Cancel] before saving the schedules.
After completing the settings, touch [OK] to save the schedules.

Note: To delete each scheduled events, touch the "Delete" button in the row of the schedule to be deleted.



[4] Copying a schedule to another group

(1) Refer to 3-3-1 [6] for details.

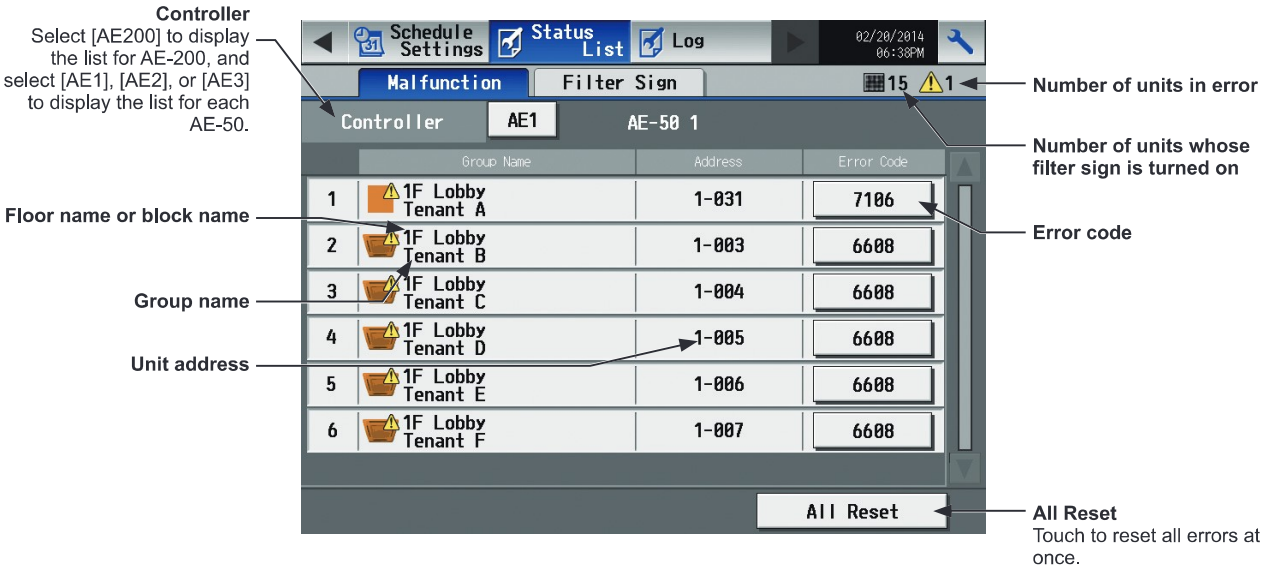
3-4. Status List

3-4-1. Malfunction List

Touch [Status List] in the menu bar, and then touch [Malfunction].

A list of units that are currently malfunctioning will appear.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the list for each AE-200 and AE-50 individually.



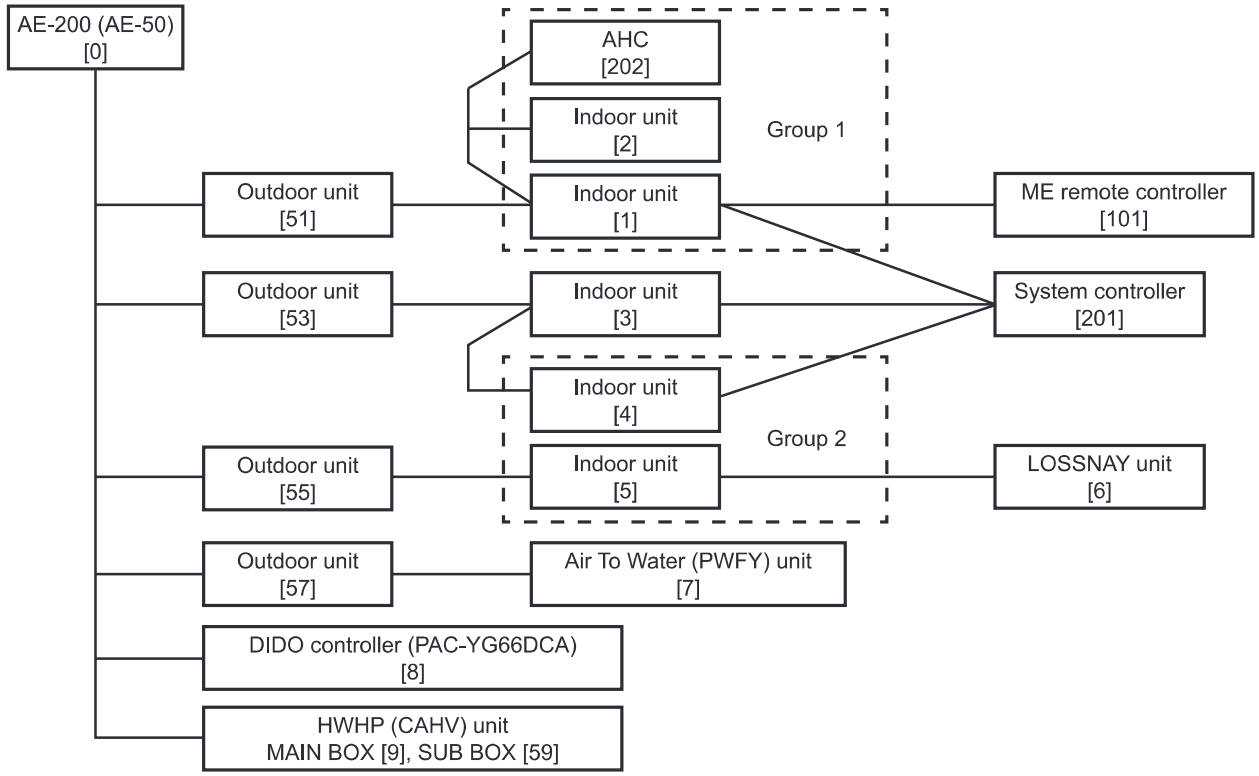
Item	Description
Floor name or block name	The name of the floor or the block that the unit in error belongs to will appear. Note: The floor or block name will be blank if the unit in error is a unit that does not belong to any block or floor.
Group name	The name of the group that the unit in error belongs to will appear. Note: The group name will be blank if the unit in error is a unit that does not belong to any group, such as an outdoor unit or a system controller.
Unit address	The address of the unit in error will appear. Note: When [AE1], [AE2], or [AE3] is selected as [Controller], AE-50 No. and unit address will appear. (Example: 1-012)
Number of units in error	The number of malfunctioning units will appear.
All Reset	Touch to reset all errors at once. Note: The units whose error has been reset will stop.
Error code	The error code that corresponds to the error will appear. Touch the error code to display the definition. 

Types of units in error and the units that will stop when errors are reset

Types of units in error and the units that will stop

Units in error	Units that will stop
AE-200 (AE-50)	None
Outdoor unit	All indoor units that are connected to the outdoor unit in error
Indoor unit	Indoor unit in error and all other indoor units in the same group
ME (MA) remote controller	All indoor units that are connected to the remote controller in error
System controller	All indoor units that are connected to the system controller in error
Advanced HVAC CONTROLLER	None
Interlocked LOSSNAY unit	Indoor units with which the LOSSNAY unit in error is interlocked
Air To Water (PWFY) unit	Air To Water (PWFY) unit in error and all other Air To Water (PWFY) units in the same group
DIDO controller (PAC-YG66DCA)	None
HWHP (CAHV) unit	None

Example of units in error and the units that will stop



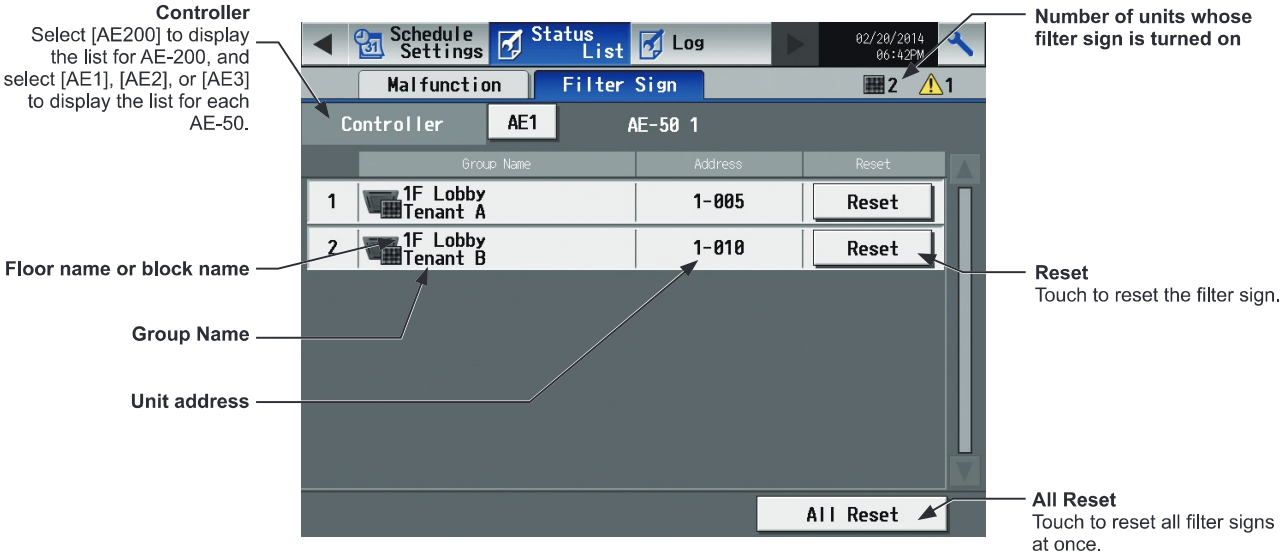
Units in error	Units that will stop
AE-200 (AE-50)	None
Outdoor unit [51]	Indoor unit [1], Indoor unit [2]
Outdoor unit [53]	Indoor unit [3], Indoor unit [4], Indoor unit [5]
Outdoor unit [57]	Air To Water (PWFY) unit [7]
Indoor unit [1]	Indoor unit [1], Indoor unit [2]
Indoor unit [3]	Indoor unit [3]
Indoor unit [5]	Indoor unit [4], Indoor unit [5]
LOSSNAY unit [6]	Indoor unit [5]
Air To Water (PWFY) unit [7]	Air To Water (PWFY) unit [7]
ME remote controller [101]	Indoor unit [1]
System controller [201]	Indoor unit [1], Indoor unit [3], Indoor unit [4]
Advanced HVAC CONTROLLER [202]	None
DIDO controller (PAC-YG66DCA) [8]	None
HWHP (CAHV) unit [9] [59]	None

3-4-2. Filter Sign List

A list of units whose filter sign is turned on can be displayed.

Touch [Status List] in the menu bar, and then touch [Filter Sign].

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the list for each AE-200 and AE-50 individually.



Item	Description
Floor name or block name	The name of the floor or the block that the unit whose filter sign is turned on belongs to will appear. Note: This area will be blank if the unit whose filter sign is turned on does not belong to any floor or block.
Group name	The name of the group that the unit belongs to will appear.
Unit address	The address of the unit whose filter sign is turned on will appear. Note: When [AE1], [AE2], or [AE3] is selected as [Controller], AE-50 No. and unit address will appear. (Example: 1-012)
Number of units whose filter sign is turned on	The number of units whose filter sign is currently turned on will appear.
Reset	Touch to reset each filter sign.
All Reset	Touch to reset all filter signs at once.

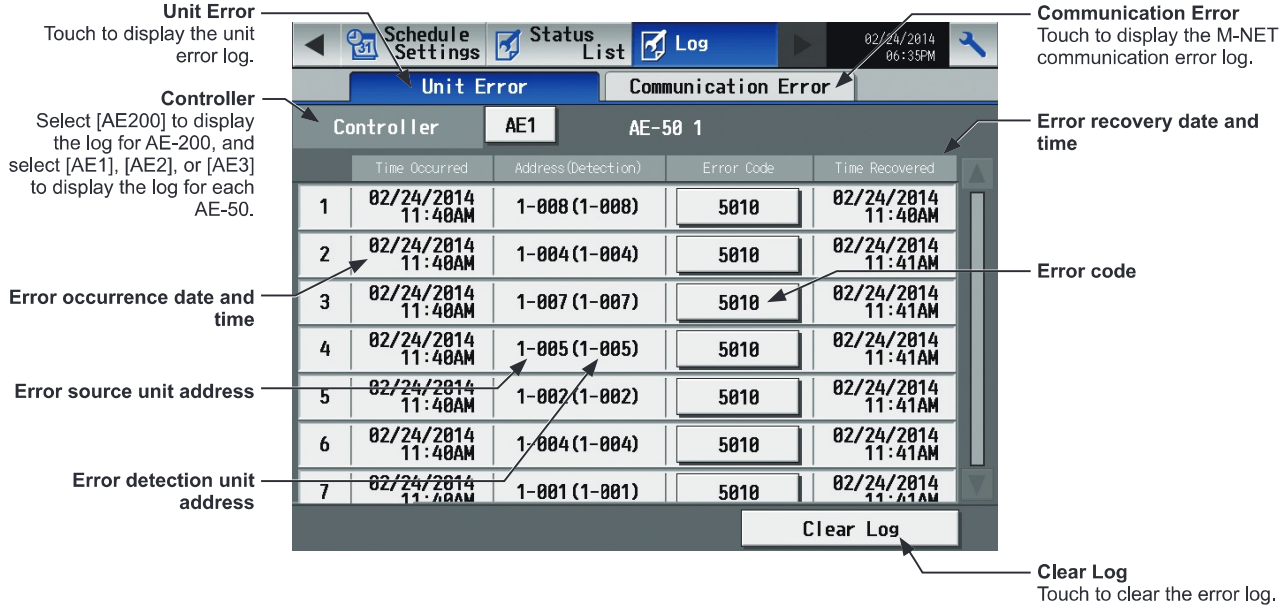
3-5. Malfunction Log

3-5-1. Unit Error/Communication Error

Touch [Log] in the menu bar, and then touch [Unit Error] to display unit errors, or touch [Communication Error] to display M-NET communication errors.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the log for each AE-200 and AE-50 individually.

Note: If there is no error occurred, no error log will appear.



Item	Description
Unit Error	Touch to display the unit error log. Note: The latest 64 unit errors will appear for each AE-200/AE-50.
Communication Error	Touch to display the M-NET communication error log. Note: The latest 64 communication errors will appear for each AE-200/AE-50.
Clear Log	Touch to clear the error log.
Error occurrence date and time	The date and time when the error occurred will appear.
Error source unit address	The address of the unit in error will appear. Note: When [AE1], [AE2], or [AE3] is selected as [Controller], AE-50 No. and unit address will appear. (Example: 1-012)
Error detection unit address	The address of the unit that detected the error will appear. Note: When [AE1], [AE2], or [AE3] is selected as [Controller], AE-50 No. and unit address will appear. (Example: 1-012)
Error code	The error code that corresponds to the error will appear. Touch the error code to display the definition. 

3-6. Error code list

Error codes and their definitions are shown below. If an error occurs, note the error code and consult your dealer. (A) indicates A-control units.

3-6-1. M-NET errors

0100	Equipment abnormality
01*0	Equipment abnormality (PAC-YG66DCA) in system *
01**	Equipment abnormality in system **
0403	Serial transmission trouble
0404	Indoor unit EEPROM error (A)
0701	Combustion circuit abnormality (A)
0702	Combustion heat exchange overheating protection (A)
0703	Accidental fire (A)
0704	Heater abnormality (A)
0705	Seismoscope malfunction (A)
0706	Flame current sensor abnormality (A)
0707	Ignition abnormality (A)
0708	Blower motor rotation abnormality (A)
0709	Oil pump circuit abnormality (A)
0900	Test run
1000	Refrigerant cycle abnormality
10*0	Refrigerant cycle abnormality in line *
1102	Discharge temperature abnormality (TH4) (A)
1108	Inner thermo (49C) operation (A)
11**	Refrigerant cycle temperature abnormality - Common operand: **
1300	Low-pressure abnormality (63L operation) (A)
13**	Refrigerant cycle pressure abnormality - Common operand: **
1500	Refrigerant cycle not operate due to overcharge
1501	Refrigerant cycle not operate due to undercharge (/compressor shell temperature abnormality)
1502	Refrigerant cycle not operate due to liquid back /Low-discharge super heat abnormality (A)
1503	Refrigerant cycle not operate due to coil frost
1504	Refrigerant cycle not operate due to overheat protection
1505	Refrigerant cycle not operate due to compressor vacuum operation protection/refrigerant low temperature abnormality
1506	Refrigerant cycle not operate due to refrigerant pump abnormality
1507	Refrigerant cycle not operate due to composition detection abnormality
1508	Refrigerant cycle not operate due to control valve fault
1509	Refrigerant cycle not operate due to high pressure abnormality (ball valve closed)
1510	Refrigerant cycle - Gas leakage
1511	Refrigerant cycle not operate due to oil slick abnormality
1512	Refrigerant cycle not operate due to a stop of freezing protection function
1513	Refrigerant cycle - Brine freezing
1559	Oil balance circuit abnormality
2000	Water system abnormality (Pump interlock abnormality)
20*0	Water system abnormality in line *
21**	Water system temperature abnormality - Common operand: **
23**	Water system pressure abnormality - Common operand: **
2500	Water system not operate due to water leak
2501	Water system not operate due to water supply suspension
2502	Water system not operate due to drain pump abnormality
2503	Water system not operate due to drain sensor abnormality/float switch function
2504	Water system not operate due to liquid level abnormality
2505	Water system not operate due to cool water valve abnormality
2506	Water system not operate due to warm water valve abnormality
2507	Water system not operate due to dew condensation prevention control activated
2600	Water system operation restricted due to water leak
2601	Water system operation restricted due to water supply suspension/humidifier water supply suspension
2602	Water system operation restricted due to drain pump abnormality
2603	Water system operation restricted due to drain sensor abnormality
2604	Water system operation restricted due to liquid level abnormality
2613	Drop in water flow rate
3152	Air system operation restricted due to inverter control box inner temperature abnormality
3182	Air system operation restricted due to housing inner temperature abnormality
3600	Air system operation restricted due to filter clogging
3601	Air system operation restricted due to filter maintenance
3602	Air system operation restricted due to damper position detecting abnormality
37**	Air system operation humidity abnormality allowance - Common operand: **
38**	Air system operation humidity abnormality - Common operand: **
4000	Electric system abnormality
40*0	Electric system abnormality in line *

4100	Electric system not operate due to overcurrent shut-off
4101	Electric system not operate due to overcurrent protection
4102	Electric system not operate due to open phase /Open phase (T phase) (A)
4103	Electric system not operate due to reversed phase/open phase
4104	Electric system not operate due to electric leak
4105	Electric system not operate due to short circuit
4106	Electric system not operate due to self power supply OFF/power failure
4107	Electric system not operate due to overload
4108	Electric system not operate due to overload protection/OCR51C /Open phase (S phase),51CM connector open (A)
4109	Electric system not operate due to OCR51F
4110	Electric system not operate due to high voltage part
4111	Electric system not operate due to bus current
4112	Electric system not operate due to coil overheat 49°C
4113	Electric system not operate due to heater overheat
4114	Electric system not operate due to fan controller abnormality
4115	Electric system not operate due to power supply synchronism abnormality /Input circuit (board) failure
4116	Electric system not operate due to motor abnormality/speed abnormality
4117	Compressor self-protection function operation (A)
4118	Opposite phase detection circuit (board) failure (A)
4119	Open of 2 or more connectors (A)
4121	Electric system not operate due to trouble in equipment to which a measure against higher harmonics is taken
4123	Electric system not operate due to Inverter output error
4124	Electric system not operate due to damper abnormality
4125	Electric system - Rush-proof circuit abnormality
4200	Inverter abnormality
420*	Inverter abnormality - Inverter No.: *
4210	Inverter overcurrent shut-off
421*	Inverter overcurrent shut-off - Inverter No.: *
4220	Inverter bus voltage insufficiency / Voltage abnormality (A)
422*	Inverter bus voltage insufficiency - Inverter No.: *
4230	Inverter radiating thermostat abnormality
423*	Inverter radiating thermostat abnormality - Inverter No.: *
4240	Inverter overcurrent (overload) protection
424*	Inverter overcurrent protection - Inverter No.: *
4250	Inverter IPM/bus voltage abnormality /Power module abnormality (A)
425*	Inverter IPM abnormality *
4260	Inverter cooling fan trouble
426*	Inverter cooling fan trouble - Inverter No.: *
5000	Sensor trouble
50*0	Sensor trouble in system *
51**	Temperature sensor trouble - Sensor No.: **
5202	Connector (63L) open (A)
52**	Pressure sensor trouble - Sensor No.: **
5300	Current sensor abnormality (A)
53**	Current sensor trouble - Sensor No.: **
54**	Humidity sensor trouble - Sensor No.: **
55**	Gas sensor trouble - Sensor No.: **
56**	Air speed sensor trouble - Sensor No.: **
57**	Limit switch trouble - Switch No.: **
58**	Sensor trouble - Sensor No.: **
59**	Other sensors trouble - Sensor No.: **
6000	System abnormality
6101	System not operate due to abnormality - With response frame
6102	No answer back
6200	Controller H/W abnormality
6201	E2PROM abnormality
6202	RTC abnormality
6204	External memory read/write error
6205	External memory cannot be written to any more.
6500	Communication error
6600	Communication error - Address duplicate
6601	Communication error - Polarity unsettled
6602	Communication error - Transmission processor hardware error
6603	Communication error - Transmission line busy
6604	Communication error - No ACK (06H) (communication circuit error)
6605	Communication error - No response frame
6606	Communication error - Transmission processor communication error
6607	Communication error - No ACK return
6608	Communication error - No return of response frame
6609	Communication error
6610	Communication error

6800 Communication error - Other communication errors
6801 Communication error - V-control communication error
6810 Communication error - UR communication error
6811 Communication error - UR communication synchronism not recover
6812 Communication error - UR communication hardware error
6813 Communication error - UR communication status bit detection error
6820 Other communication errors
6821 Other communication errors - Transmission line busy
6822 Other communication errors - No communication ACK
6823 Other communication errors - No response command
6824 Other communication errors - Receive data error
6830 Communication error - MA communication refrigerant address double setting error
6831 Communication error - No MA communication reception error
6832 Communication error - MA communication synchronism not recover
6833 Communication error - MA communication transmission/reception hardware trouble
6834 Communication error - MA communication start bit detection error
6840 Communication error - A control no indoor/outdoor communication/reception abnormality
6841 Communication error - A control indoor/outdoor communication synchronization recovery abnormal
6844 Communication error - A control indoor/outdoor communication incorrect indoor/outdoor wiring connection, excessive number of indoor units (more than five units)
6845 Communication error - A control indoor/outdoor communication incorrect indoor/outdoor wiring connection (telecommunication, disconnection)
6846 Communication error - A control indoor/outdoor communication startup time exceeded
7000 System abnormality
7100 System abnormality - Total capacity error
7101 System abnormality - Capacity code error
7102 System abnormality - Connecting unit number excess
7103 System abnormality - Piping length setting error
7104 System abnormality - Floor height setting error
7105 System abnormality - Address setting over 254
7106 System abnormality - Attribute setting error
7107 System abnormality - Distributor setting error
7108 System abnormality - Refrigerant system setting error
7109 System abnormality - Connection setting error
7110 System abnormality - Refrigerant system connection/connection data unsettled
7111 System abnormality - I/O connection equipment not connected/remote controller sensor abnormality
7112 System abnormality - I/O type setting error
7113 System abnormality - Equipment unsettled
7116 System abnormality - Replace non-wash setting error
7117 System abnormality - Model identification setting error
7130 System abnormality - Different unit model error
7131 System abnormality - Mixed cooling only H/P connection error (Facility PAC)
7132 System abnormality - Multiple entries of operation performance (Facility PAC)
7200 System abnormality - Numeric values unsettled
7201 System abnormality - Numeric values unsettled
73** System abnormality - LON system equipment abnormality

3-6-2. Errors between AE-200 and AE-50

6920 No response error
6922 Response ID error
7901 Maximum connectable No. of units exceeded
7902 Connection lock error
7903 Unit information error
7904 System setting error
7905 Version error

4. Practical operations

4-1. Maintenance

4-1-1. CSV output

The operation data, such as charge parameters and power consumption, can be output in a CSV format.

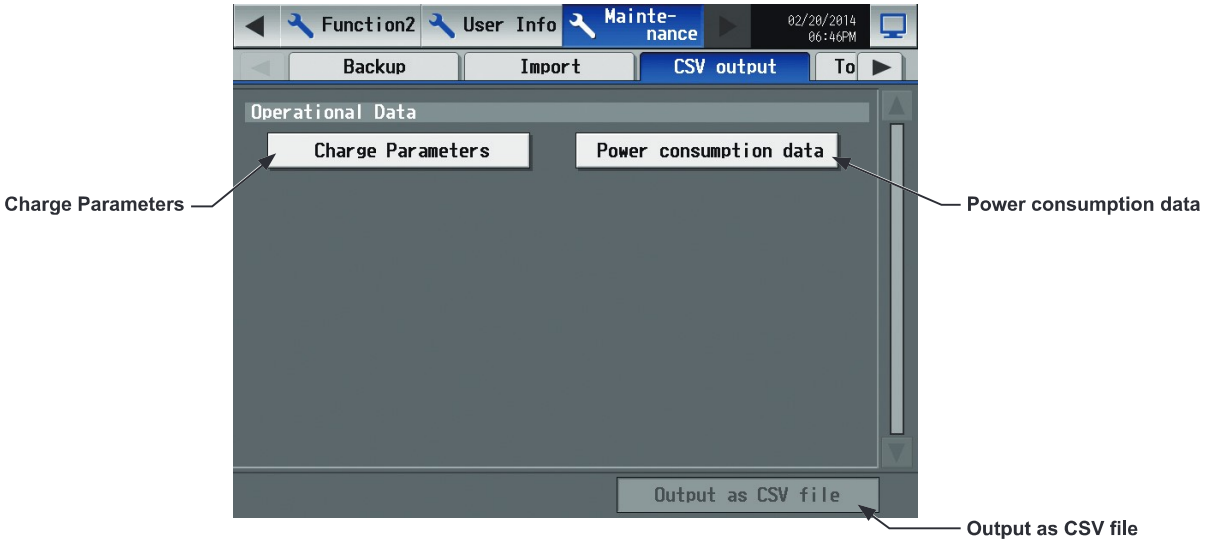
Touch [Maintenance] in the menu bar, and then touch [CSV output].

Note: A separate license may be required to use the CSV output function. Only valid buttons can be selected on the screen.

Note: Use a USB memory device that meets the following conditions.

- Supports USB 2.0
- Formatted with FAT32 or FAT (FAT16)
- Security function is not provided or not required to be set.

Note: Test the USB memory device several times before use and verify that the device functions properly. Reading data from or writing data to a USB memory device that has not been confirmed to work may cause unexpected problems. (If the data cannot be output to the USB memory device after a writing error occurs and the device is replaced, reboot the AE-200 (turn off the power and restart). Do not use the USB memory device that has experienced writing error once.)



Important

- The USB memory device may not be recognized if you insert and remove it within a short time. If this happens, reset the AE-200/AE-50.

(1) Remove the controller cover, and insert a USB memory device to the USB port.

(2) Touch [Charge Parameters] or [Power consumption data] to output, then touch [Output as CSV file].

Note: It may take a few minutes to complete the download, depending on the data volume.

Note: Do not remove the USB memory device while the data is being output. A message will appear when the data output is complete.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Charge Parameters</td><td>

■ File name

(without connection to an AE-50 controller)
“ChargeParameter”_[yyyy]-[mm]-[dd]“A”[Indoor unit address]-[Time period (1–5)].csv

(with connection to one or more AE-50 controllers)
“ChargeParameter”_[yyyy]-[mm]-[dd]“A”[AE-50 No.*1][Indoor unit address]-[Time period (1–5)].csv
*1 “AE1,” “AE2,” or “AE3”

Note: The date will appear in the format that has been set on the [Unit Info.] screen.
Note: Time periods 1 through 5 can only be set from TG-2000A. When shipped from the factory, only Time period 1 is settable.

■ File output destination

(without connection to an AE-50 controller)
[Root folder of the USB memory]\[Serial No.]\“OperationalData”\“ChargeParameters”\[Date]

(with connection to one or more AE-50 controllers)
[Root folder of the USB memory]\[Serial No.]\“OperationalData”\“ChargeParameters”\[AE-50 No.*1]\[Date]
*1 “AE1,” “AE2,” or “AE3”

Note: The date will appear in the format that has been set on the [Unit Info.] screen.

■ File format

<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>201</td></tr>
<tr><td>2nd</td><td>Data range *1</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>Indoor unit address</td><td>“Address” + M-NET address</td></tr>
<tr><td>4th</td><td>Item</td><td>“Date,SaveValue,ThermoTime,FanTime,SubHeaterTime”</td></tr>
<tr><td>5th–66th</td><td>Data *2*3*4*5</td><td>Date *1, Capacity-save value (min), Thermo-ON time (min), Fan operation time (min), Sub-heater-ON time (min)</td></tr>
</table>

*1 The date will appear in the format that has been set on the [Unit Info.] screen.
*2 The separator character and decimal point character selected on the Measurement screen (accessible via the Web Browser for Initial Settings) will be used to the data.
*3 Each value is the cumulative value between the start date and the end date.
*4 The value will not appear if the data does not exist.
*5 Each file contains the data of up to 62 days.

■ File sample

```
201
12/19/2013-1/10/2014
Address 31
Date,SaveValue,ThermoTime,FanTime,SubHeaterTime
12/19/2013,1258,0,465,0
12/20/2013,1260,0,468,0
12/21/2013,1262,0,472,0
12/22/2013,1264,0,477,0
12/23/2013,1266,0,490,0
                :
01/10/2014,2058,0,1013,0
```

</td></tr>
</table>

Item	Description
Power consumption data	■ File name (without connection to an AE-50 controller) “ChargeParameter”_[yyyy]-[mm]-[dd]“MCPA”[MCP address]-[Time period (1–5)].csv (with connection to one or more AE-50 controllers) “ChargeParameter”_[yyyy]-[mm]-[dd]“MCPA”[AE-50 No.*1]-[MCP address]-[Time period (1–5)].csv *1 “AE1,” “AE2,” or “AE3” Note: The date will appear in the format that has been set on the [Unit Info.] screen. Note: Time periods 1 through 5 can only be set from TG-2000A. When shipped from the factory, only Time period 1 is settable. ■ File output destination (without connection to an AE-50 controller) [Root folder of the USB memory]\[Serial No.]\“OperationalData”\“ChargeParameters”\[Date] (with connection to one or more AE-50 controllers) [Root folder of the USB memory]\[Serial No.]\“OperationalData”\“ChargeParameters”\[AE-50 No.*1]\[Date] *1 “AE1,” “AE2,” or “AE3” Note: The date will appear in the format that has been set on the [Unit Info.] screen.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Power consumption data</td><td>

■ File format

<table>
<tr><th>Row</th><th>Item</th><th>Format</th></tr>
<tr><td>1st</td><td>File Type</td><td>202</td></tr>
<tr><td>2nd</td><td>Data range *1</td><td>Start date + “–” + End date</td></tr>
<tr><td>3rd</td><td>MCP (PI controller) address</td><td>(without connection to an AE-50 controller)
“MCP” + MCP address + “–” + Time period (1–5)

(with connection to one or more AE-50 controllers)
“MCP” + AE-50 No. + “–” + MCP address + “–” + Time period (1–5)</td></tr>
<tr><td>4th</td><td>Item</td><td>“No.,Date,Count value(Ch1),Count value(Ch2),Count value(Ch3),Count value(Ch4)”</td></tr>
<tr><td>5th–66th</td><td>Data *2*3*4*5*6</td><td>(without connection to an AE-50 controller)
MCP address + Time period, Date *1, MCP 1, MCP 2, MCP 3, MCP 4

(with connection to one or more AE-50 controllers)
AE-50 No. + MCP address + Time period, Date *1, MCP 1, MCP 2, MCP 3, MCP 4</td></tr>
</table>

*1 The date will appear in the format that has been set on the [Unit Info.] screen.
*2 The separator character and decimal point character selected on the Measurement screen (accessible via the Web Browser for Initial Settings) will be used to the data.
*3 Each value is the cumulative value between the start date and the end date.
*4 Each value is between 0.00 and 999999.99. If the value exceeds the maximum value, it will wrap around to zero.
*5 The value will not appear if the data does not exist.
*6 Each file contains the data of up to 62 days.

■ File sample

(without connection to an AE-50 controller)

```
202
12/19/2013-1/10/2014
MCP 50-1
No.,Date,Count value(Ch1),Count value(Ch2),Count value(Ch3),Count value(Ch4)
501,12/19/2013,190887.43,872411.43,227424.88,55515.50
501,12/20/2013,190899.16,872420.12,227428.63,55526.70
501,12/21/2013,190905.22,872442.23,227435.74,55537.90
501,12/22/2013,190910.38,878449.77,227448.19,55549.84
                    :
501,01/10/2014,200014.38,87950.36,227925.19,60111.63
```

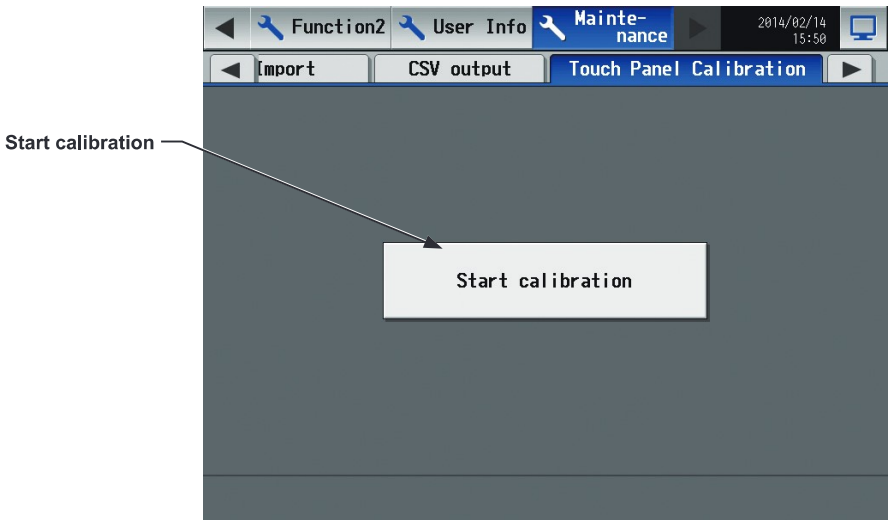
(with connection to one or more AE-50 controllers)

```
202
12/19/2013-1/10/2014
MCP 1-50-1
No.,Date,Count value(Ch1),Count value(Ch2),Count value(Ch3),Count value(Ch4)
1501,12/19/2013,190887.43,872411.43,227424.88,55515.50
1501,12/20/2013,190899.16,872420.12,227428.63,55526.70
1501,12/21/2013,190905.22,872442.23,227435.74,55537.90
1501,12/22/2013,190910.38,878449.77,227448.19,55549.84
                    :
1501,01/10/2014,200014.38,87950.36,227925.19,60111.63
```

</td></tr>
</table>

4-1-2. Touch Panel Calibration

Touch [Maintenance] in the menu bar, and then touch [Touch Panel Calibration].

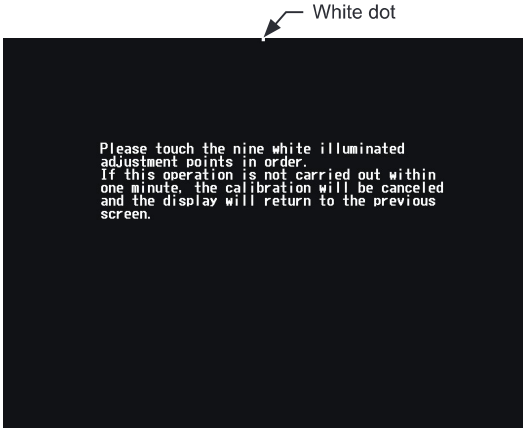


(1) Touch [Start calibration].

(2) Touch the white squares in the order they appear, starting from the top left corner. The white squares will change to gray when touched.
After all nine squares are touched, the screen will return to the previous screen.

Note: If each square is not touched within one minute after the last square is touched, calibration will be cancelled and the screen will return to the previous screen.

Note: To calibrate the screen properly, use a pointy, but not sharp object to touch the white dots. Sharp objects may scratch the touch panel.



4-1-3. Cleaning the touch panel

(1) On the Login window, touch the “Touch-panel-cleaning” button.



(2) Clean the touch panel with a soft dry cloth, a well-wrung cloth that has been soaked in water with mild detergent, or a cloth dampened with ethanol.

Note: Do not use acidic, alkaline, or organic solvents.



(3) After cleaning, touch the squares with numbers from 1 to 4. The screen will return to the previous screen.

Note: The squares will change to gray when touched.

5. Initial startup settings

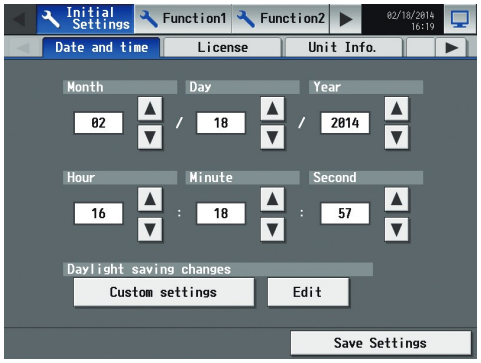
5-1. Initial startup setting procedures

5-1-1. AE-200 initial start-up for a system without connection to an AE-50 controller

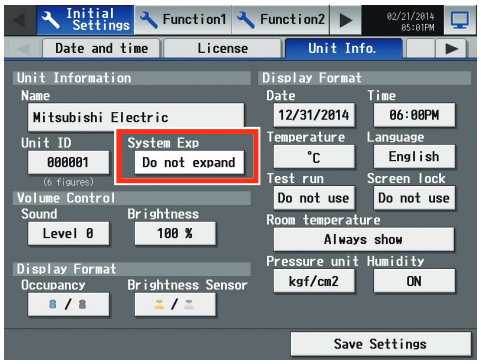
(1) After the power is turned on, a language selection screen will appear.
Select the language to be used for display, and then touch [OK].
Note: It will take approximately one minute for the display to appear after the power is turned on.
Note: Once the initial settings have been made, [Monitor/Operation] screen will appear after the power is turned on.



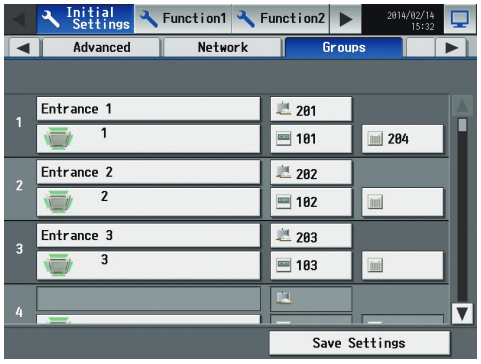
(2) The [Date and time] screen will appear.
Referring to section 5-2-3, set the current date, current time, and daylight saving time, and then touch [Save Settings].



(3) Touch the [Unit Info.] tab.
Referring to section 5-2-5, make necessary basic settings, and then touch [Save Settings].
Note: Make sure to set the [System Exp] setting for the AE-200 to [Do not expand].



(4) Touch the right triangle button to display the [Groups] tab, and touch it.
Referring to section 5-2-7, make group settings, and then touch [Save Settings].



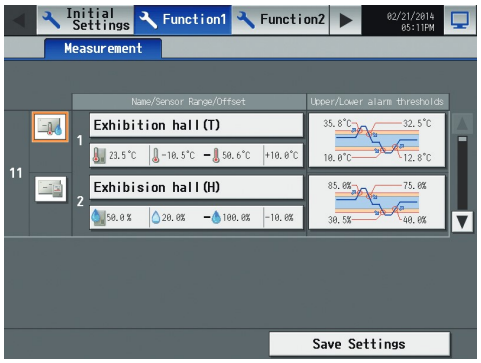
(5) Make the following settings, as required.

- Interlock settings (See section 5-2-8 “Interlocked LOSSNAY”.)
- Block settings (See section 5-2-9 “Blocks”.)
- Floor layout settings (See section 5-2-10 “Floor Layout”.)



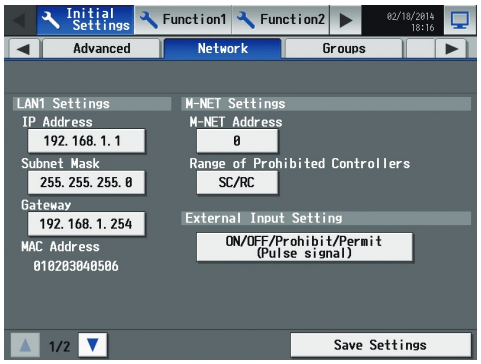


(6) Measurement settings must be made to use temperature sensors, humidity sensors, and metering devices.
Touch [Function1] in the menu bar, and then touch [Measurement].
Referring to section 5-3-1, make measurement settings, and then touch [Save Settings].



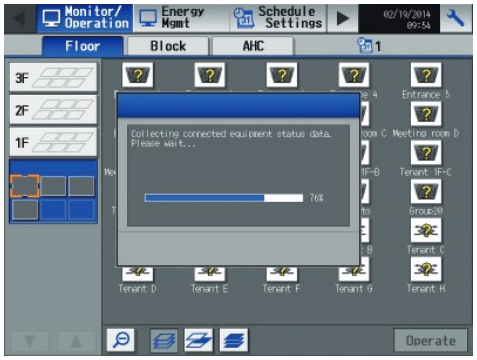
(7) Touch the right triangle button to display the [Network] tab, and touch it.
Referring to section 5-2-6, make necessary settings, and then touch [Save Settings].

Note: When the LAN settings are changed, AE-200 will reboot, and the step (8) below will be skipped.



(8) Touch [ ] at the right top of the screen to move to the [Monitor/Operation] screen.
Percentages of startup process completion will appear.
The initial settings are completed.

Note: When no communication errors occur, the startup process will take about two or three minutes after the message appears. When an error is occurring, it may take about five minutes.



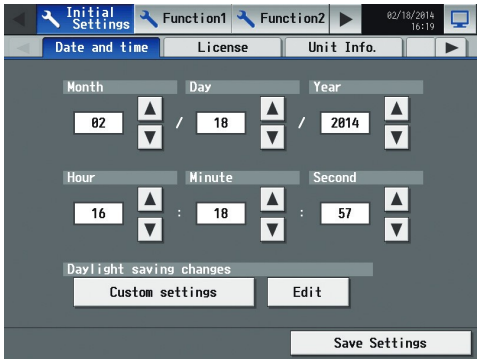
5-1-2. AE-200 initial start up for a system with connection to one or more AE-50 controllers

[1] Settings on the AE-50

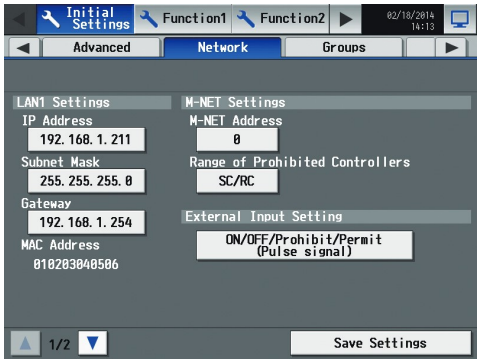
(1) After the power is turned on to the AE-50, a language selection screen will appear.
Select the language to be used for display, and then touch [OK].
Note: It will take approximately one minute for the display to appear after the power is turned on.
Note: Once the initial settings have been made, [Monitor/Operation] screen will appear after the power is turned on.



(2) The [Date and time] screen will appear.



(3) Touch the right triangle button to display the [Network] tab, and touch it.
Referring to section 5-2-6, set the AE-50's IP address, and then touch [Save Settings].
The AE-50 will reboot.
Note: When multiple AE-50 controllers are connected, set the IP addresses on all AE-50.



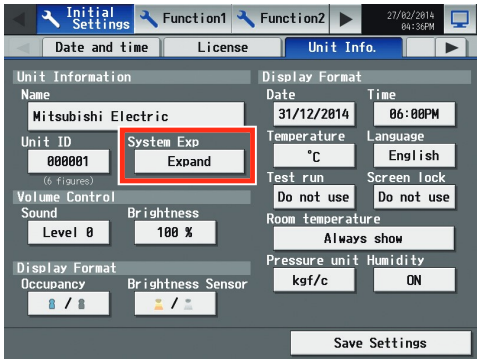
[2] Settings on the AE-200

(1) After the power is turned on to the AE-200, a language selection screen will appear.
Select the language to be used for display, and then touch [OK].
Note: It will take approximately one minute for the display to appear after the power is turned on.
Note: Once the initial settings have been made, [Monitor/Operation] screen will appear after the power is turned on.



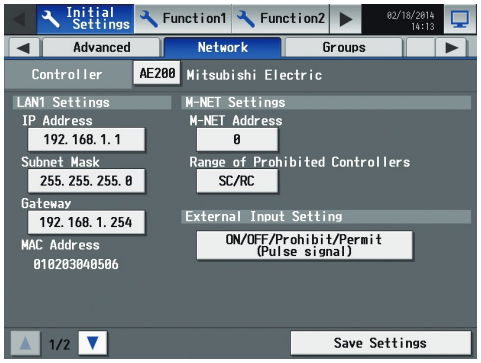
(2) Touch the [Unit Info.] tab.
Referring to section 5-2-5, make necessary basic settings, and then touch [Save Settings].

Note: Make sure to set the [System Exp] setting for the AE-200 to [Expand].

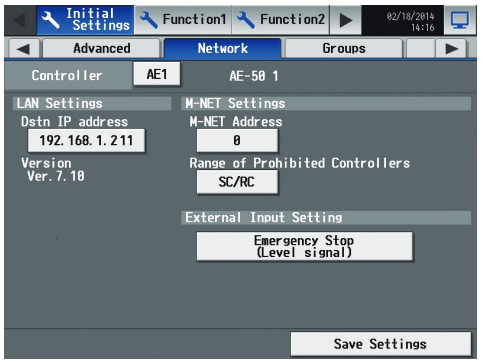


(3) Touch the right triangle button to display the [Network] tab, and touch it.
Referring to section 5-2-6, make sure that [AE200] is selected as [Controller], set the AE-200's IP address and subnet mask, and then touch [Save Settings].
The AE-200 will reboot.

Note: Refer to section 5-2-1 "Logging in to the Initial Settings menu" for how to log in.



(4) In the [Controller] section, select [AE1], [AE2], or [AE3] to make settings for each AE-50.
Referring to section 5-2-6, set the IP address of each AE-50 that is connected to the AE-200, and M-NET address, and then touch [Save Settings].



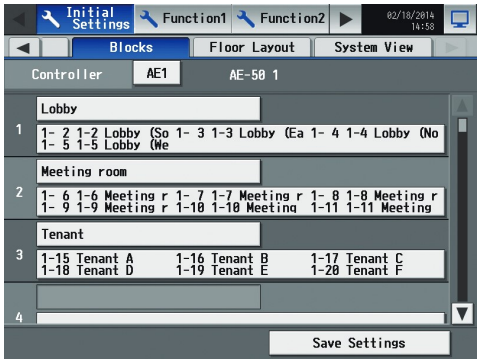
(5) Touch the [Groups] tab.
Referring to section 5-2-7, select [AE200], [AE1], [AE2], or [AE3] in the [Controller] section, make group settings for each AE-200/AE-50, and then touch [Save Settings] on each settings screen.



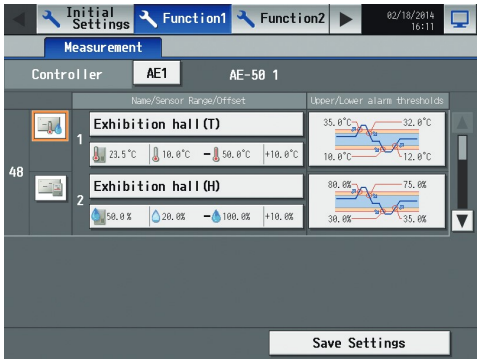
(6) Make the following settings, as required.

- Interlock settings (See section 5-2-8 "Interlocked LOSSNAY".)
- Block settings (See section 5-2-9 "Blocks".)
- Floor layout settings (See section 5-2-10 "Floor Layout".)

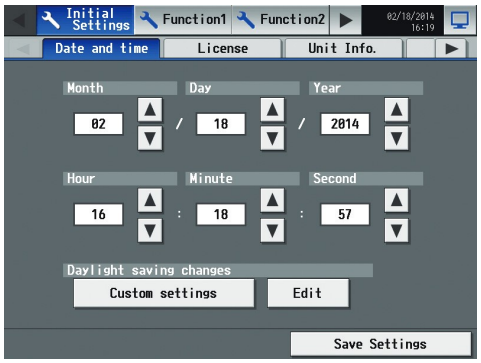




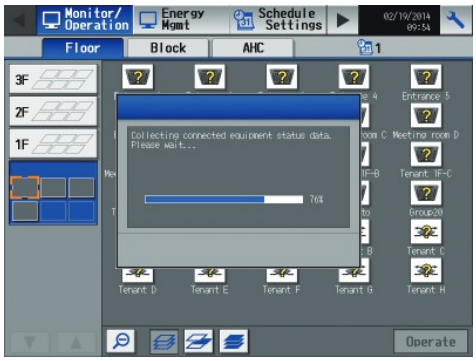
(7) Measurement settings must be made to use temperature sensors, humidity sensors, and metering devices.
Touch [Function1] in the menu bar, and then touch [Measurement].
Referring to section 5-3-1, select [AE200], [AE1], [AE2], or [AE3] in the [Controller] section, make measurement settings for each AE-200/AE-50, and then touch [Save Settings] on each settings screen.



(8) Touch the [Date and time] tab.
Referring to section 5-2-3, set the current date, current time, and daylight saving time, and then touch [Save Settings].
Note: The current date and time set here will be synchronized to each AE-50.



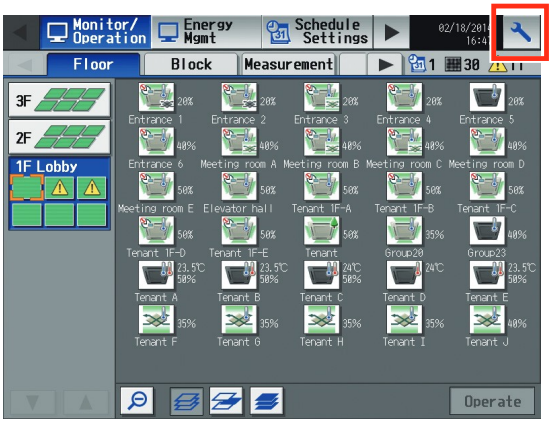
(9) Touch [] at the right top of the screen to move to the [Monitor/Operation] screen.
Percentages of startup process completion will appear.
The initial settings are completed.
Note: When no communication errors occur, the startup process will take about two or three minutes after the message appears. When an error is occurring, it may take about five minutes.



5-2. Initial Settings

5-2-1. Logging in to the Initial Settings menu

(1) Touch [ ] to display the login window.



(2) Enter the user name and the password on the keyboard screen (See [1] “Keyboard screen”), and touch [Login]. [Initial Settings] menu screen will appear.
The table below shows the default user names, passwords, and functions that are available for maintenance users and building managers.

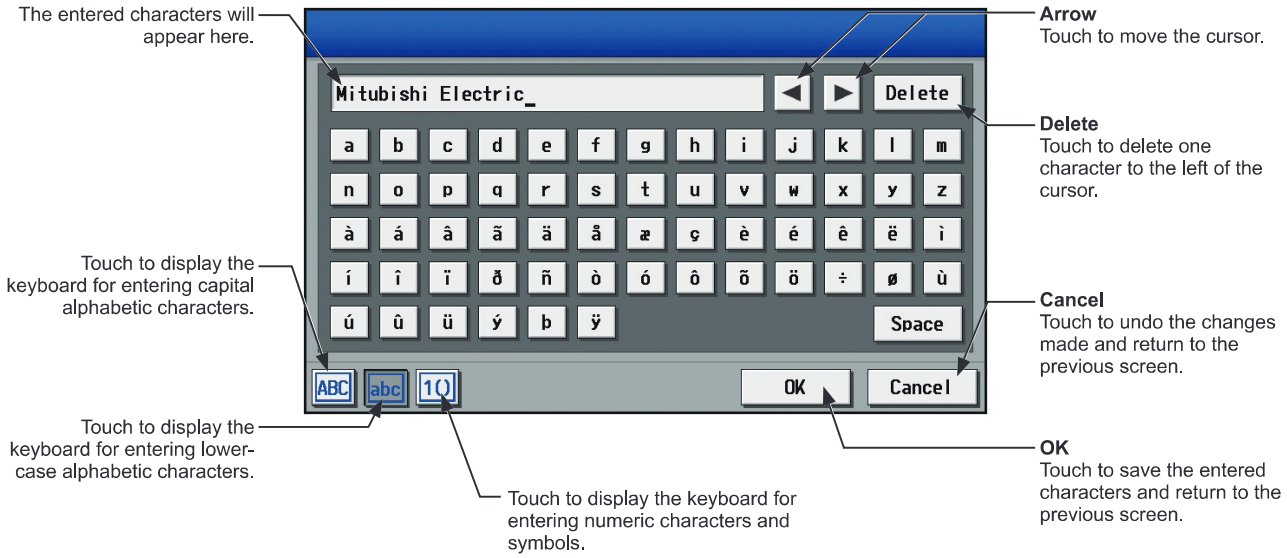


User	Default user name	Default password	Available functions
Maintenance user	initial	init	All functions
Building manager	administrator	admin	The items to which access rights have been given on the [User Info] screen are available.

*1 A maintenance user can specify the functions to be made available for building managers. Refer to chapter 5-5 “User Information” for details.

*2 It is recommended to change the default user name and password so that the users other than the maintenance users and building managers will not be able to change the settings.

[1] Keyboard screen

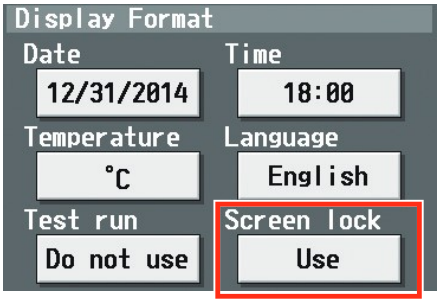


5-2-2. Locking the screen

Locking the screen prevents unauthorized users from accessing.

(1) To activate the screen lock function, set the [Screen lock] setting to [Use] on the [Unit Info.] screen under the [Initial Settings] menu.
If the screen lock function is activated, the screen locks when the backlight turns off (after three minutes of not touching the screen).

Note: The default setting is [Do not use].
Note: The screen lock function will not be activated when any screen under the [Initial Settings] menu is open.



(2) Touch [] on the login screen to lock the screen immediately.
To unlock the screen, enter the same user name and password used to log in.



5-2-3. Date and time

Touch [Initial Settings] in the menu bar, and then touch [Date and time].

Set the current date and time, and then touch [Save Settings].

Note: The date and time settings may not be accessible if logged in as a building manager.

Note: The date and time settings made on this screen will be reflected on all the units in the M-NET system, all connected AE-50 units, and the AE-200 units whose [Time Master/Sub] setting is set to [Sub].

Note: The date and time cannot be set on this screen if the [Time Master/Sub] setting is set to [Sub].

Note: The daylight saving time setting is required only on the AE-200.

Note: If the current time is moved forward while the scheduled operation is performed, the operation that was scheduled to take place during the time that was skipped will not be performed.

Note: Changing the date and/or time when the charging function is in use can affect the calculation of the charges.

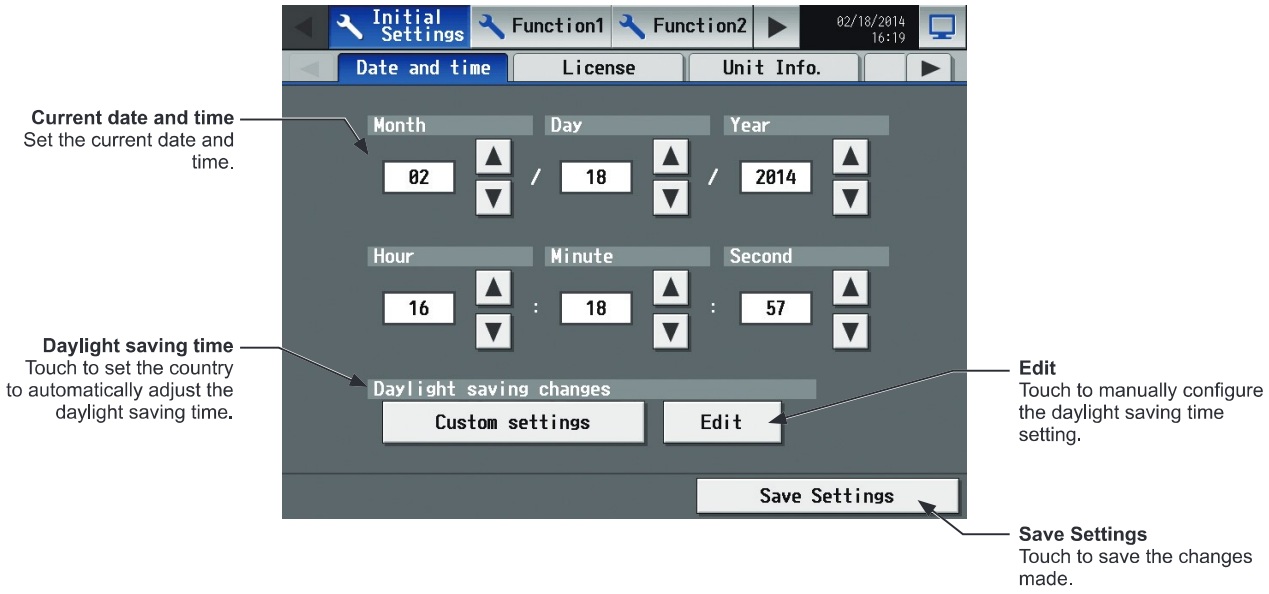
Note: If the system is connected to a TG-2000A, make or change the settings from the TG-2000A.

Note: When AE-50 controller, DIDO controller (PAC-YG66DCA), AI controller (PAC-YG63MCA), or PI controller (PAC-YG60MCA) is added to the system, set the current date and time on this screen to synchronize the date and time on the added controller.

Note: Although date and time settings can be made on each AE-50, the date and time synchronization from AE-200 is performed once a day. Make the date and time settings on the AE-50 only after the AE-50 is replaced.

Important

- When one or more AE-50 controllers are connected, the date and time settings must be made with the AE-50 properly connected to ensure proper settings.

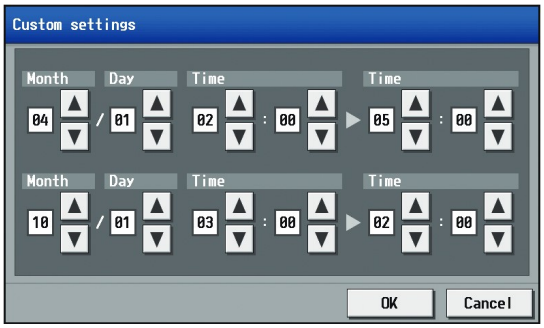


(1) Set the current date and time.

(2) To automatically adjust the daylight saving time, touch the “Daylight saving time” button. Touch the applicable country, and then touch [OK].

Note: When not using the daylight saving time function, touch “----.”

Note: If the applicable country is not found, touch [Custom settings] at the bottom, and touch [OK]. Then, touch [Edit] to open the screen below, and manually configure the daylight saving time setting.



Note

- Message that will appear when the date and time have been reset
  If the power supply is cut off for a long time due to power failure or other reasons, the date and time will be reset, and the following popup message will appear when the power is turned on next. If this message appears, set the date and time again.



* This message will appear periodically until the date and time setting is made.

* If the controller is used without the date and time being set, the Schedule function or the Night Setback Control will not work properly.

* If the [Time Master/Sub] setting for the given controller is set to [Sub], temporarily change the setting to [Master], set the current date and time, and then set the setting back to [Sub].

5-2-4. License registration for optional functions

Touch [Initial Settings] in the menu bar, and then touch [License].

Please ask your dealer for more details on the optional functions and how to purchase a license number.

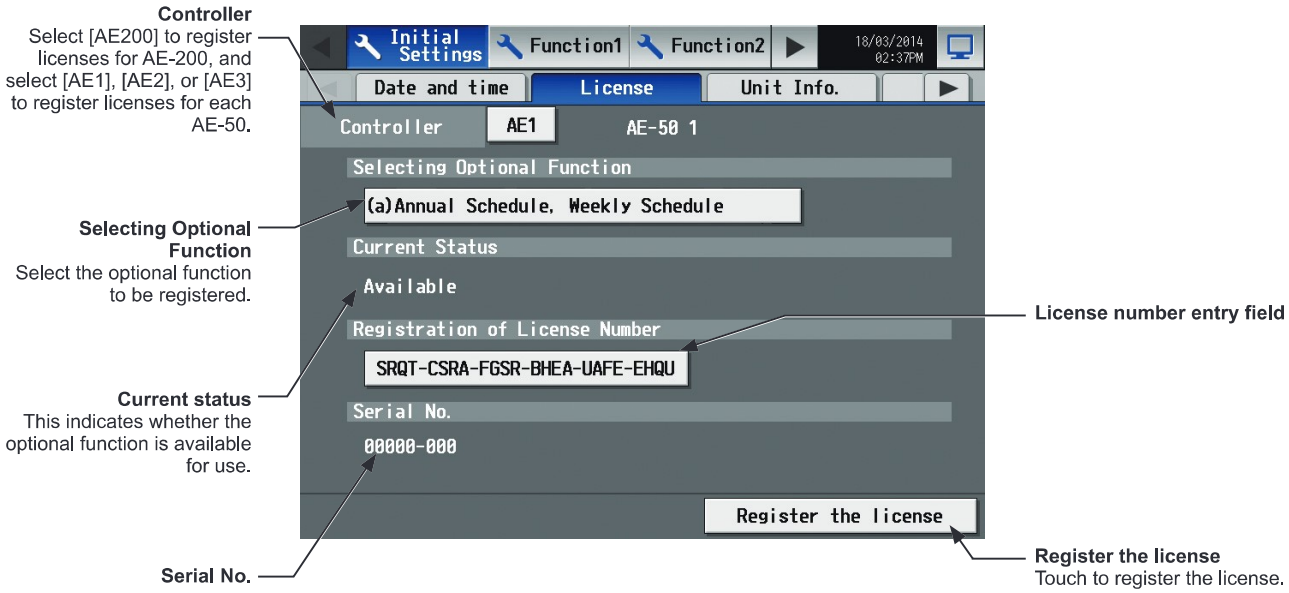
Note: The current date and time settings are required for license registration. Refer to section 5-2-3 “Date and time” for date and time settings.

Note: The license registration is required for each AE-200/AE-50.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to register licenses for each AE-200 and AE-50 individually.

Important

- When one or more AE-50 controllers are connected, licenses for the AE-50 must be registered with the AE-50 properly connected to ensure proper settings.



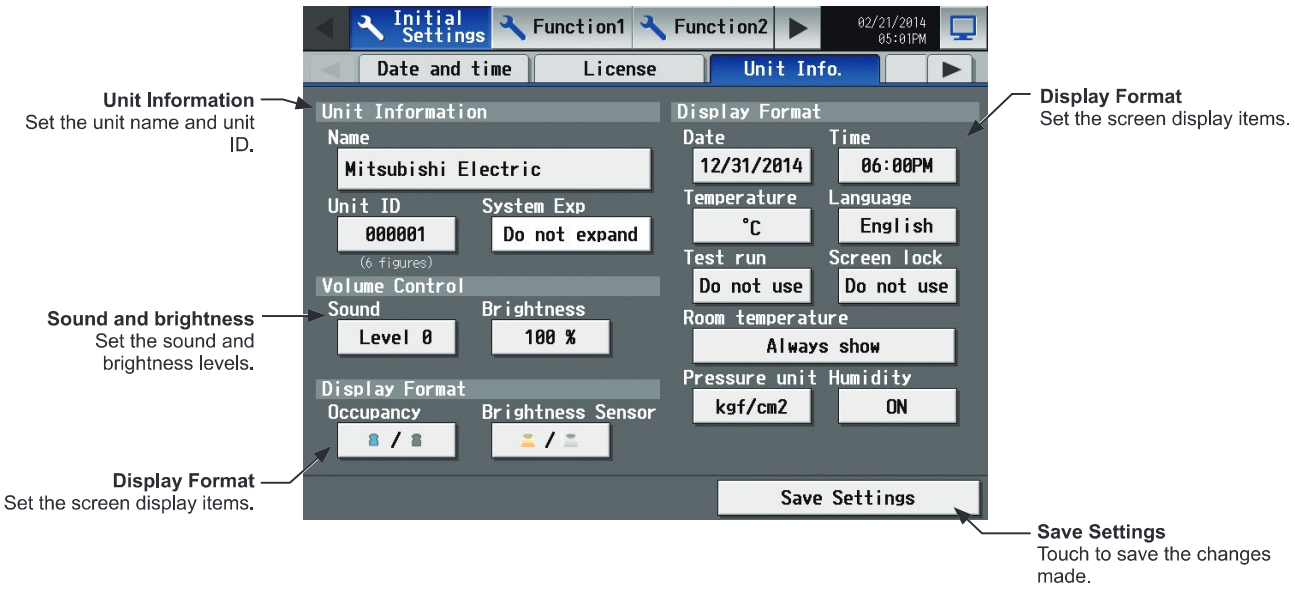
(1) In the [Selecting Optional Function] section, select the optional function to be registered. The current availability will appear in the [Current Status] section.

(2) In the “License number entry field” button, enter the license number and touch [Register the license].
In the [Current Status] section, a word [Available] will appear.
If the registration is unsuccessful, verify that the selected optional function and the license number are correct.
Note: Alphabet “O” and “I” are not used for license number.

5-2-5. Unit Information

Touch [Initial Settings] in the menu bar, and then touch [Unit Info.].
Make necessary basic system settings such as unit settings, display format, and sound/brightness settings, and then touch [Save Settings].

Note: The Unit Information settings may not be accessible if logged in as a building manager.



[1] Unit Information

Follow the instructions below to set the unit name, unit ID, and System Expansion setting.

(1) Touch the [Name] button to display the keyboard. Enter the unit name in 40 alphanumeric or symbol characters or less. The name entered here will be used on the screen of the software that controls multiple AE-200 units and will also be used as a sender name in the error notification e-mail and e-mail alarm.

Note: The following characters cannot be used: <, >, &, “, or ‘

(2) Touch the [Unit ID] button to display the keyboard. Enter the unit ID in 6 figures. Use this setting to manage the multiple unit IDs. The unit ID entered here will be used on the screen of the software that controls multiple AE-200 units and will also be used as a sender ID in the error notification e-mail and e-mail alarm.

(3) When connecting one or more AE-50 controllers, set the [System Exp] setting to [Expand].

Note: The [System Exp] section does not appear on this screen on the AE-50.
Note: When the [System Exp] setting is set to [Expand], make sure to make network settings for the AE-50 controllers on the [Network] screen. (Refer to section 5-2-6 “Network” for details.)

[2] Sound and brightness

(1) In the [Sound] section, select the volume (Level 0–3) of the buzzer that sounds when the screen is touched. (Level 0: No sound)

Note: Although the change will be reflected right away, it will not be saved until [Save Settings] is touched.

(2) In the [Brightness] section, select the brightness (70%, 80%, 90%, 100%) of the screen. (The greater the value, the brighter the brightness.)

Note: Although the change will be reflected right away, it will not be saved until [Save Settings] is touched.

[3] Display Format

(1) In the [Occupancy] section, make the Show/Hide setting for the occupancy/vacancy status that is detected by the built-in occupancy sensor on the ME remote controller (North America: PAR-U01MEDU, Europe: PAR-U02MEDA).
Select [Hide] not to display the occupancy/vacancy status on the [Floor] or [Block] display.
Select [ ] (blue) to display the occupancy icon when the sensor on the remote controller detects occupancy.
Select [ ] (gray) to display the vacancy icon when the sensor on the remote controller detects vacancy.
Select [ ] (blue/gray) to display the occupancy or vacancy icon according to the occupancy status of the room.

Note: If the ME remote controller has no built-in occupancy sensor, the occupancy/vacancy icons will not be displayed on the [Floor] or [Block] display.

(2) In the [Brightness Sensor] section, make the Show/Hide setting for the brightness/darkness status that is detected by the built-in brightness sensor on the ME remote controller (North America: PAR-U01MEDU, Europe: PAR-U02MEDA).
Select [Hide] not to display the brightness/darkness icons on the [Floor] or [Block] display.
Select [ ] (yellow) to display the brightness icon when the brightness level in the room reaches the predetermined brightness level.
Select [ ] (gray) to display the darkness icon when the darkness level in the room reaches the predetermined darkness level.
Select [ ] (yellow/gray) to display the brightness or darkness icon according to the brightness/darkness level of the room.

Note: If the ME remote controller has no built-in brightness sensor, the brightness/darkness icons will not be displayed on the [Floor] or [Block] display.

Note: The brightness/darkness detection thresholds are set on the ME remote controller (North America: PAR-U01MEDU, Europe: PAR-U02MEDA)

(3) In the [Date] section, select the desired display format for year, month, and date.

(4) In the [Time] section, select the desired display of time format.

(5) In the [Temperature] section, select the desired temperature unit [ºC] or [ºF].

(6) In the [Language] section, select the desired display language.

(7) In the [Test run] section, select [Use] or [Do not use]. Select [Use] to perform a test run from the operation settings screen.

(8) In the [Screen lock] section, select [Use] or [Do not use]. Select [Use] to activate the screen lock function. (Refer to section 5-2-2 “Locking the screen” for details.)

(9) In the [Room temperature] section, select the desired temperature display option to be used on the [Floor] or [Block] display.
Select [Always show] to display the temperature at all times, [Show during operation] to display the temperature only during operation, and [Hide] not to display the temperature.

(10) In the [Pressure unit] section, select [MPa], [PSI], or [kgf/cm^2].

(11) In the [Humidity] section, make the Show/Hide setting for the humidity reading of the built-in humidity sensor on the ME remote controller (North America: PAR-U01MEDU, Europe: PAR-U02MEDA).
Select [ON] to display the humidity reading on the [Floor] or [Block] display.

5-2-6. Network

Touch [Initial Settings] in the menu bar, and then touch [Network].

Make necessary basic system settings such as LAN settings, M-NET settings, and external input settings for each AE-200 and AE-50, and then touch [Save Settings]. A message will appear asking whether or not to restart the controller. Touch [OK] to restart the controller to reflect the changes.

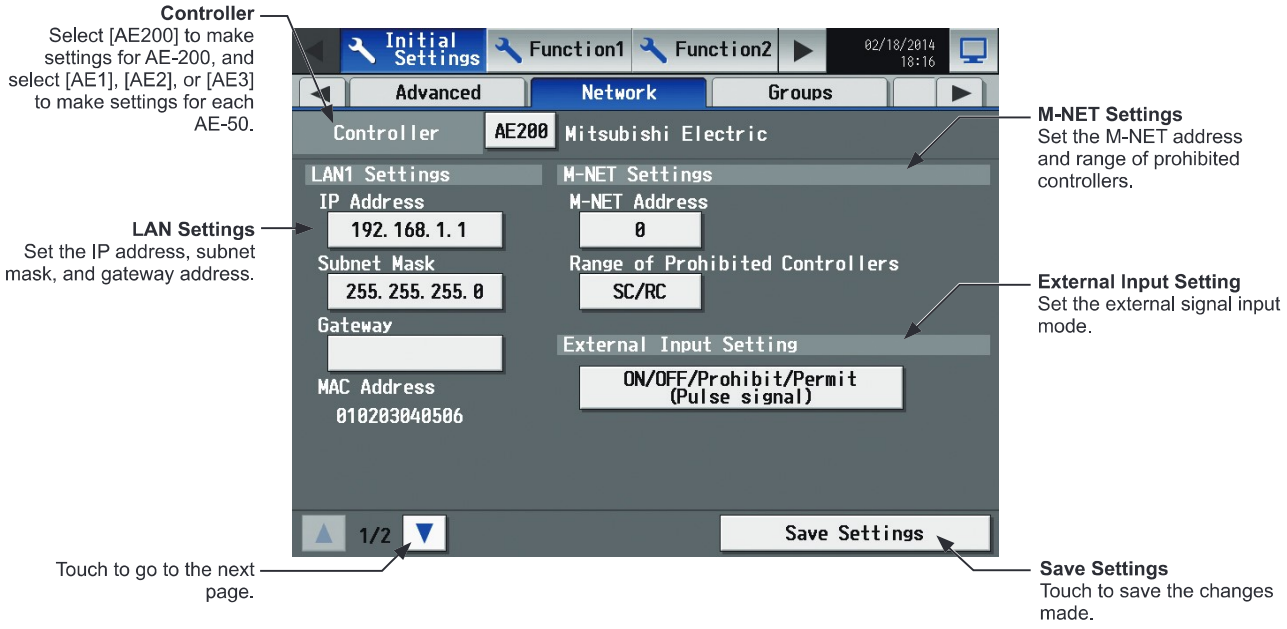
Note: The Network settings may not be accessible if logged in as a building manager.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

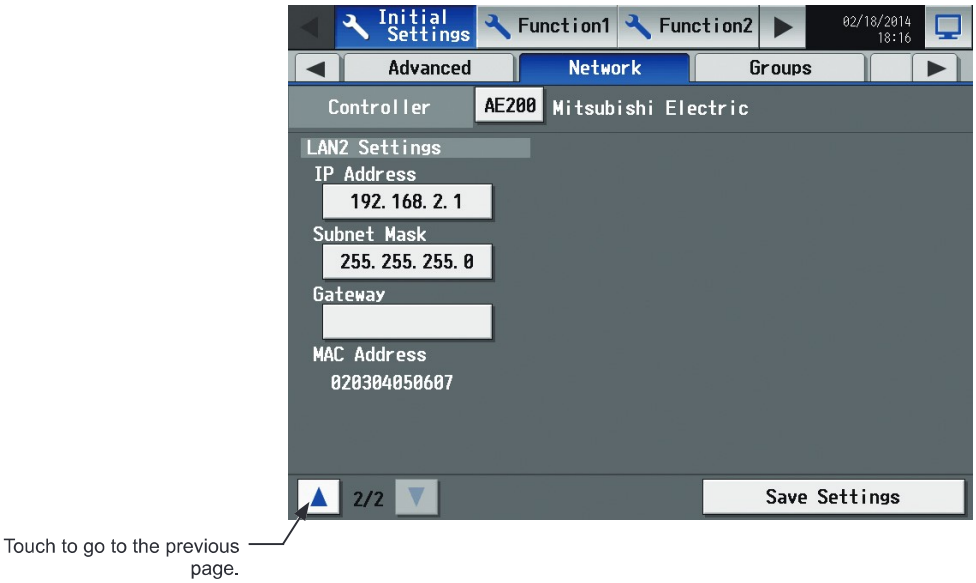
Important

- Network settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.

1st page

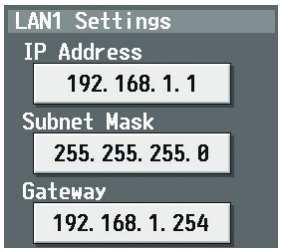


2nd page



[1] LAN Settings

LAN1 settings vary depending on whether the AE-200/AE-50 is connected to a dedicated LAN or an existing LAN. See the sections below for how to set the AE-200/AE-50 IP addresses, subnet mask, and gateway addresses. Although the settings for LAN1 and LAN2 will appear on the screen, only the settings for LAN1 is required. Before making the settings, make sure that the LAN is connected to LAN1 port.



(1) LAN1 settings for connecting the AE-200/AE-50 to a dedicated LAN

Settings for an AE-200

Note: See the procedures below when making LAN1 settings on the AE-50.

(1) Make sure that [AE200] is selected in the [Controller] section.

(2) Enter the AE-200's IP address in the [IP Address] field. If the LAN has been newly set up, allocate IP addresses to the AE-200 units in a sequential order starting with [192.168.1.1]. For example, the first AE-200 unit will have an IP address of [192.168.1.1], the second AE-200 unit will have an IP address of [192.168.1.2] and so on. (The same IP addresses cannot be used.)
Allocate IP addresses to the AE-50 units in a sequential order starting with [192.168.1.211].

Note: The recommended IP address ranges are as follows.
AE-200: Between [192.168.1.1] and [192.168.1.40]
AE-50: Between [192.168.1.211] and [192.168.1.249]
PC: Between [192.168.1.101] and [192.168.1.150]

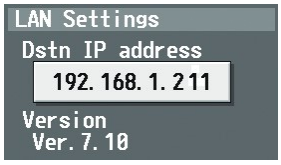
(3) Enter [255.255.255.0] in the [Subnet Mask] field (unless otherwise specified).

(4) When monitoring the system remotely or using e-mail function via a dial-up router, enter the router IP address in the [Gateway] field.
Leave the [Gateway] field blank when not connecting a dial-up router.
[192.168.1.254] is recommended for use as the IP address of the dial-up router. Refer to the dial-up router instruction manual for details of how to set the IP address.

Note: [192.168.1.254] is recommended for use as the IP address of the dial-up router. Refer to the dial-up router instruction manual for details of how to set the IP address.

Note: The use of a dial-up router with no modem requires a modem (for analog or ISDN) to be connected between the router and the public phone line.

Settings for when connecting one or more AE-50 controllers



(1) Select [AE1], [AE2], or [AE3] in the [Controller] section to make settings for each AE-50.

(2) Enter the IP address of the AE-50 that is connected to the AE-200 in the [Dstn IP address] field.
A message that indicates that the connection information of the AE-50 is being collected will appear for a few minutes.

Note: AE-50 will not operate properly and the AE-50 software version will not appear if the entered address does not match the ones that have been set on the AE-50.

(2) LAN1 settings for connecting the AE-200/AE-50 to an existing LAN

(1) When connecting the AE-200/AE-50 to an existing LAN, consult the system administrator to decide the IP addresses, subnet mask, and gateway addresses.

(3) LAN2 settings for connecting the AE-200/AE-50 to a dedicated LAN

(1) Change the LAN2 IP address only when the LAN1 IP address is required to be set to [192.168.2.1].
Note: Do not use the LAN2 port.

(4) LAN2 settings for connecting the AE-200/AE-50 to an existing LAN

(1) Change the LAN2 IP address only when the LAN1 IP address is required to be set to [192.168.2.1].
Note: Do not use the LAN2 port.

[2] M-NET Settings

Note: Make the M-NET settings only on the AE-200.



(1) Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

(2) Enter [0] in the [M-NET Address] field (unless otherwise specified).

(3) When the local remote controller operation is prohibited on the Web Browser for System Maintenance Engineer, the [Range of Prohibited Controllers] setting determines the scope of its applicability. Select [SC/RC] to prohibit the operation from both the sub system controllers and the remote controllers. Select [RC Only] to prohibit the operation only from the remote controllers.

[3] External Input Setting

Using the external signal input function, the following types of collective operations can be performed for all connected air conditioning units: Demand level, Emergency stop, ON/OFF operation, and Prohibit/Permit local remote controller operation.
A separately-sold external input/output adapter (PAC-YG10HA-E) is required.

Note: Make the M-NET settings only on the AE-200.
Note: A separate license is required to activate demand control using the external input function. Make sure that the required license has properly been registered on the [License] screen. (Refer to section 5-2-4 “License registration for optional functions” for details.)



(1) Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

(2) Select [Demand (Level signal)/Not in use], [Emergency Stop (Level signal)], [ON/OFF (Level signal)], or [ON/OFF/Prohibit/Permit (Pulse signal)]. Refer to the Installation Manual for details.

5-2-7. Groups

Touch [Initial Settings] in the menu bar, and then touch [Groups].

Register the groups of air conditioning units, LOSSNAY units (ventilators), Air To Water (PWFY) units, AHC, HWHP (CAHV) units, or general equipment to be connected to the AE-200/AE-50, and then touch [Save Settings].

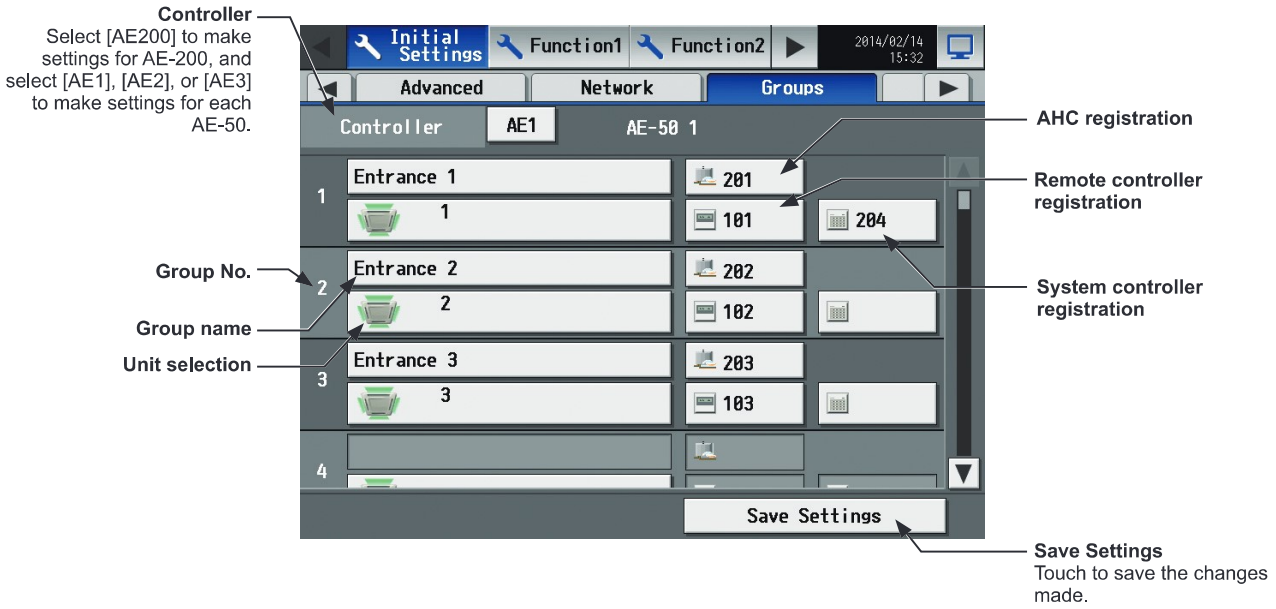
Note: Some settings may not be accessible if logged in as a building manager.

Note: If the system is connected to a TG-2000A, make or change the settings from the TG-2000A.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

Important

- Group settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.
- The units connected to AE-200 cannot be grouped together with the units connected to AE-50.



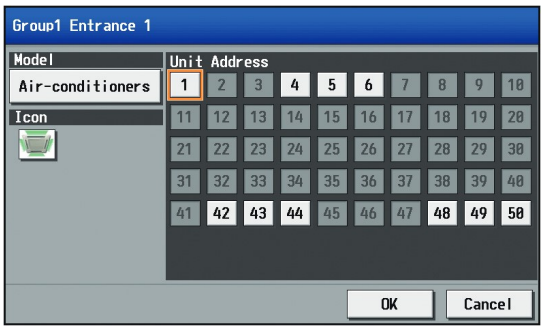
[1] Setting group names

(1) Touch the “Group name” button to display the keyboard. Enter the group name in 20 alphanumeric or symbol characters or less.

Note: The following characters cannot be used: <, >, &, “, or ‘

[2] Registering air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV) units to a group

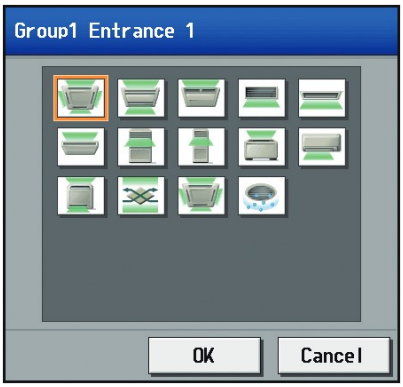
(1) To register air conditioners, Air To Water (PWFY) units, LOSSNAY units, and HWHP (CAHV) units to each group, touch the “Unit selection” button under the target group name. A screen to select the units will appear.



Select the group type in the [Model] section, and select the address numbers of the units to be registered.
The selected unit addresses will appear with an orange frame. Touch again to deselect.

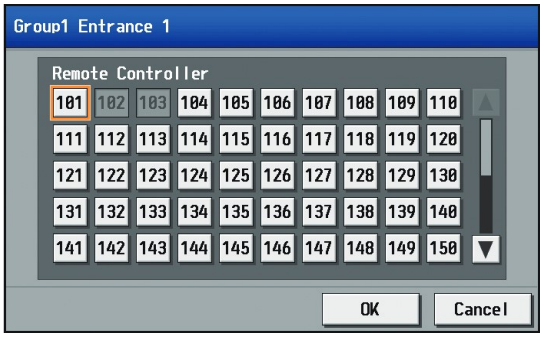
Note: Each group can contain up to 16 air conditioners.
Note: Air conditioners, Air To Water (PWFY) units, LOSSNAY units, and HWHP (CAHV) units cannot be combined with general equipment in one group. To change the registered units to air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV) units in the group in which general equipment is registered, unregister the general equipment first.
Note: The addresses of the units that have been registered to other groups will appear with a gray background and cannot be selected.

(2) To change the unit icon to be used, touch the icon. A screen to select an icon will appear. Select an icon to be used, and touch [OK].



[3] Registering remote controllers to a group

(1) To register remote controllers to a group, touch the “Remote controller registration” button under the target group name. A screen to select the units will appear.



Select the address numbers of the remote controllers to be registered.
The selected unit addresses will appear with an orange frame. Touch again to deselect.

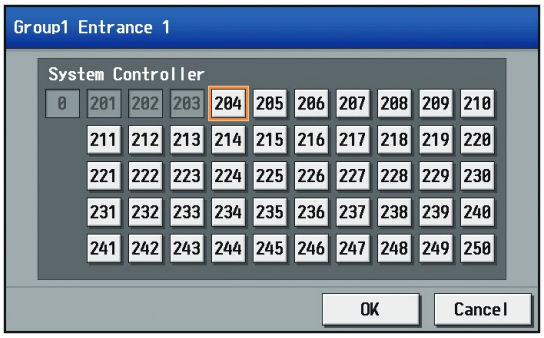
Note: Each group can contain up to two remote controllers.
Note: Each group can contain up to four remote and system controllers combined.
Note: MA remote controllers do not need to be registered to a group.

[4] Registering system controllers to a group

(1) To register system controllers to a group, touch the "System controller registration" button under the target group name. A screen to select the units will appear.

Select the address numbers of the system controllers to be registered.
The selected unit addresses will appear with an orange frame. Touch again to deselect.

Note: Each group can contain up to four remote and system controllers combined.

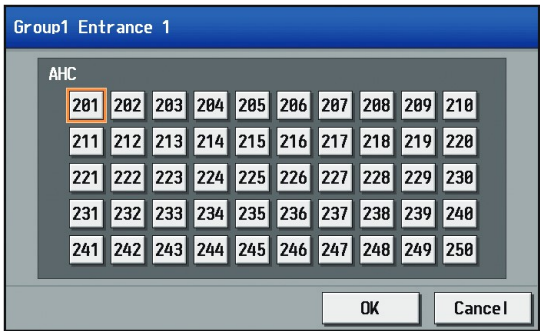


[5] Registering AHC to a group

(1) To register AHC to a group, touch the "AHC registration" button under the target group name. A screen to select the unit will appear.

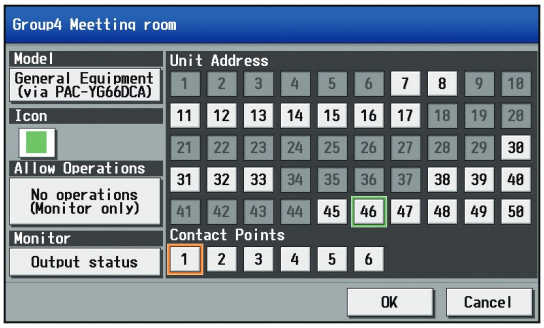
Select the address number of the AHC to be registered.
The selected unit address will appear with an orange frame. Touch again to deselect.

Note: Each group can contain one AHC.
Note: AHC must be registered to a group in which air conditioners are registered. Do not register AHC to a group in which Air To Water (PWFY) units, LOSSNAY units, HWHP (CAHV) units, or general equipment (via PAC-YG66DCA) are registered.



[6] Registering general equipment to a group

(1) To register general equipment to a group, touch the “Unit selection” button under the target group name. A screen to select the units will appear.



Select [General Equipment (via PAC-YG66DCA)] in the [Model] section, and select the unit address of the DIDO controller (PAC-YG66DCA) that is connected to the general equipment to be registered.

The selected number will appear with an yellow-green frame.

Then, select contact points to which the general equipment are connected, and touch the address assigned to another unit to register the first selected item to the group. The yellow-green frame will change to an orange frame. (The item with a yellow-green frame is the currently selected unit, and the ones with an orange frame are the units that are already registered to a group.)

Touch again to deselect.

Note: Each contact of DIDO controller counts as one unit.
Note: Each group can contain up to 16 general equipment.
Note: Up to six general equipment can be registered for each DIDO controller.
Note: Air conditioners, Air To Water (PWFY) units, LOSSNAY units, and HWHP (CAHV) units cannot be combined with general equipment in one group. To change the registered units to general equipment in the group to which air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV) units are registered, unregister the air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV) units first.
Note: General equipment groups cannot include remote controllers or system controllers.

(2) To change the unit icon to be used, touch the icon under the [Icon] section. A screen to select an icon will appear. Select an icon to be used, and then touch [OK].



(3) In the [Allow Operations] section, make the setting to allow or disallow operation.
Select [In batch and on individual group] to allow the operator to turn on or off the general equipment collectively or by the groups.
Select [On individual group] to allow the operator to turn on or off the general equipment by the groups.
Select [No operations (Monitor only)] to disallow the operator to turn on or off the general equipment.

(4) In the [Monitor] section, select which status will be used to reflect the units’ ON/OFF status to the unit icons on the [Monitor/Operation] menu screen.
Select [Output status] to use the status that is sent to the general equipment, and [Input status] to use the status that is sent from the general equipment.

5-2-8. Interlocked LOSSNAY

The ON/OFF status of the LOSSNAY unit can be interlocked with the operation of indoor units.
Touch [Initial Settings] in the menu bar, and then touch [Interlock]. Set the interlocking conditions for each AE-200 and AE-50, and then touch [Save Settings].

Note: The Interlocked LOSSNAY settings may not be accessible if logged in as a building manager.
Note: If the system is connected to a TG-2000A, make or change the settings from the TG-2000A.
Note: The ON/OFF status of the indoor units are not interlocked with the ON/OFF status of the LOSSNAY unit.
Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

Important

- Interlock settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.
- The interlock settings between the units connected to the AE-200 and the AE-50, as well as between the units connected to different AE-50 controllers, cannot be made.

Controller
Select [AE200] to make settings for AE-200, and select [AE1], [AE2], or [AE3] to make settings for each AE-50.

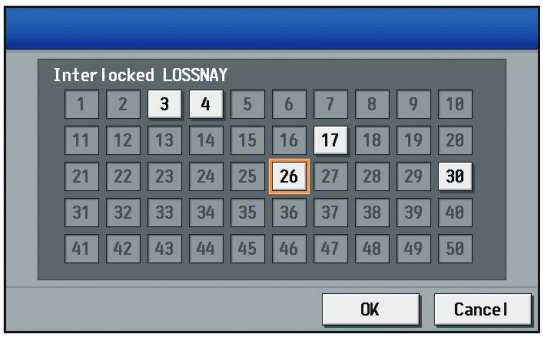
Interlocked LOSSNAY unit registration
Touch to display the screen for registering the LOSSNAY unit.



Interlocked indoor unit registration
Touch to display the screen for registering the indoor units.

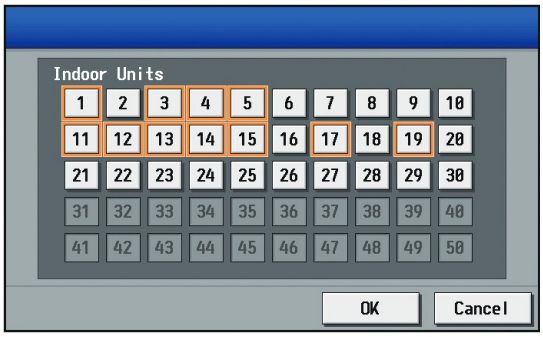
Save Settings
Touch to save the changes made.

(1) Touch the “Interlocked LOSSNAY unit registration” button. A screen to select the units will appear.
Select the address number of the LOSSNAY unit to be registered. The selected unit address will appear with an orange frame.
Touch again to deselect.



(2) Touch the “Interlocked indoor unit registration” button. A screen to select the units will appear.
Select the address numbers of the indoor units to which the selected LOSSNAY unit will be interlocked. The selected unit addresses will appear with an orange frame.
Touch again to deselect.

Note: Each LOSSNAY unit can be interlocked with up to 16 indoor units.



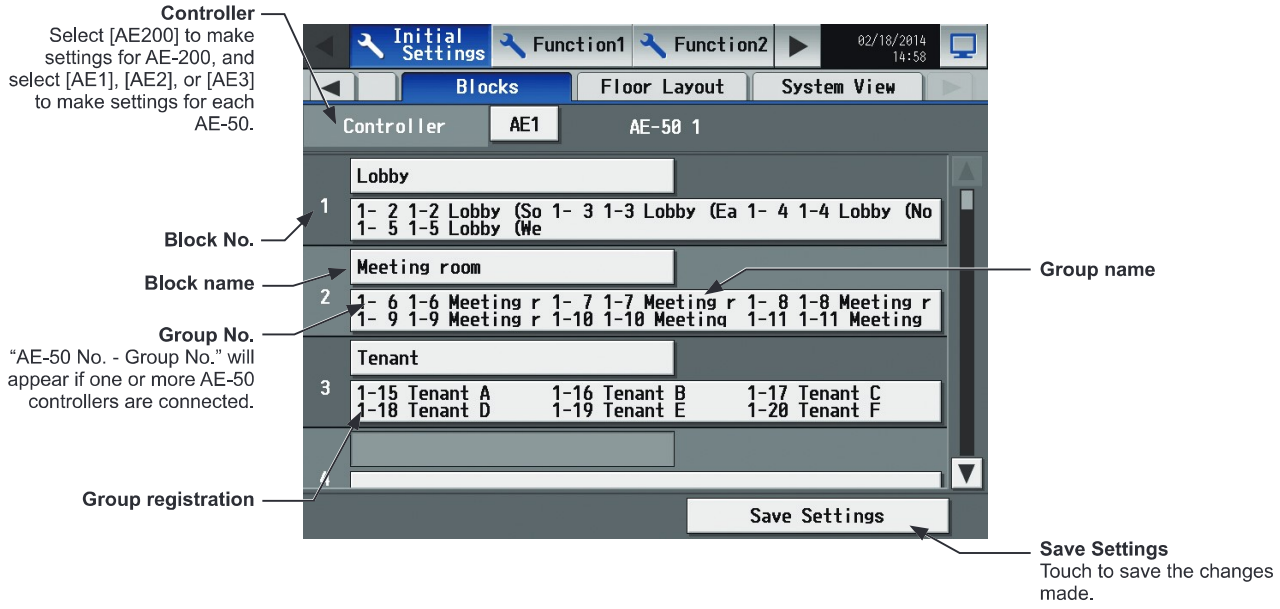
5-2-9. Blocks

By making block settings, multiple groups in a given block can be collectively monitored or operated.
Touch [Initial Settings] in the menu bar, and then touch [Blocks]. Register the groups to each block, and then touch [Save Settings].

Note: Some settings may not be accessible if logged in as a building manager.
Note: If the system is connected to a TG-2000A, make or change the settings from the TG-2000A.
Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

Important

- Block settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.

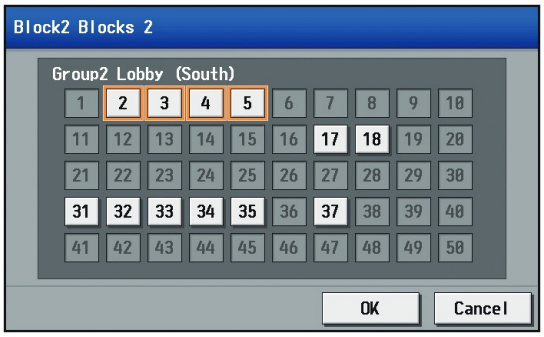


(1) Touch the "Block name" button to display the keyboard. Enter the group name in 20 alphanumeric or symbol characters or less.

Note: The following characters cannot be used: <, >, &, ", or '

(2) Touch the "Group registration" button of the target block. A screen to select the groups will appear.
Touch the group numbers to be registered. (The name of the group that was touched last will appear.)
The selected group numbers will appear with an orange frame. Touch again to deselect.

Note: HWHP (CAHV) unit groups cannot be registered to a block.



5-2-10. Floor Layout

The floor layout on the [Floor] display under the [Monitor/Operation] menu can be changed, and the display position of the groups on the floor can be changed.

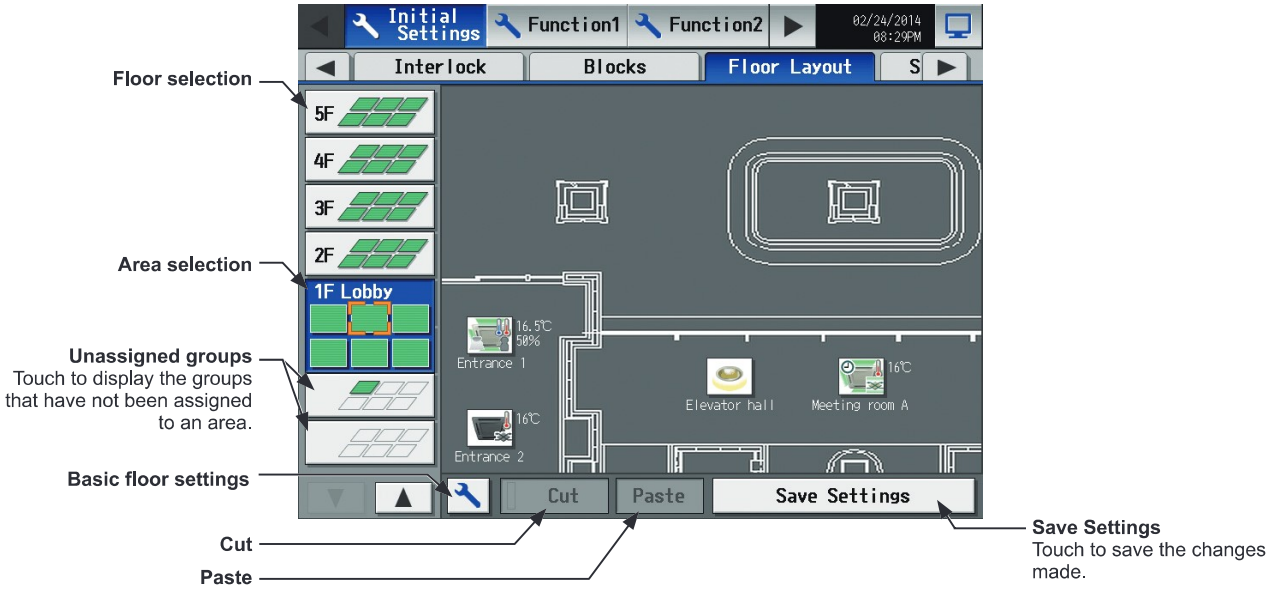
Touch [Initial Settings] in the menu bar, and then touch [Floor Layout]. All unit groups that are under the control of both AE-200 and AE-50 can be displayed on the Floor Layout screen of the AE-200.

Note: Some settings may not be accessible if logged in as a building manager.

Note: Up to 30 groups can be assigned to each area.

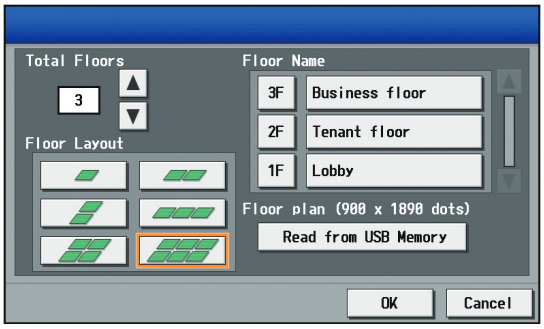
Important

- Although the Floor Layout settings can also be made on the AE-50's LCD, only the unit groups that are under the control of AE-50 controllers can be set on the AE-50's LCD.



[1] Basic floor settings

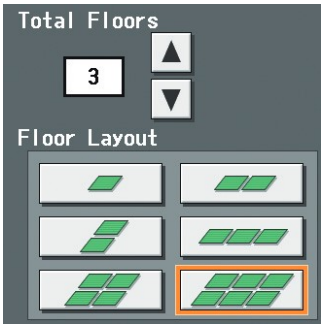
(1) Touch the "Basic floor settings" button to display the basic floor settings screen.



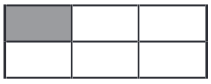
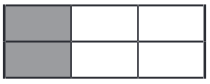
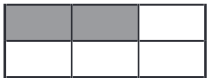
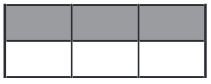
(2) Touch ▲ ▼ to set the total number of floors, and select the floor layout to be used.

Note: If the total number of floors is set to "--," none of the floor layouts can be selected.

Note: Up to ten floors can be registerted.

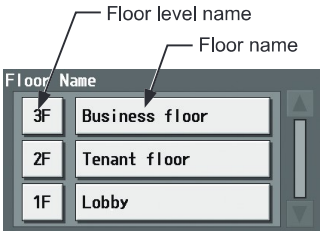


The display range of the area on the [Floor Layout] screen vary, depending on the selected floor layout.

Floor layout	Display area	Floor layout	Display area
			
			
			

(3) Touch the “Floor level name” button to display the keyboard. Enter the floor level name in 3 alphanumeric or symbol characters or less.

Then, touch the “Floor name” button to display the keyboard. Enter the floor name in 20 alphanumeric or symbol characters or less.



(4) To read floor plan files from the USB memory, touch [Read from USB Memory]. Refer to [2] below for the restrictions on the floor plan files to be read.



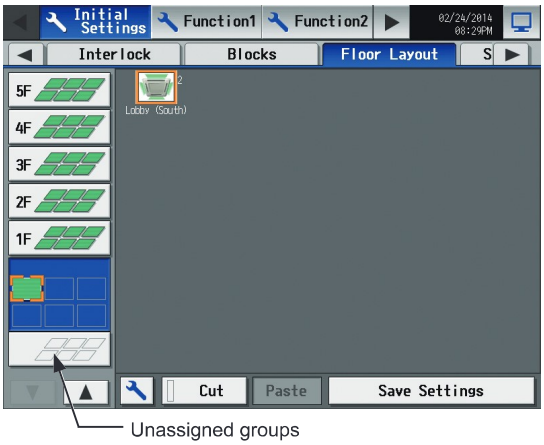
[2] Restrictions on the floor plan files to be read

<table>
<tr><td>File size</td><td>1890 (width) × 900 (height) dots for each floor plan</td></tr>
<tr><td>File format</td><td>gif
Note: Files that contain extension data (metadata such as XMP) cannot be read.</td></tr>
<tr><td>File name</td><td>
<table>
<tr><th>Floor *1</th><th>File name</th><th>Floor *1</th><th>File name</th></tr>
<tr><td>1</td><td>floor_01.gif</td><td>6</td><td>floor_06.gif</td></tr>
<tr><td>2</td><td>floor_02.gif</td><td>7</td><td>floor_07.gif</td></tr>
<tr><td>3</td><td>floor_03.gif</td><td>8</td><td>floor_08.gif</td></tr>
<tr><td>4</td><td>floor_04.gif</td><td>9</td><td>floor_09.gif</td></tr>
<tr><td>5</td><td>floor_05.gif</td><td>10</td><td>floor_10.gif</td></tr>
</table>
*1 The floor numbers in the table are not the actual floor level name, but the number counted from the bottom on the [Floor Layout] screen. Even if the floor level name is set to “15F,” the file name will be “floor_01.gif” when the floor is the first floor in the setting.
</td></tr>
<tr><td>File location</td><td>In the root folder of the USB memory</td></tr>
<tr><td>Available colors (RGB) to be used in the file</td><td>
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<tr><th>R</th><th>G</th><th>B</th></tr>
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<tr><td>6</td><td>35</td><td>160</td></tr>
<tr><td>6</td><td>28</td><td>122</td></tr>
<tr><td>9</td><td>40</td><td>168</td></tr>
<tr><td>12</td><td>45</td><td>176</td></tr>
<tr><td>154</td><td>162</td><td>194</td></tr>
<tr><td>211</td><td>214</td><td>227</td></tr>
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<tr><td>24</td><td>64</td><td>205</td></tr>
<tr><td>17</td><td>46</td><td>149</td></tr>
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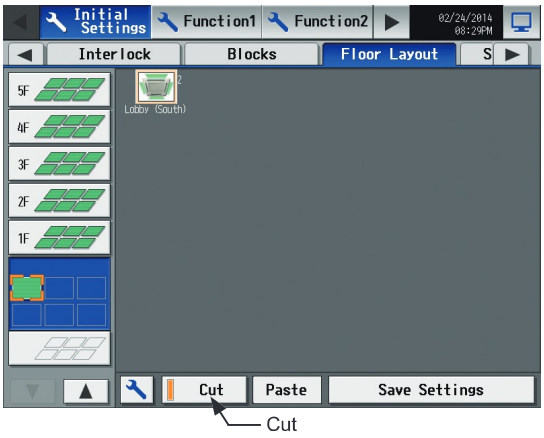
[3] Moving a group to other areas

(1) On the [Floor Layout] screen, touch the group icon to be moved. The selected group icon will appear with an orange frame.

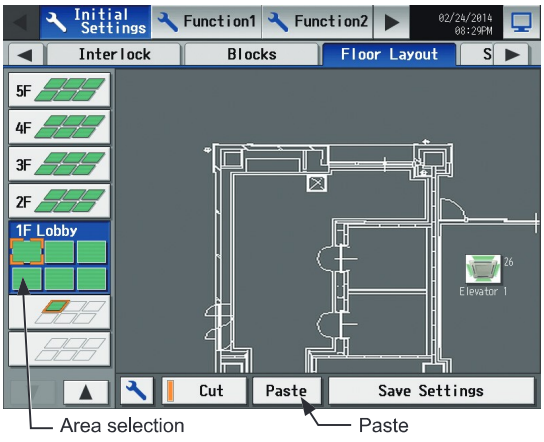
Note: When the “Unassigned groups” button is touched, groups that have not been assigned to any area will appear in the order of their group numbers. (Up to 30 groups will appear in an area.)



(2) Touch [Cut].
The orange frame will change to a pale orange frame.

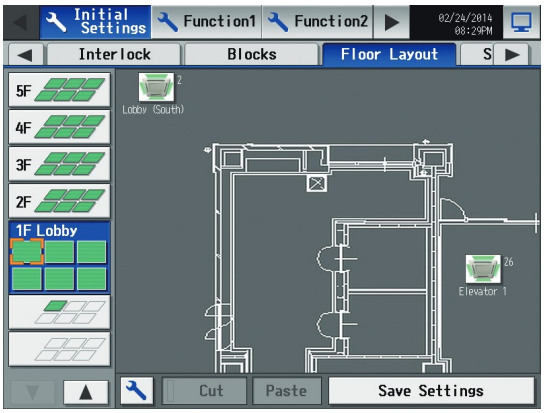


(3) With the pale orange frame being displayed, select the area to move the group to, and touch [Paste] to move the selected group to the selected area.



(4) Touch [Save Settings].

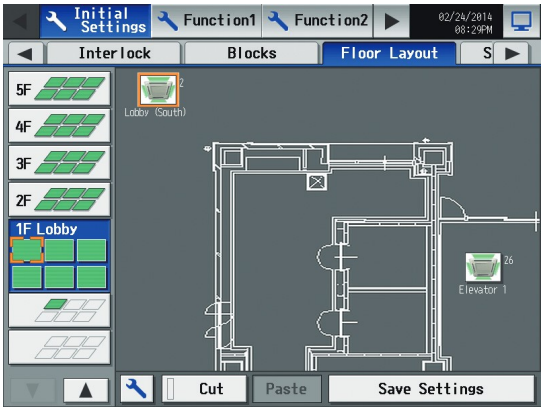
Note: To move the pasted group icon within the area, refer to [4] “Moving a group within the area” below.



[4] Moving a group within the area

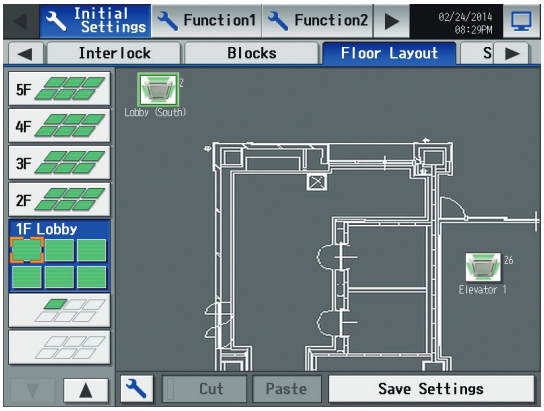
Note: It is recommended to use a commercially available touch pen.

(1) On the [Floor Layout] screen, touch the group icon to be moved. The selected group icon will appear with an orange frame.

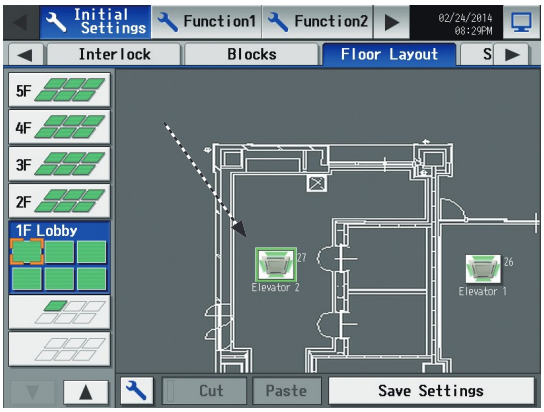


(2) Touch and hold the group icon for one second. The orange frame will change to an yellow-green frame.

Note: The group icons cannot be moved on the screen that appears when the “Unassigned groups” button.



(3) Drug and drop the icon to move anywhere within the area.



(4) Touch [Save Settings].

5-2-11. System View

Refrigerant system information (connection information of outdoor and indoor units) can be checked for each AE-200 and AE-50.

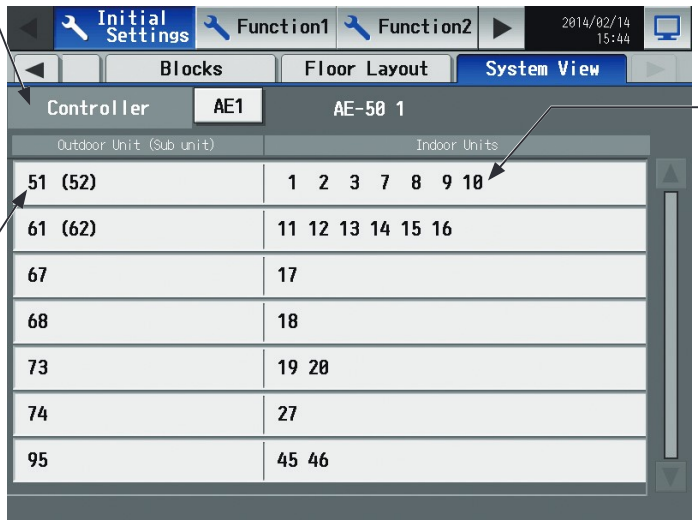
Touch [Initial Settings] in the menu bar, and then touch [System View].

Note: This screen shows the information of the units that have been registered to a group and have started up successfully.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to display the information for each AE-200 and AE-50 individually.

Controller
Select [AE200] to display the information for AE-200, and select [AE1], [AE2], or [AE3] to display the information for each AE-50.

Outdoor unit address
"Unit address of the main unit (Unit address of the sub unit)" will appear.



Indoor unit address
Unit address of the indoor units that are connected to the outdoor unit will appear. Air to Water (PWFY) units will appear, and LOSSNAY and HWHP (CAHV) units will not appear.

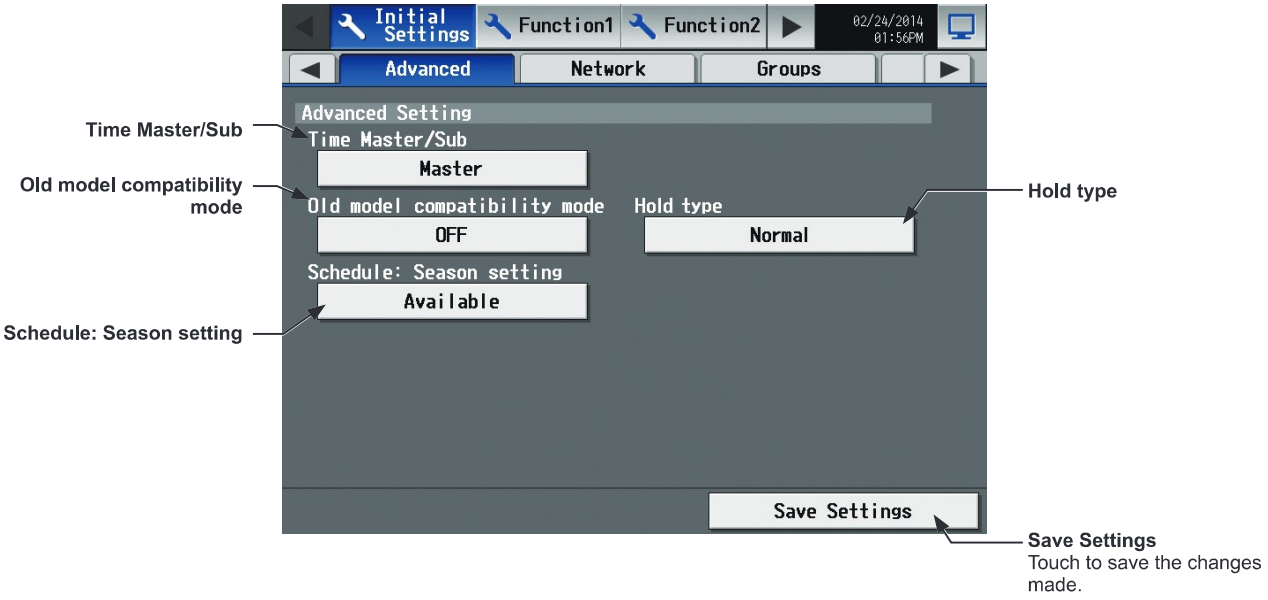
(1) Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to check the system information for each AE-200 and AE-50 individually.

5-2-12. Advanced settings

Touch [Initial Settings] in the menu bar, and then touch [Advanced].

Make necessary settings, and then touch [Save Settings].

Note: The Advanced settings may not be accessible if logged in as a building manager.



[1] Time Master/Sub

The default setting is [Master].

This setting is required to change only for a system with multiple AE-200 controllers connected to an AE-50 controller (System configuration (1) below).

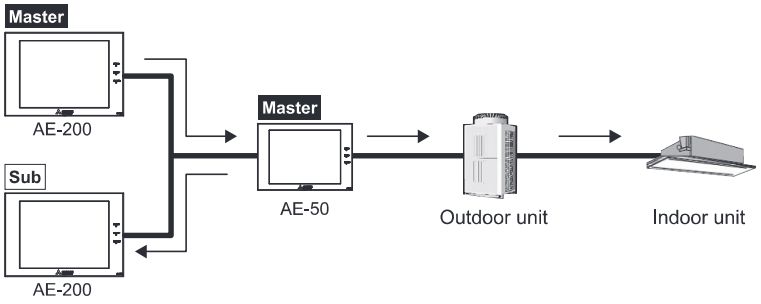
System configuration

: Time setting flow

Master Sub : [Time Master/Sub] setting

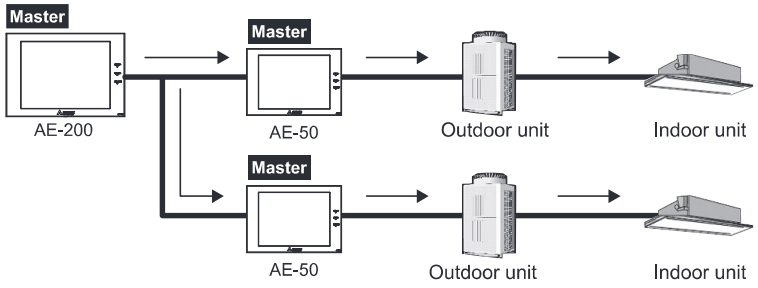
(1) System with multiple AE-200 controllers connected to an AE-50 controller

Set to [Master] on only one of the AE-200 controllers in a system.



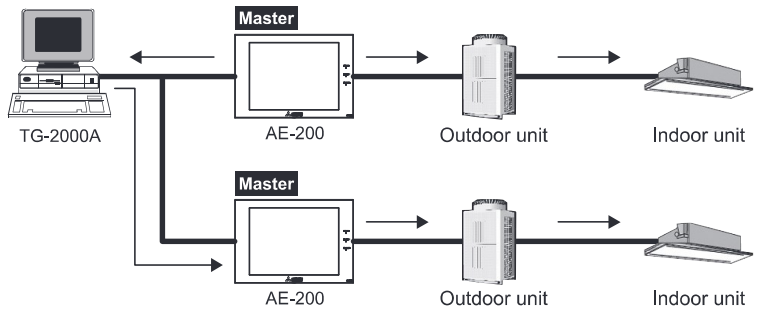
(2) System with an AE-200 controller connected to AE-50 controllers

Leave the default setting [Master] as it is.



(3) System with a high-level system (i.e., TG-2000A) connected to AE-200 controllers

Leave the default setting [Master] as it is.



[2] Old model compatibility mode

In the [Old model compatibility mode] section, select [ON] or [OFF].
When [ON] is selected, the Dual set point function and Prohibit Remote Controller function (Timer, Air Direction, Fan Speed) cannot be used.

Note: If the setting is changed, the controller will reboot.

[3] Hold type

The Hold function is a function to disable the operations that were scheduled for air conditioning unit groups.
If the setting for [Hold] is set to [ON] on the operation settings screen under the [Monitor/Operation] menu and the [Hold type] on the screen above is set to [Forced], the [Hold] setting can be cancelled only from the AE-200/AE-50.
If the [Hold type] is set to [Normal], the [Hold] setting can be cancelled from AE-200/AE-50, other system controllers, or remote controllers.

Note: The Hold function can be used on the AE-200A/AE-50A, but not on the AE-200E/AE-50E.
Note: The Hold function cannot be used on general equipments.
Note: The setting [Forced] will not be effective on Air To Water (PWFY) unit groups, LOSSNAY unit groups, HWHP (CAHV) unit groups, general equipment groups, and air conditioning unit groups that do not support the Hold function (i.e., Mr. Slim M-Series/P-Series indoor units). If the setting for [Hold] is set to [ON] on those unit groups on the operation settings screen and the [Hold type] on the screen above is set to [Forced], the setting [Normal] will be effective.

[4] Schedule: Season setting

In the [Schedule: Season setting] section, select [Available] to enable the seasonal settings of the weekly schedules and [Not Available] to disable. Unless otherwise specified, leave the default setting [Available] as it is.

Note: The settings made on this screen on the AE-200 will be reflected on this screen on the AE-50.

5-3. Function1

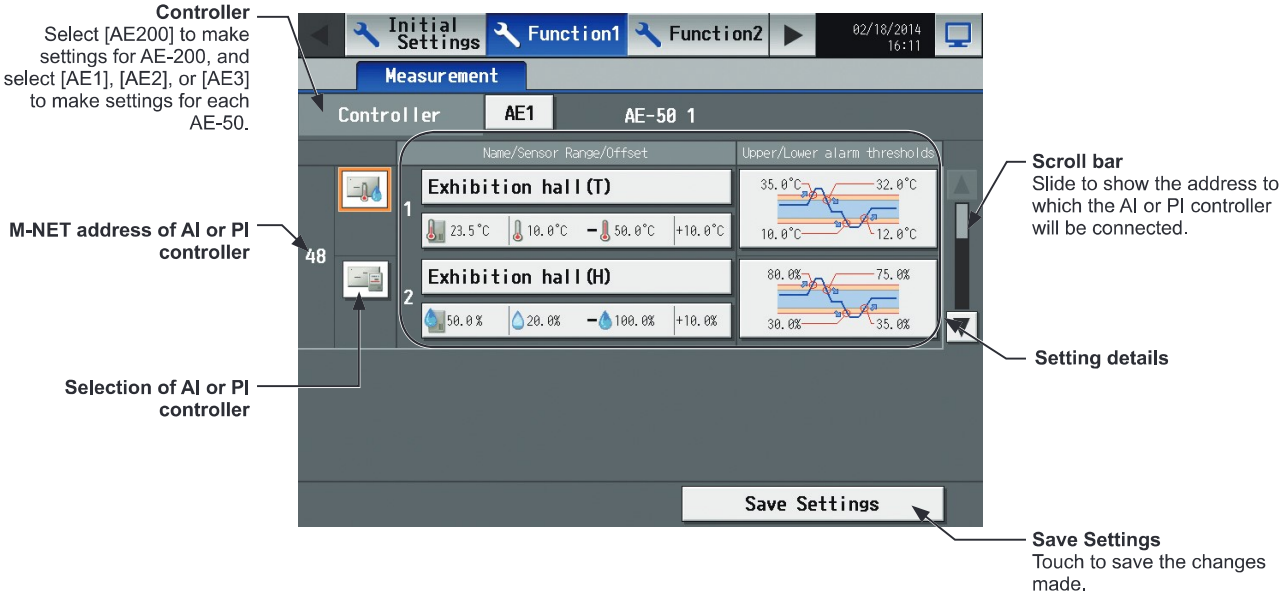
5-3-1. Measurement

Measurement settings must be made to use temperature sensors, humidity sensors, and metering devices. Touch [Function1] in the menu bar, and then touch [Measurement]. Set the measurement settings for each AE-200 and AE-50, and then touch [Save Settings].

Note: The measurement settings may not be accessible if logged in as a building manager.
Note: If the system is connected to a TG-2000A, make or change the settings from the TG-2000A.
Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

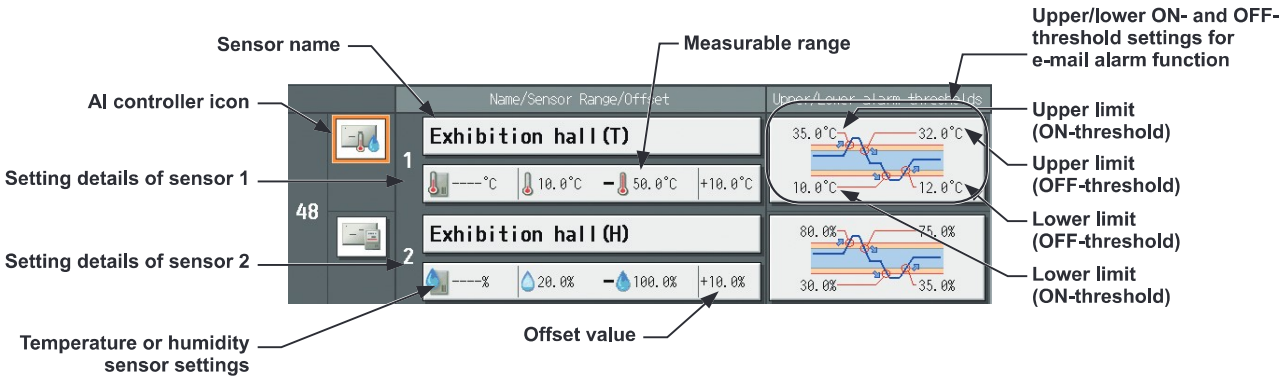
Important

- Measurement settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.



[1] Registering AI controllers and temperature/humidity sensors

Follow the instructions below to make the system settings for measurement sensors. Up to two measurement sensors can be connected to an AI controller (PAC-YG63MCA).



(1) Using the scroll bar, select the address to which the AI controller (PAC-YG63MCA) will be connected.

(2) Select the AI controller icon ( ).

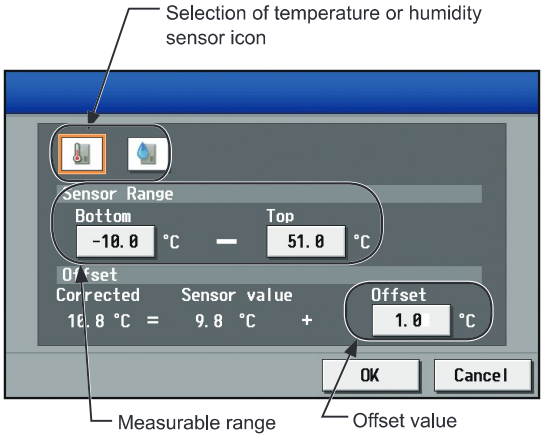
Note: Touch again to deselect.

(3) Touch the “Sensor name” button to display the keyboard. Enter the name of the sensor in 20 characters or less.

Note: The following characters cannot be used: <, >, &, “, or ‘

(4) Touch the “Temperature or humidity sensor settings” button to display the sensor settings screen.

Select the temperature sensor icon ( ) or the humidity sensor icon ( ).



(5) Touch the [Bottom] and [Top] buttons to display the keypad. Enter the measurable range of the sensor, and then touch [OK].

Note: The settable range for temperature sensor is between -100.0°C (-148.0°F) and +100.0°C (+212.0°F), and for the humidity sensor is between 0.0% and +100.0%.

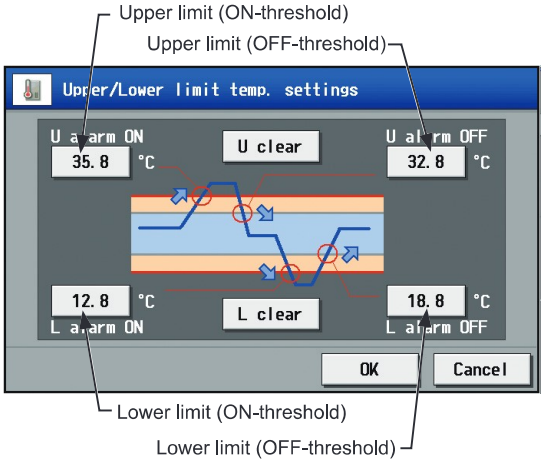
Note: When the Pt sensor is connected, the range must be between -30°C (-22°F) and +60°C (+140°F). When the sensors other than the Pt sensors are connected, enter the ranges that are described in the operation manuals of the sensor.



(6) To set the offset value for the measured values, touch the [Offset] button to display the keypad. Enter the offset value, and then touch [OK].

Note: The settable offset value range for temperature sensor is between -10.0°C (-18.0°F) and +10.0°C (+18.0°F), and for the humidity sensor is between -10.0% and +10.0%.

(7) To receive an e-mail alarm when the temperature or the humidity exceeds certain predetermined values, set the ON- and OFF-thresholds for both the upper and lower limit temperatures.
Touch the “Upper/lower ON- and OFF-threshold settings for e-mail alarm function” section to display the settings screen.
Touch the [U alarm ON]/[L alarm ON] and [U alarm OFF]/[L alarm OFF] buttons to display the keypad. Enter the ON- and OFF-thresholds for the upper and lower limit temperatures, and then touch [OK].



Note: To clear the ON- and OFF-thresholds for the upper limit temperatures, touch [U clear]. To clear the ON- and OFF-thresholds for the lower limit temperatures, touch [L clear].

Note: To avoid frequent ON/OFF cycling, the minimum differential between the ON- and OFF-threshold values should be 1°C (2°F).

(8) Touch [Save Settings].

[2] Registering PI controllers and metering devices

Follow the instructions below to make the system settings of the metering devices. Up to four metering devices can be connected to a PI controller (PAC-YG60MCA).

Note: Although up to 15 PI controllers (PAC-YG60MCA) can be set for each AE-200/AE-50, the number of PI controllers in a system with connection to one or more AE-50 controllers must be 20 or less.



(1) Using the scroll bar, select the address to which the PI controller (PAC-YG60MCA) will be connected.

(2) Select the PI controller icon ( ).

Note: Touch again to deselect.

(3) Touch the “Metering device name” button to display the keyboard. Enter the name of the metering device in 20 characters or less.

Note: The following characters cannot be used: <, >, &, “, or ‘

(4) Touch the “Pulse value” button to display the keypad. Enter the pulse value of the metering device, and touch [OK].

Note: The settable range is between 0.01 and +100.

Note: If the pulse value field is left blank, the reading of the metering device cannot be properly obtained. Be sure to set the pulse value.



(5) Touch the “Measurement unit” button to select the measurement unit.

Note: The measurement unit can be selected from [kWh], [m3], [MJ], [--(no unit)], or [(blank)]. Select the blank when not using a metering device.

Important

- Set the pulse value according to the metering device to be used. To ensure proper settings, first check the value measured by the metering device and the value counted by the PI controller. Then, after a certain time, check that both values have increased by equal values. (The values that the PI controller counts can be checked on the [Measurement] display under the [Monitor/Operation] menu.)

(6) Touch [Save Settings].

5-4. Function2

5-4-1. External Temperature Interlock

Based on the temperature difference between the set temperature and the outdoor temperature, the set temperature can be adjusted automatically. Making this control setting on the air conditioning unit at an entrance of a building prevents extreme temperature change from distressing our bodies and sending us into shock.

Touch [Function2] in the menu bar, and then touch [Ext Temp Interlock].

Note: Either an AI controller (PAC-YG63MCA) or AHC, and an outdoor temperature sensor are required to measure the outdoor temperature.

Note: When connecting one or more AE-50 controllers, connect an AI controller (PAC-YG63MCA) and outdoor temperature sensor on each AE-50.

Note: The External Temperature Interlock settings may not be accessible if logged in as a building manager.

Note: The External Temperature Interlock settings between the units connected to the AE-200 and the AE-50, as well as between the units connected to different AE-50 controllers, cannot be made.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

Important

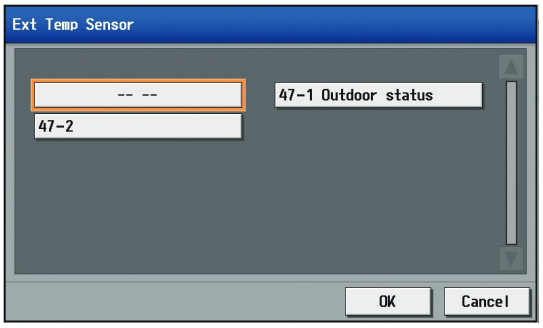
- External Temperature Interlock settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.



(1) Touch the “Temperature Sensor” button. The name of the temperature sensor that is connected to the AI controller or the AHC will appear.
Select a temperature sensor to measure the outdoor temperature with, and then touch [OK].

Note: To deselect the temperature sensor, select [-- --].

Note: Connect the temperature sensor to either the Analog Input 1 or Analog Input 2 port on the AHC.



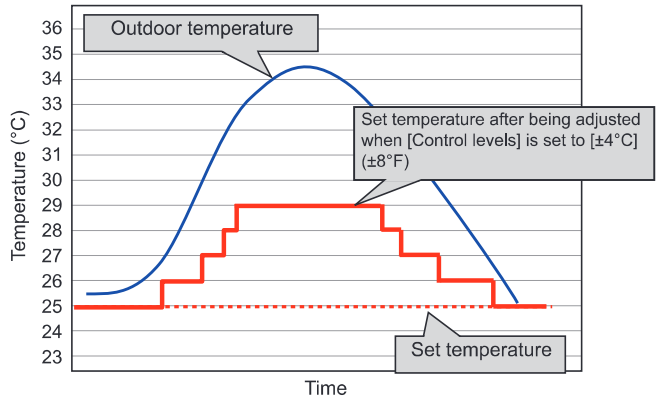
(2) In the [Control levels] section, select a maximum temperature value for each group to be added to or sabtracted from the set temperature.
For example, when [±4°C] (±8°F) is selected and the set temperature for the Cool or the Dry mode is set to 24°C (75°F), the set temperature will be adjusted to a maximum of 28°C (83°F) based on the temperature difference between the set temperature and the outdoor temperature. When [±2°C] (±4°F) is selected, the set temperature will be adjusted to maximum of 26°C (79°F).

Note: When the unit of temperature is Fahrenheit, the selected temperature value may not be added to the set temperature accurately because 2ºC is used for the calculation first, and then the temperature in Celsius is converted into the temperature in Fahrenheit.

(3) Touch [Save Settings].

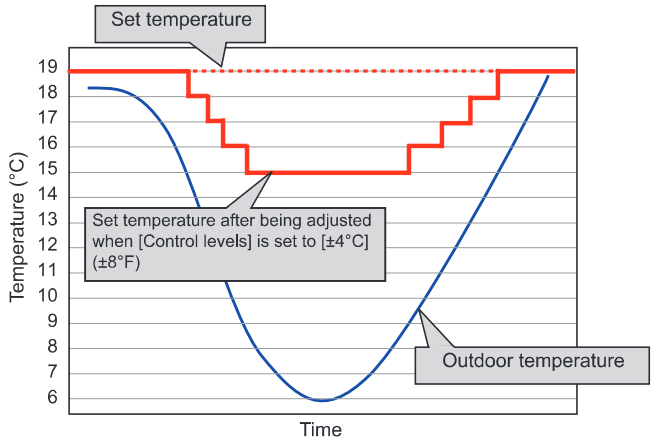
When the External Temperature Interlock function is active, the set temperature will be adjusted as shown below.

■ “Cool” and “Dry” modes



Outdoor temperature conditions	Set temperature after being adjusted
Outdoor temperature ≥ Set temperature + 1.5°C (3°F)	Set temperature + 1°C (2°F)
Outdoor temperature ≥ Set temperature + 4.5°C (9°F)	Set temperature + 2°C (4°F)
Outdoor temperature ≥ Set temperature + 6.5°C (12°F)	Set temperature + 3°C (6°F)
Outdoor temperature ≥ Set temperature + 7.5°C (14°F)	Set temperature + 4°C (8°F)

■ “Heat” mode



Outdoor temperature conditions	Set temperature after being adjusted
Outdoor temperature ≤ Set temperature - 4.0°C (8°F)	Set temperature - 1°C (2°F)
Outdoor temperature ≤ Set temperature - 6.0°C (11°F)	Set temperature - 2°C (4°F)
Outdoor temperature ≤ Set temperature - 8.0°C (15°F)	Set temperature - 3°C (6°F)
Outdoor temperature ≤ Set temperature - 10.0°C (18°F)	Set temperature - 4°C (8°F)

5-4-2. Night Setback Control

The Night Setback Control function (hereafter abbreviated as Setback Control) prevents indoor condensation by performing heating operation automatically when the room temperature goes outside of the specific range during the night. Touch [Function2] in the menu bar, and then touch [Setback].

Heating operation starts when a given group is stopped and the room temperature drops below the specified minimum temperature.

Note: The Setback Control function also prevents excessive temperature rise by performing cooling operation automatically when the room temperature goes outside of the specific range. Cooling operation starts when a given group is stopped and the room temperature rises above the specified maximum temperature.

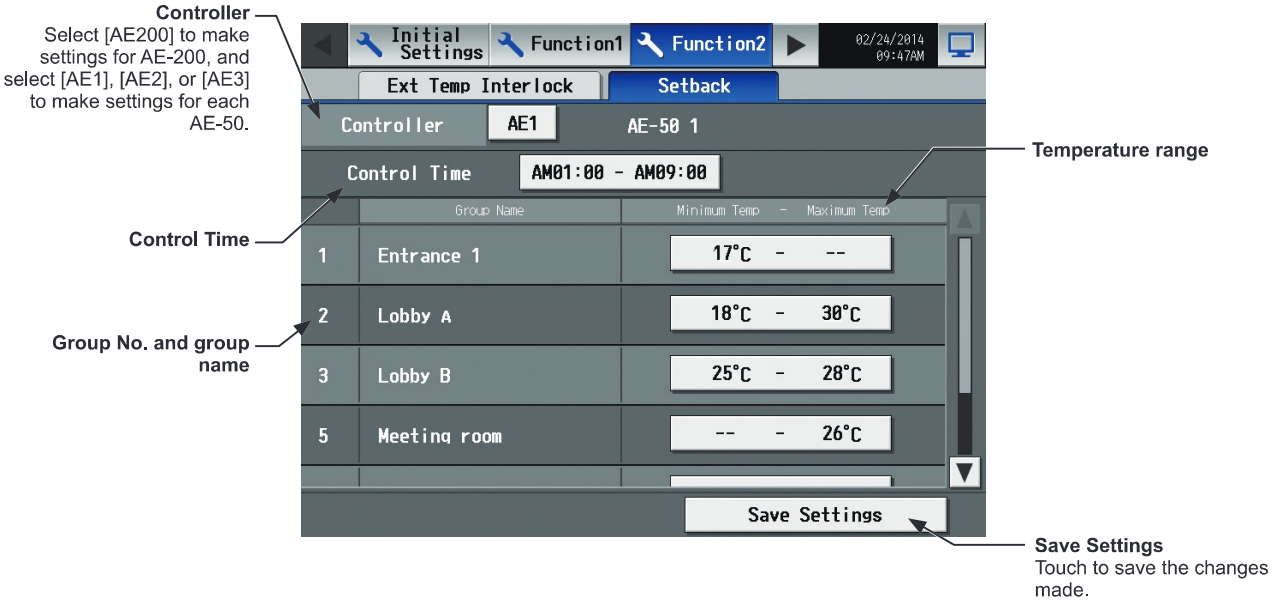
Note: If the room temperature is measured by the return air temperature sensor on the air conditioning unit, the measured value may not be an accurate representation of the temperature in the room, especially when the air conditioning unit is stopped and the room air is stagnant. When this is the case, use an external temperature sensor (PAC-SE40TSA) or remote controller sensor to measure the room temperature.

Note: The Setback Control may not be accessible if logged in as a building manager.

Note: The [Controller] setting will appear when the [System Exp] setting on the [Unit Info.] screen is set to [Expand]. Switch the [Controller] setting between [AE200], [AE1], [AE2], and [AE3] to make settings for each AE-200 and AE-50 individually.

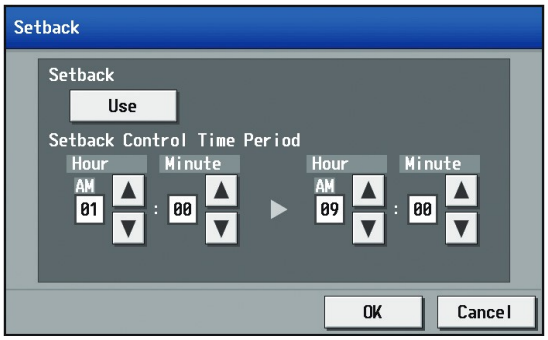
Important

- Setback Control settings for the AE-50 must be made with the AE-50 properly connected to ensure proper settings. Those settings made without the connection of AE-50 will not be reflected.

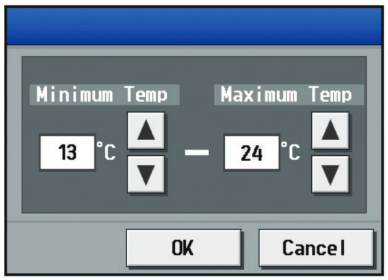


(1) Touch the [Control Time] button to display the settings screen.
Set the [Setback] setting to [Use], set the time period in which Setback Control is performed, and then touch [OK].

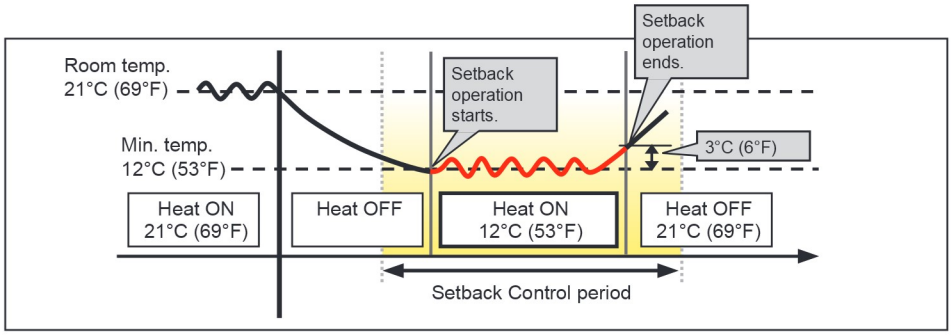
Note: When [00: 00 - 00: 00] is selected, Setback Control is active for 24 hours.



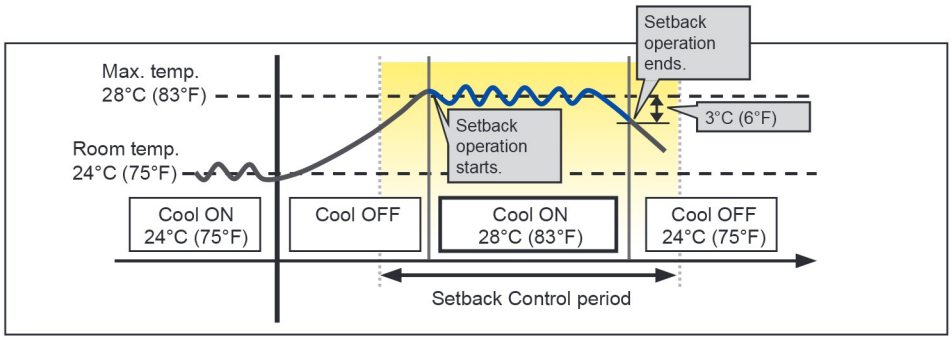
(2) Touch the “Temperature range” button to display the settings screen.
Set the maximum and minimum temperatures for each group.
For example, if [Control Time] is set to [01:00 - 05:00] and “Temperature range” is set to [12°C - --°C] ([53°F - --°F]), heating operation starts automatically when the room temperature drops below the set temperature 12°C (53°F) between 1:00 and 5:00. When the Setback Control ends at 5:00, the set temperature returns to the original setting, and the operation stops.



Note: The air conditioning units in the heating operation will stop and the set temperature will return to the original setting when the Setback Control period is over or the room temperature rises to the minimum temperature plus 3°C (6°F). Likewise, the air conditioning units in the cooling operation will stop and the set temperature will return to the original setting when the Setback Control period is over or the room temperature drops to the maximum temperature minus 3°C (6°F).



When the temperature drops below the minimum temperature (heating operation)



When the temperature rises above the maximum temperature (cooling operation)

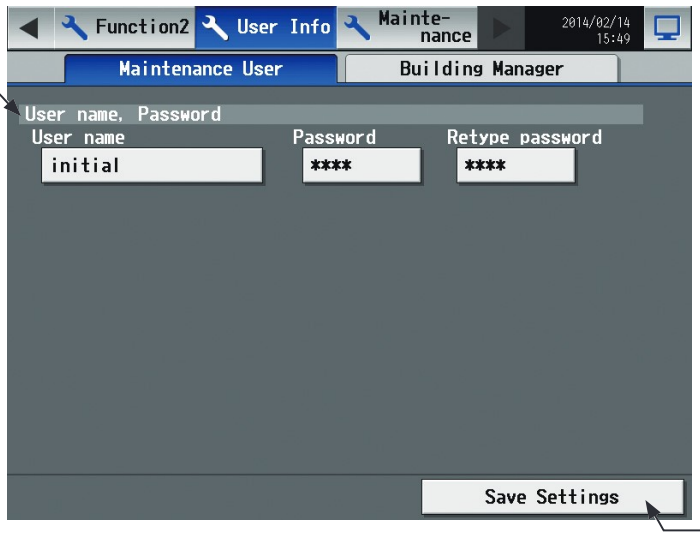
(3) Touch [Save Settings].

5-5. User Information

5-5-1. Maintenance User

On the [Maintenance User] screen, the user names and passwords of maintenance users can be changed.
Touch [User Info] in the menu bar, and then touch [Maintenance User].

Note: The Maintenance User settings are not be accessible if logged in as a building manager.
Note: The Maintenance User settings are required for each AE-200/AE-50.



Maintenance user name and password
User name and password can be changed.

Save Settings
Touch to save the changes made.

(1) To change the maintenance user name or password, touch the [User name], [Password], and [Retype password] buttons. Enter new information on the keyboard.

Note: The user name must contain only alphanumeric characters.
Note: The user name and password are case-sensitive.
Note: The user name must be in 20 characters or less, and the password in 3 to 10 characters.

(2) Touch [Save Settings].

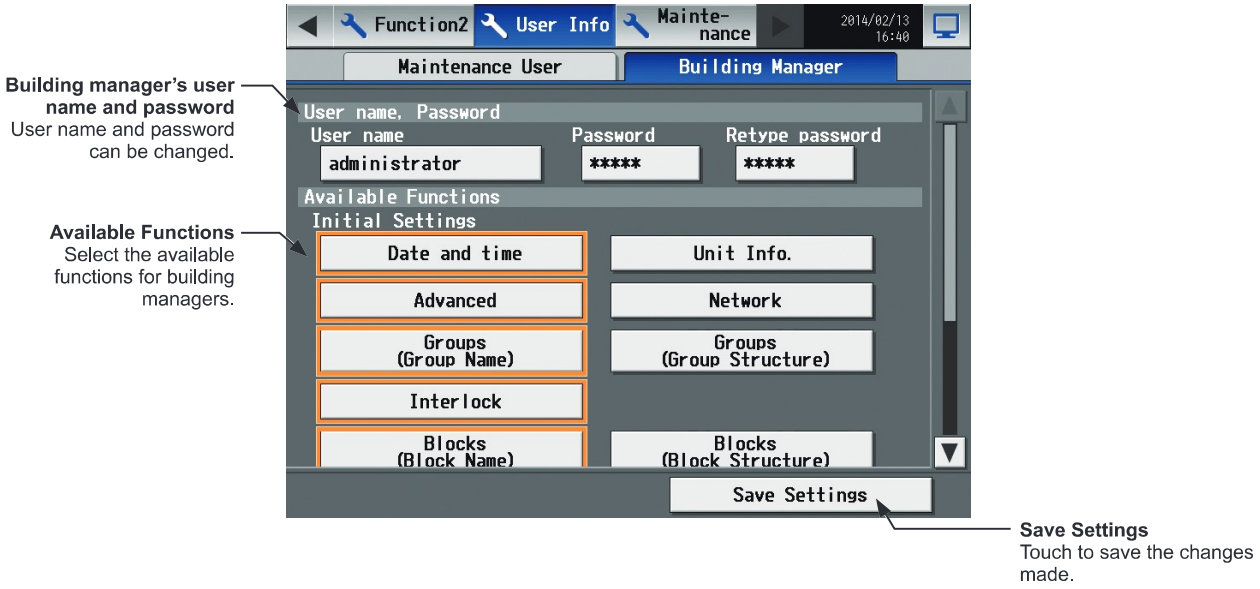
5-5-2. Building Manager

On the [Building Manager] screen, the user names and passwords of building managers can be changed, and the available functions for building managers can be limited.

For example, you can allow building managers to change the group name settings when the tenant is changed, or disallow them to change the basic system settings such as unit settings or network settings.

Touch [User Info] in the menu bar, and then touch [Building Manager].

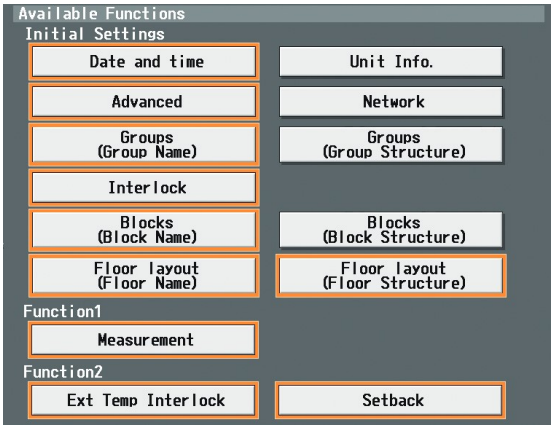
Note: The Building Manager settings are required for each AE-200/AE-50.



(1) To change the building manager's user name or password, touch the [User name], [Password], and [Retype password] buttons. Enter new information on the keyboard.

Note: The user name must contain only alphanumeric characters.
Note: The user name and password are case-sensitive.
Note: The user name must be in 20 characters or less, and the password in 3 to 10 characters.

(2) Touch the functions to be made available for building managers. The selected functions will appear with an orange frame.
Touch again to deselect.
For more information on each function, refer to the table below.



Note: If the user logs in as a building manager, the currently available functions can be checked, but cannot be changed.
Note: The settings on this screen will not be reflected to the functions on the Web browser.

(3) Touch [Save Settings].

Table Available Function List

Function			Content
Initial Settings	Date and time		Refer to section 5-2-3 “Date and time” for details.
	Unit Info. *1		Refer to section 5-2-5 “Unit Information” for details.
	Advanced *1		Refer to section 5-2-12 “Advanced settings” for details.
	Network *1		Refer to section 5-2-6 “Network” for details.
	Groups	Group Name	Refer to section 5-2-7 “Groups” for details.
		Group Structure *1	
	Interlock *1		Refer to section 5-2-8 “Interlocked LOSSNAY” for details.
	Blocks	Block Name	Refer to section 5-2-9 “Blocks” for details.
		Block Structure *1	
	Floor layout	Floor Name	Refer to section 5-2-10 “Floor Layout” for details.
		Floor Structure *1	
Function1	Measurement		Refer to section 5-3-1 “Measurement” for details.
Function2	Ext Temp Interlock		Refer to section 5-4-1 “External Temperature Interlock” for details.
	Setback		Refer to section 5-4-2 “Night Setback Control” for details.

*1 At factory shipment, these settings by the building managers are prohibited.

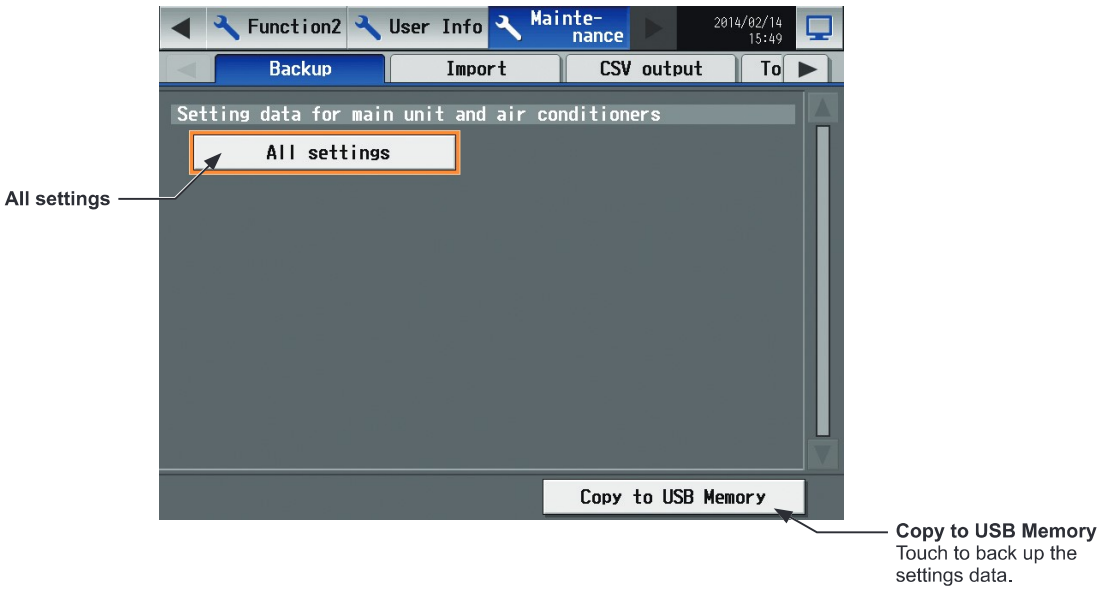
6. Maintenance

6-1. Backing up settings data

The settings data can be exported to a USB memory as a backup.

Touch [Maintenance] in the menu bar, and then touch [Backup].

Note: Use the USB memory device that meets the requirements described in section 4-1-1 “CSV output”.



Important

- The USB memory device may not be recognized if you insert and remove it within a short time. If this happens, reset the AE-200/AE-50.

(1) Remove the controller cover, and insert a USB memory device to the USB port.

(2) Touch [All settings], then touch [Copy to USB Memory].
The settings data file will be created in the root folder of the USB memory.

■ File output destination, folder name, and file name

[Root folder of the USB memory]\[Serial No.]\“SettingData”\“AE” *1]

*1 “AE1,” “AE2,” or “AE3” when one or more AE-50 controllers are connected

<Example>

Root folder of the USB memory
└ 12345123 (AE-200 serial No.)
└ SettingData
├ AE — AE-200 settings file
├ AE1 — AE-50_1 settings file
├ AE2 — AE-50_2 settings file
└ AE3 — AE-50_3 settings file

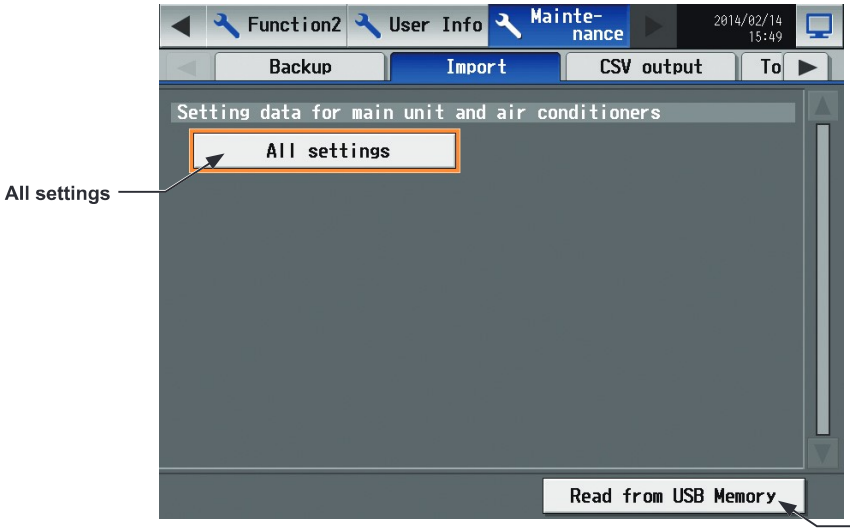
Note: It will take a few minutes to create the settings data.

Note: Do not remove the USB memory device while the data is being output.

6-2. Importing settings data

The exported data can be imported back to the AE-200/AE-50 to restore the previous settings after the controller replacement.

Touch [Maintenance] in the menu bar, and then touch [Import].



Important

- The USB memory device may not be recognized if you insert and remove it within a short time. If this happens, reset the AE-200/AE-50.

(1) Have the settings data to be imported ready in the root folder of the USB memory as shown below.

■ File location, folder name, and file name

[Root folder of the USB memory]\"SetupData"_[IP address]\"AE" *1]

*1 "AE1," "AE2," or "AE3" when one or more AE-50 controllers are connected

<Example (When AE-200 LAN1 IP address is [192.168.1.1]>

Root folder of the USB memory
└── SetupData_192_168_1_1
  ├── AE — AE-200 settings file
  ├── AE1 — AE-50_1 settings file
  ├── AE2 — AE-50_2 settings file
  └── AE3 — AE-50_3 settings file

Note: Only the data that have been backed up from the AE-200 can be imported to the AE-200. The data that have been backed up from the AE-50 must be imported to the AE-50.

Note: Do not change the file name from that of when backup was performed. If the folder name or file name is different from the given name, no data can be read.

(2) Remove the controller cover, and insert a USB memory device to the USB port.

(3) Touch [All settings], then touch [Read from USB Memory].

Note: It will take a few minutes to import the settings data.

Note: Do not remove the USB memory device while the data is being imported.

Note: If the data is not read, check the folder name and the file name.

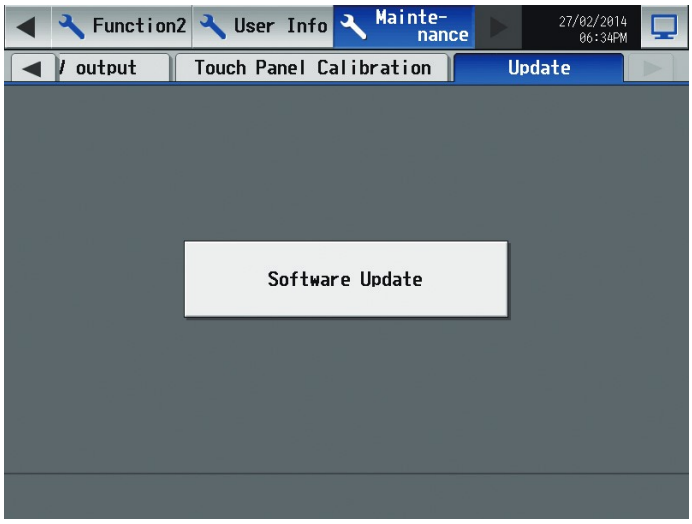
Note: If the data is not read, check if the USB memory device is inserted correctly.

6-3. Software Update

The software can be updated by reading the update file in the USB memory device.

Touch [Maintenance] in the menu bar, and then touch [Update].

Note: The update is required on each AE-200/AE-50.



Important

- The USB memory device may not be recognized if you insert and remove it within a short time. If this happens, reset the AE-200/AE-50.

(1) Remove the controller cover, and insert a USB memory device to the USB port.

(2) Touch [Software Update] to read the update file.

Note: The Status LED will blink in blue while the software is being updated. (Refer to section 2-5 “Controller interface” for details about the LEDs.)

Note: Do not turn off the power to the AE-200/AE-50 while the software is being updated.

Note: The AE-200/AE-50 will reboot after the update is complete.

7. Specifications

Item			Specifications
Power supply	Rated input		100–240 VAC ± 10%; 0.3–0.2 A 50/60 Hz Single-phase
	Fuse		250 VAC 6.3 A Time-Lag type (IEC 60127-2S.S.5)
M-NET power feeding capability			No specifications * Only an MN converter can be connected.
Ambient conditions	Temperature	Operating temperature range	0°C – +40°C (+32°F – +104°F)
		Storage temperature range	-20°C – +60°C (-4°F – +140°F)
	Humidity		30%–90% RH (Non-condensing)
Dimensions (W × H × D)			284 × 200 × 65 mm (11-5/32 × 7-55/64 × 2 17/32 in) * When installed, AE-200/AE-50 will protrude 25.0 mm (31/32 in) from the wall or the metal control box.
Weight			2.3 kg (5-5/64 lbs)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

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

- Low Voltage Directive 2006/95/EC
- Electromagnetic Compatibility Directive 2004/108/EC
- Restriction of Hazardous Substances 2011/65/EU

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

MITSUBISHI ELECTRIC CORPORATION

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

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