

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



**Instruction Book
–Web Browser for Initial Settings–**

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1. Introduction

This Instruction Book explains how to make initial settings for the AE-200A/AE-50A/EW-50A and AE-200E/AE-50E/EW-50E using a Web browser.

Note: Initial settings for the connected AE-50A/EW-50A or AE-50E/EW-50E cannot be made on the AE-200A/AE-200E Web browser, and must be made on each AE-50A/EW-50A or AE-50E/EW-50E Web browser respectively.

1-1. 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.”
- “Centralized Controller EW-50A/EW-50E” is referred to as “EW-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, CRHV) unit.”
- A PI controller that is built-in on AE-200/AE-50/EW-50 is referred to as “Built-in PI controller.”
- Screen images used in this manual are from Windows 7® and Internet Explorer 9.0.

Note: Windows is a registered trademark or trademark of Microsoft Corporation in the United States and other countries.

1-2. PC Requirements

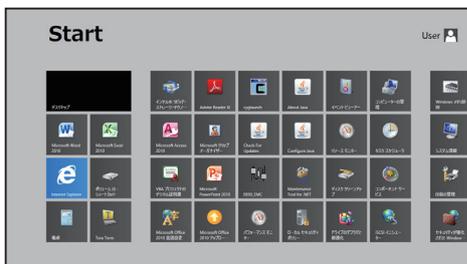
Table 1-1 PC Requirements

Item	Requirement
CPU	1 GHz or faster
Memory	512 MB or more
Screen resolution	1366 x 768 or higher recommended
Browser	Microsoft® Internet Explorer 8.0 Microsoft® Internet Explorer 9.0 Microsoft® Internet Explorer 10.0 Microsoft® Internet Explorer 11.0 * Java execution environment is required. (Verified to run on Oracle® Java Plug-in Ver. 1.8.0_25) * Install Oracle® Java Plug-in that is appropriate for your operating system. When using a 64-bit OS, install a 32-bit and a 64-bit Java Plug-in. * The version of the Oracle® Java Plug-in can be verified by clicking [Java] in the Control Panel.
On-board LAN port or LAN card	100 BASE-TX
Pointing device	e.g., mouse

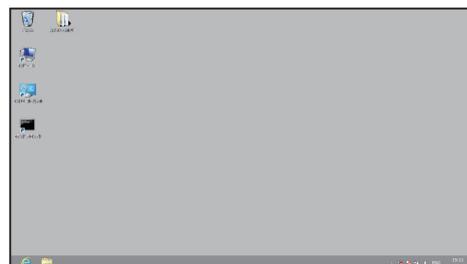
Note: Microsoft is a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Oracle and Java are trademarks or registered trademarks of Oracle Inc. in the United States and/or other countries.

Note: Although no particular OS is required, the Web browser will not properly operate when it is started up from the Internet Explorer on the Windows 8.1 start screen. If the Web browser was started up on the start screen, close the Web browser and switch the screen to the desktop screen, and then start up the Web browser again. Refer to the help functions of Windows 8.1 for how to switch the screens.



Start screen



Desktop screen

1-3. Notes on using the integrated centralized control software TG-2000A

If the system is connected to a TG-2000A, make or change all settings from the TG-2000A so that the data in the TG-2000A and AE-200/AE-50/EW-50 will match.

Note: Use TG-2000A Ver. 6.60 or later.

2. Setting the Operating Environment

This chapter explains how to make PC settings and Web browser settings to monitor and operate the air conditioning units.

2-1. Setting the IP Address of the PC

Follow the instructions below to set the PC's IP address for the Web browser to recognize the AE-200/AE-50/EW-50 unit.

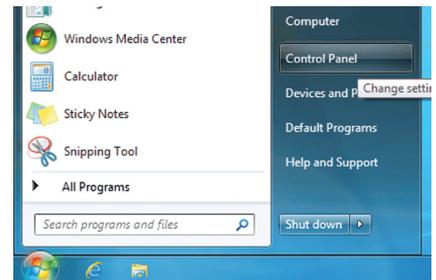
The PC's IP address must have the same network address as the AE-200/AE-50/EW-50's IP address.

(i.e., AE-200's IP address: [192.168.1.1], PC's IP address: [192.168.1.101])

When connecting an AE-200/AE-50/EW-50 to an existing LAN, consult the system administrator to decide the IP addresses.

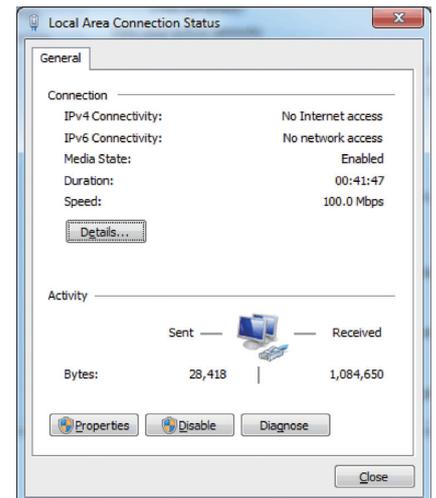
Note: When using an AE-200/AE-50/EW-50-dedicated LAN, it is recommended that the AE-200 unit and the EW-50 unit (only when used alone) be assigned an IP address between the range [192.168.1.1] and [192.168.1.40], the AE-50/EW-50 unit be assigned an IP address between the range [192.168.1.211] and [192.168.1.249], and that the PC connected to the AE-200/AE-50/EW-50 be assigned an IP address between the range [192.168.1.101] and [192.168.1.150].

(1) Click [Control Panel] in the Start menu.

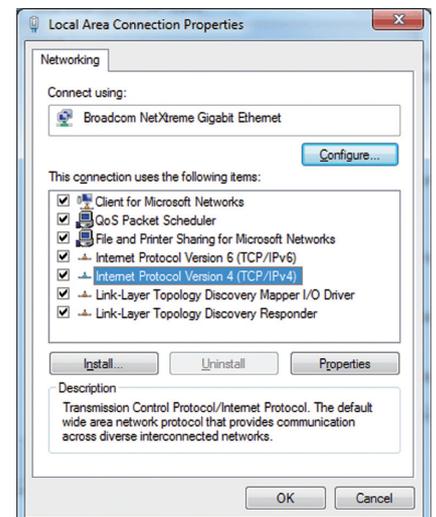


(2) Click [Network and Sharing Center]>[Local Area Setting].

In the [Local Area Connection Status] window, click [Properties].



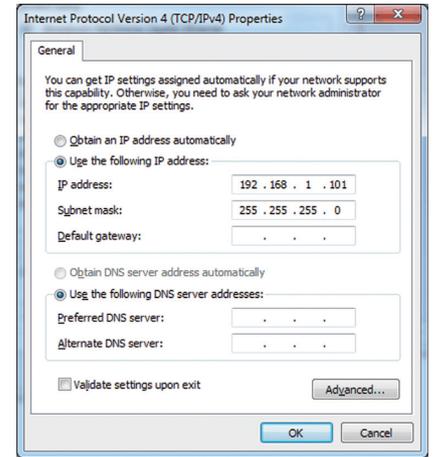
(3) Click [Internet Protocol Version 4 (TCP/IPv4)] to select it, and click [Properties].



- (4) In the [Internet Protocol Version 4 (TCP/IPv4) Properties] window, check the radio button next to [Use the following IP address]. Enter the PC's IP address (e.g., [192.168.1.101]) in the [IP address] field, and enter the subnet mask [255.255.255.0] (unless otherwise specified) in the [Subnet mask] field. In the [Default gateway] field, enter the gateway address as necessary. (Refer to section 4-2-5 for details.)

Note: Consult the system administrator to decide the IP, subnet mask, and gateway addresses.

- (5) Keep clicking [OK] or [Close] to close all windows.



2-2. Setting the Web Browser

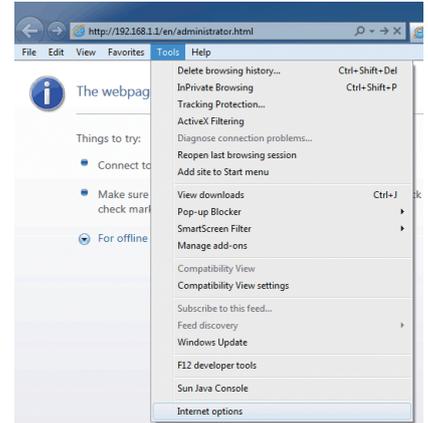
Web browser setting varies with the Internet connection type. See the sections below for how to make Web browser settings for different types of Internet connection.

To prevent unauthorized access, always use a security device such as a VPN router when connecting the AE-200/AE-50/EW-50 to the Internet.

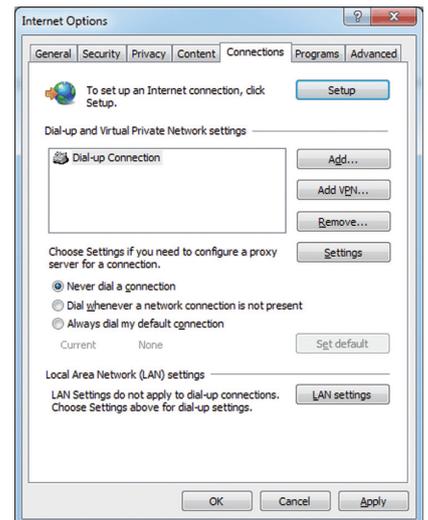
2-2-1. No Internet connection

To monitor and operate the air conditioning units from a PC with no Internet connection, follow the instructions below to set the environment for the Web browser.

(1) Click [Tools] in the menu bar, then click [Internet options].



(2) In the [Internet Options] window, click the [Connections] tab.

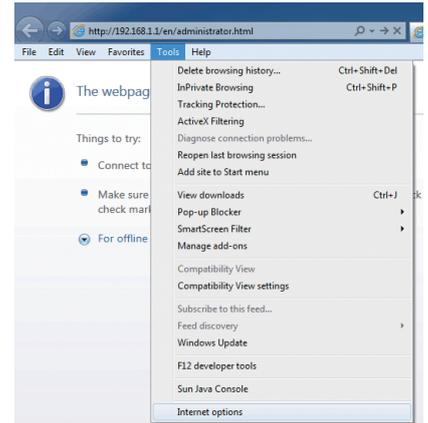


(3) Check the radio button next to [Never dial a connection] in the middle of the window, and click [OK] to close the window.

2-2-2. Dial-up Internet connection

To monitor and operate the air conditioning units from a PC that connects to the Internet through a dial-up connection, follow the instructions below to set the environment for the Web browser.

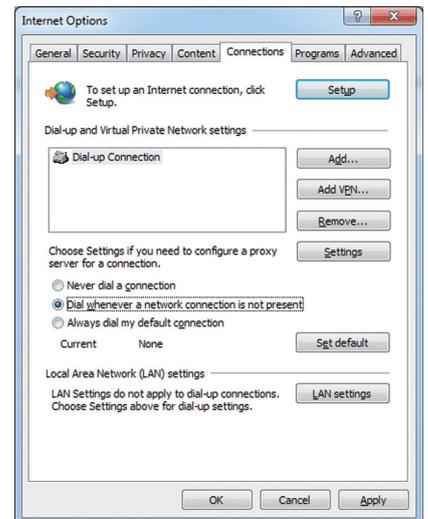
(1) Click [Tools] in the menu bar, then click [Internet options].



(2) In the [Internet Options] window, click the [Connections] tab.

(3) Check the radio button next to [Dial whenever a network connection is not present] in the middle of the window, and click [OK] to close the window.

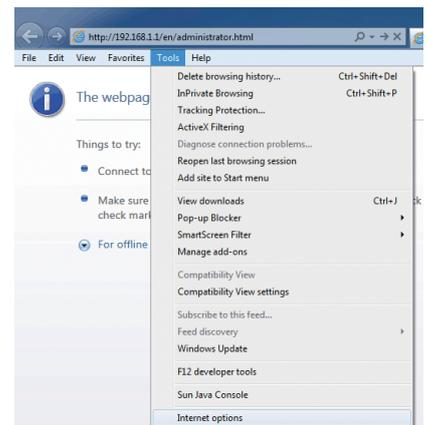
By making these settings, a message will appear asking whether or not to use a dial-up connection when an Internet connection is necessary. Follow the message to connect to the Internet.



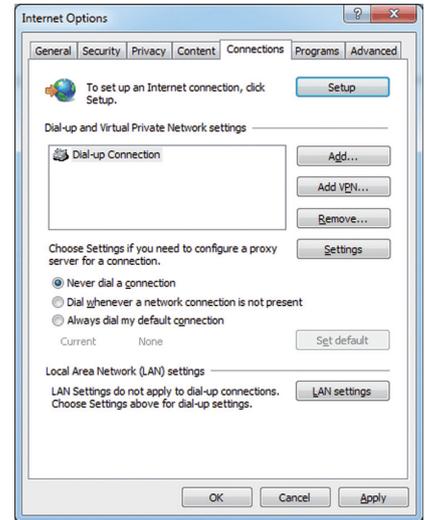
2-2-3. Connecting to the Internet via proxy server using an existing LAN

To monitor and operate the air conditioning units from a PC that connects to the Internet through a proxy server by connecting to an existing LAN, such as a LAN within your company, follow the instructions below to set the environment for the Web browser.

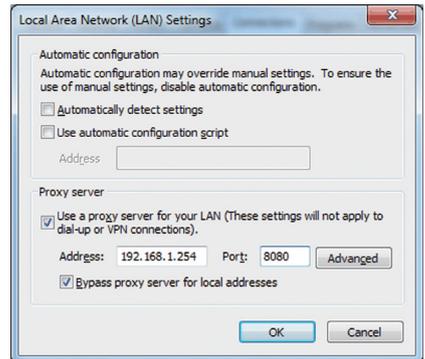
(1) Click [Tools] in the menu bar, then click [Internet options].



- (2) In the [Internet Options] window, click the [Connections] tab.
- (3) Check the radio button next to [Never dial a connection] in the middle of the window.
- (4) Click [LAN settings] under [Local Area Network (LAN) settings].

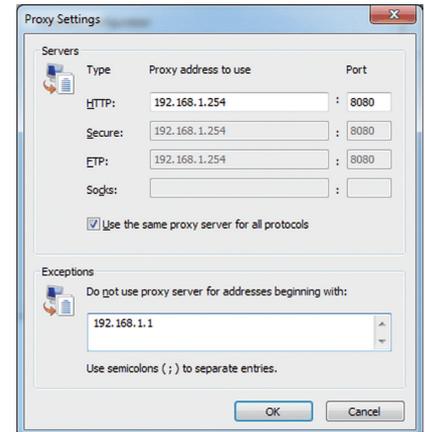


- (5) In the [Local Area Network (LAN) Settings] window, check [Bypass proxy server for local addresses], and click [Advanced].



- (6) In the [Proxy Settings] window, enter the AE-200/AE-50/EW-50's IP address (e.g., 192.168.1.1) in the [Exceptions] field. Then, keep clicking [OK] or [Close] to close all windows.

If connecting multiple AE-200/AE-50/EW-50 units, enter their addresses (e.g., [192.168.1.1; 192.168.1.2]). It is also possible to use an asterisk as a wildcard (e.g., [192.168.1.*]).



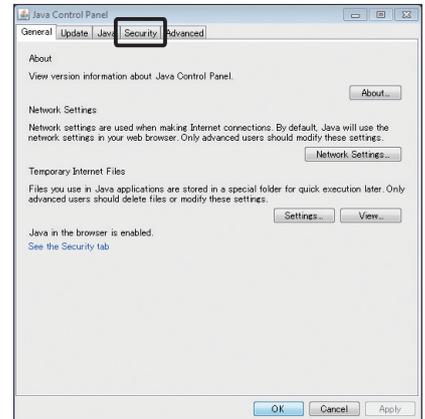
2-3. Java settings

2-3-1. How to register exception site list

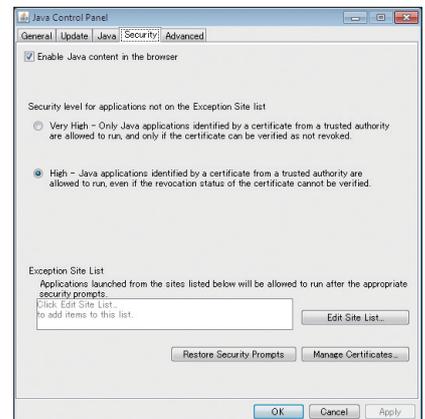
- (1) Click [Control Panel]>[Java].

Note: If [Category] is selected in the top right corner, next to [View by:], change it to [Large icons] or [Small icons].

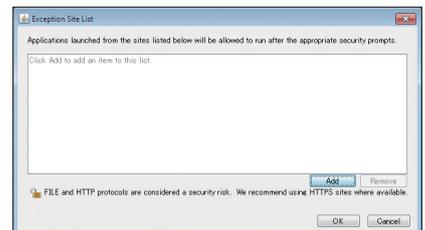
- (2) Java Control Panel will open.
Click the [Security] tab.



- (3) The security setting window will open.
Click the [Edit Site List...] button.



- (4) The [Exception Site List] dialog will appear.
Click [Add].



- (5) The [Exception Site List] dialog will appear.
In the white box, enter the following, and then click [OK].
http://[IP address of AE-200, AE-50, or EW-50]

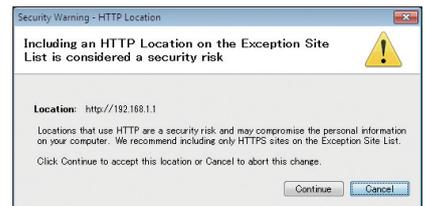
Note: If the IP address of the AE-200 is [192.168.1.1], enter [http://192.168.1.1].

Note: When using HTTPS (SSL) connection, prefix the web address with [https]. (https://[IP address of AE-200, AE-50, or EW-50])

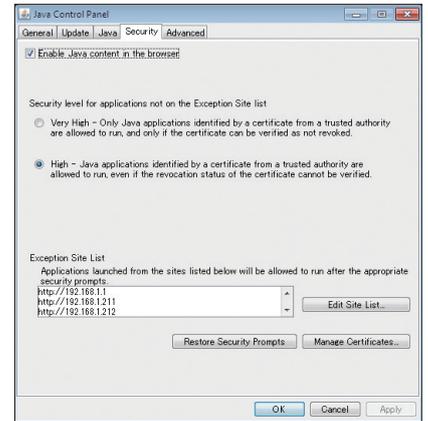


- (6) The security warning screen will appear.
Click [Continue].

Note: The security warning screen will not appear when HTTPS (SSL) connection is used.



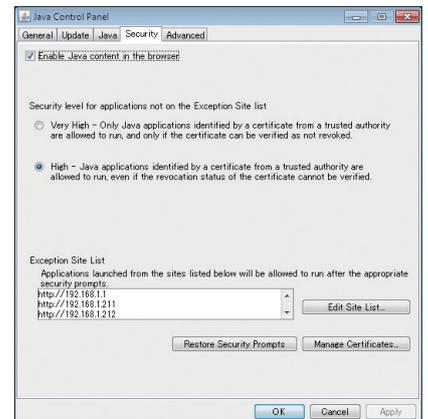
- (7) Add all AE-200/AE-50/EW-50 to the list in the same manner, and click [OK].



- (8) If a PC with 32-bit OS is used, after completing the settings, close all Internet Explorer windows, and access the Web page again to make sure the appropriate window will appear.
If a PC with 64-bit OS is used, go to step (9) below.
- (9) Click [My Computer]>[Local Disk (C:)]>[Program Files (x86)]*1>[Java]>[jre*] (The asterisk indicates a version number. (i.e., jre1.8.0_31))>[bin] to open the [bin] folder.
*1 If a PC with 64-bit OS is used, both [Program Files] and [Program Files (x86)] folders will appear. Make sure to select [Program Files (x86)].
- (10) Double click the “javacpl.exe” file in the [bin] folder.
- (11) Java Control Panel will open. Follow the steps (3) through (8) again.

2-3-2. How to enable Java content

- (1) Open the security setting window. (See section 2-3-1 “How to register exception site list”.)
- (2) Click on the checkbox next to [Enable Java content in the browser] unless it is already checked.
Click [Apply] at the right bottom corner of the screen, and then click [OK].



- (3) After completing the settings, close all Internet Explorer windows, and access the Web page again to make sure the appropriate window will appear.

3. Logging in to the Web Browser for Initial Settings

- (1) Enter the web page address in the address field of the Web browser as follows:
http://[IP address of each AE-200, AE-50, or EW-50]/init/administrator.html
Press the [Enter] key. A login screen will appear.

Note: If the IP address of the AE-200/AE-50/EW-50 is [192.168.1.1], the web page address is [http://192.168.1.1/init/administrator.html].

Note: Default IP address of AE-200, AE-50, and EW-50 is [192.168.1.1].

When one or more AE-50/EW-50 controllers are connected, none of their IP addresses should overlap. The recommended IP address ranges are as follows.

AE-200: Between [192.168.1.1] and [192.168.1.40]

AE-50/EW-50 (when used for system expansion):

Between [192.168.1.211] and [192.168.1.249]

EW-50 (when used alone):

Between [192.168.1.1] and [192.168.1.40]

Refer to section 4-2 "Basic System" for how to change the IP addresses.

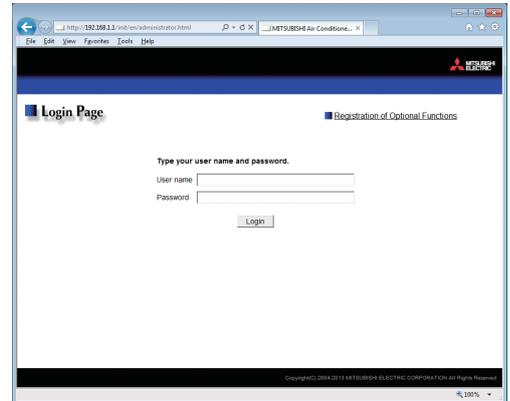
Note: When one or more AE-50/EW-50 controllers are connected, log in to all AE-200, AE-50, and EW-50 Web browsers to make initial settings for AE-200, AE-50 and EW-50 respectively. The Web browser cannot be switched among the AE-200, AE-50, and EW-50.

Note: If the login screen does not appear then take the steps explained in chapter 12 to delete the temporary files.

Note: The web page will be displayed in the same language as the operating system on the PC.
The web page can be displayed in other languages by entering the web page address as follows:

Chinese	http://[IP address of each AE-200, AE-50, or EW-50]/init/ zh /administrator.html
English	http://[IP address of each AE-200, AE-50, or EW-50]/init/ en /administrator.html
French	http://[IP address of each AE-200, AE-50, or EW-50]/init/ fr /administrator.html
German	http://[IP address of each AE-200, AE-50, or EW-50]/init/ de /administrator.html
Italian	http://[IP address of each AE-200, AE-50, or EW-50]/init/ it /administrator.html
Japanese	http://[IP address of each AE-200, AE-50, or EW-50]/init/ ja /administrator.html
Portuguese	http://[IP address of each AE-200, AE-50, or EW-50]/init/ pt /administrator.html
Russian	http://[IP address of each AE-200, AE-50, or EW-50]/init/ ru /administrator.html
Spanish	http://[IP address of each AE-200, AE-50, or EW-50]/init/ es /administrator.html

Note: You can add the web page address to your Favorites on the login screen for easy access in the future.



- (2) Enter the user name and the password in the login screen, and click [Login]. A setting 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	Initial Settings	Date and Time, Basic System, Groups, Interlocked LOSSNAY, Blocks
			Functions 1	E-Mail, Peak Cut, Measurement, Energy Management Settings
			Functions 2	Set Temperature Range Limit, Night Mode Schedule, System-changeover
			Functions 3	External Temperature Interlock, Night Setback Control, Interlock control, AHC Port Name Settings
			User Settings	User Settings
			Utility	Back up/import settings data
Building manager	administrator	admin	Out of the functions listed above, the items to which access rights have been given on the User Settings screen are available.	

Note: A building manager will use the same user name and password for the Web Browser for System Maintenance Engineer.

Note: A maintenance user can specify the functions to be made available for building managers. Refer to chapter 8 "User Settings" for details.

Note: 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.

Note: When one or more AE-50/EW-50 controllers are connected, log in to all AE-200, AE-50, and EW-50 Web browsers to make initial settings for AE-200, AE-50, and EW-50 respectively. The Web browser cannot be switched among the AE-200, AE-50, and EW-50.

Encrypting the communication data and logging in to the Web browser (HTTPS connection)

AE-200/AE-50/EW-50 can encrypt communication data using HTTPS (SSL).

When connecting the AE-200/AE-50/EW-50 to the LAN that is accessible to the general public, it is recommended that the following settings be made so that the units are monitored and controlled on the encrypted web page.

Note: Depending on the operating system or the Java version, HTTPS encrypted communication may not be enabled properly. If this happens, use an HTTP connection as explained in the previous page.

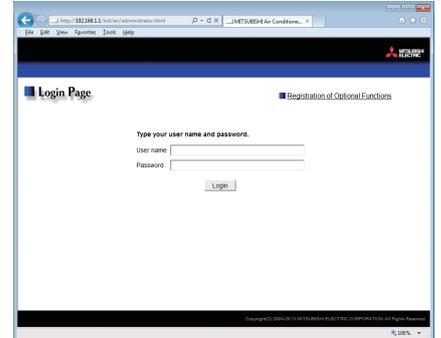
- (1) Prefix the web address with [https], enter the rest of the address, and press the [Enter] key.

https://[IP address of each AE-200, AE-50, or EW-50]/init/administrator.html

Note: If the IP address of the AE-200/AE-50/EW-50 is [192.168.1.1], the web page address is [https://192.168.1.1/init/administrator.html].

The encrypted data communication will begin, and the Login screen will appear.

When the first time the Web browser is accessed, a security certificate error page appears instead of the Login screen. Go to step (2) below.



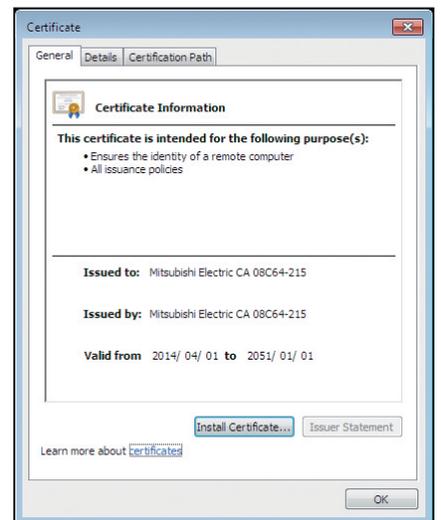
- (2) Enter the following web page address in the address field of the Web browser, and press the [Enter] key:

http://[IP address of each AE-200, AE-50, or EW-50]/cacert.cer

- (3) A notification bar or a window to confirm about file download will appear.
Click [Open].



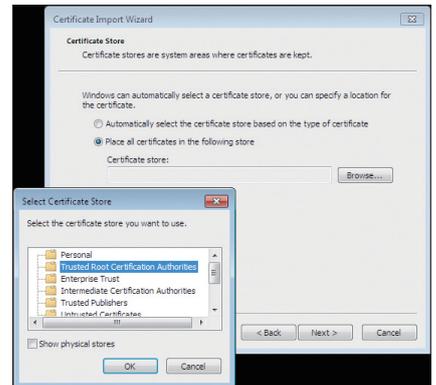
- (4) A certificate dialog will appear.
Click [Install Certificate...].



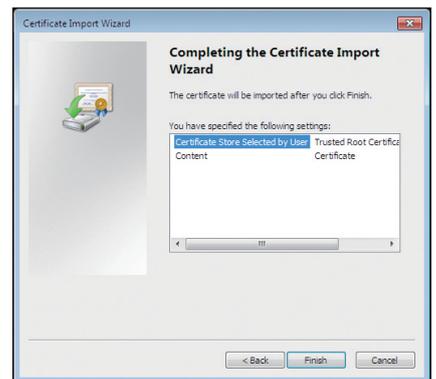
- (5) A Certificate Import Wizard window will appear. Click [Next].



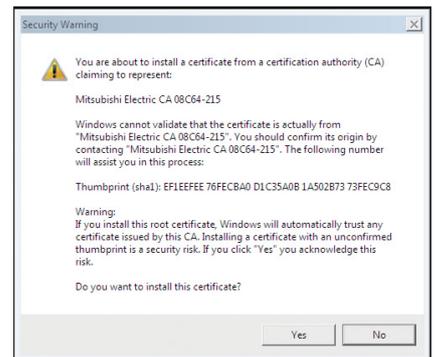
- (6) Choose [Place all certificates in the following store] and click the [Browse...] button. Select [Trusted Root Certification Authorities], click [OK], and then click [Next].



- (7) Click [Finish] on completing the Certificate Import Wizard.

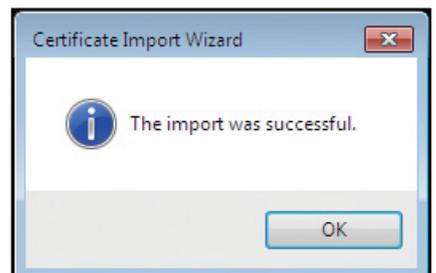


- (8) Click [Yes] on the security warning to install the certificate.



- (9) Certificate import process starts. A window will appear when the import completes successfully. Click [OK].

Note: The valid period of the certificate is from April 1st, 2014 to January 1st, 2051. The system date and time of the PC must be within the period.



4. Initial Settings

This chapter explains how to set the initial settings on the Web Browser for Initial Settings.

Note: When one or more AE-50/EW-50 controllers are connected, initial settings must be made on each AE-50/EW-50's Web browser. However, only Date and Time settings (section 4-1) and Basic System settings (section 4-2) must be made on the AE-200 Web browser.

Important

- If the system is connected to a TG-2000A, make or change all settings from the TG-2000A so that the data in the TG-2000A and AE-200 will match.
- Any control (such as interlock control or Peak Cut control) between the outdoor and indoor units connected to the AE-200, AE-50, and EW-50, as well as between the units connected to different AE-50/EW-50 controllers, cannot be performed.

4-1. Date and Time

Click [Initial Settings] in the menu bar, and then click [Date and Time] to access the date and time settings screen.

Set the current date and time, and then click [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/EW-50 units, and the AE-200 units whose [Time Master] setting is set to [Sub].

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

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

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

Note: When AE-50/EW-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/EW-50, the date and time synchronization from AE-200 is performed once a day. Make the date and time settings on the AE-50/EW-50 only after the AE-50/EW-50 is replaced.

Daylight saving time setting
Click to enable the daylight saving time setting.

Refresh
Click to acquire the current date and time from the AE-200/AE-50/EW-50.

Current date and time
Enter the current date and time.

Save Settings
Click to save the changes made.

- (1) Enter the current date and time.
- (2) To adjust the daylight saving time automatically, check the [Automatically adjust clock for daylight saving changes] checkbox, and select the applicable country in the pulldown menu.

If the applicable country is not in the pulldown menu, select [Custom Settings] instead. A [Custom Settings] button will appear on the right of the pulldown menu.

Click the [Custom Settings] button to open the Custom Settings screen, and configure the daylight saving time setting.

Custom Settings screen

4-2. Basic System

Click [Initial Settings] in the menu bar, and then click [Basic System] to access the Basic System settings screen. Make necessary basic system settings such as AE-200/AE-50/EW-50 unit settings, network settings, and M-NET settings, and then click [Save Settings] to send the settings to the AE-200/AE-50/EW-50. A message will appear asking whether or not to restart the AE-200/AE-50/EW-50. Click [OK] to restart the AE-200/AE-50/EW-50 to reflect the changes.

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

The screenshot shows the 'Basic System' settings page in a web browser. The page is divided into several sections: 'Unit Settings', 'Network Settings', 'Display Format', 'M-NET Settings', and 'External Input Setting'. Annotations with arrows point to various fields and buttons:

- Unit Settings:** Set the AE-200/AE-50/EW-50 name and unit ID. (Points to Name and Unit ID fields)
- Network Settings:** Set the AE-200/AE-50/EW-50 IP address and subnet mask. (Points to IP Address and Subnet Mask fields)
- Display Format:** Set the screen display items for the AE-200/AE-50/EW-50 and the Web browser. (Points to various display format options like temperature unit, date format, etc.)
- Refresh:** Click to import the settings from AE-200/AE-50/EW-50. (Points to the Refresh button)
- M-NET Settings:** Set the AE-200/AE-50/EW-50 M-NET address and range of prohibited controllers. (Points to M-NET Address and Range of Prohibited Controllers fields)
- External Input Setting:** Set the AE-200/AE-50/EW-50 external signal input mode. (Points to External Input Setting options)
- Advanced Setting:** Click to display the screen for making advanced settings. (Points to the Advanced Setting button)
- Save Settings:** Click to save the changes made. (Points to the Save Settings button)

4-2-1. Unit Settings

Follow the instructions below to set the AE-200/AE-50/EW-50 unit name and unit ID in the [Unit Settings] section. The AE-200/AE-50/EW-50 serial number and software version will appear.

Unit Settings	
Name	AE-200
Unit ID	000001 (6 figures)
SERIAL No.	23164-116
Software Version	7.10(1.00)

- (1) Enter the unit name in the [Name] field 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/AE-50/EW-50 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 in the [Name] field: <, >, &, ", or '.

- (2) Enter the unit ID in the [Unit ID] field 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/AE-50/EW-50 units and will also be used as a sender ID in the error notification e-mail and e-mail alarm.

4-2-2. M-NET Settings

M-NET Settings	
M-NET Address	<input type="text" value="0"/>
Range of Prohibited Controllers	<input checked="" type="checkbox"/> SC/RC <input type="checkbox"/> RC Only

- Enter [0] in the [M-NET Address] field (unless otherwise specified).
- When the local remote controller operation is prohibited on the Web Browser for System Maintenance Engineer, this 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.

4-2-3. External Input Setting

Using the external signal input function, the following types of collective operations can be performed for all connected air conditioning units: Emergency stop, ON/OFF operation, and Prohibit/Permit local remote controller operation.

A separately-sold external input/output adapter (PAC-YG10HA-E) is required for each AE-200, AE-50 and EW-50. Select the external signal input mode, referring to the explanations below.

Note: Peak Cut control is performed based on the demand level signal (level 1 to 4) input from the connected demand controller. (A separate license is required to use the Peak Cut function.)

Note: If an external signal is input to the AE-200 only, the collective operations will not be performed for the units connected to the AE-50/EW-50 controllers.

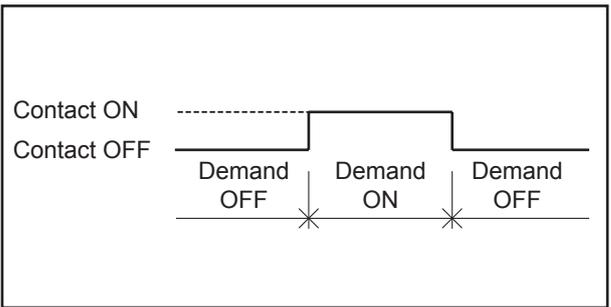
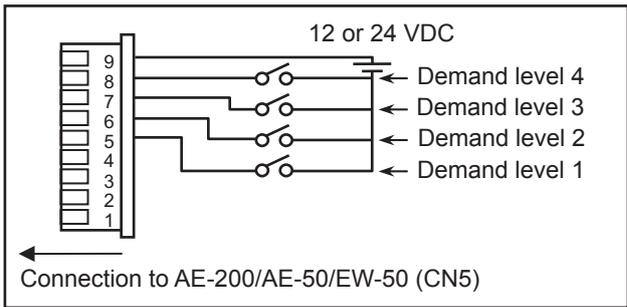
Note: Refer to the AE-200 Installation Manual for details about the external signal input function.

Note: General equipment connected via DIDO controller (PAC-YG66DCA) cannot be collectively run or stopped by using the external signal input function unless [Emergency Stop (Level signal)] is selected and relevant switches on the DIDO controller are set.

External Input Setting	
<input checked="" type="checkbox"/>	Demand (Level signal)/Not in use
<input type="checkbox"/>	Emergency Stop (Level signal)
<input type="checkbox"/>	ON/OFF (Level signal)
<input type="checkbox"/>	ON/OFF/Prohibit/Permit (Pulse signal)

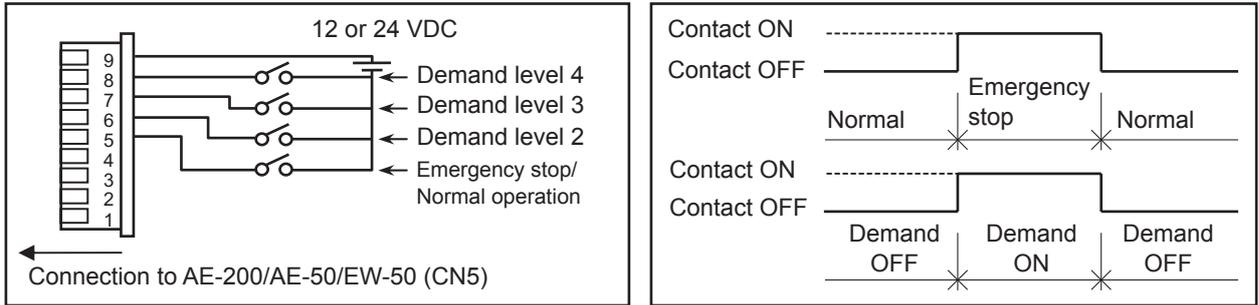
- Select [Demand (Level signal)/Not in use] when using a level signal to receive a demand level or when not using the external signal input function.

Note: Refer to the AE-200 Installation Manual for details about the demand level.

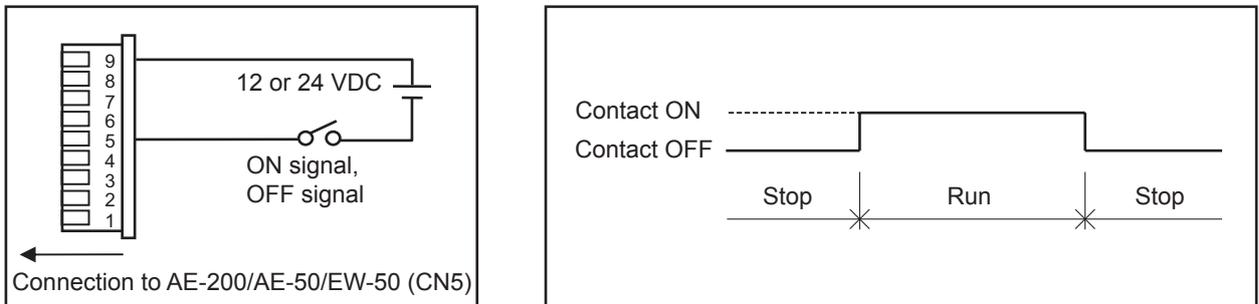


- (2) Select [Emergency Stop (Level signal)] when using a level signal to collectively run or stop all the air conditioning units connected to the AE-200, AE-50, or EW-50 in an emergency. During an emergency stop, the ON/OFF operation from the local remote controllers will be prohibited, and the ON/OFF operation and Prohibit/Permit settings on the AE-200, AE-50, or EW-50 will be prohibited.

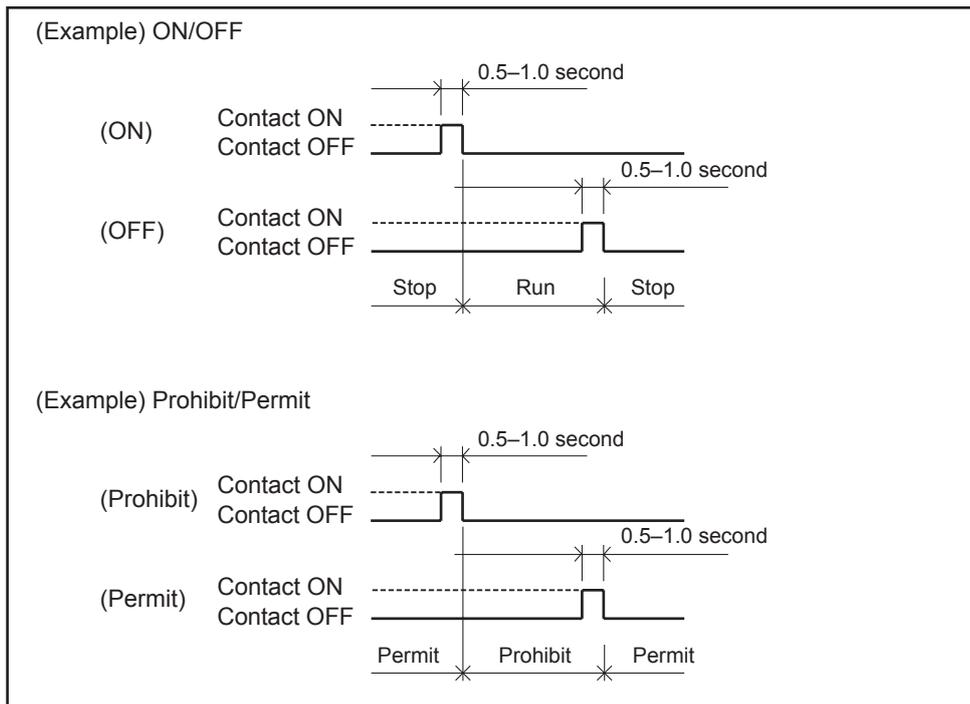
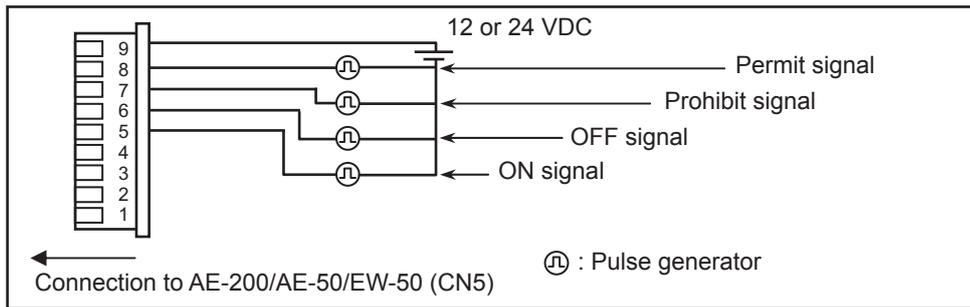
Note: Refer to the AE-200 Installation Manual for details about the demand level.



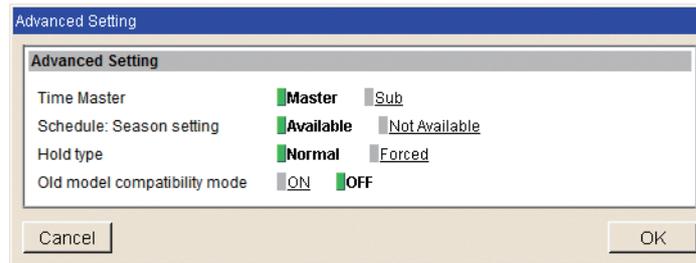
- (3) Select [ON/OFF (Level signal)] when using a level signal to collectively run or stop all the air conditioning units connected to the AE-200, AE-50, or EW-50. The ON/OFF operation from the local remote controllers will be prohibited, and the ON/OFF operation and Prohibit/Permit settings on the AE-200, AE-50, or EW-50 will be prohibited.



- (4) Select [ON/OFF/Prohibit/Permit (Pulse signal)] when using a pulse signal to collectively run or stop all the air conditioning units connected to the AE-200, AE-50, or EW-50, or to collectively prohibit or permit the operation from the local remote controllers.



4-2-4. Advanced Setting



4-2-4-1. Time Master/Sub

In the [Time Master] section, select [Master] or [Sub]. The default setting is [Master].

This setting is required to change only for a system with multiple AE-200 controllers. Set to [Master] on only one of the AE-200 controllers in a system, and set to [Sub] on the rest of the AE-200 controllers. The date and time synchronization is performed from the AE-200 whose [Time Master] setting is set to [Master] to the AE-200 whose [Time Master] setting is set to [Sub].

Note: When only one AE-200 controller is connected to the system, leave the default setting [Master] as it is.

Note: When multiple AE-50 controllers are connected to the system, leave the default setting [Master] as it is on all AE-50 controllers.

4-2-4-2. 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/EW-50.

4-2-4-3. Hold type

In the [Hold type] section, select [Normal] or [Forced].

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 Condition List screen of the Web Browser for System Maintenance Engineer 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/EW-50. If the [Hold type] is set to [Normal], the [Hold] setting can be cancelled from AE-200/AE-50/EW-50, other system controllers, or remote controllers.

Note: The Hold function can be used on the AE-200A/AE-50A/EW-50A, but not on the AE-200E/AE-50E/EW-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, 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 Condition List screen and the [Hold type] on the screen above is set to [Forced], the setting [Normal] will be effective.

4-2-4-4. Old model compatibility mode

In the [Old model compatibility mode] section, select [ON] or [OFF].

Select [ON] when not using the Dual set point function.

When [ON] is selected, the Prohibit Remote Controller function (Timer, Air Direction, Fan Speed) cannot be used.

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

4-2-5. Network Settings

Network settings vary depending on whether the AE-200/AE-50/EW-50 is connected to a dedicated LAN or an existing LAN. See the sections below for how to set the AE-200/AE-50/EW-50 IP, subnet mask, and gateway addresses in the [Network Settings] section.

Note: Do not use the LAN2 port.

Note: Although the settings for LAN1 (Network Settings) and LAN2 (Network Settings 2) will appear on the screen, only the settings for LAN1 is required. However, only when the LAN1 IP address is required to be set to [192.168.2.1], change the default LAN2 IP address to avoid address overlap.

Note: After the AE-200 IP address is changed, the AE-50/EW-50 power will be reset.

Network Settings				
IP Address	192	168	1	1
Subnet Mask	255	255	255	0
Gateway				
MAC Address	00269241B94A			
Network Settings 2				
IP Address	192	168	2	1
Subnet Mask	255	255	255	0
Gateway				
MAC Address	00269241B94B			

4-2-5-1. Settings for connecting the AE-200/AE-50/EW-50 to a dedicated LAN

- Enter the AE-200, AE-50, or EW-50'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.

Allocate IP addresses to the AE-50/EW-50 units in a sequential order starting with [192.168.1.211].

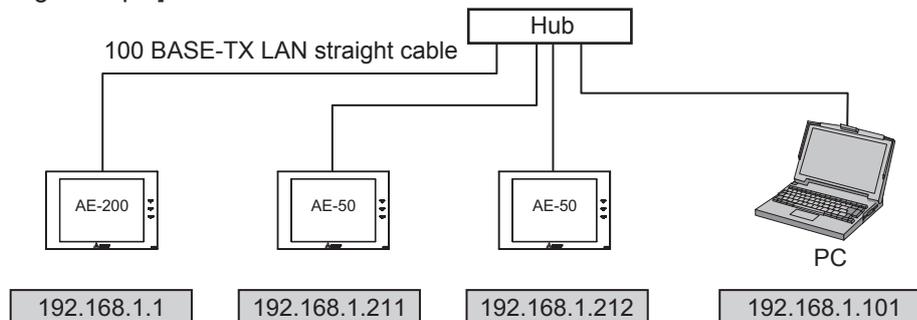
Note: The recommended IP address ranges are as follows.

AE-200: Between [192.168.1.1] and [192.168.1.40]

AE-50/EW-50: Between [192.168.1.211] and [192.168.1.249]

PC: Between [192.168.1.101] and [192.168.1.150]

[IP address setting example]



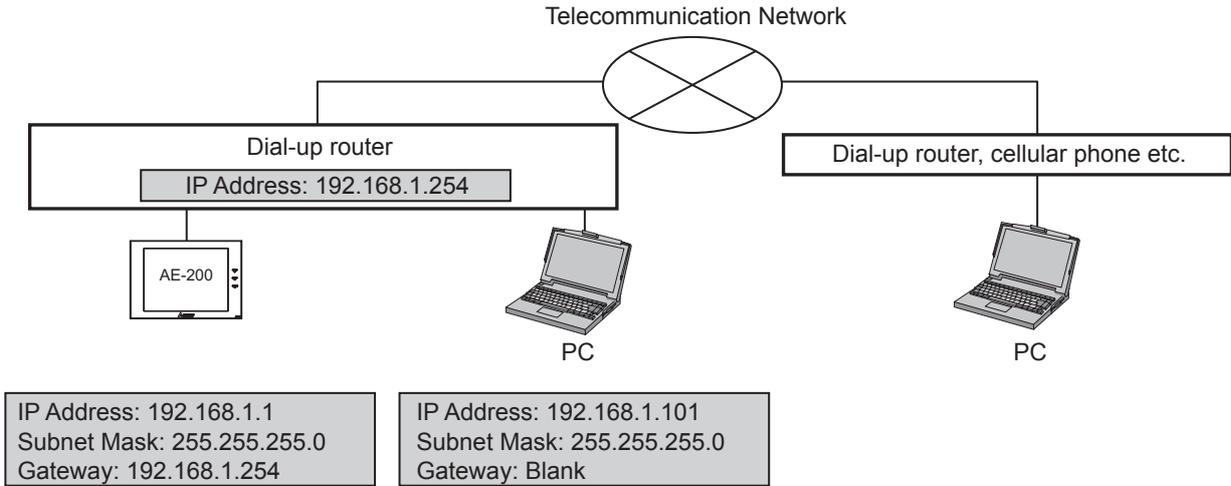
Note: Some hubs have dedicated ports for connection with another hub.

Connect the AE-200/AE-50/EW-50 and PC to the normal ports.

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

- (3) 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.

[Remote Monitoring System example]



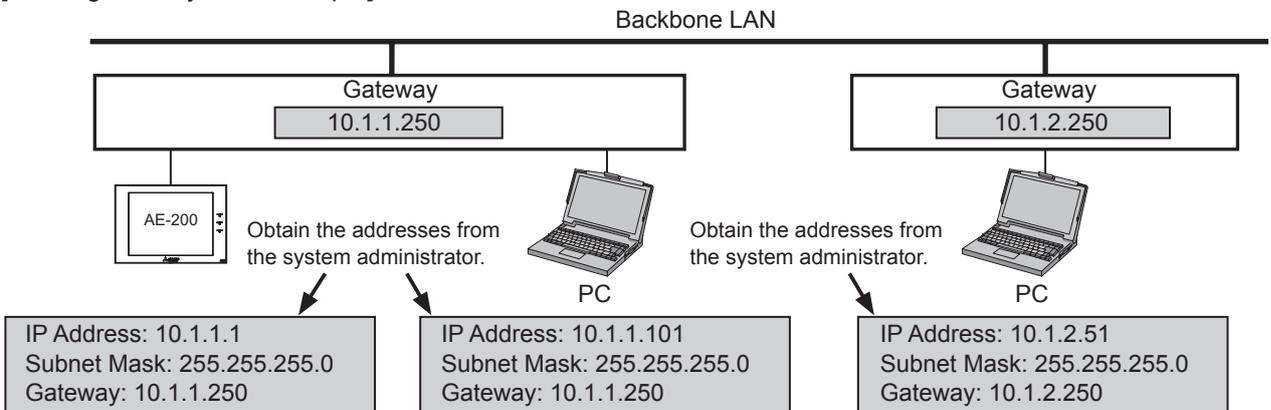
Note: [192.168.1.254] is recommended for use as the IP address of the dial-up router. Refer to the dial-up router instruction manual for details of how to set the IP address.

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.

4-2-5-2. Settings for connecting the AE-200/AE-50/EW-50 to an existing LAN

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

[Existing LAN System example]



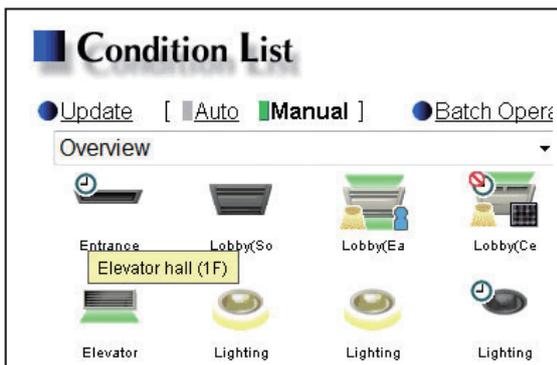
4-2-6. Display Format

Follow the instructions below to set the items in the [Display Format] section.

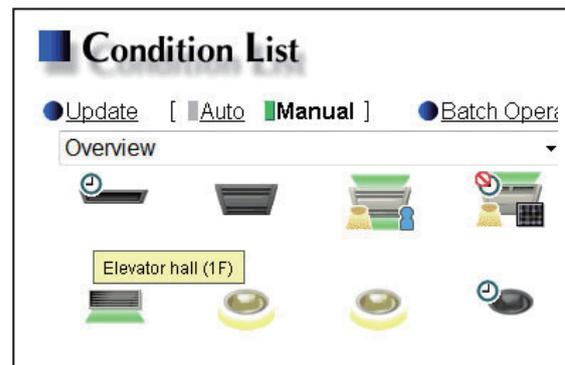
Display Format			
Unit of Temperature	<input checked="" type="checkbox"/> °C	<input type="checkbox"/> °F	
Pressure unit of measure	<input type="checkbox"/> MPa	<input checked="" type="checkbox"/> PSI	<input type="checkbox"/> kgf/cm ²
Date Format	<input type="checkbox"/> 31/12/2012	<input type="checkbox"/> 12/31/2012	<input checked="" type="checkbox"/> 2012/12/31
Time Format	<input type="checkbox"/> 06:00 PM	<input checked="" type="checkbox"/> 18:00	
Group Names on Overview Monitor	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	
Filter Sign Display	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	
Room temp. display (except for group list)	<input checked="" type="checkbox"/> Always show	<input type="checkbox"/> Show during operation	<input type="checkbox"/> Hide
Occupancy sensor display	<input type="checkbox"/> Hide	<input type="checkbox"/> Show occupancy icon.	<input type="checkbox"/> Show vacancy icon.
Brightness sensor display	<input type="checkbox"/> Hide	<input type="checkbox"/> Show bright symbol.	<input type="checkbox"/> Show dark symbol.
Humidity sensor display	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	

- (1) In the [Unit of Temperature] section, select [°C] or [°F].
- (2) In the [Pressure unit of measure] section, select [MPa], [PSI], or [kgf/cm²].
- (3) In the [Date Format] section, select the desired display format for year, month, and date.
- (4) In the [Time Format] section, select the desired display of time format.
- (5) In the [Group Names on Overview Monitor] section, select [ON] to display the group names under the icons on the Condition List screen. Select [OFF] not to display the group names.

Note: Only the first 8 characters will be visible under the icons. To display all characters, move the cursor to the icon.



Icons with group names

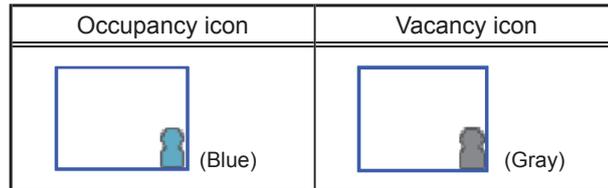


Icons without group names

- (6) In the [Filter Sign Display] section, select [ON] to display the filter sign, and select [OFF] not to. When the [Filter Sign Display] is set to [OFF], the filter sign will not appear on the Condition List screen even when the indoor unit detects a filter cleaning signal. If the filter is regularly cleaned and the sign display is unnecessary, set it to [OFF].
- (7) In the [Room temp. display (except for group list)] section, select the desired temperature display option to be used on the Block display of the Condition List screen. 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.

- (8) In the [Occupancy sensor display] 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 Condition List screen.
 Select [Show occupancy icon] to display the occupancy icon when the sensor on the remote controller detects occupancy.
 Select [Show vacancy icon] to display the vacancy icon when the sensor on the remote controller detects vacancy.
 Select [Show both icons] 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 Condition List screen.



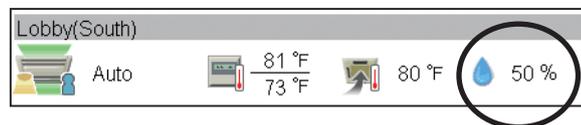
- (9) In the [Brightness sensor display] section, make the Show/Hide setting for the brightness/darkness status that is detected by the built-in brightness sensor on the ME remote controller (North America: PAR-U01MEDU, Europe: PAR-U02MEDA).
 Select [Hide] not to display the brightness/darkness icons on the Condition List screen.
 Select [Show bright symbol] to display the brightness icon when the brightness level in the room reaches the predetermined brightness level.
 Select [Show dark symbol] to display the darkness icon when the darkness level in the room reaches the predetermined darkness level.
 Select [Show both symbols] 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 Condition List screen.

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



- (10) In the [Humidity sensor display] 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 Block display of the Condition List screen.



4-3. Groups

Click [Initial Settings] in the menu bar, and then click [Groups] to access the group settings screen. Register the groups of air conditioning units, LOSSNAY units (ventilators), Air To Water (PWFY) units, AHC, HWHP (CAHV, CRHV) units, or general equipment to be connected to the AE-200/AE-50/EW-50, and then touch [Save Settings].

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

The screenshot shows the 'Groups' configuration page in a web browser. It features a 'Group Name' table on the left and a 'System Structure' tree on the right. Callouts point to various elements:

- Group No.:** Points to the '1' in the 'Entrance' row of the Group Name table.
- Group name:** Points to the 'Entrance' text in the same row.
- AHC registration:** Points to the 'AHC' field in the 'Entrance' row.
- Refresh:** Points to the 'Refresh' button at the bottom of the table.
- Air conditioner, Air To Water (PWFY) unit, LOSSNAY unit, HWHP (CAHV, CRHV) unit, and general equipment registration:** Points to the 'System Structure' tree.
- System controller registration:** Points to the 'System Controller' field in the 'Entrance' row.
- Remote controller registration:** Points to the 'Remote Controller' field in the 'Entrance' row.
- Save Settings:** Points to the 'Save Settings' button at the bottom right.

4-3-1. Setting group names

In the [Group Name] field, enter the group name to be displayed in 20 characters or less.

Note: The following characters cannot be used in the [Group Name] field: <, >, &, ", or '.

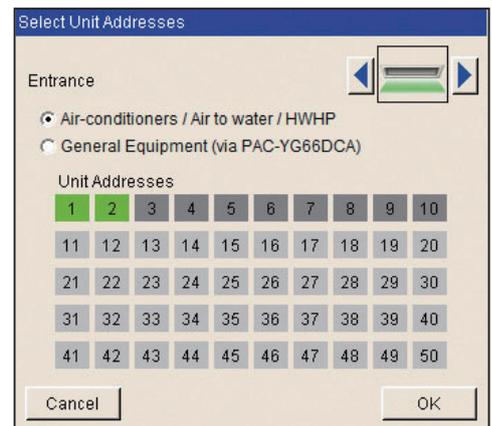
4-3-2. Registering air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV, CRHV) units to a group

- To register air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV, CRHV) units to each group, click the [Air conditioner, Air To Water (PWFY) unit, LOSSNAY unit, HWHP (CAHV, CRHV) unit, and general equipment registration] field next to the target group name. The [Select Unit Addresses] screen will appear.

Check the radio button next to [Air-conditioners / Air to water / HWHP], and select the address numbers of the units to be registered.

The selected unit addresses will appear with a yellow-green background.

Click again to deselect. The deselected unit addresses will appear with a light-gray background.



Note: Each group can contain up to 16 air conditioners.

Note: Air conditioners, Air To Water (PWFY) units, LOSSNAY units, and HWHP (CAHV, CRHV) 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, CRHV) 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.

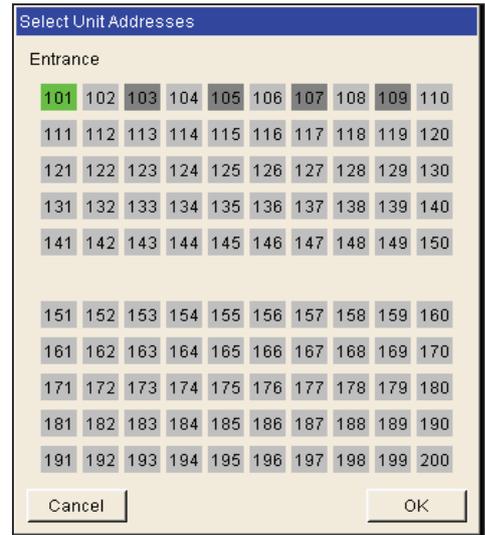
- (2) To change the icon, click the right or left arrow.
The selected icon will be displayed on the Web browser.

4-3-3. Registering remote controllers to a group

- (1) To register remote controllers to a group, click the [Remote controller registration] field next to the target group name. The [Select Unit Addresses] screen will appear.

Select the address numbers of the remote controllers to be registered. The selected unit addresses will appear with a yellow-green background. Click again to deselect. The deselected addresses will appear with a light-gray background.

- 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.

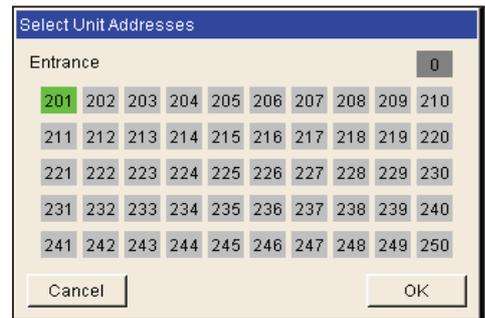


4-3-4. Registering system controllers to a group

- (1) To register system controllers to a group, click the [System controller registration] field next to the target group name. The [Select Unit Addresses] screen will appear.

Select the address numbers of the system controllers to be registered. The selected unit addresses will appear with a yellow-green background. Click again to deselect. The deselected addresses will appear with a light-gray background.

- Note: Each group can contain up to four remote and system controllers combined (excluding AE-200/AE-50/EW-50).

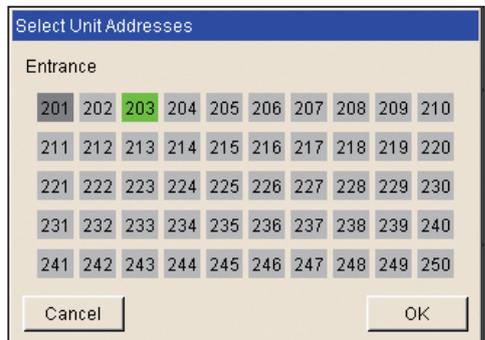


4-3-5. Registering AHC to a group

- (1) To register an AHC to a group, click the [AHC registration] field next to the target group name. The [Select Unit Addresses] screen will appear.

Select the address number of the AHC to be registered. The selected unit address will appear with a yellow-green background. Click again to deselect. The deselected address will appear with a light-gray background.

- 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, CRHV) units, or general equipment (via PAC-YG66DCA) are registered.



4-3-6. Registering general equipment to a group

- (1) To register general equipment to a group, click the [Air conditioner, Air To Water (PWFY) unit, LOSSNAY unit, HWHP (CAHV, CRHV) unit, and general equipment registration] field next to the target group name. The [Select Unit Addresses] screen will appear.

Check the radio button next to [General Equipment (via PAC-YG66DCA)].

Select the device number of the DIDO controller (PAC-YG66DCA) that is connected to the general equipment to be registered. The selected number will appear with a red frame. Also, select contact points to which the general equipments are connected.

Click again to deselect. The deselected numbers will appear with a light-gray background.

Select Unit Addresses

Lighting(1F East)

Air-conditioners / Air to water / HWHP

General Equipment (via PAC-YG66DCA)

Unit Addresses

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Contact Points

1	2	3	4	5	6
---	---	---	---	---	---

Allow Operations

In batch and on individual group

On individual group

No operations (Monitor only)

Monitor

Output status

Input status

Cancel OK

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, CRHV) 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, CRHV) units are registered, unregister the air conditioners, Air To Water (PWFY) units, LOSSNAY units, or HWHP (CAHV, CRHV) units first.

Note: General equipment groups cannot include remote controllers or system controllers.

- (2) To change the icon, click the right or left arrow.
The selected icon will be displayed on the Web browser.
- (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 Condition List screen, accessible via the Web Browser for System Maintenance Engineer. 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.

4-4. Interlocked LOSSNAY

The ON/OFF status of the LOSSNAY unit can be interlocked with the operation of indoor units. Click [Initial Settings] in the menu bar, and then click [Interlocked LOSSNAY] to access the Interlocked LOSSNAY settings screen. Set the interlocking conditions, and then click [Save Settings].

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

Note: The ON/OFF status of the indoor units are not interlocked with the ON/OFF status of the LOSSNAY unit.

Note: The interlock settings between the units connected to the AE-200, AE-50, and EW-50, as well as between the units connected to different AE-50/EW-50 controllers, cannot be made.

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

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

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Save Settings
Click to save the changes made.

- Click the [Interlocked LOSSNAY unit registration] field. The [Select a Unit Address] screen will appear. Select the address number of the LOSSNAY unit to be registered. The selected unit address will appear with a yellow-green background. Click again to deselect. The deselected address will appear with a light-gray background.

- Click the [Interlocked indoor unit registration] field. The [Select Unit Addresses] screen 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 a yellow-green background. Click again to deselect. The deselected addresses will appear with a light-gray background.

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

4-5. Blocks

By making block settings, multiple groups in a given block can be collectively monitored or operated on the Web browser. Click [Initial Settings] in the menu bar, and then click [Blocks] to access the block settings screen. Register the groups to each block, and then click [Save Settings].

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

Note: The groups of units connected to the AE-200, AE-50, and EW-50, as well as the groups of units connected to different AE-50/EW-50 controllers, cannot be registered to the same block.

Block Name

Group registration

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Save Settings
Click to save the changes made.

- (1) Enter the block name in the [Block Name] field to be displayed on the Web browser in 20 characters or less.

Note: The following characters cannot be used in the [Block Name] field: <, >, &, ", or '.

- (2) Click the [Group registration] field next to the target block. The [Select Groups] screen will appear.

Select the group numbers to be registered. (To show the group name, move the cursor to the group number.)

The selected group numbers will appear with a yellow-green background.

Click again to deselect. The deselected group numbers will appear with a light-gray background.

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

5. Functions 1

5-1. E-Mail

E-mail settings must be configured properly to use the error notification e-mail function or the e-mail communication function. Error notification e-mail function is the function to send the error information to the specified e-mail addresses. E-mail communication function is the function to send the units' maintenance data to the specified e-mail addresses of the PCs to which Maintenance Tool is installed.

Click [Functions 1] in the menu bar, and then click [E-Mail] to access the e-mail settings screen. Make the various e-mail settings, and then click [Save Settings].

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

Mail Server Information
Set the mail server/DNS server information.

Mail Communication Setting
Set the e-mail addresses of the PCs that will receive maintenance data through e-mail communication function.

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

E-Mail Settings of AE-200A
E-Mail Address, User ID, Password, Interval of checking incoming mails.

Error Mail Settings
Enter the e-mail information for error notification e-mail function.

Save Settings
Click to save the changes made.

5-1-1. E-Mail Settings of AE-200/AE-50/EW-50

E-Mail Settings of AE-200A

E-Mail Address:

User ID:

Password:

Interval of checking incoming mails: minute(s)

Enter the AE-200/AE-50/EW-50's e-mail information provided by the Internet Service Provider (ISP) or the system administrator. The items required to be set vary, depending on the functions to be used. Refer to the table below to determine which items need to be set.

Note: A contract with the ISP is required to send e-mail via an ISP.

Table 5-1 Items required to be set (E-Mail Settings of AE-200/AE-50/EW-50)

Item	Error notification e-mail function		E-mail communication function	
	Without SMTP authentication	With SMTP authentication	Without SMTP authentication	With SMTP authentication
E-Mail Address	V	V	V	V
User ID	-	V	V	V
Password	-	V	V	V
Interval of checking incoming mails	-	-	V	V

(V) Required to be set, (-) Not required to be set

5-1-2. Mail Server Information

Enter the e-mail server information provided by the ISP or the system administrator. The items required to be set vary, depending on the functions to be used. Refer to the table below to determine which items need to be set. Either the IP address or the host name (server name) can be entered in the [Outgoing Mail Server (SMTP)] and [Incoming Mail Server (POP3)] fields.

Note: The port number of the Outgoing Mail Server (SMTP) can be changed. (Factory setting: 25)

Note: When "587" is entered in the [Port] field, make sure to check the checkbox next to [Use SMTP Authentication].

Table 5-2 Items required to be set (Mail Server Information)

Item	Error notification e-mail function		E-mail communication function	
	Without SMTP authentication	With SMTP authentication	Without SMTP authentication	With SMTP authentication
Outgoing Mail Server (SMTP)	√ IP address or host name	√ Host name	√ IP address or host name	√ Host name
Use SMTP Authentication	-	√	-	√
Incoming Mail Server (POP3)	-	-	√ IP address or host name	√ IP address or host name
DNS Server (Primary)	(√) *1	√	(√) *1	√
DNS Server (Secondary)	(√) *1	√	(√) *1	√

(√) Required to be set, (-) Not required to be set

*1 Not required if the IP address is entered in the [Outgoing Mail Server (SMTP)] or [Incoming Mail Server (POP3)] field.

5-1-3. Error Mail Settings

- (1) In the [Mail Subject] field, enter the mail subject to be used for the error notification e-mail function in 40 characters or less.

Note: The following characters cannot be used in the [Mail Subject] field: <, >, &, ", or '.

- (2) In the [Kind of Errors] field, select the error type out of the following: [Unit Error], [Preliminary Unit Error], [Communication Error], [General Equipment], and [User Setting 1] through [User Setting 6]. Then, in the [E-Mail Address] field, enter the e-mail addresses of the recipients of the error notification e-mail.

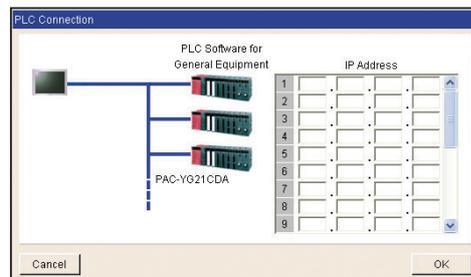
- (3) If [User Setting 1] through [User Setting 6] is selected in the [Kind of Errors] field, a [User Settings] button will appear. To send error notification e-mail only upon occurrences of certain errors, click [User Settings] to display the User Settings screen. Enter the error codes to be notified.

Up to 20 error codes can be set for each user setting. In addition to specific error codes such as [1302] or [6607], codes that use asterisks as wildcards such as [10**] or [12**] can also be used. If [10**] is entered, for example, error notification e-mail will be sent upon an occurrence of any type of errors between [1000] and [1099]. If error codes are entered on this screen, confirm that the e-mail addresses of the recipients are registered.

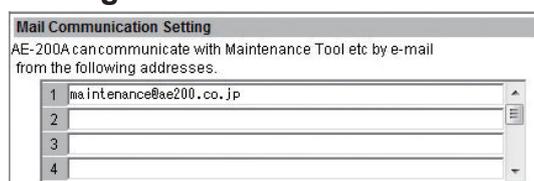
- (4) If [General Equipment] is selected in the [Kind of Errors] field, a [PLC Connection] button will appear. To send error notification e-mail upon occurrences of errors on the general equipment that are connected to PLC Software for General Equipment, click [PLC Connection] to display the [PLC Connection] screen. Enter the IP addresses of PLC Software for General Equipment.

The row number that corresponds to each IP address will appear in the error notification e-mail as a PLC number. (e.g., When an error occurs on the general equipment #20 connected to the PLC Software in the second row, "PLC2-20" will appear in the [Error unit] section in the error notification e-mail.)

Note: A TG-2000A is required to monitor the status of the general equipment that is connected to the PLC Software for General Equipment.



5-1-4. Mail Communication Setting



To use an e-mail communication function, enter the addresses of the PCs that will receive the units' maintenance data in the [Mail Communication Setting] section. Up to 10 e-mail addresses can be set.

5-1-5. E-mail format

Error notification e-mail will be sent in the format shown below.

From:Mitsubishi Building(000001)
 Date:01/06/2014 16:32:12
 Error unit:065
 Error code:1302
 Status:Occurrence

Mail subject	The mail subject entered in section 5-1-3 will appear.
From	The AE-200/AE-50/EW-50 unit name and unit ID entered in section 4-2-1 will appear.
Date	Error occurrence date and time will appear in the format entered in section 4-2-6.
Error unit	<ul style="list-style-type: none"> - When an error occurs on air conditioning units or general equipment, the M-NET address of the unit in error will appear. - When an error occurs on general equipment connected to PLC Software for General Equipment, PLC number* (1 to 20) and connection number of general equipment (1 to 32) will appear. - When a communication error occurs on PLC Software for General Equipment, PLC number* (1 to 20) will appear. <p>* PLC number indicates the row number on the [PLC Connection] screen. (Refer to section 5-1-3 (4).)</p> <p style="text-align: center;">Note: When an error occurs on the general equipment connected via DIDO controller, M-NET address of the DIDO controller will appear. (The recipients will know that an error has occurred on one of the general equipment that is connected to the DIDO controller.)</p>
Error code	<p>Error code (4-digit) will appear.</p> <ul style="list-style-type: none"> - When an error occurs on air conditioning units, refer to the service manual of the unit for the error codes. - When an error occurs on general equipment, "0091" (General equipment error) will appear. - When a communication error occurs on PLC Software for General Equipment, "0003" (LAN communication error to PLC) or "0007" (PLC program stopped) will appear.
Status	Error status "Occurrence" (The error is occurring) or "Recovery" (The error has been resolved) will appear.

5-2. Peak Cut (Energy-save control function)

According to the selected Peak Cut method, the AE-200/AE-50/EW-50 obtains the demand level or the electric energy values to determine the control level, and operates outdoor units and blocks of indoor units below the specified maximum capacity that corresponds to the control level.

Click [Functions 1] in the menu bar, and then click [Peak Cut] to access the Peak Cut control settings screen. Make necessary settings, and then click [Save Settings].

Important: The amount of electricity that is actually used may exceed the maximum power demand due to unexpected problems such as controller malfunctions or broken transmission cables. Mitsubishi Electric will not be responsible for exceeding the maximum power demand.

Note: After completing the settings, perform a test run and confirm proper connections of equipment before using the Peak Cut function.

Note: A separate license is required to use the Peak Cut function. Make sure that the required license has properly been registered on the Registration of Optional Functions screen. (Refer to chapter 10 for details.)

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

Note: Peak Cut control cannot be performed on DIDO controller (PAC-YG66DCA), AHC, or Air To Water (PWFY) unit.

Note: The Peak Cut control of indoor units is performed per block. Be sure to make block settings to use the Peak Cut function.

Note: The Peak Cut control settings between the outdoor and indoor units connected to the AE-200, AE-50, and EW-50, as well as between the units connected to different AE-50/EW-50 controllers, cannot be made.

Peak Cut method

Setting details for the selected Peak Cut method

Control details for outdoor units

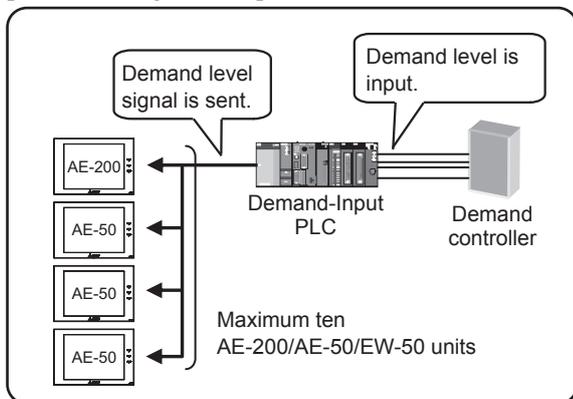
Control details for blocks of indoor units

Refresh
Click to import the settings from AE-200/AE-50/EW-50 and PLC.

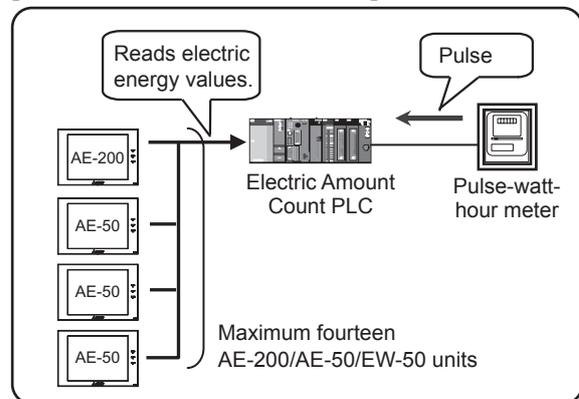
Save Settings
Click to send the settings to AE-200/AE-50/EW-50 and PLC.

5-2-1. Peak Cut method

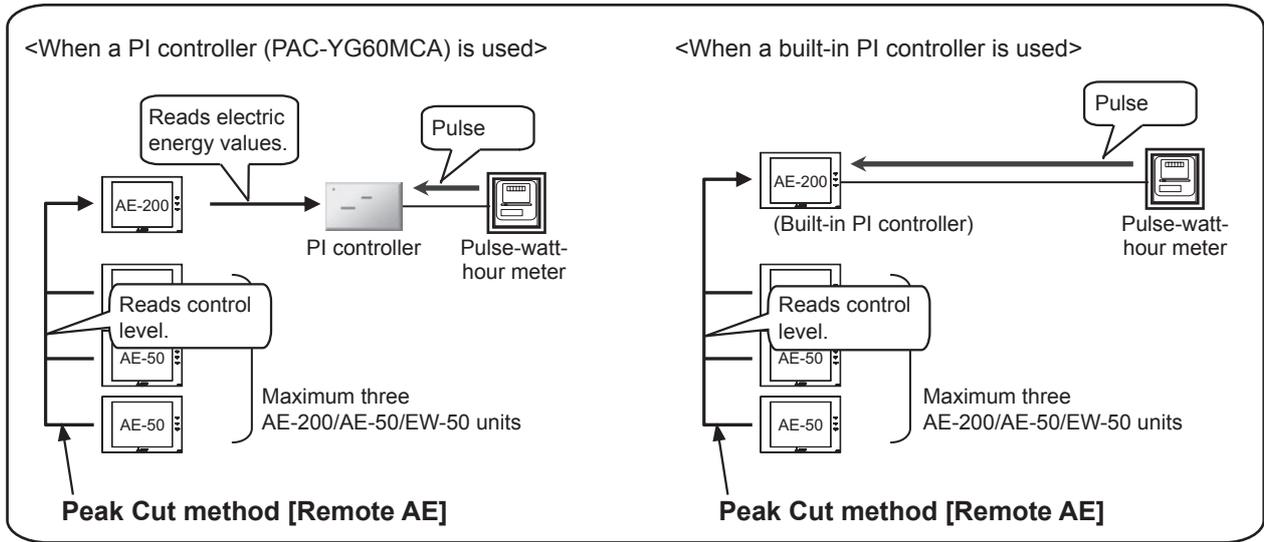
[Demand-Input PLC]



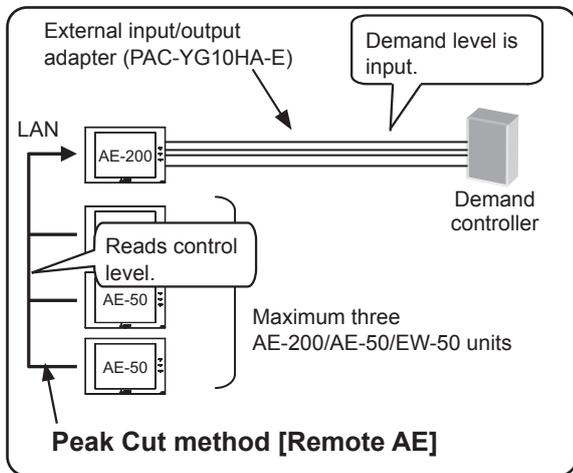
[Electric Amount Count PLC]



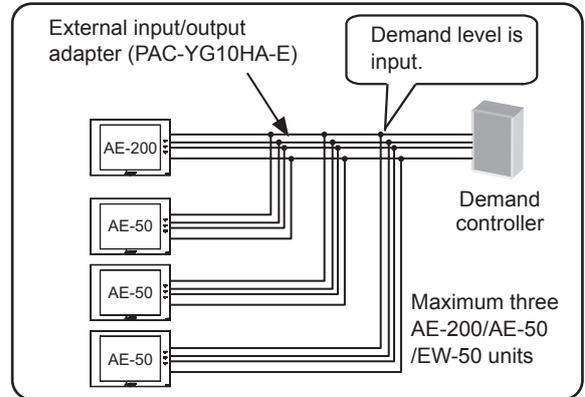
[PI Controller]



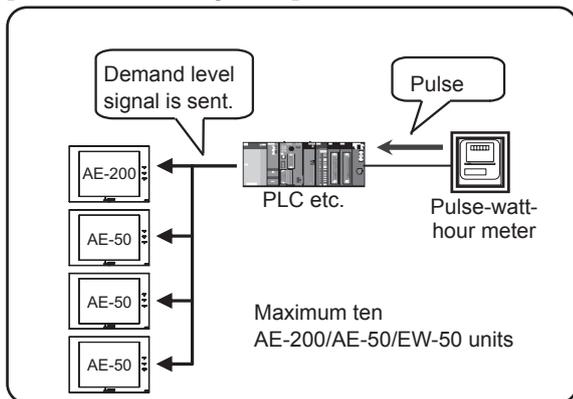
[External Contact point input] (1)



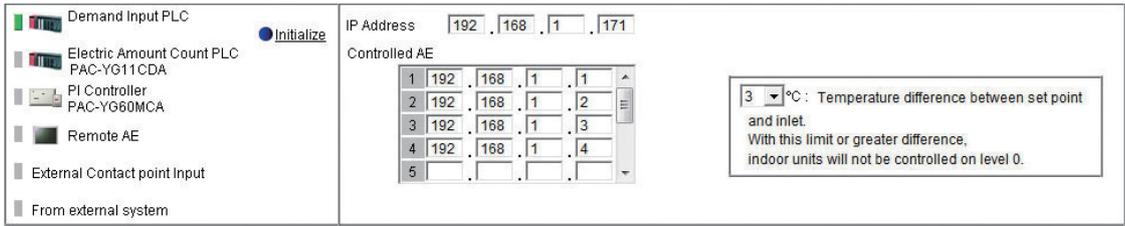
[External Contact point input] (2)



[From external system]

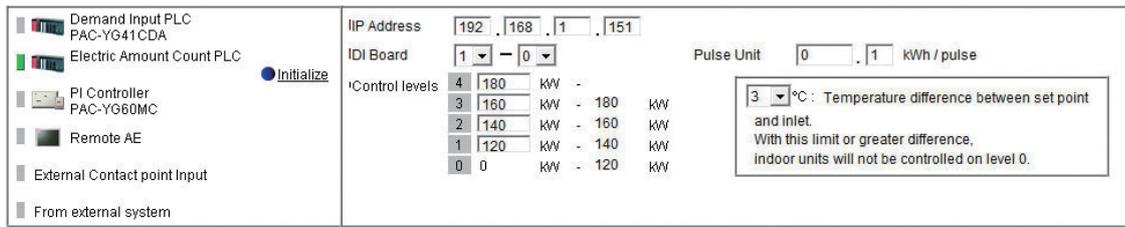


(A) When the Peak Cut method [Demand-Input PLC] is selected



- (1) In the [IP Address] field, enter the IP address of the Demand-Input PLC.
- (2) When using the Demand-Input PLC for the first time, click [Initialize] to initialize its internal memory.
 Note: Do not initialize the Demand-Input PLC after the operation has begun, for it will clear all operation data.
- (3) In the [Controlled AE] field, enter the IP addresses of the AE-200/AE-50/EW-50 units to which the demand level signal is sent. Up to 10 IP addresses can be registered.
- (4) In the [Temperature difference between set point and inlet] section, a temperature differential can be set to between 3 and 9 as necessary. The Peak Cut control setting that corresponds to the control level 0 will be disregarded for the indoor unit groups in which the temperature difference between the set temperature and the room temperature is greater than the specified temperature differential.
 Note: The Peak Cut control setting that corresponds to the control levels 1 to 4 will be effective regardless of the temperature differential setting.

(B) When the Peak Cut method [Electric Amount Count PLC] is selected



- (1) In the [IP address] field, enter the IP address of the Electric Amount Count PLC.
- (2) When using the Electric Amount Count PLC for the first time, click [Initialize] to initialize the internal memory.
 Note: Do not initialize the Electric Amount Count PLC after the operation has begun, for it will clear all operation data.
- (3) In the [DI Board] field, select the DI board number to which the watt-hour meter is connected, and the terminal number. If the watt-hour meter is connected to terminal 2 on a DI board 1, select 1-2.
 Note: Select a DI board number 1 or 2, and select a terminal number/code between 0 and F.
- (4) In the [Pulse Unit] field, enter the pulse value that the watt-hour meter outputs. Set the pulse value according to the watt-hour meter to be used.

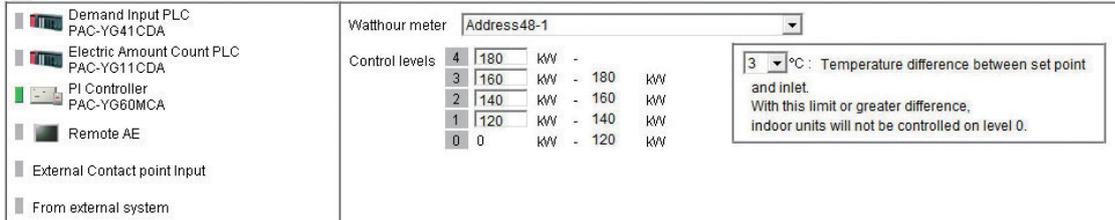
Important: Check the watt-hour meter readings several times on the hour and the half-hour. Then, be sure to check that the increase in the watt-hour meter reading for each 30-minute period and the average electric power consumption in the same period that the Peak Cut function is used are the same amount. The average electric power for the period that the Peak Cut function is used can be checked on the Trend Graph display or in the CSV file that can be downloaded from the Trend Graph display. The Trend Graph display can be found on the Peakcut Control Status screen, accessible via the Web Browser for System Maintenance Engineer. Refer to the Instruction Book (Web Browser for System Maintenance Engineer) for details.

- (5) In the [Control levels] section, the range of the electric power must be set for each control level. For control level 4, enter the value that is 10% to 15% below the maximum power demand (average electric energy that cannot be exceeded in any 30-minute period). For control levels 3 to 0, enter the value that is decreased by about 10% from the set value of the previous control level. (The screenshot above shows the setting example of the maximum demand of 200 kW.)
 Note: The optimum setting depends on the system configuration of the electric equipment and on the indoor environment in each building. Determine the appropriate values accordingly.

- (6) In the [Temperature difference between set point and inlet] section, a temperature differential can be set to between 3 and 9 as necessary. The Peak Cut control setting that corresponds to the control level 0 will be disregarded for the indoor unit groups in which the temperature difference between the set temperature and the room temperature is greater than the specified temperature differential.

Note: The Peak Cut control setting that corresponds to the control levels 1 to 4 will be effective regardless of the temperature differential setting.

(C) When the Peak Cut method [PI Controller] is selected



- (1) In the [Watt-hour meter] field, select the watt-hour meter used for the Peak Cut function or the PI controller to which the watt-hour meter is connected.

Note: Only the watt-hour meters that have been registered on the Measurement screen are selectable. Refer to section 5-3 for how to register metering devices.

Note: When a built-in PI controller is used, ["Meter" + Channel No. + (space) + Metering device name] will appear. (For example, if the watt-hour meter used for the Peak Cut function is connected to channel 3 of CN7 of AE-200 and the metering device name is "For Peak Cut function," [Meter3 For Peak Cut function] will appear.)

When a PI controller (PAC-YG60MCA) is used, ["Address" + PI controller address + "-" + Channel No. + (space) + Metering device name] will appear. (For example, if the watt-hour meter used for the Peak Cut function is connected to channel 2 of a PI controller (address 10) and the metering device name is not registered, [Address10-2] will appear.)

- (2) In the [Control levels] section, the range of the electric power must be set for each control level. For control level 4, enter the value that is 10% to 15% below the maximum power demand (average electric energy that cannot be exceeded in any 30-minute period). For control levels 3 to 0, enter the value that is decreased by about 10% from the set value of the previous control level. (The screenshot above shows the setting example of the maximum demand of 200 kW.)

Note: The optimum setting depends on the system configuration of the electric equipment and on the indoor environment in each building. Determine the appropriate values accordingly.

- (3) In the [Temperature difference between set point and inlet] section, a temperature differential can be set to between 3 and 9 as necessary. The Peak Cut control setting that corresponds to the control level 0 will be disregarded for the indoor unit groups in which the temperature difference between the set temperature and the room temperature is greater than the specified temperature differential.

Note: The Peak Cut control setting that corresponds to the control levels 1 to 4 will be effective regardless of the temperature differential setting.

(D) When the Peak Cut method [Remote AE] is selected

<ul style="list-style-type: none"> <input type="checkbox"/> Demand Input PLC PAC-YG41CDA <input type="checkbox"/> Electric Amount Count PLC PAC-YG11CDA <input type="checkbox"/> PI Controller PAC-YG60MCA <input checked="" type="checkbox"/> Remote AE <input type="checkbox"/> External Contact point Input <input type="checkbox"/> From external system 	<p>IP Address <input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="1"/> <input type="text" value="1"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>3 °C : Temperature difference between set point and inlet. With this limit or greater difference, indoor units will not be controlled on level 0.</p> </div>
--	---

- (1) In the [IP address] field, enter the IP address of the AE-200/AE-50/EW-50 that uses one of the following.
- Built-in PI controller
 - PI controller (PAC-YG60MCA)
 - External contact input (Refer to (E) “When the Peak Cut method [External Contact point input] is selected” for details.)

Note: As the control level is obtained every minute from the AE-200/AE-50/EW-50 that uses a built-in PI controller or a PI controller (PAC-YG60MCA), the control will be late for up to one minute on the AE-200/AE-50 whose Peak Cut method setting is [Remote AE].

Note: Up to three AE-200/AE-50/EW-50 units can be connected to the AE-200/AE-50/EW-50 unit that uses a built-in PI controller or a PI controller (PAC-YG60MCA). When five or more AE-200/AE-50/EW-50 units are connected, add the settings in (C) “When the Peak Cut method [PI Controller] is selected” or use the Peak Cut method [Electric Amount Count PLC].

- (2) In the [Temperature difference between set point and inlet] section, a temperature differential can be set to between 3 and 9 as necessary. The Peak Cut control setting that corresponds to the control level 0 will be disregarded for the indoor unit groups in which the temperature difference between the set temperature and the room temperature is greater than the specified temperature differential.

Note: The Peak Cut control setting that corresponds to the control levels 1 to 4 will be effective regardless of the temperature differential setting.

(E) When the Peak Cut method [External Contact point input] is selected

Note: The external signal can be input to AE-200, AE-50, and EW-50, so that all outdoor units and blocks of indoor units can be selected.

<ul style="list-style-type: none"> <input type="checkbox"/> Demand Input PLC PAC-YG41CDA <input type="checkbox"/> Electric Amount Count PLC PAC-YG11CDA <input type="checkbox"/> PI Controller PAC-YG60MCA <input type="checkbox"/> Remote AE <input checked="" type="checkbox"/> External Contact point Input <input type="checkbox"/> From external system 	<div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>3 °C : Temperature difference between set point and inlet. With this limit or greater difference, indoor units will not be controlled on level 0.</p> </div>
--	--

- (1) In the [Temperature difference between set point and inlet] section, a temperature differential can be set to between 3 and 9 as necessary. The Peak Cut control setting that corresponds to the control level 0 will be disregarded for the indoor unit groups in which the temperature difference between the set temperature and the room temperature is greater than the specified temperature differential.

Note: The Peak Cut control setting that corresponds to the control levels 1 to 4 will be effective regardless of the temperature differential setting.

(F) When the Peak Cut method [From external system] is selected

<ul style="list-style-type: none"><input type="checkbox"/> Demand Input PLC PAC-YG41CDA<input type="checkbox"/> Electric Amount Count PLC PAC-YG11CDA<input type="checkbox"/> PI Controller PAC-YG60MCA<input type="checkbox"/> Remote AE<input type="checkbox"/> External Contact point Input<input checked="" type="checkbox"/> From external system	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"><p>3 °C : Temperature difference between set point and inlet. With this limit or greater difference, indoor units will not be controlled on level 0.</p></div>
---	---

- (1) In the [Temperature difference between set point and inlet] section, a temperature differential can be set to between 3 and 9 as necessary. The Peak Cut control setting that corresponds to the control level 0 will be disregarded for the indoor unit groups in which the temperature difference between the set temperature and the room temperature is greater than the specified temperature differential.

Note: The Peak Cut control setting that corresponds to the control levels 1 to 4 will be effective regardless of the temperature differential setting.

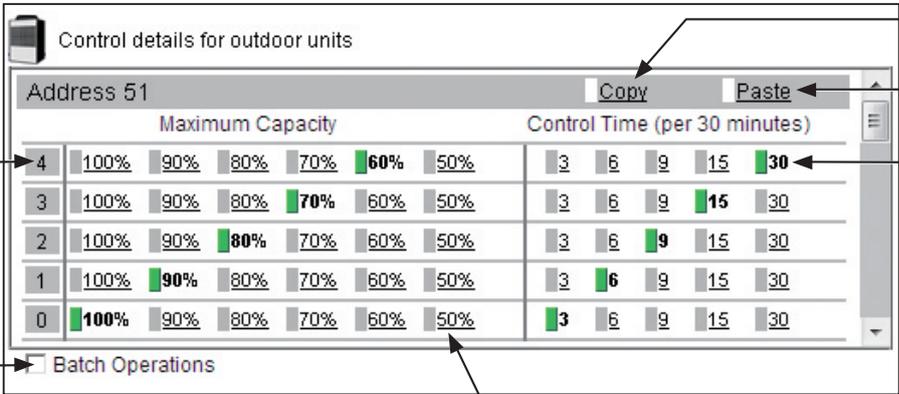
5-2-2. Control details for outdoor units (All Peak Cut methods)

Follow the instructions below to make the Peak Cut control settings for each control level for given outdoor units.

Note: If the outdoor unit is a City Multi unit, the M-NET address will appear. If the outdoor unit is an A-control (Mr. Slim) unit, the M-NET address and group name will appear.

Note: As for A-control outdoor units, only the inverter models can perform Peak Cut control. The Peak Cut control settings for constant-speed models can not be made.

Note: Do not make the Peak Cut control settings for heat pump models of outdoor units or City Multi S series (PUMY) outdoor units.



Control details for outdoor units

Address 51 Copy Paste

Control level	Maximum Capacity						Control Time (per 30 minutes)				
4	100%	90%	80%	70%	60%	50%	3	6	9	15	30
3	100%	90%	80%	70%	60%	50%	3	6	9	15	30
2	100%	90%	80%	70%	60%	50%	3	6	9	15	30
1	100%	90%	80%	70%	60%	50%	3	6	9	15	30
0	100%	90%	80%	70%	60%	50%	3	6	9	15	30

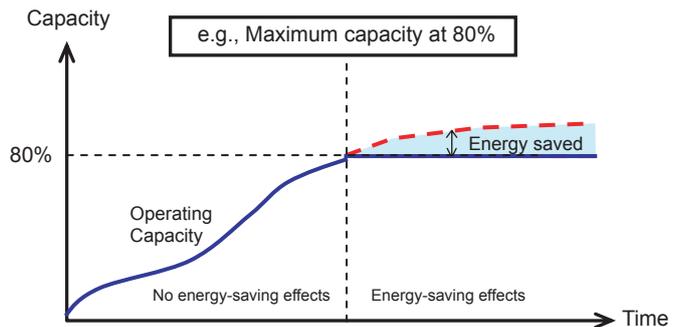
Batch Operations

Maximum Capacity
Select the upper limit of outdoor unit operating capacity.

- To make settings for all outdoor units at once, check the [Batch Operations] checkbox. Then, set the maximum operating capacity for each control level. The smaller the maximum operating capacity, the more energy will be saved.

Note: Energy-saving effects cannot be expected during low-load operation with the capacity below the selected maximum capacity.

Note: For heat pump outdoor units and City Multi S series (PUMY) outdoor units, leave the default setting [100%] as it is not to activate the capacity-save control.

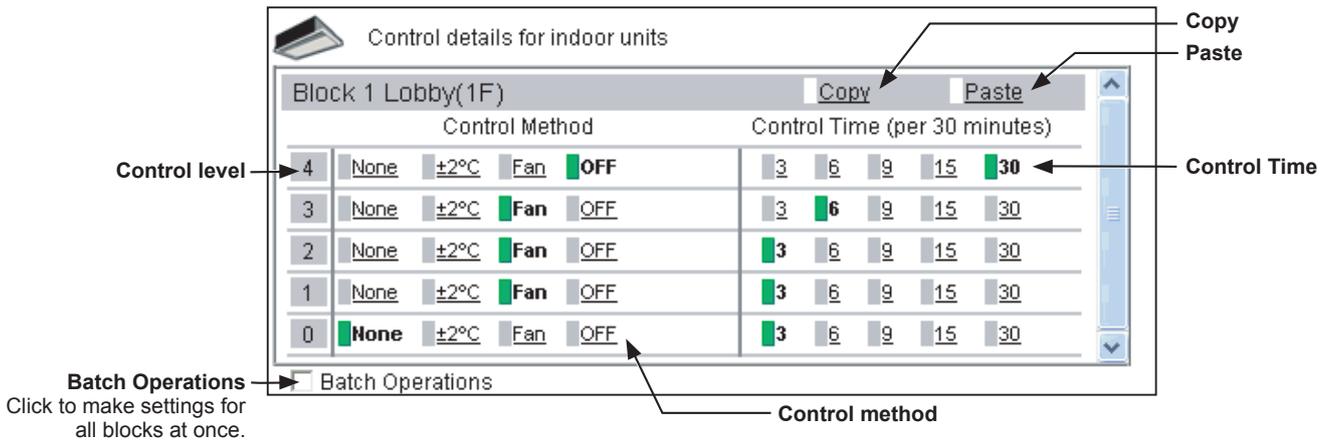


- For each control level, set the total time in which the Peak Cut control is performed during every 30 minutes. Setting the time to [30] or [15] minutes is preferable, for shorter control time is not likely to bring much benefit. If any time other than [30] minutes is selected, the outdoor units will operate in rotation so that they will not perform the Peak Cut control at the same time.
- To copy the settings of an outdoor unit to the settings for other outdoor units, display the outdoor unit whose settings are to be copied and click [Copy], then display the outdoor unit to which the copied settings are to be pasted and click [Paste]. The rectangular icons next to the selected buttons will appear in yellow-green.

5-2-3. Control details for blocks of indoor units

Follow the instructions below to make the Peak Cut control settings for each control level for given blocks of indoor units.

If the block settings have not been made, refer to section 4-5 for how to make the block settings.



- Scroll up or down to display the block whose settings are to be made. To make settings for all blocks at once, check the [Batch Operations] checkbox.

Then, select the control method for each control level, referring to the table below.

Note: Only the control method "OFF" is effective for Air To Water (PWFY) units. Other methods can be selected, but are not effective.

Table 5-3 Indoor Unit Control Method

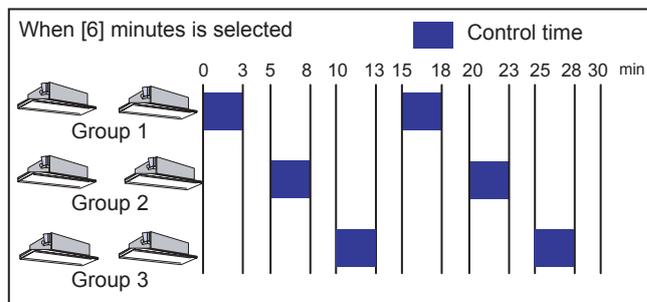
Control Method	Control details
None	Peak Cut control will not be performed.
±2°C (±4°F)	During the Peak Cut control, the set temperature in the Cool or Dry mode will be offset by +2°C (+4°F), and the set temperature in the Heat mode will be offset by -2°C (-4°F). Note: Peak Cut control will not be performed during the Fan or Auto mode. Note: When the unit of temperature is Fahrenheit, the set temperature may not be offset by ±4°F exactly because 2°C is used for the calculation first, and then the temperature in Celsius is converted into the temperature in Fahrenheit. Note: The set temperature will be adjusted within the set temperature restrictions settings. Refer to section 6-1 for details.
Fan *1	During the Peak Cut control, free-plan indoor units and A-control Mr. Slim indoor units (M-Series/P-Series indoor units) will go in to the Thermo-OFF state, and the units older than free-plan units will operate in the Fan mode. (When the units are in the Thermo-OFF state, the operation mode on the remote controller LCD will not change.)
OFF *1	During the Peak Cut control, the units will stop. Note: If the control method is set to [OFF] and the Control Time is set to [30] minutes, the groups that are operated in the Peak Cut control cannot be operated from any controller.

*1 When the indoor unit Peak Cut control function is used during the heating operation, it takes a while to resume operation to prevent cold air draft. This may negatively affect the performance of the unit for a certain period of time after the operation is resumed. To ensure maximum performance, it is recommended to use an outdoor unit capacity-save control function (that will not stop the compressor operation) during the heating operation. If the indoor unit Peak Cut control function is still used, selecting [3] minutes in the Control Time section is recommended.

- (2) For each control level, set the total time in which the Peak Cut control is performed during every 30 minutes.

Each Peak Cut control is performed for three minutes. If [6] minutes is selected, three-minute Peak Cut control will be performed twice during every 30 minutes.

If any time other than [30] minutes is selected, the indoor units will operate in rotation so that they will not perform the Peak Cut control at the same time.



- (3) To copy the settings of a block to the settings for other blocks, display the block whose settings are to be copied and click [Copy], then display the block to which the copied settings are to be pasted and click [Paste]. The rectangular icons next to the selected buttons will appear in yellow-green.

5-3. Measurement

Measurement settings must be made to use temperature sensors, humidity sensors, and metering devices. Click [Functions 1] in the menu bar, and then click [Measurement] to access the measurement settings screen. Set the measurement settings, and then click [Save Settings].

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

Selection of AI or PI controller

M-NET address of AI or PI controller

Selection of separator character for energy management data

Selection of decimal point character for energy management data

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Setting details

Scroll bar
Slide to show the address to which the AI or PI controller will be connected.

E-mail Settings

Save Settings
Click to save the changes made.

5-3-1. 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).

Sensor name

AI controller icon

Setting details of sensor 1

Setting details of sensor 2

Selection of temperature or humidity sensor icon

Measurable range

Upper/lower ON- and OFF-threshold settings for e-mail alarm function

Upper limit (ON-threshold)

Upper limit (OFF-threshold)

Lower limit (OFF-threshold)

Lower limit (ON-threshold)

Set offset

(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: Click again to deselect.

(3) In the [Sensor name] field, enter the name of the sensor.

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

(5) Enter the measurable range of the sensor.

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 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.

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

5-3-2. Offsetting the measured temperature/humidity values

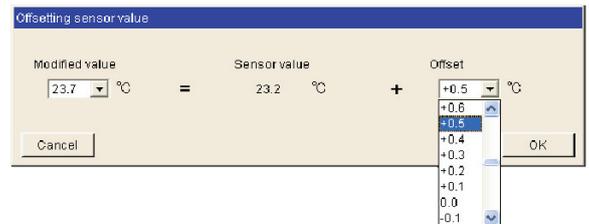
To set the offset value for the measured values, follow the instructions below.

Note: The actual measurement values or the adjusted measurement values are not displayed until the connection settings of the AI controller are completed.

When the AI controller is registered for the first time, click [Save Settings] to send the settings data, and click [Functions 1]-[Measurement] to refresh the measurement settings screen.

- (1) Click [Set offset] in the [Setting details] section.
- (2) Select the offset value in the [Offset] pulldown menu, or select the desired value in the [Modified value] pulldown menu.

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%.

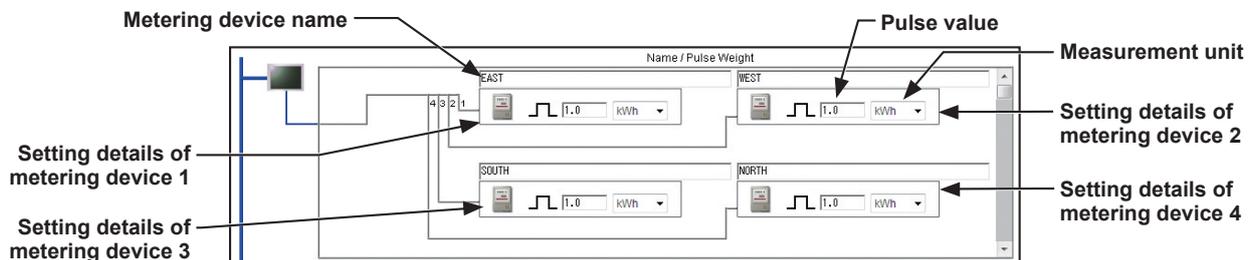


5-3-3. Registering PI controllers and metering devices

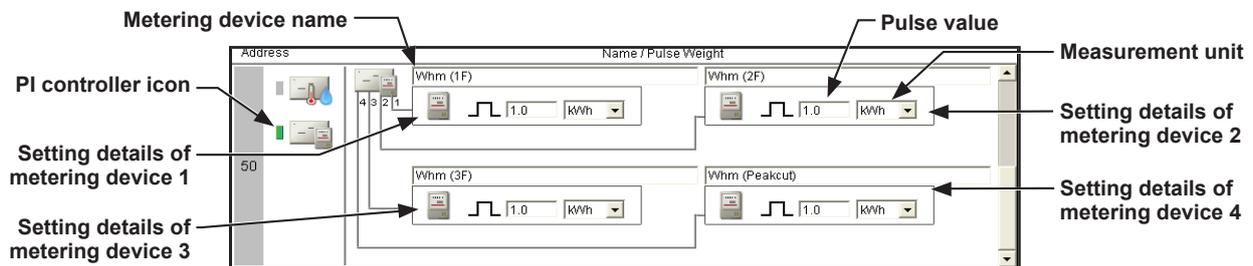
Follow the instructions below to make the system settings of the metering devices. Up to four metering devices can be connected to a PI controller (PAC-YG60MCA) or CN7 of AE-200/AE-50/EW-50.

Note: Although the maximum settable total number of built-in PI controllers and PI controllers (PAC-YG60MCA) for each AE-200/AE-50/EW-50 is 15, the number of them in a system with connection to one or more AE-50/EW-50 controllers must be 20 or less. (Each built-in PI controller counts as one unit.)

<When a built-in PI controller is used>



<When a PI controller (PAC-YG60MCA) is used>



- (1) Using the scroll bar, display the address to which the PI controller (PAC-YG60MCA) will be connected or to display the settings area for a built-in PI controller at the top.
- (2) Select the PI controller icon ().

When a built-in PI controller is used, the top row shows the setting area for the built-in PI controller and there is no need to select an icon.

Note: Click again to deselect.

(3) In the [Metering device name] field, enter the name of the metering device.

(4) Enter the pulse value of the metering device, and select the measurement unit.

Note: The measurement unit can be selected from [kWh], [m3], [MJ], or [--(no unit)].

Note: Select the blank in the measurement unit pulldown menu when not using a metering device.

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.

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 Web Browser for System Maintenance Engineer.)

5-3-4. E-mail alarm function settings

To receive an e-mail alarm when the temperature or the humidity exceeds certain predetermined values, set the e-mail settings by following the instructions below.

(1) In the [Type of E-Mail] field, select [Out-of-limit alarm].

Then, enter the mail subject and the e-mail addresses.

Note: The following characters cannot be used in the [Mail Subject] field: <, >, &, ", or '.



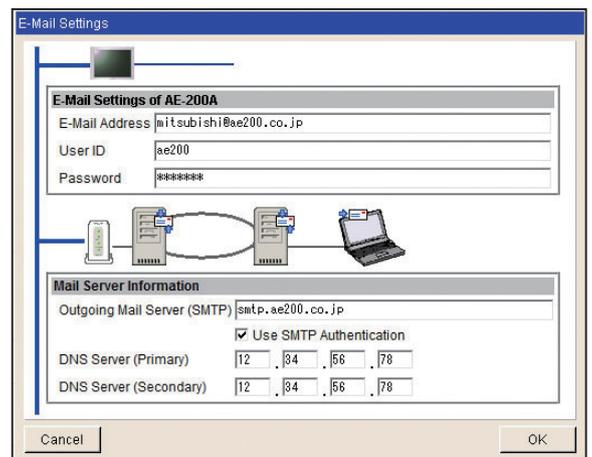
An e-mail alarm will be sent in the format shown below.

From: Mitsubishi Building(000001)
 Date/Time: 13/03/2014 09:38:39
 Address: 50-1
 Current value: 24.9 deg C
 Status: Exceeded lower limit
 Trend Data:
 09:38 25.2 deg C
 09:37 25.4 deg C
 09:36 25.6 deg C
 09:35 25.8 deg C
 09:34 26.1 deg C
 09:33 26.4 deg C
 09:32 26.7 deg C
 09:31 27.0 deg C
 09:30 27.5 deg C
 09:29 27.7 deg C

From	AE-200/AE-50/EW-50 name + Unit ID Note: The AE-200/AE-50/EW-50 unit name and unit ID entered in section 4-2-1 will appear.
Date/Time	yyyy/mm/dd hh:mm:ss Note: The date and time will appear in the format selected in section 4-2-6.
Address	M-NET address of AI controller + sensor No.
Current value	Current temperature or humidity (one decimal place) Note: [**.*] may appear until the value measured by sensor becomes stable.
Status	"Exceeded upper limit," "Recovered from upper limit," "Exceeded lower limit," or "Recovered from lower limit"
Trend Data	Time + Temperature or humidity values (for the last 10 minutes)

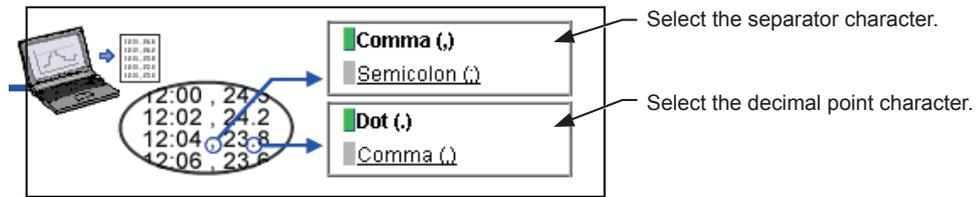
(2) Click [E-Mail Settings] to enter the mail server information.

Note: The setting details are the same as those described in sections 5-1-1 and 5-1-2. Refer to those sections for details.



5-3-5. Energy management data format settings

Set the format of the energy management data that can be output in a CSV format from the screens under the Energy Management menu, accessible via the Web Browser for System Maintenance Engineer.



5-4. Energy Management Settings

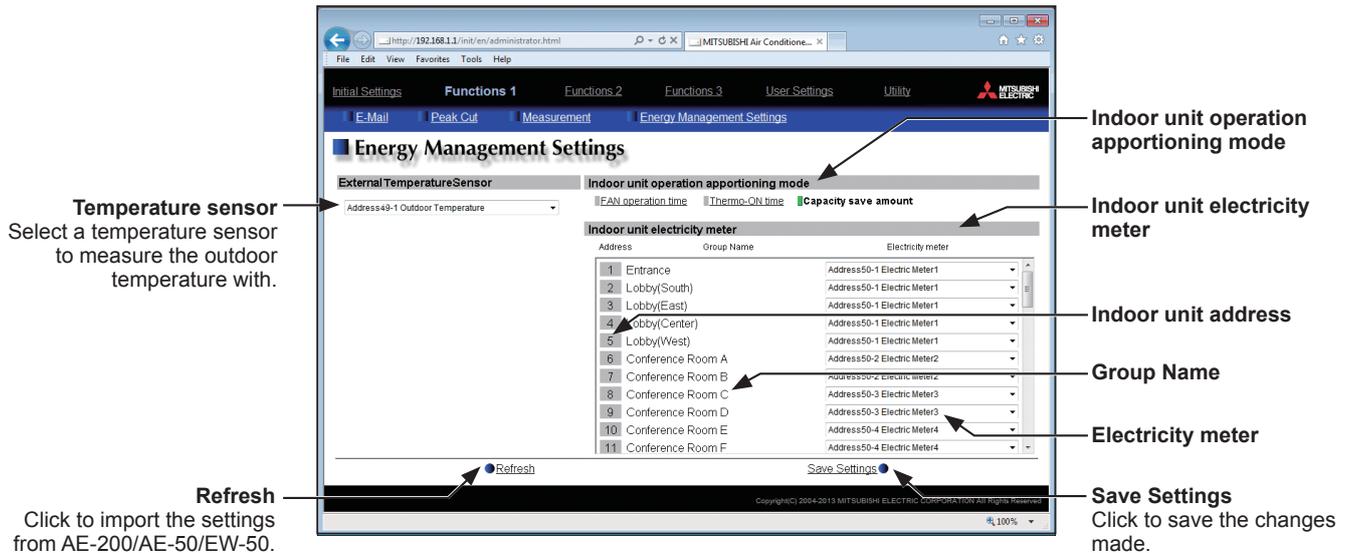
On the Energy Management Settings screen, make the settings for the energy-control-related items that appear on the screens under the Energy Management menu (accessible via the Web browser for System Maintenance Engineer), such as temperature sensor to measure the outdoor temperature with, electricity meters that are used for acquiring the data to display the trend graph of indoor unit electricity consumption, and also the mode that are used for apportioning indoor unit electricity consumption.

Click [Functions 1] in the menu bar, and then click [Energy Management Settings] to access the energy management settings screen.

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

Note: Electricity consumption is apportioned based on the electricity consumed by outdoor units. The electricity consumed by indoor units is not considered.

Important: The energy management 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 [Temperature sensor] section, select a temperature sensor to measure the outdoor temperature with. In the pulldown menu, the name of the temperature sensor that is connected to the AI controller or the AHC will appear.

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

Note: This setting is interlocked with the temperature sensor setting on the External Temperature Interlock settings screen.

- (2) In the [Indoor unit operation apportioning mode] section, select the way indoor units' operation time is counted that is used to apportion the electricity consumption, which appears on the screens under the Energy Management menu, accessible via the Web Browser for System Maintenance Engineer. Select [Fan operation time] to apportion the electricity consumption based on the fan operation time, and select [Thermo-ON time] to apportion the electricity consumption based on the Thermo-ON time of the indoor units.

Select [Capacity save amount] to apportion the electricity consumption based on the indoor unit operation time that was calculated based on the amount of energy saved on the indoor units.

The selected setting must meet the system requirements. Selecting [Capacity save amount] is recommended.

Note: "FAN operation time" is the cumulative duration of time in which the indoor unit is powered on.

Note: "Thermo-ON time" is the cumulative duration of time in which the refrigerant is flowing into the indoor unit.

Note: "Capacity save amount" is the cumulative operation time of the outdoor unit based on its capacity.

Note: Electricity consumption is apportioned based on the electricity consumed by outdoor units. The electricity consumed by indoor units is not considered.

Note: When an AE-200 apportioned electricity billing function is used, this setting is not effective because the billing function settings are used to apportion the electricity consumption.

(3) In the [Indoor unit electricity meter] section, select the electricity meter to be used to measure the electricity consumption of each group of indoor units.

In the pulldown menu, ["Address"+ PI controller address + "-" + Electricity meter number + Electricity meter name] will appear when a PI controller (PAC-YG60MCA) is connected, or ["Meter" + Channel No. + Electricity meter name] will appear when a metering device is directly connected to the controller.

Note: If the electricity meter name is long, only part of it may be displayed.

Note: The electricity meter name will be blank if it has not been registered.

Note: Only the electricity meters whose measurement unit setting is set to [kWh] on the Measurement screen are available for selection.

Note: When an AE-200 apportioned electricity billing function is used, this setting is not effective because the billing function settings are used to apportion the electricity consumption.

(4) Click [Save Settings] to save the settings.

6. Functions 2

6-1. Set Temperature Range Limit

The settable temperature range for the local remote controllers or the Web Browser for User can be limited. By restricting the lower and upper limit of the set temperatures for cooling, heating, and auto modes, energy consumption can be reduced.

Click [Functions 2] in the menu bar, and then click [Set Temperature Range Limit] to access the set temperature range restrictions settings screen.

Note: The set temperature range restrictions settings may not be effective, depending on the unit model of the remote controller and the indoor unit.

Note: A-control (Mr. Slim) units, room air conditioners, and residential air conditioners do not support the set temperature range restrictions settings.

Note: The set temperature range restrictions settings will be effective on the Web Browser for User, but not on the Web Browser for System Maintenance Engineer. The temperature can be set to any temperature within the unit's operable temperature range on the Web Browser for System Maintenance Engineer regardless of the set temperature range restrictions settings.

Note: The set temperature range restrictions settings may not be accessible if logged in as a building manager.

Note: The set temperature limit range for the AUTO mode cannot be set for the groups that support the dual set point function in the AUTO mode. The set temperature ranges for the normal cooling and heating modes will be used for the ones for cooling and heating in the Auto (dual set point) mode.

Group No.	Group Name	Cooling Mode	Heating Mode	Auto Mode	Batch Operations
1	Entrance	24 - 28 °C	- °C	- °C	Copy Paste
2	Lobby(South)	26 - 28 °C	20 - 23 °C	- °C	Copy Paste
3	Lobby(East)	26 - 28 °C	20 - 23 °C	- °C	Copy Paste
4	Lobby(Center)	26 - 28 °C	20 - 23 °C	- °C	Copy Paste
5	Lobby(West)	26 - 28 °C	20 - 23 °C	- °C	Copy Paste
6	Meeting room A	- °C	- °C	19 - 23 °C	Copy Paste
7	Meeting room B	24 - 28 °C	- °C	- °C	Copy Paste

Refresh Click to import the settings from AE-200/AE-50/EW-50.

Set temperature range

Batch Operations Click to make settings for all groups collectively.

Copy

Paste

Save Settings Click to save the changes made.

- Scroll up or down to display the group whose settings are to be made. To make settings for all groups at once, click [Batch Operations].

Then, click the [Set temperature range] area to display the setting screen.

Set the temperature ranges for cooling, heating, and auto modes.

Click [OK] to return to the previous screen.

Note: When the temperature unit is Fahrenheit, temperatures are displayed in 2°F increments.

Note: The temperature range for Dry mode will be the same as the one for cooling mode.

Set Temperature Range Limit

Group Name : Lobby (South)

Cooling Mode: 26 - 28 °C

Heating Mode: 20 - 23 °C

Auto Mode: - °C

Cancel OK

- To copy the settings of a group to the settings for other groups, click [Copy] in the row of the group whose settings are to be copied, then click [Paste] in the row of the group to which the copied settings are to be pasted. The rectangular icons next to the selected buttons will appear in yellow-green.

- Click [Save Settings] to save the settings.

6-2. Night Mode (quiet operation) Schedule

Outdoor units can be operated in a quiet mode for the specified time period. Use the Night mode when low-noise operation of the outdoor unit is preferable during the night.

Click [Functions 2] in the menu bar, and then click [Night Mode Schedule] to access the Night Mode Schedule settings screen.

Note: Make the Night Mode Schedule settings only when all the units are in normal operation. When connection error occurs with the indoor or the outdoor units, the target outdoor units may not be displayed properly.

Note: The degree of noise reduction depends on the outdoor unit model.

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

Start Time

End Time

Target Outdoor Units

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Save Settings
Click to save the changes made.

Night Mode Schedule

Start Time: 22:00 — End Time: 06:00

Target Outdoor Units: 51, 53, 76

Night Mode: The noise level is reduced by controlling the maximum fan frequency to be lower under the following condition.
Cooling mode: ambient temp.(TH6) < 30°C (87°F)
Heating mode: ambient temp.(TH6) > 3°C (37°F)

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(1) In the [Start Time] and [End Time] sections, specify the start and end times for the Night mode.

Note: When the start time and the end time is the same, the units will operate in the Night mode at all times.

Note: The time period over the next day (such as 22: 00 - 6: 00) can be set.

(2) In the [Target Outdoor Units] section, select the M-NET addresses of the target outdoor units.

(3) Click [Save Settings] to save the settings.

6-3. System-changeover

The System-changeover function switches the operation modes of the indoor units connected to the same outdoor unit between cooling and heating based on the room temperature and the set temperature. Click [Functions 2] in the menu bar, and then click [System-changeover] to access the System-changeover settings screen.

The System-changeover function is available only on the Y series of outdoor units, whose operation modes do not include the Auto mode. Use this function to operate the air conditioning units in the heating mode in the morning and in the cooling mode in the afternoon. The operation mode of all indoor units will automatically be switched, eliminating the need to switch the operation mode manually from the remote controllers.

Note: Because the operation mode is selected based on the demands of the representative group or of the majority of the groups, not all areas may be air conditioned to the optimum temperature.

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

Note: If the outdoor unit is an R2 series, whose operation modes include the Auto mode, use the Auto mode instead of the System-changeover function to switch the operation mode automatically.

Target outdoor unit
The M-NET address of the outdoor unit appears.

Change Mode

Groups
The names of the groups that are connected to the outdoor unit appear. When the [Representative Group] mode is selected, select the representative group from among these groups.

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Save Settings
Click to save the changes made.

- (1) Select the Change Mode [None], [Averaging], or [Representative Group], referring to the table below. If [Representative Group] is selected, also select a representative group from among the groups on the right.

Table 6-1 Change Mode

Change Mode	Content
None	System-changeover function will not be used.
Averaging	The operation mode (cooling or heating) will be determined and switched every 15 minutes based on the demands of the majority of all groups connected to the outdoor unit, taking into consideration the capacity of each indoor unit and the temperature differences between the set temperatures and room temperatures.
Representative Group	The operation mode (cooling or heating) will be switched based on the temperature difference between the set temperature and the room temperature of the representative group.

- (2) Click [Save Settings] to save the settings.

7. Functions 3

7-1. 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. Click [Functions 3] in the menu bar, and then click [External Temperature Interlock] to access the External Temperature Interlock settings screen.

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/EW-50 controllers, connect an AI controller (PAC-YG63MCA) and outdoor temperature sensor on each AE-50/EW-50.

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

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

Temperature Sensor
Select a temperature sensor to measure the outdoor temperature with.

Group No. and group name

Group No.	Group Name	Set Temperature Variation Range
1	Entrance	None ±1°C ±2°C ±3°C ±4°C
2	Lobby(South)	None ±1°C ±2°C ±3°C ±4°C
3	Lobby(East)	None ±1°C ±2°C ±3°C ±4°C
4	Lobby(Center)	None ±1°C ±2°C ±3°C ±4°C
5	Lobby(West)	None ±1°C ±2°C ±3°C ±4°C

Set Temperature Variation Range
Select a maximum temperature value to be added to or subtracted from the set temperature.

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Save Settings
Click to save the changes made.

- (1) In the [Temperature Sensor] section, select a temperature sensor to measure the outdoor temperature with. In the pulldown menu, the name of the temperature sensor that is connected to the AI controller or the AHC will appear.

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

- (2) In the [Set Temperature Variation Range] section, select a maximum temperature value for each group to be added to or subtracted from the set temperature.

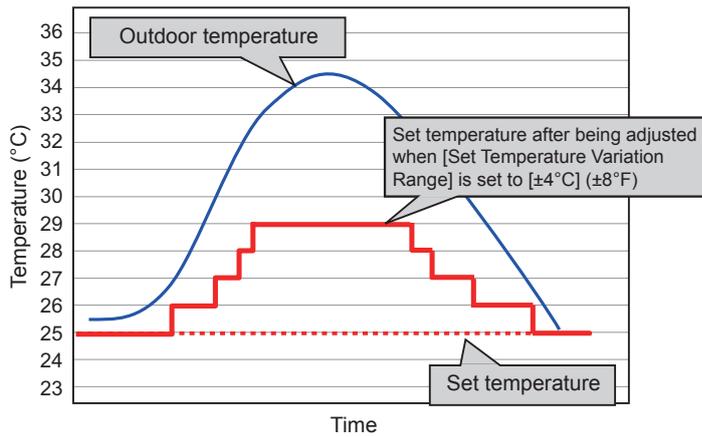
For example, when [±4°C] (±8°F) is selected and the set temperature for the Cool or the Dry mode is set to 24°C (75°F), the set temperature will be adjusted to a maximum of 28°C (83°F) based on the temperature difference between the set temperature and the outdoor temperature. When [±2°C] (±4°F) is selected, 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 2°C is used for the calculation first, and then the temperature in Celsius is converted into the temperature in Fahrenheit.

- (3) Click [Save Settings] to save the settings.

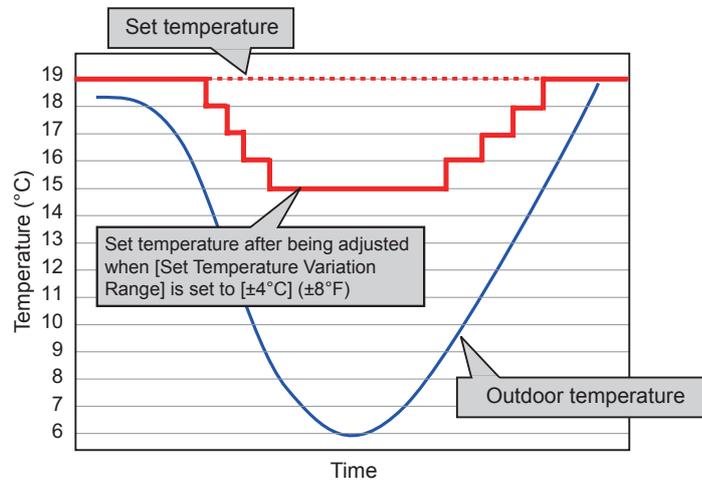
When the External Temperature Interlock function is active, the set temperature will be adjusted as shown below.

■ “Cool” and “Dry” modes



Outdoor temperature conditions	Set temperature after being adjusted
Outdoor temperature \geq Set temperature + 1.5°C (3°F)	Set temperature + 1°C (2°F)
Outdoor temperature \geq Set temperature + 4.5°C (9°F)	Set temperature + 2°C (4°F)
Outdoor temperature \geq Set temperature + 6.5°C (12°F)	Set temperature + 3°C (6°F)
Outdoor temperature \geq 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 \leq Set temperature - 4.0°C (8°F)	Set temperature - 1°C (2°F)
Outdoor temperature \leq Set temperature - 6.0°C (11°F)	Set temperature - 2°C (4°F)
Outdoor temperature \leq Set temperature - 8.0°C (15°F)	Set temperature - 3°C (6°F)
Outdoor temperature \leq Set temperature - 10.0°C (18°F)	Set temperature - 4°C (8°F)

7-2. 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. Click [Functions 3] in the menu bar, and then click [Night Setback Control] to access the Night Setback Control settings screen.

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 Night Setback Control may not be accessible if logged in as a building manager.

Setback Control Usability → [Use] / [Do not use]

Setback Control Period → [01:00] - [05:00]

Temperature range → [Minimum Temp] - [Maximum Temp]

Group No. and group name → [Group No.] [Group Name]

Copy → [Copy]

Paste → [Paste]

Refresh → [Refresh]

Save Settings → [Save Settings]

Click to import the settings from AE-200/AE-50/EW-50.

Click to save the changes made.

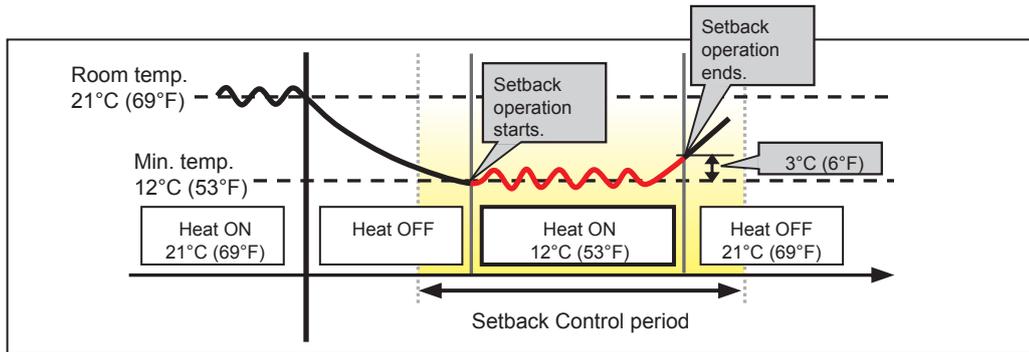
Group No.	Group Name	Minimum Temp	Maximum Temp	Copy	Paste
1	Entrance	12°C	28°C	[Copy]	[Paste]
2	Lobby(South)	12°C	28°C	[Copy]	[Paste]
3	Lobby(East)	12°C	28°C	[Copy]	[Paste]
4	Lobby(Center)	12°C	28°C	[Copy]	[Paste]
5	Lobby(West)	12°C	28°C	[Copy]	[Paste]

- (1) Select [Use] and set the time period in which Setback Control is performed.

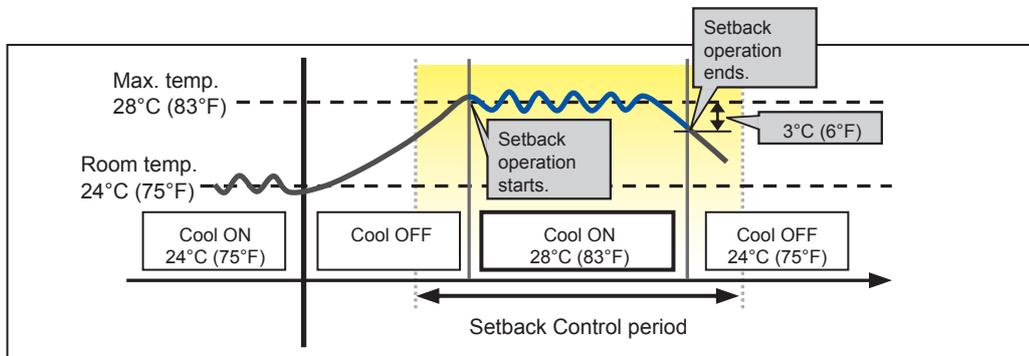
Note: When [00:00 - 00:00] is selected, Setback Control is active for 24 hours.

- (2) In the [Temperature range] section, set the maximum and minimum temperatures for each group. For example, if [Setback Control Period] is set to [01:00 - 05:00] and [Temperature range] is set to [12°C - 28°C] ([53°F - 82°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) To copy the settings of a group to the settings for other groups, click [Copy] in the row of the group whose settings are to be copied, then click [Paste] in the row of the group to which the copied settings are to be pasted. The rectangular icons next to the selected buttons will appear in yellow-green.
- (4) Click [Save Settings] to save the settings.

7-3. Interlock control

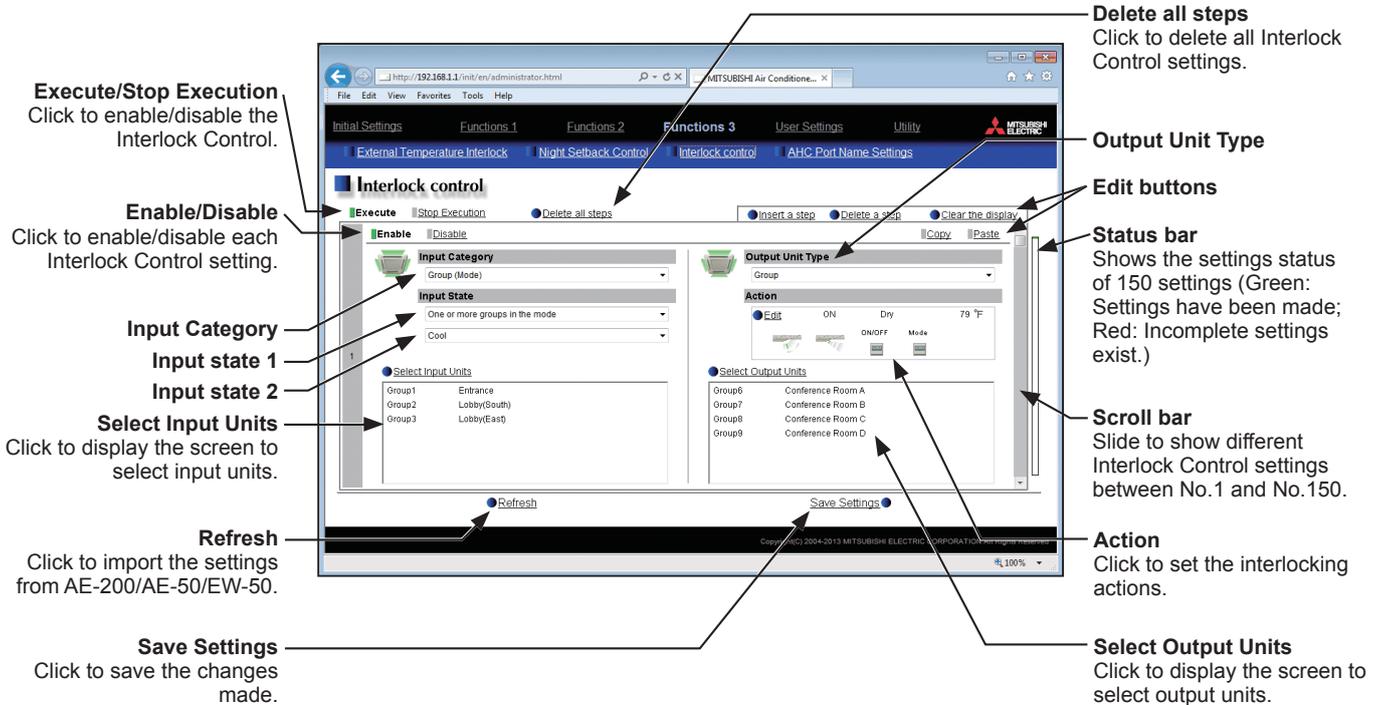
Click [Functions 3] in the menu bar, and then click [Interlock control] to access the Interlock Control settings screen. Set the interlocking conditions and actions, and then click [Save Settings] to save the settings.

Note: A separate license is required to use the Interlock Control function. Make sure that the required license has properly been registered on the Registration of Optional Functions screen. (Refer to chapter 10 for details.)

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

Note: Interlock Control is not effective when [External Input Setting] is set to [ON/OFF (Level signal)]. (See section 4-2-3).

Note: If a group is deleted on the group settings screen, be sure to delete the Interlock Control settings in which the group is selected as the input units or the output units.



Up to 150 Interlock Control settings from No.1 through No.150 can be set for each AE-200/AE-50/EW-50. (Up to 600 Interlock Control settings can be made when one AE-200 and three or four AE-50/EW-50 controllers are connected.) The Interlock Control verifies the state changes in an ascending order of No.1 to No.150 every three to five seconds. When the interlocking conditions are met, the interlocking action commands will be issued to the output units.

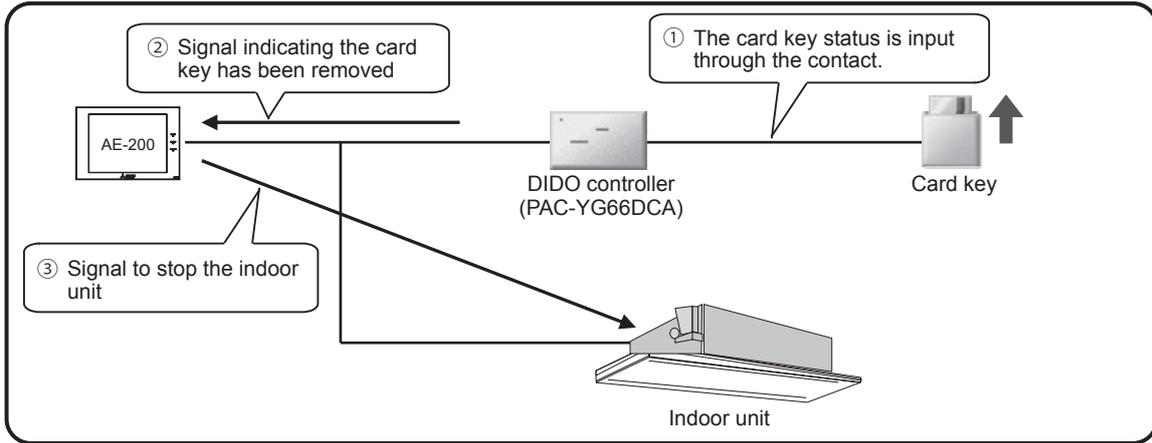
By making the interlocking condition settings (input category, input states, and input units) and interlocking action settings (output unit type, actions, and output units) for each Interlock Control setting, the operation of the output units can be interlocked with the operation of the input units.

Caution:
 Before using the Interlock Control function, you must agree to the following.

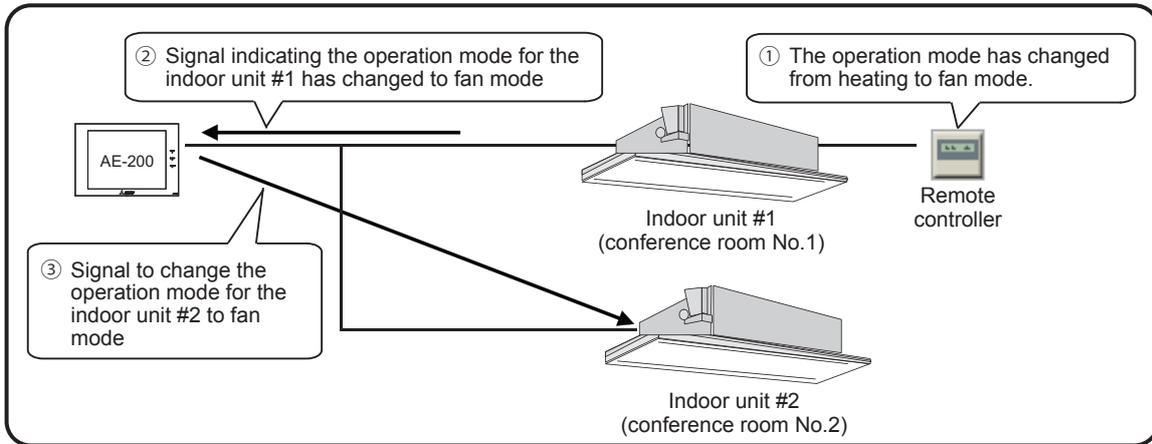
1. This function must not be used for disaster prevention or security purposes unless a backup device is provided in case of failure of this function. (This function should never be used in the way that would put people's lives at risk.)
2. The interlocking action settings that are not supported by the interlocked output units must not be made on the [Set up Actions] screen. Failure to observe this precaution may result in malfunctions.
3. After completing each Interlock Control setting, perform a test run and confirm proper settings and operation.
4. Do not set the Interlock Control settings as the following examples show. Doing so will cause short-cycling, resulting in unit damage.
 - Example 1: Group 1 is turned off when Group 1 is turned on.
 - Example 2: Group 1 is turned on when Group 1 is turned off.

Shown below are eight examples of Interlocked operations.

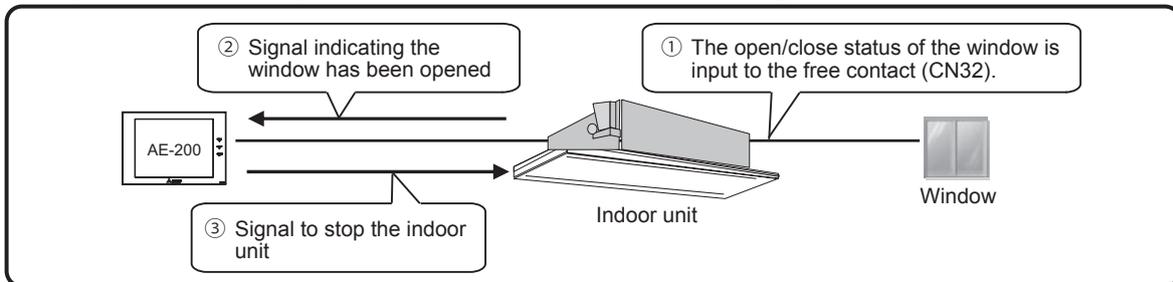
Example 1: Interlocked operation of indoor unit and card key via a DIDO controller



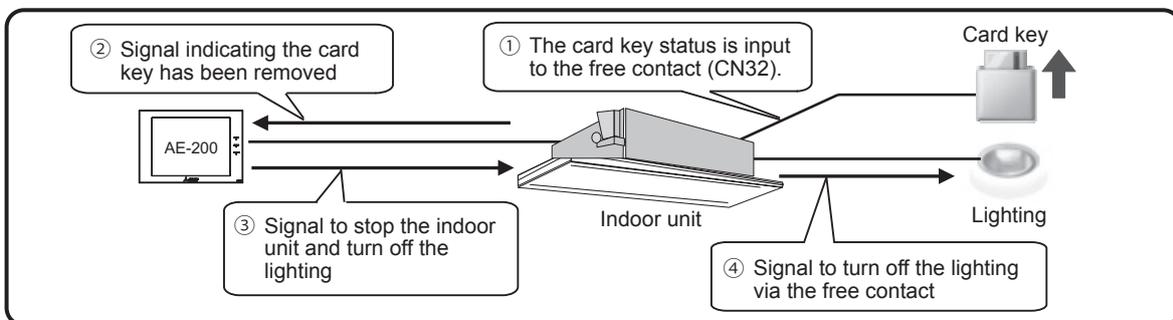
Example 2: Interlocked operation of operation mode between indoor units



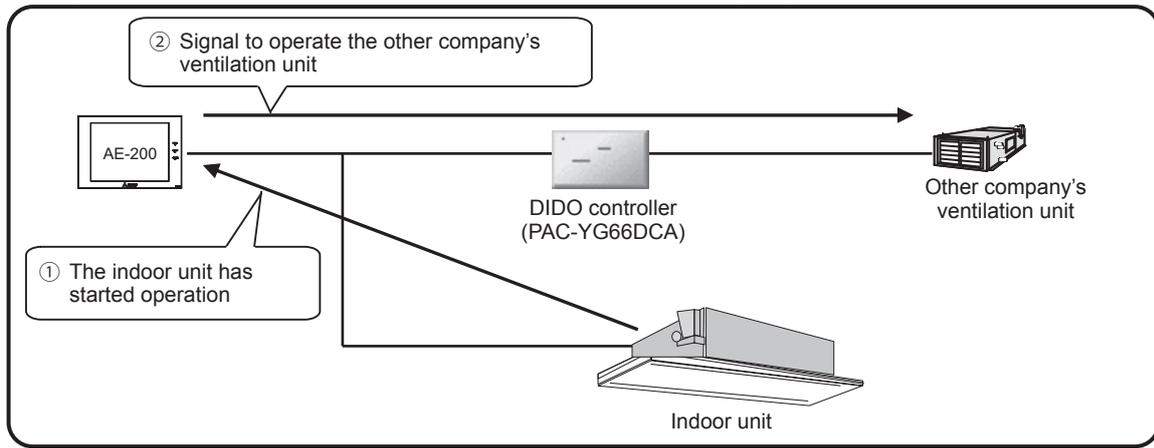
Example 3: Interlocked operation of indoor unit and window through the free contact on an indoor unit



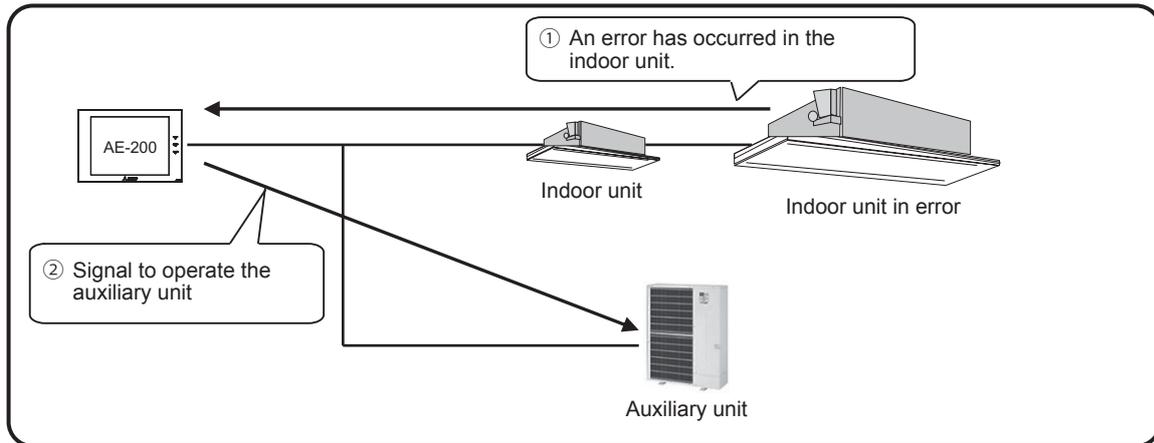
Example 4: Interlocked operation of indoor unit, lighting, and card key through the free contact on an indoor unit



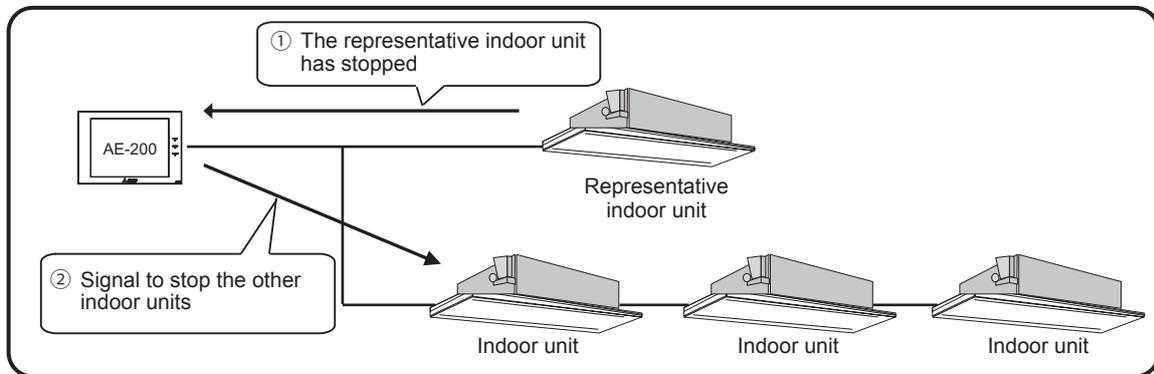
Example 5: Interlocked operation of indoor unit and other company's ventilation unit via a DIDO controller



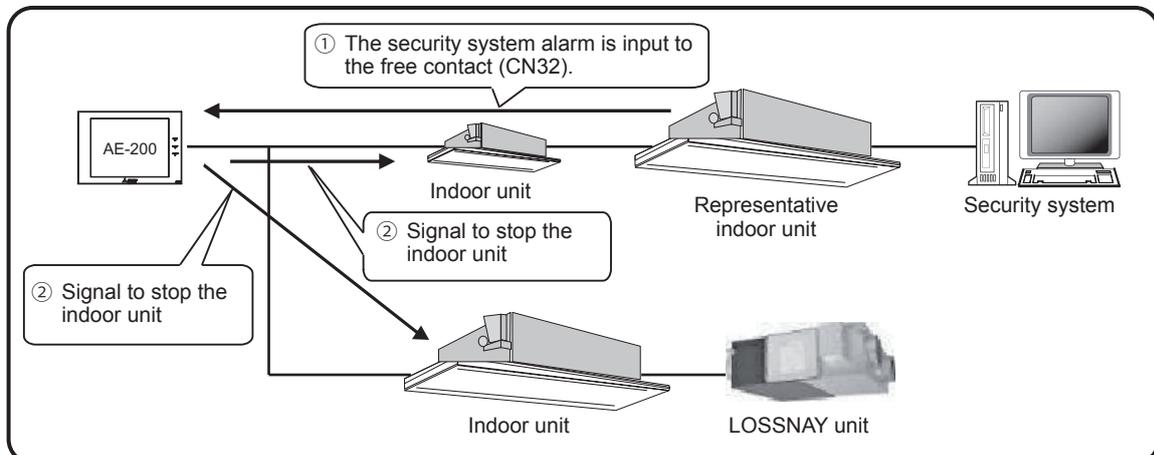
Example 6: Interlocked operation of the indoor unit in error and the auxiliary unit



Example 7: Interlocked operation of the indoor units



Example 8: Interlocked operation of the security system and the connected units



7-3-1. Making the interlocking condition settings

(1) Setting an Input Category and Input States

Select an Input Category and Input States 1 and 2, referring to the table below.

Table 7-1 Interlocking condition settings

Input Category	Input unit icon	Input State 1	Input State 2
Group (On/Off)		All Groups On All Groups Off One or more Groups On One or more Groups Off	—
Group (Mode)		All groups in the mode All groups out of the mode One or more groups in the mode One or more groups out of the mode	Air conditioning unit group: *1 *2 *3 Cool, Dry, Fan, Heat, Auto, Setback LOSSNAY unit group: Bypass, Heat Recovery, Auto
Group (Error/Normal)		All units in error All units in normal operation One or more units in error One or more units in normal operation	—
Free Input Points (On/Off)		All Units On All Units Off One or more Units On One or more Units Off	—

*1 The operation modes for Air To Water (PWFY) unit groups, HWHP (CAHV, CRHV) unit groups, or general equipment groups are not available for selection.

*2 If the selected operation mode is not available on the input unit, interlocking conditions will not be fulfilled.

*3 The Setback mode can be selected on the AE-200A/AE-50A/EW-50A, but not on the AE-200E/AE-50E/EW-50E.

Note: If the Input Category is set to [Group (On/Off)] and the Input State 1 is set to [All Groups On], the interlocking action commands will be issued to the output units when the state on the input units changes to [All Groups On] from another state [All Groups Off], [One or more Groups On], or [One or more Groups Off].

Note: Free contact is available for use on R410A- and R407C-compatible indoor units with software Ver. 33 or later. The software version can be confirmed with the Maintenance Tool.

Note: When [External Input Setting] is set to [Emergency Stop (Level signal)] (see section 4-2-3) or when the indoor unit is stopped due to the Peak Cut control (see section 5-2), only the Interlock Control of free contact and DIDO controller (PAC-YG66DCA) will be performed, but other Interlock Control will not be.

(2) Selecting the input units

Click [Select Input Units] to display one of the following screens, depending on the selected Input Category.

(A) When [Group (On/Off)], [Group (Mode)], or [Group (Error/Normal)] is selected as the Input Category

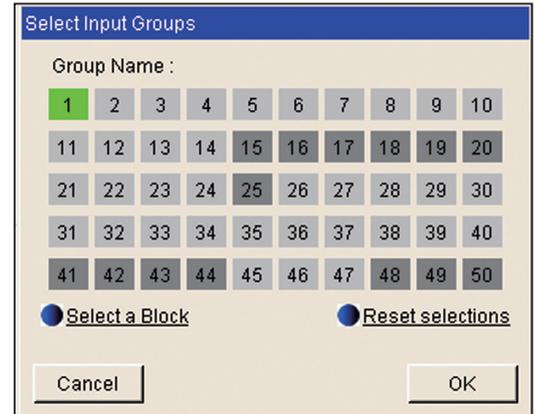
The [Select Input Groups] screen will appear.

Select the group numbers of the input unit groups. The selected group numbers will appear with a yellow-green background.

Click again to deselect. The deselected group numbers will appear with a light-gray background.

To deselect all selected groups, click [Reset selections].

To select a block of groups, click [Select a Block]. Select a block name and press [OK]. The groups that are registered to the block will appear with a yellow-green background.



Note: If the Input Category is set to [Group (On/Off)] or [Group (Error/Normal)], air conditioning unit groups, LOSSNAY unit groups, Air To Water (PWFY) unit groups, HWHP (CAHV, CRHV) unit groups, and general equipment (connected via DIDO controller PAC-YG66DCA) groups can be selected.

If the input category is set to [Group (Mode)], air conditioning unit groups and LOSSNAY unit groups can be selected.

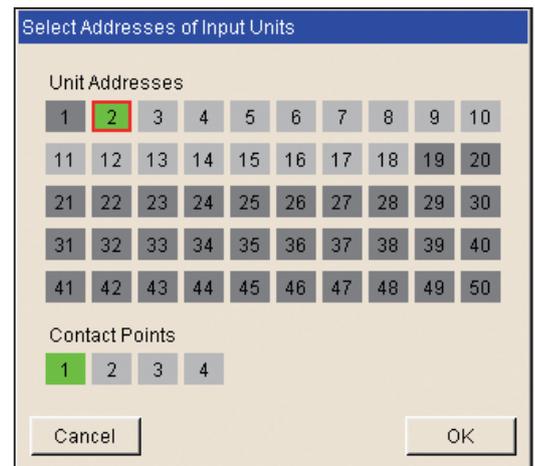
Note: Different types of groups (air conditioning unit groups, LOSSNAY unit groups, or general equipment (connected via DIDO controller PAC-YG66DCA) groups) cannot be simultaneously selected.

(B) When [Free Input Points (On/Off)] is selected as the Input Category

The [Select Addresses of Input Units] screen will appear.

Select the addresses of the indoor units to which the general equipment is connected, and select contact points for each indoor unit.

The selected unit address will appear with a red frame. The unit addresses whose contact points have been set will appear with a yellow-green background.



7-3-2. Making the interlocking action settings

(1) Setting an Output Unit Type and Actions

Select an Output Unit Type and set the Actions, referring to the table below.

Table 7-2 Interlocking action settings

Output Unit Type	Output unit icon	Actions	
		Setting item*2	Setting options
Group		ON/OFF	ON, OFF
		Mode *1	Air conditioning unit group: Cool, Dry, Fan, Heat, Auto, Setback*3 LOSSNAY unit group: Bypass, Heat Recovery, Auto
		Set Temp. *1	Desired temperature
		Air direction *1	Mid3, Mid2, Mid1, Mid0, Horizontal, Swing, Auto
		Fan speed *1	Low, Mid2, Mid1, High, Auto
		Prohibit Remote Controller Operation (ON/OFF)	Permit, Prohibit
		Prohibit Remote Controller Operation (Mode)	Permit, Prohibit
Prohibit Remote Controller Operation (Set Temp.)	Permit, Prohibit		
Free Output Points		ON/OFF	ON, OFF

*1 The available setting options vary, depending on the connected indoor unit model.
Make the interlocking action settings that are available for the output units.

*2 Only the items "ON/OFF" and "Prohibit Remote Controller Operation (ON/OFF and Set Temp.)" can be selected for Air To Water (PWFY) units. Only the item "ON/OFF" can be selected for HWHP (CAHV, CRHV) units.

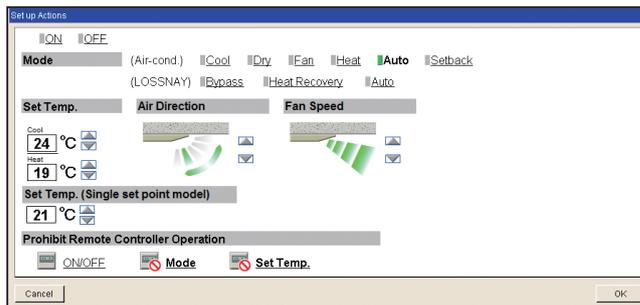
*3 The Setback mode can be selected on the AE-200A/AE-50A/EW-50A, but not on the AE-200E/AE-50E/EW-50E.

The screen display under Action will vary, depending on the selected Output Unit Type.

(A) When [Group] is selected as the Output Unit Type

Click [Edit] under Action. The [Set up Actions] screen will appear.

Set the interlocking actions to be taken when the interlocking conditions are met.



Note: The current operation status will be maintained for the setting items that were not changed.

Note: The set temperature cannot be set unless the operation mode has been set.

Note: If the selected operation mode is not available on the interlocked output units, the Interlock Control will not be performed.

Note: To prevent malfunctions of the air conditioning units, be sure to set the set temperature to a temperature within the normal operating temperature range, although there may be rare cases in which it is possible to set the set temperature to a temperature outside the normal operating temperature range (depending on the model of the air conditioning units that are connected to a system).

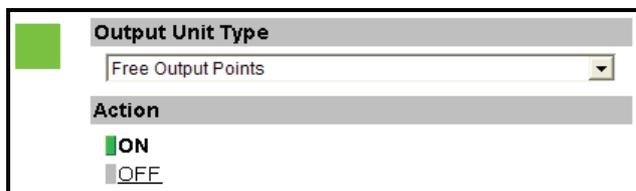
Note: Signals for Swing and Auto of Air direction setting and Auto of Fan speed setting will not be output unless these functions are available on the interlocked output units.

With respect to the air direction and fan speed, if the number of settable air directions and fan speeds vary among the connected unit models, the signals that are rounded up to the settable range may be output.

Note: When the interlocking conditions are met, it will take some time to issue the interlocking action commands to the output units. This may delay the state change verification, which is usually performed every three to five seconds.

(B) When [Free Output Points] is selected as the Output Unit Type

Select [ON] or [OFF] under Action to turn on or off the output units.



(2) Selecting the output units

Click [Select Output Units] to display one of the following screens, depending on the selected Output Unit Type.

(A) When [Group] is selected as the Output Unit Type

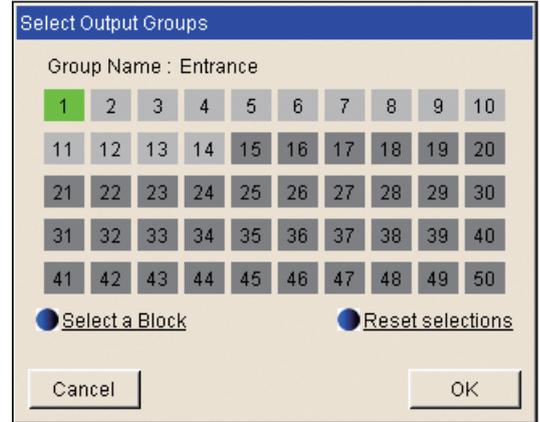
The [Select Output Groups] screen will appear.

Select the group numbers of the output unit groups. The selected group numbers will appear with a yellow-green background.

Click again to deselect. The deselected group numbers will appear with a light-gray background.

To deselect all selected groups, click [Reset selections].

To select a block of groups, click [Select a Block]. Select a block name and press [OK]. The groups that are registered to the block will appear with a yellow-green background.



Note: If the Output Unit Type is set to [Group], air conditioning unit groups, LOSSNAY unit groups, Air To Water (PWFY) unit groups, HWHP (CAHV, CRHV) unit groups, and general equipment (connected via DIDO controller PAC-YG66DCA) groups are available for selection.

Note: Different types of groups (air conditioning unit groups, LOSSNAY unit groups, Air To Water (PWFY) unit groups, HWHP (CAHV, CRHV) unit groups, or general equipment (connected via DIDO controller PAC-YG66DCA) groups) cannot be simultaneously selected.

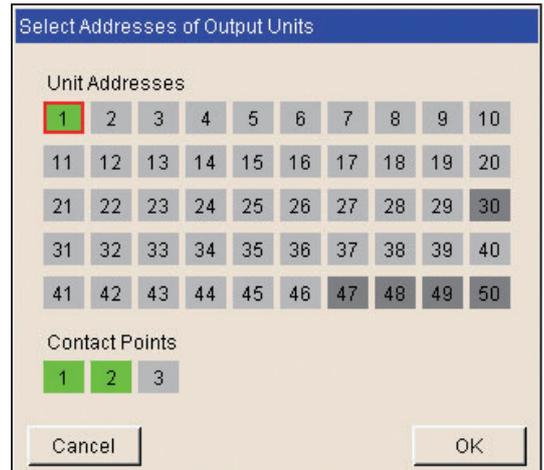
(B) When [Free Output Points] is selected as the Output Unit Type

The [Select Addresses of Output Units] screen will appear.

Select the addresses of the indoor units to which the general equipment is connected, and select contact points for each indoor unit.

The selected unit address will appear with a red frame.

The unit addresses whose contact points have been set will appear with a yellow-green background.



7-3-3. Disabling/Enabling Interlock Control settings

Use the Enable/Disable button to enable or disable each Interlock Control setting.

No actions will be taken for the Interlock Control setting that is set to [Disable].

7-3-4. Temporarily disabling the Interlock Control

Click the [Stop Execution] button to temporarily disable the Interlock Control. Click [Execute] to resume the Interlock Control.

Note: State change that occurs while [Stop Execution] is selected will be ignored.

7-3-5. Editing Interlock Control settings

Use the Edit buttons to edit each row of Interlock Control setting.

Button name	Function
Delete all steps	Deletes all Interlock Control settings.
Insert a step	Inserts a blank row of Interlock Control setting above the row that is displayed, and moves all rows down by one. If interlocking conditions are entered in the last row, no more rows can be inserted.
Delete a step	Deletes the row of Interlock Control setting that is displayed, and moves up the rows below by one.
Clear the display	Clears the row of Interlock Control setting that is displayed.
Copy	To copy the settings of a row to the settings for other rows, display the row whose settings are to be copied and click [Copy], then display the row to which the copied settings are to be pasted and click [Paste].
Paste	

7-4. AHC Port Name Settings

On the AHC Port Name Settings screen, enter the names of the input and output ports of the Advanced HVAC CONTROLLER (AHC).

The names that are entered on this screen will appear on the AHC List screen, accessible via the Web Browser for System Maintenance Engineer.

Click [Functions 3] in the menu bar, and then click [AHC Port Name Settings] to access the AHC Port Name Settings screen.

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

Important: The AHC port name 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.

The screenshot shows the 'AHC Port Name Settings' web page. It features a table with two main sections: 'Input Name' and 'Output Name'. Each section has columns for port type and name. The 'Input Name' section includes Digital Input (DI) 1-15, Extended Input (EI) 1-4, and Analog Input (AI) 1-8. The 'Output Name' section includes Digital Output (DO) 1-9, Extended Output (EO) 1-4, and Analog Output (AO) 1-2. Annotations on the left side point to the 'Unit address' (201), 'Digital Input (1-15)', 'Input Port Name', and 'Refresh' button. Annotations on the right side point to 'Extended Input (1-4)', 'Output Port Name', 'Digital Output (1-9)', 'Extended Output (1-4)', 'Analog Output (1-2)', 'Analog Input (1-8)', and 'Save Settings' button. A note at the bottom left states: 'Click to import the settings from AE-200/AE-50/EW-50.'

(1) In the [Input Port Name] field, enter the input port name in 20 characters or less.

Note: Digital Input (DI) 1–15, Extended Input (EI) 1–4, and Analog Input (AI) 1–8 will appear regardless of whether the ports are used or not.

Note: The following characters cannot be used in the [Input Port Name] field: <, >, +, &, ", or '.

(2) In the [Output Port Name] field, enter the output port name in 20 characters or less.

Note: Digital Output (DO) 1–9, Extended Output (EO) 1–4, and Analog Output (AO) 1–2 will appear regardless of whether the ports are used or not.

Note: The following characters cannot be used in the [Output Port Name] field: <, >, +, &, ", or '.

(3) Click [Save Settings] to save the settings.

8. User Settings

On the User Settings screen, the user names and passwords of maintenance users and 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.

Also, maintenance users can use this screen to change the user name and password of building managers in case that they are forgotten.

Click [User Settings] in the menu bar to access the User Settings screen.

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

Building manager's user name and password
User name and password can be changed.

Available functions
Select the available functions for building managers.

Refresh
Click to import the settings from AE-200/AE-50/EW-50.

Save Settings
Click to save the changes made.

- (1) To change the maintenance user name or password, type new information in the [User Name], [New Password], and [Retype Password] fields.

Note: If the user logs in as a building manager, the maintenance user name and the password will not be displayed, and cannot be changed.

Note: 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) To change the building manager's user name or password, type new information in the [User Name], [New Password], and [Retype Password] fields.

- (3) Click the functions to be made available for building managers. The rectangular icons next to the selected functions will appear in yellow-green. Click again to deselect. The rectangular icons next to the deselected functions will appear in gray. For more information on each function, refer to Table 8-1.

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 AE-200/AE-50's LCD.

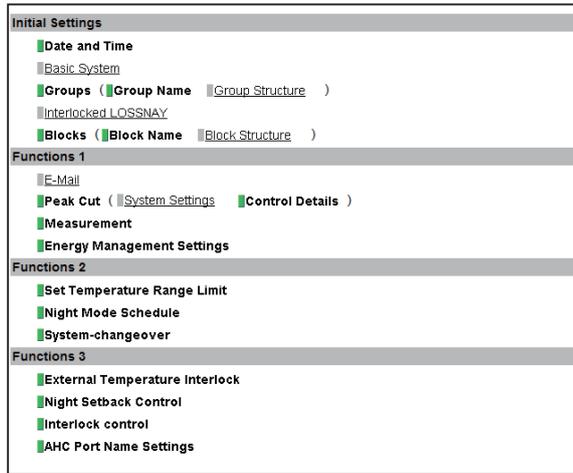


Table 8-1 Available Function List

Function		Content	
Initial Settings	Date and Time	Refer to section 4-1 for details.	
	Basic System *1	Refer to section 4-2 for details.	
	Groups	Group Name	Refer to section 4-3 for details.
		Group Structure	
	Interlocked LOSSNAY *1	Refer to section 4-4 for details.	
Blocks	Block Name	Refer to section 4-5 for details.	
	Block Structure *1		
Functions 1	E-Mail *1	Refer to section 5-1 for details.	
	Peak Cut	System Settings	Refer to section 5-2 for details.
		Control Details	
	Measurement	Refer to section 5-3 for details.	
Energy Management Settings	Refer to section 5-4 for details.		
Functions 2	Set Temperature Range Limit	Refer to section 6-1 for details.	
	Night Mode Schedule	Refer to section 6-2 for details.	
	System-changeover	Refer to section 6-3 for details.	
Functions 3	External Temperature Interlock	Refer to section 7-1 for details.	
	Night Setback Control	Refer to section 7-2 for details.	
	Interlock control	Refer to section 7-3 for details.	
	AHC Port Name Settings	Refer to section 7-4 for details.	

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

- (4) Click [Save Settings] to save the settings.

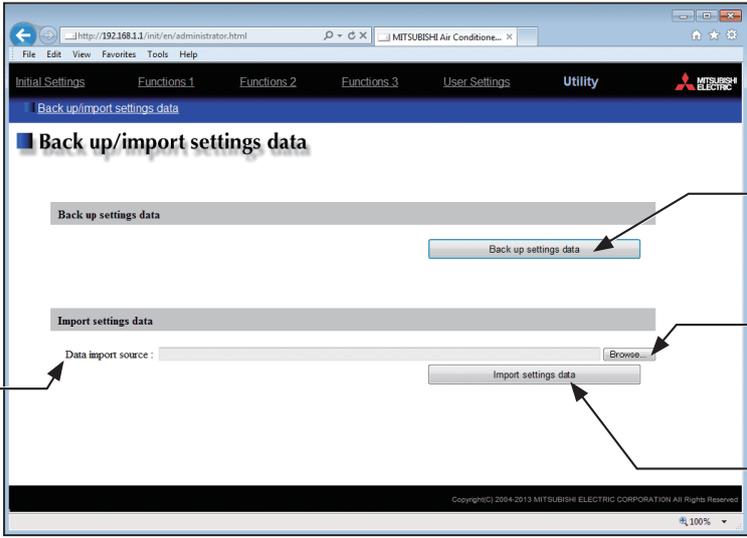
9. Utility

9-1. Back up/import settings data

The following data can be exported to an HDD or a USB memory as a backup: the settings data that have been made from the Web Browser for Initial Settings, the schedule settings that have been made from the Web Browser for System Maintenance Engineer, and the target value settings of the energy management data. The exported data can be imported back to the AE-200/AE-50/EW-50 to restore the previous settings after AE-200/AE-50/EW-50 replacement.

Click [Utility] in the menu bar, and then click [Back up/import settings data] to access the Back up/import settings data screen.

Note: Back up/import settings data function is accessible only if logged in as a maintenance user.



Back up settings data
Click to back up the AE-200/AE-50/EW-50 settings data.

Browse...
Click to browse for a file that contains the data to be imported.

Import settings data
Click to import the file specified in the "Data import source" field to the AE-200/AE-50/EW-50.

Data import source
The path to the file to be imported will appear.

9-1-1. Backing up settings data

(1) To back up the data, click [Back up settings data]. The settings data will be created and the Window's standard file download dialog will appear.

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

Note: The name of the settings data will be "SettingData.dat".

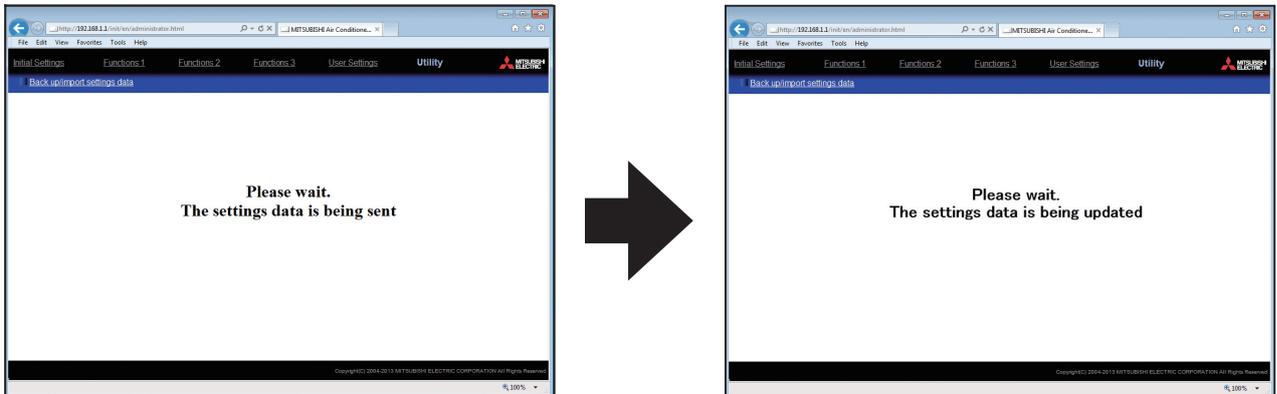


Creating settings data.
Please wait

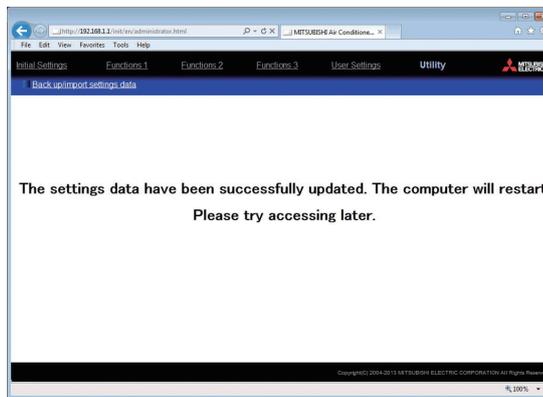
Settings data have been created.
Downloading data.
[Back]

9-1-2. Importing settings data

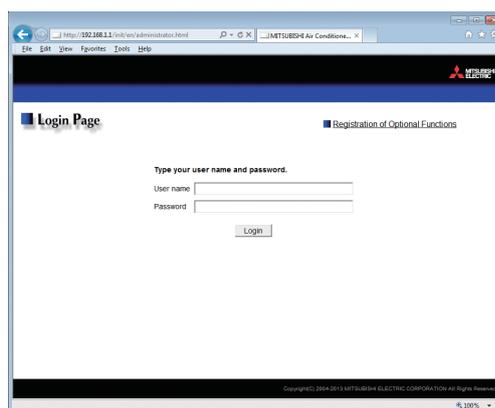
- (1) Click the [Browse...] button to launch the explorer and browse for a file that contains the data to be imported. Select the desired file, and click [Open]. The path to the file to be imported on an external storage media will appear in the [Data import source] field.
- (2) Click [Import settings data] to import the data from the external storage media to the AE-200/AE-50/EW-50.
Note: It will take a few minutes to import the settings data.



- (3) When the settings data has been successfully imported, the AE-200/AE-50/EW-50 will restart.



- (4) Go back to the login screen and login again.



10. License registration for optional functions

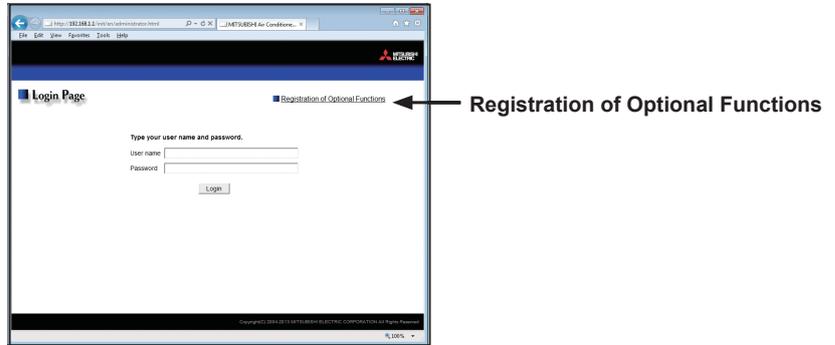
This chapter explains how to register a license for optional functions.

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

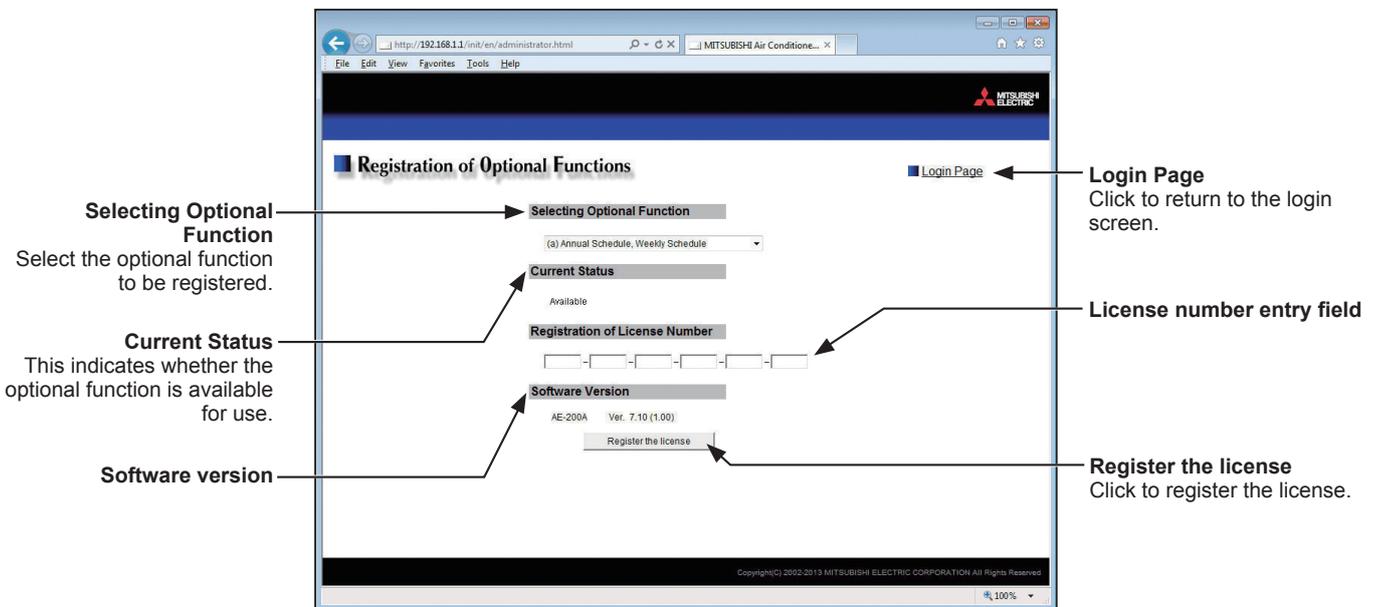
Note: The current date and time settings are required for license registration. Refer to section 4-1 for date and time settings.

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

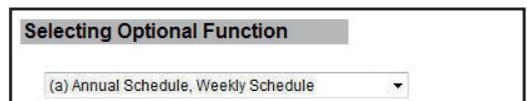
- (1) On the login screen, click [Registration of Optional Functions].



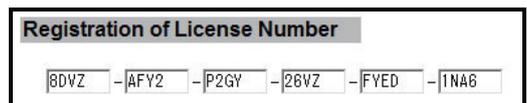
The [Registration of Optional Functions] screen will appear.



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



- (3) In the [License number entry] field, enter the license number and click [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.

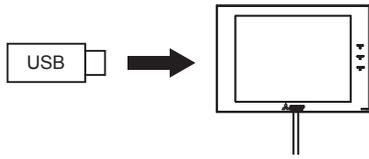


Note: Alphabet "O" and "I" are not used for license number.

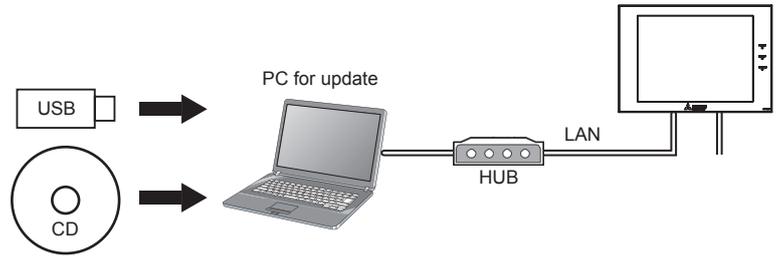
11. Software update

The AE-200/AE-50/EW-50 software can be updated by either directly reading the update file in a USB memory device or by using a Web browser.

① Directly reading the update file in a USB memory device



② Using a Web browser



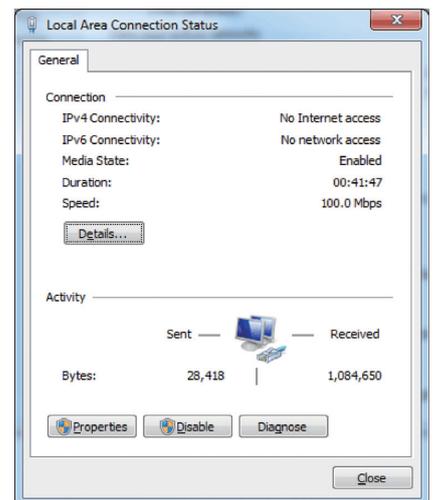
This manual explains how to update the software using a Web browser (②). For how to update the software by directly reading the update file in a USB memory device (①), refer to the AE-200 Instruction Book or Installation Manual.

11-1. Preparation

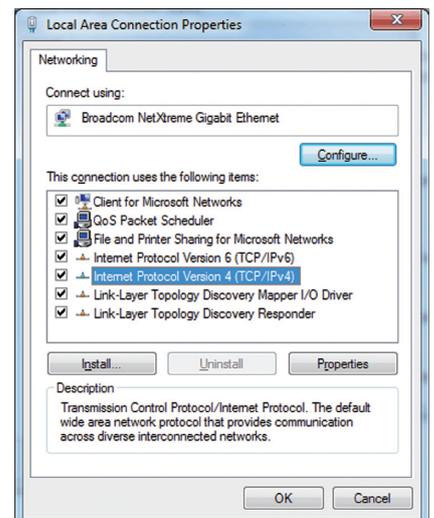
Follow the instructions below to change the IP address of the PC that is used for software update.

Note: When the system is connected to the existing LAN, ask the system administrator for permission before changing the IP address settings and updating the software.

- (1) Click [Control Panel] in the Start menu, and click [Network and Sharing Center]>[Local Area Setting].
In the [Local Area Connection Status] window, click [Properties].



- (2) Click [Internet Protocol Version 4 (TCP/IPv4)] to select it, and click [Properties].



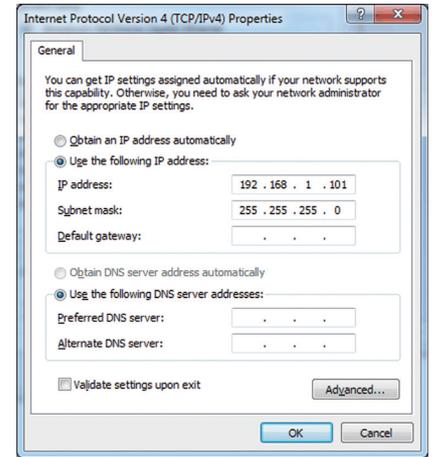
- (3) In the [Internet Protocol Version 4 (TCP/IPv4) Properties] window, check the radio button next to [Use the following IP address]. Enter [192.168.1.*] in the [IP address] field. (The number indicated with an asterisk must be different from the IP address of the AE-200/AE-50/EW-50 to be updated.)

Leave [255.255.255.0] in the [Subnet mask] field as it is.

Note: If the IP address of the AE-200/AE-50/EW-50 is [192.168.1.1], set the same 1st, 2nd, and 3rd numbers and different 4th number, such as [192.168.1.2].

Note: Default IP address of AE-200, AE-50, and EW-50 is [192.168.1.1].

Note: When performing an update on a PC that is already connected to the existing LAN, [255.255.255.0] may not appear in the [Subnet mask] field. When [255.255.0.0] appears, enter the same 1st and 2nd numbers (192.168) and different 3rd or 4th number of the IP address of the AE-200/AE-50/EW-50 in the [IP address] field.



Caution:

Obtain an approval from the client for the following precautions as necessary.

1. The communication between AE-200/AE-50/EW-50 and the air conditioning units will stop while the software is being updated. Although the unit in operation may detect a communication error and an error sign may appear on the local remote controllers, the unit will continue its operation and be operable from the local remote controllers.
* Note that Mr. Slim indoor units or systems with no local remote controllers may detect a communication error and come to an abnormal stop.
2. Record the operation status of the air conditioning units immediately before updating the software. After the software update completes, check the operation status of the units, and manually operate the units as necessary.
3. Some operations and functions, such as scheduled operations, billing function, Peak Cut control, energy management function, will be disabled while the software is being updated. Check the setting details of these functions beforehand, and update the software when it does not affect these functions.
4. If the functions in the table below are used on the TG-2000A, avoid updating the software during the time period indicated in the right column.

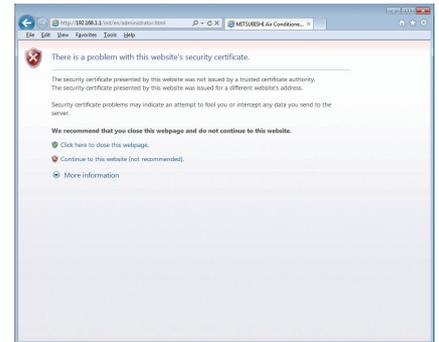
TG-2000A function in use	Time period in which the update is prohibited
Electricity charge apportioning function	AM 4:05 – 4:35
Malfunction log backup	AM 0:05 – 0:15
Peak Cut data backup	AM 2:00 – 2:10
Measurement trend data backup	AM 1:05 – 1:15

5. CSV output data (e.g., energy management data) will lose up to 60-minute worth of data.
6. When a built-in PI controller is used, pulse signals cannot be input while the software is being updated.

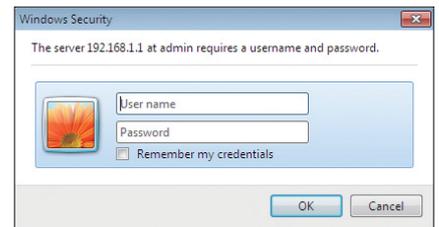
11-2. Update procedures

- (1) Make sure that the PC that has been set in section 11-1 above and the AE-200/AE-50/EW-50 to be updated are connected with a LAN cable.
- (2) Turn on the power to the AE-200/AE-50/EW-50, and insert a CD or USB memory device in which the update file is stored to the PC.
- (3) Enter the web page address in the address field of the Web browser as follows:
https://[IP address of each AE-200, AE-50, or EW-50]/swupdate/Update.html
Press the [Enter] key.
Note: If the IP address of the AE-200/AE-50/EW-50 is [192.168.1.1], the web page address is [https://192.168.1.1/swupdate/Update.html].

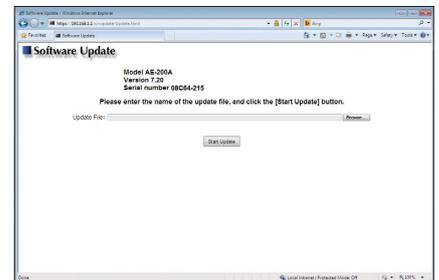
- (4) If the security certificate is invalid, a security certificate error page (as shown at right) will appear.
Click [Continue to this website (not recommended)].



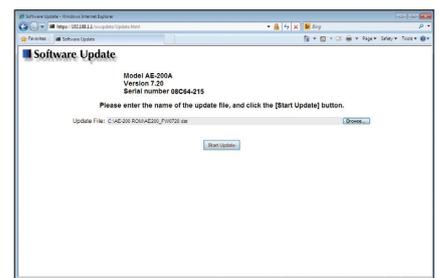
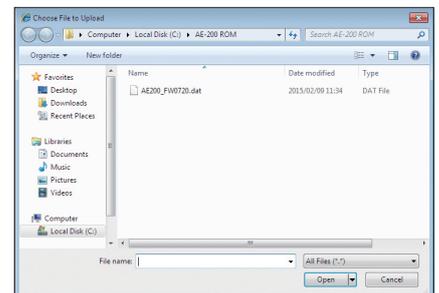
- (5) Enter the maintenance user name and the password in the login screen, and click [OK]. (Default user name: initial, Default password: init)



- (6) A software update screen will appear.



- (7) Click the [Browse...] button and select the update file (AExx_FW####.dat) stored in the CD or USB memory device, and click [Start Update].
Note: The software cannot be downgraded to an earlier version.

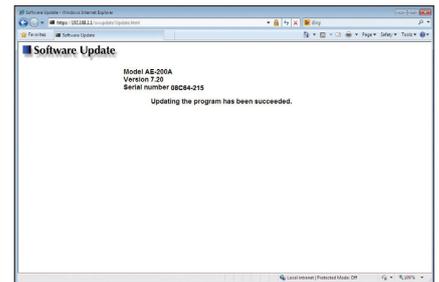


(8) A software update process starts.

Note: It takes about ten minutes to complete the update.

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

(9) The AE-200/AE-50/EW-50 will reboot after the update is complete. Check that the version that will appear on the screen is the same as the version of the update file. Also check that the version displayed on the login window of the AE-200/AE-50's LCD is also the same.



If the software update did not properly complete, update the software again. If the problem persists, the AE-200/AE-50/EW-50 may be damaged. Consult your dealer.

12. Notes on connecting to Web browser

Follow the instructions below to change settings if the message “If you see this you don’t have a Java-enabled Web browser. Here’s a picture of what you are missing.” or “Error. Click for details.” appears, and no login window appears when the AE-200’s Web page is accessed.

Note: To remedy the above-mentioned problem, go to section 12-1 “Clearing cache” first, and if the problem still persists, go to section 12-2 “Resetting Internet Explorer”. Resetting Internet Explorer will reset Internet Explorer’s settings to their default condition.

12-1. Clearing cache

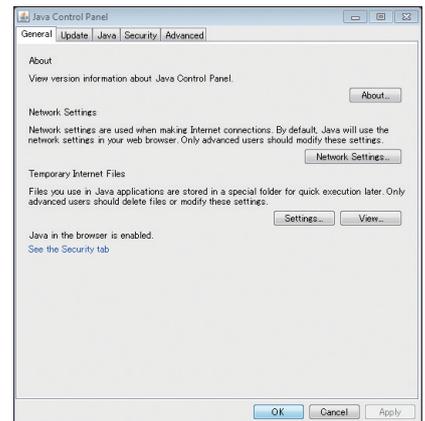
12-1-1. How to clear Java cache

- (1) Click [Control Panel]>[Java].

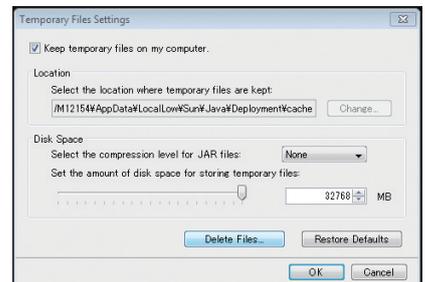
Note: If [Category] is selected in the top right corner, next to [View by:], change it to [Large icons] or [Small icons].

- (2) Java Control Panel will open.

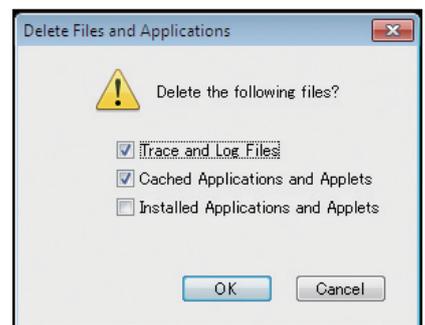
- (3) Click [Settings...] under [Temporary Internet Files].



- (4) The [Temporary Files Settings] dialog will appear. Click [Delete Files...].

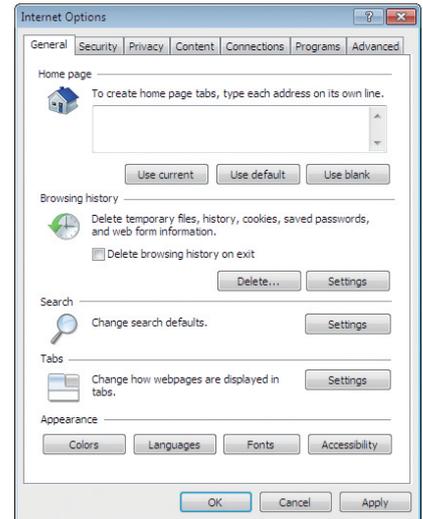


- (5) The [Delete Files and Applications] dialog will appear. Make sure that the checkboxes next to [Trace and Log Files] and [Cached Applications and Applets] are both checked, and then click [OK].

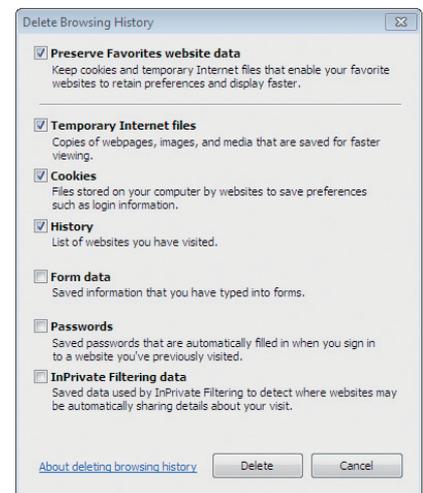


12-1-2. How to clear Internet Explorer cache

- (1) Open the Internet Explorer, click [Tools] in the menu bar, and then click [Internet options].
- (2) The [Internet Options] dialog will appear. Click [Delete...] under [Browsing history].



- (3) Make sure that the checkbox next to [Temporary Internet files] is checked, and then click [Delete].



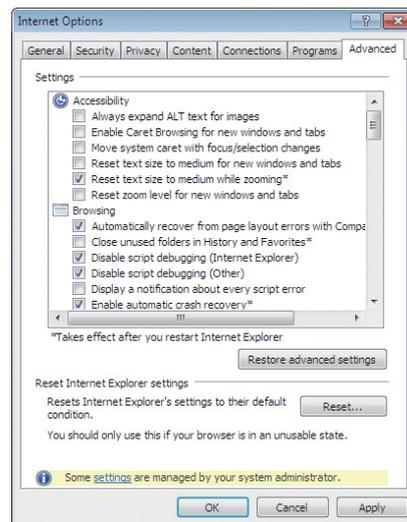
12-2. Resetting Internet Explorer

If the problem persists after section 12-1 “Clearing cache”, reset Internet Explorer settings.

Note: Resetting Internet Explorer’s settings will impact the following. Before you make any changes, write down the current settings if necessary.

- Disable toolbars and add-ons
- Advanced options
- Default web browser settings
- Tabbed browsing settings
- Privacy settings
- Pop-up settings
- Security settings

- (1) Open the Internet Explorer, click [Tools] in the menu bar, and then click [Internet options].
- (2) The [Internet Options] dialog will appear.
Click the [Advanced] tab, and then click [Reset...] under [Reset Internet Explorer settings].



Appendix: Added functions in Ver. 7.20

The table below summarizes the newly added functions in Ver. 7.20.

Menu item		Added function	Reference
Functions 1	E-mail	Port number of outgoing mail server is settable.	Section 5-1
	Peak Cut	"50%" is available for selection as outdoor unit maximum operating capacity.	Section 5-2

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

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