

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



Instruction Book
–Web Browser for Remote Monitoring User–

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1. Introduction

This Instruction Book explains how to monitor the units connected to the AE-200/AE-50/EW-50 using a Web browser.

To use the functions described in this manual, registration of the license for “Data Storage for Maintenance” (optional function) is required. (Refer to chapter 3 for details.)

For initial settings and function settings, refer to the Instruction Book (Web Browser for Initial Settings).

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.”
- 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	1024 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. (Oracle® Java Plug-in Ver. 1.8.0_60) * Install Oracle® Java Plug-in that is appropriate for your operating system. When using a 64-bit Internet Explorer, install 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.

2. Setting the Operating Environment

This chapter explains how to make PC settings and Web browser settings to monitor 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 unit.

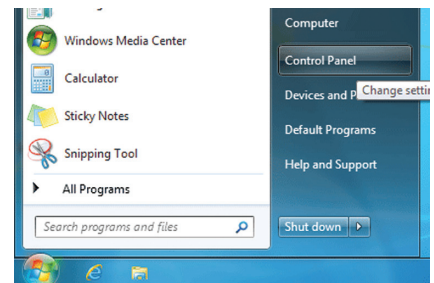
The PC's IP address must have the same network address as the AE-200/AE-50's IP address.

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

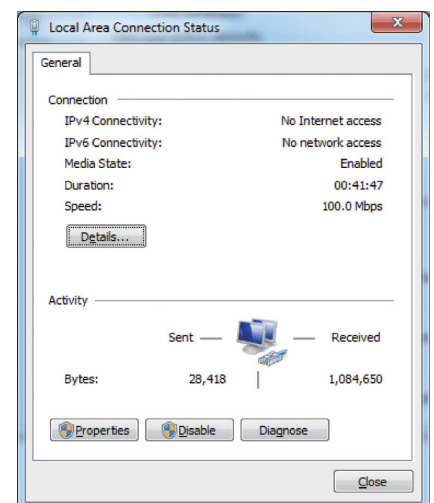
When connecting an AE-200/AE-50/EW-50 to an existing LAN, consult the system administrator to decide the IP addresses.

Note: When using an AE-200/AE-50/EW-50-dedicated LAN, it is recommended that the AE-200 unit 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].

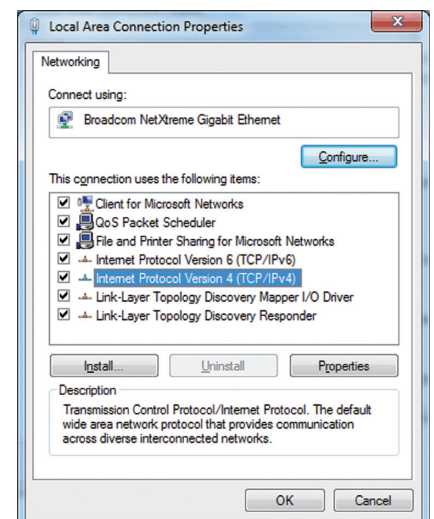
(1) Click [Control Panel] in the Start menu.



(2) Click [Network and Sharing Center]>[Local Area Setting].
In the [Local Area Connection Status] window, click [Properties].



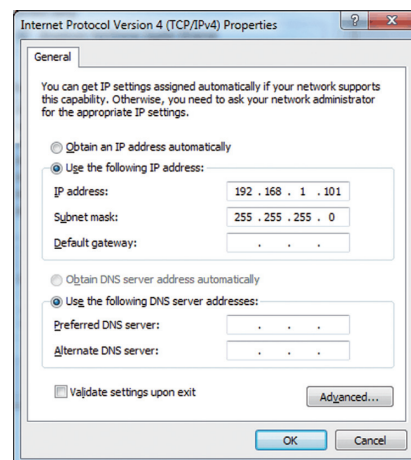
(3) Click [Internet Protocol Version 4 (TCP/IPv4)] to select it, and click [Properties].



- (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.

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

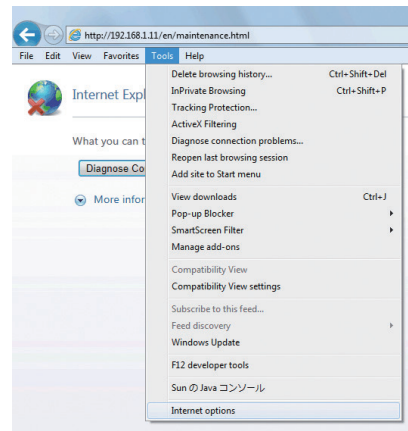
Web browser setting varies with the Internet connection type. See the sections below for how to make Web browser settings for different types of Internet connection.

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

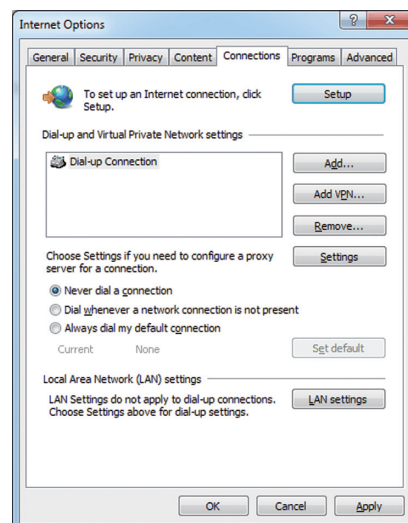
To monitor and operate the air conditioning units from a PC with no Internet connection, follow the instructions below to set the environment for the Web browser.

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



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

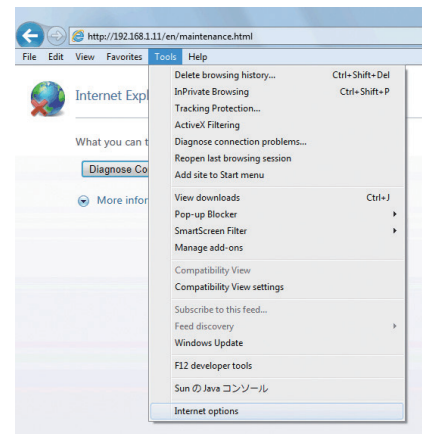
- (3) Check the radio button next to [Never dial a connection] in the middle of the window, and click [OK] to close the window.



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.

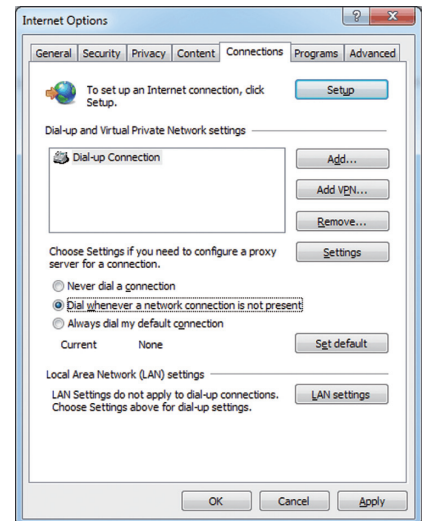
- (1) Click [Tools] in the menu bar, then click [Internet options].



- (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.

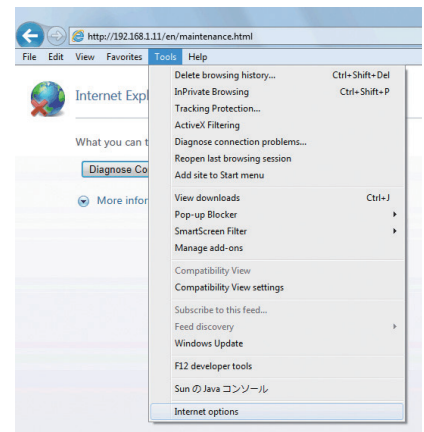
By making these settings, a message will appear asking whether or not to use a dial-up connection when an Internet connection is necessary. Follow the message to connect to the Internet.



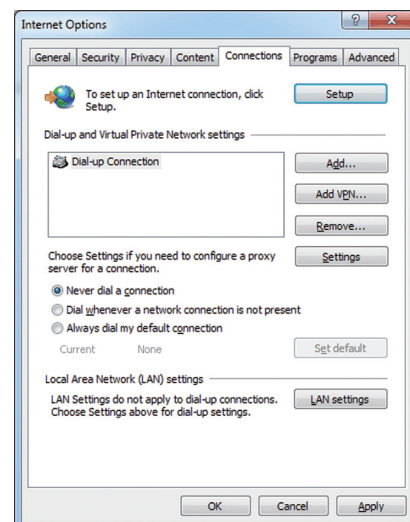
2-2-3. Connecting to the Internet via proxy server using an existing LAN

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.

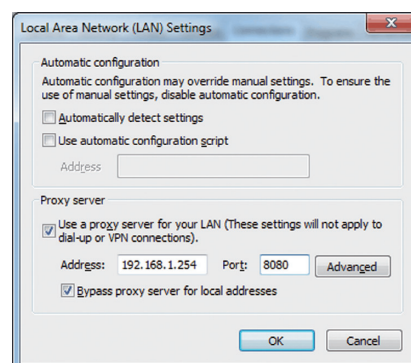
- (1) Click [Tools] in the menu bar, then click [Internet options].



- (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].

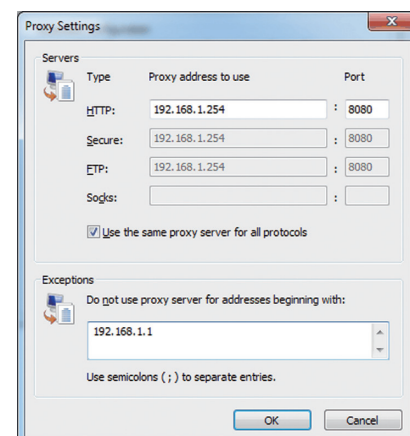


- (5) In the [Local Area Network (LAN) Settings] window, check [Bypass proxy server for local addresses], and click [Advanced].



- (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.*]).



3. Logging in to the Web Browser for Remote Monitoring User

- (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/EW-50]/en/maintenance.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/en/maintenance.html].

Note: Default IP address of AE-200/AE-50/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: Between [192.168.1.211] and [192.168.1.249]

Note: Log in to the AE-200/AE-50/EW-50 Web browser respectively to monitor the units that are under the control of AE-200/AE-50/EW-50. The Web browser cannot be switched between the AE-200/AE-50/EW-50.

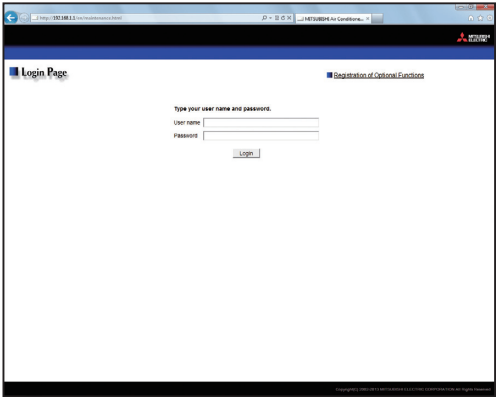
Note: If the login screen does not appear then take the steps below to delete the temporary files.

- <Internet Explorer>
1. Click [Tools] in the menu bar, then click [Internet options].
 2. On the [General] tab, click [Delete] in the middle of the window.
 3. In the [Delete Browsing History] window, click [Delete].
- <Java>
1. Click [Control Panel] from the Start menu.
 2. Click the [Java] icon to launch the Java Control Panel.
 3. On the [General] tab, click [Settings] in the [Temporary Internet Files] section.
 4. Click [Delete Files].
 5. In the [Delete Files and Applications] window, click [OK].

Note: This web page can only be displayed in English.

Note: You can add the web page address to your Favorites 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 name, password, and functions that are available for remote monitoring users.



User	Default user name	Default password	Available functions	
Remote monitoring user	remotemonitor	rm + Serial No. *1	Maintenance	Operation Data Display Operation Data Acquisition Mode
			Malfunction Log	Unit Error
			User Settings	User Settings

Note: It is recommended to change the default user name and password so that the users other than the remote monitoring users will not be able to change the settings.

*1 If the Serial No. is "15A13-701," the default password is "rm15A13701."

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.

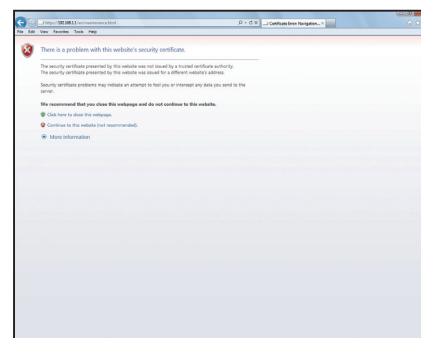
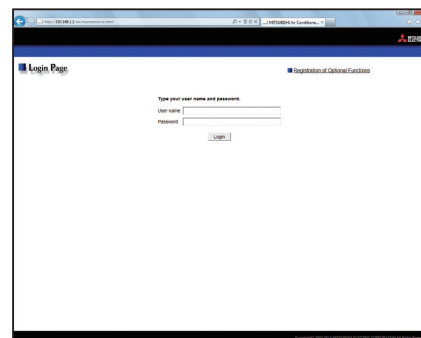
https://[IP Address of each AE-200/AE-50/EW-50]/en/maintenance.html

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/en/maintenance.html].

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

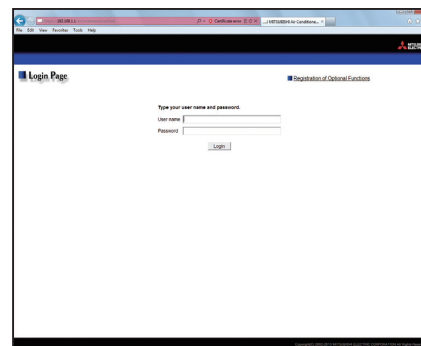
If a security certificate error page appears instead of the Login screen, go to step (2) below.

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



- (3) If the connection is successfully made, the Login screen will appear.

Note: Although the address bar will turn red and a message "Certificate error" will appear, you can still access the Web browser.



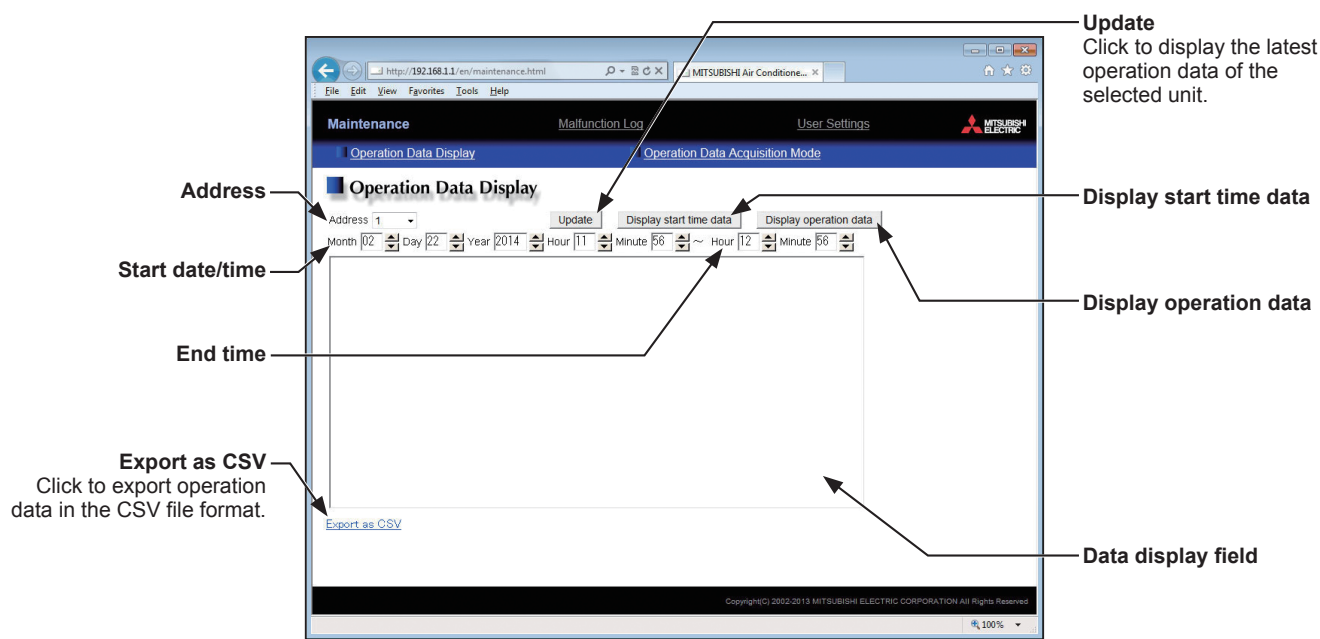
4. Maintenance

4-1. Operation Data Display

This screen displays the operation data that is acquired from the connected units by the AE-200/AE-50/EW-50 at regular intervals. Click [Maintenance] in the menu bar, and then click [Operation Data Display] to access the Operation Data Display screen.

Note: To display the operation data on this screen, the settings for "Operation Data Acquisition Mode" need to be set. Make the settings according to the instructions detailed in section 4-2.

Note: The operation data displayed on this screen will vary, depending on the unit model. Refer to the Service Handbook that came with the unit.



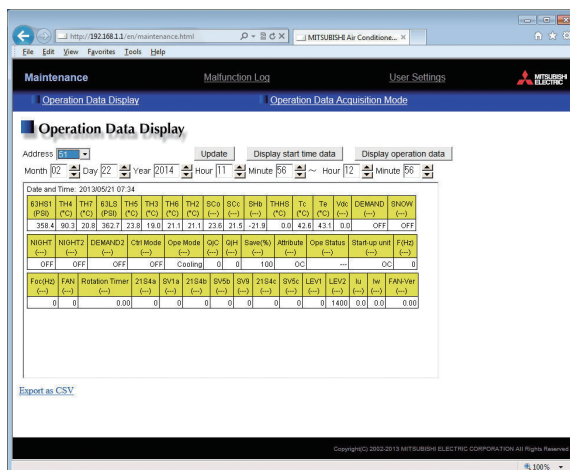
Item	Description
Address	Select the address of the unit to display its operation data.
Start date/time	Enter the start date/time for the time period for which operation data will be displayed.
End time	Enter the end time for the time period for which operation data will be displayed. Note: Up to 24 hours worth of data can be displayed at once. If the start time is after the end time, the start time and end time will be regarded as the other way around, and the operation data between the end time and the start time for the specified date will be displayed.
Update	Click to display the latest operation data of the selected unit.
Display start time data	Click to display the operation data of the selected unit at the specified start time. Note: If the Operation Data Acquisition Mode is set to [Normal], data for odd minutes will not be displayed. (See section 4-2.)
Display operation data	Click to display the operation data of the selected unit in a specified time range. Note: Regardless of the Operation Data Acquisition Mode setting, operation data will be displayed at 2-minute intervals. (See section 4-2.) Note: If 40 or more indoor units are connected, data acquisition interval may be stretched by multiples of two minutes.
Data display field	Operation data of the selected unit will be displayed in this field.
Export as CSV	Click to export the operation data that are displayed in the Data display field in the CSV file format. Only the operation data that are displayed when [Display operation data] is clicked can be exported. (An empty CSV file will be output for the operation data that are displayed when [Update] or [Display start time data] is clicked.)

- (1) To display the latest operation data

Click [Update] to display the latest operation data of the unit with the specified address.

Note: Regardless of the start/end times that have been specified, the latest data will be displayed.

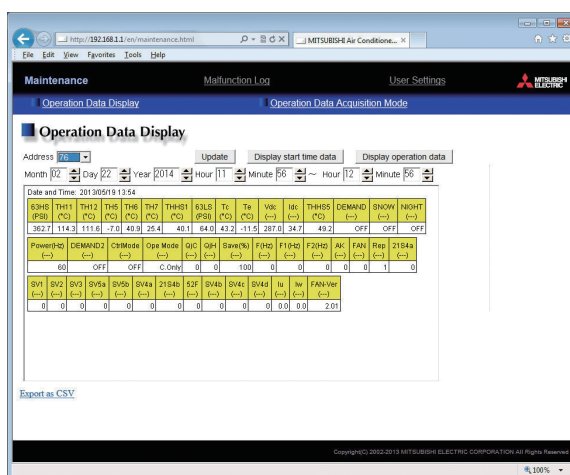
Note: The units of measure for the temperature and pressure selected in the initial setting will appear below the data names. ([--]) will appear for other types of data.) This is also true for items (2) and (3) below.



- (2) To display the start time data

Click [Display start time data] to display the operation data of the selected unit at the specified start time.

Note: If the Operation Data Acquisition Mode is set to [Normal], data for odd minutes will not be displayed.



- (3) To display the operation data of the selected unit in a specified time range

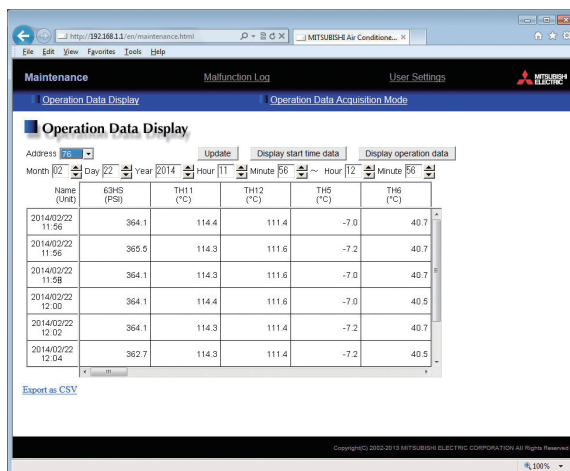
Click [Display operation data] to display the operation data of the selected unit in a specified time range.

This data will be displayed at a minimum of 2-minute intervals.

Click [Export as CSV] at the lower left corner of the screen to export the acquired operation data to a CSV file.

Note: Regardless of the Operation Data Acquisition Mode setting, operation data will be displayed at 2-minute intervals.

Note: Depending on the number of units that have been selected, the data display interval may be longer than 2 minutes.



4-2. Operation Data Acquisition Mode

This screen allows the user to activate or deactivate the Operation Data Acquisition function, and to select between the two data acquisition modes with different minimum interval settings for the AE-200/AE-50/EW-50 to collect operation data from the connected units.

Click [Maintenance] in the menu bar, and then click [Operation Data Acquisition Mode] to access the Operation Mode Acquisition Mode screen.

The default setting for this function is set to deactivate (OFF), and all the unit addresses on the screen appear with a black background.

Note: This function enables the user to collect data for outdoor units, indoor units, BC controllers, and Air To Water (PWFY) units.

Note: The [Short Interval] mode is for use by Mitsubishi Electric Corporation to conduct research. Overseas sales office users should select [Normal] mode.

The screenshot shows the 'Operation Data Acquisition Mode' screen. At the top, there's a navigation bar with 'Maintenance', 'Malfunction Log', and 'User Settings'. Below it, 'Operation Data Display' and 'Operation Data Acquisition Mode' are visible. The main title is 'Operation Data Acquisition Mode'. Underneath, there's a section for 'Acquisition Mode' with three radio buttons: 'OFF', 'Normal' (selected), and 'Short Interval'. To the right of this is a 'Re-search' button. Below the mode selection, there are two tables of unit addresses. The left table has columns +1 to +10 and rows +0 to +40. The right table has columns +1 to +10 and rows +50 to +90. In both tables, some cells are highlighted in green (selected) and others in gray (deselected). Below each table are 'Select All' and 'Deselect All' buttons. At the bottom of the screen, there are 'Refresh' and 'Save Settings' buttons. Annotations with arrows point to these elements: 'Acquisition Mode' points to the radio buttons; 'Address selection field' points to the tables; 'Select All' points to the 'Select All' buttons; 'Deselect All' points to the 'Deselect All' buttons; 'Refresh' points to the 'Refresh' button; 'Re-search' points to the 'Re-search' button; and 'Save Settings' points to the 'Save Settings' button. A note for 'Save Settings' says 'Click to send the settings to AE-200/AE-50/EW-50.'

Item		Description
Acquisition Mode	OFF	Use this mode to deactivate the Operation Data Acquisition function.
	Normal	Use this mode to acquire the operation data of the units selected in the Address selection field at a minimum data acquisition interval of 2 minutes. Note: If 40 or more indoor units are connected, data acquisition interval may be stretched by multiples of two minutes.
	Short Interval	Use this mode to acquire the operation data of the units selected in the Address selection field at a minimum data acquisition interval of 1 minute. Note: If 10 or more indoor units are selected, data acquisition interval may be stretched by 1-minute increments. Deselecting some units will decrease the data acquisition interval. Note: The [Short Interval] mode is for use by Mitsubishi Electric Corporation to conduct research. Overseas sales office users should select [Normal] mode.
Re-search		Click to update all information in the address selection field with the most recent information.
Address selection field		Select the addresses of the units to acquire the operation data. The backgrounds for the selected units will appear in green, and for the deselected units will appear in gray. The backgrounds for the units that are not connected to AE-200/AE-50/EW-50, and for the units that do not support this function will appear in black. Click an address to select it, and click again to deselect.
Deselect All		Click to deselect 50 units on one of the two tables at once. Note: Units 1-50 are on one table, and 51-100 are on the other table.
Select All		Click to select 50 units on one of the two tables at once. Note: Units 1-50 are on one table, and 51-100 are on the other table.

4-2-1. Procedures for making the settings to use this function for the first time

- (1) To activate the Operation Data Acquisition function, select [Normal], and then click [Save Settings].
AE-200/AE-50/EW-50 will start acquiring model information of the connected units.
- (2) About ten minutes later, click [Refresh].
The addresses of the units that support the Operation Data Acquisition function will appear with a gray background.
- (3) Select the addresses of the units whose operation data are to be collected. The selected addresses will be highlighted in green.
If you select the wrong address, click the selected address again to deselect. Once the address is deselected, the background will appear in gray.
Click [Save Settings] to collect the operation data of the selected units.

4-2-2. Procedures for changing the settings for this function

- (1) Backgrounds for the addresses whose operation data are being collected will appear in green, for the addresses whose data are not being collected will appear in gray, and for the addresses not registered to AE-200/AE-50/EW-50 will appear in black.
The currently selected acquisition mode will appear selected in the Acquisition Mode field. ([Normal] should be selected by the overseas sales office users.)
- (2) Select the addresses of the units whose operation data are to be collected. The selected addresses will be highlighted in green.
If you select the wrong address, click the selected address again to deselect. Once the address is deselected, the background will appear in gray.
Click [Save Settings] to collect the operation data of the selected units.

5. Malfunction Log

5-1. Unit Error

Click [Malfunction Log] in the menu bar to display the last 64 unit errors

Update
Click to show the most recent error log.

Error occurrence date and time

Error source unit address

Error detection unit address

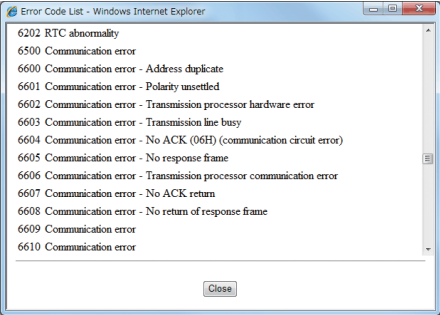

Clear Log

Error Code List
Click to display the list of error codes and their definitions.

Display
Click to display pre-error data.

Error recovery date and time

Error code

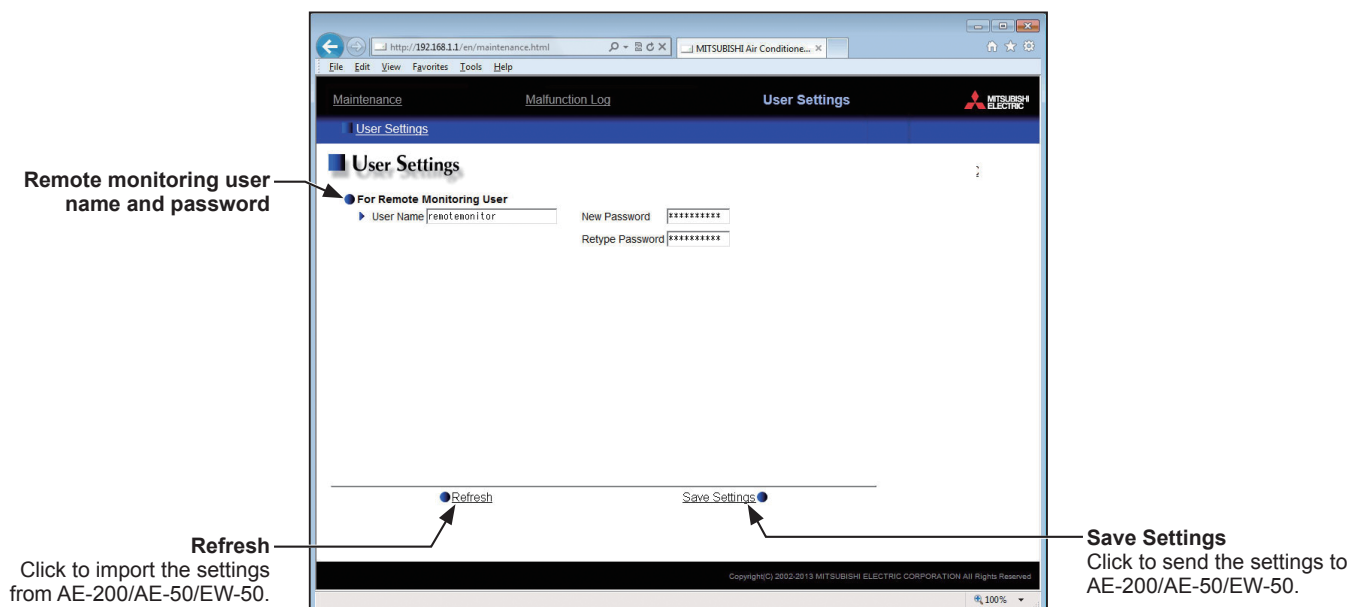
Item	Description
Update	Click to show the most recent error log. When [Auto] is selected, the error log is updated automatically every minute.
Clear Log	Click to clear the error log.
Error Code List	Click to display the list of error codes and their definitions. 
Error occurrence date and time	The date and time when the error occurred will appear.
Error source unit address	The address of the unit in error will appear.
Error detection unit address	The address of the unit that detected the error will appear.
Error code	The error code that corresponds to the error will appear.
Error recovery date and time	The date and time when the error was resolved will appear.
Display	Click to display pre-error data for the two hours before the occurrence of each unit error. Note: Pre-error data will be displayed only when the given unit has been selected on the [Operation Data Acquisition Mode] screen. 

6. User Settings

6-1. User Settings

On the [User Settings] screen, the remote monitoring user name and password can be changed.

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



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

Note: User name must contain only alphanumeric characters.

Note: User name and password are case-sensitive.

- (2) Click [Save Settings] to send the settings to the AE-200/AE-50/EW-50.

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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