



Mitsubishi Electric Air-conditioner Control System

Centralized Controller

GB-24A *Operation Manual for Initial Setting Web*

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**Before using the web browser to set the GB-24A controller, please read this Operation Manual carefully to ensure correct operation.
Retain this manual for future reference.**

1 Introduction

Special features of Mitsubishi Electric Corporation's "Centralized Controller GB-24A" are that a PC connected to a LAN can be used to monitor the operation condition of air conditioners, perform air conditioner operations, and make initial settings.

The document explains the procedures for performing initial settings for the Centralized Controller GB-24A using the web browser.

1-1 Terms Used in This Manual

- "Click" refers to positioning the mouse cursor on the object (such as button or folder), pressing down, and releasing the left mouse button once.
- Unless otherwise specified, the example screen images used in this manual are Windows XP® and Internet Explorer 6.0 screen images.

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

1-2 Computer Requirements

To monitor and operate air conditioners by web browser, computer must include the following requirements.

Table 1-1 Computer Requirements

Item	Requirement
CPU	Pentium 133MHz or faster (300MHz or faster recommended)
Memory	64M Bytes or more (128M Bytes or more recommended)
Screen resolution	1024 x 768 or higher recommended
Compatible browser	Microsoft® Internet Explorer 6.0 or later Note: You must have a Java® execution environment (Sun Microsystems® Java Plug-in Ver.1.4.2 or later). Note: You can check the Sun Microsystems Java Plug-in version in "Java Plug-in" in a control panel. Note: When using Sun Microsystems® Java Plug-in Ver.1.6.0_10 or later, set the Java execution environment according to the instructions in section 2-3 "Setting the Java Execution Environment."
On-board LAN port or LAN card	One connector (10BASE-T)
Other	Pointing device such as a mouse

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

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

2 Setting the Operating Environment

PC settings and web browser settings required for using a web browser to monitor air conditioner units and perform operations are explained in the following pages.

2-1 Setting the PC IP Address

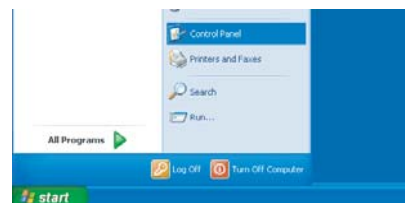
Set an IP address on the PC that enables GB-24A to connect via a web browser.

For instance, if the GB-24A IP address is [192.168.1.1], the PC IP address will need to belong to the same system [192.168.1.101].

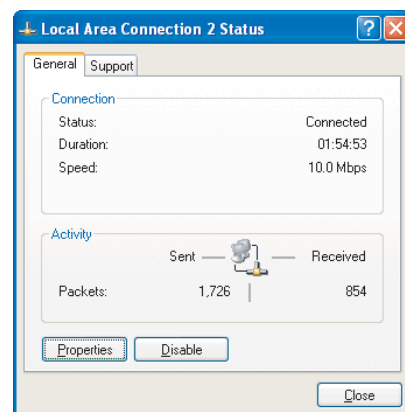
If the GB-24A is connected to an existing LAN, ask the LAN administrator to decide what PC IP address to use.

Note: When using a GB-24A dedicated LAN, it is recommended that the GB-24A main unit be given an IP address within the range [192.168.1.1] – [192.168.1.40] and the PCs connected to the GB-24A be given an IP address within the range [192.168.1.101] – [192.168.1.150]

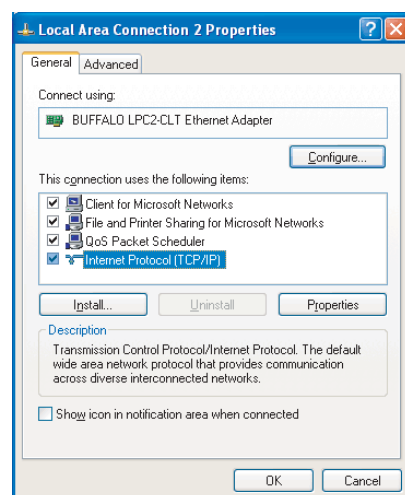
(1) Click on [Control Panel] under [Start] to open the Control Panel.



(2) In the Control Panel window, double click [Network and Dial-up Connections] and the Network and Dial-up Connections window will open. Double click on [Local Area Setting] and the [Local Area Connection Status] dialog will open. Click [Properties].



(3) In the [Local Area Connection Properties] dialog, click [Internet Protocol] to select it and click the [Properties] button.

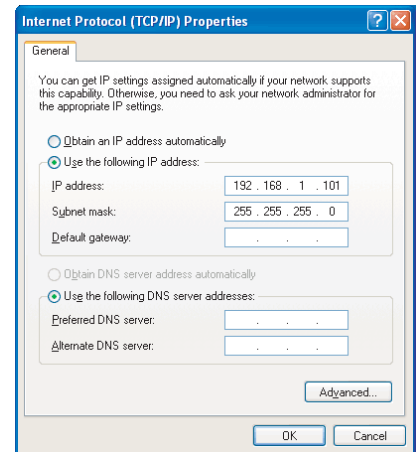


- (4) In the [Internet Protocol (TCP/IP) Properties] dialog, click [Use the following IP address] and enter the IP address (for example, “192.168.1.101”) that you want to set in the IP address field.

You normally set [255.255.255.0] as the subnet mask.

Note: Ask your LAN administrator to provide the IP addresses and subnet mask.

- (5) Click the [OK] button to close this dialog, and then close the other open dialogs to complete the network setting.



2-2 Setting the Web Browser

Necessary web browser settings must be performed to enable the web browser to connect to the GB-24A.

Note: The settings and screen images used as examples in this manual are based on Internet Explorer 6.0.

2-2-1 No Internet Connection

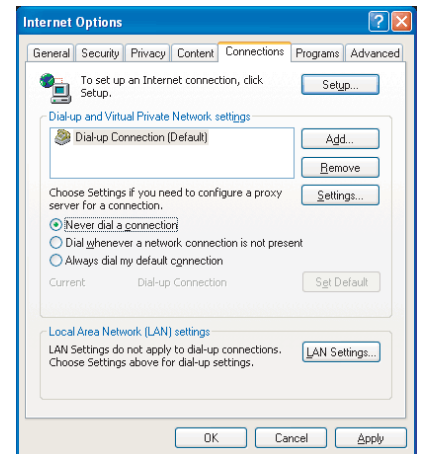
Follow the instructions below to make the web browser environment settings when using the PC with no Internet connection for monitoring and operating the air conditioners.

- (1) Click the web browser menu item [Tools] and then click [Internet Options...] to select.



- (2) In the [Internet Options] tabbed dialog, click the [Connections] tab to display.

- (3) Select [Never dial a connection] in the Dial-up settings section and click the [OK] button to close the dialog.



2-2-2 Internet connection using a dial-up

If the PC used for monitoring air conditioners and performing operations is going to connect to the Internet via a dial-up connection, use the procedure given below to set the web browser environment settings.

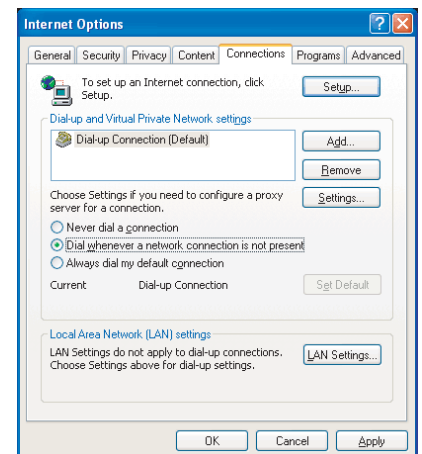
By performing these settings, a message will appear asking whether or not to use a dial-up connection when an Internet connection is necessary. When connecting to the Internet is designed, follow the directions below.

- (1) Click the web browser menu item [Tools] and then click [Internet Options...] to select.



- (2) In the [Internet Options] tabbed dialog, click the [Connections] tab to display.

- (3) Select [Dial whenever a network connection is not present] in the Dial-up settings section and click the [OK] button to close the dialog.



2-2-3 Connecting to the Internet using a proxy server (Using an existing LAN)

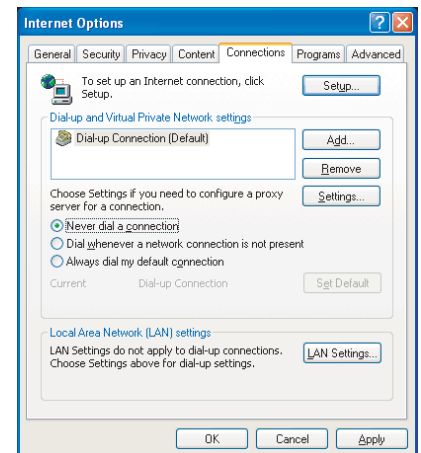
If the PC you use for monitoring air conditioners and performing operations is going to access the Internet via proxy server by connecting to an existing LAN such as a LAN within your company, use the procedure given below to set the web browser environment settings.

By performing these settings, your PC will connect to a proxy server only when connecting to the Internet.

- (1) Click the web browser menu item [Tools] and then click [Internet Options...] to select.



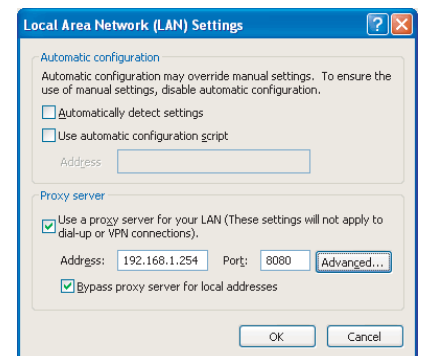
- (2) In the [Internet Options] tabbed dialog, click the [Connections] tab to display.



- (3) Select [Never dial a connection] in the Dial-up setting section.

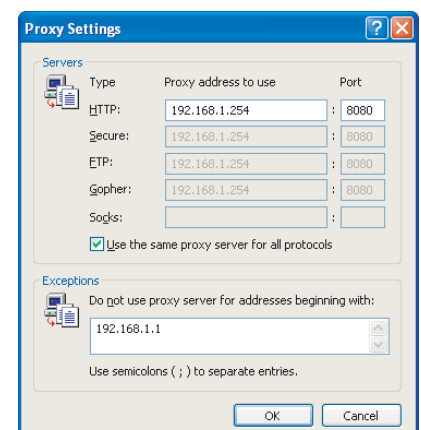
- (4) Click the [LAN Setting . . .] button in the Local Area Network (LAN) settings section to display the Local Area Network (LAN) Settings dialog.

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



- (6) Enter the IP address for the GB-24A (e.g. 192.168.1.1) in the Exceptions field of the Proxy Setting dialog and click the [OK] button to close the dialog and then close the other open dialogs to complete the setting.

Note: If connecting to more than one GB-24A, you can specify multiple IP addresses like [192.168.1.1; 192.168.1.2], however, it is also possible to use the asterisk (*) and specify [192.168.1*].



2-3 Setting the Java Execution Environment

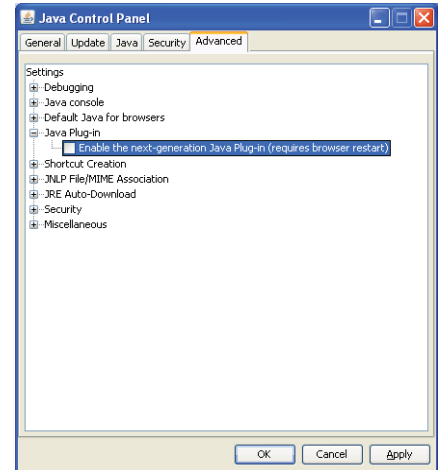
When using Java Plug-in version 1.6.0_10 or later, make the following environment settings (not required for version 1.6.0_09 or earlier).

Note: The setting samples and screenshots used in this manual are those of Java Plug-in version 1.6.0_11.

2-3-1 Disabling the next-generation Java Plug-in

(1) Open Java Control Panel by double-clicking Java in the Control Panel.

(2) In the [Advanced] tab under the [Java Control Panel] screen, click the plus next to [Java Plug-in] to expand the list, and uncheck the checkbox next to [Enable the next-generation Java Plug-in (requires browser restart.)].



3 Performing Operations

Text below explains how to connect to the GB-24A and how to perform various settings.

Note: If the GB-24A is restarted due to a power interruption etc., wait until the screen on the GB-24A main unit displays the normal operation screen (it takes several minutes before the normal operation screen is displayed) before using a web browser to access the GB-24A. If access is attempted while the GB-24A is still starting up, the most recent data might not be displayed or communication errors could occur.

Note: Default IP address of GB-24A is "192.168.1.1". (Factory setting)

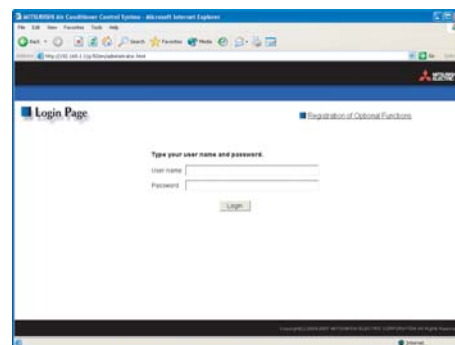
3-1 Entering the User Name and the Password, and Connecting to the GB-24A

- (1) Enter the web page address in the address field of the web browser as follows:

http:// [IP address of the GB-24A]/g-50/ administrator.html

Press the [Enter] key on the keyboard. A screen appears for login.

Note: For example, type "http://192.168.1.1/g-50/administrator.html" if the GB-24A IP address is [192.168.1.1].



- (2) To make connection easier for the next time, click the web browser menu item [Favorites], click [Add to Favorites], then add the address to the Favorites folder. Once this address is added to the Favorites folder, it is not necessary to input the address of (1). Simply select it from the Favorites folder and the GB-24A page will appear.



- (3) Enter the user name and the password in the login screen, and click the [Login] button. A screen will appear in which various setting are made. Procedures for making proper settings on each screen will be explained in the following pages.

The table below shows the default user names and passwords for maintenance users and managers, as well as available functions.

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, Measurement
			Functions 2	Set Temperature Range Limit, Night Mode Schedule
managers	administrator	admin	Out of the functions listed above, the items to which access rights have been given on the user settings screen are available. (Refer to Chapter 7 "User Setting.")	

Note: The user name and the manager's password are the same as those of the manager of the Web for monitoring/operation.

Note: Maintenance users can make available to the administrator only the information necessary for normal operation (group name setting etc.)

Note: It is recommended to change the user name and password, so users other than the manager are not permitted to change the settings.

4 Initial Settings

4-1 Setting the Current Date and Time

Click [Initial Settings] in the menu, and [Date and Time] screen will appear on the screen. Enter the current date and time, and then press the [Save Settings] button to send the current date and time to GB-24A.

Note: If the user logs in as a manager, the operations may be prohibited. (Refer to Chapter 7 "User Setting.")

Note: When the time is set on this screen, the setting will be applied to all units on M-NET system.

Note: When the DIDO controller (PAC-YG66DCA), AI Controller (PAC-YG63MCA), or PI Controller (PAC-YG60MCA) is newly connected, set the time of the connected controller on this screen.

Current date/time
Enter the current date and time here.

Summer time setting
Click to set the daylight saving time.

Refresh
Acquires the current Date and Time from GB-24A.

Save settings
Click to set the current date and time.

Item	Description
Current date/time	Enter the current date and time. For the date, use the format [day - month - year].
Save Settings	Click the [Date/Time Set] button to set the current date and time.
Refresh	Acquires the current Date and Time from GB-24A.
Summer time setting	<p>Click and tick the "Automatically adjust clock for daylight saving changes" box to adjust the daylight saving time automatically, and select the applicable country. Note: If the applicable country is not in the selection bar, select "Custom Settings". Click "Custom Settings" button that will appear on the right to set the daylight saving time.</p> <p>Daylight saving date and time Set the daylight saving time.</p> <p>Custom Setting Screen</p>

4-2 Setting Basic Information and External Input Functions

Display the page needed to perform the GB-24A basic setting by clicking [Initial Settings]-[Basic System] in the setting menu pane. On this page, set the GB-24A unit name, network, and M-NET. Click [Save Settings] to save the set data to the GB-24A. After the setting data are sent to the GB-24A, a message will appear asking whether or not to restart the GB-24A. Click [OK] to restart the GB-24A and apply the changes.

Note: If the user logs in as a manager, the operations may be prohibited.

Unit Setting
Set the GB-24A name and unit ID.

Network Setting
Set the GB-24A IP address and subnet mask.

Display Format
Set the items related to the screen display on the Web.

Refresh
Read setting data from GB-24A.

External Input Setting
Set the GB-24A external input setting.

M-NET Setting
Set the GB-24A M-NET address, presence/absence of K-Control units and range of prohibited controllers.

Save Settings
Send setting data to GB-24A.

4-2-1 GB-24A Unit Setting

In "Unit Settings" on the [Basic System] screen, set the GB-24A name and unit ID.

Unit Settings	
Name	Mitsubishi
Unit ID	000001 (6 figures)
SERIAL No.	08A8-51
Software Version	9.01

- (1) Enter the GB-24A unit name in the [Name] field. A maximum of 40 alphanumeric or symbol characters can be entered. The name set here is used on the display screen of the software that controls multiple GB-24A units and for the name of the sender in the body of error messages.

Note: The following characters cannot be used in the name: < > & " ' "

- (2) Enter the GB-24A unit ID in the [Unit ID] field. Six numbers must be included. Use this setting when it is necessary to control multiple GB-24A units with unit IDs. The unit ID that is entered will be used on the display screen of the software that controls multiple GB-24A units and for the sender ID in the body of error messages.
- (3) When [Refresh] is clicked, the GB-24A production ID will appear in the [SERIAL No.] field and the GB-24A software version will appear in the [Software Version] field.

4-2-2 M-NET Setting

In "M-NET settings", set the GB-24A M-NET address, presence/absence of K-Control model, and range of prohibited controllers.

M-NET Settings	
M-NET Address	<input type="text" value="0"/>
K-control Units	<input checked="" type="radio"/> Not used <input type="radio"/> Used
	K Converter Address <input type="text"/>
Range of Prohibited Controllers	<input checked="" type="radio"/> SC/RC <input type="radio"/> RC Only

(1) Enter the GB-24A M-NET address in the [M-NET Address] field. Normally, [0] should be entered.

(2) When K-Control air conditioners are connected, click [Used] in the [K-Control Units] field and enter the M-NET address of K transmission converter in the [K Converter Address] field.

Note: K transmission converter cannot be used. Select "Not used" for the K-control Units setting in the M-NET Settings window.

(3) In the local control prohibit settings, select both subordinate system controllers and remote controllers, or only remote controllers. Click [SC/RC] to prohibit operation from both subordinate system controllers and remote controllers, and click [RC Only] to prohibit operation from only remote controllers.

Note: Normally, [SC/RC] should be selected.

4-2-3 Network Setting

It is assumed that the GB-24A will be used on a private network.

In "Network Settings", set the GB-24A IP Address, Subnet Mask and Gateway address. If connecting to the GB-24A via a permanent LAN, consult with the network administrator before setting these addresses.

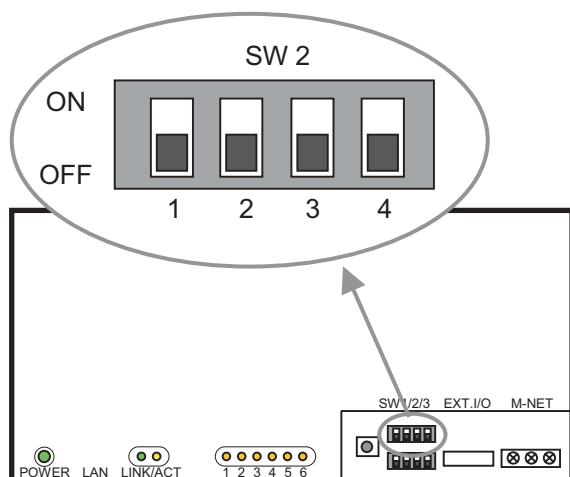
Network Settings	
IP Address	<input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="1"/>
Subnet Mask	<input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/>
Gateway	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>
MAC Address	080070334242

[Simple IP address setting of GB-24A]

The IP address that is set on the dip switch (SW2) on GB-24A main body has the priority. (Settings are shown below.)

When activating the value that is set on the initial setting Web, set all the switches on SW2 to OFF.

When the number of GB-24A units is 15 or less, it is recommend to set the IP address using the dip switch (SW2) on GB-24A main body.



1	2	3	4	IP Address
OFF	OFF	OFF	OFF	IP address set by Initial Setting Web Note: Default IP address "192.168.1.1". (Factory setting)
OFF	OFF	OFF	ON	192.168.1.1
OFF	OFF	ON	OFF	192.168.1.2
OFF	OFF	ON	ON	192.168.1.3
OFF	ON	OFF	OFF	192.168.1.4
OFF	ON	OFF	ON	192.168.1.5
OFF	ON	ON	OFF	192.168.1.6
OFF	ON	ON	ON	192.168.1.7
ON	OFF	OFF	OFF	192.168.1.8
ON	OFF	OFF	ON	192.168.1.9
ON	OFF	ON	OFF	192.168.1.10
ON	OFF	ON	ON	192.168.1.11
ON	ON	OFF	OFF	192.168.1.12
ON	ON	OFF	ON	192.168.1.13
ON	ON	ON	OFF	192.168.1.14
ON	ON	ON	ON	192.168.1.15

Note: After changing the dip-switch settings, reset the power of GB-24A to activate the changes.

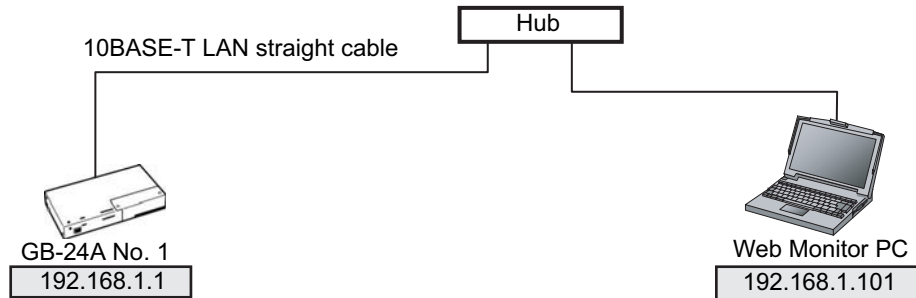
Note: If the IP address of GB-24A is forgotten, check the IP address that is registered on the monitoring PC (Web) in use. GB-24A can be started temporarily by using a specified IP address. It is recommended to paste a sticker with the IP address on the unit, so that the IP address of GB-24A can be available at all times.

4-2-3-1 Settings for when the GB-24A is connected to a dedicated LAN

- (1) Enter the GB-24A IP address in the [IP Address] field.

Note: The recommended IP address for the GB-24A is [192.168.1.1].

[Example of IP address setting]



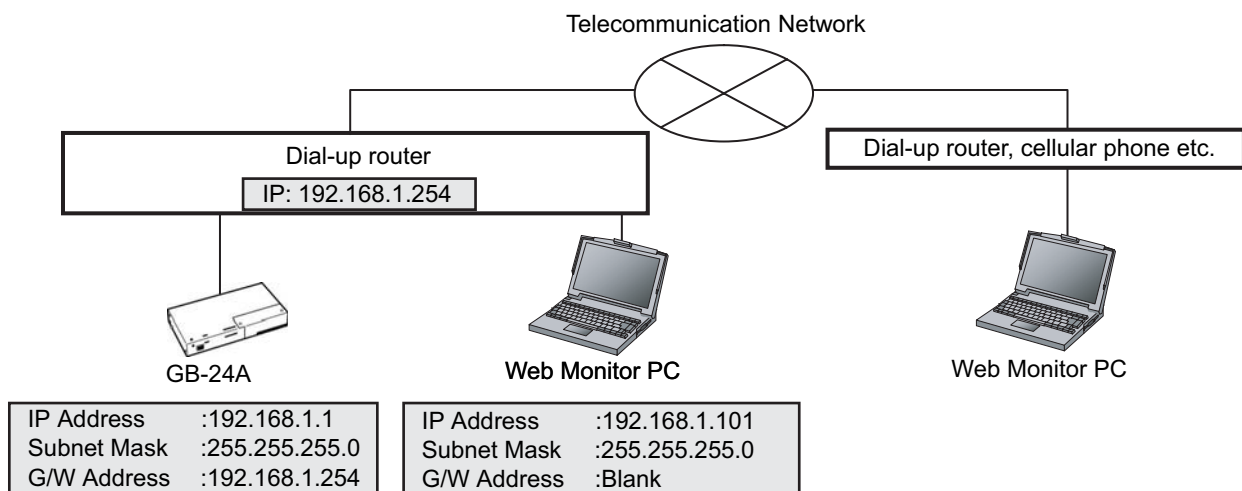
Note: Some hubs have a dedicated port for connection with another hub. Connect the GB-24A and Web Monitor PC to the normal ports.

- (2) Enter the GB-24A subnet mask in the [Subnet Mask] field. Normally, you should enter [255.255.255.0].

- (3) When monitoring remotely or sending error mail via a dial-up router, enter the router IP address in the [Gateway] field.

Leave the gateway address blank when not connecting via a dial-up router.

[Example of a Remote Monitoring System]



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

Note: It is necessary to connect a modem (analog type or ISDN type) between the dial-up router and telephone line when using a dial-up router that does not have a built-in modem.

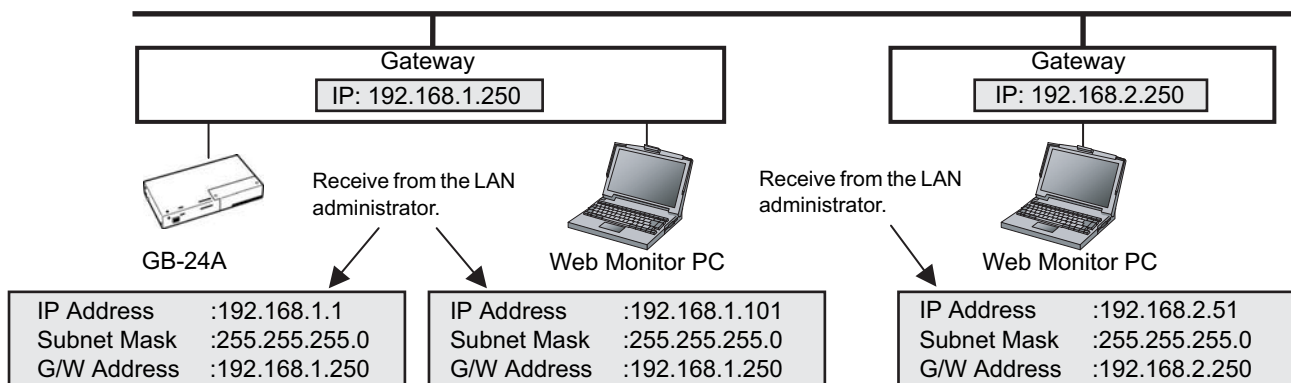
Note: Use a security device such as a VPN router when connecting the GB-24A to the Internet to prevent unauthorized access.

4-2-3-2 Settings for when the GB-24A is connected to an existing LAN

When connecting the GB-24A to an existing LAN, consult with the network administrator who is responsible for the LAN before setting the IP address, subnet mask, or gateway address.

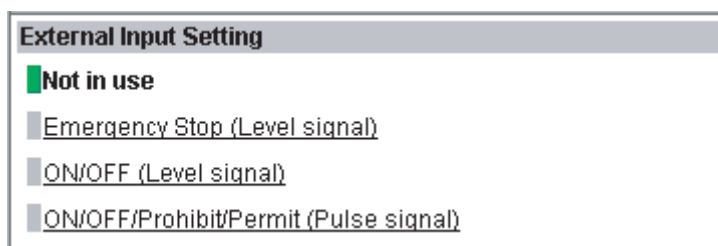
[Example of a Permanent LAN System]

Backbone LAN (private network)



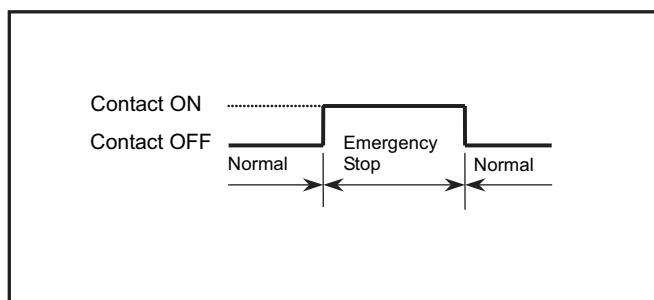
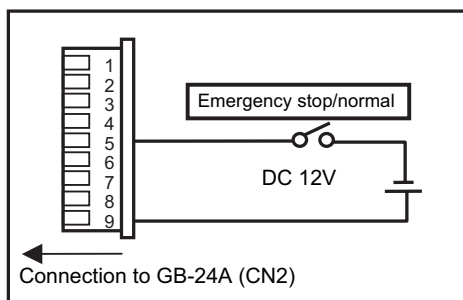
4-2-4 External Input Setting

In the External Input Setting menu, set the GB-24A external input function. By using external input functions, it is possible to stop and run multiple air conditioners connected to the GB-24A via the separately sold external I/O adapter for GB-24A (Model: PAC-YG10HA) using level signals and pulse signals.

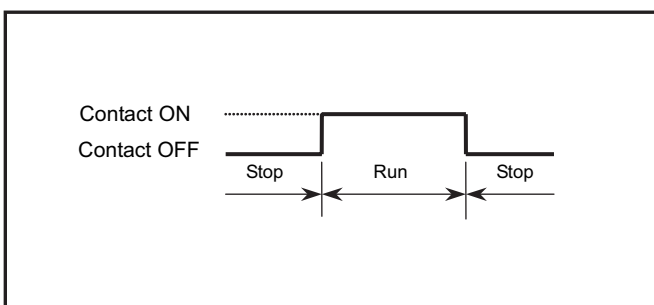
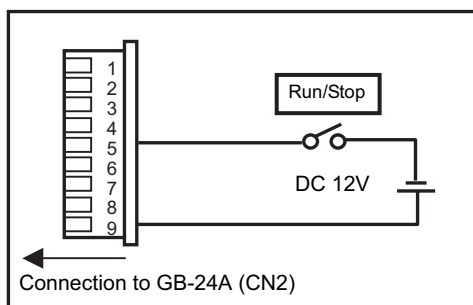


(1) Select [Not in use] when not using the external input function.

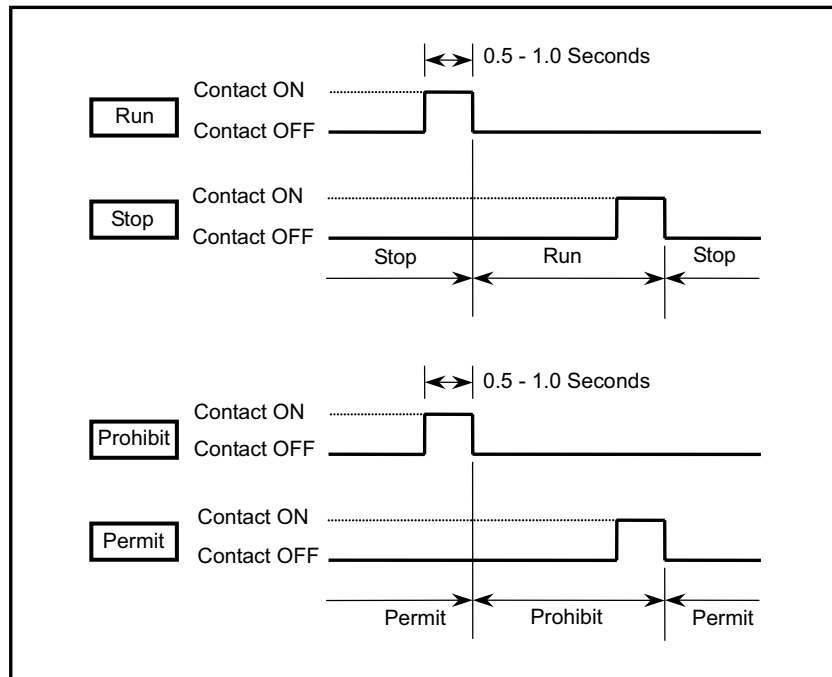
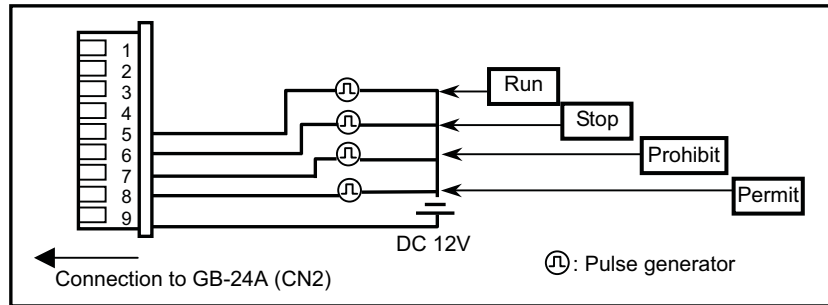
(2) Selecting [Emergency stop (Level signal)] makes it possible to stop multiple units by using a level signal. While this stop operation is being performed, operations such as running or stopping units are prohibited on the GB-24A unit or remote control.



(3) Selecting [ON/OFF (Level signal)] makes it possible to run or stop multiple units using a level signal. In this mode, all air conditioner units connected to the GB-24A will be run or stopped and run/stop operations will be prohibited on the GB-24A unit or remote control.



- (4) Selecting [ON/OFF/Prohibit/Permit (Pulse signal)] makes it possible to use pulse signals to run multiple units, stop multiple units, prohibit local operation and permit local operation. In this mode, it is possible to freely operate the remote control except during the pulse signal input.



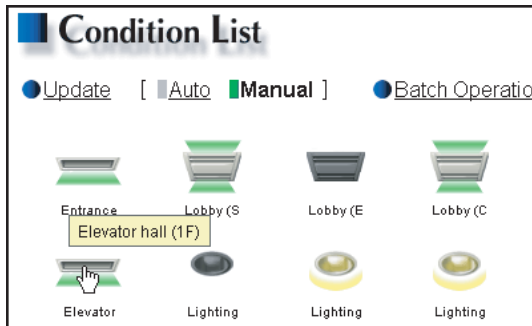
4-2-5 Setting the Display Format

Set the items related to the screen display in the [Display Format] field.

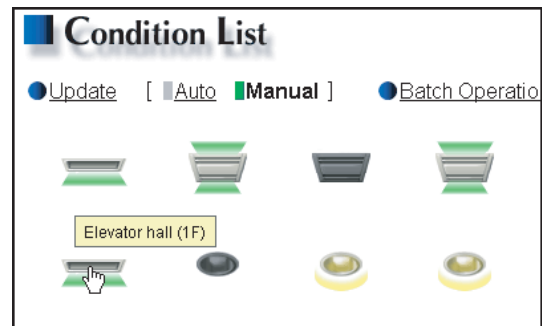
Display Format			
Unit of Temperature	<input type="radio"/> °C	<input checked="" type="radio"/> °F	
Date Format	<input type="radio"/> 31/12/2008	<input checked="" type="radio"/> 12/31/2008	<input type="radio"/> 2008/12/31
Group Names on Overview Monitor	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	
Filter Sign Display	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	

- (1) In the [Unit of Temperature] section, select between [°C] and [°F] as the unit of temperature.
- (2) In the [Date Format] section, select the display order of year/month/day. The date will be displayed in the selected order on the Web screen or on the mail screen.
- (3) In the [Group Names on Overview Monitor] section, select [ON] to display the group name under the icon on the [Monitor / Operation (Overview)] screen and select [OFF] not to.

Note: Up to 8 letters are displayed under the icon. To display all letters, move the cursor to the icon.



With the display of group names



Without the display of group names

- (4) In the [Filter Sign Display] section, select whether to display the filter sign. Select [ON] to display the filter sign and [OFF] not to.
When the filter sign display is set to "OFF", the filter sign on neither the LCD of the GB-24A nor the monitor screen on the Web browser will appear, even when the indoor unit detects a filter sign.
If the filter is regularly cleaned and the filter sign display is unnecessary, set it to [OFF].

4-3 Group Setting

Display the page needed to register the group of air conditioners or general equipment to be connected to the GB-24A and to set the group name by clicking [Initial Settings]-[Groups]. On this page, you perform the basic setting such as the GB-24A unit name, network setting and M-NET setting. Click [Set to GB-24A] to send setting data to the GB-24A.

Note: If the user logs in as a manager, some of the operations may be prohibited.

Note: A contact on the general interface device is regarded as one unit. The number of units that can be connected to GB-24A is up to 24.

Note: Air-conditioners and general equipment cannot be in the same group.

Note: Remote controllers or system controllers cannot be connected to general equipment.

Group No.
Group numbers will be displayed here.

Group name for web
The group names to be used on the Web screen are entered here.

Group name for LCD of the GB-24A
Note: Setting not required

Refresh
Read setting data from GB-24A.

Air Conditioner and general equipment Registration
Register the air conditioner and general equipment to be connected here. Click to bring up the registration screen.

System Controller Registration
Register the system controllers to be connected here. Click to bring up the registration screen.

Remote Controller Registration
Register the remote controllers to be connected here. Click to bring up the registration screen.

Save Settings
Send setting data to GB-24A.

4-3-1 Setting the Group Name

- (1) In the [Group Name for Web] field on the screen, register the group name to be displayed on the Web screen, using a name consisting of no more than 20 characters.

Note: The following characters cannot be used in the group name: < > & " ' "

- (2) It is not necessary to set the Group name for LCD.

4-3-2 Registering air conditioner units in the group

- (1) To register air-conditioners, clicking the [Air Conditioner and General Equipment Registration] field next to each group in the [Groups] screen will bring up the [Select Unit Addresses] screen. Click on the numbers corresponding to the units to be registered. All selected units will be shown with a yellow-green background. To cancel the selection, click on them again. Deselected items will be shown with a gray background.

Note: A maximum of 16 air conditioner units can be registered in one group.

Note: To change the registered units to air-conditioners in the group in which general equipment is registered, disconnect the general equipment first.

- (2) To change the icon, click the right or left arrow.

- (3) To register remote controllers in a group, click on the [Remote Controller Registration] field to display the [Select Unit Addresses] screen, and click on the numbers corresponding to the units to be registered. The ones that are selected will be shown with a yellow-green background. To cancel the selection, click on them again. Deselected items will be shown with a gray background.

Note: A maximum of 2 remote controls can be registered in one group.

Note: MA remote controls do not need to be registered to a group.

Select Unit Addresses

Entrance

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

Cancel OK

- (4) To register system remote controllers in a group, click on the [System Controller Registration] field to display the [Select Unit Addresses] screen, and click on the numbers corresponding to the units to be registered. The ones that are selected will be shown with a yellow-green background. To cancel the selection, click on them again. Deselected items will be shown with a gray background.

Note: The combined number of system controllers and remote controls cannot exceed four.

Select Unit Addresses

Entrance

201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250

Cancel OK

4-3-3 Registering general equipment in the group

- (1) To register general equipment in a group, click on the [Air Conditioner and General Equipment Registration] field to display the [Select Unit Addresses] screen, and select the [General Equipment (via PAC-YG66DCA)]. Click the device No. of the general interface device (PAC-YG66D) that is connected to the general equipment to be registered. The selected No. will be displayed with a red frame (selected state), and select the contact No. to which the general equipment is connected.

To disconnect the general equipment, select the interface device No., and click the contact No. that has been selected. The No. will be displayed in gray (unselected state).

Note: A maximum of 16 general equipment can be registered in one group.

Note: To change the registered units to general equipment in the group in which air-conditioners are registered, disconnect the air-conditioners first.

Select Unit Addresses

Lighting (1F East)

☐ Air-conditioners

☒ 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 Operation

☒ In batch and on individual group

☐ On individual group

☐ No operations (Monitor only)

Monitor

☒ Output status

☐ Input status

Cancel OK

- (2) To change the icon, click the right or left arrow.
- (3) In the [Allow Operation] section, select whether to enable or disable the ON/OFF operation on the Web browser operation screen. Select [In batch and on individual group] to enable only when the collective operation is performed. Select [On individual group] to enable in each group. Select [No operation (Monitor only)] to disable.
- (4) In the [Monitor] section, select whether to display I/P to or from the general equipment on the monitor screen.

4-4 Interlocked Setting

To interlock the operation of LOSSNAY with the run/stop status of the indoor units, click on [Initial Settings]-[Interlocked LOSSNAY] in the menu to bring up the Interlocked LOSSNAY screen, and enter the interlock conditions. Click [Save Settings] to send setting data to the GB-24A.

Note: If the user logs in as a manager, the operations may be prohibited.

Interlocked LOSSNAY Registration
Register the interlocked ventilation equipment here. Click to bring up the registration screen.

Refresh
Read setting data from GB-24A.

Interlocked Indoor Units Registration
Register the indoor units to which LOSSNAY units are interlocked here. Click to bring up the registration screen.

Save Settings
Send setting data to GB-24A.

- (1) Click in the Interlocked LOSSNAY registration field to display the [Select a Unit Address] screen, and click on the numbers corresponding to the units to be registered. The ones that are selected will be shown with a yellow-green background. To cancel the selection, click on them again. Deselected items will be shown with a gray background.

- (2) Click on the Interlocked Indoor Unit Registration field to display the [Select Unit Addresses] for the indoor units, and click on the numbers corresponding to the units to be registered. The ones selected will be highlighted with a yellow-green background. To cancel the selection, click on them again. Deselected items will be shown with a gray background.

Note: A maximum of 16 indoor units can be registered to operate with one ventilator.

4-5 Block Setting

By performing block settings, multiples of air conditioner groups can be collectively monitored or operated from the Web. Bring up the Block Setting screen by clicking [Initial Settings]-[Blocks] in the menu, and register the groups in the block to utilize these features. Click [Save Settings] to send setting data to the GB-24A.

Note: If the user logs in as a manager, some of the operations may be prohibited.

Block Name
Register the block name to be displayed on the Web screen here.

Group Registration
Register the groups to be included in the block here.

Refresh
Read setting data from GB-24A.

Save Settings
Send setting data to GB-24A.

4-5-1 Registering a block name

In the [Block Name] field on the screen, register the block name to be displayed on the Web screen, using a name consisting of no more than 20 characters.

Note: The following characters cannot be used in the group name: < > & " ' "

4-5-2 Registering a group in a block

Click on the Group Registration field to display [Select Groups], and click on the numbers corresponding to the groups to be registered. The ones that are selected will be shown with a yellow-green background. (Putting a cursor on the group number will display the group name.) To cancel the selection, click on them again. Deselected items will be shown with a gray background.

Select Groups

Block Name : Sales Dept.

Group Name :

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

Cancel OK

5 Functions 1

5-1 Error mail reports/E-mail communication

Click on [Functions 1] – [E-Mail] in the menu to open the [E-mail] window and make necessary settings to perform remote monitoring via mail, using error mail report or the maintenance tool.

Click [Save Settings] to send setting data to the GB-24A.

Note: If the user logs in as a manager, the operations may be prohibited.

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

Mail Communication Setting
Set the address of the mail recipients here.

Refresh
Read setting data from GB-24A.

E-Mail settings of GB-24A
The E-mail settings of GB-24A are set here.

Error Mail Settings
Set the error mail destination here.

Save Settings
Send setting data to GB-24A.

5-1-1 Entering the E-Mail Information for the GB-24A

Enter the E-mail information provided by either the ISP or the LAN administrator.

Note: When sending E-mail via an ISP, a user contract with the ISP is required.

E-Mail Settings of G-50A	
E-Mail Address	g50@g50.co.jp
User ID	g50
Password	*****
Interval of checking incoming mails	1 minute(s)

Make necessary settings based on the functions that are to be used, using the table below as a reference.

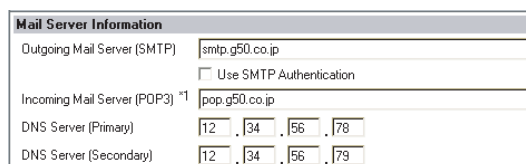
Table 5-1 Items that Require Settings to Be Made (E-Mail Settings of GB-24A)

Items \ Functions	Error Mail Report		Mail Communication	
	No SMTP Authentication	Uses SMTP Authentication	No SMTP Authentication	Uses SMTP Authentication
Mail Address	V	V	V	V
User ID		V	V	V
Password		V	V	V
Interval of checking incoming mails			V	V

5-1-2 Setting the Mail Server Information

Enter the mail server information provided by either the ISP or the LAN administrator.

Either the IP address or the host name (server name) can be entered in the mail server field.



The 'Mail Server Information' dialog box contains the following fields:

- Outgoing Mail Server (SMTP): smtp.g50.co.jp
- ☐ Use SMTP Authentication
- Incoming Mail Server (POP3) *1: pop.g50.co.jp
- DNS Server (Primary): 12, 34, 56, 78
- DNS Server (Secondary): 12, 34, 56, 79

Make necessary settings depending on the functions to be used, using the table below as a reference.

Table 5-2 Items that Require Settings to Be Made (Mail Server Information)

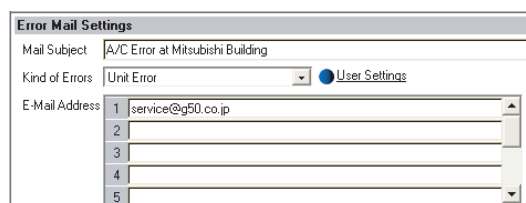
Items \ Functions	Error Mail Report		Mail Communication	
	No SMTP Authentication	Uses SMTP Authentication	No SMTP Authentication	Uses SMTP Authentication
Outgoing Mail Server (SMTP)	V IP Address or Host Name	V Host Name	V IP Address or Host Name	V Host Name
SMTP Authentication		V		V
Incoming Mail Server (POP3)			V IP Address or Host Name	V IP Address or Host Name
DNS Server (Primary)	(V)*1	V	(V)*1	V
DNS Server (Secondary)	(V)*1	V	(V)*1	V

*1: Not necessary if the IP address is used as the mail server address.

5-1-3 Setting the Error Mail Destinations

- Enter the title of the error mail that will be sent from GB-24A in the [Mail Title] field. The title may contain a maximum of 40 characters.

Note: The following characters cannot be used in the mail title:
< > & " ' "

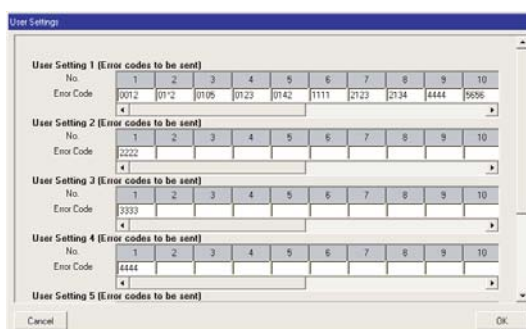


The 'Error Mail Settings' dialog box contains the following fields:

- Mail Subject: A/C Error at Mitsubishi Building
- Kind of Errors: Unit Error (selected), User Settings (radio button)
- E-Mail Address: 1 service@g50.co.jp, 2, 3, 4, 5

- Choose 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 enter the mail address of the recipient of the error mail.

- To send error messages only upon occurrences of certain errors, click the User Setting button that appear when "User Setting 1" through "User Setting 6" are selected, and register the error codes to be reported in the user settings. A maximum of 20 error codes can be set for each user setting. In addition to specific error codes such as [1302] or [6607], codes such as [10**] or [12**] can also be used. If [10**] is set, for example, error mail will be sent upon an occurrence of any type of errors between [1000] and [1099]. If error codes are set on this screen, confirm that the address of the recipient is registered.



The 'User Settings' dialog box shows settings for five user settings (1 through 5). Each setting has a table for error codes to be sent:

- User Setting 1: Error Code 0072, 0102, 0105, 0123, 0142, 1111, 2123, 2134, 4444, 9696
- User Setting 2: Error Code 2222
- User Setting 3: Error Code 3333
- User Setting 4: Error Code 4444
- User Setting 5: Error Code 5555

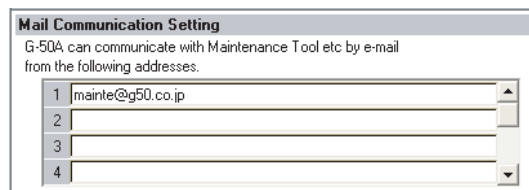
- Do not select "General Equipment."

5-1-4 Setting the Addresses of the Recipient

To monitor and operate the unit with the maintenance tool via mail from a remote location, enter the mail address of the receiver in the [Mail Communication Setting].

A maximum of 10 addresses can be registered.

E-mail communication is possible only with the recipients whose addresses are registered on this screen.



5-1-5 Mail format

Error mails are sent in the format shown below.

From:Mitsubishi Building(000001)
Date:11/09/2005 16:32:12
Error unit:065
Error code:1302
Status:Occurrence

Item	Format	Remarks
Mail title	Set title	Refer to 5-1-3 (1) for the setting of mail title.
From	GB-24A unit name and unit ID	Refer to 4-2-1 for the setting of GB-24A unit name and unit ID.
Date	dd/MM/yyyy hh:mm:ss	Date of error Note: The date format set in section 4-2-5 will be applied.
Error unit	When an error occurs on air conditioners and general equipment - M-NET address of the error source	Note: When an error occurs on the general equipment that is connected via DIDO controller, M-NET address of the DIDO controller will be sent. (which means an error occurs on one of the general equipment that is connected to the DIDO controller)
Error code	4-digit error	When an error occurs on air conditioners Refer to the service manual for each unit. When an error occurs on general equipment 0091:General equipment error
Status	"Occurrence" or "Recovery"	Error status

5-2 Settings for measurement

To measure the temperature or the amount of electricity, click the [Function1]-[Measurement] in the menu, and open the Measurement screen. Settings for controllers used for measurement can be made. After the settings are made, click [Save Settings] to send setting data to GB-24A.

Note: If the user logs in as a manager, some of the operations may be prohibited.

Selection of items to be measured
Select the items to be measured between by sensors (such as temperature/humidity) or by meters (such as amount of electricity).

Address
Unit address will be displayed here.

Selection of separator character
Select the separator character for CSV file.

Selection of decimal point character
Select the decimal point character.

Trend interval
Select the data saving interval.

Refresh
Read setting data from GB-24A.

Setting details
Set the details for measurement.

Scroll bar
Switch the address.

Mail sending settings
Set the Type of E-Mail, Mail Subject, and E-Mail Address.

Save Settings
Send setting data to GB-24A.

5-2-1 Registering AI controllers for temperature/humidity sensors

System settings for measurement sensors can be made. Up to two temperature/humidity sensors can be connected to one AI controller.

Temperature/humidity selection

Items to be measured

Address

Setting Details of sensor 1

Setting Details of sensor 2

Sensor name

Measurable range

Settings for upper/lower limit alarm

Upper limit (occurrence)

Upper limit (recovery)

Lower limit (recovery)

Lower limit (occurrence)



Scroll bar

(1) Use the scroll bar, and select the address to which the AI controller (PAC-YG63MCA) is connected.

(2) Select the icon of the AI controller () in the column of items to be measured.

Note: To disconnect the AI controller, click the icon of the AI controller that has been selected. The icon will be in unselected state.

(3) Enter the name of the sensor.

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

(5) Enter the measurable range of the temperature or of the humidity.

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

(6) To receive an e-mail when the temperature or the humidity exceeds a certain value, set the upper/lower limit alarm values (occurrence, recovery).

Note: To avoid repeating occurrence and recovery, it is recommended that the difference between the occurrence value and the recovery value is approx. 1°C.

5-2-2 Adjusting the measured temperature/humidity values

When the adjustment of the measured values is necessary because of the location of the sensor, follow the procedures below.


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

When the AI controller is registered for the first time, click the [Save Settings] button to send setting data, and click [Function 1]-[Measurement] to display the screen again.

- (1) Click the [Set offset] in the [Setting details] section.
- (2) Select the adjustment value in the [Offset] pulldown or select the value to be desired in the [Modified value] pulldown.
The adjustable range is between -10.0°C and +10.0°C (-18.0°F and +18.0°F), -10.0% and +10.0%.

5-2-3 Registering PI controllers for measurement by meters

System settings for measurement meters can be made. Up to four meters can be connected to one PI controller (PAC-YG60MCA).

- (1) Use the scroll bar, and select the address to which the PI controller is connected.
- (2) Select the icon of the PI controller () in the column of items to be measured.
- (3) Enter the name of the meter.
- (4) Enter the value per pulse (measurement value per pulse) of the connected meter, and select the unit.

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

Note: Select the blank in the measurement unit pulldown for the meter not to be used.

Note: Set the value per pulse according to the measurement meter to be used. To check that the setting is correctly made, first check both the values measured by the measurement meter and by the measurement controller, and after a certain time, check that the both values have increased at equal increments. (The value measured by the measurement controller can be checked on the browser for the administrator.)

5-2-4 Setting the trend data format

The data format to be used when the trend graph data of the measured value is downloaded or is sent by e-mail can be set.

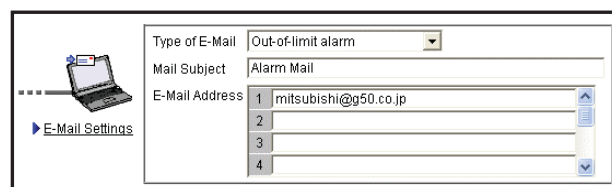
- (1) Select the separator character between [Comma (,)] and [Semicolon (;)].
- (2) Select the decimal point character between [Period (.)] and [Comma (,)].
- (3) Select the trend data interval between [1 minute (for 2 days)], [2 minutes (for 4 days)], and [5 minutes (for 10 days)]. The period of time that the trend graph can be displayed on the trend graph screen varies depending on the data interval.

5-2-5 Setting the destination to which an error mail is sent

To receive an e-mail when the temperature or the humidity exceeds a certain value, make the error mail sending settings.

- (1) Select [Out-of-limit alarm] in Type of E-Mail pulldown, and enter the Mail Subject and the E-Mail Address.

Note: The following characters cannot be used in the mail title:
< > & “ ”



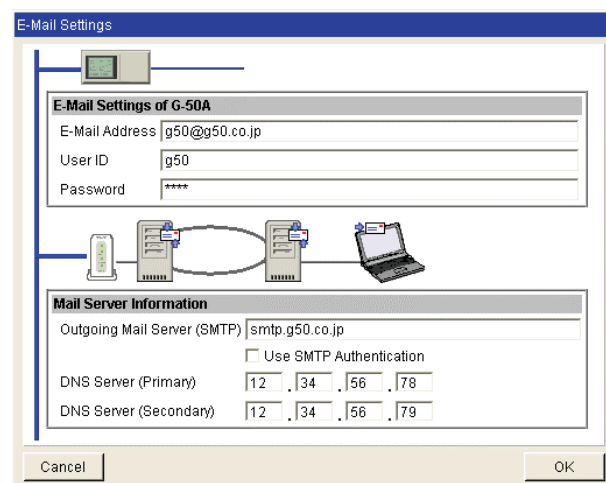
The following format will be applied when the alarm mail is sent.

```
From: Mitsubishi Building(000001)
Date/Time: 23/01/2007 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
```

Item	Format
From	GB-24A name + Unit ID Note: Refer to section 4-2-1 for the settings of the GB-24A name and unit ID.
Date/Time	yyyy/MM/dd hh:mm:ss Note: The date format set in chapter 4-2-5 will be applied.
Address	M-NET address of AI controller + sensor No.
Current value	Present temperature or humid (one place of decimals) Note: The present value may be [**. *] 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 (for the last 10 minutes)

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

Note: The setting details are the same as those mentioned in the chapter 5-1-1 and 5-1-2. Refer to those chapters.



5-2-6 Setting the destination to which temperature/humid trend data mail is sent

To send temperature/humid trend data by mail once a day (when the date changes), make the mail sending settings. The trend data is sent as an attachment CSV file.

- (1) Select the [Trend Data] in the Type of E-Mail pulldown, and enter the Mail Subject and the E-Mail Address.

Note: The following characters cannot be used in the mail title:
< > & " ' ,

The following format will be applied to the attachment file attached to the mail that is sent when the date changes.

```
121
23/01/2007
Address 50-1
Time, Temperature(deg C)
00:00, 20.3
00:05, 20.1
00:10, 19.8
00:15, 19.3
:
23:50, 18.8
23:55, 18.5
```

Item	Format
File Type	121: Temperature data 122: Humidity data
Date	dd/MM/yyyy Note: The date format set in section 4-2-5 will be applied.
Trend target	M-NET address of AI controller + sensor No.
Measured item	"Time, Temperature" or "Time, Humidity"
Data	Time + Measurement data Note: The data interval, separator character, decimal point character that are set in section 5-3-4 will be applied.

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

Note: The setting details are the same as those mentioned in the chapter 5-1-1 and 5-1-2. Refer to those chapters.

6 Functions 2

6-1 Limiting the Set Temperature Operating Range

Click on [Function2]-[Set Temperature Range Limit] in the menu to open the set temperature range limit screen, and make necessary settings to limit the set temperature operating range of the local remote controller.

Each user operation will be limited by setting the lower limit and the upper limit of the set temperature for cooling operation, which leads to energy saving.

Note: The set temperature range can be limited on the following remote controllers. *1

ME remote controller (PAR-F27MEA-E)	: Lower limit for cooling mode and upper limit for heating mode
ME remote controller (PAR-F27MEA-F)	: Lower and upper limit for cooling, heating and automatic mode
Simple ME controller (PAC-SE51CRA-F)	: Lower and upper limit for cooling, heating and automatic mode
MA remote controller (PAR-21MAA) *2	: Lower and upper limit for cooling, heating and automatic mode
Simple MA controller (PAC-YT51CRB) *2	: Lower and upper limit for cooling, heating and automatic mode

*1: The operation mode that can be set varies depending on the unit model.

*2: This function cannot be used depending on the indoor unit model.

This function is not supported by the units other than CITY MULTI. Make the setting from the remote controller when connecting other types of units.

Note: The set temperature range for all modes can be limited on the browser operation screen (for administrator regardless of any settings being made).

Note: If the user logs in as a manager, some of the operations may be prohibited.

Group No., group name
Group numbers and group names will be displayed.

Batch operations
Click to set all groups collectively.

Copy
Click to copy the settings.

Paste
Click to paste the settings.

Set temperature range display
The set temperature range is displayed.

Refresh
Read setting data from GB-24A.

Save settings
Send setting data to GB-24A.

- (1) Click the set temperature range display to display the setting screen. Set the temperature range for cooling, heating and automatic mode. Click [OK] to return the previous screen.

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

Lower limit

Upper limit

Set Temperature Range Limit

Group Name : Lobby (South)

Cooling Mode: 26 - 28 °C

Heating Mode: 20 - 23 °C

Auto Mode: -- - -- °C

Cancel OK

- (2) Click [Save Settings] to send setting data to GB-24A.

Note: When copying settings of a group to another group, click [Copy] button. The screen will change to a selection screen (yellow-green). Click [Paste] on a group to be copied.

Note: When setting all groups collectively, click [Batch operation] button, and input settings.

6-2 Night Mode (Silent Mode) Schedule

Click on [Function2]-[Night Mode Schedule] in the menu to open the night mode (silent mode) schedule screen and make necessary settings to switch the outdoor unit operation mode to the night mode (low-sound operation), and set the night mode time interval.

Use this mode when low-sound operation of the outdoor unit is preferable during night.

Note: Make this setting only when all the units operate normally. When connection error occurs at the indoor or the outdoor unit, night mode target units may not be displayed normally.

Depending on the type of outdoor units connected, this function may not be available.

Note: The noise level to be reduced varies depending on the unit model.

Note: If the user logs in as a manager, the operations may be prohibited.

Night mode start time
Click to set the start time.

Target outdoor units
Click to select the outdoor unit, which performs night mode control.

Night mode end time
Click to set the end time

Refresh
Read setting data from GB-24A.

Save settings
Send setting data to GB-24A.

(1) Set the time interval in [Night mode start time] and [Night mode end time].

Note: When the starting time and the ending time is the same, night mode operation will always be performed.

(2) Select the outdoor unit, which performs night mode operation from [Target outdoor units].

Note: M-NET address numbers for each outdoor unit are displayed in the target unit field.

(3) Click [Save Settings] to send setting data to the GB-24A.

7 User Setting

Click on [User settings] in the menu to open the user setting screen and make necessary user settings to limit available functions of a manager and to change user names and passwords of maintenance user and manager.

A manager must change group names when a tenant has been changed. However, for basic setting information, such as connection information of air conditioners, that one doesn't want to be changed, please make this user setting. Moreover, when manager forgets his user name or password, the user logs in as a maintenance user can be set again.

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

Available functions
The building manager selects the available functions.

Refresh
Read setting data from GB-24A.

User name and password for building manager
User name and password can be changed.

Save settings
Send setting data to GB-24A.

- (1) When changing the user names or passwords of maintenance users, type new information in [User name], [New Password] and [Retype Password] fields to change user names or passwords of maintenance users.

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

- (2) When changing the user names or passwords of managers, type new information in [User name], [New password] and [Retype Password] fields to change user names or passwords of a manager.

- (3) To set the available functions of a manager, click functions that should be available. The ones that are selected will be shown with a yellow-green background.

To cancel the selection, click on them again. Deselected items will be shown with a gray background. For more information of each function and available functions, refer to the next page.

Note: If the user logs in as a manager, the present status can be checked, but cannot be changed.

Available Functions

Initial Settings	
<input checked="" type="checkbox"/> Date and Time <input type="checkbox"/> <u>Basic System</u>	
<input checked="" type="checkbox"/> Groups (<input checked="" type="checkbox"/> Group Name <input type="checkbox"/> <u>Group Structure</u>) <input type="checkbox"/> <u>Interlocked LOSSNAY</u>	
<input checked="" type="checkbox"/> Blocks (<input checked="" type="checkbox"/> Block Name <input type="checkbox"/> <u>Block Structure</u>)	
Functions 1	
<input type="checkbox"/> <u>E-Mail</u> <input checked="" type="checkbox"/> Measurement	
Functions 2	
<input checked="" type="checkbox"/> Set Temperature Range Limit <input checked="" type="checkbox"/> Night Mode Schedule	

Table 7-1 Available Function List

Function			Content
Initial setting	Date and time		Current date and time setting
	Basic system *1		GB-24A network setting, external output setting
	Groups	Group name	Group name setting
		Group structure *1	Connection setting of indoor units, remote controllers, system controllers and general equipment in a group
	Interlocked LOSSNAY*1		Connection setting of interlocked LOSSNAY
	Blocks	Block name	Block name setting
Block structure*1		Registration setting of groups in a block	
Functions1	E-Mail*1		Address to report an error mail, Setting of mail communication partner
	Measurement		Measurement controller connection setting, error mail setting
Functions2	Set temperature range limit		Temperature operating range limitation setting
	Night mode schedule		Night mode time interval setting

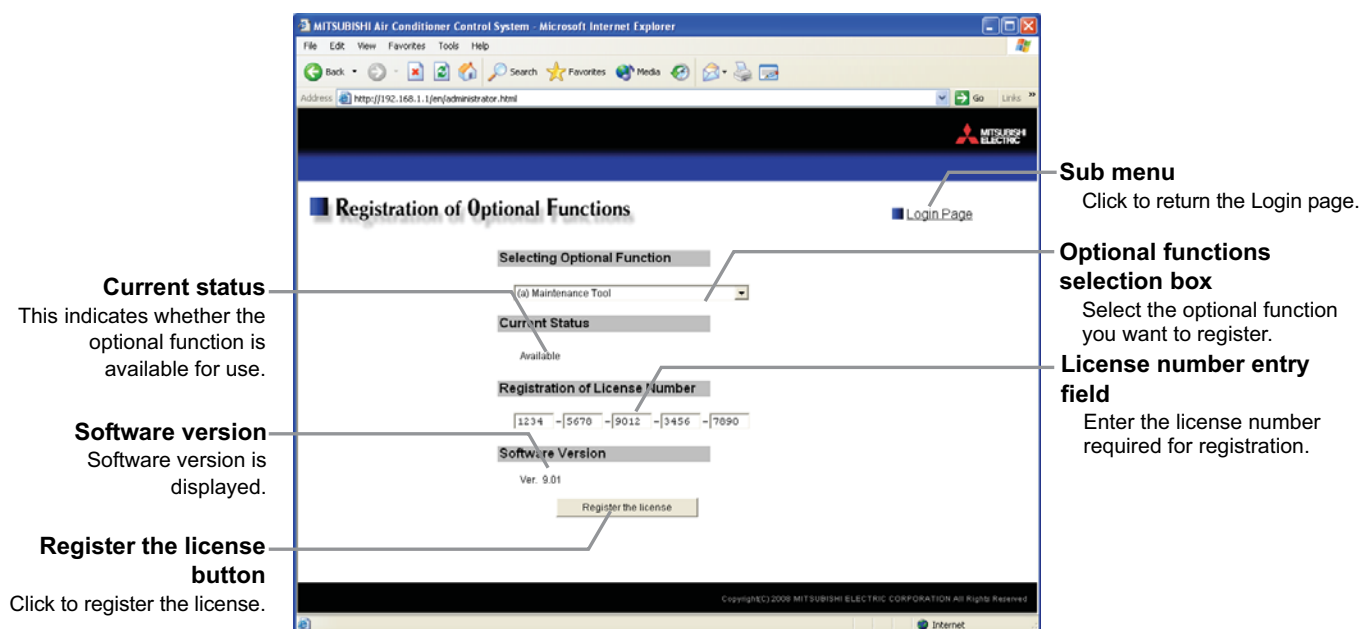
*1: At factory shipment, the operation of the manager is prohibited.

(4) Click [Save Settings] to send setting data to the GB-24A.

8 Registering a License for Optional Functions

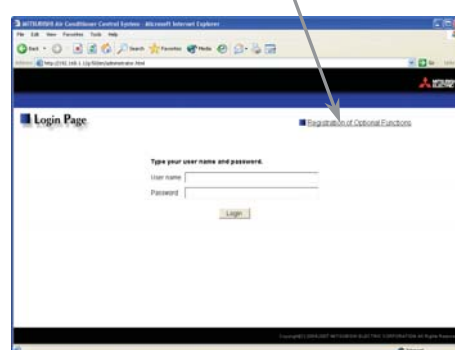
Given below is an explanation on how to register a license for optional functions. In the Login screen (see3-1), click [License registration for optional functions] and the License Registration of Optional Functions screen will appear.

Please ask the dealer you purchased the product from for more details on the optional functions and how to purchase a license number.



- (1) Open the Registration of Optional Function screen.
Enter the Web page address in the web browser address field, and click the [Enter] (Return) key on the keyboard to display the Login screen (See 3-1). Click on this screen's menu item [Registration of Optional Functions] to open the Registration of Optional Functions screen.

License registration of optional functions



- (2) Register an optional function.
First select the optional function you wish to register from the selection box in the Selecting Optional Function selection. When an optional function is selected, the current section will indicate whether it is available for use.
Next enter the license number you purchased for the optional function in the license number entry field and click the [Register the license] button. Once this is done, the optional function will be available for use.

Selecting Optional Function

(a) Maintenance Tool

Registration of license number

1234 - 5678 - 9012 - 3456 - 7890

If you were unsuccessful in registering an optional function, check that you did not enter the wrong license number by mistake, that the correct optional function was selected from the selection box, and that the GB-24A main units date and time are set correctly.

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