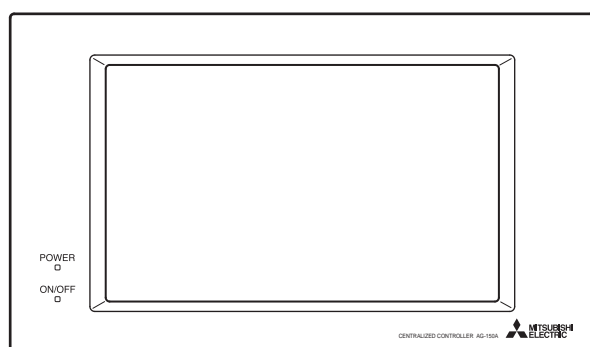


Air-conditioner Control System

Centralized Controller Model: AG-150A

Instruction Book



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

1. Safety precautions

Before using the controller, read the Safety Precautions section carefully to ensure proper operation.

These safety precautions must be observed by anyone who operates the centralized controller.

Keep the Instruction Book and Installation Manual for future reference. Make sure both manuals are passed on to any future air condition system users.

 WARNING	This symbol indicates that failure to follow the instructions exactly as stated poses the risk of serious injury or death.
 CAUTION	This symbol indicates that failure to follow the instructions exactly as stated poses the risk of injury or damage to the controller.

WARNING

The unit must be installed by a dealer or technical representative.

Improper installation by an unqualified person may result in electric shock and fire.

Install in a location that is strong enough to withstand the weight of the unit.

A weak installation area may cause the unit to fall down, resulting in a personal injury.

Only use specified cables. Securely connect each cable so that the weight of the cable is not applied to the connectors.

Loose or improper connections may result in heat generation or fire.

If any abnormality is noticed (e.g., burning smell), stop the operation, turn off the power supply, and contact your dealer or technical representative immediately.

Continuing the operation may result in damage to the controller, electric shock, or fire.

Ask your dealer or an authorized technician to move or reinstall the controller.

Improper installation may result in an electric shock or fire.

Controllers must be disposed of properly.

Contact your dealer for proper disposal procedures.

Do not attempt to modify or repair the controller.

Modification or improper repair may result in electric shock or fire. Consult your dealer when repairs are necessary.

Stop the operation immediately and notify your dealer if an error code is displayed and the controller does not operate, or when any abnormality is noticed.

Continuing the operation may result in damage to the controller or fire.

CAUTION

Do not install the controller where there is a risk of leaking flammable gas.

If the leaked gas accumulates around the controller, it may ignite and cause an explosion.

Do not wash the unit with water.

Doing so may cause an electric shock or malfunction.

Do not use the controller for specialized applications.

This product is designed exclusively for use with the MITSUBISHI ELECTRIC building air conditioning control system. The use of this product with other air-conditioning management systems or for other purposes may result in malfunctions.

Do not spray insect sprays or sprays with flammable propellants to the controller.

To avoid the risk of fire or explosion, do not place flammable sprays near the controller or spray them directly on the controller.

To avoid the risk of electric shock or damage to the controller, do not touch the touch panel or USB storage device connector with wet hands.

Do not use the controller in an environment high in oil, steam, or sulfuric gas.

These substances may have adverse effects on the performance of the controller or damage its parts.

To avoid the risk of electric shock or damage to the controller, do not press the touch panel with sharp objects.

Operate the controller within the temperature range specification.

The use of controller outside of its specification may result in serious damage to the controller. Be sure to check the temperature range specification in the Instruction Book.

Use a security device such as a VPN router when connecting the AG-150A to the Internet to prevent unauthorized access.

If no security devices are installed, the operation settings may be changed by an unauthorized person without the knowledge of the user.

To reduce the risk of malfunction, do not apply impact or vibration after installation.

2. Introduction

The terms “Group,” “Block,” and “EC” used in this manual are defined as follows:

Group: Group is a group of air conditioning units and controllers and is the smallest unit that the AG-150A can control. The maximum number of units and controllers that each group can contain is 16.

Block: Block is a group of groups. Energy-save and peak-cut settings are made for each block.

EC: EC is short for Expansion Controller (PAC-YG50ECA).

3. Product features

The controller described in this manual is a centralized controller that can be operated over the Web. Any connected air conditioning systems can be operated or monitored directly from the controller or over the Web using browser software. Refer to the Web browser operation manual (separate volume) for how to use this functions.

Function		Description	
Number of controlled unit	Indoor unit, independent OA processing unit or LOSSNAY	Up to 150 units are connectable (including the interlocked units) *2 A separately sold expansion controller (PAC-YG50ECA) is required to connect more than 50 units.	
	Number of units in one group (indoor, independent OA processing unit, or LOSSNAY)	1-16 units (Indoor unit, independent OA processing unit and ventilation system (LOSSNAY) cannot be registered to the same group.)	
	Number of remote controllers in one group	1-2	
	Number of system controllers in one group	0-4 (including the number of remote controller in one group)	
	Number of interlocked units	<ul style="list-style-type: none">Number of LOSSNAY units that can be interlocked with an indoor unit: 1Number of indoor units that can be interlocked with a LOSSNAY unit: 16	
User Operations Function	Operation *1	ON/OFF	The ON/OFF operation can be performed as a collective, per group, or per block.
		Operation mode	The switch operation for the operation mode setting can be performed as a collective, per group, or per block. (Available modes depend on the model of indoor units.) [Selectable operation mode for the indoor unit] COOL/DRY/FAN/AUTO/HEAT [Selectable operation mode for the independent ventilation] HEAT RECOVERY/BY-PASS/AUTO [Selectable operation mode for PWFY] HEATING/HEATING ECO/HOT WATER/ANTI-FREEZE/COOLING
		Fan speed	Up to four fan speeds are available. Fan speed can be changed collectively, or for each group or block of indoor units. (The number of available fan speeds depends on the indoor model (2 speeds, 3 speeds, 4 speeds, and Auto). "Auto" is available only on the models that support that function.)
		Temperature setting	Temperature setting can be performed collectively, per group, or per block. [Setting temperature range for air conditioner] Cool (Dry) operation: 19 ~ 30°C / 67 ~ 87°F Heat operation: 17 ~ 28°C / 63 ~ 83°F Auto operation: 19 ~ 28°C / 67 ~ 83°F [Setting temperature range for PWFY] [Booster unit]*3 Heating: 30 ~ 50°C/87 ~ 122°F Heating: ECO 30 ~ 45°C/87 ~ 113°F Hot Water: 30 ~ 70°C/87 ~ 158°F Anti-freeze: 10 ~ 45°C/50 ~ 113°F Cooling: Invalid [Water HEX unit]*3 Heating: 30 ~ 45°C/87 ~ 113°F Heating ECO: 30 ~ 45°C/87 ~ 113°F Hot Water: Invalid Anti-freeze: 10 ~ 45°C/50 ~ 113°F Cooling: 10 ~ 30°C/50 ~ 87°F
		Air direction and swing operation	Vertical air flow directions (5 directions), auto setting, and swing setting can be changed collectively, or for each group or block of indoor units. (Available air flow directions depend on the model. [5 air flow directions and AUTO] are available only on the models that support those settings.
		Operating/stopping interlocked LOSSNAY units	Interlocked LOSSNAY units (if any) can be operated (at High or Low) or stopped collectively or for each group or block of indoor units. (Ventilation mode cannot be selected for the interlocked LOSSNAY units.)
		Schedule	Group is the smallest unit to which a weekly schedule can be assigned. The same schedule can be applied to each group, groups in a block, or groups on a floor. <ul style="list-style-type: none">Up to 24 events can be scheduled for each day."Temperature Setting", "Fan Speed Setting", "Vane Setting", and "Setback Operation" can be timer-controlled. If a license is registered <ul style="list-style-type: none">Two types of weekly schedule patterns (summer and winter) are available.Five operation patterns (A-E) can be set for each year, up to 50 days can be allocated to each pattern.

Function		Description
User Operations Function	Operation *1	Prohibit local remote control Operation of certain functions from the local remote controllers can be prohibited collectively or for each group or blocks of indoor units. (Applicable functions: ON/OFF, operation mode, temperature setting, filter sign)
		Filter sign reset Filter sign can be reset for each group or block of indoor units.
		Error reset Resets the display of error.
		Error history reset Resets the error history (unit error, communication error).
		External input Connects to an external input/output device that stops the units in an emergency, run or stop the units, permit or prohibit the operation of units collectively. Requires an external input/output adapter (sold separately).
	Monitor *1	ON/OFF (system) The ON/OFF indicator lamp (LED) indicates if one or more groups or all the groups in the system are stopped.
		Operation status of each group in the system Operation status (ON/OFF), operation mode, fan speed, temperature setting, air flow direction, operation status (ON/OFF) of interlocked units, timer enable/disable status of each group is displayed.
		Filter sign Indicates that the filters on the units in a given group is due for cleaning.
		Local operation prohibition Displays the functions that the controller forbids or the functions that are forbidden by other controllers.
		Error The address of the unit in error, error code, and the address of the unit that detected the error will appear.
		External output Outputs signals (run/stop, error) to an external device. Requires an external input/output adapter (sold separately).
Initial Settings	Operation *1	Date and time This function is used to set the current date/time and daylight savings time.
		License This function is used to register license.
		Unit Info. This function is used to set unit name, ID number, connection or non-connection of expansion controller, brightness of the LCD, sound volume, date format, time format, temperature unit, and display language, test run availability and screen lock availability.
		Network This function is used to set the IP address, subnet mask address, and gateway settings for the LAN and also to set the address, K-transmission converter address, local control prohibit settings, and external input settings for the M-NET; and the expansion controller settings.
		Advanced settings Allows the Master/Sub clock setting to be made.
		Groups This function is used to register indoor units, LOSSNAY units, remote controllers, and lower-level system controllers to a group.
		Blocks This function is used to register a group to a block.
		Interlock This function is used to interlock the operation of indoor units and ventilation units.
		Floor Layout This function is used to make the basic settings for the floor layout and display position of the groups.
	Monitor *1	Error history monitor Up to 384 errors can be stored in memory. (128 errors per AG-150A or expansion controller (64 unit errors, 64 communication errors))
		Refrigerant system configuration confirmation Allows the user to see which indoor units are connected to each outdoor unit.
Function	Operation *1	External temperature interlock Control level of outside temperature interlock function can be set for each group.
		Night setback control Control time and upper/lower limit temperature can be set for setback function.
User Setting	Operation *1	Maintenance User Allows the maintenance user name and password to be set.
		Building Manager Allows the building manager name, password, function enable/disable settings to be made.
Other	Data back-up	Connection/Interlock Information Group setting information and interlock setting information are retained, even if power is turned off.
		Error history Retained, even if power is turned off.
		Schedule data Schedule information of each group is retained, even if power is turned off.
		Current time Current time is retained by the build-in capacitor for a week, even if power is turned off.
		Saving the data on a USB drive The initial setting data, operational data (charge parameter, power consumption) can be stored to a USB drive.
		Reading data from USB memory Initial setting data can be read from USB memory.
	Device maintenance	Screen lock function The screen can be locked to prevent access until a valid user name and password are entered.
		Touch panel cleaning Touch panel is locked and can be cleaned.
		Time synchronization Clocks on the controllers and units that are under the control of the main controller are synchronized once a day (applicable only to the ones that support this function).

*1: The item and range that can be operated or monitored depend on the function of the indoor unit.

*2: The maximum number of the controllable units varies, depending on the indoor unit.

*3: "Air To Water" on the AG-150A screen indicates Booster unit group and Water HEX unit group.

* Main and Sub system controllers

The controller described in this manual can only be used as a Main controller, not as a Sub controller.

• Main system controller (Main SC)

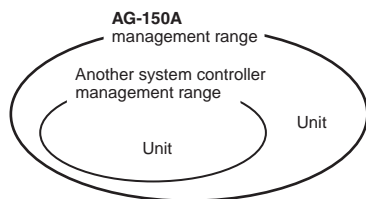
Main SC refers to a controller that controls all other system controllers, including the units they control.

If a given system has only one system controller, that controller becomes a Main controller.

Group settings and interlock settings can only be made from a Main controller.

• Sub system controller (Sub SC)

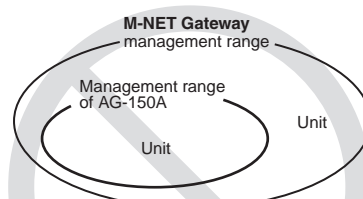
Sub controller refers to a system controller that is controlled (including the units it controls) by a Main system controller.



When AG-150A controls another system controller or when the system contains only AG-150A:

AG-150A is set as the main system controller.

*AG-150A performs the group setting in this configuration.



When AG-150A is controlled by another system controller: (Example: MJ-300Gateway)

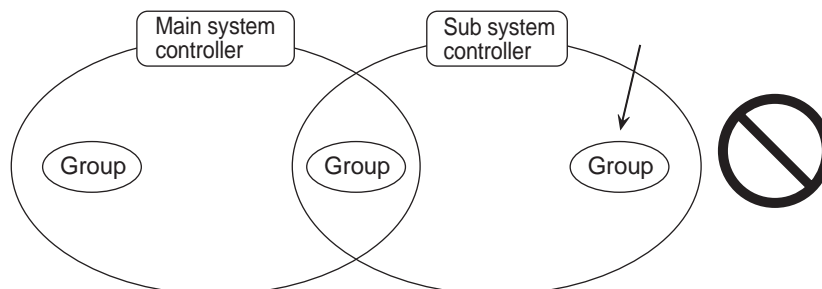
AG-150A is set as the sub system controller.

*The group setting is performed by main system controller.

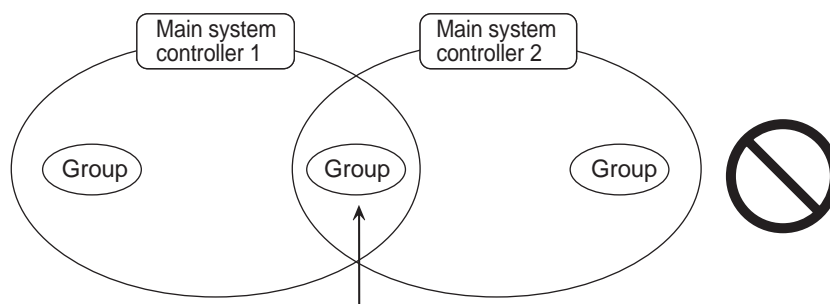
NOTE:

The following group setting cannot be performed.

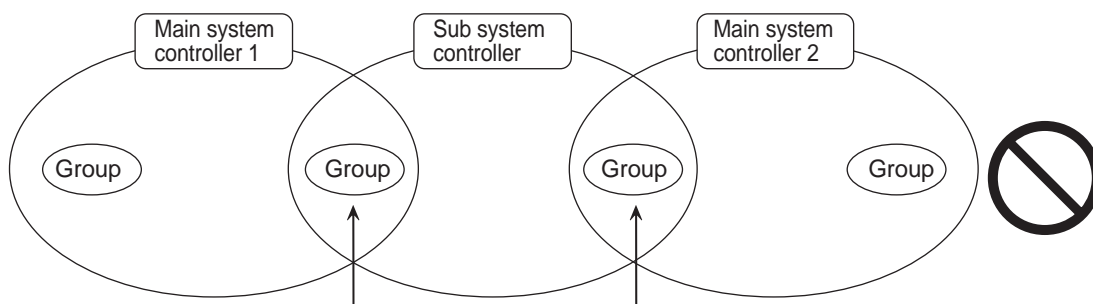
- Unit groups which are not under the management of the main controller and are managed by the sub system controller.



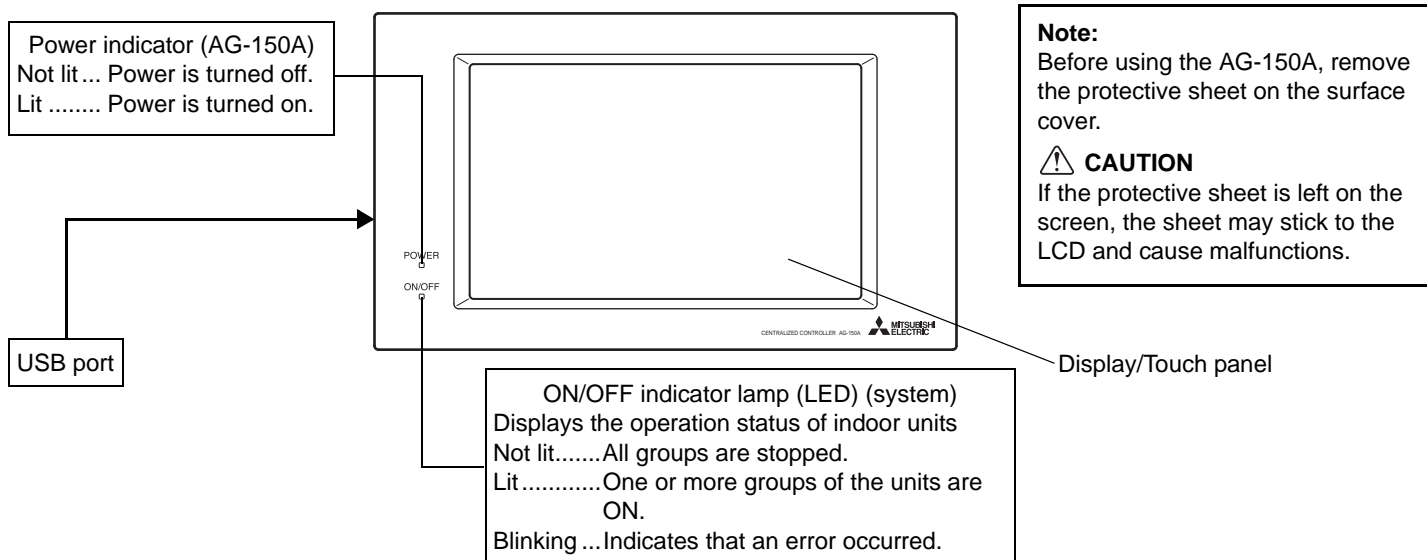
- A common group is managed by more than two main controllers.



- A sub system controller which exceeds the management range of the main system controller of two or more.

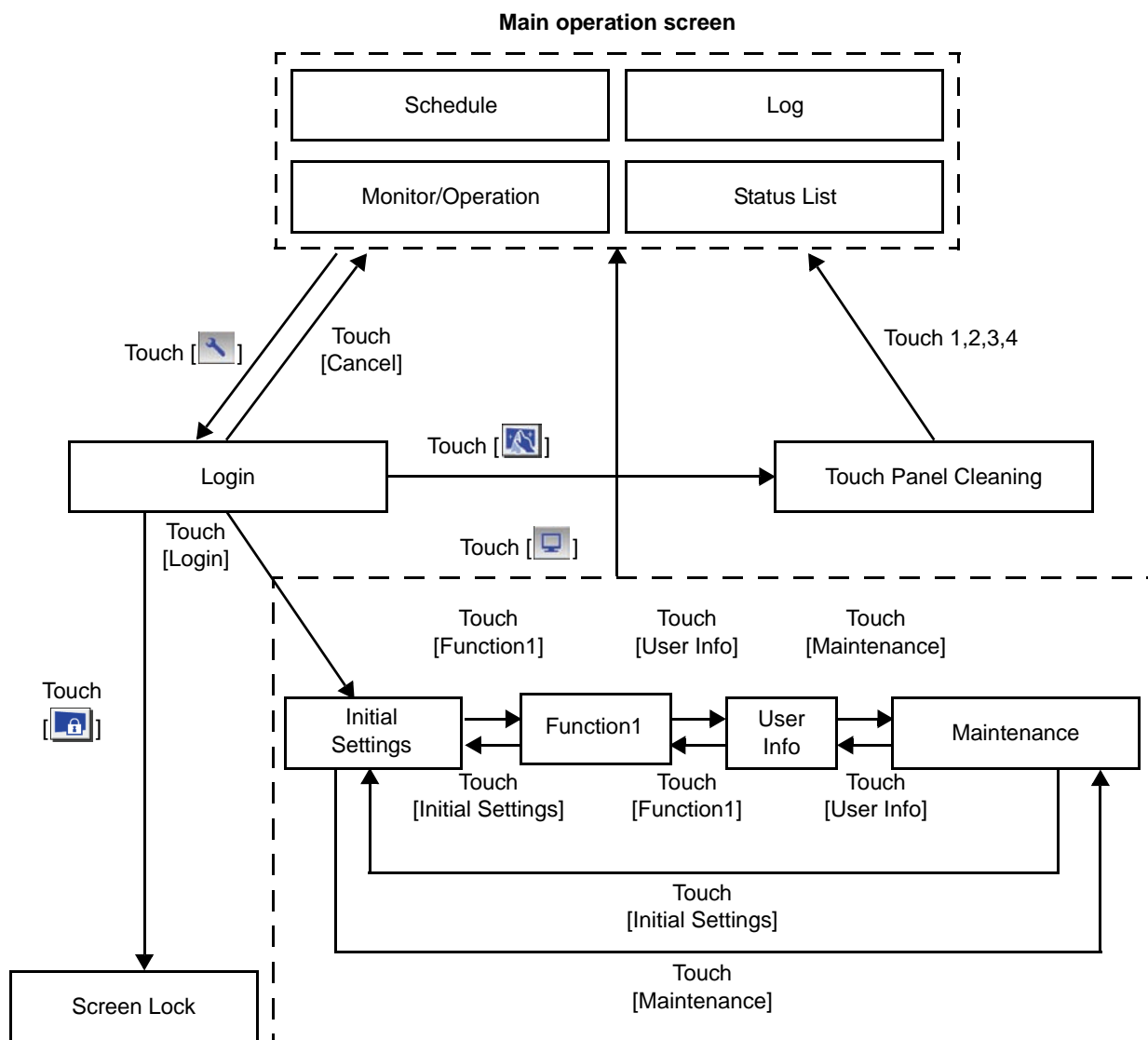


4. Component names and display screen names



Screenshots of windows, their names, and the sequence they appear in are shown below.

- Screen that normally appears



* Normally, the screen remains black. The backlight turns on when the touch panel is touched and stays on while the user is operating the touch panel. The backlight goes off after 10 minutes of non-operation.

* When an error occurs, the backlight turns on regardless of whether the user is operating the touch panel.

⚠ CAUTION

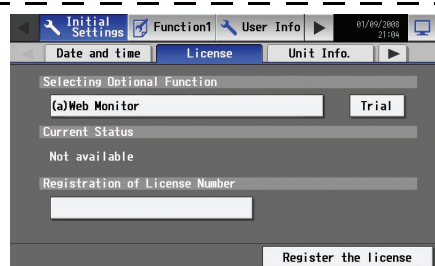
- If nothing appears on the display after touching the touch panel several times, the LCD backlight may be damaged. Since continued use may cause malfunctions, stop the operation, and contact the service center.
- Touching two points simultaneously will be interpreted as pressing a different point. To avoid malfunctions, only touch one point at a time.



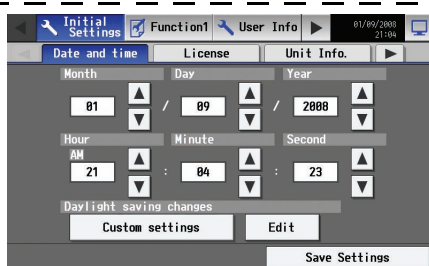
Login(P47)

Touch
[Login]

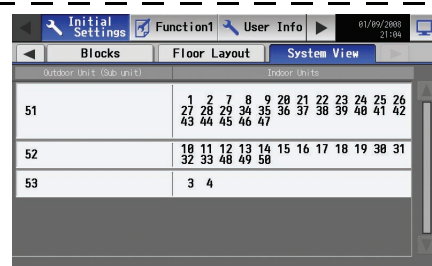
<Initial Settings>



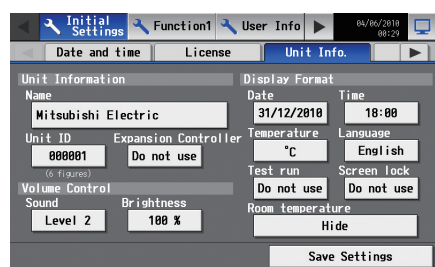
License(P52)



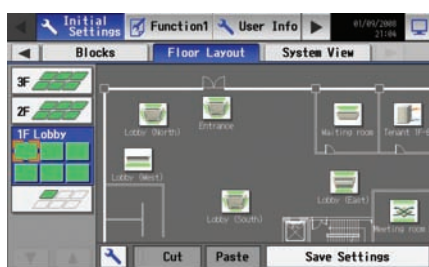
Date and time(P51)



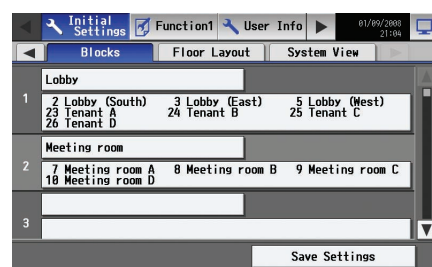
System View(P72)



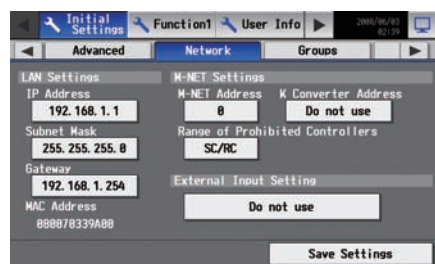
Unit Info.(P53)



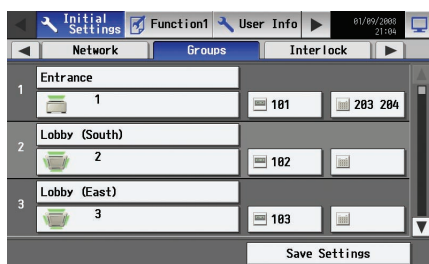
Floor Layout(P67)



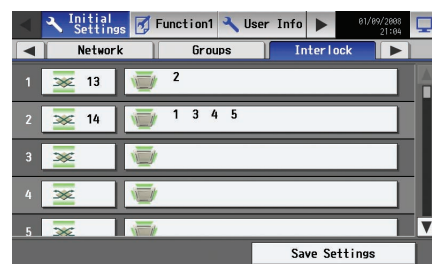
Blocks(P65)



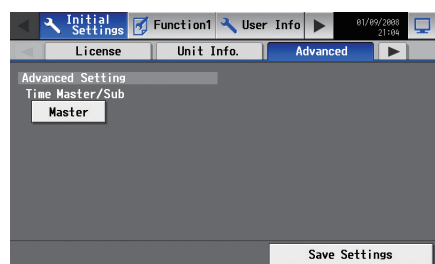
Network(P55)



Groups(P59)



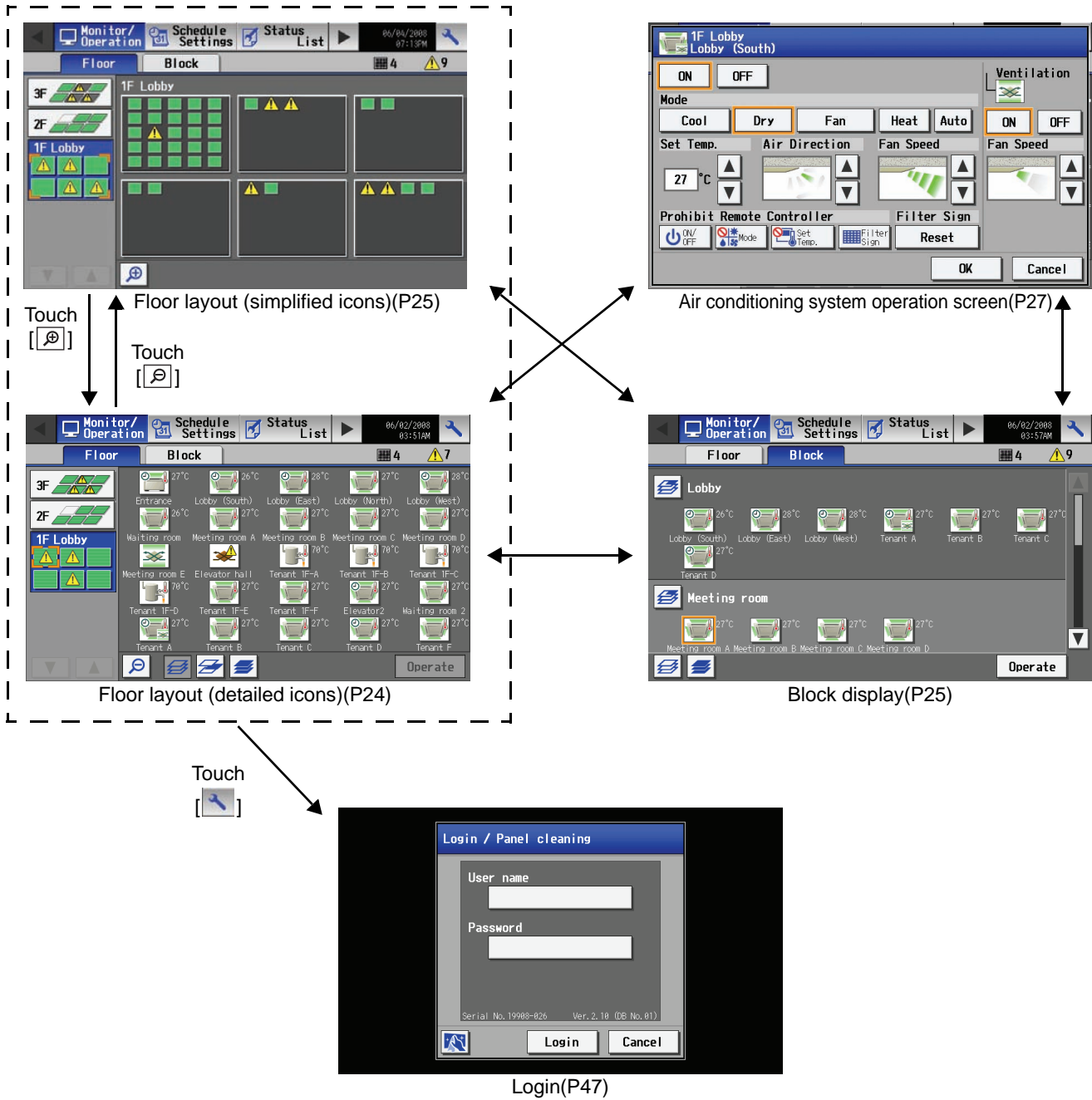
Interlock(P63)



Advanced settings screen(P73)

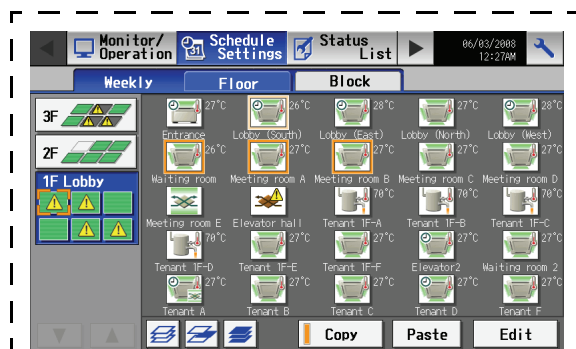
The above nine initial setting screens can be accessed from the sub menu.

<Monitor/Operation>

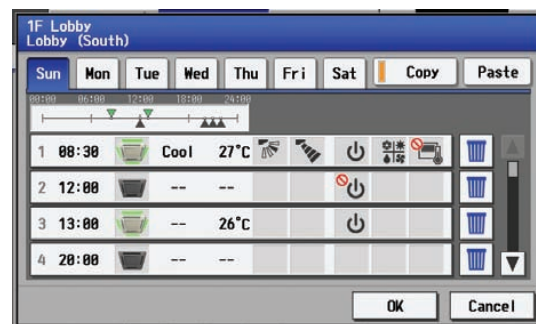


<Schedule Settings>

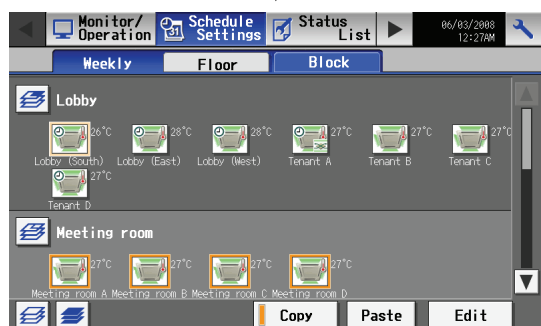
- Setting the schedule without a license registration



Schedule setting screen (floor layout) Weekly(P32)



Weekly schedule screen(P34)



Schedule setting screen (block display) Weekly(P33)



Schedule setting screen (air conditioning units)(P35)

Touch
[Touch icon]



Login(P47)

- Setting the schedule with a license registration



<Status List>

	Group Name	Address	Error Code
1	1F Lobby (South)	002	5101
2	1F Lobby (Center)	004	5101
3	1F Lobby (West)	005	5101
4	3F Convention hall	013	6608
5	3F Hallway	014	6608

All Reset

Malfunction(P43)

Touch
[]

Login / Panel cleaning

User name

Password

Serial No. 19908-026 Ver. 2.10 (06 No. 01)

Login Cancel

Login(P47)

Touch
[]

	Group Name	Address	Reset
1	1F Lobby Meeting room A	007	Reset
2	1F Lobby Meeting room B	008	Reset
3	1F Lobby Tenant C	025	Reset
4	1F Lobby 3F Elevator	027	Reset

All Reset

Filter sign(P45)

<Log>

	Time Occurred	Address (Detection)	Error Code	Time Recovered
1	08/01/2008 06:55PM	008 (008)	5010	08/01/2008 06:55PM
2	08/01/2008 06:55PM	004 (004)	5010	08/01/2008 06:55PM
3	08/01/2008 06:55PM	003 (003)	5010	08/01/2008 06:55PM
4	08/01/2008 06:55PM	002 (002)	5010	08/01/2008 06:55PM
5	08/01/2008 06:55PM	001 (001)	5010	08/01/2008 06:55PM

Clear Log

Unit error(P46)

Touch
[]

Login / Panel cleaning

User name

Password

Serial No. 19908-026 Ver. 2.10 (06 No. 01)

Login Cancel

Login(P47)

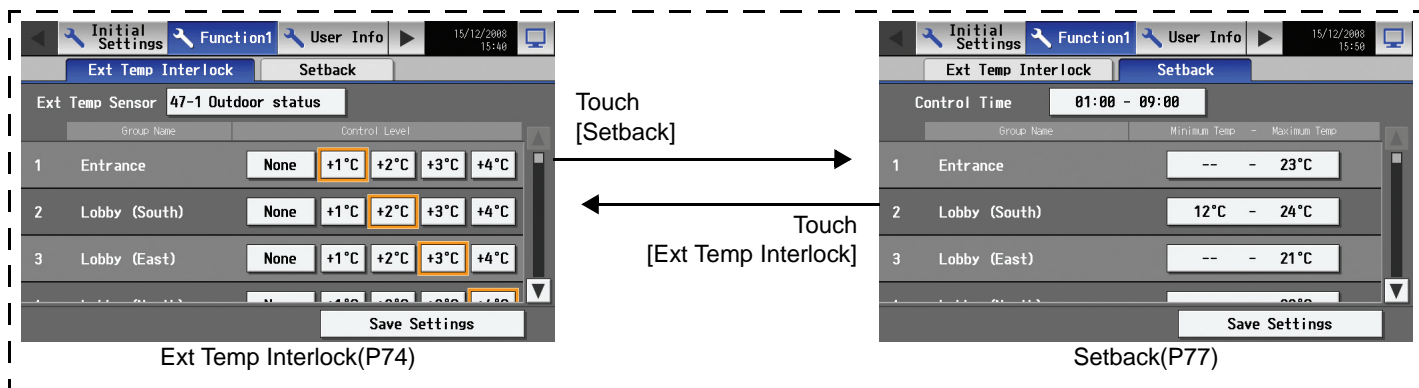
Touch
[]

	Time Occurred	Address (Detection)	Error Code	Time Recovered
1	06/02/2008 04:14AM	013 (000)	6608	
2	06/02/2008 04:14AM	014 (000)	6608	
3	06/02/2008 04:04AM	014 (000)	6608	06/02/2008 04:09AM
4	06/02/2008 04:04AM	013 (000)	6608	06/02/2008 04:09AM
5	06/02/2008 03:54AM	014 (000)	6608	06/02/2008 03:59AM

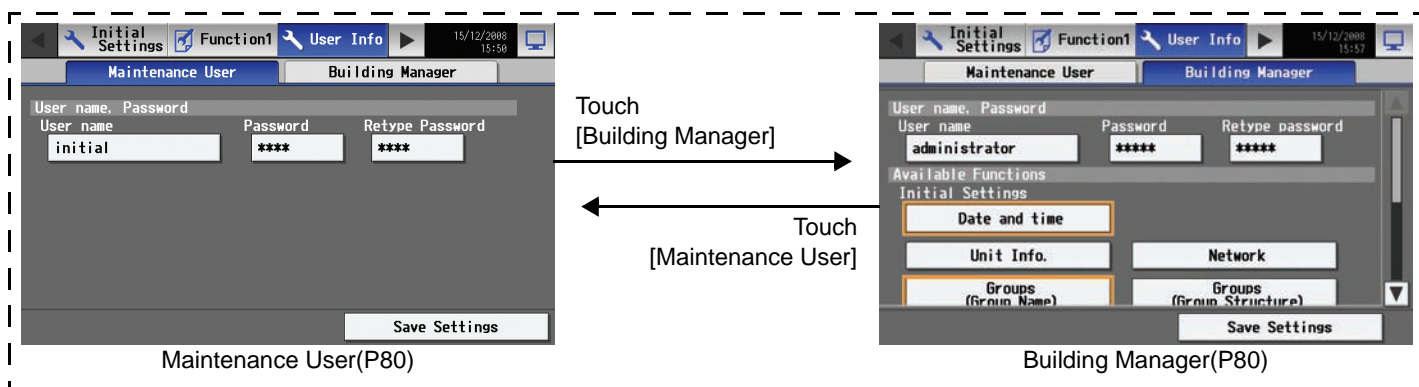
Clear Log

Communication error(P46)

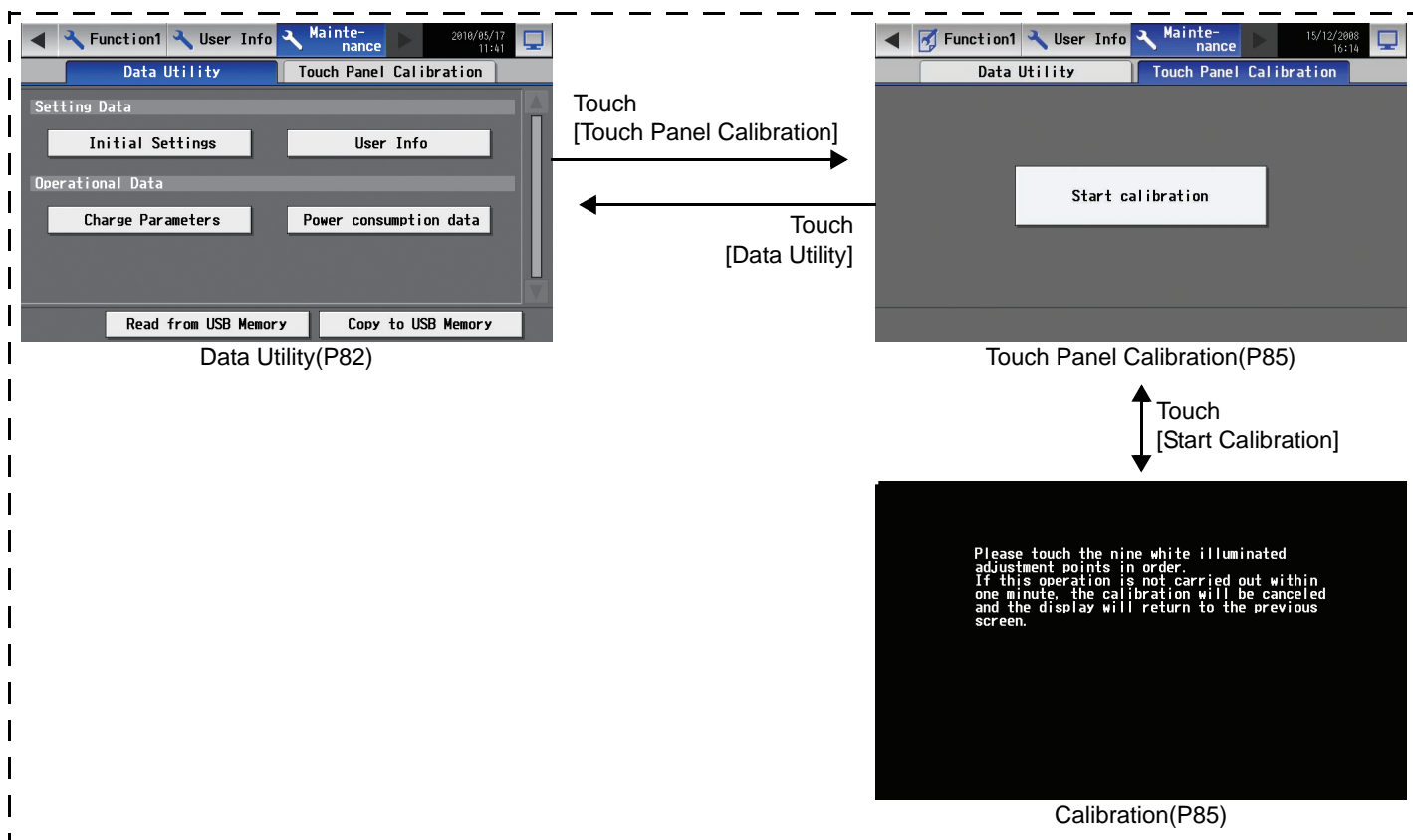
<Function 1>



<User Info>



<Maintenance>



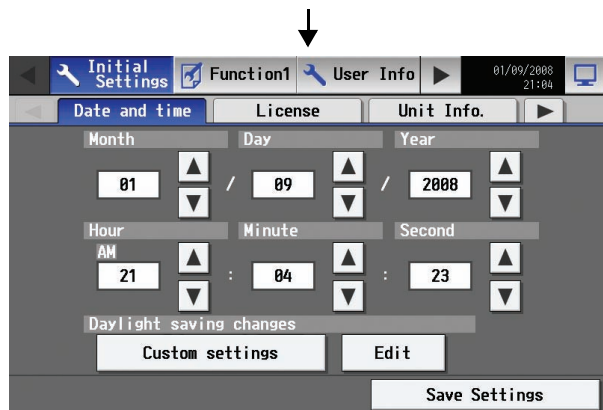
5. Initial Start up

5-1 Initial start up for a system without connection to an expansion controller (PAC-YG50ECA)



After the power is turned on, the language selection window will appear. Select the language to be used for display, and then touch [OK].

Note: It will take approximately 20 seconds for the display to appear after the power is turned on.

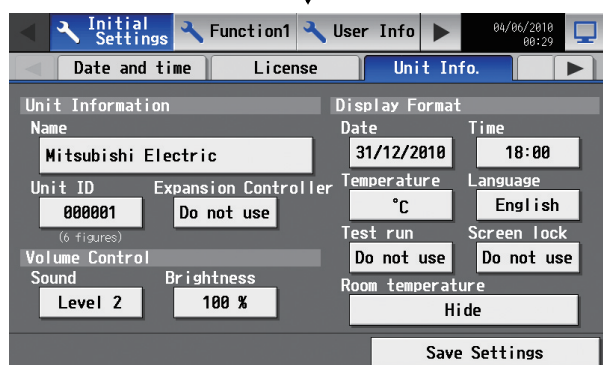


When the language is selected, the Date and Time setting window will appear. Set the date and time. (Refer to Section 7-3 for the details on how to set the date and time.)

* The initial setup sequence does not set the date and time correctly. Be sure to manually set the correct date and time.

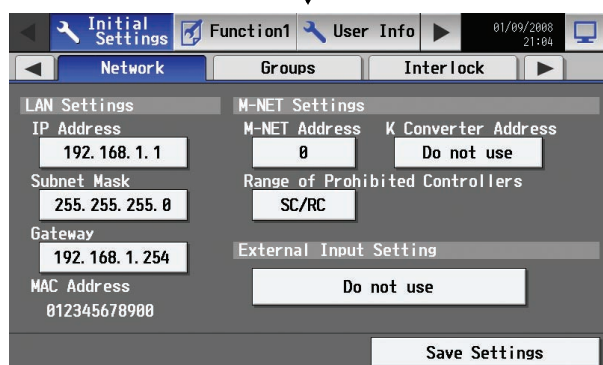
* Touch the [Save Settings] button to reflect the changes.

Touch [Unit Info]



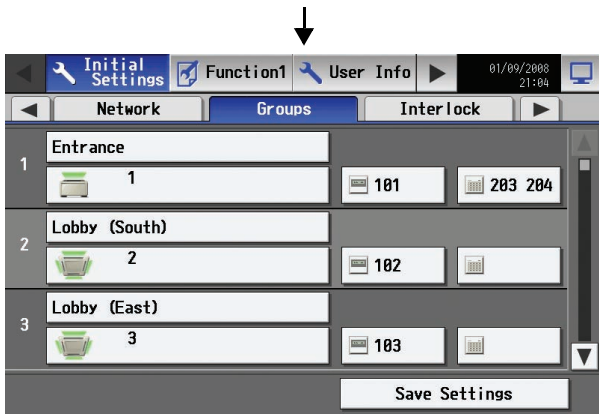
After setting the date and time, touch the [Unit Info.] tab and set the Name and Unit ID. Be sure to set the Expansion Controller setting to "Do not use." (Refer to Section 7-5 for the details on how to set the Name and Unit ID.)

Touch [Network]

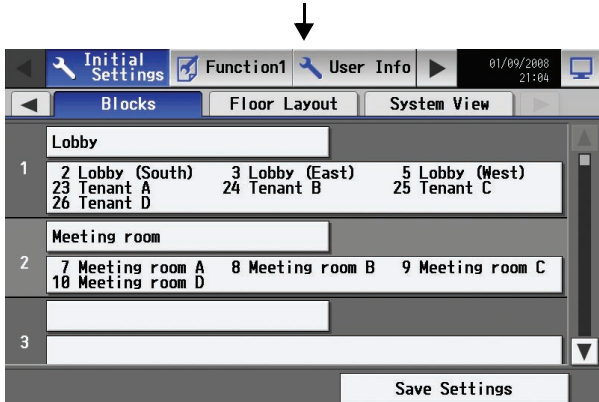


After making the unit settings, touch the right arrow to show the [Network] tab and touch it. Set the IP address and M-NET address. (Refer to Section 7-6 for the details on how to set the IP address and M-NET address.)

Touch [Groups]




After making the network settings, touch the [Groups] tab, and make the settings. (Refer to Section 7-7 for the details on how to make the group settings.)



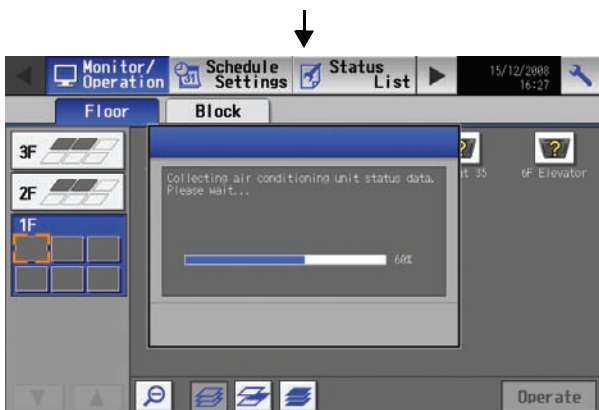
Make other settings such as block settings and interlocked LOSSNAY settings. Refer to appropriate sections in Chapter 7 on how to make the settings.

When the above settings have been made, the initial settings are completed.

Touch the  on the top right hand of the screen to go into the [Operation/Monitor] window.

Configure the floor layout on the [Floor Layout] window if necessary.

* When the unit is started up again, the [Operation/Monitor], instead of the Initial Settings window, will appear. To change certain settings, refer to Section 7-1 Calling up the initial setting window to change the settings.



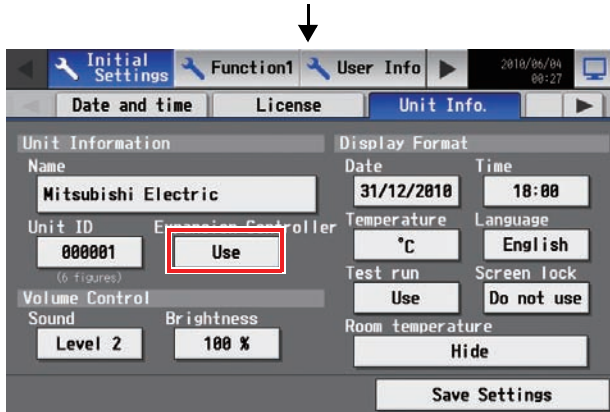
After moving to the [Operation/Monitor] window, the startup screen will appear.

Startup takes a maximum of five minutes after the message appears. (It takes about two to three minutes when no communication errors occur.)

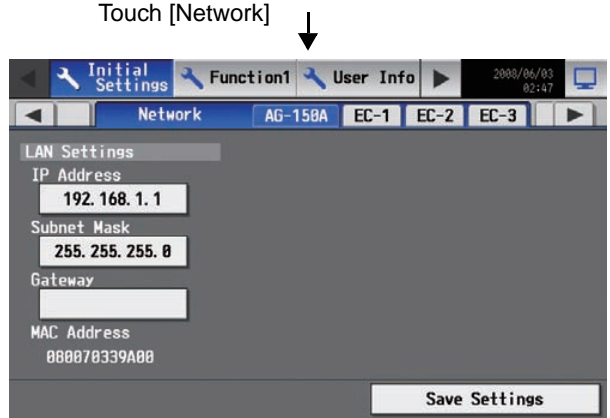
5-2 Initial start up for a system with connection to an expansion controller (PAC-YG50ECA)



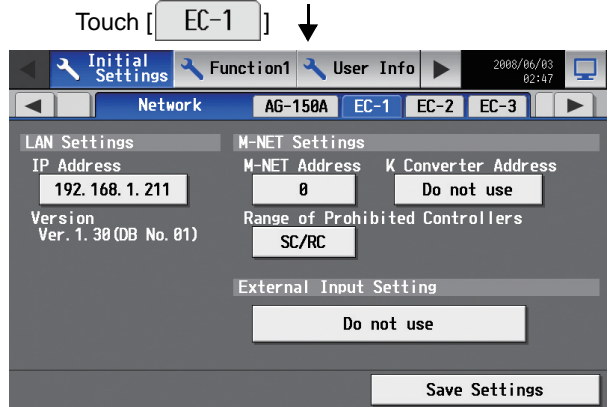
After the power is turned on, the language selection window will appear. Select the language to be used for display, and then touch [OK].
Note: It will take approximately 20 seconds for the display to appear after the power is turned on.



Enter the unit name and ID on the Unit Info window. Set the Expansion Controller setting to "Use."
(Refer to Section 7-5 for the details on how to set the Name and Unit ID.)

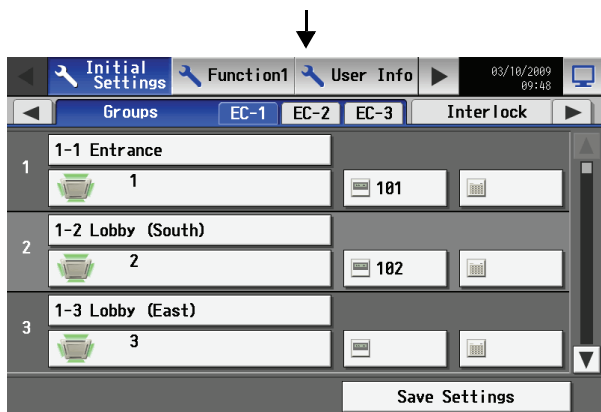


When the unit settings have been completed, touch the right arrow to bring up the [Network] window, and touch [Network]. Select the [AG-150A] tab, and set the IP address for the AG-150A.
Select the expansion controller (EC1-EC3) whose settings are to be made from the tab menu. Check that the DB No. that appears matches that of the AG-150A. (The DB No. for the AG-150A can be found on the back of the controller, on the package box, or on the LCD. Refer to Section 7-1 (P 47) for how to confirm the DB No. on the LCD.)

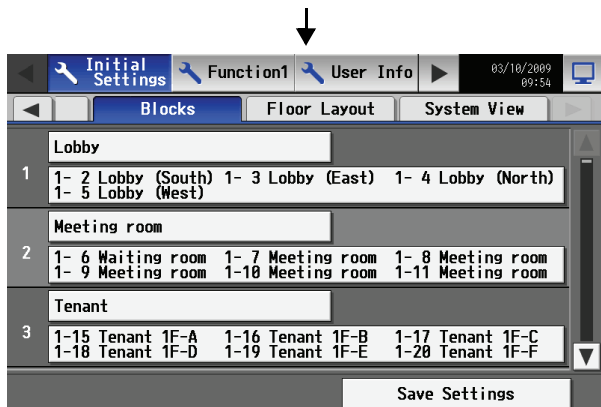


If the DB numbers match, make the IP address and M-NET address settings for each. (Refer to Section 7-6 (P 55) for the details of how to make the settings.)
* Consult your dealer if the DB numbers do not match.

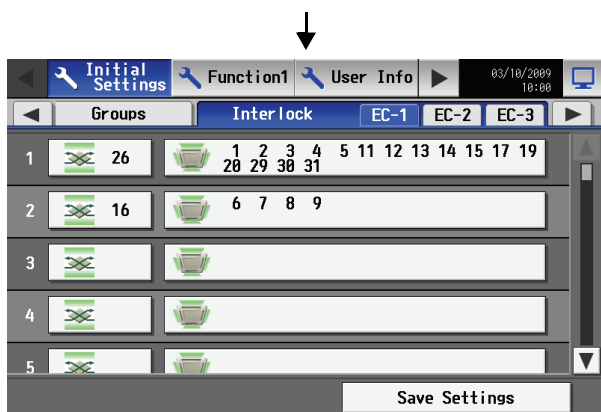
Touch [Groups]



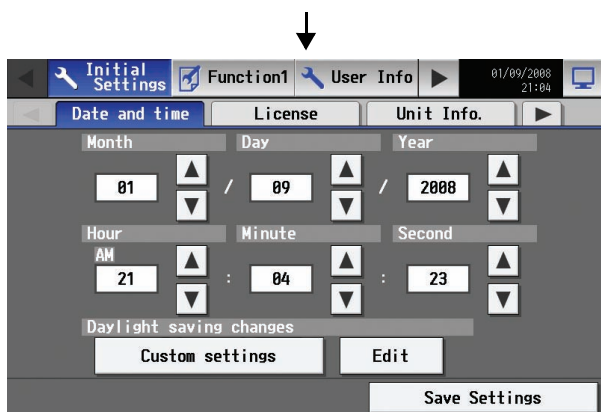
After the network settings have been made, touch [Groups], select the EC number from the tab menu, and make the group settings for each EC.
 * The settings for the units that are connected to a different expansion controller cannot be made.
 (Refer to Section 7-7 for the details of how to make the settings.)




Make other settings such as block settings and interlocked LOSSNAY settings. Refer to appropriate sections in Chapter 7 on how to make the settings.

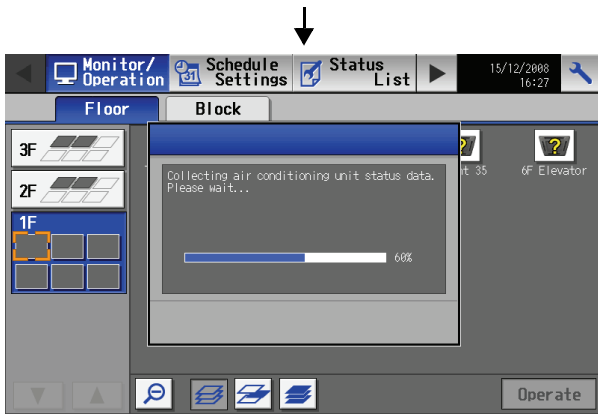


Configure the floor layout on the [Floor Layout] window if necessary.
 * When the unit is started up again, the [Operation/Monitor], instead of the Initial Settings window, will appear. To change certain settings, refer to Section 7-1 Calling up the initial setting window to change the settings.



The Date and Time setting window will appear. Set the date and time.
 (Refer to Section 7-3 for the details on how to set the date and time.)
 * The initial setup sequence does not set the date and time correctly. Be sure to manually set the correct date and time.
 * Touch the [Save Settings] button to reflect the changes.

When the above settings have been made, the initial settings are complete. Touch the  on the top right hand of the screen to go into the [Operation/Monitor] window.



After moving to the [Operation/Monitor] window, the startup screen will appear.

Startup takes a maximum of five minutes after the message appears. (It takes about two to three minutes when no communication errors occur.)

5-3 Connecting multiple AG-150A to a system with connection to expansion controllers

Multiple AG-150A or other controllers can be connected to an air conditioning system, and each controller can control and monitor the system.

Note that the number of connectable units and the software version is limited.

If the software version is unsupported, update the software version of the controllers.

(1) Restrictions on the number of connectable units

The total number of AG-150A should be three or less.

(2) Restrictions on the software version

No. of connectable units	PAC-YG50ECA	3 units or less	
	AG-150A	1 unit	2 or 3 units
Software version	PAC-YG50ECA	Ver. 1.00 or later	Ver. 1.30 or later
	AG-150A	Ver. 2.00 or later	Ver. 2.30 or later

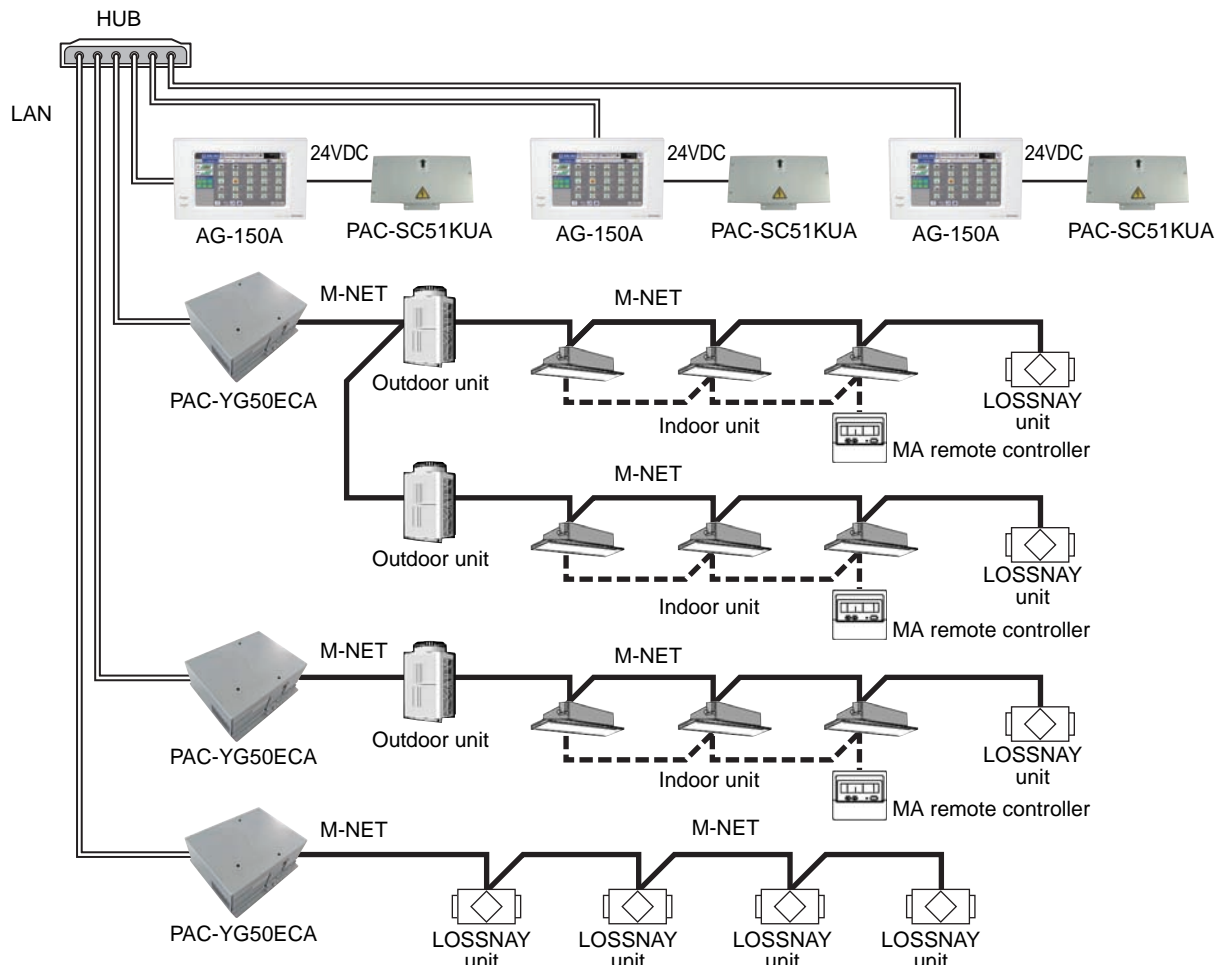
(3) Restrictions on the DB No.

Controllers with different DB No. cannot be connected to each other.

(4) Miscellaneous restrictions

- Controllers such as AG-150A connected to a system must have the same settings for the settings such as Group or Interlocked ventilation.
Different settings for the settings such as Group or Interlocked ventilation cannot be made in a system.
- When connecting a DIDO controller to a system, register a group to each AG-150A connected to a system.
Use only one AG-150A to make group settings for other units.
- When multiple AG-150A controllers are connected to a system, the following functions should be used only on one of the AG-150A controllers : License registration, schedule settings, energy-save, peakcut, setback, interlocked operation based on outside air temperature, automatic operation mode switch over, and preset temperature range setting.
- Icons that indicate schedule, energy-save mode, and setback mode enabled appear only on the AG-150A that controls these modes.

System example when connecting multiple AG-150A



Shown below is how to connect two or more AG-150A controllers to a system. Refer to the respective manual for more information about how to connect other types of controllers.

(5) Make the settings (e.g., IP address) for the expansion controller network, and switch on the power.

Refer to section 5-1 "IP address and network settings" in the Installation/Instructions Manual.

(6) Switch on the power to the AG-150A (PAC-SC51KUA), and start the initial setting process.

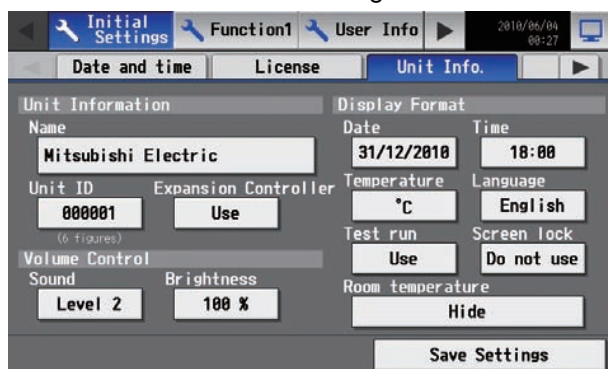
Make the initial settings for each AG-150A.

1st AG-150A (Master)

(7) Select the display language.

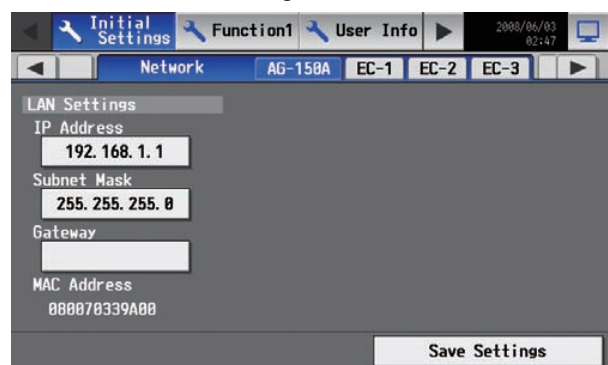


(8) Make the unit information settings.



Set the Use/Do not use setting for the expansion controller to "Use."

(9) Make the network settings for the AG-150A.

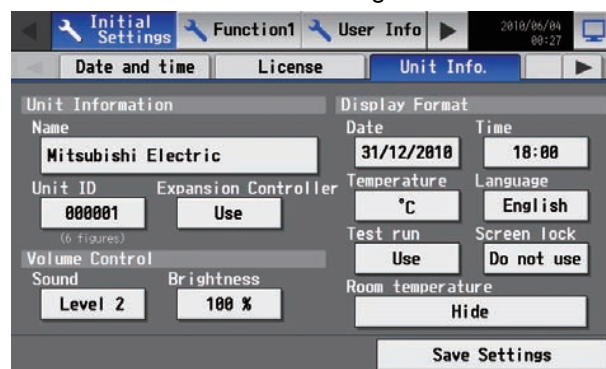


2nd and subsequent AG-150A units

(7) Select the display language.

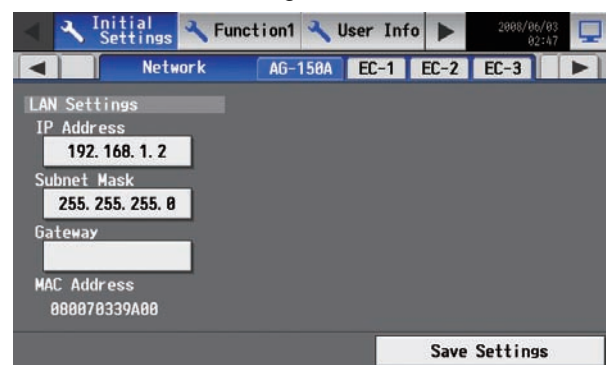


(8) Make the unit information settings.

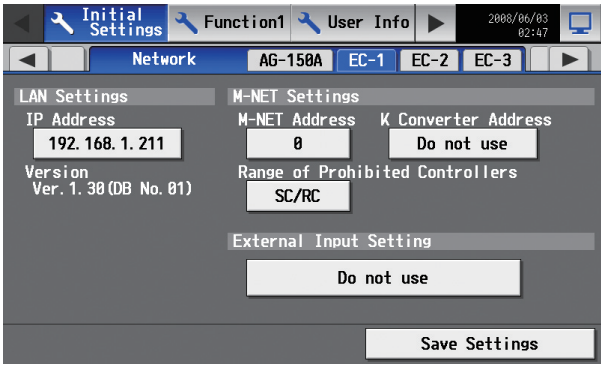


Set the Use/Do not use setting for the expansion controller to "Use."

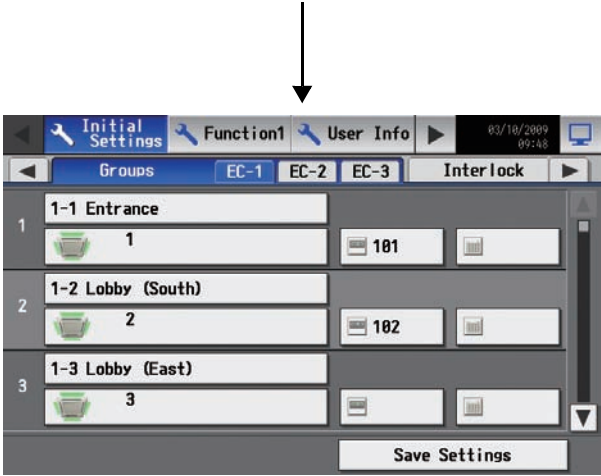
(9) Make the network settings for the AG-150A.



(10) Make the settings for the expansion controller IP address, M-NET, and external input.



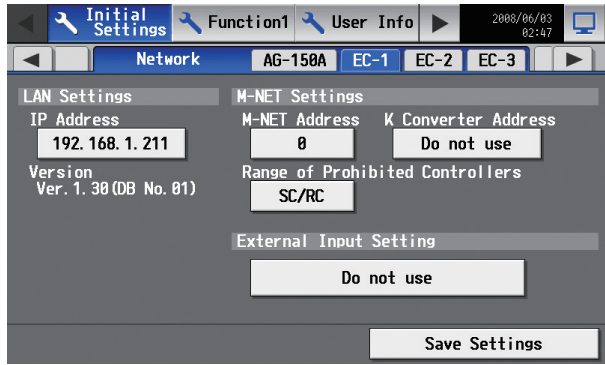
(11) Make the settings for the group names and unit addresses.



(12) Make the settings for the interlocked LOSSNAY units.

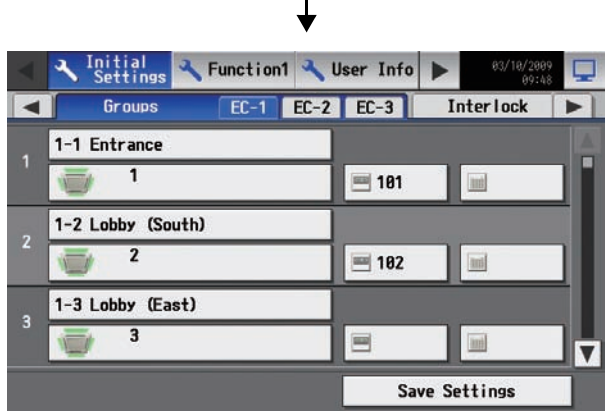


(10) Make the settings for the expansion controller IP address.



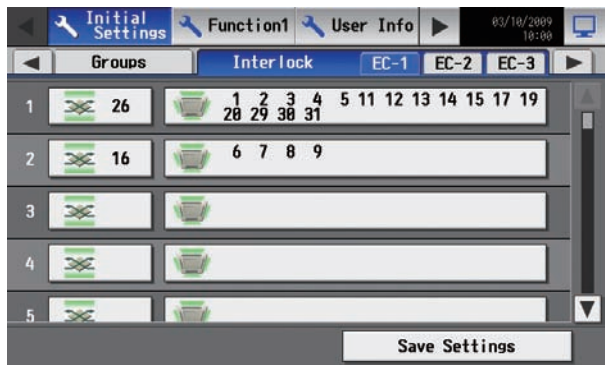
(11) Make the settings for the general interface and group name.

A group name different from the first unit (master) may be assigned.



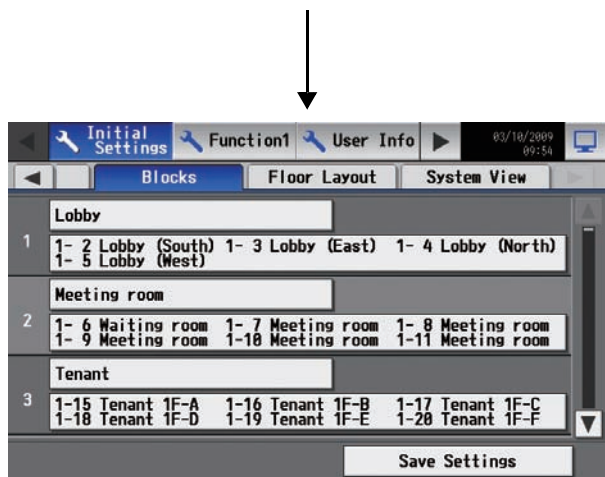
Check that the address settings are the same as the ones made for the first unit (master).
Re-enter the same settings for the general interface as the ones for the first unit (master).

(12) Confirm the settings for the interlocked LOSSNAY units.

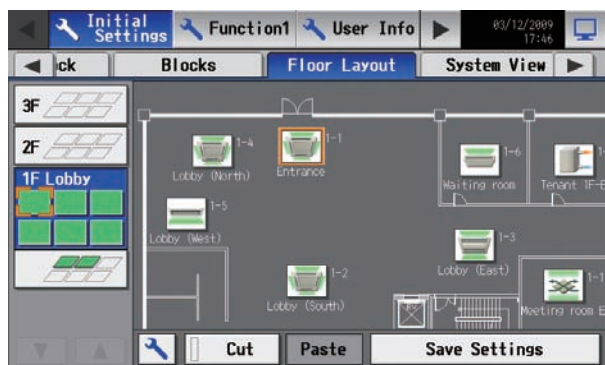


Check that the interlocked LOSSNAY settings are the same as the ones made for the first unit (master).

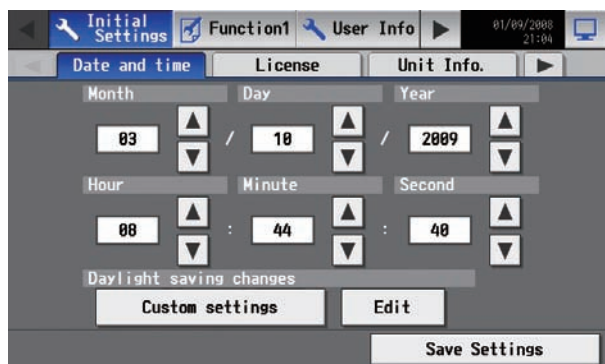
(13) Make the settings for the block and group names.



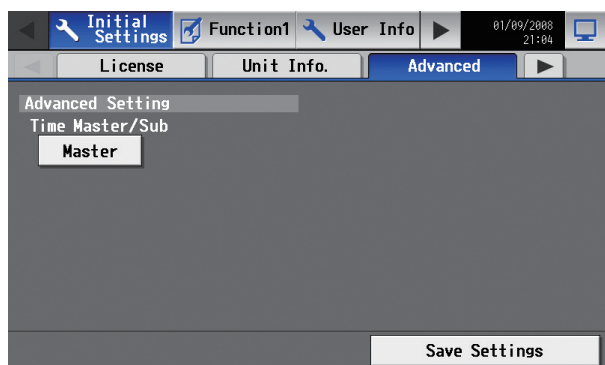
(14) Make the settings for the floor layout.



(15) Set the clock.

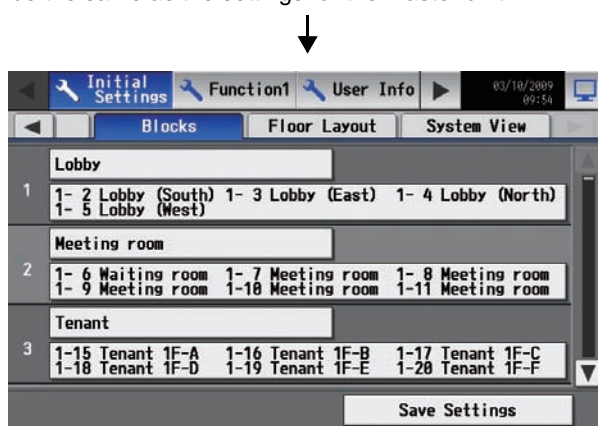


(16) Set the Master/Sub clock setting to "Master."



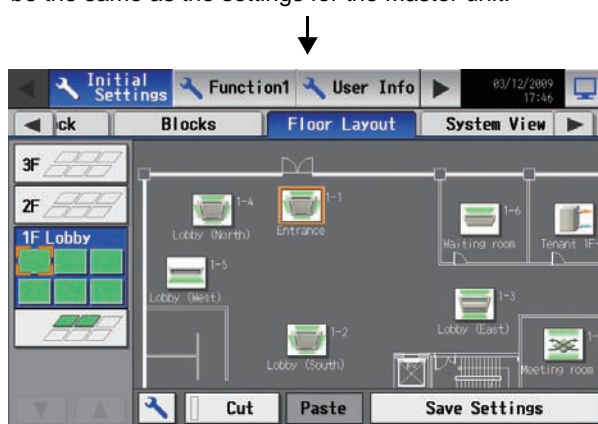
(13) Make the settings for the block and group names.

The settings for the 2nd and subsequent units do not need to be the same as the settings for the Master unit.

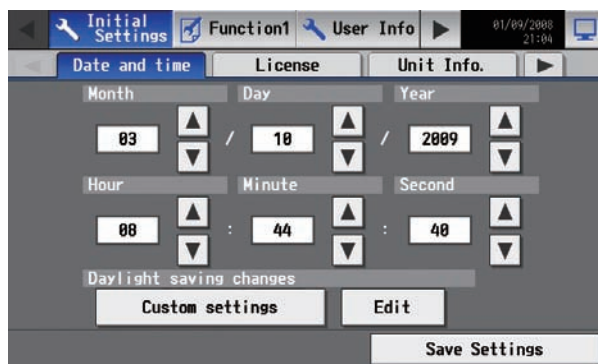


(14) Make the settings for the floor layout.

The settings for the 2nd and subsequent units do not need to be the same as the settings for the Master unit.



(15) Set the clock.

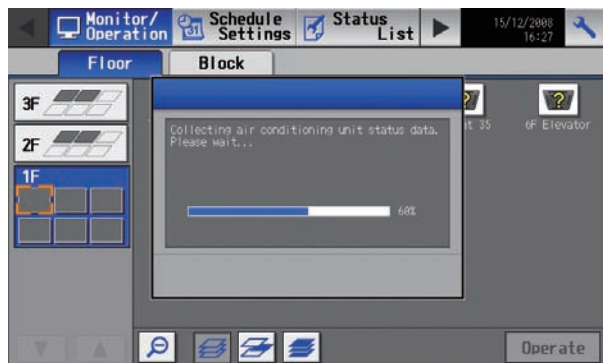


(16) Set the Master/Sub clock setting to "Sub."



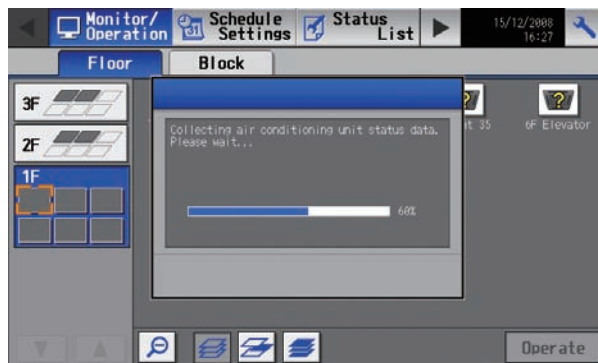
(17) Initial settings are completed.

Perform a test run to check for proper settings.



(17) Initial settings are completed.

Perform a test run to check for proper settings.



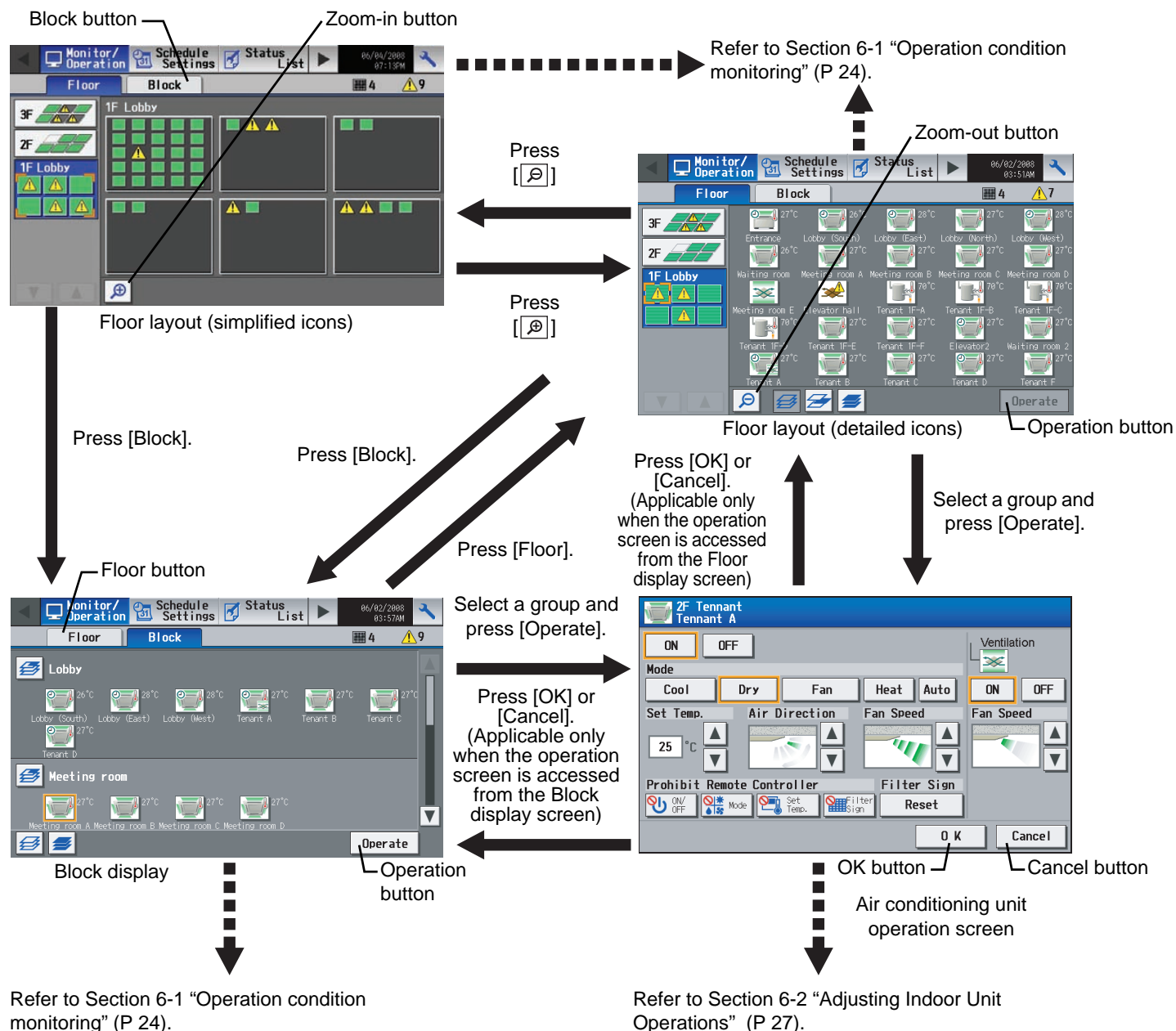
To make the settings described in the Expansion Controller Installation/Instructions Manual under section 5-2-3. "Prohibiting connection of AG-150A and other controllers," make those settings after the initial settings are made for all controllers and after test runs are completed.

6. User operation

The following screens are used under user operation.

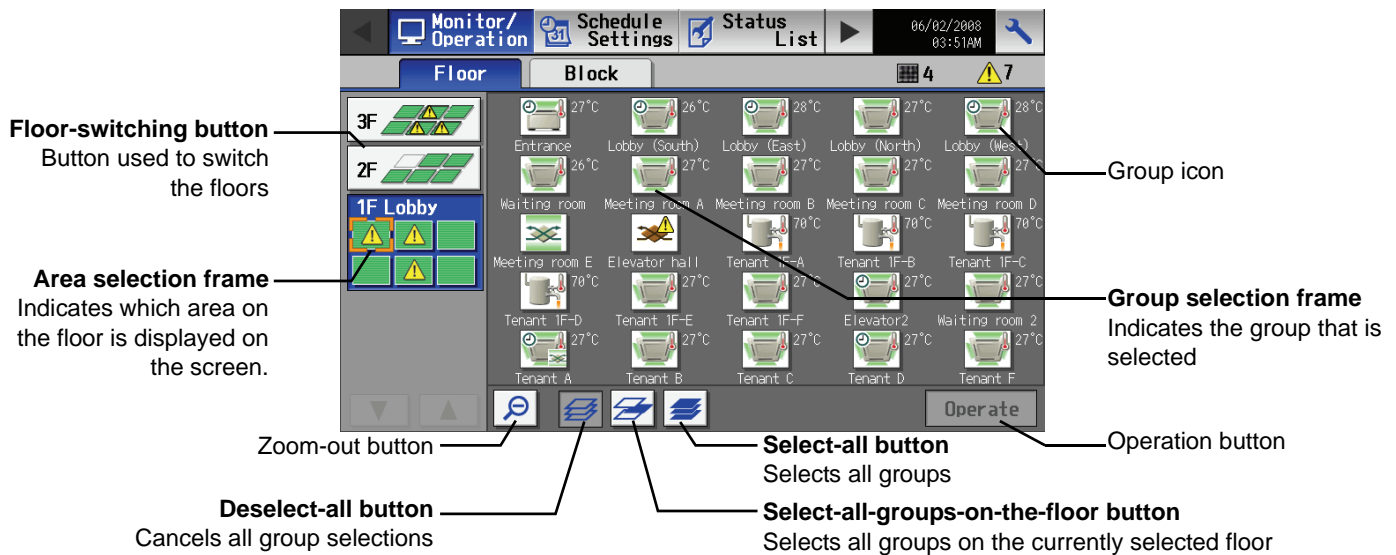
- Floor layout/block display screens Displays the operation status (ON/OFF) and error status of the air conditioning system
This is the screen that is normally used.
- Air conditioning system operation setting screen Use to perform collective or individual group operation (ON/OFF, operation mode, air flow direction, fan speed, temperature setting, timer enable/disable, prohibition/permission of operation from local remote controller, filter reset, room temperature display).

Accessing the Floor layout, Block display, and Air conditioning unit operation setting screens

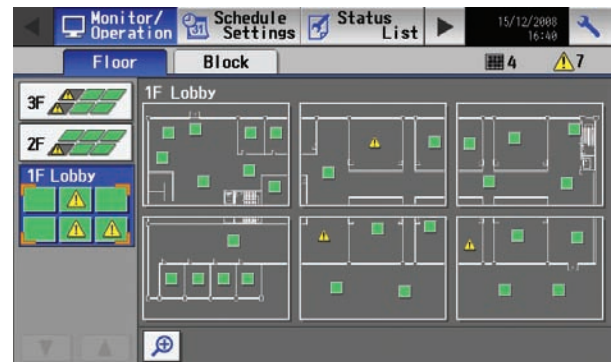
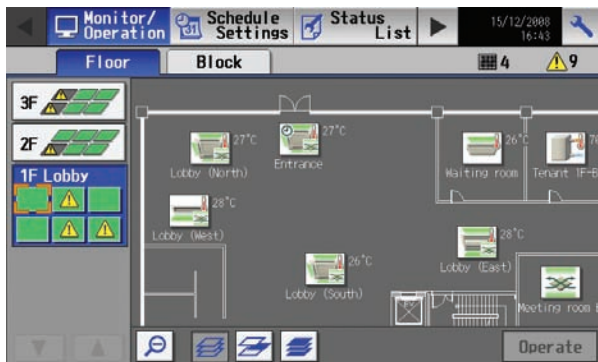


6-1 Operation condition monitoring

- This function displays the ON/OFF/Malfunction status of specific units or groups.



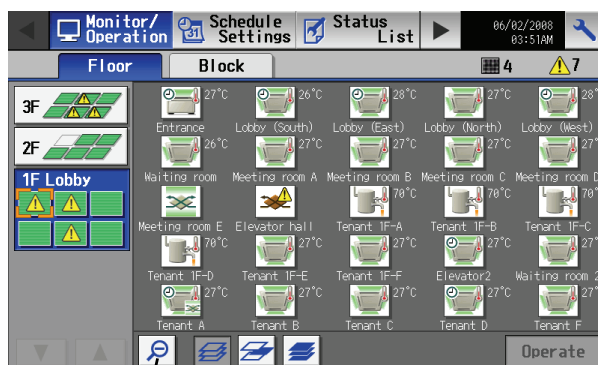
- Display image of floor layout function (P60-P64)



(1) Operation method

- Note that methods are different for group operation and block operation.

<Group display (detailed icons)>

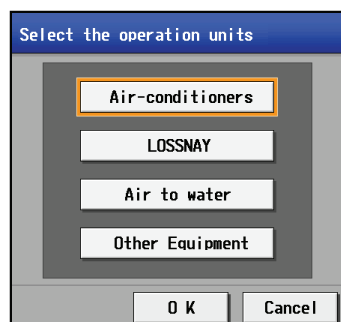


The following icons indicate the operation status.



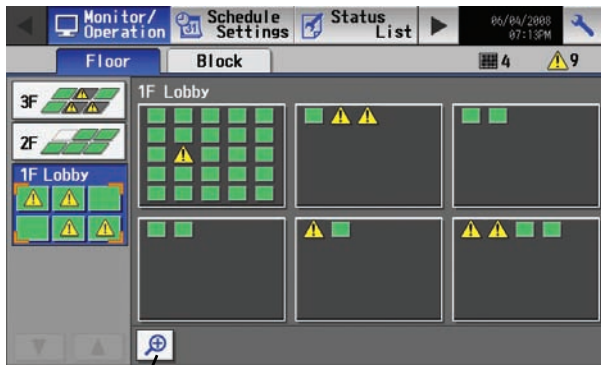
- * If there is a device that cannot be identified, ? will appear over the icon of the device.
- * Selecting the group icon and then pressing the operation button will take the screen to the operation screen for the selected group. (If more than one groups exist within a group, such as air conditioning unit group, ventilation unit group (LOSSNAY and OA handling units), and general equipment group, a screen to select a group will appear. After the models have been selected, the operation screen will appear.) On the screen, detailed information about the temperature, fan speed, air flow direction, prohibit/permit status of the remote controller, and operation mode can be checked.
- * Pressing the zoom out button will take the screen to the list screen.
- * By pressing the floor switching button, the settings for the air conditioning units on other floors can be checked.

* "Booster unit" and "Water HEX unit" will appear as "Air to water".



Equipment type selection screen

<Group display (simplified icons)>



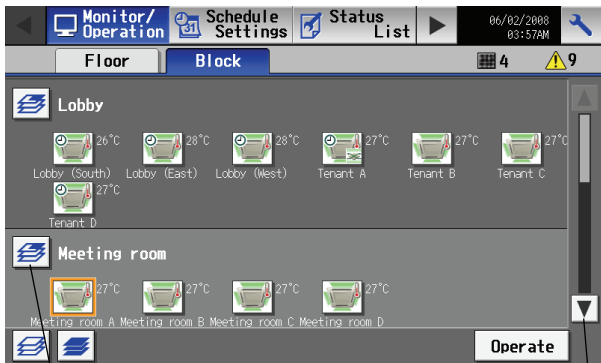
Zoom-in button

The following icons indicate the operation status.



- Pressing the Zoom-in button returns to the screen with detailed icon.
- By pressing the floor switching button, air conditioning systems on other floors can be checked.

<Block display>



Block selection button
Selects a block of groups

Block selected:  Block deselected: 

Scroll button























- Selecting the group icon or the block selection button and then pressing the operation button will take the screen to the operation screen for the selected group. (If more than one groups exist within a group, such as air conditioning unit group, ventilation unit group (LOSSNAY and OA handling units), and general equipment group, a screen to select a group will appear. After the models have been selected, the operation screen will appear.) On the screen, detailed information about the temperature, fan speed, air flow direction, prohibit/permit status of the remote controller, and operation mode can be checked.
- Press the scroll button to see the status of the rest of the blocks. (Several types of icons will appear.)

• Icons








The following icons are used on the screen.

* The display settings can be changed for each group.

* Those icons listed as common icons can be used to display air conditioning units, LOSSNAY units, and general equipments.

Common					
					
					
General equipments					
					
PWFY (Booster and Water Hex Unit)					

Depending on the status of each group, the following icons will appear on the icons mentioned above.

Schedule setting enabled	Energy-save control	Interlocked unit ON	Interlocked unit OFF
			
Unknown (during initial startup)	Intake air temperature display	During night setback	
			

* During energy-save operation, the energy-save icon will appear over the suction temperature.

* When setting ventilation interlock with Mr. Slim units, the air conditioning and interlocked ventilation icon will display ON even when the interlocked LOSSNAY is operating by itself.

(This will occur when used with the following M-NET adapter: PAC-SF48/50/60/70/80/81MA-E)

* When multiple AG-150A controllers are connected by connecting an expansion controller to the system, "Schedule setting enabled," "Energy-save control," and "During night setback" will be displayed only on the AG-150A controller that is executing these functions.

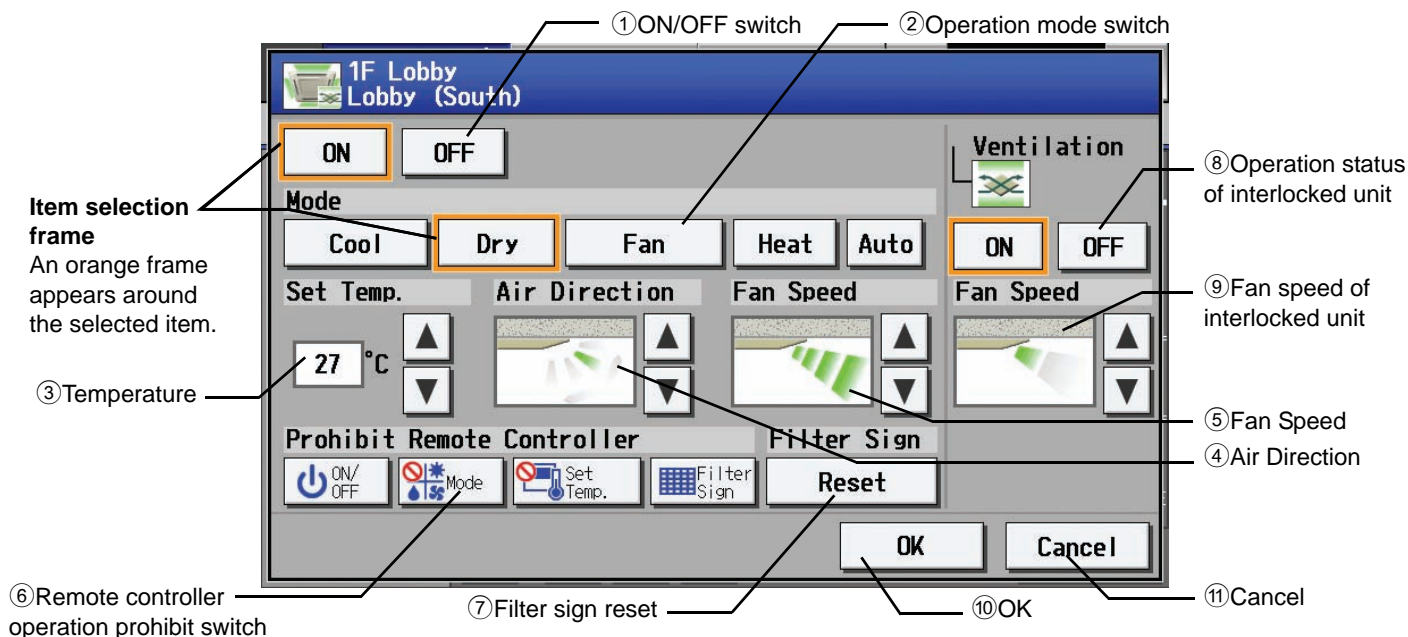
6-2 Adjusting Indoor Unit Operations

The setting for the control of air conditioning units (general equipments, PWFY) and the permit/prohibit setting from the local remote controller are made on this screen.

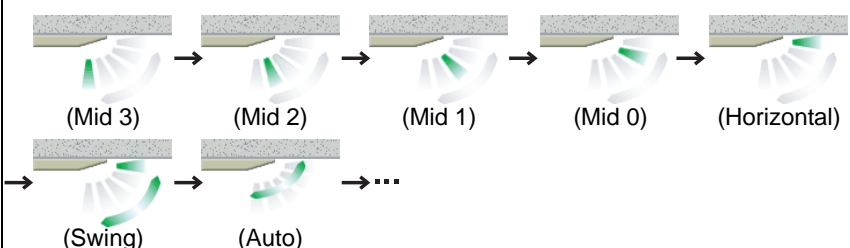
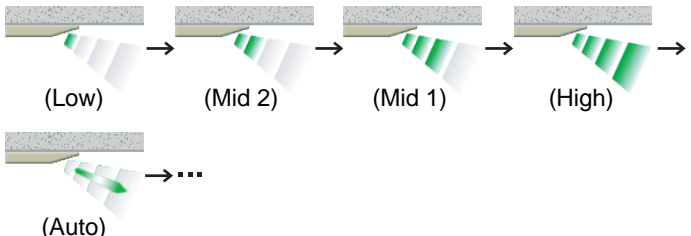




































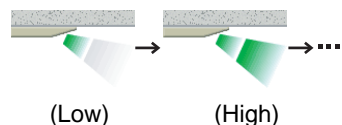
* The screen will show the status of the units at the time the screen is opened, any change that may take place after the screen is opened will not be reflected.

* The changes made on the screen will not be reflected until the OK button is pressed.

(1) Air conditioning unit group

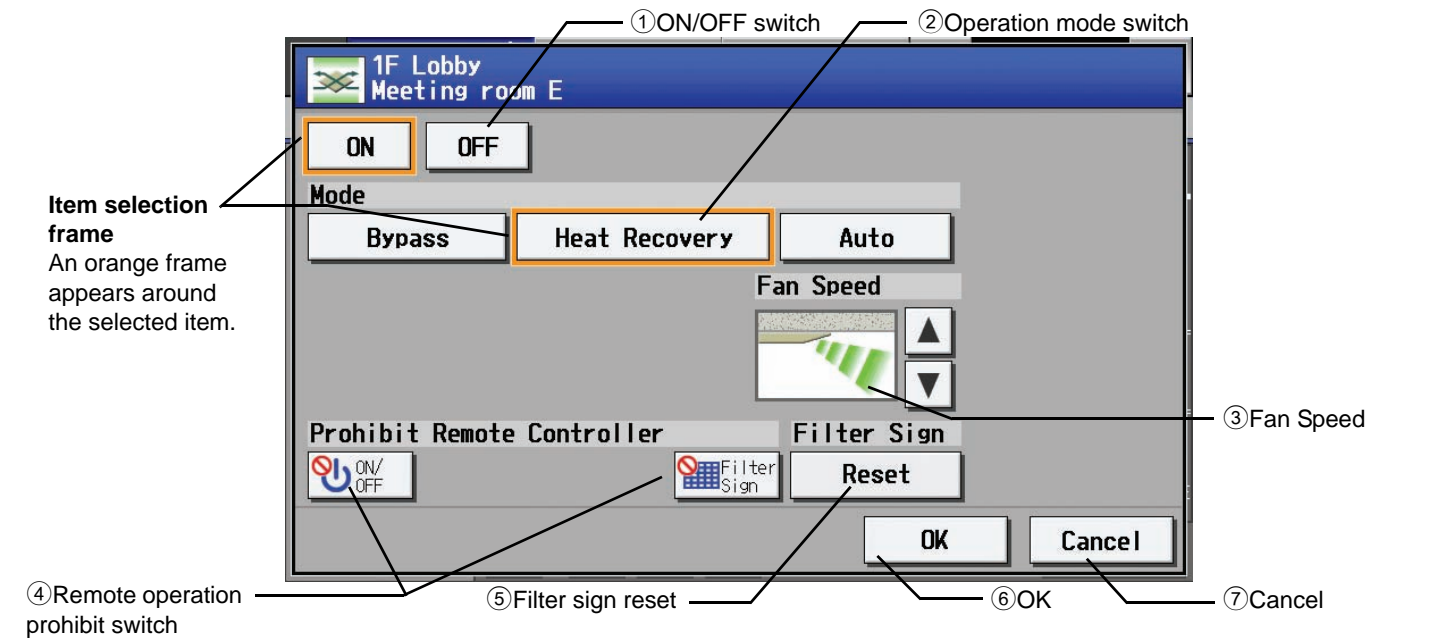


	Function	Operation method	Display																
1	ON/OFF	Select the operation status (ON or OFF).	An orange frame will appear around the selected button.																
2	MODE	Select the desired operation mode from one of the icons below "Mode".	An orange frame will appear around the selected mode. * If an attempt is made to change the mode setting for the groups for which the operation prohibition setting is enabled, the changes will not be reflected and a pale orange frame will appear around the group.																
3	Set Temperature	Set the temperature by using the Up/Down arrows below "Set Temp" function.	Pressing the Up/Down arrow increases/decreases the temperature by one degree respectively. The settable temperature range depends on the mode and model. If the Up arrow is pressed when the upper limit temperature is displayed, the lower limit temperature will appear, and the Down arrow vice versa. <table border="1"> <thead> <tr> <th>Model</th><th>Cooling/Dry</th><th>Heating</th><th>Auto</th></tr> </thead> <tbody> <tr> <td>Standard temp model</td><td>19 ~ 30°C [67 ~ 87°F]</td><td>17 ~ 28°C [63 ~ 83°F]</td><td>19 ~ 28°C [67 ~ 83°F]</td></tr> <tr> <td>Mid temp model (CITY MULTI)</td><td>14 ~ 30°C [57 ~ 87°F]</td><td>17 ~ 28°C [63 ~ 83°F]</td><td>17 ~ 28°C [63 ~ 83°F]</td></tr> <tr> <td>Mid temp model (Mr. Slim)</td><td>14 ~ 30°C [57 ~ 87°F]</td><td>14 ~ 28°C [57 ~ 83°F]</td><td>14 ~ 28°C [57 ~ 83°F]</td></tr> </tbody> </table> (Depending on the model details, the temperature range may change and Auto setting may not be available.) *If operation modes and preset temperature are changed from multiple controllers (e.g., system controller and remote controller) almost simultaneously, the preset temperature that appears on the display may be outside the settable temperature range.	Model	Cooling/Dry	Heating	Auto	Standard temp model	19 ~ 30°C [67 ~ 87°F]	17 ~ 28°C [63 ~ 83°F]	19 ~ 28°C [67 ~ 83°F]	Mid temp model (CITY MULTI)	14 ~ 30°C [57 ~ 87°F]	17 ~ 28°C [63 ~ 83°F]	17 ~ 28°C [63 ~ 83°F]	Mid temp model (Mr. Slim)	14 ~ 30°C [57 ~ 87°F]	14 ~ 28°C [57 ~ 83°F]	14 ~ 28°C [57 ~ 83°F]
Model	Cooling/Dry	Heating	Auto																
Standard temp model	19 ~ 30°C [67 ~ 87°F]	17 ~ 28°C [63 ~ 83°F]	19 ~ 28°C [67 ~ 83°F]																
Mid temp model (CITY MULTI)	14 ~ 30°C [57 ~ 87°F]	17 ~ 28°C [63 ~ 83°F]	17 ~ 28°C [63 ~ 83°F]																
Mid temp model (Mr. Slim)	14 ~ 30°C [57 ~ 87°F]	14 ~ 28°C [57 ~ 83°F]	14 ~ 28°C [57 ~ 83°F]																

	Function	Operation method	Display																				
4	Set Air Direction	Set the air flow direction with the Up/Down arrows below "Air Direction" function.	<p>5-directions model</p>  <p>(Mid 3) (Mid 2) (Mid 1) (Mid 0) (Horizontal)</p> <p>(Swing) (Auto)</p> <p>(Swing and Auto are not available on some indoor unit(s). Depending on the indoor unit four or five air flow directions are available.)</p>																				
5	Fan speed	Use the Up/Down arrows below "Fan Speed" function to set the fan speed.	<p>4-speed model:</p>  <p>(Low) (Mid 2) (Mid 1) (High)</p> <p>(Auto)</p> <p>("Auto" is not available on some indoor units. Some indoor units of units have only two or three fan speeds.)</p>																				
6	Prohibiting local remote controller operation	Press the button that corresponds to the desired function and setting to permit or prohibit the operation from the remote controller. The functions that can be prohibited are: ON/OFF, operation mode, temperature, and filter sign reset.	<p>Pressing of each button toggles through the following three options: Retention of current status → Permit → Prohibit</p> <table border="1"> <thead> <tr> <th></th><th>Leave current status as is</th><th>Permit</th><th>Prohibit</th></tr> </thead> <tbody> <tr> <td>ON/OFF</td><td></td><td></td><td></td></tr> <tr> <td>Operation mode</td><td></td><td></td><td></td></tr> <tr> <td>Temperature setting</td><td></td><td></td><td></td></tr> <tr> <td>Filter sign reset</td><td></td><td></td><td></td></tr> </tbody> </table>		Leave current status as is	Permit	Prohibit	ON/OFF				Operation mode				Temperature setting				Filter sign reset			
	Leave current status as is	Permit	Prohibit																				
ON/OFF																							
Operation mode																							
Temperature setting																							
Filter sign reset																							
7	Filter sign reset	Press "Reset" under "Filter Sign".	Filter cleaning warning sign will be removed. Filter cleaning schedule time is reset.																				
8	Ventilation ON/OFF	Select the ON/OFF status for the interlocked unit.	An orange frame will appear around the selected operation status.																				
9	Ventilation Fan speed	Set the fan speed with the Up/Down arrows below "Fan Speed".	<p>2-speed model:</p>  <p>(Low) (High)</p> <p>(Fan speed setting is not available on some indoor units.)</p>																				
10	OK	Press the OK button to reflect the change.	Pressing the OK button saves the setting and takes the screen back to the previous screen (Floor layout or Block display).																				
11	Cancel	Press the Cancel button to cancel the change.	Pressing the Cancel button cancels the change and takes the screen back to the previous screen (Floor layout or Block display).																				

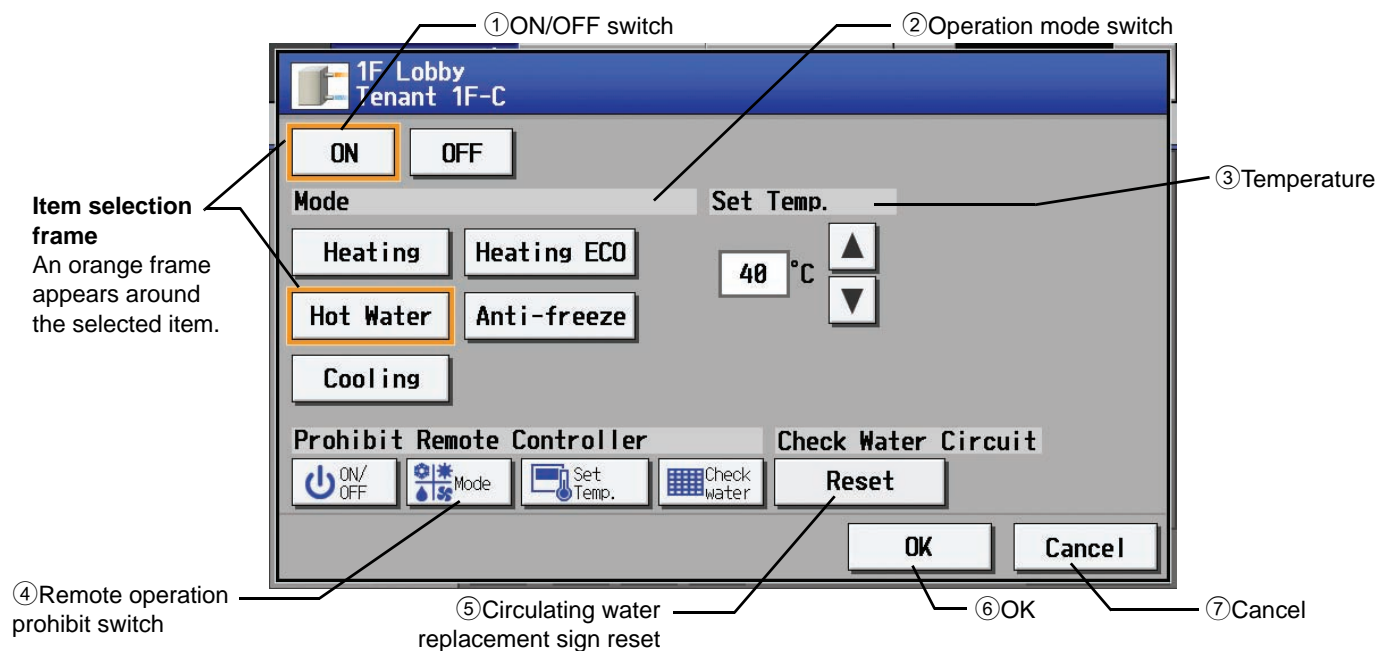
* The change on the interlock setting between the indoor and LOSSNAY units made on the indoor unit side will not be reflected on the LOSSNAY unit side on the screen until the OK is pressed and the change is saved. The actual interlock setting, however, is immediately effective, so as soon as the interlock setting on the indoor unit side is set to ON, the LOSSNAY unit will go into operation when one or more indoor units go into operation regardless of the display on the screen.

(2) Ventilation equipment (LOSSNAY) group



	Function	Operation method	Display												
1	ON/OFF	Select the operation status (ON or OFF).	An orange frame will appear around the selected button.												
2	MODE	Select the desired operation mode from one of the icons below "Mode".	An orange frame will appear around the selected mode.												
3	Fan speed	Use the Up/Down arrows below "Fun Speed" to set the fan speed.	<div>2-speed model: → → → ...</div> <div>(Low) (High)</div> <div>(Fan speed setting is not available on some indoor units.)</div>												
4	Remote Prohibit controller	Press the button that corresponds to the desired function and setting to permit or prohibit the operation from the remote controller. The functions that can be prohibited are as follows: ON/OFF and filter sign reset.	<div>Pressing of each button toggles through the following three options: Retention of current status → Permit → Prohibit</div> <table><tr><th></th><th>Retention of current status</th><th>Permit</th><th>Prohibit</th></tr><tr><td>ON/OFF</td><td></td><td></td><td></td></tr><tr><td>Filter sign reset</td><td></td><td></td><td></td></tr></table>		Retention of current status	Permit	Prohibit	ON/OFF				Filter sign reset			
	Retention of current status	Permit	Prohibit												
ON/OFF															
Filter sign reset															
5	Filter sign reset	Press "Reset" under "Filter Sign".	Filter cleaning warning sign will be cleared. (Cumulative operation time is reset.)												
6	OK	Press the OK button to reflect the change.	Pressing the OK button saves the setting and takes the screen back to the previous screen (Floor layout or Block display).												
7	Cancel	Press the Cancel button to cancel the change.	Pressing the Cancel button cancels the change and takes the screen back to the previous screen (Floor layout or Block display).												

(3) PWFY (Booster and Water HEX unit) group



	Function	Operation method	Display																				
1	ON/OFF	Select the operation status (ON or OFF).	An orange frame will appear around the selected button.																				
2	MODE	Select the desired operation mode from one of the icons below “Mode”.	An orange frame will appear around the selected mode.																				
3	Set Temperature	Set the temperature by using the Up/Down arrows below “Set Temp”.	<p>Pressing the Up/Down arrow increases/decreases the temperature by one degree respectively.</p> <p>The settable temperature range depends on the mode and model. If the Up arrow is touched when the upper limit temperature is displayed.</p> <p>The lower limit temperature will appear, and the Down arrow vice versa.</p> <table><tr><td>[Booster unit]*</td><td>[Water HEX unit]*</td></tr><tr><td>Heating: 30 ~ 50°C / 87~122°F</td><td>Heating: 30 ~ 45°C / 87~113°F</td></tr><tr><td>Heating ECO: 30 ~ 45°C / 87~113°F</td><td>Heating ECO: 30 ~ 45°C / 87~113°F</td></tr><tr><td>Hot Water: 30 ~ 70°C / 87~158°F</td><td>Hot Water: Invalid</td></tr><tr><td>Anti-freeze: 10 ~ 45°C / 50~113°F</td><td>Anti-freeze: 10 ~ 45°C / 50~113°F</td></tr><tr><td>Cooling: Invalid</td><td>Cooling: 10 ~ 30°C / 50~87°F</td></tr></table> <p>* Temperatures are displayed Fahrenheit if Fahrenheit is selected.</p>	[Booster unit]*	[Water HEX unit]*	Heating: 30 ~ 50°C / 87~122°F	Heating: 30 ~ 45°C / 87~113°F	Heating ECO: 30 ~ 45°C / 87~113°F	Heating ECO: 30 ~ 45°C / 87~113°F	Hot Water: 30 ~ 70°C / 87~158°F	Hot Water: Invalid	Anti-freeze: 10 ~ 45°C / 50~113°F	Anti-freeze: 10 ~ 45°C / 50~113°F	Cooling: Invalid	Cooling: 10 ~ 30°C / 50~87°F								
[Booster unit]*	[Water HEX unit]*																						
Heating: 30 ~ 50°C / 87~122°F	Heating: 30 ~ 45°C / 87~113°F																						
Heating ECO: 30 ~ 45°C / 87~113°F	Heating ECO: 30 ~ 45°C / 87~113°F																						
Hot Water: 30 ~ 70°C / 87~158°F	Hot Water: Invalid																						
Anti-freeze: 10 ~ 45°C / 50~113°F	Anti-freeze: 10 ~ 45°C / 50~113°F																						
Cooling: Invalid	Cooling: 10 ~ 30°C / 50~87°F																						
4	Remote Prohibit controller	Press the button that corresponds to each of the following buttons to permit or prohibit access to these functions: ON/OFF, operation mode, temperature, and circulating water replacement sign reset.	<p>Pressing of each button toggles through the following three options: Retention of current status → Permit → Prohibit</p> <table><tr><th></th><th>Retention of current status</th><th>Permit</th><th>Prohibit</th></tr><tr><td>ON/OFF</td><td></td><td></td><td></td></tr><tr><td>Operation mode</td><td></td><td></td><td></td></tr><tr><td>Temperature setting</td><td></td><td></td><td></td></tr><tr><td>Circulating water replacement</td><td></td><td></td><td></td></tr></table>		Retention of current status	Permit	Prohibit	ON/OFF				Operation mode				Temperature setting				Circulating water replacement			
	Retention of current status	Permit	Prohibit																				
ON/OFF																							
Operation mode																							
Temperature setting																							
Circulating water replacement																							
5	Circulating water replacement sign reset	Press the OK button with the circulating water replacement sign reset button being touched.	The circulating water replacement sign is reset.																				
6	OK	Press the OK button to reflect the change.	Pressing the OK button saves the setting and takes the screen back to the previous screen (Floor layout or Block display).																				

	Function	Operation method	Display
7	Cancel	Press the Cancel button to cancel the change.	Pressing the Cancel button cancels the change and takes the screen back to the previous screen (Floor layout or Block display).

(4) General equipment group

	Function	Operation method	Display
1	ON/OFF	Select the operation status (ON or OFF).	An orange frame will appear around the selected button.

6-3 Setting Schedules

Weekly schedule for each group can be set. When a license is registered, it is possible to set different weekly (2 types)/annual/today's schedules for each group.

* When multiple AG-150A controllers are connected by connecting an expansion controller to the system, schedule settings for the groups should be made only on one of the AG-150A controllers.

6-3-1 Setting the schedule without a registered license

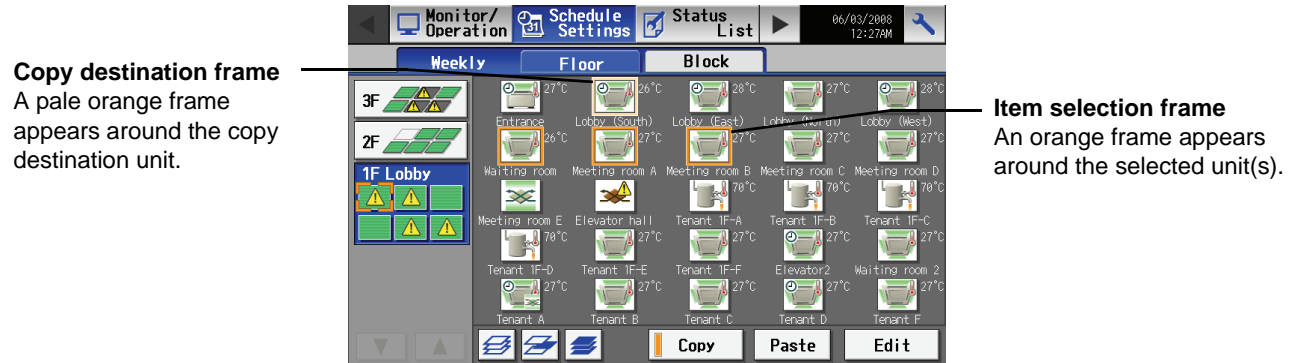
If a license has not been acquired, only the weekly schedule functions are available.

• Setting the Weekly Schedule

Touch the menu item [Schedule Settings] and touch [Weekly] in the sub menu to display the Weekly Schedule setting screen. To set a weekly schedule, firstly you must select what will be the target of this schedule and then set the schedule details from Sunday right through to Saturday.

Note: When the contents of an operation are executed as part of a schedule these contents will continue to be in effect until they are changed by a schedule or browser etc. Therefore, if you are setting a schedule that is only for a particular day, be sure to set your schedule in a way that will not impact on the next day's operation.

For example, if you wish to prohibit operations being performed from the remote controller after 17:00, set a Prohibit operation for 17:00 and set an Enable operation for 23:59.



(1) Select the type of schedule settings to make.

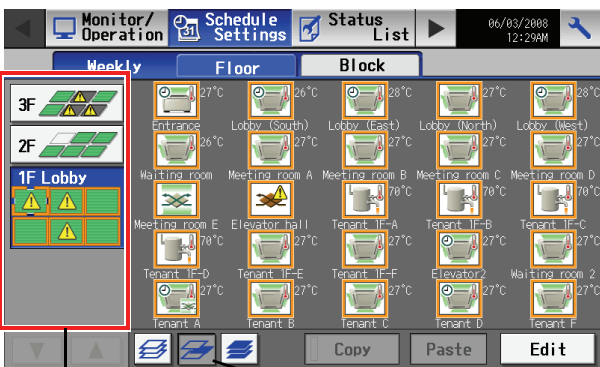
(1-1) Group



To make the settings for a group, select the group by touching the corresponding icon on the weekly schedule setting screen (floor layout or block display). Multiple groups can be selected. An orange frame appears on the group that has been selected. Selection can be cancelled by touching the icon again. Touch the Cancel button to deselect all.

* Each group is represented with an icon and a group name.

(1-2) Floor

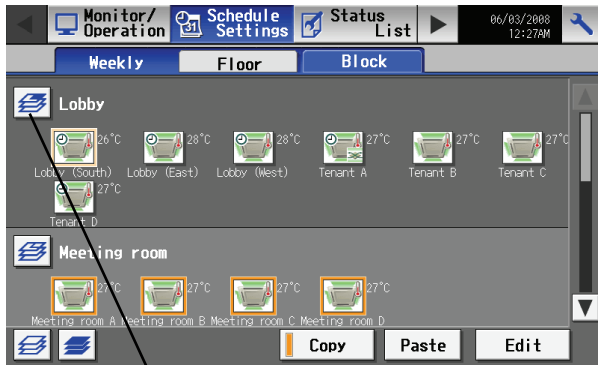


Floor selection button

Select-all-units-on-the floor button

To make the settings for all groups on a given floor, select the floor on the floor layout screen under the weekly schedule setting screen menu, and touch the Select-all-units-on-the floor button. An orange frame will appear around the icons of all groups on the selected floor, and also around the floor selection button. Only a single floor can be selected at a time.

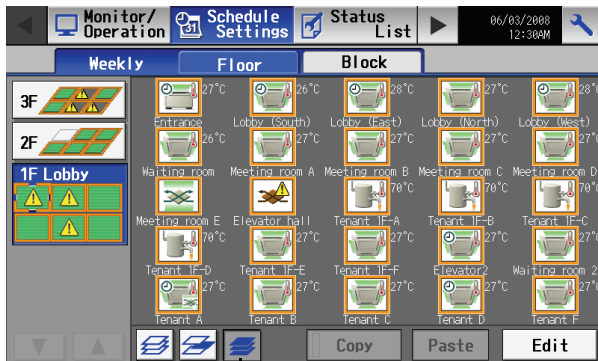
(1-3) Block



Block selection button

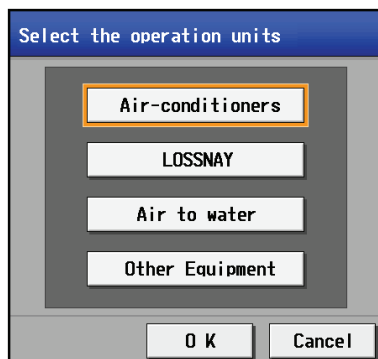
To make the settings for a block or blocks, select the block selection button on the block display screen under the weekly schedule setting screen by touching it. An orange frame will appear around the icons that correspond to the selected blocks.

(1-4) All groups



Select-All-Units button

To make the settings for all groups, touch the Select-all-units button on the weekly schedule setting screen (floor layout or block display screen). An orange frame appears around the icons of all groups. After making the selection, touch the [Edit] button at the right bottom corner of the screen to bring up the weekly schedule screen.



Equipment type selection screen

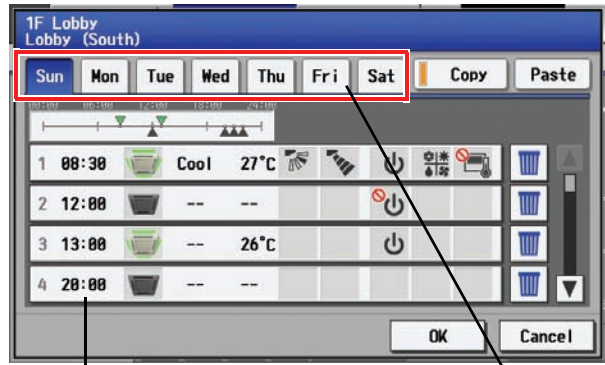
If more than one groups exist within a group, such as air conditioning unit group, ventilation unit group, and general equipment group, a screen to select a group will appear when the "Set" button is touched.
* "Booster unit" and "Water HEX unit" will appear as "Air to water."



Schedule setting method selection screen

After the model names have been selected, a screen will appear asking if you want to set the schedule by using a new form or by using the settings for an existing group. To use the existing group settings, select "Based on the following group settings," select the group, and press "OK."
Selecting "New settings" will bring up a blank form. Selecting "Based on the following group settings" will bring up the schedule of the selected group.

(2) Select the day of the week



Schedule content button

Days of the week menu

Select the days of the week from the weekly schedule setting screen and touch the schedule content button to bring up the schedule content setting screen.



The ON/OFF events that are schedules will appear as inverted triangles and triangles (▼: ON; ▲: OFF; ⇐: Other settings).
* Only the ON/OFF events are displayed. Vane settings and permit/prohibit settings will not be displayed.
Note: When multiple groups are selected, those settings that have been made for each group will not be displayed.
Press [OK] to delete the schedule, or press [Cancel] to exit the window without saving any changes.

(3) Set the contents of the schedule



(Air Conditioner)

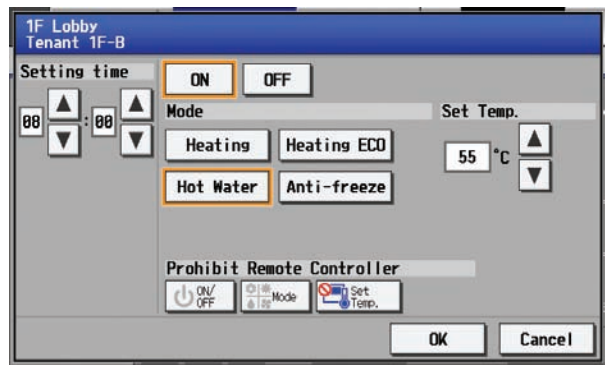
OK button

Make the settings for the execution time, operation patterns (ON/OFF, operation mode, setting temperature, airflow direction, fan speed, remote controller operation prohibition) on the schedule content setting screen, and then touch the [OK] button. Not all settings need to be made. The settings for only the operation mode or the setting temperature, for example, can be made.

- Note: When setting a schedule for all groups or for a block, it is possible to set all operation modes such as Auto mode etc, but if some targeted air conditioner units do not have such a function, then those units will not run in the specified mode. When setting the schedule, consider what functions are supported by the air conditioner units.
- Note: When setting a schedule for all groups or for a block, it is possible to set prohibit remote controller items individually. When allowing remote controller operation under K control, however, all items must be set enable.
- Note: When setting a schedule for ventilator units, the temperature setting is not displayed. Moreover, the prohibit remote controller operation is simply [ON/OFF].
- Note: Only the ON/OFF operation is possible on the general equipment.



(LOSSNAY)



(PWFY)

(4) Copy a schedule to another day of the week or to another group

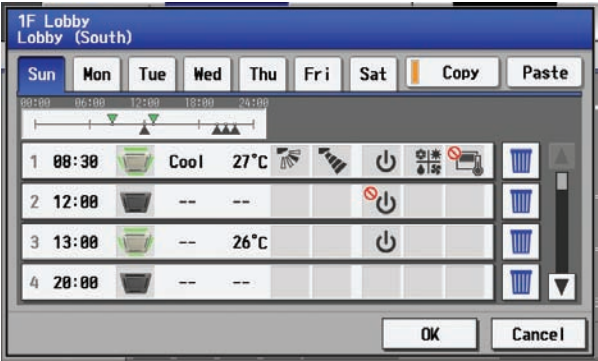


To copy the schedule of a given day to another day, select the days of the week from the weekly schedule setting screen, touch [Copy] to select it, select a day to copy the schedule to, and touch [Paste]. To copy the weekly schedule for one group to another group, select the group from the weekly schedule setting screen (Floor layout or block display screen), touch [Copy], select a group to copy the schedule to, and touch [Paste].

- * The settings of one type of equipment cannot be copied to the settings of a different type of equipment. (i.e., The settings of air conditioning units cannot be copied to ventilation equipment settings.)
- * Available operation modes and setting temperature range varies with models.

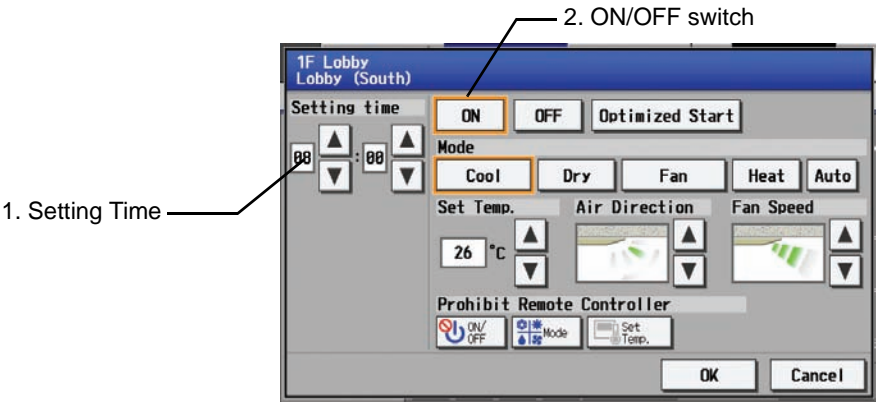
Copy destination frame
A pale orange frame appears around the copy destination unit.

(5) Save the contents of schedule



After all the settings have been made, touch the [OK] button to save the schedule settings. Touch the [Cancel] button to go back to the previously saved settings without making any changes.

• Schedule setting window



	Function	Operation method	Display
1	Time	Touch the ▲▼ buttons to set the start time.	Touching the ▲ button will increase the value by one, and touching the ▼ button will decrease the value by one (settable in 1-minute increments).
2	ON/OFF/ Optimized Start	Select the operation status (ON or OFF or Optimized).	An orange frame will appear around the selected button. Note: When [Optimized Start] is selected, set the operation mode and preset temperature as well. If "Prohibit Remote Controller" is set at the same time, remote controller is prohibited at its setting time.

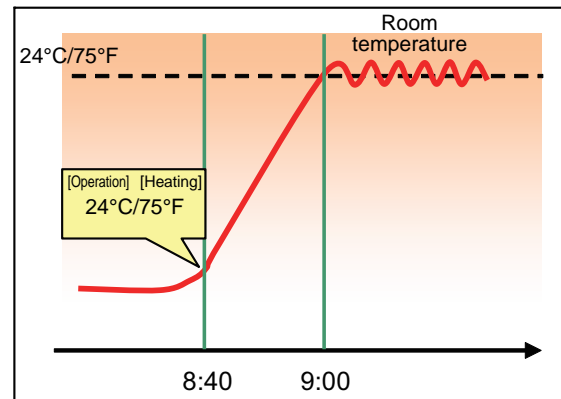
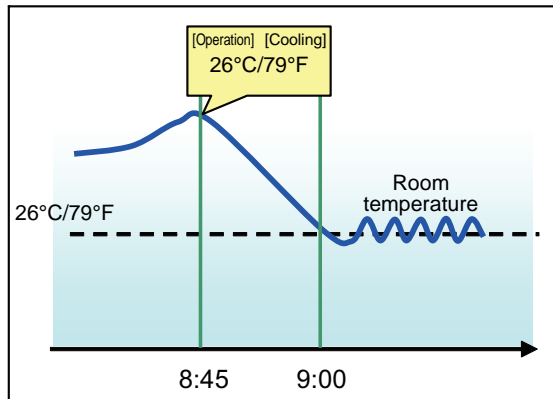
Note: When CITY MULTI S Series (PUMY) is used, set the temperature at 17°C/63°F or above in heating mode.
* Refer to the explanation of operation window on page 18 for other items.

• Optimized start-up schedule function

Optimized start-up schedule function is a function that starts an air conditioning unit 5 - 60 minutes prior in order to reach the scheduled temperature at the scheduled time.

Note: A unit starts 30 minutes prior at the first boot.

Note: If the room temperature is measured by the air-conditioner's suction temperature sensor, the temperature may not be correct when the air-conditioner is inactive and the air is not fresh. When the temperature is not measured correctly, switch the sensor to external temperature sensor (PAC-SE40TSA) or remote control sensor.



Select the mode [Optimized Start] on the schedule setting screen when this function is required.



6-3-2 Setting the schedule with a registered license

When a license (PIN CODE) is registered, it is possible to set different weekly (2 types)/annual/today's schedules for each air conditioner group. Moreover, for any weekly/annual/today's schedule run for a particular day, the priority in which it is run will be from the highest and the order will be [Today's], [Annual], [Weekly]. Two types of weekly schedule (Summer/Winter) can be set.

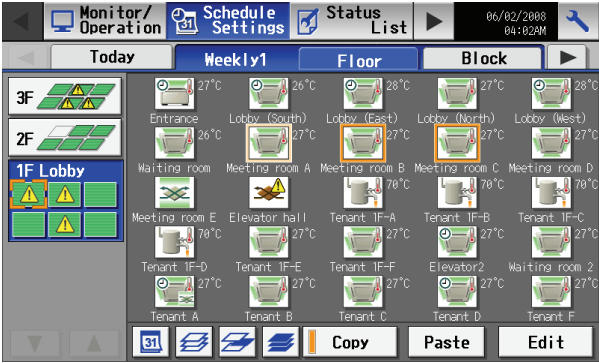
6-3-2-1 Setting the Weekly Schedule

Touch the menu item [Schedule Settings] and touch [Weekly1] or [weekly2] in the sub menu to display the Weekly Schedule setting screen. To set a weekly schedule, you first must select what will be the target of this schedule and then set the schedule details from Sunday right through to Saturday.

Note: When the contents of an operation are executed as part of a schedule these contents will continue to be in effect until they are changed by a schedule or browser etc. Therefore, if you are setting a schedule that is only for a particular day, be sure to set your schedule in a way that will not impact on the next day's operation.

For example, if you wish to prohibit operations being performed from the remote controller after 17:00, set a Prohibit operation for 17:00 and set an Enable operation for 23:59.

- (1) Select the schedule to set.

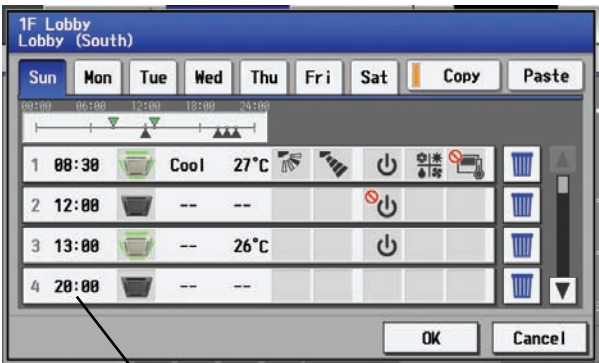


Select either [Weekly 1] or [Weekly 2] from the sub menu. (Two types of weekly schedule patterns are available if the license is registered.)

- (2) Select the type of schedule settings to make.

Select the type of schedule settings to make by referring to Section 1 above under "Select the type of schedule settings to make."

- (3) Select the day of the week



Schedule content button

Select the days of a week from the weekly schedule screen and touch the schedule content button to bring up the schedule content setting screen.

Note: When multiple groups are selected, those settings that have been made for each group will not be displayed. Press [OK] to delete the schedule, or press [Cancel] to exit the window without saving any changes.

(4) Set the contents of the schedule



(Air Conditioner)

Refer to 6-3-1 (3) for the figure of LOSSNAY and Air To Water Booster unit.

Make the settings for the execution time and operation patterns (ON/OFF, operation mode, setting temperature, airflow direction, fan speed, remote controller operation prohibition) on the schedule content setting screen, and then touch the [OK] button. Not all settings need to be made. The settings for only the operation mode or the setting temperature, for example, can be made.

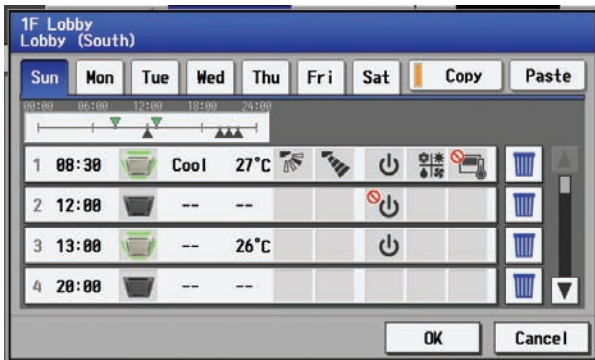
Note: When setting a schedule for all groups or for a block, it is possible to set all operation modes such as Auto mode etc, but if some targeted air conditioner units do not have such a function, then those units will not run in the specified mode. When setting the schedule, consider what functions are supported by the air conditioner units.

Note: When setting a schedule for all groups or for a block, it is possible to set prohibit remote controller items individually. When allowing remote controller operation under K control, however, all items must be set enable.

Note: When setting a schedule for ventilator units, the temperature setting is not displayed. Moreover, the prohibit remote controller operation is simply [ON/OFF].

Note: Only the ON/OFF operation is possible on the general equipment.

(5) Copy a schedule to another day of the week or to another group



Refer to the figures under 6-3-1 (4) for how to copy the schedule of one group to another.

To copy the schedule of a given day to another day, select the days of the week from the weekly schedule setting screen, touch [Copy] to select it, select a day to copy the schedule to, and touch [Paste].

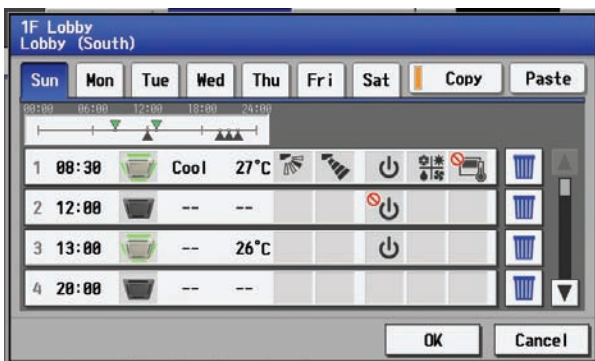
To copy the weekly schedule of one group to another group, select the group from the weekly schedule setting screen (Floor layout or block display screen), touch [Copy], select a group to copy the schedule to, and touch [Paste].

* The settings of one type of equipment cannot be copied to the settings of a different type of equipment. (i.e., The settings of air conditioning units cannot be copied to ventilation equipment settings.)

* Available operation modes and setting temperature range varies with models.

* Schedules cannot be copied to or from between [Weekly 1] and [Weekly 2].

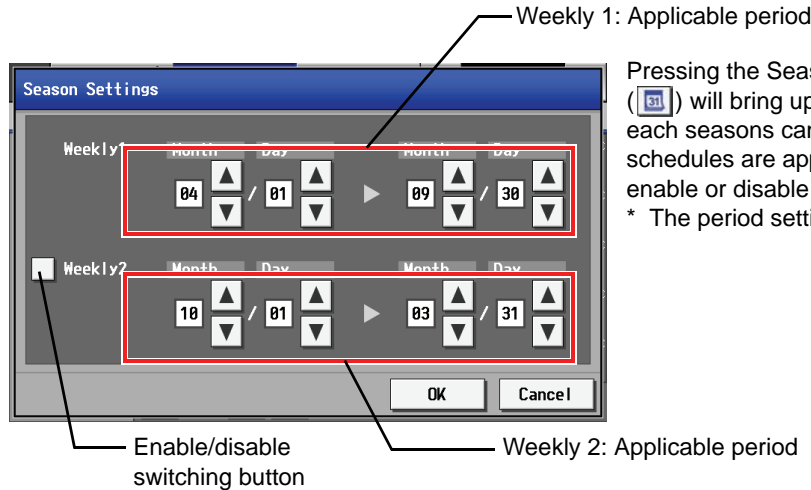
(6) Save the contents of schedule




After all the settings have been made, touch the [OK] button to save the schedule settings.

Touch the [Cancel] button to go back to the previously saved settings without making any changes.

(7) Define the seasons

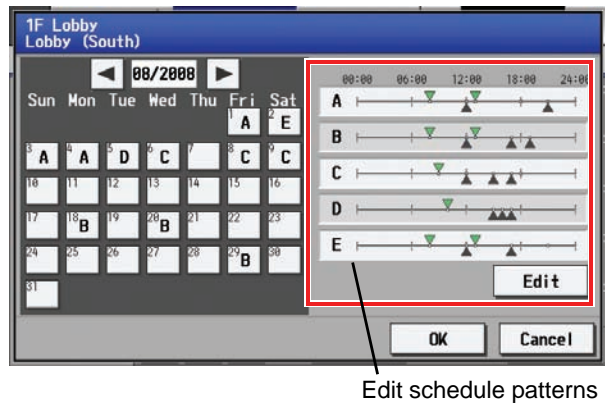


Pressing the Season Settings button on the schedule setting screen () will bring up the Season Settings screen, and the duration of each seasons can be defined, to which [Weekly 1] or [Weekly 2] schedules are applied.Touch the “Enable/disable switching button” to enable or disable the “Weekly 2” setting.
* The period setting can go past 12/31 (i.e., 11/1~3/31).

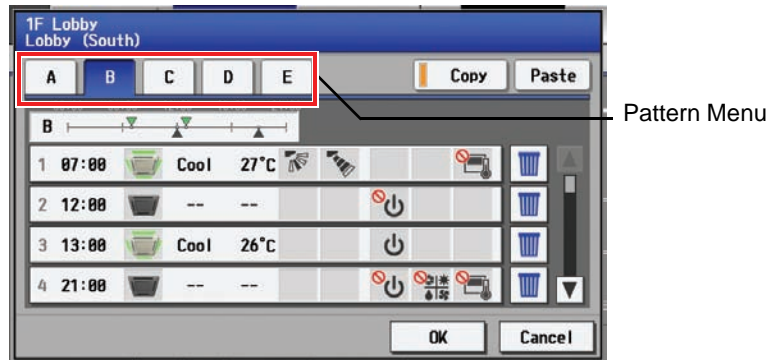
6-3-2-2 Setting the annual schedule (Applicable only when the license is registered)

Selecting [Schedule Setting] from the main menu on the [Main operation screen] will bring up the schedule setting screen. Subsequently, selecting [Annual] from the sub menu will bring up the annual schedule setting screen. You can use the annual schedule to set schedules for days such as public holidays and summer vacation that need to be scheduled differently to the weekly schedule. For each air conditioner group, it is possible to set 50 day-long settings up to 24 months into the future (including the current month).
Settings for days that have passed will be deleted automatically.
To make the settings for the annual schedule, first select the item to be set, and then touch [Edit] to bring up the annual schedule screen. Make the settings for the five patterns (pattern A through E) on the weekly schedule screen, and then assign those patterns to appropriate dates (e.g., holidays, or summer break).
Note: When the contents of an operation are executed as part of a schedule these contents will continue to be in effect until they are changed by a schedule or browser etc. Therefore, if you are setting a schedule that is only for a particular day, be sure to set your schedule in a way that will not impact on the next day’s operation.
For example, if you wish to prohibit operations being performed from the remote controller after 17:00, set a Prohibit operation for 17:00 and set an Enable operation for 23:59.

- (1) Select the item to be set.
As with the weekly schedule setting, select the item to be set. (Refer to 6-3-1 (1).)
- (2) Select a pattern.



Touching the alphabetic letters in the calendar or touching the Edit button in the annual schedule screen will bring up the schedule pattern setting screen. Select the pattern you want to edit.
Note: When multiple groups are selected, those settings that have been made for each group will not be displayed.
Press [OK] to delete the schedule, or press [Cancel] to exit the window without saving any changes.



(3) Edit the patterns.



(Air Conditioner)

Refer to 6-3-1 (3) for the figure of LOSSNAY and Air To Water Booster unit.

After selecting the pattern, touch the schedule content button to bring up the schedule content setting screen. Make the settings for the execution time and operation patterns (ON/OFF, operation mode, setting temperature, airflow direction, fan speed, remote controller operation prohibition) on the schedule content setting screen, and then touch the [OK] button. Not all settings need to be made. The settings for only the operation mode or the setting temperature, for example, can be made.

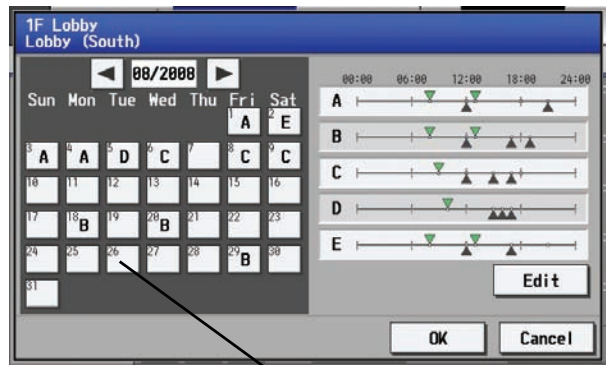
Note: When setting a schedule for all groups or for a block, it is possible to set all operation modes such as Auto mode etc, but if some targeted air conditioner units do not have such a function, then those units will not run in the specified mode. When setting the schedule, consider what functions are supported by the air conditioner units.

Note: When setting a schedule for all groups or for a block, it is possible to set prohibit remote controller items individually. When allowing remote controller operation under K control, however, all items must be set enable.

Note: When setting a schedule for ventilator units, the temperature setting is not displayed. Moreover, the prohibit remote controller operation is simply [ON/OFF].

Note: Only the ON/OFF operation is possible on the general equipment.

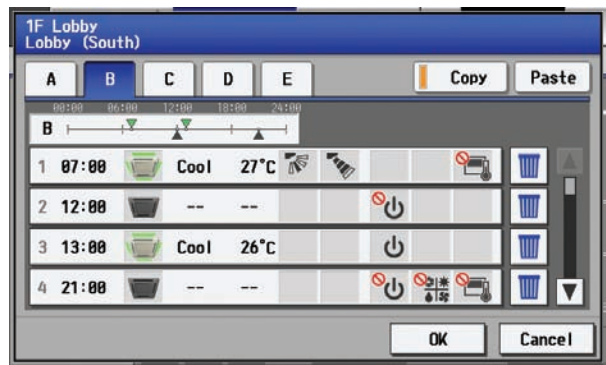
(4) Assign schedule patterns to special dates.



Date button

Assign the schedule patterns to the dates to which regular weekly schedule does not apply, such as holidays and summer break. Touch the desired date on the calendar to see which pattern is assigned to the date. Each touching of the button will cycle through the letters ABCDE and blank, then back to A. Touch the button until you get the pattern you want. Select blank to cancel the selection.

(5) Copy a schedule to another pattern or to another group



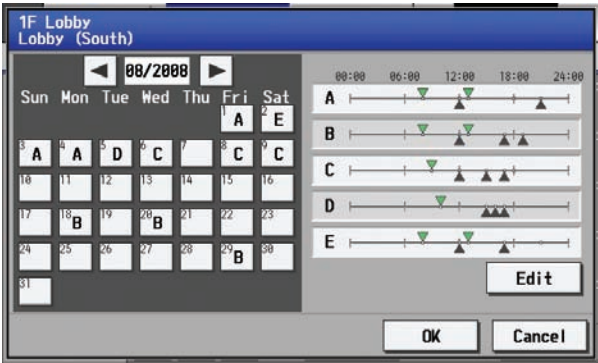
Refer to the figures under 6-3-1 (4) for how to copy the schedule of one group to another.

To copy a pattern to another, select the pattern from the pattern menu on the schedule pattern setting screen, touch [Copy] to select it, select a pattern to copy to, and touch [Paste].

To copy the annual schedule for one group to another group, select the group from the annual schedule setting screen (Floor layout or block display screen), touch [Copy], select a group to copy the schedule to, and touch [Paste].

- * The settings of one type of equipment cannot be copied to the settings of a different type of equipment. (i.e., The settings of air conditioning units cannot be copied to ventilation equipment settings.)
- * Available operation modes and setting temperature range varies with models.

(6) Save the contents of schedule



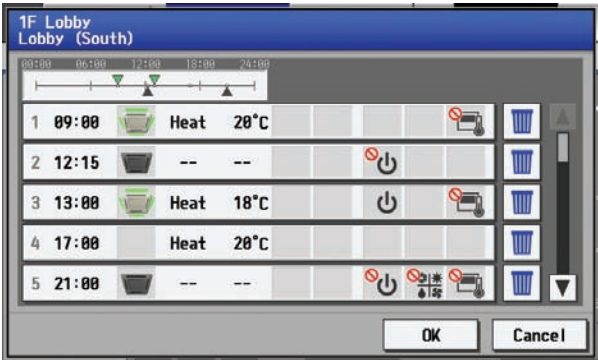
After all the settings have been made, touch the [OK] button to save the schedule settings.
Touch the [Cancel] button to go back to the previously saved settings without making any changes.

6-3-2-3 Setting the current date schedule

Selecting [Schedule Setting] from the main menu on the [Main operation screen] will bring up the schedule setting screen. Subsequently, selecting [Today] from the sub menu will bring up the current day schedule setting screen. By using this function, schedule for the current date can be set without having to change the weekly or annual schedule. First select the item to be set, and then set the schedule.

Note: When the contents of an operation are executed as part of a schedule these contents will continue to be in effect until they are changed by a schedule or browser etc. Therefore, if you are setting a schedule that is only for a particular day, be sure to set your schedule in a way that will not impact on the next day's operation.
For example, if you wish to prohibit operations being performed from the remote controller after 17:00, set a Prohibit operation for 17:00 and set an Enable operation for 23:59.

- (1) Select the item to be set.
As with the weekly schedule setting, select the item to be set. (Refer to 6-3-1 (1).)
- (2) Set the contents of the schedule



Touch the schedule content button on the current day schedule screen to bring up the schedule content setting screen. Make the settings for the execution time and operation patterns (ON/OFF, operation mode, setting temperature, airflow direction, fan speed, remote controller operation prohibition) on the schedule content setting screen, and then touch the [OK] button. Not all settings need to be made. The settings for only the operation mode or the setting temperature, for example, can be made.

Note: When setting a schedule for all groups or for a block, it is possible to set all operation modes such as Auto mode etc, but if some targeted air conditioner units do not have such a function, then those units will not run in the specified mode. When setting the schedule, consider what functions are supported by the air conditioner units.

Note: When setting a schedule for all groups or for a block, it is possible to set prohibit remote controller items individually. When allowing remote controller operation under K control, however, all items must be set enable.

Note: When setting a schedule for ventilator units, the temperature setting is not displayed. Moreover, the prohibit remote controller operation is simply [ON/OFF].

Note: Only the ON/OFF operation is possible on the general equipment.

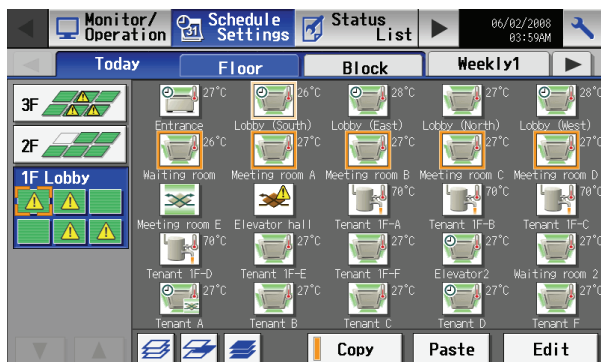
Note: When multiple groups are selected, those settings that have been made for each group will not be displayed. Press [OK] to delete the schedule, or press [Cancel] to exit the window without saving any changes.



(Air Conditioner)

Refer to 6-3-1 (3) for the figure of LOSSNAY and Air To Water Booster unit.

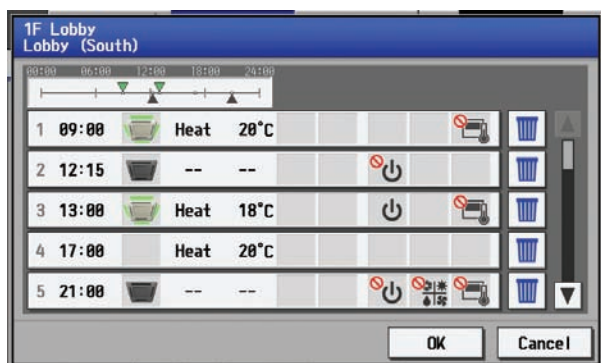
(3) Copy a schedule to another group



To copy the settings of the current day schedule in one group to another, select the group from the current day schedule setting screen (Floor layout or block display screen), touch [Copy], select a group to copy the schedule to, and touch [Paste].

- * The settings of one type of equipment cannot be copied to the settings of a different type of equipment. (i.e., The settings of air conditioning units cannot be copied to ventilation equipment settings.)
- * Available operation modes and setting temperature range varies with models.

(4) Save the contents of schedule



After all the settings have been made, touch the [OK] button to save the schedule settings.

Touch the [Cancel] button to go back to the previously saved settings without making any changes.

6-4 Checking the List of Malfunctioning Units

Touch the [Status list] in the main operation screen menu, and then touch [Malfunction] to see a list of units that are currently in error.

Note: If an error occurs, check the unit address, error code and error description before consulting your dealer or service center.

① **Floor name or Block name**
Floor name or block name is displayed here.

② **Group name**
The name of the group is displayed here.

③ **Unit address**
The unit address is displayed here.

④ **Number of malfunctioning units**
The number of malfunctioning units is displayed here.

⑤ **Error code**
The error code is displayed here.

⑥ **All reset**

	Group Name	Address	Error Code
1	1F Lobby (South)	002	5101
2	1F Lobby (Center)	004	5101
3	1F Lobby (West)	005	5101
4	3F Convention hall	013	6608
5	3F Hallway	014	6608

All Reset

Item	Description
① Floor name or Block name	The name of the floor or block that the unit in error belongs to appears here. * If a unit, such as an indoor unit or system controller, has not been registered in a group that is the object of the operation, this area will be blank. * If the unit in error has not been registered in a block or floor, this area will be blank.
② Group Name	The name of the group that the unit in error belongs to appears here. Note: If a unit, such as an outdoor unit or system controller, has not been registered in a group that is the object of the operation, this area will be blank.
③ Unit address	The address of the unit in error appears here. If an expansion controller (EC) is connected, this field will appear in the "EC No. - unit address" format (e.g., : [1-012]).
④ Number of malfunctioning units	The number of malfunctioning units is displayed.
⑤ Error code	The error code of the error that is causing the malfunction is displayed. Touch the error code to see the explanation.
⑥ All reset	Touch [All Reset] when you want to reset the errors on all the malfunctioning units at once. If "All reset" is touched, the units that are reset will stop.

Error code display

Error code display

5101
Temperature sensor trouble - Sensor No.
: 01

OK

Explanation of error

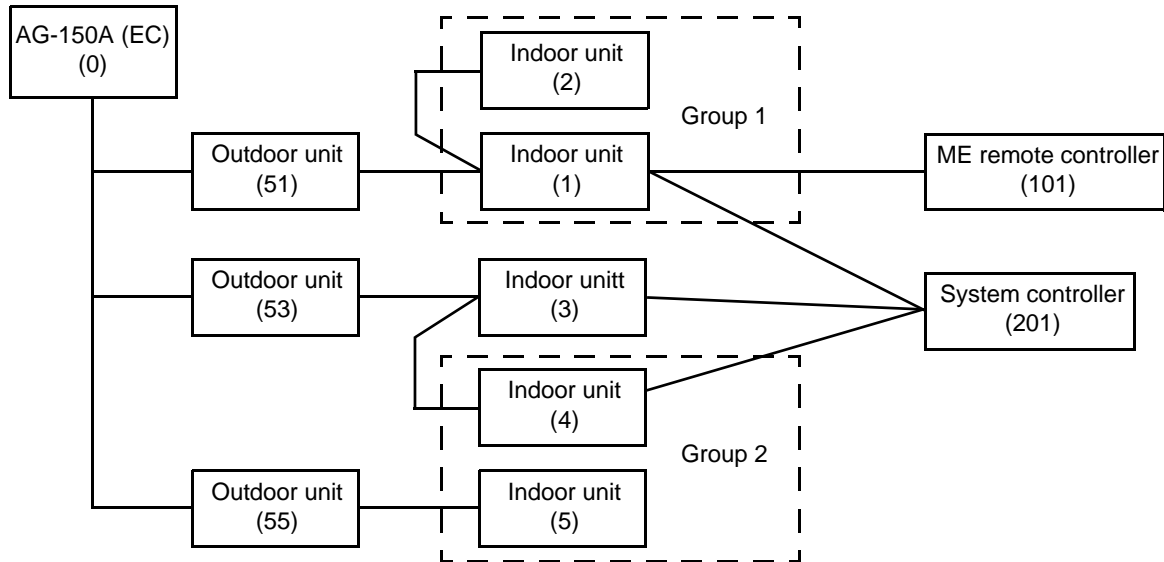
- **Extent of the error reset**

When an error is reset, units other than the ones in error may come to a stop.

Types of units in error and the affected units that will stop

Units in error	Units that stop
AG-150A (EC)	None
Outdoor unit	All indoor units that are connected to the outdoor unit in error
Indoor unit	Indoor unit in error and all other indoor units in the same group
ME (MA) remote controller	All indoor units that are connected to the remote controller in error
System controller	All indoor units that are connected to the system controller in error

Shown below is a diagram showing the extent to which an error of a unit will affect.



Units in error	Units that stop
AG-150A (EC)	None
Outdoor unit (51)	Indoor unit (1), Indoor unit (2)
Outdoor unit (53)	Indoor unit (3), Indoor unit (4), Indoor unit (5)
Indoor unit (1)	Indoor unit (1), Indoor unit (2)
Indoor unit (3)	Indoor unit (3)
Indoor unit (5)	Indoor unit (4), Indoor unit (5)
ME remote controller (101)	Indoor unit (1)
System controller (201)	Indoor unit (1), Indoor unit (3), Indoor unit (4)

6-5 Checking the List of Units with a Triggered Filter Sign

Touching [Status List] on the Main operation screen and then touching [Filter signs] in the sub menu will bring up a list of units whose filter sign is turned on.

① Floor name or Block name
Floor name or block name is displayed here.

② Group name
The name of the group is displayed here.

③ Unit address
The unit address is displayed here.

④ Number of units with triggered filter signs
The number of units with currently triggered filter signs is displayed here.

⑤ Reset units individually
Touch to reset the filter sign for the group the units belong to.

⑥ All reset
Touch to reset the filter sign on all units with triggered filter signs.

Item	Description
① Floor name or Block name	The name of the floor or block appears here that contains the unit whose filter sign is turned on. * If the unit in error has not been registered in a block or floor, this area will be blank.
② Group Name	The name of the group appears here that contains the unit whose filter sign is turned on.
③ Unit address	The address of the units with its filter sign turned on appears here. If an expansion controller (EC) is connected, this field will appear in the "EC No.- unit address" format (e.g., : [1-012]).
④ Number of units with triggered filter signs	The number of units with currently triggered filter signs is displayed.
⑤ Reset units individually	Touch [Reset] when you want to reset the filter sign for the group the units belong to.
⑥ All reset	Touch [All Reset] when you want to reset the filter sign on all units with a triggered filter sign at once.

6-6 Checking the Malfunction Log

Touch the [Unit error] in the sub menu under [Log] on the main operation screen to see the unit error history (latest 64 events). Touch [Communication error] in the sub menu to see the M-NET transmission error history (latest 64 events).

①Unit error log
Touch to display the unit error log.

③Occurred time
The date and time of error is displayed here.

④Error source address
The unit address of where the error occurred is displayed here.

⑤Error detection source address
The unit address of where the error was detected is displayed here.

②Communication error log
Touch to display the communication error log.

	Time Occurred	Address (Detection)	Error Code	Time Recovered
1	08/01/2008 06:55PM	008 (008)	5010	08/01/2008 06:55PM
2	08/01/2008 06:55PM	004 (004)	5010	08/01/2008 06:55PM
3	08/01/2008 06:55PM	003 (003)	5010	08/01/2008 06:55PM
4	08/01/2008 06:55PM	002 (002)	5010	08/01/2008 06:55PM
5	08/01/2008 06:55PM	001 (001)	5010	08/01/2008 06:55PM

⑥Error recovery date and time
The date and time of the error recovery is displayed here.

⑦Error code
The error code of the error is displayed here.

⑧Clear log
Touch to clear the error log.

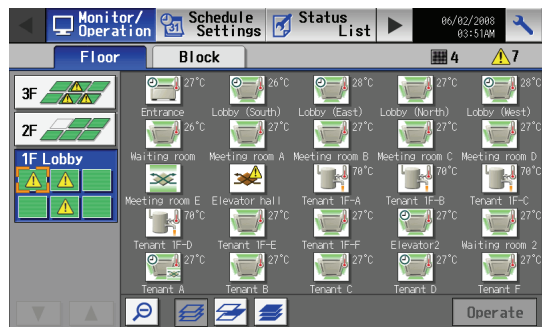
Item	Description
①Unit error log	Touch [Unit Error] to display the unit error log.
②Communication error log	Touch [Communication Error] to display the M-NET communication error log.
③Time Occurred	The date and time of when the error occurred is displayed.
④Error source address	The unit address of where the error occurred is displayed.
⑤Error detection source address	The unit address of where the error was detected is displayed.
⑥Time Recovered	The date and time of the error recovery is displayed.
⑦Error code	The error code of the error is displayed.
⑧Clear log	Touch [Clear Log] to clear the error log that is being displayed.

• Checking the malfunction log in the system to which an expansion controller (PAC-YG50ECA) is connected. An EC tab for each expansion controller will appear in the tab area. The maximum of 128 errors (64 unit errors and 64 communication errors) can be displayed for each expansion controller.



7. Initial Settings

7-1 Bringing up the settings screen



Touch
[wrench icon]



Version (DB No.)
Login button
Touch Panel Cleaning button

Touching the Setting Change button on the top right hand on the Main menu will bring up the Login window. Touch “User Name” and “Password” on the screen, and enter them. Touch the Login button. If the user name and the password match, the Setting Change screen will appear.

* A keyboard screen will appear. Touch the keys on the keyboard to enter the user name and password.

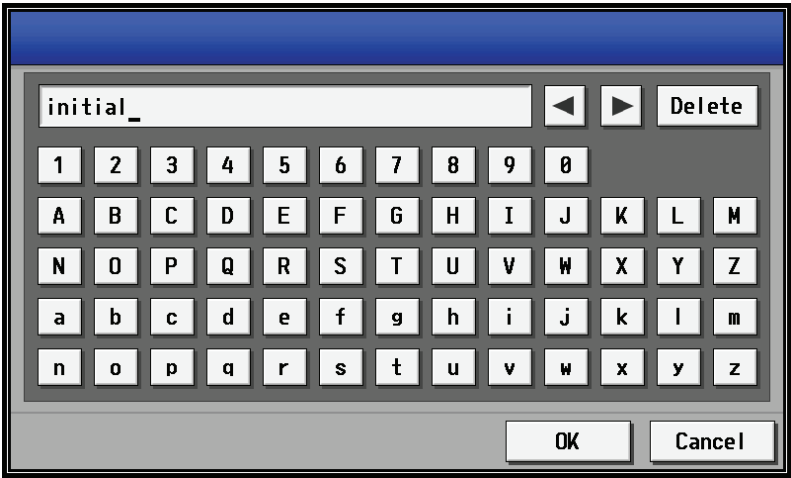
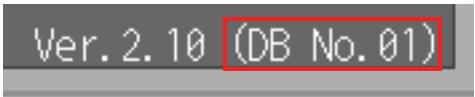
User	Default user name	Default password	Available functions
Maintenance User	initial	init	Date and Time, Unit Info., Network, Groups, Interlocked LOSSNAY, Blocks, Floor Layout Outside temperature interlock Night Setback, Advanced
Building Manager	administrator	admin	Out of the functions listed above, the items to which access rights have been given on the user settings screen are available.

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

Note: It is recommended to change the user name and password not to allow users other than the building manager to change the settings.

• Initial settings for the system with connection to an expansion controller (PAC-YG50ECA)

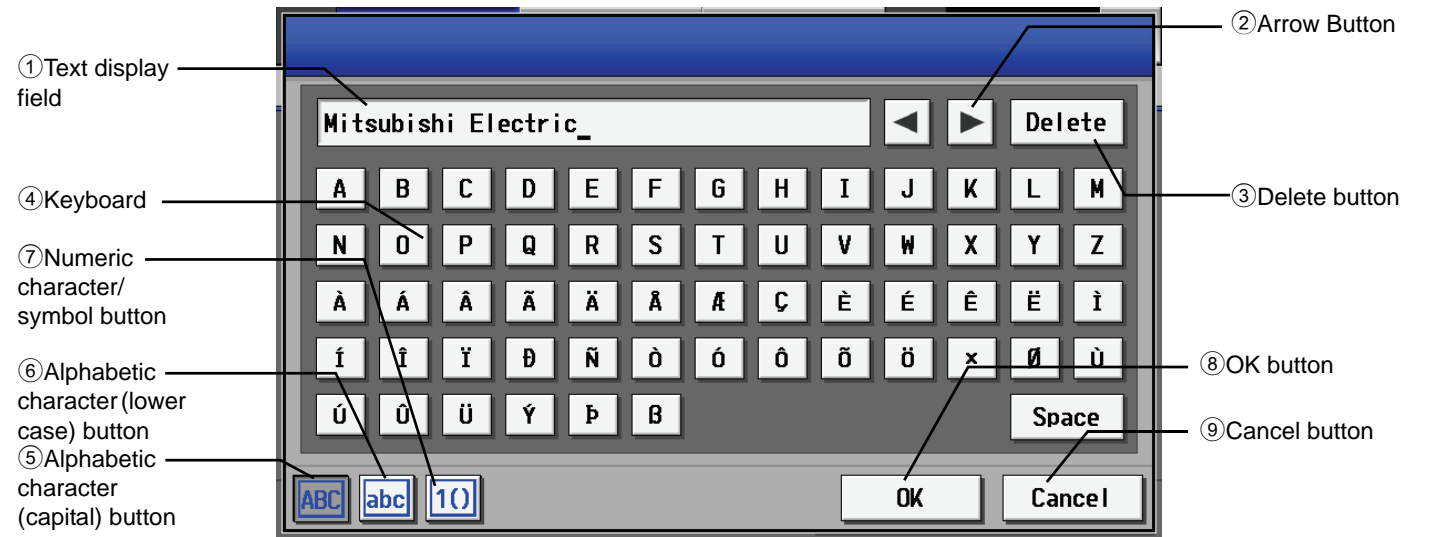
Compare the DB No. at the right bottom of the Login window with the DB No. on the EC setting window (see P 57). If they do not match, consult your dealer.



Keyboard screen

Keyboard Screen

The screen below is used to enter characters and numbers on the Initial Settings screen.



Item	Description
①Text display field	The entered string will appear here.
②Arrow Button	Touch to move the cursor.
③Delete button	Touch to delete one character to the left of the cursor.
④Keyboard	Use to input characters. Touch the desired character to enter it.
⑤Alphabetic character (capital) button	Touch to display the keyboard for entering Alphabetic characters (capital).
⑥Alphabetic character (lower case) button	Touch to display the keyboard for entering Alphabetic characters (lower case).
⑦Numeric character/symbol button	Touch to display the keyboard for entering numeric characters and symbols.
⑧OK button	Touch to save the changes and return to the previous screen.
⑨Cancel button	Touch the [Date/Time Set] button to set the current date and time.

* The type of keyboard that appears depends on the type of characters that can be entered.

Handwriting input screen

When “Japanese” or “Chinese” is selected, characters can be input by using a handwriting pad.



Item	Description
①Handwriting input area	<p>This area is used to input characters. Handwrite a character in this area. Candidate characters will be shown on the Input candidate character buttons. Select the character you want and touch the button.</p> <p>Note: Handwrite slowly otherwise the character cannot be recognized correctly. Note: Handwrite characters in the correct stroke order otherwise the character cannot be recognized correctly. Note: If a pen is used, it should not be sharp.</p>
②Clear button	Clears the handwriting input area.
③Input candidate character button	<p>Shows five candidate characters of high similarity with the input character. Touch the button with a desired character to enter the character.</p> <p>Note: If a desired character is not shown, press Clear button to clear the input area and rehandwrite slowly.</p>
④Memorized input word button	<p>Shows words input in the past. Touch a button that shows your desired character to enter the character.</p> <p>Note: The words shown here are registered originally or input in the past.</p>
⑤Handwriting switch button	Displays handwriting input screen.

7-2 Locking the screen

Locking the screen prevents unauthorized users from accessing.

Display Format

Date	31/12/2010	Time	18:00
Temperature	°C	Language	English
Test run	Do not use	Screen lock	Use

Screen lock function is available only when [Use] is selected on the [Unit information] window of [Initial setting] window.

Note: The initial setting is set to [Do not use].

Login / Panel cleaning

User name

Password

Serial No. 19908-026 Ver. 2.10 (DB No. 01)

Screen lock button

Touch [Padlock icon]

Login Cancel

If [Use] is selected, the screen locks when the backlight is off (after 10 minutes of not pressing anything).

* Screen lock does not function when the Initial setting window is open.

Screen lock button is shown on the Login window. Touch the button to lock the screen immediately.

Login / Panel cleaning

User name

Password

Serial No. 19908-026 Ver. 2.10 (DB No. 01)

Login

To unlock the screen, enter the same username and password used to login.

* The screen for both maintenance user and management user can be unlocked.

7-3 Setting the Current Date and Time

Touch [Initial settings] on the setting change window, and then touch [Date and Time] on in the sub menu to bring up the date/time setting screen. Enter the date and time, and touch [Save Settings] to save the settings.

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

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

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

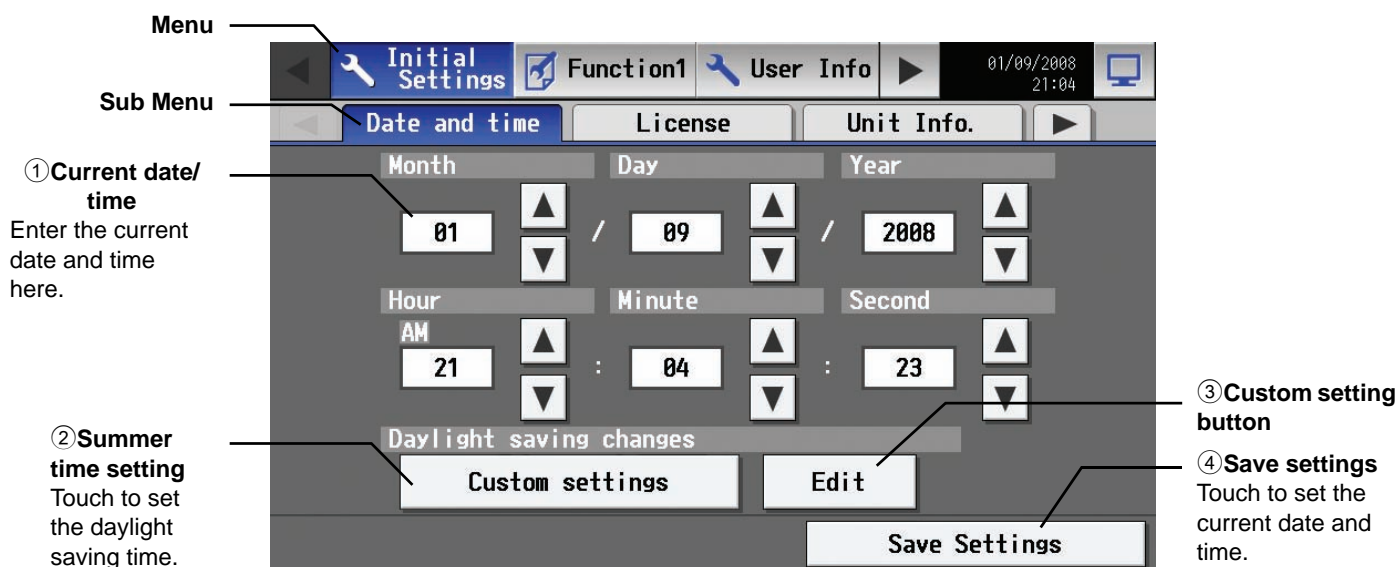
Note: The clock setting made on the screen below will be reflected on the clocks on other units that are connected to the M-NET line, on the expansion controllers (PAC-YG50ECA), and on the AG-150A controller whose "Time master setting" is set to Sub.

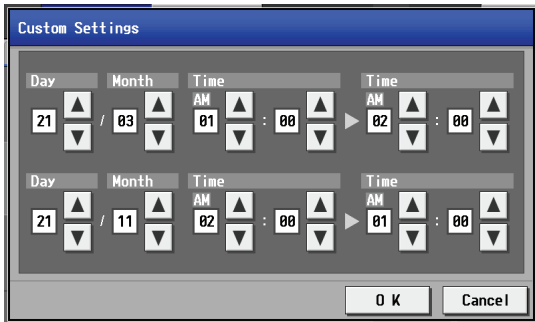
Note: When an expansion controller (PAC-YG50ECA), DIDO controller (PAC-YG66DCA), AI controller (PAC-YG63MCA), or PI controller (PAC-YG60MCA) is added to the system, set the clock on the added controller by making the clock setting on the clock setting screen.

Note: Clock setting cannot be made from the controller whose "Time master" setting is set to SUB.

⚠ CAUTION

Date and clock settings on expansion controllers (PAC-YG50ECA), when connected, must be made with the expansion controller properly connected to ensure proper settings.



Item	Description
① Current date/time	Use the up/down buttons to set the date and time.
② Summer time setting	This button is used to set Daylight Saving Time. Select your country from the list of countries that appears when this button is touched. Select [----] when this function is not used. To enter a country name that is not on the list, select [Custom settings] and manually enter the country name.
③ Custom setting	Set the beginning and the ending date/time of the daylight saving time if [Custom settings] is selected to manually enter a country name. 
④ Save Settings	Touch the [Date/Time Set] button to set the current date and time.

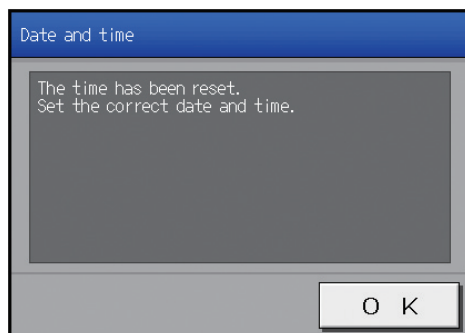
- Message that will appear when the clock has been reset.

If the power supply to the unit has been cut for an extended period due to power failure, the clock will be reset, and the following popup message will appear. If this message appears, set the clock from the Initial Settings screen.

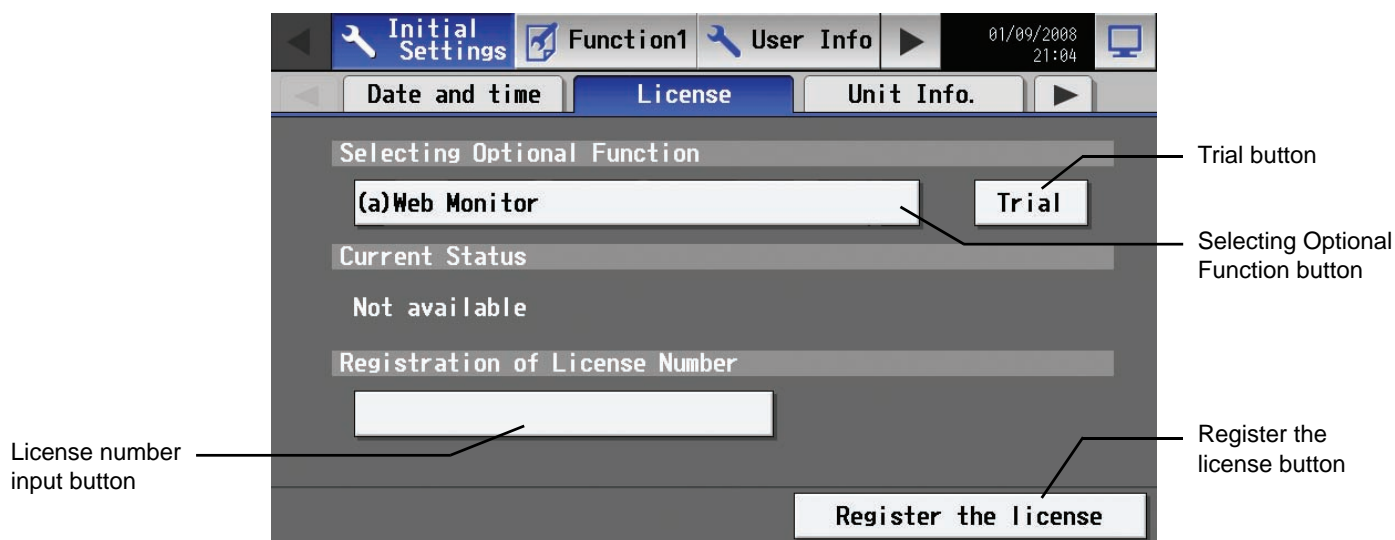
* The popup below will appear periodically until the clock setting is made.

* If the unit is used without the clock being properly set, the schedule function or the night setback function will not work properly.

* If the Master/Sub clock setting for the given unit is set to “Sub,” temporarily set the setting to “Master,” set the clock, and then set the Master/Sub setting back to “Sub.”



7-4 Register the license



This section describes how to register the license for the optional functions. Touch [Initial Settings] on the menu bar in the setting change window, and then touch [License] in the sub menu to bring up the license registration screen.

Select the optional functions to be used by touching the [Selecting Optional Function] button, touch the [License number input button], and enter the license number. The optional functions will be added if the entered registration number matches the registered number when [Register the license] is touched.

If this fails, check that the license number is entered correctly, that the selection of the optional functions are made properly, and that the time/date settings on AG-150A is set correctly.

Consult your dealer for the availability of optional functions and for how to purchase the license for them.

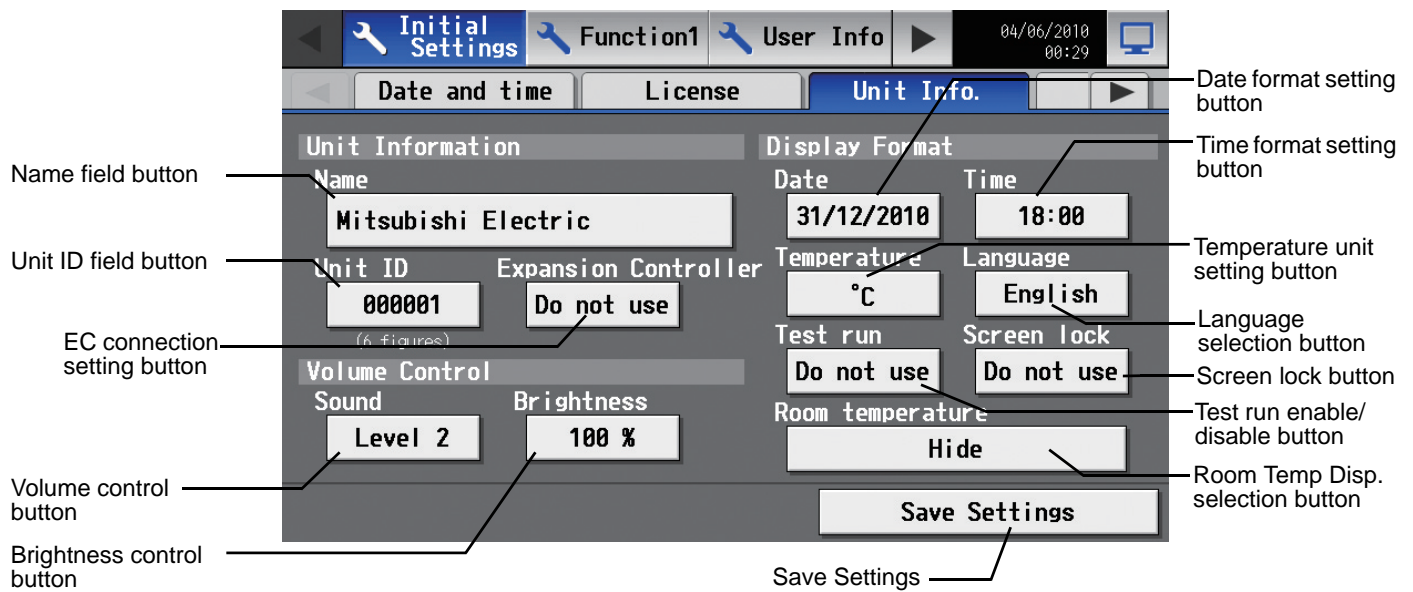
Touch the “Trial” button to register a one-day license that is valid for one day from the time the button is touched. (Web Monitor License Only)

Note: When multiple AG-150A controllers are connected by connecting an expansion controller to the system, the license to use the optional functions is required only for the AG-150A controller on which the functions are actually used.

7-5 Setting the Basic Information

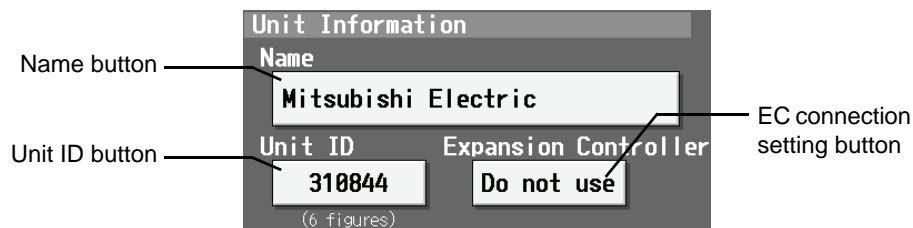
Touch the [Unit Info.] tab in the screen that appears when [Initial Settings] on the menu bar in the setting change window is touched to open the Unit Info setting window and make the basic settings for AG-150A such as its name and display options.

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



7-5-1 Unit Setting

Information about the unit is entered on the window below.



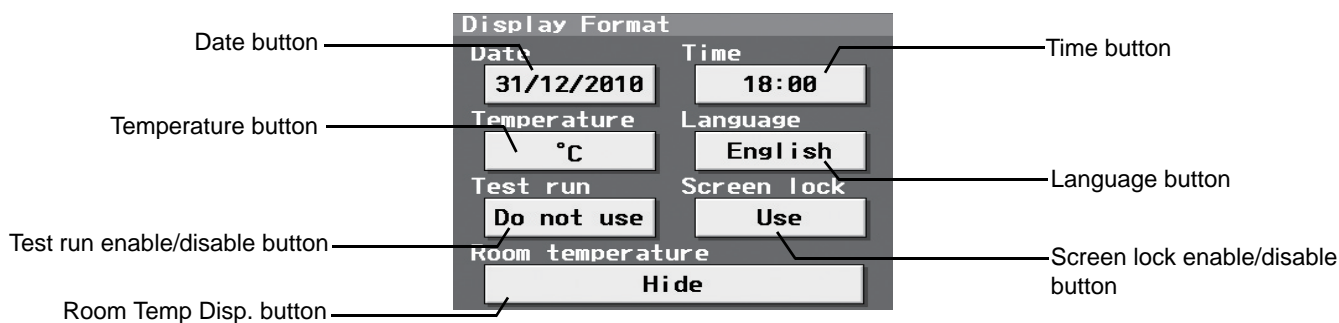
- (1) Press the [Name] button and enter the name for AG-150A in 40 characters or less. The name set here is used on the display screen of the software that controls multiple AG-150A units and for the name of the sender in the body of error messages.

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

- (2) Press the [Unit ID] button and enter the ID number for AG-150A in six numerical characters (single byte) or less. Use this setting when you want to control multiple AG-150A units with unit IDs. The unit ID that is entered here will be used on the display screen of the software that controls multiple AG-150A units and for the sender ID in the body of error messages.
- (3) When connecting an expansion controller, press the [EC connection setting button] and select [Use].
* When the EC connection setting is set to [Use], be sure to make the EC controller settings on the Network settings window.
- (4) Press [Save settings] on the Unit Info window to save the settings.

7-5-2 Setting the Display Format

Data, time, temperature, language, test run, screen lock, and room temp disp. are set on the window below.



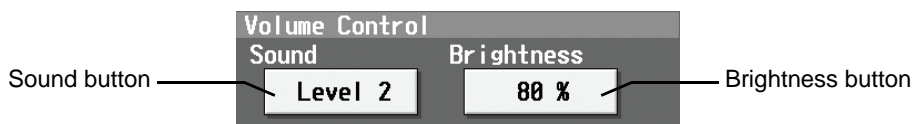
- (1) Select the date format. Each touching of the button allows you to cycle through the following options: [31/12/yyyy][12/31/yyyy][yyyy/12/31]. Current year will appear in "yyyy." (e.g., December 31st, 2009 will appear as 31/12/2009.)
The date will be displayed in the selected order on the screen or on the mail screen.
- (2) Set the time format. (24 hr [18:00] or 12 hr [06:00 PM]) Each touching of the button switches between [18:00] and [06:00 PM].
- (3) In the [Temperature] section, select between [°C] and [°F] as the unit of temperature. Each touching of the button switches between [°F] and [°C].
- (4) Press the language selection button to bring up the [Language selection screen], and the selected language will appear.



- (5) Enables/disables the test run function. Touching the button toggles between [Do not use] and [Use].
When the test run setting is set to [Use], the test run option will be available for selection in the operation window.
- (6) Enables/disables the Screen lock function. Touching the button toggles between [Do not use] and [Use].
- (7) Make the room temperature display setting. Touching the button cycles through [Hide], [Always show], and [Show during operation].
- (8) Press [Save setting] on the Unit info window to save the setting.

7-5-3 Adjusting the sound volume and screen brightness

Sound volume and screen brightness are adjusted on this window.



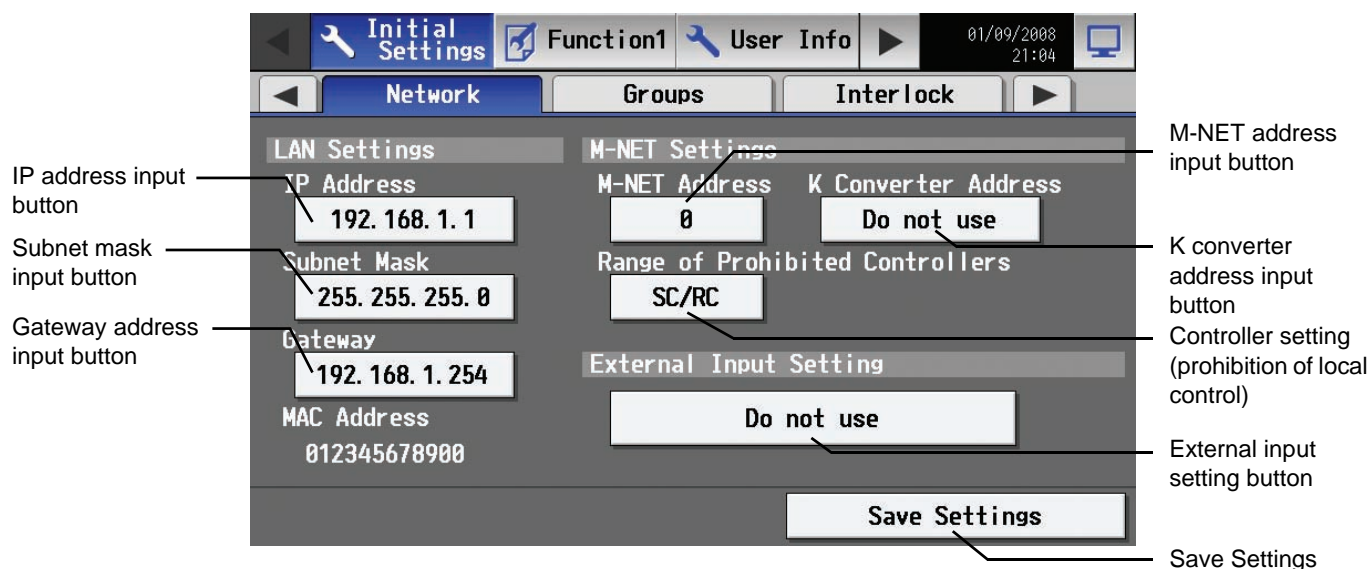
- (1) Each touching of the sound volume control button cycles through the following: [Level 0], [Level 1], [Level 2], and [Level 3]. Although the change made in sound volume is reflected right away, it will not be saved until the [Save setting] button is touched. Even if the setting is changed, if the user exits the window without touching the [Save setting] button, the volume setting will go back to the previous setting.
- (2) Each touching of the brightness control button cycles through the following: [70 %], [80 %], [90 %], and [100 %]. Although the change made in brightness is reflected right away, it will not be saved until the [Save setting] button is touched. Even if the setting is changed, if the user exits the window without touching the [Save setting] button, the brightness setting will go back to the previous setting.
- (3) Press [Save setting] on the Unit info window to save the setting.

7-6 Network Setting

Touch the [Network] tab in the screen that appears when [Initial Settings] on the menu bar in the setting change window is touched to open the network setting window and make the basic settings for LAN and M-NET.

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

Note: When changes are made to the settings, restart the AG-150A before going back to the main menu to reflect the those changes.



7-6-1 LAN setting

In Network Setting, set the AG-150A IP address, subnet mask and gateway address. If connecting to the AG-150A via a permanent LAN, consult with the network administrator before setting these addresses.

7-6-1-1 Settings for when the AG-150A is connected to a dedicated LAN

- (1) Set the IP address for AG-150A. Enter the IP address on the keyboard that appears when the IP address input button is touched. If the LAN wiring has been newly set up, allocate IP addresses to the AG-150A units in a sequential order starting with [192.168.1.1]. For example the first AG-150A unit will receive an IP address of [192.168.1.1], the second AG-150A unit will receive an IP address of [192.168.1.2] and so on.

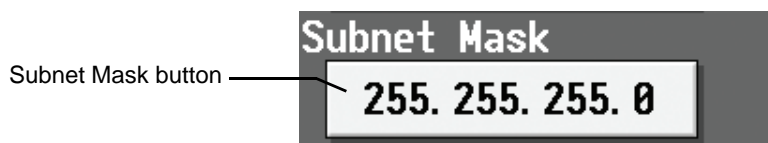
The Web Monitor PC that monitors and sets AG-150A will also require network addresses consistent with the rest of the LAN.

Note: When using a AG-150A dedicated LAN, it is recommended to set the IP address as follows.

AG-150A: Between [192.168.1.1] and [192.168.1.40] Web Monitor PC: Between [192.168.1.101] and [192.168.1.150]



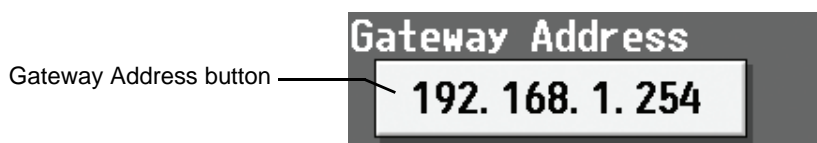
- (2) Set the subnet mask. Enter the subnet mask address for the AG-150A on the keyboard that appears when the subnet mask input button is touched. Normally, you should enter [255.255.255.0].



- (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.

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.



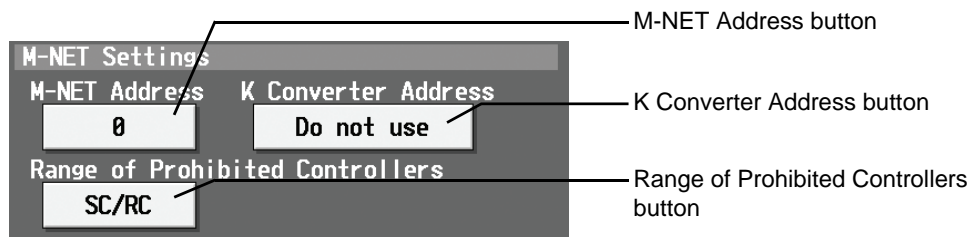
- (4) Press [Save setting] on the network window to save the setting.

7-6-1-2 Settings for when the AG-150A is connected to an existing LAN

When connecting the AG-150A 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.

7-6-2 M-NET Setting

In M-NET Setting, set the AG-150A M-NET address, whether or not a K-Control unit is present and which machines send the prohibited controller command.



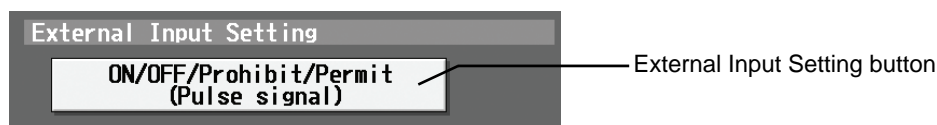
- (1) Enter the AG-150A M-NET address in the [M-NET Address] field. Normally you should enter [0].
- (2) When K-Control air conditioners are connected, enter the M-NET address of K transmission converter in the [K Converter Address] field.
 - * When K-control units are connected, set the AG-150A address to "0."
 - * The addresses of the K-control indoor units should be larger than those assigned to the M-transmission indoor units.
 - * The group number assigned to each group of K-control unit should equal the minimum address of the indoor unit in the group.
- (3) If prohibited controller (prohibiting local operation) has been set, this setting determines the scope of this setting's control, i.e. operation is prohibited for both the remote control and subordinate system controllers, or just for the remote control. Touch [SC/RC] when you want prohibited controllers to include both subordinate system controllers and the remote control, or touch [RC only] when you only want to prohibit operation on the remote control.
Note: Normally, you should select [SC/RC].
- (4) Press [Save setting] on the network window to save the setting.

7-6-3 External input Setting

The external input function allows for a batch operation (start/stop) of the air conditioning units that are connected to the AG-150A via the external input/output adaptor (PAC-YG10HA; sold separately), using contact and pulse signals.

Pressing the "External Input Setting" button toggles through the following options: Not in use, Emergency Stop (Level signal), ON/OFF (Level signal), and ON/OFF/Prohibit/Permit (Pulse signal).

* See Chapter 10 for detailed explanations on how to connect external devices.



• External input settings for a system with connection to an expansion controller (PAC-YG50ECA)

Touch the [Network] tab in the screen that appears when [Initial Settings] on the menu bar in the setting change window is touched to open the network setting window and make the basic settings for LAN and M-NET.

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

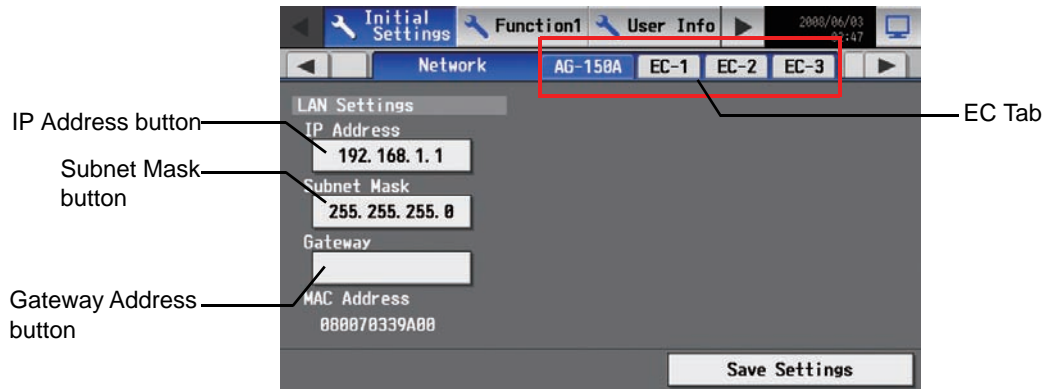
Note: When changes are made to the settings, restart the AG-150A before going back to the main menu to reflect the those changes.

* Be sure to make the settings while the expansion controller is connected. (Those settings made without the connection of an expansion controller will not be reflected.)

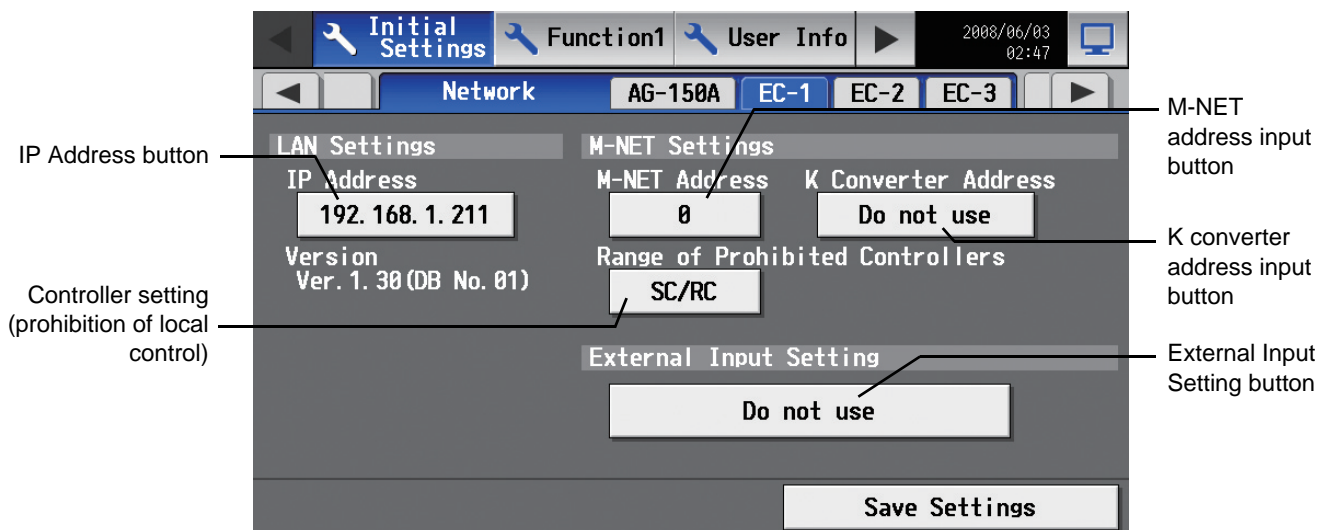
If the expansion controller connection setting is set to [Use] (P47), the EC tabs will appear in the Network settings window. Select an EC from the EC tab menu, and make the settings for the AG-150A and the connected ECs.

First, select [AG-150A] from the EC tab menu, and make the settings for the IP address, subnet mask, and gateway address of the AG-150A. Refer to 7-6-1 (P 55), 7-6-3 (P 56) for how to make these settings.

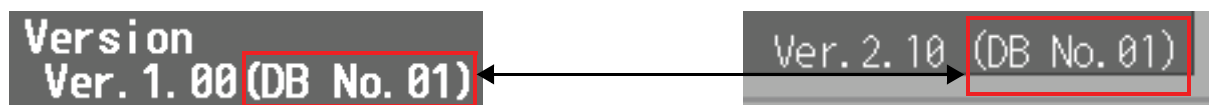
* When an expansion controller is connected, the external input/output on the AG-150A will not be available.



Select the [EC-1], [EC-2], or [EC-3] tab to make the settings for each expansion controller.



Before making the settings, check that the DB No. on this window and the DB No. of the AG-150A on the Login window match.



* Consult your dealer if the DB numbers do not match or if the DB No. does not appear.

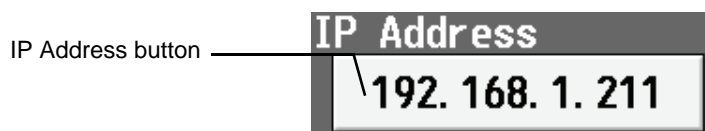
1. Setting up the expansion controller IP address on the AG-150A

(1) To set up the IP address of each EC, first touch the IP address button to display the keyboard screen. Enter the IP address of the connected ECs with the keyboard. Use the IP addresses that have been set with the switches on the ECs.

* The controller will not operate properly, if the addresses that are entered here do not match the ones that have been set with the switches on the ECs.

* Refer to the PAC-YG50ECA expansion controller Installation Manual/Instruction Book for how to set the IP address.

* If the controller does not operate properly, check the settings on the expansion controller and the address settings on the AG-150A.

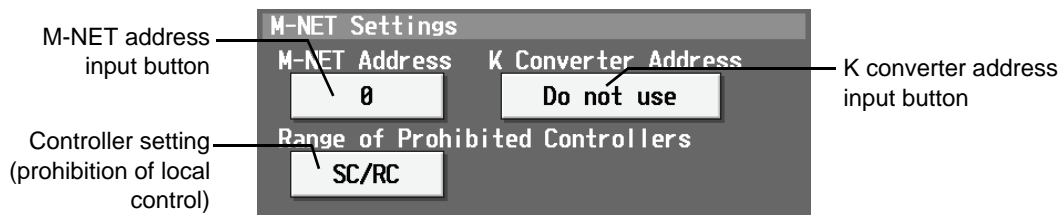


(2) Press [Save setting] on the network window to save the setting.

2. Making the M-NET settings for the expansion controller

In M-NET Setting, set the Expansion Controller M-NET address, whether or not a K-Control unit is present and which machines send the prohibited controller command.

* Be sure to use the correct IP address, and make the M-NET address settings with the expansion controller being connected.



- (1) Enter the Expansion Controller M-NET address in the [M-NET Address] field. Normally you should enter [0].
- (2) When K-Control air conditioners are connected, enter the M-NET address of K transmission converter in the [K Converter Address] field.
 - * When K-control units are connected, set the AG-150A address to "0."
 - * The addresses of the K-control indoor units should be larger than those assigned to indoor units M-transmission indoor units.
 - * The group number assigned to each group of K-control unit should equal the minimum address of the indoor unit in the group.
- (3) If prohibited controller (prohibiting local operation) has been set, this setting determines the scope of this setting control, i.e. operation is prohibited for both the remote control and subordinate system controllers, or just for the remote control. Touch [SC/RC] when you want prohibited controllers to include both subordinate system controllers and the remote control, or touch [RC only] when you only want to prohibit operation on the remote control.
Note: Normally, you should select [SC/RC].
- (4) Press [Save setting] on the network window to save the setting.

3. Making the external input settings for the expansion controller

The external input function allows for a batch operation (start/stop) of the air conditioning units that are connected to the EC via the external input/output adaptor (PAC-YG10HA; sold separately), using contact and pulse signals.

Pressing the "External Input Setting" button toggles through the following options: Not in use, Emergency Stop (Level signal), ON/OFF (Level signal), and ON/OFF/Prohibit/Permit (Pulse signal).

* Refer to the PAC-YG50ECA expansion controller Installation Manual/Instruction Book for how to connect external devices.

7-7 Group Setting

Touch the [Groups] tab in the screen that appears when [Initial Settings] on the menu bar in the setting change window is touched to open the group setting window and set and register the group names for the air conditioning units or general equipment to be connected to AG-150A.

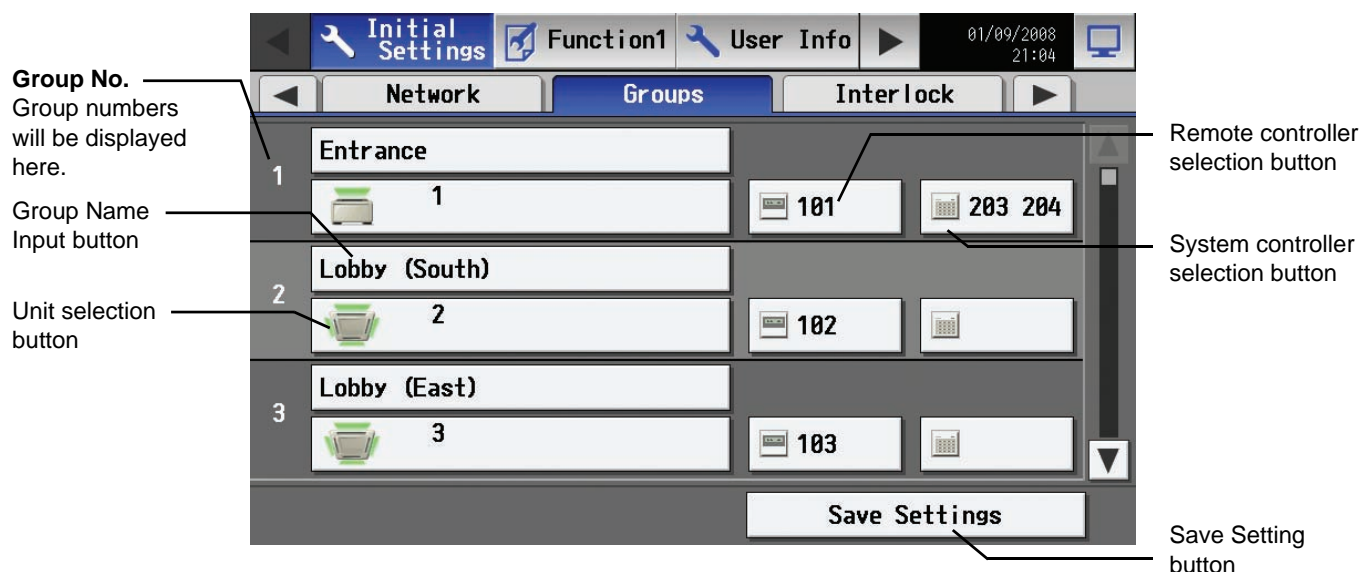
Note: If the user logs in as a building manager, some of the operations may be prohibited.

Note: If the system is connected to the TG-2000A, make all settings and changes from the TG-2000A so that the data in TG-2000A and AG-150A will match.

Note: A contact on the genera interface device is regarded as one unit. The number of units that can be connected to AG-150A is up to 50.

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

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



7-7-1 Setting the Group Name

Press the Group name input button, and enter the group name on the keyboard that appears in 20 characters or less.

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

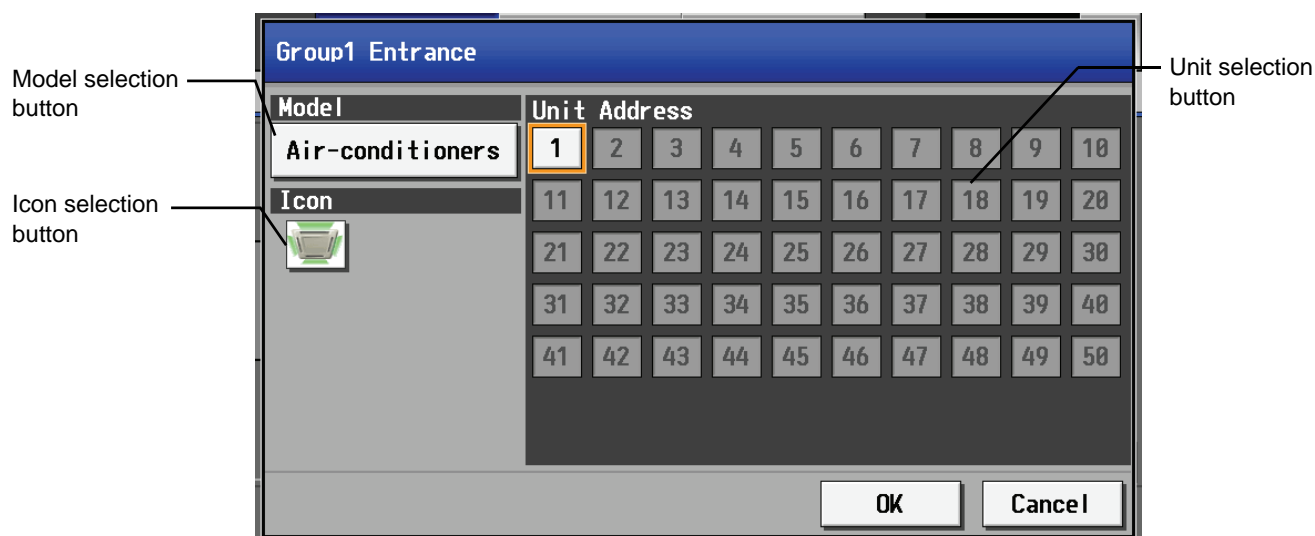
7-7-2 Registering air conditioner units in the group

- (1) To register air conditioning units, select the unit selection button of the group to which the air conditioning units will be assigned. Touch the model selection button on the window that appears to display air conditioning units. (To register a ventilation device call up "LOSSNAY", and to register a water heater call up "Air To Water" on the screen.) Then touch the numbers that are assigned to the units to register. An orange frame will appear around the units that are selected. Touch again to deselect the selected item (no orange frame). Press the [OK] button to save the changes, or touch the [Cancel] button to go back to the previous screen without saving any changes.

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.

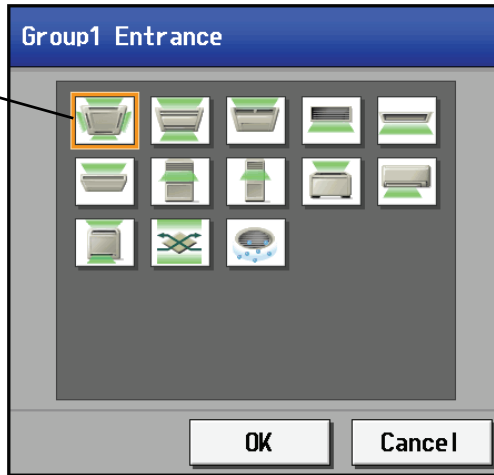
Note: Only the same type of equipment (e.g., only the air conditioning units) can be registered to each group.



- (2) To change the icons, touch the icon selection button, and select the desired icon from the ones that appear.

Item selection frame

An orange frame appears around the selected unit(s).



- (3) To register a remote controller to a group, touch the remote controller selection button to bring up the remote controller selection window, and then touch the numbers that are assigned to the units to register. An orange frame will appear around the selected items. Touch again to deselect the selected items. Touch again to deselect the selected item (no orange frame). Press the [OK] button to save the changes, or touch the [Cancel] button to go back to the previous screen without saving any changes.

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

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

* Only one remote controller can be connected to a system to which three system controllers are connected. No remote controllers can be connected to a system to which four system controllers are connected. (The maximum connectable number is four including system controllers.)

* The remote controllers that are registered to another group will be grayed out and not available for selection.



- (4) To register a system controller to a group, touch the system controller selection button to bring up the system controller selection window, and then touch the numbers that are assigned to the unit to register. An orange frame will appear around the selected items. Touch again to deselect the selected items. Touch again to deselect the selected item (no orange frame). Press the [OK] button to save the changes, or touch the [Cancel] button to go back to the previous screen without saving any changes.

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

Note: K-transmission converters do not need to be registered.



(5) Press [Save setting] on the group setting window to save the settings.

* When changes are made to the settings, it will take a few minutes for the screen to return to the Main menu.

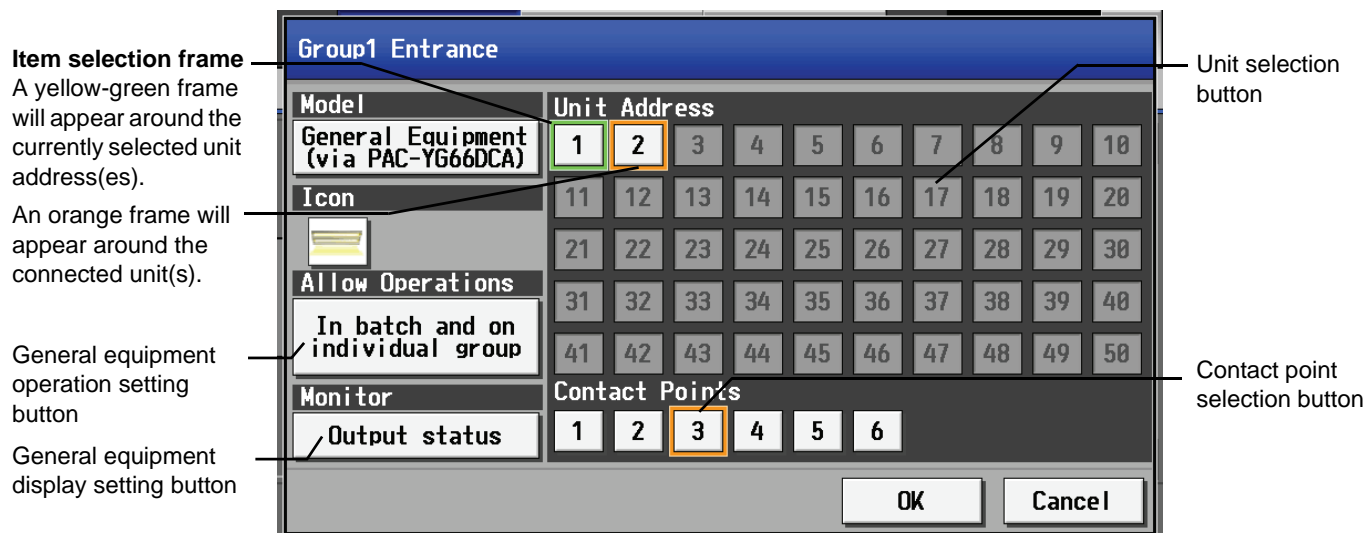
7-7-3 Registering general equipment in the group

(1) To register general equipment, touch the unit selection button of the group to set. Select [General equipment (via PAC-YG66DCA)] on the window that appears to bring up the general equipment registration window. Next, touch the unit number of the DDO controller (PAC-YG66DCA) that is connected to the general equipment to be registered. (A yellow green frame will appear around the selected items.) Select the contact number to which the general equipment is connected, and touch the number assigned to another unit to register the first selected item to the group (The yellow green frame will change to an orange frame.) The item with a yellow green frame is the currently selected unit, and the ones with an orange frame are the units that are already registered to a group. To cancel the connection, select the unit number and touch the selected contact number to deselect it (no orange frame). Press the [OK] button to save the changes, or touch the [Cancel] button to go back to the previous screen without saving any changes.

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.

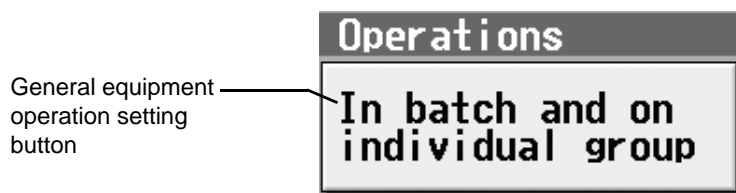
Note: Only general equipments can be registered to the same group (no air conditioning units, LOSSNAY units, or PWFY).



(2) To change the icons, touch the icon selection button, and select the desired icon from the ones that appear.



(3) In the [Allow Operation] section, select whether to enable or disable the ON/OFF operation on the Web browser or on the TG-2000A 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.



(5) Press the [Save setting] on the group setting window to save the settings.

• **Registering general equipment in the group for a system with connection to an expansion controller (PAC-YG50ECA)**

From the menu bar on the Setting change window, touch [Initial Settings] > [Groups] to see the group settings window. Select the tab that corresponds to the EC whose settings are to be made, and make the settings for the air conditioning units, general equipment groups, and group names.

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

Note: Each contact point on the general interface is counted as one unit. Up to 50 units can be connected the controller for each EC connected.

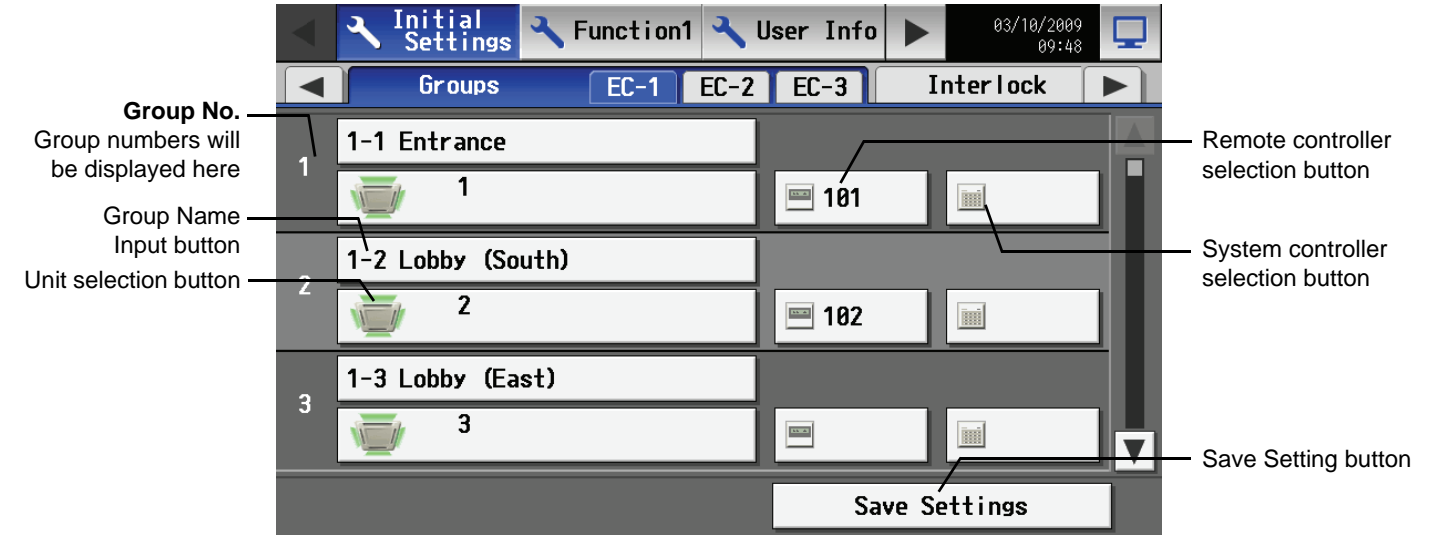
Note: Air-conditioners and general equipment cannot be in the same group.

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

Note: Devices that are connected to different expansion controllers cannot be grouped together.

CAUTION

Be sure to make the settings while the expansion controller is connected. (Those settings made without the connection of an expansion controller will not be reflected.)



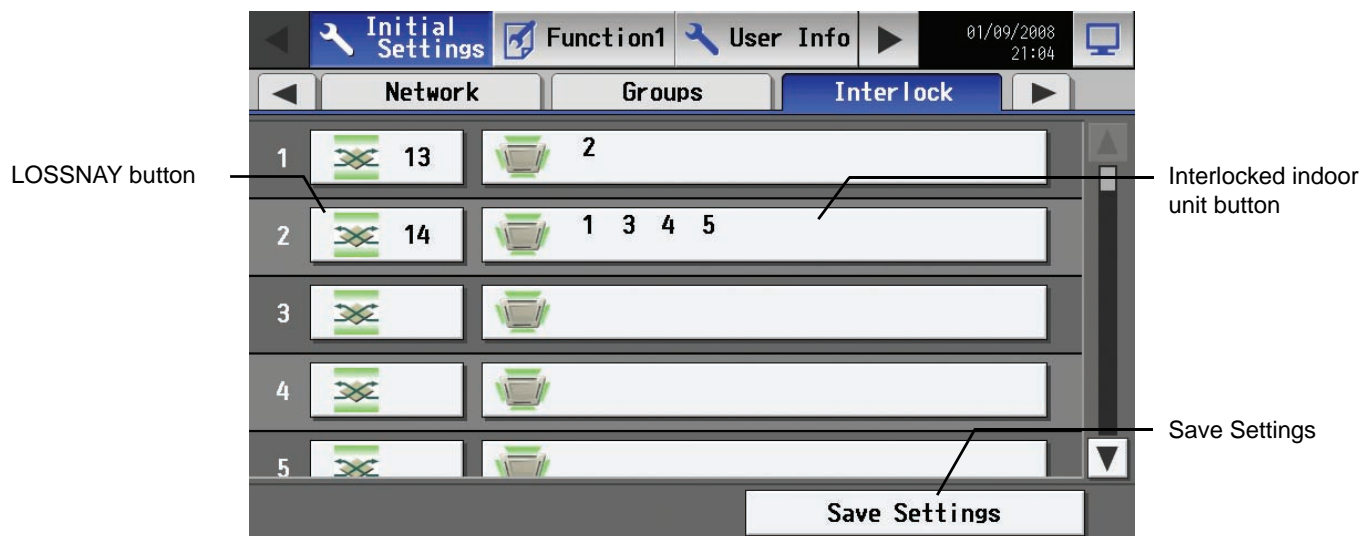
Refer to sections 7-7-1 (P 59), 7-7-2 (P 59), and 7-7-3 (P 61) for the details of how to make the settings for the group names, air conditioning groups, and general equipment groups.

7-8 Interlocked Setting

To interlock the ON/OFF operation of LOSSNAY and indoor units, touch [Interlock] on the window that appears when [Initial Settings] on the menu bar in the setting change window is touched, and make the interlock settings.

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

Note: If the system is connected to the TG-2000A, make all settings and changes from the TG-2000A so that the data in TG-2000A and AG-150A will match.

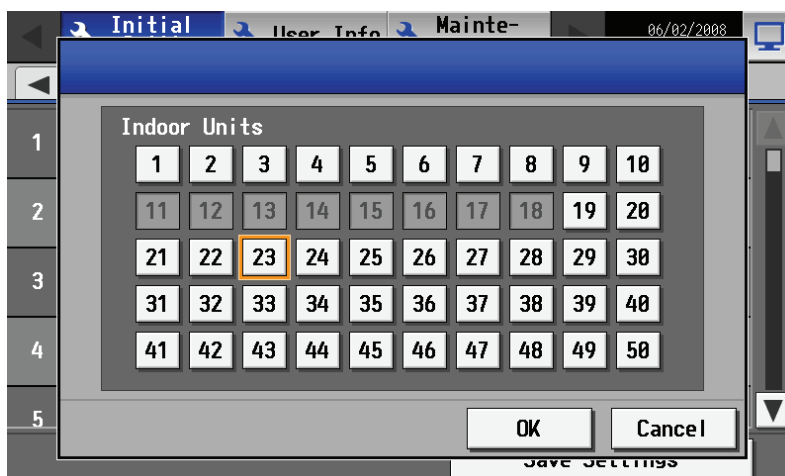


- (1) To make the interlock setting for a LOSSNAY, first, touch the LOSSNAY button to bring up the LOSSNAY selection window. Touch the number assigned to the unit to be registered to select it. An orange frame will appear around the selected items. Touch again to deselect the selected items. Touch again to deselect the selected item (no orange frame). Press the [OK] button to save the changes, or touch the [Cancel] button to go back to the previous screen without saving any changes.



- (2) Touch the Interlocked indoor unit button to bring up the interlocked indoor unit selection window, and touch the number assigned to the unit to register. An orange frame will appear around the selected items. Touch again to deselect the selected items. Touch again to deselect the selected item (no orange frame). Press the [OK] button to save the changes, or touch the [Cancel] button to go back to the previous screen without saving any changes.

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



- (3) Press the [Save setting] on the LOSSNAY interlock setting window to save the settings.

* When changes are made to the settings, it will take a few minutes for the screen to return to the Main menu.

• Making the interlock settings for a system with connection to an expansion controller (PAC-YG50ECA)

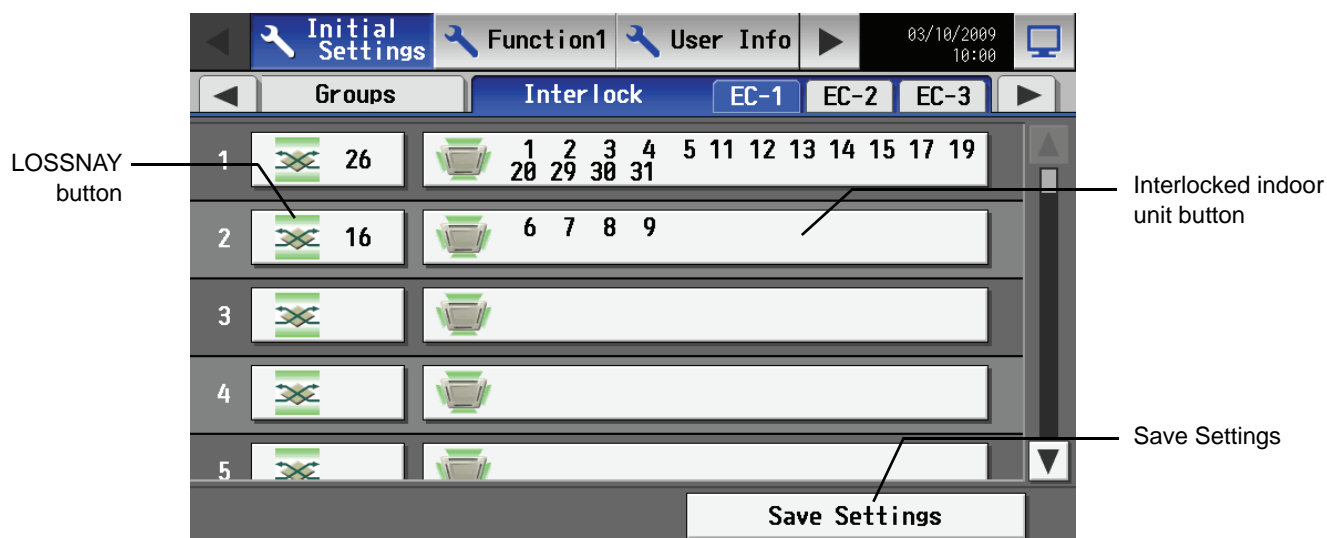
To interlock the ON/OFF operation of the LOSSNAY units with the indoor units, from the menu bar on the Setting change window, touch [Initial Settings] > [Interlock] and open the LOSSNAY interlock settings window. , Select the tab that corresponds to the EC controller whose settings are to be made, and enter the interlock setting conditions.

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

Note: Units that are connected to different expansion controllers cannot be interlocked with each other.

⚠ CAUTION

Be sure to make the settings while the expansion controller is connected. (Those settings made without the connection of an expansion controller will not be reflected.)



Refer to P 63 for the details of how to make the interlock settings for the LOSSNAY and indoor units.

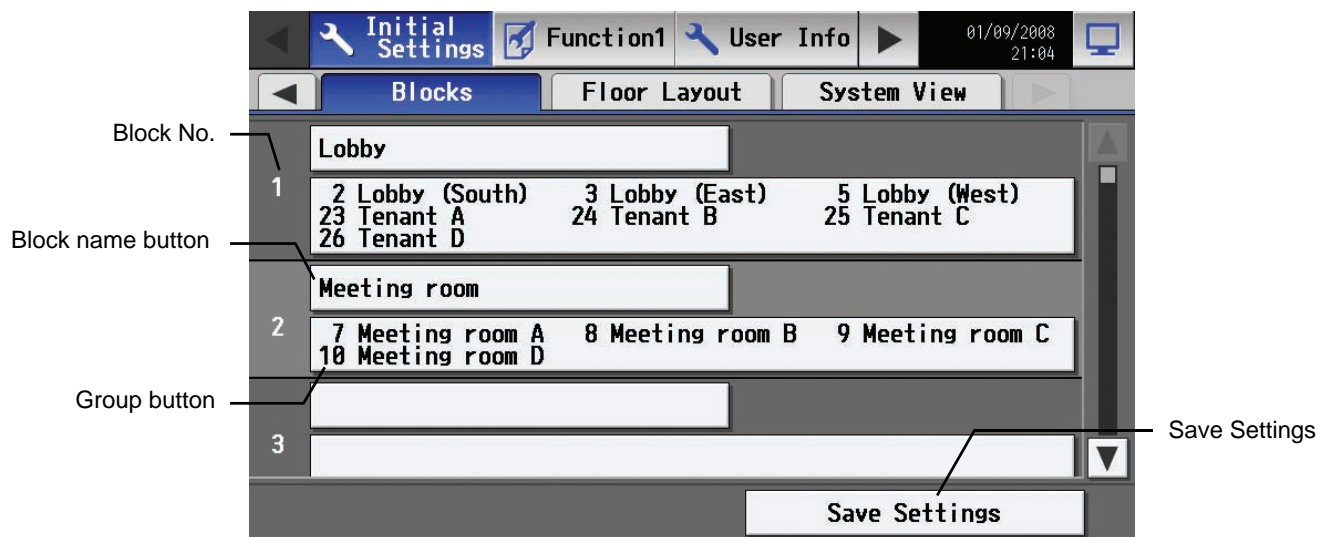
7-9 Block Setting

To perform a batch monitoring/control of multiple air conditioning unit groups, the groups need to be registered to a block. Touch [Blocks] on the window that appears when [Initial Settings] on the menu bar in the setting change window to register groups to a block.

* Although not shown on the LCD, blocks are used as a unit of control for energy-saving and peak-cut control.

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

Note: If the system is connected to the TG-2000A, make all settings and changes from the TG-2000A so that the data in TG-2000A and AG-150A will match.



7-9-1 Setting a block name

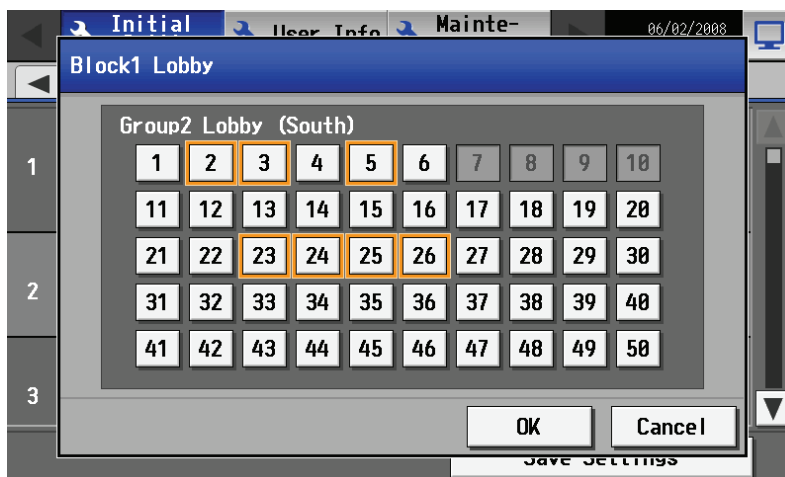
Touch the block name button, and enter the block name on the keyboard that appears in 20 characters or less.

Press [Save setting] on the block setting window to save the settings.

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

7-9-2 Registering a group in a block

Touch on the number of the group to register on the group selection window that appears when the group button is touched. An orange frame will appear around the selected item. (The name of the group that was touched last will appear.) Touch the selected item again to deselect it (no orange frame).



Press [Save setting] on the block setting window to save the settings.

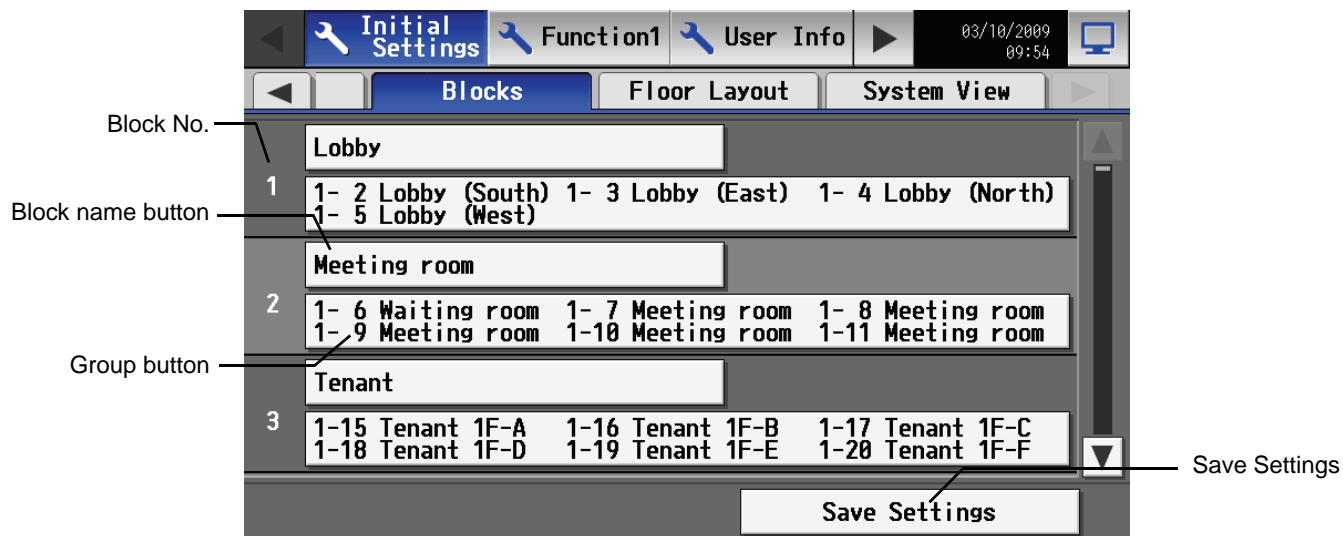
* When changes are made to the settings, it will take a few minutes for the screen to return to the Main menu.

• Making the block settings for a system with connection to an expansion controller (PAC-YG50ECA)

To perform a batch monitoring/control of multiple air conditioning unit groups, the groups need to be registered to a block. Touch [Blocks] on the window that appears when [Initial Settings] on the menu bar in the setting change window to register groups to a block.

Note: Although not shown on the LCD, blocks are used as a unit of control for energy-saving and peak-cut control.

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



7-9-3 Setting a block name

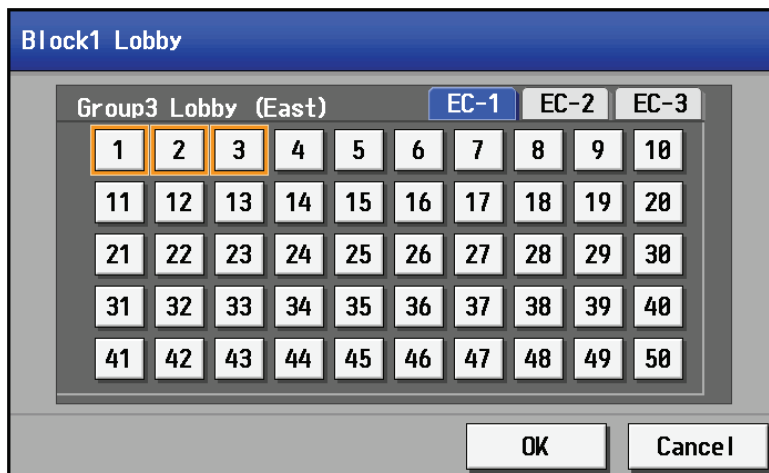
Touch the block name button, and enter the block name on the keyboard that appears in 20 characters or less. Press [Save setting] on the block setting window to save the settings.

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

7-9-4 Registering groups in a block

Touch the group button to display the group selection window. Select the tab that corresponds to the EC to which the groups are to be registered to. Touch the numbers of the groups to be registered. An orange frame will appear around the group numbers that are currently selected. (The name of the group that was touched last will appear)

Touch the selected item again to deselect it (no orange frame).



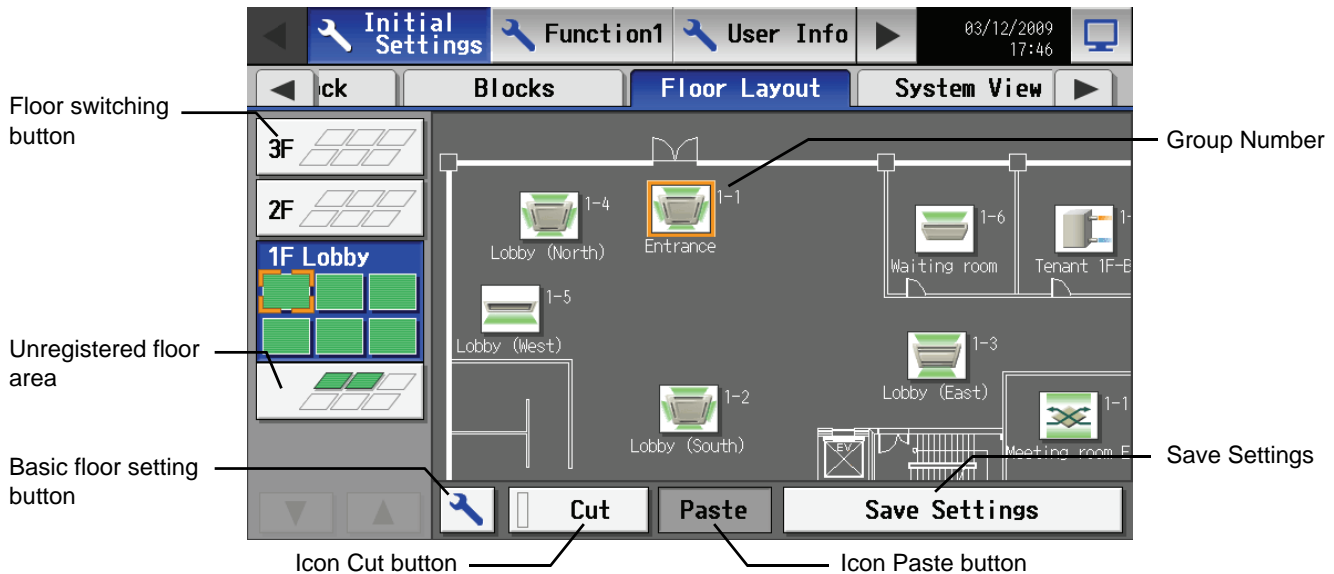
Press [Save setting] on the block setting window to save the settings.

* The groups that are registered to each group will appear on the group button in the [EC No. + Group No.] format.

7-10 Floor Layout Setting

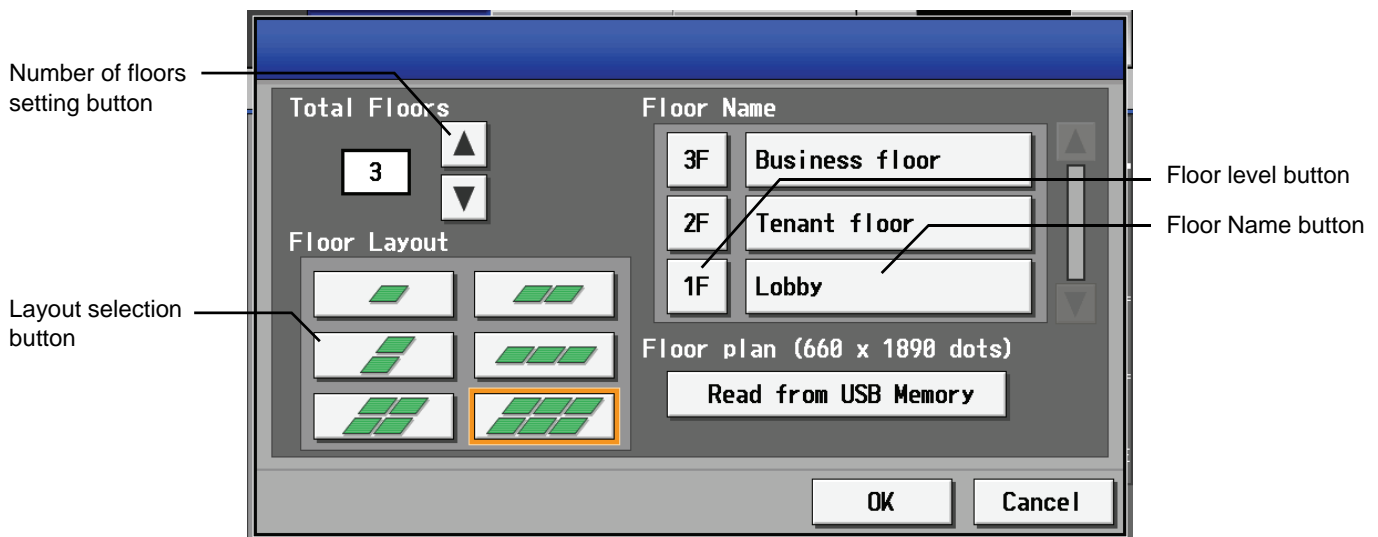
To change the floor layout on the main operation screen or to change the display position of the groups on the floor, touch the [Floor layout] tab in the setting change window.

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

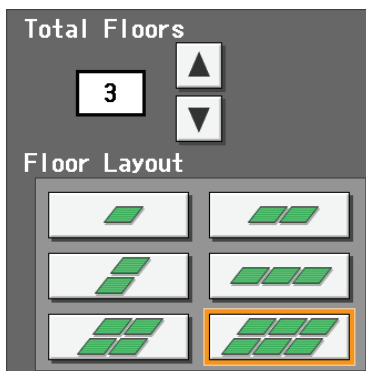


7-10-1 Making the floor settings

Touch the basic floor setting button to bring up the basic floor setting window.



(1) Changing the floor layout display



Select the total number of floors on the basic floor setting window with the up/down arrow buttons, and select the desired type of floor layout. Not all types of floor layouts may not be available, depending on the number of floors.

* No. of floors = 1-3: All floor layouts are selectable.

* No. of floors = 4-5: [1 rowx1 column][2x1][1x2][3x1][2x2] are selectable.

* No. of floors = 6-8: [1 rowx1 column][2x1][1x2] are selectable

* No. of floors = 9-10: [1 rowx1 column] are selectable

* When "--" is selected in Number of floors setting, only unregistered floor area is shown and Layout selection buttons are not available.

Note: When the floor or layout is reduced, the reduced icons move to unregistered floor area.

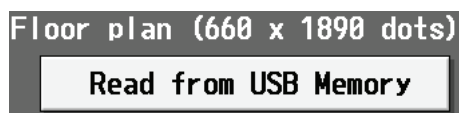
Note: The default layout consists of two rows and one column.

(2) Changing the floor level name or floor name



Press the floor name button on the basic floor setting window, and enter the floor name in three characters or less.
Press the floor name button and enter the floor name in 20 characters or less.

(3) Loading floor layout



Layout files (256 colors in gif) is loaded from USB memory when "Load from USB Memory" button is pressed in the basic floor setting window.

Layout files must be saved in the specific name and size in a route folder in USB memory in order to be loaded. Loadable file size is 1890 width x 660 height in gif for each floor.

Note:

- Use a USB memory that supports USB 1.1 standards.

Some security-enhanced USB memories cannot be used.

The following USB memories are checked for proper operation. (As of Oct. 2009)

a: Manufacturer: Sandisk	Model: SDCZ6-2048-J65RB	Capacity: 2G
b: Manufacturer: Kingston	Model: DT400/2GBFE	Capacity: 2G
c: Manufacturer: I-O DATA	Model: TB-BH2/2G/*	Capacity: 2G
d: Manufacturer: I-O DATA	Model: TB-BH2/4G/*	Capacity: 4G
e: Manufacturer: BUFFALO	Model: RUF-C2GS-*/U2	Capacity: 2G
f: Manufacturer: BUFFALO	Model: RUF2-C2GS-*/M	Capacity: 2G
g: Manufacturer: BUFFALO	Model: RUF-C4GS-*/U2	Capacity: 4G
h: Manufacturer: BUFFALO	Model: RUF-C8GS-*/U2	Capacity: 8G
i: Manufacturer: adata	Model: C702	Capacity: 2G

* Use FAT32 or FAT16 to format a USB memory if necessary.




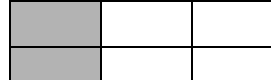

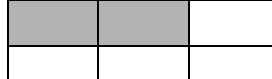



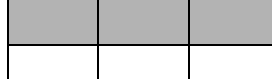


(* or ** in the models of c through h indicates color.)

The following is the file name for each floor.

Note: [Floor] shown below is not the actual floor name, but the floor number counted from the bottom on the floor layout window.
ex. Even if the floor name is set to [15F], the file name is [floor_01.gif] when the floor is the first floor in the setting.

Floor	File name	Floor	File name
1	floor_01.gif	6	floor_06.gif
2	floor_02.gif	7	floor_07.gif
3	floor_03.gif	8	floor_08.gif
4	floor_04.gif	9	floor_09.gif
5	floor_05.gif	10	floor_10.gif

File display range varies depending on the floor layout setting.

Floor layout	Display range	Floor layout	Display range
width 1 x height 1 	630 width x 330 height 	width 1 x height 2 	630 width x 660 height 
width 2 x height 1 	1260 width x 330 height 	width 2 x height 2 	1260 width x 660 height 
width 3 x height 1 	1890 width x 330 height 	width 3 x height 2 	1890 width x 660 height 

* Create a suitable file for each floor. (File size is fixed to 1890 x 660.)

* Use more than two floors if one floor divided in six is not enough.

The followings are available colors for files. (RGB display)

* Use only colors that are shown below otherwise the color may not be displayed correctly.

R	G	B
224	71	72
221	151	152
81	66	81
105	89	105
17	16	17
51	42	52
27	23	30
165	145	185
33	37	57
2	17	85
6	35	160
6	28	122
9	40	168
12	45	176
154	162	194
211	214	227
15	49	182
17	53	188
20	57	195
24	64	205
17	46	149
21	52	163
28	70	215
32	64	178
45	80	204
44	75	190
55	90	213
69	99	205
99	122	202

R	G	B
101	112	150
126	137	176
142	149	175
175	180	199
33	77	225
37	83	234
39	86	240
41	89	245
42	92	249
46	93	246
23	47	124
63	104	238
77	116	241
99	137	255
126	146	214
149	170	235
70	79	108
179	189	222
191	202	230
192	210	241
163	170	180
236	242	250
159	185	210
144	154	162
204	228	245
112	183	219
126	139	145
214	241	251
159	240	253

R	G	B
130	150	153
105	134	135
37	96	86
204	214	211
48	64	59
250	255	253
227	255	243
241	255	248
237	249	243
67	97	79
59	78	66
61	116	80
85	128	100
154	177	162
14	45	24
59	93	70
178	187	181
46	181	88
59	157	90
90	213	129
214	255	225
224	239	228
129	155	135
178	194	182
115	255	143
99	193	117
182	201	185
59	255	88
19	255	48

R	G	B
176	255	185
238	255	240
154	255	163
198	255	203
106	255	116
137	255	144
226	252	227
124	233	125
250	255	250
167	229	166
107	145	104
182	211	180
23	95	15
149	211	141
128	140	126
95	202	74
194	231	186
147	169	142
41	177	3
166	203	154
208	224	202
219	235	211
172	187	164
203	211	197
241	244	238
199	201	195
110	114	98
127	129	119
210	211	196

R	G	B
255	253	185
193	193	150
255	255	221
121	121	106
162	162	147
142	142	129
94	94	89
212	212	203
235	235	227
213	213	207
203	203	198
137	137	134
116	116	114
245	245	242
85	85	84
121	121	120
253	253	252
119	117	23
255	253	143
253	241	7
174	173	157
208	195	0
220	210	64
156	153	113
201	199	175
151	150	136
187	175	71
195	193	175
198	197	187

R	G	B
179	159	1
172	169	147
187	185	169
179	177	162
205	203	187
224	222	206
212	201	139
136	134	122
158	156	143
217	215	202
230	228	216
142	128	71
254	246	220
244	237	215
33	25	2
111	110	107
63	43	4
106	104	100
133	132	130
116	79	14
254	251	246
255	151	0
93	61	13
254	221	171
157	97	18
211	205	197
205	128	31
187	116	28
219	138	35

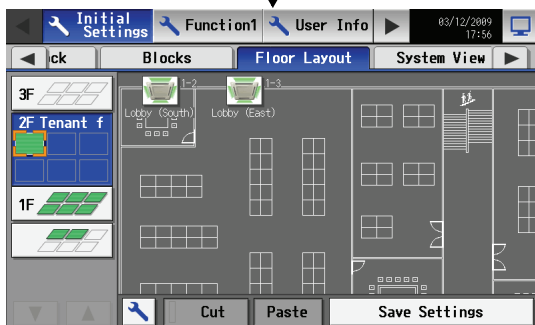
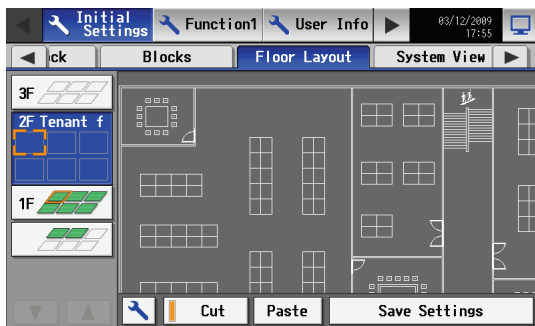
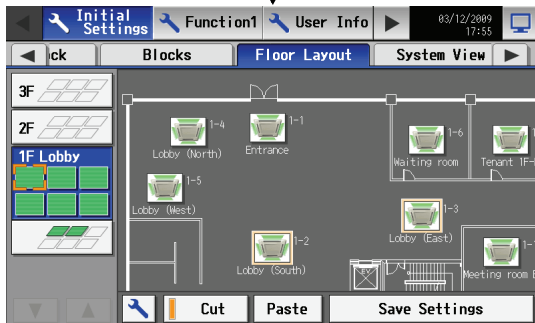
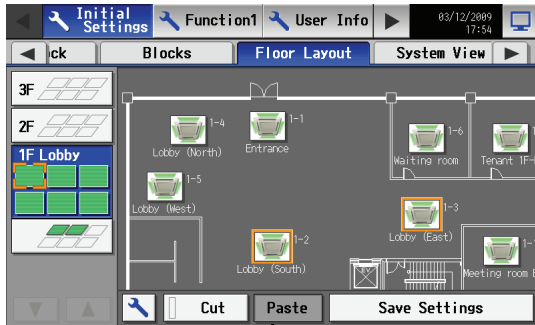
R	G	B
225	148	50
214	159	89
77	76	75
230	211	206
207	203	202
225	197	192
225	8	8
221	179	179
152	151	151
255	255	255
250	250	250
249	249	249
246	246	246
243	243	243
241	241	241
239	239	239
236	236	236
232	232	232
228	228	228
225	225	225
220	220	220
217	217	217
215	215	215
211	211	211
209	209	209
207	207	207
205	205	205
202	202	202
198	198	198

R	G	B
195	195	195
193	193	193
191	191	191
189	189	189
185	185	185
179	179	179
173	173	173
171	171	171
169	169	169
166	166	166
161	161	161
154	154	154
148	148	148
143	143	143
133	133	133
129	129	129
103	103	103
82	82	82
70	70	70
64	64	64
58	58	58
51	51	51
44	44	44
41	41	41
34	34	34
4	4	4
0	0	0
255	170	63
255	203	131

* The initial setting of background color is RGB [103, 103, 103].

* To delete the set layout, read a file which is painted the initial background color.

7-10-2 Changing the floor layout



On the Floor Layout screen, select the group to be moved. (An orange frame appears around the selected group.)

* Groups that have been registered but not assigned a designated spot will appear at the top left corner of the bottom floor. (If the maximum number of displayable groups in the space described above is exceeded, the rest of the groups will be displayed in the space on the right of it.)

Touch the Cut button to copy the selected group. (A pale orange frame will appear around the selected group.)

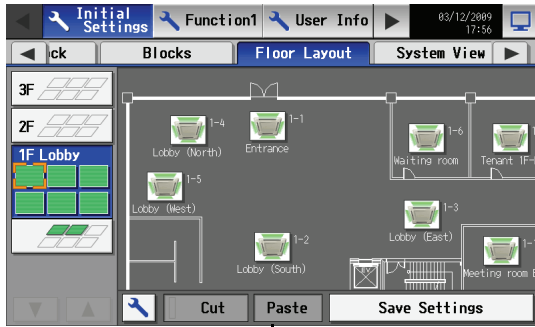
With the pale orange frame being displayed, select the floor to move the group to, and touch the Paste button to move the selected group to the selected floor.

To cancel, touch the Paste button with the cursor on the original group to deselect it, and the orange frame will disappear.

Touch the Save Settings button to save the changes.

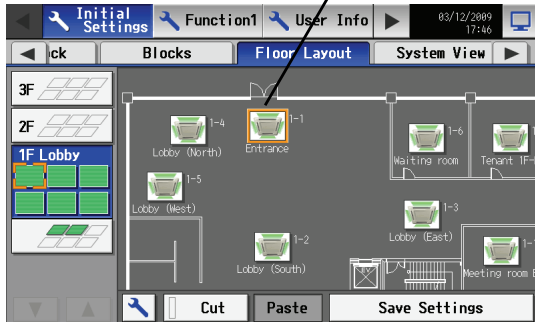
* If an attempt is made to exit the screen by touching the menu bar or the sub menus without touching the Save Settings button, a popup warning will appear. If the screen is exited without first touching the Save Settings button, the changes made will not be reflected.

7-10-3 Moving the group in the area



Orange frame

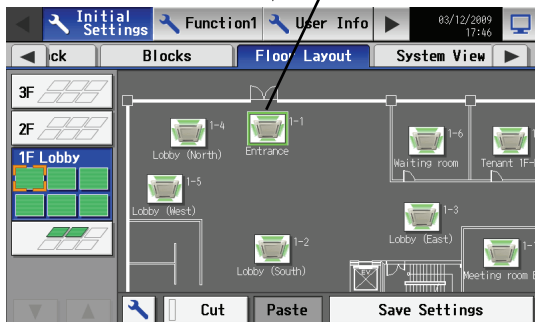
On the Floor Layout window, select the group to be moved.



Press and hold
(for 1 second)

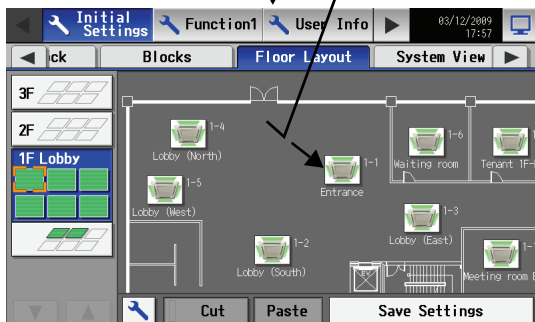
Yellow-green frame
(movable status)

Press the group for one second, then the frame of the icon turns from orange to yellow-green and the icon becomes movable status.



Drug & drop to move

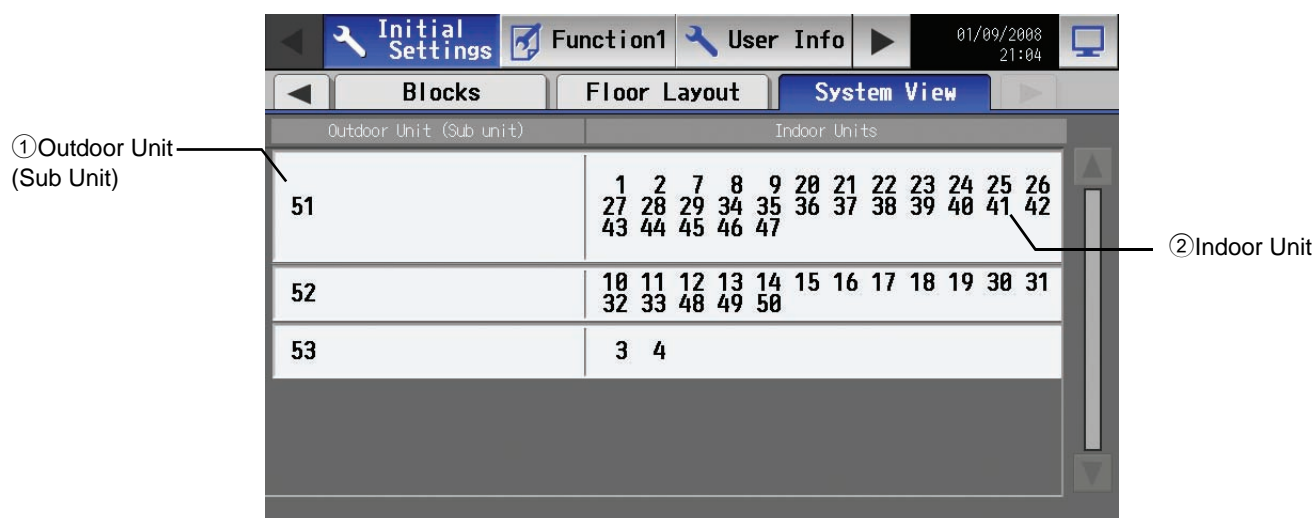
Drug & drop the icon under movable status to move anywhere within the group.



7-11 Checking the refrigerant systems

To see the list of refrigerant systems connected to AG-150A (connection information of outdoor and indoor units), touch [System view] on the window that appears when [Initial Settings] on the setting change window is touched and bring up the refrigerant system display window.

* In the System View window, the information is shown of the units in the groups that are registered on the group setting window and the initial startup sequence for which have been successfully completed.

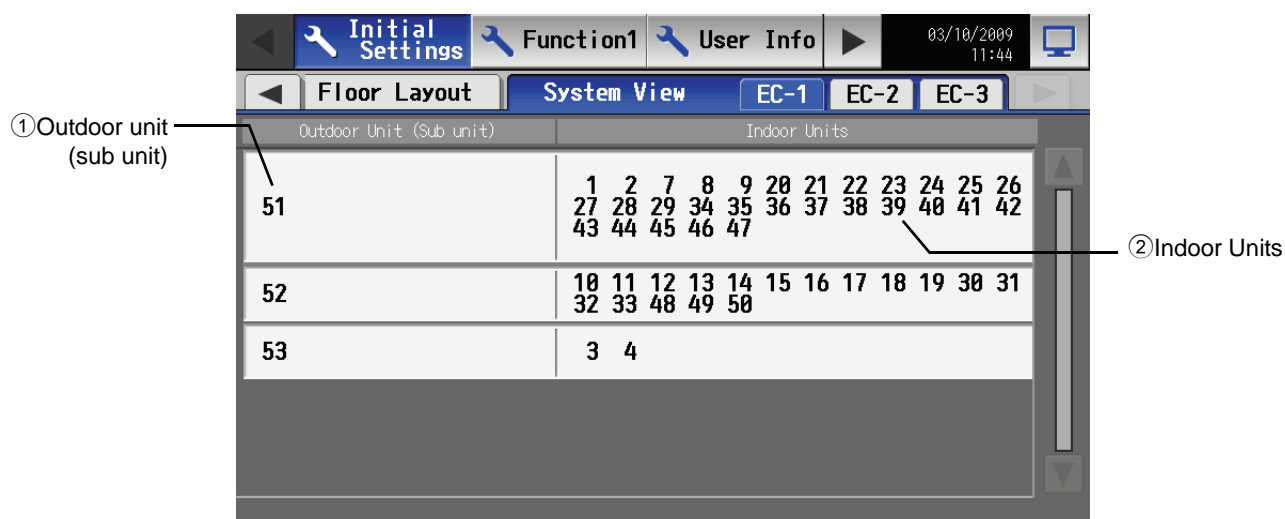


Item	Description
① Outdoor Unit	The numbers assigned to the outdoor units. (The numbers in the parentheses indicate the unit number of the connected sub units.)
② Indoor Unit	The numbers assigned to the indoor units that are connected to the outdoor unit on the same row.

• Checking the refrigerant system with connection to an expansion controller (PAC-YG50ECA)

To verify the information about the refrigerant systems that are connected to the AG-150A (outdoor/indoor unit connection information) touch the [Initial Settings] > [System view] from the menu bar on the Setting change window. On the System View window, select the tab that corresponds to the expansion control whose refrigerant system connection information is to be verified.

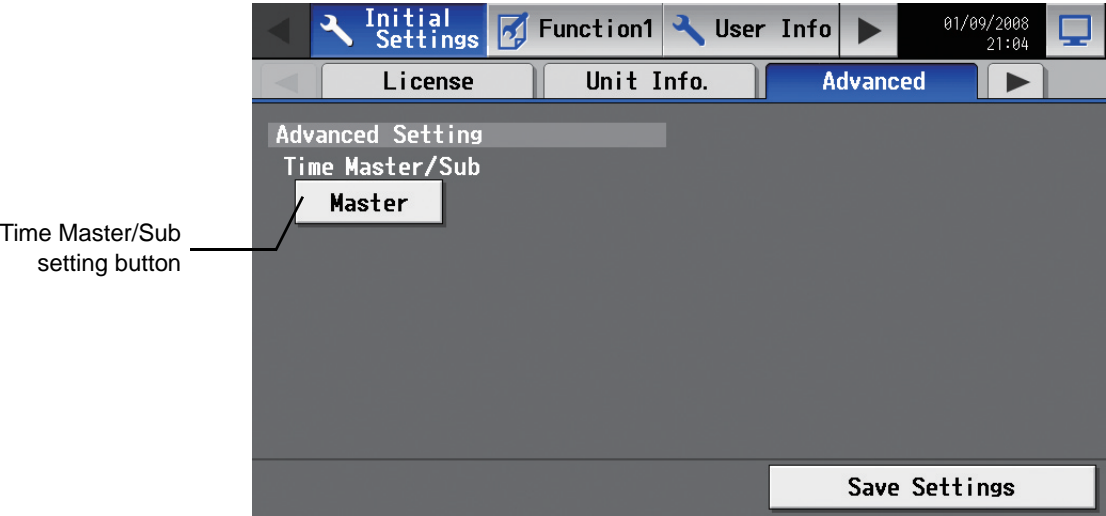
* In the System View window, the information about the units will appear that have been grouped together on the Group settings window and that have properly completed the startup procedure.



7-12 Advanced settings

Advanced settings are required for a system with connection to an expansion controller to which a high-level controller in addition to AG-150A is connected. To make the advanced settings, touch [Initial settings]>[Advanced settings] from the menu bar on the setting change screen.

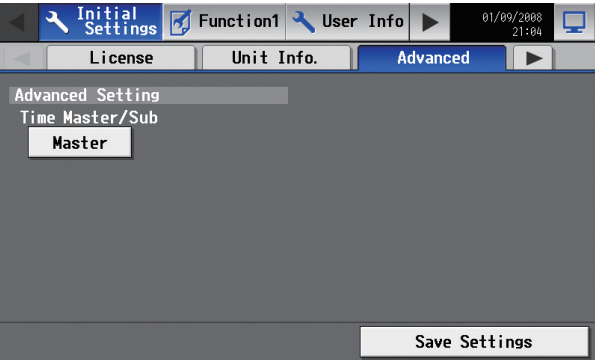
- * Some settings may not be accessible is logged in as a building manager user.
- * Use the initial setting (Master) if only one high-level controller is connected.



Comparison between Master and Sub

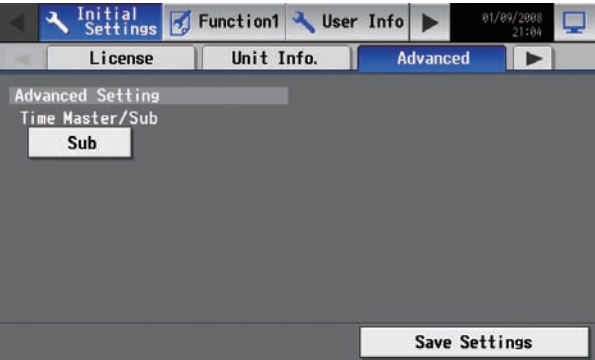
	Master setting	Sub setting
Clock setting	Allowed	Not allowed
Clock synchronization	Synchronized to the main controller	Synchronized to other controllers

(1) To set the Master/Sub clock setting to “Master”



Press the Time Master/Sub setting to bring up “Master,” and then press Save Settings.
The initial setting is Master. Leave the setting as it is to set the unit to “Master.”
* Do not set more than one unit in a system to “Master.”

(2) Set the Master/Sub clock setting to “Sub.”



Press the Time Master/Sub setting to bring up “Sub,” and then press Save Settings.

8. Function 1

8-1 Outside temperature interlock function

The purpose of this function is to avoid heat shock (physical shock caused by the extreme temperature difference when entering into a building) during cooling operation. It adjusts the setting temperature in order to lower the temperature difference between indoor and outdoor.

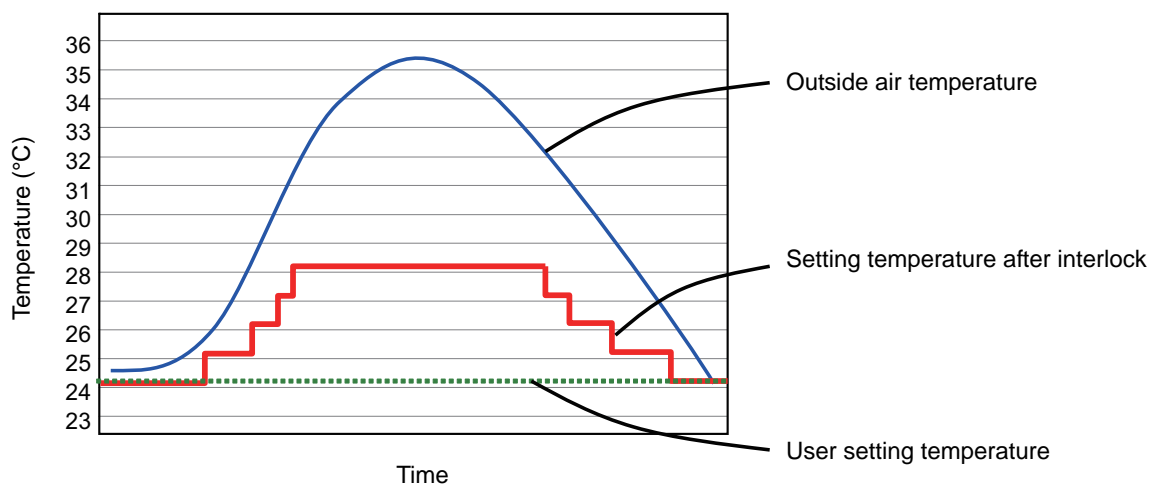
Note: Connect our AI controller (PAC-YG63MCA) to measure outside temperature.

Note: This function works when the operation mode is [cooling] or [dry].

Note: This function works for air conditioning unit group (IC, AIC, KIC), but not for LOSSNAY, air to water supply equipment or general equipment.

Note: When temperature are displayed in Fahrenheit, +2, +4, +6, +8°F may not properly be displayed because +1, +2, +3, +4°C Control is executed and then Celsius temperature is converted into Fahrenheit temperature inside the controller.

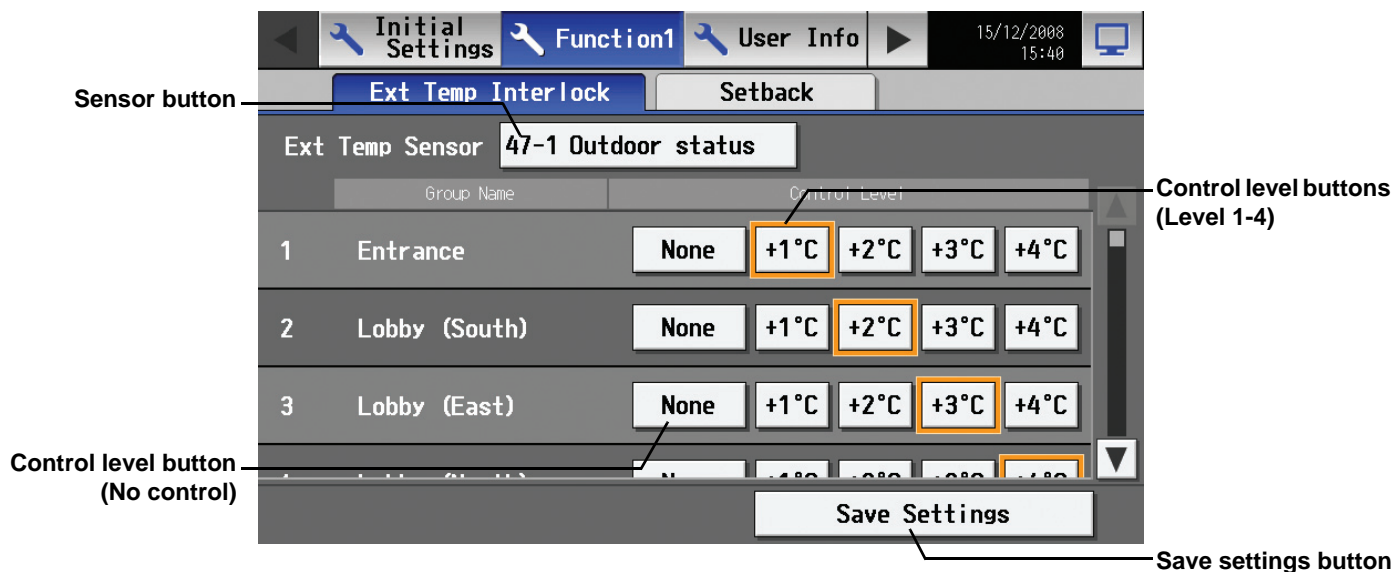
Outside air temperature	Setting temperature after interlock
[Preset temperature + 1.4°C / + 2.5°F] or below	Preset temperature
[Preset temperature + 1.5°C / + 2.7°F] - [Preset temperature + 4.4°C / + 7.9°F]	Preset temperature + 1°C / + 2°F
[Preset temperature + 4.5°C / + 8.1°F] - [Preset temperature + 6.4°C / + 11.5°F]	Preset temperature + 2°C / + 4°F
[Preset temperature + 6.5°C / + 11.7°F] - [Preset temperature + 7.4°C / + 13.3°F]	Preset temperature + 3°C / + 6°F
[Preset temperature + 7.5°C / + 13.5°F] or above	Preset temperature + 4°C / + 8°F



8-1-1 Setting of outside temperature interlock function

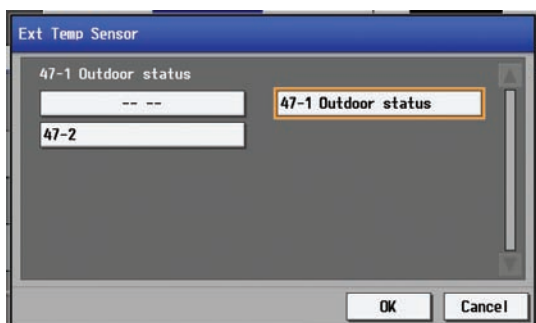
To use outside temperature interlock function, touch [Function 1] on the menu bar on the setting change window, and then touch [Ext Temp Interlock] tab. In this window, outside temperature measuring unit and control level for each group can be set.

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



8-1-2 Selecting of outside temperature measuring unit

Outside temperature measuring unit must be selected to use this function. Press [Sensor] button, then Ext Temp Sensor window appears as shown below.



Select an outside temperature measuring unit used for the interlock function, then press OK.

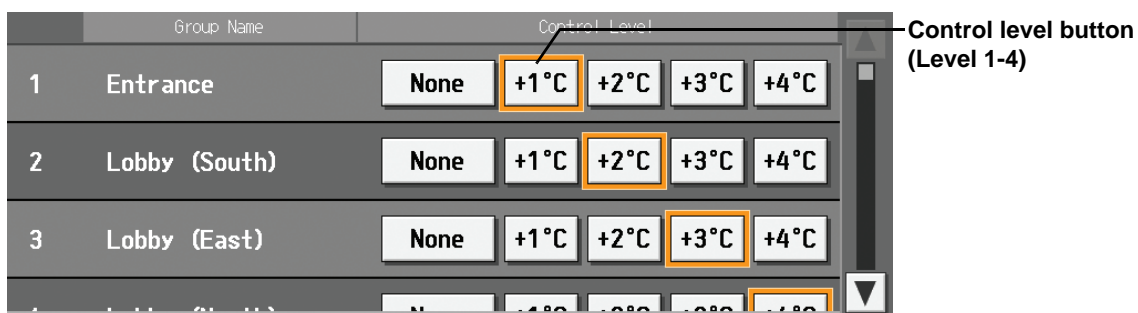
(An orange frame will appear around the selected button.)

The selected unit will be displayed on the Ext Temp Interlock window.

To cancel the selected unit, select [-- --] and then touch OK.

8-1-3 Setting the control level

After selecting the outside temperature measuring unit, control level for each group can be set in the Ext Temp Interlock window.



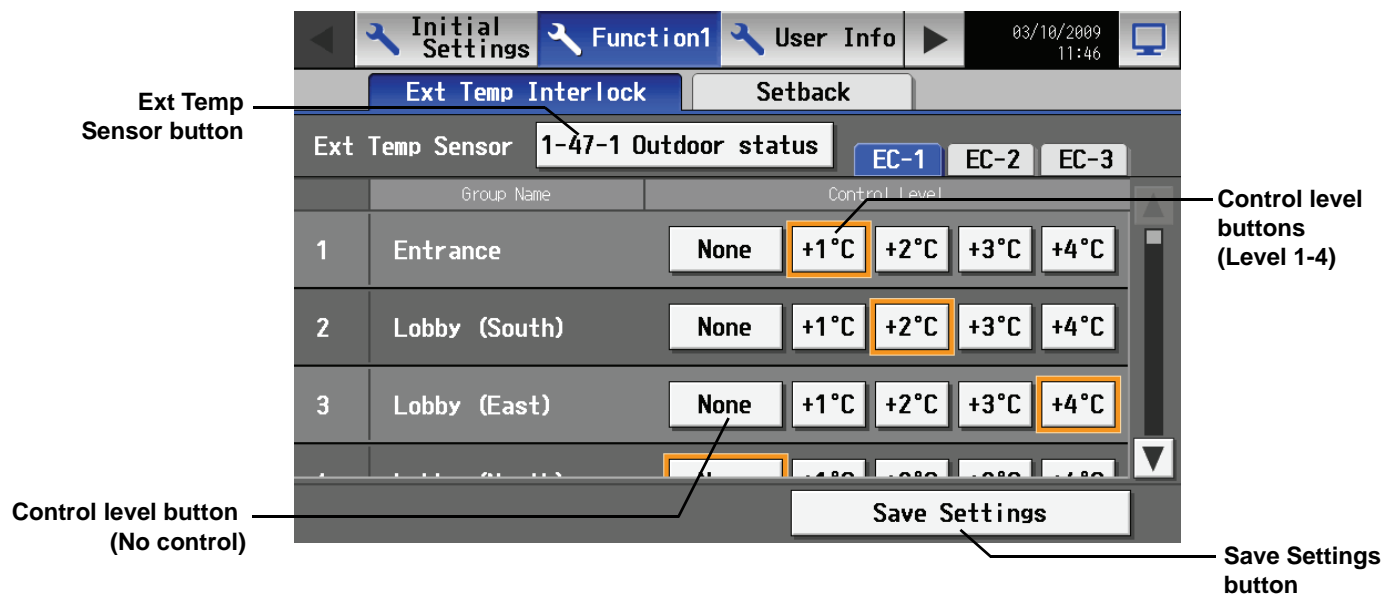
For groups that use outside temperature interlock function, select [+1°C/+2°F], [+2°C/+4°F], [+3°C/+6°F], [+4°C/+8°F] button depending on the control level. For groups that does not need this function, touch [None]. (An orange frame will appear around the selected button.) Touch [Save settings] button to reflect the changes immediately.

- **Using the outside temperature interlock function in a system with connection to an expansion controller (PAC-YG50ECA)**

To use the outside temperature interlock function, touch [Function1] > [Ext Temp Interlock] from the menu bar on the Setting change window. Select the external temperature sensor on the Ext Temp Interlock settings window, select the tab that corresponds to the expansion controller that is connected to the desired group, and make the control level settings for each group.

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

Note: When multiple AG-150A controllers are connected by connecting an expansion controller to the system, this function should only be used on one of the AG-150A controllers.



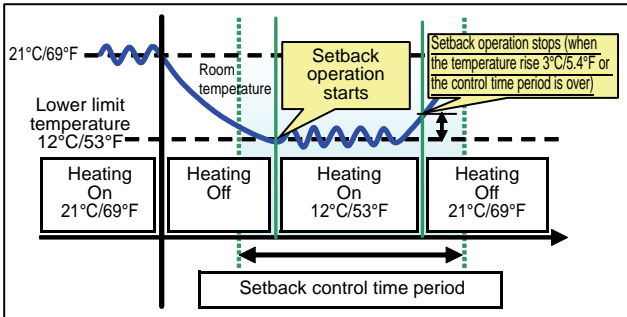
8-2 Night setback function

Night setback function is a function that prevents indoor dew or extreme temperature rise by heating/cooling automatically when the room temperature goes outside of the specific range during the set time period.

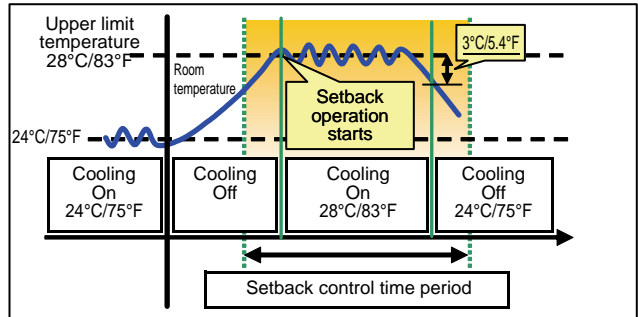
Note: When the air conditioning group with night setback function is off and when the temperature exceeds the preset temperature, heating/cooling operation starts.

Note: If the room temperature is measured by the air-conditioner's suction temperature sensor, the temperature may not be correct when the air-conditioner is inactive and the air is not fresh. When the air-conditioner is inactive, using a remote sensor or a remote control sensor is recommended to measure room temperature correctly.

When the night setback control is set, air conditioning group operates as shown below.



When the temperature drops below the lower limit temperature (heating control)

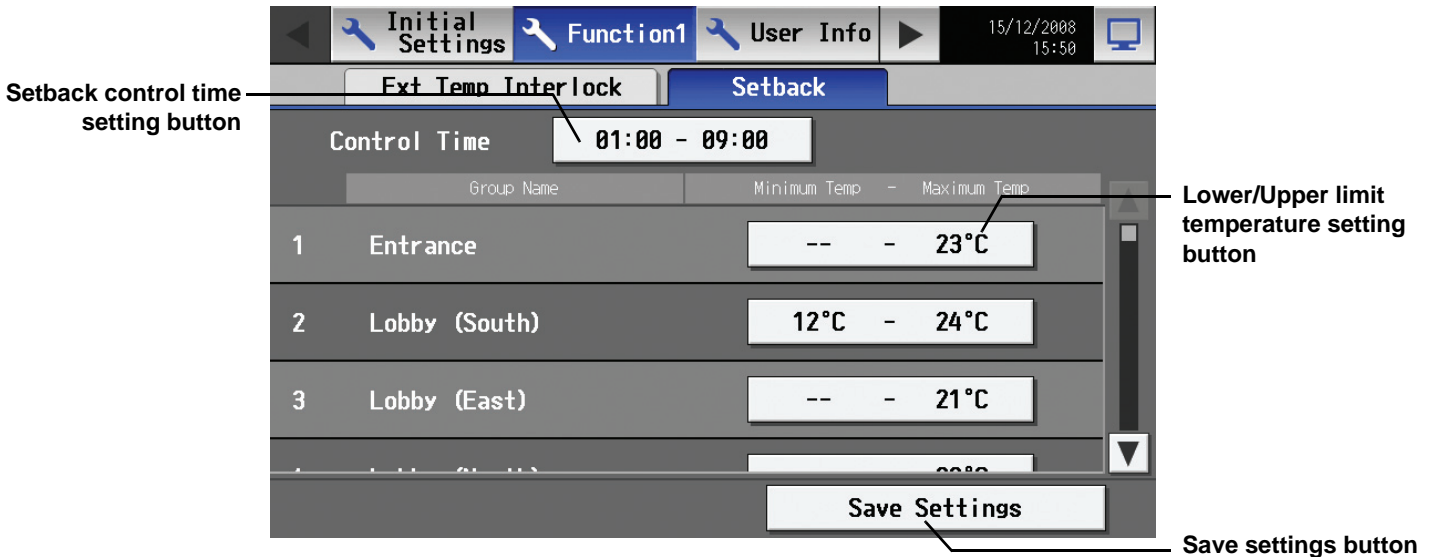


When the temperature rises above the upper limit temperature (cooling control)

8-2-1 Setting of night setback function

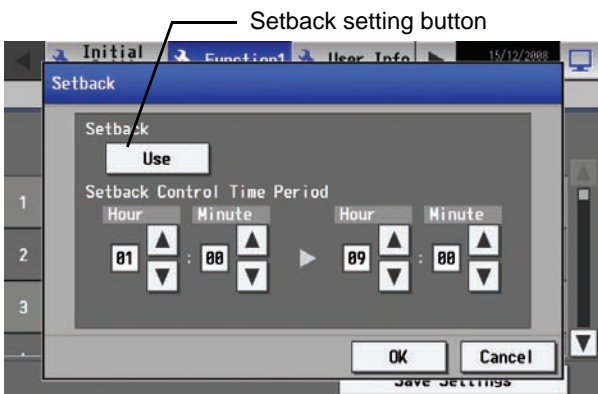
To use night setback function, touch [Function 1] on the menu bar on the Initial setting, and then touch [Setback] tab. In this setback setting window, control time and upper/lower limit temperature for each group can be set.

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



8-2-2 Setting of night setback control time period

To use night setback function, the time period of this control has to be set. Touch [Setback control time period setting] button, then Setback control window appears as shown below.



In this window, usability of night setback function and control start/stop time can be set.

First, touch [Setback setting] button to use night setback function. Next, set the control time. Set the time by pressing ▲▼ button. After setting, press OK to reflect the settings. Setback setting window will be shown. To cancel the setting, touch [Cancel]. Setback setting window will be shown.

8-2-3 **Setting of lower/upper limit temperature**

After setting the time period, lower/upper limit temperature for each group can be set.

	Group Name	Minimum Temp	-	Maximum Temp	
1	Entrance	--	-	23°C	Lower/Upper limit temperature setting button
2	Lobby (South)	12°C	-	24°C	
3	Lobby (East)	--	-	21°C	

Touch lower/upper limit temperature setting button to show the window below.

Minimum Temp

Maximum Temp

13 °C

24 °C

OK

Cancel

Set the temperature by pressing ▲▼ button. When [--] is set, setback control will not be operated. After setting, press OK to reflect the setting. Setback setting window will be shown. If the temperature is not changed, touch [Cancel].

Note: The setting : lower limit temperature < upper limit temperature

Note: The settable temperature varies depending on the model.

Note: When CITY MULTI S Series (PUMY) is used, set the temperature at 17°C/63°F or above in heating mode.

After setback setting window is shown, check the changed items. Touch [Save settings] button to reflect the changes immediately.

- **Using the setback function in a system with connection to an expansion controller (PAC-YG50ECA)**

From the menu bar on the Initial Settings screen, touch [Function 1] >[Setback] to display the Setback setting window. On this window, make the settings for the setback periods. Select the EC to which the group is connected whose settings are to be changed, and then set the upper and lower temperature limits.

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

Note: Be sure to make the settings while the expansion controller is connected.

Note: When multiple AG-150A controllers are connected by connecting an expansion controller to the system, this function should only be used on one of the AG-150A controllers.

Setback control time setting button

Lower/Upper limit temperature setting button

Save Settings button

Group Name	Minimum Temp	Maximum Temp
1 Entrance	--	26°C
2 Lobby (South)	12°C	24°C
3 Lobby (East)	--	21°C

9. User Setting

Touch [User Info] on the menu bar in the setting change window to jump to the user setting window.

9-1 Setting the Maintenance User

To change the Maintenance User name and/or password, touch [Maintenance User] on the window that appears when [User Info] is touched on the setting change window.

* This window cannot be accessed when logged in as the Maintenance User.

Initial Settings Function1 User Info 15/12/2008 15:50

Maintenance User Building Manager

User name, Password

User name Password Retype Password

initial **** ****

Save Settings

(1) Changing the maintenance user name

To change the maintenance user name, touch the user name input button, and enter the user name on the keyboard that appears in 20 characters or less.

(2) Changing the password

To change the maintenance user password, touch the password input button, and enter the password that is between 3 and 10 character long on the keyboard that appears. Press Retype Password, and enter the same password again.

* On the screen, password will appear as asterisks with each * representing a character.

Press the [Save setting] button to reflect the new user name and password.

User Name, Password

User Name Password Retype Password

initial **** ****

9-2 Setting the Building Manager

To change the Building Manager name and/or password, or enable/disable functions, touch [Building Manager User] on the window that appears when [User Info] is touched on the setting change window.

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

Initial Settings Function1 User Info 03/10/2009 08:44

Maintenance User Building Manager

User name, Password

User name Password Retype password

administrator ***** *****

Available Functions

Initial Settings

Date and time Unit Info.

Advanced Setting Network

Groups (Group Name) Groups (Group Structure)

Save Settings

(1) Changing the building manager name

To change the building manager name, touch the user name input button, and enter the user name on the keyboard that appears in 20 characters or less.

(2) Changing the password

To change the building manager password, touch the password input button, and enter the password that is between 3 and 10 character long on the keyboard that appears. Press Retype Password, and enter the same password again.

* On the screen, password will appear as asterisks with each * representing a character.

Press the [Save setting] button to reflect the new user name and password.

User Name, Password		
User Name	Password	Retype Password
administrator	*****	*****

(3) Making the settings for available functions

Touch the function to enable the function (An orange frame will appear around the selected item), or touch the selected item again to deselect it (no orange frame). Press the [Save setting] button to save the changes.

Available Functions	
Initial Settings	
Date and time	Unit Info.
Advanced Setting	Network
Groups (Group Name)	Groups (Group Structure)

Table Available Function List

Function		Content
Initial setting	Date and time	Current date and time setting
	Unit Info ^{*1}	AG-150A unit information settings, connection or non-connection of EC
	Network ^{*1}	AG-150A network setting, external output setting
	Advanced setting ^{*1}	AG-150A Master/Sub clock setting
	Groups	Group name
		Group structure ^{*1}
	Interlocked LOSSNAY ^{*1}	
	Blocks	Block name
		Block structure ^{*1}
Function1	Floor Layout	Floor name
		Floor configuration
Function1	Outside temperature interlock	
	Night Setback	

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

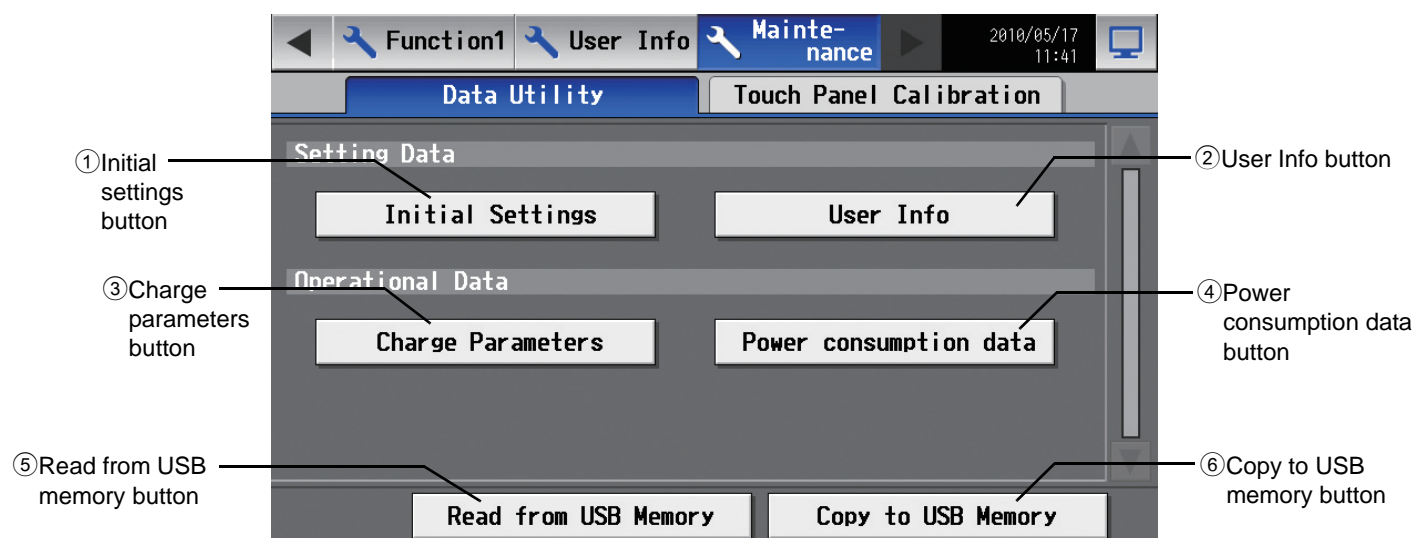
10. Maintenance screen

10-1 Copying the data to a USB drive

- Note:**
- Use a USB memory that supports USB 1.1 standards.
Some security-enhanced USB memories cannot be used.
The following USB memories are checked for proper operation. (As of Oct. 2009)
- | | | | |
|---------------------------|-------------------------|--------------|--|
| a: Manufacturer: Sandisk | Model: SDCZ6-2048-J65RB | Capacity: 2G | |
| b: Manufacturer: Kingston | Model: DT400/2GBFE | Capacity: 2G | |
| c: Manufacturer: I-O DATA | Model: TB-BH2/2G/* | Capacity: 2G | |
| d: Manufacturer: I-O DATA | Model: TB-BH2/4G/* | Capacity: 4G | |
| e: Manufacturer: BUFFALO | Model: RUF-C2GS-*/U2 | Capacity: 2G | |
| f: Manufacturer: BUFFALO | Model: RUF2-C2GS-*/M | Capacity: 2G | |
| g: Manufacturer: BUFFALO | Model: RUF-C4GS-*/U2 | Capacity: 4G | |
| h: Manufacturer: BUFFALO | Model: RUF-C8GS-*/U2 | Capacity: 8G | |
| i: Manufacturer: adata | Model: C702 | Capacity: 2G | |
- (* or ** in the models of c through h indicates color.)
- * Use FAT32 or FAT16 to format a USB memory if necessary.

To copy the data to a USB drive, plug the USB into a USB port, and touch [Data Utility] in the screen that appears when [Maintenance] on the setting change screen is touched.

Note: Check that normal communication between the AG-150A and expansion controller is established before copying data to the USB drive.



Item		Description
Setting data	① Initial settings	Touch the button to select, and touch again to deselect. With the button selected, touch the [Copy to USB Memory] button to copy all settings data(except the AG-150A user information), to the \[Serial Number]\[SettingData] folder in the root folder of the USB memory. If the folder does not already exist, one will be created. * The type of settings that cannot be set on the LCD screen, such as the energy-save setting data, will also be copied.
	② User Info	Touch the button to select, and touch again to deselect. With the button selected, touch the [Copy to USB Memory] button to copy the AG-150A user information to the \[Serial Number]\[SettingData] folder in the root folder of the USB memory. If the folder does not already exist, one will be created. * Only the maintenance users have the copy privilege.

Operational data	③ Charge parameters	<p>Touch the button to select, and touch again to deselect.</p> <p>With the button selected, touch the [Copy to USB Memory] button to copy the charge parameter data to the \[Serial Number]\[OperationalData]\[ChargeParameters]\[Date] folder in the root folder of the USB memory in the CSV format.</p> <p>If the folder does not already exist, one will be created.</p> <p>Note: The date folder will be created in the format that was specified on the Unit Info window.</p>
	④ Power consumption data	<p>Touch the button to select, and touch again to deselect.</p> <p>With the button selected, touch the [Copy to USB Memory] button to copy the power consumption data to the \[Serial Number]\[OperationalData]\[ChargeParameters]\[Date] folder in the root folder of the USB memory in the CSV format.</p> <p>If the folder does not already exist, one will be created.</p> <p>Note: The date folder will be created in the format that was specified on the Unit Info window.</p>
⑤ Read from USB memory		<p>With the Initial Settings or User Info button selected, touch this button to read the selected setting data from USB memory.</p> <p>If there is no data in USB memory, nothing will be read.</p> <p>* Do not remove the USB drive while the file is being transferred</p>
⑥ Copy to USB memory		<p>With the Setting Data, User Info, or Charge Parameter button selected, touch this button to copy the selected settings to the USB memory.</p> <p>* A fixed name will be automatically assigned to the file, and the file will be saved.</p> <p>* Any previous data file for the same equipment in the \[Serial number]\[SettingData] folder will be overwritten. To save the previous data file, move the file to a different folder before saving the new file.</p> <p>* Save the setting while normal communication with the expansion controller is being established.</p> <p>* Saving the charge parameter settings may take several dozens of minutes.</p>

Charge parameter data

The format of the CSV file that is output when the charge parameter is saved is as follows:

Note: Dates in the folder name, the file name, and the file contents are displayed in the format selected on the Initial Setting Web.

“March 10, 2010” would be expressed
as [10/03/2010] in the [dd/mm/yyyy] format,
as [03/10/2010] in the [mm/dd/yyyy] format, and
as [2010/03/10] in the [yyyy/mm/dd] format.

[File name]

- Without connection to an expansion controller
ChargeParameter_[yyyy]-[mm]-[dd]A[Indoor unit address (fixed 2 digits)]-[Time zone (1-5)].csv
(yyyy: year, mm: month, dd: date)
Example) ChargeParameter_2010-03-10A01-1.csv
- With connection to an expansion controller
ChargeParameter_[yyyy]-[mm]-[dd]A[Expansion Controller Number(1-3)][Indoor unit address (fixed 2 digits)]-[Time zone (1-5)].csv(yyyy: year, mm: month, dd: date)
Example) ChargeParameter_2010-03-10A1-01-1.csv

[File contents]

The format of each CSV file is as follows. Each file contains up to 62 days of data.

* Delimiter (“,” or “;”) and decimal point (“.” or “.”) that are used by the CSV file are selected on the Initial Setting Web.

Item		Format
1st line	File class	Charge parameter: 201
2nd line	Data range	Records the range of data read in from non-volatile memory Start date + “-” + End date
3rd line	Target trend	“Address” + M-NET address
4th line	Item	“Date, SaveValue, Thermo, FanTime, SubHeaterTime”
5th to 66th line (max.)	Data	date, save value, thermo time, fan time, sub heater time * The value for each data type is a cumulative value since the beginning of operation.

* Charge parameter data range is 0 through 999999. If the count value exceeds the maximum value, the count value goes back to 0.

* The file is not output until the operation starts because the data does not exist.

* When the Energy Management License Pack has not been registered, the file is not output.

Example) Without/With connection to an expansion controller

```
201
2010/03/10-2010/03/12
Address 01
Date,SaveValue,TermoTime,FanTime,SubHeaterTime
2010/03/10,57,150,0
2010/03/11,76,122,178,0
2010/05/12,84,134,194,0
```

Power consumption data

The format of the CSV file that is output when the power consumption data is saved is as follows:

Note: Dates in the folder name, the file name, and the file contents are displayed in the format selected on the Initial Setting Web.

“March 10, 2010” would be expressed
as [10/03/2010] in the [dd/mm/yyyy] format,
as [03/10/2010] in the [mm/dd/yyyy] format, and
as [2010/03/10] in the [yyyy/mm/dd] format.

[File name]

- Without connection to an expansion controller
ChargeParameter_[yyyy]-[mm]-[dd]MCPA[PI controller address (fixed 2 digits)]-[Time zone (1-5)].csv
(yyyy: year, mm: month, dd: date)
Example) ChargeParameter_2010-03-10MCPA50-3.csv
- With connection to an expansion controller
ChargeParameter_[yyyy]-[mm]-[dd]MCPA[Expansion Controller Number(1-3)]-[PI controller address (fixed 2 digits)]-[Time zone (1-5)].csv (yyyy: year, mm: month, dd: date)
Example) ChargeParameter_2010-03-10MCPA1-50-3.csv *PI controller : PAC-YG60MCA

[File contents]

The format of each CSV file is as follows. Each file contains up to 62 days of data.

* Delimiter (“,” or “;”) and decimal point (“.” or “.”) that are used by the CSV file are selected on the Initial Setting Web.

Item		Format
1st line	File class	Power consumption: 202
2nd line	Data range	Records the range of data read in from non-volatile memory Start date + “-” + End date
3rd line	Target trend	Without connection to an expansion controller “MCP”+[PI controller address]-[Time zone] With connection to an expansion controller “MCP”+[Expansion Controller Number]+[PI controller address]-[Time zone]
4th line	Item	“No., Date, Count value(Ch1), Count value(Ch2), Count value(Ch3), Count value(Ch4)”
5th to 66th line (max.)	Data	no., date, count value(Ch1), count value(Ch2), count value(Ch3), count value(Ch4) * The value for each data type is a cumulative value since the beginning of operation.

* No. is consisted of three-digit or four-digit number:

Without connection to an expansion controller : address (two digits) and Time zone (one digit).

With connection to an expansion controller : number(1-3) , address (two digits) and Time zone (one digit).

* Power consumption data range is 0.00 through 999999.99. If the count value exceeds the maximum value, the count value goes back to 0.00.

* The file is not output until the operation starts because the data does not exist.

* When the Energy Management License Pack has not been registered, the file is not output.

Example) Without connection to an expansion controller

```
202
10/03/2010-12/03/2010
MCP 50-3
No.,Date,Count value(Ch1), Count value(Ch2), Count value(Ch3), Count value(Ch4)
503,2010/03/10,100000.00,0,0,0
503,2010/03/11,100100.00,0,0,0
503,2010/03/12,100250.00,0,0,0
```

Example) With connection to an expansion controller

```
202
10/03/2010-12/03/2010
MCP 1-50-3
No.,Date,Count value(Ch1), Count value(Ch2), Count value(Ch3), Count value(Ch4)
1503,2010/03/10,100000.00,0,0,0
1503,2010/03/11,100100.00,0,0,0
1503,2010/03/12,100250.00,0,0,0
```

10-2 Reading setting data from USB memory

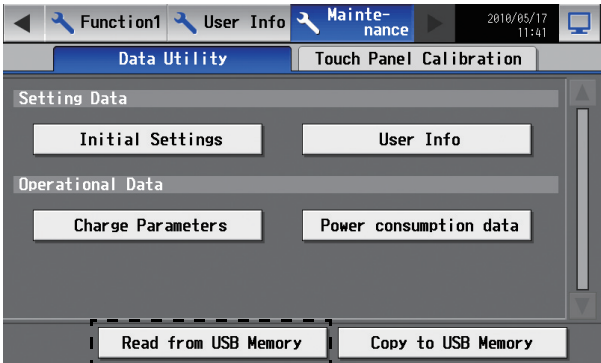
To read setting data from USB memory, insert USB to USB port. Touch [Maintenance] on setting change and then touch [Data Utility] tab to show the window below.

First, create [SetupData] folder in the root folder of the USB memory using PC. Save the setting data in the [SetupData] folder.

Note: Do not change the file name from that of when backup was performed.

Note: If the folder name or file name is different from the given name, no data can be read.

Note: Check that normal communication between the AG-150A and expansion controller is established before reading in data from the USB drive.



After saving the setting file in the [SetupData] folder, touch [Initial Setting] or [User Info], and then touch [Read from USB Memory] button.

Wait for a while. The message "The data has been read" will be shown when the reading is completed. Check if the selected data was read correctly.

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

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

Note: Do not read the data that was saved from the expansion controller or GB-50AD.

Note:

- Use a USB memory that supports USB 1.1 standards.
Some security-enhanced USB memories cannot be used.
The following USB memories are checked for proper operation. (As of Oct. 2009)

a: Manufacturer: Sandisk	Model: SDCZ6-2048-J65RB	Capacity: 2G
b: Manufacturer: Kingston	Model: DT400/2GBFE	Capacity: 2G
c: Manufacturer: I-O DATA	Model: TB-BH2/2G/*	Capacity: 2G
d: Manufacturer: I-O DATA	Model: TB-BH2/4G/*	Capacity: 4G
e: Manufacturer: BUFFALO	Model: RUF-C2GS-*/U2	Capacity: 2G
f: Manufacturer: BUFFALO	Model: RUF2-C2GS-*/M	Capacity: 2G
g: Manufacturer: BUFFALO	Model: RUF-C4GS-*/U2	Capacity: 4G
h: Manufacturer: BUFFALO	Model: RUF-C8GS-*/U2	Capacity: 8G
i: Manufacturer: adata	Model: C702	Capacity: 2G

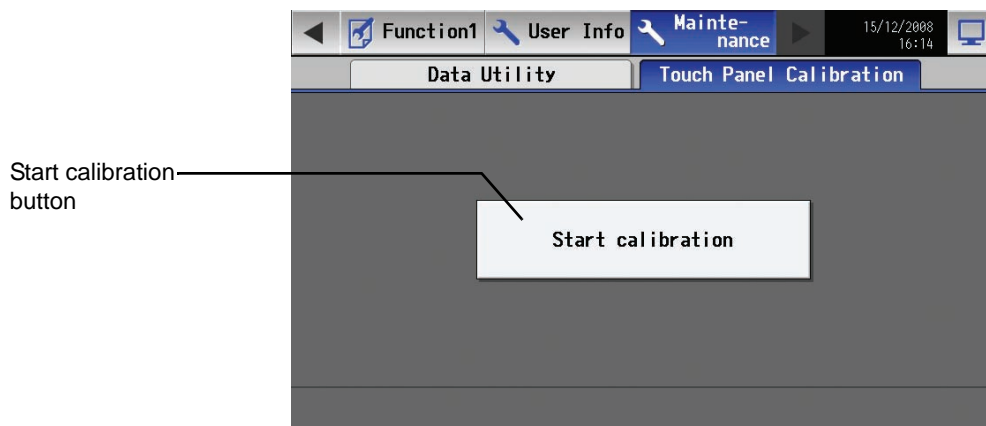
(* or ** in the models of c through h indicates color.)

* Use FAT32 or FAT16 to format a USB memory if necessary.

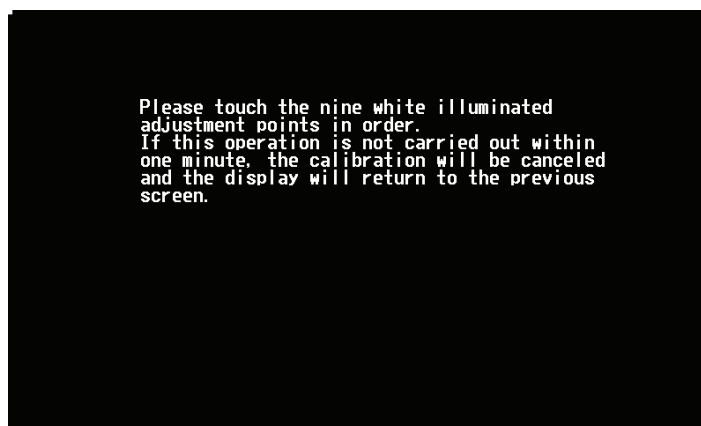
10-3 Adjusting the touch panel

To adjust the touch panel, touch [Maintenance] on the setting change screen and then [Touch Panel Calibration] to bring up the Touch Panel Calibration screen.

Note: The use of any commercially available touch pen is recommended.



The touch panel calibration screen will appear when the [Start Calibration] button is touched.



A white "5 dots × 5 dots" square will appear in the screen in the following order: left top, center top, right top, left middle, center, right middle, left bottom, center bottom, and right bottom. Every time the square is touched, the next square will appear. When all nine squares are touched, calibration is complete, and the display will return to the touch panel calibration screen. If the screen is left untouched for one minute, the display will automatically return to the calibration screen, and this step needs to be started over.

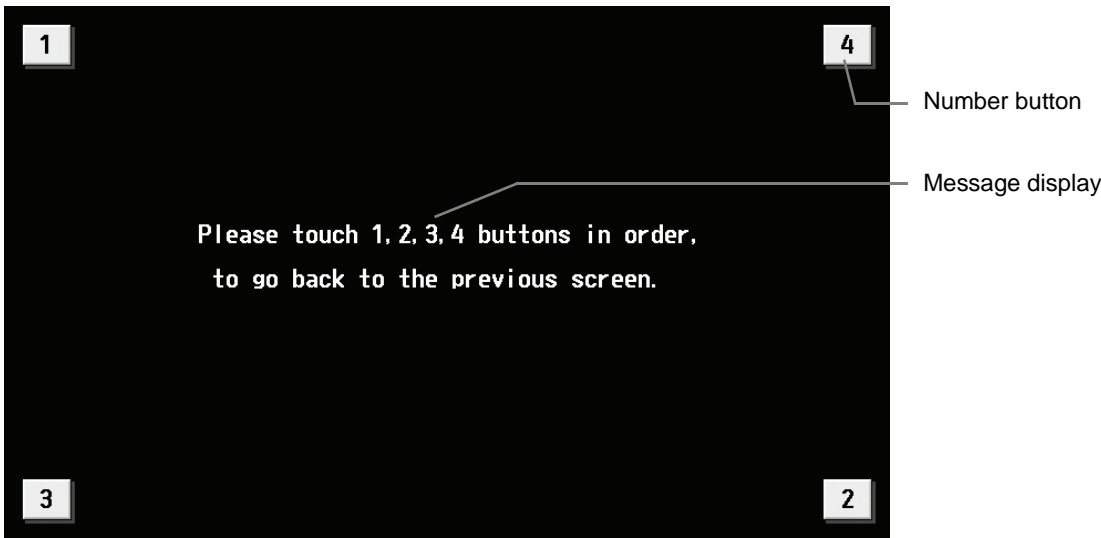
* The screen may not be calibrated properly if touched with a finger. Use a pointy but not sharp object to touch the screen.

* A sharp object may damage or scratch the screen.

11. Cleaning the touch panel

To clean the touch panel surface, first touch the [Setting Change Button] on the main operation screen and bring up the login screen, then touch the Clean touch panel button to bring up the screen below. Clean the touch panel with this screen being displayed.

* Please use dry cloth or soft cloth with neutral detergent (after wring dry) or one with Ethanol when cleaning. Do not use any organic solvent acid or alkali solution.



Item	Description
Number	Pressing the buttons 1 through 4 in the ascending order will take the screen back to the original screen (main operation screen). To go back to the previous screen, these buttons must be touched in the correct order starting with button 1. Touching the buttons in the wrong order will cancel all previous touching of buttons.
Message	"Please touch the 1, 2, 3, 4, buttons in order, to go back to the previous screen." will be displayed.

12. External input/output function

- External signal input requires the external I/O adapter (PAC-YG10HA-E; sold separately).
- If an expansion controller is connected, the external input/output function can be set to use only the expansion controller.
- Refer to the Installation Manual and the Instructions Book for the unit and expansion controller (PAC-YG50ECA) for details.

12-1 External input function

(1) The function of external input

Touch [Initial Settings] on the menu bar in the setting change window, then [Network setting] to bring up the network settings window. Touch [External Input Setting], and make the settings.

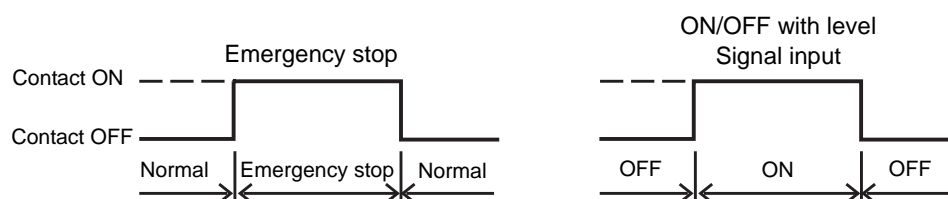


- The type of external input function can be selected by making certain settings.

No.	Function of external input signal	Remarks
1	External input signal not used	-
2	Perform emergency stop with level signal	During emergency stop, only ON/OFF of the centralized controller and local remote controller operation will be prohibited.
3	Perform ON/OFF operation with level signal	Only the ON/OFF operation of the centralized controller and the local remote controller will be prohibited.
4	Perform ON/OFF operation, prohibit/permit operation with pulse signal	Set the pulse width when the contact is ON between 0.5 and 1.0 seconds.

(2) Input signal

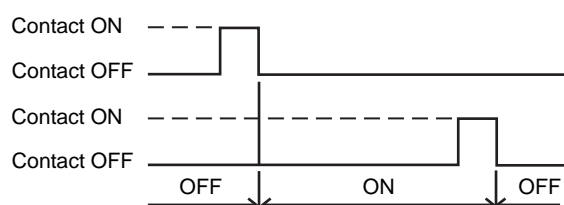
① Level signal



② Pulse signal

(Example) ON/OFF

- Signal 1 (ON)



- * Set the pulse width to a value between 0.5 and 1.0 second.
- * Applicable also to the input signal that prohibits/permits operation.

(3) Specification of external input interface

CN5	Lead wire	Emergency stop/normal level signal	ON/OFF level signal	ON/OFF, prohibit/permit pulse signal
No.5	Orange	Emergency stop/normal input	ON/OFF input	ON input
No.6	Yellow	Not used	Not used	OFF input
No.7	Blue	Not used	Not used	Local remote controller prohibit input
No.8	Gray	Not used	Not used	Local remote controller permit input
No.9	Red	External DC source "+12VDC" or "+24VDC"		

Notes:

- Using level signals
 - While the Emergency stop contact is ON, centralized controller and local remote controller operation (ON/OFF only) is prohibited. After the emergency stop is cancelled, air conditioning systems will remain stopped and will require manual operation if they need to be started back up.
 - When level signals are used for ON/OFF, centralized controller and local remote controller operation (ON/OFF only) is prohibited at all times.
- Using pulse signals
 - If the operation signal is received during operation, air conditioning units will remain in operation. (The same is applicable to OFF/Prohibit/Permit.)
 - When pulse signals are used, changing the ON/OFF, operation mode, temperature setting, filter sign reset settings will be prohibited from the remote controller.

12-2 External output function

(1) The function of external output

- The “ON” signal is output when one or more air conditioning system are in the ON operation.
- The “Malfunction” signal is output when one or more air conditioning system malfunctions.

(2) External Output Interface Specifications

CN5	Lead wire	Description of each terminal
No. 1	Green	Common (External ground)
No. 2	Black	ON/OFF
No. 3	Brown	Malfunction/Normal

12-3 LAN connection function

When using the LAN connection function, connect the LAN cable to the LAN connector of this device.

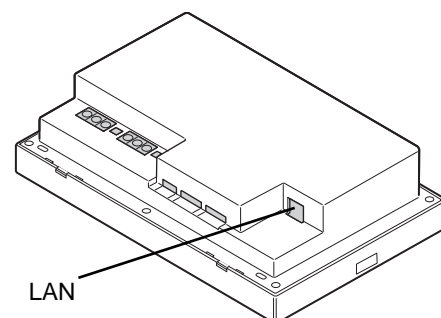
* Procure the LAN cable at the site, and use 100 BASE-TX Straight cable.

* For a description of the IP address setting method, refer to section 5 Initial Settings.

* LAN is 100 BASE-TX Specification.

CAUTION

Use a security device such as a router when connecting to the Internet.



13. Specifications

Item	Specifications		
Power supply	M-NET	17VDC~32VDC * Not used when an expansion controller is used.	* Power supply: PAC-SC51KUA
	Controller drive	24VDC	
Temperature	Operating	0 ~ 40°C [32~104°F]	
	Non operating	-20 ~ 60°C [-4~140°F]	
Humidity	30 ~ 90 %RH (No condensation)		
Weight	2.1kg [4.6 lb]		
Dimensions (W × H × D)	300 × 185 × 70.3 [25.6] mm 11-13/16 × 7-5/16 × 2-13/16 [1-1/16] in *[]: indicate the thickness from the wall.		

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

14. Error code list

Notes:

- The list below contains all error codes. Some of these error codes may not be applicable to the system to which the PAC-YG50ECA is connected.

14-1 M-NET error code

The following is a list of the error codes and their meaning. (A) indicates A-control units

0100	"Blanket unit error"
01*0	"Equipment abnormality **"
0403	"Serial transmission trouble"
0404	Indoor unit EEPROM abnormality (A)
0701	Combustion circuit abnormality (A)
0702	Overheat protection for the combustion heat exchanger (A)
0703	Accidental fire (A)
0704	Heater abnormality (A)
0705	Seismoscope malfunction (A)
0706	Flame current sensor abnormality (A)
0707	Ignition problem (A)
0708	Blower motor rotational speed abnormality (A)
0709	Oil pump circuit abnormality (A)
0900	"Test run"
1000	"Ref.cycle abnormality"
10*0	"Ref.cycle abnormality in line **"
1102	Discharge temperature abnormality (TH4) (A)
1108	Inner thermo (49C) trip (A)
11**	"Ref.cycle temperature abnormality - Common operand: ***"
12**	"Ref.cycle temperature abnormality allowance - Common operand: ***"
1300	Low pressure abnormality (63L trip) (A)
13**	"Ref.cycle pressure abnormality - Common operand: ***"
14**	"Ref.cycle pressure abnormality allowance - Common operand: ***"
1500	"Ref.cycle not operate due to overcharge"
1501	"Ref.cycle not operate due to undercharge" (/compressor shell temperature abnormality)
1502	"Ref.cycle not operate due to liquid back" /Low pressure abnormality (63L trip) (A)
1503	"Ref.cycle not operate due to coil frost"
1504	"Ref.cycle not operate due to overheat protection"
1505	"Ref.cycle not operate due to compressor vacuum operation protection/refrigerant low temperature abnormality"
1506	"Ref.cycle not operate due to refrigerant pump abnormality"
1507	"Ref.cycle not operate due to composition detection abnormality"
1508	"Ref.cycle not operate due to control valve fault"
1509	"Ref.cycle not operate due to high pressure abnormality (ball valve closed) "
1510	"Ref. cycle gas leakage"
1511	"Ref.cycle not operate due to oil slick abnormality"
1512	"Ref.cycle not operate due to a stop of freezing protection function"
1513	"Ref.cycle brine freezing"
1559	"Oil balance circuit abnormality"
1600	"Ref.cycle - Preliminary overcharge refrigerant trouble"
1601	"Ref.cycle - Preliminary lacked refrigerant trouble"
1605	"Ref.cycle - Preliminary suction operation protection"
1606	"Ref.cycle - Preliminary gas pump abnormality"
1607	"Ref.cycle - Preliminary CS circuit closed detection abnormality"
1608	"Ref.cycle - Preliminary control valve abnormality"
1659	"Ref.cycle - Preliminary oil balance circuit abnormality"
2000	"Water system abnormality" (Pump interlock abnormality)
20*0	"Water system abnormality in line **"
21**	"Water system temperature abnormality - Common operand: ***"
22**	"Water system temperature abnormality allowance - Common operand: ***"
23**	"Water system pressure abnormality - Common operand: ***"
24**	"Water system pressure abnormality allowance - Common operand: ***"
2500	"Water system not operate due to water leak"

2501 "Water system not operate due to water supply suspension"
 2502 "Water system not operate due to drain pump abnormality"
 2503 "Water system not operate due to drain sensor abnormality/float switch function"
 2504 "Water system not operate due to liquid level abnormality"
 2505 "Water system not operate due to cool water valve abnormality"
 2506 "Water system not operate due to warm water valve abnormality"
 2507 "Water system not operate due to dew condensation prevention control activated"
 2600 "Water system operation restricted due to water leak"
 2601 "Water system operation restricted due to water supply suspension/humidifier water supply suspension"
 2602 "Water system operation restricted due to drain pump abnormality"
 2603 "Water system operation restricted due to drain sensor abnormality"
 2604 "Water system operation restricted due to liquid level abnormality"
 3152 "Air system operation restricted due to inverter control box inner temperature abnormality"
 3182 "Air system operation restricted due to housing inner temperature abnormality"
 3252 "Air system operation restricted due to preliminary control box temperature abnormality"
 3600 "Air system operation restricted due to filter clogging"
 3601 "Air system operation restricted due to filter maintenance"
 3602 "Air system operation restricted due to damper position detecting abnormality"
 37** "Air system operation humidity abnormality allowance - Common operand: **"
 38** "Air system operation humidity abnormality - Common operand: **"
 4000 "Electric system abnormality"
 40*0 "Electric system abnormality in line **"
 4100 "Electric system not operate due to overcurrent shut-off"
 4101 "Electric system not operate due to overcurrent protection"
 4102 "Electric system not operate due to open phase" /Open phase (T phase), (A)
 4103 "Electric system not operate due to reversed phase/open phase"
 4104 "Electric system not operate due to electric leak"
 4105 "Electric system not operate due to short circuit"
 4106 "Electric system not operate due to self power supply OFF/power failure"
 4107 "Electric system not operate due to overlord"
 4108 "Electric system not operate due to overlord protection/OCR51C" /Open phase (S phase), Open connector 51CM(A)
 4109 "Electric system not operate due to OCR51F"
 4110 "Electric system not operate due to high voltage part"
 4111 "Electric system not operate due to bus current"
 4112 "Electric system not operate due to coil overheat 49°C"
 4113 "Electric system not operate due to heater overheat"
 4114 "Electric system not operate due to fan controller abnormality"
 4115 "Electric system not operate due to power supply synchronism abnormality" /Input circuit (circuit board) defect
 4116 "Electric system not operate due to motor abnormality/speed abnormality"
 4117 Compressor self-protection function trip (A)
 4118 Reversed phase detection circuit (circuit board) problem (A)
 4119 More than 2 connectors are open.(A)
 4121 "Electric system not operate due to trouble in equipment to which a measure against higher harmonics is taken"
 4123 "Electric system not operate due to Inverter output error"
 4124 "Electric system not operate due to damper abnormality"
 4125 "Electric system - Rush-proof circuit abnormality"
 4126 "Electric system - Preliminary overcurrent protection/OCR51C"
 4162 "Electric system not operate due to compressor coil temperature abnormality delay"
 4163 "Electric system not operate due to preliminary fan controller abnormality"
 4165 "Electric system not operate due to preliminary power synchronization error"
 4171 "Electric system - Preliminary trouble in equipment to which a measure against higher harmonics is taken"
 4200 "Inverter abnormality"
 420* "Inverter abnormality - Inverter No.: **"
 4210 "Inverter overcurrent shut-off"
 421* "Inverter overcurrent shut-off - Inverter No.: **"
 4220 "Inverter bus voltage insufficiency" / Voltage abnormality (A)
 422* "Inverter bus voltage insufficiency - Inverter No.: **"
 4230 "Inverter radiating thermostat abnormality"

423* "Inverter radiating thermostat abnormality - Inverter No.: **"
 4240 "Inverter overcurrent (overload) protection"
 424* "Inverter overcurrent protection - Inverter No.: **"
 4250 "Inverter IPM/bus voltage abnormality" /Power module abnormality (A)
 425* "Inverter IPM abnormality **"
 4260 "Inverter cooling fan trouble"
 426* "Inverter cooling fan trouble - Inverter No.: **"
 4300 "Inverter abnormality allowance"
 430* "Inverter abnormality allowance - Inverter No.: **"
 4310 "Inverter overcurrent shut-off allowance"
 431* "Inverter overcurrent shut-off allowance - Inverter No.: **"
 4320 "Inverter bus voltage insufficiency allowance"
 432* "Inverter bus voltage insufficiency - Inverter No.: **"
 4330 "Inverter radiating thermostat abnormality allowance"
 433* "Inverter radiating thermostat abnormality allowance - Inverter No.: **"
 4340 "Inverter overcurrent protection abnormality"
 434* "Inverter overcurrent protection abnormality - Inverter No.: **"
 4350 "Inverter IPM abnormality allowance"
 435* "Inverter IPM abnormality allowance **"
 4360 "Inverter preliminary cooling fan trouble"
 436* "Inverter preliminary cooling fan trouble - Inverter No.: **"
 5000 "Sensor trouble"
 50*0 "Sensor trouble in system **"
 51** "Temperature sensor trouble - Sensor No.: ***"
 5202 Open connector (63L) (A)
 52** "Pressure sensor trouble - Sensor No.: ***"
 5300 Current sensor abnormality (A)
 53** "Current sensor trouble - Sensor No.: ***"
 54** "Humidity sensor trouble - Sensor No.: ***"
 55** "Gas sensor trouble - Sensor No.: ***"
 56** "Air speed sensor trouble - Sensor No.: ***"
 57** "Limit switch trouble - Switch No.: **"
 58** "Sensor trouble - Sensor No.: **"
 59** "Other sensors trouble - Sensor No.: **"
 6000 "System abnormality"
 6101 "System not operate due to abnormality - With response frame"
 6102 "No answer back"
 6200 "Controller H/W abnormality"
 6201 "E2PROM abnormality"
 6202 "RTC abnormality"
 6500 "Communication error"
 6600 "Communication error - Address duplicate"
 6601 "Communication error - Polarity unsettled"
 6602 "Communication error - Transmission processor hardware error"
 6603 "Communication error - Transmission line busy"
 6604 "Communication error - No ACK (06H) (communication circuit error)"
 6605 "Communication error - No response frame"
 6606 "Communication error - Transmission processor communication error"
 6607 "Communication error - No ACK return"
 6608 "Communication error - No return of response frame"
 6609 "Communication error"
 6610 "Communication error"
 6700 "Communication error - K-transmission abnormality"
 6701 "Communication error - K-transmission error"
 6702 "Communication error - K-address duplicate"
 6750 "Communication error - K abnormality code PO"
 6751 "K abnormality - Room temperature thermistor abnormality"
 6752 "K abnormality - Indoor coil thermistor abnormality, Condensation temperature sensor abnormality"

6753	"K abnormality - Transmit/receive error"
6754	"K abnormality - Drain sensor abnormality, Float switch function"
6755	"K abnormality - Drain pump abnormality"
6756	"K abnormality - Coil frost/overheat protection"
6757	"K abnormality - System error"
6758	"K abnormality - Outdoor unit trouble, Indoor/outdoor communication error"
6761	"K abnormality - Room temperature thermistor abnormality"
6762	"K abnormality - Indoor coil thermistor abnormality, Condensation temperature sensor abnormality"
6763	"K abnormality - Transmit/receive error"
6764	"K abnormality - Drain sensor abnormality"
6765	"K abnormality - Drain pump abnormality"
6766	"K abnormality - Coil frost/overheat protection"
6767	"K abnormality - Outdoor unit trouble - Indoor/outdoor communication error"
6771	"K abnormality - High pressure abnormality, Low pressure abnormality"
6772	"K abnormality - Inner thermostat function, Discharge temperature abnormality, Shell thermostat function, Overcurrent protection"
6773	"K abnormality - Radiator plate thermostat function"
6774	"K abnormality - Outdoor thermistor abnormality"
6775	"K abnormality - Pressure sensor abnormality, Indoor/outdoor communication error"
6776	"K abnormality - Overcurrent shut-off"
6777	"K abnormality - System error"
6778	"K abnormality - Normal"
6779	"K abnormality - Refrigerant overcharge, Abnormal voltage, Abnormal CT sensor"
6800	"Communication error - Other communication errors"
6801	"Communication error - V-control communication error"
6810	"Communication error - UR communication error"
6811	"Communication error - UR communication synchronism not recover"
6812	"Communication error - UR communication hardware error"
6813	"Communication error - UR communication status bit detection error"
6820	"Other communication errors"
6821	"Other communication errors - Transmission line busy"
6822	"Other communication errors - No communication ACK"
6823	"Other communication errors - No response command"
6824	"Other communication errors - Receive data error"
6830	"Communication error - MA communication refrigerant address double setting error"
6831	"Communication error - No MA communication reception error"
6832	"Communication error - MA communication synchronism not recover"
6833	"Communication error - MA communication transmission/reception hardware trouble"
6834	"Communication error - MA communication start bit detection error"
6840	"Communication error - A control no indoor/outdoor communication/reception abnormality"
6841	"Communication error - A control indoor/outdoor communication synchronization recovery abnormal"
6844	"A control indoor/outdoor communication incorrect indoor/outdoor wiring connection, excessive number of indoor units (more than five units)"
6845	"Communication error - A control indoor/outdoor communication incorrect indoor/outdoor wiring connection (telecommunication, disconnection)"
6846	"Communication error - A control indoor/outdoor communication startup time exceeded"
7000	"System abnormality"
7100	"System abnormality - Total capacity error"
7101	"System abnormality - Capacity code error"
7102	"System abnormality - Connecting unit number excess"
7103	"System abnormality - Piping length setting error"
7104	"System abnormality - Floor height setting error"
7105	"System abnormality - Address setting over 254"
7106	"System abnormality - Attribute setting error"
7107	"System abnormality - Distributor setting error"
7108	"System abnormality - Ref. system setting error"
7109	"System abnormality - Connection setting error"
7110	"System abnormality - Ref. system connection/connection data unsettled"
7111	"System abnormality - I/O connection equipment not connected/remote controller sensor abnormality"
7112	"System abnormality - I/O type setting error"

7113	"System abnormality - Equipment unsettled"
7116	"System abnormality - Replace non-wash setting error"
7117	"System abnormality- Model identification setting error"
7130	"System abnormality - Different unit model error"
7131	"System abnormality- Mixed cooling only H/P connection error (Facility PAC)"
7132	"System abnormality - Multiple entries of operation performance (Facility PAC)"
7200	"System abnormality - Numeric values unsettled"
7201	"System abnormality - Numeric values unsettled"
73**	"System abnormality - LON-system equipment abnormality"

14-2 EC line error code^{*1}

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

^{*1} EC line error: Error between the AG-150A etc. and expansion controller (PAC-YG50ECA)

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

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

- Low Voltage Directive 2006/95/EC
- Electromagnetic Compatibility Directive
2004/108/EC

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