MITSUBISHI ELECTRIC

Mitsubishi Electric Building Air Conditioning Control System

MJ-310E

Operation Manual (Management)

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Please read this manual before using the unit.
Please keep this manual for future use.

In this manual, Microsoft® Windows NT® Version 4.0 is called Windows NT or Windows NT4.0.
Microcrosoft® Windows® 2000 Professional is called Windows 2000. Microsoft® Excel 2000 is called MS-Excel 2000.

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1. Safety Precautions

- Please read the Safety Precautions section very carefully before using the unit.
- The safety cautions provided here are very important for your safety. Please observe them at all times.
- The degree of danger involved with incorrect operation of the unit are indicated in this manual using the following symbols.

⚠WARNING	Incorrect operation could result in death or severe injury.
⚠CAUTION	Incorrect operation could result in injury or damage to property.

- After reading this information, please keep this manual together with the operation manual (Field adjustment manual) in a location where the operator can see it. Also, when changing operators give both of these manuals to the new operator.

Note:
- Please observe the safety precautions detailed in the installation manuals and operation manuals of the other machines such as computers, peripherals, and air conditioners.

⚠WARNING

The customer must not do any wiring or electrical work.
Have the dealer or a specialist do any wiring or electrical work. Do not do it yourself. Doing the work yourself may result in improper installation which may cause electric shock or fire.

Do not make any improvements or repairs for any reason.
Making improper improvements or repairs may cause electric shock or fire. For repairs, consult the company from which the unit was purchased.

Stop operation immediately if an error message appears on the computer and the unit stops or is not operating properly.
Failing to do so may result in fire or damage to the unit. Immediately contact the company from which the unit was purchased.

Do not relocate the unit yourself.
Relocating the unit yourself may result in incorrect installation which may cause electric shock or fire.
To relocate the unit, consult the company from which the unit was purchased.

Read the installation manuals and operation manuals for the computer, peripherals and other machines.
Improper operation could result in fire or damage to the computer or peripherals.

Read the installation manual and operation manual for the air conditioner controller.
Improper operation could result in fire or damage to the air conditioner controller.

⚠CAUTION

Do not use the unit for any other purpose.
This product is for use with the Mitsubishi Electric Building Air Conditioning Control System. Do not use it with any other air conditioning control system or for any other application. Doing so may cause the unit to malfunction.

Keep children away from the unit.
Inspections and maintenance can be dangerous. Do not let children near the unit during these times.

Warning to all users (User Agreement)
This document is a contract between the customer and Mitsubishi Electric Corporation. By using this application, you agree to the following conditions and are considered a user.
- Mitsubishi Electric and associated suppliers are not responsible for any collateral, secondary, or special damages, even if notified by the distributor of the possibility of a certain type of damage. Mitsubishi Electric is not responsible for any rights claimed by a third-party.

2. Precautions Before Starting Use

Before using the MJ-310E, thoroughly read the following precautions:
❋ Also read Chapter 13 System Operation Precautions.

(1) Installation conditions check
Check the wiring, connection, initial settings etc of the personal computer and peripheral devices. Verify that each device is installed in accordance with its installation and instruction manuals.

(2) Site adjustment check
Before using this system, check if the initial settings described in the separate Site adjustment manual are complete.

(3) Power supply processing
After installation and adjustment, do not turn off the power to the system devices and air conditioner except when a failure occurs, or when servicing the equipment.
If the system devices or air conditioner power is turned off, a failure may be displayed. When the power is turned back on, the display will automatically return to normal.

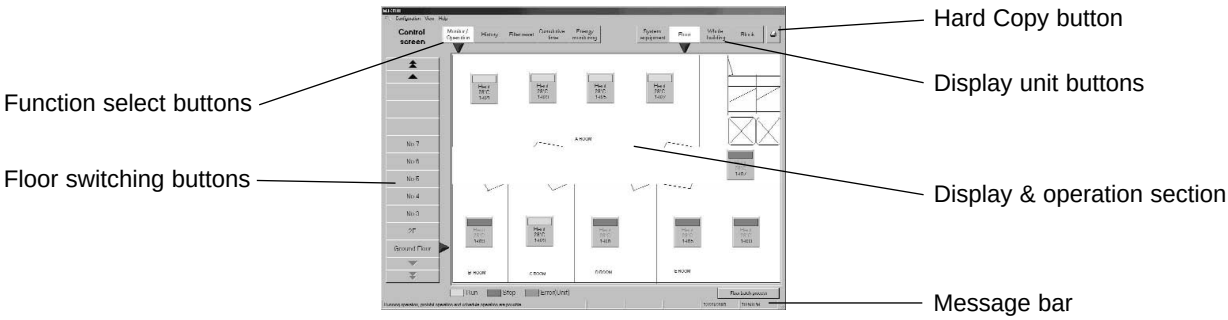
(4) Screen processing
If the keyboard or mouse is not touched for a certain length of time, a screen saver starts to prevent burning of the screen. If the mouse or keyboard is touched while the screen saver is running, the display will return to its original state.
(The screen saver function is described in section 4.4.)

(5) Printer processing
When this system is used with a printer, leave the printer power on and check that there is paper in the printer.

3. Names and Functions of Each Part

3.1 Screen Configuration

The Management screen consists of the following parts:



Management screen

Display & operation section:	Displays and operates the function selected at the function select buttons
Function select buttons:	Select the function
Display unit buttons:	Select the display unit for each function
Floor switching buttons:	Switches the floor
Hard copy button:	Prints the currently displayed screen. Printing can be performed while a function is operating
Message bar:	Displays operation commands, current time, and system status There are two system statuses: Serious failure and Minor failure

Serious failure · · · · · · · · Abnormality at IFU, G/W. Indicates that part of the system is not operating normally.
Slight failure · · · · · · · · · · Abnormality in Air conditioning unit. Indicates that part of the system is not operating normally.

3.2 Operations

Mouse operation

The following description assumes that a mouse is used as the pointing device. When using another pointing device, read the description for that device.
Operation on the screen is the same.
The keyboard can also be used to input characters and numerics.

Move the mouse while viewing the arrow (mouse pointer) on the screen.
Use the left mouse button only.

The following describes the operations:

Click:	Pressing and releasing the mouse button once is called “click”. This operation is used when selecting a button.
Double click:	Pressing and releasing the mouse button twice in rapid succession is called “double click”.
Drag:	The mouse pointer is moved to an icon and the left mouse button is held down. When the mouse is moved in this state, the icon moves as if it were being dragged. This operation is called “drag”. The icon can be left at the new position by releasing the left mouse button.
Keyboard:	Primarily used when entering password, characters, or numerics.

3.3 Functions Table

The MJ-310E has two major functions.

1) Function which monitors the operation status of the air conditioner and controls and sets the air conditioner.
2) Operation function and system initialization and maintenance function.

This section mainly describes function 1).
Function 1) consists of the items shown below. The screen that displays this function is called the “Management screen”.

Name	Function	Reference
Air conditioner on/stop	On/stop operation can be performed in group, floor, block, or whole air conditioner units. The operating status can also be monitored	6.1 6.2
Air conditioner control	Operation (heat/fan/cool/dry) can be switched and the room temperature can be adjusted in group, floor, block, or whole air conditioner units	6.3
Priority specification	Operation can be permitted and prohibited from the local remote controller in group, floor, block, or whole air conditioner units	6.3
History	The history of abnormalities and operation can be referenced in group, floor, block, or whole air conditioner units	8.1
Cumulative time	The air conditioner cumulative operation time can be referenced for each group	8.2
Schedule setting	Air conditioner operation can be scheduled for each group	7
Air-conditioning charge	The air-conditioning charge can be monitored for each watt hour meter	9

The following items are necessary when the system configuration was changed, but are not covered in this manual.
Change operation requires a knowledge of system set-up. For the detailed contents and operating instructions, refer to the separate “Site Adjustment manual”.

Name	Function
System configuration set	Performs connected devices, refrigerant system connection, group, operation mode and other functions settings and block and other settings
Charge system set	Performs various settings for air-conditioning charge calculation
Charge data maintenance	Past charge data can be referenced
Operation data monitoring	Monitors operation data backed-up at IFU
Remedial apportioning	Remedies charge apportioning at WHM failure, etc.

4. Screen Basic Operation

The function is selected with the function select buttons (top left-hand side of screen) and the operation object is displayed on the display & operation screen with the display unit buttons (top right of screen).

4.1 Button Selection Method

(1) Select the function

[Procedure]

1) Select the function

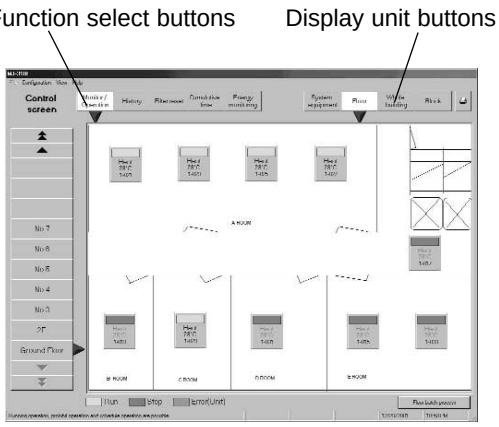
Select the function by clicking the function select button of the function to be displayed and performed.

(2) Select the object to be operated

[Procedure]

1) Select the display unit

Select the display unit by clicking the button of the object unit you want to display.



Control screen

Note:
- For a detailed description of basic operation, see chapter “6. Normal Operation”.

4.2 Operation Contents and Function Select Buttons and Display Unit Buttons

This table shows which function display buttons and display unit buttons should be selected when performing an operation.
The √ symbol indicates that the operation can be performed and the – symbol indicates that the operation cannot be performed.

Operation	Function select button	Display unit buttons (display object)				
		Whole building	Block	Floor		System equipment※1
				Group	Floor	
On/off (Run/stop) switching	Monitor/operation	√	√	√	√	—
Operation status (run/stop/abnormality) check	Monitor/operation	√	√	√	√	√※2
Detailed setting of operation mode, temperature, etc.	Monitor/operation	√	√	√	√	—
Operation prohibition setting from local remote controller	Monitor/operation	√	√	√	√	—
Year schedule and week schedule setting	Monitor/operation	√	√	√	√	—
Abnormality history and operation history check	History	√	√	√	√	√
Cumulative time check	Cumulative time	—	—	√	—	—
Filter sign reset	Filter reset	—	—	√	—	—
Energy monitoring	Energy monitoring	—	√※3	—	—	—

※1: Other equipment includes IFU, Gateway, system controller, and local remote controller.
※2: Normal/abnormal display only.
※3: When Energy monitoring is selected, the air-conditioning charge is displayed even if a display unit button is not selected. The air-conditioning charge can be displayed in block or watt hour meter units.

4.3 Display Unit Buttons Operation

(1) Group selection

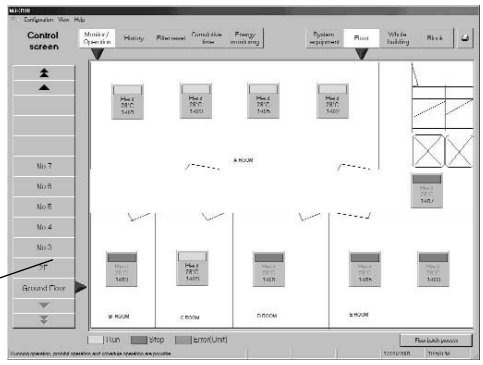
[Procedure]

1) Click the Floor display unit button

2) Select the object group from the floor switching buttons (left-hand side of screen)

The selected floor is exhibited on the display & operation screen.

3) Click the object group icon on the displayed floor



Floor screen

(2) Floor selection

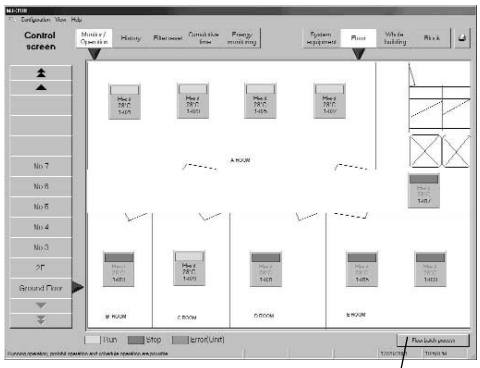
[Procedure]

1) Click the Floor display unit button

2) Select the object floor from the floor switching buttons (left-hand side of screen)

The object floor is exhibited on the display & operation screen

3) Click the Floor batch process button at the bottom right-hand corner of the screen



Floor batch process button

Floor screen

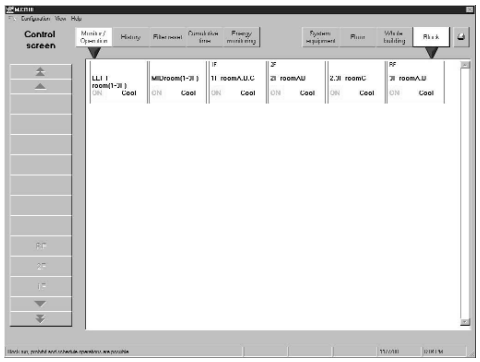
(3) Block selection

[Procedure]

1) Click the Block display unit button

All the blocks are exhibited on the display & operation screen.

2) Select the object block from the display & operation screen



Block screen

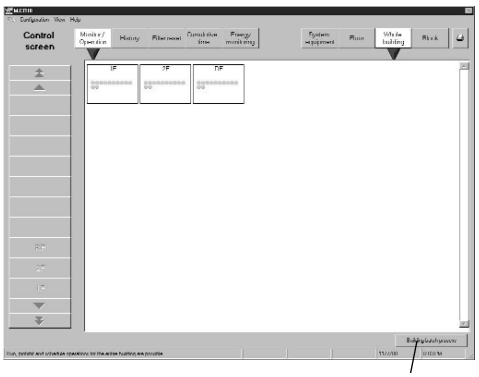
(4) Whole building selection

[Procedure]

1) Click the Whole building display unit button

The whole floor is exhibited on the display & operation screen.

2) Click the Building batch process button (bottom right-hand corner of screen)



Building batch process button

Whole building screen

(5) System equipment, IFU, Gateway (G/W) selection

[Procedure]

1) Click the System equipment display unit button

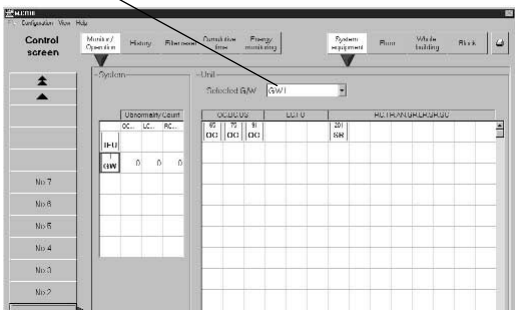
   IFU and G/W are exhibited on the display & operation screen.

2) Select G/W of the object system equipment with the G/W switching button

   The system equipment of the selected G/W is displayed on the display & operation screen

3) Select the object system equipment from the display & operation screen

Gateway switching button



System equipment screen

4.4 Screen Saver Display

When the mouse and keyboard are not touched for a certain length of time, the screen saver starts. (To prevent burning of the personal computer screen.) The following messages flow across the screen saver screen.

Message contents	Contents
MJ-310E	No abnormalities in system equipment and air conditioner (When normal)
Watt hour meter failure	Abnormality detected at watt hour meter monitor
Serious failure	Abnormality detected at IFU or G/W
Serious failure + watt hour meter failure	Abnormality occurred at IFU or G/W and detected at watt hour meter monitor
Slight failure	Abnormality in air conditioner
Slight failure + watt hour meter failure	Abnormality occurred at air conditioner and detected at watt hour meter monitor

Maintenance Tip

- Do not set the screen saver at other than the Marquee Display. If set at other than the Marquee Display, the screen saver will not display the message contents.

Note:

- The “Watt hour meter failure” message is displayed when a message box indicating that a watt hour meter monitor abnormality was detected is displayed. When this message box is not displayed, the screen saver will not display the “Watt hour meter failure” message.

5. Initialization Before Use

5.1 Schedule Setting

For a description of the schedule setting method, see chapter 7. Schedule Setting.

5.2 Air-conditioning Charge Setting

When the “Energy monitoring” button at the top left-hand side of the Control screen is clicked, the Air-conditioning energy monitoring screen is opened. Air-conditioning energy monitoring is initialized from this screen.

5.2.1 Charge setting

There are three charge settings: Exchange Unit setting, Air-con Charge setting, and Basic Charge setting.

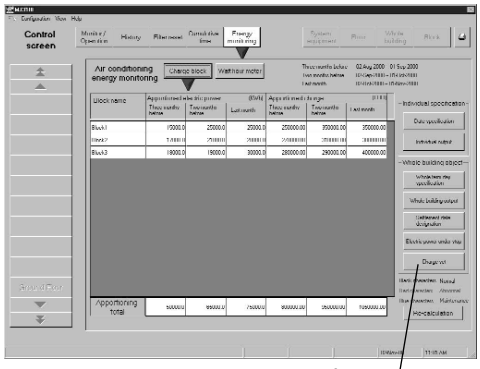
Note:
- When the charge function is not available, Air-con Charge is not displayed.

Open the Charge Set screen

[Procedure]

1) Click the Charge set button

Click the Charge set button on the air-conditioning charge screen. The Charge set screen opens.



Air-conditioning charge screen

(1) Set the Currency unit

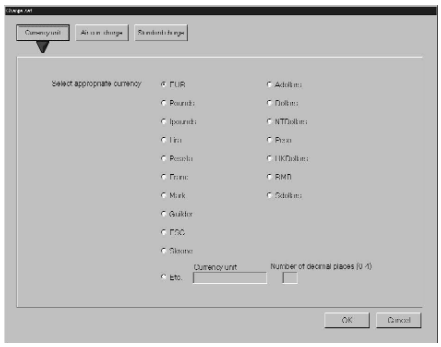
[Procedure]

1) Click the Selection of Currency unit button

Click the button in the Charge Set screen. The currency unit set screen opens. This screen is also displayed when the currency Set screen is opened.

2) Select the currency unit to be used

Click the option box of the currency unit to be used.
Otherwise, in Etc. colum, set a currency unit (9 characters) and the number of digits to be displayed after the decimal point (0 to 4).



Currency unit set screen

(2) Set the electric use unit price

Set the electric use unit price. One charge system can be selected from daytime/nighttime, weekend, seasonal charge, etc.

[Procedure]

1) Click the Air-con charge button

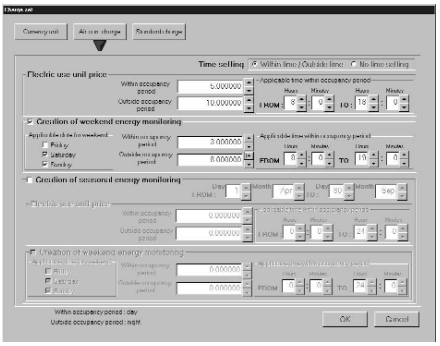
When the Air-con charge button is selected from the Charge Set screen, the electric use unit price screen opens.

2) Select the charge system to be used

Set the charge system by clicking the option button at the charge system you want to use.

3) Select the unit price and applicable time or applicable day of the week

Select the unit price, applicable time, applicable date, or applicable day of the week in accordance with the set charge system.
Some of the data can also be input from the keyboard.



Electric use unit price set screen

(3) Set the standard (fixed) charge

Block units and watt hour meter units standard charge (per month) can be set. However, for standard charge in watt hour meter units, only the watt hour meter unit charge object (K controller, OA processing unit, etc.) can be set.

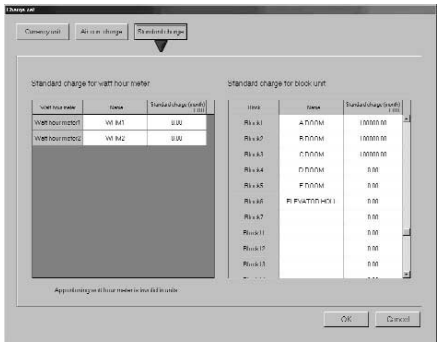
[Procedure]

1) Select the Standard Charge button

When the “Standard Charge” button on the Charge Set screen is clicked, the standard charge set screen opens.

2) Set the standard charge

Set the standard charge in watt hour meter or block units. For watt hour standard charge, only charge in watt hour meter units is the object.
Standard charge can be input from the keyboard by clicking with the cursor.
Clicking the standard charge allows the value to be input from the keyboad.



Standard charge set screen

Note:
- When there is no WHM connection the watt-hour standard charge cannot be set.

Ending charge setting

[Procedure]

1) Click the OK or Cancel button

At the end of charge setting, click the OK button.

OK: Accepts the changes and returns to the air-conditioning charge screen.

Cancel: Ignore the changes and returns to the air-conditioning charge screen.

Note:
- When an item which must be set is not set, a caution message is displayed. Reset that item.

5.2.2 Settlement-date designation setting

Set the settlement-date designation day

Since the air-conditioning charge is calculated once a month, set the settlement date.

[Procedure]

1) Select settlement-date designation specification

When the “Settlement-date designation” button at the bottom right-hand side of the screen is clicked, the Settlement-date designation specification screen opens.

2) Specify the settlement

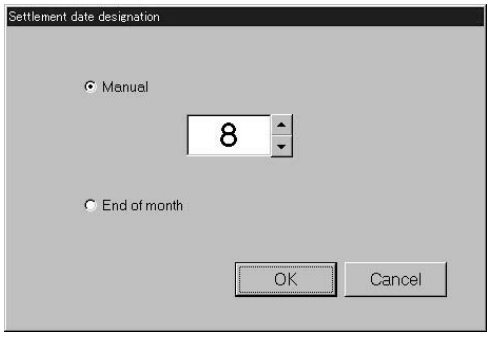
To specify the end of month, click End of month. To specify the actual date, click Manual and select the date by clicking the ▲/▼ buttons.
(Numerical values can also be input from the keyboard.)

3) Select OK or Cancel

Click OK to end settlement-date designation setting.

OK: Accepts the changes and completes settlement-date designation setting.

Cancel: Ignore the changes and completes settlement-date designation setting.



Settlement-date designation specification screen

Note:
- The 29th, 30th, and 31th cannot be set as the settlement-date designation. (However, they can be set as the end of month.)

6. Normal Operation

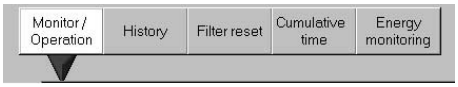
6.0 Monitor/Operation

Perform normal operation from the Management screen.
Display the Management screen by clicking the Monitor/Operation function select button (top left-hand side of screen), then selecting the operation object from the display unit buttons (top right-hand side of screen). The “Air-conditioning charge display” is only displayed when there is a charge function.

Function select	Display units
- Monitor/Operation - History - Filter reset - Cumulative time - Energy monitoring	- System equipment - Floor - Whole building - Block

(1) Select the function

When the Monitor/Operation function select button is clicked, the monitor/ operation screen opens.



Function selection

(2) Select the operation object

[Procedure]

When group is the object

Click the Floor button in display units.
Select the distribution floor of the object group from the floor switching buttons (left-hand side of screen).
The floor is displayed on the monitor/operation screen.
Click the object group icon on the displayed floor.

When whole floor is the object

Click the Floor button in display units.
Select the object floor from the floor switching buttons (left-hand side of screen).
The object floor is displayed on the monitor/operation screen.
Click the Floor batch process bottom at the bottom right-hand corner of the screen.

When block is the object

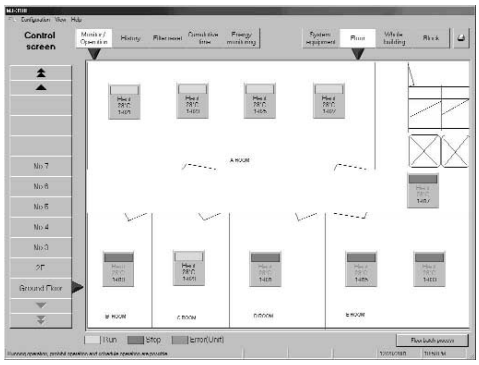
Click the Block button in display units.
All the blocks are displayed on the monitor/operation screen.
Select the object block from the monitor/operation screen.

When whole building is the object

Click the Whole building button in display units.
Whole building is displayed on the monitor/operation screen.
Click the Building batch process button at the bottom right-hand corner of the screen.

When system equipment, IFU, or G/W is the object

Click the System equipment button in display units.
IFU, G/W is displayed on the monitor/operation screen.
Select the G/W connected to the object equipment with the G/W select button (▼).
The system equipment of the selected G/W is displayed in the monitor/operation screen.
Select the object system equipment from the monitor/operation screen.



Normal operation screen

Display units

6.1 On/Off Operation

Air conditioner On/Off operation is possible.
Block, floor batch, whole building, and other multiple group batch operations are also possible.
Operable objects: Group, floor batch, block, whole building

[Procedure]

1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object to be turned on or off

Click the on/off object. A menu appears.

Note:
- For a description of the underlined part, see par. “6.0 (2) Select the operation object” to be operated.

3) Select on/stop

If the selected object is currently running, OFF is displayed in the menu and if the selected object is stopped, ON is displayed in the menu.
When ON or OFF is selected from the menu, operation is switched.

Note:
- When multiple groups are the operation object, if at least one group is on, OFF operation has precedence.

6.2 Operation Status Monitor

The air conditioner operation status can be monitored.
Operable objects: Floor, block, whole building, system equipment

(1) Display the operation status

[Procedure]

1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object whose operation status is to be displayed

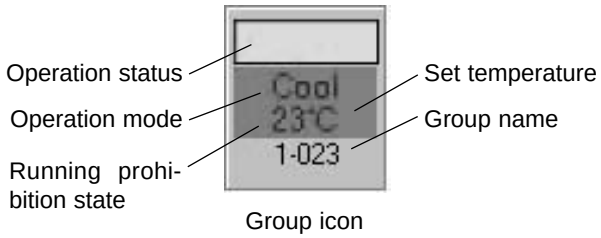
When the object whose operation status is to be displayed is clicked, the current operation status is displayed.

Note:
- For a description of the underlined part, see par. “6.0 (2) Select the operation object” to be operated.

(2) Description of operation status

Floor display screen

Description of floor icons



Group icon

Operation status display screen: Displays the operation status.
- Green: Running
- Red: Stopped
- Yellow: Abnormal
- ><: Local remote controller operation prohibited

Operation mode display screen: Displays the operation mode. (Example: Auto, Cool, others)

Set temperature display screen: Displays the set temperature.

Group name display screen: Displays the group name. When selected with the mouse cursor, the long name is displayed.

Filter sign: Displays Filter in a yellow frame at the center. (Displayed only when the Filter reset function select button is selected.)

Operation prohibited state: Shows that the system is in the operation prohibited state. (See Notes.)

Outdoor unit abnormal: “ ” is displayed at the top right corner of the group icon.

Subsidiary outdoor unit abnormal: “ ” is displayed at the top right corner of the group icon.

BC controller abnormal: “ ” is displayed at the top right corner of the group icon.

G/W abnormal: " " is displayed at the top right corner of the group icon.

IFU abnormal: " " is displayed at the top right corner of the group icon.

Schedule set: " " is displayed at the top left corner of the group icon.

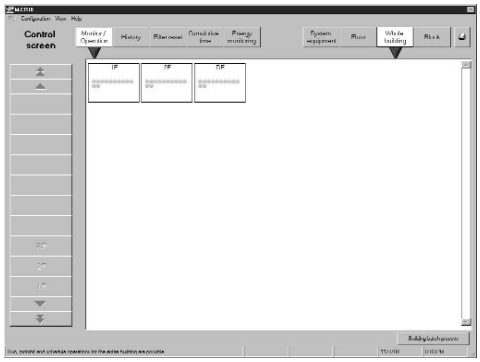
Note:
- Depending on the characters used, the entire 8 characters of the group name may not be displayed on the icon.
- At stop, the operation mode and set temperature displays are hidden. (Gray characters display)
- When the indoor unit is in the operation prohibited state, the operation mode and set temperature background color changes to red. In the operation prohibited state, the indoor unit operation state remains stopped, the remote controller continues to display the operation state, and the operation mode flashes. To reset the operation prohibited state, change the operation mode.
  Some models do not have this display.

Block & whole building display screen

Displayed in group units in the block frame and floor frame.
- ● (Green): Running (On)
- ● (Red): Stopped (Off)
- ● (Blue): Only running fan unit on
- × (Yellow): Abnormal

System equipment display screen

When an equipment is abnormal, × is displayed at the icon of the abnormal equipment.



Whole building screen

6.3 Operation Details

Air conditioner operation mode switching, temperature adjustment, and other functions can be monitored and operated.
Objects which can be monitored and operated: Floor, block, whole building

(1) Display the remote control screen

[Procedure]

1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object whose remote control screen is to be displayed

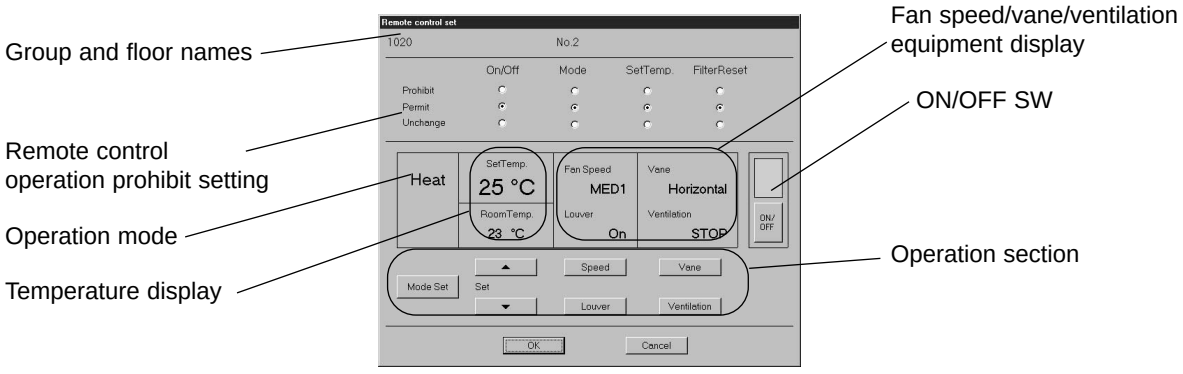
Click the object whose remote control screen is to be displayed.

Note:
- For a description of the underlined part, see par. "6.0 (2) Select the operation object" to be operated.

3) Select properties

When Properties is selected from the menu, the remote control screen opens.

(2) Description of remote control screen



Remote control screen

Group and floor names

- Group name: Displays the group name. (Group object only)
- Floor name: Displays the name of the floor on which the group is distributed. (For whole building, Whole building is displayed.)

Remote control operation prohibit setting: Displays the operation prohibit setting state of the local remote controller.

ON/OFF: Displays the current operation status by color. (Green: On, Red: Off)

Operation mode: Displays the current operation mode.

Temperature display

- Target set temperature: Displays the target set temperature.
- Indoor temperature: Displays the current indoor temperature.

Fan speed/vane/ventilation equipment display

- Fan speed: Displays the current fan speed.
- Vane: Displays the current wind direction.
- Louver: Displays the current louver status.
- Ventilation equipment: Displays the interlocked ventilation unit status.

Operation section: Performs operation mode, target temperature, and wind setting and other operations.

Note:
- The newest information is displayed on the remote control screen only when this remote control screen was displayed.

(3) Remote control screen operation

ON/OFF

Perform ON/OFF switching by clicking the ON/OFF button.
ON (green)/OFF (red) are alternately switched each time the button is clicked.

Operation mode change

Switch the operation mode by clicking the Mode Set button at the operation section.
The operation mode is switched in Fan → Cool → Heat → Dry → Auto → Fan · · · order each time the button is clicked.
For ventilation group, the operation mode is switched in Auto → Heat ex. → By-Pass → Auto · · · order.
(The operation modes that can be changed depends on the setting.)

Set temperature change

Change the set temperature by clicking set temp. adjustment ▲/▼ buttons.
(The range of temperatures that can be changed depends on the operation mode.)

Note:
- When the setting is different for each group, the following is displayed by operation from floor batch, whole building batch, and block:
  - On/Off: White display
  - Operation mode: – –
  - Set temperature: – –

Fan Speed change

Change the wind velocity by clicking the Fan Speed button.
Fan Speed is switched in Lo → Mid 1 → Mid 2 → Hi → Lo · · · order.
For ventilation group, Fan Speed is switched in Lo → Hi → Stop → Lo · · · order.
(The changeable Fan Speed depends on the function setting.)

Vane change

Change the vane by clicking the Vane button.
The vane is switched in Horizontal → Down 60% → Down 80% → Down 100% → Swing → Horizontal · · · order.
(Whether or not there is a Swing and screen direction switching function depends on the function setting.)
*Ventilation group does not have this function.

Louver change

Change the louver by clicking the Louver button.
Louver is switched in On → Off → On · · · order.
(Whether or not there is a Louver switching function depends on the function setting.)
*Ventilation group does not have this function.

Interlocked ventilation group operation

Switch ventilation unit operation by clicking the Ventilation button. (Hi/Lo/Stop)
When ventilation group interlock is set, ON/OFF operation also performs ventilation group Hi/Lo/OFF switching.
(Whether or not there is a ventilation group interlock setting depends on the function setting.)
*Ventilation group does not have this function.

Note:
- For floor batch, whole building batch, and block setting, wind velocity, vane, louver, and interlock ventilation operations cannot be performed. Perform these operations for each group.
- The range over which each setting can be changed depends on the contents set by the indoor unit & ventilation function setting of the system configuration settings. For a detailed description of the setting contents, refer to Site Adjustment manual section 8.5.9 Indoor Unit and Ventilator Function Settings.
  ✵ The set contents can be checked by System display. (For the detailed operating instructions, see chapter 10. System Display.)
- When the wind direction is set to downwards, the indoor unit control may automatically change it to another direction.

Local remote control operation Prohibit/Permit

When Prohibit On/Off is selected, On/Off operation cannot be performed from the local remote controller.
When Prohibit Mode is selected, the mode cannot be changed from the local remote controller.
When Prohibit Set Temp. is selected, the temperature cannot be changed from the local remote controller.
When Prohibit Filter Reset is selected, filter reset cannot be performed from the local remote controller.
When Unchange is selected, Prohibit/Permit remains in the current state.
(For ventilation group, only On/Off and Filter Reset can be prohibited and permitted.)

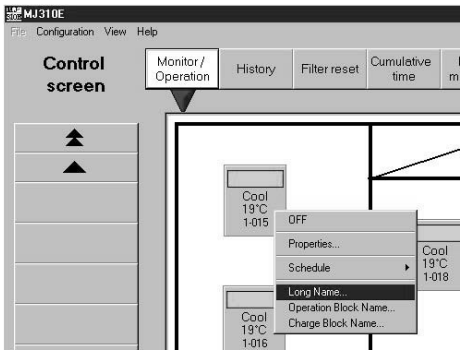
Note:
- When the setting is different for each group at floor batch, whole building batch, and block processing, the initial value is Unchange.
- In the case of K control models, if even one of ON/OFF, mode or set temperature is prohibited, the other settings are also prohibited. Filter reset can not be prohibited.

Select OK or Cancel

At the end of each setting, click the OK button.
OK: Accepts the changes and returns to the monitor/operation screen.
Cancel: Ignore the changes and returns to the monitor/operation screen.

(4) Other functions

The following are displayed on Floor screen of the monitor/operation screen:
- Long name
- Operation block name
- Charge block name



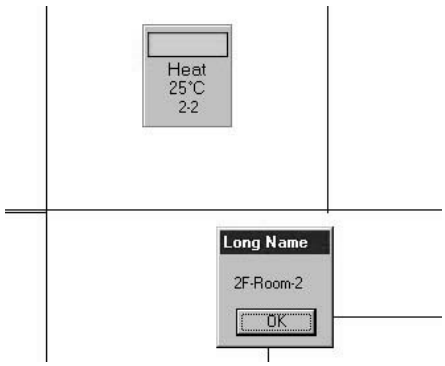
[Procedure]

1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select floor display

When the Floor display unit button is clicked, the floor display screen opens.



3) Select group

When the group item of the group whose names are to be displayed is clicked, a menu appears.

4) Select the name to be displayed

When Long name, Operation block name, or Charge block name is selected from the menu, the names are displayed.

5) Select OK

After checking the names, click the OK button.

7. Schedule Setting

The operation mode, temperature, wind velocity, and On/stop from the specified time can be set with the schedule setting function. There are two schedules: Weekly schedule and Year schedule. Weekly schedule can be set for each day of the week and Year schedule can be set in day units. For days set by both schedules, Year schedule has precedence.
The minimum unit that can be set is group.

Operable objects: Group, floor, block, whole building

7.1 Week Schedule Setting

Switch from Management screen to schedule set screen

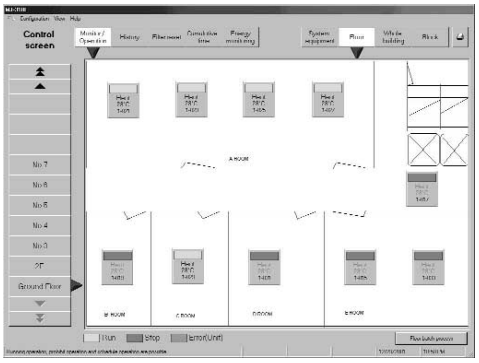
[Procedure]

1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object whose schedule is to be set

Click the object whose schedule is to be set.
When the cursor is moved to Schedule in the displayed menu, the schedule menu is displayed.

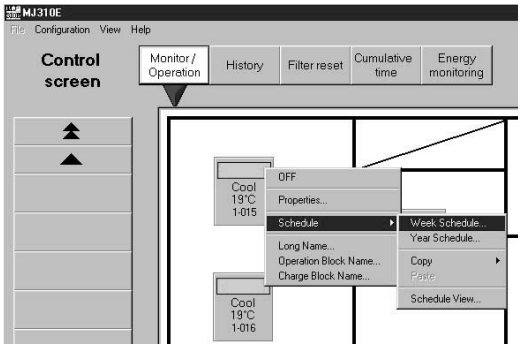


Note:
- For a description of the underlined part, see section “6.0 (2) Select the operation object” to be operated.

3) Select week schedule

When Week schedule is selected from the menu, the Week schedule set screen opens.

Perform the following operations from the Week schedule set screen.



(1) Schedule setting

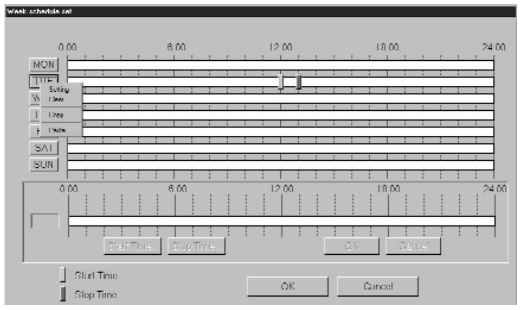
[Procedure]

1) Select the day of the week to be set

When the button of the day of the week to be set is clicked, a menu appears.

2) Select Setting

Select Setting from the menu.
The selected day of the week is displayed in the set day of the week field at the bottom of the screen.



3) Select the Start time or Stop time

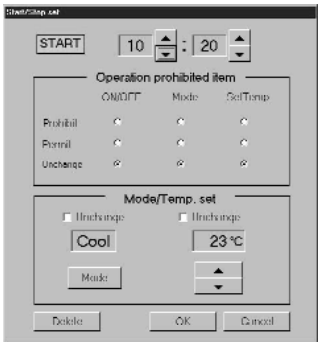
When Start Time or Stop Time is clicked, the Start/Stop set screen opens. Up to 10 start/stop settings are possible. (Start + Stop ≦ 10)

4) Set the times, operation prohibit, operation mode, temperature, etc.

Set the times with the ▲/▼ button.

Note:
- Multiple schedules cannot be set for the same time and a time between 23:56 and 0:04 cannot be set.

Operation Permit/Prohibit can be set for the local remote controller. ON/OFF operation, operation mode change, and temperature change can be set. When a setting does not change, select Unchanging.



The operation mode and temperature can be set by mode and temperature setting. Switch to a settable operation mode with the Mode button.
The temperature can be changed with the ▲/▼ buttons.
When a setting does not change, select Unchanging.

Note:
- When Unchanging is selected, the temperature and operation mode cannot be changed. Before making any changes, release Unchanging.

Use the Delete button to delete a set schedule.
Week schedule can be set up to 10 items/day of the week.

5) Select OK or Cancel

At the end of setting, click the OK button.
The set schedule is displayed at the set day of the week field.

OK: Accepts the changes and returns to the Week schedule set screen.

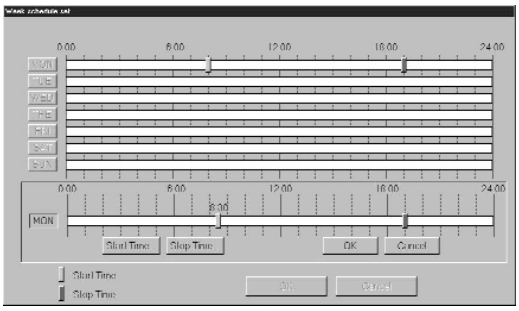
Cancel: Ignore the changes and returns to the Week schedule set screen.

Note:
- When batch schedule setting and schedule check were performed for two or more groups, the setting field of days of the week with duplicate settings is displayed in cyan.

(2) Schedule change

Use this function to change a set schedule.

[Procedure]



1) Select the day of the week to be changed

When the button of the day of the week to be changed is clicked, a menu appears.

2) Select Setting

Select Setting from the menu.
The selected day of the week is displayed at the set day of the week field.

3) Select the schedule to be changed

When Schedule is clicked, the Start/Stop set screen opens.
For the operating instructions, see (1) Schedule setting.
When only the set time is changed, the change can be made by dragging Schedule. (10 minutes units)

4) Select OK or Cancel

At the end of setting, click the OK button.
The changed schedule is displayed at the set day of the week field.

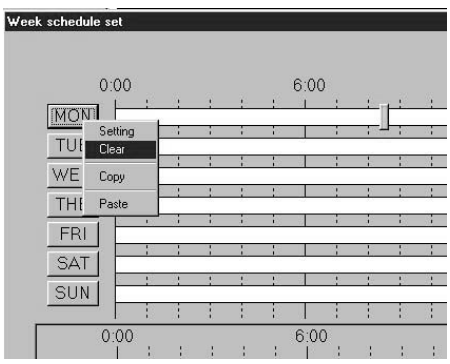
OK: Accepts the changes and returns to the week schedule set screen.

Cancel: Ignore the changes and returns to the week schedule set screen.

Note:
- Multiple schedule setting to the same time and a time between 23:56 and 0:04 cannot be set.

(3) Schedule clearing

[Procedure]



1) Select the day of the week whose schedule is to be cleared

When the button of the day of the week whose schedule is to be cleared is clicked, a menu appears.

2) Select Clear

Select Clear from the menu.
The clear check screen opens.

3) Select OK or Cancel

After checking the setting, click the OK button.

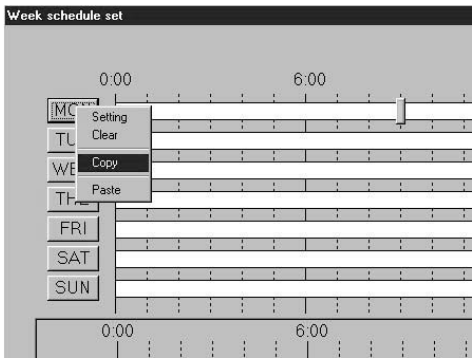
OK: Clears all the schedules of the selected day of the week and returns to the Week schedule set screen.

Cancel: Returns to the Week schedule set screen.

(4) Schedule copy

This function copies the schedule settings of the specified day of the week to another day of the week.

[Procedure]



1) Select the copy from day of the week

When the copy from day of the week button is clicked, a menu appears.

2) Select Copy

Select Copy from the menu.

3) Select the copy to day of the week

When the copy to day of the week is clicked, a menu appears.

4) Select Paste

When Paste is selected from the menu, the schedule of the copy source day of the week is pasted.
This schedule can also be pasted to other days of the week.

Ending week schedule setting

Select OK or Cancel

At the end of schedule setting and change, click the OK button.

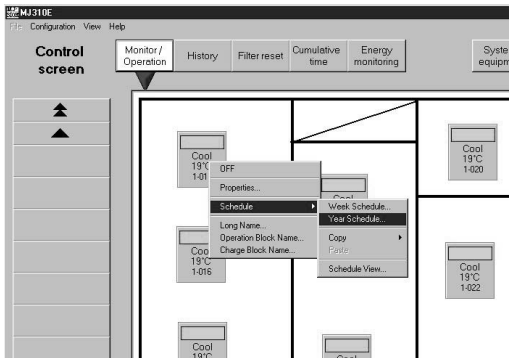
OK: Accepts the changes and returns to the monitor/operation screen.
Cancel: Ignore the changes and returns to the monitor/operation screen.
(When returned to the monitor/operation screen, a schedule mark is displayed at the set group icon.)

Maintenance Tip
- When only checking the week schedule contents, click Cancel instead of OK at the end of the check.

7.2 Year Schedule Setting

Switch from Management screen to Schedule set screen

[Procedure]



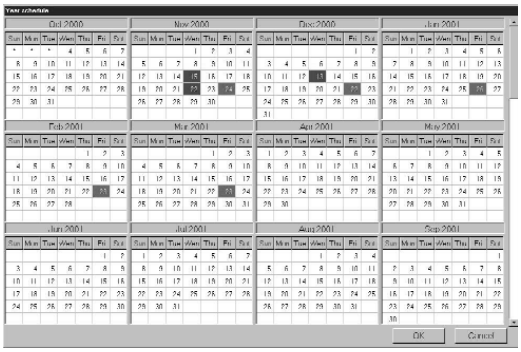
1) Select the monitor/operation screen

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object whose schedule is to be set

Click the object whose schedule is to be set.
When the cursor is moved to Schedule in the displayed menu, a schedule menu appears.

Note:
- For a description of the underlined part, see par. “6.0 (2) Select the operation object” to be operated.



3) Select Year schedule

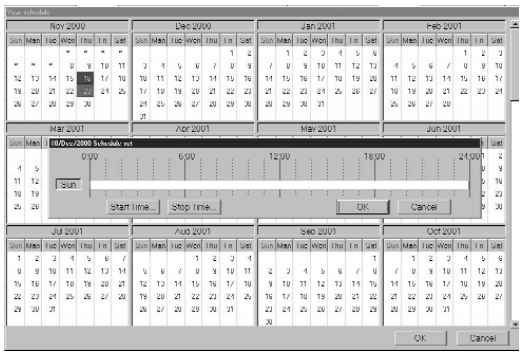
When Year schedule is selected from the menu, the Year schedule set screen opens.

Year schedule is displayed up to 24 months from the current month. Schedule setting is possible beginning from the current day.
Color of calendar date frame:

White: Not set
Red: Holiday set
Blue: Schedule set
Cyan: Different schedule set for multiple groups
× mark: Past date

Perform the following operations from the Year schedule set screen.

(1) Schedule setting and change



[Procedure]

1) Select the day whose schedule is to be set

When the selected day is clicked, a menu appears.
When Day of the week is clicked, all the days of the week of that month are selected.

2) Select schedule set

Select Setting from the menu.

3) Select the start time or stop time

See pars. 7.1 (1) Schedule setting and 7.1 (2) Schedule change.

4) Select OK or Cancel

At the end of setting, click the OK button.
OK: Accepts the changes and returns to the Year schedule set screen.
Cancel: Ignore the changes and returns to the Year schedule set screen.

The set day is displayed in blue on the calendar.
Year schedule can be set up to 20 days/24 months and 10 items/day.

Note:
- The schedule for today and tomorrow can be set by Year schedule.
- The Year schedule takes priority over the Week schedule.

(2) Holiday set/reset

Week schedule for days set as a holiday is invalid.

[Procedure]

1) Select the day to be holiday set/reset

When the day to be holiday set or reset is clicked, a menu appears.
When Day of the week is clicked, all the days of the week of that month are selected.

2) Select holiday set/reset

Select Holiday set or Holiday reset from the menu.

(3) Schedule clear

When this function is used, all the schedule settings and holiday settings of the selected day are cleared.

[Procedure]

1) Select the day whose schedule setting and holiday settings are to be cleared

When the day whose schedule and holiday settings are to be cleared is clicked, a menu appears.
When Day of the week is clicked, the settings for all the days of the week of that month are cleared.

2) Select schedule clear

Select Clear from the menu.

(4) Schedule copy

This function copies the schedule settings of the specified day to another day.

[Procedure]

1) Select the copy from day

When the copy from day is clicked, a menu appears.

2) Select Copy

Select Copy from the menu.

3) Select the copy to day

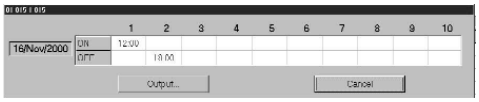
When the copy to day is clicked, a menu appears.

4) Select Paste

When Paste is selected from the menu, the schedule of the copy to day is pasted.
This schedule can also be pasted to other days.

(5) Year schedule check

[Procedure]



1) Select the day to be checked

When the day to be checked is clicked, a menu appears.

2) Select schedule view

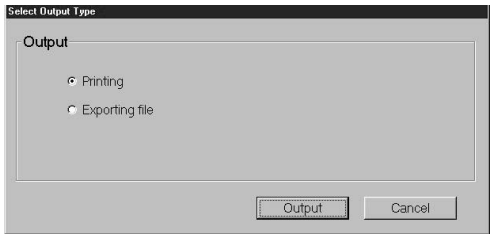
When Schedule view is selected from the menu, the Schedule check screen opens.

Note:
- When batch schedule check was performed for two or more groups, [**] is displayed at the days with duplicate settings.

The Schedule check screen also has a function that outputs the schedule to the screen.

Schedule output

[Procedure]



1) Select output

Click the Output button on the Schedule check screen.
(Click Cancel to end the Schedule check screen without outputting the schedule.)

2) Select the output type

Click Printing output or Exporting file.
When Exporting file was selected, input the filename. The save location can be referenced with the Reference button.

3) Select Output or Cancel

After the contents to be output are set, click the Output button.
Output: Accepts the changes and outputs the schedule and returns to the preceding screen.
Cancel: Ignore the changes and returns to the preceding screen.

Ending schedule setting

Select OK or Cancel

At the end of schedule setting and change, click the OK button.
OK: Accepts the changes and returns to the monitor/operation screen.
Cancel: Ignore the changes and returns to the monitor/operation screen.
(When returned to the monitor/operation screen, a schedule mark is displayed at the set group icon.)

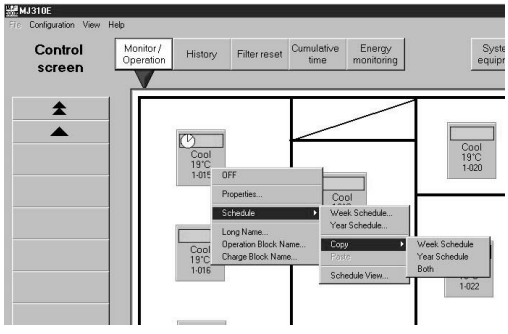
Maintenance Tip
- When only checking the Year schedule, at the end checking, click the Cancel button instead of the OK button.

7.3 Schedule Setting in Group Units

(1) Schedule copy

This function copies the schedule settings of one group to another group.
Operable objects: Floor, block, whole building

[Procedure]



1) Select Monitor/Operation

Click the Monitor/Operation function select button.

2) Click the copy from group

When the cursor is set to Schedule of the menu displayed by clicking the copy from group, a schedule menu appears.

3) Select Copy

When Copy is selected from the menu, the Copy menu appears.

4) Select the schedule to be copied

Select Week schedule, Year schedule, or Week and Year schedule from the Copy menu.

5) Select the object whose schedule is to be copied

Click the object whose schedule is to be copied.
When the cursor is set to Schedule in the displayed menu, the schedule menu appears.

Note:
- For a description of the underlined part, see par. “6.0 (2) Select the operation object” to be operated.

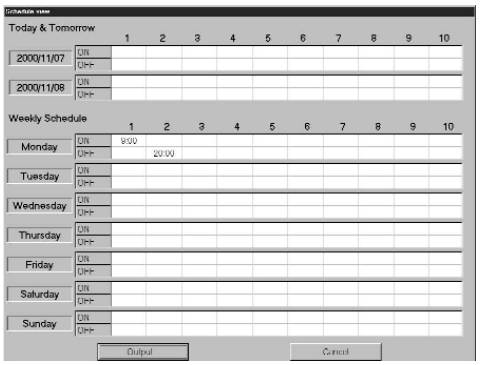
6) Select Paste

When Paste is selected from the menu, the schedule is pasted.
The schedule can also be pasted to other groups, blocks, or floors.

(2) Schedule check

Today’s and yesterday’s schedules of the group can be checked.
Operable objects: Floor, block, whole building

[Procedure]



1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object whose schedule is to be checked

Click the object whose schedule is to be checked.
When the cursor is set to Schedule of the displayed menu, a schedule menu appears.

Note:
- For a description of the underlined part, see par. “6.0 (2) Select the opration object” to be operated.

3) Select Schedule view

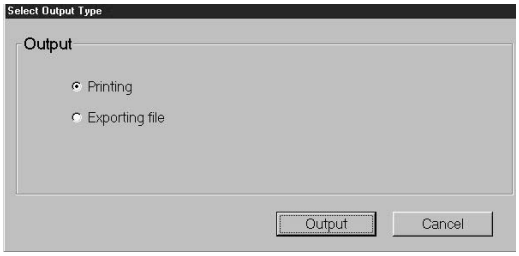
When Schedule view is selected from the menu, the schedule check screen opens.

Note:
- When batch schedule check was performed for two or more groups, [**] is displayed at the days with duplicate settings.

The schedule check screen also has a function that outputs the schedule to the screen.

Schedule output

[Procedure]



1) Select Output

Click the Output button on the schedule check screen.
(Click the Cancel button to end the schedule check screen without outputting the schedule.)

2) Select the output type

Click Printing output or File exporting.
For File exporting, input the filename. The save location can also be referenced by Reference button.

3) Select Output or Cancel

When the contents to be output are set, click the Output button.
Output: Accepts the changes and outputs the schedule and returns to the preceding screen.
Cancel: Ignore the changes and returns to the preceding screen.

8. Maintenance Operation

8.1 Abnormality History and Operation History

There are two kinds of history: Abnormality history and Operation history.

- Abnormality history: Displays abnormalities that occurred in the past. (WHM abnormality history is not recorded.)
- Operation history: Displays the operations (start, stop, etc.) performed in the past.

(1) Switch from Management screen to history screen

[Procedure]

1) Select History

Click the History function select button.

2) Select the object whose history is to be displayed

When the object whose history is to be displayed is clicked, the History screen opens.

> Note:
> - For a description of the underlined part, see par. “6.0 (2) Select the operation object” to be operated.

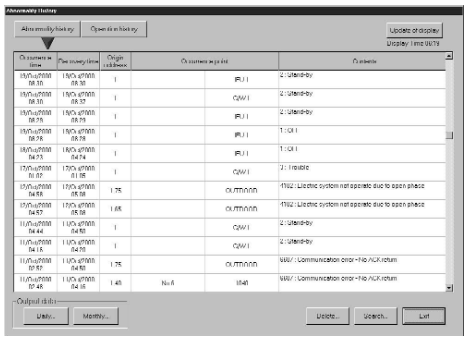
Perform the following operations from the History screen.

(2) Description of History screens

Abnormality history

The Abnormality History screen displays air conditioner failures, transmission failures, and other abnormalities in the order in which they occurred. Up to 1000 items can be displayed. When the number of items exceeds 1000, the items are deleted in ascending order.

Occurrence time: Displays the time the abnormality occurred.
Recovery time: Displays the time the abnormality recovered. Blank indicates that the abnormality is still in effect.
Origin address: Displays the G/W No. and address of the equipment at which the abnormality occurred.
Occurrence point: Displays the occurrence floor at the left and the group or equipment name at the right.
Contents: Displays the error code and its description.

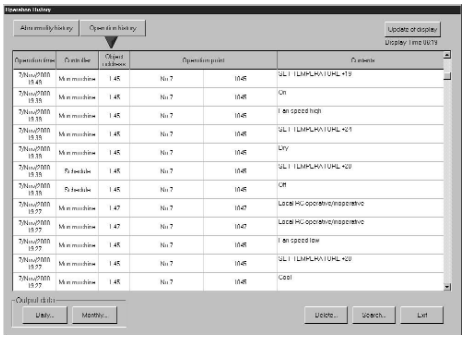


Abnormality History screen

Operation history

The Operation history screen displays the operations performed at the air conditioner. Up to 10,000 items can be displayed. When the number of items exceeds 10,000, the items are sequentially deleted in ascending order.

Operation time: Displays the time the operation was performed.
Controller: Displays the equipment that issued the operation command.
Object address: Displays the controller G/W No. and address.
Operation point: Displays the occurrence floor at the left and the group or equipment name at the right.
Contents: Displays the contents of the operation that was performed.



Operation History screen

(3) History screen operation

The Abnormality History and Operation History screen displays can be switched and updated.

[Procedure]

History display switching

When the Abnormality history button is clicked, the display switches to the Abnormality History screen and when the Operation history button is clicked, the display switches to the Operation History screen.

Display updating

When Update of display button is clicked, the display is updated to the current history. The updated time is displayed at Display Time.

(4) History search

This function searches the histories based on the set conditions.
There are the following search items. The search conditions can be set by combining these items.

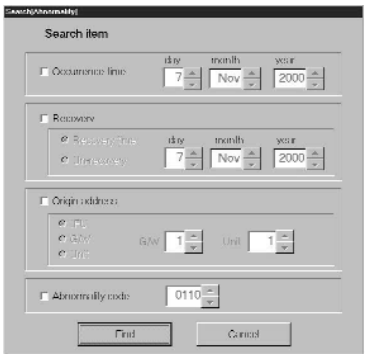
Abnormality history search

1) Search from abnormality occurrence date
   Specifies the occurrence date.

2) Search from abnormality recovery date
   Specifies the recovery date.

3) Search from abnormality occurrence point
   Specifies IFU, G/W and unit.

4) Search from error code
   Specifies the error code that caused the abnormality.



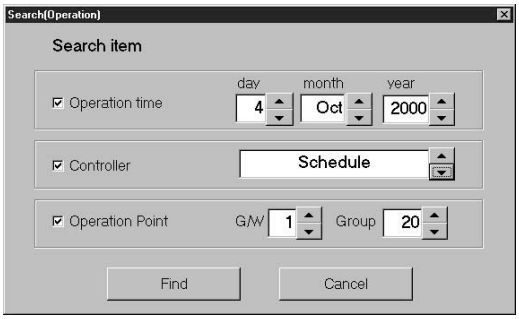
Operation history search

1) Search from operated date
   Specifies the operated date.

2) Search from controller
   Specifies the controller.

3) Search from operated group
   Specifies G/W and group No.

[Procedure]



1) Select Search

When the Search button is clicked, a search screen opens.

2) Input the search item

Specify the search condition at the search item check box. Specify the object with the Option button.
Numerics can be input by clicking the ▲/▼ buttons at the right-hand side of the numeric part or by clicking the numeric part. They can also be input from the keyboard.
Search conditions can also be combined by selecting multiple items.

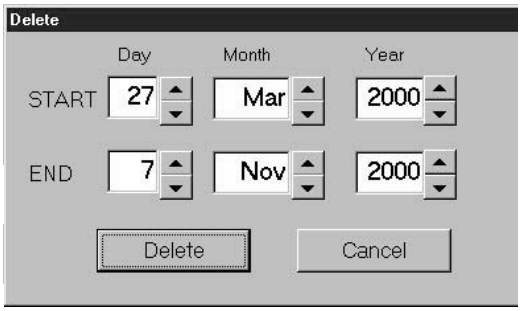
3) Select Find or Cancel

After setting the search conditions, click the Find button.
(If there is no history that meets the set conditions, nothing is displayed.)
- Find: Displays, on the history screen, histories that meet the search conditions.
- Cancel: Returns to the history screen.

(5) History delete

Deletes the specified range of histories from START to END.

[Procedure]



1) Select Delete

When the Delete button is clicked, the Delete screen opens.

2) Input the delete start date

Set the START date with the ▲/▼ buttons. When the numeric part is clicked, the date can also be input from the keyboard.

3) Input the delete end date

Set the END date with the ▲/▼ buttons. When the numeric part is clicked, the date can also be input from the keyboard.

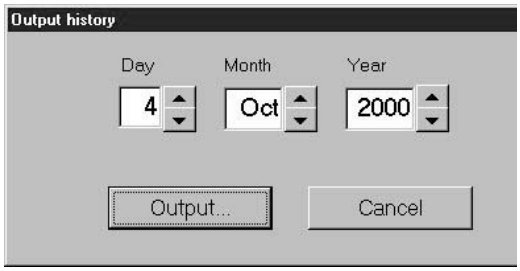
4) Select Delete or Cancel

After setting the range of histories to be deleted, click the Delete button.
- Delete: Deletes the histories within the specified range and returns to the history screen.
- Cancel: Returns to the history screen without deleting the histories.

Note:
- Once deleted, histories cannot be recovered.

(6) History output

Outputs daily or monthly history.
The output type can be selected from printing output and file output (text format). (Search results history cannot be output.)



[Procedure]

1) Select Daily or Monthly

When the Daily or Monthly button is clicked, the Output History screen opens.

2) Input the date to be printed

Set the date with the ▲/▼ buttons at the right-hand side of the numeric part.
When the numeric part is clicked, the date can also be input from the keyboard. At the end of input, click the Output button. (Click the Cancel button to stop output.)

3) Select printing output or file output

For printing output, click the Printing output option button and for file output, click the Exporting file option button. For file output, input the filename. The save location can be referenced with the Reference button.

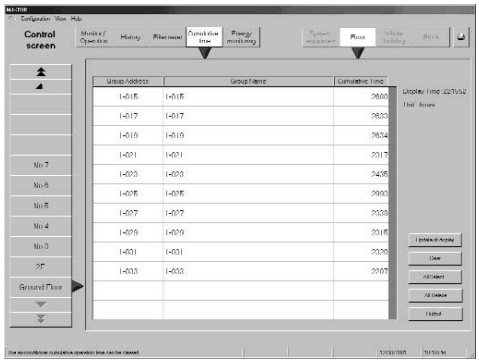
4) Select Output or Cancel

When the Output button is clicked, the histories generated within the input range are output.

Output: Outputs the histories generated within the specified range and returns to the history screen.
Cancel: Returns to the history screen without outputting the histories.

8.2 Cumulative Time Monitor

(1) Switch from Management screen to cumulative time monitor



[Procedure]

1) Select Cumulative time

When the Cumulative time function select button is clicked, the cumulative time monitor screen opens. Select the target floor with the floor switching buttons.

(2) Description of cumulative time monitor

The cumulative time monitor displays Group Address - Group Name - Cumulative Time, from left to right.
The cumulative time unit is “hours”.

(3) Cumulative time monitor operation

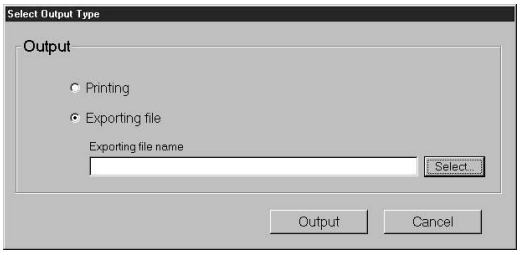
[Procedure]

1) Select Update of Display.

When the Update of display button is clicked, the cumulative time is updated to the current cumulative time. The updated time is displayed next to Display Time at the right-hand side of the screen.

Note:
- Once cleared, cumulative time cannot be recovered.

(4) Cumulative time clear



[Procedure]

1) Select the group whose cumulative time is to be reset

When the group to be clear is clicked on the screen, that group changes to the selected blue color. When that group is clicked again, it is released.
All the groups can be selected with the All select button.
All selections can be released with the All release button.

2) Select Cleared

When the Clear button is clicked, the cumulative time of the selected group is cleared.

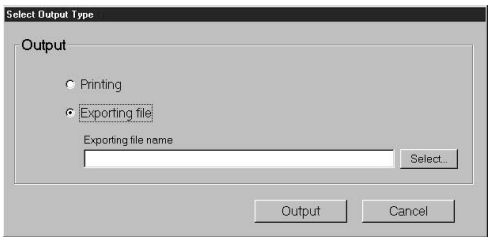
(5) Cumulative time output

This function outputs the cumulative time screen. The output type can be selected from printing output or file output (text format).

[Procedure]

1) Select Output

When the Output button is clicked, the cumulative time output screen opens.



2) Select printing output or file output

For printing output, click the Printing output option button and for file output, click the Exporting file option button. For file output, input the filename. The save location can be referenced with the Reference button.

3) Select Output or Cancel

When the Output button is clicked, all the cumulative times of the displayed floor are output.

Output: Outputs the displayed cumulative time screen and returns to the preceding screen.

Cancel: Returns to the preceding screen without outputting the cumulative time screen.

8.3 Filter Reset Operation

(1) Switch from Management screen to filter reset screen

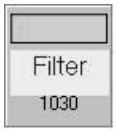
[Procedure]

1) Select filter reset

When the Filter reset function select button is clicked, the filter reset screen opens.
Select the target floor with the floor switching buttons.

(2) Description of filter reset screen

The filter sign is displayed in a yellow frame at the center of the group icon.



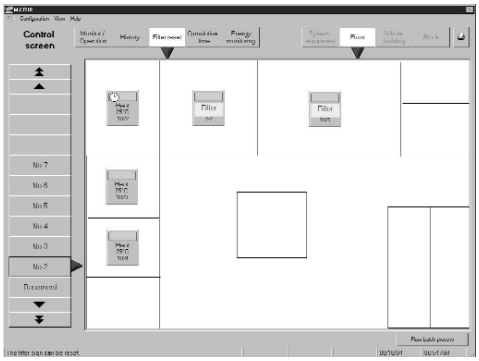
Filter sign

(3) Filter reset

[Procedure]

1) Select a group displaying the filter sign

When a group displaying the filter sign is clicked, the filter reset screen opens.
To reset the whole floor, press the Floor batch process button.



2) Select OK or Cancel

When the OK button is clicked, the filter sign is reset.

OK: Resets the filter sign and returns to the filter reset screen.

Cancel: Returns to the filter reset screen.

Maintenance Tip
- Always perform filter maintenance (cleaning, replacement, etc.) of the actual equipment before using this function to reset the filter sign.

8.4 Abnormality Occurrence

8.4.1 Abnormality Display

Equipment at which abnormalities can be detected: Indoor unit, ventilation unit, outdoor unit, G/W, IFU, remote controller, group remote controller, SC

(1) Display when abnormality occurs

Indoor unit abnormality

The color of the group icon status display screen changes to yellow.
For whole building display, × is displayed in yellow at groups. When there is an abnormal unit in a block, the word “error” appears in orange at the block status. Also, “Slight failure” is displayed on the message bar at the bottom of the screen.

Outdoor unit abnormality

× OC is displayed at the group icon of the outdoor unit at which the abnormality occurred and the equipment connected to it. In the system equipment screen, × is displayed at the icon of the outdoor unit at which the abnormality occurred.

IFU abnormality

× IFU is displayed at the group icon of the equipment (all kinds) connected to the abnormal IFU. In the system equipment screen, × is displayed at the IFU icon. Also, Serious failure is displayed on the message bar at the bottom of the screen.

G/W abnormality

× G/W is displayed at the group icon of the equipment connected to the abnormal G/W. In the system equipment screen, × is displayed at the icon of the abnormal G/W.
Also, Serious failure is displayed on the message bar at the bottom of the screen.

8.4.2 Abnormality Reset Operation

The abnormality reset operation can send an abnormality reset command to an abnormal unit. However, when the unit abnormality is not actually cleared, the abnormality cannot be reset.

Equipment which can be reset: Indoor unit, outdoor unit

Note:
- IFU, Gateway, remote controller, and system controller abnormalities cannot be reset.

(1) Abnormality reset method

[Procedure]

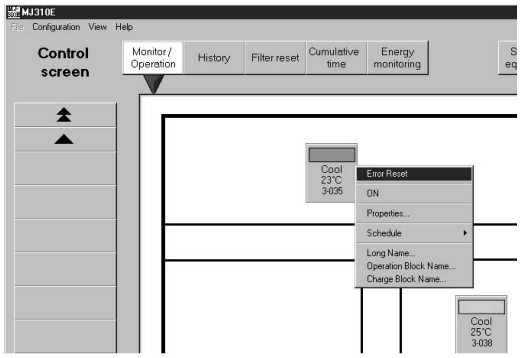
1) Select Monitor/Operation

When the Monitor/Operation function select button is clicked, the monitor/operation screen opens.

2) Select the object to be reset

When the object to be reset is clicked, the menu screen opens.

Note:
- For a description of the underlined part, see par. “6.0 (2) Select the operation object” to be operated.



3) Click the Error Reset

When the Error reset is clicked, a check screen is displayed.

4) Select OK or Cancel

When the OK button is clicked, the abnormality reset operation is performed.

OK: Performs the abnormality reset operation and returns to the monitor/operation screen.

Cancel: Returns to the monitor/operation screen without performing the abnormality reset operation.

8.4.3 Corrective Action When Watt Hour Meter Abnormal

The watt hour meter abnormality function detects connected watt hour meter failure and transmission line breakage at the watt hour meter monitor.
(Since the abnormality occurs between the previous monitor time and the current monitor time, it is not a real-time abnormality.)

(1) Display method when abnormality detected

When a watt hour meter abnormality is detected, the message box shown at the right is displayed.

Note:
- Other operations cannot be performed while this message is being displayed.

(2) Abnormality reset method

Click OK in the message box and restore operation and inspect and repair the watt hour meter.

8.5 Fire Alarm Stop

(1) Start of fire alarm stop

When the fire alarm stop signal is input, the Fire alarm stop operating message box is displayed. The system sends stop operation and operation prohibition commands to all the indoor units and disables operation from the local remote controllers. It also stops the schedule function.
Man-machine operation is also impossible while this message box is displayed. However, when the message box is cleared, operation is enabled.

Fire alarm stop message

Note:
- When the personal computer, I/O board, IFU, GateWay, etc. is abnormal or the power is OFF, the fire alarm function may not operate.
- During fire alarm stop input, Fire Alarm is displayed on the message bar.

(2) End of fire alarm stop

When the fire alarm stop signal is reset, the Fire alarm stop operating message box is cleared. An operation prohibition reset command is sent to all the indoor units and the operation prohibition status returns to its state before the fire alarm stop operation. The schedule function is restarted and schedule operation groups return to the status in which they were before the fire alarm stop operation.

Note:
- The unit operation status does not return to the status before the fire alarm stop operation even if fire alarm stop is reset. Perform running operation from the local remote controller, by man-machine operation, etc.

9. Air-Conditioning Energy Monitor

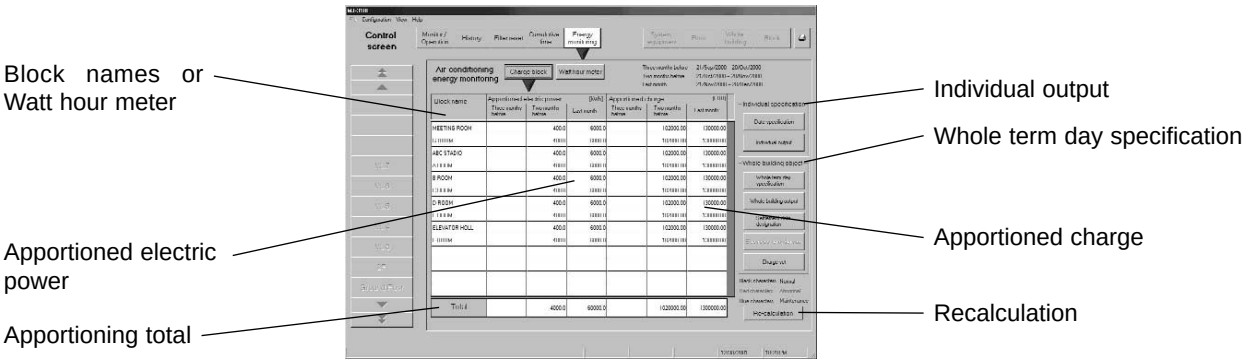
9.1 Charge Display Function

When the Energy monitoring button at the top left-hand side of the Management screen is clicked, this screen opens.
There are two types of monitoring screens: With WHM connection and Without WHM connection.

Note:
- This function cannot be used if the Use charge function is not selected by user setting. (The Energy monitoring button is not displayed either.)
- Block air-conditioning charge does not include the electric amount of the watt hour meter units K controller, OA processing unit, etc.
- The Without WHM connection air-conditioning charge only covers the refrigerant usage amount of the M-NET indoor unit. The electric amount and charge are temporarily calculated from the indoor unit capacity and operation amount, and cannot be used as is. They are also different from the With WHM connection air-conditioning charge.

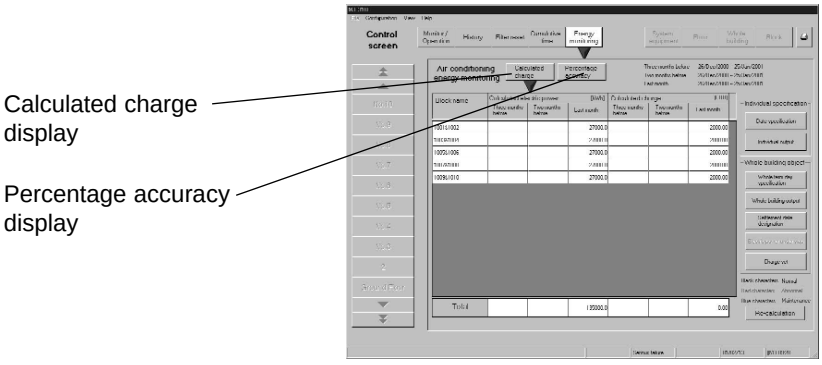
Functions table

[With WHM connection]



Air-conditioning energy monitoring screen

[Without WHM connection]



Air-conditioning energy monitoring screen

[Description of displays and buttons]

(1) Block names

Displays the block units air-conditioning charges for up to three preceding months.

(2) Watt hour meter

Displays the watt hour units air-conditioning charge for up to three preceding months.

(3) Apportioned electric power

Displays the Apportioned electric power for each unit.

(4) Apportioning charge

Displays the monthly air-conditioning charge: (electric use unit price + standard charge) for each unit.

(5) Apportioning total

Displays the proportional division electric power and proportional division charge.

(6) Individual specification

Specifies an individual object and calculates and outputs the air-conditioning charge.

1) Date specification
   Specifies the date and calculates and outputs the air-conditioning charge for the selected block.
2) Individual output
   Calculates and outputs the air-conditioning charge for the selected block.

(7) Whole building object

Sets, calculates and outputs the air-conditioning charge for the whole building.

1) Whole term day specification
   Specifies the term day and calculates and outputs the air-conditioning charge for all blocks, or all watt hour meters.
2) Whole building output
   Specifies the term day and calculates and outputs the air-conditioning charge for all blocks and all watt hour meters.
3) Settlement date designation
   Specifies the air-conditioning charge settlement date designation.
4) Electric power under stop
   Displays and outputs the electric power under stop.
5) Charge set
   Calls the Air-conditioning energy monitoring basic set screen.

(8) Recalculation

Recalculates the air-conditioning charges.

(9) Calculated charge display

Displays and outputs the billing electric amount and calculated air-conditioning charge.

(10) Percentage accuracy display

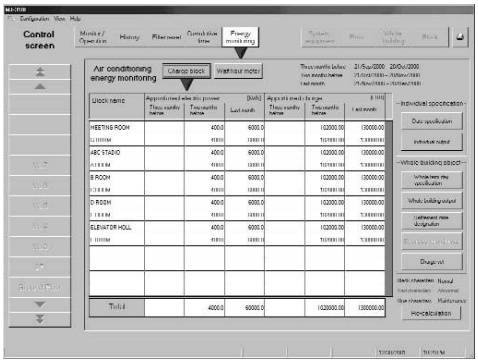
Displays and outputs the billing electric amount and percentage accuracy.

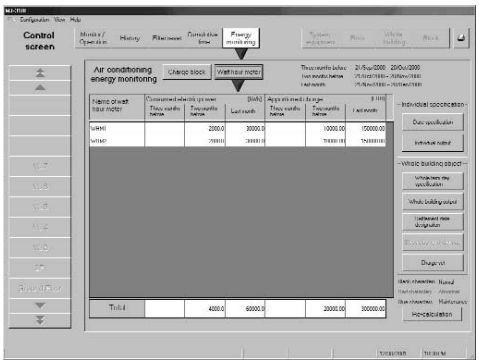
9.2 Block and Watt Hour Meter Air-conditioning Energy Monitor Display

(1) Select the display object

1) Select the display object.
   With WHM connection
   Select the display object with the Charge block or Watt hour meter button at the top left-hand side of the screen.

   Without WHM connection
   Select the display type with the Calculated charge display or Percentage accuracy display button at the top left-hand side of the screen. The display object is only Block.





(2) Display color

Characters color
Black characters: Normal
Red characters: Abnormal
Blue characters: Maintenance

Note:
- The electric amount, charge, etc. displays are the values with the undisplayed digits raised to the next higher digit. The total is the total of the displayed values.
- When the maintenance function was used to change and recalculate the Apportioned electric power, the characters turn to blue.
  ✵ - For a description of the maintenance function, refer to Field Adjustment manual section “9.2 Charge Data Maintenance”.
  - For a description of the recalculation function, see section 9.6 Recalculate the air-conditioning charge.

9.3 Air-conditioning Charge Output

(1) Set the automatic printing function

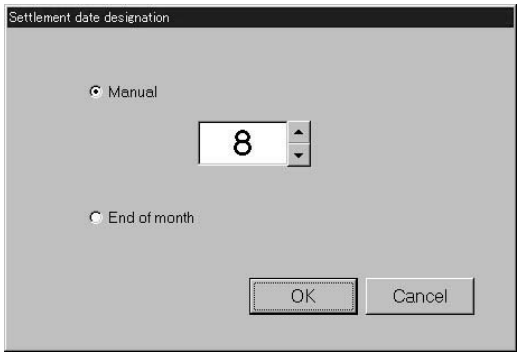
[Procedure]

1) Select Settlement date designation

When the Settlement data designation button is clicked, the settlement of date designation screen opens.

2) Specify the settlement date

When specifying the end of month, click End of month.
When specifying other than the end of month, click Manual.
Set the date by clicking the ▲/▼ buttons.
(The date can also be input from the keyboard.)



Note:
- The air-conditioning charge for the current month is printed at the day after the settlement date (04:20 and thereafter).

Maintenance Tip
- To use the air-conditioning charge automatic printing function, set Printer setting to Printer and Air-conditioning charge automatic printing to Automatic printing.
- Select Air-conditioning charge print process from Standard printing, Print itemized account for each unit, and Print itemized within a time. (For more information, refer to Field Adjustment manual section “8.3 User Definition Setting”.)

(2) Description of functions

1) Individual air-conditioning charge output

When the Air-conditioning energy monitoring screen is block display, selects and outputs the unit block and when the Air-conditioning energy monitoring screen is watt hour meter display, selects and outputs the unit watt hour meter.

Date specification: Specifies the term day and calculates and outputs the air-conditioning charge.
Individual output: Selects 1 month before, 2 months before, or 3 months before and outputs the air-conditioning charge in month units.

2) Whole building air-conditioning charge output

Specifies all blocks, all watt hour meters, or all blocks and all watt hour meters and outputs the air-conditioning charge.

Whole term day specification: Specifies the term day and calculates and outputs the air-conditioning charge.
Individual output: Selects 1 month before, 2 months before, or 3 months before and calculates and outputs the air-conditioning charge in month units.

Maintenance Tip
- When using this function to print, set Printer setting to Printer by user setting.

(3) Individual air-conditioning charge output

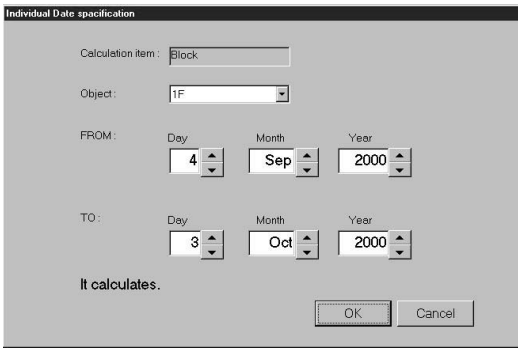
Set the Air-conditioning energy monitoring screen to
- Output in block units: Charge Block display
- Output in watt hour meter units: Watt hour display.
(For a description of the setting method, see par. “9.2 Block and Watt Hour Meter Charge Display”.)

Output the air-conditioning charge by specifying the term day

[Procedure]

1) Select date specification

When the Date specification button of the Individual specification buttons at the right-hand side of the screen is clicked, the date specification set screen opens.



2) Select the object to be output

Click the object box and click the block or watt hour meter to be output.

3) Specify the date

Specify the date by clicking the ▲/▼ buttons.

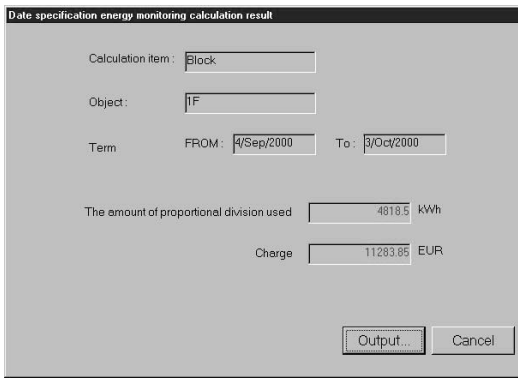
4) Select OK or Cancel

After specifying the output object and date, click the OK button.

OK: Accepts the changes and advances to the next set screen.
Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.

5) Check the calculation contents

The setting above displays the object, date, proportional division electric power, and proportional division charge. Check the display contents.



6) Select Output or Cancel

After checking the output contents, click the Output button.

Output: Accepts the changes and advances to the Output type set screen.
Cancel: Ignore the changes and returns to the air-conditioning charge screen.

The above ends date specification calculation and output setting.

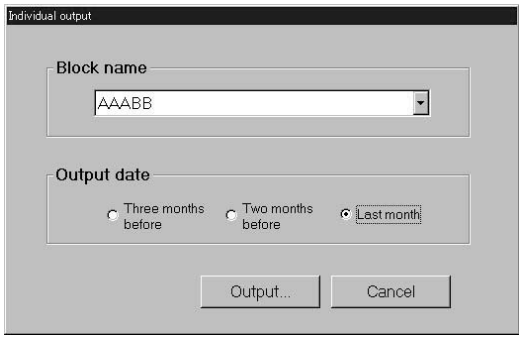
Note:
- The underlined Output type set screen is used in common with other functions.
- For more information, see par. “9.3 (5) Output type Setting”.

Output the air-conditioning charge by specifying last month, 2 months before, or 3 months before.

[Procedure]

1) Select individual specification

When the Individual output button of the Individual specification buttons at the right-hand side of the screen is clicked, the individual output set screen opens.



2) Select the output object

Click the object box, and click the block or watt hour meter to be output.

3) Specify the output month

Specify the term by clicking the month to be output.

4) Select Output or Cancel

After setting the output object and month, click the Output button.

Output: Accepts the changes and advances to the Output type set screen.

Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.

The above ends individual output setting.

Note:
- Underlined Output type set screen is used in common with other functions.
  For more information, see par. “9.3 (5) Output type Setting”.
- For Without WHM connection, the output object is only All blocks.

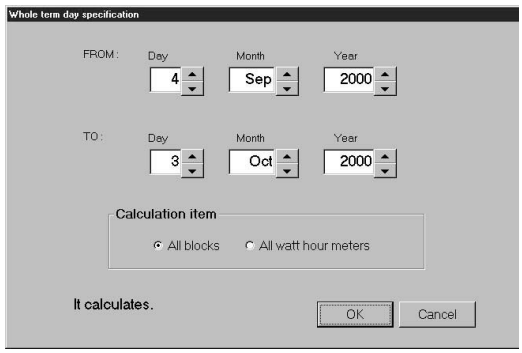
(4) Output whole building air-conditioning charge

Output the air-conditioning charge by specifying the term

[Procedure]

1) Select Whole term day specification

When the Whole term day specification button of the Whole building object buttons at the right-hand side of the screen is clicked, the Whole term day specification set screen opens.



2) Select the output object (Calculation item)

Click All Blocks or All Watt hour meters.

3) Specify the term day

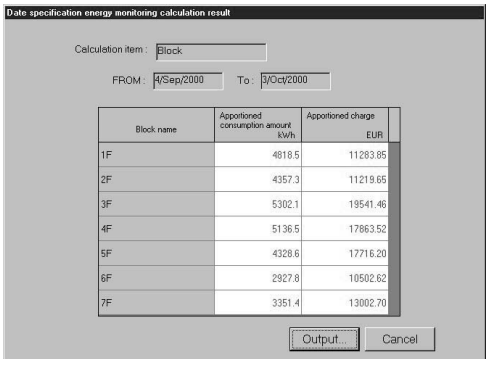
Specify the term day by clicking the ▲/▼ buttons.

4) Select OK or Cancel

After specifying the output object and term day, click the OK button.

OK: Accepts the changes and advances to the next set screen.

Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.



5) Check the Date specification energy monitoring calculation result

The setting above displays the calculation item, term day, Apportioned consumption amount, and Apportioned charge. Check the display contents.

6) Select Output or Cancel

After checking the output contents, click the Output button.

Output: Accepts the changes and advances to the Output type set screen.

Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.

The above ends whole term day specification calculation and output setting.

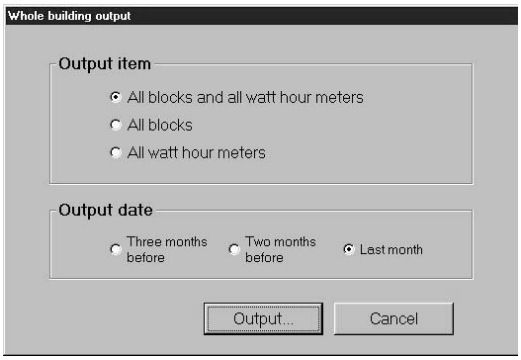
Note:
- Underlined Output type set screen is used in common with other functions. For more information, see par. “9.3 (5) Output type setting”.
- For Without WHM connection, the output object is only All blocks.

Output the air-conditioning charge by specifying last month, 2 months before, or 3 months before

[Procedure]

1) Select Whole building output

When the Whole building output button of the Whole building object buttons at the right-hand side of the screen is clicked, the Individual output set screen opens.



2) Select the output object watt hour

Click All blocks, All watt-hour meters, or All blocks and all watt hour meters.

3) Specify the output month

Specify the date by clicking the output month.

4) Select Output or Cancel

After specifying the output object and month, click the Output button.

Output: Accepts the setting and advances to the Output type set screen.

Cancel: Rejects the setting and returns to the Air-conditioning energy monitoring screen.

The above ends whole building output setting.

Note:
- The underlined Output type set screen is used in common with other functions. For more information, see par. “9.3 (5) Output type Setting”.
- For Without WHM connection, the output object is only All blocks.

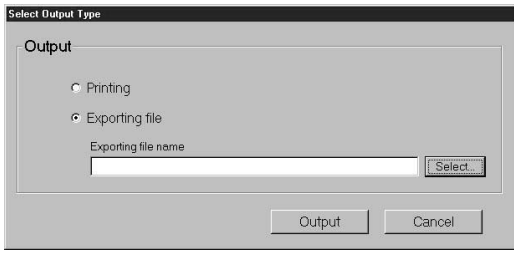
(5) Output type Setting

The following operations are necessary at output functions (3) and (4) above.

[Procedure]

1) Select the output type

The output type is displayed. To print, click Printing output and to output a file, click Exporting file and input the filename.



2) Select Output or Cancel

After selecting the output type, click the Output button.

Output: Performs output processing and ends this function.

Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.

9.4 Under Stop Charge

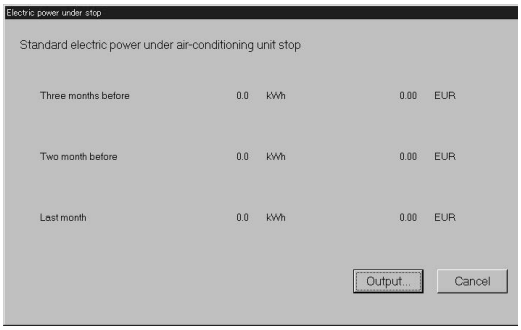
“Under stop charge” is the standby use electric power charge by watt hour meter used by the outdoor unit crankcase heater.

Output and display the electric power amount and charge under stop

[Procedure]

1) Select Electric power under stop

When the Electric power under stop button of the Whole building object buttons at the right-hand side of the screen is clicked, the Electric power under stop screen opens.



2) Check the display contents

The electric power under stop for up to three months is displayed.

3) Select Output or Cancel

After specifying the output object and date, click the Output button.

Output: Accepts the changes and advances to the Output type set screen.

Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.

The above ends electric power under stop output setting.

Note:
- The underlined Output type set screen is used in common with other functions.
  For more information, see par. “9.3 (5) Output type Setting”.
- For Without WHM connection, this function cannot be used.

Maintenance Tip
- Use this function (under stop charge) only when Make crankcase heater portion common expense (make under stop charge) was selected by charge setting Charge proportional division method selection.
  (For a description of Charge proportional division method selection, refer to Site Adjustment manual section “8.7 Charge System Setting”.)
  ❋Electric power under stop
  Outdoor unit electric power under stop = outdoor unit crankcase heater capacity(W) × 24 hours

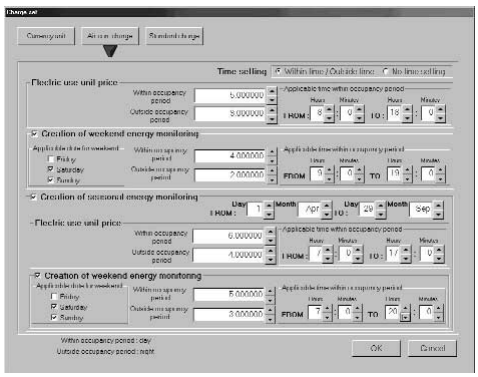
9.5 Air-conditioning Charge Basic Setting

Set the air-conditioning charge basic setting

[Procedure]

1) Select air-conditioning charge basic setting

When the Charge set button at the button right-hand side of the screen is clicked, the Charge set screen opens.
Basic setting contents
- Currency Unit: Current unit setting
- Air-con charge: Within a time yes/no, within a time setting, Electric use unit price, holiday setting, etc.
- Standard charge: Block and watt hour meter standard charge setting



2) Select the setting function

When one of the three buttons above at the top left-hand side of the screen is clicked, the respective set screen is displayed.

3) Select OK or Cancel

At the end of basic setting, click the OK button.
- OK: Accepts the changes and returns to the Air-conditioning energy monitoring screen.
- Cancel: Ignore the changes and returns to the Air-conditioning energy monitoring screen.

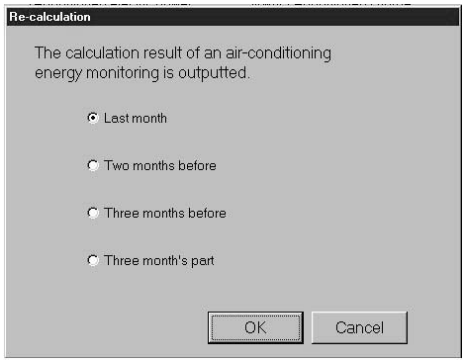
Note:
- For a detailed description of the setting method, etc. of this function, see section 5.2.1 Charge setting.
- For WHM connection, the Standard charge setting function cannot be used.

9.6 Recalculate the Air-conditioning Charge

Recalculate the air-conditioning charge

This function recalculates the air-conditioning charge for one month based on the Apportioning electric power already calculated.
When the maintenance function was used to correct the Apportioning electric power, use this function to recalculate the air-conditioning charge.

[Procedure]



1) Select recalculation

When the Recalculate button at the bottom right-hand side of the screen is clicked, the recalculation screen opens.

2) Select the recalculation month

Click the month to be recalculated.

3) Select OK or Cancel

After specifying the recalculation month, click the OK button.
- OK: Accepts the setting and recalculates the air-conditioning charge for the specified month and reflects the recalculated charge at the Air-conditioning energy monitoring screen.
- Cancel: Rejects the setting and returns to the Air-conditioning energy monitoring screen.

Note:
- For a description of the Apportioning electric power correction method, refer to Site Adjustment manual section “9.2 Maintenance of charge date”.

10. System Display

The current system configuration and charge system can be displayed.
This function checks the system status, but cannot change it.

10.1 System configuration display

For the units corresponding to the icons displayed on each set screen, see the table at the right.

Icon	Name
IC	Indoor unit
KIC	K control indoor unit (A control)
LC	Lossnay
FU	OA Processing unit
OC	Outdoor unit
BC	BC controller
OS	Subsidiary outdoor unit
RC	Remote controller
GR	Group remote controller
SR	System remote controller
LR	Lossnay remote controller
TR	Centralized remote controller
AN	On/Off controller
SC	System controllers

Select System configuration view in the View menu bar

The system configuration screen appears.

Note:
- When changing the system configuration, refer to Site Adjustment manual section “8.5 System Configuration Setting”.

(1) GateWay unit configuration

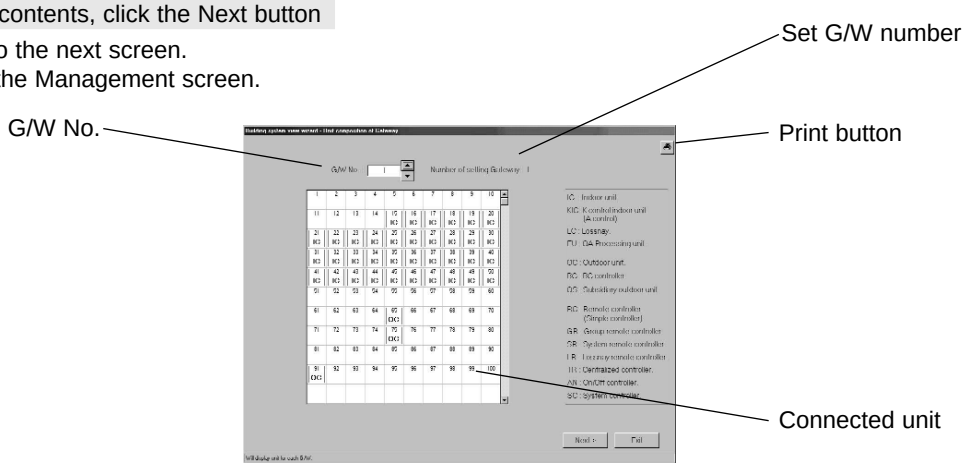
Select System configuration view in the View menu (menu bar).
Displays the number of set G/W and the unit configuration of each G/W.

Select the G/W to be displayed by clicking the ▲/▼ buttons

The numeric in the frame is the address. The displayed icons indicates that the units are connected to the selected G/W.
The screen can also be printed with the print button.

After checking the set contents, click the Next button

Next: Advances to the next screen.
Exit: Returns to the Management screen.



(2) Refrigerant system setting display

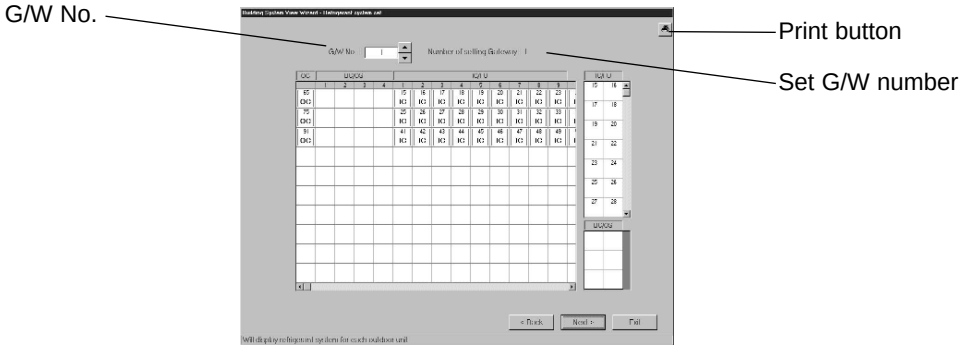
Displays the refrigerant system of each outdoor unit at each G/W.
Indicates that units in the same row are connected to the OC at the left-hand side of the screen.

Select the G/W to be displayed by clicking the ▲/▼ buttons

The screen can also be printed with the print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Exit: Returns to Management screen.
Back: Returns to last screen.



(3) Group setting display

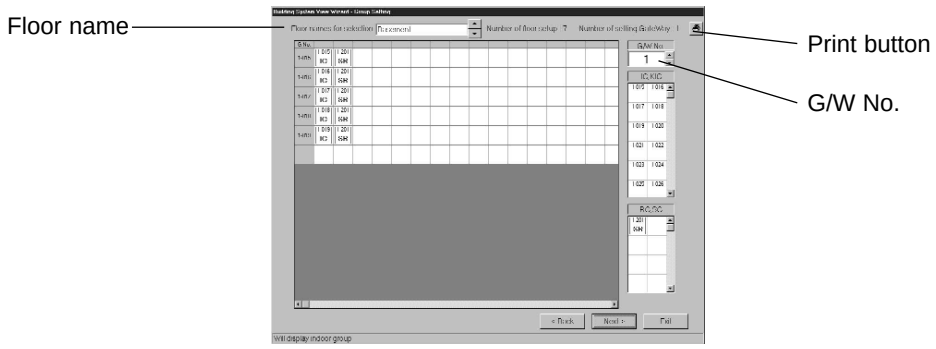
Displays the group setting of each indoor unit on each floor.
Indicates that units on the same group No. row at the left-hand side of the screen are connected to the same group.

Select the display floor by clicking the ▲/▼ buttons at the right of the floor name

When G/W is selected using the ▲/▼ buttons next to G/W No., the units of each G/W are displayed. The screen can also be printed with the print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Exit: Returns to Management screen.
Back: Returns to last screen.



(4) Ventilation group setting display

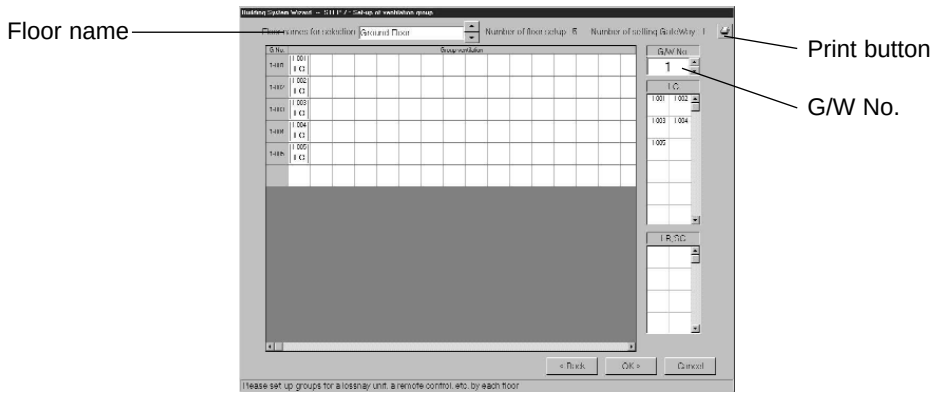
Displays the ventilation group setting of each indoor unit for each G/W.
Indicates that the units on the same row as the group No. at the left-hand side of the screen are connected to the same group.

The displayed floor can be switched by clicking the s/t buttons at the right of the floor name

When the G/W is selected by clicking the ▲/▼ buttons next to G/W No., the unit of each G/W is displayed. The screen can also be printed with the print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Exit: Returns to Management screen.
Back: Returns to last screen.



(5) Functional set up an indoor unit and vertilation display

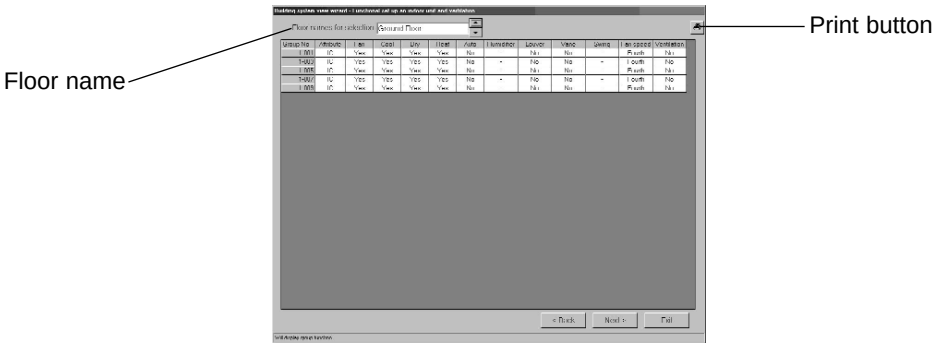
Displays the function settings of each indoor unit group of each floor. The left-hand end is the group No., and indicates whether or not each function is available on the same row. The functions are arranged from left to right in mode (Fan, Cool, Dry, Heat, Auto), Humiditier louver, vane, swing, Fan speed, and ventilation equipment order.

Select the display floor by clicking the ▲/▼ buttons next at the right of the floor name

The screen can be printed with the Print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Exit: Returns to Management screen.
Back: Returns to last screen.



(6) Block setting display

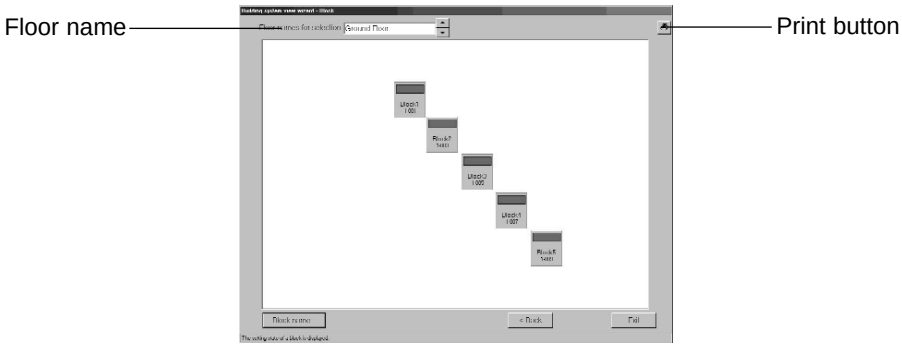
Displays the block setting status of each indoor unit group at each floor. Block No. is displayed at each block set group.

Select the floor to be displayed by clicking the ▲/▼ button next to the floor name

This screen can also be printed with the Print button.

After checking the set contents, click the Exit button

Exit: Returns to Management screen.
Back: Returns to last screen.



Note:
- When the “Block name” button is clicked, the set block name can be checked.

10.2 Charge system display

See the table at the right for the units corresponding to the icons displayed on the setting screens.

Icon	Name
IC	Indoor unit
LC	Lossnay
FU	OA Processing unit
KIC	K control indoor unit (A control)
OC	Outdoor unit

Select Energy monitoring view in the View menu bar

The charge system screen is displayed.

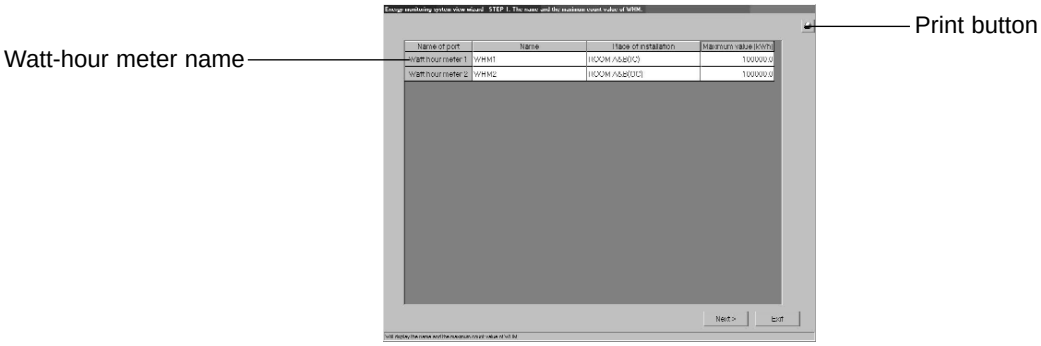
Note:
- When changing the charge system, refer to Site Adjustment manual section “8.7 Charge System Setting”
- Some charge system display screens may not be displayed, depending on the setting mode.

(1) Watt-hour meter name and maximum integrated value display

Displays the name and maximum integrated value of the connected and set watt-hour meters.
This screen can also be printed with the Print button.

After checking the set contents, click the Exit button

Next: Advances to next screen.
Exit: Returns to Management screen.

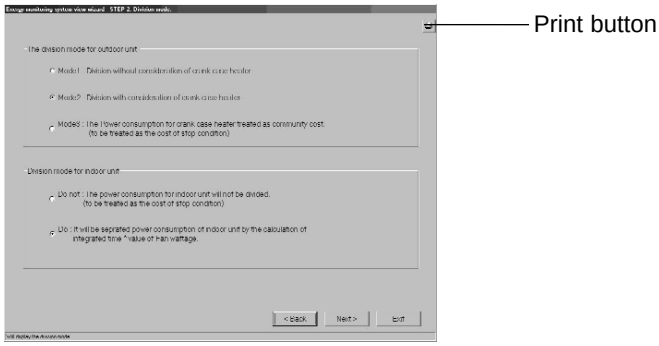


(2) Division mode display

Displays the division mode setting state.
This screen can also be printed with the Print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Back: Returns to last screen.
Exit: Returns to Management screen.



(3) Outdoor unit for watt-hour meter display

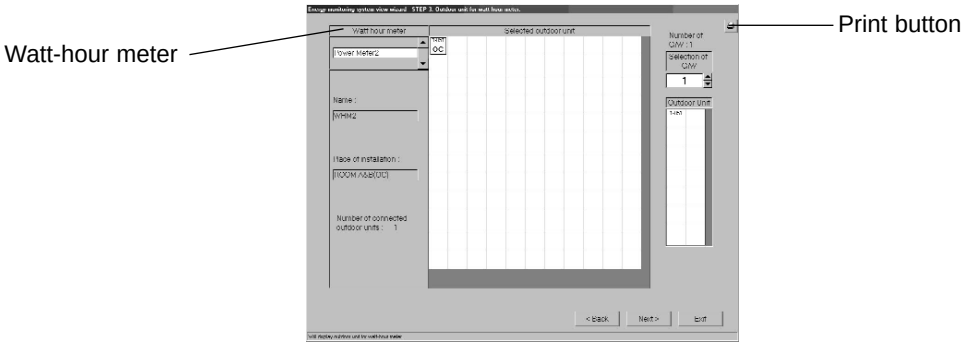
Select the watt-hour meter by clicking the ▲/▼ button

The data for the outdoor unit connected to the watt-hour meter is displayed.
This screen can also be printed with the Print button.

Note:
- This display shows the contents set by charge system.

After checking the set contents, click the Next button

Next: Advances to next screen.
Back: Returns to last screen.
Exit: Returns to Management screen.



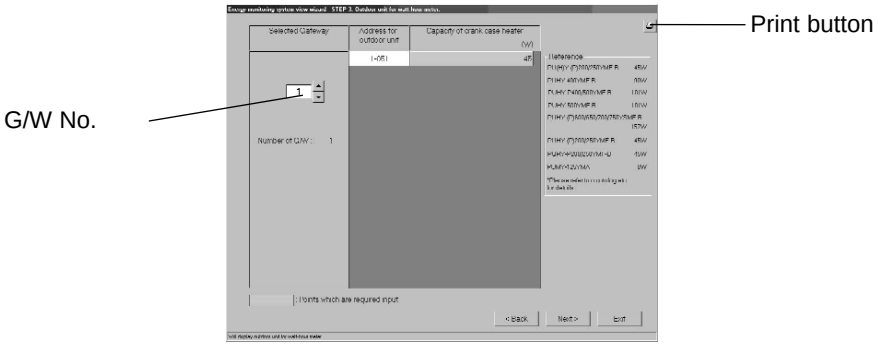
(4) Outdoor unit setting display

Select the G/W to be displayed by clicking the ▲/▼ button

The outdoor unit crankcase heater set data is displayed.
This screen can also be printed with the Print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Back: Returns to last screen.
Exit: Returns to Management screen.



(5) Indoor unit for watt-hour meter display

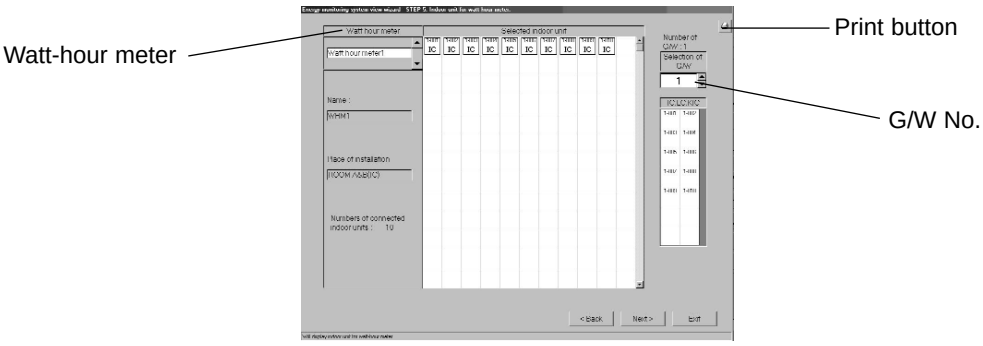
Select the watt-hour meter by clicking the ▲/▼ button

The data for the indoor unit connected to the watt-hour meter is displayed.
This screen can also be printed with the Print button.

Note:
- This display shows the contents set by charge system.

After checking the set contents, click the Next button

Next: Advances to next screen.
Back: Returns to last screen.
Exit: Returns to Management screen.



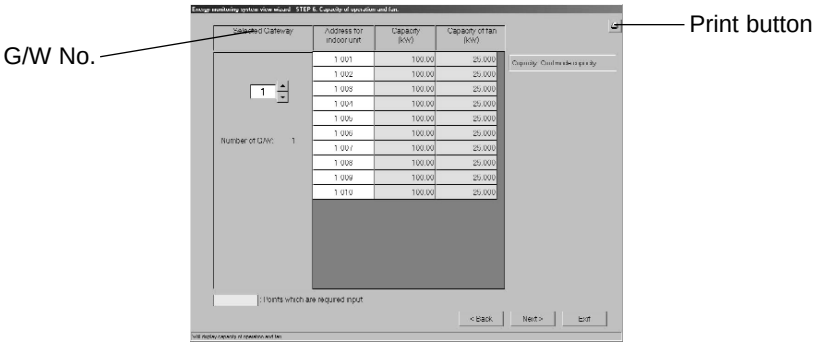
(6) Indoor unit setting display

Select the G/W to be displayed by clicking the ▲/▼ button

Displays the indoor unit operation capacity and FAN capacity set data.
This screen can also be printed with the Print button.

After checking the set contents, click the Next button

Next: Advances to next screen.
Back: Returns to last screen.
Exit: Returns to Management screen.

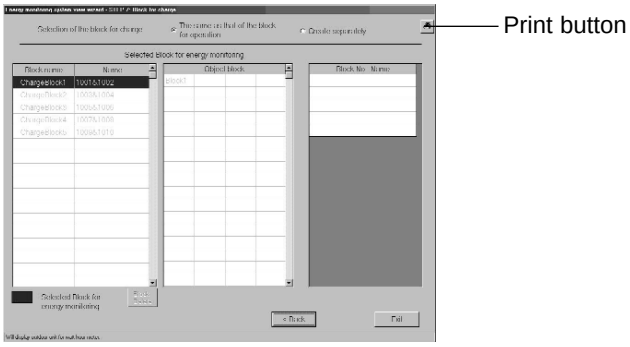


(7) Charging block setting display

Displays the charging block setting data. Charging block consists of operation blocks.
This screen can also be Printed with the Print button.

After checking the set contents, click the Exit button

Back: Returns to last screen.
Exit: Returns to Management screen.

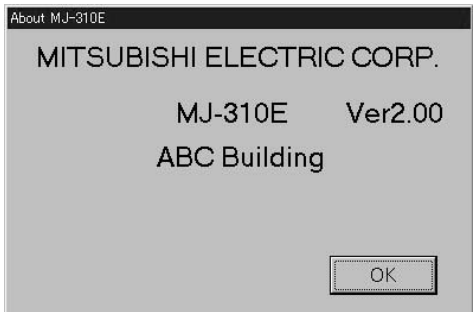


Note:
- The basic charge, charge setting, and currency setting can be checked or changed with Charge set on the Air-con charge screen.

11. Help

11.1 Version Information

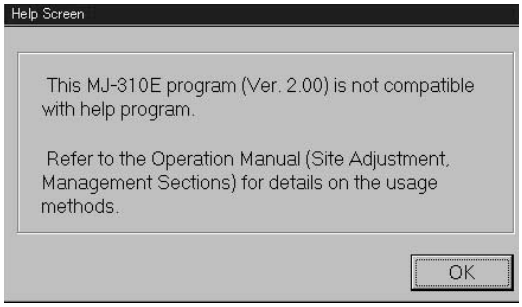
Click Version in the Help menu (menu bar).
Displays the type designation and version of this program and the user set building name.



Version information screen

11.2 Contents

Click Contents in the Help menu (menu bar).
The MJ-310E program (Ver 2.00) does not support help.
For the usage instructions, refer to the instruction manuals (Site Adjustment and Management).



Help screen

12. Error code list

The following is a list of the error codes and their meaning.

0110 “Equipment abnormality”
0120 “Equipment abnormality”
0403 “Serial transmission trouble.”
0900 “Test run”
1000 “Ref.cycle abnormality”
10*0 “Ref.cycle abnormality in line **”
11** “Ref.cycle temperature abnormality - Common operand: **”
12** “Ref.cycle temperature abnormality allowance - Common operand: **”
13** “Ref.cycle pressure abnormality - Common operand: **”
14** “Ref.cycle pressure abnormality - Common operand: **”
1500 “Ref.cycle not operate due to overcharge”
1501 “Ref.cycle not operate due to undercharge”
1502 “Ref.cycle not operate due to liquid back”
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”
1559 “Oil balance circuit abnormality”
1600 “Preliminary overcharge refrigerant trouble”
1601 “Preliminary lacked refrigerant trouble”
1605 “Preliminary suction pressure trouble”
1607 “Configuration detection abnormality”
1608 “Control valve abnormality”
1659 “Preliminaly oil balance circuit abnormality”
2000 “Water system abnormality”
20*0 “Water system abnormality in line **”
21** “Water system temperature abnormality - Common operand: **”
22** “Allowance of water system temperature abnomality - 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”
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”
2600 “Water system operation restricted due to water leak”
2601 “Water system operation restricted due to 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 “Control box temperature abnormality”
3252 “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: **”
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”
4103 “Electric system not operate due to reversed 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”
4107 “Electric system not operate due to overlord”
4108 “Electric system not operate due to overcurrent relay 51C”
4109 “Electric system not operate due to overcurrent relay 51F”
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”
4116 “Electric system not operate due to motor abnormality”

4158 “Electric system - Preliminary overcurrent protection (51C)”
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”
422* “Inverter bus voltege insufficiency - Inverter No.: *”
4230 “Inverter radiating thermostat abnormality”
423* “Inverter radiating thermostat abnormality - Inverter No.: *”
4240 “Inverter overcurrent protection”
424* “Inverter overcurrent protection - Inverter No.: *”
4250 “Inverter IPM abnormality”
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.: **”
52** “Pressure sensor trouble - Sensor No.: **”
53** “Current sensor trouble - Sensor No.: **”
54** “Humidity sensor trouble - Sensor No.: **”
55** “Gas sensor trouble - Sensor No.: **”
56** “Air speed sensor trouble - Senser 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”
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)”
6605 “Communication error - No response frame”
6606 “Communication error - Transmission processor”
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 pomp 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, Inddor/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”
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 - Connection data unsettled”
7111 “System abnormality - I/O connection equipment not connected”
7112 “System abnormality - I/O type setting error”
7113 “System abnormality - Equipment unsettled”
7200 “System abnormality - Numeric values unsettled”
7201 “System abnormality - Numeric values unsettled”

13. System Operation Precautions

The following describes the precautions to be taken when operating the system. Always read this section before using the system.

13.1 Usage Right

Use this program based on agreement to the following usage rights.

Mitsubishi Electric Corporation and its suppliers are not responsible for incidental, secondary, or special damage to the user even if notified of the possibility of that type of damage by the seller. They are also not responsible for claims of rights of third parties.

13.2 Operation and Setting Precautions

(1) System configuration and charge system setting changes
- When using the charge function, always carry out the settlement of accounts operation before changing the system configuration and charge system settings.
- When the system configuration was changed, also change or check the charge system settings.

(2) Serial port setting changes
- When using the charge function, carry out settlement of accounts operation before changing the serial port setting.

(3) Time setting
- Do not change the time setting except during test operation. When the charge function is used, the air-conditioning charge is affected.
- When using the charge function, there are times when the time can not be changed.
- While using MJ-310E, never use the Windows “Date and Time Properties”. While MJ-310E is running, do not use Windows Date and time properties.

(4) Fire alarm stop function
- When a failure occurs at the personal computer, I/O board, or a system equipment, the fire alarm stop function may not operate.
- While fire alarm stop is operating, a message box is displayed and man-machine running operation cannot be performed. However, when the message box is cleared intentionally, man-machine running operation is enabled, but do not perform the running operation.

13.3 Air-conditioning Charge Precautions

(1) Using the charge function
- When using this program’s charge function, we recommend that you consent to “Collect air-conditioning charges (including temporary action when failure occurs) by proportional division calculation considered by operation status.” by individual contract with the building owner.
- UPS equipment is recommended to prevent MJ-310E stoppage and data loss, etc. when a power failure or momentary interruption occurs.
- Storing the air-conditioning charge result (block and watt hour meter units) to a device than this personal computer is recommended. (For example, print the air-conditioning charge results on paper and store them.)

(2) Air-conditioning charge calculation (proportional division)
- This is our unique method which makes judgment from the operating status of the air conditioners and proportionally divides the total electric power. Therefore, calculation is not carried out by installing a watt hour meter at the power supply of each air conditioner. This method cannot be used in applications which require a calculation method such that a watt hour meter is installed at each air conditioner.
- When a system abnormality occurs, postpone proportional division calculation to the next day or do not perform proportional division calculation. When you want to correct the proportional division data, use the Charge data maintenance or Remedial apportioning function.
- Since the air-conditioning charge is calculated in block or watt hour meter units, indoor units that are not registered in the charge block are not reflected in the air-conditioning charge.
- Charge block units air-conditioning charge does not include the electric power used by watt hour meter units K controller, A controller OA processing unit, etc. Use the watt hour meter units Air-conditioning energy monitoring display.
- There is an error due to the digits not displayed in the air-conditioning charge calculation results. There is also the possibility of an error of approximately 0.00005 kWh or less in the proportional division.

(3) System change
- When changing the system configuration and charge system settings, carry out settlement of accounts from the day after the settlement of accounts day up to yesterday. For settlement of accounts for the current month, total and use the air-conditioning charge calculated before and after the change. Add the basic charge because the calculated air-conditioning charge total does not include the basic charge.

13.4 Others

(1) WindowsNT/Windows 2000 (rebooting)

- Periodically (about once a week) terminate this program and Windows NT/2000 and reboot. Windows NT/2000 generally conceals obstructions to continuous operation for a long time. End and reboot it to minimize the affect on MJ-310E operation.
- An automatic reboot function can be set at this program, but there are cases where automatic reboot cannot restart MJ-310E. Therefore, we recommend that you manually terminate this program and Windows NT/2000 and reboot.

(2) Windows (task bar)

- Do not use the Windows task bar during MJ-310E operation.

(3) Printer output

- When using this system with a printer, always turn on the printer power and replenish the paper so that printing can be performed. When printing is not possible, a “Cannot print” message is displayed.

14. Maintenance and Service

For maintenance and service, please contact Mitsubishi Electric Europe or its supplier.

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