MITSUBISHI ELECTRIC

Mitsubishi Electric Air Conditioner Network System

Central Controller
Model: MJ-180A Instruction Book (Initial settings and amending settings)

Contents

Read this manual carefully before attempting to operate the equipment.
Retain this manual for future reference
Please see the Instruction Book (General Operations) concerning methods for making settings after starting operation.

1. Safety Precautions

- Read this section on safety precautions thoroughly before attempting to operate the equipment to ensure correct usage.
- The hazards inherent with misuse of this equipment have been categorized by the level of danger prevalent as follows.

⚠ WARNING:	Misuse of the equipment may result in death or serious injury.
⚠ CAUTION:	Misuse of the equipment may result in injury or damage to property.

- Ensure that this manual is retained safely in an easily accessible location together with the installation manual after reading. Also, ensure that all subsequent personnel involved with the operation of the equipment have read this manual and the installation manual prior to use.

⚠WARNING

Not to be installed by the customer
Request your dealer or any other specialist to perform all installation work. Installation by the customer may result in defective connections, leading to electric shocks or fire.

Confirm that installation has been performed correctly.
Confirm that the equipment has been firmly fixed in place to avoid it falling or toppling over.

Confirm that a rated power supply is available.
Failure to observe this may result in fire or damage to the equipment.

Halt operations during abnormalities.
Failure to halt operations during abnormalities may result in damage to the equipment, electric shocks or fire. In the event of an abnormality (smell of burning, etc.) halt operations, cut off the power supply and contact your dealer.

Not to be moved by the customer
Removal by the customer may result in defective connections, leading to electric shocks or fire. Request your dealer or any other specialist to perform all removal work.

Not to be disposed of by the customer.
Contact your dealer when the equipment is to be disposed of.

Never remodel or repair the equipment.
Remodeling and repairs by the customer may result in defective connections, leading to electric shocks or fire. Request your dealer or any other specialist to perform all repair work.

Halt operations during error displays and defective operations
Failure to halt operations may result in fire or damage to the equipment. Contact your dealer in this event.

This product complies with the EN50081-1 and EN50082-1 Generic standards, and EN50090-2 of the Home and Building Electronic Systems standards has not been considered. In other words, the immunity level only applies to the levels stipulated by the Generic standards. It is necessary to confirm that class A equipment, ISM equipment and other equipment fitted with strong electromagnetic output sources do not exist in the immediate vicinity of the product during installation. If there is no choice other than operating the product in an environment containing strong electromagnetic field, contact the manufacturer in order to set up applicable protection devices.

⚠CAUTION

Do not place hazardous materials near the equipment
Do not install the equipment in locations where there is the risk of flammable gas leaks. Failure to observe this may result in the outbreak of fire or explosions.

Do not clean the equipment with water
Do not touch the screen with wet hands
Failure to observe this may result in electric shocks or damage to the equipment.

Do not apply too much pressure to the screen
Failure to observe this may result in electric shocks or damage to the equipment.

Do not use the equipment for non-stipulated purposes
This equipment is the Mitsubishi Building Air Conditioner Control System. Never use it to control other air conditioning systems or for any other application. Failure to observe this may result in malfunctions.

Do not allow fumigation agents or other flammable sprays to come into contact with the equipment
Do not place flammable sprays near to the equipment, or directly spray flammable agents onto the equipment. Failure to observe this may result in the outbreak of fire or explosions.

Do not wipe the equipment with benzine, thinner or chemically treated cloths
Failure to observe this may result in discoloring or damage to the equipment. When soiling is severe, moisten a cloth with a medium-strength cleaning agent diluted with water, allow the cloth to dry and then wipe the equipment. After this, ensure that the same area is wiped thoroughly with a dry cloth.

Do not use with specialized equipment
The use of the equipment in locations containing high levels of oil (including mechanical grease), vapor or sulfurized gas may result in a remarkable deterioration of functions or damaged parts. Defective connections may also result in electric shocks and fire.

Do not touch the screen with pointed objects
Failure to observe this may result in electric shocks or damage to the equipment.

Do not use outside of the permissible temperature ranges
Ensure that the permissible temperature range is closely observed. Use of this equipment in an environment outside of the permissible temperature range may result in severe damage to the equipment. Check the permissible temperature range in the specifications outlined in the instruction manual. The permissible temperature range is between 0 degrees and 40 degrees Celsius in the event that a temperature range is not stipulated.

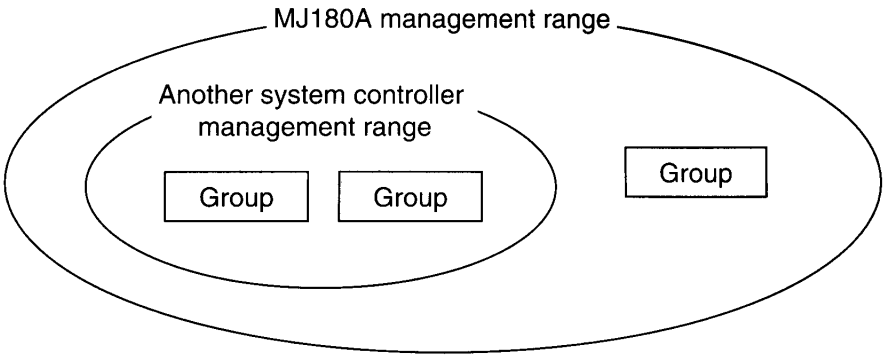
Do not dismantle the equipment
In addition to being hazardous, removing internal substrates may result in fire or damage to the equipment.

2. Functions

		Function	Details
Number of control units		Indoor units, LOSSNAY	Up to 100 units can be connected with the standard configuration. This can be increased to 200 units by expanding the GWU-50A to two units.
		Number of indoor units per group	1 to 16 (The same applies for independent LOSSNAY (OA processing unit). However, indoor units and LOSSNAY cannot be used in the same group.)
		Number of remote-controllers per group	0 to 2
		System controllers per group	0 to 4. (However, ensure that the total number of remote controllers and system controllers in each group is four or less.)
Normal functions	Operations	ON/OFF	The system can be operated and stopped for the whole building, an entire floor or by group. (Bulk operations can also be performed for only indoor units or LOSSNAYs)
		Temperature setting	Room temperature can be set for the whole building, and entire floor or by group. Permissible temperature range. During cooling (dry) 19 °C to 30 °C. During heating 17 °C to 28 °C. During automatic operations 19 °C to 28 °C.
		Operation modes	Mode switching is possible between Cool, Dry, fan, Heat and Auto for the whole building, an entire floor or by group. (Switching between Bypass, Heat recovery and Auto ventilation is possible with LOSSNAY groups.)
		Air direction setting	Possible to switch between four vertical stages or swing by group.
		Fan speed	Possible to switch between four levels by group. (Two levels depending on the type)
		Prohibit local remote controller	It is possible to prohibit and permit the specific functions of remote controllers for the whole building, an entire floor or by group (The prohibiting setting is performed on a different screen. The only operations that can be prohibited are ON/OFF, Operation mode, Temperature, Filter sign reset.)
		Filter sign reset	The filter sign display can be reset for the whole building, an entire floor or by group.
		External signal input interface	It is possible set the emergency stop, ON/OFF and prohibit/permit all together from an external source.
	Monitoring	ON/OFF (bulk)	It is possible to display the ON/OFF status for an entire floor (all on, all off, some on/some off)
		Operating status (by floor)	It is possible to display the ON/OFF status, the schedule valid/invalid status and the malfunction/filter sign status graphically by group for each floor.
		Operating status (by group)	It is possible to display the ON/OFF status, the temperature settings, the operation mode, the air direction, the fan speed, the remote control prohibited/permits status and the filter sign status by group.
		Error (bulk)	It is possible to display the unit for which an error has been triggered from amongst all units.
		Filter sign (bulk)	It is possible to display the unit for which a filter sign has been triggered from amongst all units.
	Schedule	OFF timer	Switches the units off at the time preset for that day for the whole building, an entire floor or by group.
		Weekly schedule	It is possible to set the weekly operating schedule for the whole building, an entire floor or by group. It is possible to set the schedule pattern (daily schedule) allocated every Sunday as follows: #Twelve different schedule patterns for the entire system. #Six different settings per day for ON/OFF, temperature setting, operating mode and remote control prohibit/permit with each schedule pattern.
		Exception-day schedule	It is possible to set fifty days of exceptional schedule operations (national holidays, etc.) for one year in units of the whole building, an entire floor and groups. The schedule pattern (day schedule) for assigning each date is the same schedule pattern as assigned to the weekly schedule.
Maintenance functions	Settings	Current time setting	It is possible to set the current date and time.
		Display layout setting	It is possible to set the display layout and group name for the group button on each floor.
		Touch panel adjustment	Adjusts the touch panel.
		Prohibit items setting	It is possible to prohibit operations from remote controllers for the whole building, an entire floor or by group (the items that can be prohibited are ON/OFF, Operation mode, Temperature setting and Filter sign reset.)
	Monitoring	Monitoring past malfunctions	Displays a maximum of 200 past malfunctions (200 from the most recent)
	System settings	Connection information setting	Registers indoor units, LOSSNAYs, remote controllers and slave system controllers.
Others	Data backup	Current time back up	The current date and time is backed up in the internal condenser for a period of approximately one week after the mains power has been cut off. (The power supply to the main system must be switched on continuously for 24 hours or more to recharge the internal condenser)
		Schedule	Saves the contents of the pre-set schedule even when the mains power is switched off.
		Display layout	Saves the contents of the pre-set display layout even when the mains power is switched off.
		Operations prohibited	Saves the contents of the operations prohibited item even when the mains power is switched off.
		Malfunction log	Saves the contents of the Malfunction log even when the mains power is switched off.
		Connection information	Saves the contents of the pre-set connection information even when the mains power is switched off.
	External input/output	External input	It is possible to set the emergency stop/normal operations mode, the ON/OFF and the remote control prohibit/permit with a no-voltage contact signal input.
		External output	The "ON" signal is output when one or more of the units being controlled are operating. The "Malfunction" signal is output when a malfunction occurs in one or more of the units being controlled.

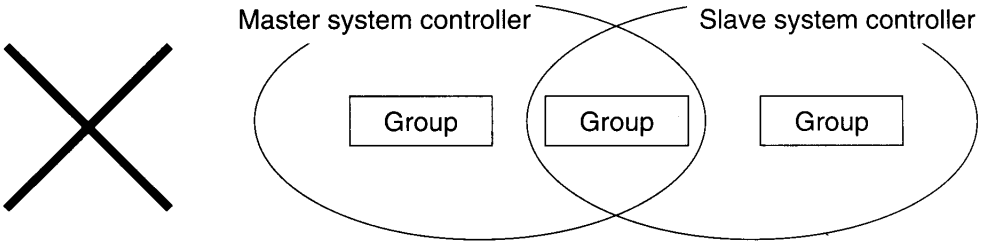
NOTE:

When the system uses a different system controller for control purposes, set the controller at [Slave] and then set the following range of control.

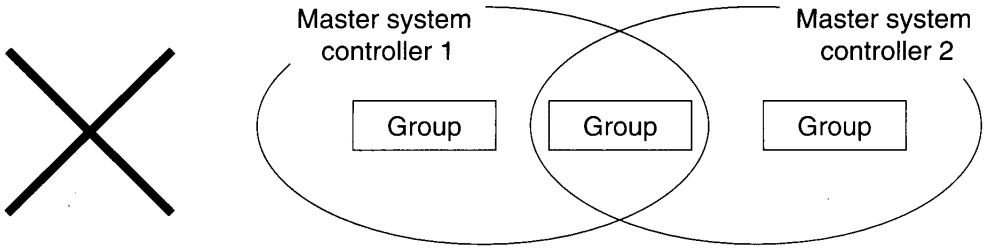


The following setting cannot be performed.

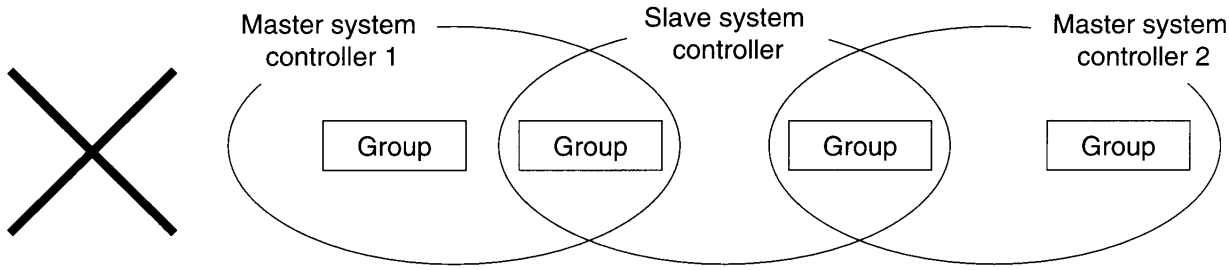
- Unit groups which are not under the management of the master system controller and are managed by the slave system controller.



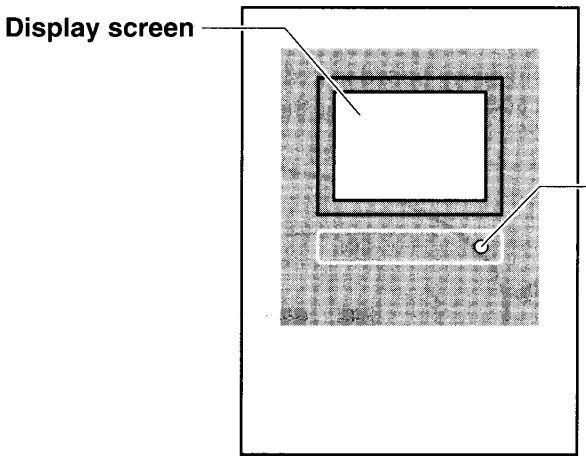
- A common groups is managed by more than two master system controllers(main units).



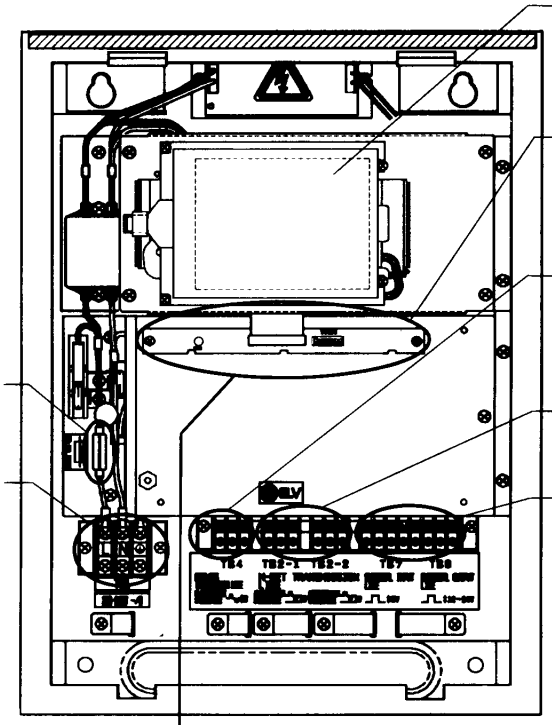
- A slave system controller which exceeds the management range of the master system controller of two or more.



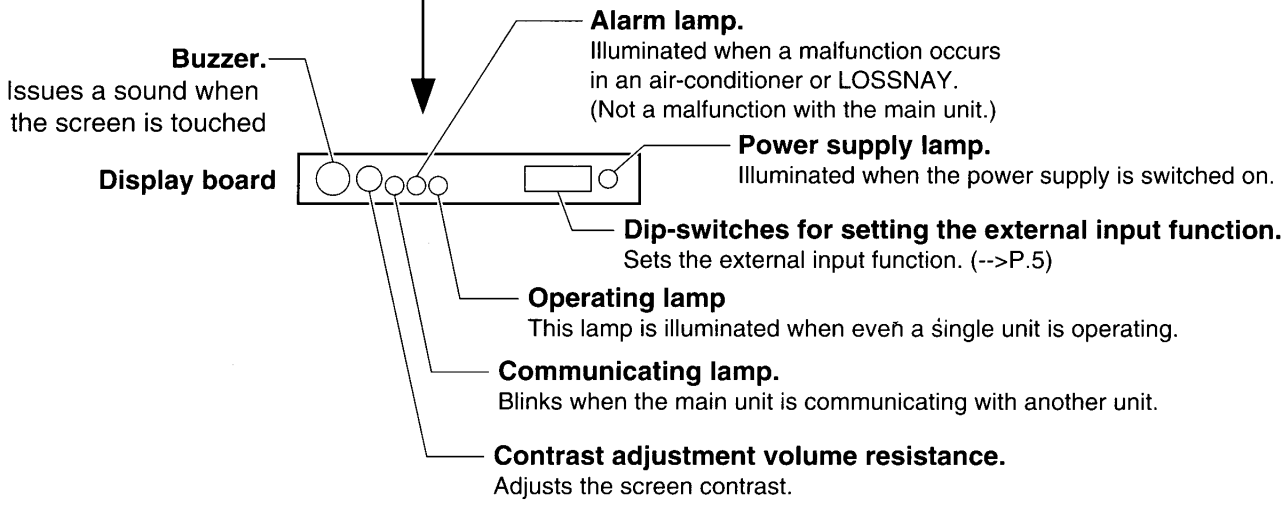
3. Part names



Front view

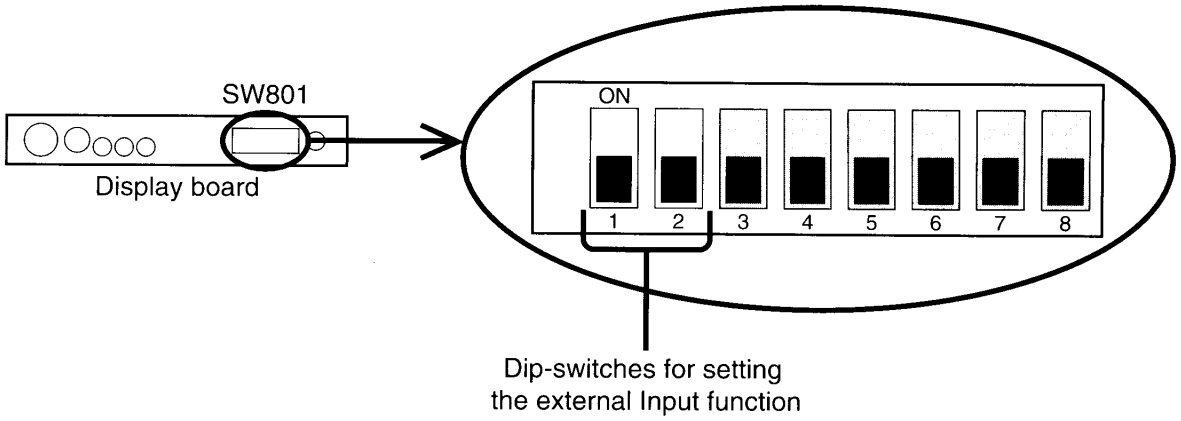


Internal configuration diagram



4. External input/output function settings

- It is possible to operate the ON/OFF settings, the monitoring and error monitoring functions from another system by the use of the external input/output terminals.
- Set the dip-switches on the main unit's display board in order to use the external input/output terminals. The function will be activated approximately five seconds after the settings have been made.



4-1. External input terminal

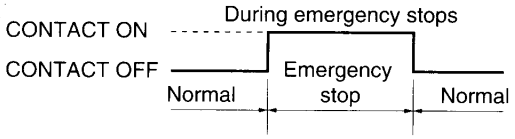
(1) The external input function and its set-up

- The external input function is activated by setting the number 1 and 2 dip-switches on or off.

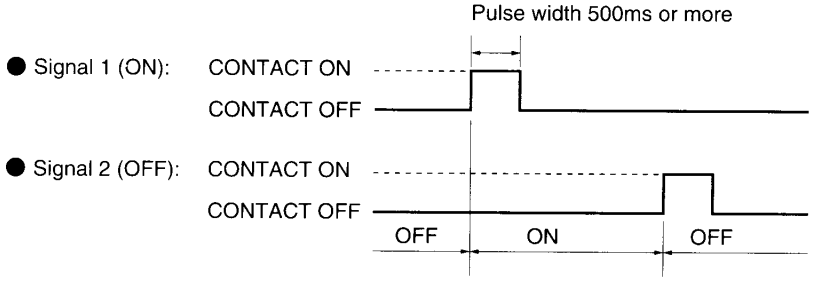
No.	Dip-switch		Function of external input signal	NOTE
	No.1	No.2		
1	OFF ON	OFF OFF	External input signal not used (factory setting)	Prohibits the external input function. (No operations performed when a signal arrives.)
2	OFF	ON	Perform emergency stop with level signal	Stops all units and prohibits the remote control when the level signal is input. (Used to stop the air-conditioning with a signal from the fire alarm.)
3	ON	ON	Perform ON/OFF operation, prohibit/permit operation with pulse signal	Switches all units ON/OFF and prohibits or permits remote control with the pulse signal.

(2) Level signals and pulse signals

① Level signals



② Pulse signals
Example: ON/OFF



(3) Connecting to the external input terminal

TB7 terminal number	Emergency stop/normal level signal	ON/OFF prohibit/permit
11	Emergency stop/normal input	ON input
12	Not used	OFF input
13	Not used	Local remote controller prohibit input
14	Not used	Local remote controller permit input
15	Common (OV)	

NOTE:
- In the case of level signals
  - ① The ON/OFF settings for the MJ-180A and the remote controllers are usually prohibited when the emergency stop level is set at [contact on]. (The operations mode, the temperature settings and the filter reset functions are also prohibited for the main unit.)
- In the case of pulse signals
  - ① Operations will continue even when an operations signal is input when the units are running. (The same applies for OFF, PROHIBIT and PERMIT.)
  - ② Of the ON/OFF, operations mode, temperature settings and filter sign reset functions, only the items prohibited with the main unit settings will be prohibited when remote controls are prohibited with the pulse signal. (All functions are set at [PROHIBIT] when shipped from the factory.) Refer to the instruction book (general operations) for details on setting the prohibited items.
  - ③ If ON and OFF have been input at the same time, the unit stops, and if Prohibited/Permitted are input at the same time, Permitted is set.

4-2. External output terminal

(1) Function of external output

① ON/OFF: The [ON] signal is output when one or more of the units are in operation.
② Malfunction/Normal: The [Malfunction] signal is output when an malfunction occurs with one or more of the units.

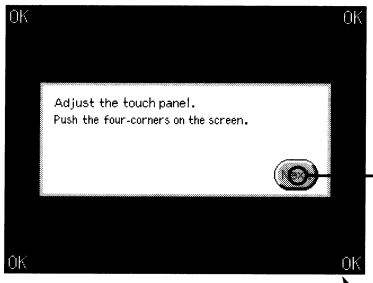
(2) Connecting to the external output terminal

TB8 terminal number	Details of each terminal
1	ON/OFF
2	Malfunction/Normal
3	Common (OV)

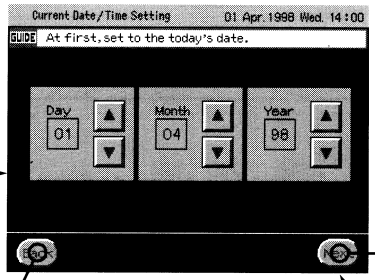
5. Initial settings

- The Touch Panel Adjustment Screen will be displayed when the power supply to the main unit is switched on. The initial settings are performed in accordance with the following sequence.
- Refer to each relevant page for details on each setting.

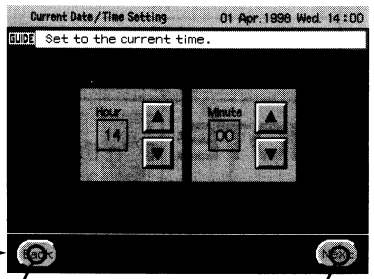
The Touch Panel Adjustment Screen (p.8)



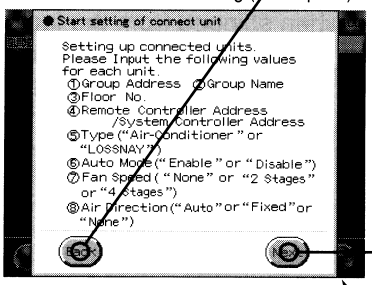
The Current Date/Time Setting (Date) Screen (p.9)



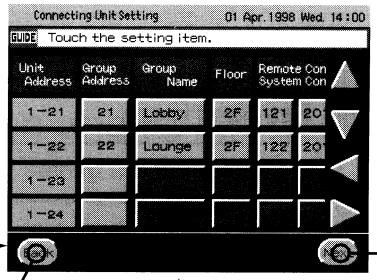
The Current Date/Time Setting (Time) Screen (p.9)



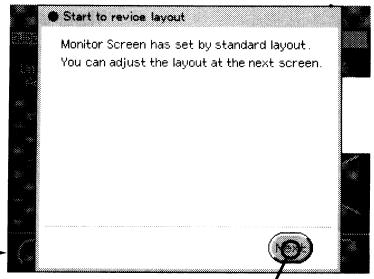
The Connection Information Setting (Description) Screen



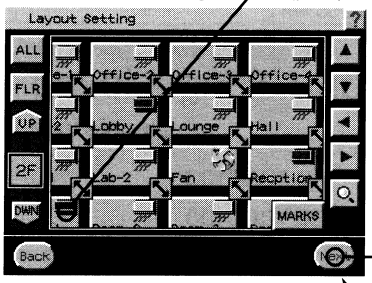
The Connection Information Setting Screen (p.10)



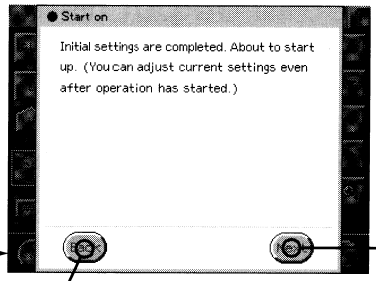
The Layout Setting (Description) Screen



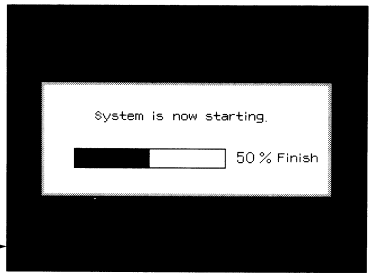
The Layout Setting Screen (p.19)



The Start Confirmation Screen

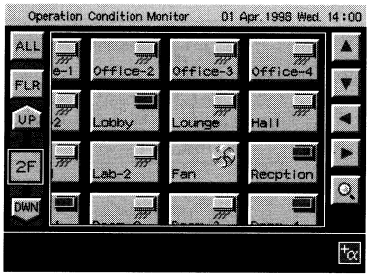


The Start Up Screen (p.24)



Initial settings complete

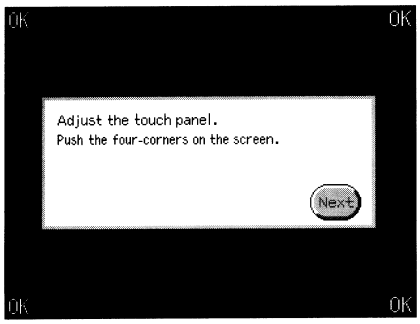
The Operation Condition Monitoring Screen



5-1. Touch panel adjustments

- The Touch Panel Adjustment Screen is the first screen to be displayed when the main unit is switched on for the first time.
- The position of the touch panel can be adjusted (calibrated) by touching each of the screen's four corners.

The Touch Panel Adjustment Screen



① Touch the four corners on the screen.
OK will be displayed with each touch.

② Touch the Next button to move across to The Current Date/Time Setting (Date) Screen (p.9).

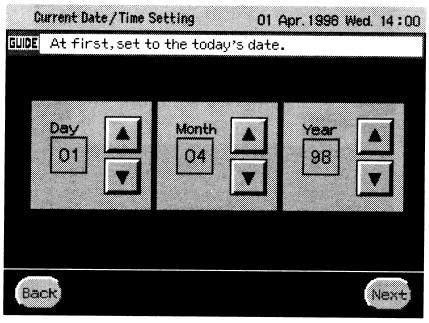
5-2. Current date/time settings

- Sets the current date and time.

(1) Current date setting

- This screen is displayed by touching the Next button on The Touch Panel Adjustment Screen (p.8).

The Current Date/Time Setting (Date) Screen



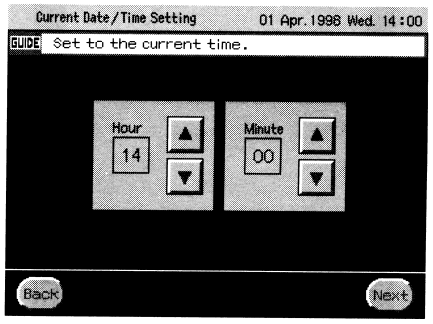
① Touch the ▲ and ▼ icons to set the current date.

② Touch the Next button to register the date and move across to The Current Date/Time Setting (Time) Screen.

(2) Current time setting

- This screen is displayed by touching the Next button on The Current Date/Time Setting (Date) Screen (p.9).

The Current Date/Time Setting (Time) Screen

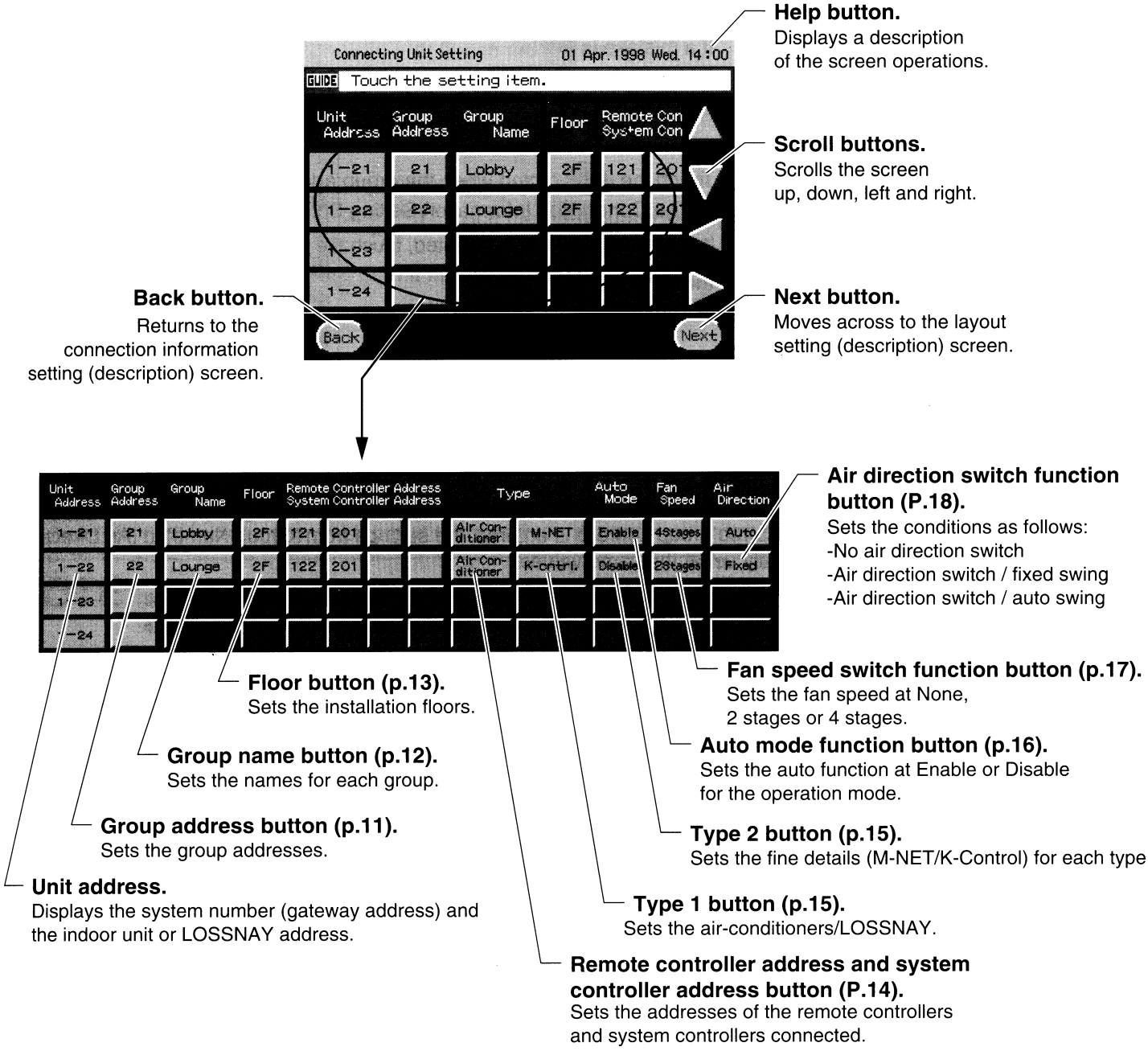


① Touch the ▲ and ▼ icons to set the current time.

② Touch the Next button to register the time and move across to The Connection Information Setting (Description) Screen.

5-3. Connection information settings

- Touch the Next button on The Current Date/Time Setting (Time) Screen (p.9) to display The Connection Information Setting (Description) Screen. After reading the explanation, Touch the Next button to move across to the screen shown below.
- The system (1 to 4) and unit addresses (1 to 50) will be displayed in the [Unit Address] field. Set the connection information ([Group Address] to [Air Direction]) in the same unit address at the indoor unit or LOSSNAY (OA processing unit) connected.
- Touch the Next button when all settings have been completed to move across to The Layout Setting (Description) Screen.
- The names of all fields in the connection information setting screen are shown below.



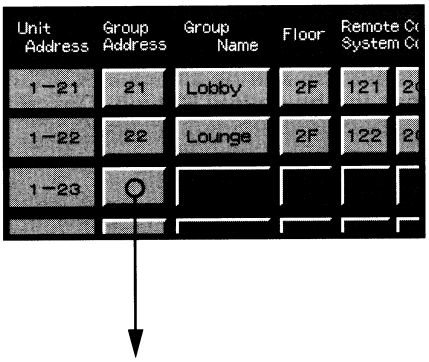
NOTE:

- Ensure that the group address, group name and floor number are set when making the connection information settings. All other settings can only be made once the group address has been specified.
- Ensure that the addresses of the remote controllers and system controllers are set when remote controllers and slave system controllers exist within the group. The system will not operate normally if indoor unit and group settings are made with a remote controller without the address of the remote controller being set in the main unit.

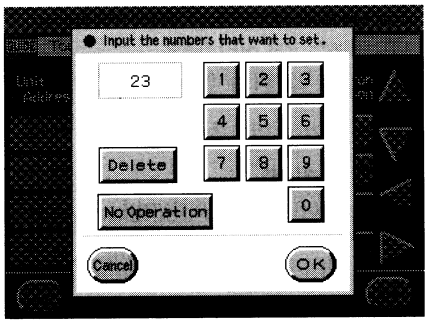
(1) Group addresses and their set-up

- A Screen For Entering Numerals will be displayed when the group address button is touched on The Connection Information Setting Screen.
- Other group items can be set once the group address has been entered.

The Connection Information Setting Screen



The Screen For Entering Numerals



① Touch the buttons between [0] and [9] to enter the group address that corresponds with the unit address.
Example: When entering 23 as the group address:

1) Touch the [2] button.
2) Touch the [3] button.

If a mistake is made:

1) Touch the [Delete] button. The previously entered numeral will be deleted.

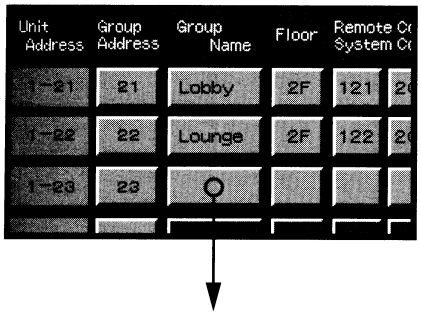
② Touch the (OK) button when the group address has been entered to return to The Connection Information Setting Screen (p.10).
If a set-up group is to be deleted, touch the [No Operation] button and then touch the (OK) button.

NOTE:
- Group addresses can be set within a range of 1 and 50 for each system.
- A maximum of 16 indoor units or LOSSNAYs can be registered for one group.
- If an already registered group address is entered, the settings from [Group Name] to [Air Direction] will be automatically set at the same values.

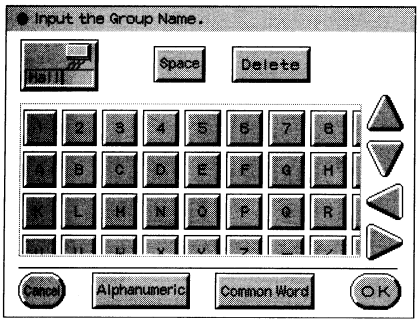
(2) Group names and their set-up

- A Screen For Entering Name will be displayed when the group name button is touched on The Connection Information Setting Screen.

The Connection Information Setting Screen



The Screen For Entering Name



① Touch the Alphanumeric button to enter the name of the group.

Touch the Common Word button if the same name of a previously registered group is to be used.

② Enter the name of the group by touching the relevant character buttons.
Example: When entering [Hall] as the group name:

1) Touch the H button.
2) Touch the a button.
3) Touch the l button.
4) Touch the l button.

When entering a blank:

1) Touch the Space button to leave one character space.

If a mistake is made:

1) Touch the Delete button. The previously entered character will be deleted.

③ Touch the OK button when the group name has been entered to return to The Connection Information Setting Screen (p.10).

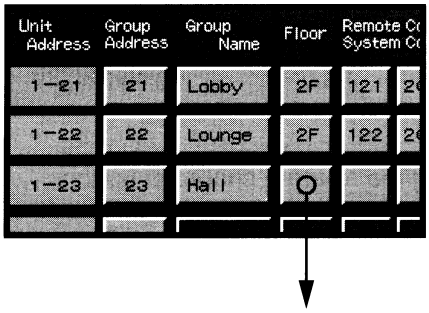
NOTE:
- Ensure that easy-to-understand group names are used.

NOTE:
- A maximum of eight characters may be used for a group name.
- When a group name is amended, other units with the same group address will also be amended automatically.
- Group names can be amended on The Layout Setting Screen.

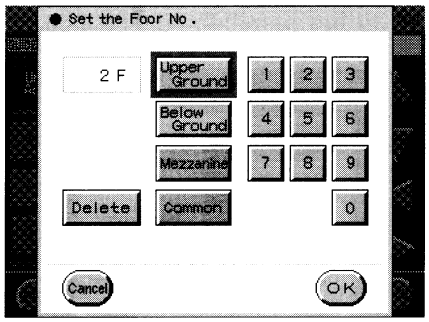
(3) Setting floor numbers

- A Screen For Entering Floor Numbers will be displayed when the floor button is touched on The Connection Information Setting Screen.

The Connection Information Setting Screen



The Screen For Entering Floor



① Enter the number of the floor on which the unit is installed.
Example #1: When entering the second floor:

1) Touch the [Upper Ground] button.
2) Touch the [2] button.

Example #2: When entering the first below ground:

1) Touch the [Below Ground] button.
2) Touch the [1] button.

Example #3: When entering the second mezzanine:

1) Touch the [Mezzanine] button.
2) Touch the [2] button.

Example #4: When entering the common area:

3) Touch the [Common] button.
4) Touch the [1] button.

If a mistake is made:

1) Touch the [Delete] button. The previously entered character will be deleted.

② Touch the (OK) button when the floor number has been entered to return to The Connection Information Setting Screen (p.10).

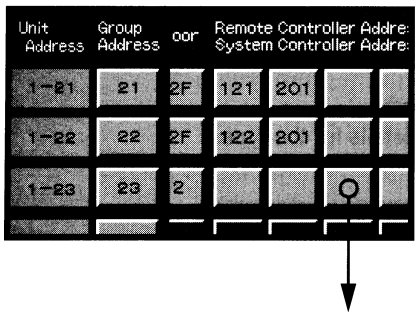
NOTE:

- A maximum of between 1 and 99 is possible for upper ground. A maximum of between 1 and 9 is possible for below ground, mezzanine and common areas.
- The group status for all set-up floors is displayed on the condition monitoring screen. The display will run in the sequence starting with the lowest floor.
  Below ground #9 → ... → below ground #1 → common #1 → ... → common #9 → mezzanine #1 → upper ground #1 → ... → mezzanine #9 → upper ground #9 → ... → upper ground #99.
- When a floor number is amended, the floor numbers for other units with the same group address will also be amended automatically.

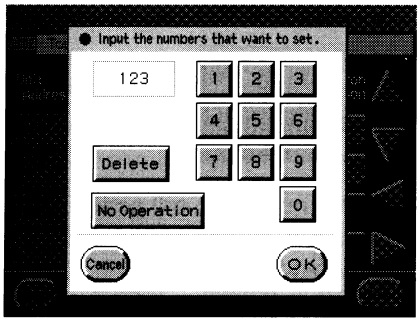
(4) Remote controller and system controller address settings

- A Screen For Entering Numerals will be displayed when the remote controller and system controller button is touched on The Connection Information Setting Screen (p.10).

The Connection Information Setting Screen



The Screen For Entering Numerals



① Touch the buttons between [0] and [9] to enter the address of the remote controller and system controller connected to the room unit or LOSSNAY.
Example: When entering 123 as the remote controller number:

1) Touch the [1] button.
2) Touch the [2] button.
3) Touch the [3] button.

If a mistake is made:

1) Touch the [Delete] button. The previously entered numeral will be deleted.

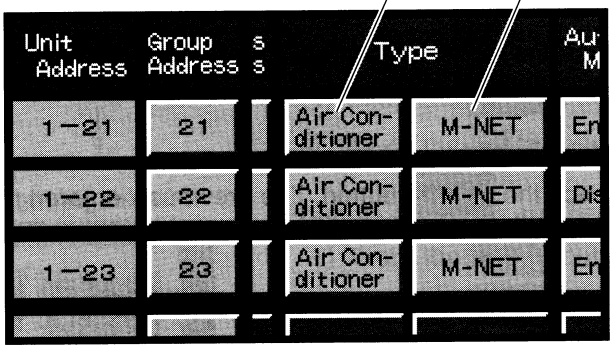
② Touch the [OK] button when the remote controller and system controller address has been entered to return to The Connection Information Setting Screen (p.10).
If a set-up remote controller and system controller address is to be deleted, touch the [No Operation] button and then touch the [OK] button.

NOTE:
- Remote controller and system controller numbers can be set within a range of 101 and 250. (Remote controller: 101 to 200. System controller: 201 to 250.)
- A maximum of two remote controllers can be registered for one group.
- A maximum of a combination of four system controllers can be registered for one group.
- When a remote controller or system controller number is amended, the remote controllers and system controllers for other units with the same group address will also be amended automatically.

NOTE:
- If a K transmission converter (PAC-SC25KAA) is connected to the system, do not enter the address for this controller.

(5) Setting types

- The display will switch between the relevant display when the type 1 button and type 2 button are touched on the Connection Information Setting Screen.
- Touch the type 1 button or the type 2 button to set the type that is connected to the system.



① Set type 1

The button display will change as follows whenever the type 1 button is touched.

Air Con-ditioner → Lossnay → Air Con-ditioner → ...

Make the alignment with the connected unit and then select the air-conditioner or LOSSNAY.

② Set type 2

The button display will change as follows whenever the type 2 button is touched.

(In the case that type 1 is Air-conditioner)

M-NET → K-cntrl. → M-NET → ...

(In the case that type 1 is a LOSSNAY)

Fixed at M-NET

Make the alignment with the connected unit and then select the air-conditioner or LOSSNAY.

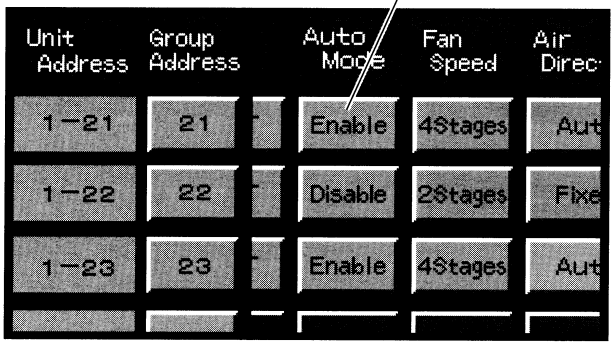
NOTE:

- When type 1 and type 2 are amended, the type1 and type 2 for other units with the same group number will also be amended automatically.
- Type 2 will change to [M-NET], auto mode will change to [Disable], fan speed will change to [4-Stage] and air direction will change to [Auto] when the type 1 button is touched and amended to [Air Conditioner].
- Type 2 will change to [M-NET], auto mode will change to [Enable], fan speed will change to [2-Stage] and air direction will change to [None] when the type 1 button is touched and amended to [LOSSNAY].
- Auto mode will change to [Disable], fan speed will change to [4-Stage] and air direction will change to [Auto] when the type 2 button is touched and amended to [M-NET].
- Auto mode will change to [Disable], fan speed will change to [2-Stage] and air direction will change to [Auto] when the type 2 button is touched and amended to [K-cntrl.].

(6) Setting the auto mode function

- The setting will switch between Enable/Disable whenever the auto mode function button is touched on The Connection Information Setting Screen.
- Units that are to be operated in the auto mode are set at [Enable], and units that are not to be operated in the auto mode are set at [Disable].

Auto mode function button.
Sets the auto function at Enable or Disable for the operation mode.

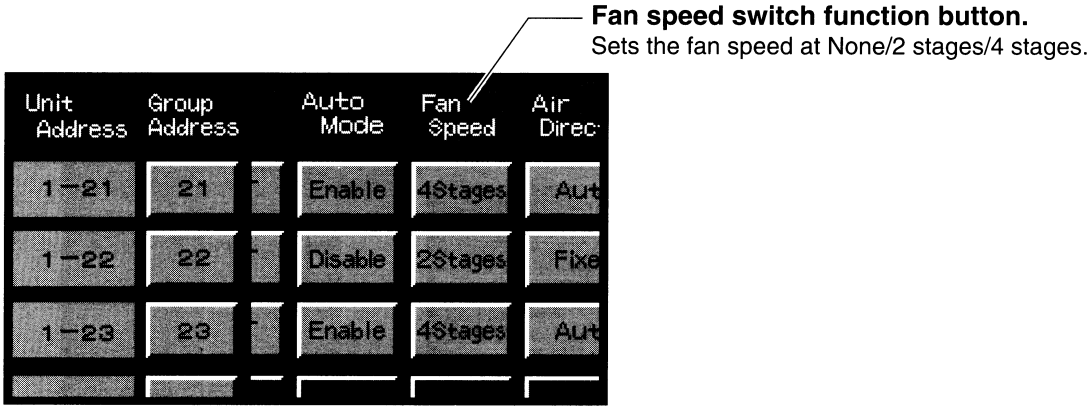


① Setting the operation mode's auto function to [Enable]/[Disable]
The button display will change as shown below whenever the auto mode function button is touched:
(In the case that type 1 is an Air-conditioner)
Disable → Enable → Disable → ...
(In the case that type 1 is a LOSSNAY)
Fixed at Enable
Make the alignment with the connected unit, and then select the auto mode function as [Enable] or [Disable].

NOTE: ● When the auto mode function is amended, the auto mode function for other units with the same group number will also be amended automatically.

(7) Setting fan speed switch function

- The display will switch between None/2 stages/4 stages when the fan speed button is touched on The Connection Information Setting Screen.
- Touch the fan speed button set the level of fan speed for the units that are connected to the system.



① Set the level for fan speed.
The button display will change as shown below whenever the fan speed switch function button is pressed:
(In the case that the type is an air conditioner [M-NET])

4Stages → None → 2Stages → 4Stages → ...

(In the case that the type is an air conditioner [K-contrl.])

None → 2Stages → None → ...

(In the case that the type is a LOSSNAY)

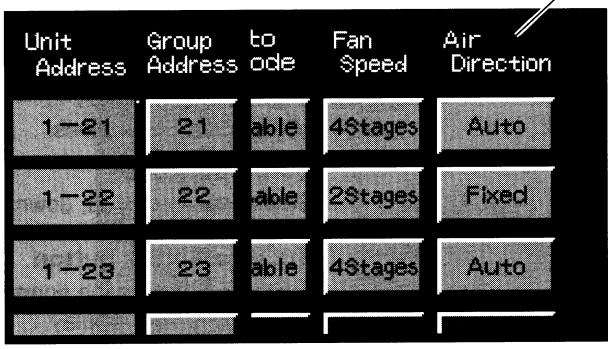
None → 2Stages → None → ...

Make the alignment with the connected unit, and then select the fan speed switch function.

NOTE: ● When the fan speed is amended, the fan speed for other units with the same group number will also be amended automatically.

(8) Setting airdirection switch function

- The display will switch between Auto/Fixed/None when the swing button is touched on The Connection Information Setting Screen (p.10).
- Set units with no air direction switch function will be at [None], set units that have an air direction switch function but no swing function at [Fixed], and set units that have an air direction switch function and a swing function at [Auto].



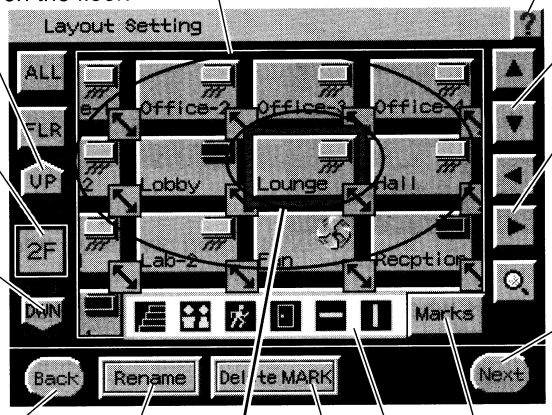
Air direction switch function button.
Sets the swing at Auto, Fixed or None.

① Set the swing and Auto or Fixed.
The button display will change as follows whenever the swing button is pressed.
(In the case that type 1 is an air conditioner)
Auto → None → Fixed → Auto → ...
(In the case that type 1 is a LOSSNAY)
Fixed at None.
Make the alignment with the connected unit and then select either Auto or Fixed for the swing.

NOTE: ● When the air direction switch function is amended, the air direction switch function for other units with the same group address will also be amended automatically.

5-4. Display layout settings

- Touch the Next button on The Connection Information Setting Screen (p.10) to display The Layout Setting (Description) Screen. After reading the explanation, touch the Next button to move across to the screen shown below.
- A group button is automatically allocated in the set floors, and the position and size can be amended for each floor from this screen.
- Touch the Next button when all settings have been completed to move across to The Start Confirmation Screen.
- The names of all fields in The Layout Setting Screen are shown below.



Group button display area.
Displays the groups installed on the floor.

UP button.
Displays the next upper floor.

Displayed floor.
The floor number being displayed.

DWN button.
Displays the next lower floor.

Back button.
Returns to the layout setting (description) screen.

Rename button.
Amends the name of the group buttons.

Help button.
Displays a description of the screen operations.

Scroll buttons.
Scrolls the screen up, down, left and right.

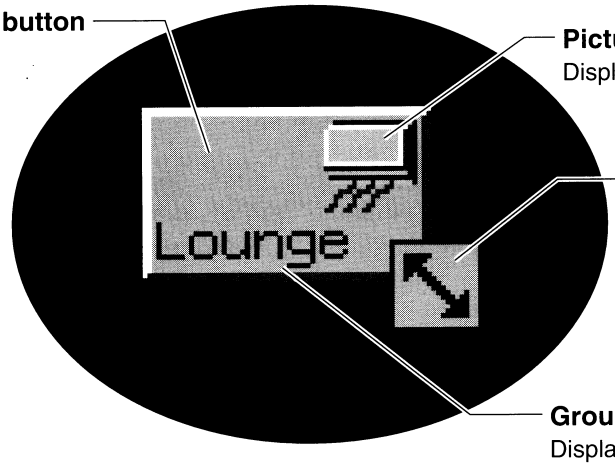
Enlarge/Shrink button.
Switches between the normal display and an shrunken display.

Next button.
Moves across to the start confirmation screen.

Marks button.
Opens and closes the part stock panel.

Part stock panel.

Delete Mark button.
Deletes mark or lines.



Group button

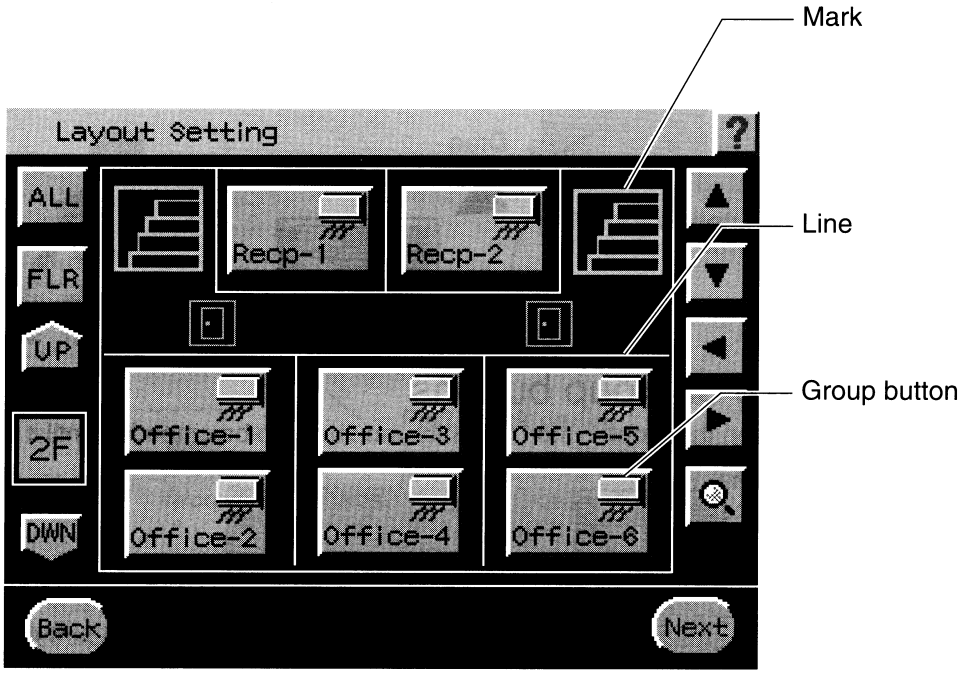
Picture of the type.
Displays a picture of the set-up type

Size amendment tag.
The size of the group button can be amended by dragging (*) this tag.

Group name.
Displays the group name.

* Drag: Moves the item within the screen by pressing on it and moving your finger without losing contact with the screen.

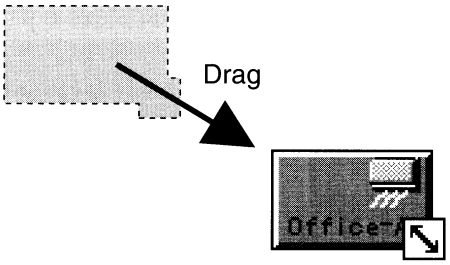
● It is possible to create the following operation screen with the layout settings.



NOTE:
- If groups are added on The Connection Information Setting Screen (p.10) after a layout has been specified with this screen, the layout information of the floor added the new group will be initialized. Ensure that the layout is set after the connection information settings have been completed
- Initializing the layout information means that the position and size of the group button is initialized, but the mark and line remain being allocated with the current position and size.

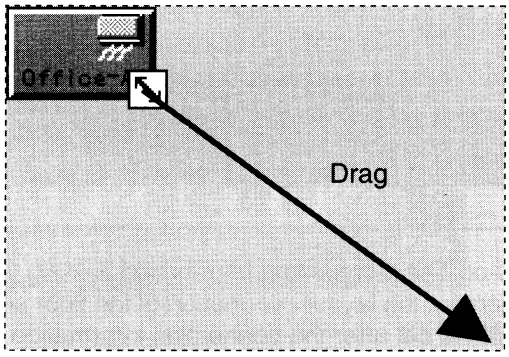
(1) Moving group buttons

- Drag the group button that needs to be moved to the required location, and then release it. The group button will be positioned in the location where it was released.



(2) Amending the size of group buttons

- Drag the size amendment tag on the group button for which the size is to be amended until it is the required size, and then release it.

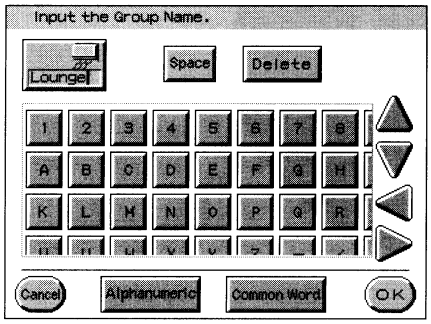


NOTE:
- The size of the group button cannot be made smaller than the standard size.
- The size of the type picture on the group button will be expanded in direct relation with the size of the group button, but the size of the group name characters will not change.

(3) Amending group button names

- Touch and select the group button that needs to be amended and touch [Rename] to display a screen where the name can be amended.

Screen For Entering The Name.



① Touch the [Delete] button to delete the current name.

② Enter the group name by touching the various character buttons.

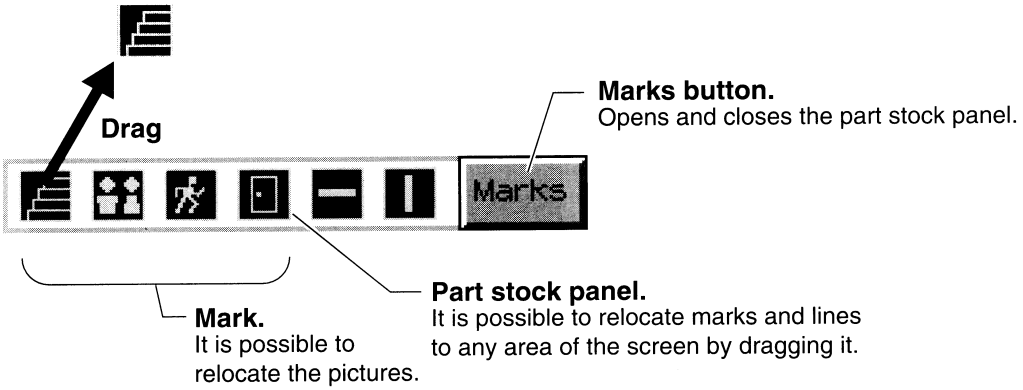
③ Touch the (OK) button after the group name has been entered.

NOTE:
- Use an easy-to understand name for the group name.

NOTE:
- A maximum of eight characters may be used for the group name.

(4) Adding marks

- Drag an additional mark (picture) from the part stock panel to the required location and then release it. The mark will then be planted in the place where it was released.
- Touch the Marks button to open the part stock panel if it is closed.

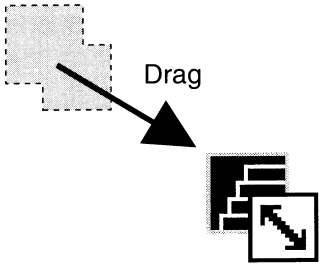


(5) Deleting marks

- Select the mark that is to be deleted by touching it, and then touch the Delete Mark button.

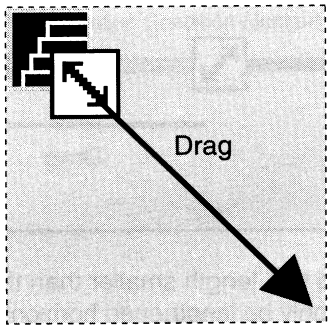
(6) Moving marks

- Drag the mark that is to be moved to the new location and then release it. The mark will be relocated in the location where it is released.



(7) Amending the size of marks

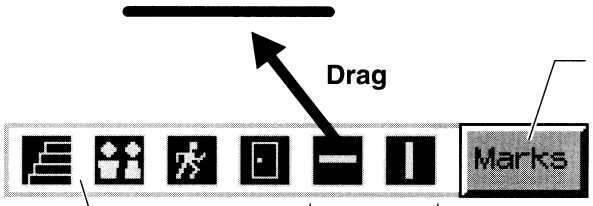
- Drag the size amendment tag on the mark that needs to be enlarged until it reaches the required size, and then release it.



NOTE: ● The mark cannot be reduced to a size smaller than the standard size.

(8) Adding lines

- Drag an additional horizontal line or vertical line from the part stock panel to the required location and then release it. The line will then be planted in the place where it was released.
- Touch the Marks button to open the part stock panel if it is closed.



Marks button.
Opens and closes the part stock panel.

Part stock panel.
It is possible to relocate marks and lines to any area of the screen by dragging them.

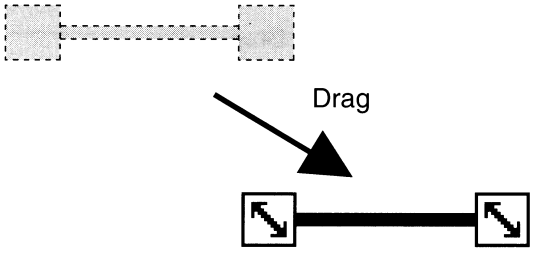
Line.
It is possible to relocate horizontal lines and vertical lines to anywhere on the screen.

(9) Deleting lines

- Select the line that is to be deleted by touching it, and then touch the Delete Mark button.

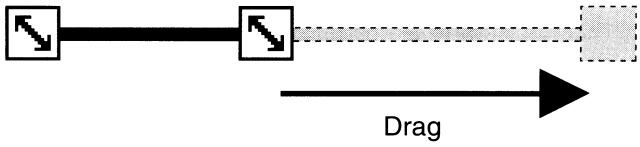
(10) Moving lines

- Drag the line that is to be moved to the new location and then release it. The line will be relocated in the location where it is released.



(11) Amending the length of lines

- Drag the size amendment tag on the line that needs to be lengthened until it reaches the required length, and then release it.



NOTE:
- The line cannot be reduced to a length smaller than the standard length.
- The length of the lines can only be lengthened horizontally for the horizontal lines, and vertically for the vertical lines.

5-5. Start-up process

- Touch the Next button on The Layout Setting Screen (p.19) to display The Start Confirmation Screen. Touch the Next button again if the system is to be started up to move to the screen shown below.
- The names of each field on The Start Up Screen are as follows.

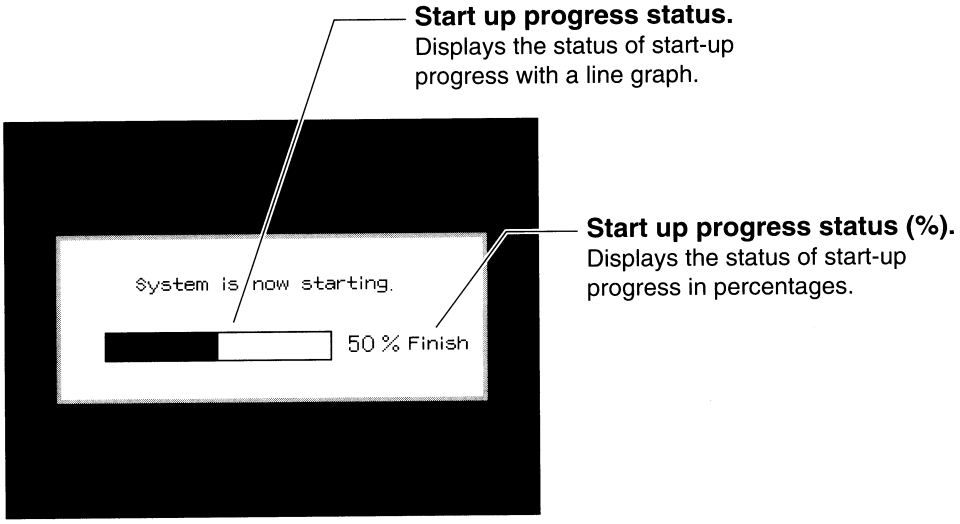


Fig.5-1. The Start Up Screen

- The Operation Condition Monitoring Screen will be displayed when the start-up process has been completed (when the start-up progress status reaches 100%.)
- Refer to the instruction book (General operations) for details on operations after this screen has been displayed.

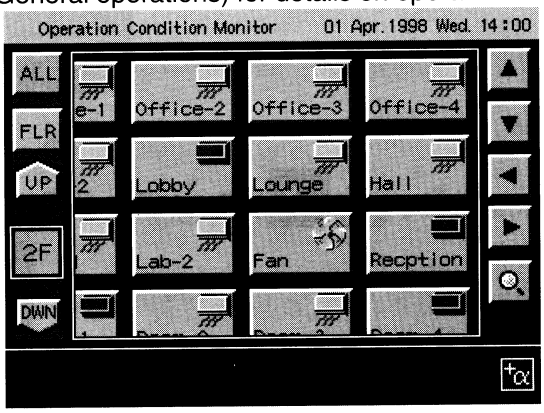


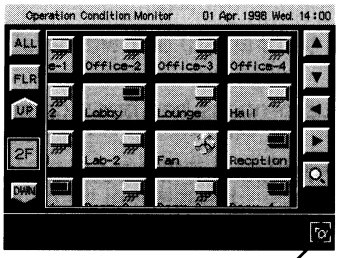
Fig.5-2. The Operation Condition Monitoring Screen

6. Amending connection information after operations have started

- If groups are to be added or deleted after operations have started, it is necessary to reset the connection information.
- Refer to the following pages for detailed information on amending the settings.
  - ① Adding indoor units and LOSSNAY units (p.28)
  - ② Deleting indoor units and LOSSNAY units (p.28)
  - ③ Amending group addresses (p.29)
  - ④ Amending group names (p.29)
  - ⑤ Amending floor numbers (p.30)
  - ⑥ Amending remote controller and system controller addresses (p.31)
  - ⑦ Amending types (p.32)
  - ⑧ Amending the auto mode function (p.33)
  - ⑨ Amending fan speed switch function (p.34)
  - ⑩ Amending air direction switch fcnction (p.35)

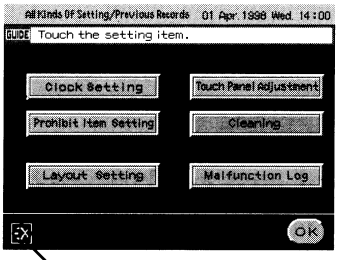
- The display can be moved across to The Connection Information Setting Screen by observing the following procedure.

The Operation Condition Monitoring Screen



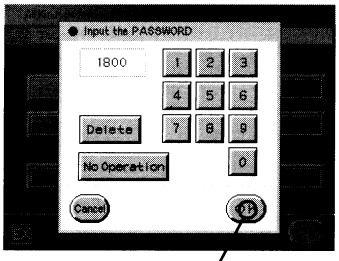
① Touch the +α button on The Operation Condition Monitoring Screen.

The All Kinds Of Setting/Previous Record Screen



② Touch the EX button on The All Kinds Of Setting/Previous Record Screen.

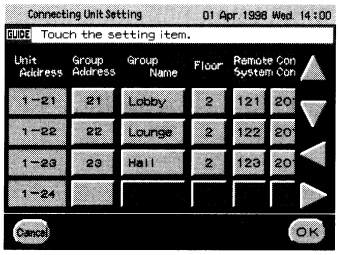
The PASSWORD Entry Screen



③ Input [1800] as the PASSWORD.
Example:

1) Touch the 1 button.
2) Touch the 8 button.
3) Touch the 0 button.
4) Touch the 0 button.

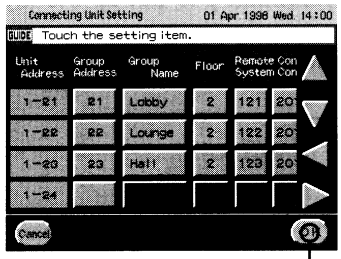
The Connection Information Setting Screen



④ Touch the OK button to display The Connection Information Setting Screen.

● If OK is touched after the connection information has been amended, the system will be restarted as follows.

The Connection Information Setting Screen



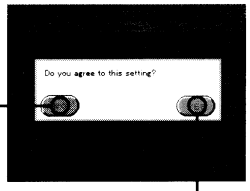
① Touch the OK button after the various amendments have been made.
If the amendments are to be canceled:

1) Touch the Cancel button to return to the all kinds of setting/ previous records.

Layout re-setting

Confirmation message

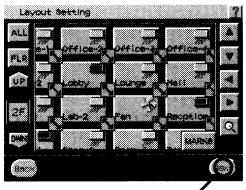
Confirmation message



② If any of the following amendments are to be performed, reset the group button layout.

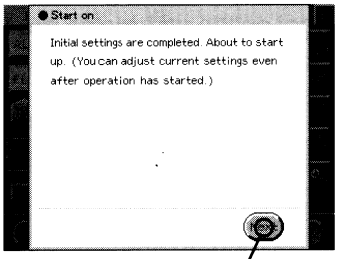
- New group to be added
- Group to be deleted
- Floor number to be amended

The Layout Setting Screen



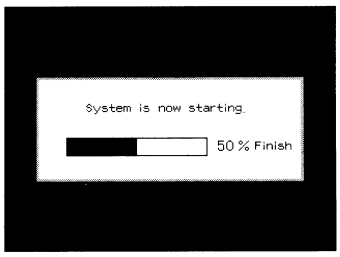
③ If the layout is to be reset, relocate the group button on The Layout Setting Screen and then touch the OK button.

The Start Confirmation Screen



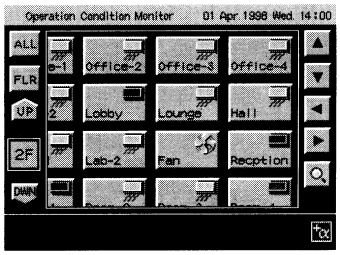
④ Touch the OK button on The Start Confirmation Screen.

The Start Up Screen



⑤ The system will be restarted from The StartUp Screen, and The Operation Condition Monitoring Screen will be displayed after a short period of time.

The Operation Condition Monitoring Screen



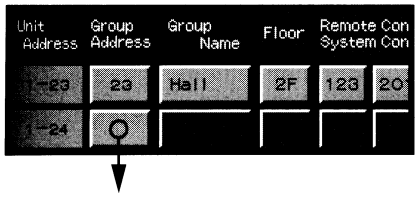
NOTE:

- If groups are added on the Connection Information Setting Screen, the layout information of the floor added the new group will be initialized. It is therefore necessary to set up the layout once more (→p.19).
- Schedules assigned to each group will not be initialized when this screen is updated and can therefore be used without modification.

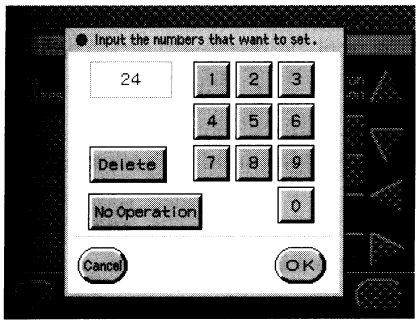
(1) Adding indoor units and LOSSNAY units

● New units are added by observing the following procedure.

The Connection Information Setting Screen



The Screen For Entering Numerals



① Touch the button for adding new unit group addresses on The Connection Information Setting Screen.

② Enter the address of the new unit group on The Screen For Entering Numerals by touching the buttons between [0] and [9].

If a mistake is made:

1) Touch the [Delete] button. The previously entered numeral will be deleted.

③ Touch the (OK) button after the group address has been entered to return to The Connection Information Setting Screen (p.10).

④ Repeat items ① to ③ until all required units have been registered.

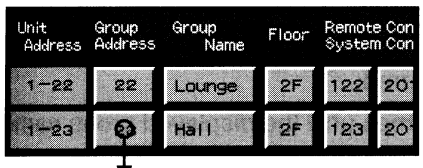
NOTE:

- If groups are added, the layout Information of the floor added the new group will be initialized, so it is necessary to reset the layout if an individual layout is required. However, if operations are to be carried out with the standard layout, this procedure is not necessary.
- Group addresses can be set within a range of 1 and 50 for each system.
- A maximum of 16 indoor units or LOSSNAY units can be registered for one group.
- If an already registered group address is entered, the settings from [Group Name] to [Swing] will be automatically set at the same values.

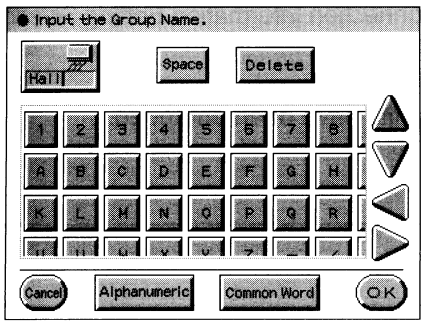
(2) Deleting indoor units and LOSSNAY units

● Units are deleted by observing the following procedure.

The Connection Information Setting Screen



The Screen For Entering Numerals



① Touch the group address button for the unit to be deleted on The Connection Information Setting Screen.

② Touch the [No Operation] button on The Screen For Entering Numerals.

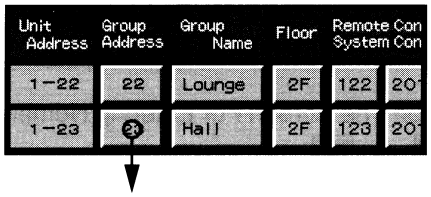
③ Touch the (OK) button to return to The Connection Information Setting Screen (p.10).

④ Repeat items ① to ③ until all required units have been deleted.

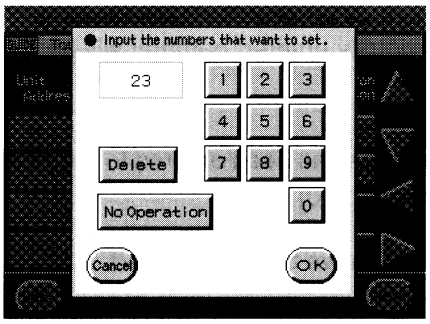
(3) Amending group addresses

● Group addresses are amended by observing the following procedure.

The Connection Information Setting Screen



The Screen For Entering Numerals



① Touch the button for the unit group to be amended on The Connection Information Setting Screen.

② Enter the number of the required group on The Screen For Entering Numerals by touching the buttons between [0] and [9].

If the displayed group number is to be cleared:

1) Touch the [Delete] button several times until the displayed group number is cleared.

③ Touch the (OK) button to return to The Connection Information Setting Screen (p.10).

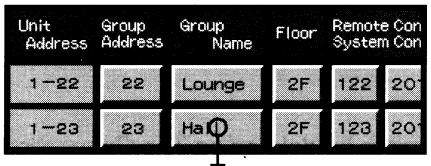
④ Repeat items ① to ③ until all required units have been amended.

NOTE: ● If new groups are added,the layout information of the floor added the new group will be initialized, so it is necessary to reset the layout if an individual layout is required. However, if operations are to be carried out with the standard layout, this procedure is not necessary.

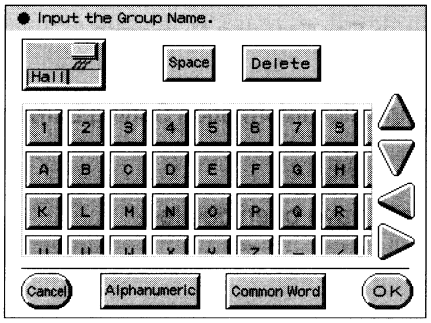
(4) Amending group names

● Group names are amended by observing the following procedure.

The Connection Information Setting Screen



The Screen For Entering Characters



① Touch the button for the unit group name to be amended on The Connection Information Setting Screen.

② Enter the new group name on The Screen For Entering Characters by touching the relevant buttons.

If the displayed group name is to be cleared:

1) Touch the [Delete] button several times until the displayed group name is cleared.

③ Touch the (OK) button to return to The Connection Information Setting Screen (p.10).

④ Repeat items ① to ③ until all required units have been amended.

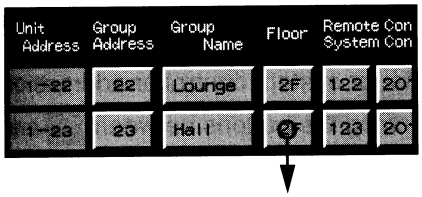
NOTE: ● Select easy-to-understand group names.

NOTE:
- A maximum of eight characters may be used for a group name.
- When a group name is amended, other units with the same group address will also be amended automatically.
- Group names can also be amended on The Layout Setting Screen.

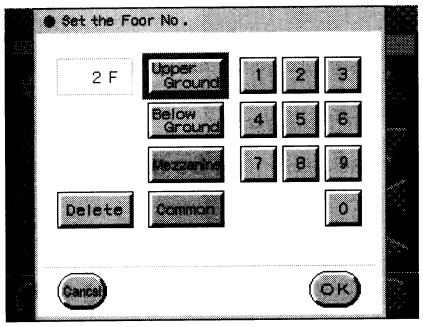
(5) Amending floor numbers

● Floor numbers are amended by observing the following procedure.

The Connection Information Setting Screen



The Screen For Entering Floor Numbers



① Touch the button for the unit floor to be amended on The Connection Information Setting Screen.

② Enter the number of the required floor on The Screen For Entering Floor Numbers.

If the displayed floor number is to be cleared:

1) Touch the Delete button several times until the displayed floor number is cleared.

③ Touch the OK button to return to The Connection Information Setting Screen (p.10).

④ Repeat items ① to ③ until all required units have been amended.

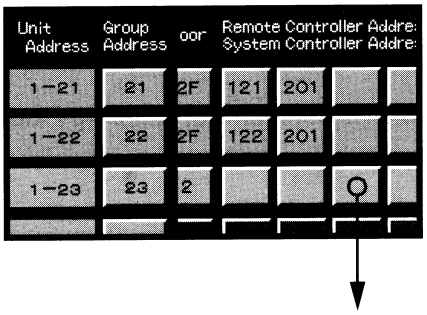
NOTE:

- A maximum of between 1 and 99 is possible for upper grounds. A maximum of between 1 and 9 is possible for below grounds, mezzanines and common areas.
- The group status for all set-up floors is displayed on the condition monitoring screen. The display will run in the sequence starting with the lowest floor.
  Below ground #9 → ... → below ground #1 → common #1 → ... → common #9 → mezzanine #1 → upper ground #1 → ... → mezzanine #9 → upper ground #9 → ... → upper ground #99.
- When a floor number is amended, the floor numbers for other units with the same group address will also be amended automatically.

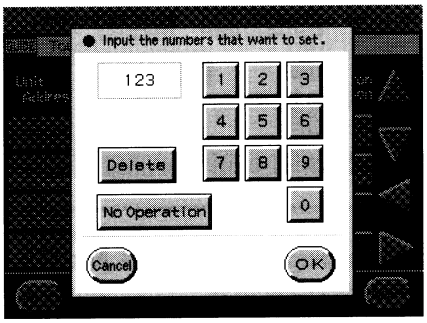
(6) Amending remote controller and system controller addresses

● Remote controllers and system controller addresses are amended by observing the following procedure.

The Connection Information Setting Screen



The Screen For Entering Numerals



① Touch the button for the remote controller or system controller address to be amended on the connection information setting screen.

② Enter the number of the remote controller or system controller address on the screen for entering numerals by touching the buttons between [0] and [9].

If a mistake is made:

1) Touch the [Delete] button. The previously entered numeral will be deleted.

If the remote controller or system controller address is to be deleted:

1) Touch the [No Operation] button.

③ Touch the (OK) button to return to the connection information setting screen (p.10).

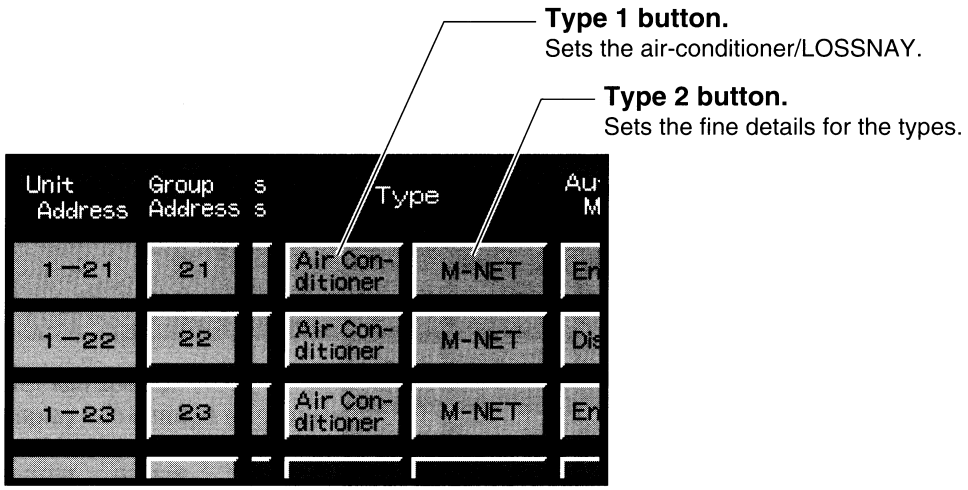
④ Repeat items ① to ③ until all required units have been registered.

NOTE:
- Remote controller and system controller addresses can be set within a range of 101 and 250. (Remote controller: 101 to 200. System controller: 201 to 250.)
- A maximum of two remote controllers can be registered for one group.
- A maximum of a combination of four system controllers can be registered for one group.
- When a remote controller or system controller number is amended, the remote controllers and system controllers for other units with the same group address will also be amended automatically.

NOTE:
- If a K transmission converter (PAC-SC25KAA) is connected to the system, do not enter the address for this controller.

(7) Amending types

- Information for the device types connected to the system can be amended by touching the type 1 button and type 2 button.



① Set type 1

The button display will change as follows whenever the type 1 button is touched.

[Air Con-ditioner] → [Lossnay] → [Air Con-ditioner] → ...

Make the alignment with the connected unit and then select the air-conditioner or LOSSNAY.

② Set type 2

The button display will change as follows whenever the type 2 button is touched.

(In the case that type 1 is Air-conditioner)

[M-NET] → [K-cntrl.] → [M-NET] → ...

(In the case that type 1 is a LOSSNAY)

Fixed at [M-NET]

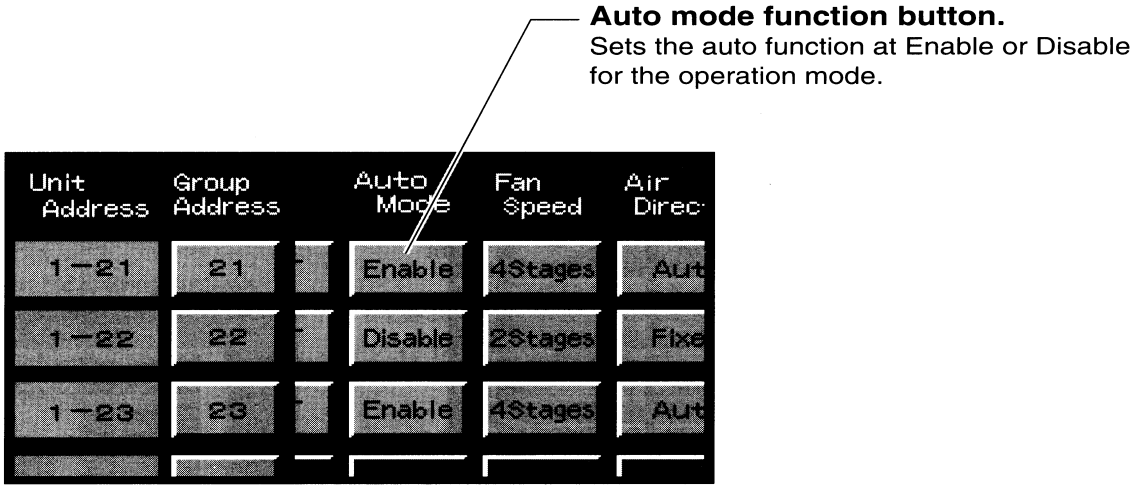
Make the alignment with the connected unit and then select the air-conditioner or LOSSNAY.

NOTE:

- When type 1 and type 2 are amended, the type1 and type 2 for other units with the same group number will also be amended automatically.
- Type 2 will change to [M-NET], auto mode will change to [Disable], fan speed will change to [4-Stage] and air direction will change to [Auto] when the type 1 button is touched and amended to [Air Conditioner].
- Type 2 will change to [M-NET], auto mode will change to [Enable], fan speed will change to [2-Stage] and air direction will change to [None] when the type 1 button is touched and amended to [LOSSNAY].
- Auto mode will change to [Disable], fan speed will change to [4-Stage] and air direction will change to [Auto] when the type 2 button is touched and amended to [M-NET].
- Auto mode will change to [Disable], fan speed will change to [2-Stage] and air direction will change to [Auto] when the type 2 button is touched and amended to [K-cntrl.].

(8) Amending the auto mode function

- The setting will switch between Enable/Disable whenever the auto mode function button is touched on the connection equipment set-up screen.
- Units that are to be operated in the auto mode are set at [Enable], and units that are not to be operated in the auto mode are set at [Disable].



① Setting the operation mode's auto function to [Enable]/[Disable]

The button display will change as shown below whenever the auto mode function button is touched:

(In the case that type 1 is an air conditioner)

Disable → Enable → Disable → ...

(In the case that type 1 is a LOSSNAY)

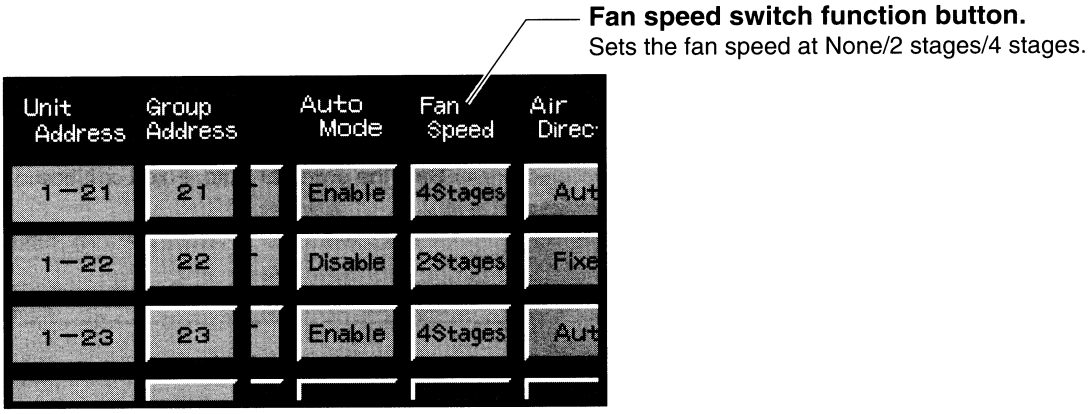
Fixed at Enable

Make the alignment with the connected unit, and then select the auto mode function as [Enable] or [Disable].

NOTE: ● When the auto mode function is amended, the auto mode function for other units with the same group number will also be amended automatically.

(9) Amending fan speed switch function

● The level of fan speed for units connected to the system can be amended by touching the fan speed button.



① Set the level for fan speed.

The button display will change as shown below whenever the fan speed switch function button is pressed:

(In the case that the type is an air conditioner [M-NET])

4Stages → None → 2Stages → 4Stages → ...

(In the case that the type is an air conditioner [K-contrl.])

None → 2Stages → None → ...

(In the case that the type is a LOSSNAY)

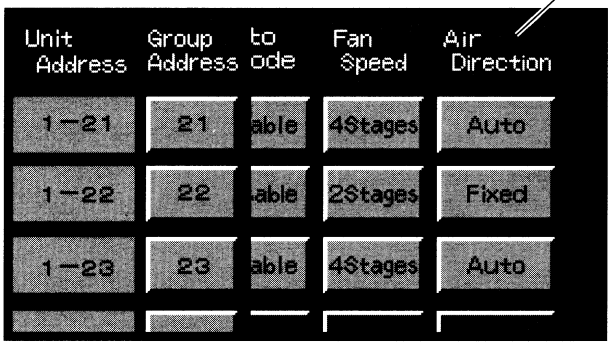
None → 2Stages → None → ...

Make the alignment with the connected unit, and then select the fan speed switch function.

NOTE: ● When the fan speed switch function is amended, the fan speed switch function for other units with the same group number will also be amended automatically.

(10) Amending air direction switch function

- The display will switch between Auto/Fixed/None when the swing button is touched on The Connection Information Setting Screen (p.10).
- Set units with no air direction switch function will be at [None], set units that have an air direction switch function but no swing function at [Fixed], and set units that have an air direction switch function and a swing function at [Auto].



Air direction switch function button.
Sets the swing at Auto, Fixed or None.

① Set the swing and Auto or Fixed.
The button display will change as follows whenever the swing button is pressed.
(In the case that type 1 is an air conditioner)
Auto → None → Fixed → Auto → ...
(In the case that type 1 is a LOSSNAY)
Fixed at None.
Make the alignment with the connected unit and then select either Auto or Fixed for the swing.

NOTE: ● When the air direction switch function is amended, the air direction switch function for other units with the same group address will also be amended automatically.

7. Specifications

Item	Specification	
Rated voltage	Input voltage	AC220V to AC240V, 0.3A (maximum)
	Fuse	2.0A Fast break type (IEC127-2 S.S.2)
Transmission line interface	M-NET transmission line: DC30V+AMI signal. Main bus transmission line: AMI signal	
Environmental conditions	Temperature	Operating temperature: 0 to +40 °C Storage temperature: 0 to +60 °C
	Humidity	30 to 90% RH (with no condensation)
External dimensions (H x W x D)mm	480 × 360 × 100	
Weight	9kg	
Clock Accuracy	±50 seconds/month	

8. List of error codes

Error code	Meaning	Error code	Meaning
0110	Device abnormality error	4200.	General inverter abnormality
0120.	Device abnormality error	420*.	General inverter abnormality. Inverter number
0900.	Test run	4210.	General inverter overcurrent shutdown abnormality
1000.	General coolant system abnormality	421*.	Inverter overcurrent shutdown. Inverter number
10*0.	Coolant system abnormality * Entire system	4220.	General insufficient inverter bus bar voltage abnormality
11**.	Coolant system temperature abnormality. Regional common operand **	422*.	Insufficient inverter bus bar voltage. Inverter number
12**.	Coolant system temperature abnormality delay. Regional common operand **	4230.	General inverter radiator thermo abnormality
13**.	Coolant system pressure abnormality. Regional common operand **	423*.	Inverter radiator thermo abnormality. Inverter number
14**.	Coolant system pressure abnormality delay. Regional common operand **	4240.	General inverter overcurrent protect abnormality
1500.	Coolant system prohibited. Coolant overcharge	424*.	Inverter overcurrent protect abnormality. Inverter number
1501.	Coolant system prohibited. Insufficient coolant	4250.	General inverter IPM abnormality
1502.	Coolant system prohibited. Liquid backed up	425*.	Inverter IPM abnormality. Inverter number
1503.	Coolant system prohibited. Frozen	4300.	General inverter abnormality delay
1504.	Coolant system prohibited. Overflow protect	430*.	General inverter abnormality delay. Inverter number
1505.	Coolant system prohibited. Compressor vacuum protect	4310.	General inverter overcurrent shutdown abnormality delay
2000.	General water system abnormality	431*.	Inverter overcurrent shutdown abnormality delay. Inverter number
20*0.	Water system abnormality * Entire system	4320.	General insufficient inverter bus bar voltage delay
21**.	Water system temperature abnormality. Regional common operand **	432*.	Insufficient inverter bus bar voltage delay. Inverter number
22**.	Water system abnormality delay. Regional common operand **	4330.	General inverter radiator thermo abnormality delay
23**.	Water system pressure abnormality. Regional common operand **	433*.	Inverter radiator thermo abnormality delay. Inverter number
24**.	Water system pressure abnormality delay. Regional common operand **	4340.	General inverter overcurrent protect abnormality delay
2500.	Water system prohibited. Leakage	434*.	Inverter overcurrent protect abnormality delay. Inverter number
2501.	Water system prohibited. Water cutoff	4350.	General inverter IPM abnormality delay
2502.	Water system prohibited. Drain pump abnormality	435*.	Inverter IPM abnormality delay. Inverter number
2503.	Water system prohibited. Drain sensor abnormality	5000.	General sensor fault
2504.	Water system prohibited. Water level abnormality	50*0.	Sensor fault * Entire system
2505.	Water system prohibited. Cold water electric valve abnormality	51**.	Temperature sensor fault. Sensor number **
2506.	Water system prohibited. Hot water electric valve abnormality	52**.	Pressure sensor fault. Sensor number **
2600.	Water system restricted. Leakage	53**.	Current sensor fault. Sensor number **
2601.	Water system restricted. Water cutoff	54**.	Humidity sensor fault. Sensor number **
2602.	Water system restricted. Drain pump abnormality	55**.	Gas sensor fault. Sensor number **
2603.	Water system restricted. Drain sensor abnormality	56**.	Fan speed sensor fault. Sensor number **
2604.	Water system restricted. Water level abnormality	57**.	Limited switch sensor fault. Sensor number **
3600.	Air system restricted. Filter blockage	58**.	Sensor fault. Sensor number **
3601.	Air system restricted. Filter maintenance	59**.	Other sensor fault. Sensor number **
3602.	Air system restricted. Damper position detection abnormality	6000.	General system abnormality
37**.	Air system temperature abnormality delay. Regional common operand **	6101.	System prohibited. With response frame
4000.	General electrical system abnormality	6102.	No answerback
40*0.	Electrical system abnormality * Entire system	6500.	General communication abnormality
4100.	Electrical system prohibited. Overcurrent shutdown	6600.	Communication abnormality. Duplicate address definition error
4101.	Electrical system prohibited. Overcurrent protect	6601.	Communication abnormality. Polarity not set error
4102.	Electrical system prohibited. Open phase	6602.	Communication abnormality. Transmission processor. Hardware error
4103.	Electrical system prohibited. Inverted phase	6603.	Communication abnormality. Transmission route BUSY error
4104.	Electrical system prohibited. Electrical leak	6604.	Communication abnormality. No ACK (06H) error
4105.	Electrical system prohibited. Short circuit	6605.	Communication abnormality. No response frame
4106.	Electrical system prohibited. Auto-power OFF	6606.	Communication abnormality. Communication abnormality with the transmission processor
4107.	Electrical system prohibited. Overload	6607.	Communication abnormality. ACK not returned error
4108.	Electrical system prohibited. OCR51C	6608.	Communication abnormality. Response frame not returned error
4109.	Electrical system prohibited. OCR51F	6609.	Communication abnormality.
4110.	Electrical system prohibited. High-voltage section	6610.	Communication abnormality.
4111.	Electrical system prohibited. Bus bar current	6700.	Communication abnormality. General K transmission abnormality
4112.	Electrical system prohibited. Coil overheat 49 degrees Celsius	6701.	Communication abnormality. K transmission error
4113.	Electrical system prohibited. Heater overheat	6702.	Communication abnormality. Duplicate K address definition error
4114.	Electrical system prohibited. Fan controller abnormality	6750.	Communication abnormality. K abnormality code PO
4115.	Electrical system prohibited. Power synchronization abnormality	6751.	K abnormality. Intake sensor abnormality
4116.	Electrical system prohibited. Motor abnormality	6752.	K abnormality. Pipe sensor error. Compressor temperature detection sensor abnormality

Error code	Meaning	Error code	Meaning
6753.	K abnormality. Send/receive error	6810.	Communication abnormality. General UR communication abnormality
6754.	K abnormality. Drain sensor abnormality. Floating switch activated	6811.	Communication abnormality. Unrecoverable UR communication synchronization abnormality
6755.	K abnormality. Drain pump abnormality	6812.	Communication abnormality. UR communication hardware error
6756.	K abnormality. Freeze/overheat protect	6813.	Communication abnormality. UR communication status bit detection error
6757.	K abnormality. System error	6820.	Other communication abnormality.
6758.	K abnormality. Outdoor unit abnormality. Indoor/outdoor communication error	6821.	Other communication abnormality. Transmission route BUSY
6761.	K abnormality. Intake sensor abnormality	6822.	Other communication abnormality. No communication ACK
6762.	K abnormality. Pipe sensor abnormality. Compressor temperature detection sensor abnormality	6823.	Other communication abnormality. No response command
6763.	K abnormality. Send/receive error	6824.	Other communication abnormality. Received data error
6764.	K abnormality. Drain sensor abnormality	7000.	General system abnormality
6765.	K abnormality. Drain pump abnormality	7100.	System abnormality. Total capacity error
6766.	K abnormality. Freeze/overheat protect	7101.	System abnormality. Capacity code error
6767.	K abnormality. Outdoor unit abnormality. Indoor/outdoor communication error	7102.	System abnormality. Too many connected units
6771.	K abnormality. High-pressure abnormality. Low pressure abnormality	7103.	System abnormality. Incorrect pipe length setting
6772.	K abnormality. Inner thermo activated. Discharge temperature abnormality. Other	7104.	System abnormality. Incorrect floor setting
6773.	K abnormality. Radiation board thermo abnormality	7105.	System abnormality. Address setting above 255
6751.	K abnormality. Intake sensor abnormality	7106.	System abnormality. Attribute setting error
6752.	K abnormality. Pipe sensor abnormality. Compressor temperature detection sensor abnormality	7107.	System abnormality. Distribution outlet setting error
6774.	K abnormality. Outdoor thermistor abnormality	7108.	System abnormality. Coolant system setting error
6775.	K abnormality. Pressure sensor abnormality. Indoor/outdoor communication abnormality	7109.	System abnormality. Connection setting error
6776.	K abnormality. Overcurrent shutdown	7110.	System abnormality. Connection information not set error
6777.	K abnormality. System error	7111.	System abnormality. input/output device not connected
6778.	K abnormality. Normal	7112.	System abnormality. input/output type setting abnormality
6779.	K abnormality. Coolant overcharge	7113.	System abnormality. Device not set
6800.	Communication abnormality. Other general communication abnormality	7200.	System abnormality. General value not set
6801.	Communication abnormality. V control communication abnormality.	7201.	System abnormality. Value not set

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

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

- Low Voltage Directive 73/23/EEC
- Electromagnetic Compatibility Directive 89/336/EEC

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WT02660X01
Printed in Japan