MITSUBISHI ELECTRIC

CE

Air-conditioner Control System
ADVANCED TOUCH CONTROLLER

MODEL

AT-50A

INSTRUCTION BOOK

Before using the controller, read this Instruction Book carefully to ensure proper operation.
Retain this Instruction Book for future reference.
Make sure that this manual as well as the Installation Manual are passed on to any future air condition system users.
To ensure safety and proper operation of the unit, the unit should only be installed by qualified personnel.

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Safety Precautions

- Thoroughly read the following safety precautions prior to installation.
- Observe the following precautions to ensure safety.

⚠ WARNING	Indicates a risk of death or serious injury.
⚠ CAUTION	Indicates a risk of serious injury or structural damage.

- Nomenclature

(Prohibited actions)

(Do not touch)

(No water)

(No wet hands)

(Electric shock hazards)

(Injury hazards)

(Important actions)

- After reading this manual, pass it on to the end user to retain for future reference.
- Keep this manual for future reference and refer to it as necessary. This manual should be made available to those who repair or relocate the controller. Make sure that the manual is passed on to any future AT-50A users.

All electric work must be performed by qualified personnel.

General precautions

⚠ WARNING

Do not install the unit in a place where large amounts of oil, steam, organic solvents, or corrosive gases, such as sulfuric gas, are present or where acidic/alkaline solutions or sprays are used frequently. These substances can compromise the performance of the unit or cause certain components of the unit to corrode, which can result in electric shock, malfunctions, smoke, or fire.

To reduce the risk of shorting, current leakage, electric shock, malfunctions, smoke, or fire, do not wash the controller with water or any other liquid.

To reduce the risk of electric shock, malfunctions, smoke or fire, do not operate the switches/buttons or touch other electrical parts with wet hands.

To reduce the risk of injury or electric shock, before spraying a chemical around the controller, stop the operation and cover the controller.

To reduce the risk of injury or electric shock, stop the operation and switch off the power supply before cleaning, maintaining, or inspecting the controller.

Properly install all required covers to keep moisture and dust out of the controller. Dust accumulation and water can cause electric shock, smoke, or fire.

⚠ CAUTION

To reduce the risk of fire or explosion, do not place flammable materials or use flammable sprays around the controller.

To reduce the risk of damage to the controller, do not directly spray insecticide or other flammable sprays on the controller.

To reduce the risk of electric shock or malfunctions, do not touch the touch panel, switches, or buttons with a pointy or sharp object.

To reduce the risk of injury and electric shock, avoid contact with sharp edges of certain parts.

To avoid injury from broken glass, do not apply excessive force on the glass parts.

To reduce the risk of injury, wear protective gear when working on the controller.

Precautions during installation

⚠ WARNING

Do not install the controller where there is a risk of leaking flammable gas.
If flammable gas accumulates around the controller, it may ignite and cause a fire or explosion.

Properly dispose of the packing materials. Plastic bags pose suffocation hazard to children.

Precautions for moving or repairing the controller

⚠ WARNING

The controller should be repaired or moved only by qualified personnel. Do not disassemble or modify the controller.
Improper installation or repair may cause injury, electric shock, or fire.

⚠ CAUTION

To reduce the risk of shorting, electric shock, fire, or malfunction, do not touch the circuit board with tools or with your hands, and do not allow dust to accumulate on the circuit board.

Additional precautions

To avoid damage to the controller, use appropriate tools to install, inspect, or repair the controller.

AT-50A is designed for exclusive use with the Building Management System by Mitsubishi Electric. The use of this controller for with other systems or for other purposes may cause malfunctions.

To avoid damage to the controller, do not overtighten the screws.

To avoid discoloration, do not use benzene, thinner, or chemical rag to clean the controller. To clean the controller, wipe with a soft cloth soaked in water with mild detergent, wipe off the detergent with a wet cloth, and wipe off water with a dry cloth.

To avoid damage to the controller, provide protection against static electricity.

Function List

The table below summarizes the functions that are available on the AT-50A.

Refer to the pages listed for details.

Function		Description	Page
Unit Operation	ON/OFF Operation	Switches the ON/OFF operation of the units such as air conditioning units. The LED on the Collective ON/OFF button will light up when one or more units are in operation and off when all units are stopped.	18
	Mode *1	Switches the mode “Cooling/Dry/Fan/Auto/Heating” for each group or all groups. (Switches the mode “Bypass/Heat recovery/ Auto” for LOSSNAY groups.)	18
	Set Temperature *1	Sets the set temperature for each group or all groups.	20
	Fan Speed *1	Adjusts the fan speed for each group or all groups.	21
	Air Direction *1	Adjusts the air direction for each group or all groups.	21
	Louver *1	Enables/disables the louver for each group or all groups.	21
	ON/OFF Operation for Interlocked Ventilation *1	The ON/OFF operation of the interlocked ventilation unit is interlocked with the ON/OFF operation of the air conditioning unit. The interlocked ventilation units can be independently operated for ON (High/Low)/ OFF for each group or all groups. (When the ventilation unit is interlocked with the air conditioning unit, the ventilation mode cannot be used.)	21
	Collective Operation	The following functions can be collectively executed on multiple groups: Setback, Schedule, Mode, Temperature Correction, RC Prohibition.	19 38
Time and Schedule	Date and Time	Sets the date, time, and display formats. The current time will appear at the top right corner of the HOME screen.	27
	Weekly/1-day schedule	• Allows the user to set the Weekly schedule for each group. • Maximum of 16 events can be scheduled for each day. • The types of actions that can be scheduled are as follows: ON/OFF, Mode, Set Temperature, Fan Speed, Air Direction, and Remote Controller Operation Prohibition. • Maximum of 12 patterns can be configured for the Weekly schedule, and 5 for 1-day schedule. • Two types of weekly schedule (Summer/Winter) can be set. • 1-day schedule overrides the Weekly schedule.	27
	Setback Control	This function helps keep the indoor temperature in the temperature range while the units are stopped and during the time this function is effective.	35
	Disabling scheduled operation	Scheduled operation can be temporarily disabled. This setting must be set to OFF to run scheduled operation.	22
System Management	System-Changeover	Automatically switches the entire system (all indoor units that are connected to the same outdoor units) to Cooling or Heating by periodically monitoring the room temperature and the preset temperature of each group and determining the best operation mode. • The System-Changeover function is not available for the following types of products: Simultaneous Cooling/Heating units (with automatic mode change function), Mr. SLIM®, LOSSNAY, and DIDO controller.	59

*1: Available functions vary depending on the unit type. Only the functions that are supported by the connected units can be controlled from the AT-50A.

Function		Description	Page
Restriction Settings	Lock Buttons	Locks the following buttons: Collective ON/OFF, F1, F2, and Main Menu. Locks the following functions: ON/OFF, Mode, Set Temp, Fan Speed, and Schedule ON/OFF.	11 23 42
	Set Temperature Range Limit	Limits the available temperature range for the local remote controllers (each group or all groups).	44
	Prohibit Remote Controller	Locks the following buttons on the local remote controllers: ON/OFF, Mode, Set Temperature, and Filter Reset buttons (collectively or by group)	46
	Operation Mode Selection Limit	When set as the main controller, operation of the following modes with the local remote controllers can be prohibited. When cooling is prohibited: Cooling, dry, automatic cannot be chosen. When heating is prohibited: Heating, automatic cannot be chosen. When cooling/heating is prohibited: Cooling, dry, heating, automatic cannot be chosen.	48
Basic Settings	Display Format	Selects the display formats for the following items: Display language, temperature unit, room temperature, display or non-display of Cooling/Heating mode icons (during Auto mode), backlight timer, and group names.	50
	Function Key Setting	The F1 button and the F2 button can be set as a run button of the following collective operation: Setback, Schedule, Operation Mode, Temperature Correction, Remote Controller Prohibition.	54
	HOME screen Operation Mode Setting	When the Group icon is touched, the action differs depending on the operation mode. Default is set to the operation mode 2. Operation mode 1: Turns ON/OFF the units in the group whose Group icon is touched. Operation mode 2: Displays the check mark when Group icon is touched. Touch the Group icons of the groups to be operated, and then touch the “OPERATE” button to move to the Group screen. Multiple groups can be selected. Use this mode when operating the multiple groups collectively. Operation mode 3: Directly moves to the Group screen of the group whose Group icon is touched.	41
	Volume Control	Sets the sound volume and screen brightness.	55
Maintenance	Error	If an error occurs on the AT-50A controller or the units and controllers it controls, the LED on the Collective ON/OFF button will blink. If an error occurs on the indoor or LOSSNAY units, ⚠ will appear on the corresponding group icon on the HOME screen. The error code can be verified and reset on the Status List screen.	57
	Filter sign	Filter Icon will appear on the HOME screen when the filter is due for cleaning. The icon can be removed from the Status List screen.	57
	Touch Panel Cleaning Mode	Disables the touch panel to allow the user to clean the panel.	61
	Touch Panel Calibration Mode	Calibrates the touch panel if the touch panel does not respond correctly when touched.	56
Miscellaneous	External input	Receives input signals from external devices and start/stop all groups of units or permit/prohibit operations from the local remote controllers. Requires cable connections.	
	External output	Outputs the operation status of the units (ON/OFF) or error signals to external devices collectively, using contact signals. Requires cable connections.	

Names and Functions of Controller Components

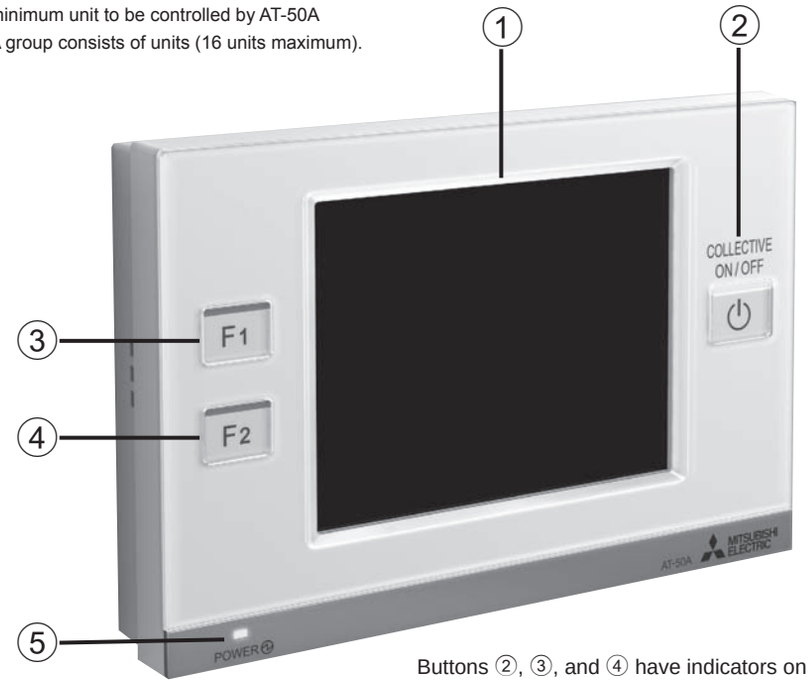
Product features

The AT-50A described in this manual is a centralized controller with color LCD touch panel for air conditioning units, LOSSNAY, and General equipment using the Mitsubishi Electric DIDO controller (PAC-YG66DCA).
AT-50A can control up to 50 units/50 groups. (*1)
AT-50A controls and monitors the air conditioning units of each group. AT-50A also can control detailed scheduling and prohibits the local remote controller operation in each room (group), which may lead to energy savings.
Basic operations are accessed through the AT-50A touch panel. ON/OFF, F1, and F2 operations that control air conditioning units collectively are accessed by using buttons next to the touch panel.

AT-50A display screen consists of three types, corresponding to the usage.

HOME screen	: Monitoring screen to monitor the operation status of the units (described in this Instruction Book)
Main Menu screen	: Setting screen to set the functions such as schedule settings (described in this Instruction Book)
Maintenance screen	: Initial setting screen to set the basic systems such as group settings (described in the Installation Manual)

* 1 Group: minimum unit to be controlled by AT-50A
A group consists of units (16 units maximum).



Buttons ②, ③, and ④ have indicators on the top.

Touch panel / Buttons

① Display/Touch panel

AT-50A features a 5" color LCD touch panel. Touch panel displays the operation status of the units. Function settings such as week schedule settings are accessed through the touch panel. The backlight lights up when the panel is touched, and lights off after certain period of time. The backlight will remain lit as long as an error exists.

② Collective ON/OFF Button *1

The **Collective ON/OFF** button enables the collective ON/OFF function that allows the user to turn on/off the air conditioning units, LOSSNAY, and DIDO controllers in all groups collectively.
The indicator corresponds to the operation status of controlled units.

Unlit : Indicates that all units are stopped.
Lit : Indicates that one or more units are in operation.
Blink : Indicates that an error is occurring.

③ Function 1 Button (F1), ④ Function 2 Button (F2) *1 *2

Desired functions from the following list can be assigned to the F1 and F2 buttons.
(Setback/Schedule/Operation Mode/Temperture Correction/Remote Controller Prohibition)
The functions to assign to these buttons can be selected from the Function Key Setting on the Control Panel.
The indicator on the buttons indicates the enabled/disabled status of the function.

Unlit : The assigned function is disabled.
Lit : The assigned function is enabled.

The indicators on the F1 and F2 buttons will be lit or unlit when the functions that are assigned to the F1 and F2 buttons are enabled or disabled from the Collective Operation panel.

⑤ Power indicator

The power indicator lights up when the power to AT-50A is turned on.

Unlit : Power OFF
Lit : Power ON

*1 When the button is pressed while the operation is prohibited, the LED will blink twice.
*2 Buttons ②, ③, and ④ are available only on the HOME screen.

Screen Configuration [HOME screen]

1. How to switch the HOME screen

Touch tubs to change the display format.

: Displays the GRID screen.

: Displays the GRID (zoom-out) screen.

: Displays the GRID (zoom-in) screen.

: Displays the LIST screen.

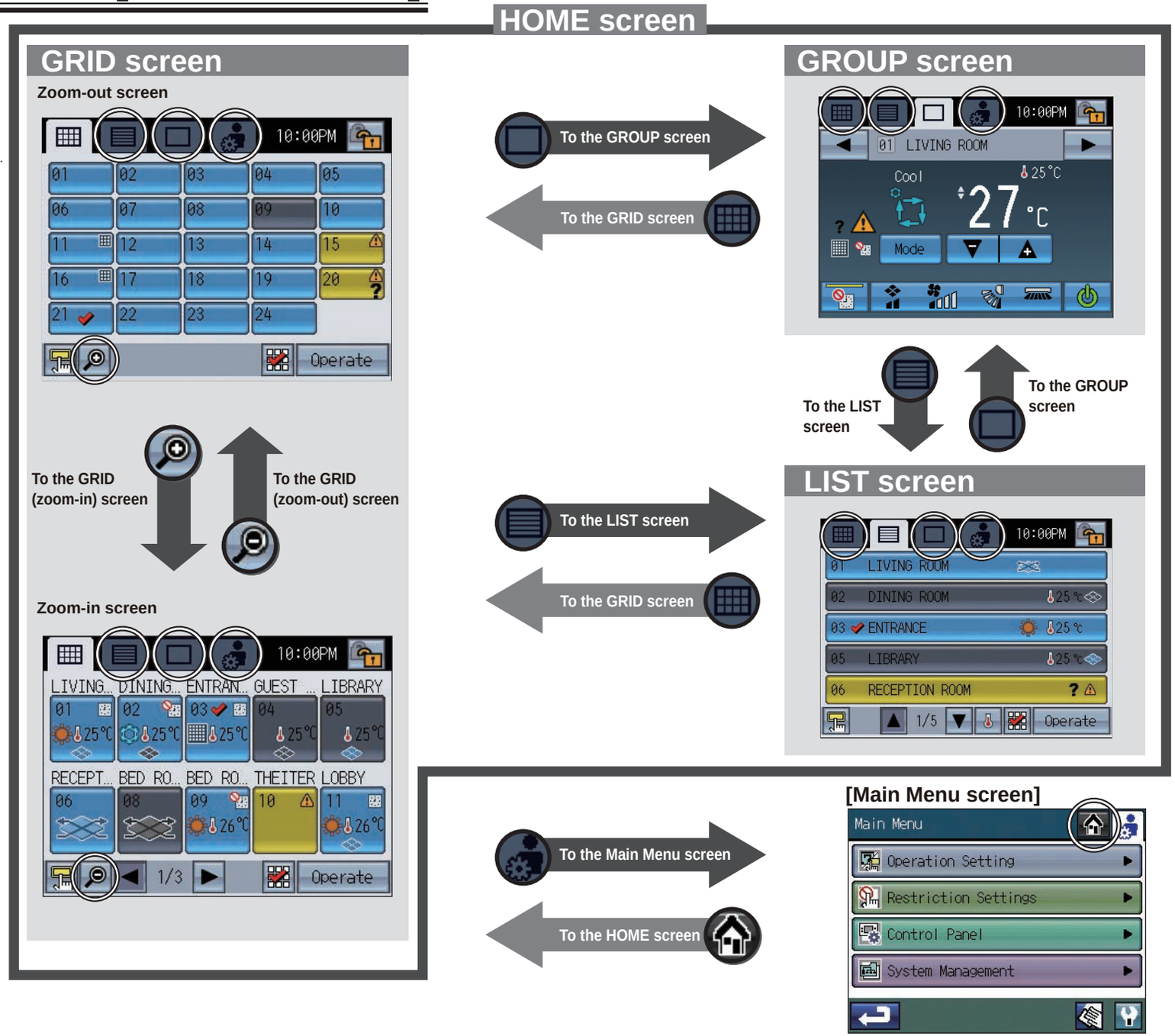
: Displays the GROUP screen.

2. How to move to the Main Menu screen

: Displays the Main Menu screen.

3. How to move to the Maintenance screen

Refer to the Installation Manual.

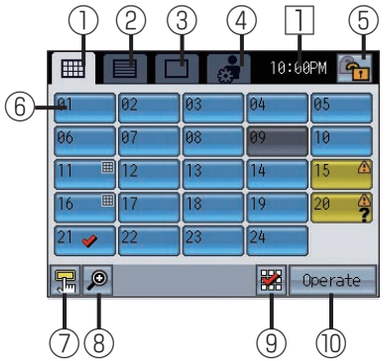


Buttons [HOME screen]

HOME screen

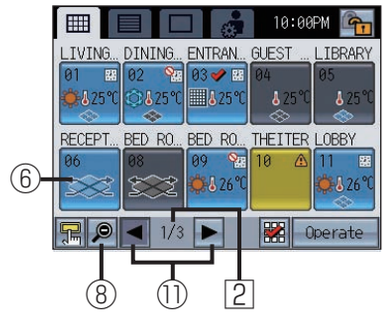
GRID (zoom-out) screen

Displays the operation status of all groups.
The button layout ⑥ varies with the number of the registered groups.



GRID (zoom-in) screen

Displays the detailed operation status of each group. (10 groups on 5 pages maximum)



LIST screen

Displays the detailed operation status of each group with group name. (5 groups on 10 pages maximum)

GROUP screen

Displays the detailed operation status of each group. Sets group operations.
(When the air conditioning units are controlled)

Note: Display ⑨ and ⑩ vary depending on the operation mode. Refer to P17 "Operation mode" for details.
Sample displays above are for default setting: Operation mode 2.

Operation mode 1	
Operation mode 2	Operate
Operation mode 3	

①GRID screen button

Displays the GRID screen.

②LIST screen button

Displays the LIST screen.

③GROUP screen button

Displays the GROUP screen.

④MAIN MENU screen button

Displays the MAIN MENU screen.

⑤Operation lock button

Locks or unlocks the buttons on the AT-50A.
Press and hold the button for two seconds to lock or unlock the buttons.
The locked/unlocked status icon will appear on the buttons.

: Locked : Unlocked

A password may be required to unlock certain buttons. Select the buttons to be locked from the Lock Buttons (Refer to P42.) on the Main menu.
If no items have been selected, the operation lock button will not appear on the screen.

⑥Group icon (operation status display) button

Operation differs depending on the operation mode.

Operation mode 1

Turns ON/OFF the units in the group whose Group icon is touched.

Operation mode 2

Switches the Group icon between Selected (checked) and Deselected (unchecked).
(Default) Displays the check mark when Group icon is touched.

Operation mode 3

Directly moves to the Group screen of the group whose Group icon is touched.

⑦ "Access the Collective Operation panel" button

Press this button to bring up the collective operation panel.
(Refer to P19 for information about the collective operation panel.)

⑧GRID (zoom-out/zoom-in) screen button

: Displays the zoom-out screen.
: Displays the zoom-in screen.

⑨Select All button

Selects/Deselects groups collectively. Adds check marks to all selected icons.

⑩Move-to-the-selected-group button

Moves to the GROUP screen of the selected group. Moves to the Multiple group selection screen when multiple groups are selected. Refer to P23 "Multiple group selection screen" for details.

⑪Page button

Flips through pages.

⑫Display selection button

Shows/Hides the display for the information below.
• Set temperature
• Scheduled operation is enabled.

⑬Group button

Switches the group to be displayed.

⑭Mode button

Switches the operation mode of the air conditioning units and LOSSNAY.

⑮Set temperature button

Adjusts the set temperature by using the + and – buttons. Set temperature appears above the button.

⑯"Disable scheduled operation" button

Use this button to temporarily disable the scheduled operation on the display.
The indicator on the button will remain lit when the function is enabled.
The scheduled operation will not be run when the icon is displayed.

⑰Interlocked ventilation (LOSSNAY)/ Air direction/Fan speed/Louver setting button

Displays the popup window of Interlocked ventilation (LOSSNAY)/Air direction/Fan speed/ Louver setting screen.
* Refer to P21 "Interlocked ventilation units (LOSSNAY)/Fan speed/Air direction/Louver settings" for the popup window.

⑱ON/OFF button

Changes the operation to ON/OFF.

⑲Fan speed selection button

Switches LOSSNAY fan speed between Lo and High.

1 Current time

Displays the current time.

2 Current page/Total pages

Displays the Current page/Total page number.

Note : Depending on the units to be controlled and AT-50A settings, available button operations and displays vary.
: While the icon is displayed on the button, the operation is locked.

Icon Displays [HOME screen]

(1) GRID (zoom-out) screen

[ON (BG Color: blue)]
Group No.

•Filter sign
•Check mark

[OFF (BG Color: black)]

[Error (BG Color: yellow)]

Error display
Communication error at startup

(2) GRID (zoom-in) screen

[Air conditioning]

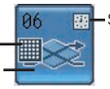
[ON (BG Color: blue)]

•Check mark
•ON/OFF operation prohibition
Group No.
•Mode
•Filter sign:
Schedule (enable/disable)
Room temperature
Interlocked ventilation (LOSSNAY) operation

[OFF (BG Color: black)]

[LOSSNAY group]

[ON (BG Color: blue)]

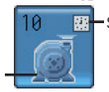


Filter sign:
LOSSNAY icon
Schedule (enable/disable)

[OFF (BG Color: black)]

[General equipment group]

[ON (BG Color: blue)]



General equipment icon
Schedule (enable/disable)

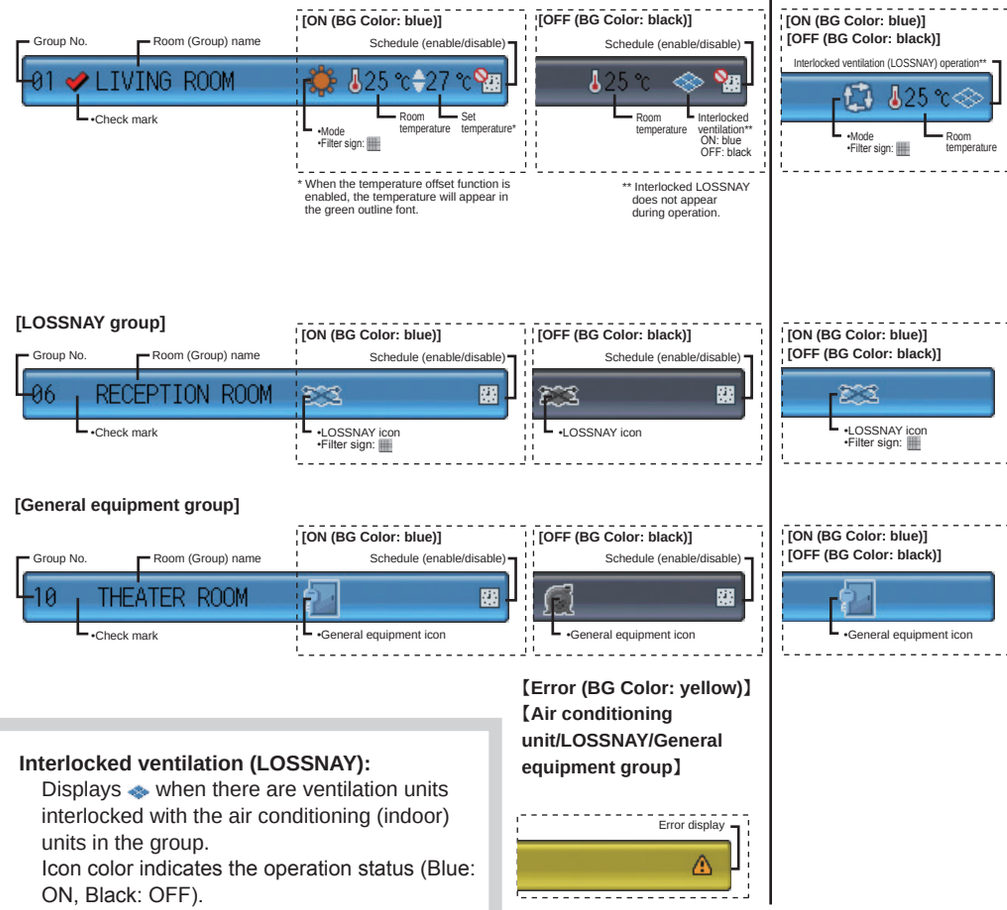
[OFF (BG Color: black)]

[Error (BG Color: yellow)]
[Air conditioning unit/LOSSNAY/General equipment group]

Error display

(3) LIST screen

Display selection button



Error:
Displays ⚠ when an error occurs.

Startup (communication) error:
Displays ? as well as the error display when a startup (communication) error occurs.

Filter sign:
Displays ▦ when filter needs maintenance.

During scheduled operation:
Displays ⊡ during scheduled operation.

When the "Disable scheduled operation" button is enabled:
Displays ⊘ when the "Disable scheduled operation" button is enabled.

Room temperature:
Display ranges 8-39ºC (46-102ºF). When the temperature is beyond the range, 8ºC (46ºF) or 39ºC (102ºF) will blink on the display.
When multiple air conditioning units (indoor units) are registered to a group, current indoor temperature on the main indoor unit is displayed.

Interlocked ventilation (LOSSNAY):
Displays ◆ when there are ventilation units interlocked with the air conditioning (indoor) units in the group.
Icon color indicates the operation status (Blue: ON, Black: OFF).

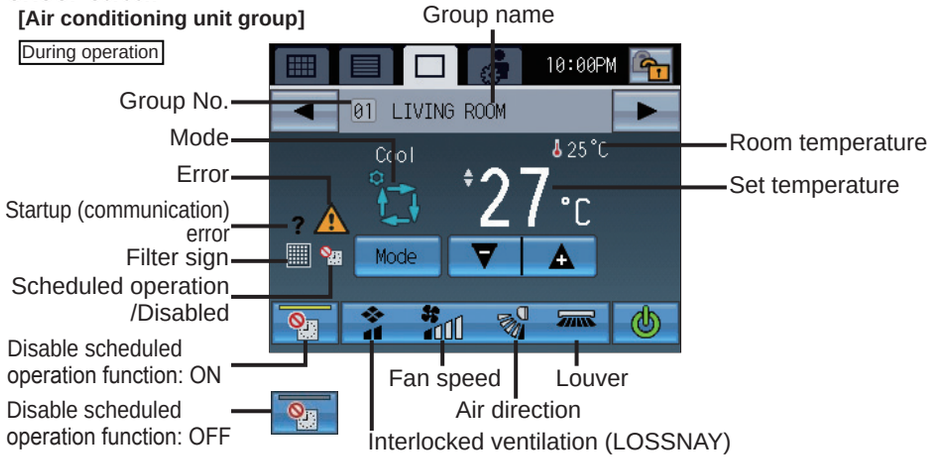
General equipment icon:
Displays the General equipment type.

Icon Displays [HOME screen]

GROUP screen

[Air conditioning unit group]

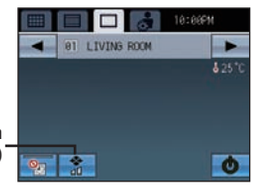
During operation



Temperature Correction

When the Temperature Correction function is enabled

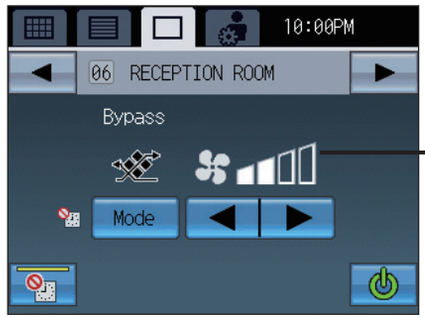
While the unit is stopped



Interlocked ventilation (LOSSNAY)

[LOSSNAY group]

During operation

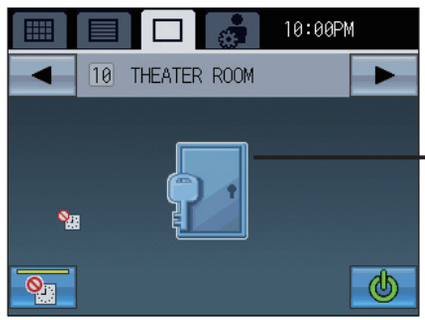


Fan speed display

While the unit is stopped

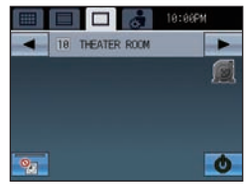
[General equipment group]

During operation



General equipment icon

While the unit is stopped



Error:
Displays ⚠ when an error occurs.

Startup (communication) error:
Displays ? as well as the error display when a startup (communication) error occurs.

Filter sign:
Displays ▦ when filter needs maintenance.

During scheduled operation:
Displays ⊡ during scheduled operation.

When the "Disable scheduled operation" button is enabled:
Displays ⊘ when the "Disable scheduled operation" button is enabled.

Room temperature:
Display ranges 8-39ºC (46-102ºF). When the room temperature is beyond the range, 8ºC (46ºF) or 39ºC (102ºF) will blink on the display. When multiple air conditioning units (indoor units) are registered to a group, current indoor temperature on the main indoor unit is displayed.

Note : While the 🔒 icon is displayed on the button, the operation is locked.

When the Temperature Correction function is enabled:
When the Temperature Correction function is enabled, the corrected temperature will appear in the green outline font.

Interlocked ventilation (LOSSNAY):
Displays the operation status of the ventilation that is interlocked with the air conditioning (indoor) units.

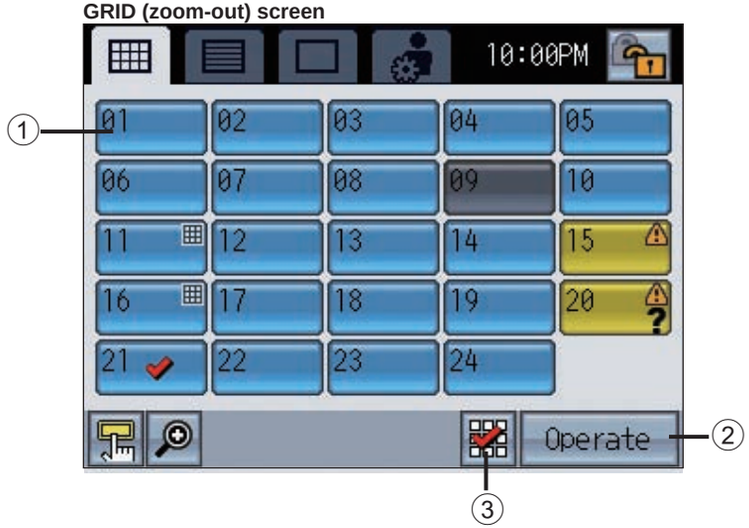
General equipment icon:
Displays the General equipment type.

Basic Operations

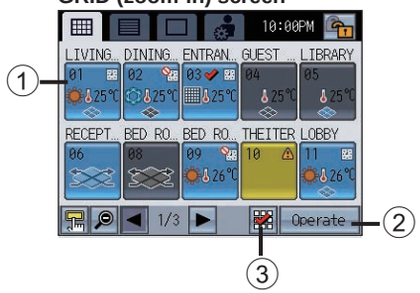
Screen selection

GRID (zoom-out) screen appears at the initial startup.
Select the desired screen.

GRID (zoom-out) screen



GRID (zoom-in) screen



LIST screen

Group selection

- **Operation mode 1, 2, 3**

  When the Group icon ① is touched, the action differs depending on the operation mode. Operation mode consists of three modes (shown below), and default is set to the operation mode 2. Refer to P41 for changing the mode.

- **Operation mode 2: Operate appears in the area marked ②. Allows the user to select groups to be operated. Moves to the Group screen.**

  Touch the Group icon ① to select the group to be operated. Groups can be selected on the GRID or the LIST screens.
  Touch the Group icon ① to switch between displaying check marks (selected) and hiding check marks (deselected). Touch ③ to select all groups.
  Touch the Group icons of the groups to be operated, and then touch Operate ② to move to the Group screen.

  The number of selected groups = 1 : The selected group appears on the Group screen.
  Refer to P18 "Group screen" for details.
  The number of selected groups > 1 : The Multiple group selection screen appears.
  (The selected groups can be operated collectively.)
  Refer to P23 "Multiple group selection screen" for details.

- Operation mode 1: appears in the area marked ②.
  Stops or starts the operation of the air conditioning units through Group icon ①.

  * ON/OFF operation lock
  When AT-50A restricts its own ON/OFF operation, the icon above will appear. The ON/OFF operation will be disabled.

  * During receiving the external input signal
  The ON/OFF function cannot operate when the following displays appear.

  ■Displays the emergency stop level-signal input*

  When the group icon button is set to the operation mode 1

  ■Displays ON/OFF level-signal input

  The button cannot be operated.

- Operation mode 3: Nothing appears in the area marked ②.
  Moves to the Group screen by touching the Group icon ①.

Basic Operations

Operation Screen (Group screen)

Operating the Air conditioning unit group

Basic operations (GROUP screen)

ON/OFF operation

Touching ③ allows the indoor units in the displayed group to start/stop.
When interlocked ventilation units (LOSSNAY) are connected, the ventilation units work in conjunction with indoor units.

ON: [Green] OFF: [Black]

Mode (useable only while the unit is in operation)

Touch ② to access the modes in order of "Cooling, Dry, Fan, Auto, and Heating."
The selected mode will appear in the area labeled ①.

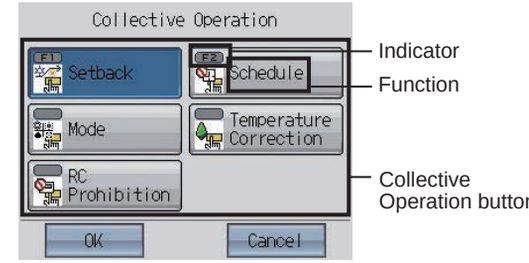
*Refer to P51 for Auto mode cooling/heating settings.
*To operate an indoor unit in the heating (cooling) mode while the indoor unit is already operating in the opposite mode, the operation mode cannot be changed until all of the indoor units operate in the same mode or stop. In this case, the mode ① will blink.
*Available mode varies depending on the model. Modes that are unavailable do not appear.
*The operation mode which is restricted by this controller or other controllers cannot be selected.

Collective Operation Panel

This panel has the functions that can be executed collectively. (Setback, Schedule, Mode, Temperature Correction, RC Prohibition)

Touching the icon at the left bottom of the icon on the GRID or the LIST screen will bring up the Collective Operation panel.
Each button has an indicator and the function name.

The indicators on the buttons show which functions are assigned to which buttons.

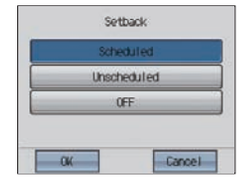


- Before using the Collective Operation buttons, the groups to execute collective settings on must be selected, and the parameters must be set from Main Menu>Operation Setting>Collective Operation Setting.
- If ✕ appears on an icon of a given function, the function is not available.

Performing Collective Operation

① On the GRID or the LIST screen, touch the button that brings up the Collective Operation Panel.
② Select the Collective Operation button on the Collective Operation panel.
③ Press OK on the Collective Operation panel.
(Go to ④ if Setback or Mode was selected. Otherwise, the setting is complete.)
④ If Setback or Mode was selected, take the following steps.

When Setback is selected



Select the desired item, and touch OK.

- Scheduled: Scheduled operation is enabled. The units will operate according to the Setback Control settings. (P35)
- Unscheduled: Scheduled operation is disabled. The units will operate according to the Collective Operation settings (Setback). (P39)
- OFF : The Setback function will not be executed.

*Regardless of how the above settings are made, the Setback function will not be executed if the operation switch is on.

When Mode is selected

- Touch OK on the popup window.
- Select a mode on the window that will appear.
- Press OK.

*A blinking indicator on a button indicates that the function that corresponds to the button cannot be collectively executed. Check the settings for the “Collective Operation Setting.”

Basic Operations

Checking the status of the collective operation functions

① On the GRID or the LIST screen, touch the button that brings up the Collective Operation panel.
② Check the color of the indicator on the collective operation button.

(Yellow) : The function is enabled.
(Gray) : The function is disabled.

Checking the Function button settings

① On the GRID or the LIST screen, touch the button that brings up the Collective Operation Panel.
② Check what it says on the indicator on the collective operation buttons.

F1 : The function is assigned to the F1 button.
F2 : The function is assigned to the F2 button.
: The function is not assigned to the F1 or F2 button.

Temperature setting (useable only while the unit is in operation)

Touch ▼ ▲ to adjust the temperature setting.

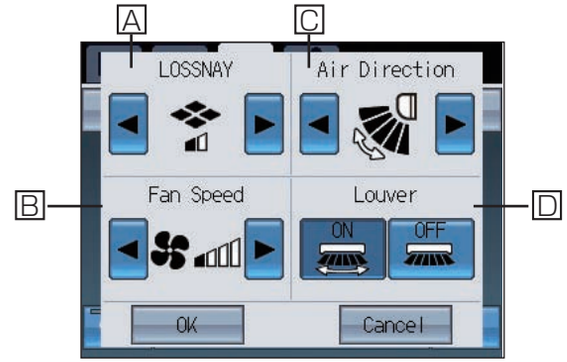
(* When fan mode is selected, the temperature setting cannot be made.)

*Available set temperature range varies depending on the mode or model.
The temperature can be set within the following range.

Cool/Dry	: 19°C - 30°C / 67°F - 87°F
Heat	: 17°C - 28°C / 63°F - 83°F
Auto	: 19°C - 28°C / 67°F - 83°F

Interlocked ventilation units (LOSSNAY)/ Fan speed/Air direction/Louver settings

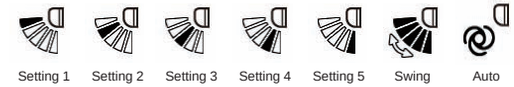
Touch ④ to show the Interlocked ventilation units (LOSSNAY)/Fan speed/Air direction/ Louver settings screen.



A : Interlocked ventilation units (LOSSNAY)
* When interlocked ventilation units are not connected, [A] does not appear.

B : Fan speed (useable only while the unit is in operation)
* [B] does not appear when the model does not have this function.
* Available fan speed varies depending on the model.

C : Air direction (useable only while the unit is in operation)
* [C] does not appear when the model does not have this function.
* Available air direction varies depending on the model.



D : Louver (useable only while the unit is in operation)
* [D] does not appear when the model does not have this function.

After setting A through D, touch the **OK** button.

Basic Operations

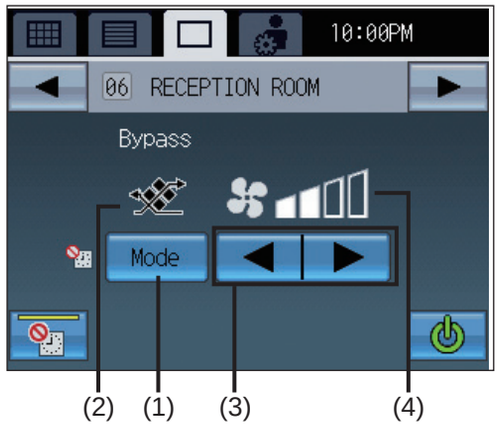
“Disable scheduled operation” button

The “Disable scheduled operation” function is ON. The “Disable scheduled operation” function is OFF.

Use button ⑤ (P18) to temporarily disable the scheduled operation.
When the function is enabled, the indicator on button ⑤ will light up in yellow.
When this function is enabled, the icon will appear on the screen, and the scheduled operation will not be run.

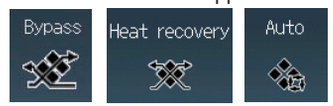
Operating the LOSSNAY group

Displays that are not marked by numbers on the screen are the same as those on the Air conditioning unit group screen.



Mode

Touch (1) to access the modes in the order "Bypass, Heat recovery, Auto."
The selected mode will appear in the area marked (2).



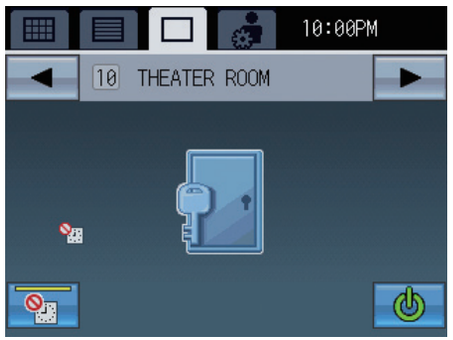
*Available mode varies depending on the model.
Modes that are unavailable do not appear.

Fan speed setting

Touch (3) to access the fan speeds in the order "Low, High."
The selected fan speed will appear in the area marked (4).

Operating the General equipment group

Displays that are not marked by numbers on the screen are the same as those on the Air conditioning unit group screen.



Displays the General equipment type.
*When changing icons, refer to the Installation Manual.

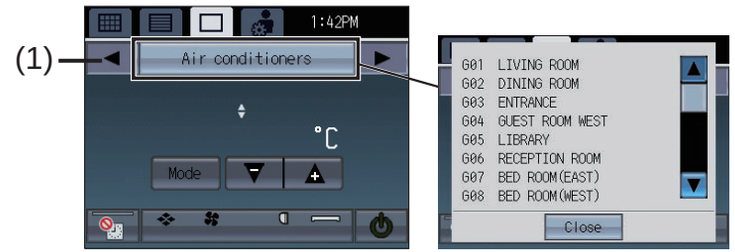
ON/OFF operation

- When the General equipment is turned on, the output contact of DIDO controller (PAC-YG66DCA) also turns on.
- When the General equipment is turned off, the output contact of DIDO controller (PAC-YG66DCA) also turns off.

Multiple group selection screen

* To operate the Air conditioning unit group

Allows the user to collectively operate all groups that are selected on the GRID or LIST screen.
When selected groups include two or more unit types, select the unit type to be operated. Then, the target group will be the selected unit group.



Check the selected groups. Touch (1) to show the selected group confirmation screen.

Disabling functions

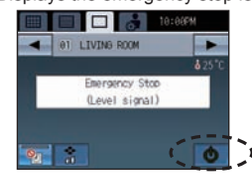
Lock Buttons

When AT-50A locks its own functions for ON/OFF, Mode, Temperature, Fan speed, “Disable scheduled operation” button, the icon above will appear on the corresponding buttons, and the functions will be disabled.
When the ON/OFF function is locked, the Collective ON/OFF button will be enabled.
Example) ON/OFF operation lock

During receiving the external input signal

The ON/OFF function cannot operate when the following displays appear.

■Displays the emergency stop level-signal input*



■Displays ON/OFF level-signal input

The button cannot be operated.

Operation restrictions

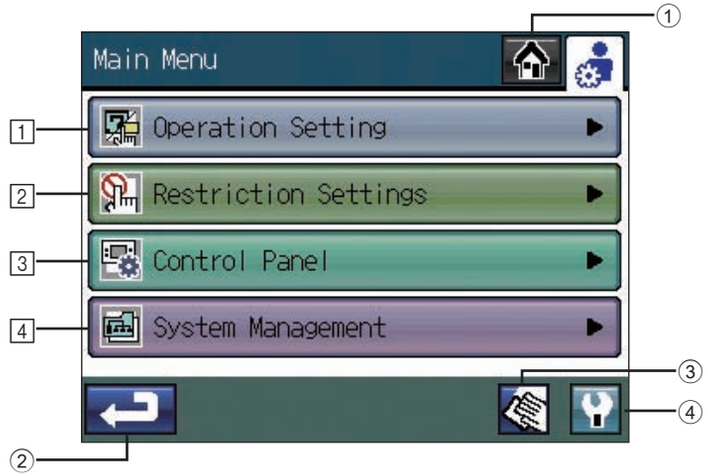
If the ON/OFF, Mode, and Temperature buttons on the AT-50A are disabled from other controllers, will appear on the buttons, and these buttons will not be available for selection.
If the AT-50A denies other controllers access to itself, other controllers cannot disable the functions on the AT-50A.

Menu Screen

The Main Menu screen allows the user to configure the basic settings.

To access the [Main Menu] screen, touch the icon at the right top corner of the [HOME] or the [Menu] screen.

Main Menu screen (Top screen)



① **[HOME]** button

Accesses the [HOME] screen.

② **Back** button

Returns the screen to the previous screen.
(When touched on the Main Menu screen, returns the screen to the HOME screen.)

③ **Touch Panel Cleaning** button P61

Touch this button to access the screen that will not respond when touched (except when the numbers in the four corners are touched in a specified order), allowing the user to clean the touch panel without accidentally changing the settings.

④ **Service Menu** button

Accesses the maintenance menu for service personnel. Normally, general users do no need to change any settings in the maintenance menu.

1 Operation Setting

(1) Time and Schedule	Sets the date, time, schedules, and Setback control.	P26
(2) Collective Operation Setting	Sets the collective operation settings.	P38
(3) Group Icon Setting	Changes the behavior of the group icon on the HOME screen. * Three setting options are available.	P41

2 Restriction Settings

(1) Lock Buttons	Locks the buttons and the functions on the AT-50A.	P42
(2) Set Temperature Range Limit	Sets the temperature range for the local remote controllers.	P44
(3) Prohibit Remote Controller	Locks the buttons* on the local remote controllers. * ON/OFF, Mode, Set Temperature, and Filter Reset buttons	P46
(4) Operation Mode Selection Limit	Limits the operation mode selection.	P48

3 Control Panel

(1) Display Format	Selects the display formats* on the Home and Menu screens. * Display language, temperature unit, display or non-display of room temperature and Cooling/Heating mode icons (during Auto mode), and backlight timer, and group names.	P50
(2) Function Key Setting	Assigns the functions to the F1 and F2 buttons. * Setback, Schedule, Mode, Temperature Correction, and RC Prohibition can be assigned.	P54
(3) Volume Control	Sets the sound volume and screen brightness.	P55
(4) Touch Panel Calibration	Calibrates the touch panel.	P56

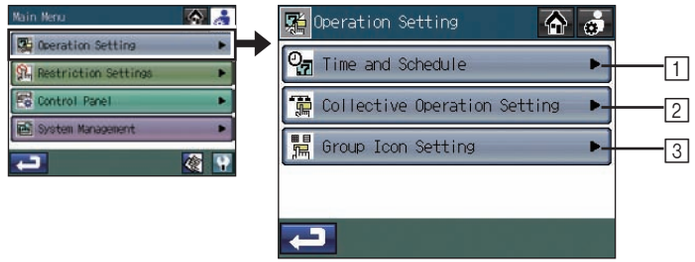
4 System Management

(1) Status List	Displays errors and filter signs.	P57
(2) System-Changeover	Selects the System-Changeover* setting. * Automatically switches the entire system to Cooling or Heating based on the room temperature and the preset temperature of each group. * This function cannot be used when the Operation Mode Selection Limit function is used.	P59

Usage - Main Menu Settings

Operation Setting

Main Menu > Operation Setting

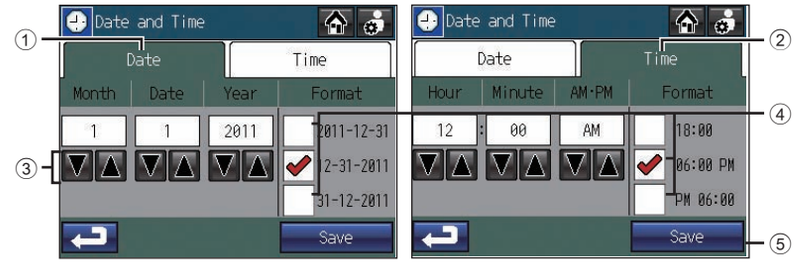


Main Menu > Operation Setting > Time and Schedule

1 Time and Schedule

Main Menu > Operation Setting > Time and Schedule > Date and Time

Ⓐ Setting the date, time, and display format



Date tab Time tab

1. Touch the Ⓐ **Date and Time** button on the [Time and Schedule] screen.
2. On the [Date and Time] screen, touch the ① [Date] tab to set the date, or ② [Time] tab to set the time.
3. Using the ③ ▼▲ buttons, set the following items: [Month/Date/Year] and [Hour/Minute/AM・PM].
4. On each tab, select one of the three display formats by checking the ④ checkbox next to the desired format.
5. Touch the ⑤ **Save** button.

- The initial date/time setting is 1/1/2011 12:00AM.
- If the clock is set forward, the operations that were scheduled to have taken place before the new time will be cancelled.

Main Menu > Operation Setting > Time and Schedule > Set Schedules

Ⓑ Setting the operation schedule

Types of schedules		Number of operation patterns
Weekly	Use to assign an operation pattern for each day of the week to be executed every week.	Maximum 12 patterns
One Day	Use to assign unique operation patterns for specific dates (up to seven days in advance, including the current date).	Maximum 5 patterns

[Note] If a specific pattern is assigned to multiple groups or days and the configuration of the pattern is changed, the change will be reflected on all the groups and days.
Use a different pattern number to save a given configuration of events if you do not want the changes to be reflected on the groups and days to which the pattern is assigned.

Usage - Main Menu Settings

Operation Setting (cont'd)

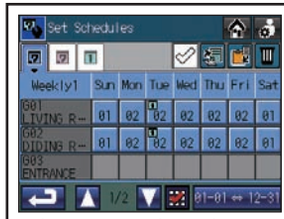
Schedule setting flowchart

Step 1	Select the Weekly or One Day tab.
Step 2	Validity period.
Step 3	Select a group.
Step 4	Select days or dates.
Step 5	Assign a pattern to the selected days or dates.
Step 6	Configure the pattern.

Weekly

One day

Set Schedule screens



Select Group and Days/Dates screen

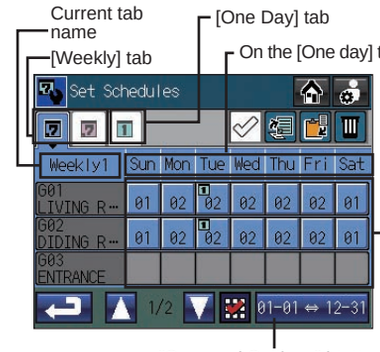
Seasonal settings screen

Select Pattern screen

Edit Pattern screen

Schedule Setting Procedures

1. Touch the [Set Schedules] button on the [Time and Schedule] screen to access the Select Group and Days/Dates screen.



Current tab name

[Weekly] tab

[One Day] tab

On the [One day] tab, a 7-day schedule including today will be displayed.

Day (Date) grid

"Seasonal Settings" btutton

- [Weekly] screen
  Displays the pattern numbers that are assigned to groups and days.
  (1) will appear on the top left corner of the cell to which One-day schedule is assigned.
  One-day pattern will override the Weekly pattern.
  The "Seasonal Settings" button will appear.
  On the button, the effective period that was selected on the Weekly Tab will appear.
  The effective period can be changed on the "Seasonal Settings" screen that will appear when the button is pressed.
- [One day] screen
  Displays the One-day schedule patterns that are assigned to specific dates.

2. Touch the Weekly or One Day tab.
   When the Weekly tab was selected, the "Seasonal settings" must be made as follows.
   (1) Touch the [Seasonal settings] button on the Select Group and Days/Date screen.
   (The "Seasonal settings" button appears only on the [Weekly] screen.)
   (2) Touch the button ①, and select the use or non-use of Weekly2.

: Use Weekly2

: Do not use Weekly2

(3) Use the ② ▼ ▲ buttons to select the use or non-use of Weekly1 and the effective period for Weekly2.
If Weekly2 is set to "Do not use Weekly2," the effective period cannot be set.
(4) Pressing the ③ OK button will take the screen back to the Select Group and Days/Date screen, and the effective period on the "Seasonal Settings" button will be updated.If the effective periods for Weekly1 and Weekly2 overlap, the setting cannot be completed.

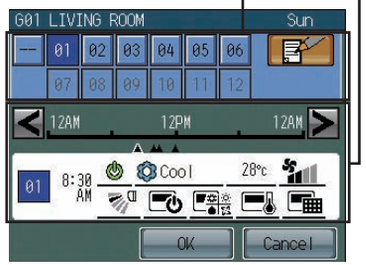
Usage - Main Menu Settings

Operation Setting (cont'd)

3. Select the cell where a specific group and a day (date) intersect to assign a pattern.
   * Patterns can be copied, pasted, or deleted on the Select Group and Days/Dates screen.
   (e.g., The weekly schedule of a specific group can be copied and pasted to another group, or the schedule pattern of a specific day can be copied and pasted to another day. Refer to P32 for details.)

4. On the Select Pattern screen, select [--] (deselected) or one of the 12 or 5 patterns (between [P01] and [P12] on the Weekly tab OR between [P01] and [P05] on the One Day tab). Each pattern can be newly configured, copied and pasted, or edited. See ①, ②, and ③ below for details.

   Touch a schedule pattern to select it.
   Black pattern numbers indicate that the patterns have already been configured, and the white ones indicate blank patterns.



Operation pattern numbers

Schedules events for the selected pattern
- Appears only if the selected pattern has been configured.
- The functions not supported by the selected group will appear underlined in red, and they will not be executed.
  * Touch the < > buttons to check the actions for each scheduled event.
  * Refer to P34 for icon definitions.

① To configure a new pattern using a blank pattern

Touch a blank pattern number, then touch the button to access the Edit Pattern screen.
⇒ See Step 5.

> If one or more patterns have been configured and saved, the message "When copying other setting patterns to edit, select the pattern to be copied, and touch the OK button." will appear. Touch the [OK] button to create a new pattern using a blank pattern. To use an existing pattern as a template, select a desired pattern and then touch the [OK] button.

② To copy an existing pattern and paste it to selected days or dates

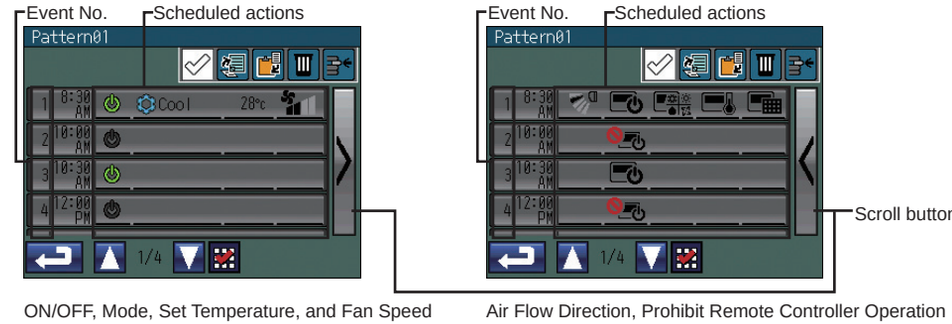
Touch a pattern number to select it, then touch the [OK] button to return to the Select Group and Day/Date screen. To set the schedule for other groups or days/date ⇒ See Step 2.
When setting is complete ⇒ See Step 10.

③ To edit an existing pattern

Touch an existing pattern number, then touch the button to access the Edit Pattern screen.
⇒ See Step 5.

> If the selected pattern number is assigned to other groups or days, the message "This pattern is used for another schedule. To use different pattern number, select the number, and touch the OK button." will appear. To change the schedule of the day or date that was selected in Step 3 above alone, select a new blank pattern number and then touch the [OK] button. To change the setting of all groups and days to which the pattern is assigned, just touch the [OK] button.

5. On the Edit Pattern screen, touch an event number to edit its contents.



*1 The scheduled actions for each event will be displayed over two pages.
Use the scroll buttons to switch between the pages.

*2 On the Edit Pattern screen, the events of a specific pattern can be copied and pasted to another pattern.
Refer to P32 for details

Usage - Main Menu Settings

Operation Setting (cont'd)

6. Set the time and the actions for the selected event number.

* Functions that can be included in each event are as follows: Execution Time, ON/OFF, Mode, Fan Speed, Air Direction, Set Temperature, and Local Remote Controller Operation Prohibition settings.
* Refer to P34 for icon definitions.
* The Set Temperature must be set to a temperature within the range that was specified in the Initial Settings 1/Basic Settings under the Service Menu.
  Refer to the Installation Manual to change the temperature setting range.

7. When finished making the settings, touch the OK button to return to the Edit Pattern screen.
8. Repeat Steps 5 through 7 above to set as many events and the execution time for the events as necessary.
9. When finished, touch the Return button to return to the Select Group and Days/Date screen.
   To set the schedule for other groups or days/date ⇒ See Step 2.
   When setting is complete ⇒ See Step 10.
10. To exit the screen and return to the “Time and Schedule” screen, press on the “Select Group and Days/Date” screen.

Copying, pasting, deleting, and inserting settings

Click on the checkbox next to the button to activate the **Copy**, **Paste**, **Delete**, and **Insert** buttons.

Copying and pasting the existing settings

1. Touch the item to be copied.
   * Items that can be copied include the weekly schedule for a group, the pattern assigned to a specific day, or the event that is scheduled to take place at a certain time.
   * A red checkmark will appear on the selected item(s).

(Example) To copy the weekly schedule for a group

(Example) To copy an event (a set of actions executed at a scheduled time)

2. Touch the Copy button. The selected item will be highlighted in blue.

3. Touch the copy destination.
   * Multiple copy destinations can be selected.
   * A red checkmark will appear on the selected item(s).
4. Touch the **Paste** button.
5. Touch the **OK** button on the window that pops up.

Deleting selected settings

1. Touch the items to be deleted.
   * Items that can be deleted at once include the weekly schedule for a group, the pattern assigned to a specific day, or the event that is scheduled to take place at a certain time.
   * Multiple items can be deleted at once.
2. Touch the **Delete** button.
3. Touch the **OK** button on the window that pops up.

Usage - Main Menu Settings

Operation Setting (cont'd)

Inserting an event

1. Touch a row to insert an event above it.
   * A red checkmark will appear on the selected row.
2. Touch the **Insert** button. A blank row will appear above the selected row.
   * If the maximum number of events have been set, no more rows can be inserted.

Icon Definitions

Functions	Deselected *1	Setting Options
ON/OFF		On [green] Off [black]
Mode		Cooling Dry Fan Heating Auto Bypass Heat Recovery Auto Damper
Fan Speed		Quiet Low Mid High Auto
Air Flow Direction		Setting 1 Setting 2 Setting 3 Setting 4 Setting 5 Swing Auto
Local remote controller operation prohibition (ON/OFF)		Permit Prohibit
Local remote controller operation prohibition (Mode)		Permit Prohibit
Local remote controller operation prohibition (Set Temperature)		Permit Prohibit
Local remote controller operation prohibition (Filter Sign Reset)		Permit Prohibit

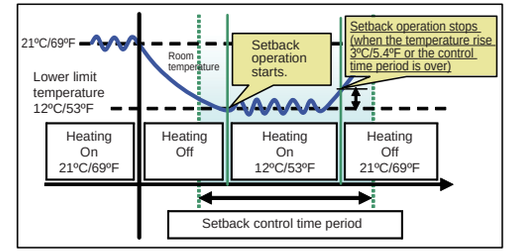
*1 The icons corresponding to the functions that are not scheduled will not be displayed except in the Edit Pattern popup screen.

Main Menu > Operation Setting > Time and Schedule > Setback Control

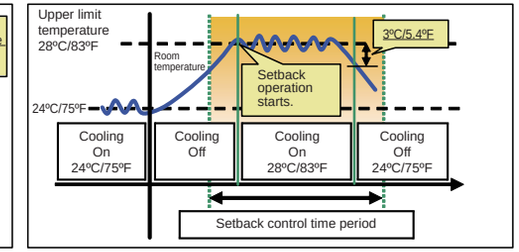
Ⓒ Setting the Night setback function

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

- When the air conditioning group with night setback function is off and when the temperature exceeds the preset temperature, heating/cooling operation starts.
- If the room temperature is measured by the air-conditioner's suction temperature sensor, the temperature may not be correct when the air-conditioner is inactive and the air is not fresh. When the air-conditioner is inactive, using a remote sensor or a remote control sensor is recommended to measure room temperature correctly.
- If the temperature setting or ON/OFF operation is prohibited for this unit, Setback operation cannot be used.
- If the operation mode change is prohibited or the operation mode selection is limited for this unit, Setback function may not function properly.
  When the night setback control is set, air conditioning group operates as shown below.



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



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

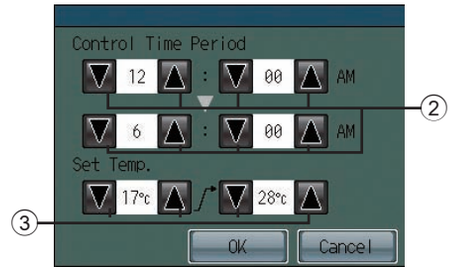
If "Unscheduled" is selected, the Setback function that were set on the Setback Control screen will not be executed with the pressing of the Collective Operation button.
In this case, the settings that were made on the "Collective Operation Setback" screen will override the settings made on the "Setback Control" screen, and the scheduled operation will not run.

1. Touch the Ⓒ **Setback Control** button on the [Time and Schedule] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.

Usage - Main Menu Settings

Operation Setting (cont'd)

3. Press button ① to bring up the “Control Time Period” and “lower/upper limit temperature” settings screen, and make necessary settings.



Setting of night setback control time period
Touch the ② ▼▲ buttons to set the control time.

Setting of lower/upper limit temperature
Touch the ③ ▼▲ buttons to set the upper and lower limits.
When [--] is set, setback control will not be operated.

Click OK to close the popup window and return to the “Setback Control” screen. The new settings will appear on the display section ④ on the screen.
Pressing “Cancel” will close the popup window, but the new setting will not be reflected on the display section ④ on the screen.

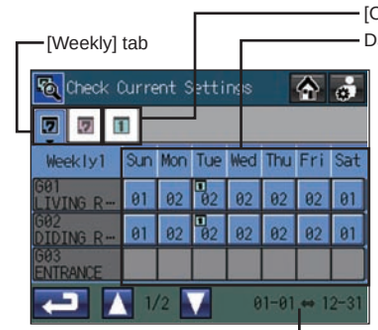
4. Press the button labeled ⑤ to set different lower/upper limit temperature for different groups.
The groups whose temperature setting is different from the one for the collective setting will appear underlined G10.
5. Select the groups to include from the Group buttons labeled ⑥. By default, all groups are selected.
6. Touch the ⑦ **Save** button.

- The minimum difference between the upper and lower limits is 4ºC (8ºF).
- The temperature range that can be set depends on the connected units.
- The temperature can be set within the following range.
  [Upper limit] 19°C - 30°C [19°C - 30°C] / 67°F - 87°F [67°F - 87°F]
  [Lower limit] 12°C - 28°C [17°C - 28°C] / 53°F - 83°F [63°F - 83°F]
  * [ ] in case of using Mr.SLIM® units.
- The groups that do not support the Setback function cannot be selected.
- The changes that are made while the Setback function is turned on will not be reflected. To have the settings reflected, turn off the Setback function and then turn it back on. Refer to P19 for how to turn on/off the Setback function.
- The Setback status can be verified by accessing the “Check Current Settings” screen from the “Time and Schedule” screen.

Main Menu > Operation Setting > Time and Schedule > Check Current Settings

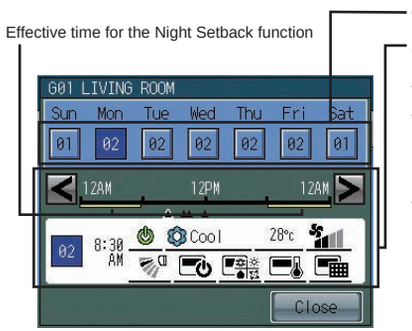
Ⓓ Checking the Weekly/One Day Schedule Settings

1. Touch the [Check Current Settings] button on the [Time and Schedule] screen.



- [Weekly] screen
  Displays the pattern numbers that are assigned to groups and days.
  (1) will appear on the top left corner of the cell to which One-day schedule is assigned.
  One-day pattern will override the Weekly pattern.
- [One day] screen
  Displays the One-day schedule patterns that are assigned to specific dates.

2. Touch the Weekly or One Day tab.
3. Touch the row that corresponds to the group whose schedules you want to check.
Touch the pattern number under a specific day to check the day's schedule that appears under the pattern numbers.



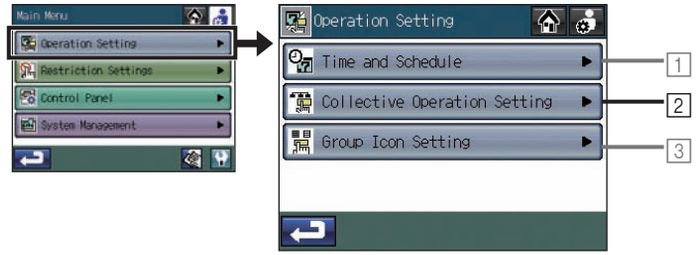
- Appears only if the selected pattern has been configured.
- The functions not supported by the selected group will appear underlined in red, and they will not be executed.
  * Refer to P34 for icon definitions.
- The effective time for the Night Setback function will appear as a yellow line on the timeline.

4. Touch the < > buttons to check the actions for each scheduled event.
Touch the [Close] button to return to the previous screen.
5. To change the schedule settings, touch the Return button to return to the Time and Schedule screen, and access the Set Schedules screen.

Usage - Main Menu Settings

Operation Setting (cont'd)

Main Menu > Operation Setting



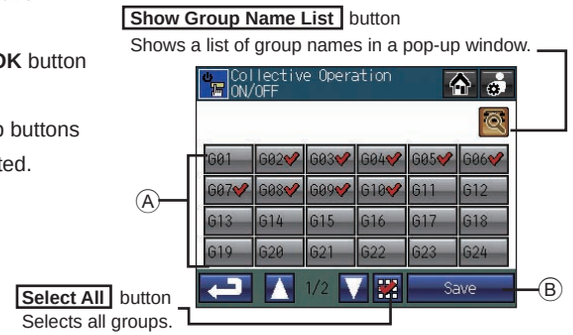
Main Menu > Operation Setting > Collective Operation Setting

2 Setting the Collective Operation Settings

- When ✕ appears on the "RC Prohibition" button, this function will not be available.

To select the groups on which to execute the Collective ON/OFF function

1. Touch the ① **ON/OFF** button on the [Collective Operation Setting] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Select the groups to include from the Group buttons labeled Ⓐ. By default, all groups are selected.
4. Touch the Ⓑ **Save** button.



- The DIDO controller groups that do not support the Collective ON/OFF function cannot be selected.

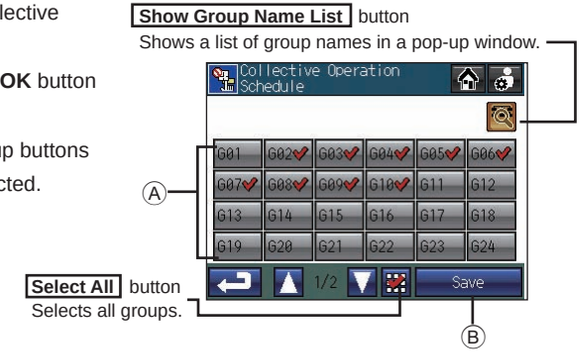
To select the groups on which to execute the Collective Operation (Enable or disable the Setback function)

1. Touch the ② **Setback** button on the [Collective Operation Setting] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Touch the Ⓒ ▼ ▲ buttons to set the upper and lower limits. Press the button labeled Ⓓ to set different ranges for different groups. The groups whose temperature setting is different from the one for the collective setting will appear underlined G10.
4. Select the groups to include from the Group buttons labeled Ⓐ. By default, all groups are selected.
5. Touch the Ⓑ **Save** button.

- The minimum difference between the upper and lower limits is 4ºC (8ºF).
- The temperature range that can be set depends on the connected units.
- The groups that do not support the Setback function cannot be selected.
- The changes that are made while the Setback function is turned on will not be reflected. To have the settings reflected, turn off the Setback function and then turn it back on. Refer to P19 for how to turn on/off the Setback function.

To select the groups on which to execute the Collective Operation (Enable or disable Scheduled operation)

1. Touch the ③ **Schedule** button on the [Collective Operation Setting] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Select the groups to include from the Group buttons labeled Ⓐ. By default, all groups are selected.
4. Touch the Ⓑ **Save** button.

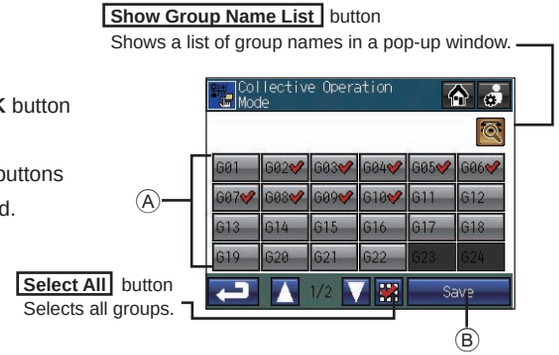


Usage - Main Menu Settings

Operation Setting (cont'd)

To select the groups on which to execute the Collective Operation (Operation Mode)

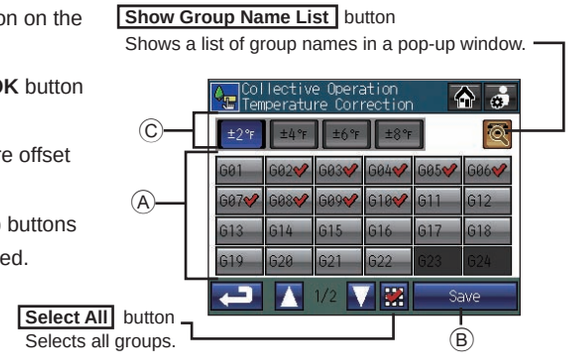
1. Touch the ④ **Mode** button on the [Collective Operation Setting] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Select the groups to include from the Group buttons labeled Ⓐ. By default, all groups are selected.
4. Touch the Ⓑ **Save** button.



- The DIDO controller groups and the LOSSNAY groups that do not support this function cannot be selected.

To select the groups on which to execute the Collective Operation (Temperature Correction)

1. Touch the ⑤ **Temperture Correction** button on the [Collective Operation Setting] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Select a value to be used as the temperature offset value from the buttons labeled Ⓒ.
4. Select the groups to include from the Group buttons labeled Ⓐ. By default, all groups are selected.
5. Touch the Ⓑ **Save** button.



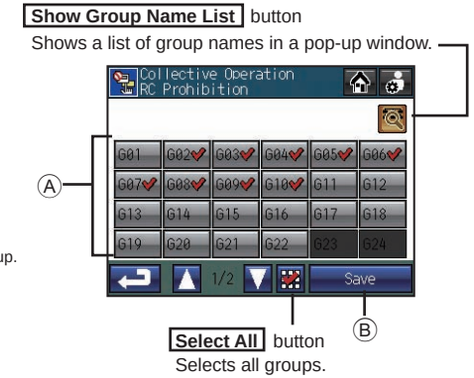
- The Temperature Correction function is used to temporarily raise or lower the preset temperature setting by a certain preselected amount.
- Positive offset is used for units that are operated in the Cooling and Dry modes, and negative offset is used for units that are operated in the Heating mode.
- The DIDO controller groups and the LOSSNAY groups that do not support this function cannot be selected.

To select the groups on which to execute the Collective Operation (Locking or unlocking access to the ON/OFF, Mode, Set Temperature, and Filter Sign Reset settings from the local and other system controllers).

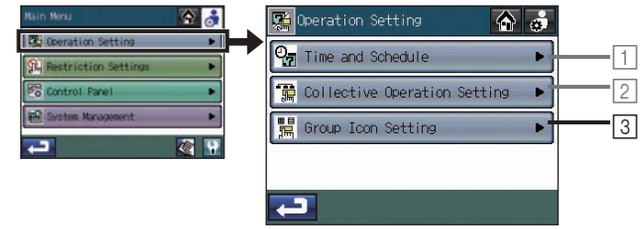
1. Touch the ⑥ **RC Prohibition** button on the [Collective Operation Setting] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Select the groups to include from the Group buttons labeled Ⓐ. By default, all groups are selected.
4. Touch the Ⓑ **Save** button.

- The settings that can be locked or unlocked depend on the type of group.

	Indoor unit groups	LOSSNAY groups
① ON/OFF	○	○
② Mode	○	×
③ Set temperature	○	×
④ Filter Sign reset	○	○



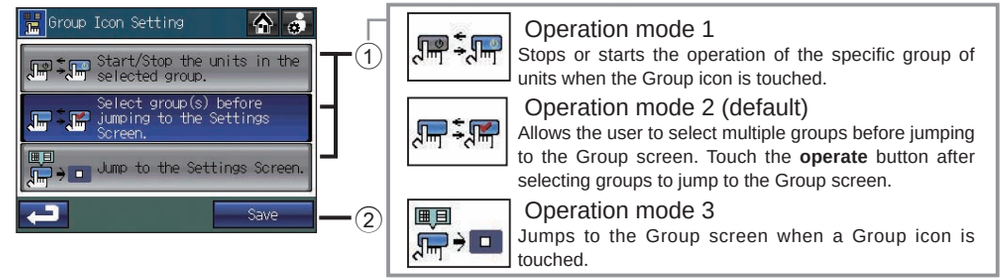
Main Menu > Operation Setting



Main Menu > Operation Setting > Group Icon Setting

3 To assign an operation mode to the Group icon on the [HOME] screen

Touch the 3 **Group Icon Setting** button on the [Operation Setting] screen.

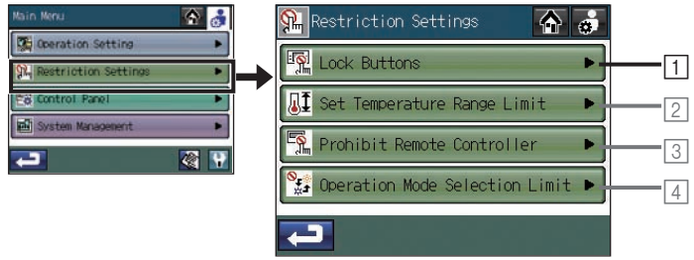


1. Select among Operation mode 1, Operation mode 2, and Operation mode 3 by touching the corresponding button labeled ① .
2. Touch the ② **Save** button.

Usage - Main Menu Settings

Restriction Settings

Main Menu > Restriction Settings



Main Menu > Restriction Settings > Lock Buttons

1 Selecting the functions to be locked and setting the password to unlock the locked functions

Selecting the functions to be locked

Category button ①

② **Enable/Disable Lock** button
Use these buttons to select the items to be locked when the operation lock button is enabled.

③ **Save** button
Saves the settings.

1. Touch the 1 **Lock Buttons** button on the [Restriction Setting] screen.
2. Enter the password on the [Login] screen, and touch the **Login** button. Refer to below for the details on log in. If the correct password is entered, the [Lock Buttons] screen will appear.
3. Press the **Category** button ① that includes the function to be locked. The screen that looks like the figure above will appear. (The items in each category and the type of functions that can be locked are summarized in Table A.)
4. Touch the button ② that corresponds to the function to be locked so that will appear. (The items whose corresponding icon is cannot be locked.)
5. Touch the ③ **Save** button.

Table A. List of items and functions in each category

Category button	Item	Function	Category button	Item	Function
	ON/OFF	Collective ON/OFF button *1		ON/OFF	ON/OFF button *3 *4
	F1	Function button 1 *1		Mode	Mode button *3 *4
	F2	Function button 2 *1		Set Temp.	Set temperature button *3 *4
	Screen	Touch Panel Screen *2		Fan Speed	Fan speed button *3 *4
	Main Menu	Main Menu Button		Schedule ON/OFF	Shcedule ON/OFF button *3 *4

*1 If the function is locked, the LED on the button will blink twice when touched.
*2 When the Touch Panel Screen is locked, the category or will not be available for selection.
*3 The buttons that can be locked are the ones that appear on the HOME screen.
*4 On the HOME screen, the icon will appear on the buttons that are locked.

Setting the Unlock password

Save button
Saves the settings.

1. Touch the 1 **Lock Buttons** button on the [Restriction Setting] screen.
2. Enter the password on the [Login] screen, and touch the **Login** button. Refer to below for the details on log in. If the correct password is entered, the [Lock Buttons] screen will appear.
3. Press ① . The screen that looks like the figure at left will appear.
4. To allow unlocking the buttons without entering the password, touch ② "**No password**" to activate the button. To require a password to unlock the buttons, touch ② "**Password**" to activate the button.
5. Touch the ③ **Save** button.

> Use the same password as the login password to unlock buttons.

To log in

1. Enter the login password from the ① keyboard on the touch panel. Touch ② to delete a character.
2. Touch the ③ **Login** button.
   If the password matches, the Lock Buttons screen will be displayed.

> • The initial login password is "0000". Change the password if necessary.
> • If you forget the password, refer to the Installation Manual.

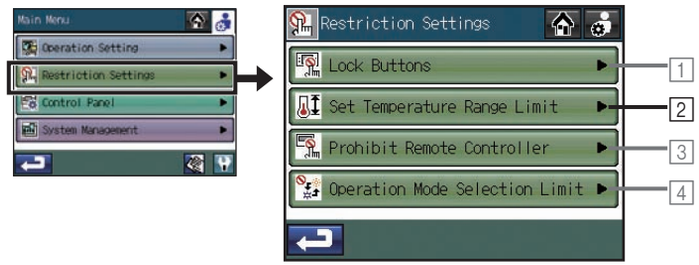
To change the password

1. Enter the current password on the login screen, and then touch ④ . The screen at left will appear.
2. Enter the new password in the ⑤ [New Password] field.
   * Password should be between four and eight characters.
   Touch ⑧ to delete a character.
3. Touch the ⑥ [Retype Password] field, and enter the new password again.
4. Touch the ⑦ **OK** button to reflect the change and return to the previous screen.

Usage - Main Menu Settings

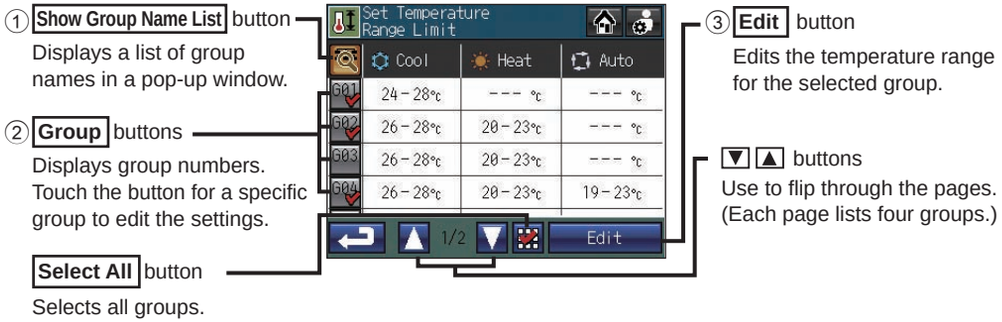
Restriction Settings (cont'd)

Main Menu > Restriction Settings



Main Menu > Restriction Settings > Set Temperature Range Limit

2 Setting the temperature ranges within which the operating temperatures can be set from the local remote controllers



1. Touch the 2 **Set Temperature Range Limit** button on the [Restriction Settings] screen.
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Click on the ② **Group** button on the [Set Temperature Range Limit] screen to select the groups to change their settings.
4. Touch the ③ **Edit** button.

5. Use the ④ ▼ ▲ buttons shown in the pop-up window at right to set the range for each operation mode (Cooling, Heating, and AUTO).

   To clear the lower limit, keep hitting the ▼ button until - - appears. To clear the upper limit, keep hitting the ▲ button until - - appears.
   Not all functions are supported by all local remote controllers. The ▼ ▲ buttons for the unsupported functions will be grayed out.

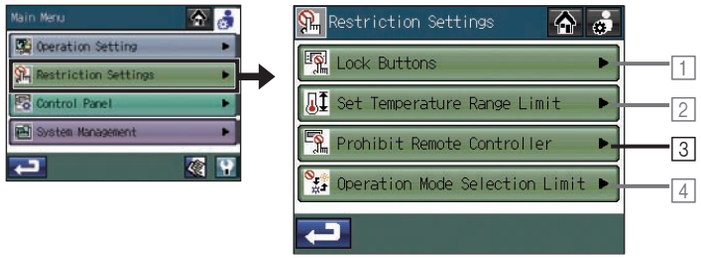
6. Touch the ⑤ **OK** button to save the settings.

- The temperature setting range and the operation mode that can be set depend on the indoor unit and remote controller models.
- Operation from the local remote controllers that are connected to Mr. SLIM® cannot be prohibited from the AT-50A. Use the button lock function on the controllers instead.
- If the temperature limits are set too high or low, the System-Changeover function may not work properly and the units may not operate in the expected mode (Cooling or Heating).
  When using the System-Changeover function, it is recommended not to use the temperature range limit function.

Usage - Main Menu Settings

Restriction Settings (cont'd)

Main Menu > Restriction Settings



- When ✕ appears on the "Prohibit Remote Controller" button, this function will not be available.

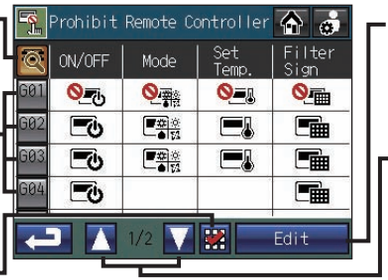
Main Menu > Restriction Settings> Prohibit Remote Controller

3 Locking or unlocking access to the ON/OFF, Mode, Set Temperature, and Filter Sign Reset settings from the local and other system controllers

① **Show Group Name List** button
Displays a list of group names in a pop-up window.

② **Group** buttons
Displays group numbers. Touch the button for a specific group to edit its settings.

Select All button
Selects all groups.



③ **Edit** button
Edits the temperature range for the selected group.

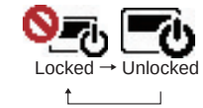
▼ ▲ buttons
Use to flip through the pages. (Each page lists four groups.)

- When access to specific settings are locked, ⊘ will appear over the corresponding icons.
- The settings that can be locked or unlocked depend on the type of group.

	Indoor unit groups	LOSSNAY groups
① ON/OFF	○	○
② Mode	○	×
③ Set temperature	○	×
④ Filter Sign reset	○	○

1. Touch the 3 **Prohibit Remote Controller** button on the [Restriction Settings].
2. Read the pop-up message, and touch the **OK** button to confirm.
3. Click on the ② **Group** button on the [Prohibit Remote Controller] screen to select the groups and change their settings.
4. Touch the ③ **Edit** button.
5. Use the buttons labeled ④ in the pop-up window at right to lock or unlock access to each item.
6. Touch the ⑤ **OK** button to save the settings.

The display will change as follows every time the button is touched.

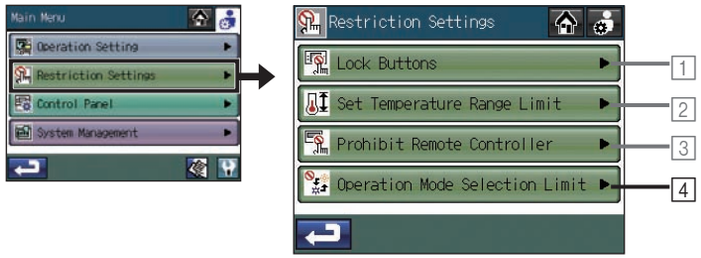


- The screen shown left will always display the latest prohibit/permit status. If an event takes place that changes the prohibit/permit status of a specific item, the screen display will be updated. (The mark will appear or disappear.)
- When this function is in use, the buttons on AT-50A cannot be disabled from the system controller.

Usage - Main Menu Settings

Restriction Settings (cont'd)

Main Menu > Restriction Settings



• When ✕ appears on the "Operation Mode Selection Limit" button, this function will not be available.

Main Menu > Restriction Settings> Operation Mode Selection Limit

4 Operation mode selection limit (season changing)

Selection to specific operation modes with this controller or the local remote controller for all groups can be limited.
For example, the mode selection can be limited according to the season.
Cooling mode limit (winter), heating mode limit (summer), cooling + heating mode limit (between seasons)

1. Touch the 4 **Operation Mode Selection Limit** button on the [Restriction Settings] screen.
2. Touch the ① button to set the operation mode limit.
   * Touch the ① button repeatedly to select from following settings.

①Button	Explanation
No Limitation	The limits will be cancelled.
No Cooling Operation	The cooling, dry and automatic modes cannot be selected with the Mode button.
No Heating Operation	The heating and automatic modes cannot be selected with the Mode button.
No Heating/Cooling	The cooling, dry, heating and automatic modes cannot be selected with the Mode button.

Press the button labeled ② to set different limitation type for different groups.
The groups whose limitation setting is different from the one for the collective setting will appear underlined G10 .

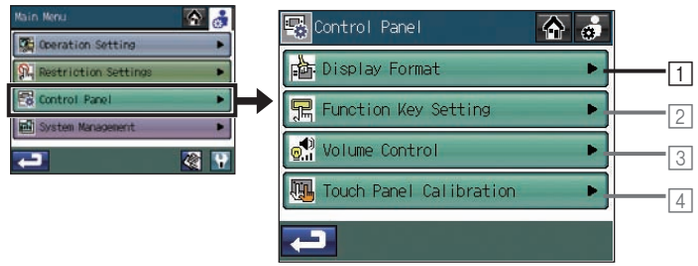
3. Select the groups to include from the Group buttons labeled ③ .
4. Touch the ④ **Save** button.

• When this function is used, the System-Changeover function cannot be used.
• Note that this function cannot be used with some indoor units. In this case, changeover of the operation mode cannot be limited with the local remote controller.

Usage - Main Menu Settings

Control Panel

Main Menu > Control Panel



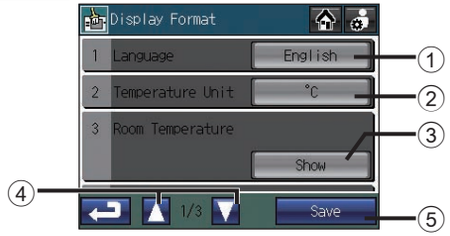
Main Menu > Control Panel > Display Format

1 Setting the basic display settings on the HOME and MENU screens

Touch the 1 **Display Format** button on the [Control Panel] screen.

- The [Display Format] screen consists of three pages (1/3 - 3/3). Use the ④ ▼ ▲ buttons to flip through the pages. After setting all the settings, touch the ⑤ **Save** button.

Display Format screen : 1/3



To select the display language

1. Touch the ① **Language** button on the [Display Format] screen (1/3).
2. Select a desired language from the language options (buttons labeled ⑥ in the figure) on the pop-up screen.
3. Press the ⑦ **OK** button to return to the previous screen.

To select the temperature unit

Touch the ② **Temperature unit** button on the [Display Format] screen (1/3) to switch between ºC and ºF.

To show or hide the room temperature

Touch the ③ **Room Temperature** button on the [Display Format] screen (1/3) to switch between Show and Hide.

Display Format screen : 2/3

To show or hide the Cooling/Heating mode icon (during Auto mode) when the operation mode is enabled

Touch the ⑧ **Automatic Mode Display Setting** button to switch between Show ( ) and Hide ( ).

Example) [HOME] screen

To set the backlight timeout time

Touch the ⑨ **Backlight timeout setting** button to set the timeout time.
The back light will go off after a specified time of non-use.

* Touch the button repeatedly to select from the following settings.

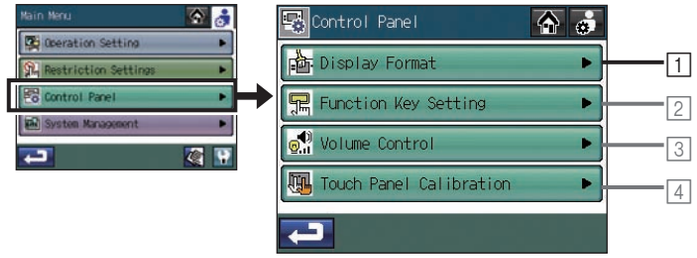
1 min. → 3 min. → 5 min. → 7 min. → 10 min.

The backlight will remain lit as long as an error exists.

Usage - Main Menu Settings

Control Panel (cont'd)

Main Menu > Control Panel



Main Menu > Control Panel > Display Format

Display Format screen：3/3

Group Name Setting screen

To change the group name

1. Touch the ⑩ **Jump to the group name setting screen** button on the [Display Format] screen (3/3).
2. Select a desired group name button labeled ⑪ on the [Group Name Setting] screen to change its group name.
3. Enter the group name on the pop-up window. (Refer to the next page for details.) Group names can be copied and pasted by using the ⑫ **Copy** and ⑬ **Paste** buttons.
4. Touch the ⑤ **Save** button.

Character input screen

To enter character strings such as group names (maximum 16 characters), perform the following procedure.

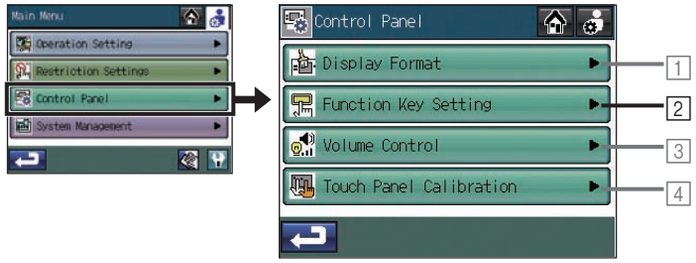
To enter a character string

1. Touch ① ABC, abc, 1(), АБВ, or абв to select upper case alphabets, lower case alphabets, or numerical and other symbols.
2. Enter characters from the ② keyboard.
   * Scroll the screen up and down with the ③ ▼ ▲ buttons to see all characters.
   * To correct a character, move the cursor over the character with the ④ ◀ ▶ button, and then either delete it with the ⑤ **DELETE** button or overwrite it with a new character.
3. When complete, touch the ⑥ **OK** button to return to the previous screen.

Usage - Main Menu Settings

Control Panel (cont'd)

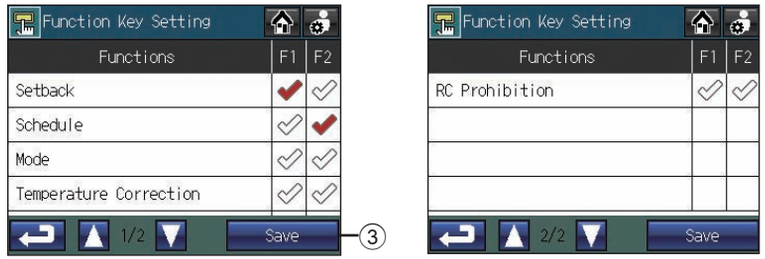
Main Menu > Control Panel



Main Menu > Control Panel > Function Key Setting

2 Assigning Collective Operation functions to the Function Button 1 (F1) and Function Button 2 (F2)

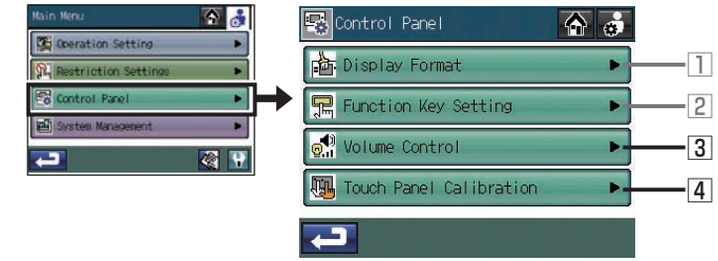
Touch the 2 **Function Key Setting** button on the [Control Panel] screen.



1. Touch the check mark [✓] that corresponds to the function to assign to F1 or F2 so that the checkmark will appear as [✔].
   (Check the check mark in the F1 column to assign a function to F1, and check the check mark in the F2 column to assign a function to F2. Touch the button again so that the button will appear as [✓] to cancel the selection.)
2. Touch the ③ **Save** button.

- As a default, no functions are assigned to either F1 or F2.
- The F1 and the F2 will be effective only on the HOME screen.
- To use the F1 or F2 button to execute a function, certain settings for Collective Operation must be set. (Refer to P38 for information about the Collective Operation settings.)
- If "✘" appears on the checkbox, the function that corresponds to the checkbox is not available and the function cannot be assigned to the F1 or F2 button.

Main Menu > Control Panel



Main Menu > Control Panel > Volume Control

3 Adjusting the volume and brightness

Touch the 3 **Volume Control** button on the [Control Panel] screen.

To adjust the volume

1. Touch the ① **Sound** button on the [Volume Control] screen.
   Every time the ① **Sound** button is touched, the sound level changes as follows: [Level 0] → [Level 1] → [Level 2] → [Level 3].
2. Touch the ③ **Save** button.

To adjust the brightness

1. Touch the ② **Brightness** button on the [Volume Control] screen.
   Every time the ② **Brightness** button is touched, the brightness level changes as follows: [70%] → [80%] → [90%] → [100%].
2. Touch the ③ **Save** button.

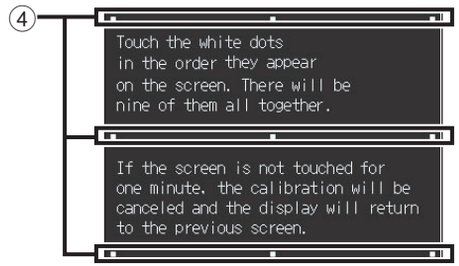
- The volume and brightness settings will be changed immediately, but will not be saved until the ③ **Save** button is touched.

Usage - Main Menu Settings

Control Panel (cont'd)

Main Menu > Control Panel > Touch Panel Calibration

4 Calibrating the touch panel



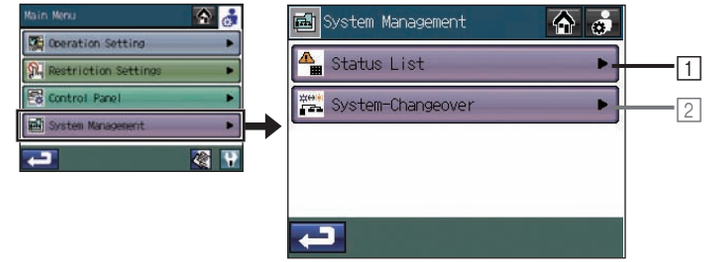
1. Touch the 4 **Touch Panel Calibration** button on the [Control Panel] screen.
   Touch the **OK** button on the confirmation screen.
2. Touch the white squares (④) in the order they appear, starting from the top left corner.
3. After all nine squares are touched, the screen will return to the [Control Panel] screen.

- If each square is not touched within one minute after the last square is touched, calibration will be cancelled and the screen will return to the [Control Panel] screen.
- To calibrate the screen properly, use a pointy, but not sharp, object to touch the squares.

* Sharp objects may scratch the touch panel.

System Management

Main Menu > System Management



Main Menu > System Management > Status List

1 Checking or resetting the Error or Filter Sign

Touch the 1 **Status List** button on the [System management] screen.

Number of errors
Displays the number of errors.

Group names
Displays the name of the group that includes the unit whose Error/Filter Signs are turned on.

Error source address
Displays the M-NET address of the units whose Error/Filter Signs are turned on.

Error code
Displays the code for the error that were detected.

To check the error

1. Touch the ① [Malfunction] tab to check the number of errors, the names of the group in which the errors occurred, the addresses of the error-source units, and the error codes.

- If an error occurs, note the error code and consult your dealer or a maintenance provider.

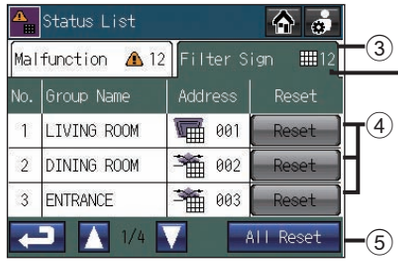
To reset the error

1. Touch the ① [Malfunction] tab.
2. Touch the ② **All Reset** button.
3. Touch the **OK** button on the pop-up window.

- Those groups whose errors have been reset will have an icon indicating that they are stopped.

Usage - Main Menu Settings

System Management (cont'd)



Number of Filter Signs detected
Displays the number of Filter Signs that have been detected.

To check the information about the units whose Filter Signs are turned on

1. Touch the ③ [Filter Sign] tab, and check the number of units whose Filter Signs are turned on, the names of the groups they belong to, and their addresses.

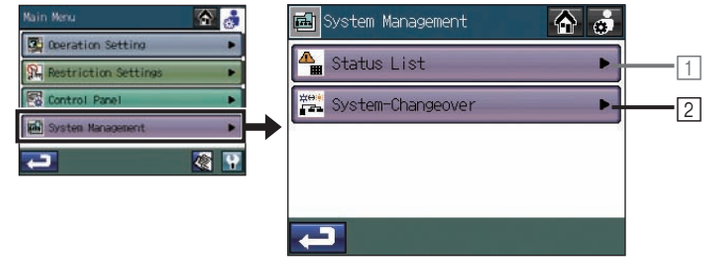
- When a Filter Sign appears, clean, wash, or replace the filter as necessary.
  Refer to air conditioner or LOSSNAY manual for details.
- When ⊘ appears on the **Reset** button, the button will not be available.

To reset the Filter Sign after cleaning the filter

④ **Reset** button ：Clears the specific Filter Sign.

⑤ **All Reset** button：Clears all Filter Signs.

Main Menu > System Management



- When ✕ appears on the “System-Changeover” button, this function will not be available for selection.

Main Menu > System Management > System-Changeover

2 Using the System-Changeover function

Use the System-Changeover mode to automatically change a group of indoor units that are connected to the same outdoor unit over between the Cooling and Heating modes according to temperature changes.
Use this function to control the indoor units that do not have an automatic changeover mode. They can be operated in the Heating mode in the morning, and then automatically changed over to the Cooling or Heating mode all at once in the afternoon, for example, without the need to manually change the mode via each remote controller.

* This function should not be used in conjunction with the System-Changeover function on the outdoor unit or other system controllers.

* When the System-Changeover mode is set to [Auto], the operation mode is selected based on the demands of the majority of the group, taking into consideration the capacity of each indoor unit. When it is set to [Representative Group], the operation mode is selected based on the demand of the representative group through updating its status every 15 minutes and changing over to the cooling or heating mode as necessary. Because the operation mode is selected based on the demands of the representative group or of the majority of the groups, not all areas may be air conditioned to the optimum temperature.

- If the temperature limits are set too high or low (see P44), the System-Changeover function may not work properly and the units may not operate in the expected mode (Cooling or Heating).
- The System-Changeover function is not available for the following types of products: Simultaneous Cooling/Heating units (with Auto mode), Mr. SLIM®, LOSSNAY, and DIDO controller.

System Management (cont'd)

Operation mode

Displays the current operation mode.
Cooling: Cool
Heating: Heat

Block No.

Displays the block number. All units in each group are operated in the same operation mode. The AT-50A automatically creates blocks based on the refrigerant pipe connection information and the group setting information on each unit.

Display Block Information button

Displays the addresses of the outdoor units and the names of the groups in a specific block.

Group list

Displays the number assigned to the indoor unit groups that are connected to the outdoor units in a specific block. Select a representative group from this list when the [Representative Group] is selected for the System-Changeover mode.

1. Touch the 2 **System-Changeover** button on the [System management] screen.
2. Touch the ① **Change mode** button to select between [None], [Auto], and [Representative Group].

System-Changeover mode	Setting
None (default)	Select this option so as not to use the System-Changeover function.
Auto	The operation modes (cooling/heating) will be changed-over based on the following: Temperature differences between the preset temperature and the room temperature of all indoor unit groups that are connected to a specific outdoor unit, AND the capacity of each indoor unit in each group. * The operation mode of the groups of units that are not operating, or the ones that are operating in the Fan or Auto mode, will remain the same.
Representative Group	The operation modes (Cooling/Heating) will be changed-over based on the temperature difference between the preset temperature of the representative group and the room temperature. * When the air conditioning units in the Representative Group are not operating, or they are operating in the Fan or Auto mode, the System-Changeover function will work in the same way as when the System-Changeover mode is set to Auto.

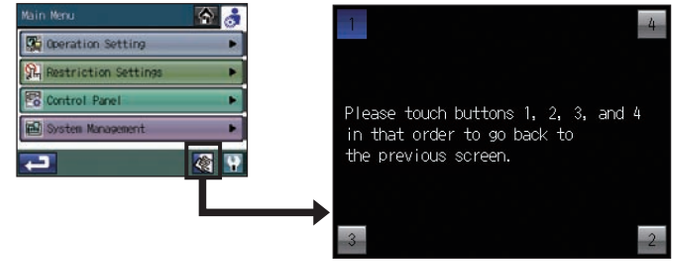
When [Representative Group] is selected, the group that is currently designated as the Representative Group will be displayed.

* To designate a different group as the Representative Group, select a new group on the screen that appears (shown right) when the ② **Representative Group** button is pressed, and then touch the **OK** button.

- The initial setting for the Representative Group is the group in a specific block with the smallest group number.

3. Touch the ③ **Save** button on the [System-Changeover] screen.

Touch Panel Cleaning screen



To clean the touch panel

This screen allows the user to wipe the touch screen without accidentally changing the settings.

1. Touch the icon on the [Main menu] screen to bring up the screen shown above.
2. When done cleaning the touch panel, touch the four numbers in the corners 1, 2, 3, and 4 in that order to return to the [Main Menu] screen.

- The four numbers must be touched in the correct order. If you touch the numbers in the wrong order, start over from 1.
- Wipe with a soft dry cloth, a cloth soaked in water with mild detergent, or a cloth dampened with ethanol. Do not use acidic, alkaline, or organic solvents.

Troubleshooting

Problem

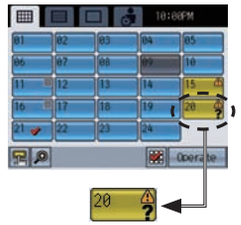
The indicator on the Collective ON/OFF button is blinking.

Solution

Touch Main Menu > System Management > Status List. ON the Malfunction tab, check the error code and the error source address on the screen, and consult your dealer.
Refer to P57.

Problem

⚠ ? is displayed on the screen.

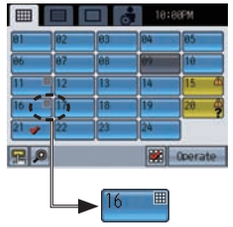


Solution

Touch Main Menu > System Management > Status List. ON the Malfunction tab, check the error code and the error source address on the screen, and consult your dealer.
Refer to P57.

Problem

A Filter Sign is displayed on the screen.

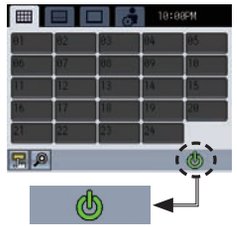


Solution

Touch Main Menu > System Management > Status List. ON the Filter Sign tab, check the address on the screen. Clean the filter on the unit whose Filter Sign is on according to the instructions in the manual for the applicable unit.
Refer to P57.

Problem

[Emergency Stop (Level-signal)] is displayed on the screen, and the controller does not respond to the **ON/OFF** button.



If the external input interface receives an emergency stop signal, all indoor units and the LOSSNAY that are controlled by the AT-50A will stop. The AT-50A controller, low-level system controllers, or local remote controllers will not respond until the emergency stop signal input is removed. When the emergency stop signal is removed, the operation status before the signal was received will be restored.

Specifications			
Power source		30VDC *1 (for connection to M-NET only)	Receives power from the power supply unit for transmission line or from outdoor units via the M-NET transmission cable. The power consumption coefficient*2 of AT-50A is "4."
Operating conditions	Temperature	Operating temperature range	0 - 40˚C [32˚F - 104˚F]
		Storage temperature range	-20 - +70˚C [-4˚F - +158˚F]
	Humidity	30%~90%RH (Non-condensing)	
Weight		0.5 kg [1-1/8 lbs]	
External dimensions (W x H x D)		180 x 120 x 30 mm 7-3/32 x 4-23/32 x 1-3/16 in	

*1 Not for use with a generic DC power supply device. Use the power supply unit for transmission line (PAC-SC51KUA etc.) by Mitsubishi.
*2 "Power consumption Coefficient" is a coefficient to calculate the relative power consumption of the devices that receive power through the M-NET transmission line.
Refer to the note at the end of Chapter 1-5 "System diagram" in the Installation Manual.

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

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

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

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
Authorized representative in EU: MITSUBISHI ELECTRIC EUROPE B.V.
HARMAN HOUSE, 1 GEORGE STREET, UXBRIDGE, MIDDLESEX UB8 1QQ, U.K.

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