



# Air Conditioning Control System TOUCH CONTROLLER

MODEL

# TC-24B

Instruction Book



Prior to use, thoroughly read the instructions in this manual to use the product correctly. Retain this manual for future reference.

Make sure that this manual and Installation Manual are passed on to any future 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 before using the unit.
- Observe the following precautions to ensure safety.

 <b>WARNING</b>	Indicates a risk of death or serious injury.
 <b>CAUTION</b>	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 TC-24B 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.

TC-24B 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 TC-24B. 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.	20
	Mode *1	Switches the mode "Cooling/Drying/Fan/Auto/Setback/Heating" for each group or all groups. (Switches the mode "Bypass/Heat recovery/Auto" for LOSSNAY groups.) Switches the mode "HEATING/HEATING ECO/HOT WATER/ANTI-FREEZE/COOLING" for Air To Water (PWFY) groups.	20
	Setback mode *1	Automatically switches the operation mode between Cooling and Heating to maintain the room temperature within the set temperature range. The cooling/heating set temperature can be overridden.	21
	Set Temperature *1	Sets the set temperature for each group or all groups.	23
	Fan Speed *1	Adjusts the fan speed for each group or all groups.	24
	Air Direction *1	Adjusts the air direction for each group or all groups.	24
	Louver *1	Enables/disables the louver for each group or all groups.	24
	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.)	24
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.	30
	Weekly/1-day schedule	<ul style="list-style-type: none"> <li>Allows the user to set the Weekly schedule for each group.</li> <li>Maximum of 16 events can be scheduled for each day.</li> <li>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.</li> <li>Maximum of 12 patterns can be configured for the Weekly schedule, and 5 for 1-day schedule.</li> <li>1-day schedule overrides the Weekly schedule.</li> </ul>	32
System Management	Hold	Enables/disables the Hold function for each group or all groups * When the Hold function is enabled, the current operation status is retained until the Hold function is disabled.	8 25
	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.	58

\*1 :Available functions vary depending on the unit type. Only the functions that are supported by the connected units can be controlled from the TC-24B.

Function	Description	Page	
Restriction Settings	Lock Buttons	Locks the following buttons: Collective ON/OFF, Hold, Setback, and Main Menu. Locks the following functions: ON/OFF, Mode, Set Temp, Fan Speed, and Hold.	12 27 44
	Set Temperature Range Limit	Limits the available temperature range for the local remote controllers (collectively or by group).	46
	Prohibit Remote Controller	Prohibits access to the ON/OFF, Mode, Set Temperature, Maintenance Sign (Filter sign/Check Water sign) Reset, Fan Speed, and Air Direction settings from the local remote controllers, and also deactivates Timer settings from the local remote controllers (collectively or by group).	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
	Home screen Group icon setting	When the group icon is touched, the action differs depending on the Group icon setting. Default is set to the Group icon setting 2. Group icon setting 1: Turns ON/OFF the units in the group whose group icon is touched. Group icon setting 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. Group icon setting 3: Directly moves to the GROUP screen of the group whose group icon is touched.	19 43
	Volume Control	Sets the sound volume and screen brightness.	54
Maintenance	Error	If an error occurs on the TC-24B 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, $\Delta$ will appear on the corresponding group icon on the Home screen. The error code can be verified and reset on the Status List screen.	56
	Maintenance 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.	56
	Touch Panel Cleaning Mode	Disables the touch panel to allow the user to clean the panel.	60
Miscellaneous	Touch Panel Calibration Mode	Calibrates the touch panel if the touch panel does not respond correctly when touched.	55
	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.	/

# Product Features

TC-24B is a centralized controller with color LCD touch panel designed to control air conditioning units, LOSSNAY, Air To Water (PWFY)\*1, and general equipment using Mitsubishi Electric's DIDO controller (PAC-YG66DCA).

TC-24B can control up to 24 units/24 groups.\*2

TC-24B features such basic functions as operations and monitoring of air conditioning units and schedule-control functions. TC-24B also can prohibit the local remote controller operation for each room (group), which may lead to energy savings.

Basic functions can be accessed through the TC-24B touch panel. ON/OFF, Hold, and Setback operations that control air conditioning units collectively are accessed by using the buttons next to the touch panel.

TC-24B display screen consists of three main screens.

Home screen: Monitors the operation status of the units.

Main Menu screen: Leads to the setting screens to set various settings.

Maintenance screen: Initial setting screens to set the basic settings such as group settings. (Explained in the Installation Manual)

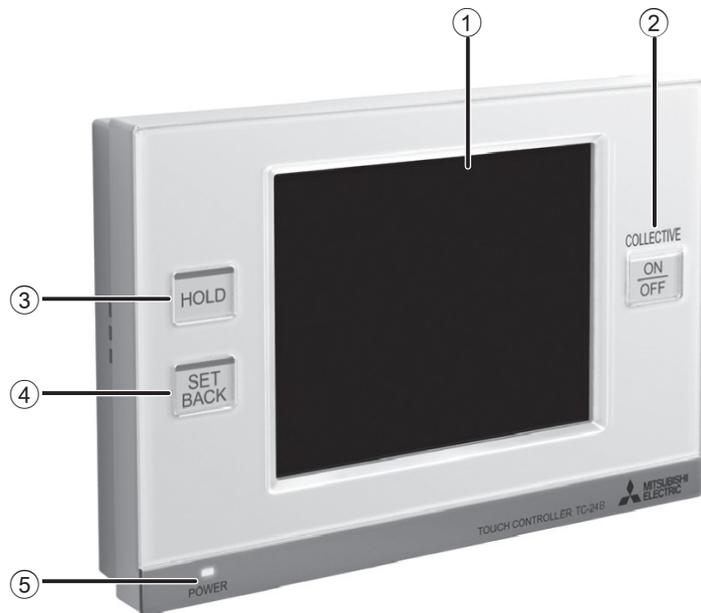
\*1 "Booster unit" and "Water HEX unit" are referred to as "Air To Water (PWFY)."

\*2 Group is a group of air conditioning units and controllers and is the smallest unit that the TC-24B can control.

The maximum number of units that each group can contain is 16.

\* AHC (Advanced HVAC CONTROLLER) cannot be controlled from TC-24B.

## Controller interface



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

### ① Display/Touch panel

TC-24B features a 5" color LCD touch panel. Touch panel displays the operation status of the units. Function settings such as weekly 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 button allows the user to turn on or off the air conditioning units, LOSSNAY units, Air To Water (PWFY) units, and DIDO controllers in all groups collectively.

The indicator indicates the operation status of the units by lighting and blinking, or by turning off.

Unlit: Indicates that all units are stopped.

Lit: Indicates that one or more units are in operation.

Blinking: Indicates that an error is occurring.

### ③ HOLD button \*1\*2

The button enables the Hold function that allows the user to retain the current operation status for the selected groups collectively. (Refer to P25 for the details of the Hold function.)

Unlit: Normal operation

Lit: Hold-ON

### ④ SETBACK button \*1\*3

The button sets the Setback mode for the selected groups collectively. Depending on the room temperature, indoor unit will automatically operate in either the cooling or heating mode and keep the room temperature within the preset range. The wider the set temperature range, the greater the energy saving.

Unlit: Normal operation mode

Lit: Setback mode

### ⑤ Power indicator

The power indicator lights up when the power to TC-24B is turned on.

Unlit: Power OFF

Lit: Power ON

\*1 When the button is touched while the operation is prohibited, the LED will blink twice.

\*2 Buttons ②, ③, and ④ are available only on the Home screen.

\*3 This function cannot be used for the air conditioning unit groups without the Setback mode.

# Screen Configuration

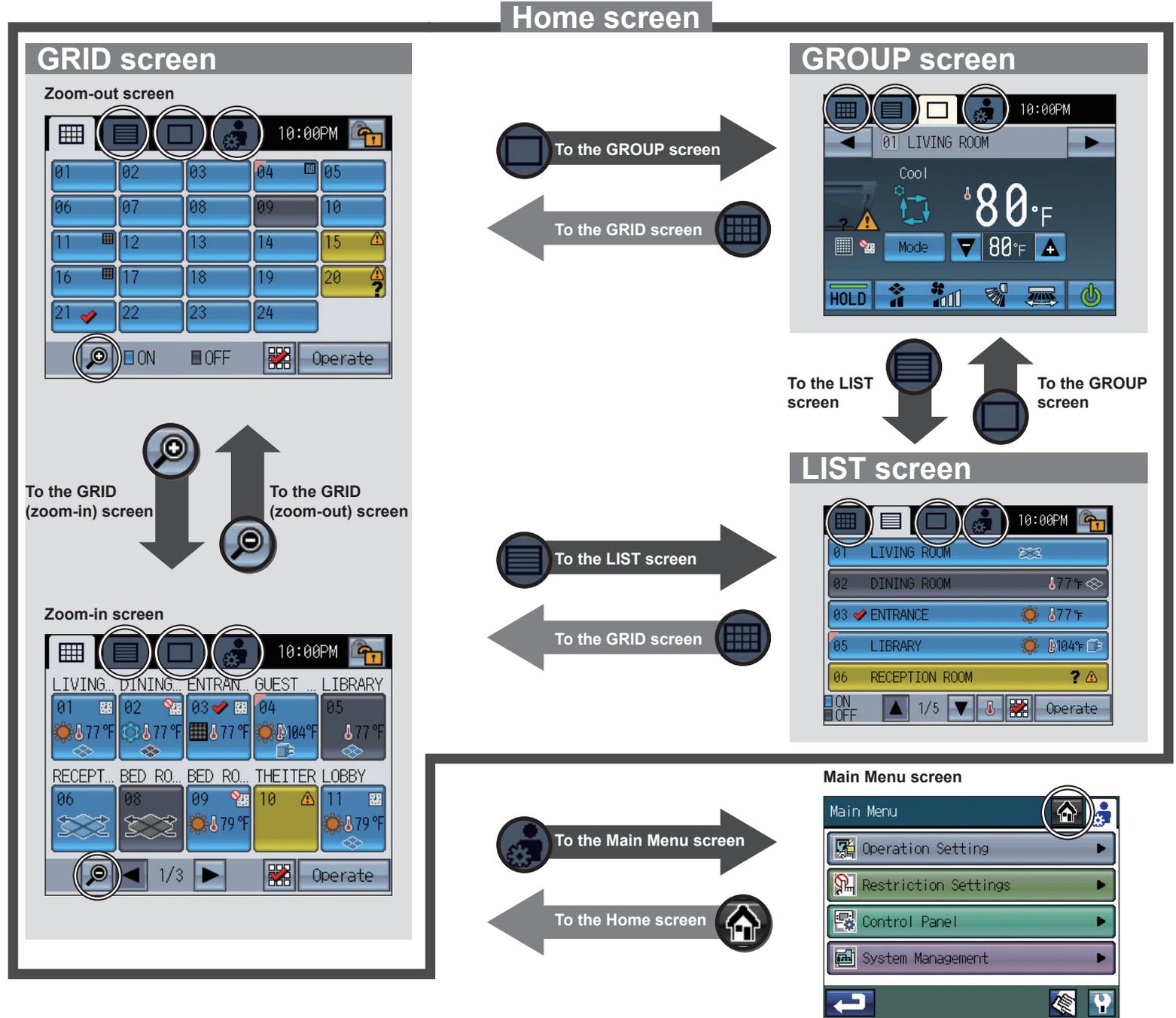
1. To switch between the Home screens, touch the following tabs.

-  : 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. To move to the Main Menu screen, touch the following tab.

-  : Displays the Main Menu screen.

3. To move to the Maintenance screen, refer to the Installation Manual.

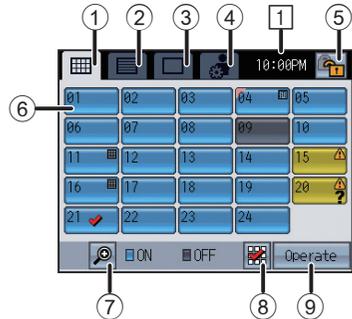


# Screen Display (Home screen)

## Buttons

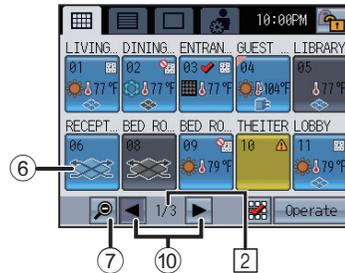
### GRID (zoom-out) screen

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



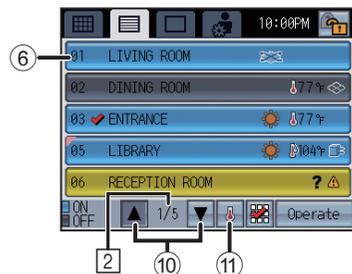
### GRID (zoom-in) screen

Displays the detailed operation status of each group. (10 groups on 3 pages maximum)



### LIST screen

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



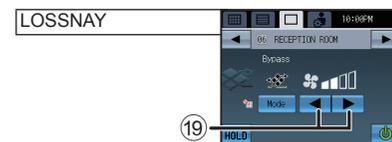
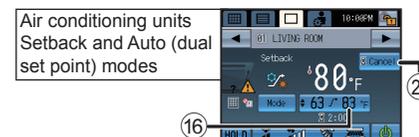
### GROUP screen

Displays the detailed operation status of each group. Sets group operations. (When the air conditioning units or Air To Water (PWFY) units are controlled)



Note: Display ⑧ and ⑨ vary depending on the Group icon setting. Refer to P19 "Group icon setting 1, 2, 3" for details.  
Sample displays above are for default setting: Group icon setting 2.

Group icon setting 1	
Group icon setting 2	
Group icon setting 3	



### ① GRID screen button

Displays the GRID screen.

### ② LIST screen button

Displays the LIST screen.

### ③ GROUP screen button

Displays the GROUP screen.

### ④ Main Menu button

Displays the Main Menu.

### ⑤ Operation Lock button

Locks or unlocks the buttons on the TC-24B. 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 screen on the Main Menu. (Refer to P44.)  
If no items have been selected, the Operation Lock button will not appear on the screen.

### ⑥ Group icon (operation status display) button

Operation differs depending on the Group icon setting.

#### Group icon setting 1

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

#### Group icon setting 2

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

#### Group icon setting 3

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

### ⑦ GRID (zoom-out/zoom-in) screen button

: Displays the zoom-out screen.

: Displays the zoom-in screen.

### ⑧ Select All button

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

### ⑨ Move-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 P27 "Multiple group selection screen" for details.

### ⑩ Page button

Flips through pages.

### ⑪ Display Selection button

Shows/Hides the display for the information below.

- Set temperature
- Scheduled operation is enabled.
- Hold function is enabled.

### ⑫ Group button

Switches the group to be displayed.

### ⑬ Mode button

Switches the operation mode of the air conditioning units, LOSSNAY, and Air To Water (PWFY) units.

### ⑭ Set Temperature button

Adjusts the set temperature by using the + and - buttons. Current room temperature appears above the button. Set temperature appears between the + and - buttons.

### ⑮ HOLD button

Enables/Disables the Hold function for the displayed groups. Icon appears while the Hold function is enabled.

### ⑯ Set Temperature button (Setback and Auto (dual set point) modes)

Displays the popup window to adjust the set temperature during the Setback and Auto (dual set point) mode. Current room temperature appears above the button. Set temperature appears on the button. Refer to P23 "Temperature setting" for details.



Displays the popup window of Interlocked ventilation (LOSSNAY)/Air direction/Fan speed/Louver setting screen. \* Refer to P24 "Interlocked ventilation units (LOSSNAY)/ Fan speed/Air direction/Louver settings" for the popup window.

### ⑰ ON/OFF button

Changes the operation to ON/OFF.

### ⑱ Fan Speed Selection button

Switches LOSSNAY fan speed between Low and High.

### ⑳ Cancel button

Appears when the set temperature for the Setback mode has been overridden by the controller. Touching this button will return the set temperature to the previous setting.

### 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 settings, available button operations and displays vary.  
Note: While the icon is displayed on the button, the operation is locked.

## Icons

### GRID (zoom-out) screen



- ON (BG Color: blue)
  - Group No.
  - Check mark
  - Check Water sign: (For Air To Water (PWFY) units)
  - Filter sign (For Air conditioning units)
- OFF (BG Color: black)
- Error (BG Color: yellow)
  - Error display
  - Communication error at startup

### GRID (zoom-in) screen



- #### [Air conditioning unit]
- ON (BG Color: blue)
    - Check mark
    - ON/OFF operation prohibition
    - Group No.
    - Schedule/Hold
    - Room temperature
    - Interlocked ventilation (LOSSNAY) operation
  - OFF (BG Color: black)

- #### [Air To Water (PWFY)]
- ON (BG Color: blue)
    - Check mark
    - ON/OFF operation prohibition
    - Air To Water (PWFY) mark
    - Group No.
    - Schedule/Hold
    - Water temperature
    - Air To Water (PWFY) icon
  - OFF (BG Color: black)

- #### [Air conditioning unit] [LOSSNAY]
- #### [General equipment]
- Error (BG Color: yellow)
    - Error display

- #### [LOSSNAY]
- ON (BG Color: blue)
    - Filter sign
    - LOSSNAY icon
    - Schedule/Hold
  - OFF (BG Color: black)

- #### [General equipment]
- ON (BG Color: blue)
    - General equipment icon
    - Schedule/Hold
  - OFF (BG Color: black)

**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.

**While Hold function is enabled or Timer execution is prohibited:**  
Displays .

**During scheduled operation**  
Displays .

**Room temperature:**  
Displays the current room temperature. The displayed temperature will blink when the room temperature is at or above 104°F (40°C) (102°F (39°C) on some models), or at or below 32°F (0°C) (46°F (8°C) on some models).  
\* Temperatures will be displayed in 1°C increments on the GRID (zoom-in) screen and on the LIST screen, even if the temperature is set to appear in 0.5°C increments.

### LIST screen



	Display Selection button	Display Selection button	Display Selection button
<b>[Air conditioning unit]</b>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>Group No.</li> <li>Room (Group) name</li> <li>Check mark</li> <li>Schedule/Hold</li> <li>Room temperature</li> <li>Set temperature*</li> <li>Mode</li> <li>Filter sign</li> </ul> </li> <li>* When the temperature offset function is enabled, the temperature will appear in the green outline font.</li> </ul>	<ul style="list-style-type: none"> <li>• OFF (BG Color: black)                             <ul style="list-style-type: none"> <li>Schedule/Hold</li> <li>Room temperature</li> <li>Interlocked ventilation**</li> <li>Mode</li> <li>Filter sign</li> </ul> </li> <li>** Interlocked LOSSNAY does not appear during operation.</li> </ul>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>Interlocked ventilation (LOSSNAY) operation**</li> <li>Mode</li> <li>Filter sign</li> <li>Room temperature</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Setback and Auto (dual set point) modes                             <ul style="list-style-type: none"> <li>Cooling set temperature</li> <li>Heating set temperature</li> </ul> </li> </ul>		
<b>[Air To Water (PWFY)]</b>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>Air To Water (PWFY) mark</li> <li>Group No.</li> <li>Room (Group) name</li> <li>Check mark</li> <li>Schedule/Hold</li> <li>Water temperature</li> <li>Set temperature*</li> <li>Mode</li> <li>Check Water sign</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• OFF (BG Color: black)                             <ul style="list-style-type: none"> <li>Schedule/Hold</li> <li>Water temperature</li> <li>Air To Water (PWFY) icon</li> <li>Mode</li> <li>Check Water sign</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>Water temperature</li> <li>Air To Water (PWFY) icon</li> <li>Mode</li> <li>Check Water sign</li> </ul> </li> <li>• OFF (BG Color: black)</li> </ul>
<b>[LOSSNAY]</b>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>Group No.</li> <li>Room (Group) name</li> <li>Check mark</li> <li>Schedule/Hold</li> <li>LOSSNAY icon</li> <li>Filter sign</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• OFF (BG Color: black)                             <ul style="list-style-type: none"> <li>Schedule/Hold</li> <li>LOSSNAY icon</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>LOSSNAY icon</li> <li>Filter sign</li> </ul> </li> <li>• OFF (BG Color: black)</li> </ul>
<b>[General equipment]</b>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>Group No.</li> <li>Room (Group) name</li> <li>Check mark</li> <li>Schedule/Hold</li> <li>General equipment icon</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• OFF (BG Color: black)                             <ul style="list-style-type: none"> <li>Schedule/Hold</li> <li>General equipment icon</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• ON (BG Color: blue)                             <ul style="list-style-type: none"> <li>General equipment icon</li> </ul> </li> <li>• OFF (BG Color: black)</li> </ul>
<b>[Air conditioning unit] [LOSSNAY] [General equipment]</b>			<ul style="list-style-type: none"> <li>• Error (BG Color: yellow)                             <ul style="list-style-type: none"> <li>Error display</li> </ul> </li> </ul>

**Water temperature:**  
Display ranges 32-199°F (0-93°C). When the temperature is beyond the range, 32°F (0°C) or 199°F (93°C) will blink on the display. When multiple Air To Water (PWFY) units are registered to a group, current water temperature on the main Air To Water (PWFY) unit is displayed.

**Interlocked ventilation (LOSSNAY):**  
Displays when there are ventilation units interlocked with the air conditioning (indoor) units in the group.

**General equipment icon:**  
Displays the General equipment type.

**GROUP screen**

**[Air conditioning unit group • Air To Water (PWFY) group]**

**During operation**

Group No.  
Mode  
Error  
Unit icon  
Startup (communication) error  
Filter sign\*  
Check Water sign\*\*  
Energy-saving  
Hold  
Scheduled operation

Group name  
Room temperature  
Set temperature  
Fan speed\*  
Air direction\*  
Interlocked ventilation (LOSSNAY)\*  
Louver\*  
Water temperature  
Set temperature

**[Air To Water (PWFY) group]**

HOLD-ON  
HOLD-OFF

**Setback and Auto (dual set point) modes**

Set cooling/heating set temperature  
Remaining OVERRIDE time

**While the unit is stopped**

Interlocked ventilation\* (LOSSNAY)

\*: Displayed only on Air conditioning unit groups and when the selected unit supports the function

\*\* : Displayed only on Air To Water (PWFY) groups

**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.

**Energy saving:**

will appear on the screen while energy-save control is being performed. (depending on the indoor unit model)

**When the Hold function is enabled or Timer execution is prohibited:**

Displays .

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

**[LOSSNAY group]**

**During operation**

Fan speed

**While the unit is stopped**

**[General equipment group]**

**During operation**

General equipment icon

**While the unit is stopped**

**Room temperature:**

Displays the current room temperature. The displayed temperature will blink when the room temperature is at or above 104°F (40°C) (102°F (39°C) on some models), or at or below 32°F (0°C) (46°F (8°C) on some models).

When multiple air conditioning units (indoor units) are registered to a group, current indoor temperature on the main indoor unit is displayed.

**Water temperature:**

Display ranges 32-199°F (0-93°C). When the temperature is beyond the range, 32°F (0°C) or 199°F (93°C) will blink

on the display. When multiple Air To Water (PWFY) units are registered to a group, current water temperature on the main Air To Water (PWFY) unit is displayed.

**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

### Group icon setting 1, 2, 3

When the group icon ① is touched, the action differs depending on the Group icon setting. Three different Group icon settings are available as shown below, and default is set to the Group icon setting 2. Refer to P43 for changing the Group icon setting.

**Group icon setting 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 P20 "Operation screen (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 P27 "Multiple group selection screen" for details.

**Group icon setting 1:** Power icon 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 TC-24B 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 be performed when the following displays appear.

Displays the emergency stop level-signal input\*



When the group icon is set to the Group icon setting 1

Displays ON/OFF level-signal input



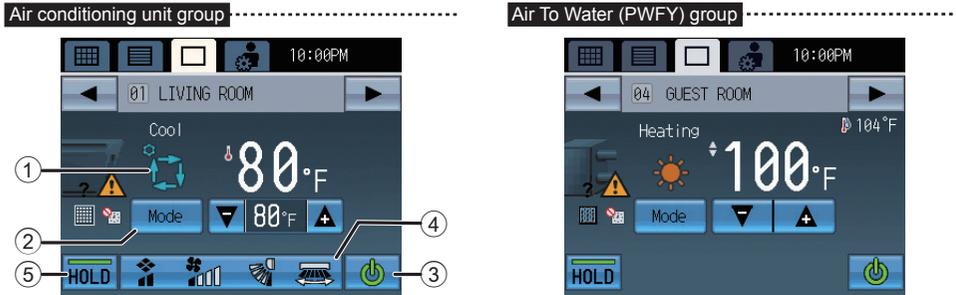
The button cannot be operated.

**Group icon setting 3:** Nothing appears in the area marked ②.

Moves to the GROUP screen by touching the group icon ①.

## Operation screen (GROUP screen)

### Operating the Air conditioning unit group • Air To Water (PWFY) group



### 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, Drying, Fan, Auto\*1, Heating, and Setback\*\*" or "Heating, Heating ECO, Hot water, Anti-Freeze, and Cooling\*\*".  
 The selected mode will appear in the area labeled ①.

(\*: For Air conditioning unit groups, \*\*: For Air To Water (PWFY) groups)  
 \*1 Depending on the indoor unit model, either one or two set temperatures (single or dual set point(s)) can be set for Auto mode.

### Air conditioning unit group



\*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.

### Air To Water (PWFY) group



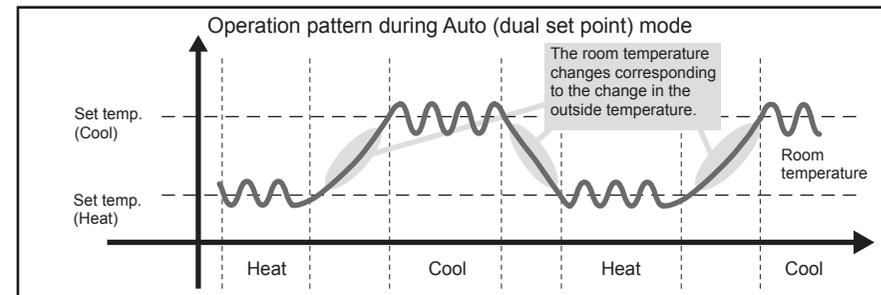
### Auto (dual set point) and Setback modes:

When the operation mode is set to the Auto (dual set point) mode or the Setback mode, two set temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the cooling or heating mode and keep the room temperature within the preset range.

### Differences between the two modes

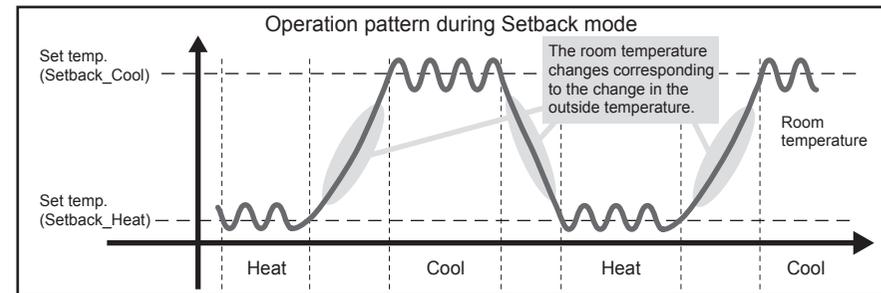
#### • Auto (dual set point) mode

The set temperatures that are specified for the Cool/Drying mode and the Heat mode will be used to automatically control the room temperature to stay within the set temperatures. This mode is especially effective during the in-between seasons, when the temperature difference between the highest and the lowest is large and both heating and cooling modes are used within the same day.



#### • Setback mode

Room temperature is controlled to stay within the set temperature range that is specified for the Setback mode. By leaving sufficient temperature differential between the set temperature for cooling (upper limit) and heating (lower limit), it is possible to keep the room temperature within the specified range without overworking the air conditioners. This setting will be especially effective during periods of non-occupancy.



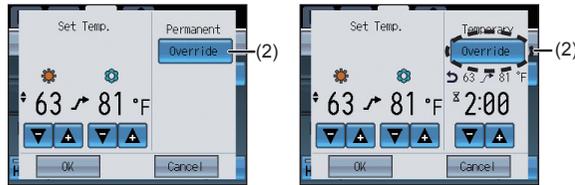
**During the Setback or Auto (dual set point) mode**

To change the cooling/heating set temperatures for Setback or Auto (dual set point) mode, touch the Set Temperature button. The screen to set the cooling/heating set temperatures will appear.



**Setback mode:**

Then, one of the screens on the right will appear. Touch the **[Override]** button (2) to switch between **[Temporary]** and **[Permanent]** (shown above the **[Override]** button).



Touch (3) to set the cooling/heating set temperatures.

When **[Temporary]** is selected, the timer will appear, and the original cooling/heating set temperatures will appear above the timer.

Touch (4) to set the timer.

Then, touch the **[OK]** button (5).



When the scheduled Setback operation is performed, **[Temporary]** will appear on the screen.

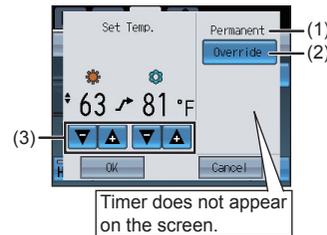
When the Setback operation is performed by selecting the Setback mode or pressing the SETBACK button, **[Permanent]** will appear on the screen.

\*After the set time has elapsed, the Setback control resumes to the original cooling/heating set temperatures.

\*The cooling/heating set temperatures cannot be temporarily changed on the multiple group selection screen. (Override cannot be used.)

\*The override time can be set up to four hours in 10-minute increments.

\*To cancel the Override control, touch the **[Cancel]** button.



**Auto (dual set point) mode:**

Touch (3) to set the cooling/heating set temperatures.

Then, touch the **[OK]** button (5).



**Temperature setting**

80°F (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.)

**Set temperature range**

**Air conditioning unit groups**

Operation mode	Set temperature range
Cool/Drying	67°F-95°F/19°C-35°C *1
Heat	40°F-83°F/4.5°C-28°C *1
Auto (single set point)	67°F-83°F/19°C-28°C *1*2
Auto (dual set points)	Cool: Same as the set temperature range for Cool mode Heat: Same as the set temperature range for Heat mode *2*3*4
Setback	Cool: Same as the set temperature range for Cool mode Heat: Same as the set temperature range for Heat mode *4
Fan	Not settable

\*1 The settable temperature ranges vary, depending on the indoor unit model.

\*2 The set temperature for Auto mode (either single or dual set point(s)) will appear depending on the indoor unit model.

\*3 The same values are used for the set temperature for Cool/Drying mode and the cooling set temperature for Auto mode (dual set points). Likewise, the same values are used for the set temperature for Heat mode and the heating set temperature for Auto mode (dual set points).

\*4 The cooling and heating set temperatures can be set under the following conditions.

- The cooling set temperature is greater than the heating set temperature.
- The difference between the cooling and heating set temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.

**Air To Water (PWFY) groups**

\* Available set temperature range varies depending on the mode or model.

\*\* The temperature is controlled automatically in the Heating ECO mode. The user cannot change the temperature settings.

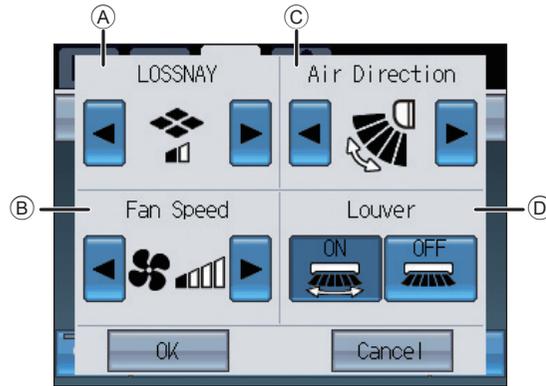
Booster unit	
Heating	: 87°F - 122°F / 30°C - 50°C
Heating ECO**	: 87°F - 113°F / 30°C - 45°C
Hot Water	: 87°F - 158°F / 30°C - 70°C
Anti-freeze	: 50°F - 113°F / 10°C - 45°C
Cooling	: Invalid

Water HEX unit	
Heating	: 87°F - 113°F / 30°C - 45°C
Heating ECO**	: 87°F - 113°F / 30°C - 45°C
Hot Water	: Invalid
Anti-freeze	: 50°F - 113°F / 10°C - 45°C
Cooling	: 50°F - 87°F / 10°C - 30°C

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

for Air conditioning unit groups only

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



### ①: Interlocked ventilation units (LOSSNAY)



\* When interlocked ventilation units are not connected, ① does not appear.

### ②: Fan speed (settable only while the unit is in operation)



\* ② does not appear when the model does not have this function.

\* Available fan speed varies depending on the model.

### ③: Air direction (settable only while the unit is in operation)



\* ③ does not appear when the model does not have this function.

\* Available air direction varies depending on the model.

### ④: Louver (settable only while the unit is in operation)



\* ④ does not appear when the model does not have this function.

After setting ① through ④, touch the [OK] button.

## Hold function setting



HOLD-ON



HOLD-OFF

Touch ⑤ to enable/disable the Hold function.

\* When the Hold function is enabled, the current operation status is retained until the Hold function is disabled.

\* The timer execution is prohibited when this function is enabled and the icon  is displayed.

\* The operations that have been scheduled from the other system controllers or remote controllers will also be disabled.

\* If the Hold setting is set to ON from the GROUP screen or with the HOLD button next to the touch panel and the "Hold type" is set to "Forced", the Hold setting can be cancelled only from this unit. If the "Hold type" is set to "Normal", the Hold setting can be cancelled from this unit, other system controllers, or remote controllers.

\* When remote controllers, system controllers, or units that do not support the Hold function are connected, only the scheduled operations for this unit will be disabled.

\* Refer to the Installation Manual for how to change the "Hold type".

## 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 TC-24B locks its own functions for ON/OFF, Mode, Temperature, Fan Speed, or Hold, 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

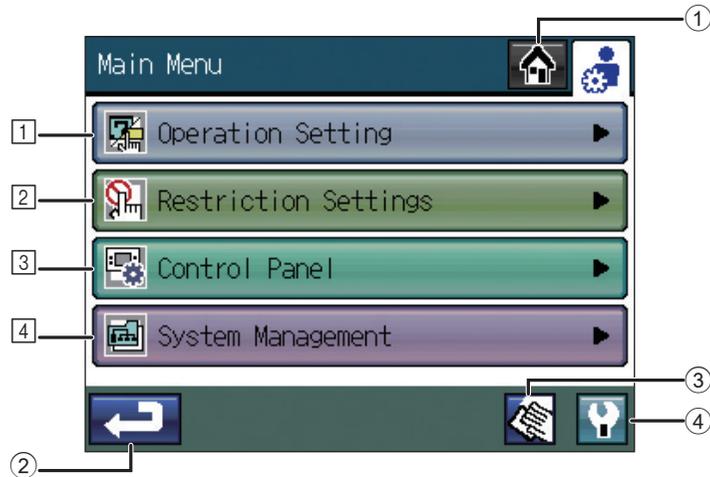
If the ON/OFF, Mode, Temperature, Air Direction, and Fan Speed buttons on the TC-24B are disabled from other controllers, will appear on the buttons, and these buttons will not be available for selection.

If the TC-24B denies other controllers access to itself, other controllers cannot disable the functions on the TC-24B.

If a signal is received to force the Hold setting from other controllers, the above icon will appear on the relevant operation button and the button will become unresponsive.

# Main Menu screen

The Main Menu screen allows the user to configure the basic settings. To access the Main Menu, touch the  icon at the right top corner of the Home or the Main Menu screen.



## ① Home button

Accesses the Home screen.

## ② Back button

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

## ③ Touch Panel Cleaning button

P60

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 not need to change any settings in the maintenance menu.

## ① Operation Setting

(1) Time and Schedule	Sets the date, time, schedules, and daylight saving changes.	P30
(2) Collective Operation Setting	Selects the groups that the operation applies to when the ON/OFF, Hold, or Setback button is pressed.	P40
(3) Group Icon Setting	Changes the behavior of the group icon on the Home screen. * Three setting options are available.	P43

## ② Restriction Settings

(1) Lock Buttons	Locks the buttons and the functions on the TC-24B.	P44
(2) Set Temperature Range Limit	Sets the temperature range for the local remote controllers.	P46
(3) Prohibit Remote Controller	Prohibits access to the ON/OFF, Mode, Set Temperature, Maintenance sign (Filter sign/Check Water sign) Reset, Fan Speed, and Air Direction settings from the local remote controllers, and also deactivates Timer settings from the local remote controllers.	P48

## ③ Control Panel

(1) Display Format	Selects the display formats*. * 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) Volume Control	Sets the sound volume and screen brightness.	P54
(3) Touch Panel Calibration	Calibrates the touch panel.	P55

## ④ System Management

(1) Status List	Displays errors and maintenance signs.	P56
(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.	P58

# Usage - Main Menu settings

## Operation setting

### 1 Time and Schedule

Main Menu > Operation Setting

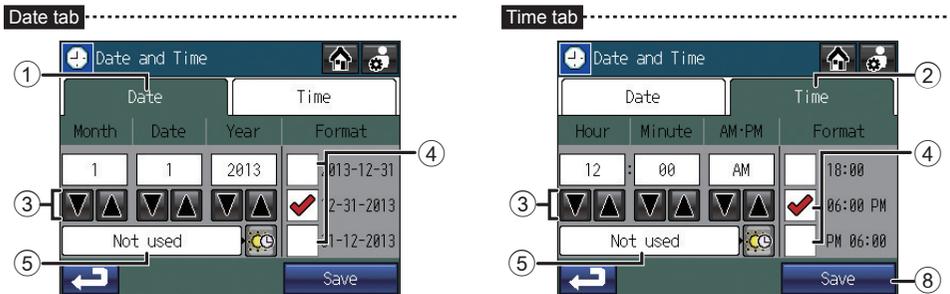


Main Menu > Operation Setting > Time and Schedule



### A Setting the date, time, and display format

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



1. Touch the **A** [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**  $\nabla$   $\blacktriangle$  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 button **5** to access the [Daylight saving changes] screen.
  - Touching the button **6** displays a list of countries. Select your country. Select "Not used" if you do not use daylight saving time.
  - If your county does not exist in the list, select "Manual". The buttons **7** become active. Touching the buttons **7** displays the date and time setting screen. Set the start and end date/time.

Daylight saving time setting screen



Date and time setting screen



6. Touch the **8** [Save] button.

- The initial date/time setting is 1/1/2013 12:00AM.
- If the clock is set forward, the operations that were scheduled to have taken place before the new time will be cancelled.
- When the Daylight Saving Time goes in effect, the scheduled operations or the Setback operations scheduled for the skipped hour cannot be executed.
- When "Clock Setting Signal" is set to OFF on the [Initial Settings 1/Basic System] screen under the Service Menu, the daylight saving time function is not available.

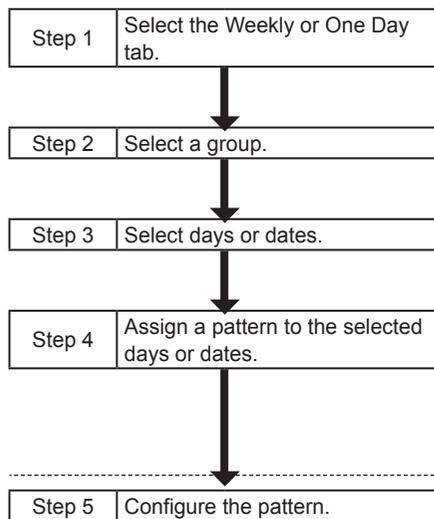
## B Setting the operation schedule

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

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.

### Schedule setting flowchart



**[Set Schedules] screen**

Select Group and Days/Dates 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 Day/Dates screen.

When the selected groups include two or more unit types (e.g. "air conditioners and ventilators" or "general equipment and Air To Water (PWFY)"), the **[Target group selection]** screen shown on the right appears before the **[Set Schedules]** screen appears. Select the unit type to be operated, and touch the **[OK]** button. (This screen does not appear when the selected groups do not include multiple unit types.)



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

- Weekly screen  
Displays the pattern numbers that are assigned to groups and days.  
() 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.

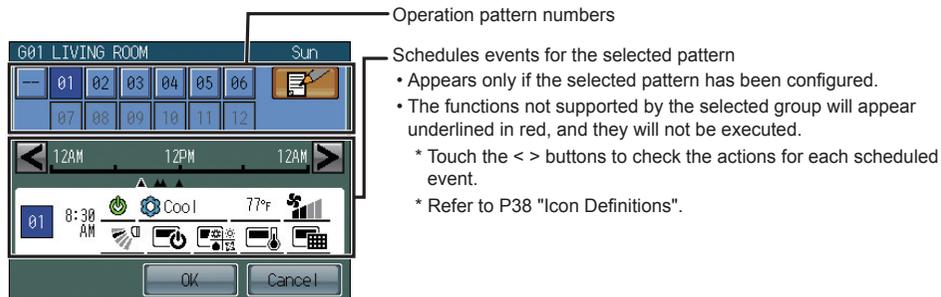
2. Touch the Weekly or One Day tab.
3. Select the cell where a specific group and a day (date) intersect to assign a pattern.

\* 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 P37 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.



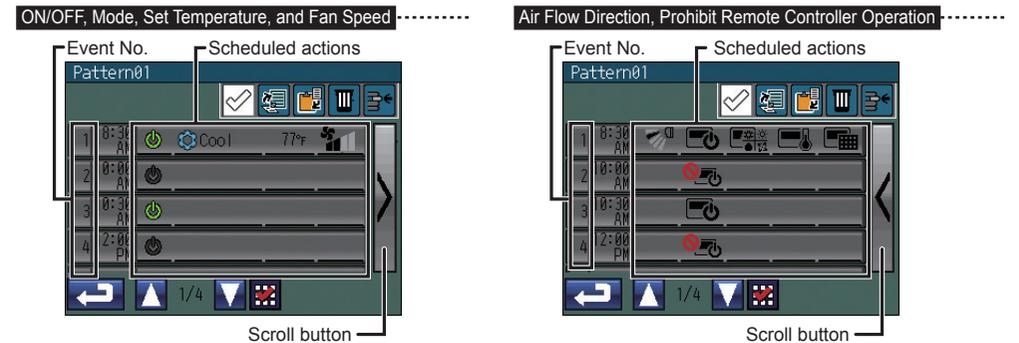
- 1) To configure a new pattern using a blank pattern  
Touch a blank pattern number, then touch the  button to access the Edit Pattern screen.  
→ See Step 5.

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 P37 for details

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

## Auto (single set point) mode



## Setback and Auto (dual set point) modes



\* Functions that can be included in each event are as follows: Execution Time, ON/OFF, Mode, Fan Speed<sup>(\*)</sup>, Air Direction<sup>(\*)</sup>, Set Temperature, and Local Remote Controller Operation Prohibition settings.

\* Refer to P38 "Icon Definitions".

(\*) For Air conditioning unit groups and LOSSNAY groups

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/Dates 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.

### Inserting an event

- Touch a row to insert an event above it.
  - \* A red checkmark will appear on the selected row.
- 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

(Air conditioning unit groups and LOSSNAY groups)

Functions	Deselected *1	Setting Options
ON/OFF		 On (green)  Off (black)
Mode		 Cooling  Drying  Fan  Heating  Auto (Single/dual set point(s))  Setback  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

(General equipment groups and Air To Water (PWFY) groups)

Functions	Deselected *1	Setting Options
ON/OFF		 On (green)  Off (black)
Mode		 Heating  Heating ECO  Hot water  Anti-freeze  Cooling
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 (Check Water 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.

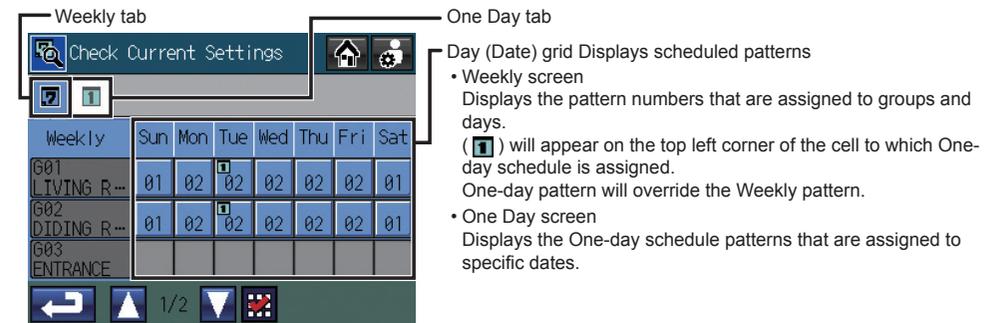
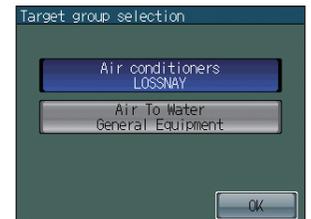
### © Checking the Weekly/One Day Schedule Settings

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

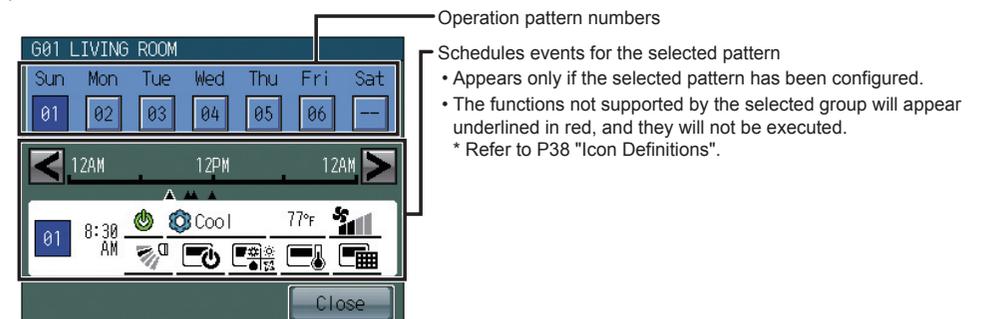
- Touch the **[Check Current Settings]** button on the **[Time and Schedule]** screen.

When the selected groups include two or more unit types (e.g. "air conditioners and ventilators" or "general equipment and Air To Water (PWFY)"), the **[Target group selection]** screen shown on the right appears before the **[Check Current Setting]** screen appears. Select the unit type to be operated, and touch the **[OK]** button.

(This screen does not appear when the selected groups do not include multiple unit types.)



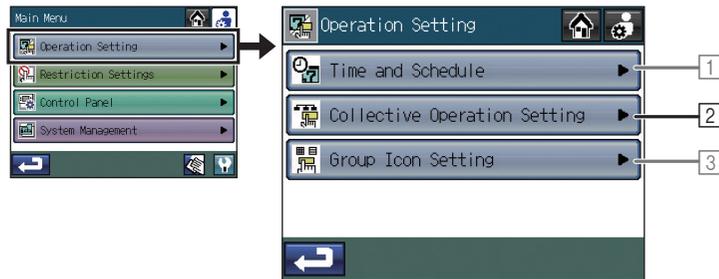
- Touch the Weekly or One Day tab.
- Touch the row that corresponds to the group whose schedules you want to check. Touch the pattern number under a specific day to check the day's schedule that appears under the pattern numbers.



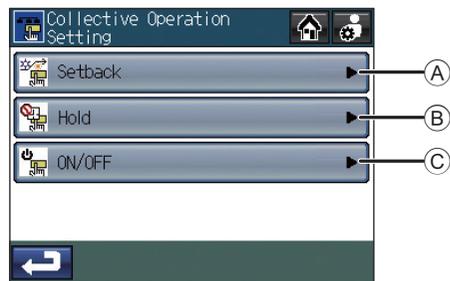
- Touch the <> buttons to check the actions for each scheduled event. Touch the **[Close]** button to return to the previous screen.
- To change the schedule settings, touch the Return button  to return to the **[Time and Schedule]** screen, and access the **[Set Schedules]** screen.

## 2 Setting the Collective Operation Settings

Main Menu > Operation Setting



Main Menu > Operation Setting > Collective Operation Setting



### To select the groups on which to execute the Setback function

When the SETBACK button on the side of the touch panel is pressed, the selected group's operation mode will be switched between heating and cooling to keep the room temperature within the preset temperature range.

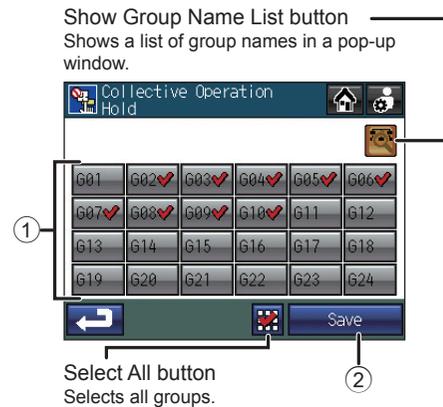
1. Touch the (A) **[Setback]** button on the **[Collective Operation Setting]** screen.
2. Read the pop-up message, and touch the **[OK]** button to confirm.
3. Select the groups on which to execute the Setback function from the group icons labeled (1).
4. Touch the (4) **▼ ▲** buttons to see the upper and lower limit set temperatures for the Setback mode of all groups. Touch the (3) button to set different ranges for different groups.
5. Touch the (2) **[Save]** button.  
The set temperatures for the Setback mode will be reflected on each group when the **[Save]** button is touched.



- The temperature range that can be set depends on the connected units.
- The cooling and heating set temperatures can be set under the following conditions.
  - The cooling set temperature is greater than the heating set temperature.
  - The difference between the cooling and heating set temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.
- If you change the settings while the SETBACK button is ON, turn off the SETBACK button, and then turn it back on to reflect the changes.
- Only the air conditioning unit groups can be selected.
- The air conditioning units without the Setback mode cannot be selected.
- The set temperatures for the Setback mode that have been changed on the GROUP screen will also be reflected on this screen.

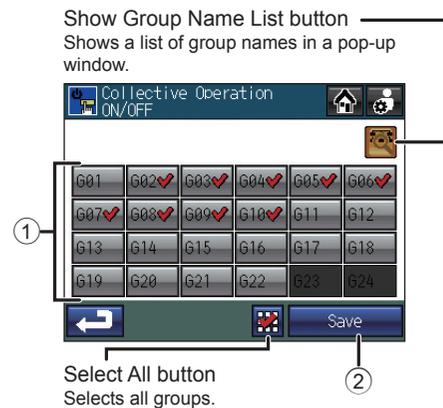
### To select the groups on which to execute the Hold function

1. Touch the **ⓑ** **[Hold]** 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 icons labeled **①**. By default, all groups are selected.
4. Touch the **②** **[Save]** button.



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

1. Touch the **ⓒ** **[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 icons labeled **①**. By default, all groups are selected.
4. Touch the **②** **[Save]** button.



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

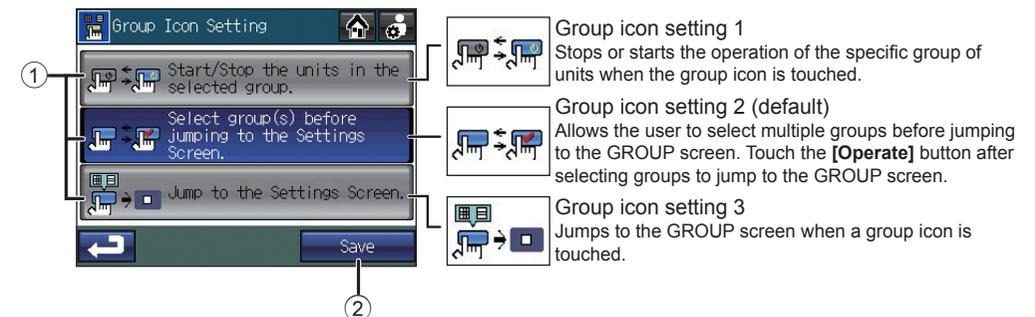
### 3 To make Group icon settings

Main Menu > Operation Setting



Main Menu > Operation Setting > Group Icon Setting

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

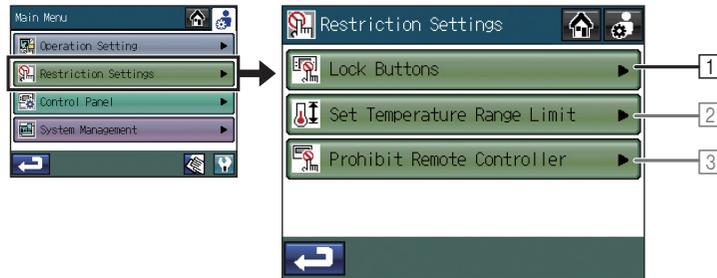


1. Select among Group icon setting 1, Group icon setting 2, and Group icon setting 3 by touching the corresponding button labeled **①**.
2. Touch the **②** **[Save]** button.

## Restriction settings

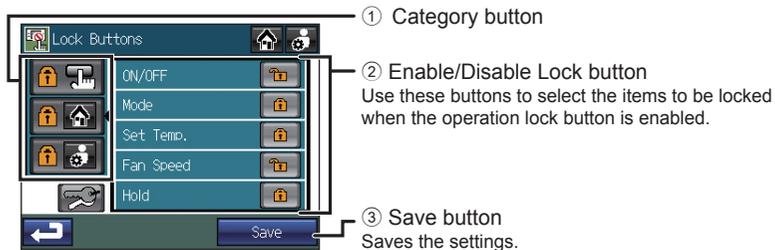
### 1 Selecting the functions to be locked and setting the unlock password

Main Menu &gt; Restriction Settings



### Selecting the functions to be locked

Main Menu &gt; Restriction Settings &gt; Lock Buttons



1. Touch the ① **[Lock Buttons]** button on the **[Restriction Settings]** screen.
2. Enter the password on the **[Login]** screen, and touch the **[Login]** button. Refer to P45 "To log in" 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
	Setback	Setback button *1 *		Mode	Mode button *3 *4
	Hold	Hold button *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		Hold	Hold 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



1. Touch the ① **[Lock Buttons]** button on the **[Restriction Settings]** screen.
2. Enter the password on the **[Login]** screen, and touch the **[Login]** button. Refer to P45 "To log in" for the details on log in. If the correct password is entered, the **[Lock Buttons]** screen will appear.
3. Touch 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.

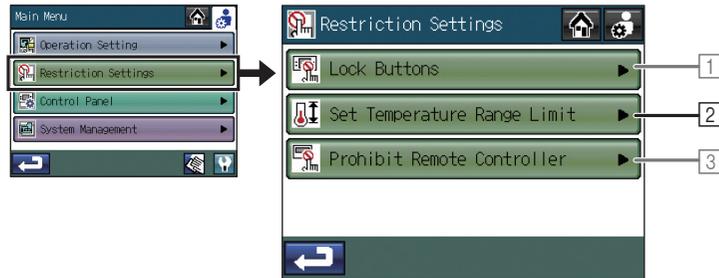
### To change the password



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.

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

Main Menu &gt; Restriction Settings



Main Menu &gt; Restriction Settings &gt; Set Temperature Range Limit

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 the settings.

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

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

Select All button  
Selects all groups.

Group	Cool	Heat	Auto
501	75 - 83°F	--- °F	--- °F
502	79 - 83°F	68 - 73°F	--- °F
503	79 - 83°F	68 - 73°F	--- °F
504	79 - 83°F	68 - 73°F	67 - 73°F

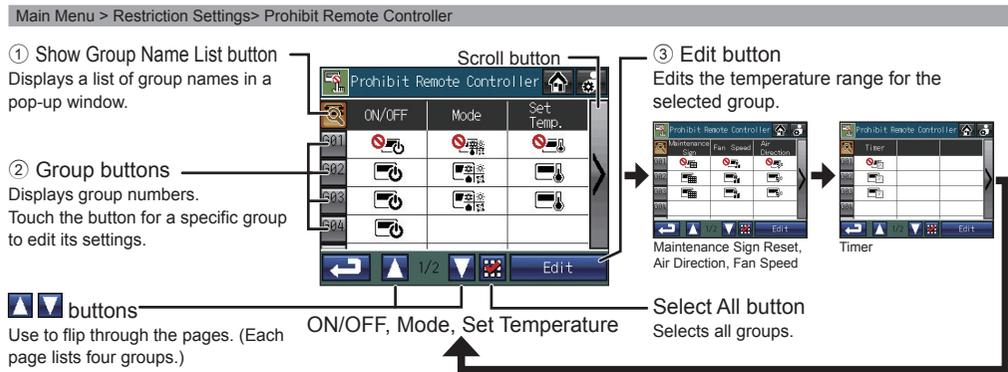
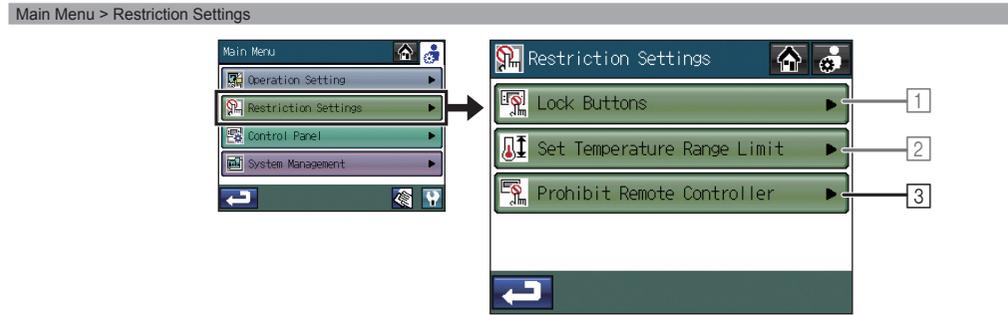
1. Touch the ② **[Set Temperature Range Limit]** button on the **[Restriction Settings]** screen.
2. Read the pop-up message, and touch the **[OK]** button to confirm.
3. Click on the ② Group button on the **[Set Temperature Range Limit]** screen to select the groups to change their settings.
4. Touch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



5. Use the ④ ▲ ▼ buttons shown in the pop-up window at left 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.
- The cooling and heating temperature ranges can be set under the following conditions
  - The difference between the cooling and heating upper limit temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.
  - The difference between the cooling and heating lower limit temperatures is equal or greater than the minimum temperature difference that varies with the indoor unit model.
- Operation from the local remote controllers that are connected to Mr. SLIM® cannot be prohibited from the TC-24B. 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.
- The DIDO controller groups, the LOSSNAY groups, and the Air To Water (PWFY) groups do not support the Set Temperature Range Limit function.

### 3 Locking or unlocking access to the ON/OFF, Mode, Set Temperature, Maintenance Sign Reset, Air Direction, Fan Speed, and Timer settings from the local and other system controllers

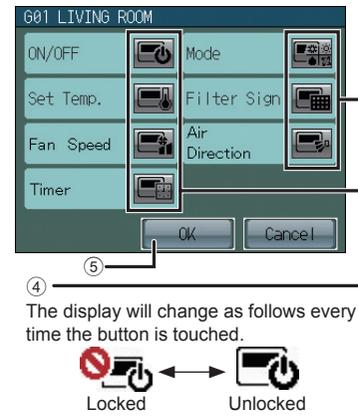


• When accessing the settings that are locked, will appear over the corresponding icons.

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

	Indoor unit groups	LOSSNAY groups	Air To Water (PWFY)
① ON/OFF	○	○	○
② Mode	○	×	○
③ Set Temperature	○	×	○
④ Maintenance Sign Reset	○	○	○
⑤ Fan Speed	○ *1	×	×
⑥ Air Direction	○ *1	×	×
⑦ Timer	○ *1	×	×

\*1 Air Direction, Fan Speed, and Timer may not be displayed, depending on the connected remote controller or unit model.



1. Touch the button on the [Restriction Settings] screen.
2. Read the pop-up message, and touch the [OK] button to confirm.
3. Click on the Group button on the [Prohibit Remote Controller] screen to select the groups and change their settings.
4. Touch the [Edit] button.
5. When the groups selected in step 3 include two or more unit types (Air conditioners, LOSSNAY, or Air To Water (PWFY)), the unit type selection screen appears. Select the unit type to be operated. (The unit type marked cannot be selected.)
6. Use the buttons labeled 4 in the pop-up window at left to lock or unlock access to each item.
7. Touch the [OK] button to save the settings.

• The screen shown above 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.)

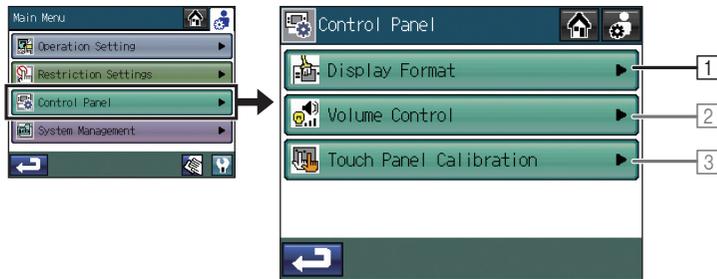
• When this function is in use, the buttons on TC-24B cannot be disabled from the system controller.

## Control panel

### 1 Setting the basic display settings

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

Main Menu > Control Panel



Main Menu > Control Panel > Display Format

**[Display Format]** screen 1/3



\* 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.

### 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 toggle through °F, °C, and 1°C.

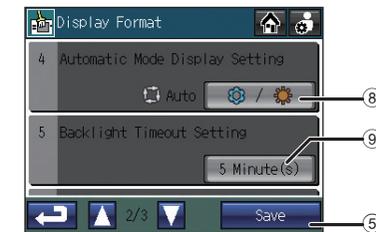
- °F: Temperature is displayed in Fahrenheit.
- °C: Temperature is displayed in 0.5°C increments. (Even if "°C" is selected, temperatures will be displayed in 1°C increments for the Air To Water (PWFY) unit groups.)
- 1°C: Temperature is displayed in 1°C increments.

### 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".

Main Menu > Control Panel > Display Format

**[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.

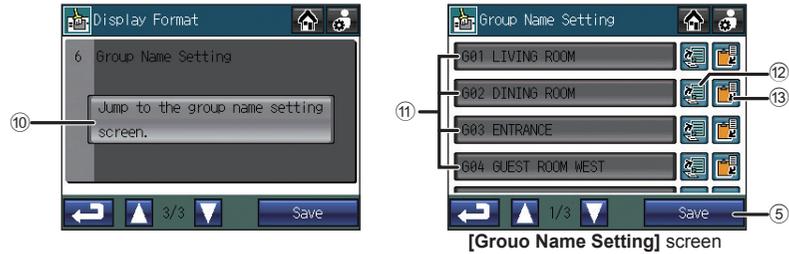
1 min. → 3 min. → 5 min. → 7 min. → 10 min.

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

## To change the group name

Main Menu > Control Panel > Display Format

**[Display Format] screen 3/3**



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



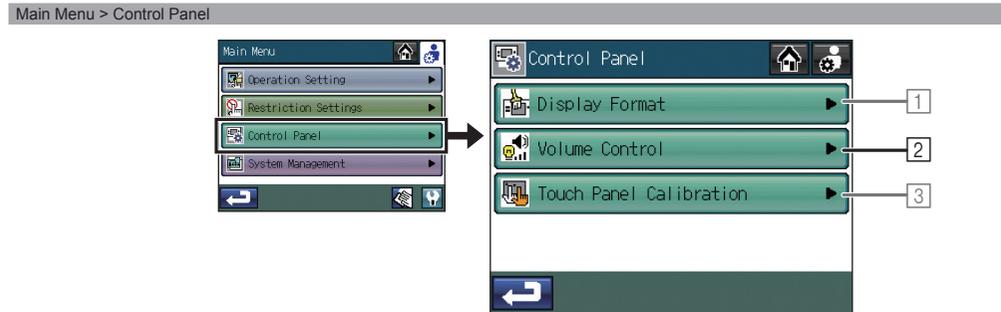
To enter character strings such as group names (maximum 16 characters), perform the following procedure.

### To enter a character string

1. Touch ① **ABC**, **abc**, or **1()** 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.

## 2 Adjusting the volume and brightness

Touch the ② **[Volume Control]** button on the **[Control Panel]** screen.



### To adjust the volume

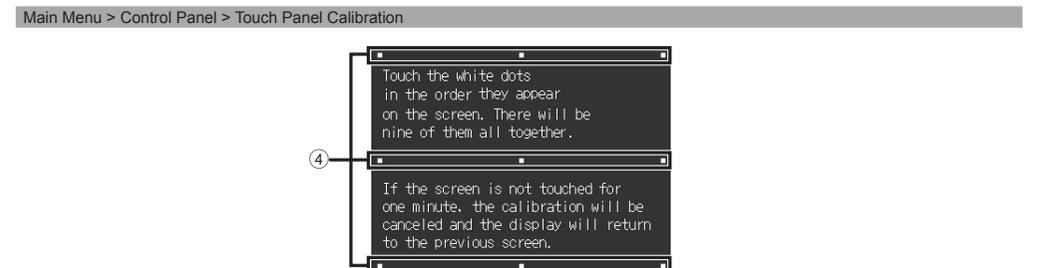
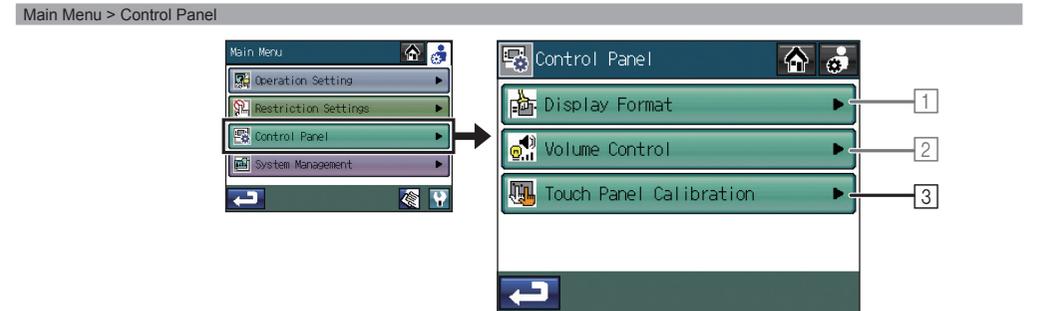
1. Touch the ① **[Sound]** button on the **[Volume Control]** screen.  
Every time the ① **[Sound]** button is touched, the sound level changes as follows:  
**[Level 0]** → **[Level 1]** → **[Level 2]** → **[Level 3]**.
2. Touch the ③ **[Save]** button.

### 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.

## 3 Calibrating the touch panel



1. Touch the ③ **[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.

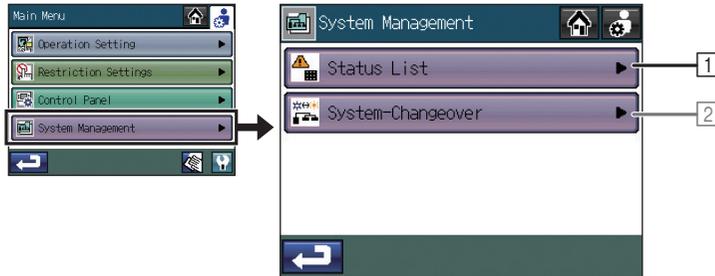
- If each square is not touched within one minute after the last square is touched, calibration will be cancelled and the screen will return to the **[Control Panel]** screen.
- To calibrate the screen properly, use a pointy, but not sharp, object to touch the squares.
- \* Sharp objects may scratch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

## System Management

### 1 Checking or resetting the Error or the Maintenance Sign

Main Menu > System Management

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



Main Menu > System Management > Status List



#### To check the error

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.

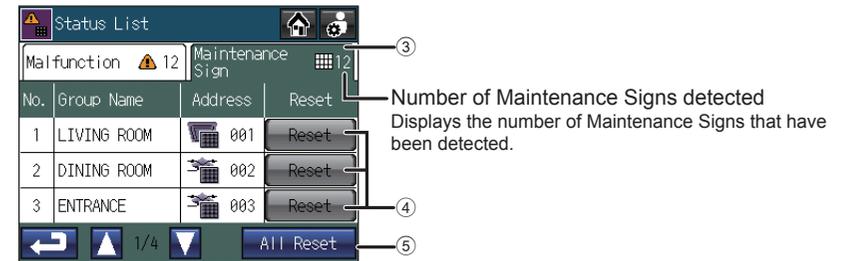
- If an error occurs, note the error code and consult your dealer or a maintenance provider.

#### 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.

#### To check the information about the units whose Maintenance Signs are turned on



Touch the ③ **[Maintenance Sign]** tab, and check the number of units whose Maintenance 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 Maintenance Sign (for example, after cleaning the filter)

- ④ **[Reset]** button: Clears the specific Maintenance Sign.
- ⑤ **[All Reset]** button: Clears all Filter Signs.  
(This button is not available for the Air To Water (PWFY) groups.)

## 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.

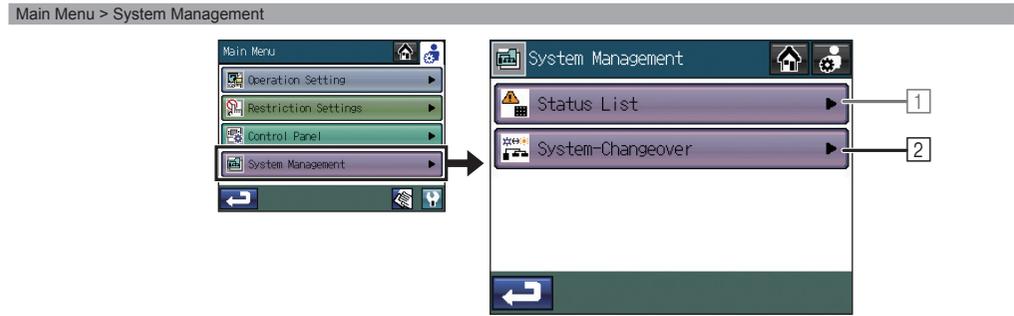
Use this function to control the indoor units that do not have an automatic changeover mode. They can be operated in the Heating mode in the morning, and then automatically changed over to the Cooling or Heating mode all at once in the afternoon, for example, without the need to manually change the mode 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 P46), 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, DIDO controller, and Air To Water (PWFY).



Main Menu > System Management > System-Changeover

**Block No.**  
Displays the block number. All units in each group are operated in the same operation mode. The TC-24B automatically creates blocks based on the refrigerant pipe connection information and the group setting information on each unit.

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

**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 [System-Changeover] button on the [System Management] screen.
2. Touch the Change mode button to select between "None", "Averaging", and "Representative Group".

System-Changeover mode	Setting
None (default)	Select this option so as not to use the System-Changeover function.
Averaging	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 Averaging.

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 [Representative Group] button is pressed, and then touch the [OK] button.

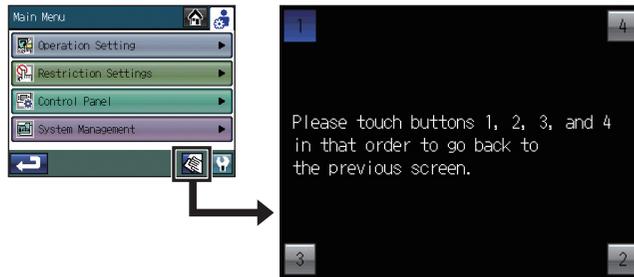
- The initial setting for the Representative Group is the group in a specific block with the smallest group number.
- In a group where both Air To Water (PWFY) and Air conditioning units are connected to Y series outdoor unit, System-Changeover function may not function properly.



3. Touch the [Save] button.

# Maintenance

## 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 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.

- 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 P56.

## 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 P56.

## Problem

A Filter Sign is displayed on the screen.

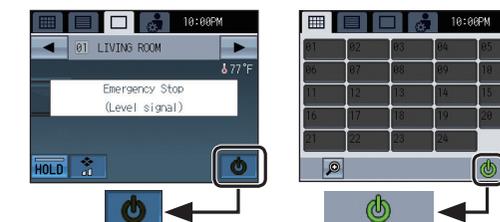


## Solution

Touch Main Menu > System Management > Status List. On the Maintenance 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 P56.

## 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, LOSSNAY, and Air To Water (PWFY) units that are controlled by the TC-24B will stop. The TC-24B 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 TC-24B is "4."
Operating conditions	Temperature	Operating temperature range Storage temperature range	32°F - 104°F (0°C - 40°C) -4°F - +158°F (-20°C - +70°C)
	Humidity	30%~90%RH (Non-condensing)	
Weight		1-1/8 lbs (0.5 kg)	
External dimensions (W x H x D)		7-3/32 x 4-23/32 x 1-3/16 in (180 x 120 x 30 mm)	

\*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.

**Note:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

**MITSUBISHI ELECTRIC CORPORATION**

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